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Mykolas Romeris University
Vilnius, Lithuania

HORIZONS FOR SOCIAL SCIENCES AND HUMANITIES

CONFERENCE REPORT

MYKOLAS ROMERIS UNIVERSITY

The Conference is under Patronage of the President of the Republic of Lithuania Dalia Grybauskaitė

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EDUCATION SCIENCE RESEARCH

SSH

Horizons for Social Sciences and Humanities

Conference Report

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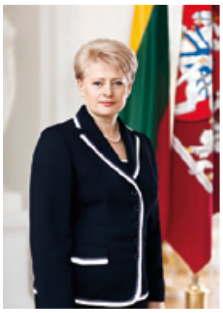

PRESIDENT OF THE REPUBLIC OF LITHUANIA

Welcome address by H.E. Dalia GRYBAUSKAITĖ, President of the Republic of Lithuania

September 23rd, 2013, Mykolas Romeris University, Vilnius, Lithuania

Dear Participants of the Conference,
Dear Organizers and Guests,

As Lithuania presides over the Council of the European Union this half year, it seeks to consolidate the Community as an open, credible and creative family of nations united by shared values and common vision.

Therefore, we focus not only on the political and economic agenda, but also on other aspects that enable modern Europe to move forward on the path of progress and prosperity.

Prominent European researchers and university lecturers of the Social Sciences and Humanities, representatives of political science institutions, the business community, and non-governmental organizations are attending this international conference.

Together you will address many important issues relating to role of the Social Sciences and Humanities in delivering the Horizon 2020 Programme.

The Social Sciences and Humanities allow us to better perceive ourselves and the surrounding environment as well as to understand our expectations, ideas and our own place in the world.

The Social Sciences and Humanities help find the answers to existential questions, issues of general welfare, global stability and peace.

These sciences deliver knowledge and experience to address conflicts and achieve peace through negotiations, collaborative work and communication - not by force or arms. In particular, they are behind our expertise to solve the essential problems of stability, welfare and peace.

Studies in the Social Sciences and Humanities offer people and society a humanistic and holistic approach to their surroundings, the basic principles of communication and a broad cultural outlook.

It is the human mindset and behavior – not machines, technology or arms - that predetermine our future. The Social Sciences and Humanities have a mission to develop these competences and social innovations.

It is here that you will build a road to the Europe of tomorrow - a modern and strong Europe where innovation and the integration of sciences and humanities will be a strong driver of our path to the future.

So as I extend my greetings to the participants of this conference, I invite you first of all to share your insights about the man and society of today and tomorrow - the source of all and everything.

I wish you many interesting moments and inspiring discussions!

INTRODUCTION

Welcome address by Helga NOWOTNY,
Chair of the Conference Steering Committee,
European Research Council President (2010–2013)

When representatives of the Lithuanian Research Council approached me in 2012 about becoming involved in this conference, I responded with enthusiasm. Many gatherings have been organised in the past discussing the future of Social Sciences and Humanities (SSH) in the European research landscape; but none were as open to broader participation and so closely linked to practical and immediate implementation. Many wise words were spoken and good ideas had been launched before, but to connect them with specific work programmes and discuss them in an open and broad manner, was another matter.

Our Lithuanian colleagues recognised that the timing of their country's EU Presidency would be the perfect moment to discuss the role and relevance of SSH in the upcoming Framework Programme, Horizon 2020, with their wider impact. The new programme foresees the full integration of SSH into the "Grand Societal Challenges" that Europe faces and is determined to tackle through research, development and innovation. The realisation of these ambitious goals has yet to take shape. The conference in September 2013 was one of the many potential places to make this happen.

Before the start of the conference we conducted a "consultation process" within the European SSH communities to hear the voices of as many contributors as possible. More than 300 very detailed responses have brought up interesting issues, which helped us to structure the conference and collect recommendations for drafting a declaration. We collaborated closely with the European Commission in preparing this conference: as a result, Commission staff participated in all sessions where the integration into the seven societal challenges was discussed. We asked prominent scholars from all branches of SSH to provide input. The first day of the conference concentrated on reflecting and assessing where we stand, whereas the second day was dedicated to a detailed discussion of the next necessary steps towards achieving integration.

I truly believe that presenting the Vilnius Declaration at the end of this major event constituted a major step towards the consolidation of European SSH as a cluster of research fields which, in all their diversity and drawing on different approaches, are generating knowledge and policy responses that are highly relevant for the future of European societies. This Conference Report, entailing the full range of recommendations elaborated during the conference, will attest to this progress.

I want to thank my colleagues from the International Steering Committee for contributing to the overall aims, as well as to many details of this conference; my team in Vienna for their enthusiastic commitment and untiring persistence; the European

Commission's DG Research and Innovation for its patience and support. In particular I want to thank our Lithuanian hosts, first for realising the opportunity the conference provided, and then for organising the event.

Finally, I want to extend my gratitude to all the conference speakers and participants. Thank you for coming to Vilnius, and contributing to the important goals of this conference: realising the full integration of Social Sciences and Humanities in European Research and Innovation and establishing a sense of taking the lead in this matter for the European SSH communities.

2.

EXECUTIVE SUMMARY

EXECUTIVE SUMMARY

"Europe is still facing many long term and complex challenges. It takes profound knowledge and insight to really understand these challenges and how they affect us, and to guide us to solutions. That is why the Social Sciences and Humanities are more essential than ever, and why we, as policymakers, are keen to have their contribution. We need them to understand ourselves, our society and the challenges we face. We need them to guide politicians and policy makers and to inform public opinion. Research and technology provide many answers to the challenges we face, but technological fixes alone aren't enough to solve our major, complex problems. A knowledge society needs to know itself, and the Social Sciences and Humanities are the keys to this."

Commissioner Máire Geoghegan-Quinn at the Vilnius Conference (09/24/2013)

The Vilnius conference aimed at bringing together representatives of the Social Sciences and Humanities (SSH) from all around Europe to improve the ways in which Human and Social Sciences may impact the new European research framework programme, Horizon 2020. We were delighted by the strong words of support by the Commissioner at the conference, quoted above. This report represents a comprehensive summary of all activities before and during the conference. Remarkable as it may have been, the Vilnius conference was only a moment in time during an on-going process of shaping Horizon 2020. Thus, the following executive summary sets the stage with a reflection on the political context of the conference, before describing aims and scopes of the event. Some general results and recommendations conclude this section as well as observations of what happened since.

On the global scale the European Union is a unique expression of a political system calling on the SSH for policy advice while also allocating substantial funds for bottom-up research funding. We highly appreciate this development and recognise the need to continually develop research questions and processes of engagement with stakeholders.

I. Context of the Conference

Horizon 2020, the largest multi-annual research framework programme in the history of the European Union, has started in 2014 and will last for seven years. With this ambitious programme, the European Commission attempts to solve several policy issues at once: politically, it wants to foster the path towards a more innovative Europe, which is clearly seen as a way out of the current crisis. Administratively, it wants to tackle previous criticism about the conduct of research projects by introducing measures of "simplification". Strategically, it wants to achieve better results to the challenges that Europe is facing by giving direction and thus by influencing the way research is organised.

The latter is reflected in two aspects: one consists in identifying the "Societal Challenges" as one of three pillars of Horizon 2020. The "Challenges"-pillar provides more than 29 billion Euros, ca. 38% of the overall budget, to tackle what has been pre-defined as the great problems to be addressed by the Union in the coming years.

The content of this pillar was subject to a long political discussion between European Commission, Member States, and the European Parliament. As a result, the number of challenges grew from six to seven.

The second aspect, following a proposition by the European Commission that found almost unanimous agreement between the European Parliament as well as the Member States, is the introduction of an "integrative approach" in the way the Societal Challenges are defined. Basically, this means that "silos" (the favourite negative term frequently used by the Commission) should be abolished, while interdisciplinary research across established disciplines should be fostered. Only then, it is argued, will real answers emerge to the pressing questions of policy-makers and citizen alike, such as sustainable energy, climate change, healthy ageing and other health issues, etc.

The official disclosure of the work programmes in December 2013 allows us a first assessment in terms of their integrative potential. Unfortunately, and because of the haste under which they were produced, the first Horizon 2020 Work Programmes have taken up the new approach only in a very uneven way. In some, the integration of SSH is nominally mentioned, though not really substantiated; in a few, substantial steps are made in the right direction; while others again have been drafted in the plain old way.

This unevenness only adds to the fear that had already emerged among representatives of the Social Sciences and Humanities since the first presentations of Horizon 2020 in 2011 that the "integrative approach" would actually mean that their particular fields of research would be diminished; and that beneath the nice talk of "integration", dedicated programmes for the Social Sciences and Humanities would be expulsed. Since then many open letters have been written, and the Commission has gone at great pains to reassure the SSH community that no such cuts would take place.

This was the overall context in which the members of the Steering Committee of the Vilnius conference met for the first time in September 2012. Indeed, the Steering Committee soon came to realise that there was a potential amount of truth in those fears. However, the Steering Committee also felt sympathetic with the overall aim of Horizon 2020, namely to overcome the silos of research funding and to foster integrated approaches.

II. What the Conference Wanted to Achieve

As a consequence, the Steering Committee decided that the opportunity provided by the conference under the Lithuanian Presidency to the EU Council should be used to counter the looming potential threat of de-facto diminishing the place for the Social Sciences and Humanities from the Horizon 2020 programme. At the same time, the SSH community should be alerted to reflect on how to deal more actively with the opportunities that the shifting framework conditions of Horizon 2020 offer to them, instead of complaining about losing their stakes.

How could this be achieved? On the one hand, it was clear that the conference would have to go beyond previous events organized on the topic. Plenty of such meetings had taken place in the decade before. However, they were mostly dealing with the role of SSH on a very abstract level, aiming at making an impact on the SSH community

rather than on the policy-makers. Quite to the contrary, the Vilnius conference therefore concentrated on a very concrete question, namely how the intended integration should actually take place. The aim of the conference was to produce a double impact: on the community of researchers and on policy-makers whose role in the process of integration would be at least as crucial. It, therefore, aimed at bringing together these different communities as well as to create a space for "representation" and for finding a voice towards policy. Only through a mutual and open discussion how to shape and practically apply the "integrative approach" could it be made to work in earnest.

Thus, the aims of the conference in Vilnius were two-fold: on the one hand, it aimed at bringing policy makers and administrators together with Social Science and Humanities representatives, in order to discuss in detail which preconditions had to be met for the integration of SSH in each of the challenges to succeed. On the other hand, it attempted to enhance the self-perception and self-confidence of the SSH community so that it would claim more boldly its share in the Horizon 2020.

Two provisions aimed to assure that this could be achieved.

A) Consultation and Declaration: in early 2013, the Steering Committee launched an open consultation process, asking the members of the Social Sciences and Humanities (individuals, associations and learned societies, as well as institutions and funding organisations) to provide a comprehensive picture on how they perceived the situation of their field, and what the contribution of the European research funding programme should be. To a large extent, this consultation provided the basis for drafting a conference declaration, which has been adopted by the participants at the end of the conference, and has been handed over to the Lithuanian Minister of Education and Science responsible of research as the formal result of the conference.

B) Parallel Sessions: in order to pin down the requirements for successful integration, including the practicalities of the more concrete (and to some extent diverse) integration of SSH in the seven societal challenges, the Steering Committee dedicated a major part of the conference to parallel sessions, each on one of the Societal Challenges as outlined in the Horizon 2020 legislation. These parallel sessions meetings were envisioned as "workshops" where representatives from the Social Sciences and Humanities would discuss with Commission representatives and representatives of the natural sciences mainly two questions: what are the potential contributions which the SSH can bring to solving / enlightening the specific societal challenge? And what are specific conditions that need to be met for the SSH in order to be able to make this contribution.

III. The Vilnius Declaration

The Vilnius Declaration is the result of a long deliberate exchange of ideas among the members of the Steering Committee, firmly based on the outcome of the Consultation Process. It became clear that the Declaration had to deal with two issues in particular, intended to find their way into the daily practice of policy-makers.

The immediate goal of the Declaration sets out the general conditions for integrating SSH into the Horizon 2020 programme. In addition, the aim of the Declaration is to provide also guidance for future research programmes, either on national or on European level, to assure that integration of SSH can be achieved. It does so by:

A) Stressing the benefits of integrating SSH into the research framework of the Societal Challenges Pillar and

B) Defining the changes necessary in order for "integration" to occur, so that effective collaboration can result. The Declaration, therefore, emphasises the need to recognise knowledge diversity, as well as organisational and infrastructural arrangements, and the long-term investment in interdisciplinary training and research. Finally, it also highlights the need to connect social values and research evaluation.

IV. Results from the Workshops

As outlined above, the parallel sessions were at the heart of the Vilnius conference. In each of the seven parallel sessions, three distinguished experts on the topic gave a presentation: one presenter came from the SSH community, one from the natural sciences, and the third was a representative from the Directorate of the European Commission responsible for the operationalisation of the respective Challenge.

In this setting, it was possible to discuss for three hours in detail how the European Commission so far interprets the task of tackling the societal challenge, but also the interpretation by SSH as to their expected contribution. It thus provided room to scrutinise each of these, sometimes opposed interpretations, and to argue for widening, or altering the orientation of the Societal Challenges Programme whenever necessary.

The direction into which each of the seven parallel sessions went, to which extent they succeeded in emphasising the contributions of SSH, or to specify which changes have to me made in the overall direction, can be seen from the individual summaries of the parallel sessions in this report. It is too early to say whether the suggestions made will actually be taken up by the administrative units responsible for the operationalisation of the respective Challenge; but there was an unanimous feeling at the conference that the parallel sessions in particular offered a unique opportunity for the community to engage with policy-makers and administrators in productive discussion, and that this exercise was vital for the understanding the roles of SSH in the European Research Area in the long run.

V. Conclusions and Recommendations

Whether the conference was successful in achieving its two aims of bringing Commission and SSH closer together, and in fostering a mutually shared understanding of the conditions that will need to be met, is yet to be seen. It depends to a large extent on whether the policy makers will indeed make serious attempts to integrate SSH in all parts of the process of Horizon 2020; and on the way the SSH community will deal with

the legacy of the conference. What the conference achieved was to prepare a unique setting in order to fulfil the two aims. Indications of this success are:

- The Commission was present in all parallel sessions;
- There was considerable interest from SSH communities, although not equally across all disciplines, research fields, and from all parts of Europe;
- There was a lot of media coverage, not only in specialised media, but also in mainstream newspapers;
- A change of mood was palpable – instead of complaining, loose ends were taken up and people were more willing to "take the lead".

Thus, the Conference results in two different sets of recommendations on different levels of abstraction:

- Recommendations on a general level, addressing the integration of SSH in Horizon 2020;
- Recommendations on a detailed level, addressing the integration of SSH at within each of the Societal Challenges.

While the more detailed recommendations on each of the Societal Challenges can be found in the respective session reports, general conclusions to be taken up swiftly, are presented here.

RECOMMENDATIONS TO THE EUROPEAN COMMISSION AND THE EUROPEAN MEMBER STATES FOR FURTHER CONDUCT OF HORIZON 2020

1. The Programme Committees of each Societal Challenge should be informed about the Vilnius Declaration (http://horizons.mruni.eu) during their upcoming meetings, and the members of each Programme Committee should be invited to include experts from the Social Sciences and Humanities in their respective national group of experts for consultation on the Work Programme.
2. Advisory boards, Programme Committees, evaluation panels and strategy committees should include experts from the Social Sciences and Humanities, including experts in interdisciplinary research. If SSH are in the minority, how can their adequate involvement be assured?
3. New instruments and adaptable infrastructures: each Societal Challenge should foresee CSA platforms of interdisciplinary research and the establishment of synthesis centres for innovative ways of data assembling, in order to create "real" spaces for the networking and preparation of interdisciplinary projects, bringing together experts from all fields of science and scholarship.
4. At every Horizon 2020 kick-off, national info days, workshops on the integration of Social Sciences and Humanities and the incentives of interdisciplinary research should be highlighted, potential contributions signposted, in order to also address the respective communities. Showcases of best interdisciplinary practice, and increased awareness in research communities for EU research funding ecology with dedicated events/workshops should be provided.

5. When it comes to access to calls, the Commission is asked to commit to openness and transparency for all stakeholders; and the Member States are asked to provide adequate national support for their SSH communities. Here, the Joint Programming Initiative on Cultural Heritage and Global Change can function as a good practice example.
6. Finally, integration should always aim to encompass both the Social Sciences and the Humanities.
7. Organise regular meetings, if possible on each of the Societal Challenges and their work programmes, to follow up on what has been achieved in the Vilnius parallel sessions.
8. SSH need a strong voice of its own in Europe – in order to build communities, and also to integrate SSH on common grounds into European research agenda and funding policy.
9. Institutional arrangements for exchange of ideas (previously provided by ESF) and networking should be sought more actively.
10. Focus on trans-nationally relevant research infrastructures: SSH collaboration can be fostered by providing a common ground for asking different questions.
11. Promote interdisciplinary training and education wherever it is necessary and useful, open up university settings to cross-disciplinary research and methodology.
12. Seek new ways of combining solution oriented and critical research.
13. Define new skills for SSH, relevant to interdisciplinarity, participatory approaches, digitalisation and dealing with the opportunities offered by newly available data.
14. Taking the lead means taking on bigger roles in research cooperation with natural sciences, engineering and citizens.
15. Seek new ways and develop transparent criteria of research assessment and impact analysis.
16. Invest in bibliographic reference bases, open access to research results and open data repositories.
17. Organise actively interdisciplinary and reflexive SSH related training of policy makers and representatives of the natural sciences and engineering, as well as NGOs, business and industry.
18. Connect with each other and coordinate your action whenever possible.

RECOMMENDATIONS TO THE EUROPEAN SSH STAKEHOLDERS AND RESEARCH COMMUNITIES FOR FURTHER INVOLVEMENT IN HORIZON 2020

1. Organise regular meetings, if possible, on each of the Societal Challenges and their Work Programmes, to follow up on what has been achieved in the Vilnius parallel sessions.
2. SSH need a strong voice of its own in Europe – in order to build communities, and also to integrate SSH on common grounds into European research agenda and funding policy.
3. Institutional arrangements for exchange of ideas (previously provided by ESF) and networking should be sought more actively.
4. Focus on trans-nationally relevant research infrastructures: SSH collaboration can be fostered by providing a common ground for asking different questions.
5. Promote interdisciplinary training and education where it is necessary and useful, open up university settings to cross-disciplinary research and methodology.
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12. Connect with each other and coordinate your actions whenever possible.

Jutta Allmendinger, Paul Boyle, Craig Calhoun, Gustavo Cardoso, Rivka Feldhay, Poul Holm, Pavel Kabat, Helga Nowotny, Rūta Petrauskaitė, Alain Peyraube, Aura Reggiani, Peter Tindemans, Wim van den Doel, Giedrius Viliūnas, Michel Wieviorka, Björn Wittrock, Thomas König, Katja Mayer.

December 2013

3.

VILNIUS DECLARATION – HORIZONS FOR SOCIAL SCIENCES AND HUMANITIES

VILNIUS DECLARATION – HORIZONS FOR SOCIAL SCIENCES AND HUMANITIES

September 24th, 2013
Mykolas Romeris University, Vilnius, Lithuania

Europe will benefit from wise investment in research and innovation and the Social Sciences and Humanities, SSH, are ready to contribute. European societies expect research and innovation to be the foundation for growth. Horizon 2020 aims to implement inter-disciplinarity and an integrated scientific approach. If research is to serve society, a resilient partnership with all relevant actors is required. A wide variety of perspectives will provide critical insights to help achieve the benefits of innovation. The effective integration of SSH requires that they are valued, researched and taught in their own right as well as in partnership with other disciplinary approaches.

The value and benefits of integrating the Social Sciences and Humanities

European Social Sciences and Humanities are world class, especially considering their diversity. They are indispensible in generating knowledge about the dynamic changes in human values, identities and citizenship that transform our societies. They are engaged in research, design and transfer of practical solutions for a better and sustainable functioning of democracy. Their integration into Horizon 2020 offers a unique opportunity to broaden our understanding of innovation, realigning science with ongoing changes in the ways in which society operates.

1. **Innovation is a matter of change in organisations and institutions as well as technologies.** It is driven not only by technological advances, but also by societal expectations, values and demands. Making use of the wide range of knowledge, capabilities, skills and experiences readily available in SSH will enable innovation to become embedded in society and it necessary to realise the policy aims predefined in the "Societal Challenges".
2. **Fostering the reflective capacity of society is crucial for sustaining a vital democracy.** This can be achieved through innovative participatory approaches, empowering European citizens in diverse arenas, be it through participation as consumers in the marketplace, as producers of culture, as agents in endangered environments, and/or as voters in European democracies.
3. **Policy-making and research policy have much to gain from SSH knowledge and methodologies.** The latter lead to new perspectives on identifying and tackling societal problems. SSH can be instrumental in bringing societal values and scientific evaluation in closer convergence.
4. **Drawing on Europe's most precious cultural assets,** SSH play a vital role in redefining Europe in a globalising world and enhancing its attractiveness.

5. **Pluralistic SSH thinking is a precious resource for all of Europe's future research and innovation trajectories,** if it can be genuinely integrated. Horizon 2020 offers this opportunity for the first time.

Conditions for the successful integration of the Social Sciences and Humanities into Horizon 2020

6. **Recognising knowledge diversity.** Solving the most pressing societal challenges requires the appropriate inclusion of SSH. This can only succeed on a basis of mutual intellectual and professional respect and in genuine partnership. Efficient integration will require novel ways of defining research problems, aligned with an appropriate array of interdisciplinary methods and theoretical approaches. SSH approaches continue to foster practical applications that enhance the effectiveness of technical solutions.
7. **Collaborating effectively.** The working conditions of all research partners must be carefully considered from the beginning and appropriately aligned to set up efficient collaboration across different disciplines and research fields. This includes adequate organisational and infrastructural arrangements as well as ties to other stakeholders in civil society and business. Budgetary provisions must be appropriate to achieve this goal.
8. **Fostering interdisciplinary training and research.** Integrating SSH with the natural and technical sciences must begin with fitting approaches in post-graduate education and training. Innovative curricula foster a deepened understanding of the value of different disciplinary approaches, and how they relate to real world problems.
9. **Connecting social values and research evaluation.** Policy-makers rightly insist that the impact of publicly funded research and its benefits for society and the economy should be assessed. Accurate research evaluation that values the breadth of disciplinary and interdisciplinary approaches is required to tackle the most pressing societal challenges.

Agreement with the principles of the Vilnius Declaration should be made the basis for the integration of SSH into Horizon 2020.

4.

PLENARY CONTRIBUTIONS

EUROPEAN COMMISSION

Welcome address by Máire GEOGHEGAN-QUINN European Commissioner for Research, Innovation and Science

September 23rd, 2013, Mykolas Romeris University, Vilnius, Lithuania

Ladies and Gentlemen,

I would like thank the organisers of this conference, in particular the Conference Steering Committee and its chair, Professor Nowotny, for preparing this event and for inviting me to speak this morning.

The European Commission is delighted to support this event.

I would also like to thank Prime Minister Butkevičius and Minister Pavalkis for their constructive role in making Horizon 2020 the biggest and most ambitious EU research programme ever. And I'd also like to thank them for engaging so enthusiastically in the future of the Social Sciences and Humanities.

This is a significant conference. It shows that SSH is firmly on the map as we gear up for the launch of Horizon 2020, whose first work programmes will be published in less than three months.

In advance of the next session that will look at SSH in the Challenges Pillar of Horizon 2020, I would like talk about what you can expect from Horizon 2020 and the European Commission, and what, in turn we might expect from you.

I am very happy with the agreement on Horizon 2020. The programme will be an important catalyst for growth and jobs and it is part of the only area in the new EU budget to see an increase.

This is a very good result, not least because Europe is still facing many long term and complex challenges.

It takes profound knowledge and insight to really understand these challenges and how they affect us, and to guide us to solutions.

That is why the Social Sciences and Humanities are more essential than ever, and why we, as policymakers, are keen to have their contribution.

We need them to understand ourselves, our society and the challenges we face. We need them to guide politicians and policy makers and to inform public opinion.

Research and technology provide many answers to the challenges we face, but technological fixes alone aren't enough to solve our major, complex problems. A

knowledge society needs to know itself, and the Social Sciences and Humanities are the keys to this.

The EU has supported the Social Sciences and Humanities for two decades, since the Fourth Framework Programme in 1994 and our commitment to SSH is only strengthened under Horizon 2020.

We will, however, do things differently now.

The increasing importance, indeed the necessity of the Social Sciences and Humanities, has spurred us on to create a bold, new vision for them at European level.

It is a vision shared by the European Parliament and the Member States and by many stakeholder organisations. It will require commitment, effort and openness from everyone involved.

Researchers, businesses, innovators and entrepreneurs are of course the primary customers of Horizon 2020.

But Horizon 2020 sets them in the wider context of how R&D and innovation shape our economy and can change our society for the better.

The programme focuses on challenges to tackle rather than disciplines to be financed.

We need this approach because problems like our competitiveness, climate change, energy security or public health are so complex and multi-faceted that we need to think and act across disciplines, outside of our usual silos.

I know that this new approach might demand new ways of working, and new, interdisciplinary research methods that put a strain on old habits and old structures. And we, as policymakers are also facing a steep learning curve!

However, I think that this new approach is excellent news for the Social Sciences and Humanities.

We can't properly tackle the challenges we identify in Horizon 2020 without a solid understanding of them, without economic, social and cultural analysis, and without discussing how the issues might develop in the future.

This is why the Social Sciences and Humanities are anchored at the heart of Horizon 2020.

I like to think that this approach presents a twin opportunity for the Social Sciences and Humanities.

First, new areas of research throughout the whole programme thanks to embedding; and second, greater scope for riskier, top class research through the European Research Council.

The first opportunity is the embedding of the Social Sciences and Humanities across all of the Societal Challenges of Horizon 2020, as well as the first two pillars of the programme.

Instead of programmes dedicated to particular research disciplines, Horizon 2020 seeks to solve, through research and innovation, our biggest challenges, such as climate change, an ageing population, and/or energy security.

Horizon 2020 defines six major societal challenges - soon to be seven, at the request of the European Parliament. The Social Sciences and Humanities, in all their various disciplinary guises, will be firmly embedded in all the challenges.

"Embedding" means that the Social Sciences and Humanities can make their contribution where they are most needed. It means that they can provide the necessary knowledge and understanding to tackle the challenges. It means that the social, political and human aspects are not forgotten alongside the technological aspects.

For example, under the Health challenge, SSH research could provide the economic and social analysis necessary for reforming public health systems.

In the field of public health, SSH research can study lifestyle factors, the empowerment of patients or stimulate citizen engagement, wellbeing and prevention.

SSH can also research the causes of health inequalities and their relationship to other economic and social inequalities, as well as the effectiveness of policies to reduce them.

Under the Challenge of Smart, Green and Integrated Transport, SSH research is needed to analyse the socio-economic aspects of transport, to carry out prospective studies and provide technology foresight. But we also need SSH to help us understand user behaviour, social acceptance, and the impact of policy measures.

The contribution of SSH is particularly important in the area of urban mobility, where a host of complex factors, regulatory issues and behaviours come into play.

SSH research should also contribute to the Challenge of Climate Action and Resource Efficiency, for example by pursuing research on the cultural, behavioural, managerial and institutional changes needed to move to a more sustainable and resource efficient society.

Socio-economic research will also help us develop robust indicators to assess policies and monitor the transition towards a green economy.

This Challenge will also address issues concerning the preservation and use of cultural heritage and its socio-economic importance for contemporary societies.

And it is in the Challenge on Inclusive, Innovative and Reflective Societies that SSH researchers can address a wide range of issues around smart, sustainable and inclusive growth; inclusive societies; and Europe's role as a global actor, as well as research on Reflective Societies and Europe's cultural heritage and identity.

These are just some of the possibilities. I am sure you will identify many more in the sessions that follow.

Horizon 2020 will take two approaches to 'embedding' the Social Sciences and Humanities.

Some Societal Challenges are broadly open to SSH contributions across all their areas of activity. They are genuinely interdisciplinary in the way they embed SSH.

Other Societal Challenges, by contrast, have defined specific SSH lines of activity.

How will SSH embedding work in practice, in the design of the work programmes and calls?

At a very practical level, officials from the Social Sciences and Humanities Unit in DG Research and Innovation will work with their colleagues in charge of the different challenges to identify suitable areas for SSH research in the work programmes. This means a real embedding and not an add-on to the work programmes.

The work programmes will flag up those topics that are dedicated to the Social Sciences and Humanities and where they could take the lead. We are very aware that language and framing of the call text is crucial to the success of this process and to encourage real interdisciplinarity.

And in setting our medium term Strategic Programme for Horizon 2020, we have identified a number of "Focus Areas" based on the Horizon 2020 grand challenges.

Socio-economic aspects are already taken into account across the challenges, for example in the areas of ocean research, on disaster-resilience and research on overcoming the economic and financial crisis.

For the new approach to work, both the Social Sciences and Humanities researchers will have to be closely involved in developing and implementing the challenges.

They should participate in the relevant advisory groups and programme committees so that they are involved in the early stages of preparing the work programmes.

And at the other end of the process, they must also be present in the teams that evaluate project proposals. I will ensure that this happens.

I have focused so far on the third pillar of Horizon 2020, the "challenges" pillar. There will also be opportunities under the second pillar on Industrial Leadership, which supports business research and innovation. SSH can certainly help us better understand the social and cultural aspects of innovation.

But I want to focus now on pillar one, the Excellent Science pillar. It represents Horizon 2020's second major new opportunity for SSH research.

One of the biggest changes to the EU research landscape since the launch of FP7 in 2007 is the creation of the European Research Council. In just six years it has earned a world-class reputation, and deservedly so.

The ERC provides long-term funding so that the best researchers can carry out their work in Europe. The sole criterion for an award is scientific excellence and applications can be made in any field, including SSH.

Right from the start, the ERC Scientific Council has applied a broad definition of science, to include SSH, in the tradition of the 19th century German term "Wissenschaft".

By the end of FP7, we estimate that the ERC will have provided funding for SSH projects of around 1.2 billion Euro, or 16% of the ERC's overall budget.

The individual awards are generous – on average 1.2 million Euro for a Starting Grant and 2 million Euro for an Advanced Grant in the SSH domain – while the long-term funding, for an average of five years, is unprecedented for the Social Sciences and Humanities in Europe.

SSH research funded by the ERC ranges from archaeology to urban studies, and from the performing arts to management and law.

They are often multi- and interdisciplinary with strong links to other domains from genetics and neurosciences to mathematics, computer sciences and engineering.

For example, the Nobel Prize winners Christopher Pissarides at the University of Cyprus and James Heckman at University College Dublin are respectively leading major new studies on employment and unemployment patterns across Europe, and on the evolution of health inequalities.

Other notable ERC grantees include Vittoria Collizza, the winner of the 2013 DPG Young Scientist Award for Socio and Econophysics for her work on the new field of computational epidemiology.

Or Helene Rey, winner of the 2013 EEA - Yrjö Jahnsson Award for her original contributions to international finance; and sociologist Bruno Latour, who won this year's Holberg Prize for his ambitious analysis and reinterpretation of modernity in relation to the sociology of science.

These are inspiring achievements indeed.

The ERC estimates that there will be a big leap to around 2.2 billion Euro of funding for the Social Sciences and Humanities over the lifetime of Horizon 2020.

Ladies and gentlemen,

The twin opportunities offered by Horizon 2020 - embedding SSH throughout the rest of the programme, and the committed support of the ERC – is proof of the importance that the EU gives to the Social Sciences and Humanities.

I think that embedding, in particular, represents a major opportunity. It demands a major commitment from both sides. It is also a learning process, to create links and to benefit from each other's expertise right from the start of Horizon 2020.

And that is why we are here today.

Horizon 2020 is built on a new approach and will make the necessary funds available. The Commission will make sure that a substantial amount will be dedicated to embedding SSH across the programme. My services will closely monitor this.

It might take time to perfect our approach. At the beginning, we might not get everything right. We rely on the continued engagement of the SSH community, something you already demonstrated in the run-up to Horizon 2020, being among the most active and engaged stakeholder groups.

And today's conference reassures me that your engagement will only become even stronger.

I ask, again, for the strong support of all individual researchers, universities, academies, research centres and other stakeholders, to enable us to pursue truly innovative research and to ensure that Horizon 2020 is culturally and ethically sensitive, as well as politically and socially relevant.

I'm looking forward to the ideas you will propose in the Vilnius Declaration. I understand that this will address issues such as effective collaboration and interdisciplinarity, and this is most welcome.

And I convey my full support to the Lithuanian Presidency during the final steps of adopting the Horizon 2020 Package!

Thank you.

MYKOLAS ROMERIS UNIVERSITY

Welcome address by Alvydas PUMPUTIS Rector of Mykolas Romeris University

September 23rd, 2013, Mykolas Romeris University, Vilnius

Dear Colleagues,

It was an honor for Mykolas Romeris University to organize the Lithuanian EU Presidency's Conference Horizons for Social Sciences and Humanities that was held on September 23–24th, 2013.

Aiming to work towards better visibility, integration, and implementation of the Social Sciences and Humanities into research policies, the event acted as a forum for scholarly exchange of ideas, examination of the common grounds and bridges between the Social Sciences and Humanities and technological, natural and other fields of science. All this was revealed in the discussion on the opportunities offered by Horizon 2020 to European researchers. The conference brought together researchers, university leaders, policy makers, business people, from non-governmental organisations, civil society groups, and media from all around Europe.

It was extremely important to examine the impact of the Social Sciences and Humanities and their specific areas such as, for example, protection of human rights or development of state management or political systems on the society. The structure of GDP can provide us some evidence and insights on the role the Social Sciences and Humanities plays in the society. About 73 percent of GDP in the European Union and about 68 percent in Lithuania is created by the service sector, followed by industry and agriculture. As the service sector is the direct output of the knowledge generated and disseminated by the Social Sciences and Humanities, the rapidly growing service sector globally calls forth research and university graduates having profound knowledge and understanding of individuals and societies, their motives, actions and interactions.

Other fields of science – technological, medical or agricultural – are also highly dependent on the knowledge provided by the Social Sciences and Humanities. The term 'technology' can no longer be understood in its narrow sense as technocratic or manufacturing processes but includes different aspects of the Social Sciences and Humanities. A technological equipment, even the most advanced one, by itself cannot solve societal challenges of health, demographic change and well-being, climate change and sustainable agriculture, smart transport and secure societies. As technological innovations serve societal needs, the Social Sciences and Humanities can help advancing them by identifying present and future societal needs and expectations. Merging the knowledge on individuals and societies with technological innovations leads to expanded employment opportunities, sustainable communities and enhanced quality of life.

However, the discussion on relationship between the Social Sciences and Humanities and other fields of sciences is a discussion of yesterday. We need to look more profoundly and find practical mechanisms how to achieve the synergy between different fields of science and create something new out of this synergy.

I would like to point out to the increasing importance of the Social Technologies. In todays' world, when the time is costly and competition is fierce, the influence of Social Technologies continues to grow from personal communication to political decision-making, from industrial production to state management. Social Technologies enable more and more users to become a part of global network, overcome limitations of the physical world, and multiply human influence with the help of technological innovations.

Social Technologies also serve as a powerful way for efficiently organizing knowledge, bridging cultures and economies, and advancing art. Discussion on the potential of the Social Technologies can also address the following questions: which Social Technologies are most important in contemporary social context? What is the future of network society? How can Social Technologies help Europe to overcome its challenges as indicated in Europe 2020?

As the Social Sciences and Humanities generate and disseminate this knowledge, the future of our societies highly depends on them.

Finally, I would like to wish all of us to unite our forces and realize our vision.

MINISTRY OF EDUCATION AND SCIENCE OF THE REPUBLIC OF LITHUANIA

Welcome address by Dainius PAVALKIS, Minister of Education and Science of the Republic of Lithuania

September 23rd, 2013, Mykolas Romeris University, Vilnius, Lithuania

Distinguished Guests, Ladies and Gentlemen,

It is a great honour for me to open the conference Horizons for Social Sciences and Humanities. I would like to thank all the conference speakers and participants who agreed to share their valuable time and even more valuable insights with us at one of the most important events of the Lithuanian Presidency of the Council of the European Union.

