

Key Technologies: The Social Sciences and the Humanities (SS&H)

Summary and Recommendations

This paper reviews a number of reports on future agendas and the needs of the SS&H in Europe. These reports underline the importance of the SS&H to future of Europe and the need for greater support for this key technology. They identify a broad range of issues and problem areas on which the SS&H can make a positive contribution to Europe's future. These include research to support Europe's strategic social and economic policy objectives; the social dimensions of science, technology and innovation policy, and the understanding of societal change at EU, National and Regional levels.

In particular the reports identify the following key issues for research in the SS&H:

- Economic performance/Socio-economic sustainability
- Democracy, governance, citizenship
- European culture/Multi-culturalism and diversity
- Science, Technology & Innovation/Science and society
- Welfare and welfare sustainability
- International migration and ethnicity
- Racism, xenophobia, discrimination
- Ethics and human rights
- Environment and sustainability
- Societal regulation and development
- Security
- And to support such research there is an urgent need for the development of infra-structural support for the SS&H in terms of comparative data-bases, training of researchers and the development of methodologies for comparative research.

With 15 social science universities in the world's top 50 and 39 in the top 100, Europe has a strong research base on which to build European oriented social science. There is evidence of considerable strength in economics, but quantitative assessments of the other social sciences are lacking.

While historically the social sciences and humanities have been led by national agendas, the SS&H community has responded well to the opportunities provided by European scale initiatives. Research with European comparative dimensions is essential to the development of the ERA.

The recommendations of these reports point to the need for:

- More prominence of the SS&H in EC research programmes
- Significantly more funding for SS&H
- New instruments for 'stand alone' SS&H research
- A broadening of the Science and Society remit

- Inclusion of SS&H perspectives in all of the Priority areas
- An SS&H presence in all of the Advisory Committees for the 7th FP
- Coordination between the Advisory Committees
- Networking between national SS&H funding agencies
- More opportunities for networking within the SS&H research community
- A significant investment in research infrastructures for the SS&H to include training, mobility and comparative data bases.
- A task force(s) to clarify SS&H research priorities

It is also suggested that the EC should consider:

- Setting a target of allocating 5% of the overall research budget to the SS&H over the next 10 years or so. Such a commitment of resources would act as a considerable incentive to mobilise the SS&H community (national funding bodies, National Academies, European research networks and researchers) to collaborate in European scale research projects.
- Taking a catalytic role in the organisation (or delegation of the organisation) of a number of expert groups with related large scale conferences with the objective of (1) mapping out research agendas for the various key themes in the SS&H for the ERA and (2) developing mechanisms for the establishment of appropriate networks to address these key themes in a comparative context. Such expert groups should be proactive in relation to the integration of researchers from the New Accession States of the European Union.
- Along side initiative and programme mode funding capitalise on the expertise, interests and enthusiasm of Europe's many SS&H researchers with responsive mode research funding.
- Giving more support to comparative research as an effective way of gaining European 'added value'. Infra-structural support in the form of training and development of methodologies, analytic approaches and data bases is vital in this regard.
- Organise a study to map research excellence in the social scientific disciplines along the lines of the study of economics.
- Consider more targeted funding to promote excellence in the SS&H.
 - This might be achieved through the establishment of a small number of European Centres for Advanced Research in the Social Sciences and Humanities, akin to CERN, EMBO or the Sanger Centre for Genomics. Such Centres would work at the leading edge of research, attract scholars from across Europe, train PhD students and collectively contribute to a distinctively European approach to societal issues.
 - Another approach would be to support strategic alliances between current centres of excellence to lead research in particular policy areas.

SWOT Analysis for the Social Science and Humanities in Europe

<p>Strengths</p> <ul style="list-style-type: none"> • A number of world class institutions in the social sciences • Economics and some other disciplines at leading edge of research • Specialist knowledge in area studies – Mid-East, Africa and China • A growing number of SS&H researchers with a European focus • A significant production of PhDs • Active national funding agencies contributing to ERA agendas • Long history of interaction between SS&H, civil society and government institutions. • Emerging networks of excellence working in Priority 7 and Science and Society 	<p>Weaknesses</p> <ul style="list-style-type: none"> • Too much dependence on US theory and research • Too great a concentration on research on national issues • Limited collaboration between centres of excellence • Poor infra-structure for ERA projects • Under-developed comparative research methodologies • Under funded • Unable to justify research funds on basis of contribution to economic development • Language constraining European collaboration and sharing of theoretical approaches • Few big questions driving research • Inadequate representation of SS&H in European Advisory Committees • Failure to cultivate support from business and government • A non-entrepreneurial university sector • Unlike the US, few private foundations supporting SS&H research
<p>Opportunities</p> <ul style="list-style-type: none"> • The development of distinctively European SS&H approaches • Contributing to socially sustainable policies in priority areas of technological development • Investigating key issues in the process of European development and integration • Comparative research with significant European added value addressing common problems confronting EU member states • Continued strength in economics and related disciplines with emerging excellence in social policy, demography and governance • The diversity of European modes of governance for the analysis and understanding of best practice • The diversity of concepts and theories, for example public management • European universities becoming a world training ground for SS&H • Strategic alliances between centres of excellence to research European policy issues 	<p>Threats</p> <ul style="list-style-type: none"> • Continued under funding (both nationally and from EC) acts to de-motivate SS&H researchers • Low success rates with EU grant applications turns researchers away from European research agendas • Embedding of SS&H in other priority areas militates against the development of European social science • Too great an emphasis on programme funding over responsive mode funding inhibits the emergence of important research agendas • Risk averse nature of public funding organisations whose preference is for policy relevant, short term issues. • The brain drain of top researchers to North America

1. Introduction

In 1999, European heads of state defined the aim of "making the Union the most dynamic, competitive, sustainable, knowledge-based economy, enjoying full employment and strengthen social cohesion" (Lisbon Presidency conclusions) and acknowledged the need for a global sustainable strategy equally integrating economic, social and environmental policies to achieve this aim.

