

The EU Framework Programme
for Research and Innovation

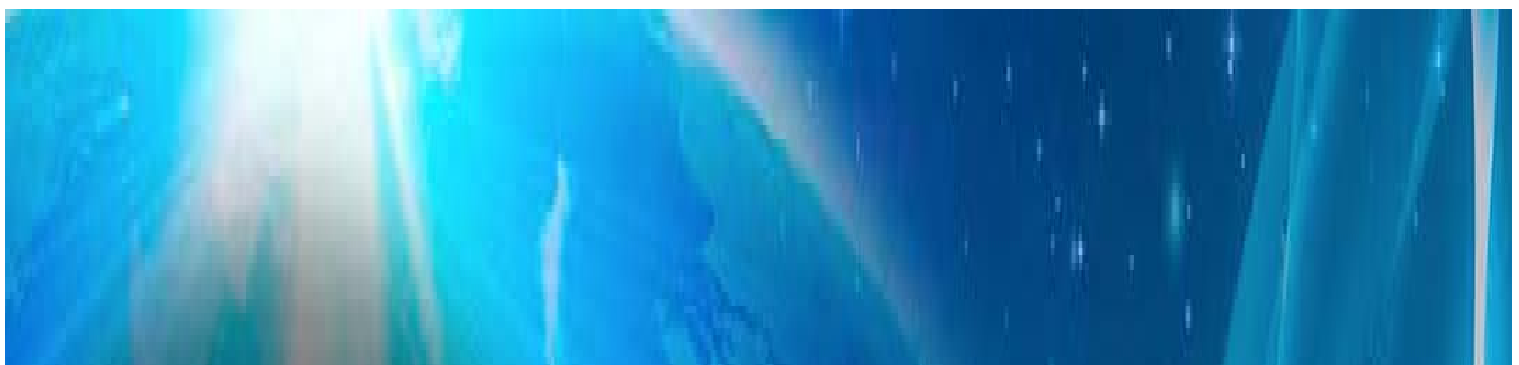
HORIZON 2020



External advice and societal engagement

Towards the 2018-2020 Work Programme

***Europe in changing world –
Inclusive, Innovative and Reflective Societies***



Contents

Foreword	4
Principal sources of external advice and societal engagement	5
1. INCLUSIVE SOCIETIES	9
World and European trends	9
1.1 - The mechanisms to promote smart sustainable and inclusive growth.....	9
Challenges to the implementation of a smart, sustainable, and inclusive model	9
The EU under transformation	10
Beyond GDP: from inclusion to effective inclusiveness	11
1.2 - Policies and practices for an open, inclusive and creative Europe	12
Poverty reduction, welfare state and social innovation in Europe	12
Migration, integration and interculturalism in Europe	14
Tackling radicalisation and extremism	16
Education, work, mobility and social cohesion within the EU	16
Digital Inclusion	17
1.3 - Europe as Global Actor	17
A blurred distinction between internal and external aspects of EU policies	17
The pure external dimension of the EU action	18
A new global strategy for Europe	18
1.4 - Sustainable and inclusive environments	19
Social cohesion and integration of migrants in urban areas	19
Shared functionality of spaces and affordability of services as a new paradigm	19
Artistic assets and urban regeneration	20
2. INNOVATIVE SOCIETIES	21
From knowledge-generation to knowledge-transfer	21
2.1 - Strengthening the evidence-base for the Innovation Union and ERA	22
'Open Science' for a knowledge and data-driven economy	23
'Open Access' to improve knowledge circulation	24
Openness in science	24
2.2 - New forms of innovation	25
Redirecting innovation towards a more sustainable and skill-intensive society	25
Reforming welfare, reducing income spreads, fostering decarbonisation.....	26
New paradigms for social innovation design	27
Digital growth and enhance e-governance	28
Sustainable and efficient business models.....	30
2.3 - Using the innovative potential of all generations	31
Dismantling the myths of the 'clash of generations' theory	31
Demographic change	32
The necessity of EU innovation policies for all ages	32

2.4 - Promoting cooperation with third countries	32
Research and innovation in an interdependent and interconnected world	32
Collaboration across the globe	33
Securing the place of Europe in global innovation networks	34
3. REFLECTIVE SOCIETIES.....	36
From understanding the past to projecting the future	36
3.1 - European heritage: memory and identity.....	36
Global transformation's influence on cultural heritage	36
The future of cultural heritage from an EU institutional perspective.....	37
The question of cultural heritage in a diverse society	38
Digital technologies and cultural heritage	39
Creating new knowledge and engaging with heritage.....	40
3.2 - Contemporary European diversity.....	41
Exploiting the benefits of the European cultural diversity	41
Understanding the cultural past and projecting the future	42
3.3 - Europe's role in the world	42
The identification, the understanding and the forecasting of global challenges	42
An EU Cosmopolitan society	44
The importance of cultural diplomacy.....	44

Foreword

In preparing the work programme for the Societal Challenge 6 '*Inclusive, Innovative and Reflective Societies*' of Horizon 2020 for the period 2018-2020, the European Commission is ensuring adequate external advice and societal engagement as established in Article 12 of the regulation concerning the H2020 programme, which specifies that advice shall include '*forward-looking activities, targeted public consultations, including, where appropriate, consultations of national and regional authorities or stakeholders, and transparent and interactive processes that ensure that responsible research and innovation is supported*'.¹

To satisfy this requirement for Challenge 6, this report used the insights from a large variety of actions from expert workshops to large stakeholder's conference passing through participatory events and EU '*social platforms*'. The Dutch and Luxembourg presidencies were also active on the issues of concern to this report, while several other European bodies have contributed with position papers and institutional stances. This report summarises that advice according to the general structure of specific activities set out in the Council Decision implementing Horizon 2020.²

A clearly defined structure has been added to the discussion of each specific activity to identify emerging themes of research which are coherent with the Strategic Agenda for the Union which was endorsed by the Council at its meeting on 26th and 27th of June 2014³ as well as by the State of the Union 2015 speech of President Jean-Claude Juncker entitled '*Time for Honesty, Unity and Solidarity*'.⁴

This report integrates the inputs provided by EU stakeholders, platforms, projects and activities conducted between September 2015 and May 2016. In total, this report reflects the views of around 3000 stakeholders coming from the academic world, the research community, public authorities, industry, trade-unions and non-governmental organisations.

This External advice and societal engagement report is complementing the European Commission stock-taking and evaluation of previous Research and Innovation actions, the Commission Foresight activities, the recommendations from the Expert Advisory Group of Societal Challenge 6 and the insights from the EU Member States and Associated Countries. The 2018 and 2020 work programme of Societal Challenge 6 is expected to have a budget of more than € 500 million.

The report was prepared and planned taking into consideration the largest possible range of views, experiences and insights from all the European Union. These experiences are the very *raison d'être* of the issues at stake. Several European Commission colleagues (DG RTD and DG CONNECT) helped to make this report comprehensive by covering the different dimensions of Societal Challenge 6. Special thanks go to Mr Massimiliano Gobbato who compiled this report and to Dr. Domenico Rossetti di Valdalbero and Bogdan Birnbaum from DG RTD who supervised it.

¹ [Regulation no 1291/2013 of the European Parliament and of the Council establishing Horizon 2020 - the Framework Programme for Research and Innovation \(2014-2020\) and repealing Decision No 1982/2006/EC, 11 December 2013](#)

² [Council decision establishing the specific programme implementing Horizon 2020, 3 December 2013](#)

³ [Strategic Agenda for the Union in times of economic change, European Council 26- 27 June 2014 Global Europe 2050, European Union Publication Office, 2012](#)

⁴ [Jean Claude Juncker, State of the Union 2015: Time for Honesty, Unity and Solidarity European Parliament, Strasbourg, 9th of September 2015](#)

Principal sources of external advice and societal engagement

The background to the main sources used in this report is described here and referenced in the report. Other sources are also referred to in the text by footnotes and in the final section 'additional references'.

Trust: European Research Co-creating Resilient Societies

One key question faced by Europe is trust. Trust in others, trust of European citizens in public authorities, trust between employers and employees, trust in a common European future. These concerns are present in recent sensitive debates on migration, radicalisation, growth and austerity as well as on geopolitical changes. The two-day conference '*Trust: European Research Co-Creating Resilient Societies*' has offered a unique forum to both discuss the different perceptions of trust and how research can contribute to fostering trust in societies. The conference, which is this year's key event on SC 6 in the EU Research and Innovation Framework Programme Horizon 2020, has not only highlighted research within the social sciences and humanities but has also connected researchers with policy-makers and stakeholders willing to co-create resilient European societies.⁵

Understanding and Tackling the Migration Challenge: The Role of Research

The Directorate General for Research and Innovation of the European Commission organised a two-day conference to explore and demonstrate how European research can support policy makers in designing effective and sustainable migration policies. To this end, past and current research on migration - including on integration, circular migration, migration and development, data and statistical modelling - were presented and debated from a policy perspective and findings from social sciences and economic research featured at the conference alongside short to long-term health care needs of migrants, as well as the link between climate change and current and future migratory processes. The identification of future research needs, both immediate and long-term, were a cross cutting theme throughout the conference. The *Science4Refugees*⁶ initiative, designed to identify and provide opportunities for refugees with scientific qualifications within the European Research Area, were also be presented at the conference. Participants comprised leading researchers in the field of migration, including many coordinators from EU funded research projects, EU and national policy makers as well as other relevant stakeholders. The format of the event was interactive and the audience and speakers engaged in a fruitful dialogue on the role of research in tackling the current and future challenges that migration poses, both to Europe and at a global level.⁷

Social Innovation 2015: Pathways to Social Change

'Social Innovation 2015: Pathways to Social Change. Research, policies and practices in European and global perspectives' is a major international event devoted to social innovation which took place in 2015. The conference was designed by experts representing several social innovation projects and allowed researchers to connect with policy makers and practitioners of social

⁵ [European Research Co-creating Resilient Societies, 29-30 October 2015, Brussels \(TRUST\)](#)

⁶ [Science4Refugees](#)

⁷ [Understanding and Tackling the Migration Challenge: The Role of Research International Conference, 4-5 February 2016, Brussels \(MIGRATION\)](#)

innovation.⁸

Reduce poverty, improve social policy and innovation

'*Poverty Reduction in Europe: Social Policy and Innovation*' consists of an international research project that brought together ten outstanding research institutes and a broad network of researchers in a concerted effort to study poverty, social policy and social innovation in Europe. The ImPRovE project aimed at improving the basis for evidence-based policy making in Europe, both in the short and in the long-term. In the short-term, this was done by carrying out research that is directly relevant for policymakers. At the same time, ImPRovE invested in improving the long-term capacity for evidence-based policy making by upgrading the available research infrastructure, by combining both applied and fundamental research, and by optimising the information flow of research results to relevant policy makers and the civil society at large.⁹

Opening up to a new ERA of innovation

In the presence of Commissioner Moedas, this conference brought together some 500 participants from key research and innovation organisations to discuss EU policies on three interconnected topics: '*Open Science*' within the European Research Area and Innovation. The conference covered a broad range of issues including, the results and outcome of the '*Science 2.0: science in transition consultation*', the ERA Roadmap, open labour market for researchers building up an innovation ecosystem future markets. In the run up to the conference there was a survey among stakeholders and experts to assess current innovation policies. The results were presented and discussed at the conference, in the session '*Towards an ERA of innovation*' and they inform about the overall review of the '*Innovation Union*'.¹⁰

Simple, secure and transparent public services

The European eGovernment conference '*Simple, secure and transparent public service*' was a two-day event organised by the Luxembourg and brought together approximately 150 eGovernment professionals from very diverse backgrounds and from all over Europe. Participation in the conference was by invitation only. The conference was built around the following main themes: digital strategies and policies, once only principle, citizen engagement in the design of public services and policy making, cross-border public services and interoperability, open data and electronic identification and trust services.¹¹

Digital Single Market Strategy - Bringing down barriers to unlock online opportunities

The Digital Single Market Strategy of the EU Commission aims at maximising the growth potential of the European Digital Economy and of its society, so that every European can enjoy its full benefit. The internet and digital technologies are transforming our world, but the still existing online barriers mean that citizens miss out on goods and services, internet companies and start-ups have their horizons limited, and businesses and governments cannot fully benefit from digital

⁸ [Social Innovation 2015: Pathways to Social Change, Brokerage Event, 18 – 19 November Vienna](#) (SI2015)

⁹ [Poverty Reduction in Europe: Social Policy and Innovation](#) (IMPROVE)

¹⁰ [New start for Europe: Opening up to an ERA of Innovation](#) (NEW START)

¹¹ [European eGovernment conference: Simple, secure and transparent public services , Luxembourg 1-2 December 2015](#) (EGOVERNANCE)

tools. The Digital Single Market Strategy aims at making the EU's single market fit for the digital age – tearing down regulatory walls and moving from 28 national markets to a single one. This could contribute €415 billion per year to the European economy and create hundreds of thousands of new jobs. In addition, the European Commission's public consultation on the new eGovernment Action Plan 2016-2020 was carried out from 30/10/2015 to 22/1/2016 as eGovernment is part of the actions for completing the Digital Single Market.¹²

New Horizons for Cultural Heritage – Recalibrating relationships: bringing cultural heritage and people together in a changing Europe

The scope of the seminar was to discuss how the RICHES project (Renewal, Innovation and Change: Heritage and European Society) can provide insights to support evidence-based policymaking in Europe. The seminar comprised political updates by representatives from the European Parliament and the European Commission, presentations of policy recommendations from the RICHES project and a Round Table discussion involving major stakeholders. The programme of the seminar offered the participants the opportunity to challenge institutional points of view with the practical results of the research conducted by RICHES, and this in particular with regard to the following themes: the need to develop and to use a common taxonomy, innovation in copyright frameworks and open access to data and information, co-creation practices that offer the cultural heritage sector innovative approaches to breaking down barriers.¹³

Social innovation-related events - SOCIETY, IMPACT and SIMPACT

'Empowering the young for the common good' was the final event of SOCIETY project.¹⁴ In addition, 'Transformative Social Innovation Theory' (TRANSIT project) developed a theory which is about empowerment and change in society. TRANSIT utilised a research method which encourages feedback from social entrepreneurs and innovators, policy makers and academics to develop a theory with practical relevance. The theory is based on insights from other theories e.g. transition theory, social movement theory and institutional theory.¹⁵ SIMPACT, a research collaboration that aimed at understanding the economic foundation of social innovation targeting marginalised and vulnerable groups in society, was also reviewed.¹⁶

Towards an Atlantic Area?