Facing challenges of the 21st century and intensive global competition, Europe needs not only technological edge, but also innovative ideas and approaches that bring forward strategic outside the box thinking. Aiming to achieve innovation breakthrough, we have to encourage building multidisciplinary ties and collaboration making full use of the insights that the Social Sciences and Humanities research presents us with.

Thus, the Lithuanian Presidency to the EU Council is proud to host the conference on the Social Sciences and Humanities role in Horizon 2020 programme. We seek to provide the forum for the fruitful discussions and search for answers on how to better promote research exchange across fields and disciplines in order to build open and growing Europe.

This conference gives an excellent opportunity to discuss the following:

- What issues need to be addressed in Europe, and how can the Social Sciences and Humanities contribute in overcoming societal challenges;
- Which structural requirements and preconditions are necessary for a more effective outcome of the Social Sciences and Humanities research under Horizon 2020;
- How can the Social Sciences and Humanities approaches be embedded across the seven challenges in Horizon 2020?

I hope and believe that we will have a fruitful discussion and generate great ideas on how to create a forum for the Social Sciences and Humanities which will promote scholarly exchange across fields and disciplines, set common guidelines for quality

standards and provide adequate representation of the Social Sciences and Humanities in the EU policy arena.

Ladies and Gentlemen,

I kindly invite all of you to actively participate in the discussions on the input of the Social Sciences and Humanities in addressing present and future challenges and look for innovative ways which can contribute to further development of credible, growing and open Europe. And I wish you all success.

RESEARCH COUNCIL OF LITHUANIA

Welcome address by Rūta PETRAUSKAITĖ, Vice-Chair of the Research Council of Lithuania

September 23rd, 2013, Mykolas Romeris University, Vilnius, Lithuania

Honoured Guests, Dear Colleagues,

It is my priviledge and my pleasure to greet you here at the event that builds on enormous effort of the European Commission and national institutions, numerious professional alliencies and associations as well as individual researchers to discuss the role and the place of the Social Sciences and Humanities in the landscape of European research. The effort was embodied in a series of events spread over the last few years and centered around the new framework program. An important contribution was made by the presiding countries. We took the initiative from the Irish colleagues and their conference in Dublin and will hopefully hand it over to Greece. So the discussions will continue.

Nevertheless, I dare to say that this conference takes place at the most important time and at a suitable place. The time is perfect for „practical and immediate implementation" of all the good ideas generated before and during our conference as perceptively observed Helga Nowotny, the President of the European Research Council. Concerning the place, I am frequently asked: why Lithuania? I can name a few reasons. To cite Czeslaw Milosz, Nobel prize winner, Lithuanians are a philological nation. The rebirth of modern Lithuania at the beginning of the 20th century was based on the Lithuanian language. Language, culture and history have always been a very strong integral part of our identity. It served as a backbone that helped to resist the destructive Soviet period. It was reflected in the singing revolution of the nineties. It was prioritized during the two decades of independence with the outcome in the Law of Science and Education that the Social Sciences and Humanities in Lithuania are on par with natural sciences and technologies which is manifested in the structure of the Research Council of Lithuania. Moreover, the role of SSH in and science in society is a hot topic of both public and academic discourse, let alone policy of science and research. I would not know any other country where the issues of policy of SSH research would have been dealt with at the level of the Constitutional Court. Therefore, I am sure this conference will fuel the ongoing debate in European Union as well as in this country. Together with my colleagues from the Research Council of Lithuania I do look forward for the discussion for getting the most out of the Social Sciences and Humanities in Horizon 2020.

4.1

Diversity and Common Ground

Reflective Boundaries and Competitive Fragmentation. What is the Common Ground of the European SSH?

Jean-Louis FABIANI, Central European University, Budapest
Ecole des hautes etudes en sciences sociales, Paris

September 23rd, 2013, Mykolas Romeris University, Vilnius, Lithuania

Talking about Europe as an entity is not an easy thing when it comes to the Social Sciences and Humanities. Our disciplines have grown up in the shadow of the national state and their "research programs" were largely determined by national issues. Durkheim thought that sociology ought to be the universal science, but he was convinced that France, through its history and intellectual traditions, but also its size and social organization, had to be its birthplace. The first developments of the Social Sciences brought many intellectual innovations, but they were very often trapped in strong ideological and historical legacies. Where do we stand now, after half a century of integrated science policy and in a post-national context?

In order to clarify, at least tentatively, the issue of commonality and diversity in our knowledge, I would like to develop three points: to begin with, I would like to address the issue of boundary production in our disciplines, characterized with what I call "competitive fragmentation". It will be possible then to examine the relative failure of the diverse boundary-breaking attempts that have occurred. In my third point, I will deal with the reluctance of many social scientists to adopt a post disciplinary attitude because they view it as a neo-liberal threat.

Boundary Production and Competitive Fragmentation

The history of the European Social Sciences is a history of boundary production. The disciplinary frame of scientific institutions is the stabilized result of previous fights. At the end of the process, the disciplinary organization of knowledge production (and reproduction) appears as a natural order. It is strongly linked with the development of Western Universities that brought about a new cartography of learning. The disciplinary frame developed out of the necessity of limiting the field of experience and of "temporalizing" the gathering and analysis of data and research programs (Weingart 2010 p. 5). The disciplinary order is simultaneously the result of a rationalization process and of struggles to establish the territory of a specific type of knowledge. We all should agree with Bourdieu at least on this point; the scientific field is, as other types of field, a field of struggles (Bourdieu 2004). Rationalization here does not imply the logical and necessary character of the process of differentiation. Competition and overlapping are permanent features of the disciplinary process. Thus cultural and contingent elements can shape to some extent the organization of knowledge, as national differences clearly show. Long before the emergence of science studies, the scientists' practical knowledge has allowed them to understand the central dimension of territorial conquest and of border skirmishes. In 1897, Durkheim established French sociology on the firm ground of a strongly anti-psychological definition of suicide. He delineated ad nauseam the

contours of the new science and excluded alternative ways of understanding the phenomenon.

The contextual and somewhat contingent dimension of disciplinary knowledge is now well known by scholars and is a part of their reflective equipment, particularly since Kuhn linked the notion of scientific revolution with changes in the disciplinary matrix. We know about it, as we travel: anthropology has different shapes in different countries. The dividing line between physical and social anthropology can be either extremely strong or totally blurred. This has huge consequences on the way we define anthropological knowledge and its relationship with natural sciences. Archaeology has very different locations across countries: it can be a sub-discipline of anthropology, a specific form of history, of art history or a part of anthropology. The articulation between naturalistic approaches and "cultural" analyses is currently a strong principle of division. For social scientists, it is very often a matter of territorial protection. What would remain of our endeavor if the solely social characterization of social facts were to fade away? This self-defense approach might be a wrong strategy in the long term, but it seems to be protective enough in the short term.

Defending one's territory at any cost remains the common attitude in the everyday life of the Social Sciences. We all know that there is nothing such as an epistemological divide between sociology and anthropology, since it is the mere result of colonialism, but we would be extremely reluctant to plead for a fusion: and one can find easily researchers who think that the use of statistics is useless or even unethical in the Social Sciences and others who claim that interpretative strategies are doomed to fail due to their lack of scientific bases. As Peter Weingart writes, disciplines end up as the "given structures of the world" (Weingart 2010, p. 3). We forget their historical origins and their contingent development as they produce stability, careers and reputations. We take their objects and their scientific styles for granted. The disciplining process produces methodological as well as theoretical diversity, sometimes at the expense of the common grounding of specialized sciences in the common ground of human or social practice. Many epistemic breaks are false breaks: they remain rhetorical in character. Let us consider the split between the Humanities and Social Sciences: it is unevenly active in the various European scholarly systems, but it has been a powerful tool designed to proclaim the scientific dimension of emerging disciplines dealing with society as an object. The reality of the divide is often questionable. For a French reader of French philosophy, Bruno Latour's brilliant and innovative attempt to produce a new kind of synthesis is directly related to French metaphysics and also, to some extent, with theology. Bergson's new philosophy, one of the first successful European intellectual fashions in the early 20th century, could be analyzed in the same way. Here is a common ground, very often denied or masked by the promoters of creativity and innovation as taken for granted markers of quality. One might say that great theorists reunify what has been fragmented by the "disciplinarizing" process.

An increased awareness about the historical sociology of our sciences is a necessary step against the counterproductive aspect of disciplinary fragmentation. This is where the claim for "reflexivity" could play its role, beyond the usual and rather unproductive rhetoric that the notion carries. Doing truly reflexive Social Sciences should lead us

to question permanently the institutionalized boundaries, as we know, without really making sense of that knowledge, that innovation is most of the time to be lodged at the borders or that it can be defined as a series of successful moves to reconfigure objects and analytical frames. This is of course not a plea for syncretism: differentiation has its uses and merits. But if we want to avoid the eternal return of the same false oppositions, the rhetorical breaks and the aborted intellectual revolutions, we should better be equipped with good historical knowledge.

Science or Critique?

Big chunks of the Social Sciences have been devoted, since the late sixties but to some extent since they were born, to the radical critique of their own existence. Our past, and most of our present, are stained with sins and crimes (colonialism, eurocentrism, patriarchy). The coexistence between the endless celebration of our "founding fathers" as producing science out of an ideological and pre-scientific battleground on the one hand and the regular destruction of their statues on behalf of their ideological mischiefs on the other hand gives an inimitable baroque touch to our disciplines. For many of us, the pleasure of engaging in the SSH world lies in this baroque dimension. Living in a "critical" department means accepting a fair level of predictable bellicosity against "the neo-liberal order", whatever that is. Habiting a "mainstream" department means that usual tools are taken for granted and that evidence from reality can be denied until some catastrophic event for the theory occurs, as the 2008 financial crisis for economic science. Disciplinary and scholarly guarantees prevent us from the sanctions of history: it would be useless to show that Alain Badiou's philosophy is deeply anti-democratic to students who are committed to radical chic. At the other end of the spectrum, it seems that the Chicago economists have not suffered from the failure of their paradigm. Our scholarly world is a world with neither obligation nor sanction. The pleasure principle seems to be the main regulator. It is not uncommon to hear a student or even a colleague saying that she is "comfortable with some theory" or that some other "make her feel good". Theory is identified with a pair of comfortable shoes. Of course, one might say that this is a French view, oriented by a relative lag in reforming the organization of scientific work. But I would defend a slightly different point of view: of course, France still lives on the idea of the great public intellectual, a genius gone solo providing the intellectual world with tremendous breaks and turns. Curiously enough, the Northern European style of organization has not prevented the French model from being exported in other countries: Badiou, Rancière and Balibar's great success is a case in point. These happy survivors of the sixties remain serious trend-setters. More seriously, it shows a real contempt for empirical verification, in a constant demise of "positivism" or "scientism". It would be unfair to focus only on radicals just because they are more outspoken than others. This is as true for neo-classic economists who use quantitative tools and sophisticated mathematics: the historical nature of their objects tends to disappear, in spite of all their efforts to construct models to account for uncertainties and ambivalent behavior. Here ideological passions give an additional strength to the competitive fragmentation described above. Libido sciendi is trapped into the pleasure principle. The common historical ground of our objects, in the Weberian sense, disappears.

This is undoubtedly why the plea for a new "scientism" should be taken seriously, at least for assessment. Steven Pinker's recent declarations allow us to rethink the issue. One does not need to share Pinker's whole point of view to accept a very broad principle that he calls: "commitment to intelligibility" (Pinker, 2013). This is something we should all agree on. It means that we should never accept models of intelligibility as such, as taken for granted beliefs, but as a guiding principle to make the social world intelligible. This intelligibility is always provisional and open to revision. Pinker's definition of scientism could be accepted by any of us social scientists and should not be contested by humanities scholars, as he writes: "scientism, in this good sense, is not the belief that members of the occupational guild called "science" are particularly wise or noble. On the contrary, the defining practices of science, including open debate, peer review, and double-blind methods, are explicitly designed to circumvent the errors and sins to which scientists, being human, are vulnerable" (Pinker, 2013). This definition is based on practice. One could say that science is based on mutually controlled interaction. A critical sociologist would add that the three elements do not suffice to guarantee a practice free from error or cheating and would recommend an increased awareness of the potential perversions of the system. But it is difficult to see any other valid definition of our activities, even if we take into account the historicity of our objects, the ambivalence of thought and action and the multiple meanings that we attach to them. It has become quite unfashionable to speak in terms of "explanatory power" when it comes to social action. But, even if we include the complexity of our objects in our descriptive and analytic schemes, we must keep science as a regulatory idea. This does not mean reductionism: we must remain aware of the specificity of human action, as do other scientists when they deal with their objects. "Naturalizing" social behavior is dangerous; but taking advantage of the specificity of our terrain can do harm too: acknowledging the historical properties of social objects as Jean-Claude Passeron has done in a neo-Weberian way (Passeron, 2013) does not mean that there is no way out of the post-modernist collage or the ideological dispute. If we refuse the common ground of science on behalf of the special character of our object, we are no longer able to maintain our legitimacy and we are doomed to be entertainers or magicians.

In Search of a New Ground

Social scientists continue to play on national fields: only a minority makes careers out of their native countries. Scholars from smaller countries have an edge here: they are more likely to get a PhD abroad and to internationalize their research agenda. There now seems to be something of a European market for social scientists. But it concerns mainly the prominent characters of our disciplines, who move easily across Europe, very often via the United States: Bruno Latour, Peter Wagner and Stéphane Vandamme are good examples of career mobility. For junior scientists, some opportunities exist, but most of the time, they are made possible by the possession of a PhD from an outstanding US department. As a rule, the nation remains the major scientific horizon: due to the local conditions of reproduction of the faculty body, the new recruits are more likely to have been trained in the country where they find jobs. The various incentives (such as a bonus for publishing abroad, particularly in an English-speaking journal) have had so far limited effects. This has led to the development of a sort of dual market:

the first one is widely internationalized and includes the United States (and Canada to a lesser extent) as a decisive element for the constitution of scholarly capital and international mobility; the second one remains strongly national. In this process, the European level does not seem to be fully autonomous: most of the internationalized European scholars have got at some point a form of US accreditation. The European journals and the European professional associations play a significant role, but they have a short history and cannot reorient the academic market, at least for now. Some European institutions, such as the European University Institute, are excellent tools in this respect. They provide an intellectual forum, for faculty as well as for students and they lead to delineate new forms of cooperation. But they concern a minority of European social scientists. Paradoxically enough, recent institutions in small countries can play a vanguard role in the Europeanization of social science, by increasing the level of interaction and by objectifying national traditions. Although it may be considered as a US outpost in Europe, Central European University in Budapest provides a good example.

There is undoubtedly a divorce in Europe between scientific bureaucracies and social scientists. Of course, misunderstandings are deeper when it comes to "critical" disciplines such as sociology. Economists and political scientists seem more at ease in the EU atmosphere, as they have greater proficiency in bureaucratic language. Eurocracy bashing has become the favorite sport of radical thinkers. But they are not the only ones to be blamed. In the recent years, many new rules have appeared, particularly concerning evaluation, and new norms seem to threaten what has made the intellectual business enjoyable in the past. The keyword here is: autonomy. Bourdieu was pessimistic about the future of the Social Sciences. His last works are doomed by a very moving sadness that was fueled by what he saw as the decline of intellectual and scientific autonomy. By adopting brutally the norms of new public management, by creating an obsession about evaluation, the institutions of knowledge seem to have "short-termized" the research agendas and heavily bureaucratized a rich world of craftsmanship. Of course, this is more a feeling than a reality, and most of the young and talented researchers have adjusted quite well to the new order of things. My remarks are certainly not a plea for a return to *statu quo ante*. There is no doubt that academics must be as accountable as other citizens. Flexibility and mobility are not evils. But the top down regulations have had a few unintended (and unfortunate) consequences. What should be a set of rules for a good practice of science (thinking out of the box, crossing boundaries, questioning established and routinized forms of scientific interaction) tends to be viewed as a bureaucratic conspiracy to constrain the autonomy of the Social Sciences. Thinking out of the box is very often seen as a bureaucratic injunction. In our disciplines, the debate on Mode 2 (a post-disciplinary age of science), initiated in the mid-nineties by Michael Gibbons, Helga Nowotny and others (Gibbons 1994, Gibbons et al 2001) has been interpreted as an attack against the established guarantees of academic life. Mode 2, particularly in critical circles, has become synonymous with neo-liberalism, its short term contracts and its threats against tenure. Clearly, the autonomy of knowledge tends to be redefined by the introducers of Mode 2 along new types of criteria that bring about important changes in the way by which scholars construct their agendas. It is not by chance that the Social Sciences are more reluctant than other fields

to engage into a post-disciplinary age. They usually associate a very rigid disciplinary organization with a high paradigmatic uncertainty. Academic rituals tend to fill the holes left by epistemological confusion. Anthropologists, sociologists and historians do basically the same thing, but they would not easily admit it. The biggest difference lies in academic rhetoric and rituals. One of the merits of the disciplinary framework that developed in the last two centuries is the provision of stabilized resources, as well as a firm identity and a social and symbolic safety. This seems to be lacking in the current models of scientific cooperation, although they bring excitement and novelty. In a time of crisis and doubt, social scientists, who are obviously more sensitive than others to the hardships of the times, should be reassured. A form of mutual trust has to be restored between the administrators of science and European social scientists. The critical take on the weaknesses of bureaucratic evaluation must be taken seriously, at least for a while: it is not unthinkable to imagine a new *République des Lettres* in a post-disciplinary age and Mode 2 has not lost its attractiveness. Risk-taking and inventing new forms of communication are the core of libido sciendi. In a time of rhetorical "declinism", European social scientists and humanists should take advantage of the new tools of flexibility and communication at their disposal to develop new intellectual spaces. Here, the natural sciences can be inspiring as they are now more than ever based on multiple connections, different scales and imaginative partnerships. Groundbreaking endeavors need these ingredients, as well as well as social scientists need trust, confidence and imagination to carry them out.

Bibliography

Abbott, Andrew 2001 *Chaos of Disciplines*, Chicago, University of Chicago Press.

Baciocchi, Stéphane and Fabiani, Jean-Louis 2012 "Durkheim's Lost Argument (1895-1955). Critical Moves on Method and Truth", *Durkheimian Studies*, vol 18, 2012, p. 19-40.

Bourdieu, Pierre 2004 *Science of Science and Reflexivity*, Chicago, University of Chicago Press.

Fabiani, Jean-Louis 2006 "A quoi sert la notion de discipline ?", J. Boutier, J.C. Passeron et J. Revel *Qu'est-ce qu'une discipline ?, Enquête*, Editions de l'Ecole des hautes études en sciences sociales, p. 11-34.

Gibbons, Michael, ed. 1994 *The New Production of Knowledge*, London, Sage.

Gibbons, Michael, Nowotny Helga and Peter Scott 2001 *Re-thinking Science. Knowledge and the Public in an Age of Uncertainty*, Cambridge, Polity Press, 2001.

Passeron, Jean-Claude 2013 *Sociological Reasoning. A non-Popperian Space of Argumentation*, Oxford, Bardwell Press.

Pinker, Steven 2013 "Science is not your Enemy", *New Republic*, August 6th.

Weingart, Peter 2010 "A Short History of Knowledge Formations" R. Frodeman, J. Thompson Klein and C. Mitcham, *The Oxford Handbook of Interdisciplinarity*, Oxford, Oxford University Press, p. 3-14.

Pluralities, Memories, Translations: Remarks on European Cultures of Knowledge in the Humanities

Daniel WEIDNER, Center for Literary and Cultural Research, Germany

September 23rd, 2013, Mykolas Romeris University, Vilnius, Lithuania

The task of our session is to discuss diversity and common grounds. We want to reflect on the benefits but also on the risks and costs of plurality in the Social Sciences and Humanities (SSH). In my contribution, I want to focus on what 'diversity' or 'plurality' mean in this context: first, what kind of diversity is relevant in the discussion of SSH, and second, how can SSH themselves contribute to understand this diversity?

Putting the question this way implies that we understand diversity less as an external condition to the scientific nature of SSH but ascribe an epistemic relevance to it, which means, that the specific knowledge of SSH is tied to diversity more substantially than one might assume, and that SSH have specific resources to conceive and communicate diversity. I stress "communication". For we all tend to lament that practice in the SSH is usually measured by the yardstick of natural sciences, and viewed as a deviation only from their standards. However, neither is this lament very productive nor does it suffice to claim that SSH are different, be it more critical or more sophisticated – this argument all too easily falls back to a plea for a certain niche, a reservation, a room of protection where some precious belongings of culture or of politics have to be guarded against the evil surroundings of technology and neoliberalism. Against this essentially defensive thread of argument, it is necessary to communicate the strength, usefulness and actually necessity of SSH more clearly, a strength that is essentially founded in their diversity.

Let me take a historical detour which hopefully allows for a fresh look on the present time. The detour leads to a field in which I work: the situation in the Humanities at the beginning of the 20th century, especially in Germany. As you may know, the epistemic situation around 1900 was complex: among other factors, the progress of the natural sciences forced other disciplines to reflect and reposition themselves. In Germany, the conception of the humanities as 'Geisteswissenschaften' became an important, and indeed internationally influential model. At the same time, the emergence or redefinition of the Social Sciences transformed the field of knowledge as well. This resulted in a highly diverse and dynamic situation that might not be completely different from our own today. In retrospect it is, of course, much easier to see the limitations and biases of another position, e.g. that the idea of 'Geisteswissenschaften' implied an almost ontological difference between nature and the human spirit, which was all too easy to criticize, or that it often went along with a specific cultural and even political conservatism which viewed human culture as fundamentally challenged by modernity. We should therefore be well aware if and how much we might have inherited from the former essentialism or the latter conservative and elitist stance, and if we really want that.

But we can also take another perspective and stress the productive elements in such a constellation. It was especially a strong interconnectedness of different disciplines and forms of knowledge. For example, what later became the Social Sciences, especially sociology, had a complicated genealogy which blends Marxist political economy, history (with a prominent place for the history of religion), and cultural criticism – i.e. exactly those discourses that where often eliminated or excluded during the subsequent formation of the discipline. Similarly, other fields of the Humanities became productive by the transfer of methods and concepts, for example when the introduction of formalist methods transformed literary theory and art history. What happened was not merely an ongoing differentiation of different disciplines, as the textbook histories tell us in retrospect. Rather, there was a strong interchange going on, and an epistemic unrest that became highly productive.

This is probably most evident in authors which are difficult to classify in disciplinary terms, such as Ernst Cassirer, who moved from a philosophical background towards the history of culture, or Aby Warburg, who opened up art history for anthropology and other disciplines, or Georg Simmel, who took an even more radical trajectory between philosophy, sociology, cultural criticism and art theory. Other names, like Walter Benjamin and Sigmund Freud, could be added. These figures have become what Foucault calls founders of discursivity not by their personal genius alone but by their specific position within their epistemic field, which was characterized by diversity and unrest, i.e. by a complex set of different approaches and disciplines, and by and a fundamental uneasiness with the current division of the field e.g. by the distinction between nature and spirit or by that between literary history and history proper.

Here, diversity proved fruitful in bringing forth new forms of knowledge – amongst them a kind of knowledge for which diversity has become an essential epistemic quality. This new form of knowledge differs significantly from disciplinary knowledge or from any conception of a unified science. In Germany, the term 'Kulturwissenschaften' serves as a sort of generic category for these new forms of knowledge, but it is indicative that Kulturwissenschaften has never become a proper discipline nor been regarded as a super-paradigm, as an integrated form of study of everything that is cultural. Rather it aims to transport a knowledge that is no longer disciplinary but not yet systematic. While transgressing disciplinary boundaries, it does not omit them; instead it is constituted by the diverse transfers of specific concepts of one discipline and discourse into another. An example for such a transfer would be when ideas of 'style', originally developed in art history, were used in literary criticism. Or else when in political theory an idea of 'life,' which emerged both in history, (namely biography) and biology, was transferred to the theory of culture. This also includes the transfer between specific national traditions, as when Henri Bergson's reflections on life were taken up by Simmel. These highly hybrid discourses conceive their object as hybrid too, 'culture' being comprehended not as a new super object but as a complex overlapping of different styles, languages, and memories, without which we can understand neither the societal order nor the production of knowledge.

This specific example, despite its limitations, reveals something about the productivity of SSH until this day. Today, too, the most urgent questions lie more

often than not beyond the scope of a single discipline. Obviously, the need to overcome disciplinary boundaries bears several risks, such as a ubiquitous rhetoric of 'transgression', or the fad of ever new 'turns', as well as an excess of self reflection and self critique which finally loses its object out of sight. Nonetheless, it bears the potential of creative new thinking which will cut across disciplinary boundaries as well as across national traditions.

However, I think the lessons we could learn from that situation are even more specific. If the example helps us to understand our own situation, it in fact indicates a specific potential of SSH, namely the historical one. Using an historical example is to claim that it is useful and perhaps necessary to take a historical detour to understand the present. As with so many other things, we can never truly understand the actual situation of SSH without taking into account their genealogy, which is always multilayered or diverse. Any notion that would ignore this dimension and focus merely on the current situation would render both contemporary issues and future challenges of SSH not only less complex and lacking in depth but would indeed produce a distorted and highly problematic picture of the situation.

I consider it a distinct strength of SSH and the Humanities in particular to take into account the historical dimension. It goes without saying that this reaches far beyond its own history but concerns the world around us, too. The current crisis of Europe is not only an economic one and not even merely a crisis of political representation but it involves culture, and culture involves history, namely the diverse histories that are often obscured by 'the' (one and only) European history. To understand our current situation and the actual challenges we are facing, a historic perspective is not only an additional value, something nice to have, but it is essential. This, however, does not imply that it is an easy one to obtain. As we all know, historical conceptions tend to become problematic: be it that they end up in reductive great narratives, be it that they become text book histories, or the highly fragmented knowledge of specialists. Even historical knowledge for its own sake, necessary as it may be, might be considered as not the most important task of the humanities. This really important task consists in connecting the memory of the past with the present, in developing critical genealogies, in elucidating the actual situation and its critical moments by referencing its specific history. For these critical moments – the moments of disorientation, but also of potential action, the true challenges of today – can not be grasped if one is solely focused on the future or exclusively thinks along the lines of the already established. What they necessitate is an active and creative memory. Therefore, questions of cultural conflicts, of political representations in today's media age, or cultural memory in a pluricultural world should be seen as societal challenges precisely because they cut across established boundaries of disciplines. In these fields, SSH should develop approaches which combine historically oriented research with different strands of recent theory.

Combining different approaches, drawing comparisons, even using an historical example as I did always implies certain procedures that make things comparable, namely procedures of translation. Translation, I would claim, is the second potential specific to the SSH and to humanities in particular. As in language, translation is much more than the instrumental function of carrying the message from A to B; it is, to the contrary,

a fundamentally productive, creative process. It happens continually in our practice, and it is quite different from the also widespread, meta-discursive reflection mentioned above: in translating, we are not speaking about something, we essentially work on the ground, trying to understand what someone else is doing or saying; it is object oriented and relational at the same time. Again, the question of translation here transcends the specific problem of the humanities towards more general and more political questions. If we accept the premise that our societies are based on knowledge, it is essential to translate that knowledge but also to understand what translation is and how it works.

As I tried to show, the diversity of different approaches of SSH is essentially not an additive diversity nor a systematic coherence, but rather a diversity of translation in which different discourses interact in a productive way. This, as I think, still has a high potential: especially if cross-disciplinary approaches should surpass mere self-reflective discourses towards object-oriented research, we should rather foster these efforts of translation than to look for a new meta-language, a new integrated approach, which all too often prove to be short lived fashions. If we take the concreteness of translation seriously, this might even have institutional consequences: it would imply that bottom up programs are not only necessary to counteract the negative effect of bureaucracy, but also for epistemic reasons implied in SSHs culture of knowledge, which continues to focus on the specific even though it reaches beyond specific disciplines and discourses. Legitimate as the quest for new standards and networks might be, we should also sustain alternative approaches, e.g. of creating cooperation between different peripheries.

Naturally, the cooperation needed today also includes cooperating with the natural sciences, since the true societal challenges tend to blur the distinction between natural sciences and humanities. And if such a cooperation is meant to be truly dialogic, perspectives from SSH should not be considered as a kind of 'superadded value' to research that is basically technology-driven. Instead, it should be considered an essential element. Thus the part of SSH should not limited to the effects or the implementation of new technologies but they should constitute an integrative part of the research design itself, e.g. taking the cultural implications of key concepts such as "heredity" or "life and death" into account. This form of cooperation – a cooperation on an equal footing – is truly intricate and laborious. It involves a lot of translation. I would consider it useful to create special programs to foster this specific form of cooperation. Diversity and common grounds – I have argued that SSH is not only a varied bunch of different disciplines and discourses, but is determined by an inherent diversity which results diachronically from the complex memory of the disciplines in question, and synchronically from the numerous translations which organize their interchange. This implies, as I said, the transgression of disciplines, but not necessarily their abolition, and not even the development of a common idiom, but rather a development of new modes of organizing the archive of the discipline and of new modes of communication. The new program of Horizon 2020 can foster this process, and it could do so especially if it (1) acknowledges the fundamental contribution of SSH to societal challenges; (2) acknowledges its specificity, e.g. by paying special attention to epistemic modes such as translation and memory; and (3) seeks to foster object-oriented cross disciplinary work between equal partners, not just within SSH but also between SSH and the natural sciences.

Within, Across and Beyond – Reconsidering the Role of the Social Sciences and Humanities in Europe

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1. Introduction

Europe, more than ever, sees its "future [...] connected to its power to innovate". This idea finds its explicit expression in the current formulation of the Innovation Union as "an action-packed initiative for an innovation-friendly Europe"[1], which is clearly staged as the way to „innovate Europe out of the crises" (ERAB 2012). It is further translated into the corresponding EU Framework Programme for Research and Innovation, Horizon 2020. In order to realize this innovation driven societal trajectory, European citizens are expected not only to accept the steady flow of innovations, but to help stabilize this development logic through their continuous support. Though expressed in different ways, these ideas about innovation and the role of citizens have been characteristic for EU innovation policy for at least the last decade (e.g. Felt et al. 2007). What is new in this recent shift is the more active role attributed to the Social Sciences and Humanities (SSH). The core idea is to "embed [...] the Social Sciences and Humanities across all of the Societal Challenges of Horizon 2020"[2], as expressed by the European Commissioner for Research, Innovation and Science at the Vilnius Meeting, and to make them collaborate with sciences and engineering for developing innovations. Yet, this new role does not come without tensions: SSHs are portrayed, on the one hand, as crucial for attaining the innovation goals, while, on the other hand, they are also conceptualized as the junior partners, the leading role remaining with science and engineering.

The organizers of the Lithuanian EU Presidency conference acknowledged this challenge by placing the role of the Social Sciences and Humanities at the core of reflections about the future of Europe and its research. This essay relates to the first plenary carrying the title Diversity and Common Ground and addresses the relationship of the Social Sciences and Humanities with the sciences and engineering, the potential of such a relationship as well as the challenges to be considered. Needless to say, when using such broad classifications – "social sciences and humanities", on the one hand, and "sciences and engineering", on the other –, one has to be aware that these "entities" are anything but homogeneous and some of the divides within each of these big categories can be at least as important as those between them.

It is essential to carefully reflect on the role of SSH within Horizon 2020 for a number of reasons.

First, despite all discursive assurances of the importance of SSH for a successful realization of the Innovation Union, we still find deeply entrenched distinctions when it comes to epistemic traditions; quite often the ideas about the respective other are more tied to imaginaries than actual experiences; and substantive knowledge hierarchies are

at work, with the Social Sciences and Humanities finding themselves more towards the lower end of the ranks. This makes collaborating across disciplinary boarders a challenge for both sides.

Second, and even more importantly, we find ourselves at a moment in Europe's history, when more than ever before our future is imagined as being dependent on and driven by a constant flow of innovations. How societal development is understood, what meanings get attached to the very notion of innovation and how we think innovation is best brought about, thus needs careful consideration. In playing a key-role in the making of Europe's future, both the "sciences and engineering" and the "Social Sciences and Humanities" will thus be challenged to collectively imagine and realize futures that seem to Europe's citizens – in all their diversity – worth attaining. Yet, *future making* has to be seen not only as a scientific challenge, but above all as a democratic challenge raising the question of societal participation and responsibility. To express it with Callon and co-authors (2009: 109): "if the end justifies the means, only debate can justify the end." SSH will thus have a key-role in analyzing and actively addressing these democratic challenges.

Finally, Europe's future and the future of European research are closely intertwined.

Any vision of the direction into which European societies should develop has tremendous impacts on the kinds of knowledge generation activities that will get support, both on financial and institutional level. Yet it also means that only specific kinds of questions will be regarded as relevant and valuable and, thus, worth being asked.

The aim of this contribution is not to rehearse how different these fields are, but much more to reflect on how deeply new forms of cooperation – within, across and beyond fields of inquiry – as well as mutual understanding and respect are needed, if what is at stake is nothing less than the making of a common Europe through innovation.

2. Imagining Europe's Future: Context Matters

For many years, when thinking about "Europe's future", European policy discourse has been gravitating around a tight articulation of three concerns: (1) a concern for international competitiveness, pushing more recently in particular innovations being sustainable, smart, green, etc.; (2) a concern for urgency in realizing these innovations as otherwise Europe is imagined to fall behind; and (3) a concern for strong societal support for these innovations.

The idea of competition is expressed through multiple variations of the image of the global race in which Europe has to keep its place and through repeated expressions of the fear that Europe might be lagging behind. This intense concern about a place in the global race has, however, also an impact on inner-European imaginations: instead of performing Europe as one single innovation space, innumerable representations of Europe show diverse rankings of European countries in the capacity to produce, support and distribute innovation. Thus, we witness the simultaneous construction and deconstruction of the Innovation Union. (See also section 4 on maps)

Urgency, in turn, gets performed through the trope of "we need to act now before it is too late". Hesitation or open expression of concerns about the direction innovations take – often expressed by social scientists and humanists or by representatives of civil society –, are thus met at best with mixed feelings, at worst with open hostility. How much space and time can/should we afford for (re)considering our choices? How much opening-up of choices should take place? Who should be able to participate in a democracy? These become important questions which need addressing.

Finally, when it comes to societal integration, the imaginary of an ideal European public is created that should embrace and support innovation and become important carriers of what gets labeled as "an innovation-friendly climate". Simultaneously, however, there remains a latent concern that European citizens might not live up to this expectation; this concern is generally addressed by intensifying communication activities meant to convince citizens and not to engage with them in more open ways (Felt et al. 2013).

Therefore, making Europe's future is prone to a number of tensions, of which I want to address two in an exemplary manner. First, there is an obvious tension between an understanding of the Innovation Union as being mainly realized through technoscientific achievements, and an awareness that much of the attractiveness of Europe as a place to live and work lies in its cultural heritage and diversity. Some anecdotal evidence to illustrate this tension: At the most recent meeting of the American Society for the Advancement of Science (AAAS) in Boston (2013) the European Commission engaged in important campaigning activities to attract bright young US researchers to Europe. While the idea was to reverse the brain drain and attract them to European laboratories, many, if not most of the stories told, where about Europe as a culturally rich and diverse place, with a rich history, high quality of life, good food, and many more (see Figure 1: Image of the globe surrounded by historical buildings from European countries).

Fig. 1: Image of the globe surrounded by historical buildings from European countries[3]

A second quite important tension becomes visible through the discrepancy between evaluation with and of science and technology and valuation in broader societal contexts. Thus, we encounter, on the one hand, a dense "economy of technoscientific promise"

(Felt et al. 2007) "trading" rather universal claims about what science and technology will deliver for Europe's future. On the other hand, when moving across different national contexts, innovations are perceived quite differently by the respective societies. Nuclear energy or genetically modified organisms are two good showcases for such diverging societal valuations across European countries. Thus, the tension between the valuation of science and technology as public good and the evaluation within the systems supporting the development of innovations needs to be addressed (Felt et al. 2013).

