European Commission

The EU regional Social Progress Index 2.0

2024 edition

Working Papers

A series of short papers on regional research and indicators produced by the Directorate-General for Regional and Urban Policy

WP 01/2024

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Regional and Urban Policy

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Luxembourg: Publications Office of the European Union, 2024

Print ISBN 978-92-68-12482-6 doi:10.2776/30173 KN-09-24-040-EN-C
PDF ISBN 978-92-68-12481-9 doi:10.2776/786554 KN-09-24-040-EN-N

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COUNTRY CODES

AT: Austria
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RO: Romania
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SI: Slovenia
SK: Slovakia

MEMBER STATE GROUPING BY GEOGRAPHIC AREA

Eastern Member States: BG, CZ, EE, HR, LV, LT, HU, PL, RO, SI, SK

Southern Member States: EL, ES, IT, CY, MT, PT

North-western Member States: BE, DK, DE, IE, FR, LU, NL, AT, FI, SE

TYPES OF NUTS 2 REGIONS

Cohesion policy in the period 2021-2027 uses three categories of regions based on the GDP per head for the years 2015, 2016 and 2017.

Less developed regions: GDP per head (PPS) below 75% of the EU-27 average.

Transition regions: GDP per head (PPS) between 75% to 100% of the EU-27 average.

More developed regions: GDP per head (PPS) above 100% of the EU-27 average.

1. INTRODUCTION

Gross domestic product (GDP) is the monetary value of all final goods and services produced within an economy over a period of time. Hence, it is also the total income generated by the economy, and ultimately the aggregate remuneration of factors of production. The growth rate of (real) GDP is often used as an indicator of the general health of the economy. Economic growth comes along with profound changes in a society, from changes in the industrial structure to public health, literacy, demography, and the distribution of income. "In the long run, as this economic transformation evolves, so do social, political, and cultural norms. Societies change profoundly and multidimensionally, as economic performance improves" (Quah, 2001).

Historically, GDP was the first major economic indicator to be developed, and with a methodology that was soon harmonized across countries (Coyle, 2015). For these reasons, it has also been the primary indicator used to measure the health and progress of an economy.

The advent of modern socioeconomic statistics allowed to complement GDP to account explicitly and in detail for crucial aspects of wellbeing like environmental sustainability, poverty, or inclusivity. These indicators complement GDP, providing quantitative information about education, health, and social justice or the cost of environmental degradation, such as resource depletion and pollution.

Against this backdrop, the concept of 'beyond GDP' has emerged, advocating for a more encompassing measurement of economic development (Stiglitz et al., 2009). This school of thought emphasises the integration of additional dimensions, such as the following:

- **Social indicators.** These include indicators like education, healthcare, social mobility, and income inequality. Measuring these aspects helps assess the quality of life and well-being of citizens, providing a more comprehensive understanding of societal progress.
- **Environmental indicators.** These include indicators like resource depletion, pollution levels and biodiversity loss and help assess the environmental impact of economic activity, promoting sustainable development strategies.
- **Wellbeing indices.** These measures attempt to capture subjective experiences of well-being, considering factors like trust, satisfaction, and perceived opportunities. While subjective, these indices offer valuable insights into the lived experience of individuals and communities.

The report by Stiglitz et al. (2009) also stimulated a few initiatives aimed at defining and measuring economic development beyond GDP, and several international institutions have been working on initiatives to measure well-being and economic development beyond traditional economic indicators, including - but not limited to - the following:

- The European Commission's initiative on '**GDP and beyond'**, together with various initiatives on sustainable development in the EU (see, for example, European Commission, Eurostat, 2020), aimed to develop a more comprehensive approach to measuring prosperity and well-being through a set of indicators that consider environmental, social, and economic factors[1]. The **European Pillar of Social Rights** and its accompanying **Action Plan** aim at building a strong social Europe that is fair, sustainable, inclusive, and full of opportunities[2]. In this context, a **Social Scoreboard** was set to monitor the performance of EU countries in the employment and social areas. The Scoreboard is fully part of the European Semester monitoring. Again, within the European semester of economic policy coordination, the von der Leyen Commission has pledged to integrate the United Nations' sustainable development goals into its assessment (European Commission, Directorate-General for Economic and Financial Affairs, 2021). More recently, the **2023 Strategic Foresight Report** identified a range of social and economic changes required to achieve a fair and sustainable transition in the EU in the years to come (Matti et al., 2023).[3]
- The Organisation for Economic Co-operation and Development (OECD) launched in 2011 the **Better Life Initiative,** aiming at measuring well-being across dimensions such as material living conditions, employment, health, education, social connections, civic engagement, environmental quality, subjective well-being, safety, work-life balance, and housing[4].
- The United Nations' **2030 Agenda for Sustainable Development**[5], with its 17 sustainable development goals and 169 targets, was adopted in 2015 as an action plan aiming at ending poverty, protecting the planet, and ensuring that by 2030 all people enjoy peace and prosperity[6].
- The World Economic Forum, in its **Future of Growth Report 2024** (World Economic Forum, 2024), has recognised that a conventional GDP growth picture is incomplete without a deeper understanding of the

1 European Commission, 'Alternative measures of progress beyond GDP', European Commission Environment website, https://environment.ec.europa.eu/economy-and-finance/alternative-measures-progress-beyond-gdp_en.
2 The European Pillar of Social Rights Action Plan (europa.eu)
3 2023 Strategic Foresight Report - European Commission (europa.eu)
4 OECD, 'Better life initiative: Measuring well-being and progress', OECD website, https://www.oecd.org/wise/better-life-initiative.htm.
5 United Nations, 'Transforming our world: The 2030 agenda for sustainable development', United Nations Department of Economic and Social Affairs website, https://sdgs.un.org/2030agenda.
6 A high-level event organised by the UN, the Summit of the Future, is planned for September 2024 to accelerate efforts to meet the existing international commitments of the 2030 agenda and take concrete steps to respond to emerging challenges and opportunities.

underlying nature and quality of growth, and has adopted a multidimensional approach structured around four pillars: innovativeness, inclusiveness, sustainability and resilience[7].

The EU regional Social Progress Index and the revised Social Scoreboard

The regional EU-SPI complements important, related initiatives like the revised Social Scoreboard. Both provide insights into social progress and well-being within the European Union. The revised Social Scoreboard serves as monitoring tool to assess progress in the context of the European Pillar of Social Rights. At their core, both tools are designed to gauge the societal well-being of EU countries and regions.

Both tools help monitoring the effectiveness of policies and initiatives aimed at fostering social inclusion, well-being, and environmental sustainability. At the same time, the EU-SPI and the revised Social Scoreboard are two different, though complementary, tools. The EU-SPI is an aggregate measure of purely social and environmental indicators created to evaluate regions across a wide range of dimensions of social progress, ultimately to better target and monitor our policies. It includes some of the indicators that are part of the revised Social Scoreboard. The revised Social Scoreboard includes both headline and secondary indicators followed over time and focusing on equal opportunities, fair working conditions, and social protection and inclusion. It measures the performance at country level, but as policymakers are increasingly interested in analysing information at a regional level, some of the social scoreboard indicators were made available by NUTS region and by degree of urbanisation.

Social progress is inherently a multifaceted concept, and a few composite measures have been proposed, mainly at the national level, with the aim of complementing GDP to include social, environmental and well-being dimensions[8]. Among others, we find:

- The Human Development Index, published by the United Nations Policy Development Programme, was created to emphasise that people and their capabilities should be the ultimate criteria for assessing the development of a country, not economic growth alone.
- The Canadian Index of Wellbeing tracks changes in eight quality-of-life categories or domains, including community vitality, democratic engagement, education, environment, healthy populations, leisure and culture, living standards and time use.
- The World Happiness Report, published annually since 2012, reflects a worldwide demand for more attention to happiness and well-being as criteria for government policy.
- The World Economic Forum's Future of Growth Report 2024 introduces a multidimensional framework to assess the quality of economic growth across four dimensions: innovativeness, inclusiveness, sustainability and resilience.
- The Global Social Progress Index produced by the Social Progress Imperative identifies, since 2013, the social and environmental factors of a country's performance and measures the extent to which countries provide for the social and environmental needs of their citizens by observing social and environmental outcome indicators directly rather than the economic factors (Social Progress Imperative, 2024).

The EU-SPI, first published in 2016 by the Commission as the result of a collaborative project with the Social Progress Imperative and the research institute Orkestra, was developed to explore the regional dimension of social progress, thus contributing to the EU's beyond GDP initiative. It focuses on the regional context, which had been overlooked until then.

The index builds on the definition of social progress as in the global Social Progress Index (for the sake of comparability with a well-known international framework) but adapting the set of selected indicators to the EU context.

Following the definition used in the global Social Progress Index, social progress across EU regions is defined as:

'The capacity of a society to meet the basic human needs of its citizens, establish the building blocks that allow citizens and communities to enhance and sustain the quality of their lives, and create the conditions for all individuals to reach their full potential[9].'

"Social Progress Imperative"[10]

In this paper, we present the results of the 2024 edition of the EU regional Social Progress index. A dedicated website has been created, providing additional material (i.e. scores, raw data and maps), as well as interactive tools: https://ec.europa.eu/regional_policy/information-sources/maps/social-progress_en

7 World Economic Forum, *The Future of Growth Report 2024*, January 2024, https://www.weforum.org/publications/the-future-of-growth-report/.
8 For a recent review of available indicators and scoreboards on 'beyond GDP', see European Commission, Joint Research Centre (2023).
9 The Social Progress Imperative, 'Methodology', Social Progress Imperative website, https://www.socialprogress.org/methodology/.
10 Methodology | Social Progress Imperative

EU-SPI and its link with 2021-27 cohesion policy

The EU-Social Progress Index (EU-SPI) is a valuable tool for facilitating benchmarking across European Union (EU) regions. Its purpose is to assist policymakers and stakeholders in evaluating a region's strengths and weaknesses, particularly in the realms of social and environmental considerations. The Index encompasses crucial aspects integral to EU cohesion policy-backed investments, spanning basic services (health, education, water, and waste), access to information and communication technologies, energy efficiency, education and skills, and pollution. In essence, this index serves as a valuable tool for policymakers to refine interventions in regional development programs. For the 2021-2027 funding programming period, Cohesion Policy has outlined distinct policy objectives to guide investments supporting growth. The table provided below delineates these specific objectives and relate them to the various components of the EU-SPI. Most of the index components are intricately connected to one or more cohesion policy objectives (Table 1).

Table 1: Link between EU-SPI components and 2021-27 cohesion policy specific objectives

Cohesion policy 2021-2027 specific objectives (policy objectives between brackets)	EU-SPI component(s)
Enhancing research and innovation (PO1)	Advanced education
Reaping the benefits of digitisation (PO1)	Information and communications
Growth and competitiveness of SMEs (PO1)	Information and communications & trust and governance & freedom and choice
Skills for smart specialisation and transition (PO1)	Information and communications
Digital connectivity (PO1)	Information and communications
Sustainable water (PO2)	Water and sanitation & environment
Climate change adaptation (PO2)	Environmental quality
Social integration of people at risk (PO4)	Inclusive society & freedom and choice
Addressing material deprivation (PO4)	Housing
Access to employment and activation measures for all (PO4)	Freedom and choice
Adaptation of workers and enterprises to change (PO4)	Advanced education & information and communications
Active inclusion and employability (PO4)	Freedom and choice
Improving education and training systems (PO4)	Basic education & advanced education
Lifelong learning and career transitions (PO4)	Advanced education
Education and training infrastructure PO4)	Basic education & advanced education
Integration of third country nationals (PO4)	Inclusive society
Integration of marginalised communities (PO4)	Inclusive society
Access to health care (PO4)	Nutrition and medical care & health

Source: Updated from Annoni and Bolsi (2020)

2. THE EU-SPI REVAMPED

2.1. AN UPDATED FRAMEWORK

The third edition of the EU-SPI – labelled EU-SPI 2.0 – stays close to the structure of the previous two editions (2016 and 2020) while updating its framework to upscale the measurement of social progress.

Given the nature and data availability of some indicators, all three dimensions have been subject to revision, incorporating new indicators and leaving out those that were discontinued or suffered from methodological breaks. The new framework thus captures a revised and updated notion of social progress in the context of the EU, making the EU-SPI 2.0 sharper for its use, even if the results are not fully comparable with those of previous editions.