In a context of spectacular growth in Asia and the Pacific Rim and of the West's hard times, the Atlantic space is experiencing a major reconfiguration. The North America – Europe link continues to be the strongest and most important of the relationships between any two continents. But its decline in relative terms is slowly being matched by the rise of Africa, Latin America and a newly energised Arab region, all of which are increasing their interregional links and gaining weight in global affairs. ATLANTIC FUTURE was a 3-year collaborative research project funded by the European Commission under the Seventh Framework Programme.¹⁷

¹² [Contributions and preliminary trends of the public consultation on the eGovernment Action Plan 2016-2020, 23 february 2016](#)

¹³ [Empowering the Young for the Common Good \(SOCIETY project\)](#)

¹⁴ [Improving the quality of life of disadvantaged young people –Towards a Capability-Friendly Youth Policy in Europe, EP, 9 December 2015](#)

¹⁵ [TRANSformative Social Innovation Theory \(TRANSIT\)](#)

¹⁶ [Boosting the impact of Social Innovation in Europe through Economic Underpinnings \(SIMPACT\)](#)

¹⁷ [Towards an Atlantic Area? \(ATALANTIC FUTURE\)](#)

Maximizing the integration capacity of the European Union: Lessons and prospects for enlargement and beyond

The Central and Eastern European Studies Center is an interdisciplinary platform of scholars of the Leiden University. The Center's mission is to assemble, strengthen and disseminate existing research into the history, politics, and culture of the region, to the new member states of the EU, but also to Ukraine, Moldova, the Western Balkans and Russia. The Center assimilates and builds on the considerable expertise housed in different institutes: Political Science, Public Administration, History.¹⁸

Forward Looking Analysis of Grand Societal Challenges and Innovative Policies

'Forward Looking Analysis of Grand Societal Challenges and Innovative Policies' (FLAGSHIP project) aimed at driving change, supporting the policy shift from adapting to changes through short-term policy responses, towards anticipating, welcoming and managing changes properly.¹⁹ In addition, the MILESECURE project – *'Multidimensional Impact of the Low-carbon European Strategy on Energy Security, and Socio-Economic Dimension up to 2050 perspective'* - wished to contribute to the general objective of Regional, territorial and social cohesion. MILESECURE-2050 sought to focus on energy transition towards a low carbon society.²⁰

*The following sections compile the main research findings from these sources. For ease of reference the headings include the section number of the Council Decision setting out the overall Horizon 2020 programme.*²¹

¹⁸ [MAXCAP conference. Maximizing the integration capacity of the European Union: Lessons and prospects for enlargement and beyond, Istanbul, 22-23 April 2015 \(MAXCAP\)](#)

¹⁹ [Forward looking analysis. Final public conference, Brussels, 16 December 2015 \(FLAGSHIP\)](#)

²⁰ [Multidimensional Impact of the Low-carbon European Strategy on Energy Security, and Socio-Economic Dimension up to 2050 perspective \(MILESECURE\)](#)

²¹ [Council decision establishing the specific programme implementing Horizon 2020, 3 December 2013](#)

1. INCLUSIVE SOCIETIES

World and European trends

As emerged several times during stakeholder events, conferences and workshops organised around the themes relevant to Social Challenge 6, the European Union as a whole is facing a delicate moment of transformation which offers several opportunities and presents possible risks, while posing a number of challenges to European institutions, the private sector, civil society organisations and citizens alike. Global and European trends, which could be classified in several mainstreams – namely, the reshaping of the industrial organisation and the delocalisation or re-localisation of enterprises, the emergence of a more knowledge-oriented economy, the technological and organisational advancements, especially those stemming from ICT, economic stagnation or reform implementation fatigue, the welfare redistribution question, the challenges emerging both from climate change and migration flows, as well as the constant poverty reduction struggle and the reappearance of various sort of conflicts and extremism -, are coupled with geopolitical, economic, societal and cultural shifts which are urging a prompt and effective reaction from the EU in all its components. Various stakeholders' interventions pointed to the fact that such a reaction is not only required to occur through further engagement of European, national or local institutions and experts at all levels, but also, to an increasingly higher extent, through the active involvement of academia, the private sector, civil society organisations and citizens alike. The acknowledgement of the importance of this policy setting urges the European society both to better understand the new features of the challenges ahead and to create innovative and effective forms of dealing with the effects of the aforementioned trends. Moreover, as the Juncker European Commission also noted in its programme the importance of the social dimension of EU policies,²² it appears evident that the furthering of the dialogue between European institutions and social inclusion stakeholders is vital for the successful implementation of the EU 2020 strategy.

1.1 The mechanisms to promote smart sustainable and inclusive growth

Challenges to the implementation of a smart, sustainable, and inclusive model

It is widely acknowledged that, in this historical momentum, the European Union, although recognised as a long-term success story, is struggling both in advancing further in the process of integration and in offering a forward-looking and trustworthy perspective for its citizens. The long-lasting repercussions of the economic and financial crisis, along with the constant process of transformation which both European institutions and the European society as a whole are undergoing, is disrupting the reaping of the many advantages which the European Project have brought about. European integration is not only put at risk due to the rise of extremism within and without Europe, but it also suffers from political, cultural and social fragmentation, notwithstanding the fact that digital technologies have increased the amount of information available and have helped the process of interdependence and interconnection of citizens across Europe and around the globe. As the New Strategy conference noted, diversity and differences in opinions between Northern and Southern Europe, as well as between the old members and the newcomers are widening.²³ One of the main responses of European institutions to several among

²² [President Juncker, Speech at seminar on 'A new start for Social Europe', Luxembourg, 19 June 2015](#)

²³ [Welfare, Wealth and Work: A new Strategy for Europe, Brussels, 25 February 2016](#)

these issues took form in the presentation of the so-called '*Five President Report*'²⁴ which aims at addressing several economic and institutional asymmetries which should help in formulating a more cohesive EU policy decision-making towards common objectives, as well as at scaling up the level-playing field of innovation processes. However, the effects of the possible impact these stances may have, are to be assessed in the future. Also in this context, the internal market functioning, in addition to macroeconomic and tax governance, have been recognised as major challenges that are to be urgently addressed. This setting has also been highlighted several times in European Parliament resolutions²⁵. In addition, recent and past migration flows, the rise of ultra-nationalism and xenophobia, together with the tendency of European citizens to be forgetful about past and current achievements of both European history and the EU integration process, are threatening the social and economic principles which the European Union aspires to put into full practice.²⁶

The EU under transformation

Given its peculiar history and economic and social model, the European Union is undergoing a series of transformations which the conference New Strategy identified as follows: redirecting innovation, better managing of social and economic dynamics, reforming welfare, decoupling energy, creating a smarter public sector, as well as reforming finance²⁷. Although this list is not exhaustive as it does not take into account the whole of the European social landscape, the concept of '*socio-ecological transformation*' is to be considered as a good synthesis of the ongoing societal processes, as long as we consider the ecological transition in terms of sustainable development at large and we include the question of cultural heritage, as well as the issues emerging from past and present migration flows. With special regard to social inclusion, the IMPROVE final conference highlighted how inequality, poverty and living standards are strictly connected to both the effects of the economic downturn and the difficult path towards a stable economic recovery while several other sources emphasised other European and global phenomena which need to be quickly understood as they might undermine the effective operation of both the European democratic system and its economy, as well as its past and future achievements in terms of labour market participation, welfare state effectiveness and social cohesion.²⁸ These principles are among the basic features of the EU's unique economic and social model enshrined in the Treaties. As far as current trends emerging from the elaboration of a forward-looking EU strategy for social innovation are concerned, it is interesting to note that several speakers and participants in stakeholders consultations and conferences have made reference to '*Global Europe 2050*'²⁹, and to the three scenarios which are proposed as references to predict the future state of the EU in more than 30 years, namely, the '*standstill*', '*fragmented*' and '*Renaissance*' scenarios³⁰. In addition, it might also be useful to note how several speakers agreed on the direct correlation between the successful implementation of social innovation

²⁴ [The Five Presidents' Report: Completing Europe's Economic and Monetary Union, 22 June 2015](#)

²⁵ [Report on the review of the economic governance framework: stocktaking and challenges, European Parliament, 17 June 2015](#)

²⁶ [Geoffrey Hosking - Trust: European Research Co-creating Resilient Societies, Brussels, 29-30 October 2015](#)

²⁷ [Welfare, Wealth and Work: A new Strategy for Europe, Brussels, 25 February 2016](#)

²⁸ [Improving Poverty Reduction in Europe: Lessons From the Past, Scenarios for the Future, Antwerp, 3-5 February 2016](#)

²⁹ [Global Europe 2050, European Union Publication Office, 2012](#)

³⁰ [Andrea Ricci - The future moves us.Trust: European Research Co-creating Resilient societies, Brussels, 29-30 October 2015](#)

policies and the capacity of Europe to integrate itself at all levels through more European political, institutional and social cohesion. Furthermore, the need has emerged for Europe to improve its approach to research and innovation, via a more interdisciplinary, coordinated, integrated and societal benefit-oriented approach to research and innovation. The Trust conference and the SI2015³¹ events, for example, offered the opportunity to discuss the different perceptions of European social actors, their role, the variety of perspectives on social innovation, as well as how social sciences, humanities research and orientational knowledge can contribute to fostering a climate of trust within all components of European society³². As several also high-ranking EU officials stated³³, an increased level of trust and trustworthiness³⁴ at every layer of the European society has emerged as an essential feature for the future of the European Union. It appears in reviewing the experts' interventions that this can be gained not only through more engagement, awareness, communication, cooperation and effectiveness among political, economic and cultural institutions, but also within the society as a whole. The convergence of the entirety of the social actors towards common and shared objectives will allow the achievement of a smart and sustainable development through a process of social innovation and cohesion which will develop, sustain, and possibly lead to a societal transformation and to the release of its potential for the EU society.³⁵

Beyond GDP: from inclusion to effective inclusiveness

The H2020 Specific Programme states that the constant quest for economic growth carries a number of important human, social, environmental and economic costs. This stance can be also interpreted as a consequence of the long-standing cultural and political processes which were ignited in the 80s within international organisations and academic fora and gained the spotlight of the public debate³⁶. Due to the aforementioned processes of transformation of European and global economic and social dynamics, the concept of sustainable development and its measurement, as well as the practices to enhance the societal well-being have been the object of extensive research and social experimentation. The European institutions have been receptive to this new growth paradigm when launching the 'Europe 2020 Strategy' which aims at reaching ambitious objectives in terms of innovation, employment education, social inclusion and climate change-friendly policies, as well as cultural awareness by valuing the importance of a knowledge-based society. Nevertheless, the process of achieving a comprehensive smart, sustainable and inclusive growth model in Europe, although underway, is yet far from being concluded³⁷. In addition, other experts have pointed out that the process of social innovation, which can be defined as a new combination of practices, a changing of social relationship or a societal-systemic change³⁸, can be also perceived as the need to '*do more with less*' resources or as a way to '*de-*

³¹ [Social Innovation 2015: Pathways to Social Change, Vienna, 18 – 19 November 2015](#)

³² [Milena Žic Fuchs Trust as a many-layered concept in research and its possible relations to societies and individuals, TRUST conference, Trust: European Research Co-creating Resilient Societies, Brussels, 29-30 October 2015](#)

³³ [Carlos Moedas, Commissioner for Research, Science and Innovation, Trust in Europe: The contribution of the social sciences and humanities 29 October 2015, Trust European Research Conference, Brussels.](#)

³⁴ [Onora O'Neill, Trust: European Research Co-creating Resilient Societies, Brussels, 29-30 October 2015](#)

³⁵ [Alessandro Desserti, Rethinking business models for social innovation – Bridging the gap between ideal and real, Social Innovation 2015: Pathways to Social Change, Brokerage Event, Vienna, 18 – 19 November 2015](#)

³⁶ [Sustainable Development Knowledge Platform, United Nations](#)

³⁷ [Roy Pennings, How to avoid Horizon 2020 success being tarred by high failure rate, Science Business, Article, 20 May 2015](#)

³⁸ [Flor Avelino: Transformative Social Innovation Insights from the TRANSIT-project, Social Innovation 2015: Pathways to Social](#)

responsibilise public authorities' by shifting responsibilities for welfare provisions to private or third sector actors. Although this criticism should be taken into proper account, the majority of the stakeholders have called for a greater extension of innovative practices, for receptiveness and support by public bodies, as well as for a dialogical interaction with European public institutions at all levels. In addition, they stressed the importance of citizens' awareness and active engagement in order to find alternative or complementing solutions to the dynamics emerging from the transformations of EU society. However, despite growing awareness of the significance of social innovation in successfully addressing societal challenges, there is still no sustained and systematic analysis of social innovation, its theories, characteristics and impacts. Also, the relationship between social innovation and social change remains a largely under-explored area in social sciences as well as government innovation policies³⁹. It also emerges from the various consultations that the common feature of the new paradigms for social innovation is the characteristic of complementing the '*classical*' concept of social inclusion,- defined as the effort to counterbalance with the principle of inclusiveness the exclusion of social groups which, for various reasons, are marginal in the given context. In fact, what came to light in the series of events and meetings on these themes is the necessity for European society to adopt a more comprehensive operational and measurement approach which should be based upon the principle of '*effective inclusiveness*'.⁴⁰ The feature of '*effective inclusiveness*' implies that not only academic disciplines, but also institutions, the private sector and the wider civil society should be acting in a more interrelated and coordinated manner in order to benefit the largest number of citizens across social conditions and ages.⁴¹ This theoretical shift does not imply the elimination of the standard frameworks and practices to measure the wealth of society such as macroeconomic indicators, welfare system service effectiveness or average GDP per capita. On the contrary, it aims at better understanding and measuring the impact of current macroeconomic, employment, taxations and social policies in order to assess both how - in the short term - interdisciplinary research, widespread and well-communicated knowledge, innovative practices and public policies may improve or even change the cultural awareness and the policy-making, as well as how - in the medium and long term - EU societal organisation might be transformed.⁴²

1.2 Policies and practices for an open, inclusive and creative Europe

Poverty reduction, welfare state and social innovation in Europe

Although both well-being and innovation measurements should go beyond the '*classical*' concept of social exclusion and include the parameter of inclusiveness, the theoretical shift should not imply that research and policy efforts to understand and address the question of poverty reduction, both in the EU and around the world, constitute a secondary matter of importance within the Societal Challenge 6 of the working Programme 2018-2020. First and foremost, it is to be noted that several stakeholder interventions on this matter have come to the conclusion that

[Change, Brokerage Event, Vienna, 18 – 19 November 2015](#)

³⁹ [SI 2015 - Social Innovation 2015: Pathways to Social Change, Vienna, 18 – 19 November 2015](#)

⁴⁰ [Maria Schwarz-Woelzl, CASI - Public Participation in Developing a Common Framework for Assessment and Management of Sustainable Innovation Involving citizens and stakeholders, - Pathways to Social Change, Vienna, 18 – 19 November 2015](#)