Without question, scientific and technological innovation will make an instrumental contribution to the Lisbon goals. However, science and technology alone, will not deliver the Lisbon objectives. While science and technology opens up options for the future, showing what can be achieved, it does not tell us what should be achieved or how it should be achieved. These are questions for society. Choices about the direction of socially sustainable technological innovation depend, in large measure, on the public; as voters in the political process, as consumers in the market place and as decision takers on matters of health, energy use and environmental actions. Equally, strategic factors on which scientific and technological innovation depend, for example education and life long training must be taken into account. Furthermore and crucially, social cohesion is a broad and multifaceted societal issue. To understand the many ramifications of social cohesion and to formulate policies aimed at strengthening it, Europe must turn to the 'soft' academic disciplines whose objective is the social scientific study of society.

Thus, the Lisbon agenda is a call for a joint effort on the part of the 'hard' and 'soft' sciences to contribute to the realisation of Europe's future. The inclusion of the Social Sciences and Humanities (SS&H) in the category of 'key technologies' is in recognition of this reality. It is a change in European research policy that will be welcomed by European and national funding institutions and the community of social science and humanities researchers alike.

The Lisbon agenda is set in the context of a number of significant problems and uncertainties confronting Europe. These include the economic, social and political impacts of globalisation, Europe's ageing population and demographic changes, the expansion of the European Union and discussions over modes of governance, emerging fault lines around ethnic and religious diversity, the depletion of traditional energy resources, global warming and environmental sustainability, controversies over technological innovation etc, etc. In this changing world, the study of the dynamics of societies through the perspective of the SS&H is a prerequisite for understanding social change and informing policy making in many domains. Siune and colleagues argue that the EU may be seen as the evolution of a new form of society that combines political and cultural integration with a respect for, and an active upholding of national cultures and identities. Researching this process in the making would offer much-needed insights into social and cultural change, and help to identify what are the special features, advantages and problems of this new type of society.

The SS&H are a meta-category covering a broad canvas including philosophy and history, the single social scientific disciplines of economics, sociology, political science, anthropology and social psychology, related disciplines such as statistics,

demography, socio-legal studies and social policy; and a variety of trans-disciplinary subject areas such as communication and information technologies, health, environment, development, and science and technology studies. While they might be described as unified in the sense of a more or less common objective of the scientific study of society, they differ in their typical research questions, theoretical approaches, levels of analysis and methodological approaches.

Unlike the physical and natural sciences, the SS&H do not have a single 'big question' to guide research, the complexities of society militate against this and as such the SS&H are somewhat fragmented. They are small in scale by contrast to the medical, physical and natural sciences, relatively poorly funded and sometimes beset with methodological and epistemological controversies. In Kuhn's terminology they are pre-paradigmatic. While, the outcome of some social scientific research may provide predictions about social phenomena and be immediately useful to policy makers, there is an equally important role, that of description. Here the outcome is a systematic mapping of aspects of the social world and/or how it is changing. Such descriptive research can be frustrating to the policy maker, for it does not offer a solution to a perceived problem. However, research without predictive power should not be dismissed. It may lead to a redefinition of perceived social problems and cast them in a new light; confirm or refute widespread assumptions that guide policy making, identify issues for further research and more generally inform the public debate.

While all science is complex, the SS&H face a unique complexity in that the object of study is often both under-specified and subject to exogenous influences. Take the concepts of 'risk' or 'multi-culturalism'. The nature of these concepts has changed over time, on the one hand as social scientists achieve a better handle on them through theoretical development and empirical research, and on the other as the understanding and manifestation of such concepts changes in society itself. In this sense, progress in the SS&H is somewhat different to progress in the physical and biological sciences.

Recent and potentially important initiatives are building explicitly inter-disciplinary research agendas. For example, cognitive science brings together philosophy, anthropology, psychology and economics; and behavioural economics at the intersection of economics, psychology and decision theory. Is such interdisciplinary collaboration the way forward for the SS&H with the traditional disciplines on which the universities are generally structured losing their grip? For some in the policy and research funding communities this is an attractive option, as the problems for which they need solutions more often than not cross the boundaries of the disciplines. In reality, it is probably too early to tell about the balance between disciplinary and inter-disciplinary research and the prudent option would be to support both, not least because successful interdisciplinary research is based on contributions from the core disciplines. In other words, without a strong disciplinary base, interdisciplinary research is more about rhetoric than the understanding of society.

2. The socio-economic challenge for Europe and developments in EU policy in the SS&H

In a number of recent reports the key challenges for the SS&H are outlined. These are quoted in some detail as they bring into focus the very wide range of issues upon which the experts consider that the SS&H should be actively engaged. Broadly speaking, two streams of research are envisioned.