The EU-SPI is inspired by the framework of the Global Social Progress Index, but it is contextualised to adapt to the specific characteristics of the EU regions. It is composed of three dimensions – **basic needs, foundations of wellbeing** and **opportunity** – which capture three broad dimensions of social progress (see Figure 1 and Figure 2).

Figure 1: Framework of the EU-SPI: dimensions and components

EU-SPI		
Basic needs	**Foundations of wellbeing**	**Opportunity**
Nutrition and medical care	Basic education	Trust and governance
Water and sanitation	Information and communications	Freedom and choice
Housing	Health	Inclusive society
Safety	Environmental quality	Advanced education

Note: following the update of the index framework, the names of some components have been re-worded. *Housing* used to be *shelter*; *safety* used to be *personal security*; *basic education* was *access to basic knowledge*; *information and communication* was *access to information and communications*; *health* was *health and wellness*; *trust and governance* was *personal rights*; *freedom and choice* was *personal freedom and choice; inclusive society* was *tolerance and inclusion*; *advanced education* was *access to advanced education and lifelong learning.*

The **basic needs** dimension includes those elements which are, while not sufficient, at least necessary to accomplish acceptable levels of social development. This dimension breaks down into four components: *nutrition and medical care, water and sanitation*, *housing*, and *safety*.

- The *nutrition and medical care* captures health in a basic sense and includes four indicators: infant mortality, unmet medical needs, unmet dental needs, and the unavailability of food.
- The *water and sanitation* component aims at reflecting a healthy environment aggregating indicators such as: quality of water, lack of a toilet in the dwelling, the level of uncollected sewage and the coverage of an extensive type of sewage treatment.
- In the *housing* component, four indicators tackle the burden that the cost of housing represents: housing quality in terms of dampness, the level of overcrowding and the lack of adequate heating.
- To capture the degree of *safety*, three indicators based on individual perceptions and experiences and an absolute indicator are grouped, including the feeling of safety at night, whether one has had money stolen, if one has been assaulted or mugged, and total traffic deaths.

The second dimension, **foundations of wellbeing**, refers to those factors that measure more advanced aspects of social progress, such as *basic education*, *information and communications*, *health*, and *environmental quality*.

- The *basic education* component includes the share of low-achieving pupils in reading and in maths and science, the share of the population who has completed only the lower-secondary level and the proportion of early school-leavers.
- The *information and communications* component gathers indicators such as the share of the population with high-speed broadband available, those who declare to have above-average digital skills, those who have interacted online with public authorities and those with internet access. Lastly, it aggregates the proportion of citizens who perceive that there is freedom in the media.
- The *health* component extends the basic needs in terms of health to include a broader sense of well-being. It includes perception-based indicators as well as objective measures, such as subjective health status and a proxy of mental health (experiencing positive feelings), cancer and heart disease death rates, and (modelled) years of life lost caused by PM2.5 air pollution.

- The *environmental quality* component covers different types of pollutants related to the air - NO_2, (Nitrogen dioxide), Ozone (as measured by the indicator SOMO35[11]) and PM2.5 air pollution, along with the quality of bathing water.

Figure 2: Framework of the EU-SPI 2.0, 2024 edition: dimensions, components and indicators

EU-SPI 2.0		
Basic needs	**Foundations of wellbeing**	**Opportunity**
Nutrition and medical care	Basic education	Trust and governance
Infant mortality	Share of low-achieving pupils in reading (new)	Trust in the national government
Unmet medical needs	Share of low-achieving pupils in maths and science (new)	Trust in the judicial system
Unmet dental needs (new)	Lower-secondary completion only	Trust in the police
Insufficient food	Early school-leavers	Voicing one's opinion to a public official (new)
		Female participation in regional assemblies
		Institution quality index
Water and sanitation	**Information and communications**	**Freedom and choice**
Satisfaction with water quality	High-speed broadband (new)	Freedom over life choices
Lack of a toilet in the dwelling	Digital skills above the basic level (new)	Job opportunities
Uncollected sewage	Online interaction with public authorities	Teenage pregnancy (re-introduced)
Sewage treatment	Internet access	Youth not in education, employment or training
	Freedom of media (new)	Institution corruption index
Housing	**Health**	**Inclusive society**
Burdensome cost of housing	Subjective health status	Institution impartiality index
Housing quality – dampness	Standardised cancer death rate	Tolerance towards immigrants
Overcrowding	Standardised heart disease death rate	Tolerance towards minorities
Lack of adequate heating	Years of life lost due to air pollution (new)	Tolerance towards gay and lesbian people
	Positive feelings (new)	Women treated with respect (new)
Safety	**Environmental quality**	**Advanced education**
Safety at night	Nitrogen dioxide air pollution	Tertiary education attainment
Money stolen	Ozone air pollution (updated indicator)	Lifelong learning
Assaulted/mugged	PM2.5 air pollution	Academic citations (new)
Traffic deaths	Bathing water quality (new)	

NB: In the current edition, 13 new indicators have been included. They are: unmet dental needs, share of low-achieving 15-year-olds in reading, share of low-achieving 15-year-olds in mathematics and science, digital skills above basic level, freedom of the media, years of life lost due to particulate matter 2.5 (PM2.5) air pollution, an index of positive feelings, sum of ozone means over 35 parts per billion (SOMO35) air pollution, bathing water quality, voicing one's opinion to a public official, teenage pregnancy, perception that women are treated with respect and number of citations of academic papers.

Finally, the third dimension, **opportunity**, addresses even more advanced elements usually present in cohesive and tolerant societies. These are *trust and governance*, *freedom and choice*, *inclusive society*, and *advanced education*.

- The *trust and governance* component gathers several perception-based indicators, such as trust in the national government, in the judicial system, and in the police. It also includes the share of citizens who voiced their opinion to a public official, the share of female participation in regional

[11] SOMO35 is calculated as the yearly sum of the daily maximum of 8-hour running averages of ozone concentrations that exceed 35 parts per billion (ppb).

assemblies and the institution quality pillar of the regional European Quality of Government Index.[12]

- The *freedom and choice* component includes perceptions of one's freedom over life choices and job opportunities, teenage pregnancies, the share of young people not in education, employment or training (NEET), and the pillar of the regional European Quality of Government Index addressing corruption.

- In the *inclusive society* component, one more pillar of the regional European Quality of Government Index, the one related to impartiality, is utilised, in combination with four attitudinal items: perceptions that one's place of residence is a good place for immigrants, minorities or members of the lesbian and gay community, and whether women are treated with respect.

- Finally, the *advanced education* component presents the share of the population that has attained tertiary education, the proportion of citizens engaged in lifelong learning and the number of citations received by academic articles.

Update of indicators

As mentioned above, the modifications the EU-SPI framework has been subject to are mainly driven by two reasons: the refinement of the concepts reflected in some components and the fact that some indicators included in the previous editions were no longer updated and were thus replaced with better alternatives.

Forty of the 53 indicators were already present in the last edition of the EU-SPI. The 13 new items are: unmet dental needs, share of low-achieving 15-year-olds in reading, share of low-achieving 15-year-olds in mathematics and science, digital skills above basic level, freedom of the media, years of life lost due to PM2.5 air pollution, an index of positive feelings, pollution due to Ozone (SOMO35), bathing water quality, voicing one's opinion to a public official, teenage pregnancy (reintroduced, as it was discarded in the previous edition), perception that women are treated with respect and the number of citations received by academic articles.

Fifteen indicators used in the previous editions have been excluded or replaced due to discontinuation, unavailability of updated data or the lack of conceptual and/or statistical coherence with other items included in their component. These indicators are: mortality rate before 65 years of age, crime, upper-secondary enrolment (14–18 years of age), internet at home, life expectancy rate, air pollution proxied by the indicator O_3, air pollution proxied with the indicator PM10, leisure activities, active citizenship, involuntary part-time/temporary employment, making friends, volunteering, gender employment gap, tertiary education enrolment and female lifelong learning.

One indicator, traffic deaths, has been moved from the *health and wellness* component (as it was in the 2016 and 2020 editions) to the *safety* one, following the results of the correlation analyses at the component level.

Regional coverage

Concerning data availability, regional data has been used as much as possible, but some national-level indicators are unavoidable because they are too important to leave out despite not being available at regional level. Some indicators are also only available at NUTS1 level. Overall, 45 % of all indicators are at the NUTS 2 level (24 out of 53). Each of the three dimensions – basic needs, foundations of well-being and opportunity – includes, respectively, 25 %, 67 %, and 42.1 % of their indicators at the NUTS 2 level (4 out of 16, 12 out of 18 and 8 out of 19).

Data sources

This index is constructed with a variety of social and environmental indicators obtained from various attitudinal surveys and other statistical sources. Half of the 53 indicators featured in this edition were selected from two well-known representative surveys, the Gallup World Poll survey (17 indicators) and the EU Survey on Income and Living Conditions (EU-SILC, coordinated by Eurostat) (9 indicators). The rest of the indicators were obtained from the European Institute of Gender Equality (EIGE), the European Commission's Directorate-General for Regional and Urban Policy (DG REGIO), Eurostat, the European Quality of Government Index (EQI) and the OECD.

Reference year of data

All indicators are measured with the most recent data available. Three quarters of the indicators are calculated using data from 2023 (five), 2022 (20) or 2021 (15). Special attention is paid to the potential effects of the COVID-19 crisis. In this sense, 5 indicators are measured with 2020 data, because, due to their nature, the impact of the pandemic would be limited[13]. Furthermore, five indicators are obtained from averaging the data over 3 years, as is the case for the share of early school-leavers (2020, 2021, 2022), standardised cancer and heart disease deaths (2015, 2016, 2017), exposure to ozone as captured by the SOMO35 indicator (2019, 2020, 2021) and the proportion of NEET (2020, 2021, 2022).

[12] Developed by the University of Gothenburg, on request of the European Commission (https://www.gu.se/en/quality-government)

[13] The indicators calculated with 2020 data are the lack of a toilet, uncollected sewage, sewage treatment, the burdensome cost of housing and housing quality in terms of dampness. The concepts measured by these indicators do not seem to be, a priori, directly influenced by COVID-19.

Time comparisons

Changes in the composition of the index make time comparisons of the EU-SPI valid only to a limited extent. Despite the efforts to maintain a degree of stability in the framework across editions and limit modifications to the minimum necessary, revisions in the updating data collection and its methodology are unavoidable. In addition, the methodological improvements of the "EU Survey on Income and Living Conditions" in 2019 caused a break in the time series of a few indicators used in the EU-SPI[14]. This posed a challenge but also offered an opportunity to revise the index framework. Therefore, considering that the current edition differs in more than half of its indicators with respect to the 2020 edition[15], the two indices cannot be considered entirely comparable.

2.2. METHODOLOGY OF THE INDEX CONSTRUCTION

The construction of this edition's EU-SPI closely follows the methodology applied in its two previous editions. As explained above, this composite indicator combines a total of 53 indicators into 12 components and three dimensions. The aggregation of indicators into an index is common practice across several disciplines, especially in the analysis of poverty and quality of life, and yet, this methodology does not go unchallenged (Decancq and Lugo, 2013; Lustig, 2011; Ravallion, 2011; Wagle, 2008). The main elements subject to criticism are the arbitrary choice of weights for the various levels of the index and the aggregation method itself, due to their influence on the trade-offs between indicators.

While acknowledging these limitations, While acknowledging the limitations, this work follows the steps of developement of a composite indicator, as described in the Handbook on Constructing Composite Indicators: Methodology and User Guide. (OECD et al., 2008). The steps of this process are described in the upcoming sections. Furthermore, as with any other composite index, the aggregate score and the corresponding ranking should only be the first step in the exploration of the data. Detailed tables, available in the dedicated website, with the values of the different components should help nuance and interpret the aggregate picture.

Missing data

An important step in the construction of the index is detecting missing data. All indicators in this edition have a share of missing data lower than 15 %. In terms of data imputation, some regions have NUTS-1-level data assigned when NUTS 2 data was not available. Most indicators have 100 % coverage, while 13 have coverage between 89 % and 99 %. When observing data availability at the unit level, six regions have data for less than 45 % of the indicators. These regions are France's outermost regions (Guadeloupe (FRY1), Martinique (FRY2), Guyane (FRY3), Réunion (FRY4) and Mayotte (FRY5)) and Åland (FI2) in Finland. These regions have been excluded from the index for the sake of statistical consistency.[16]

Outlier detection

To avoid biases in the index, all indicators were checked by looking at the parameters of skewness and kurtosis of their statistical distributions. Values are considered outliers whenever their distribution displays an absolute skewness higher than 2.0 and, at the same time, their kurtosis is greater than 3.5, as suggested by the Joint Research Centre. Following this criterion, three indicators were identified and treated with logarithmic transformation: lack of a toilet, share of uncollected sewage and teenage pregnancy[17].

