

ESF EUROCORES Programme

Inventing Europe – Technology and the Making of Europe, 1850 to the Present

Final Report



European Science Foundation (ESF)

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EUROCORES (European Collaborative Research)

The European Collaborative Research (EUROCORES) Scheme enables researchers in different European countries to develop collaboration and scientific synergy in areas where international scale and scope are required for top class science in a global context. The scheme provides a flexible framework for national basic research funding and performing organisations to join forces in supporting forefront European research in and across all scientific areas.

Until the end of 2008, scientific coordination and networking was funded through the EC FP6 Programme, under contract no. ERASCT- 2003-980409. As of 2009, the national organisations support all aspects including scientific coordination, networking and research funding.

Editors

Dr Barry Dixon, Junior Science Officer Dr Eva Hoogland, Senior Science Officer Ms Claire Rustat-Flinton, Administrator

www.esf.org/inventingeurope

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1. Introduction

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Inventing Europe researchers used a much-neglected, but highly-appropriate, lens to research the history of Europe, examining how technology operated as an agent of change in the contested processes of making European spaces. Technology was defined not only as machines, products, systems, and infrastructures, but also as the skills and knowledge that make them work. In addition, technological change was understood as a deeply political, economic and social process involving people and institutions. Using this contextual definition, the researchers focused on how technical communities, companies, nation states and social groups have contested, projected, performed, and reproduced 'Europe' in constructing and using a range of technologies. These include in particular: 1) network technologies in communication, transport and energy sectors; 2) knowledge intensive technologies of large-scale European projects; 3) consumer technologies in a wide range of areas from leisure and mass media to food and construction.

The past and the future of Europe have become pressing analytical issues with a sharp political edge. Indeed, that future will likely be co-determined by the European integration process. Countries that were once part of the former Soviet Union and its satellites eagerly wanted to enter the European Union, seeing such steps as a return to Europe. Increasingly, Europe seems to represent the space that is occupied by the EU, and it is anticipated that European and EU identities might merge. In this context, it is both important and timely to locate the history of the integration process in a broader history of Europe, including the ruptures brought by wars, nationalism, and global tensions from the mid-nineteenth through to the twentieth century. Traditional European history has long been dominated by

nation states' political and economic trajectories and conflicts. The Inventing Europe activities have explored in many exciting ways how European spaces were constructed and integrated since 1850 by whom, why, and with what kind of impact, e.g. who and what became central and who and what was marginalised and/or silenced? The notion of space refers to the programme's ambition not to naturalise the model of territorially self-enclosed nation states, and to avoid state-centred modes of analysis, without denying nation states' historical importance. As the contents of this report show, in many inspiring meetings the programme analysed the emergence of various economic, geographical, political and cultural transnational European spaces (for example networks, communities, regimes, landscapes, patterns) within, across, and beyond those nation states in which notions of Europe, European unification, and integration were imagined, developed and lived. As the Inventing Europe research has shown, these framings of Europe became important vectors in colonial and transatlantic crossings as well as in encounters between the West and the East. By doing so, Inventing Europe has placed the history of European integration that began after the Second World War into a much deeper and broader history of constructing and experiencing various Europes, emergent since 1850.

The programme thus contributed to ongoing efforts to write European history without falling back on either a (comparative) history of European nation states or a history of European integration that attends exclusively to its top-down formal phases, as represented by institution building and policy coordination among nation states. Instead Inventing Europe adopted, and helped to develop, the emergent transnational history approach of

conceptualising European history and European integration as being an outcome of extensive networking processes. Central to this focus were concepts such as the circulation and transfer of people, ideas, goods, services and artefacts; the comparison of various circulation trajectories and the ways they are integrated and appropriated at specific sites, including the nation state and the city; as well as research on the role of transnational networks and alliances. The ambition to write a new history of European integration through the lens of technology will impact on history writing in many fields, for example European history, European integration history, history of technology, business history, economic history, media history, consumption history, and global history. It might also impact on the broad field of European studies in the political and social sciences.