The first stream is the traditional social scientific agenda – the study of societal issues. European society is complex, dynamic and globalised. This raises many questions of a social, economic and political nature on contemporary and anticipated issues that the SS&H have the theories and tools to study. The contribution of the SS&H is the understanding and planning of social change, the amelioration of social problems, the evaluation of the intended and unintended consequences of policy initiatives and, more generally, to the shaping of Europe's future.

The second stream focuses studies in the area of social aspects of science and technology. This includes a variety of questions at the interface between the medical, physical and biological disciplines, and the social sciences and humanities. This is a growth area for a number of reasons. First, it reflects the recognition that technological fixes often fall short of expectation and that a complementary 'soft science' input is required. And second, is the increasing intersection between science and technology and people's beliefs and values. As science and technology moves into increasingly value laden topics, so do the public want their voice to be heard in decisions shaping research agendas, in regulation and in choices about the options that science and technology offers for the future of societies. This trend has opened up a set of new issues around socially sustainable innovation, governance, conceptions of risk and participatory processes.

2.1 European Union Research Advisory Board

EURAB takes the broadest approach, emphasising the need to research some almost existential themes related to the European Project. It advocates an integration of literature, the humanities and the social sciences to explain what it means to be European at a time of growing diversity and multi-ethnicity. EURAB argues that the dominant economic agendas need supplementing with research on social and political issues.

Notably EURAB proposes that "SS&H researchers are best placed to formulate a fuller range of topics, scientific models and approaches", a view echoed by others.

The report continues:

"Research themes should be concerned with the interactive and multilevel character of Europeanization and the transformation of modern societies beyond culturally-integrated nation-states. Examples are given of high "European-Added-Value" topic areas in relation to "Democracy" and "European Cultural Heritage" as pointers towards how FP6 Priority 7 might be built upon in future.

By way of example, it is suggested that a greater focus is required on the working of modern democracies in Europe and the central issue of the degree to which national laws and institutions were becoming inadequate to deal with cross-national social, economic and political problems, and the implications of this. How to interpret these “new realities” in the world, in terms of the growing interdependence between national, regional and global development demanded greater input from SSH fields in future EU research programmes. The dominance of economic thinking on policy measures to maintain and strengthen European competitiveness should be supplemented by greater research focus on the consequences at the social and political level, particularly in relation to social movements, public perceptions and attitudes on issues concerning the appropriate levels (local, national and European) at which decisions should be made on their behalf.

Evidence from referenda results in recent years show the persistence of a “deficit” in terms of democratic accountability on key issues and people’s perceptions that public interests are being eroded. Such a “people focus” for new research would provide important theoretical and empirical insights on social and political prerequisites for policy development to tackle the essential contemporary challenge of sustaining public support for (and creating a “sense of belonging” to) the further construction of the European Union.

The draft “Constitution for Europe” at Title I, Article 3.3 states “...the Union shall respect its rich cultural and linguistic diversity and shall ensure that Europe’s Cultural Heritage is safeguarded and enhanced”. The concept of European Cultural Heritage in the context of the Enlarged EU could also be a key focus for a new research effort to explore its meaning in Europe’s growing and diversified multi-ethnic societies. European Cultural Heritage cannot be viewed as a “neutral” shared concept, but is subject to constant interactions of different values and belief systems across both time and space. And, crucially, such re-defining of the concept should not be exclusively inward-looking but, in an increasingly interdependent world, should address the relationship between Europe and the rest of the world. There should be a concerted European effort to integrate humanities disciplinary expertise, together with the social sciences, within a “problem-orientated” research framework. The purpose should be to create conditions in which national specialist knowledge in history, culture and literature could be shared to foster mutual understanding and to direct this into policy-making at the European level.

In giving the above two examples of research themes, EURAB would suggest that the guiding criterion for future research efforts might be the provocative question: “Is there a European way of life and, if there is, is it worth preserving and why?” Such a question is particularly salient today because the nature and challenges of many problems facing Europe and the world should command competing visions and approaches (for example, on models for social and economic development, reductions in poverty, security needs and cooperation, bio-ethical issues and humanity’s ability to pass on sustainable planetary conditions to the next generations). In such circumstances sound insights into the historical processes behind cultural differences, and the mechanisms creating conflict or harmony, would be beneficial in informing future EU policy. Otherwise, many mistakes may be repeated, or perhaps more sanguinely, we will know the extent or not to which we are “doing things differently this time”.

2.2 Advisory Group Social Sciences and Humanities in the European Research Area: (PP1)

By contrast, the AGSSH takes a down to earth approach, specifying ten areas for SS&H research. It is critical of the corralling of social science themes within FP6: Priority 7 and argues that the SS&H should be seen as 'general purpose' scientific fields of direct relevance to many other scientific, medical and technological fields.

Democracy, governance, citizenship

European public spaces

Welfare and welfare sustainability

International migration and ethnicity research

Racism, xenophobia, discrimination

Multi-culturalism and diversity

Ethics and human rights

Socio-economic sustainability

Societal regulation and development

Security (and the other side of the coin, the vulnerability of modern society to disruption, terrorism, and instability)

2.3 Implementation of the ERA in the SS&H: (Smith 2003)

Smith elaborates on sub-themes within 10 core issue areas, and underlines the need for infra-structural developments to support SS&H research.

Democracy:

Governance, institutions, citizenship, electoral behaviour, political parties, values, role of state/regional, national and European Level.