Normalisation

All indicators in the index are normalised with a min-max transformation, and therefore, all EU-SPI scores are based on a 0–100 scale. Each indicator is bounded with respect to specific utopian and dystopian values.[18] In most indicators, these values are the minimum and maximum values across the indicator's last 5 years of data. In other cases, specific performance targets or official guidelines are used. The advantage of this goalpost normalisation is the fact that it enables absolute, rather than relative, tracking of the regional performance of the components and dimensions of the index. The upper and lower bounds for all indicators were maintained as stable as possible, compared to the previous editions of the index, although some adjustments were required to accommodate, for instance, changes in indicator targets or in the time series trends. More details can be found in Annex 3.

To obtain positively oriented indicators in terms of social progress, the following transformation was applied, where x is the original value of the indicator, x_{min} and x_{max} are its goalposts and x_{norm} is the normalised value of the indicator.

[14] Regulation (EU) 2019/1700 of the European Parliament and of the Council of 10 October 2019 establishing a common framework for European statistics relating to persons and households, based on data at individual level collected from samples, amending Regulations (EC) No 808/2004, (EC) No 452/2008 and (EC) No 1338/2008 of the European Parliament and of the Council, and repealing Regulation (EC) No 1177/2003 of the European Parliament and of the Council and Council Regulation (EC) No 577/98 (Text with EEA relevance)

[15] In this edition, 13 indicators have been introduced, while 15 indicators that were present in the 2020 edition have been excluded.

[16] For regions for which the index could not be computed, spider charts are available in the Annex, to illustrate the region's performance across the available indicators.

[17] The indicator 'Share of uncollected sewage' remains slightly skewed even after normalising the data. However, considering that it does not overcome the recommended value for skewness and its relevance in the index framework, it was still included in the construction of the index.

[18] In an "utopian" indicator, more is better (e.g. satisfaction with water quality). Conversely, in "distopian" indicators, more is worse (e.g. uncollected sewage).

$$x_{norm} = \begin{cases} \dfrac{100\ (x - x_{min})}{(x_{max} - x_{min})} & \textit{if } x \textit{ is positively oriented} \\ \dfrac{-100\ (x - x_{min})}{(x_{max} - x_{min})} + 100 & \textit{if } x \textit{ is negatively oriented} \end{cases}$$

Internal coherence

Before carrying out the aggregation of the normalised indicators, their internal consistency was tested by means of a principal component analysis applied to the structure of the index and a correlation analysis of the indicators within each group.. The multivariate correlation between the indicators of a certain component can be interpreted to confirm its internal consistency (Decancq and Lugo, 2013; Foster et al., 2012; Hagerty and Land, 2007; Michalos, 2011).

Furthermore, the coherence of all components and dimensions of the index was verified by means of correlation analysis at every level of aggregation.

Aggregation

As in previous editions, the method of aggregation of the index consisted of an simple arithmetic mean at the component level, followed by a generalised unweighted mean across the 12 components and three dimensions (Decancq and Lugo, 2013). The generalized mean across components limits the ability to compensate poor performance in an area with good performance in a completely different area. That is, if a region performs poorly in one component, the general score will be reduced even if it scores very well in other areas. The reasoning behind this is the fact that a region is considered to provide an adequate level of social progress only if satisfactory performance is achieved across all dimensions. Poor performance in one component could not be compensated by a very good outcome in another one (Munda, 2008). A specific set of functions is selected, as in previous editions, to reduce the issue of full compensability (Arrow et al., 1961).

We denote x_{ji} the score of a certain component (or dimension) j for a region i ($i = 1,\ldots,n$). The set of scores for each region $\{x_{1i},\ldots,x_{qi}\}$ is – by its definition - positively oriented in terms of social progress. The index corresponding to a region, denoted by I_i, is calculated as the unweighted generalised power mean of order β of q components or dimensions (Annoni and Weziak-Bialowolska, 2016; Decancq and Lugo, 2013; Tarabusi and Guarini, 2013; Ruiz, 2011).

$$I_i^{(\beta)} = \begin{cases} \left(\dfrac{1}{q} \sum_{j=1}^{q} x_{ji}^{\beta} \right)^{1/\beta} & \beta \neq 0 \\ \left(\prod_{j=1}^{q} x_{ji} \right)^{1/q} & \textit{for } \beta = 0 \ (\textit{geometric mean}) \end{cases}$$

In the equation, β represents a constant that can be set at different levels to adjust the degree of compensability between the elements in the index. When $\beta = 1$, the generalised mean equals the arithmetic mean and compensation across categories is perfect. For $\beta = 0$, the generalised mean is the geometric mean so a very low score in a category affects severely the overall score. To align with previous editions of the index, the chosen value for this parameter is $\beta = 0.5$ that allows to some compensation but not totally.

Conversion into an EU index

Finally, to simplify the interpretation of the results, the score for each EU region or country is reported relative to the EU average. The EU average is set to 100 for every level of the index (including its dimensions and components). For instance, a score of 80 % reflects that a region underperforms by 20 % with respect to the EU average. The formula that follows is applied to transform the values:

$$x_{new} = \frac{x}{EU} \times 100$$

3. MAIN FINDINGS

This edition of EU-SPI confirms that social disparities vary greatly across regions in the EU, although a national effect is clearly visible in Italy and in many eastern Member States. Overall, regions in Denmark, the Netherlands, Finland, and Sweden score high, while regions in Greece, Italy, some regions in Spain and in most eastern Member States lag behind (Map 1)[19].

All strong performers in the 2024 edition of the index are from Denmark, Finland, or Sweden, and they score, on average, 30 % higher than the EU average. The Finnish region of Helsinki-Uusimaa is estimated as having the highest level of social progress in the EU.

The weak performers, that is those regions showing the lowest scores, are all from Bulgaria or Romania (Table 2) and perform between 52 % and 65 % of the EU average.

Table 2: EU regional Social Progress Index 2.0, 2024 edition: strong and weak performers

Strong performers (highest scores first)	EU-SPI score
Helsinki-Uusimaa (FI)	132.1
Midtjylland (DK)	131.1
Stockholm (SE)	130.9
Hovedstaden (DK)	130.7
Pohjois- ja Itä-Suomi (FI)	130.1
Östra Mellansverige (SE)	130.0
Övre Norrland (SE)	129.7
Mellersta Norrland (SE)	129.3
Nordjylland (DK)	128.6
Länsi-Suomi (FI)	128.4

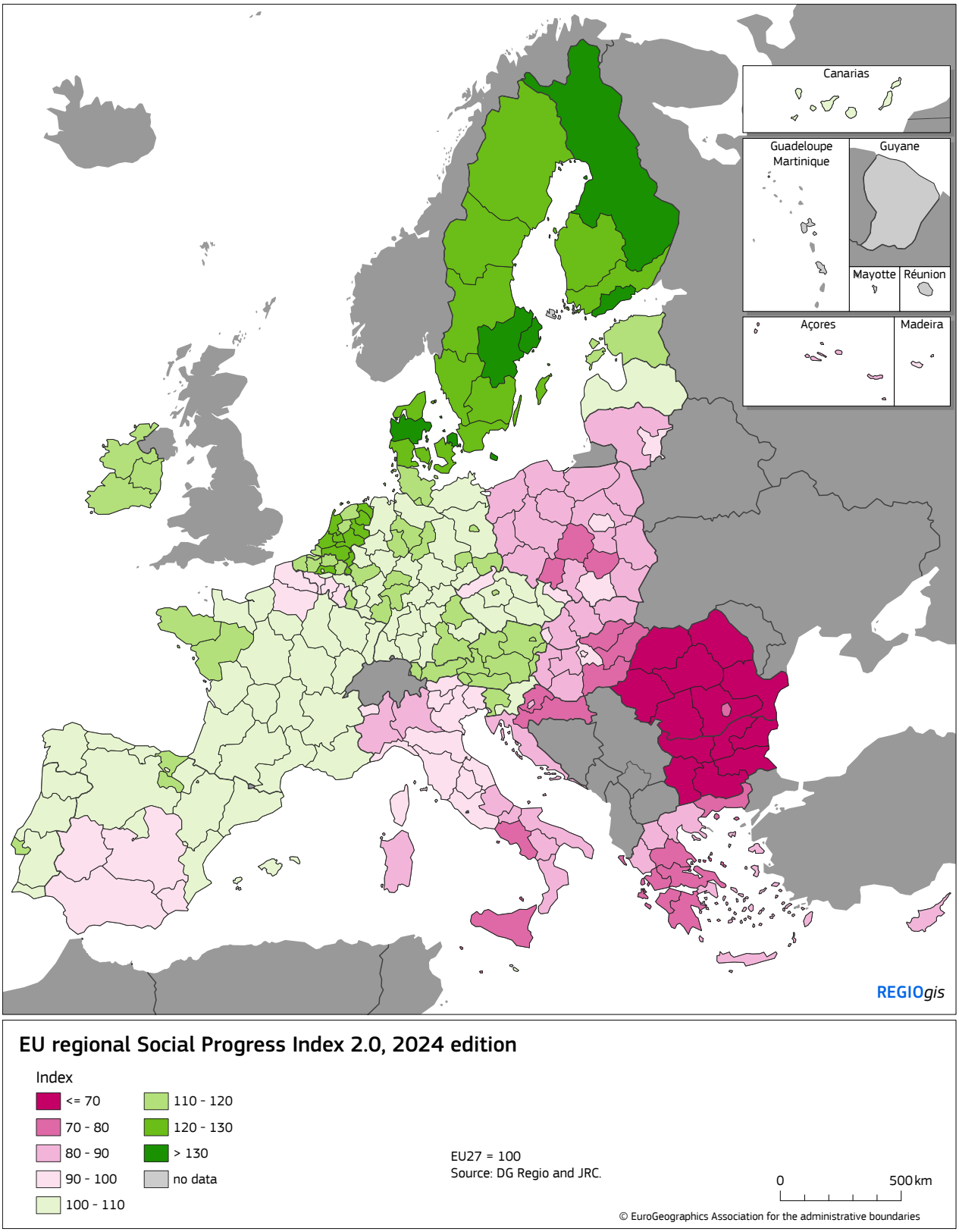
Weak performers (lowest scores first)	EU-SPI score
Severozapaden (BG)	52.2
Yugoiztochen (BG)	55.7
Sud-Muntenia (RO)	57.2
Nord-Est (RO)	58.1
Severoiztochen (BG)	58.9
Severen tsentralen (BG)	59.9
Sud-Est (RO)	60.8
Yuzhen tsentralen (BG)	61.1
Sud-Vest Oltenia (RO)	61.4
Centru (RO)	65.1

Disparities across EU regions continue to surface in the more basic components of social progress (for instance, in the *basic needs* dimension) and become larger in the *opportunity* dimension, with marked spatial patterns (Map 2).

A closer look at the regional performance across the 12 components provides a more detailed picture of social progress and seems to suggest that the key to social progress is a balanced combination of good performances across the various components of the index, which is different from what is observed for the weakest regions in the EU (Figure 3 and Figure 4).

