

Research Area

STRENGTHENING THE PARTICIPATION OF RESEARCH TEAMS IN SCIENCE, ECONOMY AND SOCIETY IN AN ENLARGED EUROPE

SUMMARY OF THE SESSIONS AT THE RESEARCH CONNECTION CONFERENCE

PRAGUE, 7-8 MAY 2009



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1. INTRODUCTION

Aimed at promoting cross-disciplinary integration of research activities throughout Europe, **Research Connection 2009** underscored the contribution socioeconomic sciences and humanities can make in addressing the key challenges of our age. From the opening speech to a final forum on culture and creativity, the conference reaffirmed the capacity of these disciplines to stimulate stakeholder synergy and cultivate sustainable approaches to climate change, energy security and economic development.

This document highlights activities of the Science, Economy and Society Directorate (part of the European Commission's Directorate-General for Research) at **Research Connection 2009**, a major event hosted by the Czech Republic during its presidency of the Council of the European Union. The conference included parallel sessions, press briefings and forums covering the three areas of the directorate's portfolio: Socio-economic Sciences and Humanities (SSH), Science in Society (SiS) and Ethics.

Reflecting the priority of encouraging participation by new member states in EU research initiatives, this report drafted by Terry Martin (journalist, Communications Professional), draws heavily on presentations delivered by research partners from institutions coming from the last European Union enlargements (EU 12)¹.

¹ Cyprus, Czech Republic, Estonia, Hungary, Latvia, Lithuania, Malta, Poland, Slovakia and Slovenia joined the EU in 2004 and Bulgaria and Romania in 2007.

2. THE COMMISSIONER'S CALL TO CONNECT

Noting that the potential of the EU 12 has not been fully tapped, EU Science and Research Commissioner Janez Potočnik opened the conference with an appeal to look for the opportunities that transnationality, better collaboration and integration can bring". He used a range of metaphors to illustrate the multifaceted role that research plays in the European Union and beyond. Research, said Commissioner Potočnik, functions on the one hand as a kind of "glue" that binds us all together in a community. It also serves as the "oil" that keeps things running smoothly. Ultimately, however, research provides what the Commissioner described as an essential "fuel" needed to fire the "engine of growth and prosperity".

The Commissioner employed another fitting metaphor to articulate his vision of the European Research Area (ERA), which he said is essential for dealing with the challenges of a globalised world: "We are in the middle of a construction site", he suggested. "We are building a single market for research, using the Lisbon goals as our blueprint, where knowledge, researchers and technology can move around as easily as goods, people, services and capital already do".

Finally, anticipating the theme of the keynote speech which followed, Commissioner **Potočnik** pointed out the importance of research in dealing with energy and climate issues, which he characterized as "the grand challenges of our time".

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3. RIFKIN'S PLEA

The keynote address, delivered by **Jeremy Rifkin**, was an impassioned plea for interdisciplinary collaboration to address the challenges touched on by Commissioner Potočnik. Arguing that the very survival of our species is at stake, J. Rifkin asserted that a new industrial revolution is needed to cope with the energy crisis and climate change. The seeds of this revolution, he suggested, have already been sewn in the form of renewable energy technologies and peer-to-peer distribution models. The task now, he said, is to rapidly develop these capabilities and apply them on a massive scale: "Let the scientists and entrepreneurs loose and fix the problem."

Illustrating his thesis with a number of historical parallels (reaching as far back as the Sumerians), J. Rifkin suggested that civilizations advance by coupling innovations in energy *and* communications. He submitted that the industrial revolution needed to preserve the planet could become the driving force behind the next stage of European integration. "Create that integrated grid", he implored. "Share your resources." Describing peer-to-peer energy distribution as an example of "lateral capitalism", J. Rifkin said the current financial crisis revealed the fundamental flaw of our fossil-fuel based economy, and he called for the development of a different "economic narrative". J. Rifkin argued that a new "social model" would be required to support the proposed economic model.

4. SCIENCE, ECONOMY AND SOCIETY: PRESS BRIEFING

The cross-disciplinary nature of the activities managed by the Directorate Science, Economy and Society (SES) was illustrated at a special press briefing. The event showcased three important projects that have received funding by the 6th and 7th Framework Programmes. Each of the selected projects highlighted a different SES activity, and all were described in separate presentations led by a participating partner.

