

Study to Develop an Upgraded Single Market Scoreboard as a Governance Tool for the Single Market

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Study to Develop an Upgraded Single Market Scoreboard as a Governance Tool for the Single Market

Final Report to the Directorate-General for Internal Market, Industry, Entrepreneurship and SMEs of the European Commission

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List of acronyms

Acronyms	Full meaning
AI	Artificial intelligence
AIC	Actual Individual Consumption
API	Application Programming Interface
AWS	Amazon Web Services
BOP	Balance of Payments
CMS	Consumer Market Scoreboard
CMU	Capital Markets Union
CPC- Network	Consumer Protection Cooperation Network
DESI	Digital Economy and Society Index
DSM	Digital Single Market
e-Certis	Online database listing the eligibility criteria and documentary evidence needed in each European Economic Area (EEA) country for companies to take part in public procurement
ECC-Net	European Consumer Centres Network
ECJ	European Court of Justice
EEA	European Environment Agency / European Economic Area
EED	Energy Efficiency Directive
EFTA	European Free Trade Association
EIS	European Innovation Scoreboard
EPBD	Energy Performance of Buildings Directive
ERA	European Research Area
ESO	European Standards Organizations
ESSPROS	European Social Protection statistics
EU	European Union
EURES	European network of employment services
FDI	Foreign Direct Investment
GDP	Gross Domestic Product
GHG	Greenhouse gas
GPP	Green Public Procurement
GVC	Global Value Chain
KET	Key Enable Technology
ICSMS	Market surveillance activities relating to EU product regulation
ICT	Information and Communications Technology
IP	Intellectual Property
LCI	Lifecycle Assessment
IMAC	Internal Market Advisory Committee
IMI	Internal Market Information System
MS	Member State
MSA	Market Surveillance Authorities
MPI	Market Performance Indicator
OECD	Organisation for Economic Cooperation and Development
OEF	Organisation Environmental Footprint
PEF	Product Environmental Footprint
PMR	Product Market Restrictiveness
R&D&I	Research, Development and Innovation
RAPEX	Market surveillance activities relating to consumer products
REACH	European Regulation on Registration, Evaluation, Authorisation and Restriction of Chemicals
RED	Radio Equipment Directive 2014/53/EU
RoHS	Restriction of Hazardous Substances Directive 2002/95/EC
RRI	Retail Restrictiveness Indicator

Acronyms	Full meaning
SDG	Single Digital Gateway
SOLVIT	Informal problem-solving network
SM	single market
SMS	Single Market Scoreboard
STRI	Services Trade Restrictiveness Index
TFEU	Treaty on the Functioning of the European Union
TRIS	Technical Regulation Information System
UX	User Experience
UN	United Nations
VBA	Visual Basic for Applications
WEEE Directive	Waste Electrical and Electronic Equipment Directive (2012/19/EU)
WTO	World Trade Organisation

1. Executive Summary

1.1 Introduction

The Single Market Scoreboard (“SMS”) is an online monitoring tool which provides an overview of the practical management and performance of the Single Market (“SM”) in selected areas. The SMS was established in 1997 and monitored compliance with SM legislation by EU Member States (EU MS), such as the national transposition of EU Directives and infringement proceedings. Since the introduction of the online version in 2013, the SMS’s scope was extended to cover 13 governance tools, 4 policy areas and trade and FDI-related indicators.

At present, the SMS provides monitoring information against a wide range of indicators, updated and published annually in July. These track progress in the implementation and enforcement of different areas of the SM and reports on and compares the performance of EU-27 MS focusing on EU-supported governance tools. The SMS is based on data collected through national contact points for EU networks relating to the SM, such as SOLVIT and EURES. Data is also extracted from existing tools and associated monitoring systems such as Your Europe. Different Commission services also collect data, and some existing datasets, especially from Eurostat are used to report on particular policy areas (e.g. trade, FDI).

1.1.1 Objectives and scope of the study

The study provides an input to the Commission for upgrading the SMS to better monitor the state of play of the SM’s implementation across its four freedoms i.e. the free movement of goods, services, people and capital. The study has several objectives, to:

- Map the existing SMS (including data sources / indicators) and identify any gaps;
- Identify available data sources and define possible new indicators considering data availability and from a user perspective (i.e. citizens and businesses) to give a picture of the obstacles and difficulties users are facing in accessing and optimising their use of the SM;
- Assess whether the SM is working properly in areas where it is expected to deliver, such as products and services markets, financial markets, network industries, and in policy areas not yet covered, such as the Digital Single Market, consumer affairs, the data economy and circular economy;
- In the context of upgrading and transforming the SMS into a Scoreboard 2.0 to replace the current version, suggest innovative ways to present/display information to improve the Scoreboard’s user-friendliness and presentation of the most meaningful data.

The study also considers the international dimension of the SM, by identifying possible indicators for benchmarking market integration in the EU and comparing with its major trading partners.

1.2 Methodological approach

The methodology required a detailed baseline assessment to map existing tools for monitoring the SM through a review of existing scoreboards having a single market dimension. This led to the development of a gap analysis of the existing SMS and in policy areas not already covered. The study has gathered and analysed evidence from a range of sources, comprising:

- **Desk research** - relevant literature review of SM policy areas and data-sets deemed relevant for inclusion in a possible upgraded SMS;
- **Semi-structured interviews** with 34 stakeholders including the European Commission, business representatives, consumer associations, national authorities and academics;
- An **online survey** which generated 156 responses. The survey used routing to differentiate between respondents that were already familiar with the SMS, and prospective future target users less or not familiar with the SMS;

- A **one-day workshop with the informal Internal Market Advisory Committee (IMAC)**, i.e. Member States' representatives, to present the emerging findings and to solicit IMAC members' opinions on the way forward;
- Several discussions with the **EC's Single Market Scoreboard Task Force** set up by DG GROW to provide input to this study consisting of representatives from several Commission services and with the team of the **Single Market Service Centre** within DG GROW.B5;
- Consultation with selected stakeholders interviewed regarding the **proposed new policy areas and indicators to validate the recommendations**.

The gap analysis examined the aspects not covered by the SMS and suggested areas for reform and improvement. It was identified that the SMS should provide a better picture of the implementation of the SM as a whole, across the four freedoms, as opposed to the current focus on governance tools that support SM implementation. To provide suggestions on additional potential areas of monitoring, the study team developed an Excel Tool to structure a review of available datasets not covered in the SMS and performed analyses of individual indicators that comprised the selected datasets. To aid decision-making, the relevance for possible inclusion of the indicators in an updated SMS 2.0 was considered against several criteria (e.g. SM relevance, inclusion of a proportionate number of indicators to be included in the upgrade).

1.3 Key overall findings

The SMS contains a wide range of indicators, 179 in total, covering 19 different areas, comprised of the 13 governance tools, with limited coverage of (four) EU policy areas and of the degree of market integration and openness (i.e. trade and FDI-related indicators). The SMS currently covers only four policy areas; postal services, professional qualifications, public procurement and the collaborative economy. Important areas of the SM, such as the enforcement of industrial product legislation, the Digital Single Market (DSM) and consumer policy, are not explicitly covered.

An online survey undertaken confirmed the findings of DG GROW' own survey of its user base that the core users of the existing SMS are public authorities at European, national and regional levels. Typically, the monitoring information is used for strategic management purposes by those directly involved in the governance tools, such as EU-supported networks like the European Consumer Centres Network and EURES. Secondly, core users include national authorities who use the information provided to inform policy debates at national level (e.g. about their Member State's performance).

Potential new users such as business support and consumer organisations had some level of awareness about the SMS, but presently visit the SMS infrequently. Increasing interest in, and use of the data provided in the SMS outside the existing core user base was identified as a key opportunity.

1.3.1 Findings regarding existing indicators within the SMS

Among core users, there is a general desire to ensure continuity in the information provided and for more detailed information about the areas covered. The study revealed:

- The area most visited is the performance overview page, which covers most governance tools. This provides a "traffic-light" assessment overview of performance across Member States.
- The core users tend to review the monitoring information related to the governance tools more often than they use data on the four policy areas (e.g. public procurement, collaborative economy etc.). This is because the SMS has mainly evolved to monitor and report on specific EU initiatives to support SM implementation, as opposed to direct monitoring of SM implementation or of EU policies relevant to the four freedoms.
- To obtain further understanding of performance, many stakeholders called for the Scoreboard to provide deeper qualitative assessment.

1.3.2 An upgraded SMS - findings in respect of new policy areas and indicators

Given there is scope for closer alignment between the SMS and the policy logic of the SM, stakeholders were generally supportive of the possible upgrade. However, there were different views as to how far different EU policy areas are relevant to the SM and should be monitored through the SMS, and how far there is a link with the four freedoms (possibly five freedoms once data and knowledge circulation is factored in).

The study reviewed 14 new policy areas for possible inclusion in the upgraded SMS, and recommended that 12 of these (including more than 42 sub-policy areas) were selected for monitoring as follows: (1) Consumer Protection (2) Digital Single Market (DSM) (3) Energy markets (4) Environment (5) Financial and capital markets (6) Economic policy and European semester reporting (7) Services markets (8) Industry and Growth (9) R&D & Innovation (10) Free movement of people and (11) Transport and (12) Trade and investment.

These 12 new policy areas were found to have a SM dimension, albeit to a greater or lesser degree. Several aspects were considered for the rationale of new policy areas such as the extent of SM relevance, availability of relevant existing datasets and appropriate indicators, and how far progress could be assessed quantitatively or qualitatively. Corresponding to the policy areas reviewed, more than 100 new indicators were identified, meaning that **the SMS could be repositioned to provide a good level of coverage of new policy areas.**

However, upgrading the SMS to incorporate new policy areas and indicators does require some reflection, considering that:

- There are many new policy (sub)areas and indicators that could be adopted to strengthen the monitoring of SM implementation. However, there is a risk of management information overload if too many indicators are included. **Prioritisation is required to make the future SMS 2.0 manageable and proportionate.** Whilst this study represents a starting point, selecting the most SM-relevant sub-policy areas - and associated indicators - will necessitate reflection by the Commission services;
- The study has proposed the adoption of a “high-level scoreboard” comprising a short-list of indicators cutting across the most essential policy areas, as determined by the consultants. This could help to showcase performance in SM implementation at a strategic level;
- There are ongoing debates as to the relevance of the SM in some policy areas¹, and measurement of policy performance may not be directly related to one of the four freedoms (e.g. monitoring meeting emissions targets), but be of strategic importance in demonstrating progress towards the SM’s effective functioning, including in new areas of policy importance to the new Commission in 2019-2024, for instance as regards greening the single market (Green Deal) and towards digital transformation;
- Measurement of policy areas related to the four freedoms means that the SMS would, in addition to performance measurement of governance tools, start monitoring contextual trends e.g. flows across borders or growth of new markets. Such monitoring information will require some interpretation as a complex range of factors, including EU interventions and exogenous factors, are likely to affect performance; and
- A review of the available datasets indicates that there are many relevant indicators that could support the development of actionable recommendations to encourage reforms/drive improved SM performance at Member State level. A small number of examples include monitoring the degree of enforcement of SM legislation in the area of industrial product legislation and the Green single market indicators measuring the extent of waste production and energy efficiency targets.

¹ An example is the research and innovation field, where the ERA is meant to promote an internal market across Europe’s national R&D&I systems, but where fragmentation persists, and some have questioned how far convergence should be an objective.

A challenge in expanding coverage to new policy areas is establishing the degree of causality given the **complex interplay between EU legislative, policy measures and other initiatives** being supported in a given policy area.

Compared with monitoring and reporting on management information on governance tools, measuring progress towards SM objectives in policy areas is much more complex, as a combination of EU interventions and wider exogenous factors influence outcomes and the degree of progress.

Ascertaining whether any change in trends over time are due to EU policy, regulatory and other types of interventions will be difficult and require a qualitative, evaluative judgement to interpret any new quantitative data in the SMS. In moving to broader coverage of policy areas, more context indicators will need to be integrated, as these provide proxies and are indirect measures of policy performance (e.g. consumer confidence in cross-border internet sales is impacted by multiple factors).

1.3.3 Findings on user-friendliness, accessibility and data visualisation

Given the increasing prominence of communicating information via indicator dashboards, the visual appeal and usability of the SMS with other online tools managed by leading public and research institutions that provide interactive solutions can be compared. These enable users to select and combine datasets to produce bespoke analyses. Key findings were:

- In terms of interactivity and functionality, most users found the SMS easy to navigate, but many stakeholders favoured making the scoreboard more interactive to allow users to perform their own data analyses.
- Many users supported the possibility of the Commission developing an integrated standalone annual report in PDF for the quantitative SMS data, supported by qualitative analysis. Presently, the “Facts and Figures” PDFs provide performance data on specific governance tools and policy areas but in a fragmented way. This would bring the SMS into line with best practice in other scoreboards examined in the benchmarking analysis.
- Stakeholders supported continuing use of the “traffic-light” colour system to present data, although there were concerns that without qualitative interpretation, data could be misinterpreted as regards specific Member States’ performance.
- Better time-series and more up-to-date and timely data included in the online scoreboard was requested by the existing user base, including “real-time” data where available. The research into technical possibilities concluded that transitioning to a cloud-based API-driven system would enable real-time data to be plugged into an upgraded SMS once a prototype has been developed.
- Many stakeholders supported the possibility of streamlining the SMS’ presentation between headline and operational indicators. The headline indicators would highlight areas of strategic progress in SM implementation of interest to a broader range of stakeholders and citizens. It would also reflect a visible attempt to move beyond monitoring and reporting on specific governance tools to support the SM to monitoring implementation of the SM itself.

1.4 Conclusions and recommendations

A staged approach to the future development and upgrading of the SMS is recommended. Different options over the short, medium and longer-term are outlined in the report, suggesting what would be reasonable to implement over different time-periods, such as adding additional indicators to the existing SMS, the development of a prototype to test how “real-time” and interactive data functionalities, the integration of up to 12 new policy areas and circa 100 additional indicators etc. The main conclusions and recommendations are provided below:

1.4.1 Expanding the SMS’s coverage

- There is data available to extend the SMS to incorporate new policy areas, although the amount of data, and the extent to which this can be quantified, differs by policy area.

- The SMS should expand its coverage beyond governance tools (and limited policy areas) to better assess SM performance, including barriers to its realisation, and the benefits for businesses and consumers. This would strengthen relevance to new users beyond the existing core user base.
- The SMS would benefit from the inclusion of more qualitative analysis to enable users to better interpret the data, including in facts and figures. The absence of such information runs the risk currently that data may be misinterpreted, due to the lack of context.
- The Commission should develop a set of headline indicators for the upgraded scoreboard relating to the overall performance of the SM.
- Greater use of context indicators should be made, recognising the limitations regarding measurability and establishment of direct causality in some policy areas.
- The SMS could be extended by drawing on additional EU and international sources such as the DESI, Digital Transformation Scoreboard, digital agenda key indicators, Safety Gate, the Consumer Markets Scoreboard, Consumer Conditions Scoreboard, Service Trade Restrictiveness Index, and the relaunched Single Digital Gateway (SDG), which will build on the existing Your Europe SDG dataset.
- Once it has been determined which new policies and which specific indicators will be integrated into the new scoreboard, it would be practical to produce an overview with information and weblinks to all the existing and relevant scoreboards run by the Commission, which contain relevant data on the single market. The scoreboards from which the upgraded SMS draws monitoring data could be clearly indicated.

1.4.2 Restructuring of the SMS to an upgraded SMS 2.0

- The SMS could be restructured to improve its structuring, navigability and layout, and to strengthen user-friendliness. It's the individual pages and aspects of the content could be further extended, whilst not losing the existing content from the website.
- The SMS should also continue to be structured in a way that makes performance by Member State and governance tool easily accessible, but much greater visibility should be given in the structure to enhanced coverage of a broader spectrum of EU policy areas and to reporting across the four freedoms.
- The performance overview page should be adapted into a high-level dashboard (integrating the new proposed headline indicators) that could also appeal to a broader audience. Headline indicators could be used for external communications purposes and to develop visually attractive infographics.

1.4.3 Strengthen the SMS' visibility and user-friendliness

Although the SMS' appeal could be broadened to other stakeholders, especially business and consumer associations, the type of data being presented is unlikely to be of interest to EU citizens, as the data currently presented and likely to be generated in future is not that suitable for being communicated to the general public, other than the headline indicators.

Broadening the appeal should instead be based on targeting well-informed EU citizens, such as journalists, researchers and consultants, business organisations, who could relay the most interesting aspects from a citizen/business perspective through various research outputs. Nonetheless, the visibility and user-friendliness of the SMS and its appeal to a broader audience could be improved by:

- Upgrading the Scoreboard and associated data collection processes to provide greater interactivity, autonomy and more timely data for users.
- The SMS should make data downloadable and interactive to allow users to develop their own content using SMS data, with interactive visuals showing the evolution of a particular metric over time. Changes in the relative performance between their MS, the EU average and/ or other MS could then be integrated in new ways by users (e.g. videos showing the evolution in trends over time in graphs using Python). Using the data generated through an upgraded SMS

to inform the development of the Single Market Performance Report. This could also showcase Single Market consumer and / or business journeys in the report and on the SMS website.

- Investment should be made in improving the front-end of the SMS website to improve the modernity of the layout and to make it more visually-appealing and user-friendly.
- Investment should be made in developing suitable back-end IT systems with a transition recommended to a cloud-based approach to improve the timeliness between data becoming available and its integration into the SMS. Datasets should be updated more frequently in real-time through the use of APIs.

2. Introduction

This document sets out the Final Report for the “**Study to develop an upgraded Single Market Scoreboard as a governance tool for the Single Market**” for the European Commission’s DG GROW. The study was led by CSES with support from IDEA Consult, Oxford Research and Trilateral Research.

2.1 Study objectives and scope

The overall study objective is to provide advice and input to upgrade the Single Market Scoreboard (“SMS”) to better monitor the state of the Single Market across the four freedoms: the free movement of goods, services, people and capital. The study has several specific objectives, namely to:

1. Map all existing tools for monitoring single market policies and identify the gaps;
2. Identify available data from different sources and define possible new indicators;
3. Define indicators from a user’s (i.e. citizens and businesses) perspective to give a picture of the obstacles and difficulties users are facing. It should link the situation of the users to policy measures to identify the real effect of those policies and how they are implemented;
4. Assess whether the single market is working properly in areas where it is expected to deliver most, such as products and services markets, financial markets, network industries, but also the Digital Single Market (DSM), the data economy and circular economy, to take a few examples;
5. Based on the most meaningful indicators, it should provide an annual benchmarking of the performance of Member States in those areas;
6. Suggest innovative ways to present/display information in the scoreboard, notably delivering easily accessible and practical information to a broader audience than the current one, mostly composed of administrations, universities and think tanks.

The study also incorporates the international dimension of the single market, by identifying possible indicators for benchmarking/comparing market integration within the EU and with its major trading partners, including what it delivers for citizens and businesses. The study considers:

- **the causality and significance of single market policies** and their implementation by Member States in relation to the identified indicators;
- **data quality and stability** - including how data could be collected periodically and interpreted, possible links with other relevant existing scoreboards at EU level (e.g. the European Innovation Scoreboard, Justice Scoreboard, DESI); considering how “real time” data could be collected and integrated into data analytics and data visualisation over the longer term;
- **data analytics and data mining** - to help identify barriers within the Single Market across sectors, by checking different sources of information within EU institutions and beyond and;
- **data visualisation** - to improve the Scoreboard’s user-friendliness and presentation of the most meaningful data.

2.2 Final Report Structure

The Final Report is structured as follows:

- Section 2 provides an introduction to the Single Market
- Section 3.1 and 3.2 - Task 2. Mapping of existing tools for monitoring single market policies

including the SMS

- Section 3.3 - Task 3. Identification of available data from different sources
- Section 4 - The key findings from tasks 2 and 3 and from the stakeholder consultation exercise
- Section 5 - Task 4: Identification of gaps
- Section 6 - Task 5: definition of new indicators
- Section 8 - Task 6: Recommendation of indicators
- Section 7 - Task 7: Presentation of the upgraded scoreboard
- Section 9 – Conclusions

The main report is complemented by the following annexes:

- A bibliography (Annex 1);
- Gap analysis – case studies (Annex 2)
- Potential policy areas, datasets and indicators (Annex 3)
- Overview of shortlisted indicators and those excluded (Annex 4)
- Stakeholder consultation analysis of the online survey and interview programme (Annex 5)
- Survey questionnaire (Annex 6)
- List of interviews (Annex 7)
- Case studies (Annex 8)

It should be noted that whilst detailed information on data sources and indicators is provided in the main report and annexes, further details, for instance regarding the frequency of data collection, indicator definitions, weblinks to data sources, etc. are provided in two supporting Excel databases, the first mapping the existing SMS and the second identifying new data sources and indicators in respect of new policy areas.

3. Single Market

This Section provides a high-level overview of the study background. It sets out the background and context to the Single Market Scoreboard (“SMS”), including the four freedoms of the Single Market and the most recent Single Market strategy.

3.1 Background - what is the European Single Market?

The European Single Market was established in 1993 and supports goods, services, people and capital to move more freely between the European Union (EU) Member States, EEA and EFTA countries. It offers opportunities for frictionless trade and economic activity for around 27 million active enterprises², and over 512 million people to travel, live, work or study where they want.

The single market is one of the EU’s greatest achievements, essential in increasing the success and prosperity of EU citizens and businesses. It estimates the economic benefits at around 8.5% of EU GDP. The European Parliament, in its latest cost of non-Europe report, has estimated the value of the single market for consumers and citizens and the Digital Single Market (DSM) at over 1 trillion euros per year.³ The single market has been successful in encouraging trade in goods. In 2017, intra-EU trade in goods represented 33% of EU GDP. There are now no regulatory obstacles for more than 80% of industrial goods. At the same time, services account for more than 70% of EU GDP. However, the pace of progress made in the single market for services is often criticised. Should the Services Directive be implemented and enforced in full, this according to cautious estimates would result in an extra 2% of GDP.⁴ Intra-EU mobility of people has increased markedly in the last decade. 17 million EU citizens now live or work in another EU Member State, which is around 3.3% of the overall EU population.

At 2 trillion euros (equivalent of 14% of EU GDP), public procurement in services, works and supplies represents a significant opportunity for reducing barriers and encouraging competition among EU service-providers across borders. The transposition of Directives into national implementing legislation can sometimes lead to additional requirements, known as “gold-plating” being added in Member States, potentially discouraging market-entry and competition is a problem, especially as regards minimum harmonisation legislation, where Member States may go beyond the minimum requirements. A further challenge – monitored through the existing SMS – is to ensure that transposition takes place on a timely basis, and wherever this is not the case, that infringement proceedings are launched promptly to avoid undermining the effective implementation of single market legislation.

Concurrently, the structure of the European Economy is rapidly changing in the context of technological developments, shifting demand for resources, and evolving consumer tastes and habits. This leads to new industrial activities with different relationships to the services sector. Examples of this are the circular economy and Industry 4.0, including digital technologies, artificial intelligence (AI) and key enabling technologies (KETs).

For the single market to remain a source of growth and opportunities for citizens and business, in a recent Communication, the Commission has called for it to adapt to new developments and

² Eurostat Statistics Explained, 2016 data https://ec.europa.eu/eurostat/statistics-explained/index.php/Business_demography_statistics

³ European Parliamentary Research Service- European Added Value Unit (2017) *Mapping the cost of non-Europe 2014-2019*, [http://www.europarl.europa.eu/thinktank/en/document.html?reference=EPRS_STU\(2017\)603239](http://www.europarl.europa.eu/thinktank/en/document.html?reference=EPRS_STU(2017)603239)
[http://www.europarl.europa.eu/thinktank/en/document.html?reference=EPRS_STU\(2017\)603239](http://www.europarl.europa.eu/thinktank/en/document.html?reference=EPRS_STU(2017)603239).

⁴ Copenhagen Economics (2018) *Making trade in EU services work for all*, p. 9.
https://www.copenhageneconomics.com/dyn/resources/Publication/publicationPDF/5/465/1543487161/final-report-on-single-market-for-services-15nov2018_v2.pdf

challenges.⁵ Globalisation and new technologies bring enormous opportunities, but also raise essential questions of whether, when, what and how to regulate. Inconsistent or weak enforcement of common rules remains a challenge. Ensuring that these rules remain fit for purpose in a rapidly changing environment requires constant effort.

Through its Single Market Strategy, the Commission is continuing to develop the single market and its performance, in particular through measures that aim to:⁶

- Enable the balanced development of the collaborative economy;
- Help SMEs and start-ups to grow;
- Improve the opportunities for businesses and professionals to move across borders;
- Address restrictions in the retail sector;
- Prevent discrimination against consumers based on nationality or place of residence;
- Modernise the standards system;
- Create more transparent, efficient and accountable public procurement;
- Consolidate Europe's intellectual property framework; and
- Ensure a culture of compliance and smart enforcement to help deliver a true Single Market.

The strategy complements other key Commission initiatives such as the Investment Plan for Europe, the Capital Markets Union (CMU), the DSM, the Energy Union and labour mobility.

3.2 The legal and policy scope of the Single Market

In the Single European Act (February 1986), the Single Market was defined as an “area without frontiers in which the free movement of goods, persons, services and capital is ensured”. This became firmly enshrined in the Treaty on the Functioning of the European Union (TFEU), under Article 26.⁷

Progress in single market implementation has been driven in a number of ways. The principal means over the years has been to establish EU legislation, which consists of a combination of directives and regulations. Regarding the evolution of this legislative framework directives, in which Member States have to ‘transpose’ into national law were until the past 5-10 years ago the more commonly-used legal instrument to implement EU law. However, EU regulations are directly applicable law and apply in all EU countries from their entry into force. In line with the aim of reducing the scope for ambiguity in legal interpretation associated with Directives, Regulations are becoming a more common legal instrument. Regulations have also replaced Directives as part of legal codification exercises over successive iterations of a given EU law.

This reflects concerns in a Better Regulation context about the risk of gold-plating, especially in the case of minimum harmonisation Directives, when Member States may go beyond the minimum requirements and introduce further national rules, which risks undermining single market objectives. To date, there are a very large number of directives and regulations that collectively make up the full body of single market legislation. Effective market surveillance and enforcement is then required in order to ensure that the directives which allow for free movement are applied correctly – such as the free circulation in the EU of products placed on the Single Market in a given Member State across borders.

The range of directives considered in the SMS⁸ to have an impact on the functioning of the single market are those concerned with the four freedoms (freedom of movement of persons, goods, services and capital across borders within the EU), as well as supporting policies that have a

⁵ European Commission (2018) Communication on the Single Market in a changing world – a unique asset in need of renewed political commitment, COM(2018) 772 final

⁶ https://ec.europa.eu/growth/single-market/strategy_en#cross_border

⁷ European Union, *Consolidated version of the Treaty on the Functioning of the European Union*, 26 October 2012, OJ L 326/47-326/390; 26.10.2012 <https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:12012E/TXT&from=EN>

⁸ https://ec.europa.eu/internal_market/scoreboard/performance_by_governance_tool/transposition/index_en.htm

direct impact on the Single Market such as taxation, employment, culture, social policy, education, public health, energy, consumer protection, transport, environment (except nature protection) and information society and media. Thus, the policy scope of Single Market directives is extensive.

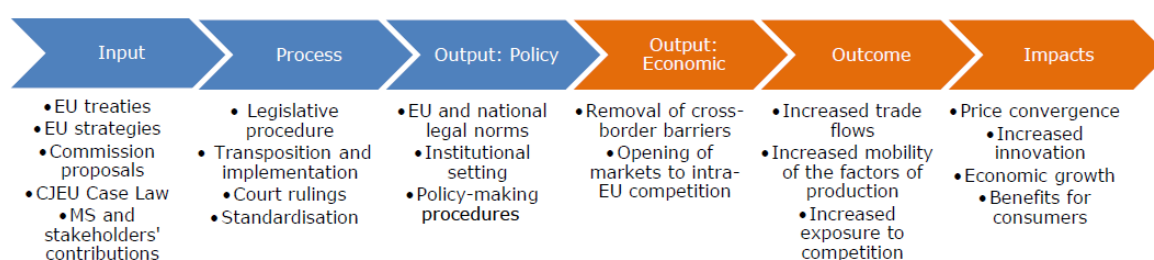
It can be observed that at present, the SMS focuses on Member States' compliance in transposing directives. The reason for this is that directives requires a national transposition process and if Member States fail to comply with transposition of the legislation properly or in a sufficiently timely manner, then infringement proceedings can be instituted. Regulations, however, are generally not reported on. Whereas regulations account for an increasing share of the EU legal framework overall, including single market legislation, they are not reported on since they are directly applicable. This could be addressed if the focus of the SMS was to be extended beyond reporting on transposition and infringement proceedings to include the effective application and enforcement of single market legislation.

A weakness was pointed out in only analysing the number of infringements quantitatively by a stakeholder (EU industry association). *"The number of infringements is fairly meaningless if you don't know the impact of these e.g. on society, the economy and from a sustainability perspective. One year you may have many more infringements, but the total impact may be much lower than in the previous year when there were less infringements"*.

In addition to single market legislation through directives and regulations, there are a variety of tools, policies and initiatives to support further progress in achieving the single market. These include EU strategies, standardisation procedures, policy development and what the Commission has called Governance tools, such as SOLVIT and Your Europe. SOLVIT is a free service provided by national administrations in EU Member States and the EEA that aims to solve problems experienced by citizens and businesses when moving or doing business cross-border in the EU.⁹ Your Europe aims to help people and companies move and/or do business in the EU by providing clear information on their rights and signposting them to single market assistance services when needed.¹⁰

An overview of the way in which single market integration fits into a results chain is outlined in Figure 3-1.¹¹ The logic is that the blue side shows a set of norms aiming to extend or deepen the Single Market. The norms, which include treaties, legislation and Court rulings, have helped create a framework for cross-border and domestic liberalisation, mutual recognition, standards and common policies. The orange part looks at the consequences of single market integration, largely economic, whereby through removing cross-border barriers and opening markets, there are higher trade flows, higher mobility and by creating larger markets, price convergence, benefits for consumers and economic growth.

Figure 3-1 – Single Market integration



Source: Pelkmans, CEPS.

⁹ European Commission (2017), Action plan on the Reinforcement of SOLVIT: Bringing the benefits of the Single Market to citizens and businesses, COM(2017) 255 final <https://eur-lex.europa.eu/legal-content/en/TXT/?uri=CELEX%3A52017DC0255>

¹⁰ https://ec.europa.eu/internal_market/scoreboard/performance_by_governance_tool/youreurope/index_en.htm

¹¹ Pelkmans, J., Renda, A. et al., (2014) *Indicators for Measuring the Performance of the Single Market – Building the Single Market Pillar of the European Semester* (IP/A/IMCO/2014-03)

Through a range of different initiatives including the Single Market Strategy, the Capital Markets Union (CMU) and the Digital Single Market (DSM) Strategy, the Commission has sought to deepen single market integration and to make it fairer, and building a legal framework for a “future-oriented Single Market”.¹² Additional policy developments that - even if it is not their primary aim - should have the effect of deepening the single market are evident in the areas of the circular economy, energy, transport and climate policies. Further safeguards are proposed for employment, taxation and company law. The scale and scope of the single market both in respect of key EU legislation and policies is significant, but with varying degrees of relevance and importance. These are important reflections in designing a suitable future improved and upgraded SMS able to better capture the different dimensions of the single market than at present, where the focus is mainly on governance tools (the specific initiatives that the EU supports directly to strengthen single market implementation).

¹² COM(2018) 772 final, The Single Market in a changing world.

4. Data identification, collection and mapping

4.1 Mapping of existing tools for monitoring Single Market policies

This section first outlines the current organisation and coverage of the Single Market Scoreboard (SMS). This also provides a basis for assessing what is not currently covered by the SMS and in what way it could be extended. It maps additional scoreboards and datasets for monitoring single market policies beyond the existing limited policy area coverage in the SMS. It identifies available data and indicators from different sources.

4.1.1 The Single Market Scoreboard

4.1.1.1 Aim and scope

The Single Market Scoreboard (“SMS”) is an online monitoring tool which tracks progress in the implementation, enforcement and performance of the EU Member States, and in some areas the EEA, vis-à-vis the Single Market. The SMS contains a range of indicators and analyses, updated and published annually. The data is based principally on a combination of official statistics, online (public) data portals and studies. As a monitoring tool, the aim is that the indicators and analysis provide the evidence-base, trends and comparison as a basis for action, allowing for better implementation and enforcement of Single Market rules, policies and procedures.

Originally, the SMS was intended to support monitoring of the Single Market Action Plan, as indicated in the 1997 Commission Resolution although its exact scope was not explained in detail.¹³ As an observation, as it stands today, while some of the areas indicated in the 1997 Action Plan were considered suitable for monitoring, such as the EURES system, public procurement and delays to transposition, other areas were not designated for monitoring by the SMS.¹⁴

Since its introduction, the SMS has played a key role in providing evidence to help monitor Member States’ performance in implementing Single Market legislation as documented in multiple policy reports, a small number of which are indicated in footnote.^{15, 16, 17, 18} These reports have commented on the gaps around transposition and enforcement, and have called for further action by the relevant Member States to remedy the problems identified.

Moreover, the SMS is published at the same moment as the annual Commission reporting on the “Application of EU law”. The SMS uses some of the same sources as those of the Annual Report (e.g. EU Pilot), and the latter provides further contextual information on the progress, issues and remaining obstacles to the realisation of the Single Market.¹⁹ It should be noted that since 2020, the European Commission has produced a Single Market Performance Report,²⁰ which will be updated annually, and a key issues investigated was whether - and how - an upgraded scoreboard could provide supporting quantitative data to help to inform its preparation.

¹³ Resolution on the communication from the Commission on the Action Plan for the Single Market (CSE(97)0001 - C4-0286/97)

¹⁴ For example, some of the other elements of the 1997 Action Plan included the internal market for electricity, liberalisation of telecommunications, the Single Market and the environment, tax package, modernisation of VAT, European Air Safety Agency, financial services, market surveillance, cross-border mergers, free movement of persons and border controls etc.

¹⁵ European Parliament resolution of 9 March 2010 on the Internal Market Scoreboard (2009/2141(INI))

¹⁶ Commission Press Release (2014) EU countries are dismantling barriers to the European Single Market

¹⁷ European Parliament resolution of 20 May 2010 on delivering a Single Market to consumers and citizens (2010/2011(INI))

¹⁸ European Commission Press Release (2018) Member State Compliance with EU Law in 2018: efforts are paying-off, but improvements need to be made.

¹⁹ Annual reports on the “Application of EU Law” are available at: https://ec.europa.eu/info/publications/annual-reports-monitoring-application-eu-law_en

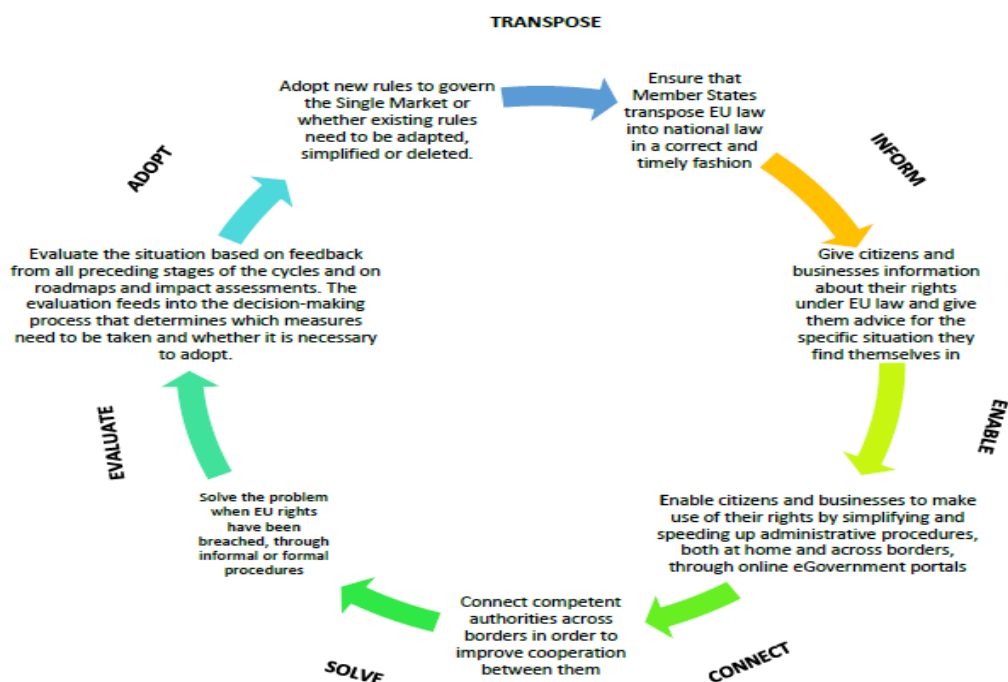
²⁰ COMMISSION STAFF WORKING DOCUMENT Single Market Performance Report 2019, https://ec.europa.eu/info/publications/2020-european-semester-single-market-performance-report_en

4.1.1.2 Overview of the Single Market Scoreboard

The EU's Single Market Scoreboard²¹ (SMS) contains a range of indicators which aim to give an overview of the practical management of the single market. At present, the SMS is updated annually, though data frequency differs across individual indicators, and some indicators are updated at the Commission for the purposes of tracking specific issues without a subsequent update of the published Scoreboard (e.g. transposition). All pages of the SMS are in English. Country performance overviews are also available in national languages.

Over time, the SMS has been expanded to cover a variety of areas of SM-relevance. The largest group of governance tools covered by the SMS are classified according to two systems; "Performance by Governance Tool" and "Single Market Governance Cycle". An overview of the Governance Cycle has been reproduced in Figure 3-1.

Figure 4-1 – Single Market Governance Cycle



This means that depending upon the point of entry to the SMS, users are directed via one of the two different organising frameworks prior to reaching the relevant governance tool, unless they select the drop-down menu and go directly to the governance tool of interest.

The main different sections of the SMS are summarised in Tables 3-1 to 3-3, which show the number of indicators currently included in each section.

Table 4-1 – SMS organisation by "Performance by Governance Tool" and by "Single Market Governance Cycle"

Performance by Governance Tool	Items subject to monitoring	Single Market Governance Cycle	Number of 'performance' indicators / charts presented per governance tool	Total number of indicators presented per governance tool
Formal and informal cooperation between the Commission and Member States	Transposition	Transpose	6	13
	Infringements	Transpose & Solve	5	9
	EU Pilot	Solve	1	8

²¹ Accessible at ec.europa.eu/internal_market/scoreboard

Performance by Governance Tool	Items subject to monitoring	Single Market Governance Cycle	Number of 'performance' indicators / charts presented per governance tool	Total number of indicators presented per governance tool
Administrative cooperation between national authorities	IMI	Connect	6	13
	CPC Network	Connect & Solve	0	4
	TRIS	Inform, Connect and Solve	0	5
Assistance services for citizens and business	ECC Net	Inform & Solve	0	5
	e-Certis	Inform & Connect	3	7
	EURES	Inform	6	18
	Your Europe	Inform	4	8
	Your Europe Advice	Inform	0	6
	SOLVIT	Solve	7	17
	Points of Single Contact	Enable	0	6
Total			38	119

Note: Performance indicators are those indicators included under the heading 'performance' within each section of the SMS. Other indicators, such as those presented under a heading 'facts and figures' are included in the total column.

The policies linked to "Performance by Governance Tools" and "Single Market Governance Cycle" are governmental bodies and activities that generally have a role in practically removing obstacles to the single market's operation. As suggested by the Governance Cycle, these activities collectively support correct transposition, support sharing of information between authorities, provide online and personalised advice to citizens and business, solve problems around administrative application of single market rules, and enable citizens and business to access information and procedures when realising their rights to free movement.

Each SMS webpage contains indicators and a narrative description/assessment. Some indicators are presented under a 'performance' section, while others under a fact and figures section. The indicators under the performance section are used to evaluate progress in Member States. However, in practice, the distinction is not always that clear or is inconsistently applied. While, some indicators in the facts and figures section are context indicators, others are breakdowns of performance indicators (e.g. infringements by sector) or show the 'result' of actions conducted and could be included as a 'performance' indicator (e.g. the incompleteness rate in the transposition webpage). The second categorisation of policies are organised according to the "Performance by Policy Area", which contains four separate domains.

Table 4-2 – Performance by Policy Area

Performance by Policy Area	Items subject to monitoring	Number of 'performance' indicators presented per policy area	Total number of indicators presented per policy area
Public Procurement	Information on procurement procedure outcomes provided by Tender Electronics Daily	13	13
Postal Services	Economic data on postal sector market trends available to the Commission	0	2
Professional Qualifications	Professional qualification database statistics on national authority recognition procedure outcomes	3	6
Collaborative Economy	Data gathered from two studies on key collaborative economy market subsectors	0	9
Total		16	30

These “Policy Areas” are different to the policies categorised by “Performance by Governance Tool” and by the “Single Market Governance Cycle” considering that they generally correspond to the monitoring of sectoral market trends that feature in the single market. The data associated with Postal Services and the Collaborative Economy generally correspond to measures of market value and efficiency. The measures associated with Public Procurement relate to how procurement procedures have been organised by national authorities and to a lesser extent the type of bid outcomes, providing a flavour of the operation of procurement markets.

professional qualifications “Policy Area” is quite different, considering that the indicators measure the performance of national authorities around qualification recognition procedures rather than the performance or business conditions of a market sector.

The final set of policies are organised according to “Performance by Integration and Market Openness”, as indicated in the table below.

Table 4-3 – Performance by Integration and Market Openness

Performance by Integration and Market Openness	Items subject to monitoring	Number of ‘performance’ indicators presented per section	Total number of indicators presented per section
Trade in Goods and Services	Intra and extra EU trade data from Eurostat	9	13
Foreign Direct Investment	Inward and outward intra FDI flow data from Eurostat	9	17
Total		18	30

The policies in this area provide measurement of overall aggregate economic flows between Member States, and with regard to the policy area of Trade in Goods and Services, also with extra EU trading partners. Therefore, the measures in this section deal not only with how the Single Market performs internally, but also the extent to which it is integrated into global markets.

Overall, there are currently a total of 72 ‘performance’ indicators across these sections and a further 91 ‘facts and figures’ indicators included in the annual update to the Single Market Scoreboard.

Moreover, the introductory sections to the scoreboard provide further analytical insights using the indicator results described above. These sections are:

- Performance overview; and
- Performance by Member State.

The performance overview provides a series of traffic light composite indicators using selected indicators for each of the policies corresponding to the Governance Tools, Policy Areas and Integration and Market Openness sections. This page provides a quick overview of performance by policy and country.

The Performance by Member State section provides links to separate country pages that contain a more detailed summary of country performance across all the items subject to monitoring using a combination of selected disaggregated indicators and some qualitative explanation and insights. This part of the SMS also provides recommendations to Member States under the different items monitored.

4.2 Tools for monitoring additional Single Market policy areas

This section identifies and considers different datasets for monitoring single market integration and functioning. Sometimes the datasets are linked more to integration, e.g. the OECD Services Trade Restrictiveness Index assesses barriers to services trade for various different services

markets, or market surveillance authorities' data might help understand barriers to the free movement of products subject to EU harmonisation. On other occasions, the datasets are linked more to the functioning of the single market, e.g. price convergence as a proxy for increased competition or consumer perceptions of market performance in various markets (e.g. energy markets), and an assessment as to how open particular national markets are within a single market context.

Datasets for the following areas are considered: consumer protection, the digital single market, energy, environment (including circular economy), financial markets, services markets, industry and growth, R&D & innovation, free movement of people, social policy, indirect taxation and customs, transport and trade and investment. These policy areas were selected by the study team based on the following rationale:

1. A range of EU policy areas were indicated in the Tender Specifications where monitoring already takes place²². A review of these policy areas was undertaken (see Annex 3) to assess their relevance to the single market, which was found to vary.
2. A longlist of policy areas for possible inclusion in the updated SMS was drawn up in the inception report, based on an extensive literature review to identify key single market-relevant documentation. The assessment included a review of strategies and policies,²³ regulations and directives,²⁴ studies and evolving challenges with respect to single market implementation (e.g. growing importance of the digital economy, slow progress in establishing a Single Market for services,²⁵ limited coverage of free movement of capital in the current SMS, etc).
3. The structure of policy areas currently used by the Commission to identify directives in the SMS which impact the functioning of the single market was considered i.e. *“those concerned with the four freedoms (freedom of movement of people, goods, services and capital across borders within the EU), as well as supporting policies that have a direct impact on the single market such as taxation, employment, culture, social policy, education, public health, energy, consumer protection, transport, environment (except nature protection) and information society and media.”*²⁶
4. The agreed final longlist of areas was then added as an annex to the interview guides and questions were incorporated into the online surveys to solicit feedback on these.
5. Desk research was undertaken for each of the 13 areas to ascertain how far there was a Single Market dimension and the degree to which aspects of the single market may have evolved over time, such as any changes in the relative degree of importance of the policy area concerned.
6. The extent to which the particular new policy areas are already covered in the existing SMS indirectly, for example, through governance tools, was also considered. Taking an example, consumer protection is not covered as a policy area directly, but governance tools such as the CPC Network and ECC-NET gather feedback on cross-border complaints and their outcome in terms of whether there has been a resolution, are covered.

Table 3-1 on the following page outlines the policy areas considered and the principal rationale for consideration.

²² Certain areas of the Single Market such as financial services, transport, energy, digital economy and others are closely monitored separately by the responsible Commission services.

²³ For example, the Single Market Strategy; the Digital Single Market strategy, Communication "Action Plan on Building a Capital Markets Union", COM(2015) 468.

²⁴ For example, the Single Market Transparency Directive 2015/1535; Regulation on the internal market for electricity (EU) 2019/943; Directive on common rules for the internal market for electricity (EU) 2019/944.

²⁵ Estimates foresee that the full implementation of the Services Directive could add 2% to the EU GDP. EPC Discussion Paper, Making the Single Market Work, 2019; Copenhagen Economics, Making EU trade in Services Work for All, 2018.

²⁶ See transposition section of SMS website:

https://ec.europa.eu/internal_market/scoreboard/performance_by_governance_tool/transposition/index_en.htm

Table 4-4 – Selected policy areas and the rationale for selection

Policy areas	Single Market (SM) dimension and relevance	Rationale for consideration in the SMS
1. Consumer Protection	<ul style="list-style-type: none"> Strongly relevant to the single market (e.g. cross-border shopping and e-commerce, cross-border resolution of consumer problems through ADR mechanisms). 	<ul style="list-style-type: none"> Part of the existing SMS, but via a governance tool with relatively narrow scope Also mentioned by non-users of the SMS as being interesting and relevant area.
2. Digital Single Market (DSM)	<ul style="list-style-type: none"> The DSM was announced in 2015 and covers digital marketing, e-commerce and telecommunications. The DSM has a strong single market dimension by definition and covers issues around cross-border digital commerce. There is a close correlation between the DSM and EU consumer protection legislation (e.g. Consumer Rights Directive, Unfair Commercial Practices Directive), where governance tools such as the CPC Network to help monitor implementation, keep track of cross-border cases. 	<ul style="list-style-type: none"> As the DSM is such an important dimension of the single market, there is a <i>a priori</i> rationale for its potential inclusion. Whilst the DSM is not explicitly covered in the SMS, governance tools such as the CPC Network help monitor the implementation of EU consumer legislation, including legislation that protects consumers when purchasing goods and services on a cross-border basis. Data on the no. of cross-border cases dealt with by the CPC and by ECC-NET is already integrated into the SMS. The DSM is already covered in other scoreboards, such as DESI but the indicators are not presently covered in the SMS.
3. Energy markets	<ul style="list-style-type: none"> As one of several network industries, energy markets are strongly relevant to the single market. Gas and electricity markets often operate cross-border. The shift to renewable energy is becoming an increasingly important part of the energy mix. 	<ul style="list-style-type: none"> Not part of the SMS currently, but an important area from the perspective of many interrelated policy initiatives and areas e.g. Green Deal, environment, consumer protection.
4. Environment	<ul style="list-style-type: none"> There is also extensive environmental legislation, which often draws on the legal basis of the single market (for environmental protection). In 2015, the European Commission launched the Circular Economy Action Plan to boost Europe's transition towards a circular economy, which would contribute to elevate competitiveness, economic growth and job creation. The European Commission launched in 2013 the Single Market for Green Products Initiative to help identifying green products and green organisations. Recently, the Green Deal has given higher policy priority to the concept of greening the Single Market. 	<ul style="list-style-type: none"> The data that will be developed under the Single Market for Green Products Initiative may act as a useful data source for the SMS to show the environmental performance of green products and organisations. Policy area of growing importance in context of evolving EU policy and regulatory framework in the field of climate change. There are omissions in the SMS that are not presently monitored, e.g. public procurement data, but not green procurement.
5. Financial and capital markets	<ul style="list-style-type: none"> The Capital Markets Union (CMU) was launched in 2015 and provides an overarching strategic policy framework in respect of progress towards assessing the implementation of policy, regulatory and other initiatives aiming to achieve the goal of free movement of capital 	<ul style="list-style-type: none"> Not presently covered. If a four freedoms approach were to be adopted to structuring the SMS, the lack of inclusion of indicators on the free movement of capital could be regarded as an omission.
6. Economic policy and European semester reporting	<ul style="list-style-type: none"> The Single Market Performance Report (December 2019) provides information about goods and services markets, and specific market issues such as energy, infrastructure and the environment, public procurement, digital markets and capital markets. 	<ul style="list-style-type: none"> Economic policy insofar as it relates to the European semester reporting process could be considered as a cross-cutting theme in that many policy areas reported on in the new annual Single Market Performance Report are already covered under other policy areas in this table.

Policy areas	Single Market (SM) dimension and relevance	Rationale for consideration in the SMS
		<ul style="list-style-type: none"> • However, there are one or two areas not covered, such as competition policy. • One or two specific indicators could be included e.g. price convergence using Purchasing Power Parity.
7. Services markets	<ul style="list-style-type: none"> • Services are an important dimension of the single market, and have been stressed by the new Commission as of ever-growing importance. • There is strong interest among the MS in monitoring their respective performance as services account for a significant share of the European economy. • The evolution in the growth trajectory of different services markets is also useful barometer as to whether there remain any outstanding barriers to trade in business services within the EU. 	<ul style="list-style-type: none"> • There is already a recognition of the importance of services in the SMS. • However, whilst some aspects are covered, there could be scope to significantly expand coverage.
8. Industry and Growth	<ul style="list-style-type: none"> • Several aspects of industrial policy are relevant to the single market, such as industrial product legislation, whose legal basis is derived from harmonisation measures under Art. 114 (maximum harmonisation) and Art. 192 (minimum harmonisation) of the TFEU. 	<ul style="list-style-type: none"> • Aspects of industrial policy are already incorporated into the SMS, not least reporting on the transposition deficit and infringement proceedings for industrial product legislation. • Data on progress towards greater production and use of renewable energy at MS level could be monitored. There is corresponding single market legislation in these areas e.g. Energy Efficiency in Buildings and the Ecodesign Directive.
9. R&D & Innovation	<ul style="list-style-type: none"> • Supporting the implementation of a European Research Area (ERA) is a key EU policy priority. • The ERA is a unified research area open to the world and based on the internal market. • The ERA enables free circulation of researchers, scientific knowledge and technology. 	<ul style="list-style-type: none"> • The arguments for including R&D&I within the SMS are less clear as there is less of a single market dimension <i>per se</i>, and more of an EU-wide policy approach to foster greater convergence in R&D&I systems and structures. • However, R&D&I was mentioned in the ToR, therefore considered as part of a long-list approach. • Open data, open access and open innovation are very important features of the new planned Horizon Europe Programme 2021-2027.
10. Free movement of people	<ul style="list-style-type: none"> • An integral part of the single market, as one of the four freedoms. 	<ul style="list-style-type: none"> • Already included in the SMS, for instance, Professional Qualifications data from DG GROW's Professional Qualifications Database. • However, there may be scope to include additional reporting data through context indicators relating to free movement within the EU (e.g. workers, students/ researchers, retirees).
11. Social Policy	<ul style="list-style-type: none"> • EU competence in social policy has been strengthened with changes in the voting system (transition to Qualified Majority Voting). • EU intervention focuses on cases where there is clear EU added value, aiming to foster a culture of compromise and decision-making that responds to citizens' needs for a fair single market. 	<ul style="list-style-type: none"> • Not presently incorporated in the SMS. • Considered as part of a long-list approach.
12. Indirect taxation and customs	<ul style="list-style-type: none"> • There is single market legislative enforcement dimension in the customs 	<ul style="list-style-type: none"> • Not part of the SMS currently, and would provide insight to users about single market

Policy areas	Single Market (SM) dimension and relevance	Rationale for consideration in the SMS
	field considering that customs authorities ensure compliant products reach the single market only. The level of national indirect taxes also clearly impacts product prices that consumers are exposed to, and helps to partly explain why products are on the market at different price levels.	functioning using niche data-sets that are freely available.
13. Transport	<ul style="list-style-type: none"> As one of several network industries, Transport offers services to help the free flow of goods and people. It is cross-border in nature and strongly relevant to the Single Market. 	<ul style="list-style-type: none"> Beyond high level sector data on transposition and on the number of infringements, it is not part of the SMS as it stands, yet statistics are available. The importance of qualitative interpretation of infringements statistics was stressed by interviewees.
14. Trade and investment	<ul style="list-style-type: none"> Intra-EU Trade and investment is strongly relevant to the single market as it relates to cross-border capital flows. Useful barometer as to whether there remain any outstanding barriers to trade in goods and services within the EU. 	<ul style="list-style-type: none"> Already included in the SMS under a series of indicators relating to 1) Foreign Direct Investment (FDI) and 2) intra and extra-EU trade. Issues for consideration such as whether broader datasets on T&I from the OECD are useful, and whether Eurostat data on extra-EU trade is relevant and should still be included.

4.2.1 Evolution in the Single Market over time and influence on selection of new policy areas

Some of the core elements of the single market have remained relatively stable over time, such as the role of Union harmonisation legislation in contributing towards consumer safety, and consumer and environmental protection. In terms of how these are represented in the SMS, some areas of monitoring and indicators have been included from the outset, such as reporting on the transposition deficit and on infringement proceedings relating to single market legislation.

However, when considering new policy areas, it is important to consider the evolution in the policy and legal framework underpinning the implementation of the Single Market over time. The relative importance of different policy areas (existing, new) may change over time, depending on a variety of factors, for example technological changes such as digitalisation and digital transformation of the economy, and the launch of major new policy initiatives by the Commission (e.g. the Capital Markets Union, the Digital Single Market). There may also be policy areas that become more prominent for political reasons linked to the policy agenda of the new Commission, reflecting the broader concerns of EU citizens and businesses (e.g. the Green Deal and environmental matters).

Such developments are now briefly considered as they have influenced the selection of the longlist of new policy areas, with greater detail under the individual sub-headings relating to each policy area.

The **environment** has gained relevance in EU policies affecting the Single Market. In 2013, the European Commission launched the Single Market for Green Products Initiative with the objective of overcome the many barriers that consumers and organisations have to face to purchase green products. The initiative recommends Member States the use of two methods to measure environmental performance throughout the lifecycle; the Product Environmental Footprint (PEF) and the Organisation Environmental Footprint (OEF). Also, with the intention to become more environmental friendly, the European Commission released other initiatives such as the Green Public Procurement criteria, in which Europe's public authorities are called to be more resource-

efficient or the Circular Economy Action Plan to boost Europe's transition towards a circular economy, which would contribute to elevate competitiveness, economic growth and job creation.

Moreover, the **Green Deal** was launched by the Commission President Ms Von der Leyen in December 2019. This aims to make Europe the first climate-neutral continent by 2050. The broad-ranging policy initiative implies integrating environmental, sustainability and circular economy considerations into a range of policy areas. Its relevance for the SMS is that there is likely to be a greater focus in the next decade on greening the single market. Whilst some environmental aspects are covered in the existing SMS, these are currently limited to monitoring the transposition deficit and infringement proceedings in respect of EU Single Market (including environmental protection) legislation. However, there are a range of green-related areas which are not monitored at present, such as green public procurement, and different indicators relating to monitoring progress towards European binding renewable energy targets, and towards energy efficiency objectives (both industrial product-based e.g. through the Ecodesign Directive and buildings through the Energy Efficiency in Buildings Directive). In this sense, the environment and circular economy are examples of new policy areas that have not featured explicitly in the SMS previously. A new area on **energy markets**, that cover not only the environmental requirements but also other areas and policy initiatives such as consumer protection, would be relevant for the Single Market.

There are also examples of policy areas included in the longlist that have received increased policy attention and visibility in EU policy making in recent years, which means that their possible inclusion in the SMS could be considered. In particular, in parallel with developments in the European and global economies towards increased digitalisation of goods and services, there has been greater policy attention to the **Digital Single Market (DSM)**, since the publication of the 2015 DSM strategy, which aims at uniting individual digital markets across the EU. There have also been developments within the Commission to develop improved monitoring tools and scoreboards to monitor the DSM's implementation and performance both at EU level overall, and in individual Member States (e.g. DESI, Digital Transformation Monitor). As there has been a major transition towards a digital economy and society in recent years in particular, which is a process that is accelerating, digital transition has been prioritised by the new Commission.

Regarding **services**, the Services Directive provides a framework for regulating national services legislation. Member States are not prohibited from introducing new legislation, but it needs to follow the requirements of the Directive, meaning that stakeholders would benefit from ongoing monitoring of the quality and extent of services requirements across the single market.

Turning to the **free movement of capital**, this area of the single market has not been included in the SMS previously. However, this reflects the fact that monitoring the implementation of policy and regulatory initiatives relating to this freedom has only been stepped up since the launch of the 2015 Capital Markets Union (CMU) Action Plan. Whilst there may be difficulties in measuring progress other than through contextual indicators, this is clearly a promising area for possible inclusion in the SMS, as presently, the scoreboard focuses strongly on free movement of goods, services and people, but rather overlooks the free movement of capital.

Despite the other freedoms receiving greater coverage in the SMS, that does not mean that they could not be better covered. Accordingly, new areas have been proposed to give a focused approach to the four freedoms; **free movement of people** could potentially cover, apart from professional qualifications, the extent and barriers for movement of people more generally. An area that is intimately linked with the free movement of people and goods and that it is not currently covered by the SMS is **transport**.

Conversely, whereas there are areas which are receiving more attention relevant to the identification and assessment of new policy areas, there are also some existing areas of the SMS that may be less relevant than in the past. For instance, the timeliness of delivery of postal services is an issue, but in an era of the growth of courier services and of alternative means of delivery through digitalisation, it is arguably less important than was the case 10-20 years ago.

Policy areas such as **Industry and Growth** are similar to the environmental area in that single market legislation, in this case industrial product legislation, has been monitored through the transposition deficit and infringement proceedings. This helps to ensure the free circulation of goods on the single market, whilst maintaining high levels of product safety for European consumers. However, there are also new and emerging areas that are not currently monitored, such as the digitalisation of SMEs, digital transformation at a sectoral level, etc. Likewise, there are a number of Directives relating to energy efficiency that could contribute to reducing greenhouse gas emissions and which are relevant to the Green Deal, such as the product-specific approach being adopted under the Eco-design Directive.

4.2.2 General commentary on data sources (EU, international, public and proprietary)

Keeping in mind the need to have good coverage of EU countries, this section considers principally datasets established by EU institutions and international organisations, including:

- **Existing data sources relating to the SMS** – data from across the current set of governance and policy indicators, which draws mainly on a series of Eurostat datasets, and data collected from governance tool specific databases.
- **European Commission other EU-related** – this includes existing scoreboards such as the Digital Economy and Society Index (DESI), the EU Justice Scoreboard, European Innovation Scoreboard, Consumer Markets Scoreboard.
- **The OECD** – e.g. Product Markets Regulation database, the Service Trade Restrictiveness Index and the FDI Restrictiveness Index.
- **The World Bank** – for example, the “Doing Business In” series.
- **The United Nations** – such as the Global SDG Indicators database

The examples of existing data and information sources include perception-based surveys and examples of real-time data. The international dimension (beyond the EU) is also available through some of these sources.

A general point regarding data sources is that Eurostat datasets are often the best in providing reliable data covering the whole EU-27. The reason for the proposed continuing reliance on Eurostat data in the upgraded SMS is therefore based on data being available, on a comparable basis across the EU-27, with frequent updating of the data, typically annual.

Although other data sources, such as OECD and World Bank datasets were reviewed, it is often difficult to obtain better quality data than that available through Eurostat. Nonetheless, international datasets, especially those that include at least some EU Member States, provide useful data for international comparison purposes. For example, OECD datasets such as the FDI Restrictiveness Index and the FDI Restrictiveness Index provide complementary data which allow external benchmarking comparisons to be made. Such data sources do not provide a viable alternative to replace existing Eurostat EU-27 datasets but are rather a useful complement. For example, as regards country coverage, only 22 EU Member States are covered in the OECD data, whilst there are six non-OECD EU member states, which include, for example, Bulgaria, Croatia and Romania.

Therefore, OECD data has some drawbacks as regards its potential use in the SMS. It could not easily be used without further EU-wide data being available but is nonetheless extremely valuable, given the wide geographic coverage. Taking an example, the **FDI Regulatory Restrictiveness Index (FDI Index)** measures statutory restrictions on **foreign direct investment** in 22 economic sectors across 69 countries, including all **OECD** and **G20 countries**. The same is true of World Bank datasets,²⁷ that the data provides additional useful data to make international comparisons with EU datasets. An example is the World Bank’s datasets on Exports of goods and services as a % of GDP, which could complement

²⁷ <https://data.worldbank.org/region/european-union>

EU data on exports of goods and services already provided through Eurostat's COMEXT already used in the SMS.²⁸

A further issue is which types of data the upgraded SMS should rely upon, in terms of whether the data is publicly available or is proprietary, and if the latter, how available the data is, how frequently updated and at what cost. As will be shown below, given the need for the SMS to be updated a minimum of annually, the data needs to be reliable, comparable and cover the whole EU-27. It will therefore be appropriate to take as a starting point Eurostat data along with data collection on EU funded governance tools, and data available from Commission scoreboards as the core bases for the data underpinning the scoreboard. Other data sources are useful, but are often complementary rather than data that could replace the existing and potential new EU and Member State generated datasets. As explained above, international data is very useful for benchmarking comparisons but does not provide a substitute or alternative but rather additional international data extending beyond the EU-27.

There are a few proprietary data sources that could be considered for usage in the upgraded SMS, but it would be appropriate to use these only in specific circumstances, where there are no public data sources available. The reasons for this is that publicly-available data sources, especially those produced by official sources are more likely to be regularly updated, reliable and comparable across the whole EU-27. Such data is also free of charge. If there is only partial country coverage, or if the data is too costly to obtain through proprietary data sources, this would leave the upgraded SMS at risk of discontinuity in terms of access to data over time series. It could moreover be too costly given the possible increased coverage of policy areas. There are however a few areas where supplementing data sources that provide a good picture of the situation would be necessary to provide a comprehensive picture.

As an example, as regards monitoring progress towards the Capital Markets Union, a number of EU associations focus on specific areas of financing such as venture capital (InvestEurope), business angels (EBAN) and crowdfunding (ECN). However, there are other areas of financing such as bonds where private providers maintain databases (e.g. DeaLogic). Therefore, if it is determined that the SMS should extend monitoring to include free movement of capital, then evidently reliable data sources would be needed. This would require liaison with the above-mentioned associations and as for proprietary data, it might be possible to obtain the DeaLogic data as it was mentioned by the Unit responsible for the European semester reporting process that the EU institutions used to have access to the DeaLogic data. A further point this raises is that if the SMS is extended to complex policy areas, a management decision would be needed as to whether complete or partial coverage is desirable, depending on data availability, cost (if any), and whether there are sufficient resources to be able to secure access to and regularly update data in the case of a more comprehensive approach.

It should be noted that within the study scope, it is not possible to comment in detail on the validity and accuracy of the different data sources, as very many have been reviewed. However, if there is any stakeholder feedback as to whether particular data sources are reliable (or conversely unreliable), this could be noted by the Unit responsible for the SMS. Here, it will be important to receive an input from the policy Units concerned for the different EU policy areas being considered under an expanded SMS as they will know the data sources very well, including any limitations.

The datasets for each of the main policy areas covered through the study are considered below.

Table 4-5 - High-level summary of policy areas and datasets

Policy area title	Datasets
Consumer Protection	<ul style="list-style-type: none"> • Sanctions Intelligence Dashboard • Consumer Markets Scoreboard • Eurostat price level indices
Digital Single Market	<ul style="list-style-type: none"> • The Digital Economy and Society Index

²⁸ <https://data.worldbank.org/indicator/NE.EXP.GNFS.ZS>

Policy area title	Datasets
	<ul style="list-style-type: none"> • The European Data Market Monitoring Tool • Digital Transformation Scoreboard • Flash Eurobarometer • Digital Agenda key indicators
Energy markets	<ul style="list-style-type: none"> • Quarterly Report on European Gas Markets • Consumer Markets Scoreboard • Quarterly Report on European Electricity Markets • Energy Union Scoreboard • OECD Product Market Regulation Survey
Environment	<ul style="list-style-type: none"> • EU Circular Economy monitoring framework • Raw Materials Scoreboard • European Environment Agency (EEA) • Opentender.eu • Global SDG Indicators Database • National GPP Action Plans (policies and guidelines) • EU GPP Criteria • Collection of statistical information on Green Public Procurement in the EU • Global SDG Indicators Database
Economic policy and European semester reporting	<ul style="list-style-type: none"> • Eurostat price level indices • Also see other policy areas as many datasets relevant to economic policy fall under other areas (e.g. goods and services markets).
Financial and capital markets	<ul style="list-style-type: none"> • ECN Cross-border Crowdfunding Survey 2017 (crowdfunding statistics) • European Innovation Scoreboard (venture capital statistics) • InvestEurope Yearbook (venture capital statistics) • ECB survey on access to SME finance • AFME composite index on cross-border finance • EBAN Statistics Compendium 2018 (Business angel statistics) • Dealogic DCM (debt issuance – bonds, syndicated loans)
Services markets	<ul style="list-style-type: none"> • IMI • Intra-European Economic Area Service Restrictiveness index • Analysis based on infringement packages, but ensuring qualitative interpretation
Industry and Growth	<ul style="list-style-type: none"> • CP-DS database • Notifications of requirements under the Services Directive • Mandates database • CEP Policy Brief • EUR-LEX statistics • IP in Europe • World Bank Doing Business Database • RAPEX • ICSMS • Retail Restrictiveness Indicator (RRI) • Sector PMR Indicators • Intra-European Economic Area Service Restrictiveness index • OECD Services Trade Index • IMI • Analysis based on infringement packages • World Bank Doing Business Database • European standards database maintained by CEN & Cenelec organisations
R&D& Innovation	<ul style="list-style-type: none"> • Horizon 2020 Dashboard • DG Budget data EU expenditure and revenue 2014-2020 • European Innovation Scoreboard
Free movement of people	<ul style="list-style-type: none"> • Annual report on intra-EU labour mobility • Eurostat Education Statistics (UOE) • Posting of workers • The regulated professions database
Social Policy	<ul style="list-style-type: none"> • Your Europe Advice • EU LFS • EU Social Indicators
Indirect taxation and customs	<ul style="list-style-type: none"> • "Customs sees what you don't" • Intellectual Property Rights - Facts and figures • Consumption Tax Trends
Transport	<ul style="list-style-type: none"> • EU transport scoreboard

Policy area title	Datasets
Trade and investment	<ul style="list-style-type: none"> • OECD STRI (intra-EEA) • Eurostat's COMEXT • Eurostat's Globalisation patterns in EU trade and investment • WITS TradeStat Database • Cost of non-Europe in the goods area
FDI	<ul style="list-style-type: none"> • Eurostat FDI data • OECD FDI flows • OECD's FDI restrictiveness index

A detailed description of these policy areas and associated data sources / datasets is provided in Annex 3. It should be noted that in the following section, the datasets and data sources are considered in further detail, pursuant to the policy areas identified in the above table.

4.3 Identification of available data from different sources

Referring back to the scoreboards and datasets identified in the preceding section, this section sets out the available data (indicators) from the identified sources that could be used for monitoring Single Market policies. It identifies available data from different sources (EU institutions, International organisations such as OECD, etc.) and analyses the feasibility of using them periodically as well as their quality considerations. The information below is set out in full in table form in Annex 3 both in an integrated table and in separate tables for each of the policy areas. It should be noted that the indicators presented are part of an initial longlist. Recommendations on the final shortlist of indicators are provided in Section 7.

4.3.1 Consumer Protection

Among there are many indicators that can be used to track market performance from the point of view of consumers, the **Consumer Markets Scoreboard Market Performance Indicator (MPI)** is among the most useful. It consists of a composite index made of 5 components: comparability of offers, trust in businesses to respect consumer protection rules, the extent to which markets live up to what consumers expect, choice of retailers/suppliers and the degree to which problems experienced in the market cause detriment. Covering 40 consumer markets in 2018 across EU-27, Norway and Iceland, the MPI can be considered to have excellent coverage. As far as single market correspondence is concerned, the CMS looks at consumer perceptions and experience of that particular market, which are affected by many exogenous factors, not just Single Market legislation and policies. And although the CMS does not focus on cross-border transactions per se, the CMS allows users to identify better and worse performing markets by country and, therefore, to home in on markets or policy areas where performance can be improved. CMS data is available since 2009 allowing for trend analysis by country and market, and combination with other qualitative information can assess the potential effect of policies. However, it is worth emphasising that it is updated every two years only and, as a perception-based international survey, is subject to response bias (in particular cultural and linguistic bias).

In contrast to the **Consumer Markets Scoreboard (CMS)**, the **Consumer Conditions Scoreboard** assesses single market integration over time by explicitly comparing differences in attitudes and experiences of EU cross-border and domestic transactions. In this way, it is possible to understand how consumers and retailers perceive progress and barriers in the implementation of the Single Market. Indicators include trust in redress mechanisms, knowledge of consumer rights and perception of compliance with consumer legislation. However, it does not break down (or collect) data by market cluster or sector. The 2016 edition of the consumer survey was based on around 28,000 responses (the retailers survey had a target of 400 responses per country for most EU countries). Like the CMS, it is a perception-based international survey and therefore subject to response bias. Data is available every two years.

The **Eurostat Community survey on ICT usage** includes an indicator related to confidence in buying online (e.g. from another EU country). This is available on an annual basis and allows for

an understanding of which countries have (perceived) barriers to overcome in order to more widely sell their goods or services in additional EU markets.

The **Eurostat price level indices** can be easily used to show convergence or divergence in prices (taking into account public purchasing parities), either at an aggregate level or according to selected sectors. However, the sector breakdown may not correspond completely with breakdowns for other indicators. For example, Eurostat publish price level indices on gas and electricity markets (calculated together), whereas the CMS shows results for electricity services and gas services separately. It may be possible to request specific extractions to combine or break down data into more similar sector breakdowns. The price level indices are updated twice per year.

Finally, the **EU Justice Scoreboard** contains an indicator regarding the time needed to resolve litigious civil and commercial cases, which is available on an annual basis. This gives an indication of the extent to which the country justice systems may support a more investment, business and citizen-friendly environment.

4.3.2 Digital Single Market

The described datasets cover some of the critical aspects of the Digital Single Market (DSM), and show real potential as sources for indicators to be included in an upgraded Single Market Scoreboard. Particularly the DESI and Digital Agenda Scoreboard Key Indicators include a comprehensive set of indicators for all relevant domains of the digital agenda. The databases are explicitly directly meant to monitor the single market for the digital economy/society. Priorities that are well covered are:

- Progress in the virtual infrastructure enabling the development of the digital / data economy (implementation of 5G/6G, IoT/cloud computing facilities, next generation internet – Digital Innovation Hubs) (output/result)
- Progress of the digital transformation of the EU economy / industry and performance and competitiveness of the EU digital economy & industry (impact)

On the other hand, the datasets are not directly suited to monitor the progress of the integration of the digital market itself (use of intra EU cross-border e-commerce, public & private e-services, exchange/flows of non-personal data, ...). They thus do not provide a full comprehensive view on actual integration of the market, through tracking cross-border flows, although it does contain a number of such indicators.

Furthermore, the databases do not include a lot of indicators on factors that are hampering a Single Market for the digital economy, and thus provide little insight into the progress in the elimination or reforming/standardising rules and regulations hampering digital market integration (geoblocking, roaming costs, privacy rules, digital copyrights, cyber security). While the scoreboards are updated annually, some of the indicators included are not available since some years e.g. Export of ICT goods and services in the Digital Agenda Scoreboard Key Indicators (available between 2007 and 2011).

4.3.3 Energy markets

There are a high number of publicly-available indicators in the energy markets (network industries) area. Collectively, the indicators are capable of providing an overview of performance of the Single Market for electricity and gas markets from different perspectives: regulatory and other barriers, a consumer perspective on market performance, ease of switching supplier, price convergence, and the shift towards renewable energy within the electricity market mix. The range of indicators includes outputs, result, impact and composite indicators. The indicators presented are internally coherent.

One of the most actionable indicators with respect to barriers to single market performance is the **OECD Product Market Regulation Survey** indicator. It aims to shed light on the governance arrangements of economic regulators, highlighting trends around the independence,

accountability and scope of action of sector regulators. Trend analysis on an aggregated and disaggregated basis can provide insights on different actions that can be undertaken to improve competition and market entry. The principle weakness of the PMR survey for the purposes of a regularly updated SMS is the frequency with which new data become available – only every five years.

Another actionable indicator, the transposition page of the SMS, shows that there are five energy directives which have not been transposed in various Member States. However, it is not currently visible from the SMS transposition page nor Member State performance section whether these directives are relevant to the single market for electricity and gas markets (network industries).²⁹ This is an example of how the qualitative and actionable capability of the SMS could be strengthened.

The **Market Performance Indicator (MPI)** on gas and electricity services – based on the Consumer Markets Scoreboard – adds a useful complement from the user perspective. The Market Performance Indicator is considered in section 3.2.1.1.

The **Energy Union Scoreboard** provides a useful set of indicators which is already grouped under the policy objective of developing a fully-integrated internal energy market. These indicators are updated annually. It is worth investigating whether such indicator updates could be dynamically linked (real-time) to a future SMS that integrates network industry data. The quarterly data available for gas and electricity markets would allow for more frequent updates of the SMS such as for retail gas price convergence, or to provide a more detailed breakdown on trends in renewable energy shares across segments (e.g. wind, solar, wave).

4.3.4 Environment

a) Sustainable development

The **Product Environmental Footprint (PEF)** and **Organisational Environmental Footprint (OEF)**³⁰, as developed and piloted under the Single Market for Green Products Initiative, are still in their early stages but – when fully developed – may act as useful data sources for the SMS. These are particularly useful because for each product category, they analyse the most relevant impacts (for example, GHG emissions are more relevant for some product groups than others), whilst hopefully providing a comparable “footprint” for these groups. However, the fact that the process is not fully complete makes it difficult to assess at this point how useful these indicators might be for the SMS.

The EEA also monitors a number of indicators which could be extremely useful to the priorities identified above, including emissions levels, biodiversity loss, economic impacts associated with climate change, energy consumption trends (including transition to renewable energy) and the economic impacts of climate change. Finally, the OECD Environment Directorate also monitors the environmental performance of its Member States using a series of indicators, data for which are kept in its SIREN database. While some of these indicators mirror the EEA indicators, it provides a more detailed approach to resource use.

b) Circular economy

The monitoring framework for the circular economy consists of 10 major indicators that are organised around four major topics:

1. Production and consumption
2. Waste management
3. Secondary raw materials and
4. Competitiveness and innovation.

²⁹ Some examples of non-transposed directives are included on the Member State Performance part of the SMS, however the full list is not included.

³⁰ https://ec.europa.eu/environment/eussd/smgp/PEFCR_OEFSR_en.htm

A major indicator may be subdivided into smaller indicators each representing a particular aspect of the circular economy within the topic and theme of the major indicator. Currently the monitor comprises 23 indicators. Some indicators have time series data going back to the 1990s, e.g. the generation of municipal waste (per capita), recycling rates of municipal waste and recycling of bio-waste which are available from 1995 onwards. The number of patents related to recycling and secondary raw materials is available since 1977. In terms of timeliness, the indicators vary from a one-year lag to a four-year lag. Most indicators have a time lag of one or two years. The data are available for the EU as a whole and for most indicators also for each Member State. The latest update is available from summer 2019.

It is interesting to draw attention to the framework feature of the monitor. Three indicators that are included do not yet have trends and one does not have any data. These indicators are:

1. **EU self-sufficiency for raw materials:** the situation should improve in future as data of end-of-life recycling input rates are expected to be available in future. An assessment of recycling input rates of a number of raw materials is being carried out for the establishment of the list of Critical Raw Materials 2020, to be finalised in Q1/20. This means that there will be a possibility to identify trends for some raw materials.
2. **Green public procurement:** the finding from desk research was confirmed by the public procurement unit in DG GROW that no data is presently available.
3. **End-of-life recycling input rates:** one data point and currently no trend yet. It should be noted that an assessment of recycling input rates of a number of raw materials is carried out for the establishment of the list of Critical Raw Materials 2020 (finalised Q1/20). This means that there will be a possibility to identify trends for some raw materials.

Besides, the indicator on food waste is still to be improved in terms of reliability.

The monitor is presented in a user friendly manner on the following Eurostat website:
<https://ec.europa.eu/eurostat/web/circular-economy/indicators/monitoring-framework>

An interviewee noted in relation to the strategic inter-relationship between different EU policy areas that there is potential scope to link consumer protection with the Circular Economy. For instance, the upcoming Circular Economy Action Plan is expected to include a set of actions focusing on new product policy and consumer rights. A further comment made by the same interviewee was that “a metric showing the uptake of green products could be useful”.

c) Green public procurement

In the field of green public procurement (GPP), some indicators were identified that could be used. Due to its data availability (it is updated yearly covering 2009 from 2019) and the presentation of data, the indicator that could be more useful is the number of tenders and the volume of tenders in euros of environmental services. This information can be extracted from Opentender.eu³¹. Opentender.eu is a platform that gathers tender data from 33 jurisdictions (28 EU Member States, Norway, the EU Institutions, Iceland, Switzerland, Georgia). The database shows the number of tenders per year and the number of buyers and suppliers by region. Under the section “market analysis” the dashboard provides overview of public procurement markets. There, it is possible to extract information of the number of tenders and its volume of “Sewage, refuse, cleaning and environmental services”. Although it does not indicate “how environmentally friendly” are the tenders, it does show a sector overview.

Some Commission reports provide some useful indicators. Under “EU GPP Criteria”³² the Commission produces technical background reports in different areas. In those reports, indicators

³¹ <https://opentender.eu/at/dashboards/market-analysis> This database is used for public procurement in the SMS

³² The EU GPP criteria are developed to facilitate the inclusion of green requirements in public tender documents. While the adopted EU GPP criteria aim to reach a good balance between environmental performance, cost considerations, market availability and ease of verification, procuring authorities may choose, according to their needs and ambition level, to include all or only certain requirements in their tender documents.

regarding GPP requirements in public documents are provided. Another data source from the European Commission is the report called “Collection of statistical information on GPP in the EU”. The report monitored the level and impact of GPP for seven Member States. It covered the numbers and values of green contracts, measured the financial impact of GPP and monitored GPP in Member States. Moreover, national GPP Action Plans (policies and guidelines) is a document that contains a comprehensive overview of the existing situation and ambitious targets for the next three years, specifying what measures will be taken to achieve them. The number of countries with GPP Actions Plans could be extracted.

It should be noted however that there may be some difficulties in integrating GPP into the SMS due to non-availability of reliable data, at least in the short term. One stakeholder commented on this suggestion that “as regards the proposed GPP metrics, it has been included in the EU Circular Economy monitoring framework, but it is still under development and there is no data”. However, it was suggested that it could still be included over the longer-term, as efforts are ongoing to improve the data, and the indicator was mentioned in the above-mentioned monitoring framework, despite a lack of data at present.

The indicator, “number of countries that adopted National Action Plan (or an equivalent document)” is consistent with the UN Sustainable Development Goals Indicators (indicator 12.7.1 – the number of countries implementing sustainable public procurement policies and action plans). Finally, the OECD have some indicators from OECD countries relating GPP but the last information available is from 2011 and it does not specify where the data is extracted from (presumably from OECD statistics).

4.3.5 Capital and financial markets

Regarding the availability of relevant data sources in respect of financial markets, a combination of public data sources (e.g. Eurostat, the ECB), data sources relying on membership-based organisations (e.g. ECN, InvestEurope, EBAN) and proprietary data (e.g. on bonds) are available. These mainly focus on monitoring progress towards more integrated financial and capital markets. Examples are Eurostat’s Balance of Payments data on investment flows (inward, outward). However, such indicators are context indicators and do not relate directly to EU policy and regulatory interventions. Other quantitative data available includes the ECB’s SAFE survey on access to finance for SMEs (perception-based) and also data collected on different forms of financing and the cross-border dimension (e.g. crowdfunding, venture capital).

Nevertheless, it has been possible to identify a small number of indicators, mainly context indicators, but some other types of output and results indicators that relate more directly to Capital Markets Union (CMU) Action Plan and progress reporting by the Commission’s DG FISMA to monitor its implementation. These could help to shed light on progress being made in relation to the CMU overall. Despite these challenges, there are a number of different types of indicators that could be used to assess progress in specific areas (see Annex 3 - Potential policy areas, datasets and indicators and Annex 4 – shortlisted indicators).

4.3.6 Services markets

In the services field, there is no EU annual database to measure service activity restrictiveness. A possible alternative source that could be used is the **OECD’s Services Trade Restrictiveness Index**, which provides composite and disaggregated measures of market entry restrictive across multiple sectors. Annual reporting is undertaken, therefore providing the opportunity to compare performance between countries.

However, more precise information could be provided on the performance of the Services Directive via Commission legal analysis and qualitative studies.

The IMI offers a solid source of periodic data collection and would shed light on the extent of notifications and information requests. As mentioned in the previous section, qualitative analysis of the data would help to support interpretation so that clarity is provided around how the indicators relate to Member State performance. The Commission may also wish to perform its

own analysis on the enforcement of the SD rules. This could be done quite easily and periodically if resources are available to invest in the analyses.

4.3.6.1 Industry and Growth

a) Market surveillance

In the market surveillance field, the indicators that are likely to be available via the ICSMS when the statistical interface has been developed look promising. They should provide good coverage of the reported market surveillance activities across the different EU production regulation, indicating the inspections undertaken, the non-conforming products identified and the actions taken. At this stage, it seems that this is exactly the type of information needed to support monitoring and to compare the activities between countries, highlighting the countries that invest heavily in market surveillance systems and achieve tangible results, and those that do not.

The safety gate database provides partial coverage of market surveillance activities relating to consumer products only, including in non-harmonised product areas. This information could be used also to complement the data provided by the ICSMS system, but by itself would probably not provide the coverage needed to warrant inclusion in an upgraded SMS.

Table 4-6 – Available data that corresponds to market surveillance

Name of database	Data availability	Examples of key indicators	Indicator types
ICSMS (market surveillance activities relating to EU product regulation)	The statistical interface is still under development. However, the ICSMS is anticipated to provide key data on the performance of market surveillance authorities on an ongoing basis as national authorities record their activities.	Per Member State, per production regulation type: - Number of inspections	Process
		- Number of tests	Process
		- Number of non-conforming products identified	Result
		- Number of actions	Result
Safety Gate / RAPEX (market surveillance activities relating to consumer products)	Annual data is provided by RAPEX, however, while reports are available from 2004, the 2018 report has yet to be published, suggesting that delays are a feature of this reporting system. However, the data is reported under the European General Products Safety Directive 2001/95/EC, suggesting stability in ongoing reporting.	- Number of notifications by product category	Process
		- Number of follow up actions of existing notifications by authorities in other Member States	Result
		- Number of joint market surveillance actions (not available for some years)	Process

b) Harmonised legislation

In the harmonised legislation field, EUR-LEX statistics show the number of European Parliament and Council Regulations that have been adopted (both new and amending). The data is made available regularly (at least on a monthly basis), however the it will need to be investigated whether a Single Market focus can be established for the types of regulations adopted.