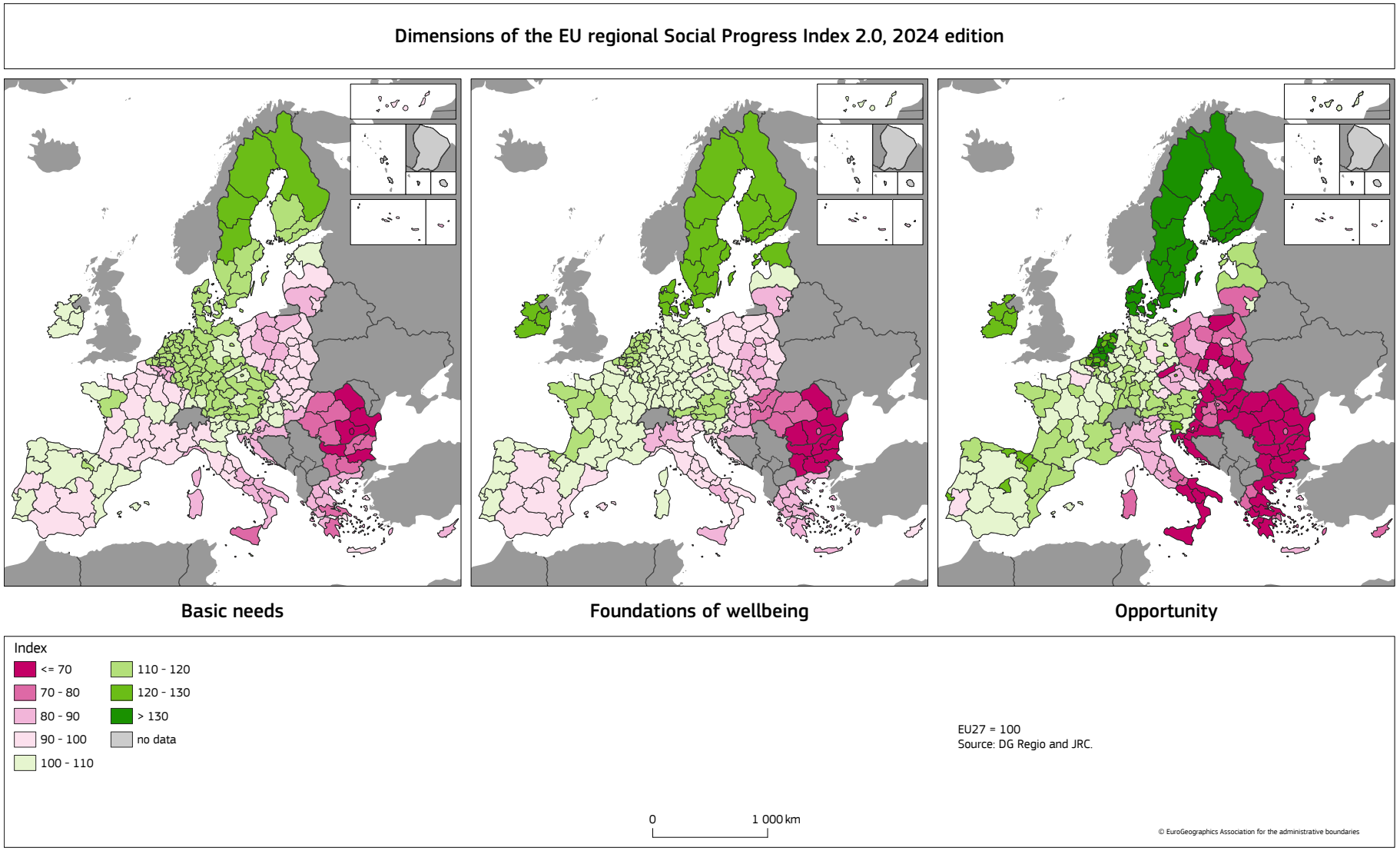
[19] Due to the availability of around 40 % of the indicators included in the framework, it was not possible to compute the EU-SPI for the Finnish region of Åland and for all French outermost regions. For the regions for which the index could not be computed, spider charts are available in the Annex to illustrate regions' performance across the available indicators, compared to the EU average. See Annex 1. A recent study published by the EC provides a qualitative analysis on people's access to a selection of basic needs - housing, drinking water and sanitation, electricity, cooling and heating and internet and telephone connectivity - in the outermost regions of the EU (European Commission, Directorate-General for Regional and Urban Policy, 2024).

Map 1: EU regional Social Progress Index 2.0, 2024 edition



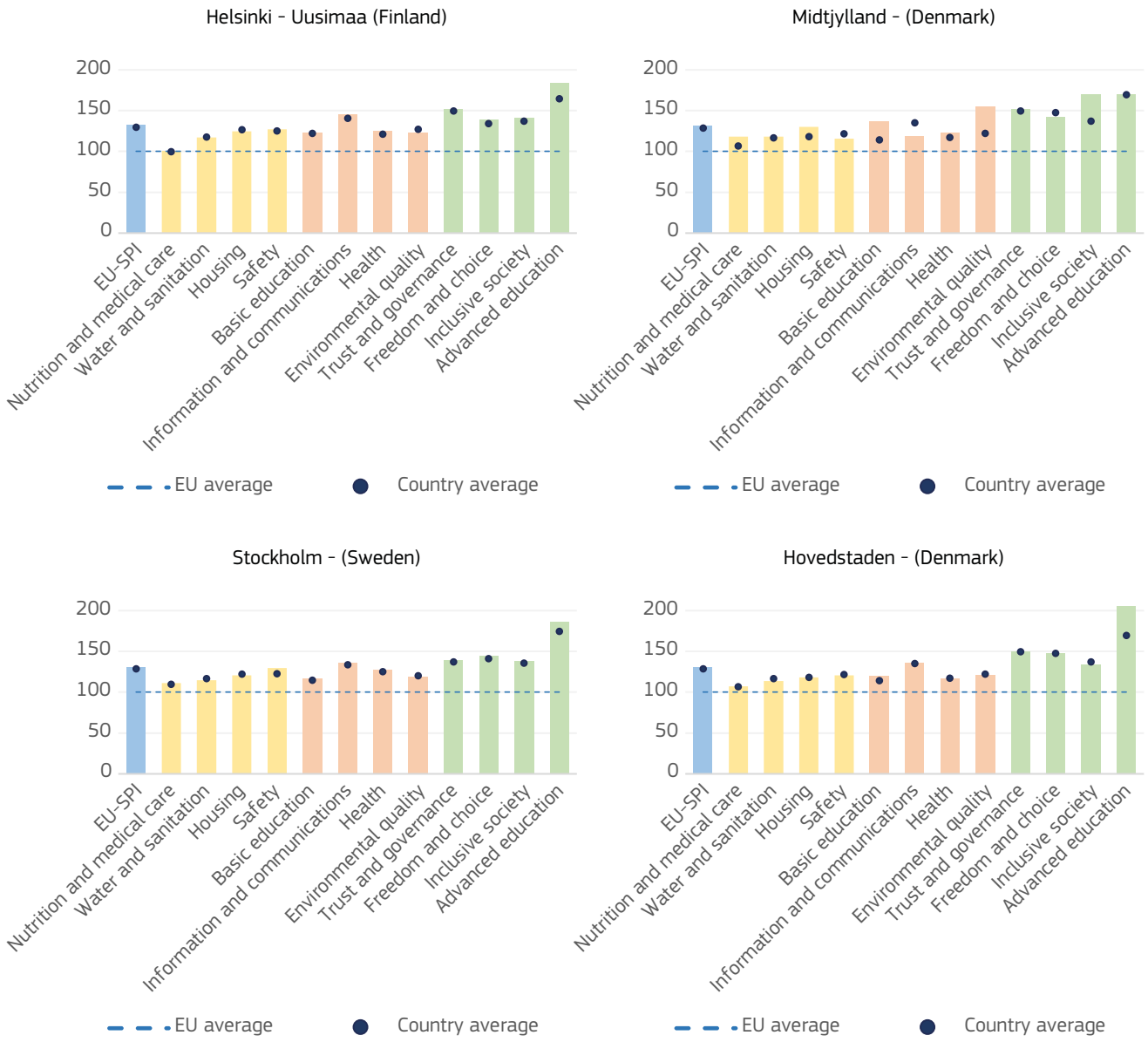
NB: The underlying indicators cover the period between 2020 and 2023. For a few indicators, 3-year averages are used.

Map 2: EU regional Social Progress Index 2.0, 2024 edition: basic needs, foundations of wellbeing and opportunity dimensions



NB: The underlying indicators cover the period between 2020 and 2023. For a few indicators, 3-year averages are used. See Annex 2.

Figure 3: Top four EU regions, EU-SPI and its components (EU = 100)



Note: For the colours of the bars, see Figure 1

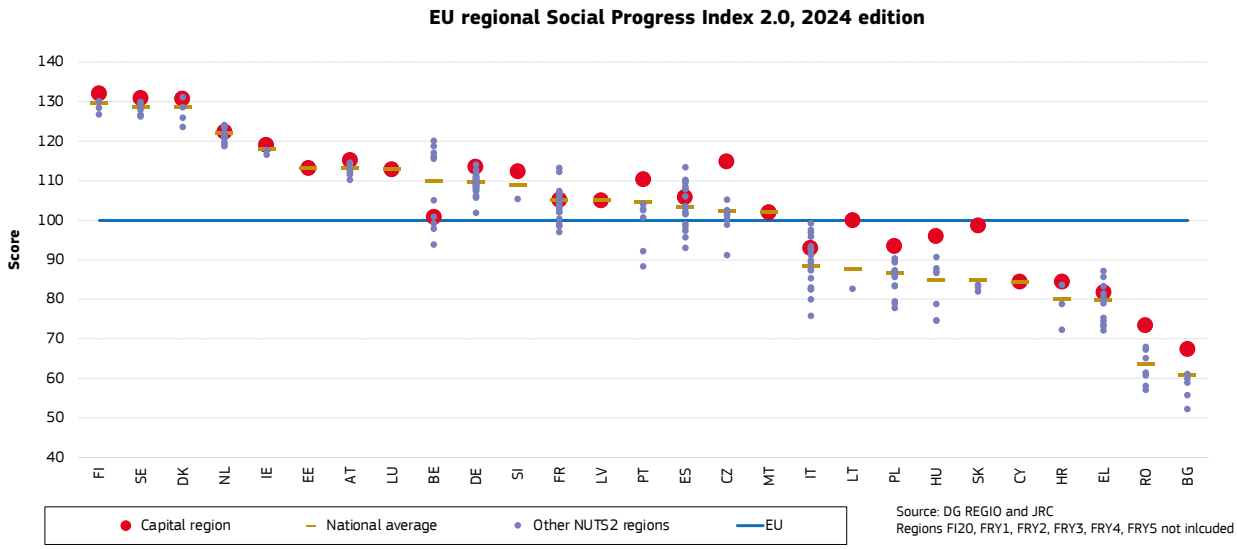
Figure 4: Bottom four EU regions, EU-SPI and its components (EU = 100)

Note: For the colours of the bars, see Figure 1

In most of the Member States, capital regions perform equal to or higher than their national averages (Figure 5). Capital regions in Belgium, Greece, Spain, France, and Italy are exceptions. In general, a capital region does not excel in basic aspects of social progress within its own country; safety, along with housing quality and affordability, appear to be the main factors preventing capital regions from performing well on the *basic needs* dimension.

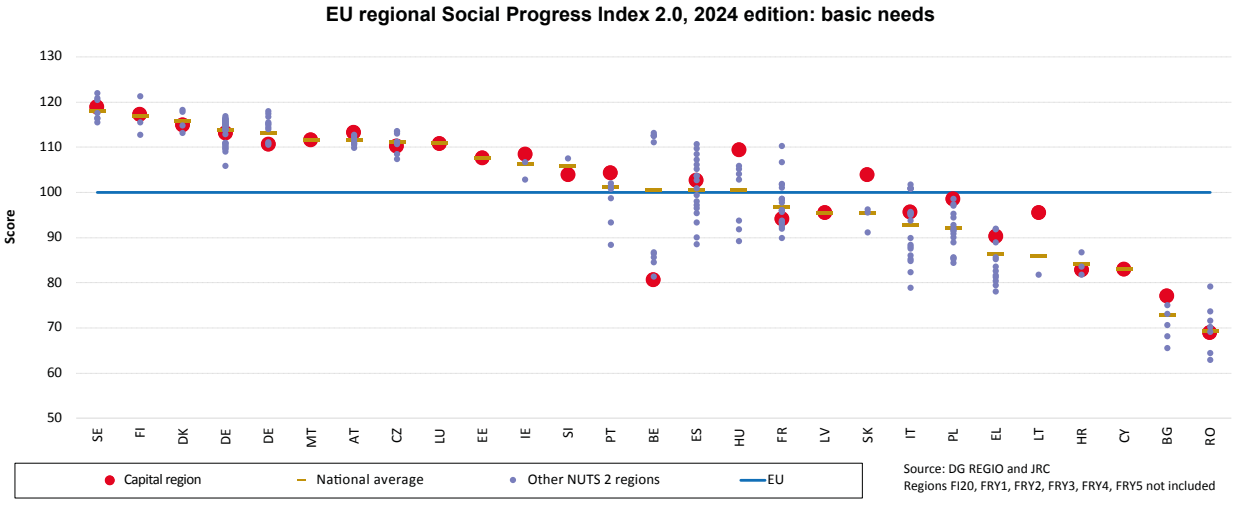
Looking at the three charts in Figure 6 – from the *basic needs* chart (top) to the *opportunity* one (bottom) – we observe a wider range of scores across Member States and a greater variability of regional scores within each Member State. EU capital regions start to outperform the other regions mainly in the *opportunity* dimension, scoring highest in most Member States, apart from Belgium, Greece, and Italy and moderately in Spain and France.