Inventing Europe has been an exciting and inspiring experience for all researchers involved. This experience consisted not only of an intellectual journey which will have lasting effects on the research and thinking on European history of participating scholars. It also stimulated a deep and rich process of cross cultural, and cross disciplinary networking with scholars coming from East, West, Southern and Northern Europe, and from the USA and Canada. Inventing Europe was never a closed shop with many new people entering during its course. Inventing Europe itself was embedded in a larger set of networks. In particular, I should mention the Tensions of Europe Network, since Inventing Europe was one of its spin-offs. Tensions of Europe is an earlier ESF funded network. In 2005, it submitted a proposal for a EUROCORES programme which was selected out of 52 other proposals for funding. While the ESF EUROCORES framework provided a new and exciting platform for research collaboration, the Tensions of Europe Network continued to provide complementary research and networking activities by pooling several nationally and internationally funded projects. Amongst others, it was a home for three projects which were recommended by the ESF EUROCORES Review Panel for funding, but which, due to lack of funds, did not get funded. Internally, they became known as shadow projects. These were:

- Transmitting and Receiving Europe (EUROTRANS)
- Inventing and Governing Transnational Commons in Europe (EUROCOMMONS)
- Experiencing 'Europe' on the Road: Transnational Bus Travel and the Making of 'Europe' (EuroBus)

In addition, the Tensions of Europe Network attached to Inventing Europe a joint PhD programme with four PhD students which was developed between the University of Plovdiv (Bulgaria), Charles University Prague (Czech Republic) and Eindhoven University of Technology and the Foundation for the History of Technology (The Netherlands). I believe that this embedding of Inventing Europe in the Tensions of Europe Network, an initiative which was coordinated by the Foundation for the History of Technology based at and supported by the Technical University Eindhoven, has been one of the success factors. The Network and the Foundation also ensure that Inventing Europe activities will continue now that the programme is ending. We thus need to thank all the members of the Tensions of Europe Network for their contributions to the Inventing Europe programme. Last, but certainly not least, we would like to acknowledge the continuous and outstanding support by the ESF scientific officers Dr Rüdiger Klein, Dr Doubravka Olšáková, and Dr Eva Hoogland, and the equally important support by the ESF administrative Unit, in particular by Ms Claire Rustat-Flinton. It is not easy to get European collaboration going. It needs dedication and creativity, and this is what we received. We are grateful for that, and for the inspiring meeting and encouraging evaluation by the ESF Review Panel as published in this report.



Professor Johan Schot
Professor of the History of Technology
Eindhoven University of Technology
Chair of the Scientific Committee
of Inventing Europe

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The Collaborative Research Projects (CRPs)

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The Eurocores programme *Inventing Europe* was comprised of the following four Collaborative Research Projects (CRPs) bringing together researchers from across Austria, Belgium, Bulgaria, Czech Republic, Denmark, Finland, France, Germany, Greece, Italy, the Netherlands, Norway, Portugal, Spain, Sweden, Turkey, the United Kingdom, and the United States.

European Ways of Life in the 'American Century': Mediating Consumption and Technology in the Twentieth Century (EUWOL)



National Projects: 11
(BE, BG, DE, DK, FR, IT, NL, NO, SE, TK)
Project Leader:
Professor Ruth Oldenziel,
Eindhoven University of Technology,
The Netherlands

Individual Projects:

 Producing European Consumption Regimes in the 'American Century': Leisure, Housing and Food Technologies

Principal Investigators:

Professor Ruth Oldenziel; Dr Adri Albert de la Bruhèze

Project Members:

Dr Liesbeth Bervoets; Dr Milena Veenis; Ms Elitsa Stoilova; Ms Emiliya Karaboeva Funding Agency: NWO

 Standardisation and Diversity of Foods in Europe through Technical Innovations of Packaging in the European Food Industry, 1918-1989

Principal Investigator:

Professor Marc de Ferrière le Vayer

Project Members:

Professor Christophe Bouneau; Professor Pascal Griset; Dr Florence Hachez-Leroy; Professor Nicolas Marty; Professor Jean-Pierre Williot; Ms Guyonne Blanchy

Funding Agency: CNRS

 Separate Summer Homes: Scandinavian Leisure Consumption and its Ideologies During the Short Twentieth Century Principal Investigator:

Professor Thomas Kaiserfeld

Project Member: Dr Per Lundin Funding Agency: VR

 Icing the Norwegian Nation: The Import, Transformation, and Appropriation of Deep Freezing Technologies 1930-1970

Principal Investigator: Professor Per Østby Project Members:

Mr Terje Finstad; Dr Stig Kvaal

Funding Agency: RCN

 Making It All Work for You: Technological Discourses, Representations, and Mediation Junctions in Danish Leisure Society, 1920-1989

Principal Investigator:

Professor Michael F. Wagner

Funding Agency: FIST

Associated Projects:

 Household Technology and Modern Ways of Life in German and Swedish Housing Projects, 1918-1973

Associated Partner: Professor Mikael Hård

 Keeping Cool in Cold-War Germany:
 The Cold Chain, Food System, and Mass Consumption, 1933-1989