Economic Performance:

Employment, labour markets financial markets, fiscal policy, new economic and work models, firms' behaviour globalisation economic consequences

European Development:

European Union, enlargement, European culture, european history, Europe and rest of the World.

Environment:

Sustainable development & human behaviour, economic mechanisms/incentives, international agreements/regulations, nature and society.

Health:

Demographic and household change, ageing, youth, lifestyle (work and leisure), individual life-course analysis, living conditions. health care

Knowledge & Learning:

Knowledge society, education & training, life-long learning, ICT development & impacts, media, languages

Multi-Ethnic Societies:

Identity, migration, racial discrimination, xenophobia, globalisation- social and cultural consequences

Quality of Life:

Urban/rural . sustainable communities, cultural heritage, transport & mobility, crime, public safety & security.

Science:

Technology & innovation, science and society, ethics, public understanding of science, science policy, history of science.

Welfare State:

Social welfare and social security pensions, social capital, social cohesion, poverty & exclusion.

Infra-structure

Increasing priority given to the further development and strengthening of research infrastructures. In socio-economic research in terms of data facilities (e.g. archives), research instruments (e.g. surveys) and methodology training (e.g. data handling and analysis, survey design, use of new ICT tools such as GIS etc). As the demand for evidence-based research informing policy options grows, the archiving, quality control and preservation of data sets arising from publicly-funded research assumes greater importance through the opportunities created for further secondary analysis at the national level and comparative analysis in the European and international context.

2.4 Economic and Social Research Council (UK)

Britain's major funding Council for the social sciences (but not the humanities) envisions a role for the social sciences supporting major EU initiatives and an equally important role for other areas of policy making.

"Supporting major EU objectives, e.g. the Lisbon Strategy, European Monetary Union, the Governance White Paper, etc., and reform of others, e.g. the Common Agricultural Policy. In particular, the Lisbon objectives constitute a suitable entry point for social sciences. Besides the big political goals, there are many other areas of policy-making at the European level that require social science support. These policy areas include policing, crime, inequality, social cohesion, social inclusion, access to education, work, health, ageing societies, welfare, mobility, etc.

Understanding European identity and the processes of Europeanization. This is especially important in the context of enlargement – what will it mean to be European in 2010, in the light of enlargement, and in the light of the changing world political situation? This also refers to Europe's world vision and roles, and a re-appraisal of its positioning vis-à-vis historical engagements (e.g. Mediterranean, Africa, Latin America, etc.). How should the identity of Europe in the world be built? It will be important to understand the new Europe

and its place in the world - for economic development and for quality of life, in the light of social and demographic changes. Issues of cultural identity and understanding diversity are also important in this regard.

Understanding social change – its causes and its effects – and its interplay with European developments and policies. There is increasing recognition that EU level decisions, in one way or another other (e.g. competition rules and employment) and frameworks (the Euro, Schengen, child custody issues) are playing a growing role in everyday life and their interplay with other transformations (e.g. growing roles of 'locality' in building identities) yet much remains to be researched. Clearly, Europe faces some serious challenges, for example, persisting and widening inequalities, social exclusion and its implications for social stability, and the future of the social welfare system in Europe. How social policies shape and alter behaviour is an area of particular interest.

Understanding military/political/economic configurations and their effects on a global scale. This deals with embedding the European 'social model' in international rules and about 'credibility' as regards military or security. It also refers to the position of the EU vis-à-vis wider global developments and other poles of influence (Pacific Rim axis, new coalitions, developments re Brazil, Russia, South Africa, India and China). Examples include the relation between affluent lifestyles in first world countries and global environmental consequences.

Understanding the co-evolution of technology and society; especially in the areas of genomics, nanotechnology, and ICTs"

2.5 ICSU Foresight Analysis SCPR

While much of this foresight report focuses on challenges to the 'hard' sciences, it also identifies areas in which inputs from the SS&H are needed. These include SS&H inputs into policies on water, energy, health, agriculture and ITCs and also a broader remit on the ethical dimensions of technological innovation.

Water

Promoting water conservation, water-use efficiency technologies and recycling, including energy-efficient technologies for treatment and re-use of wastewater;

Understanding how water distribution, circulation, and availability is affected by human activities including land-use changes and consequences associated with global warming;

Understanding the social and cultural factors that influence individual and institutional choices related to water resource use, adoption of conservation technologies, etc;

Energy

Improving energy efficiency and conservation; Assessing the feasibility of visionary new technologies, such as power generation by space based solar cells and its transfer to Earth by microwave radiation.

Human Health

Ethical issues arising from advances in genetics and cell biology;

Agriculture, food and nutrition

Developing sound policy strategies for the 21st century will require anticipating future changes in demographics patterns, human preferences, global/regional climate conditions, and a host of other factors. Sustainable agricultural practices are essential not only for assuring

an adequate food supply, but also for driving rural development and economic growth in many countries. It is necessary to take a more integrated approach to understanding the food chain and the linkages among food demand, production, distribution, consumption, as well as relationship to health and food safety issues. Build understanding of the social and cultural factors affecting food choice and demand;

Data, information and the digital divide

Growing ethical concerns about intellectual property issues and databases containing personal information.