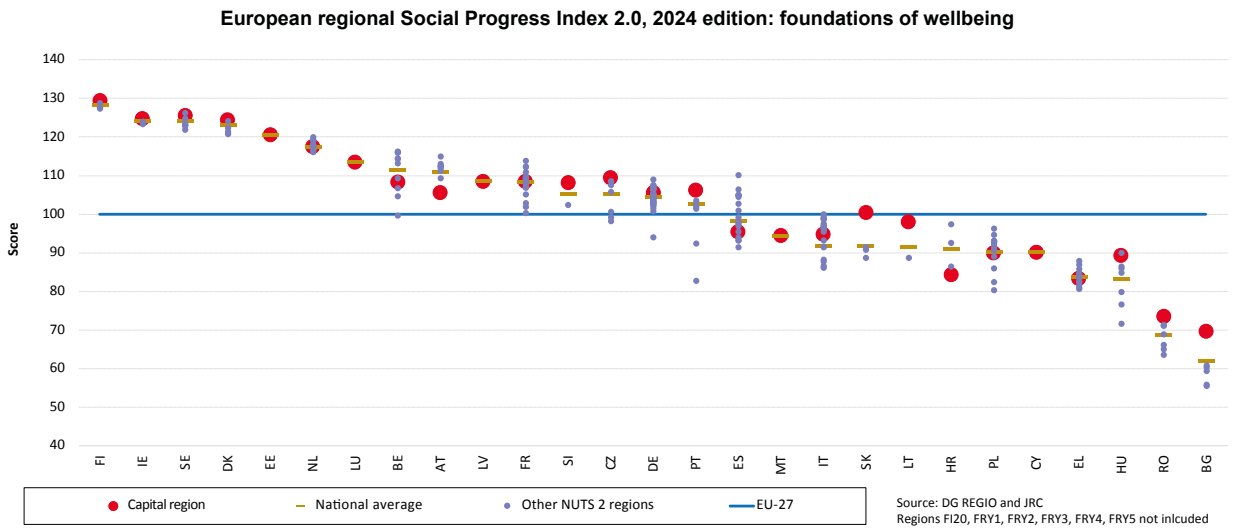
Figure 5: EU regional Social Progress Index 2.0, 2024 edition: scores by Member State

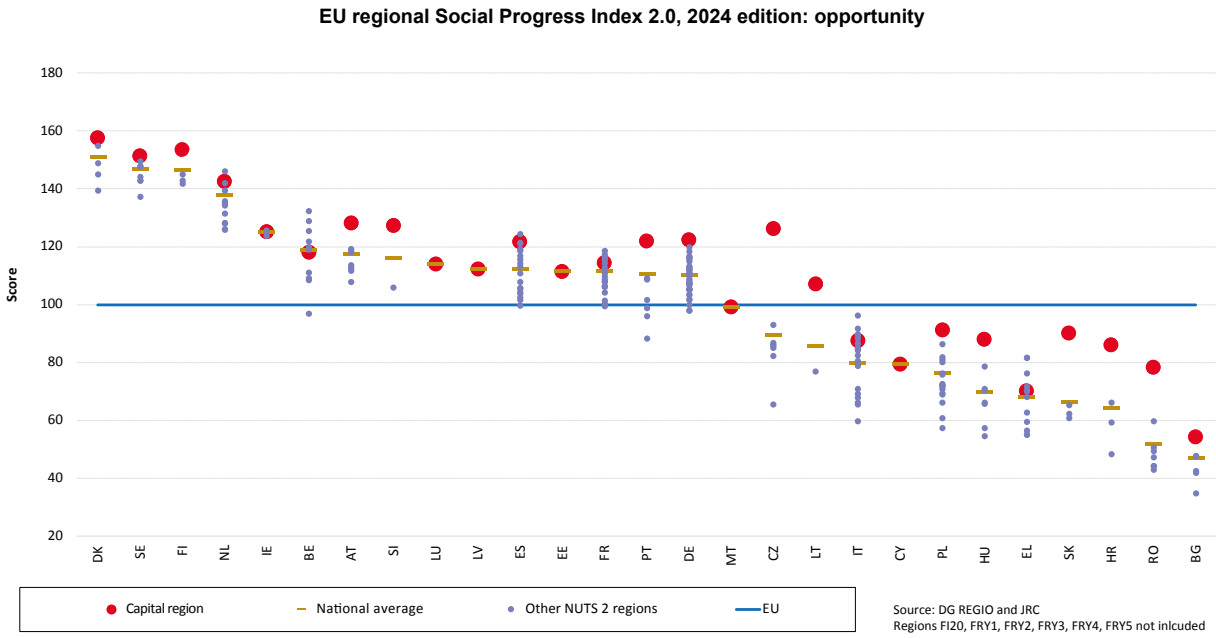


NB: Ordered by national average. The underlying indicators mainly cover between 2020 and 2023. For a few indicators, 3-year averages are used. See Annex 2.

Figure 6: EU regional Social Progress Index 2.0, 2024 edition: dimensions' scores by Member State







NB: Ordered by national average. The underlying indicators cover the period between 2020 and 2023. For a few indicators, 3-year averages are used. See Annex 2.

Social progress is, on average, lower in the less developed regions of the EU and in regions located in eastern Member States (Table 3 and Table 4). The gap (at 39 index points) between less and more developed regions is at its largest in the most advanced dimension of the index, that is the *opportunity* dimension. However, large gaps are also present in the more basic components of the index, such as those related to water and sanitation and housing.

Table 3: EU-SPI 2.0, 2024 edition, by cohesion policy groups of regions

Regions by cohesion policy group	EU-SPI	Basic needs	Foundations of wellbeing	Opportunity
More developed	108	107	105	114
Transition	103	100	105	105
Less developed	83	88	87	75

NB: Aggregated scores are based on scores for all regions for which the EU-SPI could be computed (i.e., excluding Åland (Finland) and the French outermost regions).

Table 4: EU-SPI 2.0, 2024 edition by geographical grouping

Regions by geographical grouping	EU-SPI	Basic needs	Foundations of wellbeing	Opportunity
Eastern EU	83	90	86	72
Northwestern EU	112	108	110	118
Southern EU	95	96	94	93

NB: Aggregated scores are based on scores for all regions for which the EU-SPI could be computed (i.e., excluding Åland (Finland) and the French outermost regions).

Across all EU regions, around 6 out of 10 people live in a region with social progress above the EU average (Table 5). This share goes down to 5 out of 10 people if we only consider the *basic needs* dimension (covering issues such as health and medical care, water and sanitation and housing). However, in less developed regions only 1 in 10 residents live in a region with social progress above the EU average (Table 6). In transition regions, the picture is more mixed. While, for the overall EU-SPI, around 8 out of 10 residents of transition regions live in a region with social progress above the EU average, a value comparable to the one for more developed regions, only around half of residents live in a region above the EU average in terms of basic needs.

Table 5: EU regions by cohesion policy grouping (2021–2027) and population by level of development, 2021

Type of regions	Number of regions	Share of regions	Share of population, 2021
More developed	95	39 %	47 %
Transition	67	28 %	25 %
Less developed	80	33 %	28 %

NB: Aggregated scores are based on scores for all regions for which the EU-SPI could be computed (i.e. excluding Åland (Finland) and the French outermost regions).

Table 6: Population by cohesion policy group of regions and social progress (overall index and the three dimensions)

Regions by cohesion policy group	EU-SPI		Basic needs		Foundations of wellbeing		Opportunity	
	Above EU average	Below EU average	Above EU average	Below EU average	Above EU average	Below EU average	Above EU average	Below EU average
More developed	78 %	22 %	75 %	25 %	72 %	28 %	78 %	22 %
Transition	76 %	24 %	47 %	53 %	74 %	26 %	74 %	26 %
Less developed	10 %	90 %	12 %	88 %	11 %	88 %	16 %	83 %
EU	59 %	41 %	51 %	49 %	56 %	44 %	61 %	39 %

NB: Percentages are based on all regions for which the EU-SPI could be computed (i.e., excluding Åland (Finland) and the French outermost regions).

4. PROMINENT RELATIONSHIPS

As noted above, the sustained increase of GDP comes along with a profound and significant transformation of a society. Economic growth brings progress along many dimensions but not mechanically, and it sometimes brings challenges, like inequality and the degradation of the environment. Measuring social progress in a broader sense can help identify adjuvants, factors that help effectively transform economic growth into social progress. A better understanding of the connections between economic development and social progress may help identifying needs and policy gaps, eventually guiding regional policymaking in the EU.

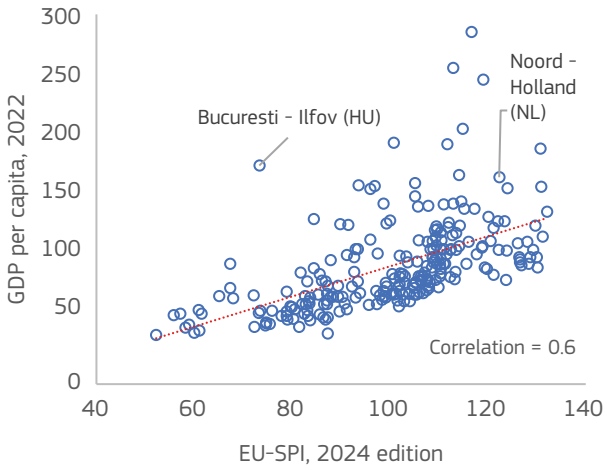
The following illustrate basic relationships between social progress and several indicators, including GDP. It is important to note that the correlations here presented do not imply causation; while we may observe associations between certain variables and social progress indicators, it is essential to critically analyse these relationships and consider other factors that may influence outcomes.

EU regions that score better in social progress tend to be wealthier in terms of GDP per capita and generally register lower shares of people at risk of poverty or social exclusion.

GDP per capita is arguably one of the most widely employed economic indicators to assess the overall level of economic well-being in a country or region. In line with the previous editions of the index, Figure 7 shows a positive relationship between GDP per capita and social progress. Higher levels of GDP per capita correspond to higher levels of social progress, but this relationship gets weaker as the GDP increases. For less developed regions, the relationship is stronger – a slight increase in social progress is associated with a clear increasing trend in GDP per capita. We also observe that the range of variation in social progress for a given GDP per capita is wider for more developed regions than for less developed ones. In other words, the richest regions can perform differently and are not necessarily the top performers in terms of social progress.

The results also show that social progress can differ for similar levels of GDP. Figure 7 shows, for instance, that while the two capital regions of Bucuresti – Ilfov (HU), and Noord-Holland (NL) have a similar level of GDP, the gap in social progress between the two is around 50 points (73 against 122). This is interesting evidence, further confirming that GDP is not a sufficient indicator of well-being when it comes to quality of life, particularly as we move to higher-income regions where presumably the most basic needs are already covered and other aspects of well-being start being relatively more important. This interesting insight offers room for emulating good practices and learning important policy-related lessons.