⁴¹ [Anette Scoppetta, SI-DRIVE: Social innovation actors and roles \(primarily results from the policy field reports\), Social Innovation 2015: "Pathways to Social Change" Vienna, 18 November 2015](#)

⁴² [Transformative Social Innovation: European Network of Living Labs , Summary Report, #1 March 2016 – TRANSIT project](#)

the increase or the stand-still of poverty levels have been the most tangible consequences of the economic crisis as the average income and/or purchase power have both decreased in several member states. This is confirmed by current data on poverty which point out that household incomes are more than ever before at risk of crossing the poverty line. If we consider the extension of this phenomenon by acknowledging the simple fact that 16.4 % of the EU population - 80 million people - is living below the poverty threshold, it becomes evident that the fight against social inequality and disadvantage is one of the principal challenges ahead and it needs to be further tackled and investigated. It is also interesting to take note that current research on poverty reduction acknowledges that the rise in employment did not reduce significantly poverty before the crisis, but employment and poverty more often mirrored one-another after the crisis⁴³. In addition, as most of the interventions and documents produced during the SOCIETY project and the IMPROVE project acknowledged, a great number of vulnerable people, especially the youngest part of the population of Europe, is increasingly exposed to social exclusion and poverty, and is being left behind by society, politics and state institutions. As a result, identifying opportunities to reduce inequality, while extending and provide knowledge, tools and social innovation policies and practices for the ultimate goal of a *'good life for all'* become of pivotal importance both for research and the EU policy-making. Such efforts are necessary not only for the current consequences for the well-being of EU citizens, but also in order to tackle some of the current as well as possible future increases in unequal access to education, public goods, resources, processes of spatial segregation, institutional and labour market discrimination. The sources reviewed for this report all point out that political institutions, public services, civil society at large, as well as the private sector must together find innovative and creative solutions to engage in the fight for poverty reduction. In addition, the *'Strategic Agenda for the Union in times of change'* (hereinafter: *'Strategic Agenda'*)⁴⁴ acknowledges that although the recovery in Europe is gaining pace, unemployment is still our highest concern and inequalities are on the rise. Many of the sources reviewed observe that the roles of citizen and the state in the provision of a welfare system are changing or evolving along with their implications for social cohesion, as well as for economic growth. During the Trust conference⁴⁵, some of the speakers mentioned the differences and the diversity of European economic and welfare models in terms of systemic functioning, taxonomy and theoretical approaches, while emphasising the importance of the correlation between economic growth and social expenditures. In this correlation, economic growth is still considered as a crucial factor in order to assess how welfare systems adapt to negative or positive changes in the real economy. The confirmation of the validity of these methods came also from other interventions across other stakeholders events analysed, which all agree with the analysis that there has also been a diverse social policy reaction to the *'ups'* and *'downs'* of European economic performances, as some countries have chosen to adopt cyclical policies, while others have adopted anti-cyclical policies with mixed results. In addition, the Southern-Northern as well as the Southern Eastern-Northern Eastern European divide in terms of effectiveness of the response to the economic downturn, have confirmed the fragmentation of the EU economic system both in terms of cohesion and growth model. If we also take into account that income inequality is increasing sharply across OECD countries after the economic slump, it becomes evident how wealth distribution is another factor which puts welfare states, as well as social cohesion policies, under

⁴³ [Inequality, poverty and living standards, Institute for New Economic Thinking at the Oxford Martin School - IMPROVE conference, Improving Poverty Reduction in Europe: Lessons From the Past, Scenarios for the Future, Antwerp, 3-5 February 2016](#)

⁴⁴ [Strategic Agenda for the Union in times of economic change, European Council, 26- 27 June 2014](#)

⁴⁵ [Trust: European Research Co-creating Resilient Societies, Brussels, 29-30 October 2015](#)

pressure.⁴⁶ This setting has induced several researches to question to what extent the welfare state should be rethought⁴⁷. In the context of the IMPROVE final meeting, Jean-Marc Fontan, for example, questioned not only whether it would be possible to put into action the welfare state without the state (and its revenues), but also whether the EU should consider the current growth model as socially viable or should instead consider alternative ways of growing (or de-growing) in order to facilitate a new civilisation pattern which privileges more democratically and ecologically-friendly lifestyle pattern. On the same set of issues, several other stakeholders also questioned the extent to which the EU has facilitated the modernization or the recalibration of welfare towards social investment and innovation. In this connection, benchmarking the EU social and economic and employment policies becomes of high importance. Although the prominent role of European Institutions in setting the agenda was constantly recognised, both the systemic differences and social innovation practices that may complement and/or influence the agenda are still open to discussion, especially in the light of the demographic challenges below described. As the European Union is notably characterized by its efforts to strengthen its democratic nature, the three important values of democratic governance - namely, effectiveness, legitimacy and social justice - should be further analysed in terms of trade-offs and /or tensions and in relation to the concepts of social inclusiveness within social innovation practices, services and policies⁴⁸. Finally, not only the national, but also the regional and the local implementation of welfare has been pointed out as important aspects of this strand of the grand societal challenges emerging from the latest societal developments.

Migration, integration and interculturalism in Europe

Immigration is notably deeply rooted in European history, however it is rather complex with regards to the types of and status of migrant groups. The settlement of immigrants have been, until now, more or less perceived as a separate history, nevertheless, in order to understand the impacts of immigration, the diversity of the phenomenon should firstly taken into account, including the variety of immigrant groups in terms of time and migration cycles, of origin and place of settlements, and with regard to social categories or attributes such as class, gender, age, and so on. In addition, the European External Action Service (EEAS) document which summarises the stances of the High Representative of the European Union in favour of a more comprehensive and consistent EU global strategy, highlights that globalisation has been giving rise to an unprecedented degree of global connectivity, with a surge in human mobility, compelling a rethink of migration, citizenship, development and health⁴⁹. This demonstrates the huge impact which recent and less recent migration phenomena had on both the European society and EU policy formulation. Migration is indeed one of the most present underlying themes as it touches upon all aspects of the European society. Furthermore, current migration flows and the reactions to them is a primary matter of concern for Europeans at every layer of both the European society and the

⁴⁶ [Inequality, poverty and living standards, Institute for New Economic Thinking at the Oxford Martin School - IMPROVE conference, Improving Poverty Reduction in Europe: Lessons From the Past, Scenarios for the Future, Antwerp, 3-5 February 2016](#)

⁴⁷ [Jean-Marc Fontan, How radical should we be about rethinking the welfare state?- IMPROVE conference, Improving Poverty Reduction in Europe: Lessons From the Past, Scenarios for the Future, Antwerp, 3-5 February 2016](#)

⁴⁸ [John Hill, Lessons from the past, options for the future: Reflections on insights from the ImPRovE programme - IMPROVE conference, Improving Poverty Reduction in Europe: Lessons From the Past, Scenarios for the Future, Antwerp, 3-5 February 2016](#)

⁴⁹ [The European Union in a changing global environment, A more connected, contested and complex world, European External Action Service, 25 June 2015](#)

political institutions. Consequently, although within different perspectives, there is a common agreement between the reviewed positions of stakeholders and the political institutions on the urgency to analyse, understand, share best practices and find suitable long-term solutions to the effects which old and new waves of mobility are having and will have within European communities. As highlighted during the MIGRATION⁵⁰ conference not only is there an increasing perception of migration as a major '*problem*' in all EU countries, but there are also increasingly negative attitudes towards immigration, although with variations across EU member states and part of this negative attitude can be probably traced to an exaggerated perception of the scale of the immigration phenomenon in Europe. This analysis also reinforces the agreement of both stakeholders and institutions on the importance of research by underlining the aspects of complexity and political sensitivity which the question of immigration brings about when entering in both the public debate and the EU, national and local decision-making process. In addition, as stated above, the phenomenon of migration to the European Union is becoming increasingly diversified in both typologies and motivations as it is notably directly correlated with the timeframe, the geographical dimension, the origin and the root causes of migration flows. Furthermore migration flows differ increasingly in term of temporality and can be described as circular, temporary, seasonal or, short-term⁵¹. Other main concerns emerging from the resources reviewed are the liaison with demographic change, both within the European Union and in other continents, the increasing mobility with lowering of costs and unprecedented travel connections, as well as the changing socio-economic realities with increasing inequalities both within and between European countries. As far as the socio-economic aspects of migration are concerned, it appears that labour market inclusion, the assessments or the improvement of working skills and the question of integration and multiculturalism are main concerns within the European society.⁵² Indeed, the European society has changed under the influences of immigration and migrant settlement. Various factors of influence impacted the perception of immigration in Europe as laws, regulations and political rights, access to the labour markets, welfare state regimes, health services, housing conditions, education and language, integration strategies and forms of exclusion and discrimination are domains which have been affected or even created by migrations flows. The changes are obvious in everyday life experiences and comprehensive research is widely missing as the state of knowledge a data in the EU is uneven as there is often a hierarchy of available information with most data and analyses in the area of the economies. The effects on European societies have received less published attention than topics such as migration flows and settlements or on policies towards immigration populations. The capacities for comparative research of the network are promising, but there are still various problems to be solved with regards to the development of a common terminology, comparable data and so on. Country studies, for example, may allow a first insight into a rather new area of investigations in the fields of immigration, flight, asylum, settlement and integration.

⁵⁰ [International Conference Understanding and Tackling the Migration Challenge: The Role of Research, European Commission, Brussels, 4-5 February 2016.](#)

⁵¹ [Russell King, Migration: Facing Realities and Maximising Opportunities. Keynote lecture to the International Conference Understanding and Tackling the Migration Challenge: The Role of Research, European Commission, Brussels, 4-5 February 2016](#)

⁵² [Michail Kosmidis, Labour Market Access for TCN Understanding and Tackling the Migration Challenge: The Role of Research, European Commission, Brussels, 4-5 February 2016.](#)

Tackling radicalisation and extremism

As indicated during the New Strategy⁵³ conference, social inclusiveness requires that unemployment rates and income differences are low, and that social, religious and ethnic conflicts are addressed. Specific attention should be deserved to the phenomena of radicalisation and extremism as recent tragic events witness. The EU firmly believes in eradicating terrorism at its source as well as creating a multiculturalist model of society of mutual respect among all religious, ideological and cultural believes. Therefore, preventing current and potential societal conflict by addressing the question of radicalisation and extremism is a priority for the EU, also as outlined in the Internal Security Strategy in Action⁵⁴. Radicalisation and extremism, in this sense, is understood as a complex phenomenon of people embracing extreme ideologies that could lead to the commitment of violent and/or terrorist acts. Within this framework, criminal activities and their interrelations with the phenomenon of radicalisation and extremism should be also investigated.

Education, work, mobility and social cohesion within the EU

Education, training and mobility are invaluable features for the building of a prosperous and better integrated future for both society and the economy of the European Union. Increased employability and higher innovation capacity are essential but not exclusive aims of EU social policies as the development of social cohesion must necessarily pass through the perception and the actual disposal of equal opportunities across ages and social areas in order to develop a solid sense of citizenship. The 2015 Education and Training Report explains that not only millions of Europeans are at risk of poverty and social exclusion, but also that inequalities continue to grow and unemployment remains unacceptably high, especially among young people, while highlighting the value of educational policies as a vector of integration and social inclusion⁵⁵. Within this context and in light of the resources reviewed, however, stakeholders seem to recognise education as an important premise of effective social inclusion and cohesion. At the same time, the researchers dealing with youth unemployment and, to a certain extent, some interventions concerning immigration-related matters do not concur with this conclusion and have further investigated the phenomena which are appearing in the European society.⁵⁶ In what concerns higher education and the labour market, inspired by good practices and research, the Erasmus + programme, along with other initiatives regarding better EU integrated societies, has addressed these issues by enhancing the possibility for Europeans to open their professional and personal horizons within the EU. Nevertheless, it also became evident that research should further concentrate on the interrelations between educational systems' organisation, resource allocation, policies and practices, while taking into greater account social cohesion aims coming from the immigration challenges. In addition within the context of the sources reviewed, it appears that secondary education as a specific subject has not been covered to the extent of higher education,

⁵³ [Welfare, Wealth and Work: A new Strategy for Europe, Brussels, 25 February 2016](#)

⁵⁴ [European Commission, The EU Internal Security Strategy in Action: Five steps towards a more secure Europe](#)

⁵⁵ [Education and Training Monitor, European Commission, November 2015](#)

⁵⁶ [Improving the quality of life of disadvantaged young people –Towards a Capability-Friendly Youth Policy in Europe \(SOCIETY project\), Brussels, 9 December 2015](#)

mentioned in most of the sources. Indeed, as emerged during the New Strategy for Europe⁵⁷ event, life chances, education and capabilities should be distributed more equitably in order to ensure that distribution of income and wealth are based on merit and are possibly limited to levels determined by democratically-based political decisions. As for the themes of work-life balance and the measurements to determine the human development index as well as gender equality and diversity in the work place, it appears from the review that such subjects have been overshadowed by more pressing phenomena such as the economic crisis and the migration flows. It could be noted that these domains should be considered as matters of research and this, not only for their intrinsic importance for inclusion, but also due to the existing parliamentary discussions and Commission's initiatives around them.⁵⁸

Digital Inclusion

In the digital age, the race for innovation, skills and markets forces all our countries to anticipate and adapt in order to thrive. In addition the crucial importance of digital skills has been repeatedly highlighted and this not only in terms of labour market inclusion, but also in terms of effects on citizens' civil engagement and their daily life, especially in their role as recipients of public authorities services. In addition, the first purpose of the Union's work over the coming years must be to equip our societies for the future and to foster confidence. This setting has induced European academics, practitioners, private sector stakeholders, civil society organisations and public institutions to insist on the necessity of increasing digital inclusion and digital enhancement actions, not only for their pivotal role in terms of employability and innovation, but also for their essential role for social inclusion, societal engagement, social innovation and cultural awareness. Furthermore, digital inclusion becomes of primary importance also for the continuous learning across-ages as well as educational and cultural means of knowledge transfer and apprenticeship. It should also be highlighted that the pivotal role attributed to public institutions in this very moment of digital transformations corresponds not only to the fact that the Digital Single Market Strategy is under way, but also, as pointed out at Trust conference, to an increase in Horizon 2020 projects aiming at furthering the cooperation of public bodies, as well as enhancing the user friendliness of online services and data.

