

SSH in Horizon 2020

Danish perspectives on SSH in Pillar 3 “Societal Challenges”



Introduction

Denmark wishes to contribute to the implementation of Horizon 2020 by giving its input to the research and innovation content in the specific programme of Horizon 2020.

For that reason Denmark has established expert groups in the areas of health, food/biotechnology, energy, climate change/environment, inclusive societies, ICT and key enabling technologies. The role of the Danish expert groups is to assist in clarifying the Danish opinion on the content of specific themes/challenges of Horizon 2020 and to highlight key Danish perspectives on the research and innovation challenges that Europe and the world are facing.

The Danish expert groups are composed of representatives from universities, companies, business organisations, technology transfer organisations and research councils. They have in June 2013 produced short documents focusing on key European research and innovation challenges in their respective areas. In this document you will find the Danish SSH priorities for the Horizon2020 programme, in particular with regard to “Societal Challenges” in Pillar 3.

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Challenge 6: Europe in a changing world – inclusive, innovative and reflective societies

Title: Inclusive Citizenship

European and global perspective

In the light of social, economic and demographic developments in Europe, it is imperative that European members states are able to, firstly, attract (qualified) labour migrants and, secondly, to integrate vulnerable individuals into society.

As regards the first point, demographic changes imply a need for an inflow of migrants to meet needs on the labour market at a time where there is considerable international competition for skilled labour. As regards the second point, there is an urgent need to secure the inclusion not only of migrants but also of other vulnerable groups at many levels in society, including politics, social and cultural spheres, in educational systems and in the workplace.

These are, amongst other factors, important conditions for future growth in Europe. Research is therefore needed to contribute to securing evidence-driven, efficient policies that promote free, inclusive and cohesive European societies.

Research need and content

Working towards inclusive citizenship presents both challenges and opportunities, not least when it comes to migrants and other vulnerable groups, including national minorities, women, the elderly, people with disabilities and the poor. Addressing these challenges and opportunities requires an integrated, inter-disciplinary analysis of diversity, religions, cultures, language use, values, social dynamics, and representation in media and other spheres of social life, as well as a historical understanding of how vulnerable groups have contributed to and shaped societies over time.

Research will contribute to the understanding of inclusive citizenship in different dimensions:

- the normative and legal content and protection of such citizenship, including its relation to core values of liberty and political, social and other forms of equality as well as protection in national and international human rights institutions and courts;
- understanding the political, social, cultural and linguistic needs and interests of vulnerable individuals and groups;
- addressing the significance of different levels of social organisation, including supra-national / transnational, national and regional/urban dynamics, including
 - how vulnerable individuals may play contributing roles at these different levels, e.g. where they contribute differently socially and culturally at a city level as compared to the national level,
 - how cultural and linguistic diversity may impact positively or negatively at these levels, and
 - how policies can contribute to inclusive and socially cohesive European communities.

Challenge 6: Europe in a changing world – inclusive, innovative and reflective societies

Title: Social and cultural innovation

European and global perspectives

The European Union and its member states are facing risks and challenges such as ageing populations, growing inequalities, increasing cultural diversity, complexity, and slow (or negative) economic growth. Confronted with these challenges, new innovative and creative scientific knowledge as to how to support social and cultural innovation is needed in order to promote higher productivity, equality of opportunity, higher standards of living for all, and social cohesion.

Research in social and cultural innovation is expected to have an immediate impact on technological and social innovation, social cohesion, economic growth and progress of the knowledge based European societies. Research in social and cultural innovation will help to create a sustainable Europe in several dimensions:

- A more inclusive labor market in terms of age, gender and ethnicity will increase labor supply and soften economic implications of demographic ageing.
- New business models, e.g. in the form of new venture creation realizing value from university-industry collaboration, may help to lift value and job creation of European industries. That is, new and innovative business models may be an important precondition for social cohesion and future growth, value and job creation in Europe.
- New participatory, open and creative societies allowing for new forms of democratic learning may help to reformulate the European Social Model faced with retrenchment and discontent, as well as contribute to the legitimization of the European project.
- Deeper understanding of conflicts and segregation based on ethnicity and class may open paths for how xenophobia and intolerance may be countered, for instance through new forms of urban planning.
- The employment of new welfare technologies and digital solutions, e.g. in the elder care area, may lower public expenditures and improve the life conditions of European citizens.
- More attention towards gender biases in the methodologies and invention of new technical and social innovation may help to create a more equal society.