These concerns and tensions point at the importance to analyze, make visible and carefully consider how societal and technoscientific value systems work and how they might diverge in important ways. The Social Sciences and Humanities could make here an important contribution to the understanding of the tensions between societal valuation and scientific evaluation and become key-actors in addressing them, as they should be at the core of any democratic concern.

3. Positioning of SSH in Horizon 2020

Within the framework of Horizon 2020, two new, widely circulating notions make their appearance: "social innovation" and "responsible research and innovation". Both can be read as expressions of a perceived necessity to institutionally support a rethinking of research and innovation, opening it up to a wider range of inputs from different societal actors, but also engaging in new kinds of relationships between SSH and the sciences, engineering and medicine.

While such a move cannot but be welcomed from a societal perspective as it ideally would support a broader vision of science as public good, it simultaneously raises the question of how the Social Sciences and Humanities will be able to become integral partners with the sciences. How would such policy expressions be turned into research and funding realities, which do not limit the role of SSH to being strategic supporters, reporting, anticipating or sense-making agents, or reflexive add-ons to what is being constructed as the core business: namely, scientific and technological innovation for its own sake. Thus, the challenge of the years to come will be to create the financial and infrastructural conditions, as well as to put in place the inner-scientific value systems, which are conducive to a satisfactory integration of SSH and sciences/engineering.

In this context it seems crucial to consider the position from which SSH enter such partnerships with the sciences and engineering. Actually, despite the fact that European Social Sciences and Humanities have a long and very rich history and are rooted in a broad variety of national/cultural traditions, thus offering a broad spectrum of approaches they are quite frequently framed, in research policy and beyond, in terms of a double deficit:

(1) a deficit compared to the sciences: the latter are constructed as the international pace-makers of societal development and are pictured as having much clearer quality standards and evaluation criteria, often captured in some quite narrow metrics (e.g. journal impact factors), while the Social Sciences and Humanities are seen as widely deficient in these perspectives.

(2) a deficit compared to the US Social Sciences and Humanities, which are seen by some as setting standards in SSH. The latter are often depicted as holding the top ranks, without reflecting how such rankings are constructed (see Map making argument below).

While European SSH definitely need to rethink their development and reposition themselves under changing boundary conditions – and previous speakers have pointed to some of the essential tensions here –, we should simultaneously be aware that such deficit framings are in themselves highly problematic. They do not only show the power game at work when ranking, ordering and mapping the world of knowledge production, but also have tremendous repercussions for the unfolding of the full potential of SSH at a time when Europe needs them more than ever.

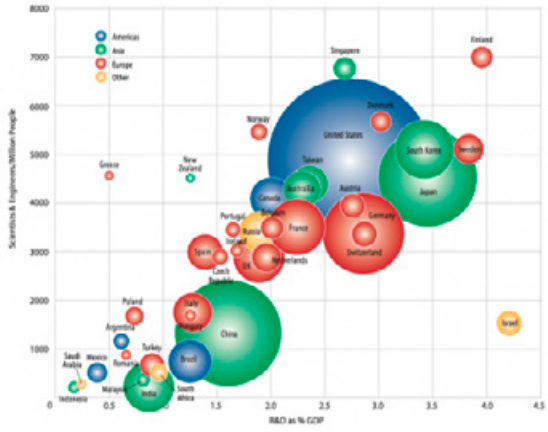
4. Map Making as World Making: Ordering Technoscientific worlds

Over the past decades, researchers from all backgrounds and science policy makers alike have been busy developing complex positioning strategies, among other through developing and deploying different kinds of maps.[4] (See Fig 2) These maps serve as orientation devices for researchers and policy makers alike, but above all they structure the legitimate principles of vision and division of the „technoscientific world". Yet maps, as Benedict Anderson (1991) has taught us, never simply represent the pre-existing. Much rather they produce what will be regarded as „reality", they are modeling what they pretend to "simply re-present". Such technoscientific maps are proliferating and come in many different forms: as epistemic ones ordering disciplinary territories and drawing boundaries between them; as geographic maps which highlight the places where the intensity of science and technology-related activities is high; as reputational maps, expressed in rankings and the distribution of highly ranked institutions; but also through mapping out where prestigious funding (e.g. ERC funding; Fig.2.c.) has gone. (See Fig 2: A selection of classical science related maps)

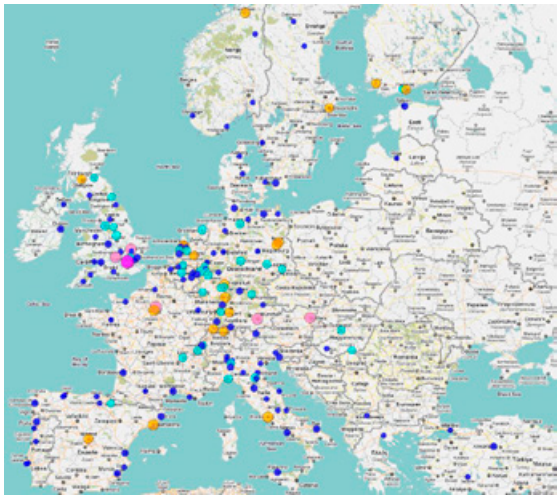
What all these maps have in common is their aim to propose a clear ("objective") vision of where centers and peripheries of technoscience are, and thus to provide guidance to scholars, policy makers and societal actors alike. We therefore might speak of a „tacit geography of science" (Felt/Stöckelová, 2009), which is at work, creating order and giving direction as well as tacitly governing science and technology. While the existence of such maps is not a problem per se, it becomes problematic when the effects of such ordering exercises are not carefully considered and when it is not reflected how deeply such maps frame the image and the imagination of what is possible to develop and where. In short, the issue of responsibility for creating and distributing such maps and for the impact they have is rarely addressed. These maps tacitly govern access to and distribution of resources, they serve as orientation when researchers move on an international scale, yet the also frame the imagination of single researchers, research institutions and national systems of innovations alike.

What all these maps also have in common is the fact that they build on "facts and figures" and seem to represent how research "really is", thus claim to provide us with an "objective picture" for purposes of orientation. They give us comfort as they feed in

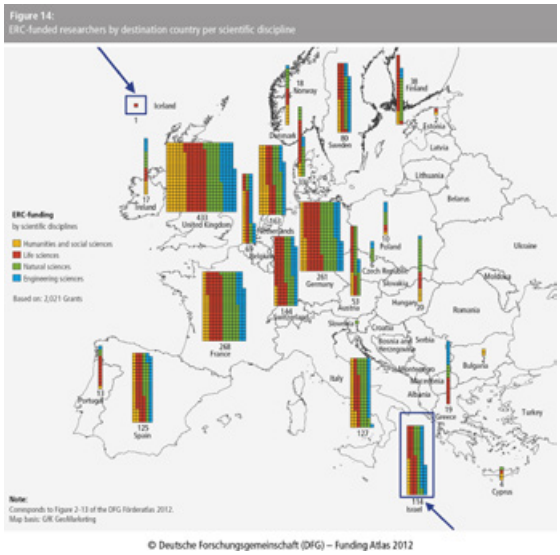
our deep trust in numbers, and nourish the illusion that using them for orienting our research or our careers would allow escaping from other more explicit forms of research and development politics. (Porter 1995)



2.a. Global R&D spending 2011. Size of circle reflects the relative amount of annual R&D spending by the country[5]



2.b. Mapping Excellence in the Geography of Science[6]



2.c. ERC Funding in 2012 per sector (SSH in yellow)[7]

Fig 2: A selection of classical science related maps

Yet, from a more reflexive position, we need to ask: what is made invisible and thus unaccountable through these kinds of representational approaches? And thus: how would science and technology be perceived and understood differently, in particular in its complex intertwinement with society, if we chose to use other kinds of "tools" for orientation? For the purpose of reflecting these questions let us shortly take a look at a very different kind of map in order to see how choice in mapping matters. I chose an early 17th century map of Island by Abraham Ortelius (see Fig 3).

It is a kind of map we are no longer acquainted with: no coordinates and standard measures, no neat separation between facts and fiction. To the contemporary eye

the map resembles more an artistic representation than a scientific one, containing elements we would not encounter in usual maps: monsters. Instead of being amused by this representation and of admiring the detailed depiction of these imaginary creatures, we could acknowledge the map maker's effort to render a much more complex picture of "Islandia", one which captures simultaneously a blend of different kinds of "realities" and allows broader imaginaries and values to "enter the picture".

Figure 3: An early 17th century map of Island by Abraham Ortelius[8]

At this point it seems worth remembering that the notion of monsters can always have two meanings: One which points at outrageous creatures, those we fear and, thus, want to push aside, exclude and hide; the other meaning could be derived from Nicholas Mosley's idea of "hopeful monsters", which for him "are things born perhaps slightly before their time; when it's not known if the environment is quite ready for them" (see Law 1991). Addressing monsters from such a broader perspective reminds us that things could always have been different, that making futures – and in particular innovation driven futures – is a fragile and complex activity, and that we do not only live in a neatly scientized and engineered world, but in one which is much more messy and embattled, culturally formed and reformed as well as deeply value-laden.

Having said this, some obvious questions need addressing: How are "monsters" dealt with in the maps used to guide the science and technology policy making in Europe and beyond? Do we keep them out, silence or even ban them to make maps look more straight and easier in indicating direction? Or do we give them space, care for exposing them and thus allow them to become part of the overall picture?

As a social scientist, taking the idea of an Innovation Union seriously, I would plead for more complex ways of accounting for and mapping societal developments in their relation to innovation, for introducing and addressing the "monsters in our maps" of technoscientific development. This would be a crucial step towards realizing the very idea of "responsible research and innovation" – namely, seriously addressing the societal aspects when it comes to innovation. And it could be precisely the role of social scientists and scholars from the humanities – drawing on a broad range of analysis – to create space for "the monsters", to insert them in the all too clean maps that are being produced and circulated around issues of technoscientific development.

5. Europe – an Ideal Space for the Integration of SSH with Sciences and Engineering

Speaking of maps obviously also means considering how place matters in the development of innovations. Therefore, even though Europe struggles in developing its future based on science and technology, it is simultaneously a privileged space: Europe is a unique "laboratory" where diverse models of society, cultural values and valuation practices, (techno)political traditions and histories (Felt et al. 2010), as well as broader sociotechnical imaginaries, i.e. different ways how national idea(l)s are realized through science and technology (Jasanoff/Kim 2009) co-exist. Much rather than seeing this as an obstacle to a smooth development, this diversity should be conceptualized as a key-resource for developing new understandings of **socio-technical innovation** processes in both their more global and simultaneously local dimensions. As a consequence, European research and research funding needs to explicitly identify and embrace these opportunities the European knowledge space has to offer and to create explicit opportunities for integrating SSH and technoscientific research.

Given this privileged situation, two important elements need careful consideration in any further development of research and innovation. First, I deliver a plea for a systematic fostering of a **comparative epistemology**, both in SSH as well as in the sciences/engineering. European social, cultural and value diversity should invite more comparative research and thus make Europe a unique space of collective responsible experimentation with "the new". This would lead to creating a better understanding of how innovations (can) develop in different settings and how they find arrangements with and integrate different societal structures and value systems (e.g. in the governance of the life sciences we can see such different models at work). Thus resistance or frictions which occur in specific settings/national contexts would not be merely seen as a problem and an obstacle to smooth technoscientific development, but much rather as a resource for understanding how innovations get socialized, adapted and stabilized and how they acquire different meanings in different contexts. Finally, this would allow developing more responsible but also more resilient socio-technical systems.

In doing so, it is essential to reflect the (often implicit) maps – be they epistemic, geographic or reputational – used for orientation in the context of such a situation of experimentation. It means questioning assumptions about the core values at stake and how they are distributed as well as about assumed centers and peripheries. The latter is key when it comes to consider who should take the lead in shaping innovations, or who

should be teaching whom and who should be simply following. Only reconsidering such deeply entrenched orders and developing more open approaches will allow more radical innovations to happen.

However, such a comparative epistemology extensively engaging with difference and asking partly for an integration of SSH with the technosciences needs important reconsiderations in the way science and technology are institutionally organized and funded. It will be essential to create working environments (e.g. career structures, assessment exercises, accountability rituals, etc.) for researchers, which actually allow them to engage in such experimentation without risking their career, but also educational approaches, which move away from quite narrow understandings of disciplinary education.

My second plea addresses the importance of **collective responsible experimentation** across disciplinary boarders, but also across the divide between science and societal actors. This means making space for articulating different kinds of knowledge generation practices in research and funding; it means extending knowledge production to accommodate more inter and transdisciplinarity (beyond the frequent lip-service paid to this notion); it means acknowledging the diversity of models and rationalities of knowledge generation in SSH and science/engineering; it means integrating SSH as "knowledge-able" and "value-able" partners on an equal footing into the core of technoscientific innovations. The latter means putting SSH knowledge on an equal footing with the one produced by the sciences and in particular acknowledges their sensitivities towards value orders at work in the innovation business. In some countries such experiments of collaboration between SSH and the sciences have taken place in the framework of so-called ELSA (Ethical, Legal and Social Aspects) research in particular in the life sciences and around nanotechnology or in more recent programs on responsible innovation, and it would be worth carefully considering where such collaborations were successful, what funding mechanisms proved conducible to such an integration and how such collaborations across boundaries managed to impact the innovation process.

Yet such collective responsible innovation would also need the reconsideration of some of the basic premises on which research and innovation is based. It would mean to reconsider the notion of the innovation race, asking more questions about direction rather than simply arguing in terms of speed. It seems essential to move beyond an often binary logic of choice to a much more open and process oriented way of caring for socio-technical problems to be solved and continuously adapting solutions. This means in the end that we have to move away from the idea that there is one stable future to be attained to an understanding of future as a process. (Adam/Groves 2007; Felt et al. 2013)

6. A Call for New Knowledge Relations: Within, Across and Beyond

Drawing my different lines of argumentation together, I want to highlight that what we need are **new kinds of knowledge relations** in order to be able to address the grand challenges lying ahead of us. By proposing the notion of "knowledge relations".

On the one hand, I want to draw attention to the necessary creation of new kinds of **relations between people engaged in different knowledge generation practices** and thus ways of seeing and explaining the world. This might be people from different disciplines, but – where needed – also the cooperation between scientific and different kinds of societal actors. On the other hands, it also points at the need for **a serious engagement with and novel articulations of different kinds of knowledges** – be they created by different disciplines or by societal groups (e.g. patient associations) – in the process of developing innovations.

Therefore change is needed simultaneously on several levels. First change has to happen ***within*** both SSH & science/engineering. More reflexivity concerning inner-disciplinary developments is needed, questioning some of the more deeply entrenched rituals and value orders to overcome disciplinary idiosyncrasies.

In a second move, it also means that change has to happen ***across*** disciplinary sites of knowledge production. This is a call for making space for knowledge generation and exchange across classical disciplinary borders, and in particular, for rendering cooperation between SSH and the sciences more attractive for both sides. In such knowledge relations SSH and sciences/engineering need to be on a par with each other, which also has to find its translation in the way policy makers speak about the relationship: the very expression of embedding SSH in lines of reasoning already predefined by sciences and engineering translates a hierarchy and potentially limits SSH in developing its full potential.

Finally, change needs to go **beyond** classical scientific territories. This points at the necessity to reflect on the potential inclusion of societal actors in new ways into the innovation process. We can look back to successful co-operations in some contexts (e.g. biomedicine) and such experiences should be carefully considered when developing lines of research to be funded.

Bibliography

Anderson, B. (1991) Imagined Communities. London: Verso.

Adam, B. and Groves, C. (2007) Future Matters: Action, Knowledge, Ethics. Leiden: Brill.

Callon, M. et al. (2009) Acting in an Uncertain World. An Essay on Technical Democracy. Cambridge, MA: The MIT Press.

ERAB (2012) The New Renaissance: will it Happen? Innovating Europe out of the Crisis. Third and final report of the European Research Area Board. European Union.

Felt, U., Wynne, B. et al. (2007) Taking European Knowledge Society Seriously. Luxembourg: Office for Official Publications of the European Communities. Available from: http://sciencestudies.univie.ac.at/en/publications/.

Felt, U. and Stöckelová, T. (2009) Modes of Ordering and Boundaries That Matter in Academic Knowledge Production. In: Felt, U. (ed.) Knowing and Living in Academic Research. Convergence and Heterogeneity in Research Cultures in the European Context (Prague: Institute of Sociology of the Academy of Sciences of the Czech Republic): 41-124.

Felt, U., Fochler, M. and Winkler, P. (2010) Coming to Terms with Biomedical Technologies in Different Technopolitical Cultures. A Comparative Analysis of Focus Groups on Organ

Transplantation and Genetic Testing in Austria, France, and the Netherlands. Science, Technology, & Human Values 35, 525- 553.

Felt, U. et al (2013) Science in Society: Caring for our Futures in Turbulent Times, ESF Policy Briefing 50. European Science Foundation. Available from: http://sts.univie.ac.at/publications.

Jasanoff, S. and Kim, S.-H. (2009) Containing the Atom: Sociotechnical Imaginaries and Nuclear Power in the United States and South Korea, Minerva 47, 119-146.

Law, J. (1991) A Sociology of Monsters: Essays on Power, Technology and Domination. London: Routledge.

Porter, T. (1995) Trust in Numbers: The Pursuit of Objectivity in Science and Public Life. Princeton: Princeton University Press.

Endnotes

1 http://ec.europa.eu/research/innovation-union/index_en.cfm

2 http://europa.eu/rapid/press-release_SPEECH-13-740_en.htm

3 © European Union, 2013. Images © Fotolia.com, 2012-2013

4 It is important to consider that in many cases social scientists have been very actively engaged in developing such maps. (see e.g. Map 2.b.)

5 2012 Global R&D Funding Forecast. http://newenergyandfuel.com/http:/newenergyandfuel/com/2011/12/28/where-the-rd-money-is-at/worldwide-rd-by-nation-2012/

6 http://www.leydesdorff.net/mapping_excellence/

7 http://www.dfg.de/en/dfg_profile/evaluation_statistics/funding_atlas/tables_figures/index.html

8 http://onlyhdwallpapers.com/wallpaper/islandia_ortelius_1609_high_resolution_desktop_1811x1300_hd-wallpaper-546678.jpg

European Lives: New Vistas Across the Social Sciences and Biomedical Humanities

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September 23rd, 2013, Mykolas Romeris University, Vilnius, Lithuania

The Social Sciences and Humanities (SSH) cover a wide range of disciplines and cultural traditions that have structured Western thought. In a nutshell, if we were to identify the overarching pursuit shared by the diverse streams of scholarship that make up SSH, we could summarize it in the goal of telling the human condition as a quintessentially social phenomenon. In turn, the act of telling reminds us of the narrative element that is not only foundational to the humanities but also alerts us to the importance that the framing of issues (i.e. the way in which things end up being told in the public space) plays for the workings of any society.

Here I propose to reflect on these two features of SSH (the act of telling and the social phenomenon it applies to), focusing on two turns that should hopefully invite also a more productive integration of SSH with the life sciences. I will refer to them as the interdisciplinary and the normative turn.

But why the life sciences, one may ask to start with? Indeed, for a conference reflecting on the new vistas for SSH, it is the entire horizon of human inquiry that should stand ahead as the landscape onto which to articulate the challenges and opportunities for SSH scholarship. And there is no doubt that, precisely through the diversity of approaches I have alluded to above, SSH as a whole can find productive terrains of engagement across the entire spectrum of scientific questions.

I maintain, however, that the life sciences constitute the field of science vis à vis which it makes particular sense to probe the future directions of SSH and their interdisciplinary import. The reason is that the life sciences are the area of knowledge that is most radically impacting what I would like to refer to as the 'sources of the self', echoing Charles Taylor's appraisal of the foundational elements of the modern identity[1]. Needless to say, a list of these sources could be compiled in several different manners, but the following one captures at any rate some of the most fundamental dichotomies that have come to structure our modern condition: the normal versus pathological self; the present versus future self; the free and/or responsible versus predetermined self; the transparent (and hence public) versus private self; the individual versus collective self; the voting versus consuming self; the lay versus expert self. Even a cursory glimpse at the ambitions of the molecular life sciences suffices to see how each of these more or less entrenched dichotomies is being challenged, reinforced and at any rate affected by their momentous development. Less surprisingly, what unfolds is thus also a competition, for the apparently same object of inquiry, among not just different disciplines but indeed different systems of thought. Areas of inquiry that have traditionally belonged to SSH remit are now being increasingly invested with the molecular life sciences' own epistemology, with results that are at times unsettling, at times reaffirming time

honored categories, and at other times truly transgressive and productive in the launch of new interdisciplinary discourses.

In order to illustrate the deep-seated tensions fueling this competition, I find a fairly recent example from a UK Parliamentary debate particularly compelling. In 2008, during a heated debate on the permissibility of creating chimeric embryos for research purposes, one member of the British Parliament declared 'I don't believe in my soul that I'm 30 % mouse and 80 % daffodil'[2]. It would be all too easy to dismiss this quote as the sole result of plunging scientific literacy, and hence as something that could be easily remedied through greater scientific literacy, since this would likely miss some of the deeper lines of friction that have been emerging around the life sciences. I would instead like to take what I consider a more productive line of reasoning, since that quote reminded me almost immediately of one of the most famous poems of British literature, and as such one of the towering achievements in that art of telling that defines the humanistic gaze, 'Daffodils' by William Wordsworth. In this poem the author recounts his wanderings in an idyllic countryside, and as the poem proceeds the fascination for the flowers progressively grows, ushering eventually into an anthropomorphizing move whereby the poet and the daffodils end up dancing together in an aesthetic conflation that obliterates distinctions. Two hundred years later, instead, when our gaze has become so successfully molecular that we can even measure the percentage of 'daffodilian genome' that we have ended up sharing through evolution, the proximity to nature evoked in Wordsworth's masterpiece seems to have paradoxically vanished, and the distinctions seem to have become all the more visible but apparently also more unsettling. The reasons are manifold, and as we have argued with Helga Nowotny[3], they mostly have to do with the nakedness enabled by the molecular gaze of our age, whereby elements of life (from genomes to cells etc.), once stripped of their context, become increasingly invested not only with agency but with an expanding palimpsest of options for manipulation and trading that turns them almost seamlessly from 'matters of fact' into 'matters of concern'[4]. And yet, precisely insofar as they are increasingly matters of concern, the slices of the human condition that are now illuminated also by the molecular gaze become productive terrains for an interdisciplinary engagement by SSH. Indeed, it appears from the British MP's words that precisely at the time of the genomic and increasingly digital daffodil, the told daffodil is as ever needed in order to align molecular insights with the symbolic and political resources that are foundational for the collectively binding commitments of our policies. This clash of daffodils invites thus a direct confrontation with the scope of interdisciplinarity, which, I argue, should take the form of an actual turn in the engagement of SSH with the life sciences, a turn that should hopefully find in Horizon 2020 an important opportunity in terms of its creative implementation.

My trust in the ripeness for, and the productivity of an interdisciplinary turn stems from my own experience as a practicing molecular biologist who integrated into his career a parallel training in science and technology studies (STS) and bioethics. This was enabled initially thanks to the pioneering opportunities afforded by the European Molecular Biology Laboratory, the Max Planck Institute for Molecular Cell Biology and Genetics, and the Branco Weiss initiative "Society-in-Science", and later through the vision of several institutions (from the Berlin Institute of Advanced Studies to the Program on Science,

Technology and Society of the Harvard Kennedy School of Government to the European Institute of Oncology) that fostered and nurtured the potential for dual scholarship. Among these the European Institute of Oncology enabled me to co-found, now several years ago, a unique interdisciplinary curriculum that took the form of a PhD Program in Foundations and Ethics of the Life Sciences and of a research unit in Biomedical Humanities. This has been the first example of a thoroughly interdisciplinary PhD, aimed at scholars from both the humanities and the life sciences, that is fully integrated within the research premises of a life sciences institute, and that aims at fostering a new generation of professionals equipped with the cross-disciplinary skills that the prominence of biology in the public sphere calls for. From history and philosophy of biology to bioethics, from STS to health care policy, our students merge advanced training in these SSH disciplines with equally advanced training in molecular biomedicine. And while the degree of hybridity naturally varies as a function of the individual projects and the diverse range of backgrounds (from the minimum of an authentic cross disciplinary fluency to the maximum of actually mastering the tricks of 'both trades'), it has been truly rewarding to see how productive this explicit strive for hybridity can be, with several students ending up authoring both life sciences and SSH papers. I thus offer my take on SSH future directions on the basis of this pedagogical innovation and the dual composition of my current research activities, in which the investigation on the forms of life meets the inquiry into the forms of living. More specifically, in my laboratory we study the interplay between genetics and epigenetics in biological traits, both in the physiological setting (with a focus on the normal acquisition of neural fate) and in its pathological aberrations (focusing on cancer and neurodevelopmental disorders). My STS unit takes a largely co-productive approach to probe the mutual constitution of scientific and social order around three areas of innovation: 1) the integration of 'omic' technologies into health care policy; 2) the new participatory trends in biomedical knowledge production; and 3) the standardization of biomedical models from bench to bedside.

On the basis of this very successful experiment I would like to suggest that nurturing of a new generation of truly hybrid scholars, across the life sciences and SSH, represents one of the most productive ways forward in SSH. Needless to say, this does not amount to dispel the disciplinary autonomies of SSH, quite the opposite. It means taking SSH so seriously, that their methodologies and gazes, including their telling skills, become part and parcel of the background and training of an initially restricted but potentially very influential group of novel scholars endowed with a truly dual competence. Needless to say, in order to accomplish this goal on a larger scale, it is important that the perception of the need for a radical innovation in cross-disciplinary scholarship is met by adequately radical changes in the structure of academic rewards and research evaluation. Horizon 2020 could become the catalyst for such innovations, and in this respect it appears surely like an occasion not to be missed, on either side of the so called 'two cultures'.

But if the current stage of development in the molecular life sciences offers a ripe terrain of confrontation for the SSH, so does the current phase of political experimentation that is taking shape in the European continent. In fact, while hybridity across the life sciences and SSH is ripe for innovation across the globe - and indeed the SSH comparative toolkit is ideally equipped to probe the irreducibly local and contingent practices through which the sources of the self are being reconfigured – Europe is unique

in the scale and depth of the political experimentation it is undergoing. Specifically, Europe appears like a fascinating political experiment precisely because it is redefining citizenship along with a thorough reconfiguration of power between government and governance. In turn this underpins the coexistence and mutual evolution between nation states, local and continental levels of political authority. But Europe, needless to say, is also a key player in the global positioning for leadership in scientific ingenuity and technoscientific innovation. It is, thus, the unique intertwining of these two features – a space of political and social experimentation that is also a key actor in technoscientifc innovation – that makes Europe a remarkable test case to explore the mutual reconfigurations of knowledge and power in contemporary societies. Indeed, I suggest that we could probe this intertwining systematically through an intellectual program that looked explicitly, and in parallel, at the reconfigurations in the scales of power and the reconfigurations in the scales of life that the molecular gaze brings into relief in the public sphere. On the one hand the rearrangement of power and public accountability between the central levels of EU government, various intermediate governance layers and the nation states along with the myriad local configurations that they harbor. On the other rearrangement in scales of life, from neuroimaging scans to the various –omic profiles, from the proliferation of archived specimens to engineered body parts and functions, from human animal chimeras to embryos, from 'natural' cells to 'synthetic' genomes, etc. It is here, at these junctures of technoscientific and political ingenuity, that we can productively appreciate the emergence, collision and maintenance of both epistemic and normative orders that the idiom of co-production has so eloquently illuminated[5].

This brings me to the second SSH turn I would like to briefly explore, namely the normative one. Among the greatest accomplishments of Sociology of Knowledge and Science and Technology Studies in fact, along with several contributions from the History of Science, is without doubt the deconstruction of knowledge claims and the recasting of epistemology within a socially mindful scrutiny of scientific practice and discourse. The most compelling contributions have extended this scrutiny to the social order as well, advancing a thoroughly symmetric research agenda in which, from an analytical viewpoint, the entrenched dichotomies of 'natural' versus 'social', or of 'fact' versus 'value' are treated as arrival points that deserve explanation rather than departure boundaries that constrain inquiry. Much of this intellectually fascinating work has often stopped short, however, of a normative engagement with the consequences of its deconstruction, as if the analytical task were best left sharply separate from its policy implications. It seems to me, however, that the time is ripe for a collective rethinking of this often self-imposed limit and the reason lies precisely in the historical phase we are living in with the unique political experiment that we ought to be contributing to as European citizens and scholars. In other words, precisely because we are witnessing a reconfiguration in forms of life as well as in forms of communal living, and precisely because in Europe the two processes are unfolding on a uniquely synchronous scale, we need to ask how our scholarship, including the SSH scholarship that 'tells' the molecular reconfigurations of and within the life sciences, can impact the agenda setting for the construction of political alternatives, in the various instances and on the various topics in which these become salient. Scrutinizing what these instances

are, and what political alternatives to develop, is clearly beyond the scope of this brief contribution, and I propose it in fact as one path of the interdisciplinary challenges I have sketched above. I would like, however, to introduce two theoretical frameworks that can help us reflect on what a normative turn for SSH could look like, and on which footing it could stand vis a vis the intellectual mandate of its scholars. These are 'civic epistemology' and 'bio-constitutionalism'. The former was originally introduced to describe "the institutionalized practices by which members of a given society test and deploy knowledge claims used as a basis for making collective choices"[6]. The latter[7], which I contributed to develop along with several other scholars and that I recently applied to an analysis of stem cell controversies[8], brings into relief the intimate interconnectedness of life and the law, admittedly one of the most squarely normative terrains for SSH scrutiny, as "a link that becomes deeper and also more explicit once life, increasingly probed as text (from genetic programs to cell fates, from epigenetic blueprints to digital profiles), encounters the textual power inherent to constitutions, that of inscribing moral norms into publicly binding words"[9]. By tying epistemology, civic engagement and collectively binding commitments within the same analytical project, I trust that such approaches, especially when applied to the synchronous study of sociopolitical and scientific innovation, will afford new and exciting opportunities for SSH in the Europe an Research Area.

Bibliography

1 C. Taylor, Sources of the Self. The Making of the Modern Identity, 1989, Harvard University Press.

2 S. Hoggart, Daffodils and Red Herrings, The Guardian, 20 May 2008.

3 Nowotny, H., and Testa, G. (2011). Naked Genes : Reinventing the Human in the Molecular Age (Cambridge, Mass., MIT Press).

4 B. Latour Why Has Critique Run Out of Steam ? From Matters of Fact to Matters of Concern Critical Inquiry - Special issue on the Future of Critique. Vol 30 n° 2 pp.25-248.

5 Jasanoff, S. (2004). States of Knowledge : the Co-production of Science and Social Order (London ; New York, Routledge).

6 Jasanoff, S. (2005). Designs on Nature : Science and Democracy in Europe and the United States (Princeton, N. J., Princeton University Press).

7 Jasanoff, S. (2011). Reframing Rights : Bioconstitutionalism in the Genetic Age (Cambridge, Mass., MIT Press).

8 G. Testa ´More Than Just a Nucleus: Cloning and the Alignment of Scientific and Political Rationalities´ in Sheila Jasanoff (Ed.) ´Reframing Rights: Bioconstitutionalism in the Genetic Age´, 2011 MIT Press, pp. 86-104.

9 G. Testa 'Democracies of Stemness. Stem Cell Technologies from Generation to Regeneration' in F. Calegari and C. Waskow (Eds.) 'Stem Cells. From Basic Research to Therapy' CRC Press (Taylor and Francis Group), in press, 2014.

4.2

Engaging in Training and Education

Anchoring Innovation

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September 23rd, 2013, Mykolas Romeris University, Vilnius, Lithuania

1. Introduction

With my sincere thanks for the honour of being invited to contribute to the Vilnius conference on Horizons for the Social Sciences and Humanities, let me turn to business straightaway. This session is about training and education, about the next generation. I would like to make three points about the future of education in the Social Sciences and Humanities – henceforth SSH. All of them are premised on the preliminary point that it is impossible to think about academic teaching without connecting it to research. Teaching and research are the core business of SSH academics, and they come — they should come — as a package deal. That realization has consequences for how we think about funding, about knowledge utilization, and about the place of research in the curriculum. I will argue 1) that teaching itself is a form of knowledge utilization for the researchers in SSH, one that should be openly and firmly asserted, and one that should be generously and fully acknowledged. I will also argue 2) that the importance of research to teaching entails that it should be embedded early, in undergraduate teaching, where we should stimulate undergraduate research. And finally 3), I will say something about the organization of graduate education and the creation of a compelling and stimulating research environment for young researchers, using as an example the Dutch National Research School in Classical Studies, OIKOS. And as we will see, that will bring us full circle to the issue of knowledge utilization.

2. Teaching as Knowledge Utilization

In SSH, maybe more than in any other academic domain, the direct relationship between teaching and research is crucial. Why is that? It is probably a fair claim that we are the 'teaching faculties' *par excellence*. If I look at all universities in the Netherlands, freshmen enrolments in SSH this year are on average 33% of all students. This includes technical universities. At my own university, Leiden, freshmen enrolments for SSH this year cover 47% of all new students. If we look at BA diplomas for 2011/12, SSH was responsible for 37% of all BA diplomas nationwide and for 52% of diplomas at Leiden University: we teach between one third and one half of all students who enter university, and we help them to graduate.

I know that researchers are all supposed to be able to specify what added value to society their research creates. But it is my contention that we ask this question in a very crude way by demanding of each individual *project* that it prove its usefulness, its potential for knowledge utilization. Although this is often possible, and without a doubt this also goes for SSH,[1] there is still a lot to be said for a helicopter view of this issue. The argument that I would make for a decent base-level funding for academic

research across all disciplines *in addition to* what we budget for teaching runs as follows (note that at this point and for the sake of the argument I accept that the rationale should have an economic basis):

A. There is a considerable differential between the market value of the 18-year-olds entering the university and the young adults with BA and MA diplomas that we send into society. That added value in earning capacity is to be credited to us, collectively.

B. As an example, let us consider a specific societal domain that is overwhelmingly populated and run by SSH graduates: the media, journalism, newspapers, radio and television. Our graduates carry the major responsibility in those fields to promote the free flow of information in our society but not just any kind of information: we need information that is accurate, that has been thoroughly researched, critically appraised, with a good sense of the value of different sources, and that is clearly presented. If that kind of information is available, this will lower transaction costs for our society as a whole, and that again represents a great economic value: SSH should claim at least part of the credit. It will begin to add up.

C. Let us reconsider those qualities of accuracy, thorough research, critical appraisal, evaluating sources, and clear presentation: aren't those precisely the academic objectives that you will find in all our university education documents? To acquire these qualities it takes exposure to, and if possible active involvement in research. As instructors who are also researchers we *model* academic values for our students and help them *experience* what it is like to solve problems with limited means.

D. This is why we need research in teaching. And this is what makes the class room an arena for knowledge utilization for all our researchers. Note that it also requires high-quality academic pedagogy!

We need, therefore, a *base-level of research funding* for SSH on the strength precisely of the role of research in teaching. The research can be purely fundamental. Even if it serves only the quest for knowledge, if it produces purely fundamental knowledge, of interest to specialists in a field, without (for the moment) changing the lives of our citizens from one moment to the next: if done well, and if the researchers are also instructors, it will *also and at the same time* serve to model the values and the academic quality that we want our graduates to bring to their own work in society, as responsible citizens. And please note now that, although I started this argument by accepting the economic frame of funding research on the basis of its potential for knowledge utilization, I ended on what may sound like a more principled defense of the relevance of research. My point is: either way, the importance of research informing SSH teaching cannot be overestimated.

3. Undergraduate Research

On to my second point, undergraduate research. I am a classicist. By the time I'm done with my students, they can read Latin and Greek, they can hold forth intelligently about Homer, the origins of Greek democracy, the place of the arts in society and a host of other topics. But in the meantime, they will have been offered the opportunity to engage in a number of active and relevant research enterprises that will not only give them the academic qualities I just mentioned but also skills that are transferrable and will help them on the labor market wherever their careers will lead them.