1.3 Europe as Global Actor

A blurred distinction between internal and external aspects of EU policies

Current trends and recent occurrences have once again highlighted the necessity for the European Union to be endowed with a more effective foreign and security policy. As widely recognised by both academics and decision-makers and indicated by the Council Decision regarding the implementation of the Horizon 2020 programme, it would be impossible to engage with the issues enshrined in the Societal Challenge 6 (SC6) Working Programme, as well as with the other Grand Challenges, without taking into account the effects of an increasingly interconnected and

⁵⁷ [Welfare, Wealth and Work: A new Strategy for Europe, Brussels, 25 February 2016](#)

⁵⁸ [European Commission, Diversity Charters across the EU](#)

interdependent world and the current and future role of the European Union as a global actor. The process of elaboration of a renewed comprehensive global strategy is already underway among European Institutions as the High Representative's (HR) strategic assessment of the global context to EU leaders' witness.⁵⁹ The HR assessment acknowledges that the phenomena stemming from the globalisation process have been the dominant force shaping our world for the best part of the last century and it is giving rise to an unprecedented degree of global connectivity, with a surge in human mobility, compelling us to rethink migration, citizenship, development and health. These statements voiced the implications for the daily life of citizens by pointing at a more cohesive approach towards a common EU foreign and security policy which could not, by definition, be disconnected from the transformation processes and the policy efforts occurring within the EU. As a result, policy research should continue to take into account the external policy challenges, implications and opportunities which are emerging from the current European and international context and to offer a greater understanding of the history, the culture and the functioning of the political and economic systems of other parts of the world. Nevertheless, the analysis should try to be as connected as possible to the social, political and economic dynamics of the EU in order to better forecast future scenarios, possible fallacies in current practices and, ultimately, contribute to the process of a more cohesive European external action. ATLANTIC SPACE⁶⁰ constitutes a good example of how cooperation between regions could offer a good opportunity for a meaningful research-oriented exchange of views and practices towards better policy making.

The pure external dimension of the EU action

Although the internal and external dimension of EU policies are increasingly interconnected as discussed above, this does not imply that research should not also focus on the 'classical'⁶¹ dimension of foreign policy. Europe's participation in international fora, cooperation with third entities, global governance, bilateral agreements on domains such as trade, environment, development, human rights and defence is also to be analysed as a dynamic per se. In addition, the current events in terms of migration flows, conflict resolution and prevention, and human rights enhancements – both in the EU neighbourhood and in other parts of the world - compel both governmental and non-governmental actors to engage on these issues. Such engagement should take place both bilaterally and multilaterally in fora as well as with governmental entities within the classical schemes and protocols of diplomacy and civil engagement. As a result, it appears that this very aspect of the EU external action needs an attentive and possibly anticipatory analysis.

A new global strategy for Europe

The European Council has tasked the High Representative to present a 'European Global Strategy on EU Foreign and Security Policy' by June 2016⁶². The global strategy is aimed at contributing to convey the Union's foreign policy towards a new level of ambition. Its primary purpose is to explain both the EU stances and the hopes towards the rest of the world and how should the EU act to

⁵⁹ [The EU in a changing global environment, A more connected, contested and complex world, EEAS, 25 June 2015](#)

⁶⁰ [A transformed Atlantic Space: Emerging trends and future scenarios for Europe, 10 December 2015, Brussels](#)

⁶¹ [Theories of Foreign Policy, G. Hellmann, U. Stark Urrestarazu, Oxford University press, 2013](#)

⁶² [Global Strategy on EU Foreign and Security Policy](#) and [European Council Conclusions, June 2015](#)

become a stronger global actor, as called by President Juncker's political guidelines⁶³. The strategy is meant to be global in a geographic as well as a in a thematic sense of the term. Although challenges closer to Europe will be inevitably put in the spotlight, the new vision will have to correspond to the ambitions of the EU as a global player. To this end, synergies between different policies, instruments and research results are essential.

1.4 Sustainable and inclusive environments

Social cohesion and integration of migrants in urban areas

As discussed during the session on 'Social innovation ecosystems' of the SI2015 conference, it is imperative to understand the conditions under which social innovations develop, sustain, and lead to social change. As several projects implemented across Europe have demonstrated, urban planning, space allocation and community involvement enhance not only the well-being of citizens, but also the environment for a knowledge and service-based economy. Furthermore, a policy setting resulting from urban planning, space allocation and community involvement, if contextualised and implemented with a great degree of cooperation among all stakeholders and actors, while taking into account the sustainable energy needs, has the potential to enhance investments and skills and create jobs especially for the youngest in society. The paradigm of the 'socio-ecological' transition of the European Union will be mainly implemented in urban areas, as a result, it will be the main testing ground for both social actors and public institutions. If we consider that the immigration flows will be primarily absorbed by urban areas, the key role of this area of study and policy-making becomes evident.

Shared functionality of spaces and affordability of services as a new paradigm

The resources reviewed for this report advocate - beyond the growth of the so-called 'sharing economy' - a spatial planning characterised by an increasingly shared functionality of spaces or multi-functionality. This feature of urban planning and design has multiple advantages in both economic and social innovation terms⁶⁴. As discussed in the previous chapter, the utilisation of spaces for multiple purpose increases the innovation value of the area in which they are situated by attracting, on the one hand, new social actors and labour forces, and, on the other hand, by facilitating the exchange of ideas while fostering cooperation. In this context research and funding is urgently needed in order to calibrate and understand the multitude of models which are emerging in present times. The involvement of local communities within the shared spaces constitutes a great added value as they not only increase social inclusion by bringing together citizens with different sort of interests, backgrounds and cultures, but also represents a way in which local communities may be involved in the design of urban planning. Furthermore, as welfare policies and social cohesion do not always go hand in hand, research on this relationship should be consequently pursued. However, the connection between urban development and social welfare regimes in Europe may also warrant more investigation with the aim of improving EU-wide social

⁶³ [President Juncker's Political Guidelines, 14th of July 2014](#)

⁶⁴ [Alessandro Deserti, Francesca Rizzo, Service design public sector and social innovation, Social Innovation 2015: "Pathways to Social Change" Vienna, 18 November 2015](#)

cohesion and standard practices in urban and spatial planning. In addition, understanding the factors which influence how people move within and between cities and across member states, is an important yet under explored domain of research as well as a prerequisite for improving infrastructures. As a result, more emphasis should be placed on developing a common European space of cities rather than on concentrating on unique socio-economic realities.⁶⁵

Artistic assets and urban regeneration

Many European cities have attempted over the past 20 years to regenerate obsolete harbour and industrial areas as well as deprived neighbourhoods located in both the historical centres and the city peripheries. These initiatives aimed to increase the urban competitiveness of neighbourhoods and cities, improving living conditions and promoting social inclusion. Research is needed to understand better how urban regeneration processes affect social cohesion. Comparative case-studies on a range of city and regeneration types should improve the understanding of the conditions under which urban regeneration might foster social cohesion; the necessity to renew urban environments will continue to grow, especially in view of the demographic change which Europe will undergo. In addition, soft conditions for successful intervention are often overlooked; regeneration should be tailored to the historical context. Moreover, artistic assets can be mobilised for urban renewal and research is needed into how the arts can be exploited as a vehicle for intercultural dialogue and social inclusion in urban contexts.

⁶⁵ [European Commission, Regional policies, Urban development](#)

2. INNOVATIVE SOCIETIES

From knowledge-generation to knowledge-transfer

The OECD Scoreboard 2015 (OECD 2015)⁶⁶ states that economic downturns tend to accelerate structural change while creating both new challenges and opportunities. The document also comments that the international fragmentation of production has expanded rapidly with intermediates now representing about 50% of world trade in manufactured goods. For this reason, both in most of the European countries and the United States, the number of jobs in the so called 'global value chain' sector increased between 2011 and 2013, as did the proportion of highly skilled workers employed along the same chain. The OECD 2015 also underlines the importance of the so-called 'knowledge-based capital' (KBC), sometimes referred to as an 'intangible asset' as a factor of long-lasting resource for companies, institutions and citizens alike. The generation and accumulation of KBC result mostly from investment in human capital in education, abilities, creativity and capacity for innovation. Indeed, the OECD Scoreboard 2015 constitutes a good reference in order to both understand the process of transformation of production – as well as its implications for the labour market, welfare and educational systems –, and to develop forward-looking policies for technological progress, social innovation and inclusiveness. As far as research is concerned, and as stated in the 2015 European Innovation Area Roadmap for 2015-2020, the top priority action identified by the EU member states' consultation is the reinforcing of the evaluation of research and innovation policies by seeking complementarities between, and rationalisation of, instruments at EU and national levels⁶⁷. If we combine this stance with several of the sources reviewed for this report, such as the Trust conference⁶⁸, we may note that both stakeholders and EU institutions agree on both the importance of an increasingly coordinated and interconnected research and the fact that knowledge-creation must serve as a tool and instrument for better policy making and improvement of practice. The pivotal role of research emerges not only for the production of mere technological or organisational innovation, but also as orientational knowledge for the private sector, civil society organisations, institutions and citizens alike.

Furthermore, the theme of innovation should be addressed in a wide sense, including large-scale policy, social users and market-driven innovation. Cutting-edge research into social innovation models are in fact taking into greater account the societal components, as well as the exploitation of technologies by developing from the new features of production, behaviour and consumption which are emerging on a global scale. Given the several successful examples coming from these processes, such as the rise of the so-called 'sharing economy', stakeholders and EU institutions are stressing both the fact that citizens should actively participate in the innovation processes and that a more coordinated, rationalised and interdisciplinary research environment which is capable of giving inputs in a timely fashion to all the actors of the European society, is needed. The motto 'Open Innovation, Open Science, Open to the World', coined by Commissioner Moedas, mentions that the emerging models which drive technological and social innovation are a new feature of current times, as digital and physical are coming together and new knowledge is created and used through collaborations involving several actors and citizens of all kinds and all backgrounds.⁶⁹

⁶⁶ [OECD Science, Technology and Industry, Innovation for growth and society, Scoreboard 2015](#)

⁶⁷ [ERA Priority 1 – Effective National Research Systems, Opinion on the European Research Area Roadmap 2015-2020](#)

⁶⁸ [Trust: European Research Co-creating Resilient Societies, Brussels, 29-30 October 2015](#)

⁶⁹ [A new start for Europe, Opening up to a new era of innovation, Brussels, 22-23 June 2015](#) and [Commissioner Speech - Open](#)

2.1 Strengthening the evidence-base for the Innovation Union and ERA

The European Research Area (ERA) has been many years in maturation and represents a constantly evolving point of reference for research at a European level. The objectives of ERA, endorsed by the March 2000 European Council, and anchored in the Treaty of Lisbon, are to achieve a 'unified research area open to the world, based on the internal market, in which researchers, scientific knowledge and technology circulate freely and through which the Union and its member states strengthen their scientific and technological bases, their competitiveness and their capacity to collectively address grand challenges'⁷⁰. Accordingly, in order to create a genuine single market for knowledge, research and innovation, in 2011 the European Council called on EU institutions, member states and stakeholders to address the remaining gaps and complete the ERA by 2015. In addition, in 2012, the Commission Communication on 'A Reinforced European Research Area Partnership for Excellence and Growth' identified the priorities for action, whereas, in the same year, Commission's communications – respectively entitled 'Towards better access to scientific information: Boosting the benefits of public investments in research'⁷¹ and 'Enhancing and focusing EU international cooperation in research and innovation: a strategic approach'⁷², - complemented the new wave of initiatives. The ERA principles were also fully integrated in the Europe 2020 Innovation Union flagship initiative to foster growth and jobs. Given the internal market dimension of ERA and its impacts on investments in research and innovation, it also responds to the Strategic Agenda agreed by Member States at the June 2014 European Council meeting, with special regard to the priority of 'A Union of jobs, growth and competitiveness'. As also noted by the previous External Advice report of SC6⁷³, the impact assessment accompanying these proposals identified several critical weaknesses in European research, such as: limited competition, insufficient specialisation, barriers to cooperation, compatibility and interoperability of national research programmes, distortions among national labour markets for researchers, limited progress on gender equality and the gender dimension of research content and uneven access to scientific knowledge. Within this context the February 2014 Competitiveness Council Conclusions on the 2013 ERA Progress Report asked EU member states to develop by mid-2015 a Roadmap to facilitate and reinforce the efforts undertaken⁷⁴. The document, developed in consultation with the ERA Committee (ERAC), the ERA related groups and most of the organisations which make up the ERA Stakeholder Platform⁷⁵, responds to the request which emerged during the elaboration of the enhancing of the European Research Area, while formulating the ERA Roadmap⁷⁶ for the period 2015-2020. As a result, ERAC identified seven key challenges and the relative actions still needed in order to reinforce the European Research Area, namely:

[Innovation, Open Science, Open to the World](#)

⁷⁰ [European Commission, European Research Area, An open space for knowledge and growth](#)

⁷¹ [Communication from the Commission, Towards better access to scientific information: Boosting the benefits of public investments in research](#)

⁷² [Communication from the Commission, Enhancing and focusing EU international cooperation in research and innovation: a strategic approach](#)

⁷³ [External advice and societal engagement: Towards the 2016 and 2017 work programme of 'Inclusive, Innovative and Reflective Societies' of Horizon 2020](#)

⁷⁴ [European research area Progress Report 2014 Competitiveness Council meeting, Brussels, 5 December 2014](#)

⁷⁵ [European Research Area, An open space for knowledge and growth](#)

⁷⁶ [European Union, European Research Area and Innovation Committee, ERAC Opinion on the European Research Area Roadmap 2015-2020](#)

- Enhance the effectiveness of national research systems;
- Jointly address great challenges;
- Make optimal use of public investments in research infrastructures;
- Create an open labour market for researchers;
- Foster gender equality and gender mainstreaming in research;
- Foster optimal circulation and transfer of scientific knowledge;
- Enhance the role of international cooperation.

Despite the fact that the ERA initiative is a fairly long-standing initiative, it should be noted that the entry into office of the new European Commission has given some further input for a better implementation and coordination of the initiative. Nevertheless, it must be also noted that some stakeholders have stated that no actual innovation has been added to the previous formulation of the initiative⁷⁷. For this reason and for the many advantages that this project has the potential to offer, the ERA initiative should be submitted to the constant and vigilant attention of stakeholders, experts and EU institutions.