Science society and ethics

The research community has a responsibility to analyze different perspectives on the opportunities and dilemmas that flow from the advance of science and technology, and to consider how these points of view might be reconciled within a global context. Examples include developments in fields such as cognitive neurosciences and nanotechnology; international debates over issues such as genetically modified crops, energy management, and human embryo technologies; debates between business- and consumer-led perspectives in the developed world; and the needs of developing countries in agriculture, food, health care, intellectual property and trade. New insights into the roots of these various controversies could be offered to improve communication among the relevant constituencies. Such analyses need to integrate understanding of the views and values in populations and specific subgroups within these populations (sociology) with the determinants of individual attitude and perception (social and cognitive psychology, respectively). It is essential, however, that such ventures should not be carried out as a purely theoretical exercise. It requires the active participation of both social and natural scientists if the output is to offer useful guidance for current debates and policy formulation processes.

This call for the systematic inclusion of the social sciences into other research priority areas parallels the recommendations of the Advisory Group on the Social Sciences and Humanities in the 6th Framework Programme.

2.6 Comments

The above review illustrates the breadth of the problem areas and issues on which the SS&H could and should be making a contribution to the European project, whether in the context of long term objectives, policy making across a range of fields or the wider understanding of societal change at EU, National and Regional levels.

3. The Science and Technology Base in its socio-economic context and weaknesses in a global perspective; organisational, institutional or regulatory factors which support or prevent the full development of the SS&H base's potential

3.1 The SS&H in a global perspective

Like it or not the United States is the powerhouse of the social sciences and humanities, whether measured in terms of Nobel Prize winners in economics, citations and the level of research funding. In the Times Higher Education Supplement's world listing of the top social science universities the US has 9 of the top 20. US research has global influence and this carries important consequences. Theories, concepts and conclusions in the SS&H are not value free and as the US

research is taken up elsewhere in the world, it comes with a number of North American normative assumptions as to how social, economic and political issues should be structured.

Now, there are striking differences in the perspectives taken by the US and Europe on many issues confronting contemporary societies. One thinks of international law and international trade, social welfare and taxation, security, penal policy, religion and the environment. An ambition for the ERA could be to develop a set of distinctively European perspectives on these and other key issues facing society. To do so requires a critical mass of appropriately funded SS&H researchers. Even the more optimistic commentators are sceptical whether such a critical mass currently exists.

3.2 The SS&H in Europe

Europe has a strong social science research profile in its university sector as evidenced by the Times Higher Education Supplement's listing of the world's top social science universities, based on the criteria of citations. In this league table Europe has 15 universities in the top 50, and 39 in the top 100.

The thirty nine in the top one hundred are LSE (UK), Oxford (UK), Cambridge (UK), Erasmus (NL), University College London (UK), Manchester (UK), Warwick (UK), Sorbonne (F), U. Catholique de Louvain (B), Copenhagen (DK), Bonn (D), Edinburgh (UK), Barcelona Autònoma (E), Sussex (UK), ETH Zurich (CH), Humboldt (D), Aarhus (DK), Bologna (I), Stockholm (S), Helsinki (Fin), Toulouse (F), Bocconi (I), Trinity Dublin (Ir), Heidelberg (D), Munich (D), ESADE (E), Maastricht (NL), ENS Paris (F), SOAS, London (UK), Florence (I), La Sapienza, Rome (I), Oslo (N), Turin (I), Vienna (A), Lancaster (UK), Complutense, Madrid (E), Gothenberg (S) and Durham (UK).

Note that this league does not include research institutions, for example WZB, Berlin (D) and is based largely if not exclusively, one assumes, on citations in the English language journals. However, that almost 40% of the world's top social science universities are in Europe is clear evidence of a strong research base. Without question the discipline of economics makes a significant contribution to the performance of the elite universities.

3.2.1 Excellence in economics

In a Mapping of Excellence project as part of the ERA, economics was subjected to a detailed multi-criteria and multi-topic assessment. Overall the top ten included LSE (UK), Oxford (UK), Cambridge (UK), Warwick (UK), U College London (UK), Erasmus, Rotterdam (NL), Tilburg (NL), Paris 1 (F), Nottingham (UK) and Amsterdam (NL). Looking at different fields within economics shows centres of excellence in a wider range of EU member states. Thus amongst the best in mathematical and quantitative methods were European Institute (I), Copenhagen (DK), Carlos III, Madrid (E), Helsinki (Fin), INSEAD (F) and Mannheim (D); in the area of labour and demographic economics Stockholm (S) and Munich (D) feature as do Toulouse (F) and the Free U Brussels in organisational economics.

On a count of articles in around 170 journals the US produced 4100 in 1991 with Europe producing 1300. By 2001 the US total was about the same, while Europe's had risen to 3100. While the US is still dominant, Europe's impact is clearly improving.

3.2.2 Excellence in other social sciences and the humanities

In the field Europe has many strengths to draw upon; academic institutions of international standing; leading figures in many fields; research institutions and groups with a track records of excellence, a diversity of theoretical, conceptual and methodological approaches and researchers specialising in world regions Latin America, Africa, Middle East, China and India.