Information from databases could also be extracted in order to create an indicator using the Mandates database, a database to consult standardisation, programming and study mandates assigned to European Standards Organizations (ESOs). From this data source it is possible to extract the number of standards agreed.

Name of dataset	Data availability	Examples of key indicators	Indicator types
EUR-LEX statistics	Regularly updated, at least monthly for the year in question	Number of regulations adopted	input
Mandates database	Periodically. It does not specify how often but last information is from 2019	number of standards agreed.	Output

c) Retail Markets

For retail markets, there are scoreboards that contain useful indicators for monitoring. These are the **OECD's Sector PMR** Indicators and the Retail Restrictiveness Indicator (RRI). The Sector PMR indicators has one indicator for 'retail distribution' which assesses the restrictiveness of regulations on retail markets. It also has one on 'retail sales of medicine'. The difficulty of incorporating the Sector PMR indicators into the SMS is that while the indicator and the data set behind the calculation of the indicators and the indicators themselves are available for all OECD member countries and easily accessible, the relevant PMR indicators are only updated every 5 years. The results could be used to inform a qualitatively focused report on single market harmonization and barriers but cannot be included in a yearly review.

The EU's **Retail Restrictiveness Indicator (RRI)** has 16 indicators. 8 under the establishment pillar, 5 under the operational pillar, one indicator for each pillar measuring the overall score, and one indicator encompassing the scores over both pillars. There are concerns with this indicator in terms of availability. Annex I of Staff Working Document (2018) 236 final includes the methodology for calculating the indicators, but does not provide the data involved in the calculation of the indicators. The RRI published reflects the state of play in 2017 but it is the sole RRI that has been developed so far. However, feedback from the Unit concerned revealed that data will be collected in future on RRI, with a further data collection exercise envisaged in 2020, and likely frequency of data collection and updating of the RRI in future about once every two-three years.

Table 4-7 – Available data that corresponds to retail markets

Name of database	Data availability	Examples of key indicators	Indicator types
Sector PMR Indicators	The Sector PMR Indicators are published every five years, with the first one being published in 1998 and the latest one in 2018.	- Retail Distribution	Result
		- Retail sales of medicine	Result
Retail Restrictiveness Indicator (RRI)	The RRI covers many indicators under the overarching retail indicator. Nevertheless, it has only been published once and is included in the annex of a European Commission staff working document. It would provide significant and comparable insight into the regulatory restrictiveness of retail markets across Europe.	- Establishment pillar: Number of permits	Result
		- Establishment pillar: Size thresholds	Result
		- Operational pillar: Restrictions on shop opening hours	Result
		- Overall Indicator across two pillars	Composite

4.3.6.2 R&D & Innovation

The three data sets for R&D & Innovation provide several indicators that could potentially be incorporated. The first is the European Innovation Scoreboard. It has several indicators within the categories of framework conditions, investments, innovation activities, impacts and structural data. This dataset is updated annually and includes indicators for all of the EU Member States making it a useful for highlighting which government interventions/policies can be harmonized. It also has performance indicators as a result of intervention which can be the focus of Member State convergence efforts.

Table 4-8 – Available data that corresponds to R&D and innovation

Name of database	Data availability	Examples of key indicators	Indicator types
European Innovation Scoreboard	Publishes indicators annually (most recent published in 2019)	- Broadband penetration	Output
		- SMEs with product or process innovations	Output
		- Medium and high-tech product exports	Output
		- Knowledge-intensive services exports	Output

4.3.6.3 Free movement of people

The EU-LFS and population data could be used to provide some headline figures regarding the extent and trends in freedom of movement. These are part of the Annual Report on intra-EU labour mobility, but could perhaps be more easily taken directly from Eurostat databases – potentially even in real-time (with some calculations and quality checks). Relevant EU-LFS data³³ and population/migration data is available annually. In the latter case, data becomes available in March for the preceding reference year, though in practice further updates and corrections to data can take place during the course of the year.

The employment gap of EU-immigrants can be a good indicator of the extent to which mobile people from EU countries have difficulty finding a job, especially when compared to the national average. The Eurostat Education Statistics, collected according to a harmonised system agreed with UNESCO-OECD and Eurostat (UOE), provide data on mobility of students and graduates since 2013. The data cover tertiary education of a technical and academic nature corresponding to ISCED levels 5 to 8. Erasmus students are an available sub-set. The link to the single market is more indirect.

The posting of workers is covered by amended directive 96/71/EC from 2018. The quantitative data available for this area is relatively recent and has been included in specific reports commissioned by DG Employment's Network of Experts on intra EU mobility – social security coordination and free movement of workers.³⁴ The creation of the European Labour Authority is expected to improve progress towards the goal of a well-functioning system of information exchange and dissemination for the proper application of EU social security coordination law.³⁵ However, this will take some time.

Table 4-9 – Available data that corresponds to the free movement of people

Name of dataset	Data availability	Examples of key indicators	Indicator types
Annual report on intra-EU labour mobility (based primarily on	Annual	- Number of intra-EU mobile citizens	Context

³³ Though conducted regularly, annualised EU-LFS data for more detailed variables is preferred as it is more reliable.

³⁴ Posting of workers Report on A1 Portable Documents issued in 2016.

³⁵ Giubboni, S. (2018) The European Labour Authority (ELA) and social security coordination, Briefing Requested by the EMPL Committee [https://www.europarl.europa.eu/RegData/etudes/BRIE/2018/619002/IPOL_BRI\(2018\)619002_EN.pdf](https://www.europarl.europa.eu/RegData/etudes/BRIE/2018/619002/IPOL_BRI(2018)619002_EN.pdf)

Name of dataset	Data availability	Examples of key indicators	Indicator types
Eurostat migration and EU-LFS data)			
EU-Labour Force Survey	Annual	- Employment gap of EU-immigrants	Context
Posting of workers data (administrative data)	Should become annual	- Number of posted workers (changes in stocks or flows)	Result
Eurostat Education Statistics (UOE) on mobility of students	Annual, available 18 months to 2 years after reference year	- Mobile students from abroad enrolled by education level, sex and field of education	Context

4.3.6.4 Social Policy

Linked to social policy (and also the free movement of people), the OECD social protection data could give an idea of the extent to which access to Government/social health insurance is provided across EU countries for which data is available. However, in practice, this is at or close to 100% in most EU countries and therefore probably of limited value. The European Social Protection statistics (ESSPROS) database contains some breakdowns on social protection expenditure in different categories.

More pertinently, the Your Europe advice database contains enquiries by subject area, a facts and figures indicator already presented in the SMS. This data source could be exploited in more detail to have deeper insight into the social policy barriers to exercising freedom of movement.

Finally, the European Commission Regional Social Progress Index contains data under the Tolerance and Inclusion heading that may act indicate barriers to the freedom of movement. They include the Impartiality of government services from the Quality of Institutions Index as well as tolerance for immigrants and tolerance for minorities from the Gallup world poll.

Table 4-10 – Available data that corresponds to social policy

Name of dataset	Data availability	Examples of key indicators	Indicator types
Your Europe Advice	Annual	- Number of enquiries by citizens to YourEurope advice by subject area	Process
OECD social protection data	Annual. Does not cover all EU countries.	- The proportion of the population covered by government/social health insurance	Context
The Regional Social Progress Index	Data only available for 2016	- Impartiality of government services - tolerance for immigrants - tolerance for minorities.	Context Context Context

4.3.6.5 Indirect taxation and customs

The indicators available to monitor developments in the indirect taxation and customs area provide an idea of the general processes / rate / scale of enforcement activities, and also help to shed light on the results and other contextual factors, although they are limited in scope, as they focus on specific areas of policy.

DG Taxation and Customs database supporting the monitoring of Regulation (EU) No 608/2013 concerning customs enforcement of intellectual property rights, provides insights into the number and value of non-confirming products seized, and the types of action taken subsequently, providing ideal measures of the investment in, and performance of, enforcement activities between Member States, while providing reassurances to business that the Commission is trying to animate the Member States in this crucial field. The required annual reporting seems to be working as intended by the Regulation considering the results on the Commission site.

Table 4-11 – Available data that corresponds to indirect taxation and customs

Name of database	Data availability	Examples of key indicators	Indicator types
Database supporting the monitoring of Regulation (EU) No 608/2013	The data are available for the two previous years, suggesting timely reporting. The requirements set by the regulation indicate that the reporting system is stable.	- Number of cases by Member State i.e. where suspected IPR infringements identified	Process
		- Number of detained articles by Member State i.e. where suspected IPR infringements identified	Results
		- Number of initiated procedures by Member State i.e. where action is taken against non IPR compliant traders	Results
		- Results of detention Member State i.e. types of taken action after identifying noncompliant products e.g. destruction of product, criminal procedure court cases etc.	Results
		- Sectoral break down of detained products	Process
		- Product category break down by frequency of cases of detained products	Contextual
		- Monetary value sectoral break down of detained products	Contextual
OECD “Consumption Tax Trends	The data are published annually. An annual report is made available with supporting country reports.	- VAT tax rate	Input
		- VAT revenue ratio	Result

The OECD’s data on consumption taxes from the publication “Consumption Tax Trends” provides insight into the VAT rates set by OECD Member States and an estimate on the effectiveness of revenue collection, as indicated by the revenue ration. The reporting is annual.

4.3.6.6 Transport

The transposition and infringements data in the EU Transport Scoreboard ³⁶ are available on an annual basis, and coming from the same source as that already used in the SMS, could easily be integrated into an upgraded SMS. The Customer satisfaction data in the scoreboard comes from the Consumer Markets Scoreboard. The EU Transport scoreboard presents data every two years for these indicators. The rail market share data comes from the DG MOVE Rail Market Monitoring, IRG-Rail reports. It is presented on an annual basis (latest year 2016) though in practice there are several countries for which data is missing in any given year, either because the data is not available or not applicable. Still the indicator gives an idea of the market concentration of the rail sector for freight and passenger services.

The OECD STRI is available on an annual basis for 22 EU and three EEA countries. It identifies and summarises barriers to trade in road, rail, aviation and maritime sectors according to the following breakdowns: restrictions on foreign entry; restrictions to the movement of people; other discriminatory measures; barriers to competition; regulatory transparency.

In addition to the OECD STRI, the *intra-EEA* Services Trade Restrictiveness Index identifies and catalogues which policy measures restrict trade within the European Economic Area (EEA) for 25 OECD EU member countries. It complements the existing STRI, which quantifies multilateral

³⁶ https://ec.europa.eu/transport/facts-fundings/scoreboard_en

services trade restrictiveness. Comparing the STRI and the *intra-EEA* STRI gives a hypothetical counterfactual, which shows what restrictiveness in various transport services would be in the absence of the Single Market.³⁷

Table 4-12 – Available data that corresponds to the transport area

Name of dataset	Data availability	Examples of key indicators	Indicator types
EU transport scoreboard (transposition and infringements data are from the same source as for the SMS)	Mostly annual Consumer satisfaction data is every 2 years	<ul style="list-style-type: none"> - Consumer satisfaction with air transport - Pending infringements – Air - Pending infringements – Maritime and inland waterways - Market share of all but the principal freight rail undertakings - Market share of all but the principal passenger rail undertakings - Pending infringements – Rail - Consumer satisfaction with rail transport - Pending infringements – Road - Transposition of EU transport directives 	Result Output Output Context Context Output Result Output Output
OECD STRI	Annual	<ul style="list-style-type: none"> - (Intra-EEA) Services trade restrictiveness indicator – Air transport services - (Intra-EEA) Services trade restrictiveness indicator – Maritime transport - (Intra-EEA) Services trade restrictiveness indicator – Rail freight - (Intra-EEA) Services trade restrictiveness indicator – Road freight 	Composite Composite Composite Composite

4.3.6.7 Trade and investment (goods)

The free movement of goods dimension is already being monitored by the SMS. Data on intra-EU trade and extra-EU imports is already provided in the section on “Performance by Integration and Market Openness” based on data collected annually by Eurostat. However, there are additional areas that might be integrated in future relevant to goods and market openness, such as in the Technical Barriers to Trade Database (TBT-WTO) and e-Ping.

Table 4-13 – Available data that corresponds to trade and investment (and the free movement of goods)

Name of database	Data availability	Examples of key indicators	Indicator types
Existing SMS			
SMS database Integration and market openness	Annually (Eurostat)	Intra-EU imports of goods	Context
		Intra-EU exports of goods	Context
		Extra-EU imports of goods	Context
		Extra-EU export of goods	Context
		Openness to imports of GOODS (levels)	Context
		Openness to imports of GOODS (change)	Context
		Openness to imports of SERVICES (levels)	Context

³⁷ Benz, S. and F. Gonzales (2019) Intra-EEA STRI Database: Methodology and Results, OECD Trade Policy Papers, No. 223, OECD Publishing, Paris, p.7. <https://doi.org/10.1787/2aac6d21-en>.

Name of database	Data availability	Examples of key indicators	Indicator types
Revisiting the cost of non-Europe (CEPR Policy Portal) ^{38 39}	One off study (funding is required to periodically update the measures)	Openness to imports of SERVICES (change)	Context
		Estimates with confidence intervals on the growth percentage gains of the Single Market to the economy over time	Impact
		Estimated percentage figures of the contribution of the single market goods of welfare gains per Member State	Impact
		Estimated percentage figures of the contribution of the single market goods on trade effects per Member State	Impact
Potential new data sources relevant to trade and free movement of goods			
Technical Barriers to Trade Database (TBT-WTO) ⁴⁰ .	Real-time	Notification e.g. new technical applying to a certain product	Output
e-Ping.	Real-time	Product requirements in export markets	Output

Although useful information is provided in the existing SMS regarding trade and investment, our assessment is that only Eurostat data on intra-EU trade in goods and services is relevant to the Single Market. However, the SMS also integrates data on extra-EU trade in goods and services, i.e. imports and exports between individual EU countries and the rest of the world. Whilst such data is interesting from a competitiveness, European and international value chain perspective, it is unclear if there is a single market dimension in extra-EU trade in goods and services.

Consideration could perhaps be given to simplifying the composite indicator included in the SMS, which is comprised of 8 individual indicators as per the above table, and to confine the data used to intra-EU trade in goods and services. This is not to suggest that extra-EU trade in services data is not policy-relevant, as it is highly important, rather that openness to non-EU imports and exports from third countries does not belong in the SMS. However, the impact of the single market for goods is not monitored specifically. Although not available in a database that is periodically updated, existing studies provide information on the economic impact of the Single Market for goods. For example, the CEPII study (a French research centre on trade) provides estimates of the contribution of the single market for goods over time using a gravity model. Using a counterfactual analysis, measures are provided on the overall and Member State welfare and trade gains due to the implementation of the single market. Further research would be required to obtain updated measures.

³⁸ Mayer, T., Vicard, V. & Zignago, S. (2018) Revisiting the cost of non-Europe <https://voxeu.org/article/revisiting-cost-non-europe>
³⁹ http://www.cepii.fr/PDF_PUB/wp/2018/wp2018-06.pdf

⁴⁰ On-line EU-TBT database allows for searches by country at:
<https://ec.europa.eu/growth/tools-databases/tbt/en/search/>

5. Key findings

This section outlines key findings from the stakeholder consultations, supplemented by desk research.⁴¹ Stakeholder consultations were organised as follows:

- Semi-structured interviews with 34 stakeholders including the European Commission, business representatives, consumer associations, national authorities and academics (see Annex 7 for a full list of organisations);
- An online survey, which generated 156 responses. The survey used routing to differentiate between respondents already familiar with the SMS and those that were not;
- A one-day workshop with the informal Internal Market Advisory Committee (IMAC), to present the emerging findings and to solicit IMAC members' opinions on the way forward;
- Several discussions with the EC Task Force set up by DG GROW to provide input to this study consisting of representatives from a number of different relevant Commission services; and
- Consultation with selected stakeholders interviewed regarding the proposed indicators.

5.1 Findings regarding the existing indicators within the SMS

There are a wide variety of indicators in the existing SMS: section 3.1 showed there are a total of 179 indicators (of which 72 performance indicators) across 19 areas comprising governance tools, policy areas and concerning integration and market openness. The online survey and the interview programme have highlighted that core users wish to retain sufficiently detailed data and information across the governance tools and policy areas. Moreover, some stakeholders advocated the use of more detailed indicator breakdowns and the inclusion of additional indicators. They expressed a strong wish to not only retain the existing indicators but potentially to provide even more detailed information. The survey and the interview programme analysis revealed:

- The area of the SMS most visited is the performance overview page, which provides a traffic light assessment overview of performance across Member States and covers most of the governance tools.
- Most respondents were more interested in the performance of specific governance tools than in the monitoring data provided on the limited range of four policy areas covered. However, this reflects the fact that many survey responses were received from the core existing user base, many of whom work directly on different governance tools.
- According to the survey findings, the main use of the data and information provided in the SMS has been in the context of discussions with national authorities⁴² regarding progress made in supporting single market implementation through existing governance tools.

Among the governance tools, infringements are the area most visited by survey respondents followed by transposition, the least visited according to survey analysis was e-Certis. These two governance tools, infringements and transposition, are part of the original core-focus of the SMS, used to track and enforce progress in implementation of the single market. Beyond the responses provided by stakeholders to this survey, web traffic statistics corroborate that these two tools are

⁴¹ This is a summary from the stakeholder consultation, more detailed information on the survey and interview programme could be found in Annex 5.

⁴² Annex 5 shows that the majority of the respondents that had used the information from the SMS were from national authorities, EU institutions or EU networks, or were involved in specific governance tools, for instance as a national contact point as part of an EU-wide network.

important for SMS users: they were the tools consulted most by visitors to the SMS in 2019 and together accounted for 31% of unique page views.

Nevertheless, stakeholders argued that more qualitative data is needed in transposition and infringement. Since performance against single market objectives can often either not be assessed quantitatively at all, or only partially, many stakeholders have called for the Scoreboard to provide deeper qualitative assessment (including the possibility of including more qualitative indicators). Some interviewees suggested that this is how an explicit link could be made with the proposal made by certain Member States that there should be qualitative interpretation of the data in the SMS to inform the development of a possible Single Market Report in future to tie in with the European Semester.

A number of respondents commented on ways in which reporting on SOLVIT might be improved, as respondents feel that the way SOLVIT is currently presented only provides quantitative data, for example on the number of cases solved, but interpretation on quantitative data is not provided.

Some interviewees called for an extension of the types and detail of indicators to improve their qualitative capacity, to encourage Member States to provide qualitative analysis and good practices in certain areas, to establish qualitative peer review processes or generally to improve the processes by which enforcement of the single market occurs based on the SMS indicators.

5.2 Findings on user-friendliness, accessibility and data visualisation

The SMS has been fully online since 2013. Its scope was extended to 13 governance tools, four policy areas and to indicators on market openness and integration (e.g. trade and FDI-related indicators). The Scoreboard is currently organised as static webpages with JavaScript used to provide interactivity for the users. It contains downloadable PDFs for most sections and allows users to interact with some of the indicators presented. The SMS is currently updated once per year (around July) and is based on data collected from various different services at the Commission or coordination points e.g. for EURES (who themselves collect the data from the Member States), or by extracting data from the tools or associated monitoring systems such as Your Europe. This section outlines the user-friendliness of the current Scoreboard from the stakeholders' perspective, which can be summarised as follows:

- The layout and navigation of the present online version of the SMS is broadly welcomed by many stakeholders. In terms of interactivity and functionality, most users find the Scoreboard easy to navigate, yet many still think interactive and more readily downloadable data would better allow users to perform their own analyses. For instance, discussions with interviewees highlighted many would find it useful to compare (self-) selected single market.
- Stakeholders were most favourable to using the traffic light colour system to present data, from interview feedback finding it useful at a political level for national level discussions and to provide an intuitive entry point to the results. This was especially the case for the transposition deficit and infringement proceedings.
- There is also a wish to have better time series and more up-to-date and timely data included in the online scoreboard, including “real-time” data. In addition, the timeliness with which the data was made available was questioned by several interviewees, since the SMS is published in July using data from the previous year. Some stakeholders would prefer publishing the SMS during a different period of the year, avoiding the period before the summer holidays, however, this would be difficult as the SMS is published in parallel with the Secretariat General's annual report on the implementation of legislation.
- Many users would favour the development of an additional integrated, standalone annual Single Market Scoreboard report in PDF format so that users can gain an appreciation of all the data contained in the SMS. This would need to be supported by some short qualitative supporting analysis of particular datasets linked to governance tools and policy areas.

- Many of the existing user base (including national representatives from the IMAC Committee and from EU-supported assistance services) mentioned they would prefer qualitative supporting information to be added to support the quantitative facts and figures data to prevent the data from being misinterpreted. Some stakeholders supported the possibility of streamlining the SMS' presentation between headline and operational indicators. In Section 7.3, a suggested structure for the high-level scoreboard which would contain headline indicators across different areas of the single market and across the four freedoms is outlined.

Overall, among the features sought among stakeholders were to make it more accessible for a broader user-base, improve the scope, frequency and/or timeliness of the SMS, improve its analytical and actionable capability, and offer some additional functionalities.

In terms of making the SMS more accessible, a frequent input from interviewees was that the technical acronyms used to structure the entry page for the Governance tools diminished its communication-friendliness and reach, even if an attempt has been made to structure these under three categories⁴³:

- Formal and informal cooperation between the European Commission and the Member States;
- Administrative cooperation between national authorities; and
- Assistance services for citizens and businesses.

Moreover, the 'governance cycle' page was not found to be very intuitive by many interviewees and of limited added value. There were some questions as to the reasons for choosing the four policy areas currently included (postal services, professional qualifications, public procurement and collaborative economy), but excluding others (e.g. the digital single market, consumer protection, the environment), which may be of equal, if not greater importance.

5.3 Findings on an upgraded SMS

As only four policy areas are currently covered by the SMS, there are opportunities for the SMS to cover several new policy areas. The majority of stakeholders agreed that the SMS should be extended to include new areas to provide stakeholders with a more comprehensive understanding of the single market's development. Their main views and opinions in this regard could be summarised as follows:

- For a great number of interviewees, the four freedoms are not very well covered and many suggested that the SMS could be restructured according to the four freedoms.
- Respondents especially missed more information on the free movement of goods and services.
 - For the free movement of goods, some interviewees noted that information is missing related to market surveillance, which is important from different perspectives such as product safety, food safety and chemical safety. For product safety, information relating the warnings of products could be extracted from the *Safety Gate* database.
 - For the free movement of services, some interviewees noted that information is missing on how the Points of Single Contact operate e.g. data on the number procedure completed electronically or data on the number of inquiries. It was moreover noted by some interviewees that looking ahead, services are likely to be given greater political priority.
- From among the policy areas that the SMS could be extended to in order to better monitor the state of the single market's implementation, digitalisation was seen as a key issue requiring special attention.
 - Several responses were concerned with digital business, others digital economy and market and one noted digitalisation as a horizontal phenomenon. A significant number of respondents mentioned that when using the SMS, they complement the information with the DESI. For some respondents, the DSM and single market should be fused. They

⁴³ https://ec.europa.eu/internal_market/scoreboard/performance_by_governance_tool/index_en.htm

suggested that the SMS should include a new area on digital where information from DESI could be found.

- Some respondents were concerned about consumer issues, such as consumer legislation, consumer trust in national authorities and cross-border retailers.
- Other respondents pointed to environmental issues, sustainability-related issues or noted the need to strengthen the quality of the enforcement of existing single market legislation.
- Some stakeholders suggested that a “better regulation” approach should be incorporated into the SMS. This relates to the need to review legislative implementation throughout the lifecycle, rather than only focusing on transposition and infringements at the outset of the implementation process.
- Some weaknesses in reliance on quantitative data on infringements alone were identified by interviewees. The infringements may, for example, be minor or may be significant in nature, and this is unclear from data by Member State alone, without qualitative interpretation. It was noted for instance that *“Without an indication of the severity of the infringements is also lacks depth e.g. Hungary and Poland are high on the list for serious breaches of EU law and freedoms but the SMS does not show them as exceptionally worrisome”*.
- An interviewee suggested that the SMS should present data as to how many regulatory proposals have been put forward by the Commission to the EP and the Council, and the numbers of suggestions that were approved and denied. It was also suggested that data could be kept on the average timeline for the planned revisions of legislation and of how long it takes to adopt new regulations and directives.
- Regarding data sources, the vast majority of the survey respondents were in favour of combining the information provided in the SMS with other data sources. Most of those data sources come from the EU, such as the TRIS database, Eurostat or the Digital Economy and Society Index. However, some respondents mentioned other data sources outside the EU, such as reports by the OECD, World Bank, and the Scoreboard of the EFTA Surveillance Authority.
- There are already a considerable number of indicators in the existing SMS: 72 indicators under performance sections and 107 ‘facts and figures’ indicators. This is a large number of indicators for a Scoreboard by most standards and implies a considerable backend workload in order to prepare and organise data collection, transform and manage the data and conduct the assessments;⁴⁴ However, whilst there were concerns that the overall number of indicators could make it more difficult to engage with a wider audience interested in the single market, the core users of the Scoreboard do not wish to see a reduction in the number of indicators⁴⁵.
- Most respondents⁴⁶ had used the information in the context of discussions with national authorities. This reflects the fact that there was limited participation in the survey by businesses, EU citizens or consumer organisations, despite a specific effort to target these organisations in the sampling. This is an important finding in itself regarding who is using the SMS presently, and why.
- The interviews confirmed that industry and business representative associations are much less familiar with the SMS or its potential utility. The core audience for the SMS currently are national authorities, national contact points, EU level stakeholders and academics, etc. that are either directly involved in, or have a direct interest in the governance tools.
- The current focus of the scoreboard indicators is on the governance tools used to track progress and encourage compliance with Single Market integration. The interview programme asked why the governance tools are of greater interest to both frequent and occasional users

⁴⁴ The Sustainable Development Goal indicators, which is one of the widest thematically strategic scoreboards, contains 232 different indicators.

⁴⁵ The rationale was that many users are interested in particular areas of the single market relevant to their everyday work and to assessing strategic progress. It is therefore useful to have access to as much data as possible for managerial purposes.

⁴⁶ Annex 3 shows that the majority of the respondents that had used the information from the SMS were from national authorities, EU institutions or EU networks, or were involved in specific governance tools, for instance as a national contact point as part of an EU-wide network.

of the SMS than policy areas.

- Respondents stated that many of the governance tools are well-established. The data being reported on relates to the everyday work of those working on different initiatives to support single market implementation, such as the work of EU networks including SOLVIT or EURES, or to the work of those involved in cross-border cooperation on particular topics. The focus on policy areas is relatively new within the SMS, and only four policy areas are currently covered.
- The governance tool that respondents showed least interest in was e-Certis. This corresponds with the previous point on the limited participation of business since the audience for e-Certis is aimed at business. Notwithstanding that for making progress in the implementation of the Single Market it is more relevant that businesses actually consult and use e-Certis than consult and use a Scoreboard showing use of e-Certis, it does show the challenge in engaging with businesses around scoreboard trends, even for governance tools which are directly targeted at supporting firms.
- Most, but not all stakeholders consulted consider that the information included is easy to interpret and agreed that the SMS is easy to navigate. Survey respondents and interviewees alike appreciated the traffic light presentation of composite indicators as this gives a visual overview of performance.
- With just four policy areas covered by the current SMS, there are considerable policy 'gaps', which could be more extensively monitored through an upgraded Scoreboard.

There is a question mark as to the **internal coherence of the four policy areas** selected for the existing SMS (public procurement, postal services, professional qualifications and the collaborative economy). Whilst these remain relevant, there is a question as to how these are presented and relate to one another. For example, it is unclear why postal services is being reported on in the SMS, but not the integration of the Digital Single Market within reporting on implementation in respect of goods and services, and the lack of mention of free movement of capital.

The **use of composite indicators** in some areas of the SMS was seen as being relevant for the purposes of reporting on Member States' performance. Composite indicators are typically used to communicate high level findings to a wider audience. Currently, many of the SMS' webpages present the disaggregated measures upfront and composite measures subsequently, whereas the reverse approach would be more typical. This approach could be reviewed if the SMS were to be upgraded.

In addition, through the desk research and mapping exercise of the existing SMS, our study team found that the methodology for assessing some composite indicators⁴⁷ could be reviewed in certain areas (e.g. FDI⁴⁸, trade and investment⁴⁹, transposition⁵⁰), alongside a review of the ongoing relevance of individual indicators used to calculate composite indicators.

It should be noted that **causal type indicators** that measure the impact of policies in a more robust way through the use of econometric analysis and regression models have not to date been integrated in the SMS as these are complex, and resource-intensive and require investment to develop suitable models to assess the relationship between dependent and independent variables so as to isolate impacts. However, whilst this can be done at the level of individual studies, it may be difficult to use such data systematically, as the model may be developed by consultants involved in supporting the Commission assess causality and impacts in a particular

⁴⁷ It will not be possible to look at the underlying methodology of all of these in the context of this study, however.

⁴⁸ Statistics on FDI monitor not only intra-EU flows of FDI which are relevant from a single market perspective but also bi-directional FDI flows between particular Member States and third countries, which don't appear to have a direct SM dimension.

⁴⁹ The composite indicator on trade and investment includes extra-EU trade in goods and services. There is a question mark as to the relevance of such data compared with intra-EU trade.

⁵⁰ The composite indicator on transposition considers not only delays in national transposition of EU Directives, but also delays in notifications of transposition. The weighting that should be allocated to delays in notifications to the EC, as opposed to delays in actual transposition, could be debated.

area. Such studies may only be carried out periodically, therefore, it may be more difficult to assess.

In some areas of the SMS, the research has identified a rationale for **context indicators** to be included to help monitor progress indirectly through the use of proxies wherever progress cannot be measured directly or causally (for example, in complex areas, such as regulatory reforms to eliminate cross-border obstacles).

The stakeholder analysis underlined the need to have data, indicators and analysis which is more qualitative and actionable, where the obstacles to a well-functioning Single Market are clearer and, by inference, it is easier to identify remedial action. Stakeholders were missing qualitative data on areas such as infringements, the cases at Member State level which could help to interpret data on the transposition deficit and changes over time in their particular country's performance and on aspects of SOLVIT especially structural cases ⁵¹. Several of the other responses offer ways in which this can be done; providing more detailed breakdowns or indicator combinations to provide actionable information. An example here is knowing the particular directives that have not been transposed alongside some kind of qualitative assessment of its importance to the functioning of the Single Market.

⁵¹At the informal IMAC meeting, further suggestions were raised in this regard. In particular, demand for insights into how structural cases identified through SOLVIT relating to incorrect transposition might best be resolved through the sharing of good practices and examines of individual cases was highlighted. The usefulness of qualitative analysis on SOLVIT cases to support quantitative assessment was stressed several times.

6. Gap analysis

6.1 Aim and scope

This gap analysis aims to examine the:

1. Policy areas not currently subject to monitoring by the SMS but which are central to assessing performance towards the objectives of the single market;
2. Relevance, coherence and effectiveness of the existing SMS and the indicators it contains;
3. Possible further indicators that could be included to broaden and strengthen its monitoring coverage of key single market dynamics.

With reference to the identified policy areas outlined in section 3.1 of this report, in terms of the analytical scope of the gap analysis, the aim was to assess:

4. The existing SMS framework and indicators, considering the relevance of the areas selected for monitoring and the methodological strengths of the indicator analyses;
5. The policy areas or key policy sub-areas or critical issues not currently covered by the SMS e.g. network industries, data economy, the circular economy etc;
6. The degree of coverage of the four freedoms, in particular, the extent to which any freedoms should be extended. For example, the free movement of capital is presently not covered in the SMS and a further potential gap is the absence of the free movement of data as a freedom, as this has been integrated into the Digital Single Market as a priority.
7. Whether the identified data and indicators fully, partially, or to a limited extent measure the desired concepts;
8. Whether the indicators represent good measures of single market performance i.e. if the measures are causally and significantly linked to relevant policies and legislation that can demonstrate their effects / impacts.
9. Whether the gaps can be filled using easily accessible data sources and relevant indicators.

6.2 General methodological approach

The gap analysis was conducted using a structured approach to examine the gaps and areas already covered by the SMS to identify its strength and weaknesses, and also to suggest areas that could be reformed as part of a possible upgrade to the system. The main steps included:

- Literature review of single market policy areas and data-sets deemed relevant for inclusion in a possible upgrade to the SMS;
- Development of an Excel Tool to structure the review of the datasets (not) covered by the SMS (annexed to this report);
- Within the context of the Excel Tool, perform analyses at the level of key individual indicators and data-sets considering their correspondence against several criteria;
- Provide wider observations on the SMS and the possible data sources and indicators that could be used to address the gaps.

The approach to the gap assessment was to consider the general relevance, coherence and effectiveness of the SMS and new data-sets in the context of the longlist of Single Market policies identified, and to reflect which indicators are needed to give the full picture of the state of the single market.

The following sections provide a gap assessment of the policy areas not covered by the SMS and summary review of the SMS framework and indicators.

6.3 Gap assessment of the policy areas not covered by the SMS

This section considers the extent to which there are gaps insofar as there are policy areas and indicators not covered by the SMS, but that should be included in order to give a more complete picture of the state of the single market.

The main policy area gaps in the SMS are shown in Figure 5-1. They correspond with the areas identified and outlined in section 3.1. This is a slight oversimplification in that the transposition and infringement sections of the SMS contains sector breakdowns corresponding to some of the policy areas. A further example is that professional qualifications in the existing SMS support monitoring of the free movement of people, while ECC-NET is useful for consumer protection. Nevertheless, broadly speaking, whilst certain governance tools are covered, broader policies linked to these areas of the single market are less well covered by the current SMS, or in the case of consumer protection are not presently covered as a policy area in its own right. A high-level assessment of the rationale for considering particular new policy areas as part of a long-list approach was provided in Section 3.1, which sets the scene for the gap analysis presented in this section. Of the policy area gaps presented on the right side of the graphic, 12 have the potential to be integrated into an upgraded SMS keeping in mind the level of data availability, relevance of the indicators identified, and the regularity with which they are updated.

Figure 6-1: policy area gaps in the Single Market Scoreboard

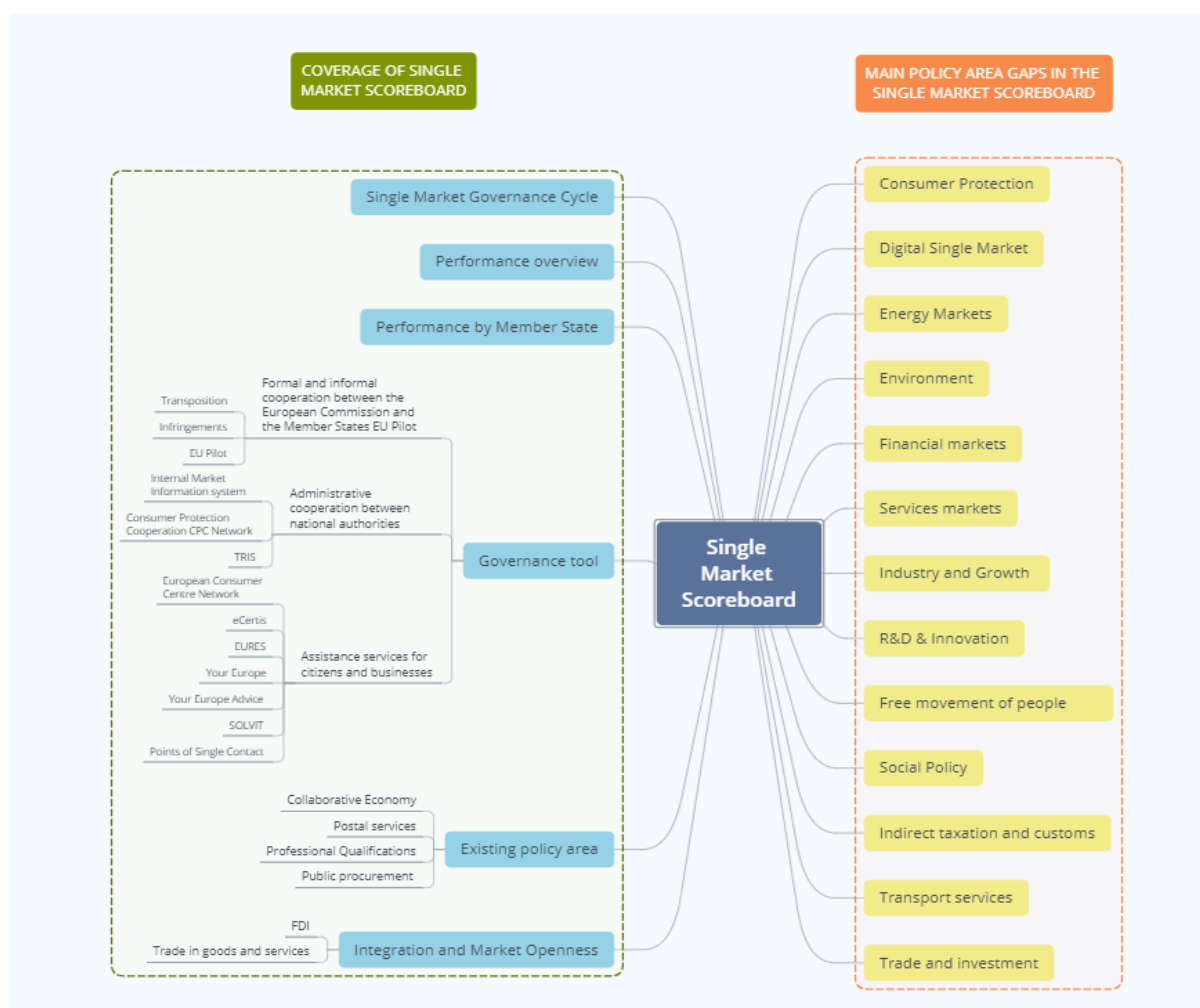


Table 5-1 later in this section shows the main indicators by policy area. In addition to a wider consideration of trade and investment, which is already covered by the SMS, it identifies example indicators based on gaps for 12 new policy areas (and 42 sub-policy areas).⁵² A comprehensive and more detailed table is provided in Annex 3, which contains a large number of potential indicators that could be adopted in an expanded SMS.

The Table also categorises the policy areas according to the four freedoms. In some instances, more than one freedom may be covered, for examples, free movement of goods and services. However, the table excludes datasets and indicators reviewed in sections 3.2 and 3.3 that are not considered adequate for an upgraded SMS, either because the data is too infrequent or because the associated indicators are too far from the scope of the Single Market.

In-depth cases were also developed for some of the policy areas with the greatest single market relevance. They provide a summary of the policy framework, identification of the main priority areas that would benefit from monitoring, an assessment of the availability of key data sources and indicators, as well as recommendations on indicator adoption to support the upgrade of the SMS. These cases are provided in Annex 2.

The gap analysis also covers areas outlined in the EPC paper “Making the Single Market Work”, which provides a forward-looking vision for the single market indicating the level of additional benefits that the single market has brought about to date, but also stressing its untapped potential and the need for further action to enhance the global competitiveness of the EU.⁵³ The areas noted for strengthening include:

- Compliance, enforcement and the Single Market for goods, including areas such as market surveillance, mutual recognition, SME smart regulation;
- Strengthening key bodies that have enforcement, solving or enabling role such as SOLVIT, Points of Single Contact, authorities responsible for procedures under the posted workers, services and professional qualifications directives;
- Developing the Single Market for services and digital services, including the Single Digital Gateway;
- Strengthening strategic public procurement;
- Making European standards suitable for innovation; and
- Updating the SMS.

6.3.1 Main findings from the gap analysis

With respect to the gaps identified by policy area, overall, the level of information available from the additional data sources identified is promising, meaning that **the SMS could be repositioned to provide a good level of coverage of new policy areas**. An updated SMS could cover some of the most important new policy areas from a single market perspective e.g. services markets, the Digital Single Market, product markets, consumer protection, environmental aspects and strengthening of indicators relating to free movement of people. A review of the datasets available indicate that numerous relevant indicators would be available to support the development of actionable recommendations to encourage reforms / improved performance at Member State level or at least help monitor trends.

The main reflections are provided in the narrative below, while readers should refer to Table 5-1 and Annex 3 to see the full range of gaps and possible indicators to address those gaps. There are some gaps which show the potential for improved coverage. Importantly, there is scope to **better demonstrate single market performance as well as barriers for both business and consumers**, consistent with a business or consumer journey approach.

⁵² A thirteenth policy area was also examined, Trade and Investment, but this is already covered by the SMS and is addressed in separately as it isn't a new policy area.

⁵³ European Policy Centre (2019) Making the Single Market Work: Launching a 2022 Masterplan for Europe.

From the perspective of **consumers**, the CMS and CCS both provide a number of indicators that show progress (or lack of) in either cross-border dimensions (e.g. online sales), barriers to the further development of cross-border sales, or comparative assessments of the perception of goods and service sectors. This can complement the ECC-NET data on complaints about cross-border purchases. And, across a range of (but perhaps not all sub-) sectors, Eurostat offers price convergence data, which can be considered a proxy for greater (Single Market) competition. In the energy sector, this can be accompanied by indicators on the ease of switching supplier.

From the perspective of **businesses**, there is scope to integrate the World Bank Doing Business indicator on starting a business in a particular country, which is a practical indicator broken down into several different steps. The digital agenda key indicators offer business mobility indicators concerning the extent to which public services that are aimed at foreign businesses are available online. The COMEXT database contains data on the openness to imports of goods and services within the EU, whereas the balance of payments statistics (BOP) provide data on trade in goods and services between the EU and elsewhere, while the OECD STRI and the PMR indicators show barriers to trade and regulations respectively (albeit with limited frequency in the case of PMR). Again, SOLVIT and Your Europe advice indicators can complement this.

There is the potential to considerably enhance the analysis of barriers to the realisation of the single market from the perspective of businesses and consumers. It should be stressed however that some strategic regulatory developments may be difficult to capture quantitatively, especially the removal of barriers to the free movement of capital, which are better assessed qualitatively.

Looking at the available data in Table 5-1 from the **four freedoms perspective**, it also appears possible to fill gaps by extending the SMS into freedoms that are less well covered. For example, a dual approach could be taken for the free movement of people. Firstly, it could be possible to incorporate some context level indicators regarding freedom of movement such as the number of mobile people in Europe, or the ease of finding a job via the employment gap for intra-EU migrants. This would provide headline figures, demonstrate trends and serve an advocacy purpose for the Scoreboard, even if the indicators do not demonstrate the impact of the Single Market, since the level of intra-EU mobility (e.g. among workers, students, researchers) cannot be solely attributed to single market policies and governance tools. Secondly, this could be combined with a developed use and set of indicators based on EURES, SOLVIT, Your Europe, Your Europe Advice or the regulated professions database to understand whether there are structural or profession-related barriers to free movement.

In the **Digital Single Market and data economy**, for which the recent Cost of Non-Europe report has estimated a potential efficiency gain of €415 billion per year,⁵⁴ the identified data sources available provide good coverage of the priorities of virtual infrastructure and digital transformation of the EU economy, although there is less coverage of progress of the integration of the digital market itself (use of intra EU cross-border e-commerce etc.) and factors that are hampering an internal Single Market e.g. elimination or reforming/standardising rules (e.g. geoblocking, roaming costs, privacy rules, digital copyrights, cyber security etc).

A further gap identified was information relating to the **free movement of data and knowledge**, which were mentioned in the context of the February 2020 launch of the EU's new European digital strategy.⁵⁵ In the context of big data playing an increasingly important role in the European economy, the extent to which data is able to move freely across borders, any barriers, and the commercial value of cross-border data are all areas where at least some information and data ought to be available. However, there may be recourse to one-off studies as a source of data as Eurostat mainly focuses on intra- EU trade in goods and services, and does not presently separately disaggregate trade in data.

⁵⁴ European Parliament (2017) Mapping the Cost of Non-Europe - 2014-19, fourth edition

⁵⁵ Commission Communication on Shaping Europe's digital future, 19 February, 2020

In **services markets** which represent a major gap in the SMS, estimates suggest that the full implementation of the Services Directive could add 2% to the EU GDP.⁵⁶ The Commission may wish to perform its own analysis on the extent of enforcement of the rules laid out in the Services Directive. This could be done quite easily and periodically if resources are available to invest in the analysis, although it would require a combination of qualitative and quantitative indicators.

The EPC has conducted such an analysis concerning the implementation of the Services Directive and professional qualifications directive in a recent paper. This highlighted the progress that still needs to be made by looking at the number letters of formal notice, reasoned opinions and referrals to the European Court of Justice (ECJ) in these areas.⁵⁷ The information for this analysis was taken from the infringements package. The suggested indicators are included in Table 5-1. Greater use of the information provided in the IMI regarding the number of notifications and information requests could also be made, showing where there are barriers to the effective implementation of the Services Directive. This would benefit from accompanying qualitative analysis to show how the indicators relate to Member State performance.

A good indicator for barriers to trade in the services sector is also available via the OECD Services Trade Restrictiveness Index (STRI), which is available on an annual basis, but not for all Member States. This would fill an important gap since barriers to services in trade within the EU impose an important constraint on the competitiveness of EU manufacturing firms and the smoothness by which they can tap into global value chains (GVCs). In some cases, proximity between manufacturers that buy services and the service suppliers is important, which makes trade in services through foreign establishment essential. Estimates foresee that the full implementation of the Services Directive could add 2% to the EU GDP.⁵⁸

In the **Single Market for goods**, indicators are absent that would regularly measure product regulation restrictiveness at national level e.g. considering a wide range of direct and indirect factors e.g. regulation of non-harmonised products, product advertising, installation etc. The absence of quantitative data that can easily be collected on the performance of accreditation procedures and application of conformity assessment modules can be noted. The current focus on transposition and infringements, which has been the case since 1997, when the SMS was first launched, could be extended to include monitoring of the effective application of legislation, including monitoring and reporting on market surveillance and enforcement activities and their impact on compliance levels.

The free movement of capital is not currently monitored in the SMS apart from FDI inflows and outflows and FDI stocks. Overall, the absence of any reporting on this freedom is a gap in the SMS, one which could either be addressed directly in the SMS in future. However, there are presently few data sources with indicators available on a regular basis. In capital and **financial markets**, whilst there are data sources that monitor progress towards the implementation of the objectives set out in the Capital Market Union (CMU) Action Plan, there are few quantitative indicators currently available. However, monitoring data is expected to be produced by DG FISMA once a set of appropriate indicators has been defined⁵⁹ for the purpose of reporting on CMU implementation in the regular CMU progress reports. This data could - once available - also be used in the SMS.

However, interview feedback confirmed that whilst some areas of progress can be quantified, not all can be. Many of the regulatory actions envisaged that contribute towards the achievement of the Financial Union are qualitative, such as tackling obstacles to the realisation of the single market due to differences between national regulatory regimes that were not previously harmonised, such as insolvency. Moreover, interview feedback from DG FISMA

⁵⁶ Copenhagen Economics (2018) Making EU trade in Services Work for All

⁵⁷ European Policy Centre (2019) Making the Single Market Work: Launching a 2022 Masterplan for Europe.

⁵⁸ Copenhagen Economics (2018) Making EU trade in Services Work for All

⁵⁹ In 2020, DG FISMA has commissioned a study to develop indicators to strengthen quantitative reporting on the implementation of the CMU.

pointed to many of the regulatory developments as being relatively recent (i.e. in the past one to two years), and therefore, difficult to evaluate even qualitatively yet.

There is nonetheless scope to quantify progress towards objectives in some areas of the CMU, especially through the use of context indicators. For instance, data sources exist on cross-border capital flows across different types of financial instruments (e.g. debt instruments through loans and bonds, venture capital, crowdfunding, business angel activity). These could help to assess progress made towards more integrated European capital markets. However, the data sources often emanate from specialist organisations at EU level in these particular financial instruments, rather than from official statistics. Therefore, if such data was to be integrated into the SMS, agreement would need to be reached with the relevant organisations, e.g. InvestEU (VC), EBAN (business angels), ECN (crowdfunding), etc. Moreover, some data, such as on bond market activity is proprietary (DeaLogic).

Whilst such data sources on cross-border capital flows are useful, they are by definition contextual, rather than directly solely related to the impact of EU interventions. The evolution over time in such context indicators, whilst a useful proxy, are not directly linked to single market policies and initiatives, although there is often an indirect link, given the increasing scale of EU intervention in the context of initiatives such as the InvestEU programme 2021-2027⁶⁰, the follow-up to the Investment Plan for Europe, and VentureEU, which aims to strengthen supply of venture capital so as to accelerate the growth and development of start-ups and scale-ups⁶¹.

The composite indicator developed by AFME was seen as promising by DG FISMA as it is comprised of a number of indicators representing different aspects of on **European capital markets integration**. Moreover, data on individual financial instruments is available mainly through relevant EU associations, e.g. on VC, crowdfunding, and on the level of business angel activity, and the composite indicator proposed by AFME appears to enjoy the support of these organisations. However, as such monitoring data is not yet included in annual progress monitoring and reporting on CMU implementation, DG FISMA could be encouraged to integrate such data into their progress monitoring, such that the data could then subsequently be integrated into the SMS too, which would give it added visibility.

However, feedback from DG FISMA suggested that additional indicators might be needed. The AFME composite indicator only focuses on capital markets, which is narrower in scope than the free movement of capital. An additional indicator relating to cross-border bank credit flows (credit markets) was proposed. For example, the BIS has a database on cross-border banking flows.⁶² It was noted that cross-border investments is already partially covered in the existing SMS through reporting on FDI and trade indicators (intra-EU especially). A further gap mentioned was that of secondary listings i.e. information about the number of start-ups and other companies listing on junior exchanges.

If the SMS were to be extended to monitor the free movement of capital, for instance by cross-referencing to the data to be included in future CMU progress implementation reports once an indicator system has been designed by an external contractor and approved by DG FISMA in 2020/21, this would be beneficial for the SMS, as data would be available for the first time on free movement of capital in a format that could also contribute to the SMS. However, qualitative interpretation of the data may be needed from DG FISMA to set the analytical context. Otherwise, there may be a risk that the data could be misinterpreted. Taking a simple example, European capital markets when looked at across individual financial instruments (e.g. venture capital, business angel activity, etc.) are highly concentrated. The data therefore needs careful interpretation, as the goal is not to have even capital flows in all EU Member States, as rather Europe may become more competitive if there are high concentrations of activity in and between

⁶⁰ https://europa.eu/investeu/home_en

⁶¹ <https://ec.europa.eu/programmes/horizon2020/en/ventureeu>

⁶² See Concentration in cross-border banking, BIS Quarterly Review | June 2019 | 04 June 2019 by Iñaki Aldasoro and Torsten Ehlers and https://www.bis.org/publ/qtrpdf/r_qt1906b.htm and also see study "The Two Faces of Cross-Border Banking Flows, Dennis Reinhardt Steven J. Riddiough, December 2015 - https://www.bis.org/events/cgfs_ibfsws/reinhardt_paper.pdf

particular Member States and European and global hubs. Taking the example of venture capital, VC activity is dominated by a handful of European capitals (e.g. Berlin, Paris, London, Stockholm etc.) with a few emerging hubs in particular areas e.g. Vilnius, Tallinn in FinTech. Therefore, if the team managing the SMS had access to additional quantitative CMU reporting data, this would be a helpful starting point, but qualitative supporting analysis on structural factors linked to the free movement of capital across different national markets and financial hubs would need to be provided.

In the **environmental** policy area, the European Environment Agency and OECD provide multiple indicators that monitor country performance (e.g. emission levels, biodiversity loss, climate change etc.) although there are fewer cross-border or single market type indicators. In the area of green procurement, work has been undertaken by DG ENV and the JRC on Green Public Procurement (GPP) to develop methodologies to ensure that green criteria are included within procurement processes. The percentage of procurement contests that have included clear and verifiable environmental criteria for products and services in the public procurement process could be measured. Moreover, the Product Environmental Footprint and Organisational Environmental Footprint databases are still under development, and the use of such methodologies is voluntary. Were there to be wider take-up of Lifecycle Assessment (LCI) methodologies, the impact in terms of the level of reduction in carbon emissions could be measured. However, whilst this is a gap, being able to use such indicators would depend on more active monitoring and quantification by DG ENV. For example, in an interview with the JRC, it was noted that whilst the GPP methodological guidance at product level covers a range of products, no data is available on how extensively industry has used the GPP criteria.

In the **circular economy**, there were broad data gaps from a single market perspective, as the cross-border dimension is not subject to extensive monitoring. Moreover, policy officials interviewed stated that although an important EU policy area, the single market dimension is arguably less discernible. Nevertheless, existing EU product legislation contributes to sustainability, as it protects the environment and human health (e.g. core product legislation such as the RED, EMCD, LVD and environmental legislation in the area of products such as the WEEE Directive and RoHS Regulation etc.) and make products more energy and resource efficient, and encourages consumers to choose better and more energy-efficient products (e.g. the Ecodesign Directive).

In this regard, the body of industrial product legislation collectively promotes sustainability in the context of the circular economy, even if it is difficult to identify specific datasets to monitor progress. There might nevertheless be some data available periodically through evaluations and other studies, for example, quantify the impact of legislation such as the WEEE Directive (amount and % of electrical and electronic equipment recycled) and REACH (no. of substances removed from the market, amount invested in more environmentally-friendly substitutes).

In **network industries (Energy)** there is a good level of coverage for the Energy sector by the data sources available, in terms of examining regulatory restrictiveness, cross-border market integration, renewable energy and consumer perceptions.

There could be opportunities to strengthen monitoring of the activities of key national authorities and policies directly, particularly using input, process, and output type indicators. These indicators provide clear information on governmental performance and therefore can be used to help formulate recommendations for action where shortcomings are found e.g. the ICSMS data could be used to measure the level of activities of market surveillance authorities in removing non-compliant products from the market.

A further finding is that some **gaps may be of a cross-cutting nature** and extend beyond a single policy area. For example, as noted earlier (see Section 2.2 – the legal and policy scope of the single market), whereas directives are included in the SMS, regulations are not monitored, even though they have become increasingly common and begun to replace directives in many instances, as their increased use has been suggested as part of the Better Regulation initiative as a means of reducing regulatory divergence in the implementation of single market legislation,

especially in the case of minimum harmonisation Directives, which allow discretion for Member States to go beyond the minimum requirements.

The main focus has historically been on monitoring transposition and infringements proceedings relating to the initial phase of the implementation of single market legislation. A gap exists in the use of data to report on aspects of single market legislative implementation further downstream in the SMS, for instance monitoring and enforcement activity by Market Surveillance Authorities (MSAs) and in respect of technical standards. In particular:

- Databases on monitoring and enforcement activity by MSAs in respect of single market legislation.
- Data on the number of technical standards in single market legislation (both standards still under development, as well as standards already adopted by the European Standardisation Organisations (ESOs).

Regarding standards, this is an often-overlooked aspect as the effective application and implementation of single market legislation is strongly dependent under the New Approach on (voluntary) technical standards. A common problem is that when directives or regulations are updated through recasts, if substantive changes are made, for instance in respect of the essential requirements, it can take considerable time for the ESOs to develop appropriate harmonised technical standards. This can lead to bottlenecks in legal implementation that are not captured in the present SMS, which focuses mainly on the initial stages of implementation (or non-implementation) by monitoring transposition and infringement proceedings.

For instance, when the Radio Equipment Directive 2014/53/EU (RED) replaced the R&TTE Directive 1999/5/EC, five years after its adoption, there are hundreds of technical standards still under development, with only a relatively small proportion finalised, adopted and available for manufacturers to use. As the majority of manufacturers tend to use such standards to demonstrate compliance with the essential requirements in the legislation, this is an important aspect of implementation where there may be delays that is not presently being monitored. Conversely, the transposition deficit shows a general decline over the past decade and a half, so it is arguably a less politically-visible indicator than it was in the mid-2000s.

The gap analysis identified the absence of a **legislative lifecycle approach** to monitoring and reporting on the implementation of single market legislation, as the SMS focuses on monitoring and reporting in the early stages of EU legal implementation, such as on transposition and infringements proceedings.

As noted previously, given the wide range of policy areas and large number of indicators available (with varying relevance) strategic choices will be needed to decide which areas and indicators to ultimately include and which to exclude.

Table 6-1 – Main indicators by four freedoms and policy area

Four freedoms	Policy Area	Sub-policy area	Data sources	Is this already included in SMS?	Could this be included in the SMS?	Examples of indicators
Free movement of people	EU citizenship	Intra-EU migration	Annual report on intra-EU labour mobility	Partially	Yes	<ul style="list-style-type: none"> Number of intra-EU mobile citizens (intra mobility based on recognition of defined professional qualifications is already in the SMS)
	Mutual recognition	Mutual recognition of qualifications	The regulated professions database	No	Yes	<ul style="list-style-type: none"> EU Mobility of professionals, temporary mobility
	Social Policy	Employment	European Labour Force Survey (EU-LFS)	No	Partially	<ul style="list-style-type: none"> Employment gap of EU-immigrants
	Multiple	General	Your Europe Advice	Yes	Yes	<ul style="list-style-type: none"> Number of enquiries by citizens to YourEurope advice by subject area (already part of SMS in YourEurope Advice governance tool section, but could be included under the policy area 'social policy').
Free movement of people, products and services	Transport	Air	EU transport scoreboard	Partially	Yes	<ul style="list-style-type: none"> Consumer satisfaction with air transport (already present in the SMS Pending infringements – Air)
	Transport	Air	OECD STRI	No	Yes	<ul style="list-style-type: none"> Services trade restrictiveness indicator - Air transport services
	Transport	Maritime	EU transport scoreboard	Partially	Yes	<ul style="list-style-type: none"> Pending infringements - Maritime and inland waterways (present as aggregated number under transport)
	Transport	Maritime	OECD STRI	No	Yes	<ul style="list-style-type: none"> Services trade restrictiveness indicator - Maritime transport
	Transport	Rail	EU transport scoreboard	Partially	Yes	<ul style="list-style-type: none"> Pending infringements – Rail (already present in the SMS as aggregated number together with Road) Consumer satisfaction with rail transport Market share of all but the principal passenger rail undertakings Market share of all but the principal freight rail undertakings

Four freedoms	Policy Area	Sub-policy area	Data sources	Is this already included in SMS?	Could this be included in the SMS?	Examples of indicators
	Transport	Rail	OECD STRI	No	Yes	<ul style="list-style-type: none"> Services trade restrictiveness indicator - Rail freight
	Transport	Road	EU transport scoreboard	Partially	Yes	<ul style="list-style-type: none"> Pending infringements – Road (already part of SMS as aggregated number together with Rail)
	Transport	Road	OECD STRI	No	Yes	<ul style="list-style-type: none"> Services trade restrictiveness indicator - Road freight
	Transport	General	EU transport scoreboard	Yes	Yes	<ul style="list-style-type: none"> Transposition of EU transport directives (part of SMS as late transposition)
Free movement of products	Industry and Growth	Market surveillance	ICSMS	No	Yes	<ul style="list-style-type: none"> Market surveillance data on enforcement activities per product regulation per Member State (to be confirmed when the upgraded to the ICSMS is completed)
	Industry and Growth	Market surveillance	RAPEX	No	Yes	<ul style="list-style-type: none"> Number of notifications by product category etc.
Free movement of products & services	Consumer Protection	Choice / comparability of offers	Consumer Market Scoreboard	No	Yes	<ul style="list-style-type: none"> Market Performance Indicator Consumer perception and trust in different goods and service markets across EEA countries. Complaints, switching, Market penetration, prices and safety Most improved/deteriorated area of Market Performance
	Consumer Protection	Price comparability	Eurostat price level indices	No	Yes	<ul style="list-style-type: none"> Price-level indices (EU-27 = 100) for actual consumption and its components by Member State Price dispersion: Coefficient of variation on price-level indices for Actual Consumption and its components
	Consumer Protection	Consumer legislation and enforcement	Sanctions Intelligence Dashboard	No	Partially	<ul style="list-style-type: none"> Number of entities, number of persons
	Consumer Protection	Consumer trust in cross-border retailers	Consumer Conditions Scoreboard	No	Yes	<ul style="list-style-type: none"> Consumer Conditions Index — overall indicator Consumers' knowledge of consumer rights Consumers' confidence in online purchases: % of persons confident buying online

Four freedoms	Policy Area	Sub-policy area	Data sources	Is this already included in SMS?	Could this be included in the SMS?	Examples of indicators
						<ul style="list-style-type: none"> Online shopping (% of the population who ordered goods or services over the internet for private use in the last 12 months), by location of the retailer, EU-27 <ul style="list-style-type: none"> Consumers experiencing problems when trying to buy online from retailers in other EU countries (% of consumers), by country, 2016 Consumers' trust in redress mechanism Consumer and retailer trust in environmental claims
	Consumer Protection	Consumer trust in cross-border retailers	Eurostat Community survey on ICT usage in households and by individuals	No	Yes	<ul style="list-style-type: none"> Online shopping (% of the population who ordered goods or services over the internet for private use in the last 12 months), by location of the retailer, EU-27
	Consumer Protection	European Consumer Centre Network	ECC Database	No	Yes	<ul style="list-style-type: none"> Complaints about cross-border purchases received by ECCs, by selling method
	Consumer Protection	General	EU Justice Scoreboard	No	Yes	<ul style="list-style-type: none"> Time needed to resolve litigious civil and commercial cases, first instance/in days
	Digital Single Market	Telecommunications	Digital Agenda key indicators	No	Yes	<ul style="list-style-type: none"> Mobile roaming price per minute The speed of the fixed connection to internet is not sufficient for the actual needs of the enterprise Export of ICT goods and services (both intra- and extra- EU) Citizen Mobility: extent to which public services that are aimed at foreign citizens are available online, usable, and implement eID and eDocument capabilities Business Mobility: extent to which public services that are aimed at foreign businesses are available online, usable, and implement eID and eDocument capabilities Individuals ordering goods or services online, from sellers from other EU countries Enterprises having done electronic sales to other EU countries in the last calendar year

Four freedoms	Policy Area	Sub-policy area	Data sources	Is this already included in SMS?	Could this be included in the SMS?	Examples of indicators
						<ul style="list-style-type: none"> Enterprises advertising online based on the geolocation of internet users
	Energy	General	Consumer Market Scoreboard	No	Yes	<ul style="list-style-type: none"> Market performance indicator: gas services Market performance indicator: electricity services Ease of switching: gas services Ease of switching: electricity services
	Energy	Gas	Energy Union Scoreboard	No	Partially	<ul style="list-style-type: none"> Wholesale gas prices Market concentration index Annual switching rates on electricity / gas retail markets Renewable energy share
	Energy	Gas	Quarterly Report on European Gas Markets	No	Yes	<ul style="list-style-type: none"> Retail gas price estimates for households in the EU Retail gas price estimates for industrial consumers in the EU
	Industry and Growth	Harmonised legislation	CP-DS database	No	Partially	<ul style="list-style-type: none"> No indicators the database list the legislation
	Industry and Growth	Standardisation	Mandates database	No	Partially	<ul style="list-style-type: none"> Number of standards agreed
	Industry and Growth	IPR and copyright	IP in Europe	No	Yes	<ul style="list-style-type: none"> Number of IPR infringements Number of copyright infringements Qualitative perceptions about IPR
	Social Policy	General	Your Europe Advice	Yes	Yes	<ul style="list-style-type: none"> Number of enquiries by citizens to YourEurope advice by subject area (already part of the SMS)
	Tax and Customs	Indirect taxation	Consumption Tax Trends	No	Yes	<ul style="list-style-type: none"> VAT Tax rate and VAT Revenue Ratio
	Trade	Intra-EU trade in goods and services	COMEXT database (Intra-EU trade in goods and services)	Yes	Yes	<ul style="list-style-type: none"> EU trade integration in goods (levels) EU trade integration in goods (change) EU trade integration in services (levels) EU trade integration in services (change) Openness to imports of goods (levels) Openness to imports of goods (change) Openness to imports of services (levels) Openness to imports of services (change)

Four freedoms	Policy Area	Sub-policy area	Data sources	Is this already included in SMS?	Could this be included in the SMS?	Examples of indicators
						Note that the above indicators are already part of the SMS and could potentially be complemented by the indicators in the row below:
	Trade	Trade (EU and global)	Globalisation patterns in EU trade and investment	Partially	Partially	<ul style="list-style-type: none"> • International trade in goods • Review of each MS's extra-EU exports. • International trade in goods by partner • International trade in goods by type of good • International trade in goods by mode of transport • International trade in goods by enterprise characteristic • International trade in goods – tariffs • International trade in goods by invoicing currency • Inward foreign affiliates statistics • Outward foreign affiliates statistics • FDI - intensity ratios • FDI stocks to Europe as a % of GDP • FDI flows to Europe as a % of GDP • FDI stocks from Europe as a % of GDP • FDI flows from Europe as a % of GDP • FDI - rates of return • World trade in services • Trade in business services
	Trade	Extra-EU trade in goods and services	Balance of payments statistics (BOP)			<ul style="list-style-type: none"> • Trade in services (outside the EU)
						•
Free movement of services	Digital Single Market (DSM)	Digital business	The Digital Economy and Society Index	No	Yes	<ul style="list-style-type: none"> • Composite indicator: Citizens' use of internet services and online transactions, consisting of three sub-dimensions: Internet Use; Activities Online; Online Transactions. • Composite indicator: Integration of Digital Technology, consisting of two sub-dimensions: Business digitisation; e-Commerce (incl. cross-border) • Composite indicator 'Digital Public Services'

Four freedoms	Policy Area	Sub-policy area	Data sources	Is this already included in SMS?	Could this be included in the SMS?	Examples of indicators
						consisting of two sub-dimensions: e-Government; 5b e-Health (20%)
	Digital Single Market (DSM)		The European Data Market Monitoring Tool	No	Yes	<ul style="list-style-type: none"> Data Market Value per MS / industry (€) Data companies' revenues by MS / industry (€) Number of data users per MS / industry
	DSM	E-government	The Digital Economy and Society Index	No	Yes	<ul style="list-style-type: none"> Composite indicator: Digital Public Services, consisting of two sub-dimensions: e-Government; 5b e-Health (20%)
	DSM	Media services	Digital Transformation Scoreboard	No	Yes	<ul style="list-style-type: none"> Selling online cross-border - Enterprises that did electronic sales to other EU countries
	DSM		The Digital Economy and Society Index	No	Yes	<ul style="list-style-type: none"> Composite indicator: Citizens' use of internet services and online transactions, consisting of three sub-dimensions: Internet Use; Activities Online; Online Transactions Composite indicator: Integration of Digital Technology, consisting of two sub-dimensions: Business digitisation; e-Commerce (incl. cross-border) Composite indicator: Digital Public Services, consisting of two sub-dimensions: e-Government; 5b e-Health (20%)
	Energy	Markets and consumers	Energy Union Scoreboard	No	Yes	<ul style="list-style-type: none"> Wholesale electricity prices Wholesale gas prices
	Energy		OECD Product Market Regulation Survey	No	Partially	<ul style="list-style-type: none"> Scope of action, independence and accountability of regulators.
	Energy	Renewable energy	Quarterly Report on European Electricity Markets	No	Yes	<ul style="list-style-type: none"> Renewable electricity generation in the EU and the share of renewables in all electricity production – broken down by renewable energy type
	Services Markets	Services Markets	Analysis based on infringement packages	No	Yes	<ul style="list-style-type: none"> Number of letters of formal notice Number of reasoned opinions Number of referrals to the ECJ
	Services Markets	Trade restrictiveness	Intra-European Economic Area Service Trade Restrictiveness index	No	Yes	<ul style="list-style-type: none"> The only indicator is a measure of service sector trade restrictiveness for 22 sectors. <p><i>An overall score is provided plus a break down by policy measure.</i></p>

Four freedoms	Policy Area	Sub-policy area	Data sources	Is this already included in SMS?	Could this be included in the SMS?	Examples of indicators
	Services Markets	Trade restrictiveness	OECD Services Trade Restrictiveness Index		Yes	<ul style="list-style-type: none"> The only indicator is a measure of service sector trade restrictiveness for 22 sectors. <i>An overall score is provided plus a break down by policy measure.</i>
	Multiple policy areas	Multiple policy areas	IMI (Internal market information system)	Yes	Yes	<ul style="list-style-type: none"> Number of notifications Number of information requests <i>Both are already part of the SMS.</i>
	Tax and Customs	Customs	Intellectual Property Rights - Facts and figures	No	Yes	Customs IPR enforcement data regarding: <ul style="list-style-type: none"> The number of cases Number of detained articles Number of procedures initiated by Member State
Free movement of capital	Foreign Directive Investment (FDI)	FDI Flows (intra-EU)	Eurostat FDI data	Yes (but suggest splitting composite indicator to separate intra from extra-EU FDI)	Yes	<ul style="list-style-type: none"> Change in inward intra-EU FDI flows Change in outward intra-EU FDI flows Change in inward intra-EU FDI stocks Change in outward intra-EU FDI stocks <i>All above already part of the SMS. However, suggestion of splitting composite indicator into two between intra-EU FDI flows (to measure single market integration) and extra-EU FDI flows (to measure the degree of market openness comparing the EU's single market as a whole with other global markets)</i>
	FDI	FDI Flows (extra-EU)	Eurostat FDI data	Yes (but suggest splitting composite indicator to separate intra from extra-EU FDI)	Yes	<ul style="list-style-type: none"> Change in inward extra-EU FDI flows Change in outward extra-EU FDI flows Change in inward extra-EU FDI stocks Change in outward extra-EU FDI stocks <i>Measure of the degree of market openness comparing the EU's single market as a whole with other global markets. Already in the SMS but suggest split into two indicators.</i>
	FDI	FDI Restrictiveness	OECD's FDI restrictiveness index	No	Yes	Restrictiveness levels ⁶³ as to the: <ul style="list-style-type: none"> Level of foreign equity restrictions;

⁶³ Advantage of this source is that it measures statutory restrictions on foreign direct investment in 22 economic sectors across 69 countries, including all OECD and G20 countries. Therefore, it allows scope for benchmarking comparisons.

Four freedoms	Policy Area	Sub-policy area	Data sources	Is this already included in SMS?	Could this be included in the SMS?	Examples of indicators
						<ul style="list-style-type: none"> Discriminatory screening or approval mechanisms; Restrictions on key foreign personnel and operational restrictions.
	Financial markets	Banking, finance and financial services	InvestEurope Yearbook (venture capital statistics)	No	Yes	<ul style="list-style-type: none"> Level of fundraising, investment and divestment (national level). Comparative assessment across EU-27.
	Capital markets	Capital markets union	Various e.g. ECB surveys (debt), InvestEurope data on VC	No	Yes	<ul style="list-style-type: none"> AFME composite index on cross-border finance⁶⁴
	Capital markets	Capital markets union	Dealogic DCM (debt issuance – bonds, syndicated loans)	No	Yes	<ul style="list-style-type: none"> Bonds by market of issuance (domestic, cross-border)
	Capital markets	Capital markets union	EBAN Statistics Compendium 2018 (Business angel statistics)	No	Yes	<ul style="list-style-type: none"> Total European early stage investment Angel investment by country Sectors of Investment Development Stage of Investee Location of Investment and Cross Border Investing
	Capital markets	Capital markets union	ECN Cross-border Crowdfunding Survey 2017 (crowdfunding statistics)	No	Yes	<ul style="list-style-type: none"> Proportion of cross-border investments received Estimation of operational costs of regulation in financial terms Application of disclosures/safeguards for the protection of investors and fundraisers
Other	Environment	Circular Economy	EU Circular Economy monitoring framework	No	Yes	<ul style="list-style-type: none"> Trade in recyclable raw materials Recycling's contribution to meeting materials demand % of Green public procurement to GDP Recycling of specific waste streams
	Environment	Green public procurement	Global SDG Indicators Database	No	Partially	<ul style="list-style-type: none"> Number of countries implementing sustainable public procurement policies and action plans

⁶⁴ DG FISMA suggested that the AFME indicator could be further complemented by an additional indicator on cross-border bank credit flows (credit markets). This could either be integrated into the AFME proposed composite indicator, which could be refined, or could be an additional standalone indicator.

Four freedoms	Policy Area	Sub-policy area	Data sources	Is this already included in SMS?	Could this be included in the SMS?	Examples of indicators
						<i>Theoretical indicator no data exists yet</i>
	Environment	Green public procurement	National GPP Action Plans (policies and guidelines)	No	Yes	<ul style="list-style-type: none"> Countries that adopted National Action Plan or equivalent document
	Environment	Green public procurement	Opentender.eu	No	Yes	<ul style="list-style-type: none"> Number of tenders per country on environmental services
	R&D & Innovation	Innovation framework conditions	European Innovation Scoreboard	No	Yes	<ul style="list-style-type: none"> Knowledge-intensive services exports
	R&D & Innovation	Innovation framework conditions	European Innovation Scoreboard	No	Yes	<ul style="list-style-type: none"> Medium and high-tech product exports
	R&D & Innovation	Mobility and internationalisation	Eurostat data on intra-EU researcher mobility	No	Yes	<ul style="list-style-type: none"> Mobile students from abroad enrolled by education level, sex and country of origin

It should be noted that:

- Some policy areas cut across different freedoms as there is not a clear boundary between the freedoms and depending on the sub-policy area in question. Thus, the policy areas: Industry and Growth, Digital Single Market, Taxation and Customs and Social Policy fall across several freedoms in the Table presented above. In particular this is the case for the movement of products and services where the distinctions are becoming increasingly blurred anyway.
- The approach to the gap analysis has been selective as it is not appropriate to list all indicators as there are too many to be proportionate and manageable. A wider list of indicators is provided in the supporting work carried out in Excel by the study team in respect of indicators in new policy areas, and a review of the indicators in the existing SMS where applicable.

6.3.1.1 Gaps with lower data coverage from a Single Market perspective

As Table 5-1 indicates, while numerous datasets identified correspond with the policy area selected, **other policy areas are poorly covered from the Single Market perspective**. One must keep in mind that within each policy area the different priorities are covered by the indicators to varying extents. This means that generally for each policy area, very nuanced monitoring can take place in discrete areas. Some of the areas – such as free movement of capital or social policy – either have fewer datasets with regular data availability or the data is firmly established but the Single Market dimension is less strong, with the indicators being potentially useful from a context perspective.

Thus, there are also challenges in terms of integrating new policy areas from a relevance and coherence perspective. In addition, it must be kept in mind that the existing SMS already contains a large number of indicators (performance or otherwise) and any extension of the SMS needs to reflect not just on the Single Market dimension but also on the SMS' ongoing manageability.

Some of the data sources above pose a potential issue insofar as they are available only every other year, in particular the Consumer Markets Scoreboard and the Consumer Conditions Scoreboard. There are mitigating factors for these sources, since if you leave aside the data frequency issue, the sources have many obvious benefits.

First, these data sources provide overall trends based on established survey methodology and point towards barriers on a general level across Member States and within sectors in the case of the CMS. But the above gap analysis indicates that there is scope for making better use of tools and data which is either owned or coordinated by the Commission e.g. Safety Gate, ICSMS, YourEurope Advice and SOLVIT. They can be better exploited in the years when the CMS and CCS do not provide data and perhaps, more frequently, to analyse barriers for citizens and business.

Second, while it is important to have good quality and regularly updated data, it is also the case that the indicators need to be effectively used, for example, through launching an analytical annual report, collecting and learning from Member State good practices (for example through mutual learning), investing in raising the visibility of the Scoreboard, and establishing processes to follow-up on the results.

Considering all the indicators available identified in each policy area, a high-level analysis was undertaken to explore the correspondence against the different indicator types used to monitor discrete elements of the policy causal chain. The results of the high-level analysis are indicated in Figure 5-2.

This has included reflections on whether the indicators reviewed “causally and significantly” measure the policies they correspond to. According to academic research standards, indicators categorised as measuring the causal effects of policies do so from a counterfactual perspective, where the analysis seeks to identify the extent of an effect of an intervention on its beneficiaries or target area in comparison to a group or situation not subject to treatment. This can be achieved using experimental or non-experimental methods (e.g. micro economic impact evaluations of policies) or by using econometric modelling to analyse observational data where assumptions are used to develop and compare different policy scenarios (e.g. gravity model analyses of trade flows).⁶⁵

Thus, to structure this assessment, we sought to categorise the existing and possible indicators according to their correspondence to the below types typically used to monitor policy causal chains:

⁶⁵ Morgan, S.L. (2013) Handbook of Causal Analysis for Social Research. Springer, London.

- **Input indicators** measure the contributions and resources needed to set-up and run a policy intervention such as regulatory reforms, guidance documents, human and financial resources etc;
- **Process indicators** examine the efficiency of procedures, and the volume of work / cases managed by policy interventions;
- **Output indicators** assess the volume of immediate products produced by an intervention;
- **Results or outcome indicators** measure the immediate results experienced by the beneficiaries of an intervention;
- **Context indicators** that measure trends associated with the impact of Single Market policies but are not entirely caused by them e.g. trade flows between Member States;
- **Counterfactual impact indicators** that utilise scientific methods to demonstrate the causal effects of a policy e.g. gravity model analyses of the cost of “non-Europe”;
- **Composite indicators** provide an aggregate measure of several indicators from one or more of the categories above to provide summarised assessments while easing communication of the performance of key policies to stakeholder groups.

This brief analysis shows that within each policy area, the availability of different indicator types varies quite significantly across the policy causal chain. One must also keep in mind that within each policy area the different priorities are covered by the indicators to varying extents - meaning that the indicators in a given policy area are not necessarily part of the same causal chain.

Overall, a very low number of impact indicators were identified. However, impacts, and even many results indicators are often more difficult to measure. Moreover, it should be recognised that the monitoring of causal effects of public policies is typically conducted by standalone studies meaning that the information is not updated regularly. Thus, it will be difficult to rely on or to populate a monitoring scoreboard with impact indicators. The Commission will instead need to launch studies to fill such gaps. In that regard, things have not changed since the 2014 study conducted by Pelkmans which concluded that there is no ‘silver bullet’ indicator, either in simple or composite form to assess the economic performance of the Single Market.⁶⁶

However, there is plenty of scope for adding some context indicators as headline figures (e.g. scale of free movement greatly exceeds direct mechanisms facilitated at EU level relating to mutual recognition).

Figure 6-2 – Overview of potential indicators categorised according to the results chain

Four freedoms and enforcement	Policy Area	Input	Processes	Output	Result	Composite	Context	Impact	Various
Free movement of products	Industry and Growth								
Free movement of services	Digital economy								
	Energy								
	Services Markets								
Free movement of products & services	Consumer Protection								
	Environment								

⁶⁶ Pelkmans, J., Renda, A. et al., (2014) Indicators for Measuring the Performance of the Single Market – Building the Single Market Pillar of the European Semester (IP/A/IMCO/2014-03)

Four freedoms and enforcement	Policy Area	Input	Processes	Output	Result	Composite	Context	Impact	Various
	Industry and Growth								
	R&D & Innovation								
	Tax and Customs								
	Trade								
Free movement of capital	FDI								
	Financial markets								
Free movement of people	EU citizenship								
	Social Policy								
Free movement of people, products and services	Transport								
Other	Environment								

6.3.1.2 Other gaps

Extending the scoreboard to include new policy areas can help monitor the implementation of the Single Market in those new areas. However, the SMS also needs to be able to present information in a succinct way and currently there is a gap in terms of presenting a strategic-level scoreboard such that headline data is presented on progress in implementing the Single Market. This would be based on a limited number of indicators to complement a governance tool or four freedoms/policy area approach. Although there is a performance overview section in the existing SMS, many of these indicators are of a highly technical nature for a niche target group and show more operational performance than strategic progress e.g. there is a EURES indicator in the performance overview which shows the number of EURES advisers employed (nationally) – an input indicator, which says little about freedom of movement.

In addition, it could make sense to rethink the logic of the SMS structure. For example, it could make sense to combine headline indicators in the same policy area to give users an overall feel of activities in a specific field, rather than separating out the performance of authorities and contextual factors in the same policy area by governance tool or to allow parallel structures catering to different users. The idea is to present linkages between Single Market policies around reducing regulatory restrictiveness and strengthening the performance of enforcement bodies, and contextual dynamics and impacts on the ground.

For example, a webpage on “consumer policy” could combine high level ECC Net and CPC Network measures with data on trends related to (online) cross-border consumer behaviour, levels of cross-border confidence in the Single Market and consumer perceptions of the market performance of particular sectors; similarly, a page on the Single Market for Goods could combine measures on the enforcement activities of market surveillance authorities, the number of notifications by product category, potentially with measures on the “cost of non-Europe” in the goods area and trade data under the Integration and Market Openness section.⁶⁷

Another approach could be to structure the areas according to the ‘four freedoms’ of the Single Market: goods, services, people and capital. This could provide an intuitive and relatively user-friendly entry point into the different areas, although there are some overlapping areas e.g. between goods and service markets as Table 5-1 showed.

⁶⁷ See the “gap analysis cases” for possible new data sources.

Finally, the above analysis has also shown that there is a gap with respect to including indicators that can be used for **advocacy**. This could serve several purposes:

- include data that gives a more accurate reflection of progress towards the Single Market, for example by including a positive indicator on EU Regulations adopted, rather than concentrating predominantly on what has *not* been done such as the number of directives that have *not* been transposed
- highlight good practice in the Member States
- bring additional trend analysis against which actionable indicators can be compared and put in context
- reposition the Scoreboard from a tool more focused on compliance and enforcement towards one which fosters more buy-in from different EC services and Member State stakeholders

6.4 Gaps within the existing Single Market Scoreboard

This section considers the extent to which there are gaps in the existing areas (e.g. governance tools, policy areas) covered by the SMS.

The intended purpose of the SMS, including its design, breadth and depth of content and type of indicators provided appeared to correspond well with the needs of the core specialised target groups. Therefore, in this sense, the SMS scores well in terms of its relevance.

However, in terms of its wider relevance and effectiveness, it is possible to critique the existing SMS from the perspective of a broader audience less familiar with Single Market policies, considering the possible barriers to interpreting the information provided.

Moreover, as specified by the Requests for Services, one can also examine the coherency and effectiveness of the existing indicators considering whether they meet standard of measuring Single Market policies from a causal perspective, and reflecting on whether the SMS provides indicators that correspond to the different types that measure discrete areas of the policy causal chain. These lines of enquiry are examined further in the following sections.

6.4.1 Overview of online user demand in 2019

To obtain insight into the overall level of user demand, an analysis of unique pageviews of the SMS across selected webpages was undertaken. Considering the web pages indicated in Table 5-2, in 2019 (Jan to Sept), 41,442 unique webpage views were reported, suggesting that the SMS has the role of providing key information to a sizeable user community.

This also has to be seen in the context of the accessibility of the Single Market Scoreboard, which is most easily accessed via web search. The prominence of the SMS on the Commission website is relatively low. For example, there are no direct links to it from the main DG GROW webpage summarising the Single Market and related initiatives, despite the website contain sections such as “Governance and monitoring of the Single Market” and “Tools and databases”. Nor are there links to the SMS from many of the various Governance tools it covers e.g. e-Certis, TRIS, EURES. An exception is for Public Procurement which has a link from the TED page and as a result delivers far higher web-traffic (see Table below). Once in the SMS, the next level up in the web structure takes you to the homepage of the European Commission (www.ec.europa.eu) not to other monitoring or selected assessments of the Single Market or the DG GROW homepage. This represents a missed opportunity to increase visibility, but one that is easily resolved.

Table 6-2 – Number of unique web page views 2019

Governance Tools	Number of unique pageviews⁶⁸	Policy Area	Number of unique pageviews	Integration and Market Openness	Number of unique pageviews
Performance by Governance Tool	971	Postal services	1,900	Integration and Market Openness Page	555
Single Market Governance Cycle	1,438	Collaborative Economy	502	Trade in Goods and Services	3,312
Transposition	3,706	Public procurement	8,539	FDI	2,895
Infringements	3,023	Professional Qualifications	1,208		
EU Pilot	2,504	Policy Area Page	759		
IMI	1,010				
CPC Network	2,106				
ECC Net	2,068				
e-Certis	1,010				
EURES	604				
Your Europe	211				
Your Europe Advice	213				
SOLVIT	1,110				
Total	21,722		12,908		6,762
Overall Total	41,442				

As reflected by the results, mostly, users seek information on the performance of public authorities that are monitored in the “Governance Tool” domain and also in the public procurement and professional qualification “Policy Areas”.