'Open Science' for a knowledge and data-driven economy

The *'Open Science'* movement has grown remarkably among scientific communities influenced by free (and open-source) software and the free culture movements of the 1980s and 1990, and has reached the attention of policy makers at the beginning of twentieth century primarily for the need to restructure research infrastructures for e-science. The new methodologies and practices elaborated in the meantime have progressed and are currently considered a cutting-edge research method. As the New Start conference⁷⁸ underlined, *'Open Science'* (OS) describes the on-going transitions in the way research is performed, researchers collaborate, knowledge is shared, and science is organised. It represents a systemic change in the modus operandi of science and research as it affects the whole research cycle and its stakeholders and enhances science by facilitating the transition from a 'publish to perish' perspective to a 'knowledge-sharing' perspective. The principles of OS assume that the discoveries coming from scientific knowledge should be shared as widely as possible. In addition, the demand for maximising research ethics, transparency, openness, networking and collaboration⁷⁹ enshrined in this methodology obliges us to rethink the process of knowledge creation by applying the O's principles of reproducibility, accountability, re-usability of innovations, as well as of collaboration and societal participation in science. In addition, O's principles should serve as a vector for innovation and growth as they should guarantee transparent access to publicly-funded research results as well as knowledge-sharing by providing appropriate infrastructures. Furthermore, in order to create a genuine single market for knowledge, research and innovation, a facilitated access to those data should encourage the re-use of research results for example in favour of companies, and particularly SMEs, which may access and re-use data, infrastructures and tools easily and at a reasonable cost. However, the New start conference underscored three focal points to which European Union's

⁷⁷ [League of European Research Universities \(LERU\) - ERA Roadmap 2015-2020: Nothing new under the sun, 12 April 2015](#)

⁷⁸ [A new start for Europe: Opening up to an ERA of Innovation, Brussels, 22-23 June 2015](#)

⁷⁹ [What "causes" scientific misconduct? Honing in on evidence-based answers, A new start for Europe: Opening up to an ERA of Innovation, Brussels, 22-23 June 2015](#)

actors at all levels should pay more attention: firstly, the mutual responsiveness of all key-stakeholders involved; secondly, the review of how science is evaluated and research funding allocated; thirdly, the need to create a business and citizen-friendly environment for '*Open Science*'.

'Open Access' to improve knowledge circulation

The '*Open Access*' (OA) principles stress the importance of unrestricted online access to research mostly associated with journal publications. However, it can be applied to all forms of published research deliverables, such as academic journal articles, conference papers, theses, reports, book chapters, monographs, and data. OA-based research results enable faster and wider diffusion of knowledge by digital means and, as highlighted by the ERA Portal Austria,⁸⁰ this factor constitutes one of the foundations of the above-described '*Open Science*' process. OA publishing is currently widely accepted as the best model of disseminating research publications also in order to counter what has been defined as the 'oligopoly of academic publishing'. In addition, it has been noted that copyright and business models often inhibit open innovation processes especially in the distribution of research output. As a result and as also noted during the question and answer session with the public of the Trust conference⁸¹, it will be important to pay attention to the funding and to the dissemination approaches of the European publication system. Furthermore, as a sustainable science transformation model should include the establishment of new publishing funds, the concerted and transparent negotiation of publishing contracts, monitoring and training activities, new quality evaluation strategies, and the creation of, and participation in, international infrastructures also prove to be of great relevance. Finally, the fostering of the adoption of OS principles will also involve the clarification of licences and reusability of OA publications and data. On the same subject, the ongoing work of the PASTEUR4OA⁸² project, which is furthering the investigation into the issues correlated to OA in science, reiterates the importance of free and open access to publicly-funded research, which offers significant social and economic benefits by making the outputs publicly available not only to other researchers, but also to potential users in business, charitable and public sectors, as well as to the general public.

Openness in science

The European Research Portal Austria identifies other important forms of openness which were also discussed across various stakeholders meetings and events and which constitute a solid base in order to understand the latest development and the possible future discussions on '*Open Science*', namely: '*Open Research Data*' (ORD), '*Open Education*' (OE) and '*Open evaluation*' (OEV).⁸³ In relation to '*Open Research Data*', as data are produced during scientific research processes, they constitute the basis for reasoning, discussing and proving outputs. Consequently, ORD should lead towards both unrestricted access for the re-use and the re-distribution of relevant information and to a beneficial effect on reproduction costs. In addition, in order to fully implement the ORD principles, data availability should be provided within convenient and

⁸⁰ [ERA Portal Austria, Open Science , Policy Brief, December 2015](#)

⁸¹ [Trust: European Research Co-creating Resilient Societies, Brussels, 29-30 October 2015](#)

⁸² [PASTEUR4OA - Open Access Policy Alignment Strategies for European Union Research](#)

⁸³ [ERA Portal Austria, Open Science , Policy Brief, December 2015](#)

modifiable forms and should include meta-data, as well. To assure that this method is followed, several sources reviewed in this report agree that data should be provided under terms that permit reuse and redistribution, including the intermixing with other data sets. The question of '*Open Education*' was also identified by stakeholders as pivotal as the digital transformation is reshaping pedagogical methods. As a result, OE should create more access to information by making the best use of open content networks and should be collaboratively designed in cooperation with students, new digital education platforms, open libraries, archives and memory institutions. As regards '*Open Evaluation*' (OEV), it has been widely acknowledged that scientific publications and funding systems provide the key basic services for 'Open Science', primarily, via access and evaluation. As the number of scientific publications constantly grows, evaluation and impact assessment criteria for selection - as also highlighted during the Trust conference⁸⁴ question and answer session - have an increasingly important role and need increased attention. Additionally, it must also be noted that the ERA Portal Austria underlines that traditional peer review and bibliometrics based on article citation in its present state cannot cope with all dimensions of Open Science in terms of validity and transparency. As a result, actor settings, approaches and themes of OEV should be further investigated as new emerging values, while new stakeholders, beneficiaries, approaches and trends should further be both subjects and objects of research in the incoming years.

2.2 New forms of innovation

Redirecting innovation towards a more sustainable and skill-intensive society

The WWWforEUROPE⁸⁵ project developed a comprehensive strategy in order to prepare the European Union to follow the path towards a socio-ecological transition which should put EU citizens in the position of both better coping with the undergoing societal changes and exploiting the benefits of social innovation by their active participation in a more socially sustainable and low carbon economy. According to several experts involved in the project, the success of the strategy will depend on three guiding principles: firstly, economic dynamics, social inclusiveness and environmental sustainability need to be pursued simultaneously; secondly these aims will have to be addressed across disciplines and policy sectors; thirdly, economic and social dynamics must be supported by structural changes⁸⁶. Within this conceptual framework, it becomes clear that the first driver of change is indeed the redirection and fostering of innovation policies and practices across Europe by identifying concrete actions and governance arrangements of industrial and social innovation, which are required to support the transition towards an economic model which should uphold at the same time both fundamental principles of sustainability and competitiveness. As already explained across the report, innovation patterns should be the cornerstone of the policies which direct the current socio-economic establishment as they can mitigate or even prevent negative trade-offs among economic dynamics, social inclusiveness and environmental sustainability concerns. An important aspect of the strategy proposed by the WWWforEUROPE

⁸⁴[Trust: European Research Co-creating Resilient Societies, Brussels, 29-30 October 2015](#)

⁸⁵[Welfare, Wealth and Work: A new Strategy for Europe, Brussels, 25 February 2016](#)

⁸⁶[Teresa Weiss, Defining research gaps concerning the implementation of socio-ecological transition, Working Paper no 115, March 2016](#)

project is also the shifting of the technological progress direction from primarily labour saving to energy saving and material inputs. This indicates that, at the first stage actions, incentives for innovation are required to close Europe's technology gap with the new technology frontier. At a second stage, this redirection of innovation towards social inclusiveness and environmental sustainability allows to both increase well-being and to decouple labour and energy from growth. However, the results of the project itself acknowledge that more research is needed to further investigate how innovation can become more energy and resource saving. In addition, a policy and research perspective which should pay more attention to identifying concrete actions and governance arrangements of innovation is also required in order to understand how it would be possible to combine competitiveness, environmental aims and social inclusion⁸⁷. Within this context, it becomes evident that education and policy-making should go hand in hand in order to reap the whole of the potential already present in the EU. In addition, further attention is needed to the future of work both in terms of employment⁸⁸ and employability. The former concept merely aims at finding ways to grant EU citizens the possibility of earning sufficient means for their subsistence, while the second concept aims at providing sufficient knowledge and skills, as well as an appropriate social and economic environment which allows citizens to express their maximum potential. Indeed, employment and work per se have important societal functions as work can be identified both as a defining trait for individual identities and as a main integrative institution. In addition, the growing trends which are driving through fundamental changes in working patterns - not least due to technological change and the related increase in digitalisation - are an important future research topic and primarily suggest the investigation of the impact of digitalisation on working features and the associated role of social innovation.

Reforming welfare, reducing income spreads, fostering decarbonisation

The WWWforEUROPE strategy also highlights the importance of economic dynamics by avoiding 'silo thinking', while considering environmental, societal and economic objectives together. As a result, more attention should be paid to making the constant evolution of the economic environment compatible with both social aims and decarbonisation processes. With regard to fostering decarbonisation, and according to the sources related to the above-mentioned project, at a first stage it would be important to stimulate demand through investing in new energy-efficient infrastructures in order to boost economic dynamics. Furthermore, experts identified as important aspects of the socio-ecological transition the stimulation of consumption of products and services with higher value added and with lower carbon footprints. Whereas, at a second stage, should the support to increase capacity utilisation and employment succeed, the repayment of public debt and the decrease of income spreads, as well as a reduction in energy and resources should occur. As a result, on the basis of this analysis, a greater effort is needed to explore the potentials of a decarbonising infrastructure and this both in terms of investment and employment opportunities. On the same issue, several of the sources reviewed indicate that innovative action plans towards inclusiveness, both in the work place and in society at large, should support a reform of welfare systems which may give appropriate means of protection to citizens, mitigate income spread and lack of opportunities, while resulting in more efficiency both for labour markets and employability,

⁸⁷ [Teresa Weiss, Defining research gaps concerning the implementation of socio-ecological transition. Working Paper no 115, 2016](#)

⁸⁸ [European Commission, Priority 'Jobs, Growth and Investment' - Stimulating investment for the purpose of job creation](#)

countering the effects of lack of financial opportunities⁸⁹. Furthermore, as already stated across chapters of this report, the welfare state is suffering from, among other major EU-wide political challenges, an ageing population and a slow economic recovery or stagnation. Concerning these matters, an important proposal which emerged among stakeholders is the shift in social policy from a 'protection focus' to a 'social investment strategy'. Whereas the core of a social investment strategy consists of investing in education, skills and human capital, regardless of their socio-economic and ethnic background, the importance of supporting employment and labour market integration will be also fundamental with special regard to migrants. Another important suggestion coming from WWWforEUROPE is the strengthening of the redistributive function of taxation through increasing tax compliance with higher taxes on high incomes, wealth and inheritances, and lower taxes on labour particularly for low incomes. Last but not least, other important institutional and non-institutional sources also suggested fostering gender equality primarily by incentivising the reconciliation of work and family life.⁹⁰

New paradigms for social innovation design

According to a European Commission definition, 'design is not just about the way things look, it is also about the way they work'. In fact, innovation design creates value and contributes to competitiveness, prosperity, and well-being in Europe.⁹¹ Given these considerations, the European Commission aims at accelerating the take-up of design in innovation activities at European, national, and regional level as an activity to promote growth and inclusion. These aims were also recognised by the Innovation Union, a flagship initiative of the Europe 2020 Growth Strategy⁹². Within this framework European institutions aimed at raising awareness of how design driven innovation increases efficiency in public services, drives inclusive growth and creates capacity and competencies to deliver these policies. In addition, the Commission recognised that design allows companies to anticipate users' expectations and create solutions they could never have thought of. Although this theoretical framework was already used in 2012 by the European institutions in order to describe mainly business-oriented innovation, the SI2015 conference widely emphasised design as a an essential tool for successful social innovation policies, with special regard to the public sector⁹³. For this purpose, current and past initiatives of both European institutions and public authorities were reviewed and it emerged that the main challenge of the adoption of participatory design knowledge and tools in the development of public services is the structural changes in organisation and standard operational procedures required. The changes are advocated as necessary in order to respond to the increasing need for a more user-centred, efficient and inclusive collaborative service, the improvement of visibility and access within the community and the support of the replication and upscaling of successful practices. However, experts also reiterated that this type of process is implementable only within a forward looking vision and planning. In addition, the SI2015 conference stressed the importance of undertaking both a European and a global mapping in order to both approach different social, economic, cultural, historical and religious contexts and identify best practices. The pivotal importance of ensuring

⁸⁹ [Karl Aiginger, A new strategy for Europe, Brussels, 25 February 2016](#)

⁹⁰ [European Commission, Reconciliation between work and private life](#)

⁹¹ [Design for Innovation, European Commission, Internal Market, entrepreneurship and SMEs](#)

⁹² [European Commission, Innovation Union, A Europe 2020 Initiative](#)

⁹³ [SI-2015- Social Innovation 2015: Pathways to Social Change, Brokerage Event, Vienna, 18 – 19 November 2015](#)

relevance for policy makers and practitioners through in-depth analyses and case studies across policy fields was also a feature present across the presentations reviewed.

Digital growth and enhance e-governance

As highlighted several times by both stakeholder and European institutions, the potential of the digital economy is not fully exploited in Europe, while a new wave of policies which would enable the support of digital growth would contribute not only to all forms of innovation, but also to foster growth and jobs. Digital growth is also a powerful tool to fuel the development of small and medium-sized enterprises, notably one of the most inclusive forms of business across Europe. For this reason, the European Commission renewed its efforts to enable digital entrepreneurs to be successful and the competitiveness of the European digital economy to be enhanced⁹⁴. In addition, the Digital economy is not only a factor of international growth, but it is also one of the most important drivers of innovation. It is evident that keeping the pace of global transformational marks is of vital importance for policy makers, business and citizens if we consider that two billion people are currently connected to the internet and by 2016, this number will exceed 3 billion – corresponding to almost half of the world’s population. For this reason the huge potential of the digital economy, which is currently underexploited in Europe, needs attention from researchers and policymakers in order to create opportunities and foster innovative, creative, sustainable, user-centred innovation of all aspects of European society. In addition, while the so called 'digital economy' has contributed to up to eight percent of the GDP of the G-20 major economies over the last years, the development of mobile applications alone has created nearly 500 000 new jobs in the US; that type of growth is not seen across the European Union and EU institutions estimate that 1.5 million additional jobs could be created in the EU digital economy should Europe be able to mirror the performance of tech-intensive economies.⁹⁵

The Digital Single Market Strategy for Europe⁹⁶ (DSM) identifies eGovernment as one of the key elements to maximise the growth potential of the digital economy and to achieve an inclusive digital Europe. Online public services are crucial to increasing the cost-efficiency and quality of the services provided to citizens and companies. The EU eGovernment Action Plan 2011-2015⁹⁷ stressed the political priorities included in the Malmö Ministerial Declaration⁹⁸ and aimed for making public administrations in the EU open, flexible and collaborative in their relations with citizens and businesses, using eGovernment to increase their efficiency and effectiveness and constantly improving public services. The mid-term evaluation results of the eGovernment Action Plan 2011-2015⁹⁹ recognised that the Action Plan had a positive impact on the development of eGovernment at the European and Member State level as it contributed to the coherence of national eGovernment strategies, as well as to the exchange of best practices and the interoperability of solutions between member states. The most impactful actions have included developing cross-border eGovernment services to citizens and businesses regardless of their

⁹⁴ [Digital economy, European Commission, Internal Market, entrepreneurship and SMEs](#)

⁹⁵ [Speech given by Vice-President Ansip at Net Futures 2016: Driving growth in the Digital Single Market](#)

⁹⁶ [COM\(2015\) 192 final](#)

⁹⁷ [European Commission's eGovernment Action Plan 2011-2015](#)

⁹⁸ [Ministerial Declaration on eGovernment approved unanimously in Malmö, Sweden, November 2009](#)

⁹⁹ <https://ec.europa.eu/digital-agenda/en/news/mid-term-evaluation-e-government-action-plan-2011-2015-implementation-smart-2012-006020>

country of origin as well as the development of an environment which promotes interoperability of systems and key enablers - such as identification, eSignatures, eDelivery and eInvoicing and supports the accessibility of services across the EU in domains like eProcurement, eJustice, eHealth and business mobility. The building block Digital Services Infrastructures (DSIs) are currently maintained through the Connecting Europe Facility programme¹⁰⁰. By joining efforts at EU level, the roll-out and take-up of these solutions can be accelerated across the EU; resulting in faster, cheaper, more user-oriented digital public services and contributing to enhancing the EU's competitiveness.