This summer, I brought a Leiden team of undergraduate students to Harvard's Center for Hellenic studies in Washington DC. We joined teams of undergraduates and instructors from a number of American Universities and Liberal Arts colleges to take part in the Homer Multitext Project.[2] We studied the oldest Homer manuscript with a complete text of the *Iliad*, the Venetus A (10th cent. CE).

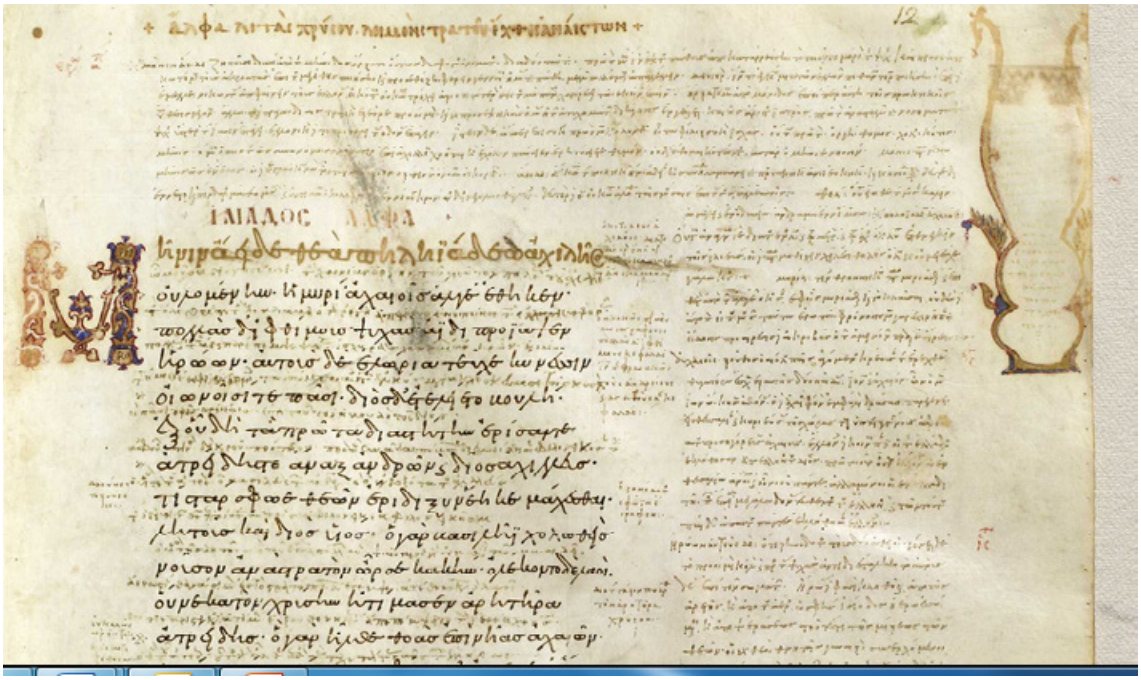

Figure 1: Venetus A, folio 12r, the beginning of the Iliad.[3]

What you see in figure one is not just (in the darker ink) the text of the *Iliad*. The manuscript is also chock-full of annotations, in all the margins, and between the lines, going back in part to Greek scholars from the 3rd century BCE. This manuscript and all the information it contains is being made accessible to scholars through a very sophisticated digital research tool, which my students were making a modest contribution to create.

What did they learn apart from reading more Homer, deciphering ancient manuscripts, and the excitement of being in direct touch with a very ancient intellectual tradition? They learned to use XML, up to standard digital processing, how a research tool is designed, and they acquired a digital portfolio for future employers.

But more importantly, they worked in teams, shoulder to shoulder with faculty, they learned to work in a very structured and systematic way and to check each other's work. Learned when to make a judgment call and when to call in expert help. Discovered that the expert would not always know the answer on this unexplored terrain, and that sometimes they, the students themselves, would simply have to acquire the particular bit of expertise that we needed to continue. Invaluable. Undergraduate Research: stimulate it, and where possible integrate it into your curricula!

4. OIKOS: Anchoring Innovation

My third and last point concerns graduate education, and again I will be using an example from my own experience. The Dutch National Research School in Classical Studies is called OIKOS.[4] I had the privilege of directing it for 11 years. It is a collaborative enterprise of the six Dutch universities that offer Classics—a relatively small humanities discipline. By organizing ourselves nationally, and making our individual areas of expertise accessible to all graduate students, we have improved the teaching we could offer to our graduate students immensely.[5] A student in one university will know personally all the people (senior and junior) working in his or her area in the country: a wonderful network. We organize seminars, Master classes, and other teaching events, but mostly, once again, a form of training on the job: ideally, this is the last step in familiarizing students with active research that started in their undergraduate training. In our thematically organized research groups, which cut across the universities, senior and junior faculty collaborate, and the junior faculty once again are in a position to model their professional identity as a researcher on the behavior and practices of experts with whom they are actively engaged in research. This makes for a compelling and

stimulating research environment, which the students themselves take an active part in shaping. The latest result of that collaboration is the development of a research agenda that brings us full-circle in this paper and demonstrates that SSH (even a seemingly theory-oriented discipline like Classics) need not be afraid of issues of knowledge utilization in the by now more traditional sense of research results addressing current societal issues.

The theme of the OIKOS research agenda is Anchoring Innovation, and the intellectual problem that provoked its formulation was the rise, nationally and on the European level, of an almost obsessive focus on innovation. We observed a tendency to delegate innovation to the technical and natural sciences and to medical specialists, apparently without realizing the possible differences between invention and innovation and the limits that society imposed on its own success without realizing it. A recent study suggests that in a successful innovation, i.e. the profitable adoption of a new solution, only about 25% of the success can be attributed to the original 'invention', to whatever was 'new': the other 75% has to do with 'the human factor', whether the new item will be acceptable to the group for which it was intended, whether it matches beliefs, values, understandings and world views.[6] An innovation must somehow 'land' in the environment in which it should function. If we are interested in innovation, we should include thinking about these factors in the design phase of developing new research. Innovation needs to be 'anchored'.

It is our contention that 'anchoring' will be a valuable concept in discussing societal issues such as innovation. But it is also valuable to the Humanities internally. I have very little space here to demonstrate this at length, but the notion of anchoring as developed in OIKOS can be used to unify and pull together results stemming from a number of different humanities paradigms, such as intertextuality, memory studies, or discourse analysis, to name but a few. When looked at from a slightly more abstract vantage point they can all be regarded as being 'about' ways to connect the new to the old and familiar.

But back to societal relevance: we ignore the human factor at our peril. An illustrative example is the tottering vaccination campaign against the Human Papilloma Virus (this is certainly the case in the Netherlands). In this case there were (at least) two major medical discoveries. The first was the identification of a virus as the cause of this nasty form of cancer; the second is the creation of an antidote. These are invaluable insights, to the credit of the scientists working on this problem. It is important to stress that this paper is not about replacing the claims of one area of research with those of another. Rather, a knowledge-driven society cannot afford to leave whole domains of knowledge out of the equation. All relevant knowledge should have been brought to bear, including insights about effective communication and knowledge about the target group. The campaign failed to use the right forms of communication, but initially used snail mail and ignored the social media; it failed to see that one scared mother on an internet forum can outweigh the authority of a medical specialist; it failed to take into account the sensibilities of the parents and of the (pre-)teenage girls themselves, who needed to get the shots; it failed to anticipate the stigmatization that the term 'Virgin

Vaccination' would carry. It failed, in short, to anchor. My plea, then, is for inclusiveness, to include SSH in thinking about innovation.

The relevance of 'anchoring' new ideas can be detected on many levels, in material as well as in immaterial culture. Here is a simple example from ancient and modern material culture:

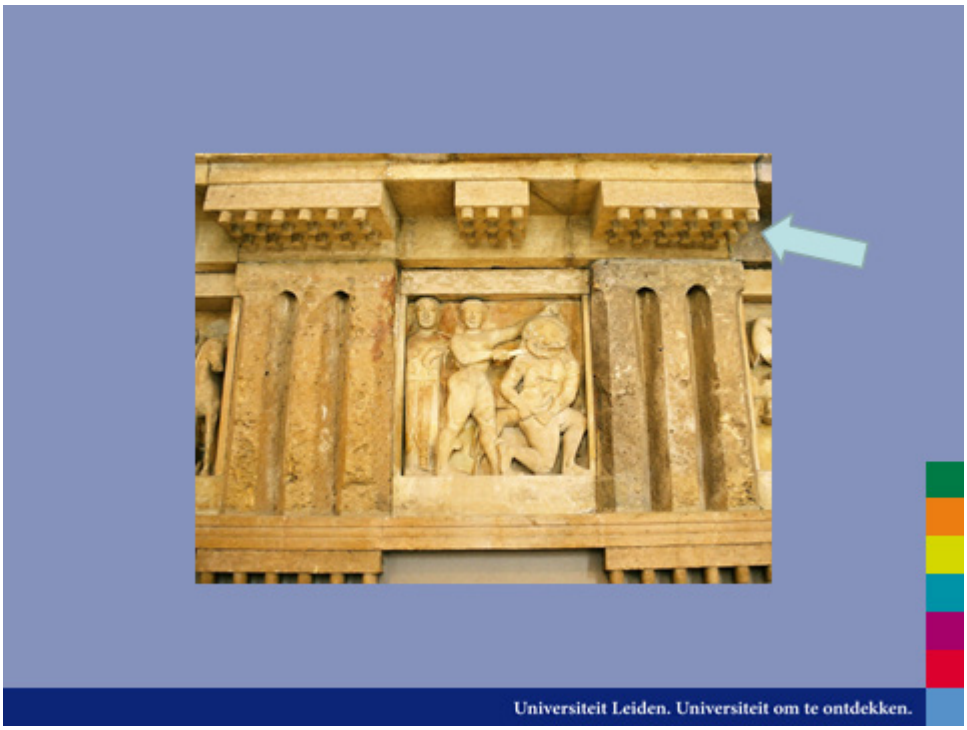

Figure 2: Metope of Perseus beheading Medusa, temple at Selinus, ca. 550 BC; at the arrow: so-called 'guttae'.[7]

What we see in Figure 2 is part of a temple built in stone. The little 'droplets' at the place of the arrow do not seem to be functional in the design, neither in the structure nor in the decorative scheme of this part of the temple, where the attention is obviously drawn to the depiction of Perseus cutting off the Gorgon's head. The lego-like bits of protruding stone are probably visual reminders of what a wooden temple would have looked like, with bits of the wooden pegs connecting the wooden beams sticking out. If we are looking for an alternative function of these *guttae*, 'anchoring' would be a prime candidate: this is what a temple *should* look like, therefore their presence helps the spectators in understanding the building.

Now look at Figure 3. This is an electric car. Since the whole point of having an electric car is that we do not need gas anymore, taking fuel becomes a matter of plugging a plug into a socket: it's just electricity. So why is the socket where it is? It could be anywhere on the car, after all. And why does the whole set-up resemble 'the old way' so much: look at the jazzy 'fuel dispenser', look at the pipe, look at the nozzle: it is all designed to remind us of a gas station. That is anchoring innovation.

Figure 3: 'taking fuel' with an electric car[8]

As the researchers in OIKOS are establishing: this same principle is at work in all other domains of culture, and the phenomenon of innovation and its taking effect is a valuable object of study in its own right: different agents, different 'anchors', different ways in which societies conceptualize what is new, and how they see the roles of inventors and traditions. Any innovative society should care deeply about the contributions SSH scholars can make. It is somehow fitting that our Classics PhD students are now thinking about this problem of anchoring, starting from an important anchor of European culture itself, namely classical civilization; all this while our Classics undergraduates are anchoring innovation by using the newest technologies to keep Homer accessible to the 21st century.

Endnotes

1 See section 3.

2 see http://www.homermultitext.org/

3 http://chs.harvard.edu/wa/dImage?bdco=2086&bdc=12

4 Image with permission of the board. See: http://www.ru.nl/oikos/

5 For the sake of convenience I'm speaking about PhD *students* here. In fact, in the Netherlands the PhD is being pursued by junior researchers 'in training', who have a contract and are employees of the University. The PhD is a non-taught degree. However, since in practice additional training is clearly desirable, we have pooled our resources in OIKOS and the senior researchers take turns in offering courses and seminars to all PhD students in Classics (who are interested).

6 *Sociale Infrastructuur Agenda: Meer rendement met een stevig maatschappelijk fundament. De nationale Sociale Infrastructuur Agenda: onmisbaar voor een blijvend concurrerende kenniseconomie.* NWO, 2011. [www.nwo.nl/files.nsf/pages/NWOP_8PPHKU/$file/NWOSocialeInfrastructuurAgenda.pdf, accessed 28 March 2011].

7 http://upload.wikimedia.org/wikipedia/commons/d/d1/Palermo-Museo-Archeologico-bjs-05.jpg

8 http://images.zeit.de/auto/2010-09/rwe-ladestation-elektroauto/rwe-ladestation-elektroauto-540×304.jpg

Training and Education in the Social Sciences and Humanities

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A reinforced support is needed in Europe to promote and initiate innovation in teaching and learning. This is true for all the sciences, as it is true for the Arts and Humanities, which define and shape our culture and civilization, and the Social Sciences, which help us understand who we are, how we interact with one another and the societies we live in. These disciplines require special attention given that they continue to attract the largest share of student enrolments in undergraduate education across the EU. According to Eurostat, in 2010 over one third of students in EU-27 (34.0%) were studying social sciences, business or law. Adding 12.2% of students enrolled in arts and humanities, students in these disciplines make almost half of the entire student population (46.2%) in the EU.

There is emerging understanding across Europe that quality of teaching and learning needs to be at the core of higher education reforms and that policy and financial support needs to be yielded to this task. Massification of student enrolments has dramatically changed and made teaching and learning more difficult as these were initially designed to cater for smaller number of students. The technological advancement too poses new demands on graduates' skills and competences, and at the same time opens opportunities for new venues and methods of teaching and learning. The fast paced developments in research across disciplines – due to international collaboration and competition and availability of research funding – demand to keep teaching and learning abreast with new research methods and findings. Finally, the masses of students who pass through our lecture halls are not only our future engineers, teachers, nurses, politicians, but also citizens of our societies. Higher education is the last chance to collectively address them, pass on knowledge and help them develop competences for life in democratic societies.

I have two recommendations regarding training and education in the Social Sciences and Humanities with regards to Horizon 2020. First, *teaching and learning dimension needs to be integrated into Horizon2020*. The research projects funded through Horizon2020 should clearly demonstrate their link to teaching and learning in a similar way as they are requested to show the modes of dissemination of results. Inserting this requirement into Horizon 2020 calls for proposals is a simple step which does not require additional expenditure, but can potentially have significant impact on teaching and learning in Europe. Such requirement would boost the efforts of the ERASMUS+ Programme and further initiatives that may arise from the recommendations of the EU high-level group on the modernisation of higher education, in the *Report to the European Commission on Improving the Quality of Teaching and Learning in Europe's Higher Education Institutions,*[1] and from the position paper of the European Science Foundation's Standing Committee for the Social Sciences on *The Professionalisation of Academics as Teachers in Higher Education*.[2]

One of the most straightforward ways to establish a link between research projects and teaching and learning is through involving students – including undergraduate students - in research. Ample studies on students' study success show that students learn best when learning is active: when they work on real-world issues, solving real-world problems, when they are directly involved in processes of inquiry, discovery, investigation, and interpretation. Another possible link between research projects and teaching are through course development or joint study programme as a spin-off from the research project. Interdisciplinary research projects may open up opportunities for interdisciplinary teaching.

Second, interdisciplinary curricula (or at least some parts of curricula that are interdisciplinary) at undergraduate level and continuing onto postgraduate level provide optimal training for researchers and also those that leave academia. In addition, universities need to find ways to capitalise on the cross-disciplinary interactions between members of the academic community as well as outsiders which happen automatically within a vibrant intellectual life at any university. They need to create appropriate "spaces" to cultivate such interactions and ways to incentivise students and researcher to explore possible collaborative work.

Finally, civic education, which is nurtured in the Social Sciences and Humanities, but needs to be diffused across the entire university. Civic education is complex: it can contain everything from developing understanding of issues of public concern, and of our own rights and responsibilities as citizens in our local communities, our regions, our countries, and as global citizens. Civic education is more than just the capacity to analyse public problems and have knowledge of civic affairs. It creates space for students to reflect on their own values and beliefs and those of others. It challenges them to deliberate on the ethical consequences of their own and others' words and actions, and those that come with economic and technological development, with entrepreneurship and invention. Civic education can help students develop the competence to take action on matters of public concern. And it may raise their willingness to act. In other words, civic education fosters the reflexive capacity in students that is vital for their life as active and engaged citizens in democratic societies.

Simply adding civic education courses into curricula across disciplines is not the way to do it. Such courses are often resented and/or ridiculed by students. Possible scenarios point to interdisciplinary collaboration in teaching and to professionalisation of academics as teachers. The compartmentalisation of research interests of the professoriate needs to be overcome. Academics' need support to develop their courses and innovate with purposefully integrating civic education, interdisciplinary teaching and/or making direct links to their research. They also need resources and time to develop and innovate in new methods of teaching and learning, including exploring the added value of information and communication technologies. And, of course, basic and applied research addressing the questions of modernising teaching and learning should be among topics supported within the policy aim "Societal Challenges" within Horizon 2020.

Endnotes

1 http://ec.europa.eu/education/higher-education/doc/modernisation_en.pdf

2 http://www.esf.org/publications/science-position-papers.html

Advancing PhD Training

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Doctoral education and research are key elements in the advancement of our disciplines. Doctoral training not only prepares the next generation of scholars but also advances knowledge through original research. But undergraduate studies and most Master programs leave doctoral students largely unprepared for doctoral research. I argue that we need a substantial change in the way we think of, organizing and institutionalizing doctoral training. The role model is that of a (good) US graduate school but involves many other things, e.g. mobility of doctoral researchers, better recognition of doctoral training as "training for research" in funding initiatives etc. I then proceed to the issue of methods education. The past decades have seen tremendous advancements in the development of new methods of data generation and analysis. I argue that methods training in many fields of the SSH lags behind and that we need new initiatives for the advancement of curricula at all level of university education in order to fully exploit this potential.

In this comment, I confine myself to graduate training, more specifically PhD training in SSH, an area where much has been achieved over the past two decades but still much has to be done. As a starting point, I will look at what is now known as best practice principles of doctoral training and education in Europe. I will then argue that in my opinion, two conditions will be essential to attain the objective of training the next generation of frontier researchers. First, an understanding of doctoral training as genuine tertiary education and not an add-on, secondly, a focus on structured doctoral training in strong research environments rather than in any place. Finally, I will address one substantial issue, methods training, which is becoming more and more a key qualification in many fields in the Social Sciences and Humanities.

Let me start with PhD education. Doctoral education and research are key elements in the advancement of our disciplines. Doctoral training not only prepares the next generation of scholars but also advances knowledge through original research. However, today undergraduate studies and most Master programs leave doctoral students largely unprepared for doctoral research. I argue that we need a substantial change in the way we think of, organize and institutionalize but ultimately also fund doctoral training. To prepare the ground, let us have a look at what we think of as "best practice principles" of doctoral training. In the mapping exercise on doctoral training in Europe "Towards a common approach" of 2011, the ERA Steering Group on Human Resources and Mobility has listed the following principles:

1. Research excellence;
2. Attractive institutional environment;
3. Interdisciplinary research options;
4. Exposure to industry and other relevant employment sectors;
5. International networking;
6. Transferable skills training;
7. Process oriented quality assurance.

These principles are hardly disputable. They provide a roadmap, not a description of the actual state of the art. While there are many promising initiatives in the aftermath of the Salzburg principles of 2005, there is still a long way to go, however, and my humble feeling is that, often, we focus too much on the wrong or at least less relevant dimensions. All the above seven principles refer to means of doctoral training: what structures to establish, what skills to teach. It is only the first principle that establishes both a mean and an end. "Striving for excellent research", the Report of Mapping Exercise states, "is fundamental to all doctoral education and from this all other elements flow". Research excellence here refers to two things, excellence of *doctoral research* and the excellence of the *research environment*. We should not lose sight of this, the first and most fundamental of these principles. To attain excellence in doctoral research, we need an understanding of doctoral training as genuine education and not an add-on. Secondly, we need more focus on structured doctoral training in strong research environments and not just in any place. What do I mean with that?

Let me emphasize that this is nothing than my personal view. Though I have been teaching, supervising and mentoring PhD students in the US and a number of European countries, my view is partial and incomplete. And it is biased. I am Dean of a Graduate school funded by the German Excellence Initiative. So my remarks may be born out of a specific German context. Yet, talking to colleagues, I feel that these issues arise in many places if not everywhere. I shall also stress that I am a researcher not a higher education expert. I talk about my field and there, training is above all training for academic research. Just to be clear about that, in my field, industry-university cooperations, professional and industrial PhDs are of less importance.

1. We Need an Understanding of Doctoral Training as a Period of Genuine Training and Learning

The ERA report states that the "core component of doctoral training is the advancement of knowledge through original research" (ERA SGHRM). This is a broad statement and I would emphasize that, ideally, doctoral research does not simply advance knowledge but it pushes the boundaries of the research frontier. We deal with the next generation of young academics, researchers that are creative, critical and intellectual risk takers, who think and work on the research frontier. Certainly, not all PhD students, even those in the best programs, will ever reach that frontier: and even less will finally succeed, at this stage or thereafter, to push the boundaries of their research field. But I hardly know anyone in my field who had a bad or essentially no doctoral training and became a leading figure in his field afterwards.

Yet, undergraduate studies and most Master programs leave doctoral students largely unprepared for this type of doctoral research. In order to get to a point where PhD students, when they finish their PhD or thereafter, do not merely advance knowledge but push frontiers, they and we have to invest much more time and resources than what we currently do and offer in most Master and doctoral programs. When doctoral students begin with their studies they are, first of all, students, not researchers. They need to acquire substantial and methodological knowledge and skills, things they

haven't learned in their Masters because most programs usually have a larger target audience.

To be more explicit, I think of doctoral training as a sequence of a substantial – and I really mean substantial – course work and independent (yet guided) doctoral research. The role model is that of a (good) US graduate school. In some places, this has been achieved or comes close to it, in other places, doctoral training is more an add-on to what is considered to be the core of the PhD, namely writing a dissertation. To be sure, transferable skills and exposure to the methods and culture of other disciplines are important. In the end, those skills will foster breadth and creativity regardless of being used in either a business or an academic context. Research stays abroad provide opportunities for international networking which foster not only the mobility of ideas but also a social skill – "networking" – which is essential in science as a social system. Yet, the primary role of doctoral education has to be to train the next generation, not individuals that have exactly those skills and know those methods they need for their dissertation in a tiny subfield. We need new academics with a broader horizon and a broad training to push the boundaries.

To what extent is this important for research funding in SSH? If the above is correct, it has two implications: first, we should acknowledge that most of our programs are designed bottom-up rather than afresh. They seem to add this and that requirement, a methods course, a cross-disciplinary bridge course, or a PhD-cotutelle program to pre-existing structures of doctoral training rather than follow a master plan. The variety of doctoral education systems across Europe largely reflects path-dependencies not careful institutional design. Path-dependency is a good explanation but most often a bad justification. And I should also stress that this does not reflect on-going competition between university systems. Second, to the extent that these systems produce highly trained but still not competitive (say, with US school's) young researchers, one might even argue that we waste resources: in many fields in SSH, the job market is almost exclusively an academic job market. If a large portion of PhD students do not enter the academic job market, many of them will be highly over- (and/or mis-) qualified for the jobs they are actually doing. This is a waste of resources. This brings me to the second point I want to make.

2. We Need More Focus on Structured Doctoral Training in Strong Research Environments

To be clear here, I fully endorse the above principles for doctoral training. Yet, if what I have argued above is correct then gradually raising the quality of doctoral programs in all places, in all academic institutions, will not bring European SSH to the top. Given limited resources there is certainly a trade-off between quantity and quality. But also, there is a limit in human resources. Not all universities can be top in any field they cover. In order to get at the top, one has to bundle resources, bring the best talented individuals together, sometimes virtually, sometimes physically, to produce research at the highest level. My impression as a researcher who knows funding initiatives as a consumer, not a designer, is that this works much better for "research" than doctoral training. In research, there are many initiatives both at the national and the EU level

to foster this type of research in networks and clusters, either in one place, or, more often, across many places. From my perspective, these principles have not fully been recognized and acknowledged in the field of doctoral training. We fund too much at too many places rather than spot and focus at specific programs, schools or networks that have the highest potential in a particular field.

This is, of course, not just a matter of an "institutional structure" but also almost inevitably a matter of the research environment such a doctoral program or school is embedded in. We can think of many places that produce research at the highest level but no decent PhD students. On the other hand, I hardly know a graduate school (in my field) that would have produced any of these excellent young scholars we are looking for but that is not backed by an excellent research environment. Excellent doctoral training needs both, excellent institutional settings and excellent researchers. Why do I emphasize this? The point is that while the two must go together, it may be difficult to fund both together. In many funding programs, research consortia will get funding for PhD students – whether or not these students then receive the best conceivable PhD training comes second. The ERC programme funds curiosity-driven research of "individual teams", a PI plus postdocs and PhD students – whether the home institution of that researcher provides PhD training according to best practices is not decisive.

Let me move to the issue of methods education as one of the areas in SSH, that is so essential to the training of the next generation of young scholars in many fields. It is one example to show and argue that PhD training has to be substantial and to go beyond the acquisition of tailor-made qualifications in a narrow subfield.

The Social Sciences and a large part of the Humanities are empirical sciences, ideally combining rigorous theorizing and broad empirical evidence in the pursuit to generate a deep and general understanding of social processes. The past three to four decades have seen tremendous advancements in the development of new methods of data generation and analysis. New ways of data collection and new types of data, "big data", is an important issue, also to the Humanities, as they have the potential to or, at least, make the promise that we can answer open questions, and raise new, hitherto unthinkable ones. Apart from these more visible and (publicly) noticeable developments in data availability, there are huge advancements in the development of empirical research methods, both quantitative and qualitative. What is striking here is that in many Social Sciences and Humanities, a large part of the scholarly discussion and literature centers around improving the understanding of an issue using the same theories and the same data but very different empirical methods.

Just to briefly mention two examples, the turn from what is called cross-sectional to cross-sectional times series or panel designs in the 1980s as well as the invention of multi-level modelling in statistics and its spreading out in SSH in the 1990s have deeply changed our understanding of many social processes. In many fields, these new, more general rather than different frameworks have put into question of what previously has been thought of as established wisdom. At other places, they allowed to answer and even to think of and ask new questions. Big data is another issue, much of what I just said, also applies here. So I leave it with that. SSH lack methods training in many fields and we need new initiatives for the advancement of curricula at all levels of university

education in order to fully unfold these potentials. Methods training is time-consuming. It is doctoral training programs that should provide for that.

To sum up here, I am probably just impatient. I can fully agree with the best practice principles laid out in the Steering Group's mapping exercise. I can see the progress that has been made in many places: progress in both doctoral training in general and also the advancement of methods education which I argued is – and will be even more so – a key field of qualification (and a transferable skill) in doctoral training. But I am skeptical that we achieve the goal of "training the next generation of frontier researchers" when we are vague when it comes to defining what excellence in research means, what doctoral training is about, what minimal standards are, how we establish and implement quality assurance procedures. We need to acknowledge that top research is fundamentally dependent on training PhD students, students that receive extensive substantial and methodological training backed in excellent research environment.

4.3

Engaging in Impact and Evaluation

Doing Research and Evaluation. A Plea for a Qualitative Approach to Academic Excellence

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Nowadays, researchers are subject to a regime of evaluation, which reflects a change from statist toward entrepreneurial modes of academic governance. While academic decision-making is expected to recognise quality and performance, the standards and criteria according to which research is assessed are subject to controversy (Slaughter and Leslie 1997; Münch 2011).

Yet, there is no one way of doing research and that evaluation needs to account for the many different practices which constitute what we call research. While the evaluation of academic excellence is sometimes equated with abstract numeric representations of research performance (think of the ISI citation indices, the Shanghai rankings, research assessment exercises etc.), it is also something researchers do and achieve in their everyday academic life.

This is why we need qualitative evaluation, which reflects on the very practices that it claims to evaluate. For qualitative evaluation, research quality is the product of complex social dynamics in which research quality is constructed by researchers as classifying experts in their specific settings. Yet qualitative evaluation comes with a price – the time and resources good evaluation needs. If decision-makers want to have a durable and long-term impact in the scientific communities, they need to go to considerable lengths in order to understand what drives researchers in their struggles over academic excellence.

What is Evaluation?

Generally speaking, we can speak of evaluation when researchers are classified in terms of quality, success or achievement, individually or collectively. Evaluation can be done before research takes place, e.g. for research projects or in the German excellence initiative, or after research has taken place, e.g. in job recruitments or the UK research assessment exercises. Evaluation is often understood as a more or less formal, systematic and transparent ranking procedure. In this sense, evaluation is part and parcel of decision-making arrangements through which positions are filled and resources are distributed.

Yet we can also see evaluation as something that researchers do in their everyday academic life (Latour 1987; Camic, Lamont and Gross 2011; Bourdieu 1988), when they communicate with each other through publications or talk at conferences for instance (Flowerdew 2001; Hyland 2009, Angermuller 2013a). As a result of these on-going discursive practices, some researchers come to be perceived as especially important over time. Let's think of "great classics" such as the Newtons and Kants, the Keynes and Bourdieus, who have become renowned figures in their scientific communities. We can

also think of the many subtle distinctions drawn among the peers of a community, some of which come to be considered to be more important, central, legitimate than others. These perceptions are the more or less unintended products of classifying processes in large academic populations. Unlike formal evaluation procedures in institutions, these practices generally do not follow any given recipe or replicable standard; they do not follow explicit and transparent rules and procedures; they are not coordinated by any decision-making instance; they do not lead to unambiguous, numeric results that can be easily used for decision making. While institutional evaluation usually tries to assess research on the basis of common standards, everyday academic classifications testify to a great deal of heterogeneity with which researchers need to cope practically in their social lives.

Research and Evaluation as Classifying Practices

As practices through which researchers are classified, everyday research and institutional evaluation do not necessarily follow the same logics even though both can have far-reaching consequences for the careers pursued by researchers. Everyday classifying practices have engendered a few canonical representatives within global scientific communities. Yet while strong symbolic hierarchies often separate the "classics" of the field from the rest, the living peers of a community often cannot be assessed in such a clear-cut way. The distinctions researchers produce of and among themselves are indexed on the specific web of relationships in which they try to carve out their niche. As members of certain scientific communities, they therefore do not always deal with each other in terms of higher-lower distinctions. They are usually more obsessed with questions of relevance, presence and legitimacy, which are highly indexical of their specific fields and domains.

Institutional evaluation, by contrast, categorises researchers within institutions or organisational units for decision-making purposes (Clark 1983; Musselin 2005). Institutional decision-making points to more or less formal procedures of selecting researchers for hierarchical positions in the higher education system and its institutions, most importantly through job recruitments but also through a wealth of other decision-making practices which distribute coveted resources among the researchers such as status (such as institutional job security), money (e.g. for research projects), time (vis-à-vis other activities such as teaching), help (assistants), rights (e.g. the participation in panels and the direction of research units). Decision-making is an integral part of research since researchers need not only to become legitimate members of specialised scientific communities (through "spontaneous" classifications) but they also need to be placed in institutional status hierarchies (through formal selection procedures). Thus academic research careers can hardly succeed without researchers getting involved in both worlds of specialised knowledge and organised power at the same time.

"Spontaneous" classifications of everyday research and the institutional classifications in institutions mutually support each other. The researcher usually needs a symbolic place in the scientific communities to be recruited in a higher education institution. At the same time, she or he needs some sort of institutional place to gain attention in the scientific community. Researchers failing in one or the other world are likely to be

perceived as deficient, i.e. as a "mere" manager without recognition in the community or as a "mere" man of letters without institutional backing. Both the symbolic and the institutional classifications are inextricably interlinked as the former would be fuzzy and ambivalent without the latter whereas the latter would turn out artificial and arbitrary without the former. No researcher can avoid participating in this positioning game in which researchers are involved in from the very beginning – the doctoral student who aims at getting formal recognition through his PhD dissertation as well as the established professor who needs to prove his presence in the field through his publications. In the world of research, therefore, there can be no specialised knowledge production without organised power just as well as there can be no institutional decision-making without specialised knowledge. In this sense research can be considered as a discursive practice dealing with different, even contradictory social logics in the world of specialised knowledge and of organised power (Angermuller 2013b).

As a formal classifying practice, evaluation is part and parcel of what research is about. Indeed, it would be a mistake to abstract the practice of research from what researchers achieve socially. Research is not only about abstract ideas and theories but also about how researchers relate to each other. Research is indeed driven by researchers whose fundamental challenge is to be and exist for and with others in the worlds of knowledge and power, e.g. as somebody with a certain recognised expertise (an archaeologist of the late Roman period, a sociologist of early childhood or a philosopher with a background in the Frankfurt School of Critical Theory) or as somebody with a certain place in academic networks (a disciple of X or a collaborator of Y, as well connected with this journal and distant from that school), as somebody with a certain role in higher education institutions (as a teacher of an undergraduate class in early modern history and a member of the scientific council of a research organisation, with a high or low status), as well as somebody who acts in a number of non-academic contexts (such as a spouse in the family, an expert in the media or a councillor in politics). And with all these activities going on at the same time over their entire biographies the researchers need to prove their practical "excellence" as researchers by achieving a certain coherence in the way they are placed and positioned in the social world of research.

From the point of view of the researchers, academic excellence, therefore, can be considered as the success in achieving one's symbolic-institutional place vis-à-vis others. It is the implicit or explicit social struggles about how researchers are classed as unique and coherent somebodies that pushes them to elaborate ever new ideas and that gives certain ideas their value as more "interesting", "scientific" or "excellent" than others. This is what drives researchers in their everyday academic life. This is why they invest time and energy in certain problems and questions but not in others. This is what makes them value certain colleagues more than others. This is why certain researchers are considered to be more successful than others.

The Positioning Imperative in Everyday Academic Life: the DISCONEX Project

How can we account for academic excellence as the unintended effect of the practices among many researchers? We need to go down to the ground level of academic everyday life, take the perspectives of researchers and have a look at the real academic practices, which is what we do in our DISCONEX project (The Discursive Construction of Academic Excellence. Classifying Researchers in Text-Processing Practices, 2013-2018, Warwick/EHESS). In this discourse analytical project, we investigate how researchers succeed in finding their institutional and non-institutional positions through the classifying practices of academic discourse, such as publishing articles and books, exchanging with people at conferences, participating in committees, writing reports and reviews for journals and research organizations, setting up research networks, supervising students' research activities, applying for funding and projects.

The question is why the researchers engage in all these frenzied activities most of which do not seem to pay off, at least not in a direct economic sense. Indeed, researchers do not always calculate; rather, they are practical experts in building up and defending their symbolic-institutional subject position in academic discourse (see Meyer 1980). This is why professors spend their weekends on writing reports and reviews for this journal or that research organisation, why postdocs are willing to teach for little or even no money at all. It is the promise to be paid back in reputation or to get an institutional label that pushes them to do all these things against their economic interests. While they cope with their "daily flow of craziness", researchers try to carve out and consolidate their place among countless other researchers who already have their place in their local departments, in their national peer networks and in the global communities. Indeed, for the researchers there is no more existential pressure than to build up and improve their positions and thus to become somebody for others. And this is what makes them so active and creative as researchers.

Let me dissipate some misunderstandings that may emerge. If I say that research is driven by the positioning imperative, I am not saying that researchers are just involved in rhetorical games of labelling each other without caring about "real" research, such as exciting new ideas and scientific truths. On the contrary, researchers are in pursuit of real research and the positioning imperatives is precisely what makes them want to produce excellent research. Therefore the excellence of research is inextricably linked with the capacity of researchers to establish and improve their symbolic and institutional positions in academic discourse. That's why research is such a difficult practical task for which the researchers mobilise all their resources and their imagination. Academic excellence therefore is not so much about being faster, better or higher than others but about achieving more or less coherence in a messy world. Research is not like an athletic contest where somebody comes in first; it is more like a cooking jam session where you need to creatively improvise a tasty dish out of heterogeneous ingredients which happen to be at hand.