WONDERS – Stimulating public interest in science

Peter Rebernik, the Austrian-based Secretary General of the European Science Events Association provided an upbeat account of EU efforts to stimulate public interest in science, technology and humanities. P. Rebernik described some of the achievements of WONDERS (Welcome to Observations, News and Demonstrations of European Research and Science)², an integrative project rolled out in 2007 with participation from 25 countries. WONDERS created a rotating platform called "Carousel of Science", which enabled 31 partners to exchange their best science communication practices. The platform utilized resources from existing European networks and institutions to further internationalize the science festival model.

A tireless advocate of "taking science to the people", Mr. Rebernik described a number of specific (sometimes provocative) experiments designed to engage the public in high-traffic pedestrian settings. The detailed press packet accompanying the briefing explained that WONDERS was "designed to inspire European science communicators to work together and to continue this activity in future years". The project demonstrated the virtue of developing a European science communications network to support movement toward a European Research Area.

² http://www.euscea.org/www.euscea.org/Project_WONDERS/index.html

PRIVILEGED – Data protection and privacy

Elucidating the aims of the ongoing project PRIVILEGED (Privacy in Law, Ethics and Genetic Data)³, **David Townsend** from the Department of Health, Ethics and Society at Maastricht University in the Netherlands explained that genetic research and biobanking present policymakers with difficult dilemmas. While cataloguing genetic data may hold exciting possibilities for medical advancement, he said, the knowledge it provides about individuals and groups can lead to discrimination in certain social and economic situations.

D. Townsend, who is co-coordinator of the project, submitted that the usefulness in biobanking lies in its capacity to identify similarities between various genetic groups, while the danger lies in spotting differences. Advancements in our understanding of genetic information "challenge the notion of anonymization as the main way of protecting" people, he said. This raises what D. Townsend regards as one of the key questions associated with regulating research on genetic information and biobanks: "What are the limits of the individual's (or group's) privacy in relation to claims made by others?" D. Townsend noted that his project is preparing a range of policy options for the European Commission to consider in dealing with this promising but ethically problematic field.

GARNET – Global governance and regionalisation

The third presentation at the SES briefing put the spotlight on global governance, a topic that has taken on added significance during the economic crisis. **Elzbieta Stadtmüller**, head of the European Union Department at the University of Wroclaw in Poland, related her experience in the GARNET (Global governance, regionalisation and regulation: the role of the EU)⁴ project, a network of excellence involving 47 partners in 17 EU countries. A project devoted to the development of a European Research Area for Global Governance, Regionalization and Regulation, GARNET seeks to challenge "fragmentation in European research" and encourage a

³ <u>http://www.privilegedproject.eu/</u>

⁴ <u>http://www.garnet-eu.org/</u>

"systematic process of dialogue". As Ms. Stadtmüller succinctly put it, "the European Union is about international governance connected with regionalism".

While GARNET has evolved around the idea of "collecting researchers" (more than 300 so far), Ms. Stadtmüller said the goal is to move beyond the research itself and to "spread the knowledge around". She stressed the interdisciplinary aspect of GARNET as well, noting that in addition to political scientists and specialists in international relations, the project also includes researchers from other fields such as economics, philosophy and psychology.

5. ETHICS: DO THE RIGHT THING AND DO IT RIGHT

The European Commission's strategy in dealing with ethical concerns associated with research was the subject of a detailed session entitled "Ethics Review and the FP7 Ethics Framework – Do the right thing and do it right". The presentations addressed practical and theoretical ethical issues in the context of the European Commission's 7th Framework Programme (FP7), the main vehicle for implementing EU research and innovation policy through the year 2013.

Issues related to research intervention on humans and data protection were discussed as well as efforts to improve education and training in ethics. Special emphasis was given to the Ethics Review process. The panel featured several experts involved in reviewing the ethical conformity of FP7 proposals.

James Houghton, who heads the School of Natural Sciences at the National University of Ireland in Galway, provided a helpful overview of the subject. He began by stressing that ethical responsibility is a guiding principle in the governance of European research. The European Commission, he observed, provides clear guidance on ethical issues and requires that all FP7 research proposals demonstrate that these issues have been taken into account.

J. Houghton outlined ethical issues associated with research on human beings, privacy and data collection, the use of animals, research involving developing countries and so-called "dual-use" research activity which might be exploited for military or terrorist applications. Noting that the Commission has clearly defined the role and duties of ethical review panels, he explained how these panels work and what they look for in determining the compliance of any given project or proposal.