However, the areas monitored by contextual indicators such as the postal services and collaborative economy “Policy Areas” and the “Integration and Market Openness” area also received a sizeable number of unique page views, suggesting that all information made available is relevant to different types of users.

6.4.2 Strategic focus of the Single Market Scoreboard

The SMS performs well in terms of presenting relevant monitoring indicators on key single market policies that can be used to provide insights and help develop actionable recommendations. However, although less relevant to specialist existing users, there does seem to be a lack of a mention of a strategic vision of the Single Market; although the “Single Market Governance Cycle” does provide a summary of how the different “Governance Tools” fit into the policy making cycle, but of course, this does not mention the key role of the commercial and government sectors monitored under the “Policy Areas” section or the economic flows monitored under the “Integration and Market Openness” section.

A webpage on the strategic focus of the single market could perhaps be added to better describe the strategic linkages between the enforcement activities and role of authorities (now classified under the Governance Tools) and the impacts on the ground, measured in the context of the performance of commercial and government markets, economic flows and other dynamics. This would provide users with an idea of the direction of travel for the single market and the reasons why it is important for Member States to obtain positive indicator results. Similarly, other economic analyses have noted the cost of the barriers to the Single Market, for example in the services and digital services areas, highlighting the economic gains to be

⁶⁸ Unique page views is a term used in Web analytics to describe the number of visits that included a particular page. If a page was viewed multiple times during one visit, it is only counted once, so if the same IP address accesses the same web page many times, it still only counts as one unique pageview.

made if a combination of better enforcement of legislation, policies and removal of obstacles were introduced.^{69 70}

Hence, introducing the SMS as a monitoring tool of key single market policies that together support the realisation of a more competitive Europe could broaden its appeal, and provide an idea of the potential cumulative impact if all Member States obtained consistently positive results against key metrics.

6.4.3 Considerations around the SMS' role as a scoreboard

Evidently, the SMS is presented as a “scoreboard” with the rationale that any issues around Member State performance in the areas subject to monitoring can be flagged-up and responded to by targeted actions for reform. However, the SMS contains indicators that are more “scoreboard focused” than others, in the sense that the areas subject to monitoring can be readily responded to by well-focused recommendations by the Commission where needed, and in turn the MS have the powers to introduce reforms to align themselves with the requirements of single market policies. Good examples of these indicators fall under the “Governance Tools” area, where many of them monitor the performance of authorities in meeting their obligations.

For some context indicators, there is a lack of clarity on what the Commission and Member States should reform or improve if contextual measures are referred to only, for example, regarding measures of aggregate FDI performance or sector market size values (for example, population size has a significant impact on FDI performance).

Therefore, there seems to be a case for supplementing contextual indicators with relevant regulatory or enforcement type indicators to provide clarity to Member States that the logic of the scoreboard is to encourage actions in these areas e.g. market value indicators could be supplemented by indicators on the quality of the national regulatory framework. The collaborative economy webpage has adopted this approach to some degree already.

6.4.4 Clarity of the Single Market policies

As part of the gap analysis, the project team examined the clarity of the information provided. From the perspective of specialist users, the degree and type of information provided was considered as interpretable and it is unlikely that modifying the descriptive text would provide further benefits to this user group. However, as part of an upgrade to the SMS, if the intention is to promote the progress of the Single Market to a wider user audience, providing further clarity would be recommended.

To summarise, the main issues identified were that there is little information on “what the Single Market is and does” and the responsibilities of the European institutions and the Member States to ensure the effective and smooth functioning of the law and policy framework.

In addition, generally, clarifying the online text explaining the policies subject to monitoring in some areas would ease interpretation for non-specialists. Taking one example that would be difficult to interpret for non-specialists, the first sentence in the “About section” of the TRIS system is as follows:

“In the Single Market, quantitative restrictions on the movement of goods, and measures with an equivalent effect, are not allowed.”

Again, reviewing the text to ease interpretation would be helpful if the aim is to promote the SMS, or elements of it, to a wider audience.

6.4.5 Scope of the Single Market indicators

A further issue to consider is the scope of the indicators in the context of the logic of the single market. Typically, one would expect the indicators to measure the performance of a policy or

⁶⁹ Copenhagen Economics (2005) Economic Assessment of the Barriers to the Single Market for Services

⁷⁰ IMCO Committee (2019) Contribution to Growth: The European Digital Single Market

procedure that has the role of removing obstacles to free movement, solving problems in this context, enabling persons and companies to go cross-border or monitoring cross-border flows. In addition, some of the measures appear to measure trends at the national level, which provide context information. Some examples include:

- Postal services – “Domestic trend time performance”;
- Collaborative economy – “national market size measures”.

In both of the cases above, while cross-border trends or flows are not the subject of monitoring, useful information is still being provided of relevance to Single Market policies. As part of an upgrade to the SMS, given the logic of some of the policy areas under review e.g. circular economy, it may be relevant to include additional national measures or context indicators.

6.4.6 Potential gaps in the results chain of existing SMS indicators

By categorising the existing SMS indicators according to the results chain, Table 5-4 summarises the extent to which the existing SMS indicators “causally and significantly” monitor the effects of Single Market policies.

Table 6-3 – Types of indicators included in the SMS

Indicator	Percentage of indicators reviewed
Input indicators	4%
Process indicator	31%
Output indicator	20%
Result or outcome indicator	9%
Context indicator	21%
Counterfactual impact indicator	0%
Composite indicators	13%

Note: This includes indicators included in the performance and the facts and figures sections of the SMS.

The table shows that output indicators, which typically measure immediate outputs of a policy or initiative, are well represented in the existing SMS.

Input indicators were detected to a lower extent in the SMS. Such indicators typically provide information on the inputs to a policy, such as the type or quality of regulatory conditions, financing and human resources etc.

It also shows that the causal effects of Single Market policies in the scope of the SMS are not monitored. However, monitoring systems typically do not contain such indicators given that counterfactual approaches require significant financing and are normally conducted as part of standalone studies.

For example, the “cost of non-Europe” compares the performance of the Single Market to hypothetical scenarios that do not benefit from harmonised rules so that users of the SMS could obtain an overall idea of the gains made by the Single Market and the further gains that could be made via integration and good governance.⁷¹

Moreover, perhaps the proposed strategy for an upgraded SMS should not be too concerned about providing indicators that measure the causal effects of Single Market policies. The interviews have shown that government officials find the existing SMS indicators generally useful for monitoring purposes and that some more minor adaptations (such as more detailed breakdowns) and more qualitative analysis can help fill a gap related to the actionability of the information, and be used to develop recommendations and remedial actions aimed at

⁷¹ See the Centre for Prospective Studies and International Information (CEPII) study that uses a gravity model to examine the Single Market for Goods http://www.cepii.fr/PDF_PUB/wp/2018/wp2018-06.pdf

strengthening performance. By highlighting barriers more clearly and qualitatively, the actionability of the SMS can be improved e.g. by having a more detailed breakdown of directives, adding more qualitative information e.g. on barriers to transposition, or including the Services Trade Restrictiveness Index with an EEA focus. Thus, rather than focusing on the issue of measuring causality, perhaps the focus for an upgraded SMS should be on the relevance and practical usability of the indicators instead.

Finally, given the results indicated by Table 5-4, relatively few of the indicators correspond to output or result type indicators which are more desirable if one wishes to infer the causal effects of the policies. While some suggestions have been made below about scaling-up the number of these types of indicators, it may not be possible to do so considering data or financing constraints.

Some of the indicator types are considered in more detail below.

6.4.6.1 The SMS' results and outcome type indicators

While the causality of Single Market policies is not subject to monitoring academically speaking, the SMS does contain multiple results or outcome type indicators. As mentioned, these indicators are typically described as measuring the immediate results of a policy or intervention on its beneficiaries or target area.

The SMS' results and outcome types indicators were identified as being associated with the policies monitored in the "Governance Tools" areas also with respect to professional qualifications in the "Policy Area" section of the SMS. Examples of these indicators include:

Table 6-4 – Examples of SMS results type indicators

Area	Policy subject to monitoring	Indicator name
Governance tool	EURES	People who found a job with the help of a EURES advisor
Governance tool	Your Europe	Level of user satisfaction with Your Europe
Governance tool	Transposition monitoring	Transposition deficit
Governance tool	TRIS	Number of draft national technical regulations notified ⁷²
Governance tool	IMI	Efforts made as rated by counterparts
Policy Area	Professional Qualifications	Proportion of qualification recognition decisions that are positive

The indicators categorised as result or outcome type indicators tended to be associated with the outcomes for citizens or business that had engaged with Single Market policies e.g. EURES, or were the outcomes of procedures that had role in determining the effective design or implementation of Single Market legislation e.g. Transposition monitoring, TRIS. With investment, opportunities exist to scale-up the number of results indicators.

Many of the legal areas subject to reporting in the SMS are linked to users (citizens or businesses) that have received some type of information support or assistance service e.g. SOLVIT, EURES, Your Europe, Your Europe Advice, professional qualifications contact points, ECC-net, Points of Single Contact. The current indicators are associated with performance of the services e.g. time to respond.

In terms of gaps, there is scope for conducting greater qualitative analysis of the different issues raised by citizens and business via the abovementioned tools to identify potential barriers to Single Market Integration and, for example, to compare this to regulations, directives and their application in Member States, for example related to the implementation

⁷² The withdrawal of a notification may be for technical reasons. This indicator does not therefore correlate to any result of the TRIS notification process.

of the Services Directive. Such analysis is difficult to present in indicator form but could be part of regular follow-up at Commission or Member State level.

For some governance tools like SOLVIT and CPC Net, the categorisation of the case according to whether it has gone in favour or not for the applicant is not reported in the SMS. For SOLVIT, the SMS currently includes reported cases that are solved and unresolved.⁷³ Considering that the purpose of these tools is to ensure that EU rules are applied correctly, a specific categorisation based on the outcome for the applicant cannot show how Single Market policies are functioning. Nevertheless, the categorisation of cases where the outcome was not in favour of the applicant because EU rules were applied correctly but the applicant did not have the correct information or did not actually have a right could be reported. This would show gaps in EU law or lack of information related to Single Market policies.

6.4.6.2 Context indicators

The SMS provides several context indicators that measure flows and market dynamics associated with the Single Market, examples of which are indicated in Table 5-5.

Table 6-5 – Examples of the SMS' context type indicators

Area	Policy subject to monitoring	Indicator name
Integration and market openness	Trade in goods and services	EU trade integration in goods
Integration and market openness	Trade in goods and services	EU trade integration in services
Integration and market openness	FDI	Change in inward intra-EU FDI flows
Policy Area	Collaborative economy	Revenues of the collaborative economy as a % GDP

As reported by the SMS' web analytics listed in section 5.4.1, the number of unique web page views to these webpages is quite significant suggesting that they do provide useful information to users.

Therefore, as part of possible upgrade to the SMS, context indicators could still be useful particularly where the new area suggested for monitoring relates to (cross-border) business markets – supported by data broken down by sector. However, as mentioned already, combining such measures with complementary indicators that measure policies and laws that can be subject to reforms will provide the opportunity to develop targeted recommendations for action.

6.4.6.3 Process indicators

The largest proportion of indicators made available by the SMS are process type indicators; these typically monitor the scale of the case flow and efficiency of the procedures managed by public authorities, examples are included in Table 5-8.

Table 6-6 – Examples of the SMS' process type indicators

Area	Policy subject to monitoring	Indicator name
Governance tools	EU Pilot	Number of cases opened

⁷³ Solved cases include if the misapplication of EU law was corrected or there was no misapplication of EU law in the first place. Unresolved cases are if the misapplication of EU law was not corrected.

Area	Policy subject to monitoring	Indicator name
Governance tools	Your Europe	Number of website visits
Governance tools	Your Europe Advice	Service efficiency
Governance tools	IMI	Requests answered by the date agreed in the IMI (%)

While not providing information about the causality of Single Market policies, from a management perspective, they are useful in clarifying the level of demand for a given policy or service, and the efficiency with which authorities deal with requests for support made by citizens and business etc.

There does, however, appear to be gaps in this respect. For example, measures of case management efficiency are not provided by the ECC Net and professional qualifications, although such data may not be easily available. As part of an upgrade to the scoreboard, such indicators would continue to be relevant, considering that clear Member State benchmarking is provided by such measures.

6.4.7 New indicators and data-sources

There could also be a rationale for extending the scope of some monitoring activities to fill gaps.

Based on the review of the SMS and various interviews, several new indicators and data-sources can be proposed to strengthen the existing SMS governance tools and policy areas. For example, it was suggested by some national authorities that rather than focusing solely on the transposition deficit and infringement proceedings when reporting on the implementation of single market legislation, there should be an extension to include improving the effectiveness of the application of existing single market legislation at the level of implementation, including by strengthening reporting on market surveillance and enforcement activities as a proxy for making progress in this area. A Single Market perspective could also potentially be reinforced in some sections e.g. *cross-border* public procurement or extending the postal services policy area to include (cross-border) parcel delivery, the latter helping to modernise the indicators in line with the rise of e-commerce, where parcels make up an increasing share of postal services.

Some further examples are given in Table 5-7.

Table 6-7 – Examples of suggested new indicators in the areas covered by the existing SMS

Area	Suggested new indicator	Data source	Type of indicator
Governance tools	Transposition deficit statistics disaggregated across the four freedoms (possibly also thematically) <i>This would allow for better interpretation of the data as to where progress is being made, where there are greater implementation difficulties.</i>	Transposition database deficit	Result
Governance tools	The number of pieces of single market legislation where gold-plating has taken place at national level	New data source	Input, Context
Governance tools	Infringement proceedings statistics (disaggregated across the four freedoms, (possibly also thematically))	Infringement proceedings database	Result

Area	Suggested new indicator	Data source	Type of indicator
	<i>This would allow for better interpretation of the data as to where progress is being made, where there are greater implementation difficulties.</i>		
Governance tools / e-Certis	The number of e-Certis users; the number of downloads of pieces of evidence. Use of the European Single Procurement document e.g. # of ESPD provided, % of evidence or samples that are ESPD.	e-Certis / ESPD	Process
Governance tools / EURES	The number of people that are (job-) mobile, Erasmus+ mobility, as well as possible indicators on restrictions of movement e.g. qualitative indicator on remaining restrictions.	EULFS, Population data, Erasmus+, Your Europe Advice	Input, Context
Policy area / Public Procurement	Value/share of cross-border procurement Extent to which procurement rules have been harmonised across Member States (in national legislation)	TED online portal Qualitative analysis	Input, Context
Policy area / Postal services	Cross-border domestic price comparison in the parcel segment (<2kg). Volume and % change in cross-border parcel delivery (subject to availability and quality). Market performance indicator on consumer perceptions of postal services	DG GROW postal data / Consumer markets Scoreboard	Result, Context
Policy area/ environment	The % of products that have used the Green Public Procurement criteria	DG ENV studies on GPP	Result

However, it is necessary to set the above analysis in context, as it may not always be possible to integrate additional indicators within the existing SMS, even if theoretically it could make sense to do so, due to the absence of available data and sufficiently frequent data collection to make it worthwhile.

For example, there is currently no indicator on cross-border procurement, which would arguably be a much stronger single market-focused indicator. However, the feedback from policy makers as to why this is not included is that there is not much information on cross-border procurement because direct procurement is very low. Direct procurement tends to be dominated by national service providers in the EU and most cross-border procurement is difficult to measure directly only indirectly through subsidiaries. This data is however difficult to obtain and only using an external contractor to perform the analysis). This means that cross-border indicators would be difficult to include in the Scoreboard for the moment.

Whilst the focus of the study has been on the identification of new policy areas that could be added to the SMS, a number of interviewees suggested that there could also be scope to introduce new indicators to strengthen governance. An example was the suggestion made by a national authority that there should be a greater focus not only on transposition and infringement proceedings, which relate to the earlier stages of monitoring regulatory implementation of single market legislation across the four freedoms, but a much greater focus on monitoring the actual effective application of single market legislation. In particular, reference was made to the idea of monitoring levels of compliance among economic operators and also process and output/ results indicators relating to the activities of market surveillance activities in relation to market surveillance and enforcement.

Examples of such indicators are provided below. This would imply the creation of an aggregate indicator on the functioning of the single market that would collect data from different sources e.g. SOLVIT, EU PILOT, infringements, market surveillance authorities, etc. An analysis could be performed at MS level, per legal area and/or to produce a complete picture of the application

of single market legislation. Note that some of the proposals below call for specific studies, qualitative analysis or in-depth investigation by the relevant services, while for others, the feasibility of the indicator would need to be verified before reaching a recommendation in the final report for this study.

Table 6-8 - Example of a possible aggregate indicator to monitor the effective application and enforcement of single market legislation in the area of goods

Area	Suggested new indicator	Data source	Type of indicator
Effective application and enforcement of single market legislation.	Number of requests made by MSAs for information from economic operators regarding products (e.g. <i>requesting evidence relating to the Declaration of Conformity, Technical File to support the DoC etc.</i>)	Market surveillance authorities (MSAs)	Process
Effective application and enforcement of single market legislation.	Number of letters sent to economic operators by Market Surveillance authorities regarding non-conformity	MSAs	Output
Effective application and enforcement of single market legislation.	Number of successful legal cases regarding instances of non-conformity by economic operators	MSAs	Result
Effective application and enforcement of single market legislation.	Number of products withdrawn from the Single Market <i>Note - following action by MSAs for non-compliance with single market legislation</i>	Safety Gate database Market surveillance authorities	Result
Effective application and enforcement of single market legislation.	% (estimated) level of compliance for specific pieces of single market legislation Once data collected, the % change over time (annually, or bi-annually)	Interviews and / or survey data with MSAs to estimate compliance levels Evaluation studies	Impact, context
Effective application and enforcement of single market legislation.	Qualitative analysis of progress made in strengthening the effectiveness of market surveillance and enforcement activities relating to single market legislation. Reporting and analysis could be structured across the 4 freedoms. This could involve an annual, or bi-annual evaluation study, supported by the quantitative data mentioned above.	A survey of users would need to be financed, no data-source currently.	Result, impact

Reference should be made here to Section 6.1 – legislative lifecycle approach, which moves beyond the gaps identified above and provides a more detailed explanation of the rationale for extending the monitoring of single market implementation beyond the initial stages of legal implementation (i.e. the focus in the SMS on the transposition and conformity deficits and infringements proceedings).

7. Introducing new indicators and supporting case studies

7.1 Introduction to the case studies

Based on the gap analysis, this section introduces possible new indicators for the SMS, covering the Single Market dimension of additional policy areas and including indicators from the perspective of business and citizens. This should aim to give a picture of the obstacles and difficulties citizens and business are facing. The indicators defined need to be relevant, as well as causally and significantly linked to single market policies demonstrating the real effect of those policies.

The process of defining new indicators has involved the following steps:

1. **Responding to the needs of end users:** the appropriate aspects of the consultation feedback and needs has been considered and integrated into the process to define new indicators;
2. **Making links** between the results in Section 3 around possible tools/datasets and the Single Market intervention logic and relevant policy areas to determine the possibilities for indicator definition;
3. **Indicator concept exploration:** investigate the specific elements of the policies that can be measured using the tools/datasets reviewed including new types of (user perspective) indicators, and measures to monitor the four freedoms, but also examining if the existing SMS indicators can be improved, considering the methods to be employed;
4. **Indicator concept validation** considering whether the selected variable alone is sufficient, if a derived indicator should be developed or if a composite indicator could be appropriate;⁷⁴
5. **Data analysis of selected indicators:** for selected indicators, analyse and test possible indicators and related methods, plus visualisations, demonstrating the indicators that would add significant value in meeting the needs of SMS end users.
6. **Consideration of the extent to which** the number of indicators to assess strategic single market performance could be expanded so as to be able to assess the impact of particular policies and pieces of legislation to overcome barriers to the full and effectively functioning single market.

For pragmatic reasons, linked to the acceptability of data and the future manageability of the SMS, we have concentrated our attention on data sources and indicators that already exist. However, in some cases, further derivation of indicators is necessary, for example by combining different variables or categorising performance levels. Some indicators have already been introduced in early sections. Moreover, the recommended indicators for an upgraded SMS will be outlined in Section 8. Therefore, to avoid repetition, this section focuses on selected (policy) areas through a series of examples. These include the following and are presented in [Annex 8](#):

- Example 1: Legislative lifecycle approach
- Example 2: Consumer protection
- Example 3: Green Single Market

⁷⁴ As suggested by the briefing report to the EP IMCO committee 'Towards Indicators for Measuring the Performance of the Single Market', a single composite indicator to measure the internal market performance at a high level across economic and regulatory areas is likely not to produce an insightful measure of performance. However, the upgraded SMS could contain already 'accepted' composite indicators in specific sub-areas of policy, if appropriate.

- Example 4: Citizen journey for a European job-seeker
- Example 5: Challenges in measuring and assessing Capital Markets Union implementation
- Example 6: The Single Market for Services - Air Transport
- Example 7: UCITS
- Example 7: The Your Europe website and transition to a Single Digital Gateway (SDG) 2.0

The purpose of the detailed case study examples is to highlight what could be possible in terms of modernisation of the SMS, but also in the case of some case study examples to showcase some of the difficulties involved in measuring and monitoring SM implementation directly, as there can be in some policy areas a strong reliance on context indicators (e.g. the CMU).

Three selected case studies are now provided, the first on a legislative lifecycle approach, the second on consumer protection and the third dealing with air transport services. Reference should be made to Annex 8 for the full set of case studies.

7.2 Legislative lifecycle approach - case study example

This first case study presents a shortened version of the full case study in Annex 8.

The gap analysis identified the absence of a **legislative lifecycle approach** to monitoring and reporting on the implementation of single market legislation, especially in the area of enforcement. However, some progress is being made as regards reporting qualitatively on outstanding barriers and enforcement issues, for instance, through the publication of a new Commission Communication, the Single Market Barriers and Enforcement Action Plan, adopted on 10 March 2020.⁷⁵

As noted earlier in Section 5, the SMS currently focuses on monitoring and reporting on transposition and infringements proceedings, for instance through the transposition deficit (the gap between the number of Single Market directives adopted by the EU and those transposed in Member States) and the conformity deficit (the percentage of those directives incorrectly transposed).

New indicators could potentially be introduced to monitor and report on aspects of single market legal implementation further downstream in the SMS, for instance in respect of monitoring and enforcement activity by Market Surveillance Authorities (MSAs) and technical standards.

Table 7-1 – New indicators – demonstrating a legislative lifecycle approach

Stage in single market legal implementation	Indicators (schematic with some details)	What the indicators indicate	In existing SMS?	Source
Adoption and publication of legislation	<ul style="list-style-type: none"> Number of Directives adopted (annually/annual/aggregate) total Number of Regulations adopted (annually/total) 	<ul style="list-style-type: none"> Basic output info about Directives and Regulations Shed light on overall volume of SM legislation 	• No	EC DGs EUR-LEX

⁷⁵ Identifying and addressing barriers to the Single Market (SWD(2020) 54 final), COM(2020) 93 final
https://ec.europa.eu/info/sites/info/files/communication-eu-single-market-barriers-march-2020_en.pdf

Stage in single market legal implementation	Indicators (schematic with some details)	What the indicators indicate	In existing SMS?	Source
	annual/ total aggregate)			
National transposition processes (Directive only)	<ul style="list-style-type: none"> • Transposition deficit. • Conformity deficit. • Infringement proceedings. • Implementation of Directives (transposition and conformity deficit) 	<ul style="list-style-type: none"> • Provides overview of initial implementation of SM legislation • Transposition deficit - gap between the number of Single Market directives adopted by the EU and those transposed in Member States. • Conformity deficit - The percentage of those directives incorrectly transposed. • Infringement proceedings shed light on how often the EC has taken legal action against MS for non-implementation and/ or incorrect implementation. Also disaggregated data by type of legislation / sector. 	<ul style="list-style-type: none"> • Partially 	Existing SMS
Development of Harmonised Technical Standards	<ul style="list-style-type: none"> • Number of Harmonised Technical Standards (per piece of legislation) proposed • Number of Harmonised Technical Standards (per piece of legislation) adopted 	<ul style="list-style-type: none"> • Technical standards are vital to the full and effective implementation of SM legislation, as in many areas (e.g. industrial product legislation), it isn't feasible for economic operators to comply with the law without standards (else they face considerable additional costs in having to use a third party notified body). • Evaluations of individual pieces of legislation (especially technically demanding industrial product legislation) suggest that when Directives / Regulations are revised and updated, there can be considerable bottlenecks in standards development processes. Monitoring this could add value by focusing further downstream on implementation challenges than the existing SMS 	<ul style="list-style-type: none"> • No 	ESOs (e.g. CEN, CENELEC and ETSI)
Monitoring and enforcement activities by MSAs	<ul style="list-style-type: none"> • Number of notifications by product category 	<ul style="list-style-type: none"> • Monitoring enforcement actions by MSAs could allow a focus further downstream on implementation 	<ul style="list-style-type: none"> • No 	Rapex database ICSMS could be included

Stage in single market legal implementation	Indicators (schematic with some details)	What the indicators indicate	In existing SMS?	Source
	<ul style="list-style-type: none"> Number of follow up actions of existing notifications by authorities in other Member States Number of joint action market surveillance programmes 	challenges compared with the existing SMS.		
Legal implementation reports by the Commission Monitoring and evaluation of legal implementation by Commission and external consultants	<ul style="list-style-type: none"> Qualitative assessment of application of the legislation Data on transposition and infringements 	<ul style="list-style-type: none"> Although later in the legislative implementation cycle, legal implementation reports contain data already available in the SMS relating to the application of the legislation (e.g. transposition, conformity assessment and infringements). Evaluations of individual pieces of legislation ought to provide useful information on how effective implementation has been, any problems relating to compliance levels, bottlenecks in development of standards, etc. 	<ul style="list-style-type: none"> No 	European Commission Relevant DGs Evaluations and impact assessments by external consultants for the EC
Review of individual pieces of SM legislation and potential revisions / codification of legislation	<ul style="list-style-type: none"> Qualitative assessment of application of individual legislation by the EC 	<ul style="list-style-type: none"> Legislative review is an ongoing process, influenced by quantitative data on the initial stages of implementation (transposition, conformity, infringements), but also qualitative assessment and review by the EC to check fitness for purpose and consider revisions through recast directives and regulations 	<ul style="list-style-type: none"> No 	European Commission Relevant DGs
Review of the collective body of SM legislation	Qualitative and quantitative assessment of implementation of different types of SM legislation	<ul style="list-style-type: none"> Stocktaking of progress across the body of SM legislation by type Review of outstanding legal barriers to implementation. Qualitative assessment could be provided (e.g. in annual report on state of implementation of the SM regarding the implementation of SM legislation. A thematic approach could be adopted to analyse the effectiveness of the 	No	European Commission Relevant DGs Possible support from external consultants (e.g. through evaluations/studies)

Stage in single market legal implementation	Indicators (schematic with some details)	What the indicators indicate	In existing SMS?	Source
		implementation of SM legislation by type (e.g. industrial product legislation, environmental legislation horizontal legislation, other).		

There is scope for the Commission to make use of existing evaluative information on the implementation of SM legislation gathered by reporting activities that fall under the Better Regulation agenda. Much of this research has the aim of evaluating the extent of the harmonised implementation of SM rules, with a view to identifying obstacles to good enforcement, national practices that support effective application of the legislation, and the quality of the experiences of business and citizens in accessing opportunities cross-border as legally intended. These analyses often map the approaches taken per Member State, highlighting the extent of the good implementation, their relative strengths, commonalities, differences etc.

7.3 Consumer protection - case study example

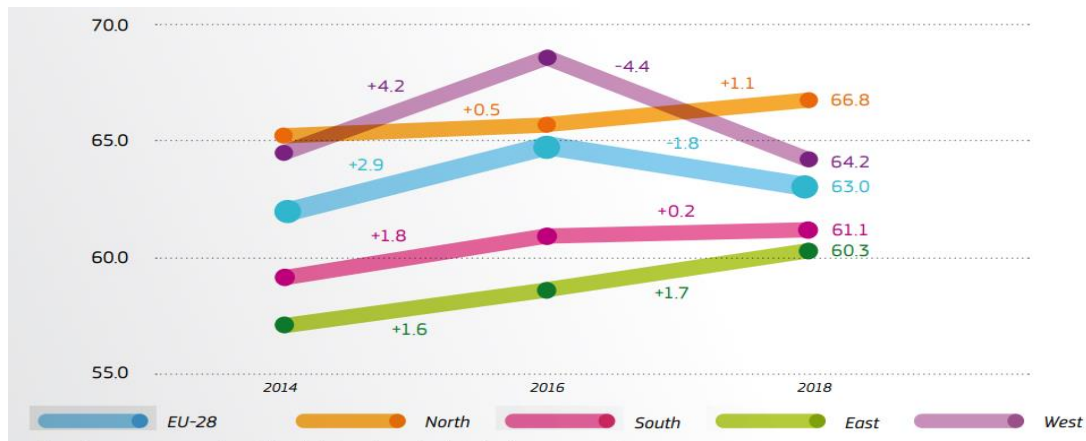
This example, concerning consumer protection, includes a variety of different indicators comprising both the consumer and business perspectives, context level indicators to highlight progress (or lack of progress) and actual areas of complaints (see Table 6-2). This set of indicators gives a picture of strategic level performance and actionable areas for improvement. An analysis of these indicators may also be strengthened by looking at sector or policy area breakdowns, for example from the Consumer Markets Scoreboard alongside other indicators in the SMS, such as services restrictiveness, notifications regarding products, or issues related to standardisation or transposition of directives. Selected trends from these indicators are shown in Figures 6-1 to 6-4, highlighting slightly declining consumer conditions in the EU overall, large increases in problems faced by consumers when buying online from other EU countries (pointing to difficulties in Single Market implementation), varying retailer perceptions regarding how easy it is to comply with consumer legislation depending on whether it is cross-border or domestic and service markets which are relatively poorly performing.

For example, the choice and comparability dimensions of the Market Performance Indicator are particularly relevant from a single market perspective, where directives have opened markets (choice) and encouraged transparency (comparability). Market performance can be further broken down by sector and country.

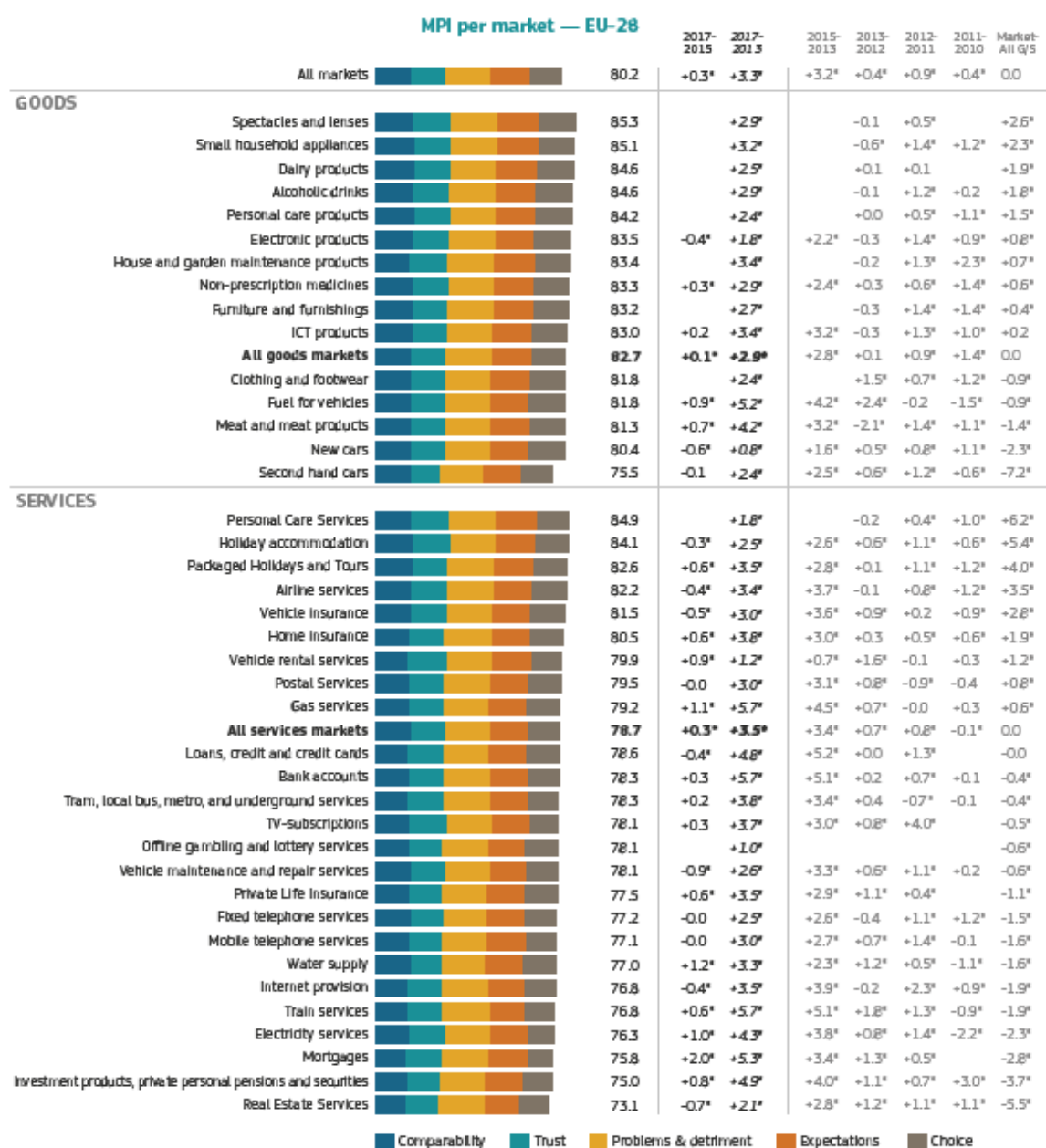
Table 7-2 – Indicators for Single Market performance in consumer protection

Policy Area	Data source	Indicator	Type of indicator
Consumer Protection	Consumer Conditions Scoreboard	Consumer Conditions Index — overall indicator	Composite
		Consumers experiencing problems when trying to buy online from retailers in other EU countries (% of consumers), by country, 2016	Output
	Consumer Market Scoreboard	Market Performance Indicator (broken down by country and sector, or per market cluster).	Composite
		Ease of switching provider by country and market cluster	Result
	ECC Database	Complaint Topics by Area of EU law (% of all complaints) (for multiple areas)	Output

Figure 7.1 – Change in the Consumer Conditions Index across different regions of the EU, 2014-2018



Source: Consumer Conditions Scoreboard, 2019

Figure 7.2 – Ranking of markets based on the Market Performance Indicator, EU-28, 2017

Source: Consumer Markets Scoreboard, 2018

7.4 The Single Market for Services - Air Transport - case study example

This final example focuses on air transport services.

Three main indicators are used here to understand the consumer perspective for Air Transport services and the barriers to improved performance in this services sector. Currently, they are not part of the SMS, although infringements in air transport (of which there are many) are presented in the sector overview under the infringements webpage. Instead they are presented on the DG MOVE EU Transport Scoreboard, and restrictiveness is presented in the OECD STRI database. They are relevant to both the legislation (the data to be provided by

Member State is detailed in the Implementing Regulation) and to the Single Market since the indicators signal barriers to competition underlined by the infringements and OECD data.

Table 7-3 - Indicators for Single Market performance in air transport services

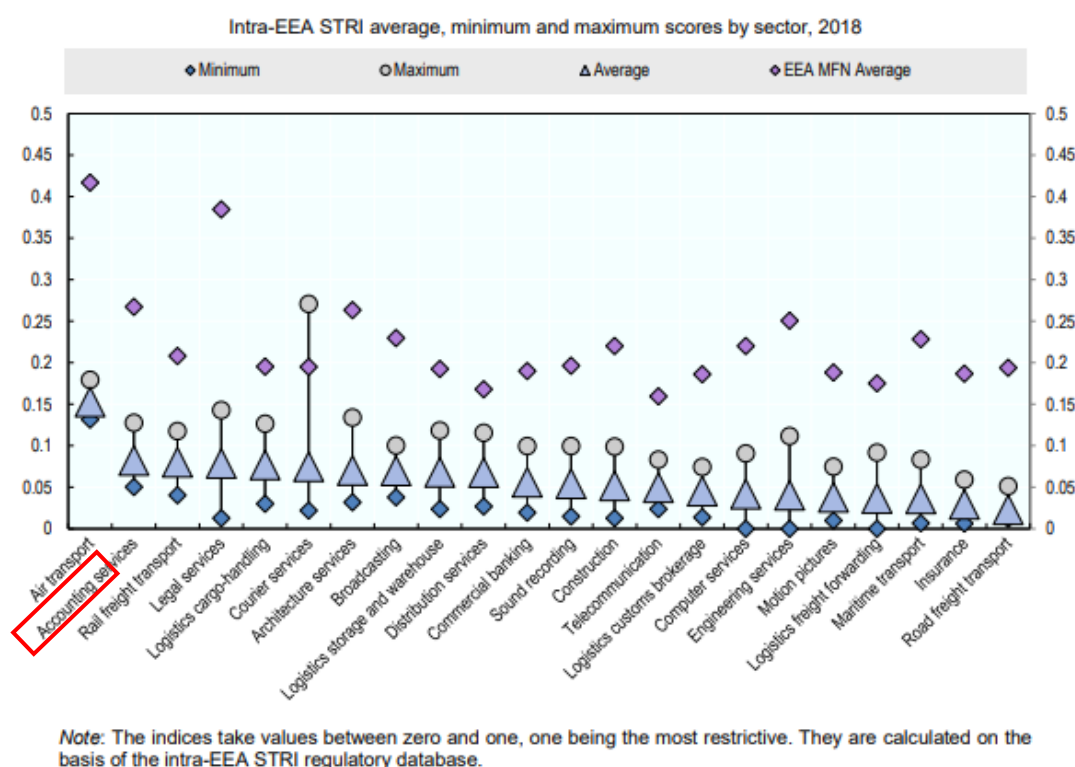
Indicator	Data source	Latest data	Perspective
Pending infringements – Air	Single Market Scoreboard, European Commission, DG GROW / EU transport Scoreboard, European Commission, DG MOVE.	2018	Barrier to single market
Trade restrictiveness - Air transport services	Intra-EEA services trade restrictiveness indicator, OECD.	2018	Barrier to single market
Consumer satisfaction with air transport – Market Performance Indicator	Consumer Market Scoreboard (based on the 2017 Market Monitoring Survey).	2017	Consumer

The intra-EEA Services Trade Restrictiveness Index identifies and catalogues which policy measures restrict trade within the European Economic Area (EEA) for 25 OECD EU member countries. It complements the existing STRI, which quantifies multilateral services trade restrictiveness. The STRI takes values between zero and one, with one being the most restrictive. The intra-EEA STRI database draws on European-level sources, including the Treaty on the Functioning of the European Union along with regulations and directives. It also draws on information concerning domestic regulation and trade barriers from each country's STRI database. The STRI organises the information per country and sector into five policy categories: restrictions on foreign entry; restrictions to the movement of people; other discriminatory measures; barriers to competition and regulatory transparency.

As the Figure below shows, the trade restrictiveness in the air transport sector is higher than all the other service sectors considered in the STRI database, with an average score of 0.15. There is likely some overestimation of this restrictiveness since, even though liberalisation of international air transport between member countries has been one of the main features of the European Single Aviation Market, market access for cross-border air transport is not taken into account for the STRI because of limited data availability on the content of bilateral agreements.⁷⁶

As mentioned earlier, Annex 8 contains four further case studies highlighting new areas that could potentially be integrated into the SMS, which provide scope for new indicators to be covered through an expanded SMS.

⁷⁶ Benz, S. and Gonzales, F. (2019), Intra-EEA STRI Database: Methodology and Results, OECD Trade Policy Papers, No. 223, OECD Publishing, Paris, p.12, <https://doi.org/10.1787/2aac6d21-en>

Figure 7.3: Intra-EEA STRI sector profiles

Source: *Intra-EEA STRI database, OECD, 2018.*

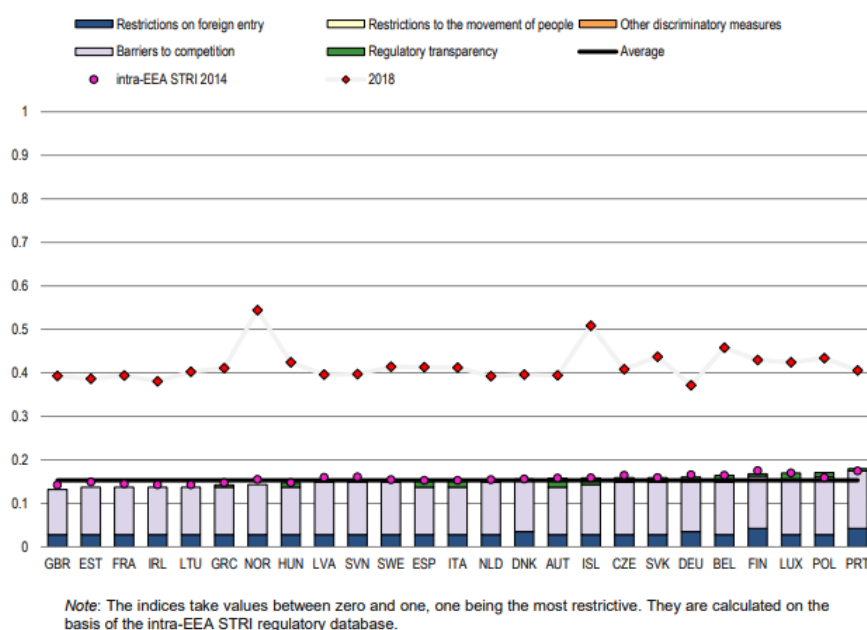
The small difference between the minimum, maximum and average scores in the air transport sector demonstrate that there is high regulatory homogeneity among the 25 EEA countries considered, or in other words there is a relatively level playing field.

In including the average most favoured nation STRI, the chart also outlines a hypothetical counterfactual, which shows that restrictiveness in air transport services would be much higher in the absence of the Single Market at around 0.42.⁷⁷

Figure 6-7 shows that in the air transport sector, the remaining restrictions within the Single Market are mainly related to restricting foreign entry and barriers to competition. For example, regarding foreign entry, an authorisation is required for lease of aircraft in all EEA countries and the investment in publicly-controlled firms are limited in Finland and Portugal. Regarding barriers to competition, air carriers are allowed to retain allocated slots from one season to the next and air carrier alliances are exempt from competition law in all EEA countries. Moreover, restrictive schedules for airport use exist at major airports in ten countries.⁷⁸

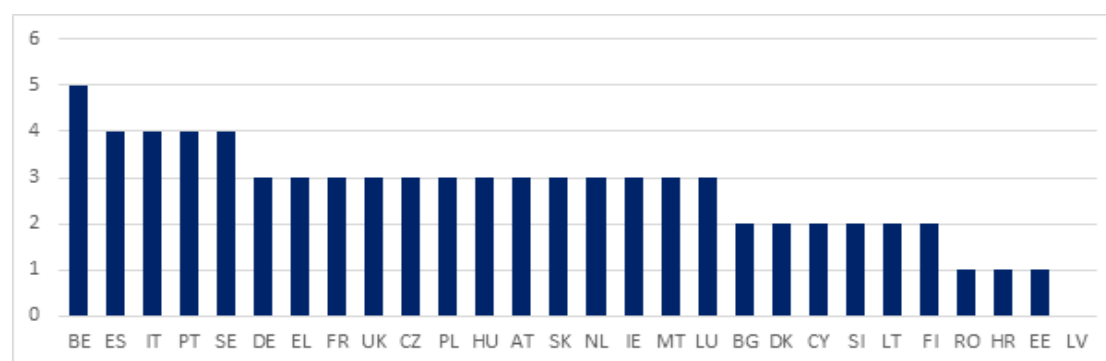
⁷⁷ Ibid, p.7

⁷⁸ Ibid, p.16

Figure 7.4: Intra-EEA restrictions and barriers in air transport services, 2018

Source: Intra-EEA STRI database, OECD, 2018.

The infringements section of the SMS underlines that the air transport sector had the highest number of pending infringement cases at the end of 2018, with 75 cases across the EU-27. Belgium, Spain, Italy, Portugal and Sweden all had four or more infringement proceedings against them which could be because of late transposition, incorrect application of the directives, incorrect application of treaty articles, regulations or decisions or non-conformity of transposition. The SMS provides overall indicators regarding reasons for the delay, but it is not possible to see the reasons per sector of country.

Figure 7.5: Number of pending infringement proceedings – air transport

Source: Single Market Scoreboard, infringements.

A detailed follow-up regarding the pending infringement proceedings by country or by sector could allow further remedial action to be taken with Member States in order to reduce barriers in the application of Single Market legislation.

The third indicator source is the Market Performance Indicator (MPI) from the Consumer Markets Scoreboard (CMS). As the latest CMS using 2017 data shows, the overall MPI score for the “Airline services” market is 82.2 at the EU28 level, which is higher than the services markets average (+3.5). This makes it a high performing services market.⁷⁹

⁷⁹ Consumer Market Scoreboard, as presented in ‘Monitoring consumer markets in the European Union’, 2017.

8. Recommended indicators for an upgraded SMS

8.1 Relevance of the indicators relevant to an upgraded SMS

Reflecting on the relevance of the proposed indicators to support the transition to an upgraded SMS, we considered whether:

- It is relevant to upgrade the SMS to incorporate new policy areas and context indicators reporting on strategic areas of progress in single market implementation beyond its existing focus;
- Whether the new policy areas suggested for monitoring are relevant to the EU, Member States and to other relevant stakeholders;
- It is feasible to summarise the performance of the Single Market through a “high-level score board” consisting of headline indicators; and
- If the data-sets suggested are relevant to supporting the monitoring of the new policy areas identified.

Relevance of the SMS upgrade to new policy areas and context indicators

With respect to the existing SMS, as the current focus is on monitoring policies that provide single market governance tools, coverage of other strategic Single Market policies is partial. The following shortlisted indicators proposed by the study which correspond thematically to EU policy objectives, but considering the outcomes measured, should be considered as context indicators as the results are impacted by multiple policies and trends and not only single market policies:

- Consumer protection: the propensity of consumers to order online goods or services supplied cross-border;
- Digital economy: 4G mobile broadband coverage and future 5G coverage;
- Circular economy: Recycling’s contribution to meeting materials demand.

Clearly, there are many strategic single market policies where direct causality and attribution are difficult to ascertain as EU policy and regulatory interventions are only one dimension that could influence the outcome e.g. clearly migration of EU citizens/workers to other EU countries would occur in the absence of the Single Market under national migration procedures but measuring intra-EU migration overall is relevant to learning the extent to which EU citizens are taking advantage of their existing right to free-movement and are benefiting from streamlined migration processes.

Nevertheless, undertaking monitoring and reporting through greater use of context indicators could still be useful, as this would shed light on progress being made across a broader range of EU policies than at present and highlight the economic and social benefits of the single market for European citizens and businesses.

Relevance of the new policy areas suggested for monitoring to the EU, Member States and wider stakeholders, and recommendation for adoption of a “high level scoreboard”

1. Highly prioritised policy agendas such as the DSM (digital transformation) and the Environment (e.g. Green Deal);
2. “Classic” areas of the single market that are partly or not monitored by the SMS currently, such as governance arrangements and contextual trends linked to the four freedoms including free movement of products, services and network markets, free movement of capital and financial services, and free movement of people;

3. (Sub)policy areas that have a role of strengthening the position of citizens, business and other users vis-à-vis the single market such as regulatory simplification, mobility policies, consumer policy, R&D and social policy;
4. Areas of the legislative enforcement lifecycle not covered by the existing SMS with a focus on practical implementation elements of EU legislation critical to the smooth cross-border functioning of the single market (and not transposition and infringements procedures which are currently covered).

All the policy areas suggested for monitoring were found to be of at least some relevance. However, only twelve new policy areas were subsequently shortlisted. Even after the exclusion of some sub-policy areas and the filtering of indicators, the final list of shortlisted indicators extended to 115 new indicators that could potentially be integrated within the SMS out of a total of 220 identified in the final longlist. Please see the New Policy Areas scoreboard mapping tool in Excel and the list of indicators shortlisted and considered but subsequently not included as part of the selection of a longlist of indicators in Annex 4.

Given the large number of policy areas and indicators shortlisted, please note that we have recommended the Commission to adopt a “high-level” scoreboard consisting of several (sub)policy areas connected to the four freedoms and implementation of single market legislation. The “high level” scoreboard contains 26 indicators and has a focus on measuring (sub)policy areas that are central to supporting integration in the single market.

The benefit of upgrading the SMS to the “high level” scoreboard is to enable users to efficiently obtain a broad overview of the performance of the single market across multiple dimensions, and to ease communication of the positive role of the single market across very different (sub)policy areas. Moreover, its suggested adoption is to ensure manageability in terms of the initial development of new webpages to present the information and also the ongoing gathering data of and reporting.

However, the shortlist of 13 policy areas and 115 indicators has been provided to offer the Commission some flexibility if the intention is to upgrade the SMS to additional or alternative (sub)policy areas and indicators than those contained in the high-level scoreboard.

- As mentioned, the Commission is recommended to adopt a high-level scoreboard consisting mainly of monitoring of the four freedoms in the context of several (sub)policy areas to provide a succinct overview of performance of the single market in key areas summarised as follows:
 - **Implementation of single market legislation:** a series of indicators relating to the practical implement of EU law combining existing and new indicators e.g. number of regulations adopted (EUR-LEX), ease of using the Single Digital Gateway using website analytics;
 - **Free movement of Goods and Services:** several indicators measuring consumer confidence in cross-border sales, business sector regulatory restrictiveness and intra-EU trade in specific sectors;
 - **Free movement of capital:** including several FDI measures and a composite measure on the integration of European capital markets;
 - **Free movement of people:** covering measures of macro levels trends across the Single Market, analysis of barriers and indicators on mobility tools;
 - **Green single market:** providing indicators relating to resource and energy efficiency;
 - **Economic integration:** an indicator is provided on price convergence, and other indicators relevant to the European Semester reporting in the annual Single Market Performance Report are integrating into other new policy areas (e.g. services markets, such as energy markets);

As regards data availability, taking the **research and innovation** policy domain as an example, in the European Innovation Scoreboard, Eurostat data, and other sources, data is already available on many indicators which could shed light on the implementation of the European Research Area (ERA). Various ERA Communications make clear that the ERA is an important part of the Single Market.

- However, considering that strategic choices regarding indicator selection for the upgraded SMS need to be made, many of the existing indicators focus on national level contextual data, e.g. no. of students completing tertiary education, with no cross-border dimension across the majority, with the exception of the mobility of researchers. This raises the issue as to whether it is appropriate to include a few selected indicators to shed light on particular issues e.g. intra-EU researcher mobility, exports of knowledge-based services and innovation, etc. or whether all the ERA indicators should be included as these are all considered to be part of assessing convergence within the ERA? Our view in shortlisting these indicators is that to keep the SMS manageable, only selected indicator should be selected.
- Measuring progress towards the goals of the Capital Markets Union (CMU) could include contextual indicators relating to cross-border capital flows by type of financial instrument. However, although the Commission has supported some specific initiatives at EU level that influence the outcome, e.g. setting up a pan-European Venture Capital Fund-of-Funds, a regulation to promote the development of crowdfunding on a more pan-European basis, capital flows are evidently influenced by many other exogenous factors. Moreover, if one financial instrument, say venture capital, is included in monitoring, this implies that all types of finance should be monitored (e.g. business angels, loans, VC, crowdfunding).
- This may be further complicated by the fact that for some financial instruments, national and EU aggregate level data is available but not cross-border. This may raise coherence issues if data on cross-border capital flows is presented for some financial instruments but not others. This would be driven by data availability considerations but may appear to be inconsistent to the external world. Again, this raises an issue around the manageability and the proportionality of indicators in the future SMS. Our view here is that it will be essential to have DG FISMA on board before reporting on cross-border capital flows by financial instruments. However, a composite indicator on cross-border capital flows such as that developed by AFME could be useful to consider.

Relevance of the indicators shortlisted in formulating action-based recommendations

To ensure the SMS's continuing relevance to existing and new user groups, the 115 final set of shortlisted indicators have a focus on monitoring the performance of areas that can be strengthened through actionable recommendations even if they provide monitoring of either governance functions or contextual dynamics. The idea would be for the managers of the SMS to provide interpretative text on the indicator results, to spell-out the differences between Member States, and encourage further action from those that seem to be lagging behind or underperforming. The following "high-level" scoreboard or shortlisted indicators provide examples of these:

- Using data from the indicators provided by the ICSMS database that is soon to be upgraded, it will be clear to what extent countries invest in market surveillance activities and take action against non-compliant products identified, therefore helping to identify countries that need to be doing more in this respect;
- Through interpretation of the results of the EEA's measurement of energy consumption indicator, it would be possible to identify the countries investing most strongly in energy efficiency measures and those that are not, therefore, providing opportunities for targeted recommendations directed at countries that need to catch-up;

- Based on the results of the ECB's indicator on the availability of finance and market conditions, one could request Member States to provide better conditions for SMEs to access finance via a combination of measures;

By default, if the SMS is to be scaled-up to cover policy areas other than governance tools, it will be relevant to include a greater mixture of economic, contextual and governance type indicators. This includes monitoring of policies where the attribution of EU actions may be partial to the overall outcome but are nonetheless significant for monitoring considering the ambitious and extensive aims of the single market.

An advantage of greater use of context indicators was that this allows strategic progress across different areas of the single market to be assessed, however, if too many such indicators are utilised as a percentage of the total, there is a risk that the SMS will be more of a strategic monitoring and reporting tool at the general policy level, with a less direct link between EU-level intervention to improve the efficient and effective functioning of the single market and outcomes. Therefore, continued reporting on governance tools will allow for the formulation of initiative specific recommendations to encourage their strengthened implementation.

Relevance of organising the indicator framework from the perspective of citizens and business

To support communication to a wider group of stakeholders, the specific interests of citizens and business vis-à-vis the single market could be focused on via the upgraded SMS. However, the indicators that could be drawn upon are those that cut-across existing and new policy areas, for example, policies that support mobility, offer consumer protection, provide access to digital government services cross-border or encourage free movement of people generally.

Therefore, the Commission should decide upon the approach to presenting the information. This could be in the format of a specific web page, and the web page could indicate indicators that are presented elsewhere on the SMS, and/or report indicators that are specific to this webpage. A specific section on these in the “high-level” scoreboard has not been added as this would serve to increase the number of indicators selected making it more burdensome to digest the information, which could be considered repetitive.

Relevance of the data-sets selected for the upgraded SMS

As part of the assessment of the data-sets identified initially under Task 3 “Data identification, collection, and mapping” and later subject to further shortlisting, the project sought to identify sources of information that were publicly available and updated periodically so that ongoing monitoring can be performed. Mostly, data were identified as being available annually although in some cases shorter or longer time intervals applied. Therefore, assuming the updating of the data-sets identified by the parties responsible for their management, there should not be any obstacles to updating the indicators reported by the revised SMS.

Moreover, in terms of their geographic coverage, the data-sets selected were managed by European bodies that already have an interest in monitoring EU-wide trends. This included Eurostat or specific Directorate Generals e.g. DG CONNECT's Digital Transformation Scoreboard, or EU/EEA focused bodies such as the European Business Angels Network.

We also considered that a small number key indicators used in other Commission scoreboards would be of relevance to the upgraded SMS e.g. data from the EIS. This is largely due to the fact the indicators selected have standing with their focused user communities and have been considered as good measures of policy performance already. Moreover, by referencing this data via the upgraded SMS, the information would be made available to other policy networks that may not be users of the scoreboards where the data originated from.

In some cases, however, OECD data-sets were referenced, meaning that some countries (Bulgaria, Cyprus, Latvia, Lithuania and Romania) may not be covered. However, the information provided by these sources goes beyond what is available from EU sources.

Moreover, it is at the discretion of the Commission to decide if the methodologies used by the OECD datasets are suitable for monitoring policies managed by the EU. For example, while the OECD's Intra-European Economic Area Service Restrictiveness index provides monitoring of the accessibility to services markets by cross-border services providers, the approach to the analysis of national legislation is not aligned to the requirements of the Services Directive although there is a clear thematic link to the free movement ambitions of the Single Market i.e. to remove obstacles to cross-border service providers.

Relevance of the data to be considered for legislative enforcement lifecycle monitoring

Apart from utilising data from existing databases, considering that the Commission invests heavily in ad hoc studies on EU legislation in the framework of the Better Regulation agenda, there are strategic opportunities to maximise the value of these for the updated SMS.

As mentioned, this relates specifically to the areas around the practical implementation of legislation going beyond the existing areas of SMS legislative monitoring related to transposition.

However, there would be a need for the Commission to invest some resources in executing this recommendation considering that there is no single database that provides such information periodically.

In order to strengthen the collection of quantitative data on the implementation and enforcement of EU legislation, it would be helpful if the Commission Units responsible for specific legislation e.g. industrial product, environmental legislation etc. incorporated a standards set of data requirements for contractors carrying out evaluation studies. For example, data could be collected on monitoring and enforcement activities undertaken by market surveillance authorities (MSAs)

This could help to provide data on enforcement in a standardised way, as this was identified as a gap across certain types of single market legislation (e.g. industrial product legislation).

8.2 Recommended indicators

This section details the recommended indicators to be included in an upgraded Single Market Scoreboard. It specifies the new indicators, the policy areas they help to cover and the suggested changes to the existing SMS where necessary to expand indicator coverage in some cases, but also small numbers of other suggested modifications. The complete list of indicators including those not finally shortlisted is provided in Annex 4.

8.2.1 Suggested improvements to the set of indicators

In shortlisting the indicators, the research team has emphasised:

- integrating actionable areas concerning the functioning of the single market, such as enforcement or the most relevant single market policy areas e.g. services, Digital Single Market, consumer protection, etc.;
- a mix of indicator types that also provides context information and economic indicators linked to the Single Market;
- indicators that provide a picture of how the single market works on the ground for citizens and business;
- annual data, which is possible in most cases and real-time information which is available for several indicators;

- mainly Eurostat/EC data which provides good country coverage of EU and EEA countries. Nevertheless, some OECD ⁸⁰ and World Bank data without full EU/EEA coverage are included for highly relevant indicators ⁸¹, which helps to integrate the international dimension for benchmarking the EU with major trading partners; and
- integrating some ‘advocacy’ indicators which help to demonstrate the progress of the single market in combination with some of the more conventional barrier-type indicators.

However, at the same time, it is worth noting that certain data, especially related to consumer protection, is not available on an annual basis. Moreover, the number of indicators for new policy areas – as well as for the existing SMS – could be further reduced should there be a more palpable appetite for doing so.

Indeed, further strategic choices around the extent and legislative or policy reach of the Single Market and the level of clear attribution or indicator relevance required will support arriving at a final set of indicators to be included in an upgraded SMS. This will need to be discussed with the Task Force.

8.2.2 Recommended indicators in new policy areas

With the aim of targeting all policy areas that are directly relevant for the Single Market (as per the terms of reference), the recommended indicators include legal, economic and perception-based approaches. The recommended indicators, organised according to Single Market freedom and policy area, are shown in Table 7-1.

It is worth noting that:

- The indicators cover 13 new policy areas, of which two – Trade and FDI - are already quite extensively covered by the existing SMS, but coverage could potentially be expanded.
- A total of 104 indicators are suggested, covering all parts of the indicator results chain, with most being ‘context’ indicators.
- With the available data sources, it is not possible to cover all parts of the indicator results chain for each policy area – but nor is it really needed, since some policy areas are less important to cover than others.
- Compared to the list of indicators identified in the earlier phases of this research (tasks 1-5 of the terms of reference), 120 indicators have been excluded. The full list is available in Annex 4.

For some policy areas and their associated indicators, the causal link to EU legislation, policies, initiatives and governance tools was difficult to establish, with complex attribution. One example is R&D and innovation, even if – as Figure 2-1 in Section 2 showed, one of the impacts of the Single Market should be an increase in innovation. This is why only limited indicators are suggested in this policy area, and a further reflection could take place as to the need to include any at all.

Nevertheless, good examples of contextual indicators related to the four freedoms of the Single Market were identified. A good example is from the area of the free movement of people. It could be highlighted that there were 17 million mobile people in the EU in 2018, which is a good headline figure, even if this can only partially be attributed to Single Market policies.

⁸⁰ The OECD covers 22 Member States out of 27. However, it is still useful, as it extends to OECD member countries, and in the case of some of the restrictions indexes on trade, FDI, services, etc. it extends to many countries internationally beyond its members. Therefore, it provides useful information for benchmarking purposes.

⁸¹ Such as the OECD Services Trade Restrictiveness Index, or the World Bank Doing Business indicators, which are also used for the European Innovation Scoreboard.

Table 8-1 – List of recommended indicators for inclusion in the upgraded SMS

Single Market Four Freedom	Policy Area	Indicator	Data source
Free movement of services	Digital economy	Business Mobility: extent to which public services that are aimed at foreign businesses are available online, usable, and implement eID and eDocument capabilities	Digital Agenda key indicators
		Citizen Mobility: extent to which public services that are aimed at foreign citizens are available online, usable, and implement eID and eDocument capabilities	Digital Agenda key indicators
		Enterprises advertising online based on the geolocation of internet users	Digital Agenda key indicators
		Enterprises having done electronic sales to other EU countries in the last calendar year	Digital Agenda key indicators
		Individuals ordering goods or services online, from sellers from other EU countries	Digital Agenda key indicators
	Services Markets	OECD-EEA Services Trade Restrictiveness indicator – Overall and broken down by barrier (foreign entry, restrictions on movement of people, other discriminatory measures, barriers to competition, regulatory transparency). Sector breakdowns provided	Intra-European Economic Area Service Restrictiveness index
		Number of information requests	IMI
		Number of letters of formal notice	Analysis based on infringement packages
		Number of notifications	IMI
		Number of reasoned opinions	Analysis based on infringement packages
		Number of referrals to the ECJ	Analysis based on infringement packages
	Energy	Ease of switching: electricity services	Consumer Markets Scoreboard
		Ease of switching: gas services	Consumer Markets Scoreboard
		Market performance indicator: electricity services	Consumer Markets Scoreboard
		Market performance indicator: gas services	Consumer Markets Scoreboard
		Renewable electricity generation in the EU and the share of renewables in all electricity production – broken down by renewable energy type	Quarterly Report on European Electricity Markets
Free movement of products & services	Consumer Protection	Complaint Topics by Area of EU law (% of all complaints) (for multiple areas)	ECC Database
		Consumer Conditions Index — overall indicator	Consumer Conditions Scoreboard
		Consumers experiencing problems when trying to buy online from retailers in other EU countries (% of consumers), by country, 2016	Consumer Conditions Scoreboard
		Ease of switching provider by country and market cluster	Consumer Market Scoreboard

8. Recommended indicators for an upgraded SMS

Single Market Four Freedom	Policy Area	Indicator	Data source
		Market Performance Indicator (broken down by country and sector, or per market cluster). Can e.g. calculate most improved/deteriorated market (by country) based on time series.	Consumer Market Scoreboard
		Price-level indices (EU-27 = 100) for actual consumption and its components by Member State Based on Actual Individual Consumption (AIC), and Price Level Indices (EU28=100). Can be broken down by category e.g. "Electricity, gas and other fuels". (https://ec.europa.eu/eurostat/web/purchasing-power-parities/data/database)	Eurostat price level indices
		Retailer perceptions of compliance with consumer legislation domestically and cross-border	Consumer Conditions Scoreboard
	Industry and Growth	Contribution, Infringement and perception on IPR	IP in Europe
		Number of follow up actions of existing notifications by authorities in other Member States	RAPEX
		Number of notifications by product category	RAPEX
		Number of regulations adopted	EUR-LEX statistics
		Starting a business	World Bank Doing Business Database
		The statistical module is under development currently and therefore the indicators were not clearly defined via the interview with GROW. However, the interview suggested that when it is ready, information will be extractable by Member State by product regulation type for the number of cases .	ICSMS
		The statistical module is under development currently and therefore the indicators were not clearly defined via the interview with GROW. However, the interview suggested that when it is ready, information will be extractable by Member State by product regulation type for the number of products removed .	ICSMS
	R&D & Innovation	Knowledge-intensive services exports	European Innovation Scoreboard
		Medium and high-tech product exports	European Innovation Scoreboard
		Public R&D expenditure	European Innovation Scoreboard
	Tax and Customs	Number of detained articles by Member State i.e. where suspected IPR infringements identified	Intellectual Property Rights - Facts and figures
		Number of cases by Member State i.e. where suspected IPR infringements identified	Intellectual Property Rights - Facts and figures
		Number of initiated procedures by Member State i.e. where action is taken against non IPR compliant traders	Intellectual Property Rights - Facts and figures

8. Recommended indicators for an upgraded SMS

Single Market Four Freedom	Policy Area	Indicator	Data source
		VAT revenue ratio (providing a measure of efficiency of indirect tax collection) The statistical module is under development currently and therefore the indicators were not clearly defined via the interview with GROW. However, the interview suggested that when it is ready, information will be extractable by Member State by product regulation type in terms of the number of products removed (as implemented by market surveillance authorities)	Consumption Tax Trends
		VAT Tax rate	Consumption Tax Trends
	Trade	Composite indicator - Member State trade performance across all 8 indicators	COMEXT
	Intra-EU trade	EU trade integration in GOODS (change)	COMEXT
	Intra-EU trade	EU trade integration in GOODS (levels)	COMEXT
	Intra-EU trade	EU trade integration in SERVICES (change)	COMEXT
	Intra-EU trade	EU trade integration in SERVICES (levels)	Balance of payments statistics (BOP)
	Extra-EU trade	Openness to imports of GOODS (change)	Balance of payments statistics (BOP)
	Extra-EU trade	Openness to imports of GOODS (levels)	Balance of payments statistics (BOP)
	Extra-EU trade	Openness to imports of SERVICES (change)	Balance of payments statistics (BOP)
	Extra-EU trade	Openness to imports of SERVICES (levels)	Balance of payments statistics (BOP)
	Intra-EU trade	Exports of goods (intra-EU)	COMEXT
	Intra-EU trade	Exports of services (intra-EU)	COMEXT
	Intra and extra-EU trade	Inward foreign affiliates statistics	Globalisation patterns in EU trade and investment
	Intra and extra-EU trade	Outward foreign affiliates statistics	Globalisation patterns in EU trade and investment
	Extra-EU trade	Trade in business services	Globalisation patterns in EU trade and investment
	Extra-EU trade	World trade in services	Globalisation patterns in EU trade and investment
Free movement of capital	FDI	Composite indicator FDI flows and stocks (both intra and extra-EU)	Eurostat FDI data
		Discriminatory screening or approval mechanisms;	OECD FDI Restrictiveness Index
		Level of foreign equity restrictions;	OECD's FDI restrictiveness index

8. Recommended indicators for an upgraded SMS

Single Market Four Freedom	Policy Area	Indicator	Data source
		Percentage of GDP of FDI inflow from the EU	Eurostat FDI data and Eurostat GDP
		Percentage of GDP of inward FDI stock from the EU	Eurostat FDI data and Eurostat GDP
		Percentage of GDP of outward FDI flow to the EU	Eurostat FDI data and Eurostat GDP
		Percentage of GDP of outward FDI stock to the EU	Eurostat FDI data and Eurostat GDP
		Restrictions on key foreign personnel and operational restrictions.	OECD FDI Restrictiveness Index
		Change in inward intra-EU FDI flows	Eurostat FDI data
		Change in outward intra-EU FDI flows	Eurostat FDI data
		Change in inward intra-EU FDI stocks	Eurostat FDI data
		Change in outward intra-EU FDI stocks	Eurostat FDI data
		Change in inward extra-EU FDI flows	Eurostat FDI data
		Change in outward extra-EU FDI flows	Eurostat FDI data
		Change in inward extra-EU FDI stocks	Eurostat FDI data
		Change in outward extra-EU FDI stocks	Eurostat FDI data
	Financial markets	AFME composite index on cross-border finance. • Cross-border holdings of equity assets and fund shares • Cross-border holdings of debt assets • Cross-border private equity (PE) financing • Cross-border M&A transactions • Cross-border public equity raising • Non-domestic corporate bond issuance • Participation in intermediating foreign exchange and derivatives trading	AFME composite index on cross-border finance
		Bonds by market of issuance (domestic, cross-border)	Dealogic DCM (debt issuance – bonds, syndicated loans) <i>Note – including this indicator would be dependent on the EC using proprietary data collected by Dealogic.</i>
		Location of Investment and Cross Border Investing	EBAN Statistics Compendium 2018 (Business angel statistics)
		Proportion of cross-border investments received	ECN Cross-border Crowdfunding Survey 2017 (crowdfunding statistics)
		Total European early stage investment	EBAN Statistics Compendium 2018 (Business angel statistics)
	R&D & Innovation	Mobile students from abroad enrolled by education level, sex and country of origin (intra-EU)	Eurostat education statistics [educ_uoe_mobs02]

8. Recommended indicators for an upgraded SMS

Single Market Four Freedom	Policy Area	Indicator	Data source
		Mobile students from abroad enrolled by education level, sex and country of origin (extra-EU and OECD countries)	OECD - international mobility statistics
Free movement of people	Social Policy	Employment gap of EU-immigrants	EU LFS
		Number of enquiries by citizens to Your Europe Advice by subject area	Your Europe Advice
	Migration	% of positive professional recognition decisions (rolling 3-year average, broken down by country)	The regulated professions database
		Number of intra-EU mobile citizens	Annual report on intra-EU labour mobility
Free movement of people, products and services	Transport	Transposition of EU transport directives	EU transport scoreboard
		Number of pending infringement proceedings - Transport, broken down by Air, Rail, Road, Maritime	EU transport scoreboard
		Consumer satisfaction with air transport	EU transport scoreboard
		Consumer satisfaction with rail transport	EU transport scoreboard
		Services trade restrictiveness indicator - Air transport services	OECD STRI (intra-EEA)
		Services trade restrictiveness indicator - Maritime transport	OECD STRI (intra-EEA)
		Services trade restrictiveness indicator - Rail freight	OECD STRI (intra-EEA)
		Services trade restrictiveness indicator - Road freight	OECD STRI (intra-EEA)
Green Single Market	Environment	Energy consumption levels (including renewables share)	European Environment Agency
		Greenhouse gas emissions levels	European Environment Agency
		Levels of industrial waste generated	European Environment Agency
		Trade in recyclable raw materials	EU Circular Economy monitoring framework
		Recycling of specific waste streams	EU Circular Economy monitoring framework
		Recycling's contribution to meeting materials demand	Raw Materials Scoreboard
		Ecological footprint	European Environment Agency
		Economic losses from climate-related extremes	European Environment Agency
		Emissions of main air pollutants (disaggregated by sulphur dioxide/oxides (SO ₂ /SO _x), nitrogen oxides (NO _x), non-methane volatile organic compounds (NMVOCs) and ammonia (NH ₃). Exceedence of limit values of the limits set in the Ambient Air Quality (AAQ) Directives	EEA's air quality database
		Countries that adopted Green Public Procurement National Action Plan or equivalent document	National GPP Action Plans (policies and guidelines)

Single Market Four Freedom	Policy Area	Indicator	Data source
		Number of tenders per country on environmental services	Opentender.eu

8.2.3 Recommended changes to indicators in the existing SMS

As the analysis in Sections 3.1 (mapping of the existing SMS), 5.4 (analysis of gaps) and 7.1 (synthesis analysis) has shown, various improvements could also be foreseen to the existing set of indicators in the SMS. Stakeholders have furthermore generally welcomed that improvements be made to the SMS. Nevertheless, regarding the Governance Tool indicators especially, stakeholders have often called for more detailed indicators and breakdowns as well as additional indicators to cover identified potential gaps.

For example, it was suggested by some national authorities that rather than focusing solely on the transposition deficit and infringement proceedings when reporting on the implementation of single market legislation, there should be an extension to include broader indicators that could help to improve the effectiveness of the application of existing single market legislation at the level of implementation. In addition, DG GROW has signalled that this study need not extensively review or change the existing set of indicators, as the indicators are well known and necessary to support the work of the SMS' core user base.

With this stakeholder feedback in mind, most of the existing indicators should be retained. Table 7-2 shows the recommended changes to existing areas covered by the SMS, by extending existing coverage of indicators to include new indicators that could complement existing areas being reported on.. In terms of the proposed changes, a small number of indicators are proposed for deletion e.g. in EURES and postal services while various indicators could be added to several policy areas e.g. postal services and public procurement⁸². In other cases, there could be arguments for including similar datasets to existing ones in the SMS (e.g. FDI and trade) because they could provide supplementary data that would allow the performance of the European single market as a whole to be compared against other major competitors.

Important feedback was received from some national authorities interviewed, confirmed in the IMAC meeting, that it would be useful to move away from a sole focus on the initial stages of monitoring the implementation of single market legislation (i.e. through the existing focus on the implementation of Directives (transposition, conformity deficit and infringements) towards a more holistic approach that better captures the full legislative implementation lifecycle. This could encompass, for example, monitoring implementation of regulations not only directives, looking at whether there are any bottlenecks in the system as regards the development of technical standards that may impede single market implementation, and strengthening attention to more proactive monitoring of market surveillance and enforcement activities. Proposals are also put forward for EURES, for which there is a 2018 implementing decision (EU 2018/170) including performance indicators to be collected, but which are not yet integrated into the SMS.

The table below provides a set of new indicators but linked to existing areas covered by the SMS. Taking an example, in line with the stakeholder feedback on the usefulness of extending

⁸² In effect, many of the indicators under the "Governance Tools" monitor the performance of authorities in meeting their obligations and, in this way, can help show where there are problems in implementing the Single Market and the speed with which these problems are resolved. Yet certain indicators are very specific to a particular set of actors and there is scope for the Commission to further 'lift' the existing SMS indicators. One example is the Internal Market Information System (IMI), which like several other Governance Tools also has its own website including performance indicators / statistics. The SMS performance indicators for IMI include e.g. [5] Efforts made as rated by counterparts (% of negative evaluations) which is about the performance of IMI as a service, but doesn't say much about progress or implementation of the Single Market *per se*. In contrast, the statistics on the use of IMI at the bottom of the related web-page show where there are issues related to the Single Market and therefore where improvements may be needed e.g. professional qualifications, posted workers, services. There are similar examples from the SMS webpages of other Governance Tools.

reporting beyond transposition and infringements, a longstanding area of reporting, a legislative lifecycle approach could be implemented by extending the existing indicator set.

Table 8-2 – List of recommended indicators that build on the existing SMS areas

Policy Area / Governance Tool	Name of Indicator	Comments	Data source and comments
Transposition (legal implementation)	Implementation of Directives (transposition and conformity deficit)	Currently, the transposition and conformity deficit are presented separately in the SMS. An integrated composite indicator combining both could be useful in providing insights into Member States' overall performance.	N/A – new composite indicator combining transposition and conformity deficit
Implementation of single market legislation	Number of directives adopted	Such data means going a step back even before monitoring transposition and infringements.	N/A – new indicator
Implementation of single market legislation	Number of regulations adopted	Such data means going a step back even before monitoring transposition and infringements. However, this would allow regulations to be monitored, which are increasingly used as a regulatory tool.	CEN/ CENELEC databases accessible by the EC, but data not presently publicly available.
Implementation of single market legislation	Number of technical standards under development (by directive/ regulation)	The research suggests that there can be bottlenecks in the timely development of harmonised technical standards to support implementation of single market legislation. Monitoring standards development and implementation can be helpful.	CEN/ CENELEC databases accessible by the EC, but data not presently publicly available.
Implementation of single market legislation	Number of technical standards adopted (by directive/ regulation)	Monitoring standards development and implementation can be helpful. Detail as above row.	As above
Implementation of single market legislation	Number of market surveillance actions (total across all types)	Could be a composite indicator	N/A - new indicator
Implementation of single market legislation	Number of notifications by product category	Data already available	RAPEX database
Implementation of single market legislation	Number of follow up actions of existing notifications by authorities in other Member States	Data already available	RAPEX database
Implementation of single market legislation	Number of joint action market surveillance programmes	Data already available	RAPEX database

8. Recommended indicators for an upgraded SMS

Policy Area / Governance Tool	Name of Indicator	Comments	Data source and comments
Implementation of single market legislation	Number of products taken off market due to enforcement actions by MSAs (Industrial Products)	MSAs ought to be collecting this data already. DG GROW could collate the data both for the purposes of monitoring implementation of the body of Industrial Product legislation and to feed into SMS assessment of effectiveness of market surveillance / enforcement	N/A - new indicator.
eCertis	% of evidence or samples that are European Single Procurement Documents	The ESPD regulation is one of two legal acts that set out the rules and criteria for public contracts, yet the ESPD is not covered by the SMS.	N/A - new indicator
EURES	<p>Job vacancies handled and processed</p> <p>Job placements effected as a result of recruitment and placement activity</p> <p>Customer satisfaction relevant for or on support services</p> <p>Vacancies held, made publicly available and posted on the EURES portal by EURES Members and Partners</p> <p>Proportion of national job vacancies made available on EURES</p>	The EURES implementing decision EU 2018/170 outlines new EURES performance indicators which are not yet integrated into the SMS. It is recommended that these indicators be among those retained for the SMS.	https://ec.europa.eu/internal_market/scoreboard/performance_by_governance_tool/eures/index_en.htm
Collaborative Economy	% of individuals that used any website or app to arrange accommodation or transport from another individual	Provides useful context information on the scale of the collaborative economy.	http://appsso.eurostat.ec.europa.eu/nui/show.do?dataset=isoc_ci_ce_i&lang=en
Postal services	Market performance indicator: postal services	Provides a customer perspective on the performance of postal services.	http://ec2-34-245-53-188.eu-west-1.compute.amazonaws.com/QvAJAZfc/opendoc.htm?document=just%20docs%5Cscoreboard%5Cconsumerscoreboard.qvw&host=QVS%40win-bhithhttpthf&anonymous=true
Postal services	Price of a standard ordinary parcel, up to 2kg, by USP, domestic parcel service	Parcels make up an increasing share of postal services as compared with letters.	https://webgate.ec.europa.eu/grow/redisstat/databrowser/explore/all/GROW_TOP?display=card&sort=category

Based on the stakeholders feedback, the majority of indicators in the existing SMS should be retained as they are needed by the core user base of the SMS who work on a range of governance tools, such as EU financed assistance services, ADR mechanisms for resolution of cross-border SM problems, etc.

Although there were a small number of indicators where the study team investigated getting rid of several indicators (e.g. in the field of public procurement and also linked to EURES detailed managerial indicators), the feedback from stakeholders was that these should be retained. Therefore, the only indicator that we propose deleting is provided below:

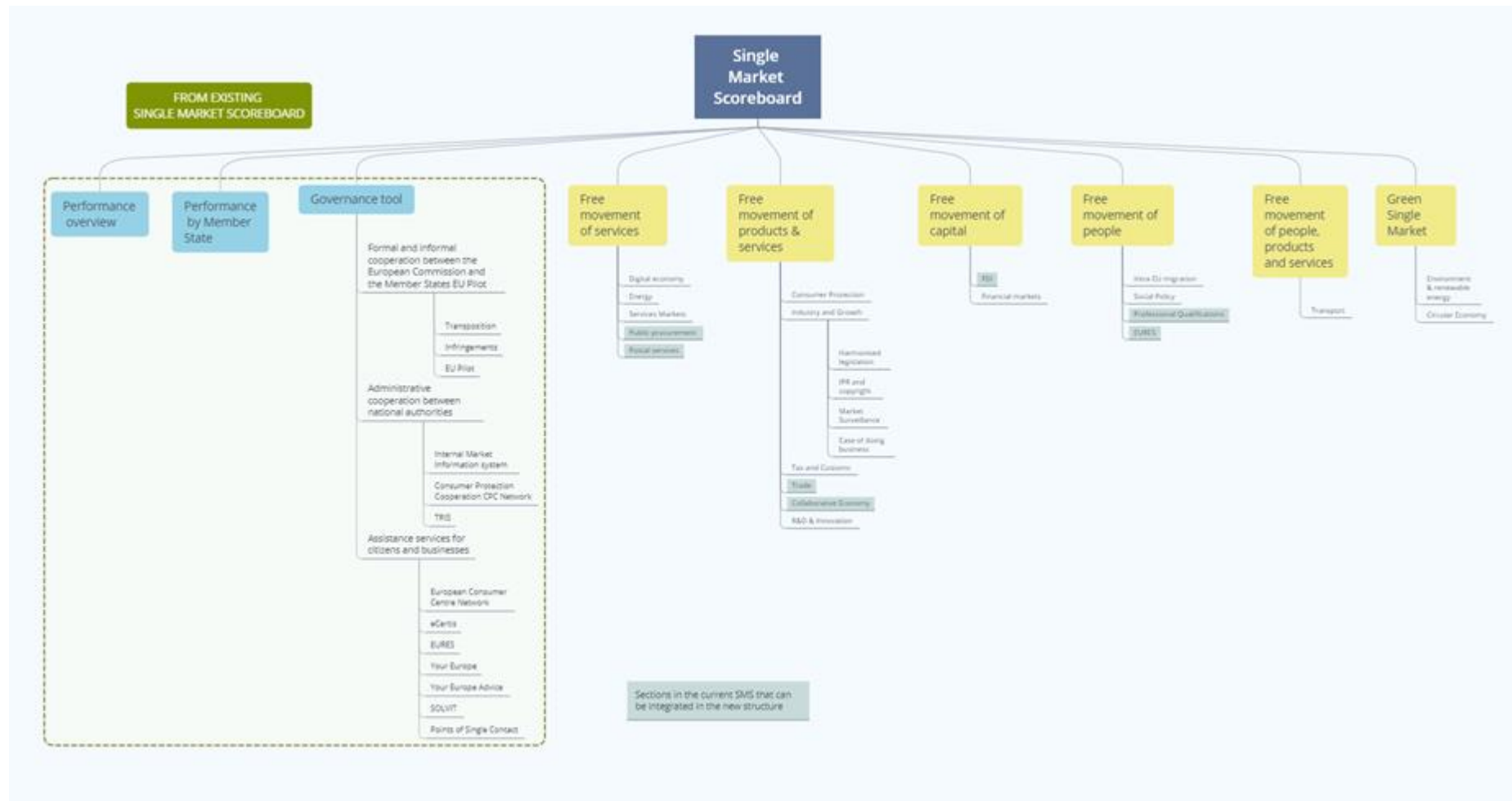
Table 8-3 – Recommended indicator(s) to remove from the existing SMS

Policy Area / Governance Tool	Name of Indicator	Comments	Indicator Link (url)
Postal services	Domestic transit time performance	Limited relevance to Single Market. Several Member States are considering reducing the number of days on which they deliver post, which would affect the transit time.	https://ec.europa.eu/internal_market/scoreboard/performance_per_policy_area/postal_services/index_en.htm https://webgate.ec.europa.eu/grow/redisstat/databrowser/explore/all/GROW_TOP?subtheme=GROW_CURRENT&display=list&sort=category

8.2.4 Possible structure of the upgraded SMS

Figure 8-1 shows a possible structure for presenting the performance indicators in an upgraded Scoreboard. The Governance tools and high-level performance sections are retained from the existing SMS. However, the performance overview is replaced by a new high-level scoreboard as proposed in Section 8.3. The Governance tools are retained without overall structural changes between tools. However, improvements to various sections are included as proposed in Sections 8.2.3 and 8.4. New policy areas are included under a four freedoms and Green Single Market structure, with the existing policy areas from the SMS (public procurement, postal services, etc) and trade and market openness integrated into the new structure.

Figure 8-1 – Possible structure for upgraded SMS based by four freedoms and policy area



Source: Author's elaboration.

8.3 High-level scoreboard

The SMS needs to be able to present information in a succinct way. It is recommended that the current performance overview section in the SMS be extended to include a set of headline indicators concerning progress in implementing the Single Market. A headline (or alternatively a “key indicator”) is an indicator that provides a metric that indicates strategic progress in a particular area, and one which can be extracted, for instance, for external communication purposes (e.g. for inclusion in a performance dashboard on a website, an infographic or in communication materials). This can be distinguished from operational indicators, which provides further detail of use for managerial purposes. Many operational indicators provide a snapshot of progress in a detailed areas of single market implementation, ideally in close to ‘real time’ measurement, though this depends on the periodicity of reporting.