However, citizens and businesses are not yet getting the full benefit from digital services that should be available seamlessly across the EU¹⁰¹. As an action indicated in the DSM strategy a new eGovernment Action Plan for the period 2016-2020¹⁰² was launched in April 2016 to alleviate pressures on public budgets, prevent new fragmentation to the Single Market to arise and to address increasing user expectations. Stakeholders have highlighted on various occasions 'the need to pursue and build on the efforts made in order to complete the Digital Single Market, to modernise public administrations and to increasingly open up in order to engage citizens and business in the design of digital public services and policies.'¹⁰³ The new eGovernment Action Plan sets three policy priorities and 20 concrete actions for modernising public administrations using key digital enablers (e.g. technical building blocks such as CEF DSIs like eID, eSignature, eDelivery, etc.), enabling the mobility of citizens and businesses by cross-border interoperability, and facilitating digital interaction between administrations and citizens/businesses for high-quality public services. In order to keep track of the fast changing environment, beyond the actions identified in this Action Plan, further actions may be proposed either by the Commission or by stakeholders, including Member States. As such, the Action Plan in the spirit of open government - proposes to be an open platform, where stakeholders can get engaged and participate in shaping the ICT-enabled modernisation of public administrations in a dynamic and transparent manner.

Open government in the EU can manifest on many levels. Opening up between administrative silos, facilitating the digital exchange of data and modular services between administrative departments – at local, regional or national level - can reduce cost and avoid duplication. Opening up between administrations across borders can increase efficiency and facilitate the cross-border mobility of businesses and citizens (see building blocks under the CEF). Opening public sector data and services to third parties, in full compliance with the legal framework for the protection of personal data and for privacy, can facilitate the reuse of these assets for designing targeted - personalised, pro-active and location-based – services. This will create new business opportunities, but will also facilitate digital interaction between administrations and users. Opening up decision-making processes to third parties and engaging stakeholders in decisions that affect them can lead to greater transparency, legitimacy and trust.

This concept of open and modular government was already addressed in the eGovernment Action Plan 2011-2015, in particular through supporting projects in the area of 'Cloud of public services' and 'eParticipation' under the CIP ICT Policy Support Programme and the area of 'ICT for governance and policy-modelling' under the FP7 research programme. The details behind the open

¹⁰⁰ <https://ec.europa.eu/cefdigital/wiki/display/CEFDIGITAL/CEF+Digital+Home>

¹⁰¹ [Report on the public consultation and other consultation activities of the European Commission for the preparation of the EU eGovernment Action Plan 2016-2020, March 2016](#)

¹⁰² [COM\(2016\) 179 final](#)

¹⁰³ [Luxembourg eGovernment conference 2015: Presidency conclusions - European eGovernment conference 'Simple, secure and transparent public services', 1-2 December 2015](#)

government vision have been outlined in a policy paper¹⁰⁴ and strengthened by an expert and public consultation in 2013¹⁰⁵. In addition, the Commission is running a few studies to better understand the nature and value of the New Generation of eGovernment services¹⁰⁶ and the drivers, enablers and barriers for the take-up of open government.¹⁰⁷

Today, research into and the practice of ICT-enabled 'open government' and 'open governance systems' is starting to form a cohesive conceptual framework, body of evidence and policy programme to return the attention of government to the long-term societal challenges in close collaboration with non-public actors. The previous Work Programmes have allowed testing the concept of open government, mostly through innovation projects. Nonetheless, many questions still remain about how to scale up or scale out these initiatives, how to ensure sustainability, what governance structures would accommodate best the blurring role between the public sector and other economic and societal actors and what the likely impact and take-up of emerging technologies on the roles and operations of government will be.¹⁰⁸

Sustainable and efficient business models

The New Strategy conference¹⁰⁹ highlighted the necessity of supporting the real economy by incentivising sustainable investments across Europe. By reviewing the conference's conclusions, it emerges that a reform of the financial sector which supports sustainable and efficient business models could foster the socio-economic transition. The WWWforEUROPE project made several concrete suggestions such as limiting the exposure of regular banks to shadow banks, implementing a common deposit guarantee scheme and promoting venture capital and crowd-funding for innovative firms. Furthermore, according to the experts' opinion, investments that benefit society and the economy should be boosted by means of better information and lower risks weights. On the same issue, the conference also noted that so far the EU single capital market appears to be a major hindrance for the implementation of the socio-ecological transition as the ongoing financialisation of the economy is changing operating models and induces entrepreneurs to act less sustainably. As a result, further research and policy making initiatives are needed to prevent the stifling of social and environmental innovation - especially for SMEs and innovative firms- via the denial of access to finance. Moreover, as Europe is confronted with an increasing amount of private and public debt as well as with negative interest rates, further research is needed to identify new forms of innovation and economic policies to counter or reverse the side effects of macroeconomic trends.¹¹⁰

¹⁰⁴ A vision for public services: <https://ec.europa.eu/digital-agenda/en/news/vision-public-services>

¹⁰⁵ <https://ec.europa.eu/digital-agenda/en/news/results-public-consultation-directions-ict-driven-public-sector-innovation-european-union-level>

¹⁰⁶ SMART 2014/0066

¹⁰⁷ SMART 2015/0041

¹⁰⁸ [Expert Consultation held on 27 April 2016, report in preparation](#)

¹⁰⁹ [Welfare, Wealth and Work: A New Strategy for Europe, Brussels, 25 February 2016](#)

¹¹⁰ [Teresa Weiss, Defining research gaps concerning the implementation of socio-ecological transition, Working Paper no 115, 2016](#)

2.3 Using the innovative potential of all generations

Dismantling the myths of the 'clash of generations' theory

The European ageing population phenomena could result in the diminishing of the accumulation of human capital constituting an obstacle for a smart, sustainable and inclusive growth. In addition, the report of the Working Group on Ageing Population and Sustainability of the Economic Policy Committee¹¹¹ indicates that the long-term budgetary projections which population ageing pose are a challenge for the public finances in the EU. The fiscal impact of ageing is in fact forecast to be high in several member states and its effects are likely to appear already during the next decade. However, despite existing labour supply concerns and doubts on the sustainability of pension-funds, there is still insufficient awareness among employers, trade unions and citizens of the urgent need for innovative effective comprehensive reforms. This setting continues to restrict EU competitiveness and lowers the well-being not only of older people, but also of the younger part of the European population and especially the part which relies on the so called 'family welfare', especially in Southern EU countries.¹¹² Furthermore, a reduced participation of older workers affects economic outputs by both reducing the possibilities for younger workers - as a large majority of employers rely upon more experienced professionals for training - and by decreasing productivity - as aged workers tend to perform well in the long-term by making fewer mistakes or by introducing innovations. Furthermore, as a result of the economic downturn, unpaid work by older generations has increased, especially for care and volunteering, and augmented the risk of both social exclusion and inactivity. The past and current phenomena of migration might help to overcome many of the challenges emerging from population ageing as researchers agree on the fact that they do not universally increase the wage gap and they do not necessarily lower the average productivity as some may argue. On the contrary, migration, as well as the increase in births that it might be likely to cause, may help pension system sustainability and labour productivity, if properly handled. However, more research is needed not only to explore how migration processes of capital accumulation occur, but also to understand how the digitalisation of society and work might change the pattern of growth in the coming decades. For these reasons, education and training is no longer exclusive to the young, but is now a lifelong activity. As already mentioned several times in this report, the realisation of the policy objectives behind this scenario are also connected to the capacity of innovation and creating jobs and growth for the Union as whole. As a result, they should not exclude the youngest population. Indeed, both the fact that Europe has reached a high level of youth unemployment and the long term repercussions of this phenomenon are crucial for the future of the EU¹¹³. Indeed, a smart, innovative and inclusive growth process cannot occur by definition if a fundamental component of the society which should foster innovation remains excluded from the labour market. Further, among other important consequences associated to youth unemployment or under-employment, are social exclusion, health and poverty risk, especially when an appropriate welfare regime is absent, and, as in the case of more aged generations, there is the issue of lost human capital.

¹¹¹ [The 2015 Ageing Report Economic and budgetary projections for the 28 EU Member States \(2013-2060\), March 2015](#)

¹¹² [TRUST - European Research Co-creating Resilient Societies, Brussels, 29-30 October 2015](#)

¹¹³ [Improving the quality of life of disadvantaged young people –Towards a Capability-Friendly Youth Policy in Europe, EP, 9 December 2015](#)

Demographic change

The European Union is clearly passing through an unprecedented period of demographic change which represents one of the main challenges which contemporary European society is faced with. On the one hand, the issue of demographic change is having and will increasingly have a multi-faceted impact on the lifestyle and well-being of current and future EU citizens. The main challenges will derive from the necessary adaptations and /or the possible social innovation policy failures in creating better conditions for families and improving reconciliation of work /-family life. In fact, the creation of an appropriate level of social innovation for longer working lives, the increase in productivity and economic performance through investments in education and research, sustainable public finances to guarantee adequate pensions, health care and long-term care, all emerge as main themes from the sources reviewed¹¹⁴. As a result, the origin and the implications of the demographical changes in Europe as well as the social innovation aspects which may emerge, especially within the domains of ageing and active-ageing, need continuous attention and analysis. In addition, the coupling of the EU demographic trends and the immigration flows - observable phenomena of absorbing the demographic surplus of other regions of the world - are further complicating the forecast of future scenarios.¹¹⁵ Demographic trends are challenging, with ageing populations putting additional pressure on welfare systems and irregular migration flows requiring common answers and concerted action.

The necessity of EU innovation policies for all ages

Education, innovation as well as growth and job creation will be essential to avoid the current and future rise of societal inequalities across ages. This question also represents one of the most critical aspects of the contemporary European project as the current institutional and macroeconomic settings impede a high level of labour mobility and oblige certain geographical areas to reduce both public spending and average wages in order to compensate the effects of the economic downturns or stagnation. Although several of the variables which will determine the level of well-being across ages are sometimes unknown, and sometimes unsearched, it becomes evident that the combination of macroeconomic policy and social innovation practices should be a primary matter of research and policy-making actions for the well-being of the whole of European citizens.

2.4 Promoting cooperation with third countries

Research and innovation in an interdependent and interconnected world

The trend which sees the scope of cooperation with third countries has constantly increased through successive EU innovation and research framework programmes. The EU is in fact collaborating intensively with several major players, especially in far-East countries such as China,

¹¹⁴ [TRUST - European Research Co-creating Resilient Societies, Brussels, 29-30 October 2015](#)

¹¹⁵ [Global Monitoring Report, Development Goals in an Era of Demographic Change – World Bank](#)

Japan and Korea. For these reasons, the EU Strategy for international cooperation in R&I¹¹⁶ underlines that international cooperation under the Horizon 2020 programme is conducted by recognising the fact that, notwithstanding Europe's world leadership in research and innovation, the European response must be tuned accordingly to the fast changing pace of the global scenario. Within this context the means of Science Diplomacy is gaining increasing importance.¹¹⁷ In addition, the strategic configuration of the Horizon 2020 Programme Committee reiterated the principles that science is global and collaborative, excellence breeds excellence and access to infrastructures and data is an essential feature of an effective EU cooperation with other areas of the world. On top of these features of international research and as also highlighted by the OECD Scoreboard 2015, value chains and innovation are increasingly international by nature. As a result global societal challenges require a comprehensive cooperation in scope. Indeed, the European Commission stances on both the rise of a multipolar system and the attention due to countries such as Brazil, China or India, confirm the necessity of continuing to pursue influence and foster collaboration across the globe. In addition, as research and innovation are often performed in third countries, the Union needs to grant itself access to knowledge in order to ensure attractiveness as a location for research and innovation and to succeed in the global competition, while ensuring the protection of its intellectual property. The European Union must also aim at developing research and innovation capacity in neighbouring countries, to both support economic and social development and to strengthen the Neighbourhood policy. More generally, the European Union aims at developing a common 'Knowledge and Innovation Space' within the EU¹¹⁸ and its Neighbourhood, while developing Science and Technology agreements with some more strategic partners.

Collaboration across the globe

As a global actor, the European Commission pays particular attention to cooperation with other regions in the world. In the area of science and technology, it combines policy dialogue with project-based and other bottom-up cooperations. Scientific and technological cooperation seeks synergies with other EU policies and activities, as well as complementarity with EU member states bilateral actions. Many European policies have traditionally looked towards science and technology for support in development and implementation as global knowledge develops and international scientific cooperation is emerging as a new pillar of external relations further to the traditional ones of diplomacy, trade and development cooperation. As already mentioned in the previous chapter, over the past decade the landscape of research has evolved rapidly. Global research and innovation had been dominated by the European Union, the USA and Japan. However, as the emerging economies continue to strengthen their research and innovation systems and a multipolar system is developing, the European Union has a clear interest in developing its research and innovation capacity within the EU, and in cooperation with neighbour countries as well as with the rest of the world¹¹⁹. It would be also useful to reiterate that as more research and innovation is performed in third countries, in order to remain a major global player, Europe will need to promote itself as an attractive location for carrying out research, access the knowledge created outside the

¹¹⁶ [European Commission, Research & Innovation, International cooperation](#)

¹¹⁷ [EEAS, Science Diplomacy](#)

¹¹⁸ [Report on the implementation of the Strategy for International Cooperation In Research And Innovation, Brussels](#)

¹¹⁹ [European Commission, Enhancing and focusing EU international cooperation in research and innovation: A strategic approach.](#)

EU. As several times highlighted by the European Commission, guided by the principles for external action coming from the Lisbon Treaty (Art 21 TEU), the European Union is well placed to play a leading role in promoting common principles for the conduct of international research and innovation activities in order to create a level playing field in which researchers and innovators from across the globe feel confident to engage with each other. These principles will deal with issues such as responsible research and innovation, research integrity; peer review of proposals; promotion of the role of women in science and the gender dimension in research, research and innovation; research careers (building on the European Charter for Researchers and the Code of Conduct for the Recruitment of Researchers); fair and equitable treatment of IPR; and open access to publicly funded research publications. As far as the areas of engagement with third countries are concerned, the approach of identifying priorities of actions on the basis of transparent criteria has been confirmed by the stakeholders and by the EU institutions as an important feature of this strand of EU external policies. Within this framework, three country groupings are envisaged: firstly, the EFTA countries, EU enlargement countries and countries covered by the European Neighbourhood policy which should be supported in order to align themselves with the European Research Area; secondly, the group of industrialised countries and emerging economies which remain a strategic partnership to address global challenges; finally, developing countries, where much emphasis should be put on complementing the Union's external policies of cooperation and development. Multi-annual roadmaps for cooperation with key partner countries and regions are currently prepared by differentiating country groupings. The summary conclusions of the 27th Strategic Forum for International S&T Cooperation¹²⁰ (SFIC) confirmed the adoption of this approach by identifying tailored engagements with different areas of the globe.