Figure 7: Relationship between social progress and GDP per capita



Source: DG REGIO and JRC, and Eurostat

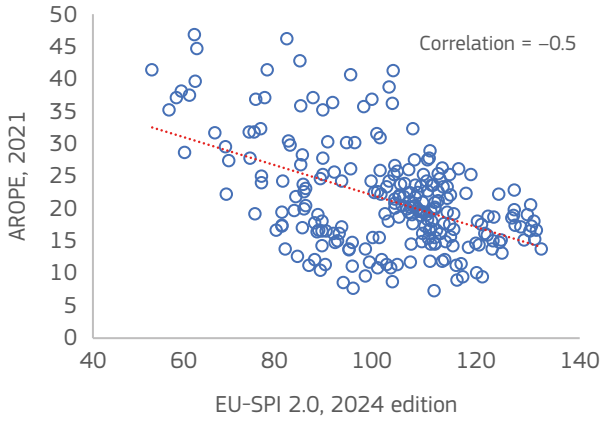
In Figure 8 we observe a negative correlation between social progress and the share of people at risk of poverty or social exclusion (AROPE),[20] the main indicator to monitor the EU 2030 target on poverty and social exclusion and the headline indicator to monitor the EU 2020 strategy poverty target. The correlation is negative and amounts to – 0.5. By examining the relationship between the EU-SPI and the AROPE indicator, which incorporates factors related to housing quality and affordability, we can indirectly assess the connection between social progress and housing in a region. Results in Figure 8 could indeed suggests that regions in the EU with higher social progress are likely to have residents better equipped to manage challenges related to housing quality and affordability. In addition, if we correlate AROPE with the *basic needs* component of the social progress index, the negative correlation is even stronger and increases to – 0.6.

As observed for GDP, also here we find similar levels of dispersion for low and high levels of shares of AROPE. For instance, regions with around 15 % of the total population that is at risk of poverty or social exclusion register very different levels of social progress, ranging from 80 (20 index points below the EU average) to 130 (30 index points above the EU average). At the same time, average EU regions (EU-SPI = 100) range from relatively low to very high values of AROPE (from 10 % to 40 %).

Future research is needed to inspect the drivers behind different achievement of social progress within similar levels of economic development, thus showing that the EU-SPI is a useful tool to diagnose challenges and opportunities in EU regions.

[20] At risk of poverty or social exclusion, corresponds to the sum of persons who are either at risk of poverty, or severely materially and socially deprived or living in a household with a very low work intensity. The AROPE rate is the share of the total population which is at risk of poverty or social exclusion. For more details, see: At risk of poverty or social exclusion (AROPE) - Statistics Explained (europa.eu)

Figure 8: Relationship between social progress and the percentage of the total population that is at risk of poverty or social exclusion (AROPE)



Source: DG REGIO and JRC, and Eurostat

When social progress is higher, more women are in the labour market

Social progress may be associated with a higher participation of women to the labour market, ensuring inclusive economic growth and fostering sustainable development. The gender equality strategy frames the Commission's work on gender equality and sets out the policy objectives and key initiatives for 2020–2025[21].

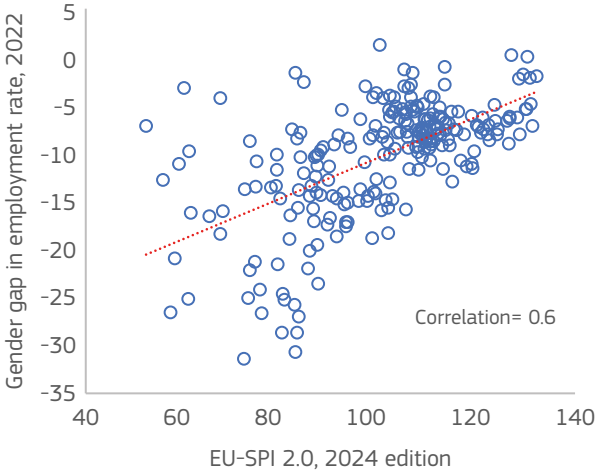
Issues like challenging gender stereotypes, closing gender gaps in the labour market, achieving equal participation across various sectors of the economy and addressing the gender pay and pension gaps are among the key objectives of the strategy. Gender equality is also the second principle of the European Pillar of Social Rights[22].

For women, social progress encompasses various factors that may influence their ability to enter and succeed in the labour market. Since women still bear much of the burden of family care, access to quality education or childcare services are crucial in overcoming barriers to participation. Investing in gender-responsive policies, such as parental leave, flexible working arrangements and equal pay measures, not only promotes gender equality but also enhances women's economic empowerment and labour force participation.

Results seem to indicate that the gender gap in employment[23] is smaller in regions with higher scores of social progress (Figure 9). This positive relationship appears to kick in and get stronger at levels of social progress that are above 80, not far from the EU average.

Further research would be needed to assess the factors that are behind this finding.

Figure 9: Relationship between social progress and the gender gap in the employment rate



Source: DG REGIO and JRC, and Eurostat

Recent graduates enter faster into the labour market in regions with higher social progress

Along with GDP per capita, employment has traditionally been regarded as the main measure to assess the degree of economic prosperity of a country or region. Even though the regional Social Progress Index captures other crucial aspects that go beyond GDP and related economic indicators, it still may offer interesting insight into another important dimension of social progress, namely the employment situation of young adults who recently graduated[24] from either upper-secondary or tertiary levels of education. This latter aspect is of utmost importance because it highlights the efficiency of economic systems in absorbing generated human capital and producing added value.

Since the EU-SPI index incorporates an important dimension of human capital formation, namely access to advanced education in the opportunity dimension, significant discrepancies between the index scores and rates of employment of recent graduates may shed additional light on possible mismatches between regions' capacity to employ their fresh human resources and their overall social progress (including access to tertiary education and lifelong learning).

The relationship between social progress and rates of employment of recent graduates is shown in Figure 10.

[21] European Commission, 'Gender equality strategy: Achievements and key areas for action', European Commission website, https://commission.europa.eu/strategy-and-policy/policies/justice-and-fundamental-rights/gender-equality/gender-equality-strategy_en.

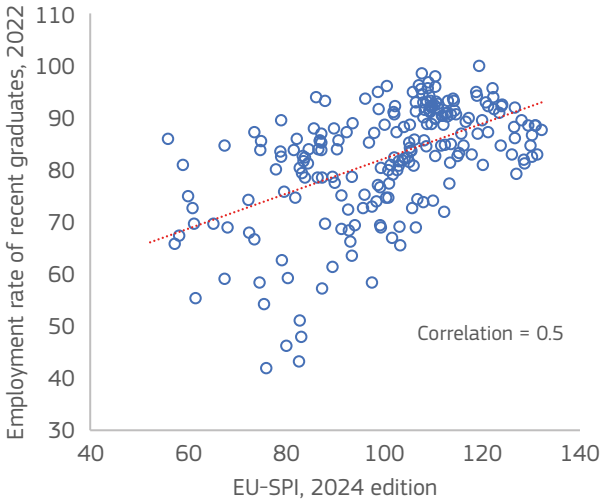
[22] The European Pillar of Social Rights in 20 principles - Employment, Social Affairs & Inclusion - European Commission (europa.eu)

[23] Measured as [(female employment rate) – (male employment rate)]

[24] Recent graduates are those aged 20–34 with at least an upper-secondary education, having left education or training 1 to 3 years earlier.

We observe a positive relationship, indicating that regions with higher social progress also register higher employment rates among recent graduates. In regions where social progress is above the EU average, more than 80 % of the total recent graduates are employed. Together with the overall economic performance of single markets, this heterogeneity may also be due to significant differences in educational systems' performance across Member States and regions, since each Member State is responsible for its own education and training system, opening room for possible discrepancies between the supply and demand of skills at the regional level.

Figure 10: Relationship between social progress and the employment rate of recent graduates



Source: DG REGIO and JRC, and Eurostat

5. CONCLUSION

Measuring economic development beyond GDP is of paramount importance for fostering regional cohesion, promoting inclusive growth, and advancing sustainable development. Therefore, there is a growing emphasis in the European Union on incorporating alternative metrics that offer a more comprehensive assessment of progress and well-being across EU regions.

Against this backdrop, the EU regional Social Progress Index (EU-SPI) has proved to be a valuable tool, complementing traditional economic indicators by capturing a broader range of social factors contributing to well-being.

> "The EU-SPI was developed as a measure to contribute to the 'Beyond GDP' agenda in the European regional context. It was also designed as a tool to facilitate benchmarking across EU regions on a wide range of criteria to help policymakers and stakeholders assess a region's strong and weak points on purely social and environmental aspects. Many of these aspects are at the heart of the investment supported by EU Cohesion Policy, whether in the policy area of basic services (health, education, water, and waste), energy efficiency, education and skills, or pollution."
>
> Annoni and Bolsi (2020, page 21).

The 2024 edition of the EU-SPI seeks to improve the previous editions of the index making it an even more powerful tool in measuring social progress across EU regions in its many dimensions.

The results summarised in this paper confirm that social progress varies greatly across EU regions, with Nordic countries consistently performing better than eastern and southern Member States.

The 2024 edition of the index highlights that achieving high social progress mainly relies on a balanced combination of good performances across its various components. Overall, strong performers excel across various social progress components, not just a select few, while weak performers tend to struggle in most areas and often exhibit a more uneven profile.

While capital regions often outperform their national averages, they can lag behind in basic endowment like safety and housing affordability. Less developed regions generally show lower social progress, particularly in the *basic needs* and *opportunity* dimensions. Future research is needed to explore these differences, to identify areas of improvements, and hence eventual policy targets.

Across the EU, roughly 60 % of people live in regions exceeding the average social progress score. This dips to 50 % when focusing solely on basic needs, like healthcare, sanitation, and housing. In less developed regions, over 80 % of residents live in areas falling below the EU average for social progress across all dimensions, including the overall index. Transition regions present a mixed picture. While around 80 % of their residents live in regions with overall social progress exceeding the EU average (like in more developed regions), only half live in areas exceeding the average EU score for the *basic needs* dimension.

This paper also highlights that social progress goes beyond pure economic factors and plays a significant role in fostering a society's well-being. The positive correlation between GDP per capita and social progress highlights the role of economic resources. However, this relationship weakens with increasing wealth, suggesting that high income alone does not guarantee high social progress in the same proportion. Regions with similar GDP levels can display significant differences in social outcomes.

Furthermore, social progress fosters inclusive growth. Regions with higher social progress tend to have lower shares of people at risk of poverty or social exclusion and a smaller gender gap in employment. This suggests that social progress plays a vital role in facilitating women's participation in the labour market and promoting a more equitable distribution of economic benefits.

The relationship between social progress and youth employment further emphasizes its relevance for regional development. Regions with stronger social progress offer better opportunities for young graduates to enter the workforce, suggesting that investments in social factors enhance the efficiency of human capital utilization.

Cohesion Policy covers economic, social, and territorial cohesion. A framework like the EU-SPI covering a wide selection of indicators to capture a broad concept of regional development may prove useful identifying needs and, eventually, guiding policy targets.

The findings of this work and future analyses can constitute a useful support for monitoring EU Cohesion Policy. As the EU seeks to promote cohesion and convergence among its diverse Member States and regions, it is key to identify areas requiring improvement within Member States. Ultimately, this will assist in fostering a multidimensional understanding of economic and social progress and supporting the design of targeted policy interventions to address the challenges identified, thus leaving no people and no place behind.

6. ACKNOWLEDGEMENTS

This working paper has been developed by the Directorate-General for Regional and Urban Policy in collaboration with the Competence Centre on Composite Indicators and Scoreboards at the Science for Modelling, Monitoring and Evaluation Unit of the European Commission's Joint Research Centre.

The authors would like to thank Hugo Poelman, Teresa Pérez Castaño, Olivier Draily and Lucie Lecomte for their help with the preparation of data and maps used in the working paper; Magdalena Grzegorzewska for coordinating the work on the production of the website; Yves Durinck, Hoang Ha Phan and Alain Vanden Borre for their support with the production of the website; Mattia Pierdicca for creating the interactive maps available online; Peter Berkowitz, Jorge Durán Laguna, Joachim Maes, Lewis Dijkstra and Francisco Barros Castro for their valuable comments and suggestions; Marcos Domínguez Torreiro and Petra Krylova for the useful discussions and insight on the methodological choices; Milda Palilionytė for her precious assistance during the production process of this publication. The authors would also like to thank Paola Annoni and Paolo Bolsi for their work on the previous editions of the index.