At the same time, the proposal retains a manageable number of indicators for a high-level scoreboard. The indicators suggested below cover areas such as single market integration, the implementation of legislation, progress in the four freedoms and the Green single market . They extend beyond the policy areas in the existing SMS. A range of indicator types are proposed, including performance indicators, perception-based indicators and contextual economic indicators. Even if the indicators do not demonstrate the impact of the single market , the introduction of headline indicators will help to demonstrate trends and serve an advocacy purpose for the Scoreboard, engage with a broader target audience. It could then be used for external communication purposes.

The suggested indicators could be presented in table form for the EU level (or available EU countries). Columns could be used to show for example: time series, a symbol or sparkline to indicate trends, or country-level results. Users should be able to click through from particular headline areas to more specific and detailed information e.g. under the implementation of single market legislation, additional breakdowns would be provided such as by sector, as well as additional indicators that are more detailed than the headline level.

Table 8-4 – Suggested indicators for a high-level Scoreboard

Area / sub-area (and if in existing SMS)	Indicators	Indicator type	What this shows/ why included as a headline indicator
The effective implementation of single market legislation			
1. Implementation of Directives (transposition and conformity deficit). In existing SMS	Percentage of Single Market directives not yet completely notified OR transposed incorrectly to the Commission (compared with total number of directives that should have been notified by deadline).	Result	Currently, the transposition and conformity deficit are presented separately in the SMS. An integrated composite indicator combining both could be useful in providing insights into Member States' overall performance.
2. Implementation of Directives (infringements)	Number of pending infringement proceedings	Result	Infringement proceedings are only launched when Member States have failed to timely and/ or correctly transpose the implementation of Directives into national legislation and implementing rules. As such, they show when there are problems with the initial implementation of single market legislation.
3. Implementation of Regulations	Number of regulations adopted, broken down by policy area/sector, year (EUR-LEX)	Output	Provides an overview of how many directly applicable Regulations have been implemented across the EU. As Regulations are increasingly commonly used as a legal implementation instrument in the single market, complements existing data on implementation of Directives.
4. Notifications of draft national technical. In existing SMS	Number of reactions to notifications of draft national technical legislation (from TRIS database)	Output	Shows national technical regulations where there could have been conflicting requirements with the single market and which have been avoided thanks to the notification mechanism.
5. Withdrawals of national technical legislation that could undermine the European single market	Number of withdrawals of national technical legislation by Member States (following TRIS notifications)	Result	The extent to which the notifying member states actually adopted national technical legislation and if they have taken contributions and/or detailed opinions of the Commission, stakeholders and other Member States into account could be analysed.
6. Product recalls/ withdrawals from the European single market	Number of product recalls/ withdrawals (following RAPEX notifications)	Result	Assessment of the effects of the RAPEX notification system to alert about dangerous products on the Single Market. Shed light on whether actions are taken by manufacturers and/ or Market Surveillance Authorities to remove products from the market.
7. Harmonised technical standards	Number of harmonised technical standards (adopted)	Result	Extent to which harmonised technical standards have been developed to enable economic operators to comply with EU industrial product and other harmonised single market legislation. Identifies whether there are any bottlenecks regarding lead times in the development of standards.
8. Misapplication of EU law	Number of cases of the misapplication of EU law (SOLVIT)	Result	Cross-border problems related to the misapplication of EU law by national public administrations in the single market. Interesting strategically, as it sheds light on the extent to which consumers and businesses are experiencing difficulties on their single market journeys. It has a stronger cross-border dimension compared with the other indicators on legislation and is a proxy

Area / sub-area (and if in existing SMS)	Indicators	Indicator type	What this shows/ why included as a headline indicator
			measure for aspects of enforcement activity to implement single market legislation more effectively.
9. Barriers to implementing the Single Market	Top 3 barriers for consumers in the single market (Single Digital Gateway website analytics and taking into account the Communications on Barriers) Top 3 barriers for businesses in the single market (Single Digital Gateway website analytics and taking into account the Communications on Barriers)	Output	Problems experienced by consumers and businesses in their journeys across the single market. Monitoring the top-3 barriers in real-time (by plugging in to the SDG data through an API) should give a real-time snapshot as to which barriers are being experienced, and how these are evolving over time. This is a useful proxy as to whether EU policy and regulatory initiatives to address barriers to the full implementation of the single market have been effective.
10. Barriers to implementing the Single Market	Number of instances of goldplating of EU legislation in national transposition Percentage of instances of gold-plating of EU legislation in national transposition (<i>across Directives as a whole</i>)	Result	Goldplating is often cited as a concern by industry stakeholders and national authorities responsible for industrial product and environmental legislation, among others.
11. Ensuring high levels of consumer protection and health	The % of products checked by market surveillance authorities (entering the EU from third countries)	Process	The EU is experiencing an increasing influx of non-compliant and unsafe products from 3rd countries, ordered directly by consumers via online 3rd country platforms. Data about the number of checks would be very useful in the current debate. This will probably have to be an estimate and based on what national authorities can provide.
12. Ensuring high levels of consumer protection and health	The % of products checked by customs authorities	Process	See above.
Free movement of Goods and Services			
13. Digital Single Market	Enterprises with electronic sales to other EU countries in the last calendar year.	Result	Provides an overview of the extent of and trends in cross-border commerce facilitated by adoption of digital technologies in line with the Digital Single Market Strategy.
14. Cross-border sales	- Consumer confidence in buying online, domestically and cross-border, by country -	Result	Show barriers to cross-border commerce from the consumer and retailer perspectives. The consumer confidence indicator complements indicator 8 above and shows where the Single Market is performing less well.
15. Consumer perceptions of Market Performance	Market Performance Indicator	Composite	Although the MPI does not demonstrate the cross-border element directly, it provides a composite score of important aspects of market performance from the consumer perspective, many of which result indirectly from Single Market related legislation and especially concerning comparability of offers, trust in businesses to respect consumer protection rules and choice of retailers/suppliers.

Area / sub-area (and if in existing SMS)	Indicators	Indicator type	What this shows/ why included as a headline indicator
16. Innovative goods and services	Exports of medium and high technology products and knowledge-intensive services as a share of total exports.	Output	With Single Market implementation leading to greater competition across EU Member State borders, this should drive companies towards innovation (along with other factors). This indicator shows trends in exports of high-tech products and knowledge-intensive services in line with the European Innovation Scoreboard.
17. Services Trade Restrictiveness	OECD EEA Services Trade Restrictiveness Indicator (EU aggregate is arithmetic average of available countries over time).	Composite	Provides a high level composite score concerning remaining barriers in services trade within the EU/EEA. The breakdowns allow to identify the main policy areas, service sectors and countries where – despite Single Market legislation – the Single Market for services is not yet working adequately.
18. Starting a business	Average ease of starting a business over (WB doing business: country aggregate = arithmetic average of available countries over time).	Composite	Administrative procedures for business start-ups differ in different countries. Although there is a general trend towards reduced lead times in terms of the different steps involved in starting a business, start-ups and would-be entrepreneurs still face challenges. Although there is no specific single market dimension, many entrepreneurs set up a business in another Member State, and there ought to be strong interest in how long it takes to start a business.
Free movement of Capital			
19. FDI	Composite indicator on FDI inflows and stocks from the EU and to the EU, based on: <ul style="list-style-type: none"> Percentage of GDP of FDI inflow from the EU Percentage of GDP of inward FDI stock from the EU Percentage of GDP of outward FDI flow to the EU Percentage of GDP of outward FDI stock to the EU 	Context	Foreign direct investment (FDI) is an investment in the form of a controlling ownership in a business in one EU country by an entity based in another EU country. As such, it is an important proxy for measuring cross-border capital flows and the relative FDI attractiveness of different EU Member States.
20. Cross-border capital flows	Integration of European Capital Markets (Composite indicator by AFME)	Context	The freedom of capital is an important legal principle of the Treaty for European Union (TFEU). The extent of cross-border capital flows is a proxy for how much progress is being made towards the EU's Capital Market Union (CMU) objectives. The AFME composite indicator covers different aspects of capital markets with a focus on cross-border capital flows. As such, it could be a useful barometer of the health of European capital markets.
Free movement of People			
21. Number of intra-EU mobile citizens	Number of intra-EU mobile citizens in previous reference year Eurostat population data (15-64 or 20-64 year olds)	Context	This represents a clear measure of Single Market performance in the area of migration i.e. people taking advantage of their EU right to live, study or work in another country.

Area / sub-area (and if in existing SMS)	Indicators	Indicator type	What this shows/ why included as a headline indicator
22. Employment gap of EU-immigrants	Percentage point difference between employment rate of EU migrants in host country and non-EU migrants (20-64 year olds)	Context	Indicates the extent to which EU migrants are successfully finding work in comparison to other groups in the host country. The figures would typically suggest that EU migrants are good at filling skill gaps and are not a burden on social security. This would indicate good Single Market functioning.
23. Barriers to free movement	Top 3 barriers to free movement of people in % (either from Your Europe Advice or SOLVIT – over time from the Single Digital Gateway)	Perception-based	Provides indication of the top barriers that given their reported frequency, and if reformed, would have a positive impact on the Single Market.
24. Job placements (EURES)	Vacancies posted on EURES as a proportion of all national vacancies	Context	Illustrates the performance of EURES in communicating job opportunities to possible applicants across Europe. This shows the role of EU policy measures in providing “enablers” for free movement.
25. Professional qualifications	% of positive professional recognition decisions (rolling 3-year average, broken down by country) – See SMS	Context	Illustrates the role of the recognition procedures under the Professional Qualifications Directive in supporting professionals to enter regulated markets cross-border. The PQD is a key tool in supporting mobility.
26. Transport	Consumer satisfaction with key transport modes <ul style="list-style-type: none"> Consumer satisfaction with air transport Consumer satisfaction with rail transport 	Perception-based	Some stakeholders argued that transport should be in the high-level scoreboard as it is an important enabler for the single market.
Single Market integration			
27. Price convergence	"Price-level indices (EU-27 = 100) for actual consumption and its components by Member State Based on Actual Individual Consumption (AIC), and Price Level Indices (EU28=100). https://ec.europa.eu/eurostat/web/purchasing-power-parities/data/database prc_ppp_ind	Context	Illustrates price convergence across countries, where one expected outcome of the internal market is an increased price convergence across countries as competition will gradually be stepped up from national to European level.
28. Trade - intra EU exports of goods and services	Intra-EU exports of goods ⁸³ Intra-EU exports of services	Context	Fostering intra-EU trade in goods and services is an important policy area as it is a proxy for the extent to which the single market is working efficiently and effectively, with attendant economic benefits the higher the level of such trade.
The Green Single Market			
29. Renewable energy transition	Share of renewable energy as a % of gross final energy consumption Implementing legislation ⁸⁴ (e.g. Renewable energy directive) to raise the share of energy	Context	Measures the share of renewable energy in gross final energy consumption by the Member States. Renewable energy is an important part of the Green Deal, EU energy Directives and the energy mix within the Single Market. The

⁸³ Disaggregated in more detailed SMS by sector e.g. for goods (e.g. automotive, construction products, engineering products, chemicals, pharmaceuticals) and for services (e.g. construction, professional, air transport, communication) (source Eurostat)

⁸⁴ <https://ec.europa.eu/energy/en/topics/renewable-energy/renewable-energy-directive>

Area / sub-area (and if in existing SMS)	Indicators	Indicator type	What this shows/ why included as a headline indicator
	consumption produced by renewable energy sources, such as wind, solar and biomass Targets - binding renewable energy target for the EU 20 % by 2020 (non-binding) and for 2030 of at least 32% (binding)		indicator shows the progress made at both EU and national level with respect to their binding renewable energy targets for 2030.
30. Circular economy (recycling)	Level of recycling by Member State Intra-EU trade in recyclable raw materials	Context	Recycled waste can be injected back into the economy as secondary raw material. The indicator provides an overview of trends in the markets for secondary raw materials in the EU and at a national level. It quantifies selected waste categories and by-products that are shipped intra-EU.
31. Waste generation	Level of waste generation by Member State	Context	Metric relevant to actions to addressing waste prevention at EU level, the highest level of the waste hierarchy.
32. Waste treatment	Level of waste treatment by Member State	Context	Metric relevant to actions to addressing the problem of waste generation.
33. Increasing Europe's energy efficiency	Primary and final energy consumption in million tonnes of oil equivalents. A target to increase Europe's energy efficiency by 2030 by at least 32.5%, relative to a 'business as usual' scenario by: <ul style="list-style-type: none"> - Improving the energy efficiency of buildings through implementation of improving energy performance of buildings directive (EPBD); and - Improving energy efficiency through a wide array of equipment and household appliances (Ecodesign Directive). 	Context	Improving energy efficiency means using less energy for the same output or producing more with the same energy input. The Energy Efficiency Directive (EED) included the target that energy efficiency should increase by 20 % by 2020 compared with a business-as-usual scenario. The updated Directive will require the EU to meet a more ambitious energy efficiency target of at least 32.5 % by 2030 in addition to the existing 2020 energy efficiency targets. Final energy consumption is the total energy consumed by end-users, while the levels of primary energy cover the consumption of the energy sector itself, losses during the transformation and distribution of energy, and final consumption by end-users (excluding energy carriers used for non-energy purposes).

The above headline indicators should ideally remain stable and be reported on over a medium-long term timeframe. In addition, it will be appropriate to maintain regular dialogue with relevant policy officials across the Commission to ascertain if there are any additional strategic indicators that could be incorporated into headline indicators.

8.4 Other recommended improvements

In addition to improvements to the indicator set, this research has identified a number of further improvements that could be made in order to better monitor the state of play regarding the Single Market's implementation across its four dimensions. These are:

- Ensure that the data gathered through the SMS is used to inform the development of the annual Single Market Performance Report. The data could be used to analyse and assess progress and barriers in detail, drawing on quantitative data.
- Also produce an integrated Single Market Scoreboard document containing quantitative data, (ideally with some qualitative supporting analysis) to replace the current Facts and Figures standalone PDFs, as these presently appear fragmented. , ;
- Engage in proactive communication activities around the time of the launch of the annual Single Market Performance Report and of the annual updating of the SMS itself in a single integrated PDF to raise visibility of the SMS overall, and data contained therein;
- Develop and distribute specific policy briefs on particular aspects of single market implementation (e.g. by policy area, field of legislative implementation) linked to the EU's strategic policy agenda (e.g. Greening the Single Market, Role of the Single Market in fostering digitalisation);
- Collect good practices from Member States by Governance tool and disseminate the results;
- Encourage and facilitate mutual learning exercises among actors for specific Governance tools or within the Internal Market Advisory Committee;
- Develop follow-up processes, including political processes, to raise visibility;
- Improve the structure and design of the SMS webpages – starting with achievements, and having a tiered approach to the information (whereas pages often now start with the most detailed information first);
- Incorporate headline indicators and the most salient operational indicators to highlight key achievements in the form of infographics;
- Raise the visibility of the SMS webpages by including hyperlinks to the SMS on different parts of the DG GROW website and on the websites of the various tools to drive traffic and interest, especially beyond the existing core user base;
- If the data analytics based on databases such as the Single Digital Gateway, SOLVIT, Your Europe Advice demonstrates that particular areas of single market implementation are problematic, greater attention could be given to these in the online version of the SMS. Moreover, SMS and SDG generated data could be used to feed into a possible new initiative to utilise the data contained in the SMS to support the development of an annual report on the state of the single market Union; and
- Launch specific *ad-hoc* or regular studies to quantify the benefits of the Single Market.

9. Presenting the upgraded Single Market Scoreboard

9.1 Recommendations for an upgraded SMS stemming from stakeholders consultation

This section reviews the feedback from the stakeholder consultations concerning the SMS. Using that feedback as a starting point, this section provides a set of recommendations to upgrade the SMS overall, focussing on enhancing user experience (UX) and data visualisation aspects of the scoreboard.

9.1.1 User experience

The feedback from stakeholders regarding User Experience (UX) emphasised three thematic areas: the technical terminology employed, the structure of the SMS website, and the integration of qualitative and quantitative data within the analysis.

Although the information conveyed in the SMS was easy enough to digest and interpret, it was felt that the scoreboard lacked accessibility in places. One of the areas of weakness was identified as being the use of technical acronyms on the dropdown menu of the homepage of the *Single Market Scoreboard Performance per governance tool*. This was seen as off-putting for a non-technical audience and diminished the communicative power of the SMS. Examples of technical acronyms include, for instance, the *Technical Regulation Information System* (TRIS) and also EURES, where the acronym is not immediately clear even if you click on the link. This issue was also identified not only through reviewing the SMS website, but was flagged up by some Member States participating in the informal IMAC meeting held as part of this study.

After clicking on one of the weblinks and accessing the governance tool's specific page, the user is then presented with an *About* section explaining the governance tool they selected. This explanation, however, was considered unclear in some cases. The explanation of the TRIS governance tool is quite concise and made up of seven bullet points. However, the text could be streamlined and made simpler, for example: "*TRIS enables Member States and the Commission to review, discuss and improve draft national technical regulations by reacting to proposed legislation to avoid such laws conflicting with Single Market legislation*". Any further detailed explanations could be provided in the detailed text e.g. integrated in facts and figures.

Moreover, there is a redundant paragraph upfront as follows: "*In the single market, quantitative restrictions on the movement of goods and measures with an equivalent effect are not allowed. As the single market is an area without internal borders, **the free movement of goods, persons, services and capital** should be guaranteed*".

Another aspect of the layout that is not user-friendly is that the facts and figures are presently immediately afterwards, rather than via a more intuitive menu or link meaning that there is a lot of text on the same page, and so the user has to scroll down and could be overwhelmed by the overall volume of text combining both basic information and detailed performance data. This could be off-putting for a broader target audience outside of the SMS core users.

The key headline performance indicator to assess progress on TRIS is not obvious upfront as all the detailed information by indicator is immediately presented in the Facts and Figures summary, which is detailed and only understandable to a technical audience. It might be useful as an alternative to present only a couple of indicators such as the number of national technical regulations notified in TRIS and the number of reactions by the Commission and the Member States when they identify a potential obstacle to the free movement of goods or to the provision of information society services.

A further observation is that some of the data presented only on page 5 of the 7-page facts and figures PDF export is highly relevant and interesting and more could be made of this

upfront as headline information about performance. On the final page, there are a series of achievements, which again represent interesting insights into the outcomes of work by the Commission and the Member States through TRIS to improve the implementation of single market legislation by preventing barriers to the internal market deriving from national technical regulations.

Table 9-1. Facts and figures on the TRIS, page 5, 6 and 7

Performance data and information	Comments
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<ul style="list-style-type: none"> • In 2018, the Commission issued 13 detailed opinions and 27 detailed opinions and comments. This represents a 30 % increase compared to 2017. This is a decrease of 50 % on 2016. The Member States issued 38 detailed opinions. • Out of the 294 comments issued during the reporting period, 217 were made by the Commission and 77 by the Member States. • In 2018, Member States responded to 34 detailed opinions issued by the Commission. This number is the main indicator used to assess Member States' commitment to meeting their obligations under the procedure. • 33 notified draft technical regulations were withdrawn by Member States. 	<ul style="list-style-type: none"> • It would be interesting to highlight this data upfront. • It could be incorporated as an infographic e.g. TRIS headline performance 2018: <p>Process and output indicators:</p> <ul style="list-style-type: none"> • 13 detailed opinions • 27 detailed opinions and comments • 294 individual comments <p>Outcomes of comments:</p> <ul style="list-style-type: none"> • 34 detailed opinions • 33 notified draft technical regulations were withdrawn by Member States. <p>A qualitative assessment could also be provided across the main single market legislation areas e.g. what single market areas that opinions were issued on.</p> <p>This would help to develop a better understanding of problems relating to restricted access.</p> <p>Among the comments received from interviewees was that additional data on TRIS would be useful to shed light on the impact of Member States receiving notifications from the Commission and opinions and comments from Member States on proposed national technical legislation. In particular, it would be useful to produce data and qualitative assessment on:</p> <ul style="list-style-type: none"> • Number of withdrawals of national technical legislation that could undermine the single market • Number of withdrawals of national technical legislation by Member States (following TRIS notifications) <p>The two indicators above have been included as headline indicators.</p> <ul style="list-style-type: none"> • The extent to which the notifying member states have actually adopted gone ahead and national technical legislation and if they have taken contributions and/or detailed opinions of the Commission, stakeholders and other Member States into account. This would require some qualitative assessment to support quantitative data.
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More generally, the way in which the facts and figures information varies greatly and, in some instances, very interesting information is presented. However, it is a question of improving the presentation of this data and the structure within each page. It should also be made more consistent across the different entry pages to each area of the SMS.

Figure 9-1 - Single Market Scoreboard- Performance per governance tool and Figure 9-2 - Technical Regulation Information System (TRIS).

Performance per governance tool

Formal and informal cooperation between the European Commission and the Member States

- [Transposition](#)
- [Infringements](#)
- [EU Pilot](#)

Administrative cooperation between national authorities

- [Internal Market Information System \(IMI\)](#)
- [Consumer Protection Cooperation \(CPC\) Network](#)
- [Technical Regulation Information System \(TRIS\)](#)

Assistance services for citizens and businesses

- [European Consumer Centre Network](#)
- [e-Certis](#)
- [EURES](#)
- [Your Europe](#)
- [Your Europe Advice](#)
- [SOLVIT](#)
- [Points of Single Contact](#)

Technical Regulation Information System (TRIS)

- [About](#)
- [Facts and Figures](#)
- [Achievements](#)

About

In the single market, quantitative restrictions on the movement of goods and measures with an equivalent effect are not allowed. As the single market is an area without internal borders, the **free movement of goods, persons, services and capital** should be guaranteed.

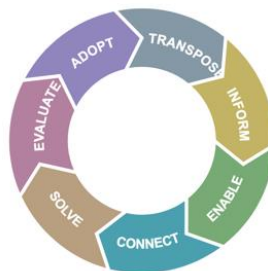
Technical regulations can lead to trade barriers. Therefore, Member States should therefore ensure **as much transparency as possible** in relation to national technical regulations that they are planning to adopt.

In 1983, a transparency procedure was set up and the **Technical Regulation Information System (TRIS)** established. TRIS enables Member States and the Commission to:

- inform and be informed about new draft technical regulations
- examine these drafts
- detect potential barriers to trade before they have any negative effects
- pinpoint protectionist measures
- comment on the draft regulations
- have an effective dialogue when assessing the notified drafts, and
- identify the need for harmonisation at EU level.

The *Single Market Governance Cycle* page was not deemed to be valuable. This page presents an infographic in the shape of a circle that summarises the set of rules, procedures and mechanisms put in place to enforce the Single Market legal framework. The circle is broken up into sub-components representing key parts of the governance infrastructure upholding the Single Market. The components are labelled with the following key words: *Adopt*, *Transpose*, *Inform*, *Enable*, *Connect*, *Solve*, and *Evaluate*.

Figure 9-3 - The Single Market Governance Cycle



When clicking on these key words on the circle, an explanation of the governance subcomponent is provided in a grey box along with links to the governance tools and their visualisations. However, this is not the case for the *Evaluate* and *Adopt* keywords: clicking on these does not link to a governance tool (see the figure below).

Figure 9-4 - Transpose and adopt – example of interactive text emanating from Infographic

Transpose

Ensure that Member States transpose EU law into national law in a correct and timely fashion ([Transposition](#) and [Infringements](#)).

Adopt

Adopt new rules to govern the Single Market or whether existing rules need to be adapted, simplified or deleted.

In effect, this infographic constitutes another way to present the governance tools but has little additional functionality. It is thus largely redundant in the scoreboard, while some parts of the infographic, such as the *Evaluate* and *Adopt* keywords, further lack utility given that they are not hyperlinked to the governance tools and visualisations.

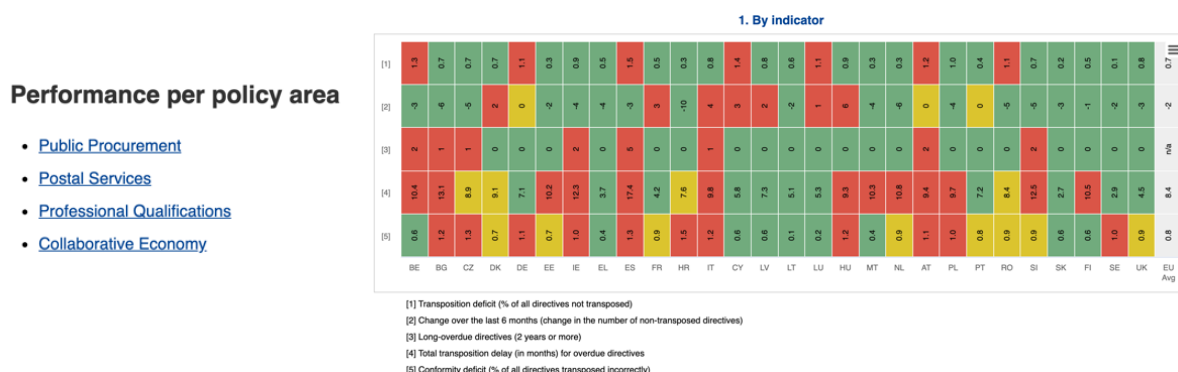
Stakeholders questioned the relevance of the choice of the four existing policy areas, namely *Postal Services*, *Professional Qualification*, *Public Procurement* and *Collaborative Economy* (**Figure 5**). This raises the question from a user perspective as to the rationale for the inclusion of these policy areas, but the exclusion of others, which are arguably much more important from a single market perspective, such as the Digital Single Market.

While preserving its current layout, the developers may wish to explore the utility of a more familiar layout for the SMS, structured around the four freedoms and/or policy area (especially if significantly more new policy areas were added). This may enhance the UX of the SMS.

Finally, the current lack of qualitative assessment accompanying the quantitative data in the SMS could inhibit users from more developing a full understanding of the obstacles to a well-functioning Single Market, and the identification of mitigating actions to address these obstacles. Some participants in the IMAC meeting on the SMS provided feedback that further qualitative information about delays in transposition could be helpful to ensure correct interpretation of the data. The numbers in absolute terms shed light on Member State performance, but there may be explanatory factors why there have been delays in transposing particular Directives in a particular Member State.

The table in **Figure 7.5** shows for each MS: 1) the transposition deficit as a percentage of all directives that have not been transposed; 2) the change in the number of non-transposed directives over the last six years; 3) the long overdue directives (2 years or more); 4) the total transposition delay (in months) for overdue directives; and 5) the conformity deficit (% of all directives transposed incorrectly). The fact that the table does not provide an indication of which directives have not been transposed, nor of the importance they have in relation to the effective functioning of the single market may be seen unfavourably. This could be presented as supporting information to contextualise the data analysis. However, the ability to consult a standalone annual report that summarises single market-related information in an accessible way was deemed useful.

Figure 9-5. Performance per policy area and Figure 9-6. Transposition indicators



Recommendations to improve SMS' UX

- The *About* sections should provide clearer explanations of the governance tools.
- The upgraded SMS should remove the governance cycle infographic as it duplicates information shown elsewhere.
- While preserving its current layout, the developers may wish to explore the utility of a more familiar layout for the SMS, structured around the four freedoms.
- A standalone annual report should be available in PDF format to summarise information in the SMS.

9.1.2 Data visualisation

Stakeholder feedback concerning the data visualisations presented in the SMS revolved around three aspects, namely: data presentation, interactivity, and the integration of multiple data sources.

One of the most appreciated graphical aspects of the SMS was the use of traffic light maps to present the scoreboard as these provide an easily understandable overview of performance across the EU28 and allow the user to aggregate multiple indicators related to the same governance tool. For example, the Performance per governance tool: Transposition page presents a traffic light map showing transposition performance across Member States by combining the five transposition indicators mentioned in the previous sub-section. By clicking on a Member State, the user is redirected to the Performance per member state web page where more detailed information is provided on the selected country. This is an interactive and intuitive way to present information related to the Single Market governance tools.

Figure 9-7. Traffic Light Map of Transposition Indicators



The SMS is made up of static webpages with interactivity provided through JavaScript. Currently, the transposition traffic light map provides interactivity by allowing users to zoom in and out on a country (see the black sidebar in above Figure), and also to select a country polygon on the map to obtain detailed information in relation to a specific governance tool in that location. SMS charts, such as the chart on transposition indicators, can also be downloaded by the user in pdf, jpeg, png and svg formats, and the underlying data can be downloaded in csv and xls formats.

Providing users with additional interactivity is possible using data visualisation packages such as Plotly, a data visualisation tool (available in Python, R and JavaScript). By accompanying Plotly charts with selection dropdowns, users could select the variables they would like to display in a plot which could then be subsequently downloaded. Plotly also contains show/hide functionality as shown in the time-series line chart in Figure 7-8. By clicking on the variables in the top right corner, e.g. “APPL High” and “APPL Low”, the user can decide which one of

these to display on the graph. First, both variables are selected; subsequently only “APPL High” is selected.

Figure 9-8. Time series analysis in plotly

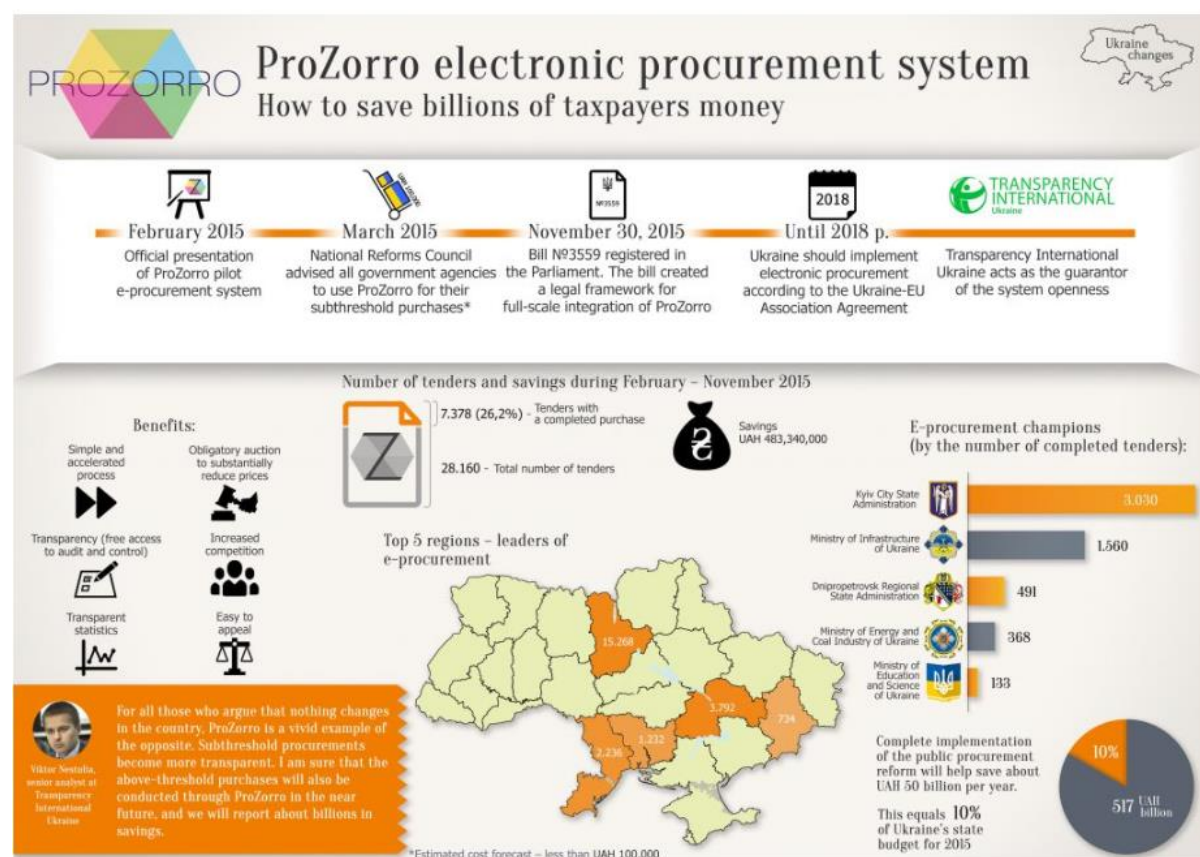


The integration of multiple data sources could be one of the potential solutions for broadening the SMS's scope to embrace new policy areas, revolving for instance around the four freedoms, in order to obtain a more comprehensive understanding of the single market. For example, infringements data or transposition deficit data for a sector could be presented alongside the services trade restrictiveness index for the same sector or SOLVIT to give a more complete picture of barriers to the implementation of the single market. At present, some level of dataset integration is carried out within the traffic light map, as indicated above. Here, five transposition indicators were merged into a composite score used to colour country polygons based on the transposition track record of a MS.

It is also worth the future IT developers of an SMS 2.0 reviewing good practices in different scoreboards as regards data visualisation. For instance, there are imaginative approaches of presenting data in the area of public procurement through an EU funded initiative in the Ukraine in the field of public procurement.⁸⁵ The following example focuses on below-threshold procurements. It is very visually appealing and colourful.

⁸⁵ <https://joinup.ec.europa.eu/collection/eprocurement/document/prozorro-public-procurement-platform-spreads-its-wings-prozorro>

Figure 9-9 - Prozorro - below-threshold procurements: example of appealing data presentation



A further stakeholder interviewed suggested the Open Tender website.⁸⁶

Recommendations to Improve Data Visualisation

In general, the visual presentation of data within the SMS should be improved: only one in ten stakeholders suggested there is no need to make any graphical changes to the scoreboard.

Interactivity of the SMS should be enhanced. This could be achieved using interactive data visualisation packages such as Plotly.

Indicators concerning different governance tools (related, for example, to the four freedoms) should be combined and integrated into a single graph, rather than only combining indicators related the same governance tool as is currently the case (**Figure 7**).

9.2 Recommendations for an upgraded SMS stemming from other policy dashboards

This section provides a summary of other policy dashboards whose technical setup and visualisations could provide guidance and inspiration for upgrading the SMS. The dashboards and scoreboards considered are: the *Digital Economy and Society Index (DESI)*, *European Innovation Scoreboard*, the *OECD Trade Restrictiveness Index*, the *EU Justice Scoreboard* and *DG MARE's Blue Economy Report*. From this review, further recommendations are developed.

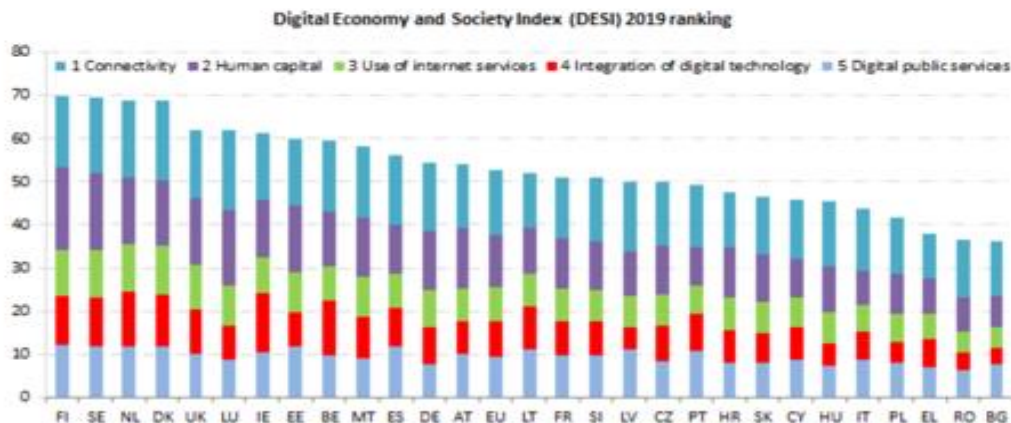
⁸⁶ Opentender.eu

9.2.1 DESI

The Digital Economy and Society Index (DESI) is a composite measure of Europe's digital performance; its purpose is tracking each EU MS' performance in digital competitiveness. The indicators making up this composite measure are: *Connectivity*, *Human Capital*, *Use of internet services*, *Integration of digital technology* and *Digital public services*.

Figure 9-10. DESI 2019

DESI 2019



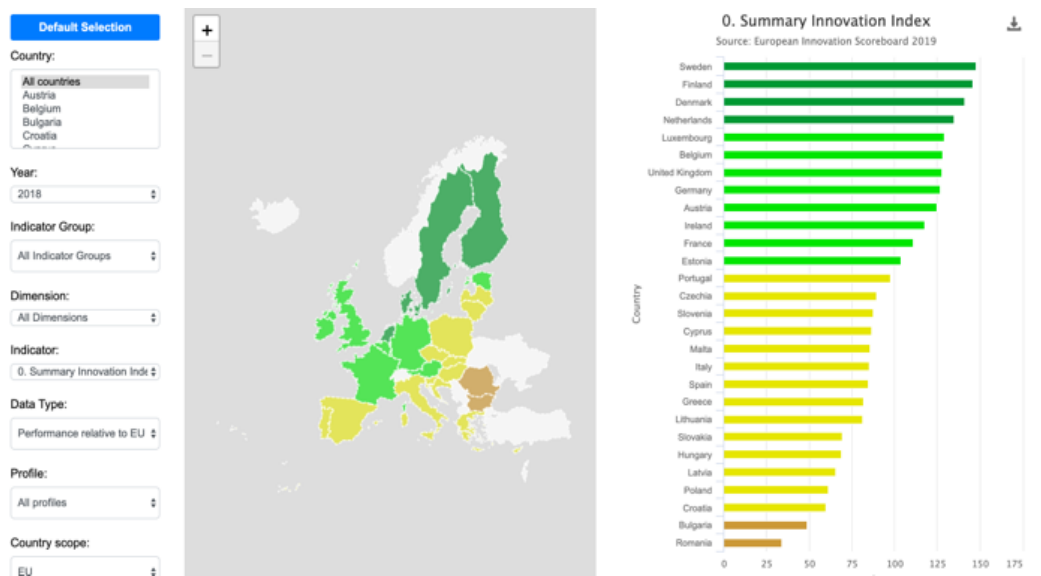
Recommendations for the SMS based on DESI

- DESI uses a simpler online page layout than the SMS, providing users with an intuitive way to find information. A graph showing the composite indicator is presented at the top of the page (see above), with text providing more information on its sub-components placed immediately below the graph; this information can be downloaded in pdf format. A similar layout should be adopted for the SMS.

9.2.2 European Innovation Scoreboard

The European Innovation Scoreboard provides information on research and innovation performance in the EU28 as well as neighbouring countries through an assessment of strengths and weaknesses of a MS' Research, Development and Innovation (R&D&I), thereby helping identify areas of improvement. The Scoreboard offers a high level of interactivity, allowing the user to customise their own chart and visually observe trends in research and innovation across Europe. On the left side of the page, the user is presented with multiple dropdown menus allowing for the selection of: *Country*, *Year*, *Indicator Group*, *Data Type*, and *Innovation Profile* (for example: innovation leader, strong innovator, moderate innovator, modest innovator). In effect, users can select the options they are most interested in and thereby create their own tailored chart of R&D&I in Europe.

Figure 9-11. European Innovation Scoreboard 2019



The European Innovation Scoreboard is an example of a highly-interactive scoreboard. Lessons could be drawn from its design in upgrading the SMS. For instance, rather than arranging the governance tools under three main headings as explained earlier, two-levels of dropdown menus should be built instead. The first level dropdown could provide a fixed set of options, such as the three main headings discussed above, e.g. *Formal and informal cooperation between the European Commission and the Member States*, *Administrative cooperation between national authorities*, and *Assistance services for citizens and businesses*; or the menu could provide four options for the four freedoms, if developers wished to pursue a restructuring of the SMS around the four freedoms. The second level dropdown menu could provide a varying set of options which will depend on the selections made at the first level. For instance, if the user selected *Formal and informal cooperation between the European Commission and the Member States* in the first level dropdown, the options of the second level dropdown would be: *Transposition*, *Infringements* and *EU Pilot*. Furthermore, similarly to the European Innovation Scoreboard, Member States within the SMS could be grouped by performance when displaying for instance infringements and transposition data.

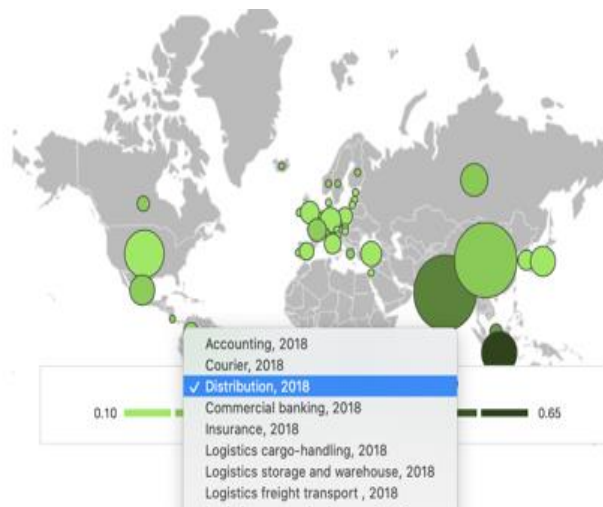
9.2.3 Services Trade Restrictiveness Index

The Service Trade Restrictiveness Index (STRI) is a visual tool providing information concerning regulation of the trade in services across Organisation for Economic Cooperation and Development (OECD) countries as well as Brazil, China, Costa Rica, India, Indonesia, Malaysia, the Russian Federation and South Africa.

From the perspective of upgrading the SMS, one of the most interesting visualisations in the STRI tool is the world map of Service Trade Restrictiveness, which visualises country-level regulations in an intuitive way. This world map is a more interactive⁸⁷ version than the traffic light map used within the SMS and it provides inspiration to increase the interactivity of the latter. On the STRI world map it is possible to select services of interest from a dropdown menu at the bottom of the map, for instance *Accounting*, *Courier*, *Broadcast*, *Distribution*, *Architecture*, *Engineering*, etc.

⁸⁷ For another example of highly interactive map that could be useful for improving the SMS, please see [infographic](#) on EU export under Comprehensive Economic and Trade Agreement (CETA)

Figure 9-12. STRI world map



Most importantly is the clever use that STRI makes of pop-up windows. Information buttons (“info buttons”) are used to display definitions and explanations of the services selected through pop-up windows. Furthermore, when clicking on a country, the user is presented with a pop-up window providing a country’s score in restrictiveness in trade services broken down by the various services.

Recommendations for the SMS Based on STRI

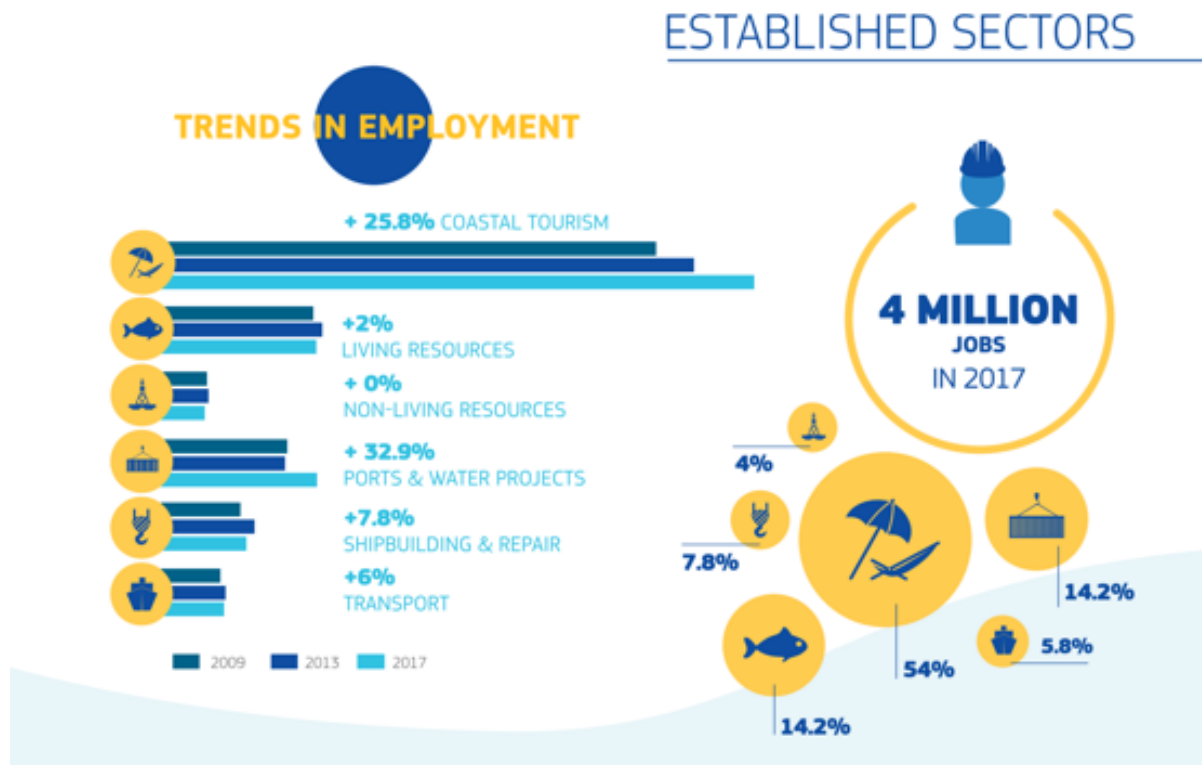
- A two-level dropdown menu like STRI’s should be added to the SMS traffic light map, allowing stakeholders to select governance tools (e.g. Transposition) and potentially the indicators within governance tools (e.g. Transposition deficit).
- Info buttons should be added to the SMS visualisations, providing definitions in an interactive way that does not detract from the UX.
- Instead of directing the user to a text-heavy webpage upon clicking a country within the SMS traffic light map, pop-up windows should be used to provide country-specific Single Market information without leaving the map page. This would improve the UX of the SMS and would allocate a more central role to the traffic light map.

9.2.4 EU Justice Scoreboard & DG MARE’s Blue Economy Report

The *EU Justice Scoreboard* and *DG MARE’s Blue Economy Indicators* are annual reports (distributed in pdf format) on the state of EU national justice systems, and the economic sectors related to oceans, seas and coasts in the EU, respectively. They thus can inspire an updated SMS because:

- They can provide examples of annual reports that could be written to synthesise information related to the EU Single Market, shedding light on the policy areas and governance tools. The user base would welcome this.
- The *Blue Economy Report’s* infographics (Figure below) can provide guidance on a potential pdf generator function that would allow stakeholders to download the aggregate-level analytical results.

Figure 9-13.DG MARE's infographic



9.3 Recommendations for an upgraded SMS back end from a consultation with DG GROW

This section reviews the architecture of the SMS following a consultation with DG GROW. From this review, an example of cloud-based dashboard will be provided, and suggestions concerning the SMS backend, including real-time data updates, will be developed. The SMS was published initially as a printed document and it was subsequently transformed into a website. The resulting online version of the scoreboard is thus made up of static webpages where charts are built using *Highcharts*, a JavaScript library commercially licensed, and the data underpinning them is in JSON format. The raw data files are in xlsx format, and are stored in a server located in the EC premises in Luxembourg. The data is pulled from the xlsx files and turned into json using a script written with Excel's Visual Basic for Applications (VBA). This allows SMS' contributors (the EC officials and analysts who work on the data underpinning the SMS) to use Excel, which facilitates the data gathering, cleaning and computing exercise, while enabling the SMS technical team to turn (through VBA) the data files into JavaScript.

9.3.1 A Cloud Based Dashboard Example from STRIAD

As an alternative, an updated SMS may wish to consider a cloud based back end with an automated data pipeline. An example of such a dashboard is Trilateral Research's STRIAD platform (**Figure 7-13**). In this example, the data is taken from an external Police Application Programming Interface (API) containing crime stats. It is automatically loaded into the cloud via scripts that run periodically, keeping the data up to date without the need for developers to manually update the page. The web page front end is also cloud hosted and thus there is in fact no on-premise server required at all, which cuts costs and alleviates the need for server maintenance and security patching. The entire system is built with Amazon Web Services (AWS) and runs within the free tier, thus there are also no running costs. As the cloud is built

to scale naturally, the data can grow, and more indicators can be handled with ease. The drop downs and selection tools in the front end enable extensive data exploration without overloading the view at any one time, or over complicating navigation. The data stored in the cloud can also be made available via an API and so other developers can access it and load it into their apps, thus extending the audience that would make use of the data. This API approach is currently adopted by the UNDP, which uses an AWS- based open API to foster the usage of their data by developers.

Figure 9-14. Example of plot with automated update of data sources



9.3.1.1 Real-time data

If such a cloud based approach was adopted for the SMS, scripts running in the cloud could pull data regularly or in real-time from the original data source, e.g. *database on regulated professions*, or *Eurostat*, which the contributors would normally use to update their spreadsheets and upload new data to the SMS website.

Every month, new data could automatically be loaded into the system displaying longitudinal visualisations such as the one at the bottom of the above Figure. This means, for example, that if Eurostat updates data for a particular indicator in the SMS, then the indicator could be programmed to be automatically updated when Eurostat updates its data tables. In the SMS, the professional qualification data may be a good candidate for a longitudinal plot and could display data on each of the EU28's acceptance rate of professional qualifications obtained elsewhere in the EU. This plot could be built using Plotly and could allow users to select, through a dropdown menu, the time-range for the data they would like to display. The options for the time range of the plot could be given in months of the year (like in the previous Figure) and the plot's dropdown menu would be updated automatically when new data on a recent month of the year is added.

This real-time data pipeline may be built as follows:

- The data used for the SMS plots will sit in a cloud database, e.g. AWS's Dynamo DB.
- The cloud database will communicate with the original data sources, e.g. the database on regulated professions, or Eurostat, used by SMS the contributors to update their spreadsheets
- When a new data point is available in the original data source, a script (written in Python and running through AWS Lambda functions) will write this data point directly into the cloud database.

- The script will allow to compute composite indicators derived from multiple data sources
- If the original data source has an Application Programming Interface (API) (essentially a gateway to an online database) and is available in JSON, the script will query this API periodically to fetch the new data point and add it to cloud database.
- If an API is not available, the script will activate a web crawler which will scrape the webpage and collect the new data point, inserting it into the cloud database.
- Once the cloud database is updated, a new script will update the plot displaying this data in the SMS' front-end.

The advantages of a cloud-based approach are that the workload of the contributors in terms of SMS data updates will decrease, and there will no longer be any server maintenance cost. Additionally, this has the capability to scale to big data effortlessly, through using the on-demand AWS services built for big data analytics and developers could leverage SMS data via an API. The disadvantages may be related to the need to change or create new scripts if new data sources were added to the SMS, as this would require programming skills. Recommendations on the back-end of the SMS are summarised below.

Back-end recommendations for the SMS

- The updating of the Excel files should be automated using scripts to reduce SMS contributors' work.
- Scripts should have their periodicity scheduled for near-real-time updates for appropriate data sources.
- The data should be moved from a server to the cloud to avoid server maintenance costs and to take full advantage of the automated data pipeline tools.
- A cloud solution can scale up to big data effortlessly, using on-demand AWS services built for big data analytics.
- Developers can leverage SMS data exposed via an API.

10. Overall findings, conclusions and recommendations

This section outlines the study's main findings, conclusions and summary recommendations. It should be noted that the detailed recommendations were provided in Section 8.

10.1 Overall findings

The SMS is strongly appreciated by its core user base of frequent and occasional users, which consists mainly of EU stakeholders, EU networks (including national contacts points and assistance services), national authorities that are either directly involved, or have a strong interest in the governance tools being monitored and reported on through the SMS.

There was a consensus among stakeholders as to the need for continued monitoring and reporting across the thirteen different governance tools covered through the existing SMS and to retain as many indicators as possible, as these are needed for management purposes.

However, beyond the core user base, awareness about the SMS were found to be low, especially among business representative associations, NGOs and consumer associations. However, at least some EU and national-level business and consumer associations are aware of, and occasionally use the scoreboard.

Despite this, in 2019, DG GROW's web analytics data shows that the SMS received over 40,000 unique page views. This compares well with other international scoreboards (e.g. OECD) in similar subject matter areas. The assessment of web analytics shows that there is a peak in demand for information and data through the SMS in July each year when the scoreboard is updated. There was found to be scope to strengthen the visibility of the SMS further by taking simple steps, such as cross-promoting the scoreboard across the suite of pages managed by DG GROW across the governance tools and policy areas (expanding this to new policy areas too), and by investing resources in producing an annual report on the implementation of the single market, which could draw on data from, and promote interest in the SMS.

Nevertheless, there was a consensus among stakeholders as to the need for continued monitoring and reporting across the governance tools and four policy areas covered to date. These support and underpin different areas of the implementation of the single market.

There are certain governance tools that have strong political visibility. For instance, indicators that support the implementation of regulatory aspects and the enforcement of single market rules, such as the transposition deficit and infringement proceedings are among those areas of greatest interest. However, there is a recognition that these have historically only focused on directives, and not regulations, and only on the initial stages of single market implementation, rather than on the full legislative implementation lifecycle. There was strong support for encompassing a stronger focus on legal implementation post-transposition, for instance by monitoring market surveillance and enforcement.

The strong focus on governance tools in technical areas of the single market does not currently lend itself to attracting a broader audience of informed users. Possible ways of bridging this gap include:

- Extending the policy areas beyond the current limited number of four areas to include further policy areas of strong relevance to the implementation of the Single Market.
- Fostering a user-driven approach, by explaining the relevance of the scoreboard from a consumer and business perspective, possibly through a pathways approach, showing how different tools and initiatives to support the single market can help to tackle particular obstacles and barriers faced by consumers and businesses.
- Better integrating the user perspective e.g. via the Consumer Market Scoreboard (CMS) or the forthcoming Single Digital Gateway (SDG), due to be launched in 2020.

- Restructuring/clustering data according to user-types and issues instead of data source.
- Highlighting headline indicators in the SMS in areas where strategic progress has been made at the results level (e.g. indicators that are suitable for external communication purposes could be presented as infographics).

There was also strong support to extend the SMS to relevant new policy areas, such as services, consumer protection, the environment, the Digital Single Market and the free movement of people. However, in some more complex policy areas, such as the Capital Markets Union, there may be challenges in assessing progress quantitatively, other than through the use of context indicators. Indeed, the further that the SMS moves away from monitoring and reporting of governance tools, the more there are strategic choices to be made regarding what should be reported on.

These challenges include identifying within new policy areas which sub-policy areas are most relevant to single market implementation. As there is a single market dimension to very many different EU policies and pieces of legislation, it is necessary to be selective, as it would not be manageable or proportionate from a resourcing perspective to report on every single aspect of single market implementation. Furthermore, the more the SMS moves reporting on policy implementation in new policy areas, the more difficult it may be to establish direct causality with EU intervention, as EU policies, legislation, programming and other initiatives are only part of the overall picture. There are likely to be many exogenous factors influencing trends and developments being measured through context indicators. Yet recourse to more context indicators is also necessary in upgrading the SMS, as it is difficult to measure the direct contribution of EU interventions in some areas (e.g. digital economy, cross-border capital market flows).

10.2 Findings on existing tools and indicators

The SMS is intended to provide monitoring of key Single Market policies, and to compare and benchmark Member States' performance, identify issues, and enable the European institutions to develop targeted recommendations to support Member States by strengthening monitoring of the level of compliance with the requirements of single market legislation and policies.^{88 89}

There are already a considerable number of indicators in the existing SMS: 72 indicators under the headline indicators in the performance sections and 107 'facts and figures' indicators. This is a large number of indicators for a Scoreboard by most standards and implies a considerable backend workload in order to prepare and organise the data collection, transform and manage the data and conduct the assessments.

The current focus of the scoreboard indicators is on the governance tools used to track progress and encourage compliance with single market integration. As a high-level observation of the intended purpose of the SMS, its design, breadth and depth of content, and of the type of indicators provided appeared to correspond well with the needs of the core specialised target groups. Therefore, in this sense, the SMS scores well in terms of its relevance.

With just four policy areas covered by the current SMS there are considerable policy 'gaps', which could be more extensively monitored through an upgraded SMS. The research considered 13 additional policy areas that could potentially be covered by the SMS and 73 possible additional scoreboards or datasets for monitoring Single Market policies. Some policy areas, such as services markets, consumer protection regarding cross-border sales and Digital Single Market have a clear and strong link to the Single Market. For others, the link and the accompanying example indicators is more indirect e.g. mobility of students, environment

⁸⁸ Resolution on the Commission Communication on the Single Market Action Plan (CSE (97) 0001 - C4-0286/97)

⁸⁹ European Parliament REPORT on the Internal Market Scoreboard (2009/2141(INI))

or circular economy (where only few of the monitoring indicators are relevant to the Single Market). Main findings regarding the gap analysis are provided in the next sub-section.

Other findings concerning the existing SMS indicators include:

- Core users do not wish to see a reduction in management information provided through the existing SMS, such as the detailed indicators available on governance tools. Rather, some would like to see even more detailed indicators (breakdowns) to strengthen reporting. This may include qualitative supporting information, possibly as an annex to the Facts and Figures data provided in respect of governance tools.
- There is also scope for deeper qualitative assessment/indicators linked to policy processes (e.g. European Semester, European Parliament), but also in areas where quantitative assessment could be difficult (e.g. tackling national barriers at regulatory level through the Capital Markets Union).
- More qualitative analysis could support the interpretation of indicators included in the SMS. Indicators that are more 'actionable' could be included.
- Existing composite indicators are relevant and useful for reporting on Member State performance. The way in which existing SMS webpages are organised could be adapted so that Composite Indicators always come first.
- Causal-type indicators on policy impact are not included in the SMS, but nor are they typically available in databases. This should not be a major concern - other indicators are actionable. Causal effects are usually integrated in standalone evaluations and other studies, rather than scoreboards. Moreover, they require a combination of quantitative and qualitative assessment to reach an evaluative judgement regarding the state of play and extent of progress towards aims.
- Context indicators may help to communicate results e.g. intra-EU mobility and to monitor progress in some areas via proxies (regulatory reforms to eliminate cross-border obstacles), especially when the state of play in implementation is difficult to quantify.

10.3 Gap analysis

The findings from the gap analysis are that:

- The relevance of different new prospective policy areas to the single market was found to vary.
 - Some policy areas, such as consumer protection, the Digital Single Market and digital transformation, the environment and services markets, were identified as having a clear and strong link to the Single Market.
 - In the case of other policy areas, however, the link to the single market was either less clear (e.g. customs and taxation), or of a complexity that may make it difficult to identify suitable data sources and indicators (e.g. the Capital Markets Union, the Circular Economy).
 - There are some policy areas where a judgement is required by the Unit responsible for the SMS in DG GROW as to how far monitoring should go. For example, under the ERA, some indicators are directly relevant to the single market, whereas others are national datasets that shed light on progress towards the overall objective of convergence across national R&D&I systems. Selectivity is however needed as some indicators more directly relate to cross-border aspects of the single market than others, and national data is in any case already reported on in the European Innovation Scoreboard (EIS) and H2020 dashboards, etc. This is an example where it could be more effective to signpost to other scoreboards and dashboards, and only retain the most relevant indicators in the SMS.

- Given the wide range of policy areas and large number of indicators available (with varying relevance), strategic choices will be needed to decide which areas and indicators to ultimately include, and which to exclude.
- Overall, there are many data and information sources available across the longlist of new policy areas identified. This means that the SMS could be repositioned to provide broader coverage of a wider range of policy areas than the present narrow range of four areas.
- However, many of the data sources identified contained indicators where the causal link to EU legislation, policies, initiatives and governance tools was difficult to establish. Nevertheless, good examples of contextual indicators related to the four freedoms were identified⁹⁰.
- Looking at available data from the four freedoms perspective, it also appears possible to extend the SMS into freedoms that are currently less well-covered, such as the free movement of capital, but also potentially extending to include new areas of increasing importance to the European economy, such as the free movement of data.
- A review of the datasets available indicates that numerous relevant indicators are available to support the development of actionable recommendations to encourage reforms / improved performance at MS level or at least help monitor trends.
- There is scope to better monitor and demonstrate the single market's role in assisting businesses and consumers in addressing their everyday needs and many indicators have been recommended that bring in the perspective of business, consumers and citizens. Business or consumer journeys approach could be established at the level of individual Governance Tools themselves, although these are more illustrative and would not be able to provide sufficiently detailed insights to inform reporting and monitoring of single market implementation.
- Some datasets such as ICSMS, CEN or EUR-LEX have data, but further investigation is needed before the Final Report to see whether the data can be exploited and operationalised into indicators.
- Data availability is not always optimum insofar as, for some datasets, it is not available on an annual basis nor for all EU countries. This is particularly the case for some areas that are important to cover from a Single Market perspective e.g. consumer protection (Consumer Markets Scoreboard, Consumer Conditions Scoreboard) and services (OECD STRI).
- The existing SMS already contains a large number of indicators (performance or otherwise) and any extension of the SMS needs to reflect not just on the single market dimension of the policy area or indicator but also more broadly on the possible consequences for the SMS' ongoing manageability.
- There is scope to reposition the SMS as a tool that can also be used for advocacy purposes by integrating positive indicators (e.g. on EU Regulations adopted), highlighting good practice in the MS and, based on regular rigorous analysis, initiating mutual learning processes to diminish barriers to single market implementation.
- Moreover, some stakeholders are keen for the SMS not only to monitor compliance with single market rules and policies, but also to provide a mechanism for capturing, measuring and assessing the associated benefits. However, the SMS is mainly suitable for monitoring processes, activities, outputs and some results.

⁹⁰ A good example is from the area of the free movement of people. It could be highlighted that there were 17 million mobile people in the EU in 2018, which is a good headline figure, even if this can only partially be attributed to SM policies.

- Quantification of the benefits will require specialist external expertise, and studies across particular areas of the single market. Sophisticated methodologies may also be required in some cases (e.g. econometric modelling, use of a gravity model). Such studies and evaluations are already being undertaken across the many different areas of the single market on an *ad hoc* basis and it could be useful to coordinate an annual review of the findings from such studies by incorporating the findings through a synthesis assessment in an annual report on the state of the single market's implementation.

There could also be a rationale for extending the scope of existing sections of the SMS:

- Some national authorities suggested that rather than focusing solely on the transposition deficit and infringement proceedings when reporting on the implementation of single market legislation, there should be an extension to include improving the effectiveness of the application of existing single market legislation at the level of implementation, including by strengthening reporting on market surveillance and enforcement activities as a proxy for making progress in this area. The single market perspective could also be reinforced in some existing areas of the SMS e.g. extending the postal services policy area to include (cross-border) parcel delivery.
- Conversely, there are constraints in other areas, where ideally there would be reporting (e.g. cross-border public procurement) due to the lack of adequate data, and complexities in improving data (much procurement is national and a lot of cross-border procurement is hidden due to being linked to subsidiaries of foreign firms).
- By highlighting barriers more clearly and qualitatively, the actionability of the SMS can be improved e.g. by having a more detailed breakdown of directives, adding more qualitative information e.g. on barriers to transposition, or including the Services Trade Restrictiveness Index (STRI) with an EEA focus, by sector (see Section 7).

10.4 User-friendliness, accessibility and data visualisation

Regarding user-friendliness, accessibility and data visualisation, the findings are:

- The layout and navigation of the present online version of the SMS is broadly welcomed by many stakeholders. Yet, many still think interactive and more readily downloadable data would better allow users to perform their own analyses.
- There is also a wish to have better time series and more up-to-date and timely data included in the online scoreboard, including the use of "real-time" data, where available. Some data was found to be available quarterly, not only annually, and there could be scope to include this more frequently than the present annual updating exercise.
- However, plugging in real-time data through APIs would require greater resources than is presently the case, as there is an intensive process of quality-checking the data.
- Many users would favour an additional, stand-alone annual report type study in PDF form which would encourage qualitative analysis.
- The introduction of headline indicators could help to engage with a broader target audience and be used for external communication purposes. Reporting on existing more technical and detailed indicators would be retained however, to reflect the complexity of the single market, and the continuing need to report on performance being made at Member State level across different areas.
- To appeal to a wider potential target audience, the SMS could be re-structured - for example, presented according to the four freedoms or according to policy areas combining information from different indicator sources e.g. information on cross border consumer behaviour could be combined with information on the performance of ECC Net.

- The structure and technical language of some governance tools (e.g. e-Certis and TRIS) as well as the purpose of the tool in all cases, limits the accessibility of the data and information being reported on beyond a core user group.
- The proposed changes to improve the SMS as regards the layout, navigability and overall user-friendliness are designed not only to make the website and scoreboard more appealing to new target users, but also to the core user community. Therefore, it will be necessary for the IT developers to propose a redesign of the SMS 2.0 website that is not only user-friendly but allows a simple solution to access existing datasets is built in to the redesign process.

10.5 Overall conclusions

The overall conclusions are:

1. The SMS should be extended to incorporate a range of new policy areas relevant to Single Market implementation.
2. Extending the SMS will however require the agreement of, and liaison with other relevant policy Directorate Generals across the Commission services.
3. For policy areas where there is a lack of quantified data (e.g. capital markets union), and monitoring is presently undertaken largely qualitatively, the agreement of other services will be required, as there will be resource implications of extending the SMS.
4. There is data available to extend the SMS to incorporate a range of possible new policy areas, although the amount of data, and the extent to which this can be quantified, differs by policy area.
5. The SMS should expand its coverage beyond governance tools (and limited policy areas) to better assess the performance of the Single Market, including barriers to its realisation, and the benefits for businesses and consumers. This would help to make the SMS more relevant to new users beyond the existing core user base, who should however remain the primary target group.
6. The SMS could be extended by drawing on additional EU and international sources such as the DESI, Digital Transformation Scoreboard, the digital agenda key indicators, Safety Gate, the Consumer Markets Scoreboard, Consumer Conditions Scoreboard, Service Trade Restrictiveness Index, and the Single Digital Gateway *when available*).
7. The SMS would benefit from the inclusion of more qualitative analysis to enable users to better interpret the data provided, including in the facts and figures. The absence of such information runs the risk currently that data may be misinterpreted, due to the lack of context.
8. The study has engaged with stakeholders outside the core user base, who expressed interest in the idea of making it clearer how the SMS is relevant from an EU consumer and business pathway perspective. Moreover, prospective users would appreciate a greater focus on the consumer dimension within the SMS. However, the approach needs to be realistic in this regard, as the governance tools presently being monitored are technical in nature, and provide a mechanism to support the effective implementation of the single market.
9. The wider public and businesses are much more likely to be interested in how they can overcome any specific problems they face relating to the single market, and in deriving the maximum benefit, rather than in the detail of how the single market's implementation is monitored. In other words, many of the datasets presently included in the single market are technical and mainly of interest to stakeholders with direct knowledge of individual tools. The monitoring of some existing tools and policy areas should be extended or adjusted, bringing them into line with market trends and policy needs.

10. Although the SMS' appeal could be broadened to interest other stakeholders, especially business and consumer associations, the type of data being presented is unlikely to be of interest to EU citizens at large. Broadening the appeal should therefore be based on targeting well-informed EU citizens, such as journalists, researchers and consultants, who could relay the most interesting aspects from a citizen perspective through various research outputs. Nonetheless, the visibility and user-friendliness of the SMS and its appeal to a broader audience could be improved by:
- Restructuring the SMS, its individual pages as well as its content. Including context indicators to provide high-level, communication-friendly headline figures to which the Single Market may be contributing.
 - Adapting the performance overview page into a high-level dashboard that could also appeal to a broader audience. Headline indicators could be used for external communications purposes and to inform the development of infographics.
 - The integration of context indicators to report on the evolution across different areas of the single market over time could be an effective tool to stimulate greater interest outside the current core user base.
 - Upgrading the Scoreboard and associated data collection processes to provide greater interactivity, autonomy and more timely data for users.
 - Developing an Annual Report analysing progress in implementing the Single Market to highlight barriers and possible remedial action, provide thematic case studies, underline Member State good practices and showcase improvements or challenges via Single Market consumer or business journeys.

10.6 Options analysis - moving towards an upgraded SMS

This section sets out different options for an upgraded SMS. There are different aspects considered, namely:

- Section 9.6.1 - the timeframe for upgrading the SMS, and an assessment as to what is feasible and realistic over the **short, medium and longer term**.
- Section 9.6.2 - the human resource and financial resource implications for the Commission in **managing the transition to, and maintaining an upgraded SMS 2.0** (e.g. incorporating new policy areas, circa 100 additional indicators, and retaining the existing indicator set).
- Section 9.6.3 - IT development, including **front-end and back-end considerations**.

10.6.1 Steps and options for upgrading the SMS 2.0 – a short, medium and longer term perspective

Evidently, strengthening the monitoring of single market implementation through an improved SMS is not something that can be achieved overnight. Rather, it requires setting out a short, medium and longer term strategic development plan that considers how the SMS can be expanded in different stages to new measurement areas prioritising the most essential elements first. This also requires some flexibility, as expanding the SMS to new policy areas will require ongoing dialogue and strengthened cooperation and coordination with units across the Commission and externally, wherever external datasets are used, for instance, to ascertain when new datasets linked to particular policies become available.

A further factor to consider is the workload of the IT professional working on the SMS currently, and also, any technical inputs that may be needed from DG DIGIT who might be involved in its redevelopment. The timings indicated below are therefore highly indicative and will require modification.

Before outlining the phased approach, it is necessary to explain the different possible options for taking the SMS forward. These options are subject to the preferences of DG GROW in transitioning the SMS to an SMS 2.0, and should be interpreted flexibly. They should also take account of resource constraints and the availability in terms of timing of key IT development staff from DG DIGIT:

Table 10-1 – Options for upgrading the SMS (scoreboard 2.0), timeframes and resources

Options	Description	Timing of implementation	Resource implications (low, medium, high)
Option 1	<ul style="list-style-type: none"> Option 1.1 - Update the SMS's content (making minor improvements to what already exists), with no changes to the IT system. Option 1.2 - Update the SMS's content (making minor improvements to what already exists), but also Commission a pilot demonstration project to illustrate how SMS data could be integrated through an API in real-time. 	• Short-term	<ul style="list-style-type: none"> Low direct costs 1 FTE to work for several months <p>If external contractor used, modest budget of EUR 25,000- 35,000 direct budget for a prototype (depending how much data/ how complicated, how many policy areas)</p>
Option 2	<ul style="list-style-type: none"> Option 2 – Boost awareness about and the visibility of the SMS by ensuring that there are links between the governance tools and policy areas already covered on relevant Commission websites (e.g. on EURES, SOLVIT, different places on Your Europe) and the SMS. 	• Short-term	<ul style="list-style-type: none"> Low direct costs 1 FTE to work for 1 month
Option 3	<ul style="list-style-type: none"> Expand the coverage of the SMS by incorporating new policy areas and indicators (but keep structure and presentation on website the same). <ul style="list-style-type: none"> Option 3.1 – Include all 13 policy areas and 115 related indicators into the SMS (alongside retention of existing SMS indicators). Option 3.2 – partial expansion of the SMS to the most SM-relevant policy areas e.g. the high level list of fewer than 30 headline indicators. 	• Medium-term	<p><u>Option 3.1</u></p> <ul style="list-style-type: none"> Medium level of human resources 3 FTEs to expand to full coverage, perhaps 1 additional FTE staff member <p><u>Option 3.2</u></p> <ul style="list-style-type: none"> 2 FTEs to expand to full coverage
Option 4	<ul style="list-style-type: none"> Expand the coverage of the SMS by incorporating new policy areas and indicators (<u>AND</u> restructure the presentation of the SMS). Option 4.1 – major restructuring based on the four freedoms approach Option 4.2 – minor restructuring to accommodate expanded coverage of new policy areas and indicators. 	• Medium-term	<p><u>Option 4.1 - Major restructuring</u></p> <ul style="list-style-type: none"> DG DIGIT would need to be engaged. Direct IT costs of circa 6 – 9 months of IT development (blue economy scoreboard could provide a benchmark). No info on actual costs as DG DIGIT data internal to the EC. <p><u>Option 4.2- Minor restructuring</u></p> <ul style="list-style-type: none"> DG DIGIT would still need to be engaged.

Options	Description	Timing of implementation	Resource implications (low, medium, high)
			<ul style="list-style-type: none"> • Direct IT costs of circa 3 -4 months of IT development. • No info on actual costs as DG DIGIT data internal to the EC.
Option 5	<ul style="list-style-type: none"> • Ensure that the relaunched SMS website is user-friendly and offers a dynamic user experience (UX). • Option 5.1 – integration of real-time data updates live on the website using APIs • Option 5.2 – integration of real-time data updates live into a downloadable PDF summary document of the SMS data using APIs • Option 5.3 - improved interactivity with SMS datasets. 	• Medium-term	• See above (all part of the IT development process, hence costs should be provided by DIGIT).
Option 6	<ul style="list-style-type: none"> • Further consultations to review the effectiveness and performance of the SMS 2.0 to ensure it remains fit for purpose. • Regular annual review of ongoing appropriateness of headline indicators. 	• Longer-term.	<ul style="list-style-type: none"> • Low-medium direct costs • 2 FTE to work for several months on consultations • Annual review could take a couple of months of an FTE.

It should be noted that the options are not mutually-exclusive, and could be implemented as part of a staged approach. However, strategic choices will be necessary regarding the scale and scope of the SMS 2.0 itself before being able to determine more accurate resource implications of implementing particular options. At this stage, an indicative assessment of the resource implications can be provided only (see later in this sub-section).

In the following table, the way in which these options might be implemented as part of a phased approach are outlined, stressing the different steps and processes that would be needed.

Table 10-2 - Steps for upgrading the SMS (scoreboard 2.0)

Timeframe	Steps	Process in each step and possible options
Short-term (3-6 months)	<p>Step 1: Improve the existing SMS (by expanding indicators/datasets across existing governance / policy areas)</p> <p>Step 2: Strengthen awareness about the SMS and its visibility by checking links exist</p> <p>Step 3: Pilot an API-driven new policy area integrating real-time data.</p>	<p><u>Step 1 process:</u></p> <ul style="list-style-type: none"> • Update the overview page so that there is clear explanation of what is in each page (including checking that on the entry point into each governance tool, acronyms are explained). • Add additional indicators that have been identified within the existing SMS's governance tools and policy areas. • IT development to plug in new indicators within existing SMS governance tools and policy areas. <p><u>Step 2 process:</u></p> <ul style="list-style-type: none"> • Cross-check which websites the SMS is linked to. Ensure that the websites of all existing governance tools and policy areas are linked to the SMS. • Cross-reference to other scoreboards with appropriate links. • Ensure that the staff involved in the governance tools promote the SMS among their stakeholders. <p><u>Step 3 process:</u></p>

Timeframe	Steps	Process in each step and possible options
		<ul style="list-style-type: none"> Launch a pilot project to develop a demonstration project as to how data visualisation and further interactivity might be incorporated into the SMS to strengthen UX.⁹¹ Pilot the integration of real-time datasets into the SMS through the use of APIs. This could be done based on 1-2 policy areas and a small number of datasets.
Medium-term (6-18 months)	<p>Step 4 - Restructure the layout and navigability of the SMS.</p> <p>Step 5: Relaunch the SMS website under the new structure.</p>	<p><u>Step 4 process:</u></p> <ul style="list-style-type: none"> Restructure the SMS and performance overview page according to the four freedoms. Incorporate additional new policy areas and new indicators e.g. high level indicators only or are more expansive approach considering the 100 indicators identified that could be possibly included. Integrate real-time datasets into SMS through the use of APIs. <p><u>Step 5 process:</u></p> <ul style="list-style-type: none"> Initial IT development to establish proof of concept (ideally a demonstration tool – see Step 2) Further IT development to plug in new SMS datasets and data in respect of new indicators. Pilot test the launch of a new website (navigability, user-friendliness). Manage launch of the SMS 2.0 website, including associated publicity and communication materials. Stress targeting of both existing users and attracting new users.
Long-term (>18 months)	Step 6: Continue to develop the SMS with regular reviews of its performance.	<p><u>Step 6 process:</u></p> <ul style="list-style-type: none"> As the single market evolves constantly, a further internal consultation could be launched within the Commission to assess whether there are developments in new policy areas which mean new data sources and indicators have become available. Identify if there are any new, emerging policy areas, where ongoing changes are likely to result in new datasets and indicators emerging that could be integrated into the SMS (e.g. datasets / indicators linked to the Green Deal and Digital Transformation). Keep the headline indicators under periodic review, but ensure overall continuity and stability. The IMAC Committee could play a validation role in reviewing any proposed changes to the headline indicators, and in providing periodic feedback on proposed changes to the detailed set of indicators across new policy areas.

10.6.2 Human resource and financial resource implications of different options

Evidently, there are different human resource and financial resource implications of the different options. Some improvements could be made relatively easily by the Unit itself (see Option 1 and the Step 1 process). However, there will be a need for additional resource. As shown in the earlier table, under certain sub-options, additional IT support will be needed. For the pilot demonstration project, for example, there is a possibility this could be outsourced to an external contractor if DG DIGIT's workload is too high to allow for development of a prototype during 2020. Clearly, launching a fully-fledged modernisation and updating of the SMS to transition to a cloud-based approach with API plug-ins might require 6-9 months of development. As it has been made clear that only DG DIGIT would be allowed to do this given the policy of using corporate IT tools within the Commission, the costs are not available to our consultancy team, but could be shared internally by the Commission.

⁹¹ This could either be supported by an external consultancy with data science expertise, or developed by DG DIGIT.

As regards overall human resource needs in an SMS 2.0, as explained in our report, transitioning from the current scoreboard will require considerable additional resource. Currently, the SMS focuses very strongly on measuring the direct contribution of the EU, but to specific governance tools that the EU itself finances, to a much broader remit to monitor single market implementation across the four freedoms (possibly extending to additional new freedoms, given the possible evolution in the policy framework for the single market to also cover data and knowledge). As explained in this report in the sections dealing with new policy areas, as the SMS moves away from activities it supports itself, this makes direct measurement much more difficult.

A reliance on contextual data to assess single market performance and progress towards implementation in particular areas implies a lot more qualitative assessment, to be able provide any meaningful interpretation of the data. This in turn implies either more human resources within the Unit dealing with the SMS, or much stronger liaison with new policy areas across the Commission in order to tap into studies and evaluations able to provide qualitative assessment and judgement about the extent of progress being made. Simply extending the quantitative data reporting will not in itself add much value, unless the extra data is interpreted, as much of the data would be contextual.

Examples of the resource implications associated with the different options were provided in the previous table on options.

10.6.3 IT-related development options for an upgraded SMS

Option 1 below constitutes a solution concerned with front-end development only. This, if implemented, could improve the UX as well as the data visualisation aspects of the scoreboard.

Table 10-3 – IT development: detailed option 1

Option 1 - Front End Development Only	
<ul style="list-style-type: none"> Redesign the webpage using only JS, HTML and CSS. Use CSS to give the style a modern dashboard facelift. Make the page navigation flatter by: <ul style="list-style-type: none"> putting more on a single page and using less tabs; using text boxes that pop up on hover; using drop down menus on plots to select different data, enabling users to play with the data whilst only displaying what they want to see. Use section boxes to break up content on a single page with headers that help the reader. Use out of the box open source JS plotting packages such as Plotly to make graphs more interactive with info on hover, select, zoom, and download figure as png file functionality. 	
Development & Maintenance costs	
<ul style="list-style-type: none"> Data Analyst for designing and building plots and engaging with end user. Front end dev for modifying web site and engaging with end user. Technical Project Manager to oversee project. Increased number of SMS contributors or heavier workload on the current ones should new indicators be added or the existing ones be modified <p>All subsequent minor edits to be managed in-house.</p>	
Advantages vs Disadvantages	
<ul style="list-style-type: none"> Advantages: minimal development costs, minimal inputs from external consultants 	

Option 1 - Front End Development Only

- Disadvantages: unable to perform real-time or nearly real-time data updates, unable to expose SMS data through an API for developers to leverage SMS data, higher maintenance costs if more indicators will be added to the SMS

Option 2 below constitutes a solution concerned with backend as well as front-end development. This, in addition to the improvements brought by Option 1, would allow for an almost real-time data update and would relieve SMS' contributors from burdensome duties such as continuously updating their spreadsheets to update the SMS, and furthermore provides API access to data for others to use when developing apps, thus taking the information to new audiences.

Table 10-4 – IT development: detailed option 2**Option 2 - Front and Back End Development with Cloud Hosting**

All of Option 1 but with a cloud back end data pipeline that would include the below functionality. *Note, Amazon Web Services (AWS) tools are suggested but equivalent services from Microsoft Azure or Google Cloud Platform would be available.*⁹²

- Store all data in a cloud data lake built in a low-cost storage solution such as AWS S3, thus enabling the system to scale to include an expanded amount of data.
- Schedule scripts to run periodically to pull in data from defined sources using a serverless architecture built from AWS Lambda and AWS Step Functions, thus reducing the need for manual labour from contributors.
- Adjust the periodicity of some scheduled scripts to enable near-real-time updates to data sources where appropriate.
- Utilize the AWS console to make simple tweaks to the scripts, minimising the need for professional cloud support for regular minor adjustments.
- Expose the data via an API built with AWS API Gateway so that the front end can connect but also so other developers can build apps that use the data coming from the API, putting the information into the hands of a wider community.
- Host the front-end web page files in an AWS S3 bucket, completely removing the need for any on-premise server management.

Development & Maintenance costs

- Data Analyst for designing and building plots and engaging with end-user.
- Front end developer for modifying web site and engaging with end-user.
- Cloud Solution Architect to build database, API, web hosting, and serverless code architecture for extract transform load of data from external sources.
- Technical Project Manager to oversee.
- In-house programmer will be needed to maintain and update scripts (written in e.g. Python/Node/C), should new indicators be added to the SMS or the existing ones be modified

All subsequent minor edits to front end and data extract transform load scripts to be managed in-house, with occasional call out for cloud solution architect modifications. This maintenance cost would likely be offset by automating the data updates and reducing the cost of the contributor's time. Running costs of cloud compute service likely to be within the free tier of AWS and thus will not cost anything.

Advantages vs Disadvantages

- Advantages: real-time data updates, ability to expose SMS data through an API, alleviate SMS contributor's workload, cutting on-premise server management costs, minimal maintenance costs if more indicators will be added to the SMS
- Disadvantages: higher development costs

⁹² DG Justice's Consumer Markets Scoreboard appears to run on AWS.

10.7 High-level recommendations

The detailed recommendations are provided in Sections 8.2 - 8.4. These focus on the recommended indicators in new policy areas, but also address a number of recommended changes to indicators in the existing SMS, as well as other recommendations of a more strategic nature.

10.7.1 Upgrading of the content of the SMS – coverage, policy areas and indicators

1. The SMS should include a strategic statement as to the intended scope and coverage of the scoreboard as regards how detailed reporting and monitoring of single market implementation through the SMS is, and the delineation as to what is – and isn't – important to monitor.

This would be an important communication mechanism and would enable the scale and scope of the SMS to be kept proportionate.

2. The Commission should retain the great majority of indicators in the existing SMS, as these are actively used by the current core user base.
3. The Commission should develop a set of headline indicators for the upgraded scoreboard relating to the overall performance of the single market.
4. Greater use of context indicators should be made, recognising the limitations regarding measurability and establishment of direct causality in some policy areas.
 - a. Whilst context indicators have drawbacks in terms of their indirect nature, such as the lack of a direct causal relationship with EU interventions, they can still be used to formulate action-based recommendations. The shortlisted indicators in Annex 4 have been selected with this need in mind.
 - b. Recommendations informed by context indicator results will be positioned at a more strategic policy level. EU-27 MS will be requested to adapt their behaviour at a more general level, implying strengthening a combination of policy levers and tools that may need to be spelled out as a result of wider research or investigation. The evolution in context indicator results will not by themselves reveal what should be done, but will require further interpretation to derive policy lessons (e.g. by the consultants or Commission services involved in preparing the annual report on single market implementation, by policy officials working on specific areas covered by the SMS).
5. A significant expansion of the coverage of policy areas relevant to the single market not already in the SMS should be undertaken to cover areas such as the digital single market, the environment and consumer protection.
6. The SMS should continue to be structured based on performance by Member State and governance tool, but much greater visibility should be given in the structure both to the enhanced coverage of EU policy areas and to reporting across the four freedoms.
7. Strategic reflections should be undertaken by the Unit responsible for the SMS as to the overall manageability and proportionality of the proposed expansion, as increasing the total number of indicators by more than 100 implies additional workload and resourcing. User-friendliness, navigability and upgrading of the website (front-end and back-end)
8. The website should be overhauled in order to make it more user-friendly. Some restructuring of the order of presentation of the data is necessary to strengthen visibility of key information and data e.g. integrating more policy areas and the four freedoms).