Research need and content

To sustain the European social model it is necessary to fill major knowledge gaps and promote knowledge-based innovations in the social, political and economic spheres, including the spheres of industrial relations and technological progress.

The most central research questions are the following:

- How can labor markets become more inclusive and take advantage of the competences of senior workers and the inflow of migrants?
- To what extent can new business models promote economic growth as an alternative to the lowering of wages and of public expenditures?
- How can new participatory, open and creative societies, including new forms of political, social and cultural participation, respond to the challenges from growing inequalities, poverty and marginalization, which have generated frustration and popular resistance in all European welfare states? More generally one may ask: to what extent is social unrest related to economic, cultural and

political cleavages within and between European societies, and how may they be countered?

Especially, the potential role and limitations of civil society should be investigated more thoroughly.

- As cultural diversity and complexity is primarily an urban phenomenon, knowledge is needed about factors generating productively inclusive cities; i.e. how can practices, institutions and technologies be developed to support and facilitate cultural assets shared by generations? How can urban planning be accomplished to enhance smart, sustainable and live able cities?
- How can institutions and social relations be created that stimulate innovation supporting economic growth and new welfare technologies and digital solutions that may reduce public expenditures; e.g. digital solutions supporting “rehabilitation” in the light of costs originating from demographic ageing?

Cross-cutting the various themes are the following questions: How can new forms of collaboration between research and innovation be tackled and how can gender biased methodologies and analyses be avoided?

Challenge 6: Europe in a changing world – inclusive, innovative and reflective societies

Title: the Learning society

European and global perspectives:

The social and economic crises in Europe and other parts of the world in recent years have increased the need for learning opportunities and at the same time demonstrated the fragility of existing institutions and policies. New research is needed to support the development of more versatile and efficient learning arrangements in all parts of educational systems as well in as in other areas of social life. Modern societies must also become learning societies.

Quality learning, that is fostering learners’ ability to acquire, understand and use knowledge and skills, is a key mechanism for intelligent, sustainable and inclusive growth. Research has shown that although learning possibilities may be ubiquitous, quality learning is in short supply. Lack of quality learning on how to handle modern equipment, make use of ICT and create and innovate in a globalized world threatens all other attempts to create an innovative well-equipped future European society. Investment in human resources and learning capabilities are at the bottom of any innovation process. Citizens have to acquire the key competencies necessary for modern production and work. They must learn to be active citizens in pluralistic and democratic societies. They also need to “learn to learn” in order to cope with and contribute to social change.

Research on the Learning Society contributes to meeting several of the challenges, Europe is currently faced with. A European effort in research on key aspects of the quality learning society has the potential impact of, firstly, supporting intelligent, sustainable and inclusive European growth in a globalized world; secondly, improving the capacity of European populations to handle and benefit from ongoing processes of modernization, including the capacity for innovation; thirdly, reducing socio-cultural inequalities in and among EU member states; and finally, providing countries in other world regions – not least Africa – with better tools for learning as part of sustainable development.

Research need and content:

Research on and for improved quality of the learning society should focus in particular on the following four key elements:

- Conditions for optimal learning in education and in other arenas in social life.
Learning arrangements are often shaped more by educational and institutional traditions rather than by knowledge on the processes and conditions of learning. Relevant research on learning is already available, but new research, more focused on contemporary learning arrangements, is needed to inform practice.
- New forms of learning, multi-modality and interaction in technology-intensive learning environments across sites of learning.
This is essential both for learning in education systems and for learning in business and civic life. Novel ICT-integrated designs for learning hold great promise both for efficiency in the development of skills and competencies and for including many different types of children, youth and adults in education and thereby eventually reduce dropout and early leaving. However, more knowledge is needed on how to improve teachers' and students' quality learning of and with ICTs (thus their technological and media literacy), in relation to learning, development and innovation, as well as in relation to the development of new teaching/learning practices and subject correlation across various sites of learning.
- The contribution of quality learning and education to innovation and socio-cultural innovation in a globalized world.
The development of creative abilities and mindsets is an important precondition for innovation and thus for growth. It is a crucial task for schools and other learning environments to create better platforms for learning. This again calls for research on the learning of creative and innovative competencies, but also on innovative learning arrangements across various sites of learning. The potential of ICT-integrated learning resources for innovative learning is an important element here.
- Adult education and learning should be given special attention.
Good learning opportunities are needed to provide young and mature adults with qualifications and insights necessary to handle and benefit from ongoing modernization of societies. Research is needed on employee learning and innovation in companies, on citizen learning in public contexts, on improving professional learning in the public sector, on ways for adults to acquire new research-based knowledge of health, technology and other important issues. Research in this field should include ways and tools for adult learning to inform and contribute to business innovation and social innovation on all levels.