J. Houghton enumerated some common problems ethical review panels find in projects they evaluate:

- Failure to identify or adequately engage with ethical issues
- Inadequate informed consent procedures
- Failure to implement appropriate insurance coverage
- Inadequate information on handling of incidental findings
- Conflict of interest (e.g. with respect to informed consent)
- Inadequate sensitivity to issues related to children
- Inadequate sensitivity to research on animals
- Failure to assure benefit or capacity building for developing countries associated with the research
- Failure to recognize dual-use potential of results.

Following J. Houghton's introduction, several of the ethics-related issues he raised were discussed in greater detail.

Pēteris Zilgalvis, Head of the Governance and Ethics Unit at the Directorate-General for Research, spoke about ethics and governance in relation to FP7. While noting that ethics as such is a subject of subsidiarity, P. Zilgalvis observed that specific ethical issues in research and new technologies are addressed in a number of EU directives as well as in international law. He then went on to review some of those instruments and pointed out that the European Charter of Fundamental Rights forms the cornerstone of the EU's position on research ethics. Describing the challenge of working together to further high ethical standards in the European Research Area, P. Zilgalvis said a main objective is to strengthen links between ethics committees at national and European levels.

Dorian Karatzas, Head of Sector (Ethics Review) at the Directorate-General for Research, reminded his audience of the value of ethics in relation to research. He said he wanted to send the message out to the scientific community that "ethics should not be seen as a hurdle". Instead of regarding ethics as "an administrative detail", said D. Karatzas, researchers need to realize that ethics is something

beneficial: it is good for the research itself and for the teams who conduct it. Above all, he said, ethics can help science and society connect more effectively; it enables the scientific community to have a positive impact on society at large.

Caroline Gans-Combe, a France-based expert on ethics governance and data security issues, reminded everyone of the vulnerability of electronically-stored data in the internet age. Her presentation, which took national legal frameworks into consideration, offered practical advice to researchers in dealing with data protection and privacy issues. She urged applicants for FP7 funding to think carefully about these issues and be prepared to explain the methodologies they use for data and samples processing.

Jiri Simek, of the Faculty of Medicine at Charles University in Prague, went on to talk about ethics education, training and communication and the particular challenges associated with these pursuits in post-communist countries. He submitted that "Marxist philosophy left no theory of ethics" in these countries and suggested that this has resulted in a comparatively strong adherence to legislation but a weak capacity to openly defend one's own position. Noting a severe shortage of ethics teachers in Central and Eastern Europe, J. Simek argued that "post-communist countries deserve special attention".

Carmen Florea, from Cluj University in Romania, outlined the challenges facing social science researchers in new EU member states. She indicated that "ethical awareness" is now emerging in these countries following a period of "distortion" under communism. Citing the importance of recognising the principles enshrined in the European Charter of Fundamental Rights, Ms. Florea suggested that social scientists in post-communist countries are still struggling to overcome a mindset conditioned to accept an authoritarian "official version" of things. The main challenge facing these researchers today, she said, was the need to shift from a top-down to a bottom-up approach.

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6. EUROPEAN SOCIETIES AT THE TURNING POINT: SOCIO-ECONOMIC SCIENCES AND HUMANITIES SESSION

Day two of the conference kicked off with a well-attended session on the essential role of Socio-economic Sciences and Humanities within the FP7 Cooperation Programme. The session introduced the audience to some major SSH activities with a particular focus on the current economic crisis and the task of global governance.

Jean-Michel Baer, Director of Science, Economy and Society at the European Commission's Directorate-General for Research, introduced the session by pointing out the broad scope of SSH research activities. He noted that the projects in the SSH portfolio cover "all aspects of European societies", embracing the entire social, economic, political and cultural make-up of Europe. Stressing the "problem-oriented" and a "policy-relevant" mandate laid down in the current Framework Programme, J-M. Baer said his goal was to combine the best interdisciplinary research possible to support the Lisbon strategy, social cohesion and adaptation to global changes. He further noted the increasing representation of EU new member states in research projects in SSH (currently around 15%).

In the first of three feature presentations, **Elzbieta Stadtmüller** of Wroclaw University offered insights into "Global Governance and Citizenship". Further elaborating on points made at the Science, Economy and Society press briefing the previous day, Ms. Stadtmüller emphasized the value of building a community of researchers to address issues of global governance.