9. A pre-condition for redesigning the SMS 2.0 website will need to be made clear to the IT developers so that the existing user base can easily find the data that they need for their everyday work and for managerial purposes. This could be achieved in various ways, such as:
 - Having a two-tier structure to presenting the data but ensuring that the second tier of more managerial detailed indicators relating to governance tools can still easily be accessed).
 - Building-in an intuitive layout and search capabilities based on previous searches (and previous categorisation of the data in existing governance tools and policy areas). For instance, a search bar in which the key governance tools easily come up as soon as the user starts typing could be used, or alternatively, drop-down menus or a brochure style navigation layout that pops up, via which all existing datasets can be accessed will be necessary. Such options have been used in scoreboards previously. It will be up to the IT developers to propose the most user-friendly solutions.
10. Investment should be made in improving the front-end of the SMS website to improve the modernity of the layout and make it more visually-appealing and user-friendly. However, the traffic light system is now well-established and should be retained as it is regarded as useful.
11. Investment should also be made in developing suitable back-end IT systems (e.g. the transition to a cloud-based approach) to improve the timeliness of data integrated into the SMS, including the possibility of plugging in datasets in real-time updated frequently through the use of APIs.

10.7.2 Capitalising on the data in the upgraded SMS – strategic use of the improved scoreboard

12. The individual Facts and Figures reports for each governance tool and policy area in the current SMS should in its upgraded form be integrated into an annual SMS report in PDF (bringing together all the data in the scoreboard in a single document, like other scoreboards developed by the Commission).
13. In parallel, to enhance the utility and visibility of the data produced in the scoreboard, the SMS should provide data on an annual basis to inform the development of the Single Market Performance Report, which is linked to the European semester reporting process.⁹³
14. Once it has been determined which new policies and specific indicators will be integrated into the new scoreboard, it would be practical to produce an overview with information and weblinks to all the existing and relevant scoreboards run by the Commission, which contain relevant data on the single market. The scoreboards from which the upgraded SMS draws monitoring data could be clearly indicated.

⁹³ https://ec.europa.eu/info/publications/2020-european-semester-single-market-performance-report_en

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Annex 2: Gap analysis – case studies

Capital and Financial Markets

Summary of the policy area

Mention the key law / policy documents and the relevance of the policy area to the Single Market

Ensuring the free movement of capital is one of the four key elements of the EU's Single Market (SM). Ensuring that capital can be moved efficiently across borders would make the EU economy stronger and help to support economic convergence. The Capital Markets Union⁹⁴ (CMU) was launched in 2015, and remains a key EU policy priority, with three progress updates produced to date (most recently in November 2018). The high-level objectives set out in the action plan are: fostering the development of better integrated, and deeper capital markets so as to strengthen and support the Economic and Monetary Union (EMU) and strengthening the Euro's role as an international currency. Additionally, the CMU should create jobs and growth by contributing to the third pillar of the European Investment Plan, by removing regulatory barriers to investment, both nationally and at EU level.

There are three Pillars of the CMU:

1. Making the most of the Single Market for consumers and investors through new European products;
2. Supporting businesses and entrepreneurs through clearer and simpler rules; and
3. More efficient supervision of EU capital markets.

Among the CMU's priorities are addressing national barriers to capital flows, in areas such as cross-border investment funds and venture capital, fostering FinTech for instance by overcoming national differences in approaches to regulating crowdfunding, and strengthening the development of cross-border financial and investment markets.

The CMU is structured around a diverse combination of EU policy and regulatory initiatives, thereby providing an umbrella framework through which developments relevant to achieving the CMU's goals are taking place. Not all the initiatives identified in the 2015 CMU Communication⁹⁵ have taken place following the CMU's adoption. Some of these build on earlier regulatory initiatives that pre-date the CMU. An implication for the SMS might be to differentiate between what can directly be linked to the CMU, as opposed to what is relevant to the SM in the area of financial markets, but where particular policy initiatives pre-date the CMU.

The 2019 update on the implementation of the CMU⁹⁶ and the European Financial Stability and Integration Review 2019⁹⁷ both mention the importance of strengthening the Single Market for capital in the context of Economic and Monetary Union (EMU). The latter points out that *"a comprehensive banking package was adopted in April 2019. However, a substantial amount of work still needs to be done on the European Deposit Insurance Scheme and the common backstop before the Banking Union⁹⁸ is completed.* The extent to which there are

⁹⁴Communication "Action Plan on Building a Capital Markets Union", COM(2015) 468, 30.9.2015; Communication "On the Mid-Term Review of the Capital Markets Union Action Plan", COM(2017) 292, 8.6.2017.

⁹⁵ Action Plan on Building a Capital Markets Union COM/2015/0468 final

⁹⁶ Capital Markets Union: progress on building a Single Market for capital for a strong Economic and Monetary Union, COM, (2019) 136 of 15 March 2019.

⁹⁷ https://ec.europa.eu/info/sites/info/files/european-financial-stability-and-integration-review-2019_en.pdf

⁹⁸ The Banking Union is based on three pillars: (i) a single supervisory mechanism (SSM), (ii) a single resolution mechanism (SRM) with a related single resolution fund, and (iii) a European deposit insurance scheme (EDIS). The Banking Union applies to Member States in the euro area but other non-euro Member States.

capital flows across borders is dealt with in a separate Commission staff working document on 'The Movement of Capital and Freedom of Payments'⁹⁹.

Key policy priorities and the types of indicators needed to measure the priorities

Since the CMU encompasses a broad range of policy and regulatory initiatives of a technical and regulatory nature, there are challenges in identifying the most relevant priority areas, since all areas contribute to different aspects of the CMU. Nevertheless, it is perhaps worth focusing on regulatory and policy initiatives that are collectively designed to minimise the obstacles to the cross-border movement of capital. The main sub-policies identified can be grouped together under the following headings and sub-headings:

Progress towards more integrated EU financial and capital markets, especially inside the euro area.

- Fostering the implementation of the Economic and Monetary Union and the Banking Union

Overcoming cross-border obstacles such as:

- The marketing of investment funds (e.g. UCITS);
- Differences in national insolvency regimes;
- Different national regulatory and non-regulatory approaches to crowdfunding, and the lack of an EU-wide regulatory regime in this area;
- Obstacles to cross-border venture capital flows being addressed through the EuVeca designation¹⁰⁰;
- Barriers to cross-border lending;

Other challenges relating to the free movement of capital.

- Tackling regulatory fees for cross-border marketing of investment funds;
- Overcoming burdensome withholding tax (WHT) tax relief procedures, which differ between countries;
- Promoting more liquid capital markets and diversified sources of funding for enterprises generally;
- Diversification of access to finance sources for SMEs (from market-based sources of finance¹⁰¹), by tackling some of the cross-border obstacles mentioned under the previous heading.

The CMU is highly relevant to the achievement of SM objectives relating to the free movement of capital. The Commission undertakes monitoring of the functioning of financial markets. For example, the EU monitors inflows and outflows of capital through the Eurostat Balance of Payment (BoP statistics)¹⁰². Cross-border financial activity within the EU can be measured, for example, through Eurostat BoP statistics which show the intra-EU FDI in the total stock of cross-border investment.

Monitoring and reporting on the achievement of progress towards some of the CMU's objectives could prove difficult to measure quantitatively across many areas of intervention. There are inherent constraints due to the complexity of the different types of policy and regulatory initiatives being supported across the CMU initiative. There is consequently a

⁹⁹ 'The Movement of Capital and Freedom of Payments', SWD(2019) 94 final of 27 February 2019 on the movement of capital and the freedom of payments.

¹⁰⁰ The European Venture Capital Fund Regulation (EuVECA), Regulation (EU) No 345/2013, came into effect on 22 July 2013

¹⁰¹ According to a progress update on the CMU, market-based sources of finance are currently less than 15% of the total.

¹⁰² <https://ec.europa.eu/eurostat/web/euro-indicators/balance-of-payments>

challenge in identifying quantitative indicators that could shed light on progress, or which could meaningfully be aggregated to the CMU as a whole across different heterogeneous sub-policy areas. Since many of the above-mentioned regulatory initiatives and other measures to tackle cross-border obstacles are complex, and may demand qualitative evaluation to assess progress rather than quantitative indicators, although context indicators may be useful in shedding light on the extent of activity across different types of investments (e.g. investment funds, VC, crowdfunding).

Nevertheless, it has been possible to identify a small number of direct indicators, as well as context indicators, that could help to shed light on progress being made in relation to the CMU overall.

There are a number of different types of indicators that could be used to assess progress in specific areas. Examples in a selected number of areas are provided below.

Example 1 – Cross-border financial flows

As a 2019 Commission Communication¹⁰³ updating on CMU implementation points out, “deeper integration of capital markets, together with more integrated banking systems, can help to maintain cross-border capital flows and sustain investment in Member States suffering large asymmetric macroeconomic shocks”. Cross-border financial flows are monitored through different statistical sources, such as Eurostat’s balance of payments data, Eurostat data on FDI and in respect of cross-border intra-EU and global financial flows, data collected/analysed by the EC and the IMF¹⁰⁴.

However, the data is complex and relies upon a number of different sources of data relating to different types of financial transactions being aggregated. *“Total cross-border financial flows are thus an aggregate measure of the size of transactions in financial assets, and, more generally, of the intensity of financial linkages between different economies”*¹⁰⁵.

Sub-policy and / or regulatory area	Type of indicator	Indicator(s)
Cross-border financial flows	Context:	<ul style="list-style-type: none"> Size of capital markets in the EU-28 Size of capital markets in the EU top 5 Member States

Context indicators are used to measure cross-border financial flows. Whilst such data is evidently useful in shedding light in terms of progress in respect of the integration of capital and financial markets in a SM context, there is a lack of a direct, (measurable) causal relationship with EU policy and regulatory initiatives taking places within the auspices of the CMU.

¹⁰³ Capital Markets Union: progress on building a Single Market for capital for a strong Economic and Monetary Union {SWD(2019) 99 final}

¹⁰⁴ Euro Area Cross-Border Financial Flows https://www.ecb.europa.eu/pub/pdf/other/art3_mb201202en_pp105-118en.pdf

¹⁰⁵ Idem. P. 105

Example 2 – Banking Union

One of the objectives of the Banking Union is to reduce the systemic risks of the European banking system (with a focus on the Eurozone area), by strengthening the resilience of European banks with respect to prudential and regulatory capital requirements. In this regard, the EU regulatory framework is underpinned by the international Basel requirements. There are examples of key indicators to assess the macro-economic stability of the banking system, such as:

- Net stable funding ratio
- Leverage ratio

Moreover, a significant legislative package adopted by the Commission in November 2016 containing amendments to four pieces of EU legislation: The Bank Recovery and Resolution Directive (BRRD), the Single Resolution Mechanism Regulation (SRMR), the Capital Requirements Directive IV (CRD IV) and the Capital Requirements Regulation (CRR). CRD IV is intended to implement the Basel III agreement in the EU. It is comprised of the:

- Capital Requirements Directive (2013/36/EU) (CRD) which must be implemented through national law; and
- Capital Requirements Regulation (575/2013) (CRR), which is directly applicable to firms across the EU.

CRD IV includes enhanced requirements for: the quality and quantity of capital; a basis for new liquidity and leverage requirements; new rules for counterparty risk and new macroprudential standards including a countercyclical capital buffer and capital buffers for systemically important institutions. There are quantifiable indicators linked to some of these pieces of legislation. For instance, under the Capital Requirements Regulation, banks must meet minimum capital requirements in respect of their Tier 1 capital ratio and also in respect of the capital-to-risk-weighted-assets ratio (linked to the Basel III Capital Adequacy Ratio Minimum Requirement).

Example 3 – National insolvency regimes

Although there have been various attempts to put in place a more coordinated regulatory approach at EU level, there remains considerable divergence in national insolvency regulatory regimes across the EU. According to a paper by CEPS¹⁰⁶, *"the quality of insolvency frameworks across the euro area, and the broader EU, diverges rather dramatically"*. There also remain challenges stemming from differences in national insolvency regimes in the case of cross-border insolvencies. The present situation is sub-optimal from the perspective of realising the Single Market in this area. Harmonising national insolvency frameworks could improve the functioning of the Single Market and the stability of the euro area.

The original aim in the CMU Action Plan 2015 was to consult with stakeholders to identify barriers in the area of insolvency and to develop a legislative initiative on business insolvency, so as to address the most important barriers to the free flow of capital. The intention was to build on national regulatory regimes that were identified as being especially effective. Among the policy objectives in this field are: giving second chance entrepreneurs a better chance, tackling regulatory divergence in national insolvency regimes so as to facilitate cross-border insolvencies and *"removing sources of cost unpredictability in cross-border insolvency procedures, which are often hidden in national insolvency laws"*¹⁰⁷. EU legislation in this field has recently been updated through Directive (EU) 2019/879, the Bank Recovery and

¹⁰⁶ Harmonising Insolvency Laws in the Euro Area - Rationale, stocktaking and challenges, Diego Valiante, No. 153 / December 2016

¹⁰⁷ Idem.

Resolution Directive and Regulation (EU)¹⁰⁸, the BRRD. Pre-BRRD, any liquidation in the context of a resolution had to be carried out in accordance with national insolvency procedures. The BRRD introduced in the EU the FSB's Key Attributes of Effective Resolution Regimes for Financial Institutions, the internationally-agreed insolvency standards for banks. The BRRD and the SRM Regulation have helped to harmonise EU insolvency law for banks by entrusting administrative authorities, rather than Courts, with harmonised resolution powers. A second piece of relevant legislation in this area is Directive 2019/877 of the loss-absorbing and recapitalisation capacity of credit institutions and investment firms (SRMR II)¹⁰⁹. However, national insolvency laws continue to be applicable. In the absence of an overriding 'public interest' (i.e. financial stability, the protection of depositors, continuity of critical functions), failing banks will be liquidated under national insolvency law.

Sub-policy and / or regulatory area	Type of indicator	Indicator(s)
Elimination of divergence in national insolvency regimes	Output:	<ul style="list-style-type: none"> Number of different national insolvency regulatory regimes
Elimination of divergence in national insolvency regimes	Impact:	<ul style="list-style-type: none"> Strengthened progress towards harmonisation in national insolvency regimes (qualitative assessment)
Implementation of Directive 2019/877 of the loss-absorbing and recapitalisation capacity of credit institutions and investment firms (SRMR II)	Impact:	<ul style="list-style-type: none"> Strengthening of the functioning of a 'single resolution approach' across banking groups active in different MS.

Example 4 – Cross-border barriers to UCITS.

The first example relates to Directive 2009/65/EC on undertakings for the collective investment in transferable securities (UCITS). The Directive was recently amended through Directive (EU) 2019/1160 of 20 June 2019, amending the UCITS and Alternative Investment Fund Manager directives ('UCITSD' and 'AIFMD'). EU Member States must transpose the Directive into national law by 2 August 2021. The main changes to the UCITSD and AIFMD are the following: 1) Removal of requirement to appoint a local entity fulfilling the paying – and/or information agent function for UCITS and for AIFs distributed to retail investors 2) Implementation of uniform rules for the de-notification process, in case UCITS or AIFs shall no longer be marketed in a Member State and 3) Implementation of uniform definition and conditions for AIF 'pre-marketing' to professional investors.

The Commission's aim through the new Regulation is to facilitate cross-border distribution of collective investment funds. Barriers such as national marketing requirements and regulatory fees are detrimental to cross-border distribution of funds. The proposal aims to make cross-border distribution of funds simpler, quicker and cheaper. More cross-border distribution should lead to more opportunities to invest in investment funds that pursue social and/ or environmental goals. The proposed rules should improve the transparency of national requirements, remove burdensome requirements and harmonise national rules which are presently divergent.

The changes involved are of a quite technical regulatory nature, and do not lend themselves towards the use of quantitative indicators to measure performance. However, some context

¹⁰⁸ Directive (EU) 2019/879 of the European Parliament and of the Council of 20 May 2019 amending the Bank Recovery and Resolution Directive as regards the loss-absorbing and recapitalisation capacity of credit institutions and investment firms and Directive 98/26/EC (BRRD II)

¹⁰⁹ Regulation (EU) 2019/877 of the European Parliament and of the Council of 20 May 2019 amending Regulation (EU) No 806/2014 as regards the loss-absorbing and recapitalisation capacity of credit institutions and investment firms (SRMR II).

indicators may be relevant, such as those indicated below. In addition, some further indicators relating to progress in eliminating barriers to the cross-border distribution of UCITS are also likely to remain relevant:

Sub-policy and / or regulatory area	Type of indicator	Indicator(s)
Overcoming barriers to the cross-border distribution of investment funds (e.g. UCITS)	Output:	<ul style="list-style-type: none"> No. of national barriers to cross-border distribution of investment funds eliminated
Overcoming barriers to the cross-border distribution of investment funds (e.g. UCITS)	Result:	<ul style="list-style-type: none"> No. of MS in which pre-marketing fees for UCITS have been eliminated No. of MS in which pre-marketing fees for UCITS have been reduced Extent of improvement in eradication of outstanding national barriers (qualitative)
Overcoming barriers to the cross-border distribution of investment funds (e.g. UCITS)	Context:	<ul style="list-style-type: none"> Data on cross-border distribution of collective investment funds % of retail investment funds sold in >3 EU MS % of retail investment funds sold in >5 EU MS % of alternative investment funds (AIF) marketed cross-border
Overcoming barriers to the cross-border distribution of investment funds (e.g. UCITS)	Counterfactual impacts:	<ul style="list-style-type: none"> Impact if the EU marketing passport had not existed and contributed to creating a successful cross-border market (qualitative).

Example 5 – Crowdfunding

One of the challenges inherent in assessing progress within the CMU in the area of crowdfunding is that without an EU regulatory framework in place presently, there are presently limits as to the EU's role. It is difficult for the EU to promote a more common approach, other than to monitor and review the evolution in national regulatory frameworks, so as to evaluate how far there is divergence or convergence in national regulatory approaches. This lends itself to qualitative evaluation studies, supported by quantitative contextual data on the evolution of the market, both domestically and cross-border.

Sub-policy and / or regulatory area	Type of indicator	Indicator(s)	Data sources
Measures to promote a common approach to regulating crowdfunding	Output:	<ul style="list-style-type: none"> No. of national regulatory barriers eliminated 	<ul style="list-style-type: none"> National authorities
Measures to promote a common approach to regulating crowdfunding	Result:	<ul style="list-style-type: none"> Extent of convergence in national regulations (qualitative assessment) 	<ul style="list-style-type: none"> National authorities Qualitative assessment of progress by evaluators
Measures to promote a common approach to regulating crowdfunding	Context:	<ul style="list-style-type: none"> Level of crowdfunding activity in EUR (national) Level of crowdfunding activity in EUR (cross-border) 	<ul style="list-style-type: none"> Euro Crowdfunding Network http://eurocrowd.org/crowdfunding-by-country/ Market research studies and data e.g. https://p2pmarketdata.com/crowdfunding-europe/

Sub-policy and / or regulatory area	Type of indicator	Indicator(s)	Data sources
Measures to promote a common approach to regulating crowdfunding	Impact:	<ul style="list-style-type: none"> Strengthening of cross-border flows in crowdfunding 	<ul style="list-style-type: none"> Qualitative and quantitative assessment of progress by evaluators

Available data sources

Regarding data availability, some official data sources are available. These mainly focus on monitoring progress towards more integrated financial and capital markets. Examples are Eurostat's Balance of Payments data on investment flows (inward, outward). However, such indicators are context indicators and do not relate directly to EU policy and regulatory interventions. Other quantitative data available includes the ECB's SAFE survey on access to finance for SMEs (perception-based) and also data collected on different forms of financing and the cross-border dimension (e.g. crowdfunding, venture capital).

A problem in assessing progress towards CMU implementation is that many of the achievements relate to improving the policy and regulatory environment and removing legal obstacles to the free movement of capital. They are often inherently difficult to measure, with some exceptions, such as the elimination and reduction in pre-marketing fees charged for cross-border investment funds.

Available databases and other data sources

Name of data source	Data provider and type	Correspondence to the Single Market for Goods (please adjust to your policy area)	Data availability and frequency	Examples of key indicators	Indicator types
Eurostat Balance of Payments data¹¹⁰	Eurostat	Free movement of capital		<ul style="list-style-type: none"> Balance of payments - BPM6 (ei_bp_6) Current account - quarterly data (ei_bpm6ca_q) Financial account - quarterly data (ei_bpm6fa_q) Current account - monthly data (ei_bpm6ca_m) Financial account - monthly data (ei_bpm6fa_m) International investment position - quarterly data (ei_bpm6iip_q) 	Context
Venture Capital	Invest Europe/ membership-based organisation.	Free movement of capital	Since 2010, annual	<ul style="list-style-type: none"> Total VC investment at EU level (disaggregated by stage, sector) VC investment by MS (disaggregated by stage, sector) 	Context

¹¹⁰ <https://ec.europa.eu/eurostat/web/euro-indicators/balance-of-payments>

Name of data source	Data provider and type	Correspondence to the Single Market for Goods (please adjust to your policy area)	Data availability and frequency	Examples of key indicators	Indicator types
				<ul style="list-style-type: none"> Some data on cross-border VC flows 	
Crowdfunding	European Crowdfunding Network (ECN)	Free movement of capital	2017	<ul style="list-style-type: none"> http://eurocrowd.org/crowdfunding-by-country/ 	Context
Collective Investment Funds (UCITS)	Various market research and industry players produce data	Free movement of capital	Some annual reports produced by industry	<ul style="list-style-type: none"> https://www.caceis.com/whats-new/insights/reference-papers/article/cross-border-distribution-of-ucits/detail.html 	Context
Access to SME finance	European Central Bank (ECB)	Free movement of capital	ECB SME Access to Finance Survey (SAFE) ¹¹¹	<ul style="list-style-type: none"> See footnote 	Context
Access to SME finance	European Central Bank (ECB)	Free movement of capital	Financing SMEs and Entrepreneurs 2019, an OECD Scoreboard	https://www.oecd-ilibrary.org/industry-and-services/financing-smes-and-entrepreneurs-2019_fin_sme_ent-2019-en	Context

For indicators that relate to regulatory reform, it should be noted that the main source of data will relate to simple output and process indicators, such as the number of regulatory reforms implemented, number of Member States in which the regulatory approach has been harmonised where previously it was divergent etc. Such basic data could be obtained from national authorities involved in implementing the relevant legislation.

Gap analysis

Reporting and monitoring progress in respect of the implementation of the free movement of capital is complex, multi-faceted and the indicators relate to very specific areas where regulatory and policy initiatives are being implemented so as to reduce national barriers to cross-border capital and investment flows. Many of the achievements in the CMU are of a legal and/ or technical nature, or both. These inherently lend themselves to qualitative assessment through evaluation studies and regulatory implementation reports.

Moreover, most indicator types would be very difficult to measure quantitatively, hence a reliance on context indicators as a proxy for assessing progress. For example, many of the areas where EU regulation has the potential to make a contribution towards the objective of making progress towards more integrated EU financial and capital markets can only be assessed quantitatively indirectly. It is moreover difficult to establish causation. Examples of such impact (trends) indicators are:

¹¹¹ https://www.ecb.europa.eu/stats/ecb_surveys/safe/html/index.en.html

EU policy or regulatory initiatives	Impact indicator (trends)
Initiatives to reduce national differences in approach to regulating crowdfunding (which is not yet regulated at EU level).	<ul style="list-style-type: none"> % change in the level of national and cross-border crowdfunding activity
The development of the EUVeCA designation (2013), as updated in 2019¹¹²	<ul style="list-style-type: none"> % change in the volume of cross-border venture capital;
Rules on cross-bordering marketing of investment funds and other securities (UCITS, AIF)	<ul style="list-style-type: none"> % of funds from undertakings for collective investment in transferable securities (UCITS) marketed cross-border % of funds from undertakings for collective investment in transferable securities (UCITS) marketed cross-border in < 3 MS, <5 MS % of alternative investment funds (AIF) marketed cross-border

The degree of success for other initiatives could be measured directly, such as VentureEU, the EU's VC Fund-of-Funds programme, an initiative launched in 2018. Since this involves setting up a new Fund-of-Funds programme, which will attract private sector investors at the FoF level, as well as funding from individual VC funds selected to manage the FoF, various indicators could potentially be utilised, such as those indicated in the following table:

- Amount of funding leveraged at fund-of-funds level (EUR million)
- Amount of EU funding (EUR million) allocated to European VC funds
- Amount of private funding (EUR million) allocated to European VC funds
- Number of SMEs receiving a VC investment through EU part-funded VC funds
- Funding leverage ratio

Recommendations

Please provide a small number of bullet point recommendations.

Please suggest what data sources / indicators should be adopted and any other solutions that may be needed e.g. presenting certain combinations of indicators in a given area, tasking persons to gather data in certain areas e.g. via short policy briefs etc.

- There are regular progress reports on the CMU's implementation, which are mainly qualitative. The SMS could make a cross-reference to these for stakeholders interested in progress in respect of the implementation of the free movement of capital.
- Since many achievements in the CMU are difficult to assess quantitatively, there should be a strong reliance on context indicators that shed light on progress being made.
- For instance, data is available in respect of the evolution in cross-border investment flows across different types of financial instruments, (e.g. VC, crowdfunding, collective and alternative investment funds, etc.). Contextual data is collected by some EU associations funded by the EC (e.g. EBN on business angels, ECN on crowdfunding, Invest Europe on VC) and where publicly unavailable could be sourced through market research reports.

¹¹² On 12 July, the OJ published the new EU cross-border fund distribution directive and regulation, Regulation (EU) 2019/1156 of 20 June 2019, on facilitating cross-border distribution of collective investment undertakings and amending European social entrepreneurship funds ('EuSEF'), European venture capital funds ('EuVECA') and packaged retail and insurance-based investment products ('PRIIPs') regulations.

- Such data, whilst useful, has only an indirect relationship with the activities being undertaken through the CMU, and it is difficult to demonstrate causality without fully fledged evaluations. Therefore, the SMS should possibly cross-reference to the relevant data sources and to the regular progress reports on the CMU's implementation rather than integrate indicators directly into the SMS.

Digital Economy

Summary of the policy area

The European Commission has dedicated strategy for the Digital Single Market, managed by Unit F.4 (Digital Economy and Skills) in DG Connect. The Digital Single Market strategy aims to open up digital opportunities for people and business and enhance Europe's position as a world leader in the digital economy.¹¹³

The DSM Strategy is built on three pillars¹¹⁴:

1. [Access](#): better access for consumers and businesses to digital goods and services across Europe;
2. [Environment](#): creating the right conditions and a level playing field for digital networks and innovative services to flourish;
3. [Economy & Society](#): maximising the growth potential of the digital economy.

These pillars are operationalised in the following action block in order to fulfil and improve the Single Market conditions for the digital market

- **Digitising European Industry** – integration of internet of things, artificial intelligence, big data analytics, robotics and 3D printing – further operationalised through the **Digital innovation Hubs**¹¹⁵
- **Building a European data economy** - as an essential resource for economic growth, competitiveness, innovation, job creation and societal progress in general.
- **Improving access and connectivity for a European Gigabit Society** - A new rule book for providers of internet access and communication services - the European Electronic Communications Code; Common EU broadband targets for 2025; A voucher scheme for public authorities who want to offer free Wi-Fi access to their citizens (WiFi4EU)
- **Investing in network technologies** (5G, cloud computing, next generation internet)
- **Advancing in digital science and infrastructures**
- **Supporting media and digital culture** - coherent approach on media policies, covering legislation on audio visual media services and the preservation of the European cultural heritage
- **Creating a digital society** - Building smarter cities, improving access to eGovernment, eHealth services and digital skills
- **Strengthening trust and security** - The EU cybersecurity strategy, e-privacy, e-inclusion

Concrete objectives are

- Boosting [e-commerce](#) in the EU by tackling geoblocking, making cross-border parcel delivery more affordable and efficient
- Modernising the EU [copyright](#) rules to fit the digital age
- Updating [EU audio-visual rules](#) and creating a level playing field for comparable digital sources, tackling illegal online content and protecting the most vulnerable users
- Stepping up Europe's response to cyber-attacks by strengthening ENISA, the EU [cybersecurity agency](#), and creating an effective EU cyber deterrence and criminal law response to better protect Europe's citizens, businesses and public institutions

¹¹³ <https://ec.europa.eu/digital-single-market/>

¹¹⁴ https://ec.europa.eu/commission/priorities/digital-single-market_en#policy-areas

¹¹⁵ <https://ec.europa.eu/digital-single-market/en/pillars-digitising-european-industry-initiative>

- Unlocking the potential of a [European data economy](#) with clear rules for the free flow of non-personal data in the EU
- Ensuring everyone in the EU has the best possible internet connection through "[connectivity for a European gigabit society](#)"
- Adapting [ePrivacy](#) rules to the new digital environment
- Helping large and small companies, researchers, citizens and public authorities make the most of new technologies by ensuring that everyone has the necessary [digital skills](#), and by funding EU research in health and high performance computing

Key policy priorities and the ideal types of indicators needed to measure the priorities

The Digital Single Market strategy is the expression of the Commission's ambition to promote the development of an integrated digital market to ensure the free and secure exchange of data and boost competitiveness of the digital economy (industry and services). This strategy thus falls largely in line with what the Single Market Scoreboard aims to cover.

From the viewpoint of Single Market monitoring in this field essential aspects to be monitored are:

- Progress in the elimination or reforming/standardising rules and regulations hampering the digital market integration (geoblocking, roaming costs, privacy rules, digital copyrights, cyber security) (output)
- Progress in the virtual infrastructure enabling the development of the digital / data economy (implementation of 5G/6G, IoT/cloud computing facilities, next generation internet - Digital Innovation Hubs) (output/result)
- Progress of the integration of the digital market itself (use of intra EU cross-border e-commerce, public & private e-services, exchange/flows of non-personal data...) (result)
- Progress of the digital transformation of the EU economy / industry and performance and competitiveness of the EU digital economy & industry (impact)

The Commission has set up a quite extensive framework for following-up and monitoring its strategy. The next section outlines the main tools in place for this and assesses the available indicators in their suitability for the Single Market Scoreboard.

Available data sources

The table below covers the following databases used by DG Connect to track the progress of the Digital Single Market ([Digital Scoreboard](#)), as well as a few related databases:

- [The Digital Economy and Society Index \(DESI\)](#)
- [The Digital Agenda Scoreboard Key Indicators](#)
- [The European Data Market Monitoring Tool](#)
- [The Digital Transformation Scoreboard](#)

Apart from these structural databases/scoreboards, a number of relevant indicators have been measured ad hoc through Flash Eurobarometer Surveys. As these indicators have only been established once, we will not cover them further below, but they are included in the general indicator screening.

Available data sources that correspond to (mention the priorities you indicated)

Name of dataset	Correspondence to the Digital Single Market	Data availability	Examples of key indicators	Indicator types
The Digital Economy and Society Index (DESI)	<p>The DESI is a composite index summarising indicators on Europe's digital performance and the evolution of MS digital competitiveness, across five main dimensions: Connectivity, Human Capital, Use of Internet, Integration of Digital Technology, Digital Public Services.</p> <p>The indicators track progress of EU's digital economy, although it does not provide a full view on the European integration of this economy</p>	Annually since 2014	Composite indicator 'Citizens' use of internet services and online transactions', consisting of three sub-dimensions: Internet Use; Activities Online; Online Transactions	Outcome
			Composite indicator 'Integration of Digital Technology', consisting of two sub-dimensions: Business digitisation; e-Commerce (incl. cross-border)	Result
			Composite indicator 'Digital Public Services' consisting of two sub-dimensions: e-Government; 5b e-Health (20%)	Outcome
The Digital Agenda Scoreboard Key Indicators	<p>EC services selected more than 100 indicators, divided into thematic groups, illustrating key dimensions of the European information society (Telecom sector, Broadband, Mobile, Internet usage, Internet services, eGovernment, eCommerce, eBusiness, ICT Skills, Research and Development).</p> <p>A number of these are directly related to the integration of the digital economy / society</p>	2007-2014	Mobile roaming price per minute	Outcome
		2017	The speed of the fixed connection to internet is not sufficient for the actual needs of the enterprise	Process
		2007-2011	Export of ICT goods and services (both intra- and extra-EU)	Result
		2012-2017	Citizen Mobility: extent to which public services that are aimed at foreign citizens are available online, usable, and implement eID and eDocument capabilities	Outcome
			Business Mobility: extent to which public services that are aimed at foreign businesses are available online, usable, and implement eID and eDocument capabilities	Outcome
		2008-2018	Individuals ordering goods or services online, from sellers from other EU countries	Result
		2009-2017	Enterprises having done electronic sales to other EU countries in the last calendar year	Result
The European Data Market	The EDMM study aims to define, assess and measure the European data economy,	2016-2018	Enterprises advertising online based on the geolocation of internet users	Outcome
		Annually since 2013	Data Market Value per MS / industry (€)	Outcome

Name of dataset	Correspondence to the Digital Single Market	Data availability	Examples of key indicators	Indicator types
Monitoring Tool (EDMM)	monitoring the EC Data Value Chain policy. This study feeds into the annual reviews of the Digital Agenda Scoreboard The data economy is an important in the Digital Single Market, and the tool very succinctly tracks the overall progress of this data market		Data companies revenues by MS / industry (€)	
			Number of data users per MS / industry	
The Digital Transformation Scoreboard	The Digital Transformation Monitor provides a monitoring mechanism for the evolution of digital transformation in Europe. In itself this monitor is not directly related to the Single Market, but does track the digital economy as a whole	Annually since 2014	Selling online cross-border - Enterprises that did electronic sales to other EU countries	Impact

Gap analysis

The described databases cover some of the critical aspects of the Digital Single Market, and show real potential as source for indicators to be included in the Single Market Scoreboard. Particularly the DESI and Digital Agenda Scoreboard Key Indicators include a comprehensive set of indicators for all relevant domains of the digital agenda. Although clearly the databases are explicitly directly meant to monitor the Single Market for the digital economy/society, it deals with a large part of the priorities for the Single Market Scoreboard.

Priorities that are well covered are

- Progress in the virtual infrastructure enabling the development of the digital / data economy (implementation of 5G/6G, IoT/cloud computing facilities, next generation internet - Digital Innovation Hubs) (output/result)
- Progress of the digital transformation of the EU economy / industry and performance and competitiveness of the EU digital economy & industry (impact)

On the other hand, the databases are not directly suited to monitor the progress of the integration of the digital market itself (use of intra EU cross-border e-commerce, public & private e-services, exchange/flows of non-personal data). They thus do not provide a full comprehensive view on actual integration of the market, through tracking cross-border flows, although it does contain a number of such indicators.

Furthermore, the databases do not include a lot of indicators on factors that are hampering a Single Market of the digital economy, and thus provide little insight into the progress in the elimination or reforming/standardising rules and regulations hampering the digital market integration (geoblocking, roaming costs, privacy rules, digital copyrights, cyber security)

Recommendations

The digital economy is certainly an area with potential to include in the Single Market Scoreboard. This does require an exercise of reconfiguration and recombining the indicators already available in a way that they will provide a more comprehensive view on the priorities of the Single Market integration in this domain. This mainly relates to the cross-border offer and use of e-commerce, public & private e-services, exchange/flows of non-personal data.

Harmonised policy briefs on specific topics relevant for the SMS could be useful and relevant to obtain a better view on this.

Furthermore, process indicators relating to rules and regulations hampering the digital market integration could add to the insight in the actual progress of the integration of the market.

Single market for goods

Summary of the policy area

To support the free movement of goods, and to strengthen the conditions for the placing of goods on the Single Market, harmonised technical legislation has been established at European level through the so-called New Approach. In recent years, there has been an effort to introduce a more common legal framework across body of Union harmonisation legislation in the area of industrial products through the New Legislative Framework (NLF).¹¹⁶ The aim of the New Legislative Framework is to reinforce the Single Market in industrial products by:

- Putting in place a common legal framework for:
 - Placing goods on the market, and aligning existing legislation wherever this is found to be non-aligned, to eliminate inconsistencies;
 - Market surveillance and enforcement arrangements
- Improving the performance of nationally-designated market surveillance authorities (“MSAs”) that have responsibility for monitoring and removing non-compliant products subject to harmonised Single Market rules, particularly if they are judged to pose a significant risk to safety, public health and the environment, and taking further (legal) action against non-compliant companies where appropriate;
- Enhancing the cooperation of national market surveillance authorities at European level through regular meetings and procedures to support sharing of information and joint enforcement actions;
- Encouraging the development and use of harmonised technical standards, to enhance compliance with these requirements and enable products following the standards to obtain presumption of conformity;
- Setting clear rules for the even accreditation of conformity assessment bodies undertaken by a single accreditation body per country;
- Ensuring accredited Notified Bodies are subject to consistent notification and verification procedures managed by the accreditation bodies;
- Enhancing cooperation of Notified Bodies at European level, with a focus on sharing information and supporting even interpretation of the relevant conformity assessment requirements and procedures that should be followed;
- Demanding that conformity assessment modules are followed properly ensuring that products have been subject to and met the necessary requirements, whether managed by manufacturers independently, or where relevant, with the involvement of a Notified Body;
- Enhancing the clarity and meaning of the CE mark affixed by manufacturers to their products. In doing so, business certify that their products are compliant with the necessary

¹¹⁶ The New Legislative Framework (https://ec.europa.eu/growth/single-market/goods/new-legislative-framework_en) consists of:

- Regulation (EC) 765/2008 setting out the requirements for accreditation and the market surveillance of products;
- Decision 768/2008 on a common framework for the marketing of products, which includes reference provisions to be incorporated whenever product legislation is revised. In effect, it is a template for future product harmonisation legislation;
- Regulation (EC) 764/2008 laying down procedures relating to the application of certain national technical rules to products lawfully marketed in another EU country.

It has involved an ongoing process of alignment with 23 Directives and Regulations now aligned with the common approach set out in the common legal framework.

essential requirements particularly around health and safety, meaning that the goods can move freely in the Single Market.

At the same time, the Single Market for goods covers non-harmonised products, namely items that are not subject to European law but may be subject to national requirements. The Treaties and the NLF provides a legal framework¹¹⁷ and other practical supporting measures to support the free movement of non-harmonised goods via the principle of mutual recognition and the performance of the Product Contact Points that have the role of informing economic operators of the national product rules where they apply.¹¹⁸ The principle of mutual recognition stems from Regulation (EC) No 764/2008. It defines the rights and obligations for public authorities and enterprises that wish to market their products in another EU country. The regulation also defines how a country can deny mutual recognition of a product. A new regulation, Regulation (EU) 2019/515 on the mutual recognition of goods lawfully marketed in another Member State, will apply as of 19 April 2020.

Assessment of the policy priorities and the types of indicators needed to measure the priorities

Clearly, the Commission's priorities for this policy area are to support the smooth functioning of the Single Market for goods on the basis of common rules and conditions, the removal of national non-tariff barriers relating to products, and ensuring that the Single Market makes a solid contribution to the economic welfare of the Member States. With these priorities in mind, the following areas seem immediately apparent for monitoring;

1. The quality of enforcement and compliance with EU laws;
2. For non-harmonised legislation only, the relative restrictiveness of national markets around product regulation in terms of market access;
3. The economic contribution of the Single Market for goods to the EU and Member State economies.

Much space could be dedicated to suggesting the types of types indicators that could be used to hypothetically measure the aggregate quality of the enforcement and compliance activities around the New Legislative Framework and other product regulations yet to be aligned to it. However, a small number of hypothetical examples include:

Indicative hypothetical indicators that would support monitoring of the NLF

Indicator type	Type of authority / organisation	Title of the indicator
Input indicators	Market surveillance authorities / Accreditation bodies / Product Contact Points	Annual budget as a percentage of the annual public finance budget
	Market surveillance authorities / Accreditation bodies / Product Contact Points	Number of staff
Process indicators	Market surveillance authorities	Number of companies investigated
	Accreditation bodies	Frequency of monitoring activities of Notified Bodies
	Market surveillance authorities / Notified Bodies	Number of European level meetings e.g. ADCO
Output indicators	Market surveillance authorities	Number of information exchanges via the ICSMS
	Market surveillance authorities	Number of products notified as likely to be non-compliant on RAPEX
	Market surveillance authorities	Number of EU wide market surveillance actions launched
	European Committee for Standardisation	Number of harmonised product standards issued

¹¹⁷ https://ec.europa.eu/growth/single-market/goods/free-movement-sectors/mutual-recognition_en

¹¹⁸ Product Contact Points for Construction Products have also been established under the EU Construction Products Regulation considering that national rules apply in some areas to construction products

Indicator type	Type of authority / organisation	Title of the indicator
Result or outcome indicators	Market surveillance authorities	Number of companies removing their non-compliant products from the market
	Product Contact Points	Satisfaction survey of users to clarify if their requests for information were solved

Available data sources and indicators

This section provides an assessment of the available data sources and indicators considering the policy priorities examined above.

Firstly, based on the data mapping exercise to date, and considering the needs of the RACER principles established by Better Regulation Guidelines as mentioned already in the methodology section, the project team has yet to identify an appropriate data-source that would provide aggregate level comprehensive and consistent **monitoring of the quality of the enforcement and compliance** with the NLF. This is perhaps unsurprising given the scope of the legislation, the range of organisations involved, and the level of investment required to maintain such a database. However, some relevant data sources have been identified as indicated below:

Available data sources to support monitoring of the quality of the enforcement and compliance with the NLF

Name of dataset	Correspondence to the Single Market for Goods	Data availability	Indicative key indicators	Indicator types
RAPEX database ¹¹⁹	Free movement of consumer goods only (non-food, non-pharmaceutical or non-medical products or devices)	Annually, 2004 to present	Number of notifications by product category	Process
			Number of follow up actions of existing notifications by authorities in other Member States	Outcome
			Number of joint action market surveillance programmes	Outcome (not for all years)
DG GROW Evaluations of Product Regulations and related areas / country reports on market surveillance	High level of correspondence to individual pieces of legislation / market surveillance systems	Evaluations are published each year although typically not for the same pieces of legislation The market surveillance reports have	Qualitative analyses are undertaken within the framework of the Better Regulation Guidelines evaluation criteria. Quantitative indicators are often indicated although are not consistent between studies	Varying depending on the methodology requested by DG GROW / suggestions of the contractors
CEN standards data	Data should be available on the number of products standards published	Owned by CEN – therefore accessibility issues need to be discussed		
IMI – already included in the SMS	Currently it does not seem to be heavily used by market surveillance	Annually	Information is available on the number of exchanges in the non-road mobile machinery national type approval	Process

¹¹⁹ Source: EU Open Data Portal <http://data.europa.eu/euodp/en/data/dataset/rapex-rapid-alert-system-non-food>

Name of dataset	Correspondence to the Single Market for Goods	Data availability	Indicative key indicators	Indicator types
	authorities, but it is in some product areas		area and authorisations of firearms	
TRIS – already included in the SMS	Relates to notifications of draft technical regulations for goods and information society services	Annually	Notifications by MS/sector Reactions to the notifications by Commission/MS	Process
ICSMS	Strongly linked to the activities of market surveillance authorities.	Needs to be checked. The project team has requested access to the database given that it is restricted for public use. We will review it after the interim stage.	Number of cases	Process
			Product origins	Process
			Product recalls	Results

It should be noted that the RAPEX database only extends to consumer goods. While some of the products included are covered by EU industrial product regulation e.g. Toy Safety Directive, products used specifically by industry, e.g. heavy machinery, are not covered. The indicators are useful in comparing the activity of Member States in using the RAPEX database and in following up notifications etc., although of course these measures provide an idea of the processes managed by authorities rather than outcomes or results e.g. number of companies removing products from the market, number of legal actions against companies etc. Nonetheless, Commission calls for Member State action could easily be undertaken using this information.

The DG GROW evaluations of individual product regulations provide a good level of insight into the functioning of the Single Market for goods in very specific areas, although there are some aggregate level studies such as DG GROW's Evaluation of the Internal Market for Industrial Products. However, clearly there are challenges in using the data as part of a monitoring system given that the reporting is highly qualitative albeit structured according to a consistent analytical evaluation framework, with inconsistencies between reports regarding the frequency and type of quantitative indicators used e.g. Likert scale surveys, analysis of data from key authorities etc. However, structuring the data in a consistent way so that it is suitable for the SMS could be undertaken – see the suggestions below.

Although already monitored by the SMS, the IMI is a key tool for exchanging information between authorities. The information on the IMI and SMS websites suggest that it is being used in a limited way in relation to products, for example, there is mention of non-road mobile machinery national type approvals and transfer authorisations of firearms. At this stage, further exploration would need to be made of the role of the IMI in the goods area through interviews but at first sight it seems that it is being used to a limited extent in the goods area.

Moreover, the Single Market Transparency Directive 2015/1535 requires Member States to notify the Commission of all draft technical regulations relating to products and information society services prior to adoption in national law to ensure that they are in line with EU law and the principles of the Single Market. The notifications, and the reference to the reactions from the Commission and the Member States, are published in the Technical Regulations Information Systems database (TRIS) which is used already as a data-source to support indicator based monitoring by the SMS. However, as confirmed by interviews, while the

databases behind TRIS provides information by sector, it does not produce cross-tabulation analyses of sector by Member States, meaning that currently the indicators do indicate which countries are making notifications in the products and information society areas. This point is explored further in the review of the existing SMS.

The ICSMS (Information communication system for market surveillance) appears to be a promising source of information. The project team has requested to this database and will review it in detail subsequently. Based on desk research, the information it contains relates to information exchanges, cases handled, product origins, movement through the supply chain, issues of concern, steps taken to resolve issues and product recalls. However, the format of this data is currently unknown and given that the data is not available to the public, it would need to be established if the aggregate results can be published. Assuming that extractable quantitative information was available, it would seem that several good process and results indicators could be available – see the table above – although this requires verification.

The CEN standards database is another possible although again the project team does not have access to the database at this stage although the data is owned by CEN / CENELEC therefore it may not be possible to share aggregate results data with the public. Again, this is an area that will be explored further shortly.

Secondly, it was explored if data were available on the overall **regulatory restrictiveness of Member State' product markets** and to date the following databases were identified:

Available data sources to support monitoring of the restrictiveness of Member State product markets

Name of dataset	Correspondence to the Single Market for Goods	Data availability	Indicative key indicators	Indicator types
OECD Product Market Regulation Statistics	This database has a poor correspondence with the Single Market for goods but is very relevant for other Single Market areas	Every 5 years from 1998 to 2013	Economy wide measure of regulatory restrictiveness	Composite indicator
			Sectoral restrictiveness measures e.g. energy, telecommunications, transport public procurement	Composite indicator
			Professional services measures of restrictiveness	Composite indicator
EU-TBT database	Technical barriers to trade are highly relevant to the SM in goods. This database enables data on the situation internationally to be obtained. On-line EU-TBT database allows searches by country https://ec.europa.eu/growth/tools-databases/tbt/en/search/ Provides data publicly which would otherwise be difficult to access (e.g. in the <i>Technical Barriers to Trade Database (TBT-WTO)</i>)	Real-time	Notification e.g. new technical applying to a certain product	Output
ePing	This database corresponds less to the SM in goods within the EU and rather to comparing market openness in the EU with the situation internationally. This database tracks product requirements in export markets of	Real-time	Product requirements in export markets by MS	Output

Name of dataset	Correspondence to the Single Market for Goods	Data availability	Indicative key indicators	Indicator types
	the EU and the rest of WTO members.			

Regarding the OECD Product Market Regulation Statistics database, while providing good composite statistics for key sectors of the internal market, it does not provide measures that relate unambiguously to goods markets. The sectors covered include network industries (energy, transport and communications), retail (retail distribution and pharmaceutical sales) and professions (accountants, architects, engineers, estate agents, lawyers, notaries etc.). There is also separate product market database relating to the economy, providing further indicators on regulatory restrictiveness for example relating to FDI, business start-up, market entry etc. which would also be useful for other areas of Single Market monitoring. However, in the goods areas, it is not recommended that indicators from this database are used.

The **EU-TBT public database** is a possible data source and is publicly available. This has been integrated into the WTO Technical Barriers to Trade database, which is concerned with preventing international trade barriers and linked to the WTO Agreement on Technical Barriers. The purpose is to help EU economic operators get acquainted with rules applying to products in third countries. It allows unnecessary technical obstacles to international trade to be detected and removed at source. **ePing**, run by the WTO, the United Nations Department for Economic and Social Affairs (UNDESA) and the International Trade Centre (ITC), could be a further source of information. The database facilitates information on product requirements in foreign markets using data compiled by the WTO.

Finally, data sources were explored regarding whether it would be possible to include information of the benefits of the Single Market for goods on the economic welfare of the Member States.

Data sources examining the economic welfare derived from the Single Market for goods

Name of dataset	Correspondence to the Single Market for Goods	Data availability	Indicative key indicators	Indicator types
Integration and market openness – already included in the IMI	Good correspondence but does not indicate the impact of the Single Market for goods specifically	Annually from Eurostat	Intra-EU trade in goods	Impact (measurement of trends that are only partially due to Single Market policies)
			Extra-EU trade in goods	
Revisiting the cost of non-Europe (CEPR Policy Portal) ^{120 121}	Good correspondence: using a gravity model, the impact of the Single Market for goods is identified	A longitudinal analysis is available online covering 1960 to 2015	Estimates with confidence intervals on the growth percentage gains of the Single Market to the economy over time	Counterfactual impact

To begin, the economic dimension of the Single Market for goods is already being monitored by the SMS considering that indicator analyses of intra-EU trade and extra-EU imports are provided in the section on “Performance by Integration and Market Openness”. However, while covering goods specifically, the impact of Single Market for goods is not examined specifically.

¹²⁰ <https://voxeu.org/article/revisiting-cost-non-europe>

¹²¹ http://www.cepii.fr/PDF_PUB/wp/2018/wp2018-06.pdf

As one would expect, individual studies provide assessment of the Single Market for goods using econometric techniques. For example, the CEPII study (a French research centre on trade) provides estimates of the contribution of the Single for Goods over time using a gravity model. Therefore, this analysis provides a counterfactual analysis, making it clear what the estimated impact of the Single Market is over time. Although the analyses would need to be repeated to ensure ongoing relevance, the results make clear the contribution of the Single Market to the welfare of Member States.

Gap analysis

A comprehensive set of indicators have not been identified to support ongoing monitoring of all enforcement and compliance areas within the scope of the NLF. The indicators in the previous section suggest that if available a range of input, process, output, outcome and result type indicators could be envisaged to provide more comprehensive monitoring of enforcement of SM legislation. However, correspondence between these indicators and available data sources seems to be limited.

Nonetheless, the RAPEX database does provide some coverage of process and outcomes associated with market surveillance activities, and possibly also the ICSMS database may provide a similar function which will be reviewed shortly when access is granted to the project team.

Moreover, DG GROW's evaluation activities and studies commissioned on the SM for goods appear to be a relevant data source both for qualitative and quantitative information and data. However, currently there is no quick and easy way to obtain the data from the studies in a structured way. Therefore, as a suggestion, a standardised policy brief template (e.g. two pages) could be integrated into the Request for Services for these studies that would be mandatory for contractors to complete. The template could contain a standardised set of 4 or 5 key questions and a similar number of indicators that the contractors must address through data collection and analysis activities (e.g. similar to the hypothetical indicators mentioned already). Over time, while each policy brief would provide information on specific regulations, a cumulative picture of enforcement could be developed based on assessment of the policy brief qualitative and indicator analyses.

A gap relates to the assessment of country performance at an aggregate / composite level regarding overall product regulation restrictiveness. At stage, no solutions to this issue have been identified. There are studies available that provide counterfactual measures of impact of the Single Market for goods using econometric methods such as the gravity model published by reputable research organisations. This information could fill a gap around communicating the contribution of the SM for goods makes to a wider audience. However, the studies would need to be updated to ensure the ongoing relevance of the measures provided suggesting that further financing would be required.

Recommendations

If the SMS were to be upgraded, as part of communication efforts to broader audiences, a synthesised page on the Single Market for goods could be developed combining indicators that cover the areas of compliance, enforcement and counterfactual impacts of the Single Market for goods. This could include:

- Process and outcome indicators on market surveillance enforcement from RAPEX (and possibly the ICSMS);
- Harmonised policy briefs in specific areas of the product legislation developed by future evaluations of the Single Market for Goods, combining contextual qualitative insights and a standardised set of indicator results;
- Communication of counterfactual impacts of the Single Market for goods obtained from existing studies, that are updated periodically via further funding.

Environment

Summary of the policy area

The European Union's Sustainable Development strategy is equally applicable to all areas of EU policy, including the Single Market. This means that as well as ensuring free movement of goods, services, capital and people, the Single Market is also responsible for ensuring high standards of environmental protection across the four freedoms. Free movement and environmental protection have often been perceived as being in conflict with each other – however, the Single Market also represents a significant opportunity for harmonising environmental standards across the Single Market area.

The Single Market for Green Products Initiative was launched in 2013 in support of international attempts to improve coordination of methodological development and data availability for measuring environmental performance. The Commission Communication (COM(2013) 196) lays out a set of common principles for communicating environmental performance, covering transparency, reliability, completeness, comparability and clarity. The Initiative also aimed to develop and test common measures of environmental performance. Two methods for measurement were proposed: The Product Environmental Footprint (PEF) and the Organisation Environmental Footprint (OEF). These methods were recommended to Member States, companies, private organisations and the financial community through a Commission Recommendation and a three-year testing period was announced from 2016 to 2019 to develop product- and sector-specific rules through a multi-stakeholder process.

The Single Market for Green Products Initiative is explicitly linked to the Resource Efficiency Roadmap (COM(2011) 571), which falls under the Resource Efficiency Flagship of the Europe 2020 Strategy. The Resource Efficiency Roadmap aims to decouple economic growth from resource use and sketches out a path towards resource efficient and sustainable growth.

The EU Biodiversity Strategy is the main policy reference for protection of ecosystem services and prevention of ecosystem biodiversity within the EU. The strategy runs from 2011 to 2020. It has six aims, covering protection of species and habitats, maintenance and restoration of ecosystems, sustainable forestry and fisheries, combatting of invasive species and protection of global biodiversity. The clearest link between the Biodiversity Strategy and the Single Market Scoreboard can be found on the regulatory side, regarding standards for forestry, agriculture and fisheries. The Strategy includes a number of horizontal measures which may link to the Single Market as well, specifically the aim to “proof all EU spending against adverse effects on biodiversity”. Protection of ecosystems and prevention of invasive alien species also has important links with the four freedoms, as a balance needs to be struck between freedom of movement of goods, services and people especially and protection of local wildlife and ecosystems (e.g. from invasive alien species carried in food and agriculture products).

A further important reference for the European Union with regard to environmental protection and climate change is the 2015 Paris Agreement, under which the EU has committed to reduce greenhouse gas emissions by at least 40% by 2030 measured against 1990 levels. This is an overarching goal, which should be considered in all areas covered by the Single Market Scoreboard if it is to be achieved.

Key policy priorities and the types of indicators needed to measure the priorities

As mentioned in Section 3, the key priorities in terms of environmental policy for the Single Market as laid out in the Single Market for Green Products Initiative cover increased resource efficiency and harmonised standards measuring environmental performance across the Single Market. Within the framework of the Paris Agreement, measuring greenhouse gas (GHG) emissions levels associated with products and services traded within the Single Market will also be very important. Finally, being able to monitor the impacts of the Single Market on biodiversity protection is an important priority linked to the Biodiversity Strategy,

Examples of indicators for these priorities include:

Resource efficiency indicators

- Input: Energy consumption levels (including renewables share)
- Process: Product Environmental Footprint
- Process: Organisation Environmental Footprint
- Process: Ecological footprint
- Output: Levels of industrial waste generated

Harmonisation of environmental standards indicators

- Input: Number of EU level environmental standards available
- Process: Harmonisation of national laws with EU environmental objectives

GHG emissions indicators

- Input: GHG emissions calculation protocol in place
- Process: Delivery of annual reports on GHG emission to EC
- Impact (trends): Economic losses from climate-related extremes
- Counterfactual impacts: Increase/decrease against 1990 levels

Biodiversity indicators

- Input: Laws in place to protect biodiversity
- Input: Industry schemes in place to protect biodiversity
- Process: Measures taken to protect biodiversity
- Impact (trends): Abundance and distribution of wildlife species (year on year)
- Counterfactual impacts: Abundance and distribution of wildlife species (against 1990 levels)

Available data sources

There is a significant amount of publicly available data on environmental indicators at national, EU and international level. Often, this data is presented in aggregate form, which can make it difficult to understand the details of the datasets being used. Furthermore, much of it is based on calculations or predictions which are not entirely transparent, so it must be considered as a “best estimate” rather than completely accurate or to the different areas covered by the SMS.

The amount of data available varies according to the different policy areas. Thanks to the reporting requirements of the Paris Agreement, good quality data is available on emissions levels although it is not always possible to disaggregate this data in ways that might make it immediately applicable to the four freedoms.

The PEF and OEF122, as developed and piloted under the Single Market for Green Products Initiative, are still in their early stages but – when fully developed - may act as useful data sources for the SMS. These are particularly useful because for each product category, they analyse the most relevant impacts (for example, GHG emissions are more relevant for some product groups than others), whilst hopefully providing a comparable “footprint” for these groups. However, the fact that the process is not fully complete makes it difficult to assess at this point how useful these indicators might be for the SMS.

The EEA also monitors a number of indicators which could be extremely useful to the priorities identified above, including emissions levels, biodiversity loss, economic impacts associated with climate change, energy consumption trends (including transition to renewable energy) and the economic impacts of climate change.

¹²² https://ec.europa.eu/environment/eussd/smgp/PEFCR_OEFSR_en.htm

Finally, the OECD Environment Directorate also monitors the environmental performance of its Member States using a series of indicators, data for which are kept in its SIREN database. While some of these mirror the EEA indicators, it has a slightly more detailed approach to resource use which may be of interest.

Available data sources that correspond to the environment sector

Name of dataset	Correspondence to the four freedoms	Data availability	Examples of key indicators	Indicator types
Product Environmental Footprint (PEF)	Free movement of goods	Still under development	N/A	Input, process, output, impact
Organisational Environmental Footprint (OEF)	Free movement of goods and services	Still under development	N/A	Input, process, output, impact
European Environmental Agency (EEA) indicators	All four freedoms	Data available, but not necessarily disaggregated to the required level	Key indicators include GHG emissions, economic impacts of climate change, biodiversity loss, energy consumption trends and ecological footprint All current indicators can be found at: https://www.eea.europa.eu/data-and-maps/indicators/#c0=10&c12-operator=or&b_start=0	Input, process, output, impact
OECD (SIREN database)	All four freedoms	Data available, but not necessarily disaggregated to the required level and not necessarily for all EU MS	<ul style="list-style-type: none"> Climate Change: CO₂ and greenhouse gas emission intensities Ozone layer: ozone depleting substances Air Quality: SO_x and NO_x emission intensities Waste generation: municipal waste generation intensities Freshwater quality: wastewater treatment connection rates Freshwater resources: intensity of use of water resources Forest resources: intensity of use of forest resources Fish resources: intensity of use of fish resources Energy resources: intensity of energy use Biodiversity: threatened species 	Input, output

Gap analysis

The datasets presented above provide a useful overview of different environmental impacts at EU and national level, however there is a gap in making the causal link between the Single Market and its environmental impacts.

There is a further gap related to measuring the harmonisation of legislation and the quality of reporting carried out by Member States on environmental legislation and monitoring.

Recommendations

- Attention should be paid to the development of the PEF and OEF, which have just finished their pilot phase. As these are further developed, they may provide a rich source of data for monitoring the environmental performance of the SMS.
- It is important to ensure that the focus of the environmental monitoring does not focus only on resource efficiency, but also looks at broader impacts including emissions, renewable energy share, and the environmental impacts of activities associated with the four freedoms.
- Given the urgency and over-arching nature of both climate change and biodiversity loss, there may be merit to mainstreaming environmental performance and investigating the most appropriate environmental indicators to be included in each policy area covered by the SMS rather than (or in addition to) having a separate environmental scoreboard.

Energy markets

Network industries contains several different policy areas: energy (electricity and gas), transport (e.g. air, rail, maritime) and communications (telecoms, postal services). This section looks at the energy part of network industries. One of the main objectives of the liberalisation efforts in network industries has been to increase choice and service quality for consumers, and for prices charged to be closer to market prices. In 2010, the report on the Internal Market prepared by Mario Monti stated that network industries are among the least integrated segments of the Single Market, mainly due to belated regulations, delayed implementation, and weak enforcement.^{123 124}

Summary of the policy area

The EU's energy union strategy is the main strategy for energy and contains five dimensions: security, solidarity and trust; a fully-integrated internal energy market; energy efficiency; climate action - decarbonising the economy; research, innovation and competitiveness.¹²⁵

As far as the internal energy market dimension is concerned, the EU's aim is that energy flows freely across the EU - without technical or regulatory barriers – enabling energy providers to compete freely and promote renewable energy while providing the best energy prices.

Given evolving political objectives, in particular in terms of the share of electricity produced by renewable energy sources, as well as technological change in recent years, the Commission has upgraded several pieces of legislation related to electricity markets, including to better integrate renewable energy into the grid: Regulation on the internal market for electricity (EU) 2019/943; Directive on common rules for the internal market for electricity (EU) 2019/944.

According to the Fourth Report on the State of the Energy Union (2019),¹²⁶ good progress has been made towards a more integrated European energy market. Energy is now traded more freely (although still not sufficiently freely) across borders, which builds on Electricity and Gas Market Directives¹²⁷ and antitrust enforcement.¹²⁸

The European Parliament points to the further improvements required to complete the Single Market in the energy sector: removing numerous obstacles and trade barriers; the approximation of tax and pricing policies and measures in respect of norms and standards; and environmental and safety regulations.

Key policy priorities and the types of indicators needed to measure the priorities

With the Energy Union Single Market priorities of promoting competition for better energy prices, promoting renewable energy and secure energy flows, several areas highlighted by the Commission appear relevant for monitoring¹²⁹:

- New energy market design - The EU electricity market requires a fundamental re-design to better integrate renewables and technological advances and to attract investment.
- Empowering energy consumers - Better information empowers consumers by raising awareness of the wider choice of energy services, lower costs and consumer protection.
- Helping energy cross borders - Investing in infrastructure that connects countries will make energy flow, improve energy security, lessen dependency on imports and prepare

¹²³ https://ec.europa.eu/commission/sites/beta-political/files/swd-energy-union-key-indicators_en.pdf;

¹²⁴ Monti 2010, A new strategy for the Single Market.

¹²⁵ COM(2015) 80 final.

¹²⁶ https://ec.europa.eu/commission/sites/beta-political/files/fourth-report-state-of-energy-union-april2019_en_0.pdf

¹²⁷ Directive 2009/72/EC; Directive 2009/73/EC.

¹²⁸ Antitrust decisions which have contributed to unrestricted flow of energy in the internal market in both gas and electricity markets include: AT.39816 Gazprom commitment decision, AT.40461 DE-DK Interconnectors commitment decision, AT.39849 BEH Gas prohibition decision.

¹²⁹ https://ec.europa.eu/commission/priorities/energy-union-and-climate/fully-integrated-internal-energy-market_en

networks for renewable energy.

Indicators that could support such monitoring include:

- The share of renewable energy in electricity production
- Energy prices (gas/electricity) – or price convergence in energy prices
- Consumer switching costs
- Market concentration indicator
- Cross-border trade in energy
- Barriers to a Single Market

Available data sources

There are a high number of publicly available indicators in the network industries – energy markets area. Collectively, the indicators are capable of providing an overview of performance of the Single Market for electricity and gas markets from different perspectives: regulatory and other barriers, a consumer perspective on market performance, ease of switching supplier, price convergence, and the shift towards renewable energy within the electricity market mix. The range of indicators includes outputs, result, impact and composite indicators. The indicators presented are internally coherent.

One of the most actionable indicators with respect to barriers to SM performance is the OECD Product Market Regulation indicator. It aims to shed light on the governance arrangements of economic regulators, highlighting trends around the independence, accountability and scope of action of sector regulators. Trend analysis on an aggregated and disaggregated basis can provide insights on different actions that can be undertaken to improve competition and market entry. The principle weakness of the PMR survey for the purposes of a regularly updated SMS is the frequency with which new data become available – only every five years.

Another actionable indicator, the transposition page of the SMS shows that there are five energy directives which have not been transposed in various Member States. However, it is not currently visible from the SMS transposition page nor Member State performance section whether these directives are relevant to the Single Market for electricity and gas markets (network industries).¹³⁰ This is an example of how the qualitative and actionable capability of the SMS could be strengthened.

The Market Performance Indicator on gas and electricity services - based on the Consumer Markets Scoreboard - adds a useful complement from the user perspective. The Consumer Markets Scoreboard is published every two years by the European Commission (DG Justice). The 2018 edition analyses the performance of 40 consumer markets across the 28 Member States, Norway and Iceland. The Consumer Markets Scoreboard (CMS) uses a set of perception and experience-based indicators regarding consumers' views of how markets function.

Among the many indicators that can be used to track market performance from the point of view of consumers, the CMS's Market Performance Indicator (MPI) is a composite index made of 5 components: comparability of offers, trust in businesses to respect consumer protection rules, the extent to which markets live up to what consumers expect, choice of retailers/suppliers and the degree to which problems experienced in the market cause detriment.

As far as the correspondence to the Single Market goes, the CMS looks at consumer perceptions and experience of that particular market, the latter being affected by many market forces, not just Single Market legislation and policies. And although the CMS does not focus

¹³⁰ Some examples of non-transposed directives are included in the Member State Performance part of the SMS, however the full list is not included.

on cross-border transactions per se, the CMS allows users to identify better and worse performing markets by country and, therefore, to home in on markets or policy areas where Single Market performance can be improved. CMS data is available since 2009 allowing for trend analysis by country and market, as well - in combination with other data – seeing the potential effect of policies. However, it is worth emphasising that it is updated every two years rather than annually and – as a perception-based international survey - is subject to response bias (in particular cultural and linguistic bias).

The Energy Union Scoreboard provides a useful set of indicators which is already grouped under the policy objective of developing a fully-integrated internal energy market. These indicators are updated annually. It is worth investigating whether such indicator updates could be dynamically linked (real-time) to a future SMS that integrates network industry data. The quarterly data available for gas and electricity markets would allow for more frequent updates of the SMS such as for retail gas price convergence, or to provide a more detailed breakdown on trends in renewable energy shares across segments (e.g. wind, solar, wave).

Available data sources that correspond to network industries - energy markets

Name of dataset	Correspondence to the Single Market for Energy	Data availability	Examples of key indicators	Indicator types
OECD Product Market Regulation Survey	High correspondence as shows comparative governance arrangements of regulators.	Every 5 years, latest data for 2018 – OECD countries. Not EU-28.	Scope of action, independence and accountability of regulators.	Composite indicators
Energy Union Scoreboard	The Scoreboard shows progress in the five dimensions of the energy union including on a 'fully integrated internal energy market'.	Annually since 2016	Wholesale gas prices Market concentration index Annual switching rates on electricity / gas retail markets Renewable energy share	Output Impact Result Impact
Consumer Markets Scoreboard	Perception- based, consumer survey indicating how well a given market performs. Does not consider <i>only</i> the Single Market dimension.	Every other year since 2012 (annually from 2009-2012)	Market performance indicator: gas services & electricity services	Composite indicator
Single Market Scoreboard	High correspondence focusing on compliance with directives. Dependent, however, on actual directives within the 'energy' sector as defined by the SMS.	Annually	Number of pending infringement proceedings in the field of energy at the indicated dates	Output
Quarterly Report on European Gas Markets	The report provides regular progress updates and analysis, detailed indicators and comparisons.	Quarterly	Retail gas price estimates for households in the EU Retail gas price estimates for industrial consumers in the EU	Output Output
Quarterly Report on European Electricity Markets	The report provides regular progress updates and analysis, detailed indicators and comparisons.	Quarterly	Renewable electricity generation in the EU and the share of renewables in all electricity production – broken down by renewable energy type	Impact

Gap analysis

This set of indicators for gas and electricity services provides an indication of the degree to which there is market concentration (a proxy of the degree of market opening), price convergence across countries (one expected outcome of the internal market is an increased price convergence across countries as competition will gradually be stepped up from national to European level), the degree to which customers are satisfied with services and the frequency (ease) with which they switch supplier.

Analysing barriers alongside trends in, for example, price convergence, market performance from the consumer perspective and market concentration can highlight some areas of good practice or, conversely, underperformance. In terms of causality, changes in context indicators may or may not be as a result of market liberalisation from the Single Market process. However, it is not possible to conclude whether or not this is the case from a set of policy / economic indicators in this way.

The degree to which these indicators are correlated has not been tested here. However, this is something that could be attempted by researchers, or in the context of the Single Market Report or the European Semester process.

Overall, the indicators are a reasonable proxy for Single Market performance and show high level trends. Together, they provide actionable areas for intervention.

Recommendations

Given the range of indicators available for the energy markets part of network industries, it would be relatively straightforward to extend the SMS in this direction. Even if respondents to the stakeholder survey did not call for its inclusion as a matter of priority, it is worth keeping in mind the crucial role of well-functioning energy markets in the performance of the European economy, the average share of expenditure that energy represents to a family's disposable income, and the attention in the 2019 electricity directive on creating flexibility and integrating all market players including producers of renewable energy.

An energy markets page could be developed, either stand-alone or linked to a broader network industries page which could integrate indicators that cover the areas of compliance, enforcement, impacts and areas for remedial action to achieve a Single Market for electricity and gas. This could include:

- Compliance with and barriers to implementation of the relevant energy directives (based on existing – but a deeper use of the transposition-related data collected from Member States)
- Consumer, perception-based indicators on gas and electricity market functioning using the Consumer Markets Scoreboard;
- Indicators from the Energy Union Scoreboard (updated in real-time is possible) on market concentration, price convergence and switching rates;
- The shift towards renewable energy sources based on the report on European electricity markets, accompanied by an analysis of barriers.

Circular economy

Summary of the policy area

Circular economy has been high on the EU policy agenda for a relatively long time, although at the onset the term ‘circular economy’ was not used as such. The policy rather focussed on particular aspects of the circular economy such as waste management. The European approach to waste management was set as early as 2008 in Directive 2008/98/EC, which is better known as the Waste Framework Directive. It introduced the European Waste Hierarchy requiring the Member States to adjust their waste policy and legislation to comply with the priority order implied in the Directive.

However in December 2014 the European Commission withdrew its legislative proposal on waste in order to launch in 2015 a more ambitious and encompassing Circular Economy Action Plan to boost Europe’s transition towards a circular economy integrating not only waste reduction targets but taking measures to promote the uptake of secondary raw materials and raising awareness and promoting sustainable economic growth¹³¹. The Action Plan contains 54 measures. For the first time a systematic approach across entire product value chains and sectors was set in place. In 2018, a revised legislative framework on waste¹³² was agreed upon including Directive (EU) 2018/851 thereby amending Directive 2008/98/EC on Waste. Clear and more ambitious targets for waste reduction were set ranging from municipality waste, packaging waste and minimum recycling targets for specific materials such as paper and cardboard, ferrous metals, aluminium, glass, plastics and wood. Also binding landfill targets were set in place, specific collection obligations for hazardous household waste, bio-waste and textiles. Minimum requirements for extended producer responsibility schemes were introduced. The amendment strengthens waste prevention and waste management measures, including for marine litter, food waste, and products containing critical raw materials. Specific attention was given to diminishing the use of single-use plastics. Beginning 2018 the Commission launched its “European Strategy for Plastics in a Circular Economy” indicating that by 2030 all plastics packaging should be recyclable¹³³, followed a few months later by a legislative proposal restricting the use of certain single-use plastic and fishing gear items.

In March 2019, the European Commission issued an evaluation report on the implementation of the Circular Economy Action Plan¹³⁴. The action plan was considered fully completed by which all 54 actions have been delivered or are being implemented.

Clearly the main focus of the EU action plan for the Circular Economy was on the transition towards circularity. Yet at the same time it was expected from a policy perspective that the Action Plan would contribute to elevate competitiveness, economic growth and job creation. Although none of the 54 measures directly addressed the Single Market, indirectly through an EU-wide uniform approach a common legal background was being developed against which a circular economy could further develop. Examples are eco-design standards, the Best Available Techniques reference documents (BREFs), the REFIT of Ecolabel, defining quality standards for secondary raw materials, uniform plastics strategy, European standards for material-efficient recycling of electronic waste, waste batteries and other complex end-of-life products, the CDW recycling protocol, innovation promotion, the development of a monitoring framework and the Raw Materials Scoreboard.¹³⁵

¹³¹ European Commission. (2019). Report on the implementation of the Circular Economy Action Plan. Brussels.

¹³² <https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=OJ:L:2018:150:FULL&from=EN>

¹³³ European Commission. (2018). A European Strategy for Plastics in a Circular Economy - COM (2018) 28 final. Brussels: European Commission.

¹³⁴ European Commission. (2019). Report on the implementation of the Circular Economy Action Plan. Brussels.

¹³⁵ European Commission. (2018). Raw Materials Scoreboard, <https://publications.europa.eu/en/publication-detail/-/publication/117c8d9b-e3d3-11e8-b690-01aa75ed71a1>

Key policy priorities and the types of indicators needed to measure the priorities

In certain areas the Commission has emphasised the Single Market dimension in the circular economy, most importantly in the area of secondary raw materials. In this respect it would be advisable measuring the progress of using secondary raw materials in particular metals, industrial minerals, paper, glass, ... Increased recycling rates per se do not point to an improved functioning of the Single Market. Member States can improve their circularity individually, which is reflected at the aggregate EU-level. Yet Single Market indicators should ideally focus on metrics that capture the ‘singularity’ of the market. This can be viewed from various angles of the policy intervention logic ranging from input (regulations, directives, programmes) to the output (cross-border cooperation, joint ventures) and impacts (intra-EU Member State trade, FDI).

From a policy intervention point of view, it could be argued that due to the initiatives taken at EU level on the regulatory front, Member States engaged in transposing the EU directives into national law and in applying EU regulations, which subsequently contributed towards a more harmonized EU circular economy than otherwise would have been. But would an increased harmonization in material management, renewable energy production, automatically imply a Single Market? Does using the same by-product/end-of-waste criteria across the EU signify an improvement in the Single Market? Definitely one may state that it creates appropriate conditions and a better business environment in comparison with a fragmented regulatory framework. It also increases the chances of a level playing field, at least in the EU. Therefore, we argue that both at the level of conditions fostering the EU Single Market and at the level of the operation of the Single Market indicators could in principle be identified to monitor the Single Market dimension of the EU circular economy.

Against the background of the Circular Economy Action Plan one may argue that the Single Market dimension is prominent in the areas of

- Secondary raw materials (CDW, plastics, metals, industrial minerals, glass, paper and cardboard, critical raw materials);
- Self-sufficiency of primary raw materials;
- Green public procurement and
- Waste management.

Available data sources

The most relevant data source is the EU Monitoring Framework. Precisely one particular action of the EU Circular Economy Action Plan was to set-up a monitoring framework to assess the progress in the transition towards an EU circular economy. In January 2018 the Commission presented the monitoring framework¹³⁶. It was based on existing scoreboards in particular the EU Resource Efficiency Scoreboard and Raw Materials Scoreboard. The monitoring framework consists of 10 major indicators that are organised around four major topics:

5. Production and consumption
6. Waste management
7. Secondary raw materials and

¹³⁶ European Commission (2018a) Commission Staff Working Document: Measuring progress towards circular economy in the European Union – Key indicators for a monitoring framework. Retrieved from <https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1540284707311&uri=CELEX:52018SC0017>. And European Commission. (2018b). Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions *on a monitoring framework for the circular economy* (COM(2018) 29 final). Retrieved from <https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=COM%3A2018%3A29%3AFIN>

8. Competitiveness and innovation.

A major indicator may be subdivided into smaller indicators each representing a particular aspect of the circular economy within the topic and theme of the major indicator. Currently the monitor comprises 23 indicators. Some indicators have time series going back as early as the '90s, e.g. the generation of municipal waste (per capita), recycling rates of municipal waste and recycling of bio-waste which are available from 1995 onwards. The number of patents related to recycling and secondary raw materials is available since 1977 (European Commission 2018 a). In terms of timeliness the indicators vary from a one-year lag to a four-year lag. Most indicators have a time lag of one or two years. The data are available for the EU as a whole and for most indicators also for each Member State. The latest update is available from summer 2019.

It is interesting to draw attention to the framework feature of the monitor. Three indicators that are included do not yet have trends and one does not have data. These indicators are:

1. EU self-sufficiency for raw materials: one data point and currently no trend yet¹³⁷
2. Green public procurement: no data
3. End-of-life recycling input rates: one data point and currently no overall trend yet.¹³⁸

Besides, the indicator on food waste is still to be improved in terms of reliability.

The monitor is presented in a user friendly manner on the following Eurostat website: <https://ec.europa.eu/eurostat/web/circular-economy/indicators/monitoring-framework>

Available data sources that correspond to circular economy

Name of dataset	Correspondence to the Single Market	Data availability	Examples of key indicators	Indicator types
EU Circular Economy monitoring framework ¹³⁹	Free movement of secondary and primary raw materials; provision of services and goods across MS borders	Annually, varies per indicator, latest mostly 2017 and 2018; few indicators only updated bi-annually or with larger time spans	Trade in recyclable raw materials	Result
			% of Green public procurement to GDP(*)	Process/Output
			Recycling of specific waste streams	Impact (**)

(*) no data available, earliest estimate is expected for 2021. (**) from circular economy perspective.

Gap analysis

Notwithstanding the policy weight of the Circular Economy Action Plan and the potential profound effects on production and consumption in the EU market, as well as on areas of energy, finance, and employment, only a few indicators directly pertain to the Single Market. This is particularly the indicator on trade in recyclable raw materials. Numbers on green public procurement are under construction, and according to the Commission is expected at earliest in 2021. Recycling rates of specific waste streams can be considered as result indicators at least from the point of view of progress on circular economy. However, from Single Market perspective the link is less clear. For instance, does an increase in recycling rate of plastic packaging in the EU indicate an improved Single Market? From Single Market perspective

¹³⁷ It should be noted that an assessment of recycling input rates of a number of raw materials is carried out for the establishment of the list of Critical Raw Materials 2020, finalised Q1/20. This means that there will be a possibility to identify trends for some individual raw materials.

¹³⁸ It should be noted that an assessment of recycling input rates of a number of raw materials is carried out for the establishment of the list of Critical Raw Materials 2020 finalised Q1/20. This means that there will be a possibility to identify trends for some individual raw materials.

¹³⁹ Eurostat (2019) <https://ec.europa.eu/eurostat/web/circular-economy/indicators/monitoring-framework>

one would also have the distribution across Member States into account and identify the ways in which the Single Market contributes to improved circularity and vice versa.

Although the monitoring framework for Circular Economy provides an interesting starting point for analysis, in view of Single Market monitoring clearly a number of themes and indicators are missing. A systematic analysis would be a separate study in and of itself beyond the current assignment. At this stage of the analysis one could argue that beside green public procurement the following areas are candidate indicators to be included:

- Green finance
- Research funding across Member States, e.g. on the basis of H2020 projects earmarked for circular economy topics
- Co-funding from the EU for Member States innovation initiatives and EU innovation promotion programmes in circular economy topics.

Recommendations

A systematic analysis covering the Single Market effects and relations for the EU circular economy is definitely a prerequisite for augmenting the current Single Market Scoreboard with the circular economy dimension. On the basis of the results obtained appropriate themes and indicators can be defined in consistency with the Single Market Scoreboard and the circular economy targets that were defined in the circular economy legislation.

Annex 3: Potential policy areas, datasets and indicators

Consumer Protection

European consumer protection policy helps to contribute to a well-functioning Single Market. Protecting consumers and promoting their interests is part of the Treaty on the Functioning of the European Union (TFEU), including in the context of completing the Single Market (Art. 169). As the European Parliament outlines, consumer protection rules have the potential to make markets fairer and improve the quality of competition.¹⁴⁰ This translates into, for example, guaranteeing consumer rights during commercial transactions, protecting interests of vulnerable consumers and ensuring product safety.

There are several scoreboards and datasets which can be used to help monitor aspects of consumer protection. They include:

1. Consumer Markets Scoreboard
2. Consumer Conditions Scoreboard
3. Eurostat Community survey on ICT usage in households and by individuals
4. Eurostat price level indices
5. Consumer complaints statistics
6. European Consumer Centre Network (ECC-Net) Database
7. EU Justice Scoreboard

The Consumer Markets Scoreboard is published every two years by the European Commission (DG Justice). The 2018 edition analyses the performance of 40 consumer markets across the 28 Member States, Norway and Iceland. The Consumer Markets Scoreboard (CMS) uses a set of perception and experience-based indicators regarding consumers' views of how markets function.

The Consumer Conditions Scoreboard monitors the integration of the Single Market from a consumer perspective. To assess Single Market integration over time, it assesses differences in attitudes and experiences of EU cross-border and domestic transactions. It builds on three components:

- knowledge of consumer rights, trust in institutional actors, product safety and environment claims confidence in online trading;
- compliance with consumer laws and enforcement;
- consumer complaints and the resolution of disputes.

The data mainly comes from two regular surveys of consumers and retailers. Data are complemented by other sources such as complaints received by the European Consumer Centres.

The Eurostat Community survey on ICT usage in households and by individuals aims to provide timely statistics on individuals and households on the use of Information and Communication Technologies at European level. In particular, it is used to follow up on the Digital Single Market.

One expected outcome of the internal market is an increased price convergence across countries as competition will gradually be stepped up from national to European level). Analysing barriers alongside trends in, for example, price convergence, market performance from the consumer perspective (see CMS above) and, for example, market concentration can

¹⁴⁰ European Parliament (2019) Fact Sheets on the European Union, *Consumer Policy: Principles and Instruments* <http://www.europarl.europa.eu/factsheets/en/sheet/46/consumer-policy-principles-and-instruments>

highlight some areas of good practice or, conversely, underperformance. Eurostat price level indices, which are calculated using purchasing power parities and exchange rates, provide a comparison of countries' price levels relative to the EU average. In Single Market terms they indicate to what extent there is price convergence. The data is collected within the framework of the Eurostat-OECD Purchasing Power Parities (PPP) programme, where surveys on prices of household goods and services are carried by the National Statistical Institutes. In terms of causality, changes in price levels may or may not be as a result of market liberalisation from the Single Market process.

The European Consumer Complaints Registration System (ECCRS) data were compiled with the voluntary cooperation of various types of bodies handling complaints in EU Member States (national or sectoral authorities, consumer associations, Alternative Dispute Resolution bodies, European Consumer Centres). The dataset was discontinued in 2018. The data are not considered representative as data input by all countries/relevant bodies was not ensured and varied over time. Data from complaints to traders are not included. Indicators from this dataset are not considered further in this report.

The European Consumer Centre Network (ECC-NET) case-handling database is an IT Tool used to collect and handle complaints and related necessary data including personal data. ECCs provide consumers with information on their rights as well as give advice and assistance concerning cross-border complaints, resolution of disputes and out-of-court-settlement procedures (ADR). The IT tool is operated by the European Commission and is not open to the public. It was phased out in April 2018 and replaced by a new system called ECC-Net 2. Some ECC-Net statistics and "facts and figures" indicators are included in the current version of the SMS by Commission services under the Governance Tools section.

The EU Justice Scoreboard aims to provide comparable data on the independence, quality, and efficiency of national justice systems. It is managed by the European Commission as an information tool to help achieve more effective justice. The Scoreboard mainly focuses on civil, commercial and administrative cases to pave the way for a more investment, business and citizen-friendly environment.

Digital Single Market

The European Commission has dedicated strategy for the Digital Single Market, aiming to open up digital opportunities for people and business and enhance Europe's position as a world leader in the digital economy.¹⁴¹

The DSM Strategy is built on three pillars¹⁴²:

1. [Access](#): better access for consumers and businesses to digital goods and services across Europe;
2. [Environment](#): creating the right conditions and a level playing field for digital networks and innovative services to flourish;
3. [Economy & Society](#): maximising the growth potential of the digital economy.