Challenge 6: Europe in a changing world – inclusive, innovative and reflective societies

Title: Digital Cultural Heritage

European and Global perspectives

Europe is characterized by a variety of different people, traditions and regional and national identities as well as by different levels of economic and societal development. To promote mutual understanding among Europeans and further European integration, Europe's intellectual basis, its

history and the many European and non-European influences should be recognized and considered as an inspiration for our lives today.

Understanding European culture and heritage underpins the democratic development and education of European citizens with a strong view to European youth. Research will help foster social and cultural inclusion as well as the sustainable appreciation of cultural heritage.

The concept of learning, participative, multi-sensory and emotional heritage is essential to all cultures. Digitization creates new options and obstacles to the accessibility and preservation of cultural heritage. Hence, digital cultural heritage research is needed to sustain and develop the vitality of engagement within and across European cultures under 21st century conditions. The collaboration between digitization, cultural heritage institutions and the education sector gives European citizens methods and skills to apply in their own learning to constantly develop from a life-long learning perspective.

The access to and use of European cultural heritage is being radically transformed with the wide adoption of digital media used for engagement, participation and inclusion. Digital media make it possible to use and experience cultural heritage in new ways. The global reach of digital technologies creates new contexts in which this can happen. Cultural heritage and arts institutions experiment with collections and exhibitions across sectors e.g. the educational sector.

Thus, researching digital cultural heritage is of key, long term importance to Europe in order to

- form a robust knowledge base on how cultural heritage may develop in the 21st century,
- enable creative and innovative partnerships between museums, creative industries and public domain areas such as education with transfer value to other socio-cultural areas,
- advance strategies for heritage institutions and arts museums, to harness transversal citizen resources and thus enhance their benefit to society at large,
- understand how digital heritage operates in social media,
- understand how digital heritage data change research in cultural heritage institutions and universities.

Research need and content

Understanding and creating reflective societies and social transformation in Europe requires analysis of changing democratic practices and expectations as well as of the historical evolution of identities, diversity, territories and cultures.

The goal of prioritizing research on digital cultural heritage is to promote citizens' reflection, engagement, participation and inclusion. Since digitization encompasses all areas of cultural heritage practices (acquisition, preservation, research, communication and exhibition) and does so online as well as on-site - digital museum research serves to underpin inclusive abilities to better inform and understand the present, and to form and create the future, by richer interpretations of the past.

The theme facilitates and necessitates interdisciplinary research studying ways in which digital technologies catalyze transformations in the shaping, sharing and storage of European heritage, memory, identity, integration and cultural interaction (and translation) as represented in heritage institutions. Key research areas are as follows:

- Digital media used for engagement, participation and inclusion.
Researching these transformations encompass the engagements of citizens in their own formation of heritage, the options and obstacles for heritage institutions to capitalize on the new forms of

communication and interaction and the economic, social and cultural benefits of trans-domain partnerships.

- Possibilities for securing and preserving our cultural heritage and historic knowledge.
New technologies provide new possibilities for securing and preserving our cultural heritage and historic knowledge. There is great potential in exploiting research in digital culture and a need to develop new forms of use in the digitization of cultural heritage. The visitor becomes a user and co-producer of cultural heritage.
- Learning and inclusive museums and cultural heritage institutions with a focus the economic, social and cultural benefits of trans-domain partnerships and on interaction between museums and teaching institutions to investigate the role of heritage learning. Research should focus on the impact on citizenship of learning cultural institutions and to improve our understanding of how European identity can be traced, constructed or debated.

The suggested research will stimulate collaboration between regions and nations of Europe.

Challenge 5: Climate action, environment, resource efficiency and raw materials

Title: Sustainable growth and climate change in the arctic region

European and global perspective:

Climate change is subject to a very asymmetrical distribution of present emissions and future impacts and vulnerabilities. The Arctic Region constitutes an extreme case in point. Regardless of its contribution to climate change in terms of emissions, it is extremely vulnerable, generally being considered a hotspot for the impacts of climate change. Change in glacier ice, permafrost and sea ice potentially affect all areas of human activity due to effects on terrestrial and marine resources as well as processes of erosion. These changes have a global impact. Simultaneously, a great deal of hope is tied to the Arctic Region because it contains a large variety of natural resources that have not yet been exploited, and because the changes in sea ice cover has the potential to open up new international trade routes.