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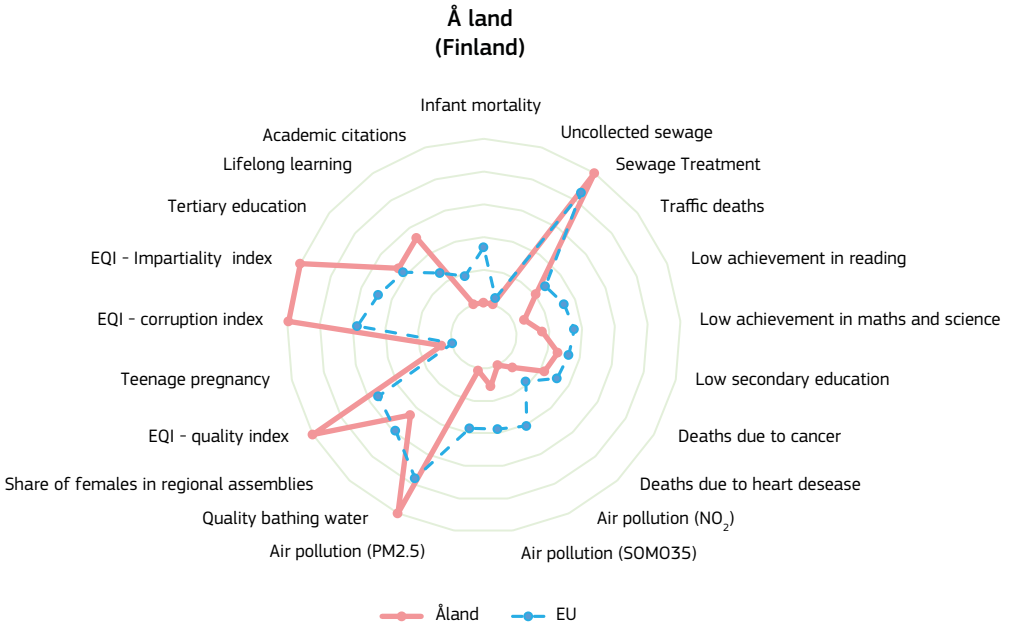
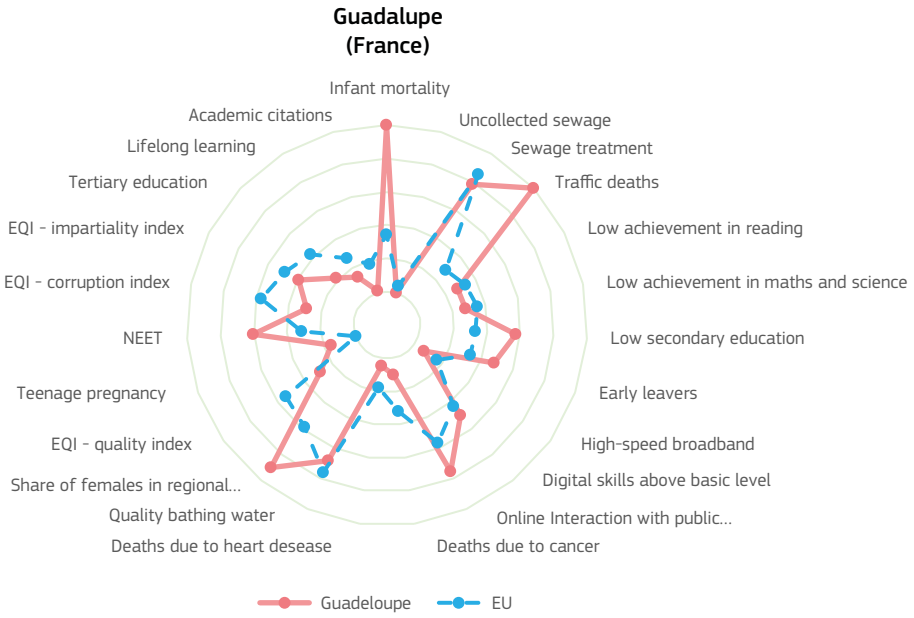
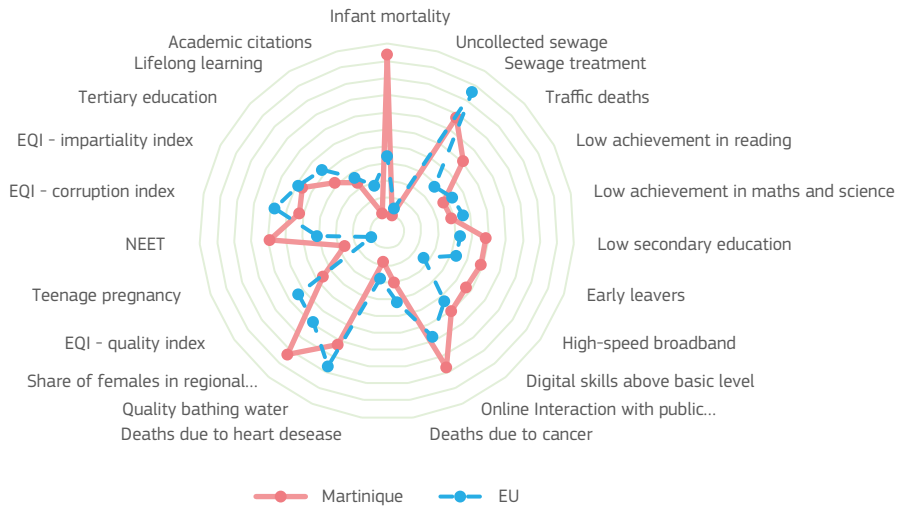
ANNEXES

ANNEX 1: PERFORMANCE ACROSS INDICATORS AVAILABLE WITHIN THE EU-SPI FRAMEWORK FOR EU REGIONS FOR WHICH THE COMPUTATION OF THE INDEX IS NOT FEASIBLE (DUE TO MANY MISSING INDICATORS) ON A MIN-MAX SCALE

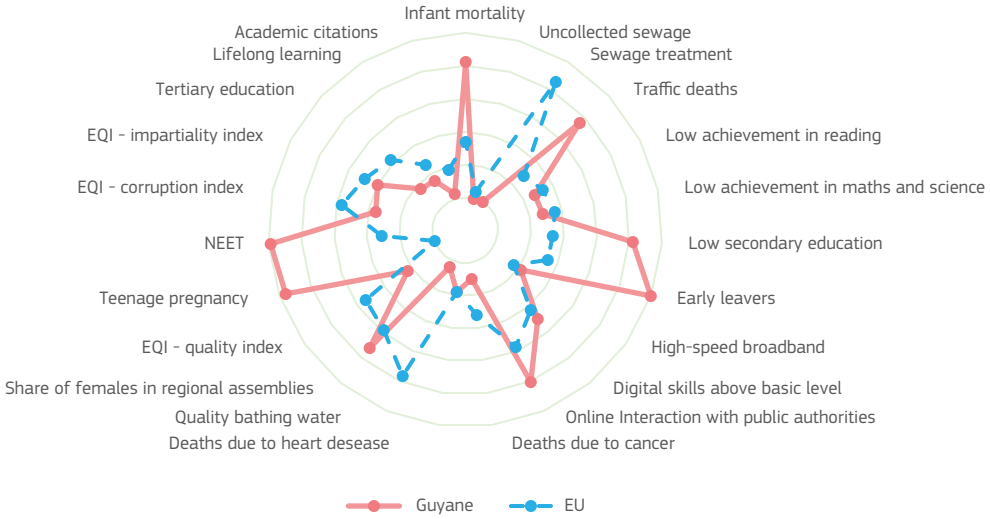




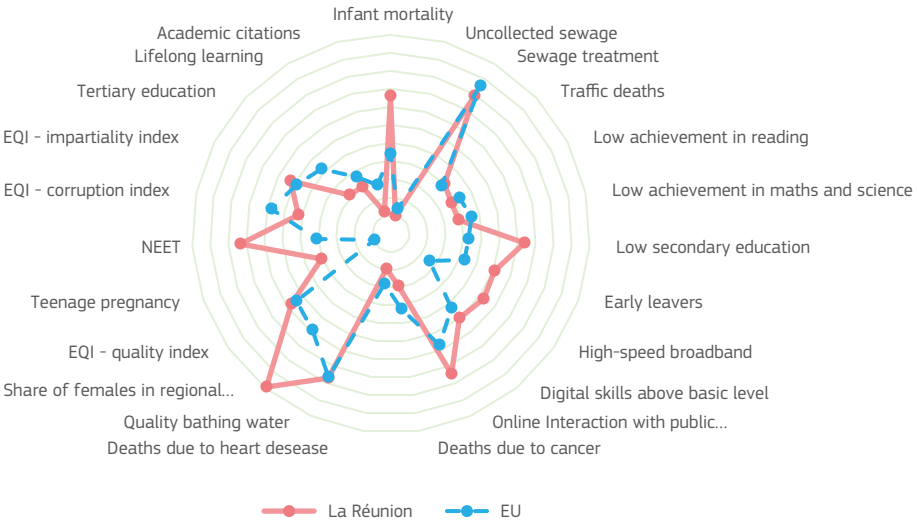
Martinique (France)



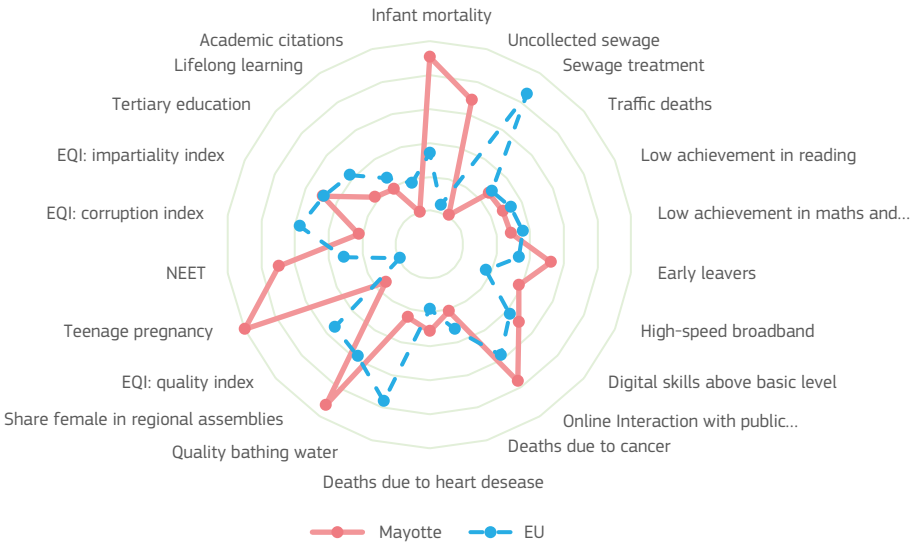
Guyane (France)



La Réunion (France)



Mayotte (France)



ANNEX 2: EU-SPI 2.0, 2024 EDITION: LIST OF INDICATORS

Dimensions	Components	Indicator name	Reference year	Source
Basic needs	Nutrition and medical care	Infant mortality	2021	Eurostat (demo_r_minfind)
		Unmet dental needs	2021	EU-SILC (JRC calculation from PH060)
		Unmet medical needs	2021	EU-SILC (JRC calculation from PH050)
		Insufficient food	2021	EU-SILC (JRC calculation from HS050)
	Water and Sanitation	Satisfaction with water quality	2022	Gallup World Poll (WP95)
		Lack of toilet in dwelling	2020	EU-SILC (JRC calculation from HH091)
		Uncollected sewage	2020	DG REGIO based on EEA data (Waterbase_UWWTD_v7)
		Sewage treatment	2020	DG REGIO based on EEA data (Waterbase_UWWTD_v7)
	Housing	Burdensome cost of housing	2020	EU-SILC (JRC calculation from HS140)
		Housing quality - dampness	2020	EU-SILC (JRC calculation from HH040)
		Overcrowding	2021	EU-SILC (JRC calculation)
		Lack of adequate heating	2021	EU-SILC (JRC calculation from HH050)
	Safety	Traffic deaths	2021 (IT, 2020)	Eurostat (tran_r_acci)
		Safety at night	2022	Gallup World Poll (WP113)
		Money stolen	2022	Gallup World Poll (WP117)
		Assaulted/Mugged	2022	Gallup World Poll (WP118)