The Digital Single Market strategy is the expression of the Commission's ambition to promote the development of an integrated digital market to ensure the free and secure exchange of data and boost competitiveness of the digital economy (industry and services). This strategy thus falls largely in line with what the Single Market Scoreboard aims to cover.

The main datasets and Scoreboards used to track the progress of the Digital Single Market, include:

¹⁴¹ <https://ec.europa.eu/digital-single-market/>

¹⁴² https://ec.europa.eu/commission/priorities/digital-single-market_en#policy-areas

1. Digital Scoreboard
2. The Digital Economy and Society Index (DESI)
3. The Digital Agenda Scoreboard Key Indicators
4. The European Data Market Monitoring Tool
5. The Digital Transformation Scoreboard

The **Digital Scoreboard**¹⁴³ is essentially based on data from the Digital Economy and Society Index (DESI) and the DESI Telecoms Chapters.

The **DESI** is a composite index which summarises indicators on Europe's digital performance and the evolution of Member State digital competitiveness, across five main dimensions: Connectivity, Human Capital, Use of Internet, Integration of Digital Technology, Digital Public Services. The indicators track progress of EU's digital economy, although it does not provide a full view on the European integration of this economy. A weighted index was also developed which ranked countries' performance taking into account contextual factors, such as the macro-economic environment, level of regulation, demographic factors etc. in each country in order to rank countries not only by their absolute performance, but also contextualising this. Whilst this represents an interesting best practice, it is resource-intensive. For example, there was a contract of c.a. 1.5 million EUR to develop the DESI and there are eight full-time officials involved in working on the DESI, including updating exercises.

The **Digital Agenda Scoreboard Key Indicators** contain more than 100 indicators, divided into thematic groups, illustrating key dimensions of the European information society (Telecom sector, Broadband, Mobile, Internet usage, Internet services, eGovernment, eCommerce, eBusiness, ICT Skills, Research and Development). A number of these are directly related to the integration of the digital economy / society.

The **European Data Market Monitoring Tool** aims to define, assess and measure the European data economy, monitoring the EC Data Value Chain policy. This tool feeds into the annual reviews of the Digital Agenda Scoreboard. The data economy is an important aspect in the Digital Single Market, and the tool very succinctly tracks the overall progress of this data market.

The **Digital Transformation Monitor** provides a monitoring mechanism for the evolution of digital transformation in Europe. In itself this monitor is not directly related to the Single Market, but it does track the digital economy as a whole.

Apart from these structural databases/scoreboards, a number of relevant indicators have been measured ad hoc through **Flash Eurobarometer Surveys**. As these indicators have only been established once, we will not cover them further in section 3.2, but they are included in the general indicator screening.

Energy markets

The EU's energy union strategy is the main strategy for energy and contains five dimensions: a fully-integrated internal energy market; security, solidarity and trust; energy efficiency; climate action – decarbonising the economy; research, innovation and competitiveness.¹⁴⁴

As far as the internal energy market dimension is concerned, the EU's aim is that energy flows freely across the EU – without technical or regulatory barriers – enabling energy providers to compete freely and promote renewable energy while providing the best energy prices.

¹⁴³ <https://ec.europa.eu/digital-single-market/en/digital-scoreboard>

¹⁴⁴ European Commission (2015) *Energy Union Package: A Framework Strategy for a Resilient Energy Union with a Forward-Looking Climate Change Policy* COM(2015) 80 final

Given evolving political objectives, in particular in terms of the share of electricity produced by renewable energy sources, as well as technological change in recent years, the Commission has upgraded several pieces of legislation related to electricity markets, including to better integrate renewable energy into the grid.¹⁴⁵

There is a good number of publicly available datasets in the energy markets area. They include:

1. The Energy Union Scoreboard
2. The Consumer Markets Scoreboard (containing breakdowns for gas and electricity services)
3. Quarterly Report on European Gas Markets
4. Quarterly Report on European Electricity Markets
5. OECD Product Market Regulation Survey

The Energy Union Scoreboard, managed by the European Commission, contains a collection of indicators from various sources. It is used to show progress in the five dimensions of the Energy Union including on a 'fully integrated internal energy market'. It covers the European Union countries and is updated on an annual basis. However, depending on the indicator, latest data may be from 2018 (electricity prices) or only 2015 (market concentration index, % of consumers switching electricity providers).

The Consumer Markets Scoreboard (CMS) contains a range of indicators based on consumer perceptions regarding the functioning of different goods and service markets. This includes electricity services and gas services, measured separately. The Consumer Market Scoreboard is introduced as a data source in section 0, while potential indicators are considered in sections 3.3.1.1 and 3.3.1.3.

The quarterly reports on European Gas and Electricity Markets are produced by the European Commission (DG Energy) and contain a large array of indicators related to consumption, production, wholesale and retail markets. They contain price developments and, in the case of the report on electricity markets, indicators on the shift to renewable energy. The reports rely on different public and private sources including Eurostat, S&P Global Platts, Platts, European power exchanges, ENTSO-E, Thomson-Reuters, BAFA and CEIC.

OECD Product Market Regulation indicators aim to measure the degree to which policies promote or pose a barrier to competition, reflecting the state of existing laws and regulations in countries. They cover a number of networks, product and service sectors, among which natural gas and electricity markets. The Product Market Regulation indicators cover 22 EU countries and three EFTA countries. However, they are collected only every five years.

Environment

a) Sustainable development

The European Union's Sustainable Development strategy is applicable to many areas of EU policy, including the Single Market. This means that as well as ensuring free movement of goods, services, capital and people, the Single Market is also responsible for ensuring high standards of environmental protection across the four freedoms. Free movement and environmental protection have often been perceived as being in conflict with each other – however, the Single Market also represents a significant opportunity for harmonising environmental standards across the Single Market area.

There is a significant amount of publicly available data on environmental indicators at national, EU and international level. Often, this data is presented in aggregate form, which can make it

¹⁴⁵ Regulation on the internal market for electricity (EU) 2019/943; Directive on common rules for the internal market for electricity (EU) 2019/944

difficult to understand the details of the datasets being used. Furthermore, much of it is based on calculations or predictions, so must be considered as a “best estimate” rather than completely accurate.

The amount of data available varies according to the different policy areas. Thanks to the reporting requirements of the Paris Agreement, good quality data is available on emissions levels although it is not always possible to disaggregate this data in ways that might make it immediately applicable to the four freedoms. The datasets include:

1. Product Environmental Footprint (PEF)
2. Organisational Environmental Footprint (OEF)
3. European Environmental Agency (EEA) indicators
4. OECD (SIREN database)

b) Circular economy

Circular economy has been high on the EU policy agenda for a relatively long time, although at the onset the term ‘circular economy’ was not used as such. The policy rather focussed on particular aspects of the circular economy such as waste management.

In 2015, the European Commission launched the Circular Economy Action Plan to boost Europe’s transition towards a circular economy. The Action Plan contains 54 measures integrating not only waste reduction targets but taking measures to promote the uptake of secondary raw materials and raising awareness and promoting sustainable economic growth.¹⁴⁶

Clearly the main focus of the EU action plan for the Circular Economy was on the transition towards circularity. Yet at the same time it was expected from a policy perspective that the Action Plan would contribute to elevate competitiveness, economic growth and job creation. Although none of the 54 measures directly addressed the Single Market, indirectly through an EU-wide uniform approach a common legal background was being developed against which a circular economy could further develop.

The most relevant data source is the EU Monitoring Framework. Precisely one particular action of the EU Circular Economy Action Plan was to set-up a monitoring framework to assess the progress in the transition towards an EU circular economy. In January 2018, the Commission presented the monitoring framework¹⁴⁷. It was based on existing scoreboards in particular the EU Resource Efficiency Scoreboard and Raw Materials Scoreboard.

c) Green public procurement (GPP)

In the EU, efforts to become a more resource-efficient economy, Europe’s public authorities are committed to expand choosing environmentally-friendly goods, services or works. In order to consume sustainably, the European Commission and some European countries provide guidance through the **Green public procurement (GPP) criteria**. GPP is an initiative that was developed jointly between DG Environment¹⁴⁸ and the JRC within the Commission. EU GPP criteria provides guidance on the inclusion of green requirements in public tender documents. The concept of GPP relies on having clear, verifiable, justifiable and ambitious environmental criteria for products and services in the public procurement process, based on a life-cycle approach and scientific evidence base.

¹⁴⁶ European Commission. (2019) Report on the implementation of the Circular Economy Action Plan

¹⁴⁷ European Commission (2018a) Commission Staff Working Document: Measuring progress towards circular economy in the European Union – Key indicators for a monitoring framework <https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1540284707311&uri=CELEX:52018SC0017>. And European Commission. (2018b). Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions on a monitoring framework for the circular economy (COM(2018) 29 final) <https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=COM%3A2018%3A29%3AFIN>

¹⁴⁸ https://ec.europa.eu/environment/gpp/index_en.htm

Besides the EU GPP criteria, other data sources are opentender.eu which provides data with the number of tenders on environmental services. National GPP Action Plans (policies and guidelines) contain a comprehensive overview of the existing situation and ambitious targets for the next three years, specifying what measures will be taken to achieve them, from there the number of countries with GPP Actions Plans can be extracted.

The United Nations also provides some indicators; the Global SDG Indicators Database is a platform that provides data on the Sustainable Development Goals. Its content aims to inform the UN Secretary General's annual report "Progress towards the Sustainable Development Goals". In this database, "indicator 12.7.1" aims to assess the number of countries implementing sustainable public procurement policies and action plans. However, for the moment it is a theoretical indicator and data have not yet been identified. Finally, the OECD have some indicators from OECD countries relating to GPP but the latest information available is from 2011 and it does not specify where the data is extracted.

Financial and capital markets

An integrated and globally-competitive European Capital Markets Union (CMU) is a prerequisite for a well-functioning single market and the Capital Markets Union¹⁴⁹ (CMU) was launched in 2015. It is important to develop policy measures to ensure that Europe's capital markets remain open, sufficiently integrated and competitive, such that they are able to contribute to boosting investment and strengthening the capacity of European capital markets to compete globally. Ensuring that capital can be moved efficiently across borders would make the EU economy stronger and support economic convergence. The CMU's objectives are: fostering the development of better integrated and deeper capital markets, strengthening and supporting the Economic and Monetary Union (EMU) and strengthening the Euro's role as an international currency. The three Pillars of the CMU are:

4. Making the most of the Single Market for consumers and investors through new European (financial) products;
5. Supporting businesses and entrepreneurs through clearer and simpler rules; and
6. More efficient supervision of EU capital markets.

The CMU should create jobs and growth by contributing to the third pillar of the European Investment Plan, by removing regulatory barriers to investment, both at EU level and nationally. Among the CMU's priorities are addressing national barriers to capital flows, in areas such as cross-border investment funds and venture capital, fostering alternative sources of financing (e.g. crowdfunding and FinTech) and overcoming national differences in approaches to regulating new financing sources, and strengthening the development of cross-border financial and investment markets across a variety of financial instruments (e.g. debt markets, including bond markets, venture capital and crowdfunding).

Presently, the SMS does not cover the CMU. Through the research, we have explored the extent to which the free movement of capital, one of the SM's four freedoms, is measurable, and whether there are data sources that could be utilised in order to assess progress.

The CMU is highly relevant to the achievement of SM objectives relating to the free movement of capital. Some aspects of monitoring progress towards CMU implementation are quantitative. Examples are:

¹⁴⁹ European Commission (2015) *Communication Action Plan on Building a Capital Markets Union*, COM(2015) 468, 30.9.2015; European Commission (2017) *Communication On the Mid-Term Review of the Capital Markets Union Action Plan*, COM(2017) 292, 8.6.2017

- **Monitoring and reporting by the Commission's DG FISMA of the functioning of financial markets, including the Progress Reports on CMU implementation.** For example, the EU monitors inflows and outflows of capital through the Eurostat Balance of Payment (BoP statistics)¹⁵⁰. Cross-border financial activity within the EU can be measured, for example, through Eurostat BoP statistics which show the intra-EU FDI in the total stock of cross-border investment. There have been several CMU progress implementation reports to date, mainly reporting on qualitative information.
- **Monitoring data on funding by financial instrument both domestically at national level, at an EU aggregate level and of cross-border capital flows.** The research has identified a number of data sources to assess the level of activity by financial instrument in areas such as bonds, venture capital (VC), crowdfunding and business angels. However, the SM dimension is captured by data on cross-border capital flows across each of these instruments, which is patchy.
- **Specific examples of datasets relating to financial instruments are:**
 - ECN Cross-border Crowdfunding Survey 2017 – crowdfunding statistics)
 - EBAN Statistics Compendium 2018 – business angel statistics
 - EU Innovation Scoreboard – only relevant for venture capital - % of GDP
 - InvestEurope Yearbook – venture capital
 - Dealogic DCM – debt issuance – bonds, syndicated loans)
 - Various e.g. ECB surveys (debt, access to SME finance)

Monitoring and reporting on the achievement of progress towards other CMU objectives could prove **difficult to measure quantitatively across many policy and regulatory areas of intervention**. There are inherent constraints due to the complexity of the different types of policy and regulatory initiatives being supported across the CMU initiative. There is consequently a challenge in identifying quantitative indicators that could shed light on progress, or which could meaningfully be aggregated to the CMU as a whole across different heterogeneous sub-policy areas.

Many of the regulatory initiatives and measures to tackle cross-border obstacles to the free movement of capital are complex, and necessitate qualitative assessment to evaluate progress towards objectives. Notwithstanding the absence of suitable quantitative indicators to measure progress directly, context indicators may be useful in shedding light on the level of cross-border capital flows across different financial instruments and types of investments (e.g. UCITS investment funds, bonds, VC, crowdfunding, etc.).

Economic policy and European semester reporting

EU economic policy has a SM dimension. It incorporates a number of policy areas which are related to the SM, such as goods and services markets, and specific market issues such as energy, infrastructure and the environment, public procurement, digital markets and capital markets. As such, there are many elements of economic policy reporting that are cross-cutting. Most of these are therefore covered under other policy areas, with exceptions such as potential monitoring of Purchasing Power Parities.

Services markets

DG GROW is committed to strengthening the services dimension of the Single Market under the guiding framework of the Services Directive that aims to reduce the barriers to establishment, support provision of cross-border services, simplify approval procedures and reduce the extent of the demanded formalities to meet approval requirements.

¹⁵⁰ <https://ec.europa.eu/eurostat/web/euro-indicators/balance-of-payments>

The Commission/DG GROW has funded multiple ad hoc studies in this area providing rigorous assessment of its implementation using legal / qualitative analyses approaches in the form of performance checks.¹⁵¹

In some cases, these studies use *ad hoc* quantitative type indicators that are not applied further, for example, informed by OECD PMR type approaches, such as the study on Simplification and Mutual Recognition under the Services Directive in the Construction Sector that used indicators based on the articles of the Services Directive to assess the barriers to enter across the Member States.¹⁵²

Moreover generally, specific sectors are also reviewed in the context of the Services Directive, such as the construction sector mentioned already, the business services sectors broadly defined, and the retail sector mentioned elsewhere in this report.¹⁵³ The European Court of Auditors has also made reference to various data sources in its report on “Has the Commission ensured effective implementation of the Services Directive.”¹⁵⁴ The data sources referred to in this report are already known to DG GROW and are reviewed below.

However, ongoing annual quantitative monitoring of Member State regulatory performance in the services field in the context of the Services Directive specifically is not provided by the Commission.

Therefore, this presents a problem if one wish to monitor regulatory conformity with the Services Directive specifically on an annual basis – of course, one solution would be to present the ad hoc findings of the reports mentioned above and finance follow-up studies so that an upgraded SMS could present updated findings periodically.

Although not performed in the context of Services Directive, a possible alternate source to support measurement of service sector regulatory restrictiveness from a cross-border perspective is the OECD’s Services Trade Index that provides results in a report format for all OECD countries; the OECD’s Intra-European Economic Area Service Restrictiveness index presents the same information for the EEA countries in the form of an interactive dashboard.

The (composite) measurements indicate which general policy measures restrict services trade across the OECD countries and 22 services sectors i.e. regarding foreign entry, restrictions on movement of people, other discriminatory measures, barriers to competition, regulatory transparency.¹⁵⁵ Thematically, there is some correspondence with the issues addressed by OECD’s approach and the Services Directive although the OECD’s approach is not analytically aligned to the requirements of the Services Directive.

As mentioned in the Court of Auditors report, one could use data from SOLVIT and the IMI to examine issues related to the Services Directive although there are some issues.

With respect to SOLVIT, the Court of Auditors refers to the fact the number of cases is quite low. The CoA report states that “SOLVIT plays a minor role regarding the Directive. In 2014 only 17 cases out of 2 368 related thereto (six in 2013, 16 in both 2012 and 2011)”. However, of course, this is a simply an observation; one could argue that the public administration generally complies with the SD and SOLVIT does not need to be called upon. In any case, how many cases annually would represent a satisfactory number? While presenting interesting information, SOLVIT data is not sufficient in numbers to offer good performance-based monitoring of the SD. It can only contribute to this monitoring.

¹⁵¹ https://ec.europa.eu/growth/single-market/services/services-directive/implementation_en

¹⁵² https://ec.europa.eu/growth/content/study-simplification-and-mutual-recognition-construction-sector-under-services-directive-0_en

¹⁵³ https://ec.europa.eu/growth/single-market/services/business-services_en

¹⁵⁴ European Court of Auditors (2016) Special Report Has the Commission ensured effective implementation of the Services Directive? pursuant to Article 287(4), second subparagraph, TFEU

https://www.eca.europa.eu/Lists/ECADocuments/SR16_05/SR_SERVICES_EN.pdf

¹⁵⁵ <https://sim.oecd.org/Default.ashx?lang=En&ds=INTRAEASTRI&d1c=trmar&cs=trmar>

Regarding the IMI, Member States can use the system to share information when undergoing procedures to check of documentation from applicants (i.e. information requests), and are obliged to use the system to submit notifications regarding adaptations to national services legislation. Both aspects of the IMI usage could be used by an upgraded SMS.

In terms of the information requests, performance based monitoring is difficult as the CoA reports states use “depends on factors such as the number of service providers going across borders, the relevant legislation in the host country, competent authorities being aware and being connected to the IMI and the need to contact the competent authorities in another Member State. Interpretation of the number of requests made via the IMI is therefore difficult, but the Commission recognises that it is little used in relation to the Directive compared to the professional qualifications directive.”. Therefore, simply providing numbers on the frequency of use would be meaningless without some qualitative analyses e.g. a country with limited services requirements would need to use the system less, and therefore lower use would not necessarily mean bad performance. Nonetheless, as the IMI is referred to by the SD as an information sharing tool, the data could still be deemed useful in illustrating the performance of some of the requirements of the Directive.

As stated in the CoA report, “A total of 310 notifications have been sent through the IMI since the system has been in use for this purpose. Although issuing the notifications is a legal obligation, of the 31 EU and EEA MSs connected to the IMI, seven have never sent any notification. For the remaining 24 MSs, the number of notifications over a period of 20 months ranged from 1 to 73.” Clearly, ongoing performance-based monitoring can be inferred under the specific requirements of the Directive, but follow up studies would be needed to check the frequency of reforms to Member State services legislation to verify whether the actual extent of Member State usage of the IMI is in line with the demands of the Services Directive. Therefore, some qualitative insights on the relevant upgraded SMS page would be needed to help interpret the data.

In addition, recent studies have gathered data from various sources to build a picture regarding the enforcement of services rules by the Commission, in terms of the number of formal notices, reasoned opinions etc.¹⁵⁶ The footnote indicates the source used by the author to gather the data.¹⁵⁷ While a database is not available to permit efficient gathering of information, this analysis could be feasibly repeated by the Commission services using consultancy or in-house staff, and would provide a good illustration that the Commission is active in ensuring even application of the SD across the Single Market.

¹⁵⁶ Bjerkem, J. & Harbour, M. (2019) Making the Single Market work <http://www.epc.eu/en/publications/Making-the-Single-Market-work~26df2c>

¹⁵⁷ Calculations, by the author, are based on the key decisions of the European Commission’s infringement proceedings. See European Commission, “Infringements proceedings” (last accessed 29 July 2019) https://ec.europa.eu/transport/media/media-corner/infringements-proceedings_en

Previous analyses of EU rules enforcement in the services area

Table 2: The enforcement of European Union service rules by the European Commission (2015-2019)

	Free movement of services (incl. Services Directive, Professional Qualifications Directive)	Free movement of workers, working conditions (incl. Posting of Workers Directive, Working Time Directive)
Letter of formal notice	74	1
Reasoned opinion	58	28
Referral to the ECJ	12	1
Total	144	30

Source: Author, based on data from the European Commission⁴⁰

Industry and Growth

d) Market surveillance

Effective performance of the Single Market demands a robust system of market surveillance, which DG GROW has committed itself to establishing through a package of market surveillance legislation including Regulation (EC) 765/2008 that established requirements for Member States to implement to market surveillance activities with a view to restricting the circulation of non-compliant products.

Two possible data sources could be used for monitoring activities in this area. Firstly, Safety Gate, formerly known as RAPEX (Rapid Exchange of Information System), operates as a rapid alert system for unsafe consumer products. The RAPEX System, launched on January 15th 2005, is a Europe-wide alert system created under European General Products Safety Directive 2001/95/EC allowing free exchange of compliance status and infringement information on a wide variety of products sold within the EU (excluding medical devices, food, and pharmaceutical products). Several measures are provided monitoring the number of alerts and follow up actions, although while annual results are available since 2004, the results for 2018 have yet to be published on the Commission's webpage for Consumers, meaning that there could be a delayed reporting gap between years.¹⁵⁸

A further data-source to consider in the goods area is the Information and Communication System on Market Surveillance (ICSMS). The ICSMS is an IT platform to facilitate communication and co-operation between market surveillance bodies in the EU and EFTA countries. In effect, the ICSMS supports the market surveillance activities, by providing a register for their documentation, including the identification of the products inspected, the results of the tests/checks, and other market surveillance intelligence.

The new “Goods Package”, i.e. the regulations on “market surveillance and compliance of products” and the “mutual recognition of goods lawfully marketed in another Member State” require a further enhancement of its capabilities. Therefore, currently, DG GROW is carrying out the modifications/add-ons to the system in order to address the requirements of these Regulations.

¹⁵⁸https://ec.europa.eu/consumers/consumers_safety/safety_products/rapex/alerts/repository/content/pages/rapex/index_en.htm

Furthermore, ICSMS is in full development and various tasks are being carried out in order to complement the tool, e.g. improvement of the statistics functionalities, platform for linking ICSMS to the national systems.

While the ICSMS provides an overview of the extent of market surveillance activities across the EU, the results are by the nature of the tool limited to the products inspected by the national authorities.

e) **Harmonised legislation**

Harmonised legislation or “Harmonization” is another legislative technique in EU law designed to establish more unified standards within the Single Market. Under article 114 TFEU the EU has competence to enact “measures for the approximation” or “harmonisation” of national rules regarding the establishment and functioning of the Single Market. These measures are adopted with the ordinary legislative procedure and with the consultation of the European Economic and Social Committee.

Evidently, standards and standardisation is a key priority for the Single Market with DG GROW managing several policies in the area including, Regulation (EU) 1025/2012 on European standardisation introduced to strengthen the institutional framework for standardisation.

In terms of data as sources, DG GROW has a licence to access the European standards database maintained by the CEN & Cenelec organisation, the main body responsible for coordinating the development of and issuing European standards.

However, as it currently standards, access to this database is restricted to DG GROW and is not available to the public. Moreover, it is likely that some work would be required to reorganise the data so that it would provide meaningful results for internal market monitoring. For example, data are likely to be available on the (new) standards made available and these could be linked to the different harmonised areas of legislation. However, contextual data on the number of standards produced under a given regulation does not provide a basis for actionable recommendations e.g. if 1 standard is produced one year and there is no work programme for the following year under the same harmonised law, what would it really say in terms of performance? E.g. poor performance or the work in this area is completed? Further contextual insight would be needed to support effective performance-based monitoring.

In relation to the data sources available to monitor harmonised legislation, as explained above, access to data is restricted to DG Grow. The data source that could provide some information in this regard is the Mandates database, a database to consult standardisation, programming and study mandates assigned to European Standards Organizations (ESOs).

Finally, EUR-LEX statistics show the number of European Parliament and Council Regulations that have been adopted (both new and amending). As it stands, the statistics appear to go beyond the thematic definition used for the transposition of directives. Thus, it will need to be investigated whether a Single Market focus can be established.

f) **Retail markets**

Retail Markets play an important role in the EU economy. Acting as intermediary between suppliers of multiple types of products and consumers, they form a sizeable proportion of commercial activity. Consequently, DG Grow has indicated that it considers it essential to establish an integrated, competitive and innovative retail market, and, considering the increasing predominance of e-commerce, to update Member States' retail market regulatory frameworks to the digital age. In the 2015 Single Market Strategy, the European Commission indicated that it was aiming to investigate the restrictions that exist in the EU's retail markets and establish best practice for Member States to adopt that will allow for lowered restrictions on retail operations and establishment.¹⁵⁹

¹⁵⁹ https://ec.europa.eu/growth/single-market/services/retail_en

Two scoreboards could be considered when monitoring regulations over retail markets but may not be useful for incorporation into the SMS. The first is the OECD's Sector PMR indicators. This data set highlights regulatory barriers firms' face for entry and competition within certain markets. One of the sectors included in the analysis is retail trade.

The other indicator that could be used is DG Grow's Retail Restrictiveness Indicator (RRI). The design of this scoreboard is based on the OECD's PMR indicator. It similarly ranks government's attempts to lower retail restrictions with 0 indicating the least restrictive regulations and 6 the most. It has two pillars, one on retail establishment (establishment pillar) and retail operations (operations pillar). The first indicates the conditions (e.g. size thresholds) and procedures (e.g. number of permits) involved in establishing operations. The second pillar considers issues such as shop opening hours and taxes.¹⁶⁰ Along with an overall indicator, there is an indicator for each one of these factors.

R&D & Innovation

Enhancing the EU's performance in the field of research and development and innovation (R&D&I) is an important policy priority in the context of the European Research Area (the ERA), which was established in 2000. Monitoring progress towards the ERA – and overcoming the fragmentation of national R&D&I systems – is an important aspect of the single market.

Monitoring progress towards the goals of the ERA in an internal market context, such as on the extent of convergence in national R&D&I systems can be helpful in shedding light on the extent to which progress is being made towards the ERA goals. Some of the six priorities within the ERA, such as fostering researcher mobility and internationalisation – are arguably especially relevant to the SM.

Article 179 of the Treaty for the European Union (TFEU) highlights the importance of “strengthening the scientific and technological bases by achieving a European research area in which researchers, scientific knowledge and technology circulate freely, and encouraging it to become more competitive”. R&D&I consequently forms an important part of the Europe 2020 strategy to foster smart, sustainable and inclusive growth.¹⁶¹

There are three main sources that can be used to monitor R&D&I policy and performance across EU Member States. The first is the *European Innovation Scoreboard* which gathers data about various indicators relating to innovation across EU countries, EEA/ EFTA countries and some neighbouring and competitor countries for benchmarking purposes. The scoreboard allows for comparison between these countries indicating, strengths and weaknesses of national innovation systems, comparative performance and areas that need to be addressed.

Another dataset that could be incorporated is DG BUDG's data on *EU expenditure and revenue 2014-2020*. Noteworthy is that within the category of Smart and inclusive growth, the data set can show the distribution of expenditure on Horizon 2020 by Member State. Given that its link to the Single Market is marginal, it has not been considered further.

Similarly, the DG RTD's *Horizon 2020 Dashboard* provides data on several datasets, most notably for different countries' monetary contributions to Horizon 2020, the number of funded projects by Member State and project participation. There are also filters on the data that can be applied for example whether SMEs are the beneficiaries, whether the projects are climate focused, or whether there was cross-country collaboration amongst others. Again, given that its link to the Single Market is weak, it has not been considered further.

¹⁶⁰ European Commission (2018) FMT:Bold A European retail sector fit for the 21st century/FMT COM(2018) 219 final <https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX:52018DC0219#footnoteref30>

¹⁶¹ European Commission (2013) Paper of the services of DG Competition containing a draft Framework for state aid for research and development and innovation https://ec.europa.eu/competition/consultations/2013_state_aid_rdi/rdi_draft_framework_en.pdf

Free movement of people

Several data sources within the existing SMS already help monitor freedom of movement. They include the professional qualifications policy area, EURES – which looks at job placements and mobility – as well as the ‘Your Europe’ or ‘Your Europe advice’ governance tools. Given the structure of the Single Market Scoreboard, the data sources are not explicitly ‘framed’ under a freedom of movement heading.

Additional data sources that monitor the actual movement of people are available which may help to show headline figures, if not the impact of the Single Market, since movement cannot be solely attributed to SM policies. These data sources allow for indicators at various levels of granularity to be presented i.e. overall mobility, student mobility and mobility of professionals. The sources include:

1. Annual report on intra-EU labour mobility (based primarily on Eurostat migration and EU-LFS data)
2. The regulated professions database (this is already used to present performance data in the current SMS)
3. Posting of workers data (administrative data)
4. Eurostat Education Statistics (UOE) on mobility of students

Social Policy

There are a large number of data sources and indicators used to track progress in social policy areas. These cover such areas as employment, integration of migrants, public health and social security coordination. The challenge with some of these areas is to find indicators within related data sources that have a clear Single Market angle. The scoreboards and datasets considered include:

1. The European Pillar of Social Rights – social scoreboard of indicators
2. OECD social protection data (health insurance coverage)
3. European Social Protection statistics (ESSPROS)
4. Your Europe Advice
5. The Regional Social Progress Index – selected indicators use the Quality of Institutions Index and the Gallup world poll

The European Pillar of Social Rights, social scoreboard of indicators is available on the Eurostat web-site. It contains 34 indicators based on EU and OECD data. The link to the Single Market is mostly indirect. One more relevant indicator is included concerning digital connectivity. This comes from the Digital Economy and Society Index. The other sources are considered in section 3.2.1.10.

Indirect taxation and customs

In the customs fields, interviews with researchers in the area suggested that there is limited harmonised monitoring information available tracking the performance of customs policies.

However, in response to this challenge, DG Taxation and Customs has introduced a requirement set by Article 31 to the Regulation (EU) No 608/2013 concerning customs enforcement of intellectual property rights, for Member States to provide useful information to support the analysis of IPR infringements affecting the EU market.

Therefore, there is now a specific agenda to publish harmonised annual information on the execution and findings of customs enforcement activities relating to IPR infringements, and data has been published for two consecutive years to this effect.¹⁶²

Considering that the focus on IPR extends to other areas of the Commission including DG GROW, it would seem relevant to gather data from this source for the purpose of supporting the upgrade to the SMS.

Other sources are available on the DG Taxation and Customs, such as a fact page on the results of enforcement activities measured at EU level, titled “Customs sees what you don’t”.¹⁶³ However, this page has not been updated for some time and is not guided by regulatory requirements, nor does it provide comparative information of Member State performance.

In the indirect tax field, while information on revenues is provided by Eurostat, the usefulness of this information only extends to providing contextual information by Member State.¹⁶⁴

To assist performance-based monitoring, a better source is the OECD’s data on consumption taxes from the publication “Consumption Tax Trends”. This presents information on the VAT Tax rate and VAT Revenue Ratio of OECD Member States, therefore enabling insight into the tax rate setting priorities and estimates of revenue collection effectiveness of the different countries.

Transport

Transport is fundamental for the Single Market, supporting free movement of goods, services and people across borders. The transport policy can be divided up into air, rail, maritime and road. Several scoreboards and datasets cover these transport sectors including:

1. EU transport scoreboard
2. Consumer Markets Scoreboard
3. OECD Service Trade Restrictiveness Index

The EU transport scoreboard contains an internal market dimension with data focused on infringements in road, rail, aviation and maritime sectors, alongside some market share, transposition, renewable energy share and customer satisfaction data. The transposition and infringements data are from the same source as that already used in the SMS. However, it is presented in a way that makes it easy to track progress in that particular policy area.

The OECD STRI identifies and summarises barriers to trade in road, rail, aviation and maritime sectors according to the following breakdowns: restrictions on foreign entry; restrictions to the movement of people; other discriminatory measures; barriers to competition; regulatory transparency.

Trade and investment

Trade and investment are important EU policy areas. Therefore, data on trade in goods and services and on Foreign Direct investment (FDI) is already provided in the SMS. The SMS points out that “integration and openness are important indicators of how the Single Market is performing”.

The SMS points out that “Trade in goods and services between EU Member States accounts for over two-thirds of the overall trade of EU Member States. Openness to imports (both from within and outside the EU) is a key measure of integration into European and international value chains and competition. The data sources are Eurostat and Balance of Payments data.

¹⁶² https://ec.europa.eu/taxation_customs/business/customs-controls/counterfeit-piracy-other-ipr-violations/ipr-infringements-facts-figures_en

¹⁶³ https://ec.europa.eu/taxation_customs/facts-figures/customs-sees-what-you-dont-protects-you_en

¹⁶⁴ [https://ec.europa.eu/eurostat/statistics-explained/index.php/Glossary:Value_added_tax_\(VAT\)](https://ec.europa.eu/eurostat/statistics-explained/index.php/Glossary:Value_added_tax_(VAT))

Data about EU trade and investment can therefore be used as a proxy for assessing the benefits from the free movement of goods in the Single Market. Two types of indicators, context and impact can be examined. In terms of context indicators, the free movement of goods is already monitored by the SMS via the “Performance by Integration and Market Openness” section using indicators measuring both intra and extra EU trade in goods. The indicators used to assess market openness to some extent mirror the approach adopted by the OECD through the OECD’s FDI Restrictiveness Index¹⁶⁵ (see later below) and examine the extent to which there are barriers to trade and how far these change over time.

Other data sources have been identified in the area of trade and investment, such as the **OECD’s FDI Regulatory Restrictiveness Index (FDI RRI)**¹⁶⁶, which measures statutory restrictions on foreign direct investment in 22 economic sectors across 69 countries, including all OECD and G20 countries. This could potentially be interesting for possible inclusion in the SMS (if EU-28 wide data can be obtained) as the FDI Index gauges the restrictiveness of a country’s FDI rules based on the four main types of restrictions on FDI:

- Foreign equity limitations
- Screening or approval mechanisms
- Restrictions on the employment of foreigners as key personnel
- Operational restrictions, e.g. restrictions on branching and on capital repatriation or on land ownership

The FDI RRI is a composite index which takes values between 0 and 1, with 1 being the most restrictive. As some EU-28 countries are already covered, by dint of being OECD members, monitoring could perhaps be extended in future to the whole EU-28 and EEA/ EFTA countries, as there would be directly comparable international data from the OECD. It is also worth noting that the OECD operates other similar indexes such as the Digital Services Trade Restrictiveness Index, and a Digital Services Trade Restrictiveness Index.

Data on the impacts of policies to support trade and investment in a Single Market context tend not to be available from databases providing periodic monitoring. Therefore, if an assessment of impacts is desired, then efforts to upgrade the SMS should turn to existing research or fund bespoke analyses. As an example, the CEPII study (a French research centre on trade) provided estimates of the contribution of the Single Market for Goods over time using a gravity model. Using a counterfactual methodology, the study provided an analysis which indicated the estimated impact of the Single Market for each Member State in terms of welfare and trade gains. Although the analysis would need to be repeated to ensure ongoing relevance, the results make clear the contribution of the Single Market in the goods area.¹⁶⁷

¹⁶⁵ <https://www.oecd.org/investment/fdiindex.htm>

¹⁶⁶ <https://www.oecd.org/investment/fdiindex.htm>

¹⁶⁷ Mayer, T., Vicard, V. & Zignago, S. (2018) The Cost of non-Europe, Revisited, CEPII Working Paper http://www.cepii.fr/PDF_PUB/wp/2018/wp2018-06.pdf

Note – a detailed mapping of datasets, sources, frequency of data updating and indicators is provided as a separate Excel sheet.

Detailed overview of datasets and indicators across expanded SMS policy areas

Policy Area	Dataset	Indicator
Consumer Protection	Consumer Conditions Scoreboard	Consumer and retailer trust in environmental claims
		Consumer Conditions Index — overall indicator
		Consumers experiencing problems when trying to buy online from retailers in other EU countries (% of consumers), by country, 2016
		Consumers' knowledge of consumer rights
		Consumers' trust in redress mechanism
		Consumers' confidence in online purchases: % of persons confident buying online
		Retailer perceptions of compliance with consumer legislation domestically and cross-border
		Retailers (10+ persons employed) confident in selling online (%), country results, 2016
	Consumer Market Scoreboard	Ease of switching provider by country and market cluster
		Market Performance Indicator (broken down by country and sector, or per market cluster).
		Can e.g. calculate most improved/deteriorated market (by country) based on time series.
	ECC Database	Complaint Topics by Area of EU law (% of all complaints) (for multiple areas)
		Number of contacts and number of complaints
	EU Justice Scoreboard	* Time needed to resolve litigious civil and commercial cases, first instance/in days
	Eurostat Community survey on ICT usage in households and by individuals	Online shopping (% of the population who ordered goods or services over the internet for private use in the last 12 months), by location of the retailer, EU-28
	Eurostat price level indices	Price dispersion: Coefficient of variation on price-level indices for Actual Consumption and its components
		The coefficient of variation (CV) computed as the ratio between the standard deviation and the arithmetic simple (un-weighted) average of the PLIs of the EU countries.
		Price-level indices (EU-28 = 100) for actual consumption and its components by Member State Based on Actual Individual Consumption (AIC), and Price Level Indices (EU28=100). Can be broken down by category e.g. "Electricity, gas and other fuels".
Digital economy	Sanctions Intelligence Dashboard	(https://ec.europa.eu/eurostat/web/purchasing-power-parities/data/database)
		Number of entities
	Digital Agenda key indicators	Number of persons
		4G mobile broadband (LTE) coverage (as a % of households)
		Standard fixed broadband coverage /availability (as a % of households)

Policy Area	Dataset	Indicator
	Digital Transformation Scoreboard	ERP uptake
		Selling online cross-border - Enterprises that did electronic sales to other EU countries
	Flash Eurobarometer - Cross-border access to content online	Frequency of geo-blocking
		Prevalence of accessing or downloading content through an online service intended for users in another EU country
	Flash Eurobarometer - CROSS-BORDER PORTABILITY OF ONLINE CONTENT SERVICES	Access to online content through subscription while visiting another EU country
		Use of subscriptions during stays in other EU countries
	The Digital Economy and Society Index	Citizens' use of internet services and online transactions
		Composite indicator 'Digital Public Services' consisting of two sub-dimensions: e-Government; 5b e-Health (20%)
		Integration of Digital Technology
	The European Data Market Monitoring Tool	Data companies' revenues
		Data Market Value per MS
Energy	Consumer Market Scoreboard	Ease of switching: electricity services
		Ease of switching: gas services
		Market performance indicator: electricity services
		Market performance indicator: gas services
	Energy Union Scoreboard	Annual switching rates on electricity / gas retail markets
		Market concentration index - power generation
		Market concentration index - wholesale gas supply
		Wholesale electricity prices
		Wholesale gas prices
	OECD Product Market Regulation Survey	Scope of action, independence and accountability of regulators.
	Quarterly Report on European Electricity Markets	Renewable electricity generation in the EU and the share of renewables in all electricity production – broken down by renewable energy type
	Quarterly Report on European Gas Markets	Retail gas price estimates for households in the EU
		Retail gas price estimates for industrial consumers in the EU
Environment	EU Circular Economy monitoring framework	Recycling of specific waste streams
		Trade in recyclable raw materials
	European Environment Agency	Ecological footprint

Policy Area	Dataset	Indicator
		Economic losses from climate-related extremes
		Energy consumption levels (including renewables share)
		Greenhouse gas emissions levels
		Levels of industrial waste generated
	Global SDG Indicators Database	Countries with sustainable consumption and production (SCP) national action plans or SCP mainstreamed as a priority or target into national policies
	National GPP Action Plans (policies and guidelines)	Countries that adopted National Action Plan or equivalent document
	Opentender.eu	Number of tenders per country on environmental services
	Raw Materials Scoreboard	Recycling's contribution to meeting materials demand
EU citizenship	Annual report on intra-EU labour mobility	Number of intra-EU mobile citizens
	Eurostat Education Statistics (UOE)	Mobile students from abroad enrolled by education level, sex and field of education
	The regulated professions database	(blank)
FDI	Eurostat FDI data (intra and extra-EU FDI stocks and flows)	EU trade integration in GOODS (change)
		EU trade integration in GOODS (levels)
		EU trade integration in SERVICES (change)
		EU trade integration in SERVICES (levels)
		Openness to imports of GOODS (change)
		Openness to imports of GOODS (levels)
		Openness to imports of SERVICES (change)
		Openness to imports of SERVICES (levels)
		(blank)
	OECD FDI Restrictiveness Index	Discriminatory screening or approval mechanisms;
		Level of foreign equity restrictions;
		Restrictions on key foreign personnel and operational restrictions.
Financial markets	Dealogic DCM (debt issuance – bonds, syndicated loans)	Bonds by market of issuance (domestic, cross-border)
	EBAN Statistics Compendium 2018 (Business angel statistics)	Location of Investment and Cross Border Investing
		Total European early stage investment
	ECN Cross-border Crowdfunding Survey 2017 (crowdfunding statistics)	Proportion of cross-border investments received

Policy Area	Dataset	Indicator
	InvestEurope Yearbook	Level of divestment in EUR.
		Level of investment in EUR
		Level of VC fundraising in EUR
	Various e.g. ECB surveys (debt), InvestEurope data on VC	AFME composite index on cross-border finance
Industry and Growth	Analysis based on infringement packages	Number of letters of formal notice
		Number of reasoned opinions
		Number of referrals to the ECJ
	CEP Policy Brief	(blank)
	CP-DS database	No indicators the database list the legislation
	European Crowdfunding Network	(blank)
	ICSMS	The statistical module is under development currently and therefore the indicators were not clearly defined via the interview with GROW. However, the interview suggested that when it is ready, information will be extractable by Member State by product regulation type in terms of the number of cases.
		The statistical module is under development currently and therefore the indicators were not clearly defined via the interview with GROW. However, the interview suggested that when it is ready, information will be extractable by Member State by product regulation type in terms of the number of products removed.
	IMI	Number of information requests
		Number of notifications
	Intra-European Economic Area Service Restrictiveness index	For the air transport sector, for each OECD country, a composite indicator provides an overall measure of restrictiveness. This is broken down by several separate measures around restrictiveness i.e. foreign entry, restrictions on movement of people, other discriminatory measures, barriers to competition, regulatory transparency.
		For the architecture, for each OECD country, a composite indicator provides an overall measure of restrictiveness. This is broken down by several separate measures around restrictiveness i.e. foreign entry, restrictions on movement of people, other discriminatory measures, barriers to competition, regulatory transparency.
		For the Broadcasting sector for each OECD country, a composite indicator provides an overall measure of restrictiveness. This is broken down by several separate measures around restrictiveness i.e. foreign entry, restrictions on movement of people, other discriminatory measures, barriers to competition, regulatory transparency.
		For the Commercial Banking sector, for each OECD country, a composite indicator provides an overall measure of restrictiveness. This is broken down by several separate measures around restrictiveness i.e. foreign entry, restrictions on movement of people, other discriminatory measures, barriers to competition, regulatory transparency.
		For the Computer Services sector for each OECD country, a composite indicator provides an overall measure of restrictiveness. This is broken down by several separate measures around restrictiveness i.e. foreign entry,

Policy Area	Dataset	Indicator
		restrictions on movement of people, other discriminatory measures, barriers to competition, regulatory transparency.
		For the construction sector, for each OECD country, a composite indicator provides an overall measure of restrictiveness. This is broken down by several separate measures around restrictiveness i.e. foreign entry, restrictions on movement of people, other discriminatory measures, barriers to competition, regulatory transparency.
		For the courier services sector, for each OECD country, a composite indicator provides an overall measure of restrictiveness. This is broken down by several separate measures around restrictiveness i.e. foreign entry, restrictions on movement of people, other discriminatory measures, barriers to competition, regulatory transparency.
		For the distribution services sector, for each OECD country, a composite indicator provides an overall measure of restrictiveness. This is broken down by several separate measures around restrictiveness i.e. foreign entry, restrictions on movement of people, other discriminatory measures, barriers to competition, regulatory transparency.
		For the Engineering services sector for each OECD country, a composite indicator provides an overall measure of restrictiveness. This is broken down by several separate measures around restrictiveness i.e. foreign entry, restrictions on movement of people, other discriminatory measures, barriers to competition, regulatory transparency.
		For the insurance services sector, for each OECD country, a composite indicator provides an overall measure of restrictiveness. This is broken down by several separate measures around restrictiveness i.e. foreign entry, restrictions on movement of people, other discriminatory measures, barriers to competition, regulatory transparency.
		For the legal services sector, for each OECD country, a composite indicator provides an overall measure of restrictiveness. This is broken down by several separate measures around restrictiveness i.e. foreign entry, restrictions on movement of people, other discriminatory measures, barriers to competition, regulatory transparency.
		For the logistics sector, for each OECD country, a composite indicator provides an overall measure of restrictiveness. This is broken down by several separate measures around restrictiveness i.e. foreign entry, restrictions on movement of people, other discriminatory measures, barriers to competition, regulatory transparency.
		For the maritime transport sector for each OECD country, a composite indicator provides an overall measure of restrictiveness. This is broken down by several separate measures around restrictiveness i.e. foreign entry, restrictions on movement of people, other discriminatory measures, barriers to competition, regulatory transparency.
		For the rail transport sector, for each OECD country, a composite indicator provides an overall measure of restrictiveness. This is broken down by several separate measures around restrictiveness i.e. foreign entry, restrictions on movement of people, other discriminatory measures, barriers to competition, regulatory transparency.
		For the telecommunications sector, for each OECD country, a composite indicator provides an overall measure of restrictiveness. This is broken down by several separate measures around restrictiveness i.e. foreign entry,

Policy Area	Dataset	Indicator
		restrictions on movement of people, other discriminatory measures, barriers to competition, regulatory transparency.
		Services sector trade restrictiveness for 22 sectors. An overall score is provided plus a break down by policy measure.
	IP in Europe	Contribution, Infringement and perception on IPR
	Mandates database	Number of standards agreed
	Notifications of requirements under the Services Directive	(blank)
	RAPEX	Number of follow up actions of existing notifications by authorities in other Member States
		Number of joint action market surveillance programmes (not available for all years)
		Number of notifications by product category
	World Bank Doing Business Database	Starting a business
R&D & Innovation	DG Budget data EU expenditure and revenue 2014-2020	Expenditure of Member States on Horizon 2020
	European Innovation Scoreboard	Attractive research systems
		Broadband penetration
		Foreign doctorate students
		Human resources
		Innovation friendly environment (Includes Broadband penetration and Opportunity-driven entrepreneurship)
		International scientific co-publications
		Knowledge-intensive services exports
		Lifelong learning
		Medium and high-tech product exports
		New doctorate graduates
		Opportunity-driven entrepreneurship
		Population completed tertiary education
		Public R&D expenditure
		Scientific publications among top 10% most cited
		SMEs with product or process innovations
		Summary Innovation Index (Summary of all of their indicators)
		Venture capital expenditures
	Horizon Dashboard	H2020 Participation according to Member State
		Net contribution to H2020 by Member State
Social Policy	EU LFS	Employment gap of EU-immigrants
	EU Social Indicators	The proportion of the population covered by government/social health insurance
	Your Europe Advice	Number of enquiries by citizens to YourEurope advice by subject area
Tax and Customs	Consumption Tax Trends OECD	VAT Revenue Ratio

Policy Area	Dataset	Indicator
		VAT Tax rate
	Intellectual Property Rights - Facts and figures	Monetary value sectoral break down of detained products
		Number of detained articles by Member State i.e. where suspected IPR infringements identified
		Number of cases by Member State i.e. where suspected IPR infringements identified
		Number of initiated procedures by Member State i.e. where action is taken against non IPR compliant traders
		Product category break down by frequency of cases of detained products
		Results of detention Member State i.e. types of taken action after identifying noncompliant products e.g. destruction of product, criminal procedure court cases etc.
		Sectoral break down of detained products
Trade	Cost of non-Europe in the goods area	Gravity trade model
	Eurostat's COMEXT database	EU trade integration (percentage change from previous year)
		EU trade integration (there are two separate indicators for trade and services)
		Exports of goods
		Exports of intra-EU services
		Imports of goods and intra services EU and extra EU
		Member State trade performance across all 8 indicators
		Openness to imports of goods and services
		Openness to imports of goods and services (percentage change)
	Globalisation patterns in EU trade and investment	International trade in goods: an overview
		Inward foreign affiliates statistics
		Outward foreign affiliates statistics
		Trade in business services
		World trade in services
Transport	EU transport scoreboard	Consumer satisfaction with air transport
		Consumer satisfaction with rail transport
		Market share of all but the principal freight rail undertakings
		Market share of all but the principal passenger rail undertakings
		Pending infringements - Air
		Pending infringements - Maritime and inland waterways
		Pending infringements - Rail
		Pending infringements - Road
		Transposition of EU transport directives
	OECD STRI	Services trade restrictiveness indicator - Air transport services
		Services trade restrictiveness indicator - Maritime transport
		Services trade restrictiveness indicator - Rail freight
		Services trade restrictiveness indicator - Road freight

Available data that corresponds to consumer protection - indicator and data source longlist

Name of dataset	Data availability	Examples of key indicators	Indicator types
Consumer Market Scoreboard	Every other year since 2012 (annually from 2009-2012)	<ul style="list-style-type: none"> - Market performance indicator overall and by market cluster or market e.g. for gas services & electricity services - Ease of switching provider by country and market cluster 	Composite indicator Result
Consumer Conditions Scoreboard	Every other year since 2013 (annually from 2010-2012)	<ul style="list-style-type: none"> - Consumer Conditions Index — overall indicator - Retailer perceptions of compliance with consumer legislation domestically and cross-border - Consumers' knowledge of consumer rights - Consumers' confidence in online purchases: % of persons confident buying online - Consumers experiencing problems when trying to buy online from retailers in other EU countries (% of consumers), by country, 2016 - Retailers (10+ persons employed) confident in selling online (%), country results, 2016 - Consumers' trust in redress mechanism - Consumer and retailer trust in environmental claims 	Composite indicator Result Result Result Process Result Result Result
Eurostat Community survey on ICT usage in households and by individuals	Annual	<ul style="list-style-type: none"> - Online shopping (% of the population who ordered goods or services over the internet for private use in the last 12 months), by location of the retailer, EU-28 	Output
ECC Database	Annual	<ul style="list-style-type: none"> - Complaint Topics by Area of EU law (% of all complaints) (for multiple areas) - Number of contacts and number of complaints 	Process Process
Eurostat price level indices	Every 6 months	<ul style="list-style-type: none"> - Price-level indices (EU-28 = 100) for actual consumption and its components by Member State – based on Actual Individual Consumption (AIC), and Price Level Indices (EU28=100). Can be broken down by category e.g. "Electricity, gas and other fuels". - Price dispersion: Coefficient of variation on price-level indices for Actual Consumption and its components¹⁶⁸ 	Context Context
EU Justice Scoreboard	Annual	<ul style="list-style-type: none"> - Time needed to resolve litigious civil and commercial cases, first instance/in days 	Process

Available data sources that corresponds to the Digital Single Market and indicator longlist

Name of dataset	Data availability	Examples of key indicators	Indicator types
The Digital Economy and Society Index (DESI)	Annually since 2014	<ul style="list-style-type: none"> - Composite indicator 'Citizens' use of internet services and online transactions', consisting of three sub-dimensions: Internet Use; Activities Online; Online Transactions 	Outcome

¹⁶⁸ The coefficient of variation (CV) computed as the ratio between the standard deviation and the arithmetic simple (un-weighted) average of the PLIs of the EU countries.

Name of dataset	Data availability	Examples of key indicators	Indicator types
		- Composite indicator 'Integration of Digital Technology', consisting of two sub-dimensions: Business digitisation; e-Commerce (incl. cross-border)	Result
		- Composite indicator 'Digital Public Services' consisting of two sub-dimensions: e-Government; 5b e-Health (20%)	Outcome
The Digital Agenda Scoreboard Key Indicators	2007-2014	- Mobile roaming price per minute	Outcome
	2017	- The speed of the fixed connection to internet is not sufficient for the actual needs of the enterprise	Process
	2007-2011	- Export of ICT goods and services (both intra- and extra- EU)	Result
	2012-2017	- Citizen Mobility: extent to which public services that are aimed at foreign citizens are available online, usable, and implement eID and eDocument capabilities	Outcome
		- Business Mobility: extent to which public businesses that are aimed at foreign businesses are available online, usable, and implement eID and eDocument capabilities	Outcome
	2008-2018	- Individuals ordering goods or services online, from sellers from other EU countries	Result
	2009-2017	- Enterprises having done electronic sales to other EU countries in the last calendar year	Result
	2016-2018	- Enterprises advertising online based on the geolocation of internet users	Outcome
The European Data Market Monitoring Tool (EDMM)	Annually since 2013	- Data Market Value per MS / industry (€)	Outcome
		- Data on companies' revenues by MS / industry (€)	
		- Number of data users per MS / industry	
The Digital Transformation Scoreboard	Annually since 2014	- Selling online cross-border – Enterprises that did electronic sales to other EU countries	Impact

Available data that corresponds to energy markets

Name of dataset	Data availability	Examples of key indicators	Indicator types
OECD Product Market Regulation Survey	Every 5 years, latest data for 2018 – OECD countries. Not EU-28.	- Scope of action, independence and accountability of regulators.	Composite indicators
Energy Union Scoreboard	Annually since 2016	- Wholesale gas prices	Output
		- Market concentration index	Impact
		- Annual switching rates on electricity / gas retail markets	Result
Consumer Markets Scoreboard	Every other year since 2012 (annually from 2009-2012)	- Renewable energy share	Impact
Single Market Scoreboard	Annually	- Market performance indicator: gas services & electricity services	Composite indicator
Quarterly Report on European Gas Markets	Quarterly	- Number of pending infringement proceedings in the field of energy at the indicated dates	Output
		- Retail gas price estimates for households in the EU	Output

Name of dataset	Data availability	Examples of key indicators	Indicator types
Quarterly Report on European Electricity Markets	Quarterly	<ul style="list-style-type: none"> - Retail gas price estimates for industrial consumers in the EU - Renewable electricity generation in the EU and the share of renewables in all electricity production – broken down by renewable energy type 	Impact

Available data that corresponds to the environment sector

Name of dataset	Data availability	Examples of key indicators	Indicator types
Product Environmental Footprint (PEF)	Still under development	N/A	
Organisational Environmental Footprint (OEF)	Still under development	N/A	
European Environmental Agency (EEA) indicators	Data available, but not necessarily disaggregated to the required level	<ul style="list-style-type: none"> - Key indicators include GHG emissions, economic impacts of climate change, biodiversity loss, energy consumption trends and ecological footprint <p>All current indicators can be found at: https://www.eea.europa.eu/data-and-maps/indicators/#c0=10&c12-operator=or&b_start=0</p>	Input, process, output, context
OECD (SIREN database)	Data available, but not necessarily disaggregated to the required level and not for all EU MS	<ul style="list-style-type: none"> - Climate Change: CO2 and greenhouse gas emission intensities - Ozone layer: ozone depleting substances - Air Quality: Sox and Nox emission intensities - Waste generation: municipal waste generation intensities - Freshwater quality: wastewater treatment connection rates - Freshwater resources: intensity of use of water resources - Forest resources: intensity of use of forest resources - Fish resources: intensity of use of fish resources - Energy resources: intensity of energy use - Biodiversity: threatened species 	Context Context Context Context Context Context Context Context Context Context

Available data that corresponds to the circular economy

Name of dataset	Data availability	Examples of key indicators	Indicator types
EU Circular Economy monitoring framework ¹⁶⁹	Annually, varies per indicator, latest mostly 2017 and 2018; few indicators only updated bi-annually or with larger time spans	<ul style="list-style-type: none"> - Trade in recyclable raw materials - % of Green Public Procurement as a % of total Procurement - % of Green Public Procurement to GDP (*) - Recycling of specific waste streams 	Result Process/Output Impact (**)

¹⁶⁹ Eurostat (2019) <https://ec.europa.eu/eurostat/web/circular-economy/indicators/monitoring-framework>

(*) no data available, earliest estimate is expected for 2021. (**) from circular economy perspective.

Available data that corresponds to green public procurement

Name of database	Data availability	Examples of key indicators	Indicator types
Opentender.eu	The data is updated annually	- Number of tenders and the volume of tenders in € of “Sewage, refuse, cleaning and environmental services”	Output
Global SDG Indicators	Last data from 2017. It is an area that needs better data coverage.	- Number of countries implementing sustainable public procurement policies and action plans	Process
EU GPP Criteria	Last report from 2019	- Number of products using EU GPP criteria - % of ecolabel products using EU GPP criteria	Process
National GPP Action Plans (policies and guidelines)	Last report from May 2017. It covers a three-year period	- Countries that adopted National Action Plan or equivalent document	Output
OECD	Data available for some years. Last data available for 2011	- % Fear that green products cost more - % Lack of mechanisms monitoring if green policies work - % Absence of incentives to implement green projects - Lack of sufficient suppliers	Process

Available data that corresponds to financial markets

Name of data source	Data availability and frequency	Examples of key indicators	Indicator types
Eurostat Balance of Payments data ¹⁷⁰	Quarterly and annual	<ul style="list-style-type: none"> • Balance of payments – BPM6 (ei_bp_6) • Current account – quarterly data (ei_bpm6ca_q) • Financial account – quarterly data (ei_bpm6fa_q) • Current account – monthly data (ei_bpm6ca_m) • Financial account – monthly data (ei_bpm6fa_m) • International investment position – quarterly data (ei_bpm6iip_q) 	Context
Collective Investment Funds (UCITS) ¹⁷¹	Some annual reports produced by industry	Ad hoc evaluation reports and annual reports on UCITS implementation.	Context

¹⁷⁰ <https://ec.europa.eu/eurostat/web/euro-indicators/balance-of-payments>

¹⁷¹ Caceis Investor Services (2011) Cross-border distribution of UCITS <https://www.caceis.com/whats-new/insights/reference-papers/article/cross-border-distribution-of-ucits/detail.html>

Name of data source	Data availability and frequency	Examples of key indicators	Indicator types
Access to SME finance	ECB SME Access to Finance Survey (SAFE) ¹⁷²	<ul style="list-style-type: none"> See footnote 	Context
Access to SME finance	Financing SMEs and Entrepreneurs 2019, an OECD Scoreboard	<ul style="list-style-type: none"> https://www.oecd-ilibrary.org/industry-and-services/financing-smes-and-entrepreneurs-2019_fin_sme_ent-2019-en 	Context
Capital markets intra EU integration index	Data about how far European capital markets has been integrated	<ul style="list-style-type: none"> Size of capital markets in the EU-28 Size of capital markets in the EU top 5 MS <p>Composite indicator based on following indicators:</p> <ul style="list-style-type: none"> Cross-border holdings of equity assets and fund shares Cross-border holdings of debt assets Cross-border private equity (PE) financing Cross-border M&A transactions Cross-border public equity raising Non-domestic corporate bond issuance Participation in intermediating foreign exchange and derivatives trading 	Context
Venture Capital	Since 2010, annual	<ul style="list-style-type: none"> Total VC investment at EU level (disaggregated by stage, sector) VC investment by MS (disaggregated by stage, sector) Data on cross-border VC flows 	Context
Venture Capital	Annual	<ul style="list-style-type: none"> Venture capital (percentage of GDP) 	Context
Crowdfunding	2017, annual	<ul style="list-style-type: none"> No. of national regulatory barriers eliminated Level of crowdfunding activity in EUR (national) Level of crowdfunding activity in EUR (cross-border) Strengthening of cross-border flows in crowdfunding Extent of convergence in national regulations (qualitative assessment) 	Context
Debt issuance – bonds, syndicated loans	NA		Context
Business angel statistics	2018	<ul style="list-style-type: none"> Level of business angel activity in EUR (national) Level of business angel activity in EUR (cross-border) 	Context

Available data that corresponds to services

Name of database	Data availability	Examples of key indicators	Indicator types
OECD OECD Services Trade Index (this provides the same)	Annual reporting is undertaken	<ul style="list-style-type: none"> There are separate indicators by OECD country and sector (air transport, architecture, broadcasting, commercial banking, computer) 	Input

¹⁷² European Central Bank (2019) Survey on the access to finance of enterprises April-September 2019, https://www.ecb.europa.eu/stats/ecb_surveys/safe/html/index.en.html

Name of database	Data availability	Examples of key indicators	Indicator types
information as the dashboard, the Intra-European Economic Area Service Restrictiveness index, but in report format and for more countries)		<p>services, construction sector, courier services, distribution services, engineering, insurance, legal, maritime, rail and telecommunications)</p> <ul style="list-style-type: none"> - For each OECD country, a composite indicator provides an overall measure of regulatory restrictiveness. This is broken down by several separate measures around restrictiveness i.e. foreign entry, restrictions on movement of people, other discriminatory measures, barriers to competition, regulatory transparency. 	
Qualitative / legal analyses undertaken by the Commission ¹⁷³	Ad hoc reporting	<ul style="list-style-type: none"> - Judgements made against specific articles of the Services Directive by MS 	Qualitative assessments of inputs, processes, results and impacts
Commission's own analysis	Suggestion that the commission performs new data analyses as conducted by recent studies in the services field e.g. ¹⁷⁴	<ul style="list-style-type: none"> - Number of letters of formal notice - Number of reasoned opinions - Number of referrals to the ECJ 	<p>Outputs</p> <p>Outputs</p> <p>Outputs</p>
IMI	Annually	<ul style="list-style-type: none"> - Number of notifications - Number of information requests 	<p>Outputs</p> <p>Process</p>

¹⁷³ https://ec.europa.eu/growth/single-market/services/services-directive/implementation_en

¹⁷⁴ Bjerkem, J. & Malcolm, H. (2019) Making the Single Market work, <http://www.epc.eu/en/publications/Making-the-Single-Market-work~26df2c>

Annex 4: Overview of indicators shortlisted / excluded

Shortlisted indicators – new policy areas

In the final shortlisting, which took into account stakeholder feedback and validation of indicators, a shortlist of 115 indicators was identified.

Policy Area	Sub Policy Area	Name of dataset	Indicator	Type of indicator
Consumer Protection	Consumer trust in cross border retailers	Consumer Conditions Scoreboard	Consumer Conditions Index — overall indicator	Composite
Consumer Protection	Consumer trust in cross border retailers	Consumer Conditions Scoreboard	Retailer perceptions of compliance with consumer legislation domestically and cross-border	Result
Consumer Protection	Consumer trust in cross border retailers	Consumer Conditions Scoreboard	Consumers experiencing problems when trying to buy online from retailers in other EU countries (% of consumers), by country, 2016	Output
Consumer Protection	European Consumer Centre Network	ECC Database	Complaint Topics by Area of EU law (% of all complaints) (for multiple areas)	Output
Consumer Protection	Choice / comparability of offers	Consumer Market Scoreboard	Market Performance Indicator (broken down by country and sector, or per market cluster). Can e.g. calculate most improved/deteriorated market (by country) based on time series.	Composite
Consumer Protection	Choice / comparability of offers	Consumer Market Scoreboard	Ease of switching provider by country and market cluster	Result
Consumer Protection	Choice / comparability of offers	Eurostat price level indices	Price-level indices (EU-28 = 100) for actual consumption and its components by Member State Based on Actual Individual Consumption (AIC), and Price Level Indices (EU28=100). Can be broken down by category e.g. "Electricity, gas and other fuels". (https://ec.europa.eu/eurostat/web/purchasing-power-parities/data/database)	Context
Consumer Protection	Choice / comparability of offers	ICSMS	'The % of products checked by market surveillance authorities (entering the EU from third countries)	Process
Consumer Protection	Choice / comparability of offers	ICSMS	'The % of products checked by customs authorities	Process
Digital economy	Digital business	Digital Agenda key indicators	Citizen Mobility: extent to which public services that are aimed at foreign citizens are available online, usable, and implement eID and eDocument capabilities	Result
Digital economy	Digital business	Digital Agenda key indicators	Business Mobility: extent to which public services that are aimed at foreign businesses are available online, usable, and implement eID and eDocument capabilities	Result
Digital economy	Digital business	Digital Agenda key indicators	Individuals ordering goods or services online, from sellers from other EU countries	Result
Digital economy	Digital business	Digital Agenda key indicators	Enterprises having done electronic sales to other EU countries in the last calendar year	Result
Digital economy	Digital business	Digital Agenda key indicators	Enterprises advertising online based on the geolocation of internet users	Result

Policy Area	Sub Policy Area	Name of dataset	Indicator	Type of indicator
Digital economy	Media services	Digital Transformation Scoreboard	Selling online cross-border - Enterprises that did electronic sales to other EU countries	Output
Digital economy	Media services	The Digital Economy and Society Index	Citizens' use of internet services and online transactions	Output
Energy	General	Consumer Markets Scoreboard	Market performance indicator: gas services	Composite
Energy	General	Consumer Markets Scoreboard	Market performance indicator: electricity services	Composite
Energy	General	Consumer Markets Scoreboard	Ease of switching: gas services	Result
Energy	General	Consumer Markets Scoreboard	Ease of switching: electricity services	Result
Energy	Renewable energy	Quarterly Report on European Electricity Markets	Renewable electricity generation in the EU and the share of renewables in all electricity production – broken down by renewable energy type	Context
Environment	Circular Economy	EU Circular Economy monitoring framework	Trade in recyclable raw materials	Result
Environment	Circular Economy	EU Circular Economy monitoring framework	Recycling of specific waste streams	Context
Environment	Circular Economy	Raw Materials Scoreboard	Recycling's contribution to meeting materials demand	Context
Environment	Waste	Eurostat	Level of waste generation by Member State	Context
Environment	Waste	Eurostat	Level of waste treatment by Member State	Context
Environment	Environment	European Environment Agency	Ecological footprint	Output
Environment	Environment	European Environment Agency	Economic losses from climate-related extremes	Output
Environment	Environment	European Environment Agency	Energy consumption levels (including renewables share)	Output
Environment	Environment	European Environment Agency	Greenhouse gas emissions levels	Output
Environment	Environment	European Environment Agency	Levels of industrial waste generated	Output
Environment	Air quality	EEA's air quality database	Emissions of main air pollutants (disaggregated by sulphur dioxide/oxides (SO ₂ /SO _x), nitrogen oxides (NO _x), non-methane volatile organic compounds (NMVOCs) and ammonia (NH ₃). Exceedence of limit values of the limits set in the Ambient Air Quality (AAQ) Directives	Process
Environment	Green public procurement	Opentender.eu	Number of tenders per country on environmental services	Output

Policy Area	Sub Policy Area	Name of dataset	Indicator	Type of indicator
Environment	Green public procurement	National GPP Action Plans (policies and guidelines)	Countries that adopted Green Public Procurement National Action Plan or equivalent document	Output
Migration	Intra-EU migration	Annual report on intra-EU labour mobility	Number of intra-EU mobile citizens	Context
Migration	Intra-EU migration	The regulated professions database	% of positive professional recognition decisions (rolling 3 year average, broken down by country)	Context
FDI	FDI flows	Eurostat FDI data (intra and extra-EU FDI stocks and flows)	Change in inward intra-EU FDI flows	Context
FDI	FDI flows	Eurostat FDI data (intra and extra-EU FDI stocks and flows)	Change in outward intra-EU FDI flows	Context
FDI	FDI flows	Eurostat FDI data (intra and extra-EU FDI stocks and flows)	Change in inward intra-EU FDI stocks	Context
FDI	FDI flows	Eurostat FDI data (intra and extra-EU FDI stocks and flows)	Change in outward intra-EU FDI stocks	Context
FDI	FDI flows	Eurostat FDI data (intra and extra-EU FDI stocks and flows)	Change in inward extra-EU FDI flows	Context
FDI	FDI flows	Eurostat FDI data (intra and extra-EU FDI stocks and flows)	Change in outward extra-EU FDI flows	Context
FDI	FDI flows	Eurostat FDI data (intra and extra-EU FDI stocks and flows)	Change in inward extra-EU FDI stocks	Context
FDI	FDI flows	Eurostat FDI data (intra and extra-EU FDI stocks and flows)	Change in outward extra-EU FDI stocks	Context
FDI	FDI flows	Eurostat FDI data (intra and extra-EU FDI stocks and flows)	Composite indicator FDI flows and stocks (both intra and extra-EU)	Context
FDI	FDI flows	OECD's FDI restrictiveness index	Level of foreign equity restrictions;	Context
FDI	FDI flows	OECD FDI Restrictiveness Index	Discriminatory screening or approval mechanisms;	Context
FDI	FDI flows	OECD FDI Restrictiveness Index	Restrictions on key foreign personnel and operational restrictions.	Context

Policy Area	Sub Policy Area	Name of dataset	Indicator	Type of indicator
FDI	FDI flows	Eurostat FDI data (intra and extra-EU FDI stocks and flows) and Eurostat GDP	Percentage of GDP of FDI inflow from the EU	Context
FDI	FDI flows	Eurostat FDI data (intra and extra-EU FDI stocks and flows) and Eurostat GDP	Percentage of GDP of inward FDI stock from the EU	Context
FDI	FDI flows	Eurostat FDI data (intra and extra-EU FDI stocks and flows) and Eurostat GDP	Percentage of GDP of outward FDI flow to the EU	Context
FDI	FDI flows	Inward FDI flows by OECD (by partner country and industry) and Eurostat GDP	Percentage of GDP of outward FDI stock to the EU	Context
Financial markets	Capital markets union	ECN Cross-border Crowdfunding Survey 2017 (crowdfunding statistics)	Proportion of cross-border investments received	Context
Financial markets	Capital markets union	EBAN Statistics Compendium 2018 (Business angel statistics)	Total European early stage investment	Context
Financial markets	Capital markets union	EBAN Statistics Compendium 2018 (Business angel statistics)	Location of Investment and Cross Border Investing	Context
Financial markets	Capital markets union	Dealogic DCM (debt issuance – bonds, syndicated loans)	Bonds by market of issuance (domestic, cross-border)	Context
Financial markets	Banking, finance and financial services	AFME composite index on cross-border finance	<ul style="list-style-type: none"> • AFME composite index on cross-border finance. • Cross-border holdings of equity assets and fund shares • Cross-border holdings of debt assets • Cross-border private equity (PE) financing • Cross-border M&A transactions • Cross-border public equity raising • Non-domestic corporate bond issuance • Participation in intermediating foreign exchange and derivatives trading 	Context
Industry and Growth	Harmonised legislation	EUR-LEX statistics	Number of regulations adopted	Input
Industry and Growth	Harmonised legislation	Mandates database	Number of standards agreed	Output

Policy Area	Sub Policy Area	Name of dataset	Indicator	Type of indicator
Industry and Growth	IPR and copyright	IP in Europe	Contribution, Infringement and perception on IPR	Various
Industry and Growth	Market Surveillance	ICSMS	The statistical module is under development currently and therefore the indicators were not clearly defined via the interview with GROW. However, the interview suggested that when it is ready, information will be extractable by Member State by product regulation type in terms of the number of cases.	Process
Industry and Growth	Market Surveillance	ICSMS	The statistical module is under development currently and therefore the indicators were not clearly defined via the interview with GROW. However, the interview suggested that when it is ready, information will be extractable by Member State by product regulation type in terms of the number of products removed.	Result
Industry and Growth	Market Surveillance	RAPEX	Number of notifications by product category	Output
Industry and Growth	Market Surveillance	RAPEX	Number of follow up actions of existing notifications by authorities in other Member States	Result
Industry and Growth	Transposition of industrial product legislation	Qualitative - evaluation studies	Number of instances of gold-plating of EU legislation in national transposition	Process
Services Markets	Services Markets	Intra-European Economic Area Service Restrictiveness index	For the architecture, for each OECD country, a composite indicator provides an overall measure of restrictiveness. This is broken down by several separate measures around restrictiveness i.e. foreign entry, restrictions on movement of people, other discriminatory measures, barriers to competition, regulatory transparency.	Composite
Services Markets	Services Markets	Intra-European Economic Area Service Restrictiveness index	For the Computer Services sector for each OECD country, a composite indicator provides an overall measure of restrictiveness. This is broken down by several separate measures around restrictiveness i.e. foreign entry, restrictions on movement of people, other discriminatory measures, barriers to competition, regulatory transparency.	Composite
Services Markets	Services Markets	Intra-European Economic Area Service Restrictiveness index	For the construction sector, for each OECD country, a composite indicator provides an overall measure of restrictiveness. This is broken down by several separate measures around restrictiveness i.e. foreign entry, restrictions on movement of people, other discriminatory measures, barriers to competition, regulatory transparency.	Composite
Services Markets	Services Markets	Intra-European Economic Area Service Restrictiveness index	For the Engineering services sector for each OECD country, a composite indicator provides an overall measure of restrictiveness. This is broken down by several separate measures around restrictiveness i.e. foreign entry, restrictions on movement of people, other discriminatory measures, barriers to competition, regulatory transparency.	Composite
Services Markets	Services Markets	Intra-European Economic Area Service Restrictiveness index	For the legal services sector, for each OECD country, a composite indicator provides an overall measure of restrictiveness. This is	Composite

Policy Area	Sub Policy Area	Name of dataset	Indicator	Type of indicator
		Restrictiveness index	broken down by several separate measures around restrictiveness i.e. foreign entry, restrictions on movement of people, other discriminatory measures, barriers to competition, regulatory transparency.	
Services Markets	Services Markets	IMI	Number of notifications	Output
Services Markets	Services Markets	IMI	Number of information requests	Process
Services Markets	Services Markets	Analysis based on infringement packages	Number of letters of formal notice	Output
Services Markets	Services Markets	Analysis based on infringement packages	Number of reasoned opinions	Output
Services Markets	Services Markets	Analysis based on infringement packages	Number of referrals to the ECJ	Output
Industry and Growth	SME policy (Start-up / growth eco-systems, ease of doing business, business environment etc.)	World Bank Doing Business Database	Starting a businesss	Composite
R&D & Innovation	Innovation framework conditions	European Innovation Scoreboard	Medium and high-tech product exports	Output
R&D & Innovation	Innovation framework conditions	European Innovation Scoreboard	Knowledge-intensive services exports	Output
R&D & Innovation	National expenditure on Innovation	European Innovation Scoreboard	Public R&D expenditure	Input
R&D & Innovation	Intra-EU mobility of researchers	Eurostat education statistics [educ_uoe_mob s02]	No. of mobile students from abroad enrolled by education level, sex and country of origin (intra-EU)	Context
R&D & Innovation	Extra-EU mobility of researchers	OECD - international mobility statistics	No. of mobile students from abroad enrolled by education level, sex and country of origin (extra-EU)	Context
Social Policy	General	Your Europe Advice	Number of enquiries by citizens to YourEurope advice by subject area	Process
Social Policy	Employment	EU LFS	Employment gap of EU-immigrants	Context
Tax and Customs	Customs	Intellectual Property Rights - Facts and figures	Number of cases by Member State i.e. where suspected IPR infringements identified	Process
Tax and Customs	Customs	Intellectual Property Rights - Facts and figures	Number of detained articles by Member State i.e. where suspected IPR infringements identified	Process
Tax and Customs	Customs	Intellectual Property Rights - Facts and figures	Number of initiated procedures by Member State i.e. where action is taken against non IPR compliant traders	Output

Policy Area	Sub Policy Area	Name of dataset	Indicator	Type of indicator
Tax and Customs	Indirect taxation	Consumption Tax Trends	VAT Tax rate	Input
Tax and Customs	Indirect taxation	Consumption Tax Trends	VAT Revenue Ratio	Input
Trade	Intra-EU trade in goods and services	COMEXT database (Intra-EU trade in goods and services)	Composit indicator - Member State trade performance across all 8 indicators	Composite
Trade	Intra-EU trade in goods and services	COMEXT database (Intra-EU trade in goods and services)	EU trade integration in GOODS (levels)	Context
Trade	Intra-EU trade in goods and services	COMEXT database (Intra-EU trade in goods and services)	EU trade integration in GOODS (change)	Context
Trade	Intra-EU trade in goods and services	COMEXT database (Intra-EU trade in goods and services)	EU trade integration in SERVICES (levels)	Context
Trade	Intra-EU trade in goods and services	COMEXT database (Intra-EU trade in goods and services)	EU trade integration in SERVICES (change)	Context
Trade	Intra-EU trade in goods and services	COMEXT database (Intra-EU trade in goods and services)	Openness to imports of GOODS (levels)	Context
Trade	Intra-EU trade in goods and services	COMEXT database (Intra-EU trade in goods and services)	Openness to imports of GOODS (change)	Context
Trade	Intra-EU trade in goods and services	COMEXT database (Intra-EU trade in goods and services)	Openness to imports of SERVICES (levels)	Context
Trade	Intra-EU trade in goods and services	COMEXT database (Intra-EU trade in goods and services)	Openness to imports of SERVICES (change)	Context
Trade	Intra-EU trade in goods and services	COMEXT database (Intra-EU trade in goods and services)	Exports of goods (intra-EU)	Context
Trade	Intra-EU trade in goods and services	COMEXT database (Intra-EU trade in goods and services)	Exports of services (intra-EU)	Context
Trade	Trade (EU and global)	Globalisation patterns in EU trade and investment	International trade in goods: an overview	Context

Policy Area	Sub Policy Area	Name of dataset	Indicator	Type of indicator
Trade	Trade (EU and global)	Globalisation patterns in EU trade and investment	Inward foreign affiliates statistics	Context
Trade	Trade (EU and global)	Globalisation patterns in EU trade and investment	Outward foreign affiliates statistics	Context
Trade	Trade (EU and global)	Globalisation patterns in EU trade and investment	World trade in services	Context
Trade	Trade (EU and global)	Globalisation patterns in EU trade and investment	Trade in business services	Context
Transport	General	EU transport scoreboard	Transposition of EU transport directives	Process
Transport	Air	EU transport scoreboard	Consumer satisfaction with air transport	Result
Transport	Air	OECD STRI (intra-EEA)	Services trade restrictiveness indicator - Air transport services	Composite
Transport	Maritime	OECD STRI (intra-EEA)	Services trade restrictiveness indicator - Maritime transport	Composite
Transport	Rail	OECD STRI (intra-EEA)	Services trade restrictiveness indicator - Rail freight	Composite
Transport	Rail	EU transport scoreboard	Consumer satisfaction with rail transport	Result
Transport	Road	OECD STRI (intra-EEA)	Services trade restrictiveness indicator - Road freight	Composite
Transport	General	EU transport scoreboard	Number of pending infringement proceedings - Transport, broken down by Air, Rail, Road, Maritime	Process

New indicators – excluded

Policy Area	Sub Policy Area	Name of dataset	Indicator	Type of indicator
Consumer Protection	Consumer legislation and enforcement	Sanctions Intelligence Dashboard	Number of entities	Output
Consumer Protection	Consumer legislation and enforcement	Sanctions Intelligence Dashboard	Number of persons	Output
Consumer Protection	Consumer trust in cross border retailers	Consumer Conditions Scoreboard	Consumers' knowledge of consumer rights	Result
Consumer Protection	Consumer trust in cross border retailers	Consumer Conditions Scoreboard	Consumers' confidence in online purchases: % of persons confident buying online	Result
Consumer Protection	Consumer trust in cross border retailers	Eurostat Community survey on ICT usage in households and by individuals	Online shopping (% of the population who ordered goods or services over the internet for private use in the last 12 months), by location of the retailer, EU-28	Output

Policy Area	Sub Policy Area	Name of dataset	Indicator	Type of indicator
Consumer Protection	Consumer trust in cross border retailers	Consumer Conditions Scoreboard	Retailers (10+ persons employed) confident in selling online (%), country results, 2016	Result
Consumer Protection	Consumer trust in cross border retailers	Consumer Conditions Scoreboard	Consumers' trust in redress mechanism	Result
Consumer Protection	Consumer trust in cross border retailers	Consumer Conditions Scoreboard	Consumer and retailer trust in environmental claims	Result
Consumer Protection	Consumer trust in cross border retailers	Consumer complaints statistics	<ul style="list-style-type: none"> Complaints per year by trader country/consumer country Complaints per year by trader country/consumer country and sector/market Complaints per year by trader country/consumer country and main reason of complaint 	Output
Consumer Protection	European Consumer Centre Network	ECC Database	Number of contacts and number of complaints	Process
Consumer Protection	General	EU Justice Scoreboard	<ul style="list-style-type: none"> Time needed to resolve litigious civil and commercial cases, first instance/in days 	Process
Consumer Protection	Choice / comparability of offers	Eurostat price level indices	<p>Price dispersion: Coefficient of variation on price-level indices for Actual Consumption and its components</p> <p>The coefficient of variation (CV) computed as the ratio between the standard deviation and the arithmetic simple (un-weighted) average of the PLIs of the EU countries.</p>	Context
Digital economy	Digital business	The Digital Economy and Society Index	Integration of Digital Technology	Result
Digital economy	Digital business	The European Data Market Monitoring Tool	Data companies revenues	Context
Digital economy	Digital business	The European Data Market Monitoring Tool	Data Market Value per MS	Context
Digital economy	Digital business	The European Data Market Monitoring Tool	Number of data users per MS / industry	Context
Digital economy	Digital business	Digital Agenda key indicators	Export of ICT goods and services (both intra- and extra- EU)	Result
Digital economy	E-government	The Digital Economy and Society Index	Composite indicator 'Digital Public Services' consisting of two sub-dimensions: e-Government; 5b e-Health (20%)	Composite
Digital economy	Media services	Digital Transformation Scoreboard	ERP uptake	Result
Digital economy	Media services	Flash Eurobarometer - Crossborder access to content online	Prevalence of accessing or downloading content through an online service intended for users in another EU country	Output

Policy Area	Sub Policy Area	Name of dataset	Indicator	Type of indicator
Digital economy	Media services	Flash Eurobarometer - CROSS-BORDER PORTABILITY OF ONLINE CONTENT SERVICES	Access to online content through subscription while visiting another EU country	Output
Digital economy	Media services	Flash Eurobarometer - CROSS-BORDER PORTABILITY OF ONLINE CONTENT SERVICES	Use of subscriptions during stays in other EU countries	Output
Digital economy	Media services	The Digital Economy and Society Index	Citizens' use of internet services and online transactions	Output
Digital economy	Personal data protection	Flash Eurobarometer - Crossborder access to content online	Frequency of geo-blocking	Output
Digital economy	Telecommunications	Digital Agenda key indicators	4G mobile broadband (LTE) coverage (as a % of households)	Context
Digital economy	Telecommunications	Digital Agenda key indicators	Standard fixed broadband coverage /availability (as a % of households)	Context
Digital economy	Telecommunications	Digital Agenda key indicators	Mobile roaming price per minute	Context
Digital economy	Telecommunications	Digital Agenda key indicators	The speed of the fixed connection to internet is not sufficient for the actual needs of the enterprise	Context
Energy	Infrastructure	Energy Union Scoreboard	Market concentration index - power generation	Context
Energy	Infrastructure	Energy Union Scoreboard	Market concentration index - wholesale gas supply	Context
Energy	General	Quarterly Report on European Gas Markets	Retail gas price estimates for industrial consumers in the EU	Output
Energy	General	Quarterly Report on European Gas Markets	Retail gas price estimates for households in the EU	Output
Energy	General	Energy Union Scoreboard	Annual switching rates on electricity / gas retail markets	Result
Energy	Markets and consumers	OECD Product Market Regulation Survey	Scope of action, independence and accountability of regulators.	Composite
Energy	Markets and consumers	Energy Union Scoreboard	Wholesale electricity prices	Output
Energy	Markets and consumers	Energy Union Scoreboard	Wholesale gas prices	Output
Environment	Circular Economy	EU Circular Economy monitoring framework	% of Green public procurement to GDP(*)	Process
Environment	Environmental noise	EEA's Environmental noise database	No. of noise action plans (by source e.g. roads, rail, airports)	Output
Environment	Environmental noise	EEA's Environmental noise database	No. of noise reduction measures included in noise action plans	Output
Environment	Environmental noise	EEA's Environmental noise database	No. of noise maps (by source e.g. roads, rail, airports)	Output