Indigenous Excellence and the Positioning Imperative

The problem researchers need to respond to is that there is no overarching rationality which they or evaluators can appeal to. Researchers are always busy dealing with conflicting norms and rationalities, which is why they are under considerable stress and see so many "illogical" behaviours happening. Nor is there justice in research. Only few manage to write their symbolic and institutional positions on the map of the scientific communities while many remain invisible. Nor are knowledge producers better suited than managers to run universities. Most researchers act in both roles anyway and both knowledge production and decision-making are an integral part of what the very practice of research is about.

It is the positioning imperative that makes research a social world through and through. It needs to be emphasised that the world of really existing research testifies to a great deal of inequality (the 10 canonical figures who everybody knows versus the many who are never cited at all), exploitation (everybody contributes to the positioning dynamics in research but only few attract broad visibility and recognition), injustice (extra-academic resources such as economic and cultural capital often make a crucial difference) and contingence (the same strategy may work in one case but not in the other).

Yet at the same time there is no more powerful guarantee for doing excellent research than the positioning imperative. It is the need to become somebody, to construct a coherent academic life against many different, even contradictory constraints in the various situations and at various points of their careers that obliges them to respect the models of academic excellence in their communities.

Today most of research funding still goes into fields which are not auto-regulated by the positioning imperative - and Horizon 2020 is no exception if one thinks of the very significant amounts of money given to do research for profit-driven enterprises (the parts of the budget called "innovation"). Equally significant amounts of money are given to research for policy-makers (such as most of the collaborative projects directly funded by the European Commission). There may be reasons to give out much money for product development, political consulting and social engineering. Governments may prefer fungible technicians and versatile administrators over professional researchers with their recognized expertise and creative capacity. Yet, one needs to be aware that the impact of the enormous resources spent on policy-driven research has been negligible in global scientific communities and that's why the status of this more applied type of knowledge remains fragile. In the long run, applied knowledge tend to be less legitimate than basic research because they are not maintained by the practice of researchers who need to realise an ever unique academic career.

The Researcher-Centred Culture of Excellence in the Social Sciences and Humanities

This is certainly not the place where I can account for disciplines outside the Social Sciences and Humanities. Nor can I account for the large variety of disciplinary cultures within the Social Sciences and Humanities. However, the positioning imperative is probably nowhere else as generally accepted as in the Social Sciences and Humanities. These disciplines testify to a specific culture of academic excellence, a culture which is centred on the researcher. Unlike scientific cultures characterised by laboratories or large experimental arrangements, the division of labour among researchers in the Social Sciences and Humanities is usually low. Conversely, their knowledge tends to be rather holistic and multi-dimensional as they need to set up and run through every aspect of their research projects whose problems tends to be defined and solved by one person.

We can cite a number of characteristic features which seem to testify to a culture of excellence in the sciences and humanities centred around the researcher as a person of knowledge: theoretical culture and intellectual breadth, authentic research projects pursued over very long periods, research activities which seamlessly tie in with many different facets of their everyday existence, the important role of teaching for the formation of critical and autonomous spirits.

What makes the Social Sciences and Humanities a model for all disciplines is the special emphasis on the excellence of *researchers* as singular, unique and autonomous knowledge creators with a sense for the many different dimensions of complex human problems. And that is what they can do best: to enable *real* people to develop their potentials and achieve their *unique* place with others. Research in the Social Sciences and Humanities is centred on researcher-oriented models of academic excellence. These disciplines are therefore highly instrumental as instigators of social innovations for they practice knowledge production as the production of knowledge producers.

From Researcher-Centred Excellence to Researcher-Centred Research Policy

Let me conclude with three policy recommendations which may apply to the Social Sciences and Humanities just as to many other research fields where excellence is based on the positioning imperative.

Researcher-Centred Excellence Needs People-Centred Funding

First, how can funding schemes contribute to academic excellence? To make a difference, they need to tie in with the long-term positioning practices in the communities. Funded research projects need to make sense for the large project of the researcher, which is to achieve a coherent academic career. Projects need to be designed in a way so that they can contribute to the researchers' long-term positioning strategies. Research projects can be detrimental to the making of excellent research if they force researchers into artificial interdisciplinary consortiums or if they require them to prove their impact in contexts which are not theirs. Excellent research needs people-centred actions such as those of Marie Curie.

Short-Term Funding has Little Impact on Global Communities

Second, how can research organizations leave lasting traces in global scientific communities? Considerable short-term money is spent on activities with little or no long-term effects on the communities. For the communities, short-term funding is soft currency, which will lead to many skilfully written research proposals but not necessarily to research activities which make a difference in the long term. If new research fields are to emerge, researchers need a market of lifetime positions. New communities are built on lifetime positions, which constitute the identity of a field and are the hard currency for researchers. There are many examples of fashionable new fields which immediately stop existing once short-term money goes elsewhere. Therefore, if research organisations want to increase their impact, they need to think of how to help create lifetime positions.

Good Evaluation Needs Resources for Real Experts

Third, decision-making is as complex, contradictory and important a practice as any other practice in the world of research. Decision-makers usually need to negotiate many different criteria and expectations which call for their practical sense. You may want to recruit somebody because you think she did good work in the past or because you think he will do good work in the future. You may want to privilege research proposals which respond to a demand within or without the scientific community, which require more or fewer participants. Numbers and indicators cannot solve such decision-making dilemmas. They may have even adverse effects if you think of applying journals' impact factors which systematically disqualify new but small communities. Evaluation is cheap but useless to the degree that it wants to represent academic excellence by isolated numbers. What is needed is good evaluation which can account for the coherence of the research project and the unique contribution of the researcher with her or his specific background. Since research is embedded in complex discursive practices, good evaluation needs considerable resources and time to understand where new places are being articulated and where positions are bubbling up which deserve funding.

The European Research Area as a Heterogeneous Institutional Space

As a multileveled and heterogeneous set of discursive practices, research needs an institutional space where academic standards and practices are in healthy competition. It would therefore be adverse to apply one single model of excellence to the whole area and to monopolise evaluation in few institutions in a top-down manner. The best strategy for European policy makers should be to strengthen bottom-up approaches. The European Research Council (ERC) has taken exceptional efforts in evaluating every research proposal individually by real experts from the communities. Unlike policy-driven programmes, the ERC has indeed made a real difference in the world of research and has become an example for many research organisations in the world.

Bibliography

Angermuller, Johannes (2013a): *Analyse du discours poststructuraliste. Les voix du sujet dans le langage chez Lacan, Althusser, Foucault, Derrida, Sollers,* Limoges: Lambert Lucas.

Angermuller, Johannes (2013b): "How to Become a Philosopher. Academic Discourse as a Multi-levelled Positioning Practice", *Sociología histórica* 3: 263-289.

Bourdieu, Pierre (1988): *Homo Academicus*. Cambridge: Polity Press.

Camic, Charles, Michèle Lamont and Neil Gross (eds.) (2011): *Social Knowledge in the Making*. Chicago: University of Chicago Press.

Clark, Burton R. (1983): *The Higher Education System: Academic Organization in Cross-National Perspective*. Berkeley: University of California Press.

Flowerdew, John (ed.) (2001): *Academic Discourse*. Harlow: Pearson.

Hyland, Ken (2009): *Academic Discourse: English in a Global Context*. London, New York: Continuum.

Latour, Bruno (1987): *Science in Action*. Milton Keynes: Open University Press.

Meyer, John W. (1980): "The Effects of Education as an Institution." *American Journal of Sociology* 83: 55-77.

Münch, Richard (2011): *Akademischer Kapitalismus. Über die politische Ökonomie der Hochschulreform*. Frankfurt am Main: Suhrkamp.

Musselin, Christine (2005): *Le marché des universitaires. France, Allemagne, Etats-Unis*. Paris: Sciences Po.

Slaughter, Sheila and Larry L. Leslie (1997): *Academic Capitalism. Politics, Policies, and the Entrepreneurial University*. Baltimore, London: The Johns Hopkins University Press.

5.

CONFERENCE SESSION REPORTS

5.1

Health, Demographic Change and Well-Being

Health, Demographic Change and Well-Being

Chair:	Danguolė Jankauskienė, Mykolas Romeris University, Lithuania
Rapporteur:	Wim van den Doel, Leiden University, Netherlands
Statement:	Wolfgang Lutz, Wittgenstein Centre for Demography and Global Human Capital, Austria
Statement:	Illina Singh, Kings College London, United Kingdom
Statement:	Line Matthiessen, European Commission, Belgium

Challenges to global health and well-being (including mental health) present significant economic, societal and ethical burdens in the early part of the 21st century. In fact, they are associated with dramatic demographic shifts occurring as a result of political conflict, migration, technological innovation, population ageing, and other factors. The Social Sciences and Humanities (SSH) disciplines harness, develop and innovate key theoretical and methodological approaches to develop solutions to these challenges that can be translated efficiently into applications for the benefit of society. As the final negotiations on Horizon 2020 continued, this session brought together experts from a broad spectrum of health and demographic research areas to discuss how to integrate the Social Sciences and Humanities into the Horizon 2020. Speakers presented interdisciplinary approaches, models and paradigms to address concrete problems in the Health, Demographic Change and Well-being pillar. Some questions that were raised: how can efficient and productive cross-fertilisation of disciplinary expertise be accomplished in concrete work programmes? How will an emphasis on personalisation in health and healthcare interact with public health principles of equity, justice and the public good, and the new economic focus on 'big data'? How can question-driven interdisciplinarity approach specific problems, such as children's moral and behavioural development or students' use of cognitive enhancers? Can we speak of a specific SSH-driven interdisciplinarity? What kinds of research and research collaborations are necessary to capture the global dimensions of demographic change in a way that appropriately respects and describes the experiences of individuals and families in their local contexts?

Horizon 2020: A Bold New Vision of Research in Health, Demographic Change and Well-being?

During the conference, the Commissioner of Research and Innovation Geoghegan-Quinn declared that the Social Sciences and Humanities are more essential than ever. Under Horizon 2020, the commitment to SSH is renewed and strengthened. The EU has supported the Social Sciences and Humanities for two decades, since the Fourth Framework Programme in 1994; however, Geoghegan-Quinn declared: **"We will, however, do things differently now.** <…> The increasing importance, indeed the necessity of the Social Sciences and Humanities, has spurred us on to create **a bold, new vision** for them at European level." SSH will not longer be an "add on", but will be **"anchored at the heart** of Horizon 2020." There will be a **twin opportunity** for the

Social Sciences and Humanities: "First, new areas of research throughout the whole programme thanks to **embedding**; and second, greater scope for riskier, top class research through the **European Research Council**". "Embedding" means that the Social Sciences and Humanities can make their contribution where they are most needed. It means that they can provide the necessary knowledge and understanding to tackle all societal challenges. The Commissioner stated that embedding SSH across the entire Horizon 2020 programme means that "the social, political and human aspects are not forgotten alongside the technological aspects."

At the session Health, Demographic change and Well-being the question was asked if the SSH research community can be satisfied with the state of affairs with in the Health domain, given the policy statement of the Commissioner.

The following conclusions were reached regarding the context and implementation of integration of SSH:

1. Before speaking to the European Commission, the SSH community urgently has to address national governments and national funding agencies. These governments and funding agencies have to change their policies before matters can change on the European level. Embedding SSH within research programmes on Health, Demographic Change and Wellbeing should be accompanied by both innovative JPI's[1] and the use of structural funds from the EU. It is vitally important to create a European Research Area (ERA) for SSH research. The state of affairs with regard to the ERA is disappointing at best, without effective or innovative JPIs.
2. While embedding of SSH research in health research is necessary, we have to realise that interdisciplinary research is difficult and takes time before becoming successful. Funding agencies have to realise this and change their funding policies in order to support successful interdisciplinary research. The implementation of ERC Synergy Grants might be a good instrument in this respect and could serve as inspirational example for other EU funding instruments and national funding schemes.
3. Stimulation of question-driven interdisciplinary research, with SSH embedded or in the lead, requires good examples.
4. More truly interdisciplinary meetings are necessary in order to develop new research questions and a new research agenda. At Vilnius, the SSH-community was speaking to like-minded scholars; the next step should be meetings with representatives of other disciplines. We need space to imagine beyond the disciplines in order to create cutting edge projects on health and wellbeing; such topics might include the role of the arts in wellbeing; the changing role of the family in ageing populations; and other topics. In order to make SSH-researchers equal partners we need to organize carefully prepared meetings with other researchers. But remember: scientists and scholars can be conservative! So this effort will not be an easy one.
5. To illustrate the reach and importance of SSH, large horizontal research themes might be erected around the SSH pillars. Demographic change could be one such theme, as it influences many societal problems and opportunities, beyond those related to health.

6. The draft work programme on Health, Demographic Change and Well-being of Horizon 2020 does not meet the ambitions of the Commissioner: topics seem to be numerous, the societal challenge is approached in a very fragmented way without much room for SSH researchers. At present, Horizon 2020 does not look like a new programme; it looks much like the FP7 Programme. Here the national representatives have a large share of the responsibility in influencing the work programmes, so that these can reflect **the bold, new vision** for SSH research, which has been elaborated by the Commissioner at European level.
7. National governments and national funding agencies control a much larger research budget than the European Commission. The SSH Community has to engage with these national players in order to change the state of affairs. The establishment of the ERA with effective and innovative JPIs is absolutely necessary.

Integrating SSH within the Horizon 2020 Health, Demographic Change and Well-Being Challenge:

1. SSH integration is more than foresight policy research; it should enable both qualitative and quantitative interventions into policy and society.
2. SSH work in this pillar should over time demonstrate that a deep understanding of 'environment' in research on health and wellbeing is necessary to ensure positive health and wellbeing outcomes, and ethical research and policy agendas. It should furthermore show that demographic change lies at the foundation of many socio-economic and cultural changes.
3. SSH research in this pillar should take seriously the 'lifespan' approach embedded in this pillar by organising calls around key health and wellbeing issues for specific age groups or cohorts. These could be around specific health concerns, such as suicide, mental health and education; or around transition points in the life course; e.g. adolescence, parenthood, retirement, grandparenting, etc.
4. SSH research in this pillar should take seriously the global dimensions of demographic change, health and wellbeing specified in the Horizon 2020 text by organising calls that inspire cross-cultural and comparative research on relevant topics, including equity, justice, access to health and treatments, education, etc.
5. SSH research in this pillar should draw out the concept of 'wellbeing' so that it can be given more distinctive weight and definition; and also to allow it to be distinct from 'health.'
6. Leaders of SSH integration in Horizon 2020 should consider creating a sustained series of events that bring social scientists and life scientists and health researchers together to brainstorm integrated research projects around the major themes in this pillar.
7. Leaders of SSH integration in Horizon 2020 should discuss with scientific leaders how to ensure that interdisciplinary work among early career scholars is rewarded within disciplines.

8. Leaders of SSH integration in Horizon 2020 should create ways to build more robust interactions among social scientists from different disciplines; and between social scientists and humanities scholars.

Endnotes

1 The joint programming concept was introduced by the European Commission in July 2008 to support implementation of the European Research Area. The objective of joint programming is to 'increase the value of relevant nationaland EU R&D funding by concerted and joint planning, implementation and evaluation of national research programmes'.

2 http://www.scienceeurope.org/uploads/Public%20documents%20and%20speeches/SCs%20public%20docs/SE_broch_HUM_fin_web_LR.pdf

5.2

Food Security, Sustainable Agriculture, and Forestry, Marine and Maritime and Inland Water Research and the Bioeconomy

Food Security, Sustainable Agriculture, and Forestry, Marine and Maritime and Inland Water Research and the Bioeconomy

Chair: Poul Holm, Trinity College Dublin, Ireland
Rapporteur: Lotte Holm, Copenhagen University, Denmark
Statement: Robert Emmett, University of Munich, Germany
Statement: Mauro Agnoletti, University of Florence, Italy
Statement: Antonio Di Gulio, European Commission, Belgium

The objective of this research challenge is to make the best of our biological resources in a sustainable way. The aim is to help secure sufficient supplies of safe and high quality food and other bio-based products, by developing productive and resource-efficient primary production systems and fostering related ecosystem services alongside competitive and low carbon supply chains. This will accelerate the transition to a sustainable European bioeconomy.

The session discussed the possible role of SSH in relation to this challenge. Two presentations of SSH perspectives on the challenge offered starting points for discussion; one focused on the interdependence of food culture and consumption and the other on landscapes that are formed by food systems.

Robert Emmett in a short presentation argued that the complexity of negotiating cultural differences is a vital dimension of addressing food security. Food is also an area of social conflict and controversy related to new technologies, new production systems, and new regulatory systems. The Social Science research on values and food consumption decisions as well as historical and cultural analysis of food systems from a global perspective shows divergence in what different actors find to be necessary, rational, desirable, or problematic in the food sector. Food marketing boards, national governments, large-scale versus small-scale producers, and consumers in different regions may not want the same things from a food system. A dramatic illustration of such contrasts is, on the one side the newly launched test-tube hamburger, representing techno-scientific utopianism, and on the other, the Slow Food and local food movements, representing cultural nostalgia. SSH researchers from various disciplines show that these contrasting views are not so starkly divided, but emerge from shared historical conditions of vulnerability. SSH can contribute with understanding of consumers' and other actors' views and practices related to food, and act as public scholarship: by intervening through social media, innovative social movements, and education systems, they can help translate findings into stories we live by.

Mauro Agnoletti argued that cultural values are a crucial component of the capital on which sustainable development is founded. They produce an added value incorporating diversity and historical identity as a competitiveness factor and for the quality of life. Therefore, the construction of "competitive identities" in rural areas by making the most of the relationship between traditional farming, typical products and

tourism, are challenges we need to take up. The management of the natural resources in the rural territory need to consider the historical interaction between human beings and nature. How will renewable energies impact the landscapes? There is a need for a bio-cultural diversity approach considering the landscape level, compared to nature conservation strategies based only species and their natural habitats. This calls on research to consider the integration of nature and culture in the assessment of biodiversity and the active role of farmers.

Antonio Di Giulio (Acting Director, Biotechnologies, European Commission) updated session participants about the status of the Horizon 2020 framework and underlined that the research is expected to contribute to solutions needed to societal challenges. Interdisciplinary research is needed, from supplier to consumer – from farm to fork. Wider areas must be included as well: how does the financial crisis influence our eating habits? SSH has already provided important research insights across different domains, and the need to continue this will be acknowledged.

The Commission is dedicated to finding new ways of stimulating change through technologies: how can we decarbonize our economies? Which changes in the ways we produce and consume are necessary? Which new business models and regulatory frameworks are necessary? It is an aim to gain a better understanding of the complexities of how food security, sustainable agriculture, marine and maritime research and the bio-economy are interconnected. It is also an aim to create the basis for social understanding and acceptance of new solutions, and to create a mature, well informed and participative citizen that becomes a social innovation actor.

In the discussion, the following issues were highlighted:

Regarding the societal challenges related to the food area, SSH can contribute with research addressing the following issues:

- Who are the important actors when initiating change in order to tackle societal challenges? What are their current practices, and why do specific actors do as they do? Which innovative processes are already taking place in agriculture, fisheries, food distribution etc., and in which directions do they point? It is important to base new policies on firm knowledge of understandings, perspectives and practices of different kinds of actors, consumers, citizens, producers, retailers, administrators and policy makers alike – not only with respect to agriculture and food products, but also with respect to forestry and the marine resources.
- How can the changes necessary for tackling societal challenges come about? How are social and cultural changes or changes in regulatory systems and institutions initiated? How could technological solutions be embedded effectively in social frameworks?
- Which kind of changes and new aims are legitimate and acceptable to the wider population and to specific actors? How can citizens and actors take part in the development of such aims? How can contrasting views and perspectives be negotiated and communicated in a fruitful manner?

With regard to the Horizon 2020 framework, the following were underlined:

- SSH researchers are eager to contribute to the formulation of calls and research topics, and to participate in evaluation processes, program committees, expert advisory panels, etc.
- SSH researchers highlight the importance of working with other disciplines in order to tackle societal challenges. Challenges are not uni-dimensional and will be addressed more adequately when social and cultural dimensions of technological and regulatory solutions are engaged from the outset.
- SSH researchers urge that actors in the food sector are not only seen as independent individuals, be it as homo economicus or individuals driven only by cognition. Cognition and economic rationality – or irrationality – is linked to the social and cultural world.
- SSH researchers therefore underline the importance of opening up for the whole spectrum of SSH methods, qualitative as well as quantitative, and warn against tempting ideas that new methods and progress within specific sub-disciplines will 'solve everything'. Rather, there is a need to develop innovative ways to combine different methods and perspectives.
- Spaces – synthesis centers, interdisciplinary institutes – are needed for researchers from different disciplines to go through collective learning processes where ways of synthesizing different approaches can be developed.
- SSH researchers encourage that calls for research are made in an open manner, without ex- or implicitly requiring specific research models.

5.3

Secure, Clean and Efficient Energy

Secure, Clean and Efficient Energy

Chair: Manfred Horvat, Technical University Vienna, Austria
Rapporteur: Andrea Ricci, Institute of Studies for the Integration of Systems, Italy
Statement: Kathryn Janda, University of Oxford, United Kingdom
Statement: Torbjorn Digernes, Norwegian University of Science and Technology, Norway
Statement: Gilles Lequeux, European Commission, Belgium
Session Report: Andrea Ricci, Katja Mayer, Manfred Horvat

Introduction

The session brought together speakers and participants from the natural and the Social Sciences and Humanities, who are experienced, committed and interested in finding adequate forms of collaboration in order to tackle the issues of secure, clean and efficient energy production and consumption and more. Updated information about the state of the preparations of the energy challenge in the new framework programme was presented by Gilles Lequeux.

Before, Gilles Lequeux mentioned the contributions of SSH in the last framework programmes. With Framework Programme 5 (FP5) SSH were first involved in the energy research strategies. There were more than 30 socio-economic related energy projects, with a total budget of more than 40 million Euro. In FP6 the SSH involvement was broadened. The foci were: acceptability and implementation of new energy technologies, technology transfer, energy foresight, economic and regulatory aspects, environmental sustainability of energy technologies. In FP7, the focus was on barriers to more efficient behaviour of energy end users, security of Europe's energy supply including risk analysis, energy foresight network, and energy systems modelling. FP7 saw also the launch of the SET plan, so socio-economic research priorities were aligned with those of the SET plan, but the SSH activities declined in this FP. This should be different in Horizon 2020, for several reasons: the role of SSH as well as Responsible Research and Innovation (RRI) will need to be enhanced because comprehensive research and innovation needs to understand non-technological factors even though the energy challenge is mainly technology driven (like the transport challenge), consumers play a crucial role in energy systems especially in the transition to low-carbon energy systems, orientation along societal challenges requires public engagement but also the analysis of environmental and social impact. There have been assessments like this before, e.g. with the SET plan key performance indicators were developed but at those times without social dimension, so how could such social indicators look like?

Gilles Lequeux stated further, that SSH will not only be implemented on the level of the Societal Challenge Work programme in Horizon 2020, but also in the whole strategic programme of the Energy Directorate of the EU[1]. "There is an opportunity right now to enforce this integration, as we are now developing so-called integrated road maps to address the energy system challenge." The Commission wants to overcome the sectorial

approach with a systems perspective, and within this SSH but also other crosscutting expertise should be integrated.

According to the European Commission proposal for Horizon 2020 the societal challenge: Secure, Clean and Efficient Energy will encompass the following broad lines of activities:

- Reducing energy consumption and carbon footprint by smart and sustainable use;
- Low-cost, low-carbon electricity supply;
- Alternative fuels and mobile energy sources;
- A single, smart European electricity grid;
- New knowledge and technologies;
- Robust decision making and public engagement;
- Market uptake of energy innovation.

In the Horizon 2020 Strategic Programme for the 2014–2016 Work Programme three focal areas are defined for the energy challenge:

- Energy efficiency (buildings and industry);
- Competitive low carbon energy (renewable technologies, smart grid, storage, fossil fuels);
- Smart cities and communities (Integration of transport, energy and ICT aspects).

There will be several initiatives and calls by the Commission, which are specifically interesting to the SSH community:

- Support to energy and energy technology policy (no call for proposal, but "call for tender");
- Dedicated themes targeted at SSH will be: human factor in the energy system, modelling, transformation and impact of the energy system (focus area 2), socio-economic research for energy efficiency (focus area 1);
- But there will also be space for embedding SSH into topics dedicated to technology development.

There will be different approaches towards integration of SSH in the Horizon 2020 energy challenge:

- Embedding related aspects in individual projects, where appropriate;
- Dedicated socioeconomic topics;
- The human factor in the energy system;
- Modelling and analysing the energy system, its transformation and impacts;
- Socioeconomic research on energy efficiency;
- The human factor in the energy system;
- Awareness, perceptions, attitudes to technologies and to transition pathways to a low carbon economy;
- Public engagement, measures to launch and stimulate a dialogue with the public;
- Education and training networks (follow up of SET-Plan Education and Training Initiative);
- Modelling and analysing the energy system, its transformation and impacts;

- Comparative assessment of the impacts and the sustainability performance of technologies and of transformation paths towards a sustainable energy system;
- Modelling the impacts of technological development and innovation on the energy system and its dynamics;
- Socio-economic research;
- Foresight socio-economic activities to support the debate on the development and monitoring of energy efficiency strategies;
- Social, economic, cultural and educational barriers;
- Development of micro-economic analysis of the updated energy efficiency measures.

In addition, relevant studies and tenders to support policy shaping and implementation.

There is a split in the responsibilities of the Commission Directorates: DG Research and Innovation will be responsible for the "production side" of the energy systems and the protection, DG Energy will be responsible for the "demand side" including grid and storage. The energy Challenge in Horizon 2020 will be formally executed by an Executive Agency, not by the Commission directorate directly: the project management activities will be externalized, DG RTD will focus on energy policy related issues.

The working group at the conference identified existing and coming obstacles for the work programme of the Societal Challenge in Horizon 2020, but also ways of overcoming them in order to make optimal use of the knowledge, capabilities and skills available.

The following report will summarise discussion threads and is structured in three parts: objectives, priorities and rationale of the energy theme in Horizon 2020, accompanying challenges, and opportunities in innovative but insufficiently exploited approaches.

1. Objectives/priorities

The thematic priorities in the energy theme of Horizon 2020 have been mentioned above:

- Energy Efficiency (EE);
- Competitive Low Carbon Energy (LCE);
- Smart cities and communities.

How are SSH contributing already to such themes and how can they be further integrated? "Technological systems and innovative technologies are the solidification of design decisions" (von den Hoeven), or as Latour would put it: "technology is society made durable". In decision-making processes we are applying SSH related knowledge, when we discuss functionality, efficiency, environmental quality or sustainability, safety, justice, access, privacy and so forth. Therefore, a multi-dimensional approach is needed to energy research in general and technology development in particular:

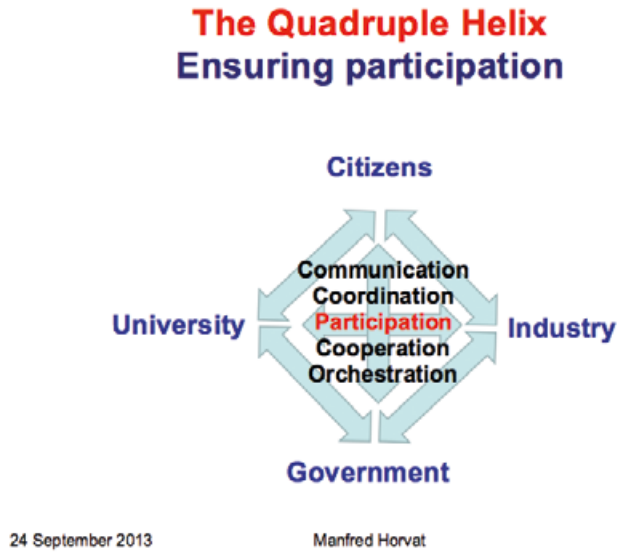
Horizon 2020 comes with a strong rationale for interdisciplinarity tackling the contemporary challenges of complexity and uncertainty in the development of sustainable and effective energy systems.

A strong rationale for interdisciplinarity

- Complexity;
- Technology bundles (beware of technology ranking);
- Trade offs (e.g. food vs energy crops);
- Infrastructures and services;
- Uncertainty;
- Technological trajectories;
- Scenario dependence;
- Climate change;
- Dynamics of social preference.

In order to realise interdisciplinary research projects for solving societal issues, it is necessary to fully embed SSH in Horizon 2020. This means, we need to differentiate between research IN and research WITH SSH. Energy topics open up both potential research questions for SSH taking the lead and designing projects, and SSH being part of projects providing know-how in interaction with other sectors. Whereas multi-disciplinarity means working side by side, we are striving for inter - or transdisciplinary teams that are working together, from the design of the research project until its finalisation.

Speaking of transdisciplinarity, we will also need to account for public participation in decision-making processes. SSH have the experience and the means to ensure and accompany participatory exercises and link together University, Industry, Government, and Citizens /Consumers.



2. Challenges

Energy research faces several challenges:

- Embedding SSH into technology development;
- Resource efficiency AND wellbeing (absolute decoupling);
- Energy governance (legal, institutional and regulatory framework e.g. harmonisation);
- Inject SSH in the SET Plan (Integrated Roadmap);
- How to put the human factor at the centre (understanding non technological factors and the impacts of lifestyle changes and paradigm shifts, whereas at the same time also focus on environmental factors);
- Cultural and epistemological divide (incl. language!);
- Translating ambitions into practice (beyond „frameworks"; market uptake);
- Interdependence: global energy issues/markets;
- Integrate humanities and not only socio-economic sciences (add here a best practice project, like "the waste house", University of Brighton);
- Complexity of European Research projects: (see Katy Janda's example of "cRRescendo").

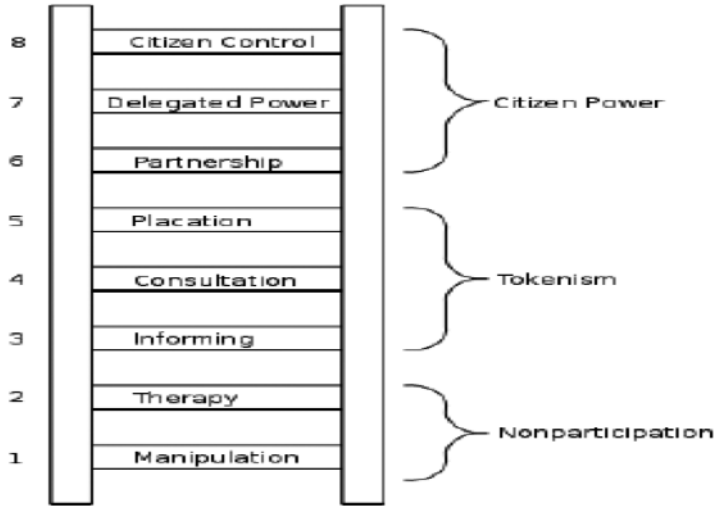
3. Innovative but Insufficiently Exploited Approaches

- **Integrated assessment of energy systems**
  The limits of technology ranking;
  Capturing the social dimension of energy systems.

- **Real, full internalisation of external costs of energy**
  Realisation of full energy costs requires a further integration of "non monetisable" dimensions (e.g. risk, comfort, etc.) in analytical frameworks.
- **Forward Looking Analysis of energy systems**
  Foresight analysis requires the integration of qualitative and quantitative approaches, including scenarios, models but also accounting frameworks.

Furthermore such prognostic exercises will have to be based on thorough historical, socio-economic and cultural analyses of energy systems.

- **Socio-historical dimension of European energy policy**
  What are the impacts of European energy policy and how does it trigger change?
- **Further developing/experimenting participatory approaches (e.g. the Energy Dialogue)**
  Dedicated participatory approaches do take "civic epistemologies" seriously, namely such social and institutional practices by which communities deal with politically relevant knowledge. This includes collective settlements in public life regarding the implementation of new technologies or respective legislative frameworks. It will therefore be important to employ SSH expertise and methods in the embedding of "citizen power" into decision-making processes (see figure below). Surveys are definitely not the way to go.



Arneist, 1971

- SSH helps citizens and policy planners to raise awareness of the need to act and to promote sustainable lifestyles;
- By learning to understand complex set of values, SSH help turn aspirations into behavioural drivers in decision processes.

However, this will bring about to understand that contemporary SSH energy research within Horizon 2020:

- Is a highly interdisciplinary process involving not only science and SSH but also many different types of institutional stakeholders and civil society;
- Requires interest in social impact (specific social indicators but also qualitative assessment of research impact through social research);
- Is not at all about ex-post technology acceptance, rather it starts with the idea of social acceptability and opens up to many different research strands, such as historical and cultural pre-conditions of Energy usage and other;
- Being more attentive to diverse experiences with resources, and learning from experiences from nuclear energy, carbon capture and storage (CCS), shale oil or coal.

Total Costs with Average Multi-Criteria Decision Analysis Ranking

- **Urban energy systems**
  Integration/interaction with urban planning, mobility, intelligent transport systems;
  Synergies (technological, sectoral, e.g. electro mobility + intelligent buildings).
- **Best practices (to avoid reinvent the wheel)**
  Accurate ex post assessment of projects and policies;
  Indicators: realistically measurable (just numbers?);
  Combining quantitative and qualitative information;
  Adopt "appropriate" (technological) solutions.
- **Bringing the Social Sciences and Humanities into Engineering Education and Training**
  The SET-Plan Education and Training Roadmap[2] currently does not include SSH embedded in the curricula, more generally it is requested raising more interest in the STEM fields. This will have to change in order to create awareness for horizontal issues but also to attract attention of students not interested in STEM so far.

Recommendations:

It will be of particular importance for the energy research field to discuss the challenges and opportunities of interdisciplinary or, rather, trans-disciplinary collaboration:

- Embedding SSH perspectives in the definition and specification of topics and tasks as well as in the implementation of the research activities related to the development, implementation and adoption of new or improved energy policies, technologies, processes and services.
- Ex-ante and ex-post impact assessment at programme and project level and appropriate interdisciplinary criteria and indicators as well as the assessment of alternative pathways as the basis for taking decisions in research and development processes are issues that have to be addressed.
- An integrated approach also means embedding SSH into technology development.
- Social innovation regarding participatory approaches involving citizens into decision making processes in terms of technology and policy (which goes far beyond the mere investigation of acceptance towards acceptability).

- Innovative education in the energy domain needs integrating SSH and STEM training to attract attention of students – developing a multi-dimensional understanding of technology.
- We need to learn from practices in the past, both policy and R&D related as well as societal energy practices.
- Joint platforms (synergy platforms) e.g. as CSA projects (see also Lequeux mentioning the call for actions) to develop interdisciplinary approaches in thematic networks providing opportunities for the emergence of new cross-disciplinary communities.
- Target SSH researchers in specific workshops where they can meet STEM researchers and learn about best practice models.
- Provide examples of showing the involvement of SSH and natural and engineering sciences as well as which roles are played by different values, interests and demands.

The perspectives from the Social Sciences and the Humanities are essential; missing them would mean missing decisive understanding of what will be required to reach the ambitious goals for Europe's energy system.

Endnotes

1 Important consultants of the formulation of the Horizon 2020 programme were: Joint Programme on the Economic, Environmental and Social Impacts of Energy Policies and Technologies: see: http://www.eera-set.eu/lw_resource/datapool/_items/item_784/20130610_eera_jpe3s.pdf or: European Group on Ethics in Science and New Technologies http://ec.europa.eu/bepa/european-group-ethics/welcome/index_en.htm and their report: An ethical framework for assessing research, production and use of energy, another important inspiration for Horizon 2020 is the European Economic and Social Committee: http://www.eesc.europa.eu/?i=portal.en.home (see also the report "Needs and methods of public involvement in the energy policy field" http://www.eesc.europa.eu/?i=portal.en.ten-opinions.25693 aiming at the participation of civil society in energy research and policy making – The committee suggest to europeanize the national energy debates, defining the minimum criteria of energy dialogues, and call for support through Horizon 2020 research. Both the DG Energy and the DG Research and Innovation are supportive of this suggestion!)