She also provided additional details about the GARNET network of excellence, asserting that six global governance policy issues should be regarded as key:

- 1. Governance of the global environment
- 2. Global and regional security governance
- 3. Governance of infectious diseases
- 4. Gender in international political economy
- 5. North-South development issues
- 6. Technology, innovation and governance.

Acknowledging that Eastern Europe is slowly "emerging from academic limbo", E. Stadtmüller lamented the fact that many universities in the region were still hampered by "ancient administrative structures". At the same time, however, she observed that participation by new member states in EU research projects was becoming more and more professional.

Laszlo Halpern, Deputy Director of the Institute of Economics at the Hungarian Academy of Sciences, offered an assessment of how the current "financial, economic and social crisis" is affecting the EU. L. Halpern explained that US and European financial structures had become interconnected as never before in this crisis and could not be decoupled. He expressed concern that reduced economic output is being accompanied by signs of an "emerging economic nationalism" (reflected in state subsidies) that could be exploited by multinational companies realigning their investment portfolios.

L. Halpern stressed the need to avoid asymmetrical credit restraints among EU member states in the short term and noted that the European Central Bank had a role to play in supporting reciprocal currency arrangements. In the medium term, he said, there was a clear need for greater coordination as well as more effective surveillance and supervision of the financial sector. L. Halpern warned that the pressures of this crisis could precipitate a turning point in the quest for European integration.

Marek Tilts, Director of the Institute of Baltic Studies in Estonia, echoed these warnings. His presentation focused on efforts in Central and Eastern Europe to "catch up" with the West, a struggle that has been severely compromised by the global economic crisis. Drawing parallels with the experience of Asian economies during their crisis of the 1990s, M. Tilts noted that Central and Eastern European countries wererunning up huge current account and fiscal deficits.

M. Tiits emphasized that CEEC countries are heavily dependent on foreign input which has diminished radically, with dire consequences for the region. Employment prospects for the region are "gloomy", he said. In response to the crisis Mr Tiits recommended a stronger economic development strategy and better coordination of innovation and employment strategies. He also suggested the Science, Economy and Society Directorate develop tenders to address specific policy issues associated with these problems.

7. BEYOND BUILDING THE KNOWLEDGE BASE: SCIENCE IN SOCIETY SESSION

Immediately following the SES event, the Science in Society (SiS) section of the FP7 Capacities Programme presented an overview of its achievements and goals. The session emphasised efforts to build an ERA "firmly embedded in society and responsive to society's needs".

David Stewart Boak, former Director of Communication at The Royal Society in The United Kingdom, moderated the session. He noted the "huge enrichment to be gained from involvement in science communication".

Luisa Prista, the Head of Unit "Scientific culture and gender issues", co-chaired the event along with SES Director Jean-Michel Baer. Stressing that "scientific and technological results are not enough to deal with the complex challenges" facing society, L. Prista called for a more integrative, interdisciplinary approach, with actors working together to overcome internal conflicts.

The thematic diversity of the SiS portfolio was reflected in six presentations delivered during the session. Each presentation focused on a specific SiS-supported project:

POLLEN – Early development of scientific literacy

Seeking to awaken scientific interest among the youngest members of our society, POLLEN (A Community approach for sustainable growth of science education in Europe)⁵ is an innovative project that cultivates Europe's research potential at a very basic level. **Kristina Zoldosova**, from the Department of Preschool and Elementary Education at Trnava University in Slovakia, described how the project is supporting inquiry-based science education in European primary schools. Supported by the 6th Research Framework Programme, POLLEN has been selected as a reference project to promote scientific education and culture in Europe. Five of the fifteen cities involved in POLLEN are located in new EU member states. The project advocates a community approach for sustainable development of science education.