Policy Area	Sub Policy Area	Name of dataset	Indicator	Type of indicator
Environment	Green public procurement	Collection of statistical information on Green Public Procurement in the EU	Impact of GPP per country	Impact
Environment	Green public procurement	Global SDG Indicators Database	Countries with sustainable consumption and production (SCP) national action plans or SCP mainstreamed as a priority or target into national policies	Output
Migration	Intra-EU migration	Eurostat Education Statistics (UOE)	Mobile students from abroad enrolled by education level, sex and field of education	Context
Migration	Intra-EU migration	Posting of workers	Number of posted workers (changes in stocks or flows)	Context
FDI	FDI flows	Inward FDI flows by OECD (by partner country and industry)	EU trade integration in GOODS (levels)	Context
FDI	FDI flows	OECD FDI flows	EU trade integration in GOODS (levels)	Context
Financial markets	Capital markets union	"Market and regulatory obstacles to cross-border development of crowdfunding in the EU"	Total cross-border crowdfunding raised (EU-aggregate level).	Context
Financial markets	Capital markets union	"Market and regulatory obstacles to cross-border development of crowdfunding in the EU"	Total crowdfunding raised (by type e.g. equity-based, lending-based) by country	Context
Financial markets	Banking, finance and financial services	European Innovation Scoreboard (venture capital statistics)	Venture capital (percentage of GDP)	Context
Financial markets	Banking, finance and financial services	InvestEurope Yearbook (venture capital statistics)	Level of VC fundraising in EUR	Context
Financial markets	Banking, finance and financial services	InvestEurope Yearbook (venture capital statistics)	Level of investment in EUR	Context
Financial markets	Banking, finance and financial services	InvestEurope Yearbook (venture capital statistics)	Level of divestment in EUR.	Context
Financial markets	Banking, finance and financial services	ECB survey on access to SME finance	Availability of finance and market conditions	Context
Financial markets	Banking, finance and financial services	ECB survey on access to SME finance	Future, growth and obstacles to growth	Context
Industry and Growth	Harmonised legislation	CP-DS database	Number of regulations on dangerous substance products per country.	Output
Industry and Growth	Harmonised legislation	Notifications of requirements	Number of requirements per country	Context

Policy Area	Sub Policy Area	Name of dataset	Indicator	Type of indicator
		under the Services Directive		
Industry and Growth	Harmonised legislation	CEP Policy Brief	Traffic light system indicator on the policy intention. The indicator measures the degree of prospect for implementing the policy (the indicator goes from it cannot be implemented or it can be implemented without any change).	Context
Industry and Growth	Market access / cross-border business establishment	World Bank Doing Business Database	Starting a business	Composite
Industry and Growth	Market Surveillance	RAPEX	Number of joint action market surveillance programmes (not available for all years)	Result
Industry and Growth	Retail Markets	Retail Restrictiveness Indicator (RRI)	Establishment pillar: Size thresholds	Result
Industry and Growth	Retail Markets	Retail Restrictiveness Indicator (RRI)	Establishment pillar: regulations specific to location	Result
Industry and Growth	Retail Markets	Retail Restrictiveness Indicator (RRI)	Establishment pillar: level of detail in planning	Result
Industry and Growth	Retail Markets	Retail Restrictiveness Indicator (RRI)	Establishment pillar: Number of permits	Result
Industry and Growth	Retail Markets	Retail Restrictiveness Indicator (RRI)	Establishment pillar: Number of entities to be contacted	Result
Industry and Growth	Retail Markets	Retail Restrictiveness Indicator (RRI)	Establishment pillar: Number of impact assessments	Result
Industry and Growth	Retail Markets	Retail Restrictiveness Indicator (RRI)	Establishment pillar: Length of procedure	Result
Industry and Growth	Retail Markets	Retail Restrictiveness Indicator (RRI)	Establishment pillar: Publication of decisions	Result
Industry and Growth	Retail Markets	Retail Restrictiveness Indicator (RRI)	Establishment pillar: Overall score for pillar	Composite
Industry and Growth	Retail Markets	Retail Restrictiveness Indicator (RRI)	Operational pillar: Restrictions on shop opening hours	Result
Industry and Growth	Retail Markets	Retail Restrictiveness Indicator (RRI)	Operational pillar: Restrictions on distribution channels	Result
Industry and Growth	Retail Markets	Retail Restrictiveness Indicator (RRI)	Operational pillar: Restrictions on sales promotions	Result
Industry and Growth	Retail Markets	Retail Restrictiveness Indicator (RRI)	Operational pillar: Retail-specific taxes and fees	Result
Industry and Growth	Retail Markets	Retail Restrictiveness Indicator (RRI)	Operational pillar: Restrictions on sourcing	Result
Industry and Growth	Retail Markets	Retail Restrictiveness Indicator (RRI)	Operational pillar: Overall score for pillar	Composite

Policy Area	Sub Policy Area	Name of dataset	Indicator	Type of indicator
Industry and Growth	Retail Markets	Retail Restrictiveness Indicator (RRI)	Overall RRI: over two pillars	Composite
Industry and Growth	Retail Markets	Sector PMR Indicators	Registration and licensing	Result
Industry and Growth	Retail Markets	Sector PMR Indicators	Retail distribution	Result
Industry and Growth	Retail Markets	Sector PMR Indicators	Retail price regulation	Result
Industry and Growth	Retail Markets	Sector PMR Indicators	Retail sales of medicines	Result
Industry and Growth	Retail Markets	Sector PMR Indicators	Regulation of shop opening hours	Result
Services Markets	Services Markets	Intra-European Economic Area Service Restrictiveness index	Services sector trade restrictiveness for 22 sectors. An overall score is provided plus a break down by policy measure.	Composite
Services Markets	Services Markets	Intra-European Economic Area Service Restrictiveness index	For the air transport sector, for each OECD country, a composite indicator provides an overall measure of restrictiveness. This is broken down by several separate measures around restrictiveness i.e. foreign entry, restrictions on movement of people, other discriminatory measures, barriers to competition, regulatory transparency.	Composite
Services Markets	Services Markets	Intra-European Economic Area Service Restrictiveness index	For the Broadcasting sector for each OECD country, a composite indicator provides an overall measure of restrictiveness. This is broken down by several separate measures around restrictiveness i.e. foreign entry, restrictions on movement of people, other discriminatory measures, barriers to competition, regulatory transparency.	Composite
Services Markets	Services Markets	Intra-European Economic Area Service Restrictiveness index	For the Commercial Banking sector, for each OECD country, a composite indicator provides an overall measure of restrictiveness. This is broken down by several separate measures around restrictiveness i.e. foreign entry, restrictions on movement of people, other discriminatory measures, barriers to competition, regulatory transparency.	Composite
Services Markets	Services Markets	Intra-European Economic Area Service Restrictiveness index	For the courier services sector, for each OECD country, a composite indicator provides an overall measure of restrictiveness. This is broken down by several separate measures around restrictiveness i.e. foreign entry, restrictions on movement of people, other discriminatory measures, barriers to competition, regulatory transparency.	Composite
Services Markets	Services Markets	Intra-European Economic Area Service Restrictiveness index	For the distribution services sector, for each OECD country, a composite indicator provides an overall measure of restrictiveness. This is broken down by several separate measures around restrictiveness i.e. foreign entry, restrictions on movement of people, other discriminatory measures, barriers to competition, regulatory transparency.	Composite

Policy Area	Sub Policy Area	Name of dataset	Indicator	Type of indicator
Services Markets	Services Markets	Intra-European Economic Area Service Restrictiveness index	For the insurance services sector, for each OECD country, a composite indicator provides an overall measure of restrictiveness. This is broken down by several separate measures around restrictiveness i.e. foreign entry, restrictions on movement of people, other discriminatory measures, barriers to competition, regulatory transparency.	Composite
Services Markets	Services Markets	Intra-European Economic Area Service Restrictiveness index	For the logistics sector, for each OECD country, a composite indicator provides an overall measure of restrictiveness. This is broken down by several separate measures around restrictiveness i.e. foreign entry, restrictions on movement of people, other discriminatory measures, barriers to competition, regulatory transparency.	Composite
Services Markets	Services Markets	Intra-European Economic Area Service Restrictiveness index	For the maritime transport sector for each OECD country, a composite indicator provides an overall measure of restrictiveness. This is broken down by several separate measures around restrictiveness i.e. foreign entry, restrictions on movement of people, other discriminatory measures, barriers to competition, regulatory transparency.	Composite
Services Markets	Services Markets	Intra-European Economic Area Service Restrictiveness index	For the rail transport sector, for each OECD country, a composite indicator provides an overall measure of restrictiveness. This is broken down by several separate measures around restrictiveness i.e. foreign entry, restrictions on movement of people, other discriminatory measures, barriers to competition, regulatory transparency.	Composite
Services Markets	Services Markets	Intra-European Economic Area Service Restrictiveness index	For the telecommunications sector, for each OECD country, a composite indicator provides an overall measure of restrictiveness. This is broken down by several separate measures around restrictiveness i.e. foreign entry, restrictions on movement of people, other discriminatory measures, barriers to competition, regulatory transparency.	Composite
R&D & Innovation	Horizon 2020 expenditure	Horizon 2020 Dashboard	H2020 Participation by member state	Result
R&D & Innovation	Horizon 2020 expenditure	Horizon 2020 Dashboard	Net contribution to H2020 by member state	Input
R&D & Innovation	Horizon 2020 expenditure	DG Budget data EU expenditure and revenue 2014-2020	Expenditure of member states on Horizon 2020	Input
R&D & Innovation	Innovation framework conditions	European Innovation Scoreboard	Human resources	Composite
R&D & Innovation	Innovation framework conditions	European Innovation Scoreboard	New doctorate graduates	Output
R&D & Innovation	Innovation framework conditions	European Innovation Scoreboard	Population completed tertiary education	Output

Policy Area	Sub Policy Area	Name of dataset	Indicator	Type of indicator
R&D & Innovation	Innovation framework conditions	European Innovation Scoreboard	Lifelong learning	Output
R&D & Innovation	Innovation framework conditions	European Innovation Scoreboard	Attractive research systems	Composite
R&D & Innovation	Innovation framework conditions	European Innovation Scoreboard	International scientific co-publications	Output
R&D & Innovation	Innovation framework conditions	European Innovation Scoreboard	Scientific publications among top 10% most cited	Output
R&D & Innovation	Innovation framework conditions	European Innovation Scoreboard	Foreign doctorate students	Output
R&D & Innovation	Innovation framework conditions	European Innovation Scoreboard	Innovation friendly environment (Includes Broadband penetration and Opportunity-driven entrepreneurship)	Composite
R&D & Innovation	Innovation framework conditions	European Innovation Scoreboard	Broadband penetration	Output
R&D & Innovation	Innovation framework conditions	European Innovation Scoreboard	Opportunity-driven entrepreneurship	Output
R&D & Innovation	Innovation framework conditions	European Innovation Scoreboard	SMEs with product or process innovations	Output
R&D & Innovation	National expenditure on Innovation	European Innovation Scoreboard	Summary Innovation Index (Summary of all of their indicators)	Composite
Social Policy	Public health	EU Social Indicators	The proportion of the population covered by government/social health insurance	Context
Tax and Customs	Customs	Intellectual Property Rights - Facts and figures	Results of detention Member State i.e. types of taken action after identifying noncompliant products e.g. destruction of product, criminal procedure court cases etc.	Output
Tax and Customs	Customs	Intellectual Property Rights - Facts and figures	Sectoral break down of detained products	Output
Tax and Customs	Customs	Intellectual Property Rights - Facts and figures	Product category break down by frequency of cases of detained products	Output
Tax and Customs	Customs	Intellectual Property Rights - Facts and figures	Monetary value sectoral break down of detained products	Output
Trade	Intra-EU trade in goods and services	Cost of non-Europe	Gravity trade model	Impact
Transport	Air	EU transport scoreboard	Pending infringements - Air	Process
Transport	Maritime	EU transport scoreboard	Pending infringements - Maritime and inland waterways	Process
Transport	Rail	EU transport scoreboard	Market share of all but the principal freight rail undertakings	Context
Transport	Rail	EU transport scoreboard	Market share of all but the principal passenger rail undertakings	Context
Transport	Rail	EU transport scoreboard	Pending infringements - Rail	Process
Transport	Road	EU transport scoreboard	Pending infringements - Road	Process

Annex 5: Stakeholder consultation analysis of the online survey and interview programme

Introduction to the online survey

An online survey was developed with the purpose of obtaining feedback from stakeholders about the existing Single Market Scoreboard (SMS) and their views as to how the SMS might be improved in future. The survey focused on 24 questions relating to stakeholders' opinions about the SMS, its governance tools and policy areas and how the current structure and composition of the SMS could be improved by adding new areas or improving data visualisation.

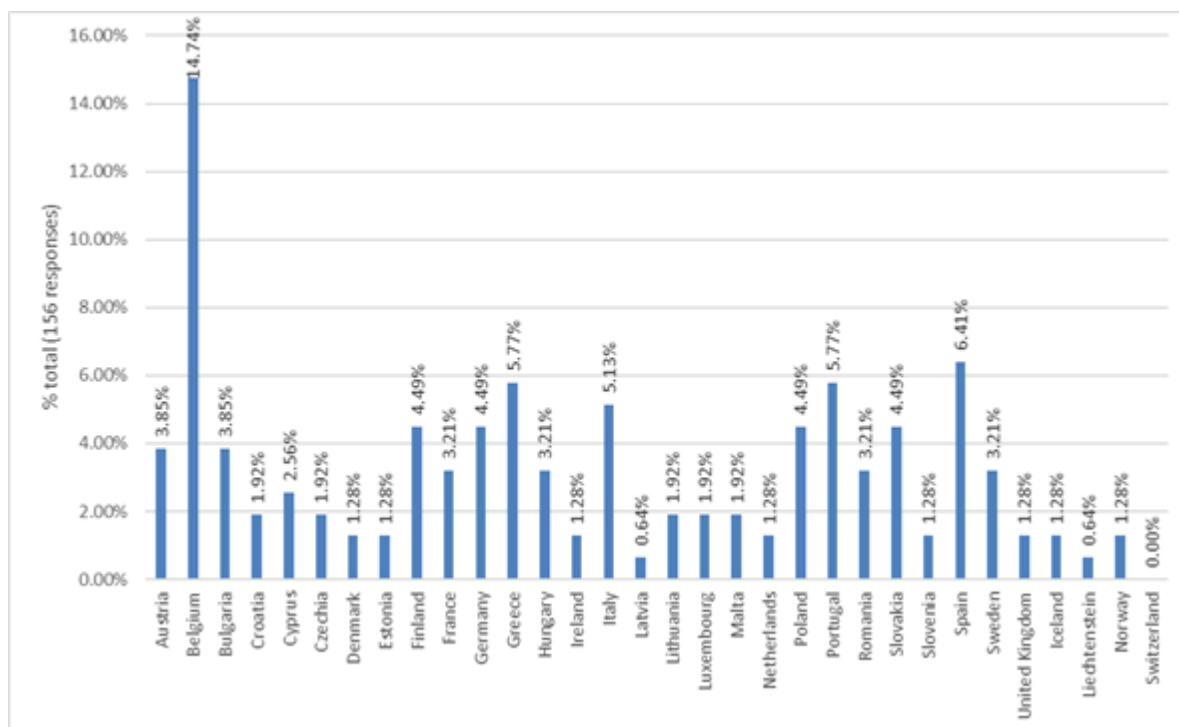
The survey was circulated via an open link in the Single Market Scoreboard webpage and by sending personalised emails to identified stakeholders. A further two reminders were sent to non-respondents, and the deadline for the survey was extended beyond the initial date of September 27th to October 31st 2019. In addition, both the European Commission and CSES promoted participation in the survey via social media, in particular via LinkedIn and Twitter.

Out of the total of 24 questions, 14 were closed questions, in which respondents were given the opportunity in a free-text response option to elaborate on their replies, comment on other issues, or to explain their response under the other category. The remaining 10 questions were open-ended responses. Survey routing was used so that respondents without direct experience of the SMS were asked a sub-set of questions.

The survey generated a total of 156 responses, however not all 156 respondents answered all questions. For instance, there are many questions that have 95 answers, while other questions got less than 20 answers. This was partly because almost one-in-five respondents (19,9%) had not previously used the Single Market Scoreboard, and therefore only completed a limited number of questions relating to what policy issues are of interest to them and what types of data and information they would like to see in the SMS in future. It is noteworthy that the number of "please specify" type answers supporting responses to closed questions is much higher than for the purely open questions. This may be due to the fact that respondents often skip this type of question, because of factors such as the amount of time for survey completion. In some cases, answers to some questions were left blank because the respondents were not that familiar with the SMS and therefore did not know how to answer all the questions. However, it was also noticeable that in some cases, respondents did not respond to particular questions even though they had used the SMS several times previously.

Respondents' background

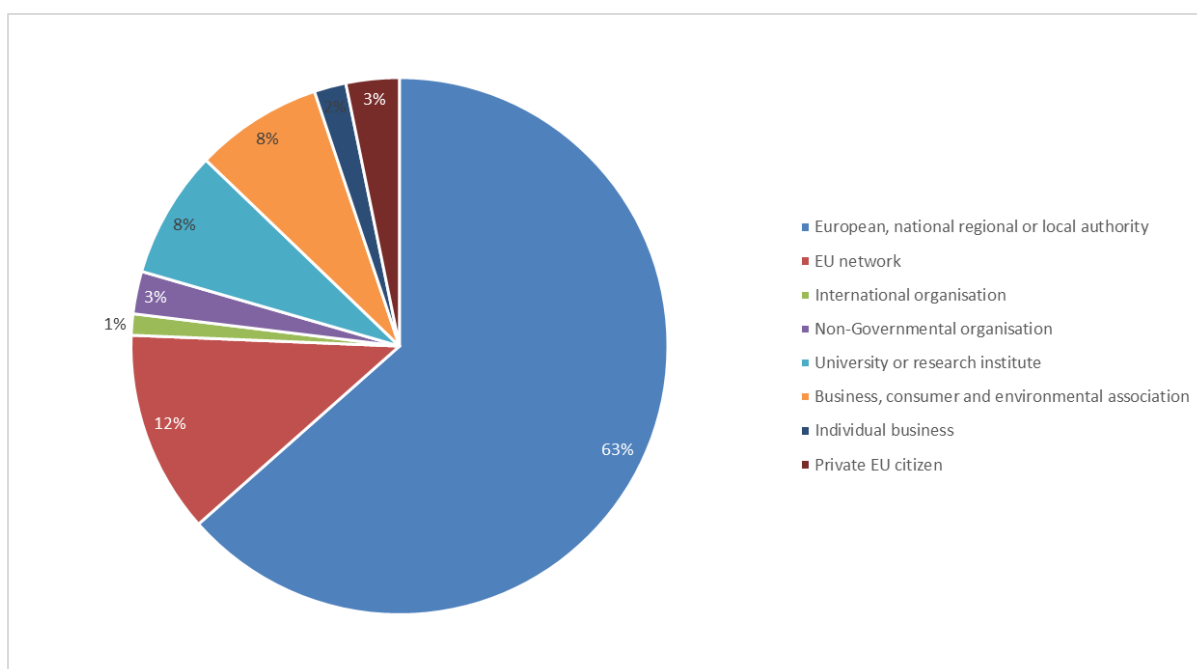
As part of the online survey for this study, we asked for background information about the respondents, such as the country from which they were responding or type of stakeholder by category. As can be seen from the following charts, most of the respondents are from public authorities at European, national, regional or local levels. In addition, other EU-level stakeholders responded to the survey, since the greatest share of the responses came from Belgium.

Country of establishment or Member State (%)

Source: SMS Survey data

As can be seen from the chart, the responses came mostly from the EU-28 (except two from Norway, two from Iceland and one from Liechtenstein). The Member State with the most responses is Belgium, with 23 responses (14.7%) (however, this includes both Belgian stakeholders and EU-level organisations). This was followed by Spain (9, 6.4%) and Greece and Portugal (9 responses each, which is 5.8%). With some exceptions, such as Poland, Slovakia or Bulgaria, fewer responses were received from countries in Central and Eastern Europe and the UK and Ireland.

Category of organisation (%)

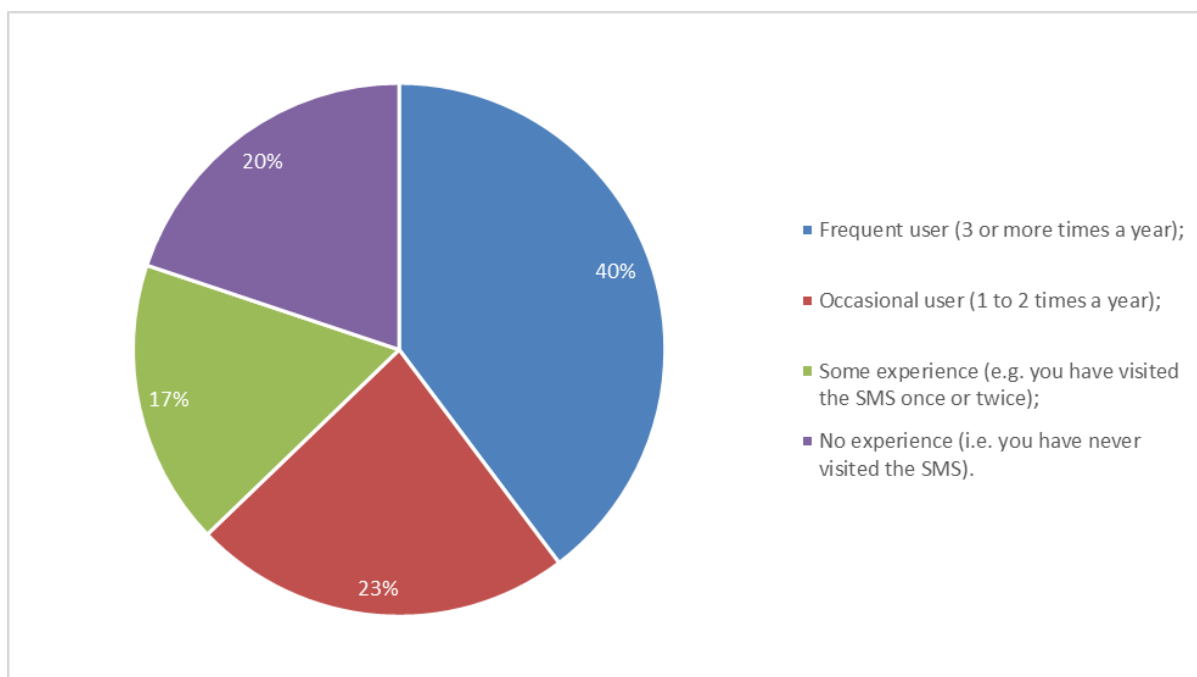


Source: SMS Survey data

From the total of 156 responses, 99 (63.4%) were received from public authorities at European, national, regional or local levels. 12.1% worked in an EU network (e.g. SOLVIT) and 7.7% were from universities or research institutes and the same amount of responses came from business, consumer and environmental associations. From the graph, it can be observed that the most frequent respondents to this survey were people who work directly in one of the 13 different governance tools (or across these tools), and who therefore have a direct interest in the data.

They typically work either for one of the EU institutions, a national authority at Member State level or a national contact point as part of an EU-wide network. Based on the survey response, and confirmed through discussions with stakeholders in the interviews, it would appear that private users, businesses or organizations do not access the SMS very often to search for information. This may reflect the fact that the data contained in the SMS often relates to governance tools i.e. specific initiatives that the European Commission supports in order to promote the effective implementation of different areas of the SM. These often involve technical work that is less well known among the wider stakeholder community, with especially low levels of awareness among business organisations, individual businesses and EU citizens.

Previous use and experience with the existing Single Market Scoreboard (%)



Source: SMS Survey data

As mentioned, the level of experience with the SMS among respondents was found to vary markedly across survey respondents. Overall, the majority of respondents were either regular (39.7%) or occasional (23.1%) users, however, for more than one-third of respondents, it was the first time they had visited the SMS (19.9%) or they had visited only once or twice (17.3%) previously.

Introduction to the interview programme

The purpose of the interviews was to obtain feedback from stakeholders about the existing Single Market Scoreboard (SMS) and views as to how the SMS might be improved in future. Among the stakeholders that have been targeted are Commission officials (including those participating in the Inter-service Steering Group), national authorities responsible for different aspects of the Single Market, representatives from EU networks at both European and national level, NGOs, academics and business and consumer organisations that could have an interest in the SMS.

More than 290 contacts were identified in a contacts database for the purposes of the online survey and interview programme. The target number of interviews indicated in the inception report was 45. Target interviewees across the relevant categories of stakeholder mentioned above were identified through a combination of desk research and interactive liaison with the European Commission's DG GROW (Single Market Service Centre). The aim was to target those who either have an interest in the SMS due to being involved in the governance tools, have an interest in the policy areas covered - including business sector representative organisations - or ought to be interested in principle, but which may not have previously used the SMS, such as business representative organisations, business and consumer associations.

More than 70 stakeholders were identified as key stakeholders for the interview programme, from whom around 50 were contacted via e-mail. Additionally, several stakeholders were identified through the online survey, since a question was included as to whether they would be interested in participating in a telephone interview to provide further feedback. Only six indicated that they were willing to be interviewed as part of a follow-up. Reminders were sent in case people did not respond. The purpose of the study was explained, and an interview

guide was attached to show the kind of questions that would be discussed. The interview guide was customised slightly for different types of stakeholders and was used as to conduct the interview in a semi-structured way.

To date, **thirty-two interviews** have been conducted. The current position is shown in the following table.

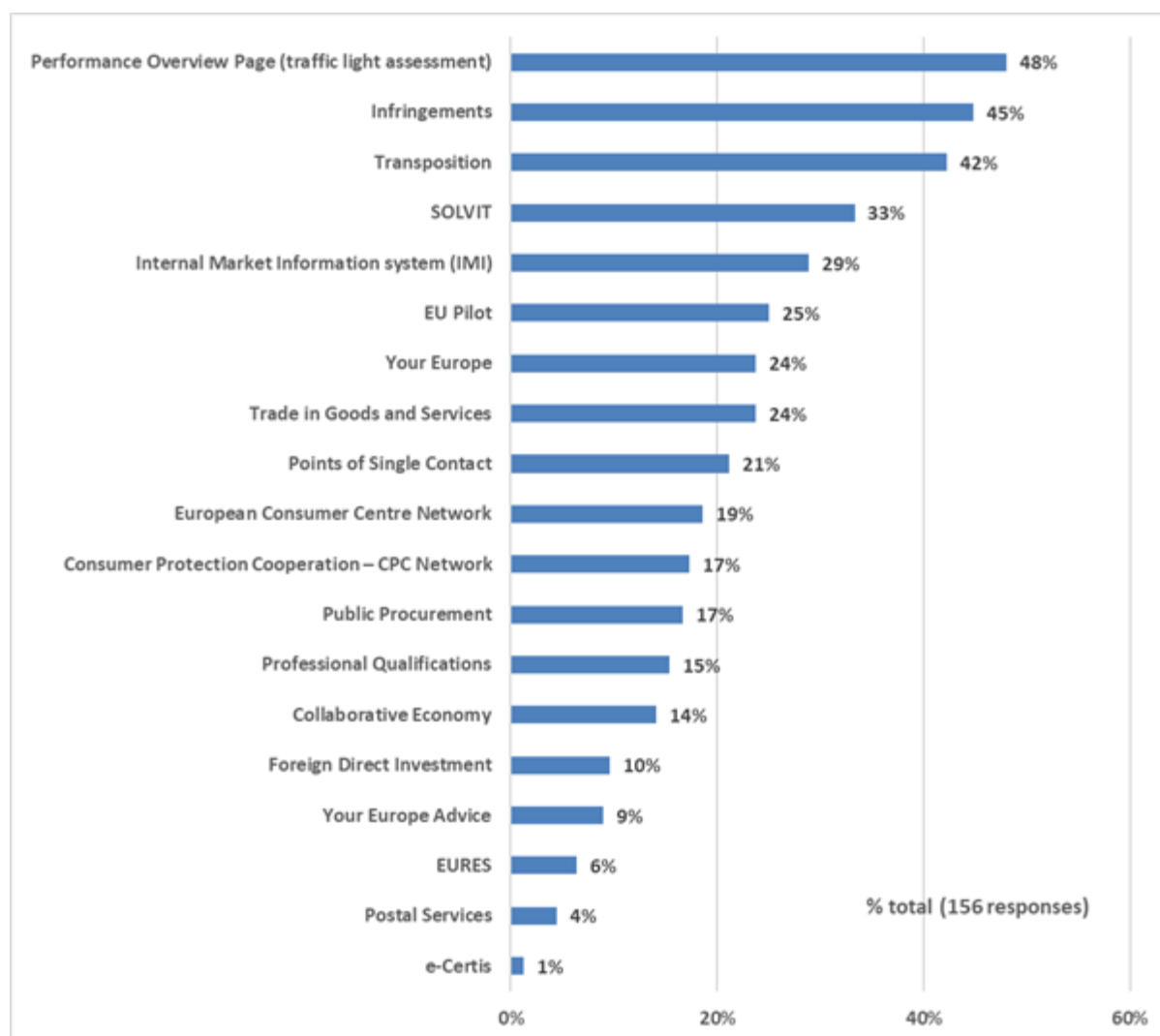
Interview programme structure

Stakeholder type	Number (to date)
European Commission	13
National authorities	5
Business representative organisations	6
Consumer organisations	1
Employers organisations	1
Academics	1
Stakeholder citizens and NGOs	3
Other European institution	1
European network or agency	1
International organizations	1
Total	32

A barrier encountered in the interview programme was that many stakeholders did not answer repeated requests, or refused, saying they were not familiar with the SMS, or that they had never used it. They did not believe that they would be able to comment either on what they would like to see in the SMS in future either. This was especially the case with NGOs, business and consumer representative organisations. However, we went back to a number of such organisations, and were able to speak for example to a consumer organisation and an employers' organisation that had not previously used the SMS.

The interview programme has therefore required more follow-up than planned in order to engage with target stakeholders. Consequently, it started slightly later and has taken longer than expected.

Most visited / important sections of the SMS for stakeholders



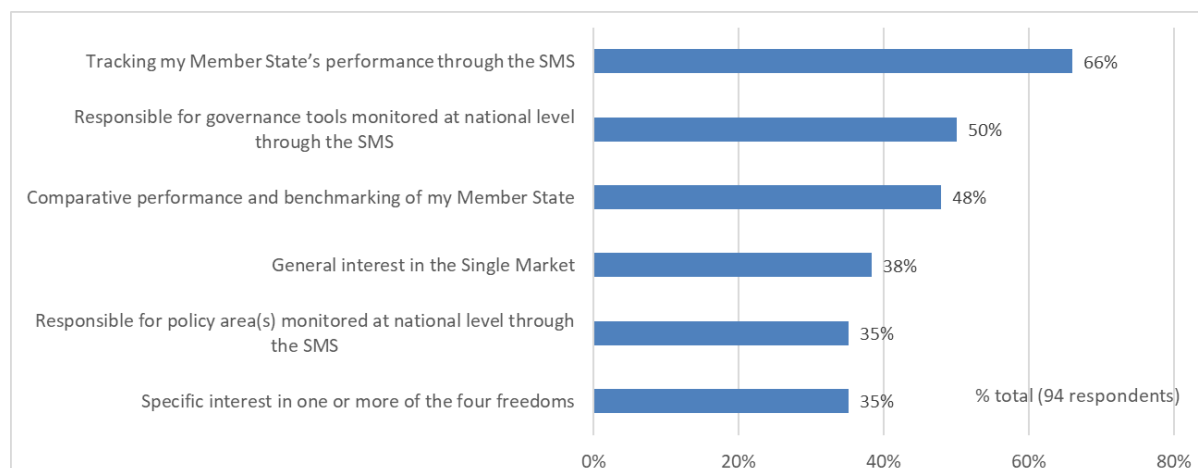
Source: SMS Survey data.

The survey indicates that respondents were more interested in the performance of specific governance tools than in the four policy areas. Among the governance tools, “Infringements” (which reports on the number of infringement cases and legal proceedings) was the area most visited by the respondents (44.9%) followed by “transposition” (42.3%) (which reports on the transposition deficit). These two governance tools are part of the original core-focus of the Single Market Scoreboard, used to track and enforce progress in implementation of the Single Market. Beyond the responses provided by stakeholders to this survey, web traffic statistics corroborate that these two tools are important for SMS users: they were the tools consulted most by visitors to the SMS in 2019 and together accounted for 31% of unique page views (see Section 5).

A significant percentage (33.3%) of respondents were interested in SOLVIT. This was also reflected in the open-ended questions as many respondents indicated their interest in strengthening monitoring and reporting so as to improve SOLVIT. However, it is also worth keeping in mind that 12.1% of respondents worked in various EU networks, including SOLVIT. The governance tool that respondents showed least interest in was e-Certis (1.3%). This corresponds with the stakeholder composition of respondents since only 1.9% of respondents were individual businesses. The audience for e-Certis, an online database listing the eligibility criteria and documentary evidence needed for companies to take part in public procurement,

is aimed at business. Notwithstanding that for making progress in the implementation of the Single Market it is more relevant that businesses actually consult and use e-Certis than consult and use a Scoreboard showing use of e-Certis, it does show the challenge in engaging with businesses around scoreboard trends, even for governance tools which are directly targeted at supporting firms.

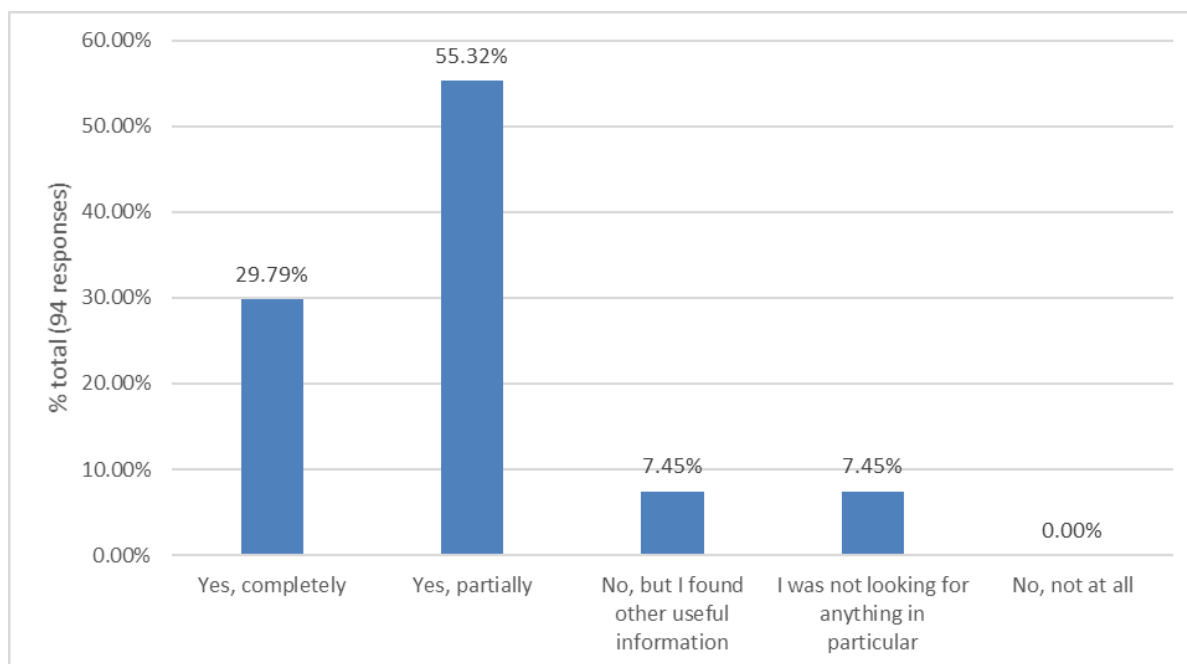
Main reasons for visiting the SMS



Source: SMS Survey data.

Most respondents were interested in tracking their Member State's performance through the SMS, with 62 responses (Figure 4-2, 65.9%). The rest of the main reasons for visiting the SMS are distributed fairly evenly. Half of respondents indicated that they are responsible for governance tools monitored at national level through the SMS. Almost half (47.9%) wanted a comparative performance and benchmarking of their Member State against other Member States. The options least selected by respondents were interest in policy areas and interest in one or more of the four freedoms (both with 35.1%). This finding is somewhat surprising considering that the scoreboard aims to provide data and information relating to the practical implementation of the SM, whose main objective is guaranteeing the free movement of goods, services, capital and labour.

The interview programme has asked why the governance tools are of greater interest to both frequent and occasional users of the SMS than the policy areas. The working hypothesis being tested is that many of the governance tools are well-established. Also, the data being reported on relates to the everyday work of those working on different initiatives to support SM implementation, such as the work of EU networks including SOLVIT or EURES, or to the work of those involved in cross-border cooperation on particular topics. The focus on policy areas is relatively new within the SMS, and only four policy areas are currently covered.

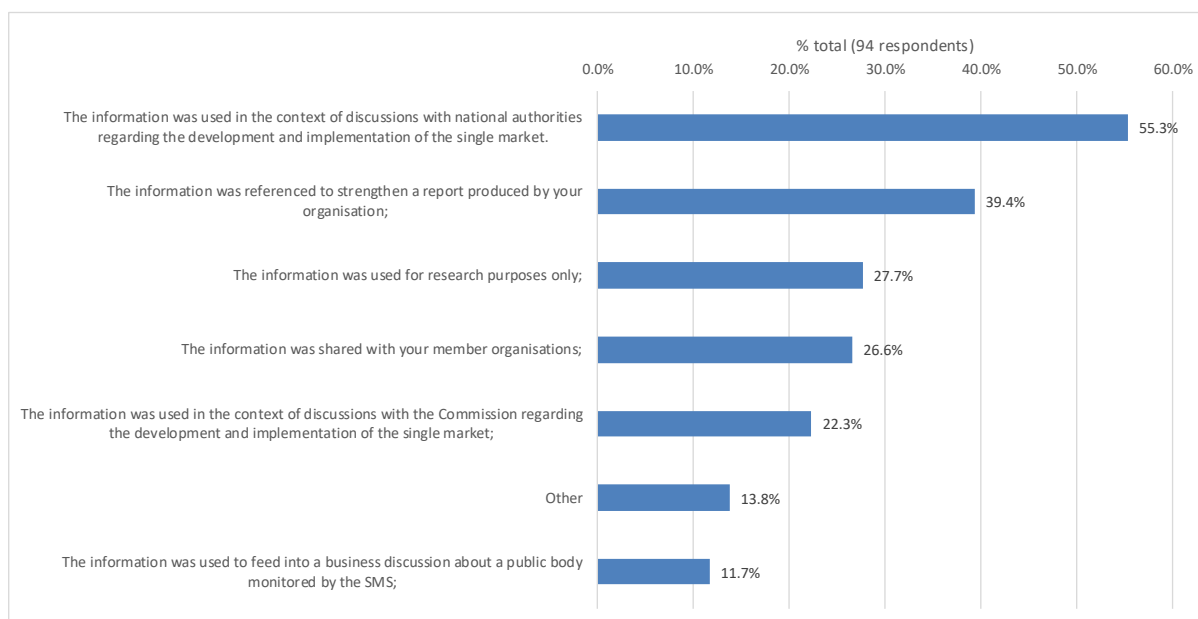
Did you find the information you were looking for? (%)

Source: SMS Survey data.

Most respondents found the information they were looking for when consulting the SMS, although over half (55.3%) stated only partially while 29.8% were completely satisfied with the results of their search. This aligns with the interview programme and IMAC meeting, where stakeholders underlined that some areas need to be better covered, such as the free movement of services or goods, or more qualitative information or breakdowns are needed.

Most respondents had used the information in the context of discussions with national authorities. Reflecting the survey composition, there was a much lower percentage of respondents that were using the information in the SMS to feed into a discussion regarding the Single Market and business. This reflects the fact that there was limited participation in the survey by businesses, EU citizens or consumer organisations, despite a specific effort to target these organisations in the sampling. This is an important finding in itself regarding who is using the SMS presently, and why. The interviews to date confirm that industry and business representative associations are much less familiar with the SMS or its potential utility. The core audience for the SMS currently are national authorities, national contact points, EU level stakeholders and academics, etc. that are either directly involved in, or have a direct interest in the governance tools.

How did you use the information that you obtained from the SMS? (%)



Source: SMS Survey data, multiple responses.

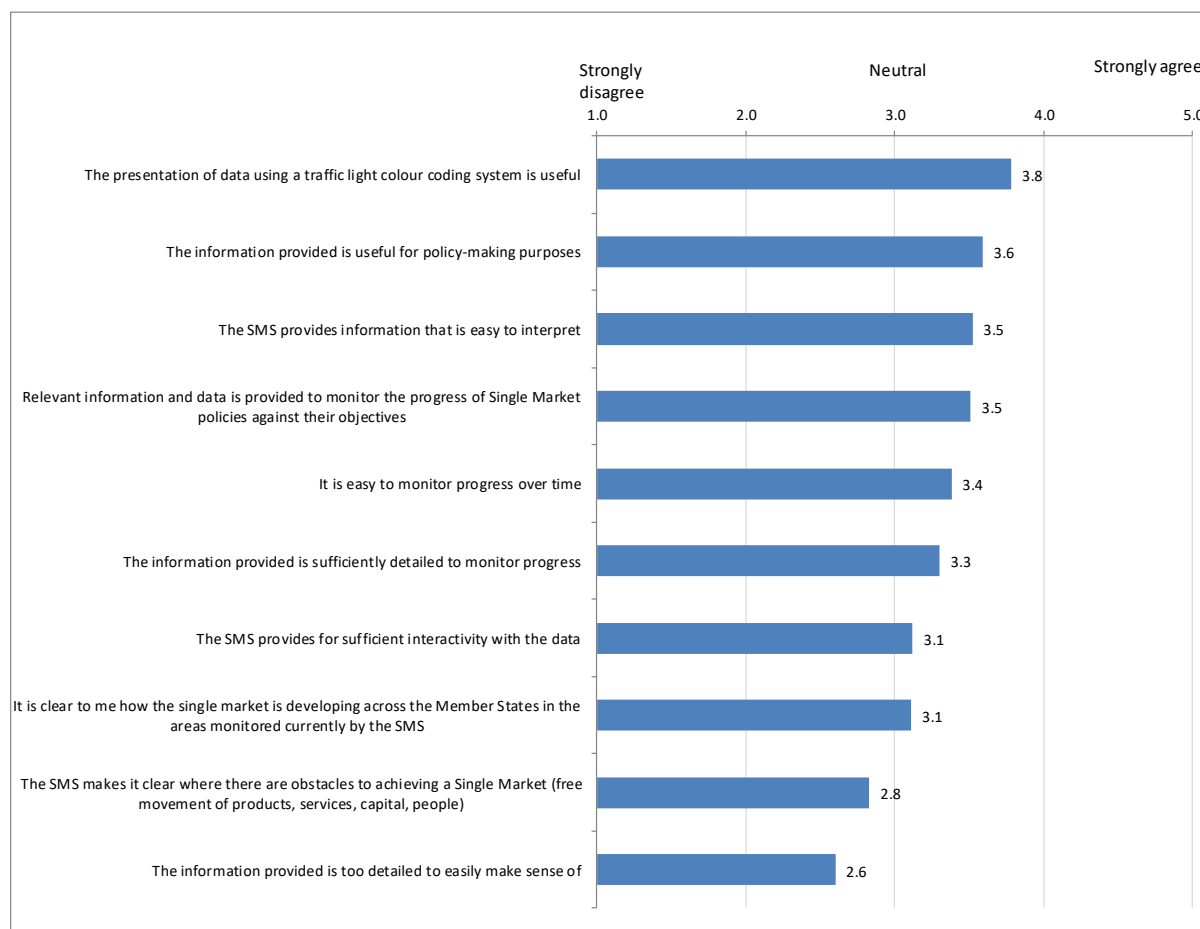
The online survey and the interview programme have highlighted that core users wish to retain sufficiently detailed data and information across the governance tools and policy areas. Whilst there were concerns that the overall number of indicators could make it more difficult to engage with a wider audience interested in the SM, the core users of the Scoreboard do not wish to see a reduction in the number of indicators.

On the contrary, some stakeholders advocated the use of more detailed indicator breakdowns and the inclusion of additional indicators. They expressed a strong wish to not only retain the existing indicators but potentially to provide even more detailed information. The rationale was that many users are interested in particular areas of the SM relevant to their everyday work and to assessing strategic progress. It is therefore useful to have access to as much data as possible for managerial purposes.

From the ten statements from which respondents had to express whether they agreed or disagreed, there were a significant number of neutral responses. Respondents were most favourable to using the traffic light colour system to present data, from interview feedback finding it useful at a political level for national level discussions and to provide an intuitive entry point to the results. This was especially the case for the transposition deficit and infringement proceedings.

Since performance against SM objectives can often either not be assessed quantitatively at all, or only partially, many stakeholders have called for the Scoreboard to provide deeper qualitative assessment (including the possibility of including more qualitative indicators). Some interviewees suggested that this is how an explicit link could be made with the proposal made by certain Member States that there should be qualitative interpretation of the data in the SMS to inform the development of a possible Single Market Report in future to tie in with the European Semester.

Evaluate the relevance and usefulness of the scoreboard in the areas it is currently monitoring



Source: SMS Survey data, Weighted Average

Similarly, stakeholders argued that more qualitative data is needed in transposition and infringement. For instance, one interviewee said that it is not possible to go from aggregate level to a detailed level and that they would like to see for example which Directives have not yet been transposed in a particular country and a short explanation as to why.

Another interviewee said that would like to have information on the correlation table applying REFIT screening mechanisms and that it would be useful to have data on the cost of non-transposition in a Member State. Another suggestion was that in order for data on infringements to be more accurate, it would be helpful to have an indicator that considers the number of pending cases challenging national rules at the Court of Justice of the European Union (CJEU), since this would give an idea of where things stand in the infringements process.

A number of respondents commented on ways in which reporting on SOLVIT might be improved. For instance, it was suggested that more qualitative information should be included about cases resolved through SOLVIT. Although currently the total caseload (number of cases handled in total by SOLVIT and per SOLVIT centre/Member State), the resolution rate (number of cases solved or unresolved) and the total number of complaints received (including those that are outside SOLVIT's mandate) are presented in the Scoreboard, a number of respondents suggested to report on the outcome of the case for the applicant. These responses are aligned with the comments from the rest of the questions regarding the lack of qualitative data, as respondents feel that the way SOLVIT is currently presented only provides

quantitative data, for example on the number of cases solved, but interpretation on quantitative data is not provided.

It should be noted that there is already a working group which is reviewing management information for SOLVIT and examining different ways in which SOLVIT might be improved. At the informal IMAC meeting of the Member States, further suggestions were raised in this regard. In particular, demand for insights into how structural cases identified through SOLVIT relating to incorrect transposition might best be resolved through the sharing of good practices and examines of individual cases was highlighted. The usefulness of qualitative analysis on SOLVIT cases to support quantitative assessment was stressed several times.

Findings on user-friendliness, accessibility and data visualisation

The Single Market Scoreboard has been fully online since 2013 with its scope having been extended to 13 governance tools, four policy areas and trade related indicators. It contains downloadable PDFs for most sections and allows users to interact with some of the indicators presented. This section outlines the user-friendliness of the current Scoreboard from the stakeholders' perspective.

The SMS is currently updated once per year (around July) and is based on data collected from various different services at the Commission or coordination points e.g. for EURES (who themselves collect the data from the Member States), or by extracting data from the tools or associated monitoring systems such as Your Europe.

The Scoreboard is currently organised as static webpages with java script used to provide interactivity for the users.

The layout and navigation of the present online version of the SMS is broadly welcomed by many stakeholders. In terms of interactivity and functionality, most users find the Scoreboard easy to navigate, yet many still think interactive and more readily downloadable data would better allow users to perform their own analyses: while two-thirds of respondents found it easy to navigate, respondents were more neutral regarding interactivity (3.2 on a scale of 1-5) where just over a third agreed that it provided sufficient interactivity with the data. Half of respondents thought that interactive data would better allow users to perform their own analyses, while two thirds thought that the SMS should provide downloadable results (for an average of 3.9 on a scale of 1-5). Discussions with interviewees highlighted many would find it useful to compare (self-) selected Member States.

There is also a wish to have better time series and more up-to-date and timely data included in the online scoreboard, including "real-time" data, where available (six in ten respondents thought that the indicators presented should be updated more than once a year or in "real-time" if the data are available). In addition, the timeliness with which the data was made available was questioned by several interviewees, since the SMS is published in July with data from the previous year.

Many users would favour an additional, stand-alone annual report type study in PDF form which would encourage qualitative analysis.

The SMS is currently mainly structured around the performance overview, governance tools and selected policy areas. Whilst this may be appropriate for existing users, it could be off-putting to a wider potential target audience interested in being kept informed about progress being made across the SM overall, and in relation to particular areas of the SM across the four freedoms (goods, services, people, capital). Instead the indicators could be, for example, presented according to policy areas combining information on the trends in the Single Market with information on the direct activities of government authorities t e.g. information on cross border consumer behaviour could be combined with information on the performance of ECC Net.

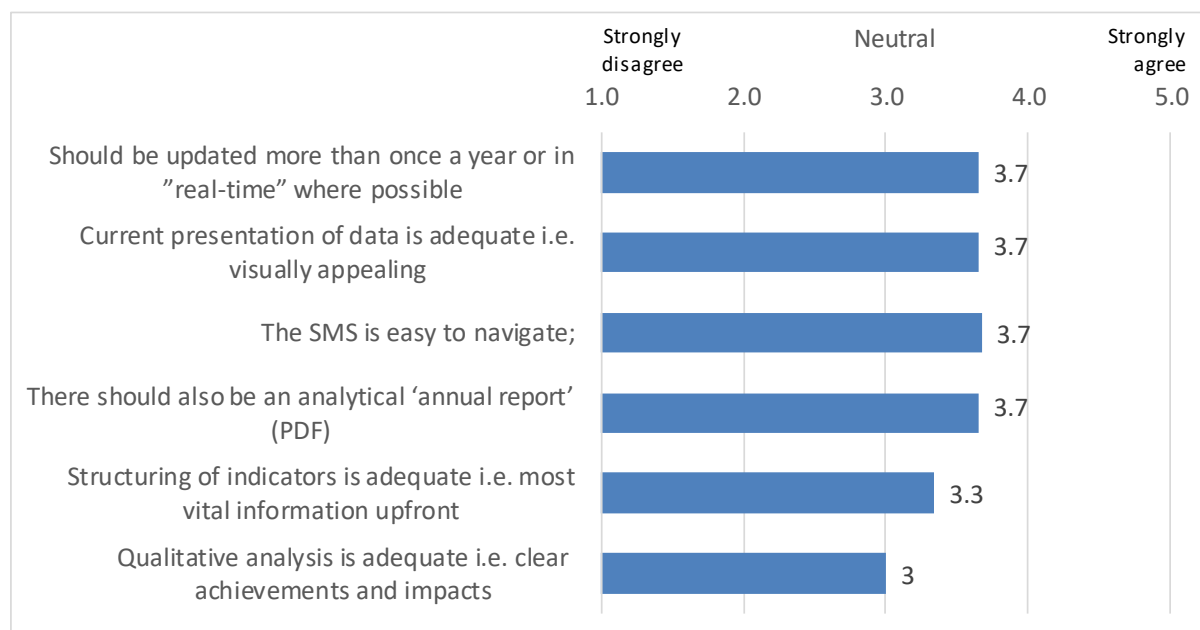
Some stakeholders supported the possibility of streamlining the presentation of the SMS between headline and operational indicators. The introduction of headline indicators could help to engage with a broader target audience and be used for external communication purposes. Reporting on existing more technical and detailed indicators would be retained however, to reflect the complexity of the SM, and the continuing need to report on performance being made at Member State level across different aspects of the SM.

The structure and technical language of some governance tools (e.g. e-Certis and TRIS) may limit the accessibility of the data and information being reported on beyond a core user group. For instance, the transposition deficit and infringement proceedings are very important to national authorities responsible for monitoring the transposition and implementation of EU SM legislation, but the statistics would not be that meaningful for a wider audience.

Facts and figures relating to each governance tool make sense for a core audience, but there is a lack of a clear explanation as to what is the purpose of each tool, how the EU makes a difference and what are the benefits of effective implementation in that particular area of the SM. Whilst some governance tools do provide such a basic explanation (e.g. transposition deficit and infringement proceedings), others do not.

Considering the needs of specialist users, enhancing the clarity of some of the existing SMS indicators would provide benefits for a wider audience. For example, some indicators, while presenting results by country, are simply informative and are not performance measures. In other cases, the indicators are quite nuanced, requiring insights into the policy area itself to obtain “the correct” interpretation. Similarly, the current description of some of the policies monitored by the SMS use technical language that may be difficult to interpret for a wider audience

Evaluate the scoreboard in terms of its current presentation and design



Source: SMS Survey data, Weighted Average.

Overall, most stakeholders consulted consider that the information included is easy to interpret (3.6 on a scale of 1-5), and close to two-thirds of respondents agreed that the scoreboard is easy to navigate. Survey respondents and interviewees alike mostly appreciate the traffic light presentation of composite indicators up-front insofar as this gives a visual overview of performance. The utility of the traffic lights was one of the most appreciated elements of the presentation of the scoreboard (3.9 on a scale of 1-5).

Among the features sought among stakeholders were to make it more accessible for a broader user-base, improve the scope, frequency and/or timeliness of the SMS, improve its analytical and actionable capability, and offer some additional functionalities.

In terms of making the SMS more accessible, a frequent input from interviewees was that the technical acronyms used to structure the entry page for the Governance tools diminished its communication-friendliness and reach, even if an attempt has been made to structure these under three categories¹⁷⁵:

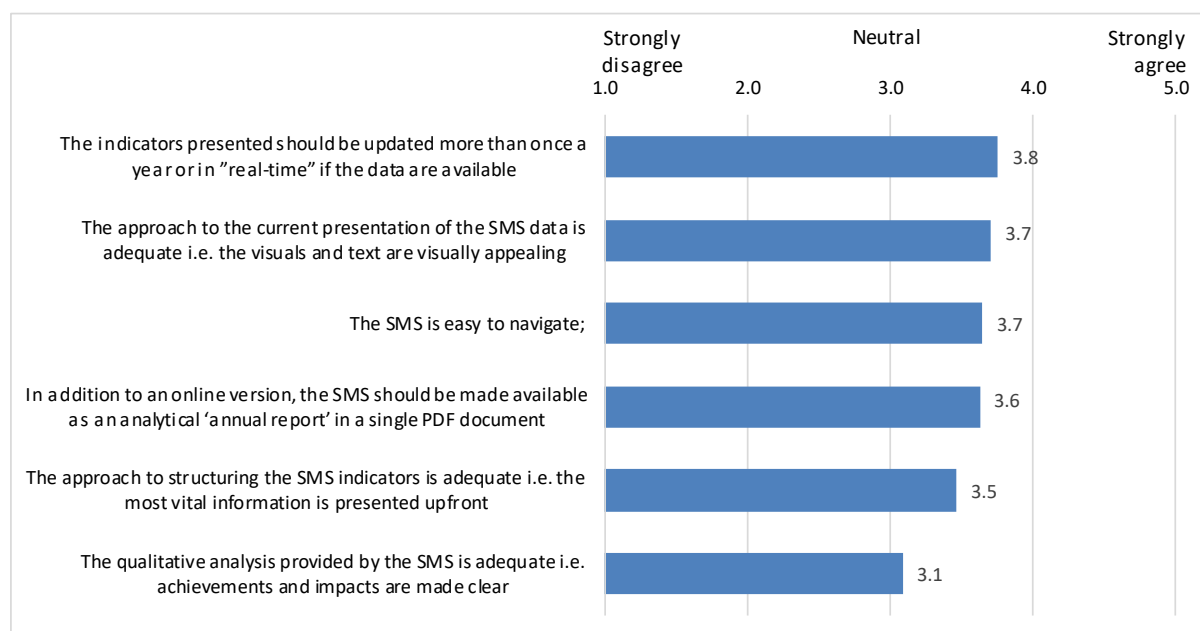
- Formal and informal cooperation between the European Commission and the Member States
- Administrative cooperation between national authorities
- Assistance services for citizens and businesses

An explanation is provided for non-specialist users at the top of the relevant page for many of these 'tools', but for some e.g. TRIS (which stands for "Technical Regulation Information System"), even the webpage itself was not felt to be very clear.

Moreover, the 'governance cycle' page was not found to be very intuitive by many interviewees and of limited added value. There were some questions as to the reasons for choosing the four policy areas currently included (postal services, professional qualifications, public procurement and collaborative economy).

The stakeholder analysis underlined the need to have data, indicators and analysis which is more qualitative and actionable, where the obstacles to a well-functioning Single Market are clearer and, by inference, it is easier to identify remedial action. Respondents' view of the qualitative analysis being adequate was close to neutral at 3.0 on a scale of 1-5, while respondents were nearly as likely to disagree (21.3%) than agree (25.5%) that the SMS makes it clear where there are obstacles to achieving a Single Market.

Presentation and design of the SMS



Source: SMS Survey data.

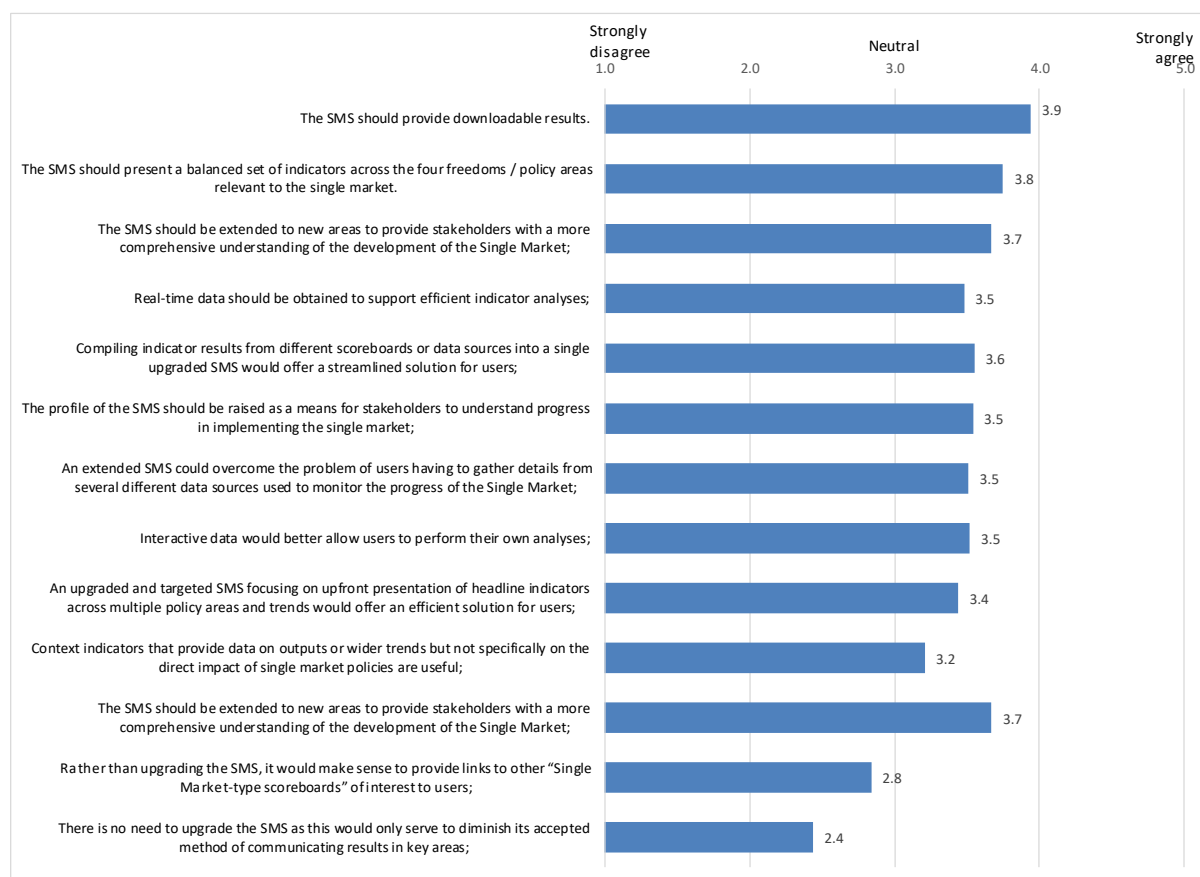
Several of the other responses offer ways in which this can be done: providing more detailed breakdowns or indicator combinations to provide actionable information. An example here is

¹⁷⁵ https://ec.europa.eu/internal_market/scoreboard/performance_by_governance_tool/index_en.htm

knowing the particular directives that have not been transposed alongside some kind of qualitative assessment of its importance to the functioning of the Single Market.

Producing an additional, stand-alone annual report type study in PDF form was an option preferred by more than half of respondents with a further 27.7% neutral and 17% against. Some interviewees called to extend the types and detail of indicators to improve their qualitative capacity, to encourage Member States to provide qualitative analysis and good practices in certain areas, to establish qualitative peer review processes or generally to improve the processes by which enforcement of the SM occurs based on the SMS indicators.

Rationale and need for extending the SMS

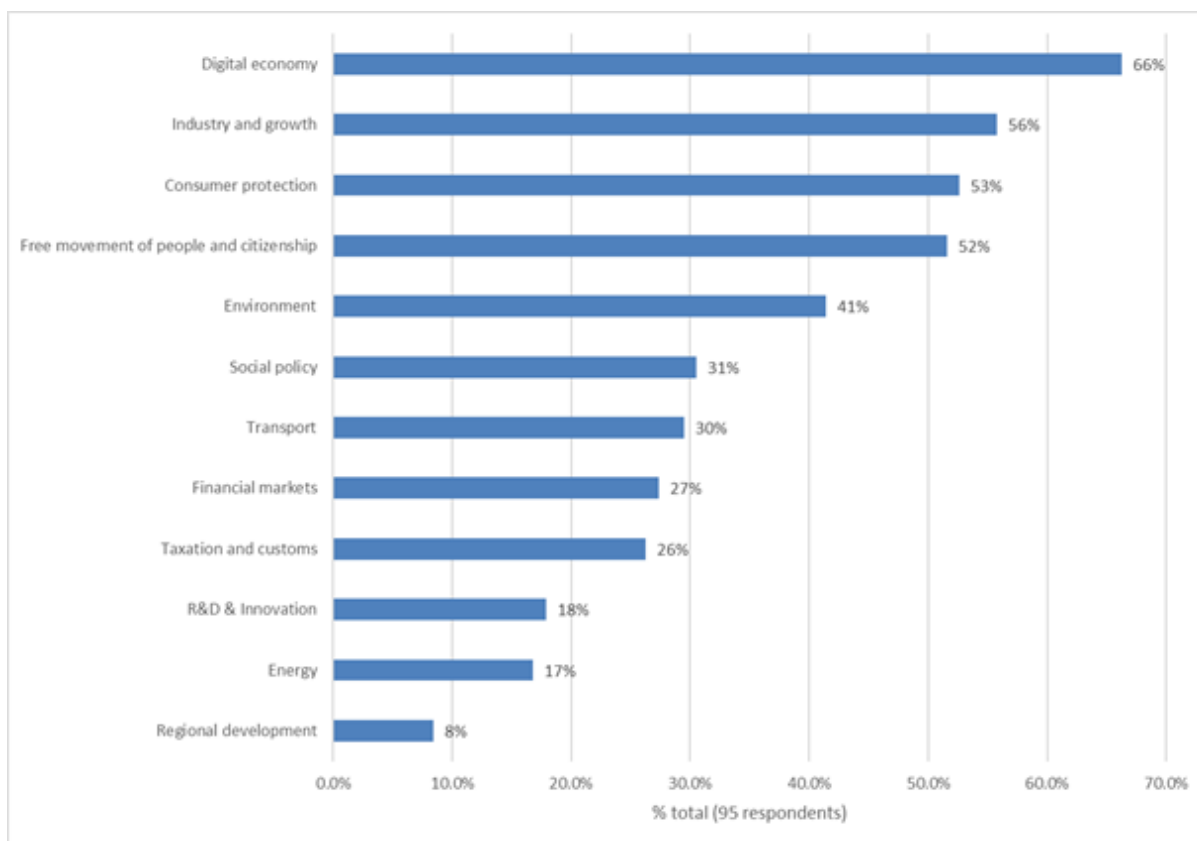


Source: SMS Survey data.

Findings on available data from different sources

There are opportunities for the SMS to cover several new policy areas with only four policy areas currently covered by the SMS. 60% of respondents agreed that the SMS should be extended to new areas to provide stakeholders with a more comprehensive understanding of the development of the Single Market.

For a great number of interviewees, the four freedoms are not very well covered and many suggested that the SMS could be restructured according to the four freedoms. Respondents especially missed more information in the free movement of goods and services. From among the policy areas that the SMS could be extended to in order to better monitor the state of the Single Market's implementation, the most frequently were the digital economy (66.3%), followed by industry and growth (56%) and consumer protection (53%); the free movement of people (51.6%). The area least frequently chosen was regional development (8%).

What new policy areas could a revised SMS scoreboard cover? (select top 5)

Source: SMS Survey data, multiple responses.

In particular, digitalisation was seen as a key issue requiring special attention. Several responses were concerned with digital business, others digital economy and market and one noted digitalisation as a horizontal phenomenon. A significant number of respondents mentioned that when using the SMS, they complement the information with the Digital Economy and Society Index (DESI). For some respondents, the digital single market and single market should be fused. They suggested that the SMS should include a new area on digital where information from DESI could be found. This new area could include an additional freedom in respect of the free movement of data. Building a European data economy is part of the Digital Single Market strategy which aims to “*make the best possible use of the potential of digital data to the benefit of the European economy and society*”¹⁷⁶. In the context of the growing emphasis at EU policy level on open data and on open access to data, the ability of data to move across EU borders in the context of increasingly big-data driven and cloud-based business models means that data is an increasingly important aspect of the SM and of the competitiveness of the EU economy¹⁷⁷.

One interviewee mentioned that apart from the data provided by DESI, it would be useful to have data showing the level of privacy protection (number of breaches) of Member States in the GDPR; information on the additional requirements added by Member States on the GDPR; data on cybersecurity attacks; and an indicator on how quick the states are in removing harmful data (speed of reaction).

Some respondents were concerned about consumer issues, such as consumer legislation, consumer trust in national authorities and cross-borders retailers. Other respondents pointed

¹⁷⁶ <https://ec.europa.eu/digital-single-market/en/policies/building-european-data-economy>

¹⁷⁷ <https://www.buinessurope.eu/policies/eu-single-market/eu-single-market-strategy>

to environmental issues, sustainability-related issues or noted the need to strengthen the quality of the enforcement of existing EU SM legislation.

For the free movement of goods, some interviewees noted that information is missing related to market surveillance, which is important from different perspectives such as product safety, food safety and chemical safety. For product safety, information relating the warnings of products could be extracted from the *Safety Gate* database (the former RAPEX). Also, in this regard, one interviewee mentioned that it would be suitable to find data on mutual recognition, how often access of products is denied and what reasons or public interest involves in this rejection. Another respondent pointed out that it would be helpful, especially for business, that SMS provides accessible information on the *Product Contact Points* (PCP) where the Member State should provide relevant national product legislation. The PCPs were set up in all EU countries under article 9(1) of the mutual recognition regulation. The PCPs provide information to business or another EU country on the national technical rules of specific products and the remedies available in the country where the PCPs are established in the case of dispute between a national authority and an economic operator. It would be useful for both national authorities and economic operators if the SMS showed the performance of the PCP.

For the free movement of services, some interviewees noted that information is missing on how the Points of Single Contact operate e.g. data on the number procedure completed electronically or data on the number of inquiries. One respondent suggested that the Commission could take data on the numbers of inquiries by business and numbers of procedures. Also, another respondent mentioned that it would be useful to see the number of regulations on services provided (notification by the Member State).

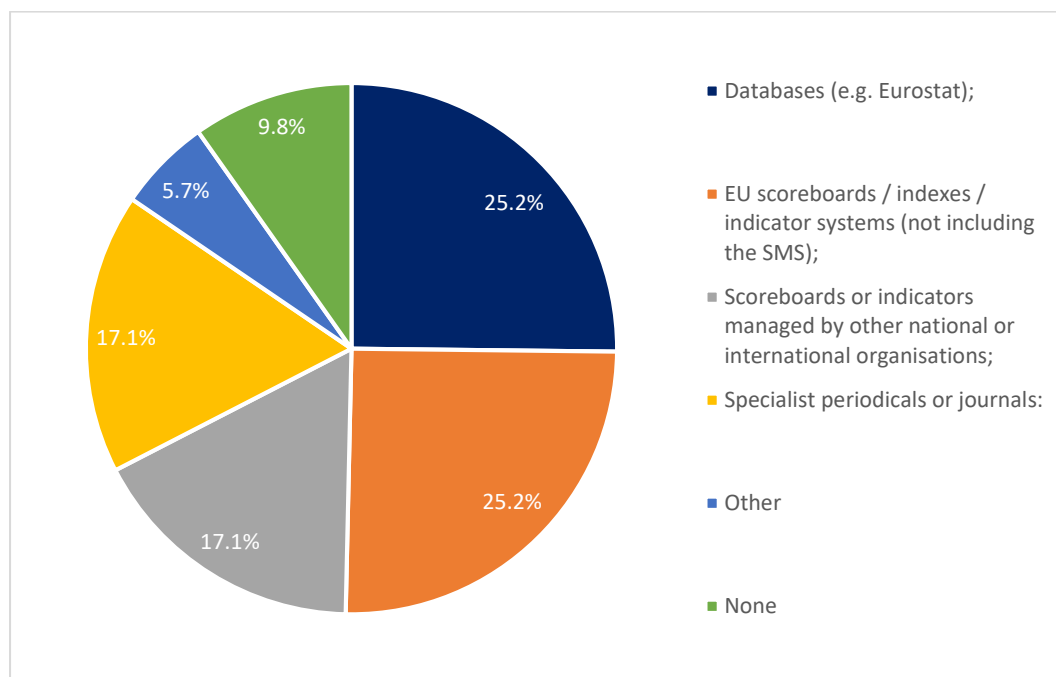
Another area suggested is better regulation, this area should cover revision on existing legislation. The SMS could get the data from REFIT platform. It should have data on how many proposals have been and numbers of suggestion that were approved and denied and if that is possible the timeline of the revisions that are planned and implemented.

This might be fit into a broader approach to improving the legislation side of the Scoreboard, noting that, while the transposition of directives is covered by numerous indicators, the number of EU regulations is not.

Regarding the data sources, a vast majority of the respondents, 80.7%, combine the information provided in the SMS with other data sources. Most of those data sources come from the EU, such as the TRIS database, Eurostat or the Digital Economy and Society Index. However, some respondents to the open-questions mentioned other data sources outside EU such the OECD reports or the Scoreboard of the EFTA Surveillance Authority.

Others suggested that it would be useful to have more qualitative data that explains the quantitative data. For instance, for products there are many laws that restrict movement of goods based on “public interest” a justification very common among some Member States and that affects the movement of goods, having an explanation that justifies the numbers would give more accurate information. In a similar vein it should be possible to place greater emphasis on good practices in Member States – which would need to be collected – and to make these visible within the Scoreboard.

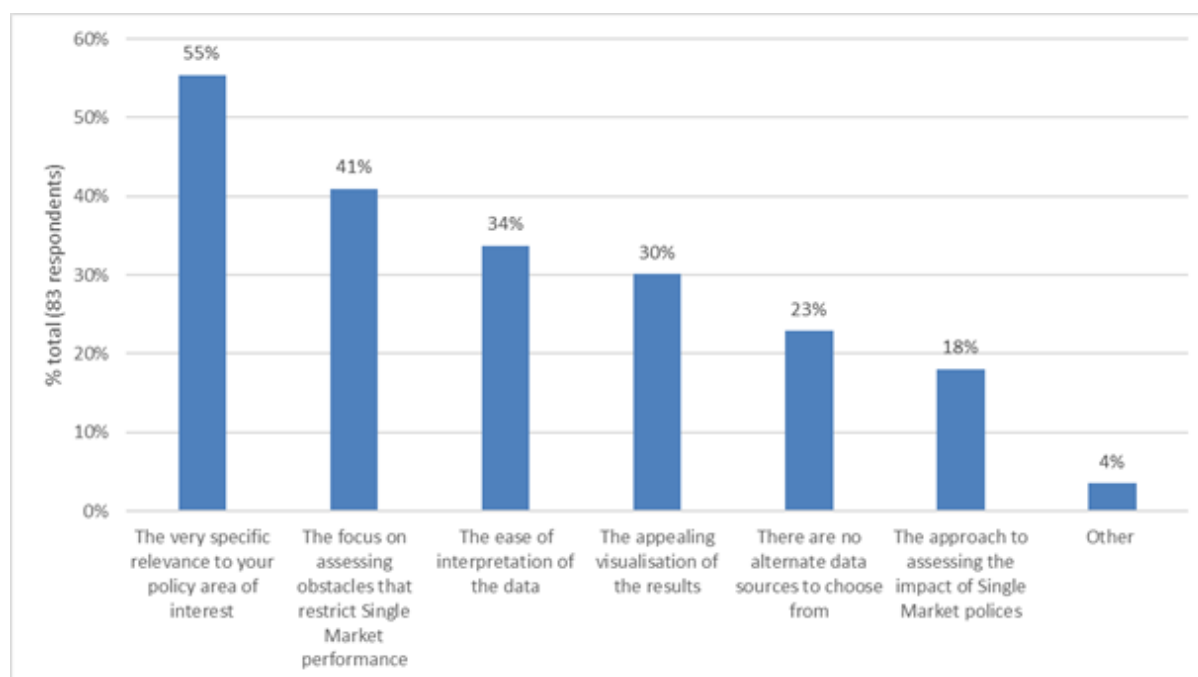
Please indicate the data sources you currently use to assess the implementation and performance of the Single Market, but which are not covered by the SMS. (%)



Source: SMS Survey data, multiple responses.


The main information searched for outside the SMS was data related to Single Market across its four dimensions (but especially, free movement of goods and services). What respondents appreciated most in relation to these data sources is the specific relevance of the data (55.4%). This could mean that information was available that could not be found in the SMS. Another reason to seek information outside the SMS was the need to combine it with further studies, reports and qualitative data.

With regard to the data source(s) that you mentioned, what particular aspects do you appreciate the most? (%)



Source: SMS Survey data.

Annex 6: Survey questionnaire

	Centre for Strategy & Evaluation Services
Study to Develop an Upgraded Single Market Scoreboard (SMS) as a Governance Tool for the Single Market	
Stakeholder Survey	
Introduction	
<p>The European Commission has recently contracted the Centre for Strategy and Evaluation Services (CSES) to undertake a Study to Develop an Upgraded Single Market Scoreboard (SMS) as a Governance Tool for the Single Market. For further information about the existing SMS, please click the link here.</p>	
<p>As part of the consultation exercise, you are invited by the European Commission to provide feedback on the current and future development of the Single Market Scoreboard via this online survey.</p>	
<p>In particular, the assessment of the stakeholder consultation feedback will help to:</p>	
<ul style="list-style-type: none"> • identify advice and input in order to upgrade the Single Market Scoreboard to better monitor the state of the Single Market in its four dimensions: free movement of goods, services, people and capital; • assess the existing Single Market Scoreboard and its accompanying indicators; • map these against policy needs; • identifying new and relevant indicators – covering legal and economic issues and taking stock of the situation for users; • and recommend how to improve the user-experience within an upgraded online scoreboard. 	
<p>For further information about the study, please see the introductory letter here.</p>	
<p>The survey will take about 20 minutes to complete. The study findings will be anonymised and aggregated to prevent survey respondents from being identified. All data collected will be treated confidentially in line with the requirements of the General Data Protection Regulation and will be deleted within 12 months of completing this study.</p>	
<p>The deadline for survey completion is the 2nd October 2019.</p>	
<p>Thank you in advance for completing all survey questions.</p>	
<p>Data protection and privacy: All data will be collected, processed and retained for the study's duration in strict accordance with the General Data Protection Regulation (GDPR), whilst fully respecting the rules pertaining to the collection and processing of personal data by EU institutions (Regulation (EU) No 2018/1725). All survey data will be analysed anonymously and kept confidential. A statement on data protection and privacy relating to this specific study is available on request. Should you have any queries regarding these matters, please contact CSES' data controller, Jan</p>	

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CS

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Centre for
**Strategy & Evaluation
Services**

Study to Develop an Upgraded Single Market Scoreboard (SMS) as a Governance Tool for the Single Market

Stakeholder Survey

Section 1: Survey Respondent Characteristics

Please can you provide some general background characteristics on your organisation?

* 1. Please indicate your country of establishment or Member State.

▲

▼

* 2. Please indicate one of the following categories that best describes your organisation

▲

▼

* 3. Please can you confirm your previous use and experience with the existing Single Market Scoreboard?

We would like to know your level of experience as a user with the existing Single Market Scoreboard. Please select which of the following that best relates to you:

☐ Frequent user (3 or more times a year);

☐ Occasional user (1 to 2 times a year);

☐ Some experience (e.g. you have visited the SMS once or twice);

☐ No experience (i.e. you have never visited the SMS).

* 4. We would like to know the parts of the SMS that you visit most frequently / would be most important to you if you used the Scoreboard in future.

Please select from one or more of the following:

- ☐ **Performance Overview:** The performance overview page which provides a traffic light assessment of most of the following items.
- ☐ Infringements
- ☐ Transposition
- ☐ EU Pilot
- ☐ Internal Market Information system (IMI)
- ☐ Consumer Protection Cooperation – CPC Network
- ☐ European Consumer Centre Network
- ☐ European Consumer Centre Network
- ☐ e-Certis
- ☐ EURES
- ☐ Your Europe
- ☐ Your Europe Advice
- ☐ SOLVIT
- ☐ Points of Single Contact
- ☐ Public Procurement
- ☐ Postal Services
- ☐ Professional Qualifications
- ☐ Collaborative Economy
- ☐ Trade in Goods and Services
- ☐ Foreign Direct Investment

Study to Develop an Upgraded Single Market Scoreboard (SMS) as a Governance Tool for the Single Market

Stakeholder Survey

Section 2: Assessment of the single market areas currently monitored by the Single Market Scoreboard

*** 5. What were the main reasons for visiting the Single Market scoreboard?**

Please indicate why you use the SMS (please tick all that apply):

- ☐ General interest in the Single Market
- ☐ A specific interest in one or more of the four freedoms
- ☐ Tracking my Member State's performance through the SMS
- ☐ Comparative performance and benchmarking of my Member State against other Member States in terms of progress in implementing the Single Market
- ☐ Responsible for governance tools monitored at national level through the SMS
- ☐ Responsible for policy area(s) monitored at national level through the SMS

*** 6. Did you find the information you were looking for?**

- ☐ Yes, completely
- ☐ Yes, partially
- ☐ No, but I found other useful information
- ☐ No, not at all
- ☐ I was not looking for anything in particular

*** 7. How did you use the information that you obtained from the SMS?**

Please indicate which of the following reasons best describes how you used the information or please provide an alternative response in the text box. *(Please tick all that apply)*

- ☐ The information was used for research purposes only;
- ☐ The information was referenced to strengthen a report produced by your organisation;
- ☐ The information was shared with your member organisations;
- ☐ The information was used to feed into a business discussion about a public body monitored by the SMS;
- ☐ The information was used in the context of discussions with the Commission regarding the development and implementation of the single market;
- ☐ The information was used in the context of discussions with national authorities regarding the development and implementation of the single market.

Other (please explain). If possible, please insert below links to any documents or webpages where you have included references to the information available on the SMS?

*** 8. Please evaluate the relevance and usefulness of the scoreboard in the areas it is currently monitoring?**

Please evaluate the following statements on a 1 to 5 scale: 1 means strongly disagree, 3 is neutral and 5 means strongly agree.

	1	2	3	4	5
Relevant information and data is provided to monitor the progress of Single Market policies against their objectives;	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
The information provided is useful for policy-making purposes;	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
The information provided is sufficiently detailed to monitor progress;	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
The information provided is too detailed to easily make sense of;	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
It is easy to monitor progress over time;	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
The SMS provides information that is easy to interpret;	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
The SMS provides for sufficient interactivity with the data;	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
It is clear to me how the single market is developing across the Member States in the areas monitored currently by the SMS;	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
The SMS makes it clear where there are obstacles to achieving a Single Market (free movement of products, services, capital, people);	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
The presentation of data using a traffic light colour coding system is useful.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Please comment on why you have provided the answers above?

*** 9. Please evaluate the scoreboard in terms of its current presentation and design.**

Please evaluate the following statements on a 1 to 5 scale: 1 means strongly disagree, 3 is neutral and 5 means strongly agree.

	1	2	3	4	5
The SMS is easy to navigate;	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
The approach to the current presentation of the SMS data is adequate i.e. the visuals and text are visually appealing;	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
The qualitative analysis provided by the SMS is adequate i.e. achievements and impacts are made clear;	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
The indicators presented should be updated more than once a year or in "real-time" if the data are available;	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
The approach to structuring the SMS indicators is adequate i.e. the most vital information is presented upfront;	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
In addition to an online version, the SMS should be made available as an analytical 'annual report' in a single PDF document.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Please comment on why you have provided the answers above?

10. Please explain how the SMS could be developed further in the areas it is currently monitoring.

Please provide your feedback in one or more of the following

What other indicators could be used to monitor progress in the areas currently monitored by the SMS if any? *Note – if you recommend any indicators, please take into account that scoreboards should be designed to provide succinct information that can be interpreted efficiently.*

Does the current amount of data presented on the SMS require adaptation?

In terms of the data presented currently, and with reference to the traffic light system used to benchmark countries, does the interpretability of the data need to be improved?

In terms of the areas currently monitored, does the "ease of use" and navigability of the SMS need to be changed?

Study to Develop an Upgraded Single Market Scoreboard (SMS) as a Governance Tool for the Single Market

Stakeholder Survey

Section 3: Assessment of Single Market data sources (not including the existing SMS)

* 11. Please indicate the data sources you currently use to assess the implementation and performance of the Single Market, but which are not covered by the SMS. *(Please tick all that apply)*

- ☐ Databases (e.g. Eurostat);
- ☐ Specialist periodicals or journals;
- ☐ EU scoreboards / indexes / indicator systems (not including the SMS);
- ☐ Scoreboards or indicators managed by other national or international organisations;
- ☐ None.

Other (please indicate):

12. With regard to your answers above, please provide details of the data source(s) and, if possible links, that you are using to monitor the progress of the Single Market:

13. With regard to your answer above, please describe the policy area, issue or "obstacle" that your indicated data source(s) cover(s)?

* 14. With regard to the data source(s) that you mentioned, what particular aspects do you appreciate the most? *(Please tick all that apply)*

- ☐ The very specific relevance to your policy area of interest
- ☐ The focus on assessing obstacles that restrict Single Market performance
- ☐ The ease of interpretation of the data
- ☐ The appealing visualisation of the results
- ☐ The approach to assessing the impact of Single Market policies
- ☐ There are no alternate data sources to choose from

Other (please indicate):

15. With regard to your answer above, please provide any further feedback to clarify your response.

Study to Develop an Upgraded Single Market Scoreboard (SMS) as a Governance Tool for the Single Market

Stakeholder Survey

Section 4: Assessment of the single market policy areas that the SMS could be extended to

* 16. Please evaluate the following statements associated with the rationale and needs for possibly extending the SMS.

Please evaluate the following statements on a 1 to 5 scale: 1 means strongly disagree, 3 is neutral and 5 means strongly agree.