2 See: http://setis.ec.europa.eu/system/files/20121203SET-PlanSherpas-EducationandTraining.pdf

5.4

Smart, Green and Integrated Transport

Smart, Green and Integrated Transport

Chair: Aura Reggiani, University of Bologna, Italy
Rapporteur: Peter Tindemans, Euroscience
Statement: Maria Attard, University of Malta
Statement: Peter Nijkamp, Free University Amsterdam, Netherlands
Statement: Alessandro Damiani European Commission, Belgium

1. Statements by Aura Reggiani (Moderator), Maria Attard, Peter Nijkamp

In her introductory remarks *Aura Reggiani* raised three important substantial issues: complexities in transportation networks with issues such as dynamical aspects, connectivity and accessibility, or resilience versus vulnerability; the need to consider the global aspects next to the European ones; and various perspectives such as methodological ones, varying needs reflecting geographical and socio-economic contexts or empirical data as to how much SSH are effectively 'embedded'.

Maria Attard first highlighted the current policy discourse on the energy and environmental burden of transport and the safety issues, bottlenecks and urban mobility. However these hardly tackle the need for modal shift, the changing nature of cities, and the changing lifestyles. The role of SSH research is to put centre stage the user needs. That includes the limits of transferability of good practices, increasing quality of life as a key, culture-specific goal, and the way European R&D can support solutions elsewhere in the world.

Peter Nijkamp took the long-term view, starting from the conviction that transport is a 'derived demand'. An SSH approach is thus inevitable. Physical flows are being complemented or substituted by virtual information transfer. Understanding the economics, the spatial-economic impacts, or the demand-satisfying aspects of these new flows requires SSH research.

2. SSH in Current Version of Work Programme 2014

Alessandro Damiani (EU representative) mentioned that for the EC transport and SSH are an inseparable duo witness issues such as modal shift, private-public cooperation low CO_2 solutions. In the current draft of the Work Programme for 2014 key SSH issues are addressed: data, models and scenarios; user needs and user behaviour; transport economics; policy support. One sign of the importance of the importance of the policy dimension is that the management of the socio-economic parts of the Horizon 2020 Programme will not be outsourced to Executive Agencies.

3. Summary of Discussion and Way Forward

It is clear that the possibilities to substantially change the 2014 Work Programme are limited. So it is vital to sketch a medium- and longer term perspective that can influence future Work Programmes.

A three-pronged approach, representing both three levels of increasing integration of SSH disciplines into current mainstream transport research and successive phases of such integration, might be useful.

- The current Work Transport Programme 2014 seems to be technology and supply side driven, with only a (very) light orientation to SSH research for policy support and for the behavioural perceptions of the new technological/transport changes. Smart cities are, for example, dealt with – to some extent – in the Energy Programme rather than in the Transport Programme; demand aspects similarly get some attention in other Programmes. More can be done as will be indicated in Section 4.
- In a next stage and at a next level user needs should be put centre stage. 'Derived' as they all are, a distinction should be made between individual needs, and collective needs, whether from society as a whole or from urban configurations which may form a very fruitful nexus for investigating these evolving and dynamic needs. Several research perspectives will be valuable: observations (e.g. needs of an ageing population), understanding (psychology, sociology, law, economics), or design. The latter relates to the importance of adopting a complex systems perspective before trying to identify solutions (modal shifts, cross-border solutions, virtual substitutions, etc). Also the changing position of Europe in the world over the next decades must be factored in: what will it mean that Europe will have only 5% or so of the world's population? What constraints or opportunities does Europe have? What is the transferability of best practices? What differences are imposed by geographical conditions?
- The longer-term view focuses on the radical perspective: whereas the previous two phases are still firmly anchored in a physical view of transportation, the longer-term perspective looks at the virtual world that is emerging rapidly. Of course, this is not a world that only emerges for the transportation dimension of our societies. Also, the virtual world will not replace physical worlds. Research provides indications that cyberspace seems to replicate physical worlds to a considerable degree. But there is no doubt that transportation (linked to communication) demands of people and collectives are changing dramatically given the virtual communication possibilities we already have and will get.

Peter Nijkamp mentioned several research challenges which will be important in each of the three phases (but, of course, not only for transportation):

- Virtual transportation and economic flows;
- Digital infrastructure;
- Security and privacy issues;
- Contingency management;
- Advanced logistics;
- Physical and virtual connectivity;
- Global position of cities;
- Virtuality and sustainable mobility.

4. Suggestions for Work Programme 2014

Participants were asked to give their key suggestions for the Work Programme 2014:

- Introduce the global dimension next to the current focus on Europe;
- Start research on the complex systems approach;
- Start activities to educate technicians and engineers, as well as politicians, in the importance of adopting broader approaches, including integrating SSH research, to transportation issues;
- Emphasize more the socio-behavioural dimension, also with reference to accessibility and travel time values concerning the new transport technologies for different population segments;
- Put a customer-producer approach centre stage instead of a pure producer-led one;
- Add the timeline to the research questions identified: there is a large difference between short-term, medium-term and long-term questions (such as global, virtual cities, refitting cities, how to increase degrees of freedom and options flexibility);
- Start already at this stage some preliminary investigations into the demand side (see Phase 2 above).

5.5

Climate Action, Resource Efficiency and Raw Materials

Climate Action, Resource Efficiency and Raw Materials

Chair: Pavel Kabat, International Institute of Applied Systems Analysis, Austria
Rapporteur: Markus Amman, International Institute of Applied Systems Analysis, Austria
Statement: Diana Urge-Vorsatz, Central European University, Hungary
Statement: Bronislaw Szerszynski, Lancaster University, United Kingdom
Statement: Arnoldas Milukas, European Commission, Belgium
Coordinator: Katja Mayer, Office of the European Research Council President, Austria

This parallel session took up the "societal challenge" as formulated under Horizon 2020, with the objective "to achieve a resource and water efficient and climate change resilient economy and society, the protection and sustainable management of natural resources and ecosystems, and a sustainable supply and use of raw materials". Maybe more than any other, this topic requires international collaboration at least at European level. At the same time, it is probably the most disputed one. It is tempting to define seemingly clear-cut policy targets; however, recent history proves how difficult it is for national governments to comply. Consequently, some of the key issues discussed in this panel were: What is currently the role of SSH in relating political targets to scientific research findings; and should this role be improved or altered altogether? How can SSH research contribute to the global efforts of climate research and environment studies? How do human behaviour and societal relations towards environment and resources evolve, and what lessons can be drawn from it?

In contrast to some of the other societal challenges addressed by Horizon 2020 program, there is full recognition in the climate change and resource efficiency area that a better integration of SSH in natural science research is absolutely required for the development of effective responses. Present solutions developed by natural science are often not working out in practice, inter alia, because people do not behave along the same rationales that are assumed by the models used by natural scientists. Only a better understanding of the human dimension and its integration into natural science research will enable relevant conclusions that point towards viable transformation strategies.

While in the past there have been several attempts to integrate SSH and natural science research (e.g. by IPCC AR4, FP7), they did not always fully achieve the envisaged results. To some extent, limited success can be associated with the current 'research ecology', i.e., the mono-disciplinary organization of science and only modest incentives for scientists to work on interdisciplinary projects. However, experience with FP7 environment projects that were required to include policy interaction and stakeholder involvement highlights a number of practical challenges for researchers involved in these projects:

- In many cases, natural scientists involved in these project found it difficult to identify partners from the SSH communities, as communities tend to work in isolation.
- Communication between natural and SSH researchers was difficult, due to different scientific languages and traditions.
- Communities apply rather different frameworks and paradigms, so that in many cases research questions were mutually perceived as irrelevant.

There are doubts that the current (draft) formulation of Horizon 2020 programme will be able to resolve these issues and challenges. To overcome these problems, a number of specific proposals have been made in the discussion:

The palette of the Social Science and Humanities disciplines drawn to respond to the grand challenges of climate change and resource efficiency should be expanded. Inter alia, two aspects were mentioned where scientific progress by SSH could provide relevant insights. Understanding of the lack of progress towards societal transition could be enhanced by including research not only from conventional SSH disciplines such as psychology, but also from other areas such as the history of technology, environmental history and political economy). Also, the challenges of thinking through the Anthropocene could enhance the relevance of SSH research.

However, the desire for enhanced 'integration' across disciplines could lead to important dilemmas. For instance, an overemphasis on integration might lead to the neglect of disciplines and approaches that are not so easily harmonised with dominant technical approaches, but nevertheless can contribute important alternative insights. Also, the goal of producing unified recommendations for policy can privilege a restricted model of the relationship between science and policy; in areas of high uncertainty it might sometimes be useful to encourage multiple, antagonistic discourses, consistent with an 'honest broker' model of the science–policy relationship.

For collaborative projects, the following elements could facilitate more productive working between SSH and the natural sciences:

- There must be strong (external) incentives for communities to embark on collaboration and integration.
- The specific research questions of a project must be developed by larger communities involving both natural and SSH researchers. This will require longer in-person working meetings involving very different disciplines, and must give space for the long process of community building.
- Research must be conducted in an interdisciplinary and not just a multidisciplinary manner. This means that within a research project, contributions from different scientific disciplines should not be grouped into separate, unrelated work packages, to be combined at the end. More complex, iterative relations must be devised to ensure genuine interaction and learning between disciplines.
- While it is obvious that project review and monitoring panels must strike a proper balance of researchers from natural and SSH disciplines, it will be essential to include also experts with experience in interdisciplinary research, to ensure that the designs of projects are consistent with good practice in interdisciplinary research, and include mechanisms for monitoring and ensuring the quality of interdisciplinary interactions.

However, participants felt that today the greatest challenge emerges from the urgency for action, both for shaping the Horizon2020 programme as well as for finding response strategies to climate change. The group developed the following recommendations for immediate action:

1. Research questions for (later) calls of the Horizon 2020 work programme should be defined through stakeholder consultations of various types, involving experts from different fields.
2. In the preparatory phase, space, time and funding should be provided for developing the joint proposals.
3. The European Commission should tap into the parallel activities of existing Europe-wide organizations that represent relevant science communities (Future Earth, EASST, etc.).
4. The review/monitoring activities of Horizon 2020 projects should not only open up to SSH involvement, but should also involve experts in interdisciplinary research. Relevant independent experts should be invited to register and/to update their profile on the EC Participant Portal.

5.6

Europe in a Changing World – Inclusive, Innovative and Reflective Societies

Europe in a Changing World – Inclusive, Innovative and Reflective Societies

Chair: Jutta Allmendinger, WZB Berlin Social Science Center, Germany
Rapporteur: Sally Wyatt, Maastricht University, Netherlands
Statement: Reinhilde Veugelers, Katholieke Universiteit Leuven, Belgium
Statement: Marc Caball, University College Dublin, Ireland
Statement: Robert Burmanjer, European Commission, Belgium
Coordination: Julia Stamm, WZB Berlin Social Science Center, Germany
Report: Jutta Allmendinger, Julia Stamm, Sally Wyatt

This report focuses on the conference session dedicated to Horizon 2020 Societal Challenge Europe in a changing world: Inclusive, Innovative and Reflective Societies, the one among the seven challenges which is – supposedly – dedicated to research in the Social Sciences and Humanities (SSH). This report questions the framework conditions that need to be fulfilled in order to ensure that research within this challenge will contribute significantly to tackling the major questions societies currently face. It also addresses, however, the crucial issue of achieving true interdisciplinarity across all seven challenges, postulating that only true interdisciplinary research – within and across SSH disciplines as well as in the interaction between the SSH and the other sciences – will lead to significant or even groundbreaking advances and findings in contemporary and future research.

The report outlines the conclusions the authors drew from the Vilnius conference. Furthermore, it provides practical advice on the issues that are to be tackled in order to sincerely and profoundly address the issue of interdisciplinarity in EU research – in order to ensure that research conducted under the umbrella of Horizon 2020 will be able to live up to its promises.

Introduction

Horizon 2020 aims to implement interdisciplinarity and an integrated scientific approach. If research is to serve society, a resilient partnership with all relevant actors is required. A wide variety of perspectives will provide critical insights to help achieve the benefits of innovation. Recognizing that innovation and societal progress cannot be considered only in technical terms, it has been repeatedly stated that research on each of the challenges has to integrate fully the Social Sciences and Humanities. As rightly underlined by the Vilnius Declaration adopted at the end of the Vilnius conference, "the effective integration of SSH requires that they are valued, researched and taught in their own right as well as in partnership with other disciplinary approaches."

Demographic challenges, protest movements, increasing social inequality within and between EU member states, the digital turn, cultural and religious diversity, the continuing change of values, the absence of a great narrative for Europe, the EU's

position in a global context: the expectations vis-à-vis Social Sciences and Humanities are immense. The scope in Horizon 2020 is much larger than it was in FP7/Theme 8, thanks to the addition of "reflective societies" by the European Parliament and the Council during negotiations.

In all areas, we lack research that is problem-driven AND focusing on basic research. Moreover, it has to contribute to answering today's and tomorrow's big questions. The panel of this session focused mainly on issues of content. Do the three catchwords 'innovative', 'inclusive' and 'reflective' address the content of challenge 6 satisfactorily? Are they precise enough to inspire and provide guidance? What exactly, for instance, do we understand with the term 'reflective'?

Different ways and formats of research funding were also discussed. There was consensus that all of them have to be open to the participation of all researchers, have to be able to connect to other disciplines and have to be the least bureaucratic possible. But we need formats that are conceived for the long term and that benefit from substantial funding amounts. We also need innovative antenna programmes that can be set up at short notice. Transfer programmes are central. Nothing would be worse than SSH distancing themselves from the social phenomena and the societal actors that carry them. How do we reach these goals? How can we attract the best researchers? How do we motivate the best evaluators? How should quality assurance for research, especially interdisciplinary research look like?

And, in particular: how do we assure the legitimacy of SSH within Horizon 2020 that research needs?

Confidence and Visibility

SSH need to have more confidence in their own contributions to all of the societal challenges identified by Horizon 2020. SSH contributes substantially to the development of the human spirit, and to critical reflection and debate. It also makes more utilitarian contributions to culture, media, education, tourism, etc. through university-level education and training. SSH should not marginalize themselves from the debates and challenges facing Europe in a changing world. The role of SSH is not simply to help science and business to reduce public resistance or increase acceptance of scientific and technological innovations. For their part, SSH need to develop a common language in order to communicate better amongst themselves, and with other disciplines and other societal actors. This will increase their effectiveness in addressing the challenges posed by Horizon 2020.

Engagement Instead of Embedment

'Embedding' is not an appropriate term, as it suggests at best an asymmetric relationship with what is already defined by others, whether by the STEM disciplines or policy makers. 'Engagement' captures the desired relationship much better.

SSH needs to **engage** at three levels:

1. With the STEM and other SSH disciplines in all of the societal challenges. For example, questions of the distribution of resources and of changes in human behaviour are pertinent to all other societal challenges. Similarly, developments in science, technology and medicine have implications for inclusion and solidarity.
2. With the Commission, to define research questions and funding instruments.
3. With society and a range of publics to strengthen democratic participation in addressing the challenges.

Recommendations on how to Make Horizon 2020, with SSH as Crucial Component, a Success

European SSH communities currently share doubts about whether the European Commission can really deliver on its good intentions. When sifting through the pre-published work programme drafts too many of the SSH flagged topics are "weak" and ascribe a rather secondary or instrumentalised role to SSH research (e.g. assessing market potential, assessing public acceptance of technology). Similar concerns relate to the composition of advisory boards and evaluation panels. To these belong questions about the management of minority views: how will panels be handled in order to avoid the SSH expert always being relegated to a minority view?

Clearly, more time is needed to develop concepts, structures and indicators for quality interdisciplinarity.

Twelve practical recommendations are listed below. They are addressed to the SSH research community, the European Commission, research policy-makers and funders alike. Implementing them would be a substantial step towards a holistic integration of SSH research in Horizon 2020 and fostering true interdisciplinarity.

1. **Interdisciplinarity across all societal challenges.** It is true that challenge 6 is the challenge dedicated to SSH. This does not mean, however, that the Social Sciences and Humanities do not have the same task as the other challenges. We have to cooperate with the sciences and engineering. And not only cooperation is important, but also the genuine integration of other disciplines into SSH. The major difference is that it is up to us – the SSH community – to set the agenda, to identify the obstacles to be overcome, and to engage with the stakeholders who can contribute to these topics and to their integration.
2. **Integrating internally and externally.** The above task is not easy since SSH is characterized by a high degree of internal heterogeneity. Regarding methods and the theoretical approaches used, SSH are very diverse. Thus, for challenge six to be successful and to be able to integrate others, we have to overcome internal tensions, agree internally on common themes and together identify partners. Again, this is

something that WE, the SSH community, have to do. Integrating others also means to be willing to integrate ourselves, and to present our internal diversity as a source of strength. The fact that SSH is characterized by multiple methods and approaches means it can tackle a great variety of research questions.

3. **Finding ways to attract the best researchers to contribute to EU projects.** We have to ensure that the best researchers participate in EU-funded research projects. This is not easy since many institutes and scientists still refrain from applying for EU funds, as bureaucratic requirements are seen to be a burden. Money is not the appropriate way to motivate them. Very often, EU funds do not enjoy a high reputation. Hence, the real currency that we need to offer is the possibility to cooperate with other excellent researchers. Beyond that, there is a need to increase awareness amongst the SSH community of the whole research funding ecology. EU, national and local funding agencies often have different, complementary mechanisms and goals that are appropriate for different types of research.
4. **Simplify procedures and enhance flexibility.** Applying for funding has become highly specialized work, taking months of preparation. This is highly ineffective and a waste of resources. Possibly, a two-step procedure, with the first one being very quick and concise, could prove effective. Furthermore, the existing range of research instruments should be extended, to support not only large consortia of research groups but also to support smaller groups and experimental projects, recognizing the latter may be higher risk.
5. **The importance of interdisciplinary education.** So far, we have identified three obstacles: 1. Internal integration of SSH; 2. Engaging with STEM disciplines; and 3. Motivating excellent researchers in all disciplines to work together. In order to live up to this threefold challenge, we have to start with the education of our researchers, and this very early on. We want to add the benefits of a "studium generale", as implemented in "arts and sciences" classes in the Anglo-Saxon countries. We could also work on the doctoral programmes. What we favour, though, is a postdoctoral period, clearly dedicated to working with the other sciences within one's own thematic area. That way, researchers can learn from each other's methods and theories to develop a joint understanding.
6. **Tailoring European funding programmes differently.** We should not only implement this joint learning experience during the education phase. From an EU funding perspective, programmes could be tailored in such a way that they would allow for a preparatory phase before the start of the actual research project. In this model, the identification of possible partners would be the first step. Here, one could set a first funding barrier. Once this first and rather modest barrier has been surmounted, the research partners would get funds for organizing two or three short preparatory workshops. This would have the advantage of being able to already jointly draft the programmes, within but also beyond the SSH.
7. **Connect to a broad variety of societal actors.** In addition to preparing differently for interdisciplinarity, both in the education of researchers as well as in the conceptualisation and drafting of funding programmes, we also have to face the necessity of connecting different societal sectors. In practice that means that we have to identify stakeholders working on the big societal challenges in other sectors. They can come from government, from administration, from business, from media,

etc. All of them confront societal problems daily. And they also need incentives to participate. This does not require a lot of money – but it does require some money. If one would be able to better tackle societal phenomena and to set a clearer focus, this would help many sciences, and also many social sciences. It would also help to bring the research results into society and to show that SSH can indeed be applied.

8. **Showcase best practice.** In order to stimulate better integration, successful interdisciplinary and intersectoral projects should be showcased and rewarded. This could take different forms, such as awarding individual prizes both for projects that have successfully integrated SSH and researcher pairings from the sciences, and for SSH communities who have" re- imagined" their research or roles through collaboration. We should also improve our readiness to learn from fields with experience of interdisciplinary research and teaching, such as science and technology studies, classics, archaeology.
9. **Develop common and valid evaluation criteria for interdisciplinarity.** We have to discuss – and to agree upon – the evaluation criteria for interdisciplinarity. This is not an easy task. It cannot suffice to just "tick a box" when interdisciplinarity within SSH and between SSH and engineering is indicated in the project proposal. Rather, we need to rework the evaluation criteria in order to ensure that the selection of projects to be supported is transparent. This also means that researchers, university administrators, Commission services, funders, etc. cannot define criteria that are not applied by the evaluators.
10. **Develop a range of topics cutting across the societal challenges.** A broad range of issues is relevant to all seven societal challenges and to all scientific disciplines. Evaluation and ethical aspects are just some of them. Others include understanding behavioural change and resource allocation. They need to be identified and be taken into consideration across all topics.
11. **Provide room for experiments and accept failures as part of the road to success.** In order to enhance innovation and creativity, there is a need to provide room for experimentation and laboratory processes AND adequate funding for them. One tool could be investment in "pilot" scale activities designed to foster truly innovative and interdisciplinary working. But there is a crucial prerequisite to it: there needs to be a broad and general acceptance that exploratory work of this kind is likely to be higher risk and as a result may lead to learning about what does not work: We have to learn to embrace failures as part of the road to success. We close this list of recommendations with a final challenge that needs to be considered and addressed urgently. It refers to an item that we are not supposed to tackle or to put in the centre of our discussion. However, what is central and needs to be addressed: the issue is money.
12. **Ensure a meaningful budget for challenge six.** It is paramount to realize that challenge six Europe in a changing world: Inclusive, Innovative and Reflective societies is inadequately equipped in financial terms. This is particularly true if we deduct the funds not relating to "pure" SSH research, such as technology-driven research or programmes that could not be fitted elsewhere. The research community always feared that challenge six would become a "dropbox" – it seemed they were right. This is not sustainable and does not comply with the promises of high Commission officials in Vilnius and elsewhere. The EU will have more than 71

billion EUR to support research. In this context, why does European policy relevant SSH research have to be reduced to 0.5% of this budget? Coherence between intentions and facts is now needed and we call upon Commissioner Geoghegan-Quinn to make sure that she supports at least the same budget share for SSH in Horizon 2020 in societal challenge six as in the previous funding period (1.2% of the FP7 budget) for the SSH and policy relevant research in Horizon 2020.

5.7

Secure Societies: Protecting Freedom and Security of Europe and its Citizens

Secure Societies: Protecting Freedom and Security of Europe and its Citizens

Chair: Michel Wieviorka, Fondation Maison des Sciences de l'Homme, France
Statement: Gemma Galdon Clavell, University of Barcelona, Spain
Statement: Rainer Böhme, University of Münster, Germany
Statement: Aleksandra Oczko-Dolny, European Commission, Belgium
Rapporteur: Kristian Berg Harpviken, Peace Research Institute Oslo, Norway
Coordinator: Katja Mayer, Office of the ERC President, Vienna, Austria

Thanks to *Jutta Weber, Steve Wright,* and *Georgios Kolliarakis* for their comments.

Societal security as a field of research is both complex and contested, ultimately grappling with questions that are existential both to the individual and to societies at large. The fundamental character of the issues at stake also characterized the discussions in the session dedicated to the topic. This report draws extensively on the three presentations given in the session, the chair's succinct summaries, as well as participants' interventions. The report seeks to reflect the main topics and concerns brought up, but with no claim of representing a broad consensus-based cross-section, and it consists of three sections. The first section is a depiction of how the new Horizon 2020 agenda includes research on societal security as part of the SSH program, the second section focuses on opportunities and challenges in fostering broad collaborative research engagements, and the last section introduces a set of issues that are central to the agenda.

1. The Societal Challenge in Horizon 2020 and the Integration of the Social Sciences and Humanities

Mainstreaming security research: the formulation of Horizon 2020 has been driven by the aim to integrate societal security research as a horizontal mission in the vertical missions. The background experiences stem from FP7, where security research, over the past 2 years, developed from being an add-on towards being a mainstreamed Working Programme. The European Commission has seen the development in FP7 as a step in the right direction, yet insufficient Security Research remains a separate horizontal mission, a weakness which Horizon 2020 is designed to overcome, especially with the integration of SSH.

Societal Challenge – why:

European policy makers understand that concerns of citizens and society/EU policy objectives (climate, environment, energy, transport) cannot be achieved without innovation. Breakthrough solutions come from multi-disciplinary collaborations, including the Social Sciences & Humanities. Promising solutions need to be tested, demonstrated and scaled up. Secure Societies as Societal Challenge – from the draft

work programme: the challenge is about protecting citizens, society and economy as well as assets, infrastructures and services, prosperity, political stability and well-being. Any malfunction or disruption, intentional or accidental, can have detrimental impact with high associated economic or societal costs. A primary aim is to enhance the resilience of our society.

Objectives are:

1. Fight crime, illegal trafficking and terrorism, including understanding and tackling terrorist ideas and beliefs;
2. Protect and improve the resilience of critical infrastructures, supply chains and transport modes;
3. Strengthen security through border management;
4. Improve cyber security / digital security;
5. Increase Europe's resilience to crisis and disasters;
6. Ensure privacy and freedom, including in the Internet and enhancing the societal, legal and ethical understanding of all areas of security, risk and management;
7. Enhance standardization and interoperability of systems, including for emergency purposes;
8. Support the union's external security policies including through conflict prevention and peace building.

Ethical screening and review: when new technologies, policies or legal instruments are being developed, ethical assessments have generally been conducted at particular points in the project cycle, typically towards the end. As ethical screening and review are being more consistently and systematically applied across the whole spectrum of relevant initiatives, there is also a move towards a processual approach, in which **ethical aspects are considered during the whole project cycle**. Ideally, a development team would now work organically with ethical experts, from the initial plans, through the development phases, as well as pre-implementation and in post-implementation follow-up. Ethical considerations, however, form only one of the many dimensions of SSH expertise to be integrated in security related research.

Impact evaluation: in Horizon 2020, there is a firm ambition to shift the focus on evaluation from measuring the outcomes to assessing the impact of research and development. While this is a shift to be welcomed, it should also pointed out that **assessing impact is challenging**. Not the least is there always a need to be cognisant of the unintended impacts of all types of research and development (societal security research included). As one participant pointed out, we may, for example, assess the impact of new technologies, while missing the point that there are strong societal forces that shape the agenda – and the practice – of technological development in the first place.

Agenda-formulation: for the research community it is vital to understand that the formulation of the security research agenda in SSH within Horizon 2020 is the outcome of complex negotiations between multiple stakeholders, bridging widely divergent interests and perspectives. Equal collaboration between industry, academics, end-users and civil society representatives is necessary. Background documents for the development of the security foci include: The EU Internal Security Strategy in Action:

Five steps towards a more secure Europe[1], EU Security Industrial Policy[2], EU Digital Agenda[3] and the EU Cybersecurity Strategy[4]. Strategic aims of these documents are the disruption of international criminal networks, the prevention of terrorism and addressing radicalisation and recruitment, raising the levels of security for citizens and businesses in cyberspace, strengthening security through border management, increasing Europe's resilience to crises and disasters. Even so, the ultimate objective of societal security research is to stimulate European business and to create new jobs. While it is perfectly legitimate that business is the ultimate driver of the agenda – and this is entirely transparent – many participants did emphasize the **necessity of substantial support for free-standing, critical security research**. Furthermore we need to differentiate between research on security technology and policy and research within security technology and policy, even though these areas can be overlapping.

Tentative timeline:

- Autumn 2013: consultations with the MS on Work Programme;
- Work Programme is being drafted in cooperation with "Shadow" Programme Committee;
- Inter-service consultation;
- Adoption by the Council;
- Adoption Work programmes;
- National Info Days;
- **First call "Secure Societies" planned in March (2014).**

Requirements

- **Equal, transparent and unbiased access of all stakeholders to research calls!**

We have seen disproportional allocation of budgeting to procurement in draft Work Programmes, which would easily open the back door to direct commissionings to e.g. the defense industry.

- DG RTD and DG enterprise should **exchange and conjointly foster best practice models for socially responsible funding policy** such as "Responsible Research and Innovation" (RRI) and all the guidelines it has generated since 2010.
- The **Social Impact Assessment**, to be included in all grant applications, cannot be a mere tick-box exercise for skilled application writers. It necessitates the training of applicants and evaluators alike and should be operationalised as fully developed part of the evaluation process.

2. Research Collaboration (the Role of Research Organization)

The Critical Obligation: research in general – the Social Science and Humanities research on societal security being no exception – has a firm commitment to basic academic freedom. From this follows an obligation to be critical, to ask often uncomfortable questions about the parameters on which a particular R&D engagement is based, to **draw attention to the unintended consequences and hidden risks, to reveal the discriminatory of repressive potential of new initiatives**. The Commission's 10-point checklist for societal impact of security R&D (see Annex 7 of Guide for Applicants) is an important safeguard, as are other mandatory actions, such as ethics

reviews and privacy protection. It is, however, fundamentally problematic if most SSH research on societal security depend on Horizon 2020 funding alone. SSH involvement in all vertical or horizontal security research needs to be backened also by national and private funding bodies, as well as by security industry itself.

Competence and careers: building a career in SSH research on societal security is extremely challenging, because of the multifaceted skills that are required of the individual (with good reason), and also because the funding modalities does not necessarily incentivise relevant institutions to prioritize the **development of robust research milieus**. The financial crisis, in large parts of Europe, has exacerbated the problems. As one participant pointed out, there is an irony in that the very researchers focusing on security, resilience and vulnerability do so under conditions of great insecurity.

Interdisciplinarity: there are tall ambitions for interdisciplinarity – combining the Social Science and Humanist expertise with engineering, science, medicine, and law – in societal security research. Yet, experience shows that genuine interdiscipinarity is hard to achieve. A few critical factors were discussed in the session:

- Mutual respect for, and understanding of, each other's skills and expertise is essential to genuine interdisciplinarity, and highlights the **importance of inclusive leadership and organizational culture.**
- Consolidation of basic analytical perspectives and frameworks – so that actors with different disciplinary backgrounds agree on a collaborative set of basic parameters – is a prerequisite to success. Fostering such agreement is much easier said than done, and while one will often have to live without full consolidation, it is critical that collaboration starts from a full-fledged clarification of the framework applied with a **balanced mix of perspectives** instead of commonly dominating techno-determinist or reductionist approaches or standards.
- Interdisciplinary research rests on **individuals, who combine excellent skills** in at least one discipline with solid understanding of other disciplines, as well as the ability to build milieus in which strong disciplinary research specializations interact closely over time. Geography matters, and success is most likely when several such milieus are located in the same institution or locality (Europe has a scarcity of such institutions), or when shared temporary spaces are available.
- Mutual understanding and interdisciplinary skills have to be established in shared spaces. So it is vital that European Security Research funding supports **collaborative platforms** for the development of research networks and the shaping of innovative interdisciplinary research questions and approaches.

Multi-stakeholder collaboration: the success of security research within SSH hinges on the ability to bring about genuine co-production of knowledge, not only involving different disciplinary traditions, but also between researchers and practitioners. It is important to note that the mix of relevant stakeholders will vary considerably between the various research themes. Apart from that, some of the most critical factors are:

- To **ensure genuine collaboration already at the stage of defining the agenda**. This is where the main research problems are defined and agreed upon, and it is essential to involve all main stakeholders already here in order to foster a common

understanding and genuine ownership. It is therefore recommended to include SSH experts in all advisory boards, on national or European level.

- **Full involvement of research at all stages of R&D processes**, rather than (as has often been the case) bring in the Social Science and Humanities competence only to assess a ready-made products or strategies.
- **Definition of clear roles and responsibilities** between the various parties involved is key to success, but also extremely challenging in complex development processes involving a range of stakeholders with widely different competencies and interests. Yet, the integrity and independence of research hinges on mutual respect for roles and responsibilities.
- At all Horizon 2020 information events the **integration of SSH into security research projects** should be highlighted in order to trigger interest for cooperation.

3. The Agenda for SSH Related Security Research

The concept of security: while a joint understanding of what security means is often taken for granted, there is little doubt that there are a multitude of conceptions at play, some of which are overlapping, some of which are mutually incompatible. Hence, it is important to ask what it is that we understand by security, how various conceptions interact, and how they change over time. For example, why do we mainly speak about security and risk, instead of peace or solidarity today?

Inevitably, security is not only an objective entity that we study with a view to improve it, but also a subjective perception – deeply political in nature – which we all relate to as subjects.

Specific issues: A number of specific issues are central to the broader SSH agenda in security research. The focus here is not on those issues that will merit a focused effort in the form of one project, or a bundle of projects, but on issues that will need to be addressed in various ways by wide specter of initiatives:

- *Policy:* as policy co-shapes security and technological developments, challenges need to be better understood at implementation and public policy level. Often governments rely too much on quick "technological fixes". How does public administration deal with security issues that have societal impact, how are policy makers trained and to what extent are they informed?
- *Democratization of security policy*: what are the mechanisms that can help bring about transparency and informed public debate in such a way that it informs new initiatives?
- *The Security Paradox*: how can we better come to grips with the observation that enhanced focus on security measures often produces a greater sense of insecurity, and what constitutes a constructively typology of the various manifestations of this dilemma?
- *The quality and quantity of security risk*: how can we better assess security risks?Are common methods to quantify spending versus measurable risks the right approaches? Could we drill down to the micro-level in e.g. local manufacture supply chains in the subcontracting of security industry for cross-state comparison.

- *Everyday Practice in the security industry*: how is the security industry organized, how does it work on everyday basis, and how does its real time interaction with others societal actors manifest itself on an everyday basis?
- *Political impacts of technology*: how can we best understand and analyze the political impacts – including resource distribution, rights promotion, discriminatory practices (identity-based, gender-based) – of new technology and other security practices, and how do these map onto broader political-ideological currents?
- *Empowerment*: what are the ways in which new technology empowers some and disempowers others?
- *Societal receptivity*: what are the decisive factors for societal receptivity or resistance to new technologies and measures?
- *Societal resilience*: what are the decisive factors that account for the fact that societies that have been hit by crisis are able to rapidly reconstitute themselves while other societies are not?
- *Political responsibility*: do we have adequate mechanisms for removing security measures if they create more unease than they solve problems? How can export and misuse of technology, which would never be sanctioned inside the EU, be prosecuted?
- *Surveillance and democracy*: in the light of the latest surveillance scandals, we need to investigate the socio-economic constellations that allow for escalating security measures, as well as the necessity of privacy enhancing configurations and technologies.
- *Media*: what is the role of the media in framing the public debate about security/insecurity, as well as the basic perceptions of new security measures and how they are received?
- *Innovation*: what are the various forms of genuine security innovation that we see at play, and, assuming we can establish a basic typological understanding of those, what are the distinct political, societal and ethical challenges related to each type?

Recommendations

- **Balanced agenda setting**: the Social Sciences and Humanities need to be integrated in decision making processes; members of each Programme Committee should be invited to include experts from SSH to their respective national group of experts for consultation on the Work Programme; corporate or lobbyist domination of Expert Groups should not be tolerated.
- Advisory boards, Programme Committees, evaluation panels, strategy committees should **include experts from the Social Sciences and Humanities** and especially also experts in interdisciplinary research.
- **Full and timely transparency** of minutes, agendas and contributions by the Commission, Programme Committee and Advisory Group meetings.
- Open call for public applications: **equal, transparent and unbiased access** of all stakeholders to research calls.
- Each Societal Challenge should foresee CSA platforms in order to **create "real" spaces for networking and preparation of interdisciplinary projects**, bringing

together experts from all fields of science, scholarship and technology development, but also civil society stakeholders.

- At every Horizon2020 kick-off or workshop the integration of the Social Sciences and Humanities and the **incentives of interdisciplinary research should be highlighted**, so that also the respective communities feel addressed. Dedicated events/workshops should provide showcases of **best interdisciplinary practice**, and increase awareness in research communities for EU research funding ecology.
- **Socially responsible funding**: ethical aspects need to be considered during the whole project cycle. Furthermore, DG Research and Innovation and DG Enterprise should exchange and conjointly foster best practice models.
- **Social Impact Assessment**: not a tick-box exercise for skilled application writers, but an accompanying and continuously unfolding process, including the training of applicants and evaluaters.
- Necessity of **substantial support for critical security research**, be it as research on security technologies and policies or research within technology and policy development.