While academic league tables have been common in the UK for some time as a result of the Research Assessment Exercise, such university rankings were relatively unknown in the rest of Europe until the late 1990s. About that time media organisations took the lead by providing league tables of varying quality to inform students making choices about degree courses. Recently, the Bertelsmann Foundation created a Centre for University Development which conducts rigorous analyses of research performance, both nationally and in international comparison. Within the social sciences Berlin is strong in political science, public policy and management and in qualitative social science; Munich has a strong business studies and management focus and in the areas of insurance, innovation and intellectual property; Mannheim is another centre of excellence with strengths in economics and quantitative social science and Frankfurt in finance. WZB (Social Science Centre Berlin) affiliated with the three Berlin Universities and with the Max Planck Institute for the Social Sciences is another elite hub for the social sciences.

Similar university ranking exercises have been conducted in Italy, the Netherlands and in France. There is surely a case for the EC to conduct or to fund a study to assemble all available ranking exercises and in discussion to develop a common methodology to facilitate international comparisons. The mapping of economics will have been facilitated by the fact that the lingua franca of economics is English and much of the top research is published in academic journals. However, the same cannot be said for the other social sciences and the humanities – here there are significant literatures in a number of European languages and in some disciplines books and monographs are more common than journal articles. In this context the traditional citation index is unlikely to give valid information and peer assessment is probably to be recommended.

At a more general level the European Science Foundation collated some statistics on the social sciences in Europe and arrives at an optimistic assessment. In Germany there are some 13,000 academic social scientists, in the UK about 25,000 and in Denmark, Sweden and Norway a total of almost 7000. Based on grossing up the UK figures, the ESF estimates that the total spend on the social sciences in Europe for both teaching and research is around €27 billion, with in the region of 18,000 doctorates awarded in these subjects annually. That said, it would be interesting to estimate how many of the academics in the SS&H have the institutional opportunity to participate in research and how many have an interest or experience of participating in European scale research. By the same token the number of researchers working in social studies of science is probably just a few thousand.

3.3 Comparative research

Research in virtually all of these areas outlined in section 2 could be considered equally relevant to both national and EU levels, pointing to the importance of comparative European research projects. It is worth stressing both the value of comparative research over the single national study. Many of the above issues are not unique, or confined, to national boundaries. In a global world, issues soon become internationalised, such that what is happening in country X cannot be appreciated out of the context of what has and is happening in countries Y and Z. A single nation study runs the risks of parochialism. Conclusions about the likely causes of certain effects drawn from a single country study, might be shown to be invalid when viewed from a comparative perspective. Furthermore, the results of comparative research offers the opportunity for national decision making informed by the experience of other countries, whether that experience is taken as an example to follow or one to avoid. Finally, there are issues, for example, emerging international systems of regulation can hardly be conducted outside a comparative framework.

If the arguments in favour of comparative research are accepted, then there is an urgent need to develop methodologies, training and the infrastructure for comparative Europe research. In terms of quantitative data collection, the European Social Survey is a positive development, but far more needs to be achieved in terms of the establishment of different types of comparative data bases – financial and economic, employment, social welfare etc - in the development of analytic techniques and training in their usage and in the provision of opportunities for researchers in the Member States to collaborate in such research.

4. Activities of the EU in this field

4.1 SS&H in FP 6

It is widely agreed that to date research in the SS&H has not been sufficiently supported. The EU's 6th Framework Programme, allocates just over 5 percent of European public expenditure on civil research and development with a budget of over €16 billion over four years. Within that, social science has a dual role, with dedicated budgets and a role in the technologically driven parts of the Programme. The dedicated budget for socio-economic research is a small share of the total. For example, in the 6th Framework Programme, Priority 7 Citizens and Governance in a Knowledge Based Society received a budget of €225 million. However, there is a social science presence in many of the other priority areas in terms of the content and expertise (participating teams), sometimes as the main theme and in other cases adding a particular set of perspectives within a multidisciplinary context.

Policy oriented areas such as Science and Society and Coherent Development of Research and Innovation Policies draw strongly on social science inputs taking the share of resources to 2.2 percent of the budget. Finally, horizontal actions such as the Marie Curie Fellowships also allocate a share of their resources to social sciences.

The European Research Advisory Board (EURAB) (2003:8) points out,

“In the natural sciences, over many decades, major public investments have been made in research infrastructure and equipment (i.e. accelerators, telescopes, research ships, Antarctic bases, etc). The creation of such research infrastructure facilities has often been a defining element in the progress of the internationalisation of these sciences. SS&H research fields also need more infrastructure support to conduct research within a European (and international) framework. The traditional context of the development of SS&H disciplines in “nation state-building”, to a greater extent than in other sciences, has tended to inhibit the pace of development of European collaborative research and infrastructure support.”

Such investment in research infrastructure for the SS&H would be a valuable spring board for the development of the ERA, particularly for the quantitatively oriented social sciences. The absence of good quality data-bases is a severe constraint to comparative research of value to European policy.

4.2 Europeanisation of research

A number of commentators note that a barrier to the growth of European SS&H research is that, to a greater degree than in the natural, medical and engineering sciences, the SS&H have been a component of nation state-building. With social, economic and political phenomena studied in the national context, the scale and pace of development of European collaborative research and infrastructure support had continued to lag behind the natural sciences. The recognition of this prompted the extension EC mobility schemes to the SS&H and the development of targeted research key actions addressing policy options for European economic, social and political development.

Smith reports that the SS&H research communities have responded well to these initiatives as seen in collaborations based in existing professional networks, co-operation between universities, participation in European Science Foundation activities and in European professional associations such as the European Consortium for Political Research (ECPR) and the European Consortium for Sociological Research (ECSR).