Dimensions	Components	Indicator name	Reference year	Source
Foundations of wellbeing	Basic education	Share of low-achieving 15-year-old in reading (level 1a or lower)	2018	OECD-PISA
		Share of low-achieving 15-year-old in maths (level 2 or lower)	2018	OECD-PISA
		Lower-secondary completion only	2022	Eurostat (edat_lfse_04)
		Early school leavers	Average 2020-2022	Eurostat (edat_lfse_16)
	Information and communications	High-speed broadband	2021	DG REGIO
		Digital skills above the basic level	2023	Regional Innovation Scoreboard - DG REGIO elaborations
		Online interaction with public authorities	2021	Eurostat (isoc_r_gov)
		Freedom of media	2022	Gallup World Poll (WP10251)
		Internet access	2022	Gallup World Poll (WP16056)
	Health	Years of life lost caused by PM2.5, NO_2 and ozone (SOMO35)	2020	DG REGIO aggregates based on EEA data
		Subjective health status	2021	EU-SILC (PH010)
		Standardised cancer death rate	Average 2015-2017	Eurostat (hlth_cd_ysdr2)
		Standardised heart disease death rate	Average 2015-2017	Eurostat (hlth_cd_ysdr2)
		Positive feelings	2022	Gallup World Poll (aggregated from WP60/61/63/65/67)
	Environmental quality	NO_2 air pollution	2021	DG REGIO aggregates based on EEA and Eurostat (GEOSTAT) data
		Ozone (SOMO35) air pollution	Average 2019-2021	DG REGIO aggregates based on EEA and Eurostat (GEOSTAT) data
		PM2.5 air pollution	2021	DG REGIO aggregates based on EEA and Eurostat (GEOSTAT) data
		Bathing water quality	2021	DG REGIO aggregates based on EEA data

Dimensions	Components	Indicator name	Reference year	Source
Opportunity	Trust and governance	Trust in the national government	2022	Gallup World Poll (WP139)
		Trust in the judicial system	2022	Gallup World Poll (WP138)
		Trust in the police	2022	Gallup World Poll (WP112)
		Voiced your opinion to a public official	2022	Gallup World Poll (WP111)
		Female participation in regional assemblies	2023	Gender Statistics Data by the European Institute for Gender Equality
		Institution quality index	2023	European Quality of Government Index, 2024 edition (Gothenburg University)
	Freedom and choice	Freedom over life choices	2022	Gallup World Poll (WP134)
		Job opportunities	2022	Gallup World Poll (WP89)
		Teenage pregnancy	2021	Eurostat (demo_r_fagec3)
		Young people Not in Education, Employment or Training (NEET)	Average 2020-2022	Eurostat (edat_lfse_22)
		Institutions corruption index	2023	European Quality of Government Index, 2024 edition (Gothenburg University)
	Inclusive society	Institution impartiality index	2023	European Quality of Government Index, 2024 edition (Gothenburg University)
		Tolerance towards immigrants	2022	Gallup World Poll (WP106)
		Tolerance towards minorities	2022	Gallup World Poll (WP103)
		Tolerance towards gay and lesbians	2022	Gallup World Poll (WP105)
		Women treated with respect	2022	Gallup World Poll (WP9050)
	Advanced education	Tertiary education attainment	2022	Eurostat (edat_lfse_04)
		Lifelong learning	2022	Eurostat (trng_lfse_04)
		Academic citations	2019	Directorate-General for Research and Innovation

NB: EEA = European Economic Area.

ANNEX 3: EU-SPI 2.0, 2024 EDITION: GOALPOSTS

			Utopian and dystopian values and type				Notes	Data source(s)
Component	Indicator name	Inverted	Utopian value	Dystopian value	Utopian type	Dystopian type		
Nutrition and medical care	Infant mortality	Yes	0,00	11,00	best possible	worst over the last 5 years	5 years: 2017-2021	Eurostat
Nutrition and medical care	Unmet medical needs	Yes	0,00	25,22	best possible	worst over the last 5 years	5 years: 2017-2021	EU-SILC
Nutrition and medical care	Unmet dental needs	Yes	0,00	39,93	best possible	worst over the last 5 years	5 years: 2017-2021	EU-SILC
Nutrition and medical care	Insufficient food	Yes	0,00	33,95	best possible	worst over the last 5 years	4 years: 2017-2020	EU-SILC
Water and sanitation	Satisfaction with water quality	No	100,00	43,40	best possible	worst over the last 5 years	no time series - the observed 2022 values used	Gallup World Poll
Water and sanitation	Lack of toilet in dwelling	Yes	-1,06	3,77	best possible	worst over the last 5 years	5 years: 2017-2021	EU-SILC
Water and sanitation	Uncollected sewage	Yes	-0,59	4,03	best possible	worst over the last 5 years	no time series - observed 2020 values used	EEA (DG REGIO)
Water and sanitation	Sewage treatment	No	100,00	0,00	best possible	worst over the last 5 years	no time series - observed 2020 values used	EEA (DG REGIO)
Housing	Burdensome cost of housing	Yes	0,00	70,66	best possible	worst over the last 5 years	4 years: 2017-2020	EU-SILC
Housing	Housing quality - dampness	Yes	0,00	46,85	best possible	worst over the last 5 years	4 years: 2017-2020	EU-SILC
Housing	Overcrowding	Yes	0,00	51,29	best possible	worst over the last 5 years	4 years: 2017-2020	EU-SILC
Housing	Lack of adequate heating	Yes	0,00	37,91	best possible	worst over the last 5 years	4 years: 2017-2020	EU-SILC
Safety	Safety at night	No	100,00	55,50	best possible	worst over the last 5 years	no time series - observed 2022 values used	Gallup World Poll
Safety	Money stolen	Yes	0,00	15,10	best possible	worst over the last 5 years	no time series - observed 2022 values used	Gallup World Poll

Component	Indicator name	Inverted	Utopian and dystopian values and type				Notes	Data source(s)
			Utopian value	Dystopian value	Utopian type	Dystopian type		
Safety	Assaulted/ mugged	Yes	0,00	7,89	best possible	worst over the last 5 years	no time series - observed 2022 values used	Gallup World Poll
Safety	Traffic deaths	Yes	0,00	171,00	best possible	worst over the last 5 years	5 years: 2017-2021	Eurostat
Basic education	Share of low-achieving 15 year olds in reading (level 1a or lower)	Yes	15	47,1	EU2030 target	worst over the last 5 years	no time series - observed 2018 values used	OECD (PISA)
Basic education	Share of low-achieving 15 year olds in maths (level 2 or lower)	Yes	15	71,05	EU2030 target	worst over the last 5 years	no time series - observed 2018 values used	OECD (PISA)
Basic education	Lower-secondary completion only	Yes	0	66,5	best possible	worst over the last 5 years	5 years: 2018-2022	Eurostat
Basic education	Early school leavers	Yes	0	30,4	best possible	worst over the last 5 years	5 years: 2018-2022	Eurostat
Information and communication	High speed broadband	No	100,00	55,26	best possible	worst over the last 5 years	5 years: 2017-2021	DG REGIO
Information and communication	Digital skills above basic level	No	100,00	6,88	best possible	worst over the last 5 years	no time series - observed 2023 values used	DG REGIO
Information and communication	Online interaction with public authorities	No	100,00	3,23	best possible	worst over the last 5 years	5 years: 2017-2021	Eurostat
Information and communication	Internet access	No	100,00	62,30	best possible	worst over the last 5 years	no time series - observed 2022 values used	Gallup World Poll
Information and communication	Freedom of media	No	100,00	28,90	best possible	worst over the last 5 years	no time series - observed 2022 values used	Gallup World Poll
Health	Subjective health status	No	100,0	25,2	best possible	worst over the last 5 years	5 years: 2017-2021	EU-SILC
Health	Standardised cancer death rate	Yes	0,0	147,6	best possible	worst over the last 5 years	no time series - observed 2015-2017 average used	Eurostat

			Utopian and dystopian values and type				Notes	Data source(s)
Component	Indicator name	Inverted	Utopian value	Dystopian value	Utopian type	Dystopian type		
Health	Standardised heart disease death rate	Yes	0,0	179,7	best possible	worst over the last 5 years	no time series - observed 2015-2017 average used	Eurostat
Health	Years of life lost caused by air pollution (PM2.5, NO_2 and SOMO35)	Yes	0,0	1981,3	best possible	worst over the last 5 years	period 2015 - 2020 (two data points in time)	EEA (DG REGIO)
Health	Positive feelings (proxy for mental health)	No	100,0	56,1	best possible	worst over the last 5 years	no time series - observed 2022 values used	Gallup World Poll
Environmental quality	Air pollution NO_2	Yes	10,0	35,5	WHO guidelines	worst over the last 5 years	5 years: 2015-2019	EEA and Eurostat (DG REGIO)
Environmental quality	Air pollution SOMO35	Yes	1524,8	8620,2	best in series	worst in series	no time series - min and max observed 2021 values used	EEA and Eurostat (DG REGIO)
Environmental quality	Air pollution PM2.5	Yes	5,0	40,7	WHO guidelines	worst over the last 5 years	5 years: 2015-2019	EEA and Eurostat (DG REGIO)
Environmental quality	Bathing water quality	No	1,0	0,1	best possible	worst over the last 5 years	no time series - observed 2021 values used	EEA and Eurostat (DG REGIO)
Trust and governance	Trust in the national government	No	100,0	6,5	best possible	worst over the last 5 years	no time series - observed 2022 values used	Gallup World Poll
Trust and governance	Trust in the judicial system	No	100,0	9,9	best possible	worst over the last 5 years	no time series - observed 2022 values used	Gallup World Poll
Trust and governance	Trust in the police	No	100,0	46,1	best possible	worst over the last 5 years	no time series - observed 2022 values used	Gallup World Poll
Trust and governance	Voicing opinion to a public official	No	100,0	9,3	best possible	worst over the last 5 years	no time series - observed 2022 values used	Gallup World Poll
Trust and governance	Female participation in regional assemblies	No	50,0	3,2	best possible	worst over the last 5 years	5 years: 2019-2023	European Institute for Gender Equality

			Utopian and dystopian values and type				Notes	Data source(s)
Component	Indicator name	Inverted	Utopian value	Dystopian value	Utopian type	Dystopian type		
Trust and governance	Institution quality index	No	3,0	-3,0	best possible (in z-scores)	worst possible (in z-scores)	no time series - observed year 2021 used	The Quality of Government Institute
Freedom and choice	Freedom over life choices	No	100,0	48,1	best possible	worst over the last 5 years	no time series - observed 2022 values used	Gallup World Poll
Freedom and choice	Job opportunities	No	100,0	11,3	best possible	worst over the last 5 years	no time series - observed 2022 values used	Gallup World Poll
Freedom and choice	Teenage pregnancy	Yes	-0,5	4,4	best possible	worst over the last 5 years	5 years: 2017-2021	Eurostat
Freedom and choice	Young people Not in Education, Employment or Training (NEET)	Yes	0,0	33,6	best possible	worst over the last 5 years	5 years: 2018-2022	Eurostat
Freedom and choice	Institutions corruption index	No	3,0	-3,0	best possible (in z-scores)	worst possible (in z-scores)	no time series - observed 2021 values used	The Quality of Government Institute
Inclusive society	Institution impartiality index	No	3,0	-3,0	best possible (in z-scores)	worst possible (in z-scores)	no time series - observed 2021 values used	The Quality of Government Institute
Inclusive society	Tolerance towards immigrants	No	100,0	24,8	best possible	worst over the last 5 years	no time series - observed 2022 values used	Gallup World Poll
Inclusive society	Tolerance towards minorities	No	100,0	44,6	best possible	worst over the last 5 years	no time series - observed 2022 values used	Gallup World Poll
Inclusive society	Tolerance towards gay or lesbian people	No	100,0	9,2	best possible	worst over the last 5 years	no time series - observed 2022 values used	Gallup World Poll
Inclusive society	Women treated with respect	No	100,0	34,5	best possible	worst over the last 5 years	no time series - observed 2022 values used	Gallup World Poll
Advanced education	Tertiary education attainment	No	45,0	13,7	EU2030 target for Tertiary Ed. Attainment	worst over the last 5 years	5 years: 2018-2022	Eurostat

			Utopian and dystopian values and type				Notes	Data source(s)
Component	Indicator name	Inverted	Utopian value	Dystopian value	Utopian type	Dystopian type		
Advanced education	Lifelong learning	No	21,2	0,5	P90 % across 2018-2022	worst over the last 5 years	5 years: 2018-2022 together with the 90th percentile over 5 years (21.2)	Eurostat
Advanced education	Citations	No	36,4	0,0	best over last 5 years*	worst over the last 5 years	5 years: 2018-2022	DG REGIO

NB: WHO = World Health Organization; P90 % = 90th percentile.

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