Associated Partner: Professor Karin Zachmann

 Tinkering in Daily Life: People, State and Consumption in South East Europe

Associated Partner:

Dr Dobrinka Parusheva

Project Members:

Dr Iliyana Atanasova-Marcheva; Ms Emiliya Karaboeva; Ms Elitsa Stoilova; Dr Meglena Zlatkova

 Paradoxical Rurality. Dwelling in Rural Flanders, 1948-1978

Associated Partner:

Professor Leen van Molle

Project Members:

Professor Hilde Heynen; Professor Yves Segers; Ms Els de Vos; Mr Rien Emmery Visions of the South: Consumption, Food and Technology in Italy, 1918-1989

Associated Partner:

Professor Emanuela Scarpellini

Project Members:

Dr Silvia Cassamagnaghi; Dr Giovanni Moretto

 Living in Kreuzberg: Turkish Immigrants and German Post-war Collective Housing Associated Partner:

Dr Esra Akcan

Europe Goes Critical: The Emergence and Governance of Critical Transnational European Infrastructures (EUROCRIT)



National Projects: 8
(BG, DK, FI, GR, NL, NO, SE)
Project Leader:
Professor Arne Kaijser,
Royal Institute of Technology,
Stockholm, Sweden

Individual Projects:

Natural Gas: Trusting the Enemy
 Principal Investigator: Professor Arne Kaijser
 Project Members:

Dr Per Högselius; Ms Anna Åberg Funding Agency: VR

 From Reliability to Liability: European Electricity Networks and the Shaping of Transnational Interdependencies and Risks Principal Investigator:

Dr Erik van der Vleuten

Project Members:

Dr Vincent Lagendijk Funding Agency: NWO

 An Uneasy Alliance: Critical Connections across the European Border

Principal Investigator:

Professor Karl-Erik Michelsen

Project Members:

Dr Tuija Mikkonen; Mr Mikko Kohvakka; Ms Virpi Kaisto; Ms Pekka Rautio

Funding Agency: AKA

 From Systems to Complexes.
 Coping with Security and Efficiency in European Electricity Networks
 Principal Investigator: Professor Lars Thue

Funding Agency: RCN

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- Air Traffic Control: Facilitating Transnational Trust through Governance and Technology
 Principal Investigator: Professor Lars Heide
 Funding Agency: FIST
- In Case of Break-Down: Emergency Communication Systems

Principal Investigator: Dr Anique Hommels

Project Member: Ms Eefje Cleophas

Funding Agency: NWO

Associated Projects:

 Becoming a Power Hub of the Balkans: Bulgarian Electric System between National Strategy and COMECON Rules
 Associated Partner: Professor Ivan Tchalakov Project Members:

Mr Ivailo Hristov; Dr Tihomir Mitev

Technologies of Network Interface:
 The International Links of Greece's Power and Communication Infrastructure

 Associated Partner: Dr Aristotelis Tympas Project Members: Dr Stathis Arapostathis;
 Mr Yiannis Garyfallos; Ms Katerina Vlantoni

Software for Europe (SOFT-EU)



National Projects: 11
(AT, CZ, DE, FI, FR, GR, NL, UK, US)
Project Leader:
Dr Gerard Alberts,
University of Amsterdam,
The Netherlands

Individual Projects:

 Electrologica's Software: Co-entrepreneurship and the Emergence of a Dutch Software Industry

Principal Investigator: Dr Gerard Alberts
Project Members: Dr Adrienne van den
Bogaard; Dr David Nofre Mateo; Dr Karel van
Oudheusden;

Funding Agency: NWO

Czech(oslovak) Participation in the ALGOL
 Effort

Principal Investigator: Dr Helena Durnova Funding Agency: GAČR Using IBM in Europe to Recapture the Lead?
 Co-constructing Computer Expertise in
 Europe and Visions of European Know-how
 through IBM and its Technology
 Principal Investigator: Professor Hannu Salmi

Project Members: Dr Petri Paju

Funding Agency: AKA

Associated Projects:

 Premiers Jalons de l'Histoire de l'Informatique en Belgique: 'Machines Américaines' and Competing Modernities in Belgium, 1940-1968

Associated Partner: Dr Sandra Mols

Software Development Configurations:
 The 'IMAG' Lab at Grenoble and the
 Computer Industry

Accordated Bottom Da Diagna Manager Vision

Associated Partner: Dr Pierre Mounier-Kuhn

 Software in Britain: Computer Appropriation and the Problematics of the 'British problem,' 1948-1970