Significantly, in Smith's view, are the efforts of national governmental and research council initiatives to mobilise researchers towards EU programme funding. A number of EU member states have adjusted national funding arrangements to promote a European dimension where comparative research was needed to address socio-economic topics/phenomena that cross national boundaries. In this context the ESRC (UK) will soon be announcing some bi-lateral agreements with similar bodies in some other European Member States for coordinating research grant applications for comparative projects.

EU funding has been instrumental in developing the ERA through larger-scale instruments, integrated research projects and networks of excellence. These have stimulated new networks and collaborations, particularly involving co-operation between university and non-university research institutes and user groups and organizations, offered new research career opportunities particularly to younger researchers and led to the identification of a range of socio-economic topics with an increasingly cross national nature.

However, Smith warns that if the “ERA aims to achieve more synergy and added value between national and European investment in publicly funded research ----- it will need to avoid, therefore, a one size fit definition of national programmes in the social and human sciences through recognising both the differing impacts of EU funding on national research communities, and the differing national funding arrangements and institutional landscapes in member countries”.

4.3 Two modes of funding – initiative and responsive

Smith reports that there have been considerable changes in national research funding systems for the SS&H, the dynamics of which revolved around the issue of how to achieve a balance between science-driven and policy driven research. Increasing demands for policy-relevant research have moved the balance towards initiative funding strategies. In initiative funding, committees variously comprising academics, governmental officials and users determine the broad research agenda.

There is a danger in shifting the balance of research mode funding towards the initiative (policy driven) mode at the expense of the responsive mode. In extreme cases the former appear in research calls that amount to little more than a request for a piece of short-term consultancy and this is not a particularly attractive proposition for serious academic researchers. It leads to risk averse research and is not the means by which the SS&H will develop the theories and methods through which to understand and comment on complex societal issues. It also assumes that those in research policy, advised by a handful of academics, are best able to set the research agenda. By contrast the responsive mode capitalizes on the creativity of the wider research community. As EURAB notes the “SS&H researchers are best placed to formulate a fuller range of topics, scientific models and approaches”..

Across Europe there are different models of national funding, characterized by Smith as follows:

- (A) Strong research council systems with both initiative and responsive mode funding schemes (Denmark, Finland, Netherlands, Sweden and the United Kingdom)
- (B) Strong research institution funding from several national sources (France and Italy)
- (C) Strong research council and institution funding with dominant responsive mode (Germany)
- (D) Mixed (but more limited) research council and institutional funding with both initiative and responsive mode funding (Austria, Belgium, Luxembourg, Portugal and Spain)
- (E) EU Framework programmes playing major role in funding of research community activities and projects (Greece and Ireland)

In the Eastern European new member states, Smith notes that none of the five types of national funding prevail, with private funds stimulating developments in the SS&H and dramatic reductions in the size and influence of the Academies of Sciences.

While concerned about the possibility of an emerging north-south divide in the funding of SS&H programmes, Smith’s analysis of the national initiatives suggests to him that there is considerable synergy between these and the ERA thematic priorities.

5. Forward look: long term challenges, visions brought by recent foresight work.

The European Union Research Advisory Board says the following in its first recommendation: "Social Sciences and Humanities research activities "in their own right" should command a more prominent place in future Framework Programmes in addressing social, economic and political issues and challenges facing the further construction of the European Union and its relations with the rest of the world".

The ABSS&H presents further arguments for the need to take into account the Social Sciences and Humanities (SSH) dimensions in a systematic and comprehensive manner. Such a development, it is suggested, "is essential to the ERA for the following reasons. The social sciences and humanities are critically important to systematically highlighting and explaining the social acceptance and integration of new technologies. In particular, SS&H can contribute to explaining the conditions under which new technologies might effectively be translated into successful innovations by specifying and analysing users and potential users and their communication and interaction with entrepreneurs. This holds for many if not most technology fields".

There are the quality of life aspects of the development of particular new technologies that are of critical importance to particular groups in society. Technologies impact in very different ways upon specific groups and classes in society.

Siune and colleagues identify two key priorities for scientific research on societal issues.

Strengthening embedded Science and Society activities in the thematic areas, in order to contribute to the social relevance and the public acceptance of the research. A horizontal action within each thematic area furthering constructive and critical analysis of societal issues, related to the technological research projects of the thematic area. The projects of the horizontal action will focus on aspects such as science/society dialogue; regulatory issues; environmental assessments; ethical and cultural aspects; technology assessment and foresight; social economic analysis, etc.

And the establishment of a thematic area, focusing on "Defining the European Model", mainly based upon research in social science and the humanities. This focus aims at increasing our understanding of the cultural and political integration augmented by the European Union while respecting the national identities in the EU. What are the unique characteristics of a common European public coexisting with national publics? The emerging European Model is new and seems promising, but so far too little research has been carried out to understand and develop it. (Siune et al, 2005)

While recognising and welcoming the ways in which the EU has supported SS&H research in the 6th Framework programme, there is a consensus of opinion that, if Europe is to get best value from the SS&H, the current instruments need to be expanded and better funded. The corraling of SS&H into Priority 7 and in Science and Society is too restrictive and narrowly focussed.