There is a two-way relationship between climate change and economic development. On the one hand, vulnerability to climate change is strongly influenced by development patterns and levels of income and education (decisions about technology, investments, trade, governance, etc.). On the other hand, climate change and the mitigation and adaptation policies associated with it might pave the way to sustainable growth and job creation.

SSH Research into sustainable growth and climate change in the Arctic Region is particular pressing because, firstly, it constitutes a hotspot for the impacts of global climate change; secondly, it entails significant prospects for sustainable growth and job creation globally as well as in the Arctic Region itself; and, finally, the national/local circumstances pose socio-economic, political and cultural challenges both regionally and globally.

Due to climate changes and increased global needs for resources the Arctic Region is placed very high on the overall geo-political agenda. The Arctic Region is also of strategic interests to the EU. An arctic dimension in Horizon2020 can contribute to supporting the European Union's ambitions in relation to the Arctic Region in general and to the Arctic Council in particular.

Research need and content

The overall research needs relates to the following question:

- How to exploit the vast economic possibilities in the Arctic Region in an environmentally sensible way and securing sustainable growth and job creation globally as well as in the Arctic Region itself?

In addition, research of the following aspects would be highly relevant:

- Studies of social processes in a long term perspective (historical as well as prospective)
The Arctic has throughout millennia been subject to significant climatic changes, and humans have always adapted. The future organization of humans and societies in relation to climatic changes and sustainability is thus one step on a long path of dynamic adaption, mobility and invention/innovation.
- Exploring the human factor when studying sustainable growth and climate change and when developing and implementing climate policies.
Societies (and the Arctic Region's) development paths evolve as a result of transactions between government policies, private sector initiatives and individual citizens. If mitigation of and adaptation to climate change is to have the greatest effect, it must address all three levels and hence take into consideration both national / local circumstances and the human factor. The human factor is pressing in relation to climate change in general and particularly so in the Arctic Region which harbors societies, groups of indigenous peoples, and ways of life that and ways of life that escape the mainstream understanding of how society changes. Changes in life style and behavioral patterns can contribute to climate change mitigation and adaptation.

Challenge 7: Secure societies – protecting freedom and security of Europe and its citizens

Title: Open, democratic societies and security: technological and societal challenges

European and global perspective

Modern, open societies are characterized by an increasing intensity of mobility of humans, goods and information. However, the same technologies that facilitate the vital exchanges of information and communication are also technologies embraced by the enemies of the open, democratic society – be they domestic or international. Moreover, the same technologies are used by the public authorities to try to track and survey the enemies of the open, democratic society. Modern society is therefore, today, facing the challenge to develop not only technologies that support the freedom of communication that is so vital to highly developed free societies, but also to safeguard these technologies against abuse.

The development of technologies which are compatible with, indeed tailored to, a free open society is furthermore closely linked to the need to come to a more in-depth understanding of the socio-cultural causes of extremist and radical behavior. The content of media-born information carrying political or religious meanings can no longer be analyzed and understood separately from the technological and organizational underpinnings of extremist groups and their behavior.

Phenomena such as extremism and radicalization should be placed in their societal context of how society and authorities respond to their manifestations. In other words: the rise of terror groups must be seen in the context of counter-terrorism and the political culture of any given society. In a broader European and international context, the resilience and state of preparedness of modern society to sudden crises, violent eruptions or emergencies caused by natural disasters cannot be seen in isolation from the foundations of freedom and security of societies under stable conditions.

Research need and content

The research theme on open, democratic societies and security both includes a perspective on communication technology and surveillance, but also the impact of both radicalization and counter-radicalization on the socio-cultural and normative processes of open, democratic societies. We know too little about these impacts in a European context. Surveillance and measures of counter-radicalization may – and may not - have consequences for democratic and societal processes, that calls for cross-disciplinary scrutiny.

Research in the field is important for the continuing, open and innovative processes of democratic European nations and the EU. We know too little about the human and societal consequences (e.g. free speech) of surveillance. Further, we know too little about what counter-measures actually work best to prevent violent radicalization (surveillance vs. education in democratic principles, securing rights of ethnic and religious minorities), and further the courses of violent radicalization (e.g. gender, minority and social vulnerability issues). Surveillance may be one means to prevent radicalization. However, we need to have a deeper understanding of the pathways leading to radicalization, including social, psychological processes.

These profound challenges to modern, open societies can be researched under four main headlines:

- Surveillance: technologies and their human consequences
- Societal challenges to freedom of speech and democracy from radicalization and counter-radicalization
- The social, cultural and political causes of extremism and radicalization
- States of emergency and societal responses