Securing the place of Europe in global innovation networks

The globalization of innovation presents challenges and opportunities for both European and Southern countries in establishing a virtuous cycle that could foster and attract new knowledge from abroad. Brain drain, deskilling and job losses are among the main sources of conflict between country-partners engaged in the offshoring of R&D and innovation activities. Firms and institutions will need to attract knowledge-intensive activities but also be able to access knowledge generated elsewhere. To do so they must be active in building and participating in global innovation networks (GIN). As highlighted during an OECD and EU workshop, the term GIN is used to suggest the networked organisation of firms' innovation activities, which results from a combination of outsourcing and offshoring of R&D and other innovation inputs. The development of global networks results from the combination of two trends: open innovation and global value chains (GVCs). As a result, research and innovation activities follow the global dispersion of production and marketing as well as the expansion of the potential sources for technology around the world. GVCs and GINs thus partly result from the same evolutions of the global economy and partly have their own specific dynamics as in the case of technology sourcing¹²¹. There is some concern that off-shoring of R&D may be detrimental to domestic growth and competitiveness. EU and national policymakers must not only ensure that their location is an attractive node in prospective global networks, but also present the ability to identify and absorb technologies. Europe should not be a *'European research and innovation fortress'* but instead must become a true global hub in knowledge-intensive activities. For this to happen there are three challenges that need to be

¹²⁰ [Summary conclusions of the 27th meeting of the Strategic Forum for International S&T Cooperation \(SFIC\), 3 December 2015](#)

¹²¹ [Global value chains, global innovation networks and economic performance EU and OECD Workshop, Paris, September 2013](#)

addressed by national and European policy makers, namely: immigration laws which are generally not open enough to make Europe an attractive working place; protection of intellectual property across several Member States which is expensive as there is no European patent; the current expenditure in R&D which is considerably lower in the EU than in the US, Korea and Japan (and probably than that in other emerging countries in the near future). More research is needed to clarify which conditions are necessary to allow Europe to become a true global hub in knowledge-intensive activities, to make this idea attractive to EU participating firms and to understand which policies can be adopted to attract firms from other countries under terms that are beneficial to Europe. Policies need not be confined to technical and financial conditions: Europe enjoys an extraordinarily diverse wealth of cultural heritage that enhances European citizens' quality of life and more might be made of this in attracting others.

3. REFLECTIVE SOCIETIES

From understanding the past to projecting the future

The year 2015 is a significant year for cultural heritage in Europe as the European Parliament resolution *'Towards an integrated approach to cultural heritage for Europe'*¹²² was passed, laying the foundation for a future strategic approach to heritage within Europe. However precarious, the important place of cultural heritage within the European Union derives from the need for Europe to take action in order to safeguard its cultural heritage as well as its values. Indeed, in times of crisis and political fragmentation, cultural heritage has a pivotal role to play in both educational and civic engagement terms. The idea of using culture in order to reinforce the European identity is however far from new as already after the Second World War - when six European countries formed the European Coal and Steel Community, which would later become the European Union -, culture was seen as an important element for the creation of a thriving Europe; one of the most prominent of Europe's founding fathers, Robert Schuman, affirmed already in 1951 that *'much more than an economic alliance, Europe has to become a cultural union'*.¹²³ In addition, culture makes a key contribution to the cohesion of our society and to Europe's influence in the world as the economic weight of the creative sector is valuable and the domain of culture is one of Europe's major assets in a world economy based on innovation and development of knowledge. In addition, culture often embodies the bravest and most rewarding form of innovation and is also a powerful factor of attraction given the wealth of heritage in Europe and the flourishing of cultural events. As highlighted by the New Horizons conference, the cultural heritage sector creates up to 26.7 million indirect jobs per each direct job in a sector where the number of people directly employed is estimated at around 300,000. This means that indirectly-created jobs amount to 7.8 million workers. These figures support the thesis that cultural heritage is a valuable component of European innovation, competitiveness and welfare.¹²⁴

3.1 - European heritage: memory and identity

Global transformation's influence on cultural heritage

As far as the value of Europe's heritage is concerned, the 21st century calls for cultural heritage institutions to transform their products and behaviours in relation to the changes within the European and the other global contemporary societies in order to shape visitor expectations and to highlight the value of interpreting the past in connection with current and future historical evolutions. Further, innovation, sustainability, citizenship, lifelong learning and cultural diversity are emerging challenges for EU institutions which could not be tackled without setting an appropriate framework for cultural heritage and for its role within European society. The impact of new media, digital lifestyles and the necessity of fostering citizens' participation in all domains of society make dialogue and activities more important than authority and one-way information provision. In fact, cultural heritage institutions have the possibility to position themselves as key players by actively promoting the educational features of the EU heritage, especially in

¹²² [Towards an integrated approach to cultural heritage for Europe, European Parliament, 24 June 2015](#)

¹²³ [Europeana pro website](#)

¹²⁴ [New horizons for cultural heritage – Recalibrating relationships: bringing cultural heritage and people together in a changing Europe](#) (NEW HORIZONS)

consideration of the increasing cultural diversity of current and future generations of European Union¹²⁵ citizens. In fact, many cultural heritage institutions have already declared their ambition to invoke a sense of belonging and citizenship within their community or audience, as well as to foster a relationship with future generations through their collections. However, not many among them have the tools to do so in an open, creative and responsive way as they traditionally are not used to acting accordingly. Indeed, cultural institutions not only have to cater for and maintain their audience, but they also have to create sustainable solutions in attracting new visitors through innovative and digitally-friendly solutions. On top of these features, with increasing migration across Europe, there is also a need for more in-depth research to examine the extent to which cultural heritage-related activities could add to the promotion of greater European integration and social and economic innovation. In addition, migration has become a theme of the 21st Century like other aspects of globalisation. However, while attention tends to be focused on accommodation and other economic support, social concerns such as cultural integration can be relegated lower down in the order of priorities¹²⁶. The putting into practice of these ideas should inevitably pass through innovation. Innovation, also defined as *'the process of turning a new idea into something deemed useful'*, is an essential element of a creative economy and society and cultural heritage could be the gold mine of both past and future creative ideas which can be built upon to develop new applications and new knowledge. It can therefore be argued that an important role of cultural heritage organisations, supported by digital technology, is to disseminate their collections widely in order to stimulate the exchange of new and old ideas and to serve as a trigger for other innovations. This process can take place in the cultural sector, in the greater creative industries, as well as in the rest of the economy if the flow of ideas, although often undervalued, will serve as a driver of innovation, social cohesion and a source for orientational knowledge.

The future of cultural heritage from an EU institutional perspective

The digital transformation of society presents exciting and still untapped opportunities to increase and diversify audiences, by reaching out to citizens across ages. From an EU institutional perspective, one of the priorities is how to achieve a more accessible and inclusive culture by taking into account how digital technologies have changed the way people access, produce and use cultural content. In March 2015, the European Commission launched the creation of a group of national experts from across the EU to discuss the impact of the digital transformation on audience development and on the practices of cultural institutions. The experts are mapping policies and strategies for audience development via digital means and will present a manual of good practice for cultural institutions and professionals by the end of 2016.¹²⁷ The opportunities that the digital age brings about are of pivotal importance for the EU cultural and creative industries as new and innovative business models are rapidly evolving and are in need of support. The preservation of European cultural resources and their wider accessibility, according to European institutions, must be balanced with incentives for preservation, investment and innovation¹²⁸. This balance underlies

¹²⁵ [Renewal, innovation and change: heritage and European society and co-creation strategies: from incidental to transformative.](#) Reach, Policy Brief, August 2015

¹²⁶ [RICHS Think Paper 3. Cultural Heritage Festivals: Belonging, Sense of Place and Identity](#)

¹²⁷ [Jens Nyman-Christensen, Is there a future for heritage in the European Union? New horizons for cultural heritage – Recalibrating relationships: bringing cultural heritage and people together in a changing Europe \(NEW HORIZONS\)](#)

¹²⁸ [Towards an integrated approach to cultural heritage for Europe, European Parliament, 24 June 2015](#)

the approach taken by the Digital Single Market Strategy that the Commission announced in May 2015 and to which also Commissioner Moedas is committed. As a result, the European Commission cooperates closely within relevant steering groups and teams overseeing the Strategy's implementation¹²⁹. The copyright reform is particularly relevant to the challenges of cultural heritage in the digital age and the European Commission has identified a number of key priorities for a targeted reform. These notably include '*fit-for-purpose*' copyright exceptions, with special regard to the areas where important societal benefits can be untapped or unlocked. Preservation of and access to cultural heritage are one of these areas and an impact analysis is currently under way. In this context, the principle of cultural diversity is duly considered as EU institutions recognise that there is a need to help communities to take ownership of heritage management by making it part of their daily life through innovative forms of community-oriented management of the economic and social potential of heritage policies. Participatory governance is another key issue as public and private actors, local communities and stakeholders must all be active in managing and maintaining heritage as they should be for other aspects of social innovation. As a result, the promotion of evidence-based policy-making and the strengthening of the links between culture, research and innovation are of the utmost importance for EU institutions. As an example, and as already mentioned within the second part of this report, EU-wide comparable data on the social and economic impact of heritage policies are still lacking, to the detriment of both policy making and the advocacy towards decision makers for increasing investments in the cultural sector.

The question of cultural heritage in a diverse society

As the above-mentioned Parliament resolution underlines¹³⁰, it is of paramount importance to use available resources for supporting, enhancing and promoting cultural heritage on the basis of an integrated approach, while taking into account its cultural, economic, social, historical, educational, environmental and scientific components. In addition, the resolution emphasises that, with regard to cultural heritage, an integrated approach is necessary, if the EU wishes to achieve cultural dialogue and mutual understanding to enhance its social, economic and territorial cohesion, while contributing to the fulfilment of the goals set in the Europe 2020 strategy. Within this context and at a time when Europe is receiving extraordinary numbers of refugees and migrants, the tackling of this situation is a key priority for the EU in order to ensure not only social, political and economic integration, but also the cultural integration of both past and new arrivals¹³¹. As the CULTURAL BASE¹³² social platform's theoretical framework underlines, European identity is more diluted than the concept of identity normally suggests, but it is also open to the rest of the world and it consequently involves a spectrum of different interpretations. However, the platform noticed that, paradoxically, although there is little contestation as to the meaning of Europe, there is greater uncertainty as to what it should consist of. For this reason, the internal transformation of identities needs constant re-interpretation as both the ongoing EU integration process and migration phenomena are re-shaping or shaping European society. In addition, national cultures as well as national identities can be sometimes very diversified, especially in terms of perception and

¹²⁹ [Commissioner Navracsics, Building a Digital Single Market in which the cultural sector and sport can thrive: four cornerstones](#)

¹³⁰ [Towards an integrated approach to cultural heritage for Europe, European Parliament, 24 June 2015](#)

¹³¹ [European Commission, Refugees, migration and intercultural dialogue](#)

¹³² [Cultural Base, social platform on cultural heritage and European identities](#) (CULTURAL BASE)

interpretations of current and past European history. However, the platform also underlined that the case of a coherent national identity resisting a dominant European identity or, vice versa, the matter of national identity being replaced by a new European identity is an outdated issue, if we consider the multiplicity of aspects which the notion of identity within the current European society embeds nowadays. According to this theoretical approach, Europe and its identity is not a fixed term of reference, but a variable whose meaning will constantly change in response to changing circumstances. Accordingly, rather than denying the existence of a European identity, it is perhaps more advisable to research the myriad of discourses in which Europe figures as a term of reference, as well as a mode of discourse, not least in the question of migration. In this way more and more issues are to be framed in the terms of Europe beyond its normative significance.

Digital technologies and cultural heritage

Technological advance will permanently influence the way cultural heritage is preserved, managed, disseminated, used and created. Indeed, digital technologies can both stimulate innovative interactions with cultural audiences and users and enhance educational methods and patterns as they have the capacity to offer novel learning and teaching resources and innovation opportunities. In addition, the deep penetration of ICT in European society is revolutionising the possibility to access and disseminate information on cultural matters. Regarding this set of issues, the first New Horizon conference¹³³ underlined that EU actions for Digital Cultural Heritage are already enshrined in the policy oriented to modernise copyright, in the framework of the Digital Market Strategy, as well as in the resolutions, recommendations and directives already adopted by EU institutions concerning online accessibility, digital preservation and reuse of Europe's cultural resources. The European Union's commitment aims at preserving and enhancing Europe's cultural heritage through various programmes - such as Creative Europe, Erasmus+, Europe for Citizens -, and their funding – especially through the European Structural and Investment Funds, - in order to foster EU wide initiatives and it proposes even greater member states' involvement in promoting research and innovative practices. As an example, virtual tours can amplify the experience of a visit, while virtual museums can attract new and remote audiences and collections can be made widely and easily available. In addition, new methods for analysing unstructured data and new techniques such as recognition tools could greatly extend the possibilities of research. Within this context, the necessity of creating an EU-wide cultural '*e-infrastructure*' in order to store, process and provide access to cultural data could also complement the enhancement of innovative and sustainable business models in the cultural domain - as well as in other sectors of both the EU economy and society- through the mass-customization and creative use of cultural knowledge. In addition, as services form a steadily growing part of the world economy and are interlinked with the technical possibilities of creating a demand for personalised services, it becomes evident that the concern of reducing government e-expenditures counter cultural institutions' efforts towards innovation. For this reason, exploring alternative ways of funding such as crowdfunding, public private partnerships and the commercial exploitation of collections, is of vital importance. Furthermore, there is scope for social and socio-economic research into new business models, new artistic careers, valorisation of cultural heritage for social and territorial cohesion and quality of life, valorisation of cultural heritage for tourism and creation of new jobs. This paradigm however needs to be integrated with other EU sectorial and macroeconomic policies which should create

¹³³ [Recalibrating relationships: bringing cultural heritage and people together in a changing Europe](#) (NEW HORIZONS)

the appropriate environment for this model to be applied and scaled up to the maximum of its potentials¹³⁴. As reiterated in a policy brief produced within the RICHES¹³⁵ project, it would be of vital importance to develop copyright policies within the cultural heritage sector by starting from the consideration of the right to culture. At a second stage, the cultural heritage sector is advocated as a driver for change in both law and practice as leadership of European policy-makers and institutions could reap significant rewards in this sector and, at the same time, it could foster valuable social, and economic progress on a global scale¹³⁶.