The Social Sciences and Humanities in security research will:

- draw attention to **hidden risks, unintended consequences and collateral realities** of security research and technology and policy development;
- develop a **robust research milieu;**
- provide to a **balanced mix of perspectives;**
- **enable interdisciplinarity**, ensure genuine collaboration already at the stage of defining the agenda or designing the project;
- **take the lead** in innovative security research projects.

The Social Sciences and Humanities in security research engage in:

- **understanding challenges** at implementation and public policy level;
- bringing about **transparency and informed public debate;**
- better assessing **security risks, empowerment, societal receptivity or resilience, political or corporate responsibilities;**
- recognising roles of media in **framing the public debates;**
- identifying various **forms of genuine security innovation.**

Endnotes

1 http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=CELEX:52010DC0673:EN

2 http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=COM:2012:0417:FIN:EN:PDF

3 http://ec.europa.eu/digital-agenda/

4 http://ec.europa.eu/information_society/newsroom/cf/dae/document.cfm?doc_id=1667

6.

COMMENTARIES

6.1

New Horizons for the Study of People: Interdisciplinarity, Internationalization and Innovation in the Digital Age

New Horizons for the Study of People: Interdisciplinarity, Internationalization and Innovation in the Digital Age

Chad GAFFIELD, Social Sciences and Humanities Research Council of Canada

September 23rd, 2013, Mykolas Romeris University, Vilnius, Lithuania

First of all, I would like to thank Helga Nowotny and all the members of the organizing committee for including me in this important event. I am thrilled to be here and to have the chance to contribute to the discussions in this beautiful and historic city. As a point of departure, I would like to make two claims. First, that Horizons for the Social Sciences and Humanities is the largest and most important gathering in recent times involving a diverse group of leaders focused on the critical importance of research on human thought and behaviour for making a better future in the 21st century. In other words, this event in Vilnius is not only relevant for Europe but also significant internationally as well.

My second claim is that, in order to fulfill the ambitions and realize the potential of this global gathering, we must base our collective goal on a common understanding of why these ambitions and their potential are so important. In other words, we must agree on what is at stake.

In order to get to where we want to go, in order to define what we will do to get there, and agree on how we will do it, a deep and common understanding of why we must succeed is required.

The straightforward – though crucial – first step is to agree on which motivations should be rejected.

Let's reject any insistence on entitlement by any research field.

Let's reject any obligation of charity by some research fields for other research fields.

Instead, let's try to summarize into a common understanding the substantive reasons why it is so important that the ambitions of our gathering here in Vilnius be successfully fulfilled.

To try to offer such a summary in a few pages is certainly risky, but, however incomplete, the following comments based on a vantage point across the ocean seek to contribute to a more robust and comprehensive understanding of both the challenges and opportunities of the Social Sciences and Humanities in Horizons 2020.

The point of departure for my cross-campus comments this evening is my memories of being told by well-meaning and knowledgeable observers who offered comments like these shortly after my appointment as President of the Social Sciences and Humanities Research Council:

"You have the hardest job!"

"You have to promote and support research without being able to point to impressive technologies or labour-saving devices."

"You can't promise to cure cancer or to develop pills to relieve pain or improve mental health."

"You have many more students and scholars to focus on with much less money to award."

"You do not have patents to count, no mind-boggling science installations to marvel at, not as many prizes for global research excellence to strive for – and yes, while there are Nobel prizes for fields in the Social Sciences and Humanities, they are only a few."

I have never felt, however, that I had the hardest job or been at a disadvantage in articulating the importance of the Social Sciences and Humanities. Indeed, now after more than seven years in my position, I am more proud than ever about our research contributions and increasingly optimistic about our research fields and their ability to enhance our knowledge and understanding of the past and present and thus to help build a better future.

As we all know, there have certainly been many challenges along the way and there is no doubt that promoting and supporting the Social Sciences and Humanities is certainly not for the faint of heart. But I am increasingly convinced, undoubtedly like all of you here in Vilnius, that we are in the midst of a profound Kuhnian paradigm shift, that we are pushing forward a truly transformative era, that holds the potential for a much better future, one that will transcend whatever progress we perceive in looking back over the course of recent decades and centuries.

Why am I proud of past achievements and optimistic about the coming years?

From a campus point of view, there is a new recognition that the study of all aspects of the past and present are inherently interconnected not in additive ways, but in interactive ways.

The study of human thought and behaviour and the study of particles, molecules, flora and fauna, and the universe, all form a whole that we are now recognizing cannot be fully understood as simply the sum of the parts with certain parts being far more important than other parts.

On campus, the division-of-labour approach to advancing knowledge that we developed since the 19th century certainly generated deep insights that have helped transform rural agricultural societies into urban industrial jurisdictions characterized by greater prosperity, increased literacy and longer lives. But, today, fewer and fewer researchers hope that any one part of higher education and scholarship can fully explain even a single aspect of what we need to know about the past and present.

But even more important in explaining the fundamental changes now underway across the Social Sciences and Humanities are the increasing calls for help from the larger society.

In the case of Canada, for example, such calls began after World War II with urgent calls to develop a truly Canadian culture to match the political sovereignty and world presence garnered since the late 19th century.

In the 1950s, Canada was still in many ways an intellectual colony characterized by universities populated for the most part by professors who had received graduate degrees elsewhere and who used imported instructional materials. The new demand was for creating a domestic cultural voice as a key component of nation-building. The first research funding agency for the arts, the Social Sciences and Humanities – the Canada Council - was established in 1957.

By the 1970s, Canadian society looked to the Social Sciences and Humanities for help to come to grips with unprecedented social issues related to ethnoculturally-diverse immigration, the ageing of the baby boom, and the changing views of gender identities and roles especially in the workplace. As a response, the Social Sciences and Humanities Research Council was created in 1977.

The next phase of the increasing calls from the larger society for help from the Social Sciences and Humanities came in the 1980s especially with respect to the relationship between environmental change and human behaviour and the human-computer interface.

Then, in the 1990s, new thinking redefined the field of medicine in terms of health thereby moving from a bio-medical model to one that included the Social Sciences and Humanities. In Canada, this led to the transformation of the Medical Research Council into the Canadian Institutes for Health Research, with a mandate to fund all research fields that could enhance health outcomes.

The most recent addition to the growing lists of societal expectations for contributions by the Social Sciences and Humanities has been the growing calls from the private sector. Increasingly since the late 1990s, business leaders have moved from their earlier focus on technological development to a comprehensive approach involving research on business strategy, governance and management, customer relationships and analytics, marketplace knowledge and global engagement. This trend has been intensified with the rapid proliferation of the digital economy as it moved from its origins in the creative industries to touch all sectors including those in natural resources.

Along the way, the larger public increasingly came to agree that the major challenges facing societies could only be tackled by further insights on human thought and behaviour. While technological breakthroughs remain highly valued, the new approach recognized that human decisions to use or not use technology were just as crucial in determining success or failure.

Over my career, I have experienced the rising expectations of the larger society toward the Social Sciences and Humanities. I have found that when I mention to neighbours or those I meet in the community that I am a historian studying family patterns in the 19th century, their reactions usually fall into one of three categories which have undergone significant change in their relative size.

One type of response is somewhat incredulous: “You don’t know why people develop relationships, get married and have children?”

The second type of response is the opposite of this *I-am-a-human-therefore-I-understand-people* assumption. This response says "Gee, I don't think we will ever understand why people develop relationships, get married and have children."

In contrast, the third type of response turns the pessimistic *people-are-too-complex-to-ever-fathom* assumption into an optimistic and urgent call for more such research on human thought and behaviour. In this case, people responded to my description of my research by saying "That is so important. If we had better understandings of human decisions, it would so much easier to build successful companies, increase learning outcomes in schools, strengthen civic engagement, and, in fact, confront all the world's problems."

Over the years, I have been getting more and more of the third type of response. Rarely now do people assume that such research on human thought or behaviour is futile or unnecessary. Why?

My sense is that one of the key distinguishing characteristics of our era is that we are beginning to take seriously the challenge of understanding people. And that we are getting increasingly optimistic that by confronting this challenge, we can help make a better future.

Why? Why are the research fields that focus on people, the Social Sciences and Humanities, moving to center stage?

One important reason has been the growing consensus about the failure of the technology transfer model that had become predominant during the 1970s and 1980s as the preferred way to achieve economic growth that would then support health, education and welfare.

The real limits of the linear lab-to-market push approach became increasingly clear by the late 1990s as almost all campus-based technology transfer offices did not even gain enough licensing revenue to pay for their operations.

In this context, the linear tech transfer model began to be replaced by a people-centered model of innovation involving multi-directional flows of ideas and knowledge across campus and into the private, public and non-profit sectors in new partnered, networked collaborations.

This new model of innovation reflected the new descriptions of customer-driven marketplaces, patient-oriented health systems, student-focused schools, citizen-engaged politics and employee-empowered workplaces.

As a result, leaders across society agree that, to thrive in the 21st century, the private, public and non-profit sectors now require enhanced understandings of people – the focus of the Social Sciences and Humanities – as well as the discoveries and inventions of the life sciences and physical sciences.

As Horizons 2020 makes clear, the challenges today clearly call upon all the ways of knowing for two main reasons: to contribute insights and to develop talented contributors across the private, public and non-profit sectors; and to work together, to increase exponentially the value of their scholarship especially to address pressing

societal challenges, the wicked problems, and the complex questions that defy simple solutions.

Not surprisingly, the Horizons 2020 challenges resonate with those identified elsewhere in recent years including, for example, those explored at the World Social Science Forum in Bergen in 2009 and the World Social Science Report of 2010.

And it is for such reasons that, for example, the natural sciences have been increasingly reaching out to the Social Sciences for increased partnership as illustrated by discussions at the Belmont Forum.

It is important to emphasize that underpinning the new people-centered model of innovation are deep conceptual changes that are increasingly making clear why we are re-imagining the role of all scholarly fields in the early 21st century.

While many such changes are important, I believe that new attitudes are especially important with respect to three key concepts: complexity, diversity and creativity.

In recent decades, we have increasingly abandoned the assumption that societies include only a small group of creators (usually a pre-ordained elite) for a majority of the population who must apply the fruits of the creative minority.

Instead, we now assume that anyone and everyone can be creative, and thus we seek to tap the entire pool of talent; this new approach helps explain the rise of interdisciplinarity as well as increased campus-community connections especially in the digital age.

Similarly, we have moved from thinking that diversity is a problem to be eliminated, to seeing diversity as the foundation of strength and resilience; this conceptual change has fueled new ideas about genetic diversity and economic diversity as well as new ways of tackling the world's most difficult problems such as poverty and inequality.

And we have re-imagined complexity as we have abandoned the conviction that complexity is only apparent (assuming that phenomena are simple if we just look closely enough) by recognizing complexity as a common feature of both human and non-human interactions with emergent properties, non-linearity, etc. My sense is that such deep conceptual changes make the challenge of advancing knowledge much more difficult, but also much more promising.

One important example is the increasing importance of digital technologies which are enabling, accelerating and then influencing the new ways of thinking about concepts such as creativity, diversity and complexity.

This point is important to emphasize since we often hear that we are living in a technologically-driven age. While this claim is undoubtedly true in part, the lessons of History make clear that technologies become major factors only subsequent to our decision to use them.

The Social Sciences and Humanities teach us that technology is not inherently good or bad. Since technology is a social construction, the relevant question is how it is being used – what is the human context?

The same, of course, can be said of innovation – which itself in not necessarily good or bad – as illustrated by the initially welcomed financial innovations that led to the failures begun in 2008.

But what is clear now is that all of our societies, economies and cultures are becoming digitally-enabled. This is true not only in the service sectors that now represent about two-thirds of developed world economies, but throughout the sectors including, in the case of Canada, the oil industries, forestry, mining, and agriculture.

And we should not be surprised – though often it seems we are - about who are the "ICT" workers in the all-inclusive digital economy. Numerous studies illustrate that historians, philosophers and literary scholars as well as computer scientists and engineers are among the diverse employees that now form the workforce in the so-called ICT sector.

Do we need more historians or mathematicians? Though still familiar, such questions are wrong-headed. We need more people who can think systematically, creatively, critically, constructively, and then can productively work with others in collaborative, networked, interactive ways. Study after study of career experiences have all concluded that whether students learn these competences through one way of knowing or another is not important over a life time.

But have scholars in the Social Sciences and Humanities been responding appropriately to the increasing calls for help from across the larger society in recent decades?

My sense is that scholars in our fields have not always been flattered by the increasing social conviction that our research can help the private, public and non-profit sectors. While we would never describe our work as irrelevant, we have sometimes resisted reflexively the claim that it is, or should be, relevant to the larger society. We have not always interpreted the rising expectations that we can help tackle societal challenges as evidence of an increasing recognition of the importance of our scholarship.

At the same time, however, there is no doubt that many students and professors across the Social Sciences and Humanities have been actively engaging with the larger society, and are now more often collaborating in, and sometimes leading major research initiatives involving diverse research fields as well as partners beyond campus.

In such work, we can perceive a new recognition that our scholarship is not only intrinsically important, but extrinsically essential for the larger society.

Moreover, we now conceptualize intrinsic and extrinsic scholarly contributions as complementary rather than in competition; in the new view, the intrinsic value of learning about people in the past and present lays the foundation for extrinsic contributions – in expected and unexpected ways – to our efforts toward making a better future.

The complementary view of intrinsic and extrinsic contributions has been proving exceptionally important for the Social Sciences and Humanities since so much recent research has been exposing the extent to which unfounded assumptions about people have characterized policies and practices in many societies. Until recently, for example, modern school systems developed during two centuries without any serious

study of how children learn. Similarly, workplaces typically did not reflect any analysis of the conditions for successful management, sustained employee productivity and innovation. Businesses usually operated with little understanding of customers or the features of the marketplace. And health care systems did not focus on patient outcomes or even a wide range of health determinants.

In these and in so many other examples, we are now realizing how early we are in our research efforts to enhance knowledge and understanding of human beings in order to improve our schools, businesses and institutions.

We are also realizing the deep interconnections and interactions between and among research fields. To take advantage of insights from the Social Sciences and Humanities, we now see that we must also pursue discipline-based, interdisciplinary and engaged scholarship.

And in pursuing cross-campus and community-connected collaboration, we need to abandon any sense of hierarchy among research fields.

Rather, such collaborations must involve the bringing together, drawing upon, reconciling, and enriching different ways of knowing for the benefit of all.

It is for these reasons that the emphasis in Horizons 2020 on complementarity and integration is so important and should resonate across all research fields.

But we should also admit that this emphasis requires us to avoid the pitfalls of earlier such efforts.

The challenge must not be seen as a call to make the Social Sciences and Humanities more like the natural sciences, engineering, and the bio-medical and health fields. Rather, Horizons 2020 calls on us to build upon the promising aspects of the diverse metaphysical and epistemological traditions that have developed over the years.

And let's admit that this will not be easy.

Successful implementation will depend on our ability to embrace the challenge and opportunity to create a new era of research, a new era of science, a new era of scholarship.

The next step might be to celebrate those examples of success in developing cross-campus understandings based on complementarity and integration. In the Canadian case, one impressive example has been the development of common guidelines for research involving humans that includes all research fields from clinical trials to oral history as well as encompassing diverse traditions, most significantly, Canada's Aboriginal Peoples. The result of several years of discussion, debate and consultation, and now viewed as a living document with periodic updates, these guidelines show how core values and principles can be distilled from different research traditions in order to establish common policies and practices that build upon rather than undermine the richness of these traditions.

This type of example suggests the importance of re-thinking what we consider to be the defining characteristics that distinguish disciplines and research fields. One tendency has been to emphasize differences in methodology such as "quantitative"

or "qualitative" research. But increasingly, researchers agree that every approach is inherently both qualitative and 'quantitative'. Not only are words and numbers semiotically comparable, but quantitative methods are also 'qualitative', since counting follows decisions about what we decide to count, how we categorize, how we interpret-attribute significance, and so on. Similarly, qualitative statements usually imply comparisons of size and intensity, uniqueness and commonness, and similar relative assumptions.

This example suggests that it is not the research strategies that continue to differentiate disciplines, but rather the questions addressed by various research fields. This insight suggests that major steps forward can be taken if scholars from diverse traditions pursue different research questions about a common focus of research – such as illustrated by the Horizon 2020 societal challenges – in a complementary and integrated way.

One encouraging example of such efforts involves those who are connecting neuroscience to studies of behavioural change and decision-making.

But how can we ensure that applications for research funding for complementary and integrated initiatives receive appropriate adjudication?

Unfortunately, we as scholars have not extensively studied ourselves in terms of how we evaluate – especially, to use Michèle Lamont's book title, in terms of *How Professors Think*.

But there have been significant steps forward in recent years. Discussions in Europe, for example, have made major international contributions to understanding and confronting the limits of bibliometric and citation databases of commercial companies. They have also emphasized the different roles of books and journal articles in different fields. Similarly, increased attention is being paid to the distinct traditions of deciding who is cited as author of a journal article and who is thanked in the acknowledgements or references.

Similarly, cross-campus debate has begun examining what evidence of a scholar's achievements or of a specific research project should be documented and how we should define outputs, outcomes and impact.

One result of such discussions and debate has been a renewed confidence in human judgement through peer review processes. But here the evidence thus far should caution us about the readiness of any group of humans to assess complementary and integrated proposals. My experience suggests that proposals closely associated with the Social Sciences and Humanities have not characteristically done well in multidisciplinary evaluation committees. The reasons are undoubtedly multiple and complex. To some extent, it seems that the 20th century hierarchy of ways of knowing plays out as well as the 20th century social construction of excellence in measuring past achievements.

In Canada, we have been working hard to make progress on the challenge of single adjudication of diverse fields, but it is clear that we still have much work to do to meet this challenge.

We must do better in many respects in developing appropriate ways to handle all the aspects of research administration: an inclusive call for proposals; a common application form with inclusive terminology; evaluative criteria that do justice to the diverse ways of knowing; referees and selection committee members who have both the expertise and experience to assess proposals that transcend traditional boundaries both on campus and beyond; and reporting guidelines – outputs, outcomes and impact – that are robust and inclusive.

Complementarity and integration across all research fields require sophisticated and inclusive attention to the many components of the granting process - from the selection of evaluation criteria and how they are implemented to the application forms, including the choice of words and categories for the information to be requested, as well as the selection of proposal evaluators and selection committee members. Discussion here at this conference is certainly moving us forward on such important issues.

It is truly a major step forward that research granting agencies are now increasingly collaborating to accelerate progress on the implementation of policies and practices that align with the changing world of research in the 21st century.

In this regard, I am delighted that the support of the European Commission will allow the major research funders in Europe and the Americas to launch an initiative to build a Trans-Atlantic Platform for the Social Sciences and Humanities in order to enhance collaborative research internationally in key areas of mutual interest and engagement. The Netherlands Organisation for Scientific Research and the Social Sciences and Humanities Research Council of Canada will coordinate an effort by member organizations to strengthen and promote Trans-Atlantic research co-operation, output and impact utilizing a series of coordinating, project, and programme strategies. The Trans-Atlantic Platform will also contribute to the realization of a Global Research Area by coordinating with the EU/India Platform (EqUIP) for the Social Sciences and Humanities.

Let me close by emphasizing how pleased I am to be here and for the opportunity to work with all of you to share ideas, exchange thoughts, and develop specific plans to address what we all agree is the most urgent task before all of us: doing all that we can to help create a better future.

There is no doubt that this task seemed more straightforward some years ago. Indeed, during the course of the 19th and 20th centuries, western society developed considerable confidence about progress. Each generation claimed to be surpassing the one before, and leaders celebrated self-congratulatory milestones along the way such as longer lives and better educated, more prosperous citizens. We should not forget that, by the 1960s, the emphasis was on the emerging leisure society when the challenge would simply be to fill our time pleasingly as machines did our work, cleaned our homes and made our food.

Today, my sense is that such confidence has been shaken if not destroyed by many people. Today, observers around the world are cautious. The balance sheets for households, companies, communities and countries are not adding up favourably, if at all in many cases. The emphasis everywhere now, as illustrated by Horizons 2020,

is on the global challenges we face, the wicked problems, the clashing civilizations, the seemingly irreconcilable tensions between human ambitions and the rest of the environment. Are we confident that our descendants will live better lives than us?

Well if we aren't, I think we can be, but only if we successfully embrace the potential of a new era, one that holds the promise of renewed policies and practices, of stronger ethics and equity, of increased resilience and responsiveness, of smarter communities and enhanced quality of life.

By embracing complementarity and integration across research fields, by drawing upon the strengths of the Social Sciences and Humanities, the natural sciences and engineering, the bio-medical and health sciences, Horizons 2020 holds the promise of a shifted paradigm, of a new era characterized by prosperity and security, justice and resilience, peace and enhanced quality of life.

In the early 1960s, the great Canadian scholar, Northrope Frye, explained that "the fundamental job of the imagination in ordinary life…is to produce, out of the society we have to live in, a vision of the society we want to live in."[1]

I believe Horizons 2020 does indeed imagine a society that we should want to live in; successful implementation will certainly help Europe and the world take major steps forward in realizing that vision.

[1] Northrope Frye, *The Educated Imagination* 1964 (The Massey Lectures 1962).

6.2

In the Bed or at the Table?

In the Bed or at the Table?

Tereza STÖCKELOVÁ, the Institute of Sociology of the Czech Academy of Sciences, the Czech Republic

December 2013

Being a sociologist of science – the Vilnius conference was a fascinating experience for me. I would like to share a couple of observations relevant for the possible effects of the conference for Social Sciences and Humanities in Europe.

In the bed or at the table?

After attending the conference, my prediction is that Social Sciences and Humanities (SSH) will be, though partially integrated into Horizon 2020. The key issue is of course HOW will they be integrated? My impression from the plenary, as well as from the parallel session I participated in, is that SSHs would be welcome by politicians and policymakers and most of the STEM scientists in three roles. First, as a tool to achieve already settled goals, which means SSHs are not invited to re- or co-define such goals as in the Societal Challenge pillar themselves. Second, SSHs are treated as representatives of society. They are expected to help in pacifying society along with the goals. Third, as a source of socioeconomic expertise, which is an understanding that will keep them at safe distance from other types of expertise. SSHs are not invited to question how e.g. bioscience knowledge or technological solutions are constituted at the first place but help them to spread more effectively in society.

How do I come to these conclusions? Well, here are some characteristic quotes on the foreseen changes I noted down during the first plenary session at the conference: "completely different way of doing business", "understand their customer", "we need to understand why there is the resistance", "to get the acceptance once the things is developed", "global challenges that are out there". And here is a quote from the EC representative presentation in the parallel session: "the natural science have (sic!) a dominant position in the analysis of the processes and causes of global climate change", "need to draw on a broad range of SSH research – including sociology, anthropology, history, literature and cultural studies – in order to grasp the impact that climate change has on the articulation of values, norms and cultures".

It seems to me this is what the popular phrase "embedding SSH across all societal challenges" in fact means and I can only agree with Michel Wieviorka who said in the final plenary session that "embedding" is a dangerous word.

I expect some SSH researchers will be happy to take on these roles, and I even think this might be legitimate in some cases unless it is the primary and only contribution allowed from SSHs. If processes are only open for instrumental, but not for reflexive SSHs knowledges and perspectives we will only repeat the tragicomic fairy-tale of a ready-made bright future, which not only cannot be fulfilled but apparently doesn't work as a political myth mobilizing European citizens any more.

Unity in diversity or partisan battles?

My other comment is concerned with the Social Sciences and Humanities field. Let us start with the abbreviation SSH. When we talk about the Social Sciences and Humanities we are explicit about the disciplinary plurality, difference and potential reductionism and conflicts. The abbreviation makes them sound singular and coherent. I noticed the abbreviation being used very often at the conference (I of course did it myself!). There are understandable pragmatic reasons for that but nevertheless I think it gave an unrealistic impression of unity, shared realities and interests without a "due process" of lengthy and at times perhaps painful negotiations between various stakeholders in the field. My second observation in this context is that disciplinary participation was rather uneven at the conference. I noticed for example very few economists and those speaking identified as "critical economists". But economy is the most powerful social science today, both in academic and societal terms, and we have to ask where are the economists (in relation to Horizon 2020) when they are not at the conference? Do they have their own channels to speak to the European Commission and lobby for their interests? Third, apart from disciplinary plurality and potential conflicts, there is one more, probably strengthening, cleavage in European SSHs which flashed on several occasions at the conference. It is related to national and regional differences. I don't speak primarily about the different "traditions" of e.g. national sociologies but current precarities that researchers face in different countries. It was obvious that cuts and austerity measures in (national) public funding for research in general and SSHs in particular create very different situations for researchers with implications for EU funding as well. It seemed from some of the contributions in the plenary that, e.g., not only any co-funding is available in many places in Southern Europe but institutions are not able to offer even basic working conditions for EU funded researchers.

This all is meant as a critical reflection of the usage of the abbreviation of SSH and the "unity" of SSH, not a critique of the conference. I share the concern of the organisers regarding the common voice of SSH vis-à-vis the European Commission and other European policy bodies. The conference was a substantial contribution to the process of its articulation. But the positioning of the conference was indeed difficult in this respect as it was at the same time a place to locate SSH to/with politicians and policymakers (i.e. with the "outside" of SSHs) and with each other (i.e. within the SSHs). These are apparently very different tasks – while we need much more open and explicit exchange within the communities, there is not much point in confronting each other before the eyes of the policy publics.

What happens to society?

To conclude, I would like to emphasise one danger I noted earlier, which is that SSHs would play the role of expert spokespersons of society in Horizon 2020 and related political processes. As was clear from the quotes above, the expectations from the politicians and policymakers as well as the STEM scientists in the parallel session were in terms of instrumental expertise. In the parallel session on climate change the call clearly was for social scientists to help implement the readymade natural science and

technological solutions, taken up poorly by society so far. SSHs should not only play the role of delivering socioeconomic expertise and potentially tools for changing individual and collective behaviour but also – and I think mainly – to play the diplomatic role of re-connecting issues and agendas, empowering side-lined actors to articulate their presents and futures.

The Vilnius Declaration Horizons for Social Sciences and Humanities is on the other hand explicitly rejecting this approach and calling for "innovative participatory approaches empowering European citizens in diverse arenas", which I appreciate. I am however doubtful that specifically on this point the Declaration speaks for the whole field of SSHs. As much as it will be about challenging and persuading the policymakers and STEM researchers about this mission, it will be, I suppose, about challenging many of our SSH fellows.

6.3

Horizon 2020 and the Social Sciences and Humanities

Horizon 2020 and the Social Sciences and Humanities

Ed HACKETT, Arizona State University, United States of America

December 2013

I am very grateful for the opportunity to take part in the discussion about Horizon 2020 recently held in Vilnius. In return, the paragraphs below offer my thoughts about ways to meet the challenges ahead, and the papers mentioned provide additional detail. I would be delighted to help with the work that lies ahead.

Funding Mechanisms and Research Organization

Horizon 2020 challenges the Social Sciences and Humanities (SSH) to collaborate among themselves and with engineers and scientists to produce intellectual and societal benefits. Initiating and sustaining collaborations of this sort will require **new funding mechanisms, innovative patterns of research organization, and more active and sensitive use of assessment and management in the course of research**. Every one of the challenges should have strong participation of SSH. The work of Horizon 2020 will unfold in stages, the first involving **innovation in the funding mechanisms and organization of research**, the second in the **conduct of research itself**, including **integration across disciplines and engagement with practitioners and the public**, and the third in the **adaptive management of research through ongoing assessment and adjustment**. Innovations of such scope and depth are more effective if **designed collaboratively** by European Commission staff and members of various scholarly disciplines. Such collaborations not only increase the **technical quality** of the intervention, they also do much to insure that the changes are understood to be **legitimate and fair, and to secure "buy-in" from the research community.** Time is short, and so these collaborations should begin soon.

The degree of originality called for by Horizon 2020 requires innovation of some depth in the funding, organization, technology, and conduct of research. At the center of the Horizon initiative I would place the socio-technical organization of research, and then would design funding and allocation mechanisms (which lie upstream of research) and assessment activities (which lie downstream) to suit the new forms of research organization and technology. "Research infrastructure" is an inadequate term to characterize the changes required. In literal terms, infrastructure is the stuff below and within the structure—the foundation or groundwork—upon which a structure is built. Well-built infrastructure is generally considered to be solid, serviceable, enduring, and inert; adequate for the task of providing the support necessary for the structure built upon it. The ensembles of research technologies or platforms employed in scientific research are different: they have **agency, reactivity, and potential energy**, and they are a transformative force that challenges orthodoxy, generates empirical insights, and catalyzes new theories. New research technologies require new analytic models and tools; generate data that demand novel explanations; initiate new patterns of research organization, collaboration, and publication (including collaborations that extend

outside the university to include practitioners and members of the public); and require values and ethics adequate to guide practice in this world of new possibilities. In other words, new research infrastructure will place demands upon what is built upon it and, in turn, the infrastructure itself will be reshaped and repurposed in the course of its use.

This vital quality—research infrastructure that shapes and is shaped by its use—calls for a design and construction process that is broadly participative and adaptively managed. Openness and broad participation across disciplines and generations are essential to elicit innovative ideas and build the foundation of legitimacy and support that will be necessary for the innovations to follow. The experiences of other sciences are reasonably well documented, and we would be well advised to study them, consult our colleagues, and shape our path accordingly.

Emerging Topics at the Conference

Assessment, interdisciplinarity, and embeddedness, in various forms and combinations, appeared throughout the conference program and discussion. Uncertainty and anxiety accompanied these concepts, at times rising to such levels that perspective was distorted and means supplanted ends. I would like to suggest ways to think about each of these three concepts that will ease some of the concern and allow work to proceed effectively.

Assessment

Assessment was discussed in its *ex ante* and *ex post* forms, but it is important also to consider *in situ* assessment and the rising demand for more nuanced forms of assessment (such as assessment that looks beyond "how many" publications or "how much" impact to assess substantively the kind and quality of outputs, the distribution and variety of benefits, and the trajectory of innovation). Importantly, designing new forms of assessment and their deployment for adaptive guidance of inquiry and innovation are themselves rich topics for collaboration across SSH fields and with our colleagues in engineering and the sciences.

***In situ* assessment examines the research process in context and in near-real time, with the aim of improving the quality of outcomes**. Underlying this effort is recognition that the speed of innovation and the complexity of its interactions produce emergent outcomes that are hard to anticipate and that therefore demand a parallel acceleration of assessment. Nuance—here intended to mean not only focusing on "how much" was produced but also on the more important but less-readily-measured qualities and implications of the output—is an integral aspect of assessment. Peer review is often employed in assessment before research is done (in the evaluation of proposals, for example) or after it is completed (in the evaluation of manuscripts for publication). But **the most powerful peer review happens in the course of research** itself, when collaborating scientists propose tentative explanations and conclusions to the group, which then evaluates and revises them in "real time." We might call this "endemic" peer review, because it originates within the research project and is closely tailored to its substance, methods, and aims. Also worth exploring are bibliometric

mapping techniques and semantic analysis of scientific text (titles, keywords, abstracts), which are now possible to do at a scale and speed that was unimaginable a decade or so ago. These methods provide new insights into the qualities of research output that are invisible to traditional measures. Done well this new form of assessment will reveal aspects of the research process that engage diverse stakeholders in a process of adaptive guidance of innovation and inquiry, complementing *ex ante* and *ex post* studies.

Interdisciplinarity

Interdisciplinary collaboration is not an end in itself but instead is a means to generate integrative explanations, to inspire broader and more original ideas, and to spark innovation. **Too often interdisciplinary collaboration appeared in the Vilnius program discussion as a goal in itself**. This may cause frustration for two reasons: first, when interdisciplinary collaboration looms so large that is seems an end in itself, and meetings are organized chiefly for the purpose of achieving it, participants often depart feeling unsatisfied because nothing happened to advance knowledge or solve problems, and for that reason they become less inclined to participate in the future. Second, because disciplines are so large and diverse it is unlikely that every part of one discipline would work well with every part of another, and (frankly) there is no reason to attempt such a relationship. (And the problem only worsens when more disciplines are involved.) Better to motivate and focus interdisciplinary collaboration with a commitment to addressing well-defined intellectual or societal problems, using the focus and depth of commitment to a solution to overcome differences in epistemic cultures.

Following the Vilnius conference, meetings might be organized to identify and prioritize problems that have intellectual and societal importance, and to design research strategies (research organizations and funding mechanisms) best suited to address them. As shorthand we might call this activity the identification of "necessary" and "sufficient" innovations: for which problems is more innovation necessary and effort should be invested, and for which is innovation already sufficient and not in need of deliberate stimulation? Settling such questions is itself an important topic for the sort of wide-ranging collaborations that will be the signature of the Horizon 2020 program. For SSH fields it is particularly advantageous to **take the initiative** in organizing and convening such collaborations, inviting potential collaborators from other sciences to workshops. By framing issues from the SSH perspective, ethics, values, and social dynamics will lie at the heart of the research, which will more likely be framed in a way that yields benefits for a wide diversity of social groups and advances knowledge across a broad disciplinary front. Scholars in Science and Technology Studies, broadly understood, can catalyze such collaborations and facilitate communications across disciplines.

Embedding or Integrating?

Embeddedness also caused some confused discussions about which disciplines would be embedded in which, with ancillary concerns about disciplinary dominance, initiative, respect, and such. **Better not to think of disciplines embedded in one another but instead to embed intellectual and societal problems within an interdisciplinary matrix of concepts, methods, and data specifically tailored to suit the challenge** (or family of challenges). This places the emphasis where it belongs, on the creation of innovative and effective analytic frameworks, rather than on the relative power of disciplines. These frameworks or interdisciplinary matrices (and I mean the referent to Thomas Kuhn) would be built to address the scientific (natural and social), engineering (including social engineering), ethical, and values-relevant aspects of the problem. The matrix may take the organizational form of a large-scale collaboration (think of those supported by ERC's synergy program), a collaborative network (think of NSF's Research Collaboration Networks), a formal center (perhaps built around research infrastructure in the sense described above, which might entail large-scale instrumentation, such as a coordinated set of spatially explicit environmental and social surveys, coupled with aerial imagery of land cover, historical maps, and census data (see Hackett, 2011) or a synthesis center (see Hackett and Parker, 2014 a and b). Synthesis centers have developed a distinctly effective mode of interdisciplinary collaboration that engages practitioners and public officials in work that advances scholarship while addressing real-world problems. Let me describe them in some detail.

Creating Synthesis Centers

On synthesis: synthesis is the integration of diverse concepts, theories, and data across fields of science and scholarship with the aim of producing explanations that are more extensive or fundamental and that may inform more effective policies or innovations. It is a process well suited to the ambitions of Horizon 2020 program. Synthesis centers catalyze the fabrication of new knowledge from existing data through intensive interdisciplinary collaborative groups which are assembled to focus on integrative questions that have scientific and practical significance. There are examples in several fields of science distributed around the globe. In addition to the US centers (the National Evolutionary Synthesis Center (est. 2005), the National Center for Mathematical and Biological Synthesis (est. 2008), and the National Socio-Environmental Synthesis Center (est. 2011), other synthesis centers include the Australian Center for Ecological Analysis and Synthesis, the Stockholm Resilience Center, the Institute Para Limes (Netherlands), the Center for Synthesis and Analysis on Biodiversity (France), and the Center for Biodiversity Analysis and Synthesis (Germany). And the list is growing.

Synthesis centers convene temporary working groups to engage in deep analysis and integration of existing theory, data and methods about a specific scientific topic or policy issue. They tend not to gather new data but to assemble and analyze existing data in ways that provide broader scale and more durable explanations, thereby adding value to prior research investments while producing a distinct and powerful form of new knowledge. Groups typically consist of 8-15 collaborators who meet at the center

for about a week, two or three times each year, over a period of two or three years. These intense periods of face-to-face collaboration are complemented by work done at participants' home institutions and by electronic collaboration conducted by group members during the intervals between meetings. Unlike the academic "families" of advisors and graduate students of traditional ecology, working groups are larger, more diverse collaborations spanning disciplines and extending from academe into the worlds of policy and practice. This extensive collaboration brings ancillary benefits: new research networks form and a culture of collaboration and engagement with real-world problems emerges within participating disciplines. Importantly, synthesis centers are not panaceas or miracle-workers, but are a novel and flexible organizational instrument for altering collaborative patterns.