⁵ <u>http://www.pollen-europa.net</u>

HIDE – Biometric identification & personal detection ethics

Noting that the "processes of identity formation and identification touch some of the deepest areas of human life", **Nikola Pavesic**, from the Faculty of Electrical Engineering at the University of Ljubljana, described HIDE's (Homeland security, biometric identification and personal detection ethics)⁶ broad interdisciplinary orientation. He observed that biometrics and personal detection technologies confront us with fundamental social and cultural questions relating to "who we are and how we relate to others". HIDE's mission, he said, is to establish a platform devoted to monitoring the ethical and privacy implications of these technologies. N. Pavesic explained that fulfilling HIDE's objectives would require input from a wide range of disciplines including ethics, technology, politics, law, economics, social sciences, international affairs and management. The project, which was launched last year, includes partners in Europe as well as in the United States and Asia.

e-CASTEX – Support for scientific touring exhibitions in Europe⁷

Establishing systematic methods for sharing scientific exhibition resources was the focus of e-CASTEX (Electronic Centralized Access to Scientific Touring Exhibitions), a 6th Research Framework Programme project that has yielded an on-line database to help leverage Europe's rich museum assets. **Oliver Retrout**, Head of the Royal Belgian Institute of Natural Sciences which coordinated the project, noted that more than 100 institutions in 29 countries are already participating in the network. But he added that there is still untapped potential in Europe's museum landscape, particularly in the EU12. He encourages natural history museums throughout Europe to join the EXTRA database, which is managed by the European Network of Science Centres and Museums (ECSITE), a non-profit association.

⁶ <u>http://www.hideproject.org/</u>

⁷ <u>http://www.naturalsciences.be/institute/cooperations/ecastex</u>

DelibSCP – Civil society has the floor

The project DelibSCP gives civil society organizations a space for identifying research needs and influencing political decisions on sustainable consumption and production. In addition to providing a space for discussion and participation, the project provides information on the relevance of instruments such as EU Sustainable Development Strategy and the EU Sustainable Consumption and Production action plan in order to make participation in these kinds of processes more accessible. **Eva Csobod**, from the Regional Environmental Centre Country Office Hungary, stressed the added value of this EC funds, which "opened the doors for regional/national" funding.

Wrapping up the session, Science, Economy and Society Director Jean-Michel Baer emphasised the need to continue strengthening the links between science and society. He observed an unfortunate tendency to concentrate only on knowledge while forgetting about society. Reminding his audience of the controversy surrounding nanotechnology, J-M. Baer pointed out that developing research policy irrespective of the needs and wishes of society can be counterproductive. Acknowledging that significant progress had been made over the past two years, the Director said attention must now be focused on "bringing the main actors from science and society together" to ensure public engagement and boost confidence in science.

8. THE VALUE OF CULTURE AND CREATIVITY: FORUM

Highlighting the importance of humanities research for the creation of a successful and competitive European Union, the final forum on the Research Connection agenda examined the "human factor".

Milena Žic Fuchs, from the University of Zagreb, argued that the human factor is at the heart of the problem of climate change. She suggested that this problem is ultimately an ethical one for individuals and societies. Observing that "growth implies change", Ms Fuchs asserted that we must deepen our understanding of the human dimension if society is to change in the right direction.

Wolfgang Mackiewicz, President of the European Language Council an Director of the Language Centre at Freie Universität in Berlin, claimed that the potential of humanities research has not yet been fully exploited in FP7. W. Mackiewicz also lamented a lack of awareness among humanities researchers about how to participate in the European's collaborative research programmes. Moreover, he said, few researchers are aware of "the large number of pertinent reports" published by the European Commission.

Placing humanities research in the context of the current economic crisis, W. Mackiewicz submitted that the crisis had given this research added relevance. He insisted that the crisis was "not just an issue for economists". On the contrary, he argued, humanities researchers can provide invaluable insights into the "genesis of the crisis" and propose "ways of dealing with it".

Noting invaluable contributions being made by anthropology, education, ethics, history, linguistics, literary studies, media studies, philosophy, political theory, psychology and religious studies, W. Mackiewicz said humanities researchers have the potential to enrich all sorts of cooperation projects. Their capacity for conceptual thinking, critical analysis and reflection make these researchers particularly useful, he observed, adding that they provide "essential social, cultural and ethical anchors for society and play an integrating role in multidisciplinary projects".

Importantly, W. Mackiewicz emphasized the need for dialogue among all stakeholders: "Humanities researchers can provide orientation relevant to policy development in a variety of fields". Now, he said, the challenge is to get stakeholders "to recognise the relevance of humanities".

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Socio-economic Sciences and Humanities programme: <u>http://ec.europa.eu/research/social-sciences</u> Sciences in Society programme: <u>http://ec.europa.eu/research/science-society</u>

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