Creating new knowledge and engaging with heritage

The RICHES policy seminar aimed at highlighting the ways research could provide insights and innovative methods for European policy makers in order to contribute to an evidence-driven practice based on uniform taxonomies, co-creation and innovative thinking about copyright for all the strands of the European cultural heritage sector.¹³⁷ The policy seminar underlined how EU ICT research and innovation, as well as digital cultural heritage ongoing activities can be explained (and carried out) from the point of view of copyright law modernisation, digitisation, online accessibility and the re-use of cultural resources. The interventions also focussed on the extent to which funding available for the cultural heritage sector through initiatives such as Horizon 2020 and European structural investment funds can be exploited. As far as the issue of taxonomy is concerned, it was firstly emphasised that cultural heritage surely belongs to a range of academic and professional fields, many of which used different vocabularies. However, as practice and policymaking may be also included in this process, the seminar posed questions about the ways through which the gaps should be filled, if the two last mentioned stakeholders are to be included in the process. According to the resources reviewed, there is an agreement, firstly, on the fact that taxonomy is only the first step towards a common approach to a shared European cultural heritage and secondly, on the analysis of taxonomies as a constantly evolving process which reflects state of the art ideas. As a result, according to the panellists, the underpinning terminology examination is often more important than a static collection of descriptions as the taxonomical processes should contribute to their further development. The resources reviewed also recommend that taxonomy and translation into other European languages should be considered. Regarding the assumption that cultural heritage should not be regarded as the property of a limited number, but should rather be seen as an asset belonging to the community, the question which emerged during the seminar was whether cultural heritage could be made available for the dynamic use of the community in building a sense of identity and belonging. With regard to these matters, an extensive debate took place among the panellists about the ways to access cultural heritage and how these could be optimised within the current European legal framework, as cultural institutions can often infringe the law as a result of their opaque edges. The strategy suggested by all the interventions was deeply rooted in the human right to culture, as well as into cultural rights with a special regard as to how to use copyright laws as a tool to put those rights into practice, in order to have a strategic direction for EU policies. Concerning co-creation as a tool to reach the full

¹³⁴ [Federico Milani, ICT research and innovative processes to unlock the potential of digital culture and creative industries Europe, 19 October 2015](#)

¹³⁵ ['Innovation and change: heritage and European society'](#) (RICHES)

¹³⁶ [Digital Copyright Framework. The move from analogue to digital and new forms of IPR. June 2015](#)

¹³⁷ ['Innovation and change: heritage and European society'](#) (RICHES)

potential of the cultural heritage sector, the panellists agreed that co-creation does not democratise decision-making per se, whereas they emphasised that political influences within the participating groups, as well as a tendency to create 'dictatorship of the bottom' should be avoided. In addition, in the view of the speakers, the process of co-creation should ideally facilitate the creation of communities which continue to exist even after the fulfilment of the original co-creation tasks, and sustainability should be part of the design of any co-creation project to make sure that it continues beyond the life of the project. Finally, the policy seminar also noted that there is a policy gap surrounding the place of cultural heritage in Europe, as well as the importance of evidence-based projects for providing tools to bridge the gap between specialists and policy makers.

3.2 - Contemporary European diversity

Exploiting the benefits of the European cultural diversity

An important aspect of cultural, social and political change over the past two decades has been the Europeanization of identities. This process consists of the value of the European identity beyond or in coexistence with national and regional identities, especially, but not exclusively, within the youngest part of the population and active citizens. This aspect of the European society is often undervalued both in its scope and its potential. In addition, European identity may co-exist with other identities, since current cultural and societal features widely recognise that individuals may have more than one identity. However, such identities may not always recognise themselves as defined, since the European dimension is only a level which interacts with other levels, with special regard to the past and current phenomena of migration. Furthermore, the emergence of the notion of Europeans as bearers of European identity is a relatively recent phenomenon and has been influenced by European policy making. Indeed, there is a wide agreement on the fact that Europe has become the phenomenological basis of a shift in identities away from the purely national dimension as intra-EU mobility and the consciousness of a more interconnected society and economy have both been subject of an EU-wide debate.¹³⁸ However more diluted than the concept of collective identity normally suggests, the consolidation of a European symbolic culture based on the EU has entered into the national cultures, even if partially by '*external means*'. As already stated before, the result of this setting is that there is more, not less, contestation as to the meaning of Europe as well as greater uncertainty as to what this identity consists of. For this reason, the internal transformation of identities through constant reinterpretation is necessary. In addition, national cultures and national identities are themselves still diverse especially in their perception of European history as often a misinterpreted sense of coherent national identity is perceived in opposition to a collective European identity. However Europe appears to be not a fixed reference point, but a variable term whose meaning changes in response to changing circumstances. This fact implies that the historical narrative of the European Union should be further subject to research and investigation in order to reinvigorate the emerging sense of belonging. In fact, one of the challenges in addressing cultural heritage resides in correlating the different dimensions of memory, history, and culture more generally. In addition, cultural heritage is firstly always related to '*memory*' since it reflects the way in which different groups as well as societies see their past. However, memory may be considered an insufficient guide to the past and

¹³⁸ [Innovation and change: heritage and European society](#) (RICHS)

certainly not a sufficient means for a comprehensive analysis both of society and of individuals. As a result, the question of the relation between memory and history inevitably arises as European citizens' constructions of memory often bear little relation to the facts of European history; such a situation can very often be the cause of internal divisions. Within this context, the notion of heritage can allow us to evaluate how the past should be recalled by the present. For these reasons, researchers and policymakers alike should pose themselves the questions of how European societies interpret themselves, their past and their collective aspirations and how cultural policy making could guide the formation of a narrative that is appropriate for the present day. This challenge is perhaps the central issue of European cultural heritage today. The application of recent advances in cultural and social theory may help to develop new understanding of the complexities of contemporary debates on heritage, memory and culture. On the basis of this analysis the understanding of the changing contexts of heritage and identities should contribute to new or post-national oriented narratives about European values, fostering a common view of the heritage within the context of the current and future evolutions due to the deepening of the EU integration process, migration flows, digitisation processes and new cultural phenomena.

Understanding the cultural past and projecting the future

A very different aspect of cultural diversity is addressed when dealing with military, religious, ethnic or intra-state conflicts which are occurring in various parts of the world. Accommodating the basic human right principle of the recognition of cultural diversity is a major challenge for conflict management. The examples of the conflicts in the Western Balkans - where quite clearly the negative aspects of cultural diversity prevailed - are already a part of the European cultural heritage which witnesses this challenge. Understanding which policies of conflict management and conflict prevention were successful and providing insights as to how the EU can act accordingly in current and future cases, becomes of fundamental importance as some scenarios forecast and further research on possible EU actions. As far as ethnic and religious conflict are concerned, research identified five aspects of ethnic conflict that are policy-relevant: complexity – all ethnic conflicts studied had complex interactions between domestic, regional and international players; individuality – conflicts differ substantially and there is no single recipe for successful management; depth – conflict is often rooted in a region's history; durability/persistence – because of the long duration of many conflicts it may be problematic to define phases into 'pre-conflict', 'conflict' and 'post-conflict' for purposes other than research; mediation of conflict – co-ordination and co-operation between relevant actors in human and minority rights is often deficient. If the EU intends to strengthen its role in conflict management, it needs better co-ordination, more communication with other organisations and a streamlining of policy instruments. Priorities for future research should also include: strengthening instruments for negotiation and conflict management, improving external coordination and channels of interaction, monitoring as well as data collection.

3.3 - Europe's role in the world

The identification, the understanding and the forecasting of global challenges

The scientific work regarding global challenges and transformations described throughout this

report has reached a satisfactory depth, although some aspects remain uncertain. More research work in social sciences and humanities is needed to help the understanding of the effects of current European and global transformations and evolutions. As far as the ecological transformation is concerned, the climate change issue will not for example interact strongly with the European internal social transformation but more likely with trading patterns. In addition, a more interconnected world, especially in terms of exchanges between cultural institutions, can both offer the provision of linkages between EU labour markets and global labour supply, and the possibility of further upgrading of skills in emerging markets where surplus labour will stimulate migration and an increase in EU competitiveness. In addition, considering Europe's commitment to a more democratic and peaceful world, research on the increasingly diverse and innovative ways in which countries emerging from authoritarian rule or armed conflicts deal with their violent past and research into the role of international actors therein will strengthen Europe's external policy which is connected with the internal policy. Furthermore, the EU promotes its values through multilateral agreements with other states. These cover areas which are relevant for this report and for the EU decision making process in general. As an example, the EU supports the international process for sustainable development, and played a key role at the COP21, the Climate Change Conference held in Paris this year. Notably, that conference gave a push to sustainable development in several domains. Within this context, and while taking in consideration the challenges which emerging economies are posing to the global economy, it will be of vital importance to establish searches and policy making supported by forward looking perspectives. As far as economic and social challenges are concerned, it is interesting to note that the World Economic Forum identified ten key issues¹³⁹ which would require collaboration across different sectors to engage in and correspond to several of the main policy engagements outlined by the EU itself during the time, namely:

- Economic growth and social inclusion;
- Employment, skills and human capital;
- Environment and resource security;
- Future of the global financial system;
- Future of the internet;
- Gender parity;
- Global crime and anti-corruption;
- Infrastructure, long-term investment and development;
- International trade and investment;
- Agriculture and food security.

As also recognised by the World economic Forum Competitiveness Report 2014-2015¹⁴⁰ in terms of global governance we see the emergence of new geo-economic competition, new regionalism and new actors. Meanwhile, technological change is disrupting economies and modifying the nature of our globalised world in ways that are both unpredictable and complex. We will witness more technological change over the next decade than we have seen in the past 50 years. Advances in all the sciences – from robotics and genetics to communications and the social sciences – will not leave any aspect of global society untouched. Furthermore, around the world a young generation

¹³⁹ [10 global challenges, 10 expert views from Davos, World economic Forum](#)

¹⁴⁰ [World Economic Forum Competitiveness Forum Report 2014-2015](#)

is demanding to be heard. Young people increasingly see decisions being made to the detriment of their future. Each of these factors requires a new kind of institution – one with the adaptability, the entrepreneurship and the trust of all stakeholders – that can bring together people who have the power to make change, to achieve mutual understanding and empathy, to come to common agreement and, where appropriate, push action forward. Interestingly, the framework of the set of actions which the European Union intends to implement, not only features a high level of agreement with the general framework of the World Economic Forum, but it also represents a cutting-edge response to the issues in question. Accordingly, European research policy should further its effort to anticipate and influence the global institutional agenda. In addition, the distinct historical, political, linguistic, social and cultural systems in Europe are increasingly confronted with the impact of global changes. To further develop its external action in its neighbourhood and beyond and its role as a global actor, Europe has to improve its capacities for defining, prioritising, explaining, assessing and promoting its policy objectives with other world regions. It also has to improve its capacities for anticipating and responding to the evolution and impacts of globalisation, and the new priorities and alliances being set by emerging countries. Research is needed to preserve and strengthen European democracy in a world where democracy seems to be in retreat. Multidisciplinary research by historians, legal scholars, political scientists and philosophers has much to offer in this respect. Considering Europe's commitment in contributing to a more democratic and peaceful world, research on the increasingly diverse and innovative ways countries emerging from authoritarian rule or armed conflict deal with their violent past and on the role of international actors therein will strengthen Europe's external policy.

An EU Cosmopolitan society

The Specific Programme of Horizon 2020 mentions that EU support should be given to research aimed at enhancing our knowledge of the history, cultures and political-economic systems of other world regions, as well as the knowledge of the role and influence of trans-national actors. As a result, competence in analysis of trans cultural entanglements is a critical asset in the understanding of complex, global interactions and will strengthen the position of Europe in a fast changing world. Europe will profit, socially and economically, from participation in a discourse that draws on worldwide sources of reflection on the meaning and direction of economics, policies, artistic practices and human life in general. The distinct historical, political, linguistic, social and cultural systems in Europe are increasingly confronted with the impact of global changes. To further develop its external action in its neighbourhood and beyond and to strengthen its role as a global actor, Europe has to improve its capacities for defining, prioritising, explaining, assessing and promoting its policy objectives with other world regions. It also has to improve its capacities for anticipating and responding to the evolution and impacts of globalisation, and the new priorities and alliances being set by emerging countries. Research is needed to preserve and strengthen European democracy in a world where democracy seems to be in retreat.

The importance of cultural diplomacy

The European Union and its Member States maximize the impact of culture in foreign policy culture is a vital part of our collective European identity and helps to underpin European shared values such as respect for human rights, diversity and equality. As often highlighted by high level

EU institutions officials cultural diplomacy is indeed an opportunity for the European Union to share its values and the European culture with other countries. By developing a more active and dynamic role for the European culture on the international stage should be also a matter of research as, if used intelligently, this 'soft power' can greatly benefit the EU and its Member States in their relations with the wider world¹⁴¹. In addition, as recently highlighted by Commissioner Navracsics¹⁴², in recent years we have seen great change in the countries neighbouring the EU. Citizens have increasingly been calling for more social justice and democracy, demanding that their governments be more accountable. However, with these positive developments major challenges have appeared too: growing conflict, rising extremism and terrorism, as well as economic upheaval. For this reason, the EU main political priority in its relations with these countries is to help them regain stability. The EU approach should imply joint action with partners countries, which need to play their part in helping to create the conditions for positive change. The EU therefore also focuses on empowering our partners, working with them to ensure they can tackle the challenges facing them. The reason why culture has an important role to play in this is due to the fact that culture is a major factor in political, social and economic development as culture brings society together, fosters openness and dialogue, progress, innovation and economic growth and it is an extraordinary powerful tool for supporting citizenship, female empowerment, good governance and democratisation both in peaceful and troubled conflict or post-conflict situations.

¹⁴¹ [European Commission, Maximizing the impact of cultural diplomacy in EU foreign policy](#)

¹⁴² [Tibor Navracsics, Building blocks of a new EU strategy for cultural diplomacy, January 2016](#)