	1	2	3	4	5
The SMS should be extended to new areas to provide stakeholders with a more comprehensive understanding of the development of the Single Market;	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
There is no need to upgrade the SMS as this would only serve to diminish its accepted method of communicating results in key areas;	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
An extended SMS could overcome the problem of users having to gather details from several different data sources used to monitor the progress of the Single Market;	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Compiling indicator results from different scoreboards or data sources into a single upgraded SMS would offer a streamlined solution for users;	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Rather than upgrading the SMS, it would make sense to provide links to other "Single Market-type scoreboards" of interest to users;	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
An upgraded and targeted SMS focusing on upfront presentation of headline indicators across multiple policy areas and trends would offer an efficient solution for users;	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
The profile of the SMS should be raised as a means for stakeholders to understand progress in implementing the single market;	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Interactive data would better allow users to perform their own analyses;	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Real-time data should be obtained to support efficient indicator analyses;	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Context indicators that provide data on outputs or wider trends but not specifically on the direct impact of single market policies are useful;	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
The SMS should provide focused information on a single policy area rather than separate analyses of numerous indicators.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
The SMS should provide downloadable results.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
The SMS should present a balanced set of indicators across the four freedoms / policy areas relevant to the single market.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Please comment on why you have provided the answers above.

* 17. What new policy areas could a revised SMS scoreboard cover?

Considering the priorities of your organisation, can you please select up to 5 policy areas that the SMS could be extended to in order to better monitor the state of the Single Market.

(Please tick those that apply)

- ☐ **Consumer protection:** Consumer trust in cross border retailers, choice / comparability of offers, consumer legislation and enforcement
- ☐ **Digital economy:** E-government, digital business, personal data protection, telecommunications, media services
- ☐ **Energy:** Markets and consumers, energy efficiency, infrastructure
- ☐ **Environment:** Circular Economy, green growth, green public procurement, sustainable development, pollution and noise
- ☐ **Financial markets:** Capital markets union, banking, finance and financial services, company reporting and auditing
- ☐ **Free movement of people and citizenship:** European citizenship and fulfilment of rights, intra-EU migration, migration to the EU from third countries, regulated professions, access to business finance
- ☐ **Industry and growth:** Harmonised legislation, market surveillance, standards and standardisation, SME policy (start-up / growth eco-systems, ease of doing business, business environment etc.), services markets, market access / cross-border business establishment, retail markets, automotive industry, collaborative economy, skills for industry, IPR and copyright, public procurement
- ☐ **Regional development:** Smart specialisation, innovation ecosystems
- ☐ **R&D & Innovation:** National expenditure on innovation, Horizon 2020 expenditure, innovation framework conditions
- ☐ **Social policy:** Public health, health and safety at work, coordination of social security schemes, employment, integration of migrants
- ☐ **Taxation and customs:** Indirect taxation, customs procedures
- ☐ **Transport:** Air, road, rail, maritime

18. Based on your answers to the previous question, please rank them in order of importance – 1 being the most important to you.

10 9 8 7 6 5 4 3 2 1	<input type="text"/>	Consumer protection: Consumer trust in cross border retailers, choice / comparability of offers, consumer legislation and enforcement
10 9 8 7 6 5 4 3 2 1	<input type="text"/>	Digital economy: E-government, digital business, personal data protection, telecommunications, media services
10 9 8 7 6 5 4 3 2 1	<input type="text"/>	Energy: Markets and consumers, energy efficiency, infrastructure
10 9 8 7 6 5 4 3 2 1	<input type="text"/>	Environment: Circular Economy, green growth, green public procurement, sustainable development, pollution and noise
10 9 8 7 6 5 4 3 2 1	<input type="text"/>	Financial markets: Capital markets union, banking, finance and financial services, company reporting and auditing
10 9 8 7 6 5 4 3 2 1	<input type="text"/>	Free movement of people and citizenship: European citizenship and fulfilment of rights, intra-EU migration, migration to the EU from third countries, regulated professions, access to business finance
10 9 8 7 6 5 4 3 2 1	<input type="text"/>	Industry and growth: Harmonised legislation, market surveillance, standards and standardisation, SME policy (start-up / growth eco-systems, ease of doing business, business environment etc.), services markets, market access / cross-border business establishment, retail markets, automotive industry, collaborative economy, skills for industry, IPR and copyright, public procurement
10 9 8 7 6 5 4 3 2 1	<input type="text"/>	Regional development: Smart specialisation, innovation ecosystems
10 9 8 7 6 5 4 3 2 1	<input type="text"/>	R&D & Innovation: National expenditure on Innovation, Horizon 2020 expenditure, innovation framework conditions
10 9 8 7 6 5 4 3 2 1	<input type="text"/>	Social policy: Public health, health and safety at work, coordination of social security schemes, employment, integration of migrants
10 9 8 7 6 5 4 3 2 1	<input type="text"/>	Taxation and customs: Indirect taxation, customs procedures
10 9 8 7 6 5 4 3 2 1	<input type="text"/>	Transport: Air, road, rail, maritime

* 19. With regard to the top three policy areas that you selected, are there any sub-policy areas or key issues that require specific attention?

Please explain the policy sub areas or issues that require most attention in terms of monitoring in line with your ranking of policy areas.

1st	<input type="text"/>
2nd	<input type="text"/>
3rd	<input type="text"/>

20. With regard to the top three policy areas that you selected, are there any specific "obstacles" to internal market progress that require monitoring (e.g. legal barriers, quality of enforcement etc.)

1st

2nd

3rd

21. With regard to your answers above concerning both the top three policies and obstacles, why do these deserve special attention by an upgraded SMS?

22. Can you suggest any data-sources or indicators that could be used to monitor the items you have mentioned and other areas?

Considering the priorities that you have mentioned, please insert the name (and if possible links) of any data sources, dashboards, or indicators that could be possibly used as evidence to inform the development of a revised SMS. Please also mention any other sources that may be interesting to consider.

1st

2nd

3rd

Other

23. Please provide any further feedback that you consider is relevant to the possible upgrading of the SMS.

24. We would appreciate discussing the responses of selected respondents. Please indicate if you would be available to participate in a 20-minute telephone interview by inserting your name, email and telephone number below. We will then email you to arrange a convenient time.

Name

Email Address

Telephone Number

Annex 7: List of interviews by organisation

The following provides a list of completed interviews.

Organisation type	Organisation	Number of interviews
European Commission	European Commission, GROW	13
	European Commission, JRC	1
	European Commission, Connect	1
Business representative stakeholders	European Business Services Alliance	1
	Business Europe	1
	International Post Corporation	1
	EUROCHAMBRES- Association of European Chambers of Commerce and Industry (Belgium)	1
	EuroCommerce (Belgium)	1
	Austrian Federal Economic Chamber	1
Employers' organisations	Almega, Sweden	1
National authorities	National Board of Trade Sweden	1
	Danish Business Authority	1
	Department for European and International Affairs, Ministry of Economic Affairs and Climate Policy	1
	Hungarian Department Ministry of Justice	1
	Irish Department of Foreign Affairs and Trade	1
	Copenhagen Business School	1
Academics	Copenhagen Business School	1
Consumer associations	European Consumer Organisation (BEUC)	1
Stakeholder NGO	European policy centre	2
International organisation (UN, OECD)	OECD	1
European Network or agency	EURES, European Coordination Office (ECO), DG EMPL	1
Other European institution	EFTA	1
Grand Total		34

Annex 8: Case studies: Further examples of new indicators and data sources

A series of eight case studies have been undertaken and these are presented in this standalone case study document. The following case studies are provided:

- Case study 1: Legislative lifecycle approach
- Case study 2: Consumer protection
- Case study 3: Green Single Market
- Case study 4: Citizen journey for a European job-seeker
- Case study 5: Challenges in measuring and assessing CMU implementation
- Case study 6: The Single Market for Services - Air Transport
- Case study 7: Assessing progress in eliminating cross-border barriers to UCITS
- Case study 8: The Your Europe website and transition to a Single Digital Gateway (SDG) 2.0

Case study example 1: Legislative lifecycle approach

The gap analysis identified the absence of a **legislative lifecycle approach** to monitoring and reporting on the implementation of SM legislation, especially in the area of enforcement. However, some progress is being made as regards reporting qualitatively on outstanding barriers and enforcement issues, for instance, through the publication of a package of new Commission Communications, including the Single Market Barriers and Enforcement Action Plan were adopted on 10 March 2020.

As noted earlier in Section 5, the SMS currently focuses on monitoring and reporting on transposition and infringements proceedings, for instance through the transposition deficit (the gap between the number of Single Market directives adopted by the EU and those transposed in Member States) and the conformity deficit (the percentage of those directives incorrectly transposed).

New indicators could potentially be introduced to monitor and report on aspects of SM legal implementation further downstream in the SMS, for instance in respect of monitoring and enforcement activity by Market Surveillance Authorities (MSAs) and technical standards.

New indicators – demonstrating a legislative lifecycle approach

Stage in SM legal implementation	Indicators (schematic with some details)	What the indicators indicate	In existing SMS?	Source
Adoption and publication of legislation	<ul style="list-style-type: none"> Number of Directives adopted (annually/ total annual/ total aggregate) Number of Regulations adopted (annually/ total annual/ total aggregate) 	<ul style="list-style-type: none"> Basic output info about Directives and Regulations Shed light on overall volume of SM legislation 	<ul style="list-style-type: none"> No 	EC DGs EUR-LEX
National transposition processes (Directive only)	<ul style="list-style-type: none"> Transposition deficit. Conformity deficit. Infringement proceedings. Implementation of Directives (transposition and conformity deficit) 	<ul style="list-style-type: none"> Provides overview of initial implementation of SM legislation Transposition deficit - gap between the number of Single Market directives adopted by the EU and those transposed in Member States. Conformity deficit - The percentage of those directives incorrectly transposed. Infringement proceedings shed light on how often the EC has taken legal action against MS for non-implementation and/ or incorrect implementation. 	<ul style="list-style-type: none"> Partially 	Existing SMS

Stage in SM legal implementation	Indicators (schematic with some details)	What the indicators indicate	In existing SMS?	Source
		Also disaggregated data by type of legislation / sector.		
Development of Harmonised Technical Standards	<ul style="list-style-type: none"> • Number of Harmonised Technical Standards (per piece of legislation) proposed • Number of Harmonised Technical Standards (per piece of legislation) adopted 	<ul style="list-style-type: none"> • Technical standards are vital to the full and effective implementation of SM legislation, as in many areas (e.g. industrial product legislation), it isn't feasible for economic operators to comply with the law without standards (else they face considerable additional costs in having to use a third party notified body). • Evaluations of individual pieces of legislation (especially technically demanding industrial product legislation) suggest that when Directives / Regulations are revised and updated, there can be considerable bottlenecks in standards development processes. Monitoring this could add value by focusing further downstream on implementation challenges than the existing SMS 	<ul style="list-style-type: none"> • No 	ESOs (e.g. CEN, CENELEC and ETSI)
Monitoring and enforcement activities by MSAs	<ul style="list-style-type: none"> • Number of notifications by product category • Number of follow up actions of existing notifications by authorities in other Member States • Number of joint action market surveillance programmes 	<ul style="list-style-type: none"> • Monitoring enforcement actions by MSAs could allow a focus further downstream on implementation challenges compared with the existing SMS. 	<ul style="list-style-type: none"> • No 	Rapex database ICSMS could be included
Legal implementation reports by the Commission Monitoring and evaluation of legal implementation by Commission	<ul style="list-style-type: none"> • Qualitative assessment of application of the legislation • Data on transposition and infringements 	<ul style="list-style-type: none"> • Although later in the legislative implementation cycle, legal implementation reports contain data already available in the SMS relating to the application of the legislation (e.g. transposition, conformity assessment and infringements). 	<ul style="list-style-type: none"> • No 	European Commission Relevant DGs Evaluations and impact assessments by external

Stage in SM legal implementation	Indicators (schematic with some details)	What the indicators indicate	In existing SMS?	Source
and external consultants		<ul style="list-style-type: none"> Evaluations of individual pieces of legislation ought to provide useful information on how effective implementation has been, any problems relating to compliance levels, bottlenecks in development of standards, etc. 		consultants for the EC
Review of individual pieces of SM legislation and potential revisions / codification of legislation	<ul style="list-style-type: none"> Qualitative assessment of application of individual legislation by the EC 	<ul style="list-style-type: none"> Legislative review is an ongoing process, influenced by quantitative data on the initial stages of implementation (transposition, conformity, infringements), but also qualitative assessment and review by the EC to check fitness for purpose and consider revisions through recast directives and regulations 	<ul style="list-style-type: none"> No 	European Commission Relevant DGs
Review of the collective body of SM legislation	Qualitative and quantitative assessment of implementation of different types of SM legislation	<ul style="list-style-type: none"> Stocktaking of progress across the body of SM legislation by type Review of outstanding legal barriers to implementation. Qualitative assessment could be provided (e.g. in annual report on state of implementation of the SM regarding the implementation of SM legislation. A thematic approach could be adopted to analyse the effectiveness of the implementation of SM legislation by type (e.g. industrial product legislation, environmental legislation, horizontal legislation, other). 	No	European Commission Relevant DGs Possible support from external consultants (e.g. through evaluations/studies)

There is scope for the Commission to make use of existing evaluative information on the implementation of SM legislation gathered by reporting activities that fall under the Better Regulation agenda. Much of this research has the aim of evaluating the extent of the harmonised implementation of SM rules, with a view to identifying obstacles to good enforcement, national practices that support effective application of the legislation, and the quality of the experiences of business and citizens in accessing opportunities cross-border as legally intended. These analyses often map the approaches taken per Member State, highlighting the extent of the good implementation, their relative strengths, commonalities, differences etc.

While the current information collected in this context is of relevance, the data is not easy to extract consistently and (cost)efficiently from the reporting outputs. Therefore, from the perspective of scoreboard monitoring, there are challenges in providing comparable analyses between different

pieces of legislation. A possible solution is to establish a SMS fact sheet reporting policy managed by the units responsible for evaluation in the relevant Directorate Generals responsible for SM legislation. Using a coordinated approach, studies proposed for procurement indicated in annual plans could be identified upfront as relevant for providing communication feedback via the upgraded SMS.

For the selected studies, using an SMS policy factsheet contained as an annex to the tender specifications, a consistent set of indicators would be requested for reporting-on by the relevant contractors. The indicators suggested should be in line with the typical information requirements normally specified by Better Regulation type studies therefore not making the consultations any more burdensome for stakeholders. A suggested approach to the policy factsheet is indicated below.

Suggested SMS Policy Fact Sheet to support monitoring of Single Market legislation

Suggested SMS Policy Fact Sheet to support monitoring of Single Market legislation

Introduction

- Title of the study and single market legislation
- Time period when the study was conducted
- Aims and objectives of the study
- Summarised introduction to the contents of the Policy Fact Sheet

Enforcement approaches

- Data analysis to indicate strengths and weaknesses around national approaches to enforcement e.g. this could combine qualitative and quantitative analyses (e.g. bar charts) indicating different enforcement approaches/features, discrepancies between countries, and country performance in supporting single market functioning;
- By Member State, level of annual investment in enforcement countries considering the market size;
- By Member State, number of staff responsible for enforcement;
- By Member State, extent of usage of (EU) tools to foster communication (e.g. IMI, RAPEX, ICSMS etc);
- By Member State, extent of procedures and information placed online to support cross-border users to access opportunities;
- Extent of cross-border cooperation between responsible Member State bodies e.g. networks meetings, launching of joint initiatives, development of guidelines etc.
- Quality of EU tools to support market functioning e.g. harmonised forms, market registers etc.
- Types of penalties available per country;
- Number of inspections / investigations per country;
- Number of court cases per country;

Harmonised standards

- Extent to which the harmonised standards issued cover the product markets falling under the legislation (estimated number of new standards that need to be issued to ensure good coverage);
- Qualitative assessment of the quality of the standards;

Impacts on business and citizens

- Summarised results of societal and stakeholder level standard cost model and costs benefit analyses
- In the context of the single market, difference made by the legislation for citizens and businesses prior to after its adoption/reform;
- Overall quality of single market functioning (differentiated by Member State) for citizens and business;

Recommendations

- Recommendations relating to the key findings above differentiated by Member State and stakeholder type

Case study example 2: Consumer protection

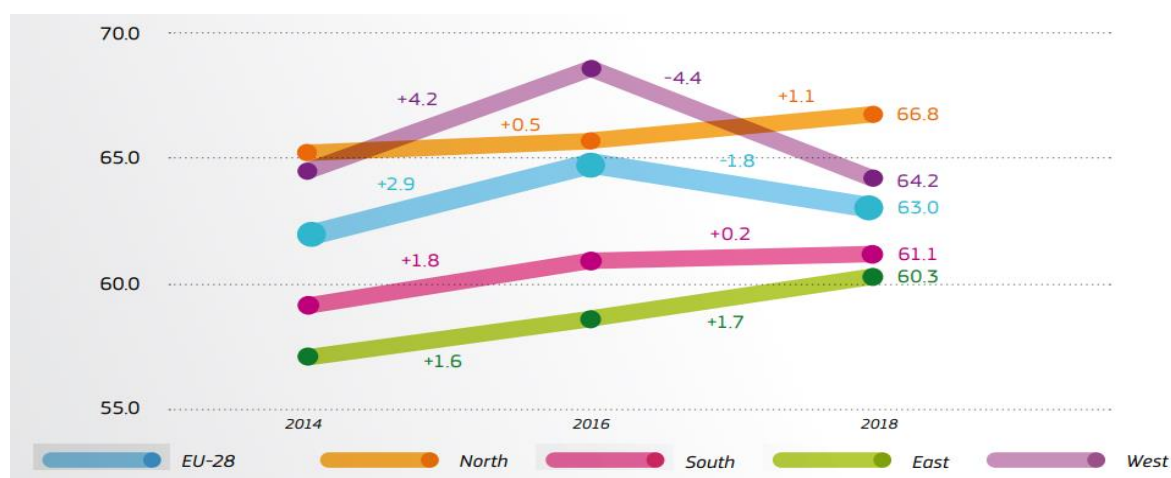
This example, concerning consumer protection, includes a variety of different indicators comprising both the consumer and business perspectives, context level indicators to highlight progress (or lack of progress) and actual areas of complaints (see Table 1-3). This set of indicators gives a picture of strategic level performance and actionable areas for improvement. An analysis of these indicators may also be strengthened by looking at sector or policy area breakdowns, for example from the Consumer Markets Scoreboard alongside other indicators in the SMS, such as services restrictiveness, notifications regarding products, or issues related to standardisation or transposition of directives. Selected trends from these indicators are shown in Figures 1-1 to 1-4, highlighting slightly declining consumer conditions in the EU overall, large increases in problems faced by consumers when buying online from other EU countries (pointing to difficulties in Single Market implementation), varying retailer perceptions regarding how easy it is to comply with consumer legislation depending on whether it is cross-border or domestic and service markets which are relatively poorly performing.

For example, the choice and comparability dimensions of the Market Performance Indicator are particularly relevant from a SM perspective, where directives have opened markets (choice) and encouraged transparency (comparability). Market performance can be further broken down by sector and country.

Indicators for Single Market performance in consumer protection

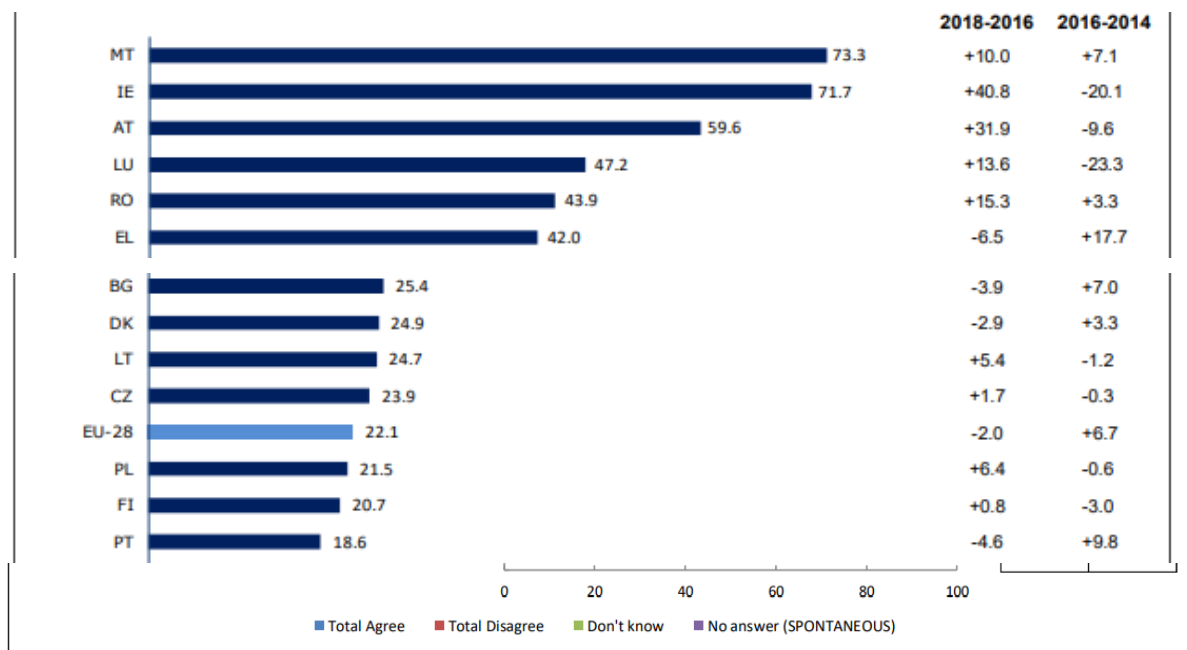
Policy Area	Data source	Indicator	Type of indicator
Consumer Protection	Consumer Conditions Scoreboard	Consumer Conditions Index — overall indicator	Composite
		Consumers experiencing problems when trying to buy online from retailers in other EU countries (% of consumers), by country, 2016	Output
	Consumer Market Scoreboard	Retailer perceptions of compliance with consumer legislation domestically and cross-border	Result
		Market Performance Indicator (broken down by country and sector, or per market cluster).	Composite
		Ease of switching provider by country and market cluster	Result
	ECC Database	Complaint Topics by Area of EU law (% of all complaints) (for multiple areas)	Output

Change in the Consumer Conditions Index across different regions of the EU, 2014-2018



Source: Consumer Conditions Scoreboard, 2019

Consumers experiencing problems when trying to buy online from retailers in other EU countries, by country, 2018*

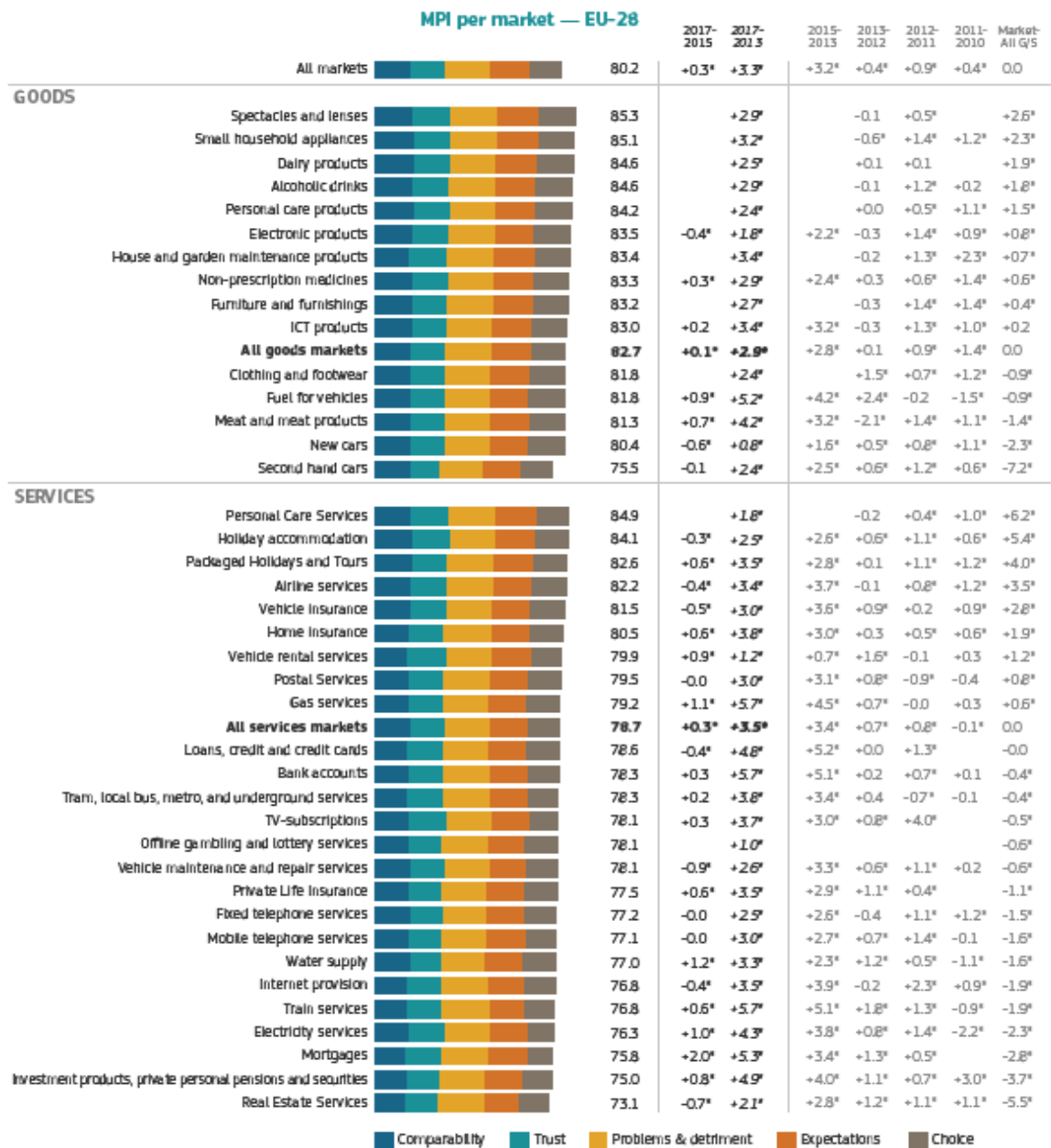


* Selected countries only.

Source: Consumer Conditions Scoreboard, 2019

Although the Consumer Conditions Scoreboard, 2019, also contains data on retailer perceptions of compliance with consumer legislation both domestically and cross-border, stakeholder feedback as part of the validation process for indicators suggested that it could be misleading to include data on retailers. An EU association interviewed pointed out that from a retailers' perspective, there are often diverging national (and even local) rules and hidden barriers to the internal market, such as *de facto* requirements in some national markets to display a label that products have been tested to well-known national standards may makes it difficult to sell to other EU countries. It was also noted that "*the problems experienced by consumers are linked to the online sales channel and cross-border barriers and not necessarily to retailers*". Moreover, the perceptions of retailers are also influenced by any additional national product rules, and differences in practices between national authorities (in the application of EU law and their interpretation of national rules).

Ranking of markets based on the Market Performance Indicator, EU-28, 2017



Source: Consumer Markets Scoreboard, 2018

Case study example 3: Green Single Market

The Green Single Market covers the policy area of environment that has been developed in previous sections (see section 3 and section 4). The Green SM example includes a variety of different indicators covering the free movement of products and services, the implementation of Green legislation and other sub-areas as circular economy or renewable energy. The need for the inclusion of a Green SM comes from the increasing number of EU legislations, policies and initiatives (such as the Single Market for Green Products Initiative, the Circular Economy action Plan or more recently the Green Deal) to become more environmentally friendly, which implies the standardisation of norms affecting Member States, consumers and organisations.¹⁷⁸

Due to the cross-sectional character of the environmental protection policies, which affects several areas of the Single Market, this example intends to present the indicators (which have already been exposed in previous sections) in a disaggregate way in order to be more user friendly. Therefore, the indicators suggested are divided in:

- **environmental performance**- Which in turn could be divided into:
 - Context indicators- to provide a context of the environmental situation which is necessary to understand the rest
 - Implementation of legislation- No existing indicators available
- in relation to the **freedoms**- although indicators are not fully developed yet
- by **sub-policy area**- e.g. circular economy, public procurement, renewable energy

The Green SM example is based on existing indicators and datasets with the exception of Product Environmental Footprint (PEF) and Organisational Environmental Footprint (OEF) that are not available yet but are presented here because they are going to provide a rich source of data for monitoring the environmental performance of the SM. Although available and reliable data could be found regarding environmental performance, the existing indicators do not provide information disaggregated to the required level, therefore they provide useful context on EU environmental performance but it is not as linked to the Single Market because they are broader.

As it can be seen, there are some indicators which could be considered for inclusion in more than one area. For instance, GPP could be a sub-area of the Green SM or as a sub-section under public procurement. In this example all indicators with an environmental interest are included without prejudice to duplicate the information under more than one sub policy area, or alternatively, excluding some areas from the Green Single Market if they are found to be more relevant to include under other policy areas. This depends how far the green SM is considered to be a cross-cutting theme which could be mainstreamed across other new policy areas, as opposed to a distinct area in its own right, or both.

Context Indicators

Name of dataset	Correspondence to the four freedoms	Data availability	Examples of key indicators	Indicator types
European Environmental Agency (EEA) indicators	All four freedoms	Data available, but not necessarily disaggregated to the required level	Key indicators include GHG emissions, economic impacts of climate change, biodiversity loss, energy consumption trends and ecological footprint All current indicators can be found at: https://www.eea.europa.eu/data-and-	Input, process, context output, impact, context

¹⁷⁸ See section 3 and annex 2

Name of dataset	Correspondence to the four freedoms	Data availability	Examples of key indicators	Indicator types
OECD (SIREN database)	All four freedoms	Data available, but not necessarily disaggregated to the required level and not necessarily for all EU MS	maps/indicators/#c0=10&c12-operator=or&b_start=0 <ul style="list-style-type: none"> Climate Change: CO2 and greenhouse gas emission intensities Ozone layer: ozone depleting substances Air Quality: SOx and NOx emission intensities Waste generation: municipal waste generation intensities Freshwater quality: wastewater treatment connection rates Freshwater resources: intensity of use of water resources Forest resources: intensity of use of forest resources Fish resources: intensity of use of fish resources Energy resources: intensity of energy use Biodiversity: threatened species 	Input, output, context

Implementation of Green legislation

Examples of key indicators	Data availability	Indicator types
Number of EU environmental Directives adopted (e.g. WEEE Directive, REACH)	<ul style="list-style-type: none"> European Commission in-house data (DG ENV) 	Output
Number of EU environmental regulations adopted (e.g. RoHS Regulation)	<ul style="list-style-type: none"> European Commission in-house data (DG ENV) 	Output
Number of EU level environmental standards adopted (to support environmental SM legislation)	<ul style="list-style-type: none"> N/A 	Input
Transposition of EU environmental Directives into national law	<ul style="list-style-type: none"> Existing SMS – transposition deficit 	Process
Infringement proceedings of EU environmental Directives in national law	<ul style="list-style-type: none"> Existing SMS – transposition deficit 	Process

It can be noted that environmental legislation typically falls either within Art. 114 or Art. 192 of the TFEU and is therefore classified as legislation with a SM dimension. In analysing the data on legislation adopted and implemented, a further distinction could be made between full harmonisation legislation implemented under Art. 114 and minimum harmonisation legislation (where there is scope for Member States to go beyond the minimum requirements set out in national law) under Art. 192.

Free movement of goods and services

Green indicators on free movement of goods and services

Name of dataset	Data availability	Examples of key indicators	Indicator types
Product Environmental Footprint (PEF)	Still under development. DG ENV and JRC do not presently have data.	<ul style="list-style-type: none"> Estimated number of products that have used PEF methodology Percentage of products that have used PEF methodology 	Input, process, output, impact
Organisational Environmental Footprint (OEF)	Still under development. DG ENV and JRC do not presently have data.	<ul style="list-style-type: none"> Estimated number of products that have used OEF methodology Percentage of products that have used OEF methodology 	Input, process, output, impact

Green Public Procurement

Green Public Procurement

Name of database	Data availability	Examples of key indicators	Indicator types
Opentender.eu	The data is updated annually	<ul style="list-style-type: none"> Number of tenders and the volume of tenders in € of “Sewage, refuse, cleaning and environmental services” 	Output
Global SDG Indicators	Last data from 2017. It is an area that needs better data coverage and increased frequency of data collection and reporting to be usable.	<ul style="list-style-type: none"> Number of countries implementing sustainable public procurement policies and action plans 	Process
EU GPP Criteria	Last report from 2019	<ul style="list-style-type: none"> Number of products using EU GPP criteria % of ecolabel products using EU GPP criteria 	Process
National GPP Action Plans (policies and guidelines)	Last report from May 2017. It covers a three-year period	<ul style="list-style-type: none"> Countries that adopted National Action Plan or equivalent document 	Output

Circular Economy

Circular Economy indicators

Name of dataset	Correspondence to the Single Market	Data availability	Examples of key indicators	Indicator types
EU Circular Economy monitoring framework ¹⁷⁹	Free movement of secondary and primary raw materials; provision of services and goods across MS borders	Annually, varies per indicator, latest mostly 2017 and 2018; few indicators only updated bi-annually or with larger time spans	• Trade in recyclable raw materials	Result
			• % of Green public procurement to GDP	Process/Output
			• Recycling of specific waste streams	Impact (**)

(*) no data available, earliest estimate is expected for 2021. (**) from circular economy perspective.

Renewable energy

Sub-policy area	Examples of key indicators	Indicator types
Renewable energy transition	<ul style="list-style-type: none"> • Share of renewable energy as a % of gross final energy consumption • Implementing legislation¹⁸⁰ (e.g. Renewable energy directive) to raise the share of energy consumption produced by renewable energy sources, such as wind, solar and biomass • Targets - binding renewable energy target for the EU 20 % by 2020 (non-binding) and for 2030 of at least 32% (binding) 	Process
Increasing Europe's energy efficiency	<ul style="list-style-type: none"> • A target to increase Europe's energy efficiency by 2030 by at least 32.5%, relative to a 'business as usual' scenario by: <ol style="list-style-type: none"> 1) Improving the energy efficiency of buildings through implementation of improving energy performance of buildings directive (EPBD); and 2) Improving energy efficiency through a wide array of equipment and household appliances (Ecodesign Directive); 	Process

¹⁷⁹ Eurostat (2019) <https://ec.europa.eu/eurostat/web/circular-economy/indicators/monitoring-framework>

¹⁸⁰ <https://ec.europa.eu/energy/en/topics/renewable-energy/renewable-energy-directive>

Case study example 4: Citizen journey for a European job-seeker

The terms of reference for this study have emphasised the importance of indicators from the perspective of citizens and business and the above examples have included indicators that do so. This example adopts a 'journey' approach to the idea of freedom of movement. Mapping a citizen journey can be helpful in that it illustrates the citizen's experience while interacting with a product, service, or system.

The journey approach can be taken at different levels, from the very high level that provides a strategic overview to the very detailed level such as the interaction with a specific service to actually relocate e.g. with a removal company during the relocation process.

The example journey in Figure 10.1 takes a high-level approach and combines key steps a citizen may take in the process of moving to another EU country as well as European data sources and potential indicators that can help understand what is working well and where citizens experience barriers or challenges.

While this overview can be useful in connecting different steps in a journey as well as some of the different data sources that are already and could be integrated into the SMS, the real value in in the citizen journey approach is at the detailed level, where it can look at the extent to which specific services such as EURES are providing citizens with the information, advice and support they need to find a job abroad. In this example, thinking through such journeys is important at the level of EURES, as well as developing associated indicators to measure performance e.g. satisfaction with the interaction with the EURES advisor. However, it is neither practical nor necessary to include the same level of detail in the SMS, which should give an overview of SM progress and implementation.

The difficulty with journeys at this level is that they can end up being too superficial or unrepresentative. For instance, in the first step of the example below, the degree to which people would consult 'Your Europe' when they consider moving abroad as compared with performing a Google search could be questioned. Thus, the journey approach is something that can be developed further for specific Governance Tools within the existing SMS individually and, in particular, for the upgraded Single Digital Gateway portal once this has been brought online.

On the other hand, rather than being used in a journey approach, the collection of indicators in the different steps shown in the example provide a basis for 'telling a story' regarding the extent of intra-EU mobility, some of the barriers citizens face and the role of EU and national services in supporting people to have freedom of movement in the Single Market.

Figure 10.1 - Example citizen journey for a European job-seeker in a regulated profession – and coverage by the Single Market Scoreboard indicators.

	Consider moving abroad	Questions and barriers?	Get professional qualifications recognised	Get job	Move abroad
Step / Data source	Consult Your Europe	Ask 'Your Europe Advice' Ask EURES advisors	Apply to competent authority in destination country	With the support of EURES advisors	Start work
Indicator(s)	Number of visits to Your Europe citizens	<ul style="list-style-type: none"> - Enquiries per subject area - Speed of reply - Main obstacles (qualitative text search) - Job seekers registered on the EURES portal - Number of contacts with job seekers per EURES adviser 	<ul style="list-style-type: none"> - Share of positive recognition decisions 	<ul style="list-style-type: none"> - People who found a job abroad with the help of a EURES adviser - Vacancies posted on EURES as a proportion of all national vacancies 	<ul style="list-style-type: none"> - Number of mobile people in the EU - Employment rate of mobile Europeans (%)

Case study example 5: Challenges in measuring and assessing CMU implementation

Overall, the situation is that there are a number of suitable indicators to assess progress in CMU implementation, but many of these are context indicators, with no direct causal link that can be attributed to EU policy and regulatory interventions, rather their inclusion could provide a proxy for reporting on overall progress, for instance in respect of the evolution in cross-border capital flows by financial instrument.

The challenges in assessing progress in the CMU are firstly the complexity and heterogeneity of different policy and regulatory initiatives being supported and secondly, the fact that progress towards the achievement of many of the objectives linked to specific initiatives can mainly be assessed qualitatively. Many of the achievements relate to improving the policy and regulatory environment and removing legal obstacles to the free movement of capital. They are often inherently difficult to measure, with some exceptions, such as the elimination and reduction in pre-marketing fees charged for cross-border investment funds.

A further challenge in respect of monitoring the value of cross-border financial flows across different financial instruments is interpreting what the data actually means. For example, regarding alternative sources of finance, such as VC, crowdfunding and business angel activity, cross-border flows are only one aspect as to how well-functioning, efficient and competitive individual national markets are. It has been pointed out that for alternative financial instruments, it may only be realistic for four or five countries and urban hubs within these countries to dominate the market. For example, in venture capital, there are handful of major hubs in Europe, such as London, Berlin, Paris, Stockholm, etc. and therefore in other countries, the level of domestic and cross-border VC activity may be minimal.

Since the CMU encompasses a broad range of policy and regulatory initiatives, there are challenges in identifying the most relevant priority areas to assess progress on, since a wide range of technical areas are contributing to different aspects of the achievement of the CMU's objectives. Moreover, there may be difficulties in assessing progress quantitatively, as many of the regulatory initiatives to eliminate cross-border obstacles can mainly be addressed qualitatively, other than through some quantitative context indicators not directly linked to the regulatory initiatives undertaken. The challenges in measuring progress in CMU implementation quantitatively identified through a review of key reporting information in the CMU Progress Reports was confirmed in interview feedback from DG FISMA, which is responsible for the CMU, and monitoring progress towards its implementation. It was also pointed out that many of the regulatory initiatives to tackle cross-border obstacles to capital flows, such as the legislation on national insolvency regimes, and the 2018 proposed Regulation for European Crowdfunding Service Providers (ESCP)¹⁸¹.

A further challenge in terms of measurement is that not all the initiatives identified in the 2015 CMU Communication¹⁸² have taken place following the CMU's adoption. Some of these build on earlier regulatory initiatives that pre-date the CMU. An implication for the SMS is that whichever indicators are incorporated, there will be a need to differentiate between what can directly be linked to the CMU, as opposed to what is relevant to the SM in the area of financial markets, but where particular policy initiatives pre-date the CMU.

Capital and financial markets – examples of data sources and monitoring tools

Despite the above-mentioned challenges, there are a number of examples of different data sources that could be utilised in the area of capital and financial markets, albeit there would need to be a strong reliance on the use of context indicators, reflecting the fact that many indicators relevant to

¹⁸¹ European Commission (2018) Proposal for a Regulation of the European Parliament and of The Council on European Crowdfunding Service Providers (ECSP) for Business COM(2018)0113 final <https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A52018PC0113>

¹⁸² European Commission (2015) Action Plan on Building a Capital Markets Union COM/2015/0468 final <https://ec.europa.eu/transparency/regdoc/rep/1/2015/EN/1-2015-468-EN-F1-1.PDF>

assessing progress in these areas are proxies for measuring overall progress as the direct contribution of EU interventions cannot be easily measured.

Monitoring cross-border financial flows

Cross-border financial flows are monitored through different statistical sources, such as Eurostat's balance of payments data, Eurostat data on FDI and on cross-border intra-EU and global financial trade flows, as well as data collected/ analysed by the EC and the IMF¹⁸³. Some data is already reported on in the SMS, in particular FDI data¹⁸⁴ and data on trade in goods and services.¹⁸⁵ In respect of specific financial instruments, including alternative sources of finance, several additional data sources have been identified, specific to particular financial instruments. Aggregate level data relies upon a number of different sources of data relating to different types of financial transactions being aggregated.

Where data on cross-border flows is available, the robustness of data collection varies. Whilst such data is evidently useful in shedding light as to progress in respect of the integration of capital and financial markets in a SM context, there is a lack of a direct (measurable) causal relationship with EU policy and regulatory initiatives taking places within the auspices of the CMU.

Cross-border financial flows

Sub-policy and / or regulatory area	Type of indicator	Indicator(s)
Cross-border financial flows	Context:	<ul style="list-style-type: none"> • Size of capital markets in the EU-27 • Size of capital markets in the EU top 5 MS

AFME has developed **two composite indicators on Cross-border Finance** to measure progress towards the integration of capital markets. These could help to quantify the integration of EU capital markets within Europe ("intra EU") and the integration of European capital markets activities with the rest of the world (RoW). Of these, the first is relevant to single market aspects of the CMU, whereas the second relates to an integrated capital market in a global context.

The first composite indicator, shown below, consists of seven different components across different types of financial instruments, such as measuring the level of cross-border Private Equity (PE) in the venture capital domain, cross-border mergers and acquisitions activity (M&A), and cross-border bond and debt issuance¹⁸⁶.

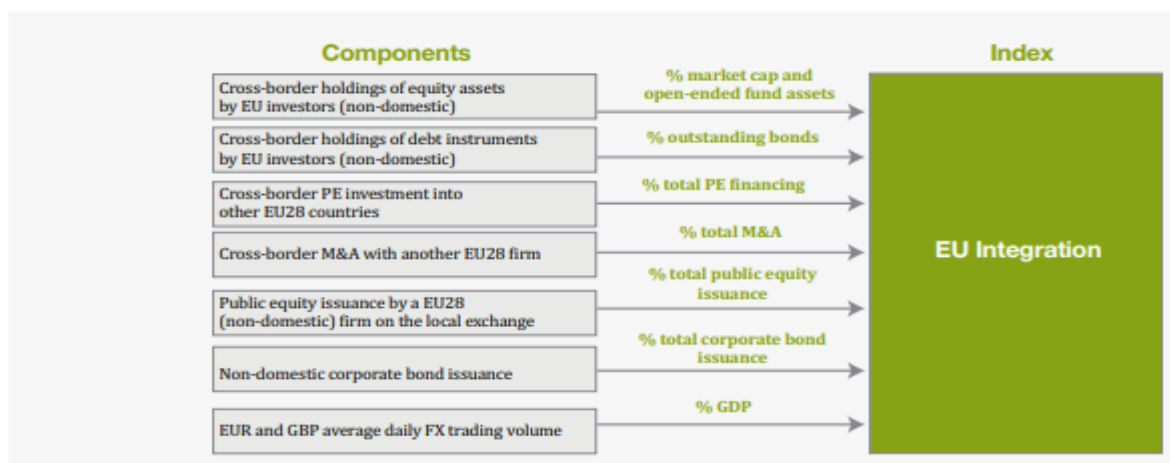
¹⁸³ Euro Area Cross-Border Financial Flows https://www.ecb.europa.eu/pub/pdf/other/art3_mb201202en_pp105-118en.pdf

¹⁸⁴ https://ec.europa.eu/internal_market/scoreboard/integration_market_openness/fdi/index_en.htm

¹⁸⁵ https://ec.europa.eu/internal_market/scoreboard/integration_market_openness/trade_goods_services/index_en.htm

¹⁸⁶ According to ASME, the composite indicators aggregate data relating to the following features: (i) cross-border holdings of equity assets and fund shares; (ii) cross-border holdings of debt assets; (iii) cross-border private equity (PE) financing; (iv) cross-border M&A transactions; (v) cross-border public equity raising; (vi) non-domestic corporate bond issuance; and (vi) participation in intermediating foreign exchange and derivatives trading.

Capital markets intra-EU integration index

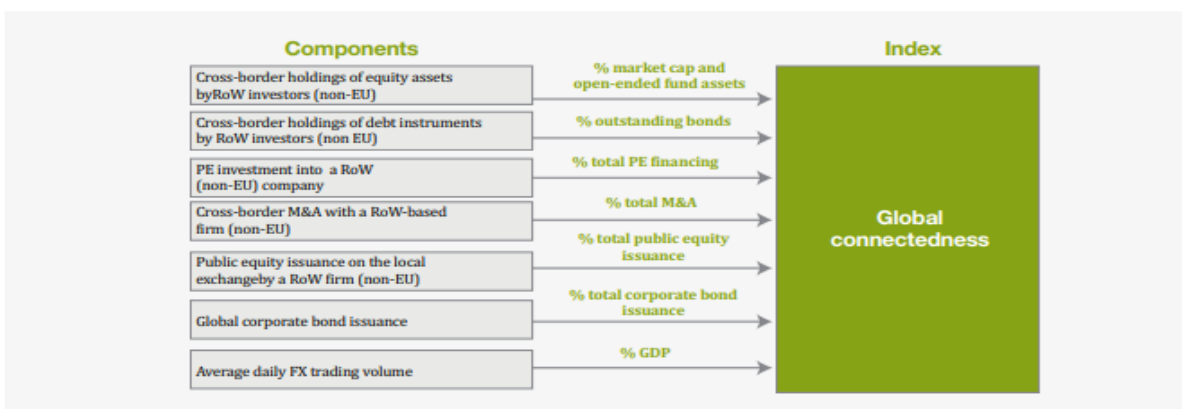


Source: AFME – Finance for Europe

Most indicators are relevant to the SM in that they measure different types of capital flows across borders, and these different areas of finance – debt, venture capital etc. as well as alternative sources of finance (e.g. debt and equity-based crowdfunding) are mentioned in the CMU Action Plan (DG FISMA, 2015). However, not all indicators may be that useful as proxies. For example, “EUR and GBP average daily FX trading volume” isn’t related to the SM and post-Brexit GBP daily FX will be irrelevant to assessing European integration.

The second composite indicator provides a good example of an indicator able to measure Europe’s relative competitive position across the EU-27 but where there is no SM dimension, hence the second composite was discarded.

Capital markets global integration index



Source: AFME

Monitoring cross-border capital flows for specific financial instruments – crowdfunding, venture capital and bonds

Having identified the main data sources, we now provide examples of different types of indicators within financial and capital markets. Context indicators can be used to measure cross-border financial flows, such as the aggregate indicator mentioned above, but also indicators relating to specific types of financial instruments e.g. venture capital (VC), crowdfunding etc.

Regarding data availability for individual financial instruments, some data is available. Regarding VC, for example, data is available at European level through InvestEurope, which has collected data on VC for 18 years. Whilst data is available across the EU-27 on VC investments by investment stage and sector, there does not appear to be a reliable source of data on cross-border

VC. This is a good example as to even when reliable and comparable data is available at EU level on the baseline situation and longitudinally over time series, there may not be data suitable for the SMS, i.e. data on the cross-border dimension of VC provision.

One of the challenges inherent in assessing progress within the CMU in the area of **crowdfunding** is that without an EU regulatory framework in place presently, there are presently limits as to the EU's role. It is difficult for the EU to promote a more common approach, other than to monitor and review the evolution in national regulatory frameworks, so as to evaluate how far there is divergence or convergence in national regulatory approaches. This lends itself to qualitative evaluation studies, supported by quantitative contextual data on the evolution of the crowdfunding market, both domestically and cross-border.

A number of context indicators were identified relating to the level of crowdfunding activity at national level and on a cross-border basis, as per the following table:

Examples of relevant indicators – crowdfunding

Sub-policy and / or regulatory area	Type of indicator	Indicator(s)	Data sources
Measures to promote a common approach to regulating crowdfunding	Output:	<ul style="list-style-type: none"> No. of national regulatory barriers eliminated 	<ul style="list-style-type: none"> National authorities
Measures to promote a common approach to regulating crowdfunding	Result:	<ul style="list-style-type: none"> Extent of convergence in national regulations (qualitative assessment) 	<ul style="list-style-type: none"> National authorities Qualitative assessment of progress by evaluators
Measures to promote a common approach to regulating crowdfunding	Context:	<ul style="list-style-type: none"> Level of crowdfunding activity in EUR (national) Level of crowdfunding activity in EUR (cross-border) 	<ul style="list-style-type: none"> Euro Crowdfunding Network http://eurocrowd.org/crowdfunding-by-country/ Market research studies and data e.g. https://p2pmarketdata.com/crowdfunding-europe/
Measures to promote a common approach to regulating crowdfunding	Impact:	<ul style="list-style-type: none"> Strengthening of cross-border flows in crowdfunding 	<ul style="list-style-type: none"> Qualitative and quantitative assessment of progress by evaluators

Additionally, data is available on equity-based crowdfunding raised by country via the European Crowdfunding Network. It is also worth noting that the European Innovation Scoreboard reports on VC in the section on investments – R&D expenditure in the public sector. The specific indicator used is Venture capital (percentage of GDP). However, this is very contextual, and is a barometer of the state of health of the VC market in individual countries rather than having a SM dimension.

There is increasing interest in **Venture Capital (VC)** as an importance source of finance for start-ups and scale-ups. VC is explicitly mentioned in the CMU Action Plan, and various initiatives have been supported through the CMU as a framework, such as the launch of VentureEU, the European VC Fund-of-Funds Programme and the development of the EUVeCA designation (2013), updated in 2019.¹⁸⁷

¹⁸⁷ On 12 July, the OJ published the new EU cross-border fund distribution directive and regulation, Regulation (EU) 2019/1156 of 20 June 2019, on facilitating cross-border distribution of collective investment undertakings and amending European social entrepreneurship funds ('EuSEF'), European venture capital funds ('EuVECA') and packaged retail and insurance-based investment products ('PRIIPs') regulations.

Data is gathered on **bonds by market of issuance** (domestic, cross-border) by Dealogic DCM¹⁸⁸. However, this is proprietary data. The JRC¹⁸⁹ and others such as AFME¹⁹⁰, the alternative finance association, have recently analysed bond data by market of issuance in reports. However, this relies upon proprietary data being purchased and it is uncertain whether this could be republished under license.

Monitoring the implementation of the Banking Union

The European Banking Union aims to reduce the systemic risks of the European banking system (with a focus on the Eurozone), by strengthening the resilience of European banks with respect to prudential and regulatory capital requirements. In this regard, the EU regulatory framework is underpinned by the international Basel requirements. There are examples of key indicators to assess the macro-economic stability of the banking system, such as:

- Net stable funding ratio; and
- Leverage ratio.

Moreover, a significant legislative package adopted by the Commission in November 2016 containing amendments to four pieces of EU legislation: The Bank Recovery and Resolution Directive (BRRD), the Single Resolution Mechanism Regulation (SRMR), the Capital Requirements Directive IV (CRD IV) and the Capital Requirements Regulation (CRR). CRD IV is intended to implement the Basel III agreement in the EU. It is comprised of the:

- Capital Requirements Directive (2013/36/EU) (CRD) which must be implemented through national law; and
- Capital Requirements Regulation (575/2013) (CRR), which is directly applicable to firms across the EU.

CRD IV includes enhanced requirements for: the quality and quantity of capital; a basis for new liquidity and leverage requirements; new rules for counterparty risk and new macroprudential standards including a countercyclical capital buffer and capital buffers for systemically important institutions. There are quantifiable indicators linked to some of these pieces of legislation. For instance, under the Capital Requirements Regulation, banks must meet minimum capital requirements in respect of their Tier 1 capital ratio and also in respect of the capital-to-risk-weighted-assets ratio (linked to the Basel III Capital Adequacy Ratio Minimum Requirement).

Monitoring measures to harmonised national insolvency regulatory regimes

There remains considerable divergence in national insolvency regulatory regimes across the EU. According to a paper by CEPS¹⁹¹, *“the quality of insolvency frameworks across the euro area, and the broader EU, diverges rather dramatically”*. There also remain challenges stemming from differences in national insolvency regimes in the case of cross-border insolvencies. The present situation is sub-optimal from the perspective of realising the single market in this area. Harmonising national insolvency frameworks could improve the functioning of the single market and the stability of the euro area.

¹⁸⁸ Dealogic DCM Research (2019) DCM Highlights: Full Year 2018 <https://www.dealogic.com/insight/dcm-highlights-full-year-2018/>

¹⁸⁹ Cariboni, J., Hallak, I. & Rancan, M. (2017) European Bond Issuers, *JRC Science for Policy Report* https://publications.jrc.ec.europa.eu/repository/bitstream/JRC106348/jrc106348_science_for_policy_-_final.pdf

¹⁹⁰ AFME - Finance for Europe (2018) Capital Markets Union: Measuring progress and planning for success https://www.afme.eu/Portals/0/DispatchFeaturedImages/AFME_CMU_KPIs_18_LR.pdf

¹⁹¹ Valiente, D. (2016) Harmonising Insolvency Laws in the Euro Area - Rationale, stocktaking and challenges, CEPS Special Report No. 153 https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3047099

EU legislation has recently been updated through Directive (EU) 2019/879, the Bank Recovery and Resolution Directive and Regulation (EU)¹⁹², the BRRD and pre-BRRD, any liquidation in the context of a resolution had to be carried out in accordance with national insolvency procedures. The BRRD introduced in the EU the FSB's Key Attributes of Effective Resolution Regimes for Financial Institutions, the internationally-agreed insolvency standards for banks. The BRRD and the SRM Regulation have helped to harmonise EU insolvency law for banks by entrusting administrative authorities, rather than Courts, with harmonised resolution powers. A second piece of relevant legislation in this area is Directive 2019/877 of the loss-absorbing and recapitalisation capacity of credit institutions and investment firms (SRMR II)¹⁹³. However, national insolvency laws continue to be applicable. In the absence of an overriding 'public interest' (i.e. financial stability, the protection of depositors, continuity of critical functions), failing banks will be liquidated under national insolvency law.

Examples of indicators relevant to assessing progress in particular regulatory areas within the CMU were also identified. It was observed from the desk research – and confirmed by DG FISMA – that these are primarily qualitative in nature, reflecting the fact that initiatives to tackle cross-border regulatory barriers involve, for example, fostering a European legislative approach, where previously there was regulatory divergence with many different national regulations.

Progress towards convergence in national insolvency regimes

Sub-policy and / or regulatory area	Type of indicator	Indicator(s)
Elimination of divergence in national insolvency regimes	Output:	<ul style="list-style-type: none"> Number of different national insolvency regulatory regimes
Elimination of divergence in national insolvency regimes	Impact:	<ul style="list-style-type: none"> Strengthened progress towards harmonisation in national insolvency regimes (qualitative assessment)
Implementation of Directive 2019/877 of the loss-absorbing and recapitalisation capacity of credit institutions and investment firms (SRMR II)	Impact:	<ul style="list-style-type: none"> Strengthening of the functioning of a 'single resolution approach' across banking groups active in different MS.

¹⁹² Directive (EU) 2019/879 of the European Parliament and of the Council of 20 May 2019 amending the Bank Recovery and Resolution Directive as regards the loss-absorbing and recapitalisation capacity of credit institutions and investment firms and Directive 98/26/EC (BRRD II)

¹⁹³ Regulation (EU) 2019/877 of the European Parliament and of the Council of 20 May 2019 amending Regulation (EU) No 806/2014 as regards the loss-absorbing and recapitalisation capacity of credit institutions and investment firms (SRMR II).

Case study example 6: The Single Market for Services - Air Transport

Three main indicators are used here to understand the consumer perspective for Air Transport services and the barriers to improved performance in this services sector. Currently, they are not part of the SMS, although infringements in air transport (of which there are many) are presented in the sector overview under the infringements webpage. Instead they are presented on the DG MOVE EU Transport Scoreboard, and restrictiveness is presented in the OECD STRI database. They are relevant to both the legislation (the data to be provided by Member State is detailed in the Implementing Regulation) and to the Single Market since the indicators signal barriers to competition underlined by the infringements and OECD data.

Indicators for Single Market performance in air transport services

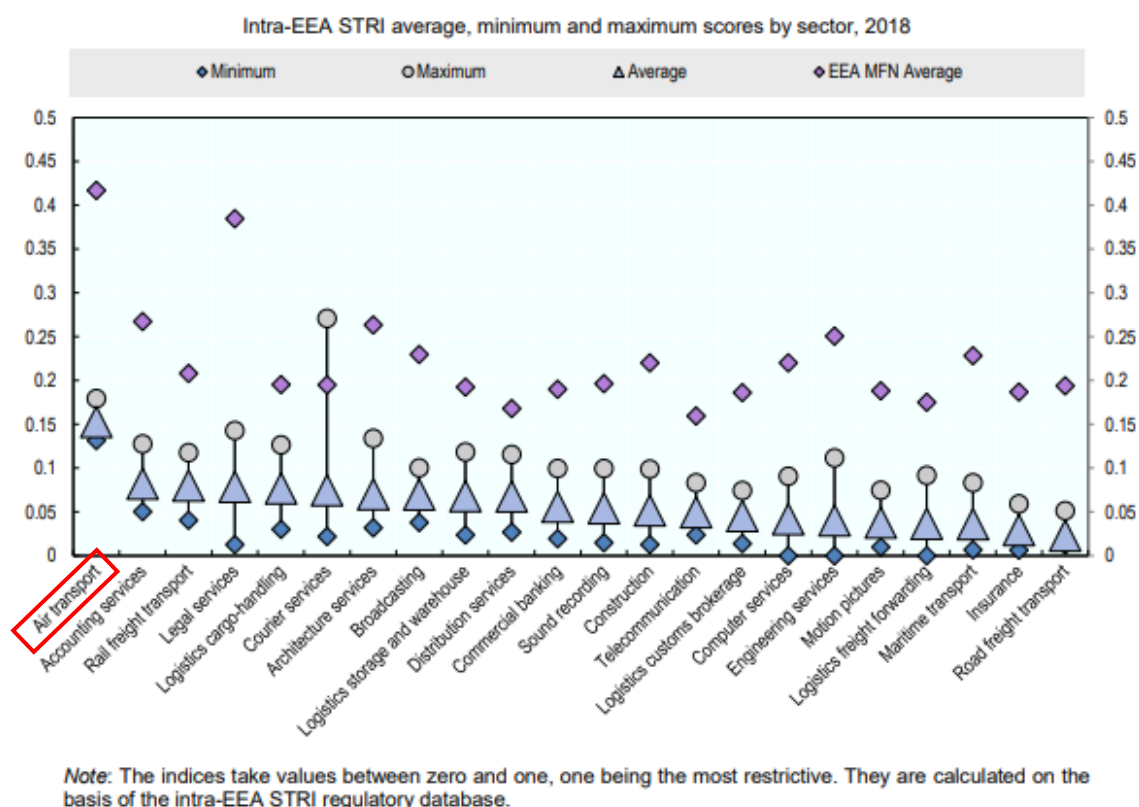
Indicator	Data source	Latest data	Perspective
Pending infringements – Air	Single Market Scoreboard, European Commission, DG GROW / EU transport Scoreboard, European Commission, DG MOVE.	2018	Barrier to SM
Trade restrictiveness - Air transport services	Intra-EEA services trade restrictiveness indicator, OECD.	2018	Barrier to SM
Consumer satisfaction with air transport – Market Performance Indicator	Consumer Market Scoreboard (based on the 2017 Market Monitoring Survey).	2017	Consumer

The intra-EEA Services Trade Restrictiveness Index identifies and catalogues which policy measures restrict trade within the European Economic Area (EEA) for 25 OECD EU member countries. It complements the existing STRI, which quantifies multilateral services trade restrictiveness. The STRI takes values between zero and one, with one being the most restrictive. The intra-EEA STRI database draws on European-level sources, including the Treaty on the Functioning of the European Union along with regulations and directives. It also draws on information concerning domestic regulation and trade barriers from each country's STRI database. The STRI organises the information per country and sector into five 5 policy categories: restrictions on foreign entry; restrictions to the movement of people; other discriminatory measures; barriers to competition and regulatory transparency.

As Figure 1-8 below shows, the trade restrictiveness in the air transport sector is higher than all the other service sectors considered in the STRI database, with an average score of 0.15. There is likely some overestimation of this restrictiveness since, even though liberalisation of international air transport between member countries has been one of the main features of the European Single Aviation Market, market access for cross-border air transport is not taken into account for the STRI because of limited data availability on the content of bilateral agreements.¹⁹⁴

¹⁹⁴ Benz, S. and Gonzales, F. (2019), Intra-EEA STRI Database: Methodology and Results, OECD Trade Policy Papers, No. 223, OECD Publishing, Paris, p.12. <https://doi.org/10.1787/2aac6d21-en>

Intra-EEA STRI sector profiles



Source: Intra-EEA STRI database, OECD, 2018.

The small difference between the minimum, maximum and average scores in the air transport sector demonstrate that there is high regulatory homogeneity among the 25 EEA countries considered, or in other words there is a relatively level playing field.

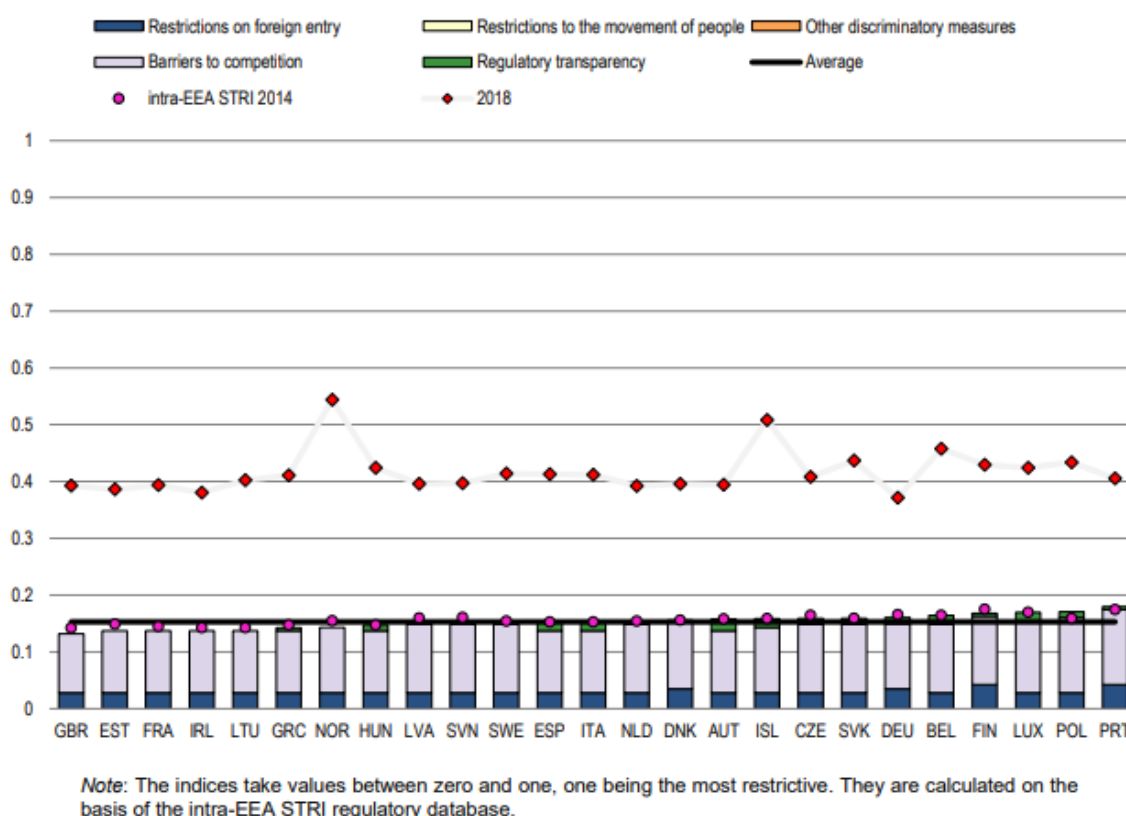
In including the average most favoured nation STRI, the chart also outlines a hypothetical counterfactual, which shows that restrictiveness in air transport services would be much higher in the absence of the Single Market at around 0.42.¹⁹⁵

Figure 6-7 shows that in the air transport sector, the remaining restrictions within the Single Market are mainly related to restricting foreign entry and barriers to competition. For example, regarding foreign entry, an authorisation is required for lease of aircraft in all EEA countries and the investment in publicly-controlled firms are limited in Finland and Portugal. Regarding barriers to competition, air carriers are allowed to retain allocated slots from one season to the next and air carrier alliances are exempt from competition law in all EEA countries. Moreover, restrictive schedules for airport use exist at major airports in ten countries.¹⁹⁶

¹⁹⁵ Ibid, p.7

¹⁹⁶ Ibid, p.16

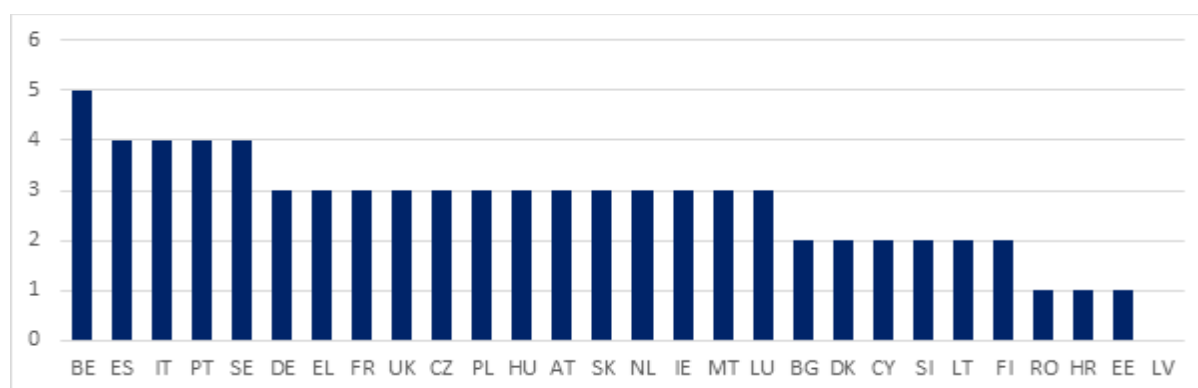
Intra-EEA restrictions and barriers in air transport services, 2018



Source: Intra-EEA STRI database, OECD, 2018.

The infringements section of the SMS underlines that the air transport sector had the highest number of pending infringement cases at the end of 2018, with 75 cases across the EU-27. Belgium, Spain, Italy, Portugal and Sweden all had four or more infringement proceedings against them which could be because of late transposition, incorrect application of the directives, incorrect application of treaty articles, regulations or decisions or non-conformity of transposition. The SMS provides overall indicators regarding reasons for the delay, but it is not possible to see the reasons per sector of country.

Number of pending infringement proceedings – air transport



Source: Single Market Scoreboard, infringements.

A detailed follow-up regarding the pending infringement proceedings by country or by sector could allow further remedial action to be taken with Member States in order to reduce barriers in the application of Single Market legislation.

The third indicator source is the Market Performance Indicator (MPI) from the Consumer Markets Scoreboard (CMS). As the latest CMS using 2017 data shows, the overall MPI score for the “Airline services” market is 82.2 at the EU28 level, which is higher than the services markets average (+3.5). This makes it a high performing services market.¹⁹⁷

Case study example 7: Assessing progress in eliminating cross-border barriers to UCITS.

Taking a further example, that of UCITS investment funds, progress made through the CMU is of quite a technical regulatory nature, and does not lend itself towards the use of quantitative indicators to measure performance. However, some context indicators may also be relevant.

The next example relates to Directive 2009/65/EC on undertakings for the collective investment in transferable securities (UCITS). The Directive was recently amended through Directive (EU) 2019/1160 of 20 June 2019, amending the UCITS and Alternative Investment Fund Manager directives ('UCITSD' and 'AIFMD'). MS must transpose the Directive into national law by 2 August 2021. The main changes to the UCITSD and AIFMD are: 1) Removal of requirement to appoint a local entity fulfilling the paying – and/or information agent function for UCITS and for AIFs distributed to retail investors 2) Implementation of uniform rules for the de-notification process, in case UCITS or AIFs shall no longer be marketed in a Member State and 3) Implementation of uniform definition and conditions for AIF 'pre-marketing' to professional investors.

The new Regulation will facilitate the cross-border distribution of collective investment funds. Barriers such as national marketing requirements and regulatory fees are detrimental to cross-border distribution of funds. The proposal aims to make cross-border distribution of funds simpler, quicker and cheaper. More cross-border distribution should lead to more opportunities to invest in investment funds that pursue social and/ or environmental goals. The proposed rules should improve the transparency of national requirements, remove burdensome requirements and harmonise national rules which are presently divergent. For indicators relating to regulatory reform, the main data sources will relate to simple output and process indicators, such as the number of regulatory reforms implemented, number of MS in which the regulatory approach has been harmonised where previously it was divergent etc. Such basic data could be obtained from national authorities involved in implementing relevant legislation. An example of indicators to assess progress towards eliminating barriers to the cross-border distribution of UCITS are also likely to remain relevant:

Cross-border barriers to UCITS – examples of indicators.

Sub-policy and / or regulatory area	Type of indicator	Indicator(s)
Overcoming barriers to the cross-border distribution of investment funds (e.g. UCITS)	Output:	<ul style="list-style-type: none"> No. of national barriers to cross-border distribution of investment funds eliminated
Overcoming barriers to the cross-border distribution of investment funds (e.g. UCITS)	Result:	<ul style="list-style-type: none"> No. of MS in which pre-marketing fees for UCITS have been eliminated No. of MS in which pre-marketing fees for UCITS have been reduced Extent of improvement in eradication of outstanding national barriers (qualitative)
Overcoming barriers to the cross-border distribution of investment funds (e.g. UCITS)	Context:	<ul style="list-style-type: none"> Data on cross-border distribution of collective investment funds % of retail investment funds sold in >3 EU MS % of retail investment funds sold in >5 EU MS % of alternative investment funds (AIF) marketed cross-border
Overcoming barriers to the cross-border distribution of investment funds (e.g. UCITS)	Counterfactual impacts:	<ul style="list-style-type: none"> Impact if the EU marketing passport had not existed and contributed to creating a successful cross-border market (qualitative).

¹⁹⁷ Consumer Market Scoreboard, as presented in 'Monitoring consumer markets in the European Union', 2017.

Two further examples are provided in Annex 7, firstly the Single Market for Services - Air Transport and secondly the upgrading of the Single Digital Gateway, housed on the Your Europe website, which in future will provide additional data on interest from consumers and businesses in different aspects of the SM.

Case study example 8: The Your Europe website and transition to a Single Digital Gateway (SDG) 2.0

The Single Digital Gateway Regulation (SDGR) entered into force in October 2018 and is central to supporting the vision of the free movement of citizens and business across the Single Market. The SDGR has three key objectives to:

1. reduce any additional administrative burden on citizens and businesses that exercise or want to exercise their Single Market rights, including the free movement of citizens, in full compliance with national rules and procedures;
2. eliminate discrimination (e.g. relating to companies and persons located in another Member State);
3. ensure the functioning of the Single Market regarding the provision of information and procedures.

Thus, the SDGR has demanded that selected Member State' digital services should be made available to persons in other Member States and has established a long list of procedures and information that should be provided to this effect.

Considering that the SDGR is extensive in its requirements, a short summary of some of the e-procedures are provided in Table 13 and a complete overview of the requirements can be found via a link to the Regulation.¹⁹⁸

Simplified list of the electronic procedures for inclusion in the Single Digital Gateway

Life event	Procedure
Birth	Requesting proof of registration of birth
Residence	Requesting proof of residence
Studying	Applying for a tertiary education study financing Submitting an initial application for admission Requesting academic recognition of certificates
Working	Request for determination of applicable legislation in accordance with Title II of Regulation (EC) No 883/2004 (1) Notifying changes in the personal or professional circumstances of the person receiving social security benefits, relevant for such benefits Application for a European Health Insurance Card (EHIC) Submitting an income tax declaration
Moving	Registering a change of address Registering a motor vehicle originating Obtaining stickers for the use of the national road infrastructure: Obtaining emission stickers
Retiring	Claiming pension and pre-retirement benefits from compulsory schemes Requesting information on the data related to pension from compulsory schemes

¹⁹⁸ The SDGR is available at: https://eur-lex.europa.eu/legalcontent/EN/TXT/?uri=uriserv:OJ.L_.2018.295.01.0001.01.ENG

Life event	Procedure
Starting, running or closing a business	<p>Notification of business activity, permission for exercising a business activity, changes of business activity and the termination of a business activity not involving insolvency or liquidation procedures etc.</p> <p>Registration of an employer (a natural person) with compulsory pension and insurance schemes</p> <p>Registration of employees with compulsory pension and insurance schemes</p> <p>Submitting a corporate tax declaration</p> <p>Notification to the social security schemes of the end of contract with an employee</p> <p>Payment of social contributions for employees</p>

A further key piece of legislation supporting digital cross-border mobility efforts is the Electronic Identification, Authentication and Trust Services Regulation, **eIDAS**. Entering into force in 2014, eIDAS supports the cross-border online activities of citizens and business when interfacing with government bodies, for example, signing legal documents, filing tax declarations, applying for university places etc.

The idea is that eIDAS will support interoperability by creating a common framework that will recognize eIDs from other Member States while ensuring high levels of authenticity and security. The eID will be supported by a platform that enables a connection between the existing national systems, permitting digital cross-border interactions without merging national systems or eliminating their underlying characteristics. Therefore, the eIDAS eID will enable users to access the procedures listed in the SDGR cross-border.

The Single Market Barriers and Enforcement Action Plan,¹⁹⁹ adopted on 10 March 2020, sets out the timing for the launch and implementation of the single digital gateway (SDG). It states that the Your Europe portal will provide access to comprehensive information on operating within the single market. It will also direct users to the most relevant assistance service. The gateway also foresees the digitalisation of 21 frequently used administrative procedures, full cross-border accessibility of all online procedures and the implementation of a cross-border system by December 2023. The Your Europe portal will be adapted to implement the single digital gateway regulation.²⁰⁰ This will provide a network linking to relevant EU assistance services, such as EURES, and national level websites that offer the relevant procedures and information as mandated by the SDGR. There will be search engine capabilities which will signpost to a large repository of relevant websites. Whilst such websites will be targeted at citizens of the particular country concerned, a key aim of the initiative is to encourage public authorities at national level to digitalise services and procedures in a way that also makes it easier for citizens and businesses in other countries to access relevant information cross-border to help them benefit more easily from the single market, for example if they wish to study or work abroad, or to obtain information about setting up a business in another EU MS.

The SDG will provide support as regards administrative procedures and assistance services that citizens and businesses need to be able to move, work or establish their business in another EU country. The SDG will be implemented in stages. As part of the first phase of its development, by the end of 2020, citizens and companies moving across EU borders should easily be able to find out what rules apply and which assistance services are available in their new country of residency. By the end of 2023, they will be able to perform some administrative

¹⁹⁹ Identifying and addressing barriers to the Single Market {SWD(2020) 54 final}, COM(2020) 93 final
https://ec.europa.eu/info/sites/info/files/communication-eu-single-market-barriers-march-2020_en.pdf

²⁰⁰ Regulation (EU) 2018/1724 of the European Parliament and of the Council of 2 October 2018 establishing a single digital gateway to provide access to information, to procedures and to assistance and problem-solving services and amending Regulation (EU) No 1024/2012

procedures in all EU Member States digitally, for instance registering a car, or claiming pension benefits.

Given its very practical mandate in signposting to relevant websites and further sources of information about particular topics, the SDG will provide a means of gauging interest in different areas of the SM among consumers and businesses, including any problematic areas, where individual citizens or firms may be experiencing barriers and obstacles to fully benefiting from the SM. User statistics will be collected in this regard. Such data could be presented both on the SDG website and in the SMS. Regarding the types of data that will be available to be collected through the SDG is expected to include two main elements:

1. **User statistics on their activities when using the SDG website portal.**

- **Analysis of which are the most visited topics**, which are the most frequently used search terms, which national websites do users go to that have been signposted via the SDG, etc.
- **A MS performance reporting dimension, to include a cross-border dimension.** This will include data as to which countries are making services relevant to the SM available online for citizens and businesses (including those in other Member States)? Website traffic data including metrics on users seeking cross-border information, e.g. data on how many Austrians have looked up administrative procedures in Hungary. User statistics will be generated from the MS through the use of APIs which will need to be developed to link between MS' web monitoring systems and the dashboard.

2. **A feedback reporting tool for citizens and businesses to inform the Commission** about any specific problems they have encountered in accessing the SM, e.g. in engaging in mobility, in setting up a business cross-border etc.

The above data is expected to be incorporated into a performance dashboard, which is yet to be developed. The data will relate to information being accessed by consumers and businesses, so ought to be useful in its own right. Selected data could be useful to present on the SMS, such as the top 3 problems for consumers and businesses. However, the March 2020 Commission Communication, the Single Market Barriers and Enforcement Action Plan,²⁰¹ points to barriers from the perspective of consumers and businesses. This explains the importance of the future rollout of IT aspects of the Single Digital Gateway and sets out the timings. In particular, by December 2020, the initial implementation of the single digital gateway will be completed, as the Your Europe portal will provide access to comprehensive information on operating within the single market, then cross-border accessibility of all online procedures and the implementation of a cross-border only system is expected by December 2023).

The expanded coverage of the SDG will generate new data, such as which types of services relating to the single market are of greatest and/ or least interest among users. This could in turn help to engage wider stakeholders such as EU citizens, consumers and business representative organisations, and potentially individual businesses. Moreover, the SDG is especially well placed to track users' interests and behaviours whilst using the SDG website. in the context of consumer and business journeys.

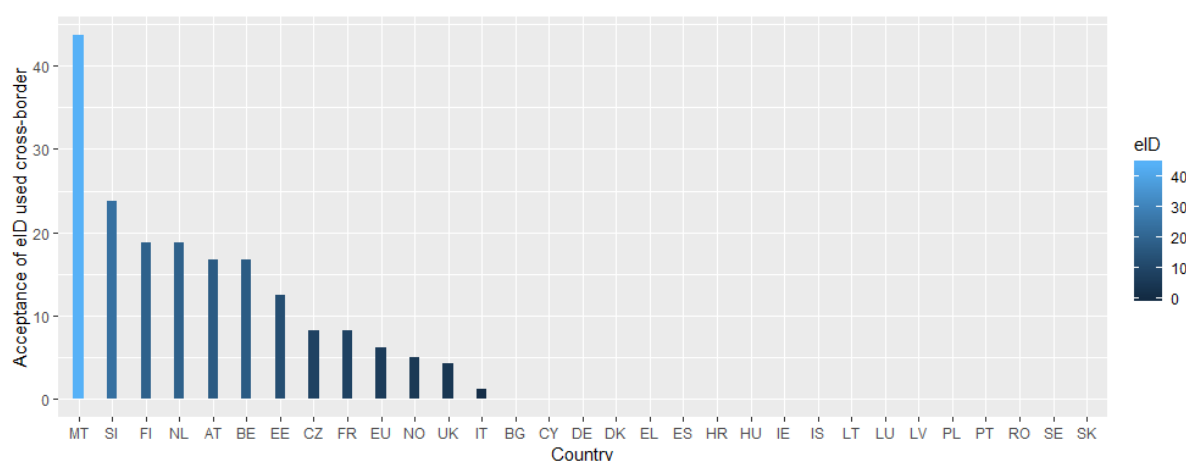
A weakness is that the web-based metrics that will be generated are likely to point to general areas of interest (and concern) relating to SM implementation. There is unlikely to be sufficiently detailed information regarding specific implementation challenges and bottlenecks, although these are being reported on through other means, such as the March 2020 policy Communication mentioned earlier on Identifying and addressing barriers to the Single Market.

²⁰¹ Identifying and addressing barriers to the Single Market {SWD(2020) 54 final}, COM(2020) 93 final
https://ec.europa.eu/info/sites/info/files/communication-eu-single-market-barriers-march-2020_en.pdf

²⁰² However, the feedback tool to report problems relating to SM implementation could be a means of improving the quality and detail of information regarding such problems. Additionally, the SDG could provide a mechanism for periodically collecting feedback through carrying out user surveys as to what have been the experiences and main challenges in navigating the SM from a consumer and business perspective in greater detail.

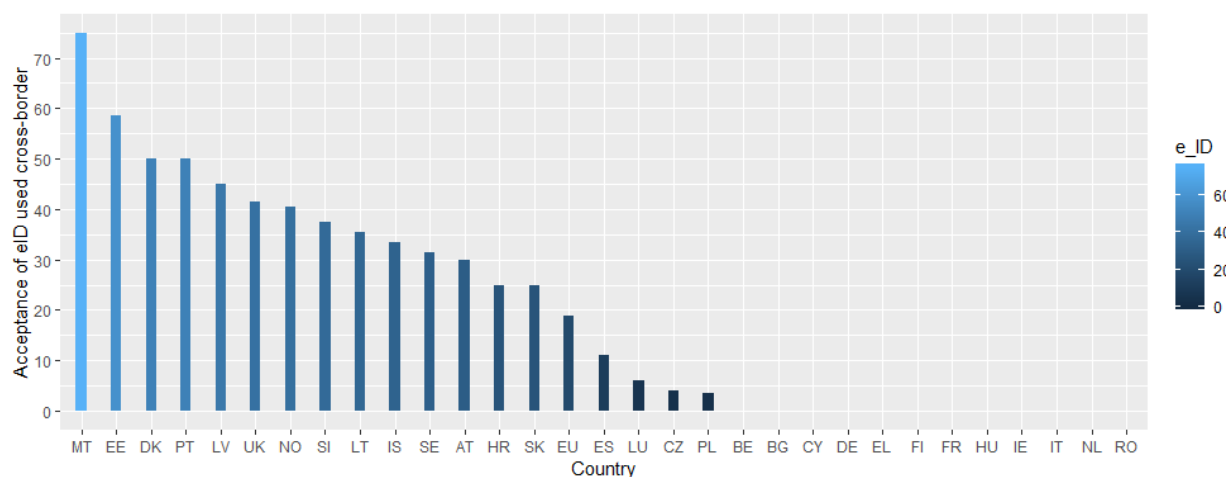
Other data that is relevant to monitoring the cross-border usability of the SDG are the measures that are available in the Digital Agenda Scoreboard.

The possibility of using a foreign eID for accessing citizen services cross-border (2017)



Source: Digital Agenda Scoreboard

The possibility of using a foreign eID for accessing business services cross-border (2017)



Source: Digital Agenda Scoreboard

As illustrated in the above Figures, the possibility to use a foreign eID varies between countries, and between also authorities in the same country, meaning that cross-border procedures cannot be accessed as intended by the SDGR, although the most recent data is reported in 2017. This therefore represents a barrier to free movement, and the results show

²⁰² Identifying and addressing barriers to the Single Market {SWD(2020) 54 final}, COM(2020) 93 final
https://ec.europa.eu/info/sites/info/files/communication-eu-single-market-barriers-march-2020_en.pdf

that citizens are at a greater disadvantage than business. This indicator would be useful in illustrating the practical functionality of the SDGR.

Overall, the Single Digital Gateway is already available via the Your Europe website. As this evolves further and the portal is integrated with Member States websites in a way that allows it collect more detailed data on which parts of the portal users are accessing and what information they are interested in, it could be useful in keeping a pulse as to what is happening in respect of SM implementation on the ground. There is also scope for user statistics to inform data visualisation on the SDG website. Whilst the headline indicators that will be integrated into the SDG Dashboard and infographics have not yet been determined, these will take into account the results of a study undertaken to inform development of the SDG. The Unit responsible for the SMS should therefore liaise closely as to which indicators the SDG reporting tool reports back on and check how useful these may be for the SMS website.

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