Appendix

Summary of recommendations from EURAB, AGSSH and the ESRC

The following paragraphs summarise the key recommendation of EURAB, the AGSSH and the ESRC (UK)

The EURAB report sets out a series of recommendations for European policy towards the SS&H in the context of the ERA. In summary recommending

More prominence for SS&H themes in future FPs to address social, economic, and political issues and challenges facing Europe and its relations with the rest of the world

The inclusion of the SS&H in the remit of calls for Research Infrastructures and an expert task force to define such research infrastructures.

The expansion of RTD programmes to include not only ex-post assessments of the impacts of science and technology to the full integration of socio-economic research components in the work programmes and “calls for proposals”.

An analysis of the number and range of SSH disciplinary experts involved in successful proposals where “socio-economic dimensions” were emphasized, to check whether actual as opposed to rhetorical reference to the importance of the “socio-economic dimension” of the research projects was achieved.

The European Commission should increase SSH expert participation in both the design stage (Advisory Groups) of the work programmes, in the evaluation process, as well as in future FPs.

“Science and Society” interactions and perspectives should become a “horizontal issue” applicable across all FP RTD programmes.

The EC should review the option of retaining smaller funding instruments to support projects in SSH fields.

The EC should organize a consultative conference involving both national and international funding bodies for humanities research and research community representatives to determine how best to structure the contribution of the humanities to “problem-orientated research” in the European Research Area.

The EC should consider the creation of a new instrument, tentatively named “SSH Research Innovation Spaces”, where both early career and established researchers from SSH disciplines and national institutional backgrounds have the opportunity to explore innovative research directions.

5.2 Advisory Group Social Sciences and Humanities in the European Research Area: (PP1)

The AGSSH divides its recommendations between activities for the Advisory Group and the European Commission.

The Advisory Group should:

Develop contacts and exchange among relevant advisory groups relating to the development of the social sciences and humanities in the ERA.

Consider together with other advisory groups how best to establish effective multi-disciplinary integration between SSH and the natural, medical, and engineering (NME) sciences, considered under the other priority areas of FP6. This holds especially for priority area 2 (Information and Communication Technology (ICT)), priority area 5 (Food quality and safety) and the Science and society horizontal research area.

The European Commission should:

Increase SSH expert participation in both the design stage (specialized Advisory Groups) of the work programmes and in the assessment of research proposals within FP6 Thematic Priorities 1 to 6.

Consider major funding initiatives in areas where there is some integration of SSH and natural science, medicine, and engineering (NME) research, giving initial priority to research on information technology, food safety, nanotechnologies and chemicals, and sustainable development.

Promote SSH by providing major funding to support parallel SSH research projects in selected areas of natural, medical, and engineering sciences research, for example Information Science Technologies, Life Sciences, genomics and bio-technology and nanotechnology.

Encourage and support existing or potential long-term, large-scale collaboration between SSH researchers and NME researchers such as already exists in the area of environment and also to some extent in the area of GENOME.

Designate resources for SSH researchers to initiate projects and to recruit natural science researchers, for instance in the area of sustainable development and information science technologies.

Provide on a limited scale (but with multiple opportunities) resources supporting planning or start-up to interdisciplinary teams of SSH and NME researchers to launch project proposals.

In areas where there is a lack of SSH critical-mass competence and training relevant to key NME areas, for instance nanotechnology, finance long-term (10 year) training programs (for instance, a network of several programs could be established in the ERA). This is a model of recruitment and training widely used in the USA.

Identify key people in the natural, medical, and engineering (NME) sciences and social sciences and humanities (SSH) who would be willing and able to work at formulating content and structure to "knowledge for human kind in FP6", with a focus on such areas as risk perception, risk analysis, and risk communication, sustainable development, security.

Keep track of multi-disciplinary research proposals and eventual projects and drawing general conclusions from them for the structure and future development of the social sciences and humanities in Europe.

In research areas of a more or less purely SSH character there is a need for substantial increases in funding for long-term, large-scale, European collaborative research and infrastructure development programs, for instance, European electronic library systems, EU social science surveys (for which there is already one ongoing initiative) and other comparative research programs in epidemiology, welfare, and European integration as well as European networks involving, for instance, simulation work conducted by social scientists (using state of the art hardware and software).

5.3 Economic and Social Research Council

The ESRC recommends:

A coalition of National funding agencies to work together to build a coalition that presents a strong unified voice for social science. At the same time it should facilitate the emergence of a representative campaigning body for social sciences in Europe.

Infra-structural support for SSH fields need support for developing high quality comparative data (both new and the preparation of existing data, surveys and administrative, for secondary analysis), high standards of measurement and data collection/handling, and new mechanisms and instruments for consolidation and exchange (including "virtual" forms) between research institutions, archives, libraries and museums, e.g. a European Citation Index for the Humanities.

The upgrading of researchers' methodological skills through the networking of existing expertise, technical support and services. Methodological expertise in cross-cultural, comparative research is a scarce resource (and unevenly spread) in Europe, and hence the promotion of appropriate mechanisms and instruments for its future development across the enlarged EU should be an essential priority for support of SSH fields in the European Research Area.

Support for research infrastructure development is an essential means of structuring the SSH research communities on the European level. At present, many SSH infrastructure facilities are concentrated in "Northern" locations with smaller and dispersed facilities in Southern Europe and the New Member States. The European Commission can play a greater role in fostering mechanisms for knowledge-sharing, raising standards and quality of methodology through "networking" and "integrating initiatives" across research institutions and hence strengthening infrastructure support to comparative research project design and implementation.

George Gaskell: LSE, July2005