The center's design and operating principles are determined by the disciplinary needs and practices of the sciences involved, and by any special requirements imposed by the practical problems the center will address. In addition, some general principles (detailed in Hackett and Parker 2014b) should be kept in mind. These include locating the center in an area that is easy and inviting to travel to yet free of the usual distractions of academic life (that is, some distance away from a university campus or major institute that would distract center visitors from their group and its purpose). The center must provide a near-flawless, high-quality research environment, along with excellent technical support for computation and analysis: the sort of place where visitors can begin work the moment they arrive. This contributes to the culture and atmosphere of the center as a place where important work is done. Research groups are best composed of scholars and practitioners with complementary expertise, suited for the problem at hand, and varied in seniority. Distancing the group from the traditional academic setting and its status cues seems to enhance the ability of junior scholars to work as peers with their senior counterparts. This age complementarity can be an exceptionally creative and productive combination, both for what it accomplishes and for the immersive educational experience it offers the junior collaborators. Given the current age structure and employment circumstances in engineering, humanities, and the sciences, there is great benefit in creating organizations that fully engage the talents of young scholars.

Whichever specific organizations are developed, these should be operated as user facilities-a place to work collaboratively, open to the community but hosted in particular place for the duration of the award-a design that contains elements of a network and elements of a formal center. To explore the potential contribution of synthesis centers to the goals of Horizon 2020 will require groundwork that is best done in workshops composed of scientists and scholars from diverse fields (across the knowledge spectrum) who share a general interest in a problem domain. The aim of the workshop would be to formulate and explore research challenges amenable to the synthesis process-problems for which data are available that could yield more knowledge if analyzed in an integrative fashion, using an interdisciplinary conceptual framework. The workshops prepare fields to think in this way and to begin the search for common and mutually productive intellectual ground. Some time may be set aside for informal interaction to take place around the central agenda, but success and accomplishment are the strongest reinforcements for collaboration, and so it is vital that workshops are product

oriented. From a set of workshops a funding program and call for proposals could be developed that allow innovative synthesis center models to compete for funding.

Horizon 2020 presents the SSH community with an unparalleled opportunity to advance scholarship and address societal challenges in ways that promise to transform knowledge and inquiry in our fields while enhancing their standing in the public mind. The deepest problems confronting the world-among them inequality, security, nutrition, sustainability, aging, energy, migration, and environmental degradation-are problems that demand the integrated efforts of humanists, engineers, and scientists of every sort. New organizations, research practices, institutions, and collaborative arrangements among disciplines and beyond university walls are needed to bring the necessary energy, ingenuity and talent to bear on the challenges that lie ahead.

Bibliography

- "From Salomon's House to Synthesis Centers."Edward J. Hackett and John N. Parker. To appear in Thomas Heinze and Richard Muench, eds., Intellectual and Institutional Innovation in Science. Palgrave (Macmillan), 2014a.
- "Ecology Reconfigured: Organizational Innovation, Group Dynamics and Scientific Change." Edward J. Hackett and John N. Parker. To appear in Martina Merz and Philippe Sormani, eds., The Local Configuration of New Research Fields, Sociology of Sciences Yearbook. Springer, 2014b.
- "Possible Dreams: Research Technologies and the Transformation of the Human Sciences," Edward J. Hackett, The Handbook of Emergent Technologies in Social Research. Sharlene Hesse-Biber, ed., New York: Oxford University Press, 2011.

7.

CONSULTATION REPORT

Consultation Report Executive Summary

The objective of this consultation was to learn more about the current situation and the ambitions of the research community, as well as to identify the needs and structural problems of specific fields, with an emphasis on their potential to contribute to the success of the new research framework programme, Horizon 2020.

From 22 April to 8 July, 2013 researchers previously involved with or planning to carry out EU-funded research in the Socio-economic Sciences and Humanities (SSH) were contacted via email. They were asked for their views on a set of five questions, which were designed to take the pulse of the SSH research community and prepare a declaration of the conference: Horizons for Social Sciences and Humanities, September 23-24th, Vilnius, Lithuania, Mykolas Romeris University.

The results of the analysis of the 306 consultation responses received from all over Europe were used for the thematic design of the conference. Three major themes were identified: interdisciplinarity, methodology, and obstacles/challenges in SSH research funding. They resulted in the following session topics: diversity and common ground, training and education, impact and evaluation, structural funding, newly emerging topics, and widening participation. The next step was to discuss how best to proceed with the integration of the SSH into the seven societal challenges of Horizon 2020: health and demographic change, food security and the bioeconomy, secure energy, smart transport, climate change and environment, inclusive and reflexive societies, and secure societies.

Results of the consultation have provided valuable input for the drafting of the **Vilnius declaration on Horizons for Social Sciences and Humanities** handed to the European Union Council of Ministers by Dainius Pavalkis, the Lithuanian Minister of Science and Education.

Open Consultation Process

Between 22 April and 8 July 2013 we contacted researchers who had been involved in or were planning to carry out EU-funded research in the Socio-economic Sciences and Humanities. We asked for their views on a set of five questions, which were designed to take the pulse of the SSH research community and prepare a declaration that was handed over to Dainius Pavalkis, the Lithuanian Minister of Science and Education at the conference Horizons for Social Sciences and Humanities, September 23-24th, 2013 Mykolas Romeris University, Vilnius, Lithuania. The declaration was also disseminated to the representatives of the European Commission, the European Council of Ministers, the conference participants, and relevant communities via internet and social media, such as Twitter.

The aim of the consultation was to learn more about the current status and the ambitions of the research community as well as to identify the needs and structural problems of specific fields with special emphasis on their potential to contribute to the success of the new research framework programme: Horizon 2020.

The consultation has circulated in the wider SSH research community, irrespective of whether individuals or institutions are already active in EU-funded research. Indeed, we believe it is of great importance to reach out also to those SSH communities that have not yet been involved in EU-funding. This includes researchers who are based outside Europe, but cooperate with colleagues in Europe.

Request for Consultation

The following questions were sent out via our partner organisations (see list below) to the European SSH communities:

1. SSH research is often conducted in disciplinarily defined contexts. This may be an obstacle in a problem-driven research environment ("societal challenges"). Can you give examples of **how your own research area has been involved** in (a) opening up to other research fields, (b) translating findings and/or methods to or from other academic fields, (c) contributing to the emergence of new, cross-disciplinary fields, and/or (d) transcending, with its results and insights, the fields of academic research?
2. The research agendas of the different subfields of SSH are very heterogeneous. What are the broad research questions, new methodological or theoretical developments, or generally new approaches that are **high on your own research agenda**? Which ones are high on the research agenda of your field? Where do you see potential contributions to societal relevance?
3. Horizon 2020 will provide new opportunities for SSH to contribute to new research on "societal challenges". What are the **potential contributions from your field**? Please specify the "societal challenge/s" to which contributions from your research community are most likely, and suggest successful steps in this direction, if possible.
4. Do you foresee (or have you experienced) **obstacles** that may prevent you and your research community from making contributions to the "societal grand challenges" approach? Please provide specific indications.
5. In order to foster a more integrative approach that would also benefit the SSH research communities, what would you consider the **most important incentives** that Horizon 2020 could provide?

Should you have any additional comments, please feel free to share them with us.

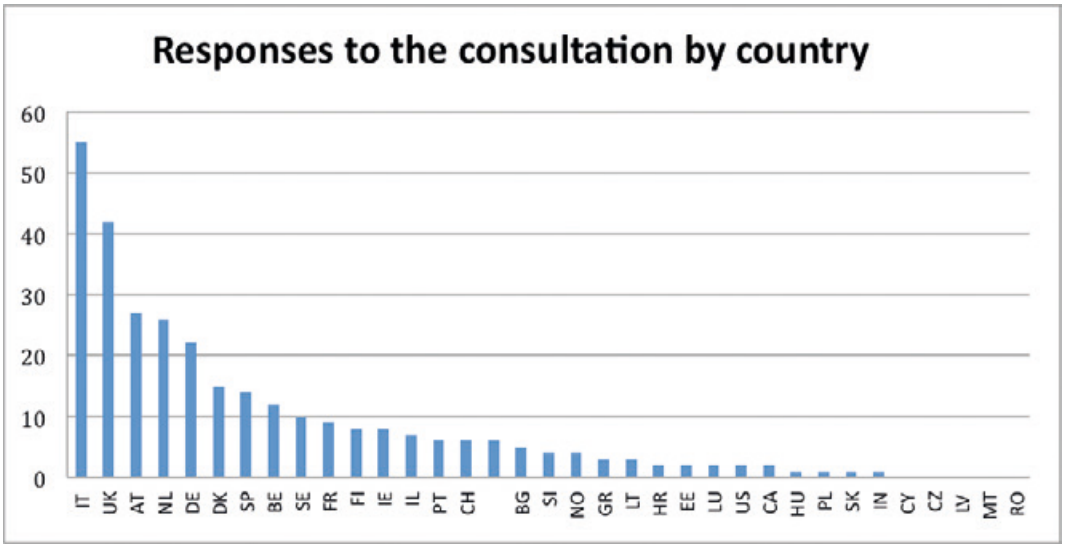
Since it was an open consultation process distributed via snowballing and not a survey, we do not know the total number of respondents. Hence, we cannot provide a quantitative analysis of response rates.

The consultation process was scientifically supervised by the Conference Steering Committee:

Helga Nowotny (Chair), Rūta Petrauskaitė (Vice Chair), Giedrius Viliūnas (Vice Chair), Jutta Allmendinger, Paul Boyle, Craig Calhoun, Gustavo Cardoso, Rivka Feldhay, Poul Holm, Pavel Kabat, Alain Peyraube, Aura Reggiani, Peter Tindemans, Wim van den Doel, Michel Wieviorka, Björn Wittrock.

Responses – Overview

306 responses that reached the Steering Committee were used for analysis. Many contain highly elaborated statements. Responses were collected at Mykolas Romeris University in Vilnius and entered into a database. The responses were analysed by the team in Vienna with regard to the conference topics in order to integrate this expertise into the discussions in each session. After the conference, a second deeper discourse analytic phase generated this consultation report, which will hopefully provide further input to the discussion of Horizons for Social Sciences and Humanities.



A detailed list of respondents by institution and stakeholder organisation can be found here: http://horizons.mruni.eu/consultation-report/.

Fields and Disciplines

Many respondents also mentioned their fields of expertise. We compiled their answers in a Wordle Graphic for an overview: the size of words represents frequency, however their position has no meaning.

Most of the respondents repeatedly declared themselves as coming from an interdisciplinary background, stating that many SSH are already working in a cross-disciplinary way or have many possibilities for working together with other SSH, sciences and engineering. Especially those working at the interfaces of health, law, economics, linguistics, history and psychology put the emphasis on the importance of truly interdisciplinary review and evaluation frameworks, and stressed the fact that – although their knowledge and expertise is highly in demand in policy or business contexts – their academic careers are not reflecting this societal need. Furthermore, it was noted that disciplinary specialisation per se is rooted in traditionally discipline-specific university training. Especially in Europe this is causing the formation of closed disciplinary communities that would need more incentives to step outside and ask interdisciplinary questions and form interdisciplinary teams. More about the issue of interdisciplinarity will follow in the Results section of this report.

Methodology: Identifying Themes for Discussion from an Open Consultation Process

We received 306 responses that fulfilled the basic criteria for the analytic process. The open questions were not aimed at obtaining statistical data; instead we were looking for useful in-depth narratives and recommendations from the valuable experiences of the targeted communities.

The aim of the analysis was to produce detailed and nuanced insights into the status and future of SSH communities in Europe. The results of the analysis were used for the on-going conceptualization of the conference programme, and had a direct impact on the drafting of the Vilnius Declaration.

Following a content analytic approach[1], we annotated the text corpus and extracted the statements embedded in the wider (con)textual setting for each annotated category. The categories were defined not ex-ante, but during the close reading of the responses. Such a coding process is recognised as production of data, both by subdividing the data as well as assigning categories. Codes or categories are tags (labels) for allocating units of meaning to the excerpts of the corpus of consultation answers. Creating categories triggers the construction of a conceptual scheme that fits the data: thematic clusters were formed from the annotated categories. Furthermore, this approach helps us to make comparisons across data, change and drop categories, and even look for blind spots and empty spaces. This form of data condensation or data distillation in establishing categories is to be regarded both as an organising tool and the outcome of the analysis process.

Results – Identifying the Main Questions and Themes for the Conference and Further Discussion

General Results

Besides a very comprehensive list of recommendations, we could identify three main thematic strands in the corpus of responses: interdisciplinarity, new digital methods and digitisation, and SSH and European funding policy. Before introducing them in detail according to the scheme we developed for the conference programme, here is a summary:

1. The issue of **interdisciplinarity** (often used synonymously with transdisciplinarity and crossdisciplinarity) was brought up by two thirds of the consultation respondents. There is consensus in most responses that SSH is not just conducted in disciplinary contexts, and that contemporary SSH are inherently interdisciplinary, e.g. in fields like cultural studies, urban studies, and STS. However, some respondents mentioned that interdisciplinary SSH are still perceived as more discipline-bound because the research process leads to a transformation of established fields into new fields with new names or labels. In contrast actual disciplinary oriented fields and also a lot of STEM research seem to work more in multi-disciplinary settings, where different disciplines provide distinct input, and new fields and disciplines emerge through combination rather than through merging of existing practices, as is the case in interdisciplinary SSH. The main anticipated problem concerns the wide gap between horizontal themes in research funding and the often strict and conservative vertical hierarchies of disciplines, university settings and monodisciplinary publication and outreach contexts. Thus, a priority will be to rethink academic hierarchies (and 'containers') and how to overcome them, how to provide spaces for the development of new skills, methods and group collaboration, and for experimentation with new configurations of research fields. Furthermore, interdisciplinary research should include the deep analysis and reflection on the nature of different problems, to avoid superficiality for the sake of application of research results. Last, but not least, the question remains how to create robust evaluation and assessment procedures for interdisciplinary research, and how to find experts with experience in interdisciplinarity to evaluate such proposals or project reports. However, the objective of interdisciplinarity should not remain an end in itself. Instead researchers have to learn to put it into practice, build it into proposals or implement it into concrete work packages from the very start, organise diverging communication practices and different time horizons, and finally collate multi-disciplinary approaches and outcomes into interdisciplinary results. The role of funding agencies in establishing an interdisciplinary research landscape should not be underestimated. However this needs a clear understanding of the complexities of SSH related research and a sense of flexibility to allow for constant development and organisational learning.
2. New **digital methods and digitisation** efforts (sometimes hyped as "big data") bring about the necessity to deal with the lack of education and training in these fields,

and the lack of reflexivity when it comes to either adapting methods or developing SSH specific approaches in the digital realms. How can local knowledge, cultures, and regional solutions be compared and brought together with global models, European platforms, and diverse expectations of (cultural) heritage services? Will such new digital developments include new forms of public participation, and new forms of expertise?

3. Nearly all respondents identified the need for SSH to be involved in **research policy making** and in all steps of defining work programmes, advisory groups, and specifically in the assessment and evaluation of inter/transdisciplinarity. It is demanded that horizontal issues require more than stable long-term funding schemes to keep teams intact and deepen the approaches. Not the funding scheme but the problem focus of an issue should determine which countries, disciplines and stakeholders are required to be involved. For interdisciplinary approaches it would be good to organise networks and platforms, and finance project pre-phases, including proposal writing. More details on recommendations regarding organisation and administration of research funding can also be found in the next section where answers by funding bodies are collected.

Detailed Results

1. Diversity and Common Ground

The Social Sciences and Humanities are a diverse field of theoretical approaches and research practices; this diversity is a blessing and a curse at the same time. Many examples show that the institutional, linguistic, disciplinary and even national richness of SSH is the bedrock of creativity and cross-disciplinary thinking. But its downside is fragmentation, which often leads to lack of visibility and lonesome scholarship. For the further integration and fostering of Social Sciences and Humanities in Europe as well as in European Framework programmes it will therefore be necessary to take the lead, define new spaces for collaboration in the SSH and with the sciences and engineering, and to focus on SSHs capacities to engage with interdisciplinary approaches. Consultation respondents also highlighted the importance of SSH-specific trans-national and translational infrastructures in order to strengthen collaboration on common ground but with different perspectives. Furthermore, it will be important that the European SSH establish a firm and stable representational agent – a polyphonic voice – for negotiations with policy and administration.

2. Training and Education

Universities continue to be the key site for training and educating of the next generation of SSH scholars and researchers. Therefore, the structure, governance and modes of funding of universities are of prime importance. So is the rapid advancement of new technologies. New kinds of data and new ways of data collection and analysis are now available and open new opportunities for research, but also for education. We need innovations both in the relation of teaching and learning, but also in the close relation of teaching, training and research, especially when it comes to issues of inter-

or trans-disciplinarity. Many respondents also addressed the important role of SSH in the education of future decision makers and the importance of an ideal of humanistic education to counteract global market-driven logics.

3. Impact and Evaluation

One criticism of the fields of the Social Sciences and Humanities concerns the transfer of evaluation standards between fields, without due consideration of their specificities when it comes to "measure" research productivity. Such complaints have their valid points as the main publication output can be journal articles or monographs; team sizes can be smaller or bigger and scholars can work and publish alone or with others. Another concern is the social impact of SSH research and how to evaluate SSH as societal stakeholders.

Many SSH communities have started to develop or apply their own methods for evaluating various kinds of output and results of SSH research, which go beyond traditional bibliometrics. While there are no standard references and databases for publications in SSH domain that account for the vast diversity of fields and especially for their multilingualism, social indicators and other assessment tools are either in their infancy or very unevenly distributed. Finally, SSH fields and disciplines behave rather conservatively when it comes to applying Open Access. Concrete measures to be taken: first and foremost SSH need to develop their own perspective on questions of evaluation. They have to establish their own standards and norms, at the same time should involve themselves more in the scientometric and political activities to define research assessment procedures. Social Impact of SSH includes certainly demonstrable contributions of research to society at large.

Societal Challenges in Horizon2020

1. Health, Demographic Change and Well-Being

Challenges to global health and well-being (including mental health) present significant economic, societal and ethical burdens in the early part of the 21st century, and are associated with dramatic demographic shifts occurring as a result of political conflict, migration, technological innovation, population ageing, and other factors. Consultation respondents repeatedly state that Social Sciences and Humanities disciplines must harness, develop and innovate key theoretical and methodological approaches to develop solutions to these challenges that can be translated efficiently into applications for the benefit of society. But as the final negotiations on Horizon 2020 continue, the question is how to integrate Social Sciences and Humanities into the new European Research Framework programme. Respondents remarked specific problems of disciplinarity in health and wellbeing research; and described SSH approaches, models and paradigms that can address concrete problems in the Health, Demographic Change and Wellbeing pillar. Some questions raised are: how can efficient and productive cross-fertilisation of disciplinary expertise be accomplished in concrete work programmes? How will an emphasis on personalisation in health and healthcare interact with public health principles of equity, justice and the public good, and the new economic focus on

'big data'? What kinds of research and research collaborations are necessary to capture the global dimensions of demographic change in a way that appropriately respects and describes the experiences of individuals and families in their local contexts?

2. Food Security, Sustainable Agriculture, Marine and Maritime Research, and the Bio-Economy

According to the current wording of Horizon 2020 the specific objective of this research challenge is to secure sufficient supplies of safe, healthy and high quality food and other bio-based products, by developing productive, sustainable and resource-efficient primary production systems, fostering related ecosystem services and the recovery of biological diversity, alongside competitive and low carbon supply, processing and marketing chains. This will accelerate the transition to a sustainable European bio-economy, bridging the gap between new technologies and their implementation. More and more biological resources are needed to satisfy demand for a secure and healthy food supply, bio-materials, biofuels and bio-based products, ranging from consumer products to bulk chemicals. However, the capacities of the terrestrial and aquatic ecosystems required for their production are limited, while there are competing claims for their utilisation, and they are often not managed optimally, as shown for example by a severe decline in soil carbon content and fertility and fish stock depletion. Consultation respondents remind us that there is underutilised scope for fostering ecosystem services from farmland, forests, marine and fresh waters by integrating sustainable agronomic, environmental, and social goals. In the past, the EU research in food, sustainability and the bio-economy has paid too little attention to human behavioural change, social acceptability, and acceptance of changes in the food system. We need to discuss methodologies that complement each other in providing understanding of the different aspects and impacts of the changes that are proposed, and to a greater extent try to integrate the perspectives from different fields of science. Thus, it will be of particular importance to focus on the challenges and opportunities of research and trans-disciplinary collaboration: how to integrate SSH perspectives in the definition and specification of topics and tasks? How to implement innovative research in the development and adaptation of improved food policies, technologies, processes and services? How can we ensure that impact assessment strategies at programme and project level include appropriate criteria and indicators? Social innovation regarding participatory approaches involving citizens as well as public acceptability of bio-economic solutions will provide further topics for discussion.

3. Secure, Clean and Efficient Energy

According to the European Commission proposal for Horizon 2020 the energy challenge will encompass the following broad lines of activities: reducing energy consumption and carbon footprint by smart and sustainable use; low-cost, low-carbon electricity supply; alternative fuels and mobile energy sources; a single, smart European electricity grid; new knowledge and technologies; robust decision making and public engagement; market uptake of energy innovation. We need to identify existing obstacles and ways of overcoming them in order to make optimal use of the knowledge, capabilities and skills available in the needed broad spectrum of perspectives. It will be of particular importance for the energy field to discuss the challenges and

opportunities of interdisciplinary or, rather, trans-disciplinary collaboration: embedding SSH perspectives in the definition and specification of topics and tasks as well as in the implementation of the research activities related to the development, implementation and adoption of new or improved energy policies, technologies, processes and services. Also ex-ante and ex-post impact assessment at programme and project level and appropriate criteria and indicators as well as the assessment of alternative pathways as the basis for taking decisions in research and development processes are issues that will have to be addressed. Participatory approaches will have to be developed and adapted in order to fit the contemporary settings of stakeholders. Therefore, the perspectives from the Social Sciences and Humanities are essential; missing them would mean missing decisive understanding of what will be required to reach the ambitious goals for Europe's energy system.

4. Smart, Green and Integrated Transport

A great deal of attention has recently been paid to the interdisciplinary role of SSH, with special reference to the relevance of transport evolution and its network externalities. Consequently, embedding SSH in the Horizon 2020 Transport Challenge plays an extremely important role, from both the research and policy viewpoints. European trends show different speed of mobility dynamics (slow and fast), for different geographical contexts (at different scale-levels) and for different socio-cultural contexts: SSH efforts seem necessary here in understanding and forecasting these different trends.

These different patterns clearly reflect different people's and society's needs at different spatial scale levels (urban/regional/national/European/worldwide): it then becomes essential, in the light Horizon 2020 actions, to understand why there are these needs and what exactly are these needs: how can SSH widen and foster its essential role here?

How can technical solutions and policies (e.g. to influence or regulate mobility behaviour) be sustainably brought together to address societal issues such as urban congestion, mobility needs of an ageing population or the need for low-traffic zones? How can this core expertise of SSH be further developed? Do the transport research and innovation activities planned in Horizon 2020 include the 'real' practical applications of SSH approaches that enhance the effectiveness of technical solutions.

5. Climate Resource Efficiency and Raw Materials

Many consultation respondents were taking up the topic of the "societal challenge" as formulated under Horizon 2020, with the objective "to achieve a resource and water efficient and climate change resilient economy and society, the protection and sustainable management of natural resources and ecosystems, and a sustainable supply and use of raw materials". Maybe more than any other, this topic requires international collaboration at least at European level. At the same time, it is probably the most disputed one. It is tempting to define seemingly clear-cut policy targets; however, recent history proves how difficult it is for national governments to comply. Consequently, some of the key issues discussed in the responses and in the conference session are: What is currently the role of SSH in relating political targets to scientific

research findings; and should this role be improved or altered altogether? How can SSH research contribute to the global efforts of climate research and environment studies? How do human behaviour and societal relations towards environment and resources evolve, and what lessons can be drawn from it?

6. Europe in a Changing World – Inclusive, Innovative and Reflective Societies

Demographic challenges, protest movements, increasing social inequality within and between EU member states, the digital turn, cultural and religious diversity, the continuing change of values, the absence of a great narrative for Europe, the EU's position in a global context: the expectations vis-à-vis the Social Sciences and Humanities are not only huge; they are immense. In all areas, we lack research that is problem-driven and focusing on basic research. Moreover, it has to contribute to answering today's and tomorrow's big questions. Our panel, thus, will focus first and foremost on issues of content. Do the three catchwords 'innovative', 'inclusive' and 'reflective' frame the content of Horizon 2020 societal challenge 6 satisfactorily? Are they precise enough to inspire and provide guidance? What exactly, for instance, do we understand with the term 'reflective'? At the same time, we have to talk about the different ways and formats of research funding. All of them have to be open to the participation of all researchers, have to be able to connect to other disciplines and have to be the least bureaucratic possible. We need formats that are conceived for the long term and that benefit from important funding amounts. We also need innovative antenna programmes that can also be set up at short notice. Transfer programmes are central. Nothing would be worse than the SSH distancing themselves from the social phenomena and the societal actors that carry them. How do we reach these goals? How to we attract the best researchers? How do we motivate the best evaluators? How shall quality assurance for research look like? And, in particular: how do we assure the legitimacy of SSH within Horizon 2020 that research needs?

7. Secure Societies – Protecting Freedom and Security of Europe and its Citizens

With the current seven-year Security Research and Innovation programme coming to a close by end of 2013, this session is dedicated to the discussion of the successor programme in Horizon 2020. The societal challenge as defined as "secure societies – protecting freedom and security of Europe and its citizens" emphasises to foster security in a context of unprecedented global transformations, while "strengthening the European culture of freedom and justice". Therefore, dimensions such as human rights, environmental risks, political stability, cultural identity, privacy, or migration need to be taken into account when trying to understand causes, develop and apply innovative and socially and ecologically compatible solutions, and integrating objectives of European security industry, market demands, citizens rights, as well as research. These dimensions represent core themes and expertise of the Social Sciences and Humanities. Answers to the societal challenge of security will emerge only if equal collaboration between all stakeholders is put into practice. So we have to ask: what have we learned from the previous Framework Programmes? Which are the challenging questions for SSH and how may they respond to them? How can we put multilateral collaboration into practice? The session brings together researchers, who are experienced and genuinely interested in finding novel forms of integrative collaboration. They aim at identifying

existing obstacles and ways of overcoming them and suggest concrete ways of how to move forward within the next work programmes of Horizon 2020.

8. Emerging Trends and Organizational Needs

Social Sciences and Humanities are currently facing new organisational needs, such as international and cross-disciplinary research infrastructures, issues related to digitization, and multi-lingual access to scientific knowledge. Furthermore, they have to deal with changing publishing cultures and the growing demand for open access to knowledge and to data. At the same time, exciting trends of new theoretical and methodological approaches are currently surfacing. This session is dedicated to explore some of the most promising emerging trends in order to discuss opportunities for SSH.

9. Smart Specialization and Structural Funding

With a fresh emphasis on harmonising structural funding for research under the motto of Smart Specialisation, the European Union would like to streamline regional educational and research capacities. This session is dedicated to a discussion of the diversity of regional practices in the Social Sciences and Humanities. Five speakers were invited to give a brief statement on the situation in their countries based on their own experiences with including SSH in Smart Specialization Strategies and recent programmes of structural funding. The focus is on success stories as well as challenges to be met in the process of future funding allocation for SSH infrastructures, education and research. The session highlights the potential of SSH for the achievement of common European goals.

10. European Research Council: Widening Participation

No other part of European research funding has a higher share dedicated to the Social Sciences and Humanities than the European Research Council (ERC). Solely based on excellence, the ERC has gained great reputation and offers a unique opportunity also for SSH to advance frontier research and to attract visibility. However, the discrepancies in the geographical spread of the ERC grants concern scientists and policy makers alike. Based on individual experiences from three ERC Grantees in the Social Sciences and Humanities, and on statistical evidence provided by ERC Scientific Council members, this session aims at discussing what can be done in order to widening participation in ERC funding calls from all parts of Europe.

Collected Recommendations by European Funding Institutions

The definition and construction of “societal challenges” as problem/issue spaces per se stem from human action, reflection and coordination, asking the adequate questions and finding solutions in line with desired societal impact but without losing the capacity of critical reflection puts the humanities and social sciences indeed at the heart of pillar three in Horizon 2020. The problem with the inclusion of SSH in all Societal Challenges however, seems that it is not recognised well enough that e.g. historical and socio-philosophical approaches can significantly improve problem identification and that SSH’s integrative potential is often underestimated in general.

The set of recommendations to follow is collected from the corpus of consultation responses of European Science and Research Funding Institutions and is overlapping with the recommendations drawn from the rest of the response corpus, as they are summarised in form of the Vilnius Declaration.

SSH Themes in Horizon 2020 (and on National and Regional Levels)

- The formulation of Societal Challenges holds the power to define **what research is relevant** for society, but also paves the way for its use in society. There should be made room for curiosity driven research that is not too out-put oriented and rather risky in pillars 2 and 3 of Horizon 2020. This would require open calls in each Societal Challenges. It further means that the calls for the Societal Challenges in H2020 need to be carefully adapted rhetorically (linguistically) not to exclude the SSH (as it is the situation now, or just mention them as add-ons) and to constructively help to define the roles. This means top-down, thematic, proactive calls/inputs are needed alongside the bottom-up principle.
- Additionally SSH related research in the Societal Challenges pillar could be formulated in **cross-cutting themes**: human behaviour: (e.g. climate-energy-transport), human reflection, change and societal governance (e.g. participatory approaches)
- Questions and themes for the European Research agenda should be **negotiated transparently and include the relevant research communities**, hence the SSH, and other societal stakeholders at ALL stages of topic development
- SSH contributions (current and potential ones) need to be **clearly signposted**, as the identification of opportunities is difficult when call texts are not adapted to include SSH. To make sure potential SSH researchers contribute across all societal challenges and the impact of the calls is maximised, opportunities across the seven Societal Challenges should be presented online, in thematic workshops, at kick-off events. The committees writing the calls need to be made attentive to the best **practice models of SSH contributions**. The Commission has to make sure that there are SSH-coordinated projects in all challenges and work-programmes.
- The SSH and Europe need a **continued open discussion on the relevance and roles of SSH in Europe**. This could be established by recurring events, such as the Vilnius Conference in 2013, but should be planned timely/in time for the next steps, the next biannual calls etc. e.g. a conference to review H2020 progress on SSH perspectives with reports about success and failures in application and project preparation and handling.
- A new **strongly staffed and properly resourced unit** should be established within DG Research & Innovation to provide robust institutional support and leadership for SSH involvement in Horizon 2020.
- European funding strategies are often regarded as **models for national and regional funding efforts**, or they are treated as surrogate for the lack of national and regional funding. Therefore it is important to have a continuously strong commitment to SSH on the agenda.

- **Coordinate national and European funding principles**: National funding instruments like ERA nets have a big disadvantage in terms of the integral research model: sciences and SSH receive their funding from different sources, no synchronised coordinated funding available for joint projects.

Organisation of SSH Themes Within the Interdisciplinary Context of Horizon 2020

- Counteracting the lack of translational infrastructure and structures requires **dedicated platforms** for the formation of inter- and transdiscplinary project teams. This could be achieved with the installation of dedicated Coordination and Support actions (CSA) on European level.
- Funding of **preparatory stages** or **pilot projects** is essential for interdisciplinary research. Furthermore, SSH also need **test phases**: testing specific concepts and approaches in respective environments and assessing the results.
- Continued funding of **collaborative frameworks**, such as HERA, Norface, Nos_HS is needed to establish cross-border structures, especially important for widening countries and interdisciplinary research within the SSH and with the sciences and engineering.
- Enable **long-term, stable research funding** for training of skilled professionals, tackle challenges in-depth (incl. the socio-economic ones), to capitalise on past investments.
- Dedicated **brokerage events** for the creation of new interdisciplinary and inter-sectoral partnerships: there is evidence (Swiss National Fund) that researchers from the Social Sciences and Humanities seek collaboration with other domains more frequently than vice versa. SSH is regarded as being external to core scientific interest by many scientists, but core scientific interest is not the core idea of Horizon 2020 societal challenges.
- **Internationalisation:** SSH need to develop better methods for international visibility of their tools and approaches, furthermore embed their results – if possible – in comparative framings, strive for more open access to data and data infrastructure.
- **Mobility funding**: for networking and exploratory workshops, dedicated mobility funding for **new member states**, but also to attract **international researchers** to work in Europe.
- **International collaboration** with funding bodies such as the NSF (US), NEH (US), SSHRC (Can), FAPESP (Brazil), CONACYT (Mex), HSRC South Africa, ICfSSR (India), WHO, Unesco, International Social Science Council, Steering Platform for West Balkan Countries, should be intensified, as the collaboration and coordination with private funding organisations like Andrew W Mellon Foundation. "Asymmetrical cooperation" with funding bodies in rich parts of the world covering most of the costs should be encouraged.
- Create appropriate incentives at individual and collaborative level, e.g. by opening up university careers to interdisciplinary themes and fields, making them more

permeable also to non-scientific careers and atypical academic lives. But also mechanism **making SSH participation in certain topics of all SC obligatory**, e.g. by a requirement to demonstrate policy and public impact across all challenges. This includes a criterion for funding decisions: a realistic and adequate budget for SSH research.

- Within the **collaborative research model**, small to medium-scale researcher projects seem to be more accessible and appropriate for the SSH community. In order to be involved in large-scale research projects, be it as member of the consortium or as leading unit, the SSH would need adequate training in leadership of large research projects with an interdisciplinary agenda (this is also true for all sciences, should they work inter- or transdisciplinary).
- Focus on **crosscutting methodological innovations**, such as e.g. digital humanities or participatory approaches, or new forms of working with historical data, "mixed methods" approaches, long term participatory observation, narrative analysis, new methods to handle big data.
- Another focus on **trans-nationally relevant research infrastructures**. By providing a common ground for asking different questions SSH collaboration can be fostered. See successful European Research Infrastructure Consortia, such as Dariah, Share-project, Clarin, ERIC, etc.
- Strengthen **open access** models for SSH publications and data.

Evaluation of Interdisciplinary Research

- Calls for proposal, peer reviews, intermediary and final **evaluation** procedures need to adapt to the integrative vision prescribed in Horizon 2020. This integrative and interdisciplinary approach must also **guide the funding and programme management** in order to sustain and provoke a new research culture.
- **Success rate** dropping under 10% (as in FP7, where the average success rate in other themes was around 22%) is not adequately reflecting the size, excellence and importance of SSH research in Europe. The average total evaluation score of funded projects in the theme 8 of FP7 reached 13,75 out of 15 and is the highest of all thematic areas in the programme Cooperation.
- Identify **measures for the evaluation of Horizon 2020**, how to measure the new collaborative research model of Horizon 2020, should identifier numbers of research fields and disciplines be used in the proposals, how to measure the different input of all sciences and SSH, etc.
- **Excellence**: in SSH **best researchers will produce the best research**, research depends on individual excellence rather than on the work of large teams, but excellent infrastructures help. But currently STEM research provides the paradigm for scientific excellence, project structure, modes of scientific collaboration, and more. Excellence needs to be re-framed also in terms of SSH.
- Not to forget the **ethical dimension of SSH research**: in FP7 conceptual instruments and ethics review was better suited to medical/bio/life-science research, not to

SSH research. There is a lack of **official EU guidelines** on ethics in social research resulting in a lack of awareness of the ethics implications of SSH research[2].

The development of categories for the analysis of the consultation responses provided conceptual ideas for the design of the conference programme and greatly helped formulating the Vilnius Declaration.

8.

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Mykolas Romeris University (MRU) is an international university located in Vilnius. Modern, creative and entrepreneurial academic community has raised MRU to the leading university of social sciences in Lithuania. The University enrolls about 17 000 students who study in the areas of economics, management, social technologies, law, psychology, social policy, educology, public security, humanities, etc. The University offers more than 100 bachelor, master and doctoral study programmes.

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- Improving the Quality of Life and Advancing Employment Opportunities.
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