Associated Partner: Dr James Sumner

Software Tensions in Non-Anglophone
 European Contexts: The Example of Greece
 Associated Partner: Dr Aristotelis Tympas
 Project Members: Mr Theodore Lekkas;
 Mr Dimitris Ziakkas

 ICT and Business. The Rise and Development of Software-based Industries in Europe (Integration – Homogenisation – Differentiation)

Associated Partner: Dr Paul Erker Project Member: Mr Timo Leimbach

 Genesis and Development of "Soft Computing/Computational Intelligence" in the 20th Century European System of Science and Technology Associated Partner: Dr Rudolf Seising

 Inside the Box: A History of the Software Package

Associated Partner: Dr Thomas Haigh

 History of the Software Services Industry Associated Partner: Dr Jeffrey Yost

The Development of European Waterways, Road and Rail Infrastructures:

A Geographical Information System for the History of European Integration, 1825-2005 (Water, Road & Rail)



National Projects: 11
(BG, DE, ES, FI, FR, NL, PT, TR, UK)
Project Leader:
Professor Jordi Martí-Henneberg,
Universidad de Lleida,
Spain

Individual Projects:

 A GIS for the History of European Integration (1825-2005): The European Road and Rail Infrastructure

Principal Investigators:

Professor Jordi Martí-Henneberg; Dr Francisco Javier Tapiador Fuentes

Project Members:

Dr Kerstin Burckhart; Mr Eloy del Río; Mr Jose Fenollar; Dr Rafael Giménez i Capdevila; Ms Ana Mateos; Mr Josep R. Modol; Ms Laia Mojica; Ms Eva Salgado; Mr Alejandro Simón; Mr Kaloyan Stanev; Ms Antònia Valentín; Ms Elena Guinaga; Mr Mateu Morillas; Ms Meritxell Gallart

Funding Agency: CICYT

 Transportation Systems and Developments in Social and Economic Indicators in Turkey Principal Investigator:

Professor Sedef Akgüngör

Project Members:

Professor Ceyhan Aldemir; Professor Yaprak Gülcan; Professor Yeşim Kuştepeli; Professor Vahap Tecim; Mr Mehmet Aldonat Beyzatlar Funding Agency: TÜBITAK

 Finnish Railways in the Nordic and Russian Context

Principal Investigator:

Professor Jarmo Rusanen

Project Members:

Mr Harri Antikainen; Mr Ossi Kotavaara; Mr Ari Nikula; Ms Johanna Hätälä **Funding Agency**: AKA

 Crossing Borders: Waterway, Rail and Road Connections between the Netherlands and Germany, Belgium and the UK, 1825-2000 Principal Investigator:

Dr Hans Buiter

Project Members:

Dr Irene Anastasiadou; Dr Hanna Wolf;

Mr Tom Boot; Mr Pascal Bovy; Mr Daniel Vijge; Ms Inge Wijerse Funding Agency: NWO

 Roads and Railways Network Development in Portugal, 1800-2000

Principal Investigator:

Professor Luís Nuno Espinha da Silveira

Project Members:

Dr Daniel Alves; Mr Nuno Lima

Funding Agency: FCT

Associated Projects:

- The European Road and Rail Infrastructure: A Geographical Information System for the History of European Integration, 1825-2005 Associated Partner: Dr Ian Gregory
- The Role of the French State in the Development of Transportation Infrastructure from 1830 to 2005

Associated Partner: Dr Thomas Thévenin Project Members: Dr Arnaud Banos; Dr Valérie Fachinetti-Mannone; Dr Jean-Paul Hubert; Dr François Moriconi-Ebrard; Professor Robert Schwartz

- Roads Connecting, Roads Dividing: Infrastructure in South East Europe Associated Partner: Dr Ekaterina Nikova Project Member: Dr Martin Ivanov
- Transport Networks in Germany and in Central Europe, 1825-2005
 Associated Partner: Dr Andreas Kunz Project Members: Ms Monika Krompiec; Dr Thomas Treiling
- The Background of the European Integration: a Physical Geography of Europe
 Associated Partner: Dr Francisco Javier

Tapiador Fuentes

Project Members: Ms Ana Mateos; Mr Jose

Fenollar; Ms Eva Salgado

 History and Geography: A Comparative Study of Railways, Uneven Geographical Development, and a Crisis of Globalization in France and Great Britain, 1830-1914 Associated Partner: Professor Robert M. Schwartz

Project Members: Dr Ian Gregory;

Dr Thomas Thévenin

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Facts and Figures

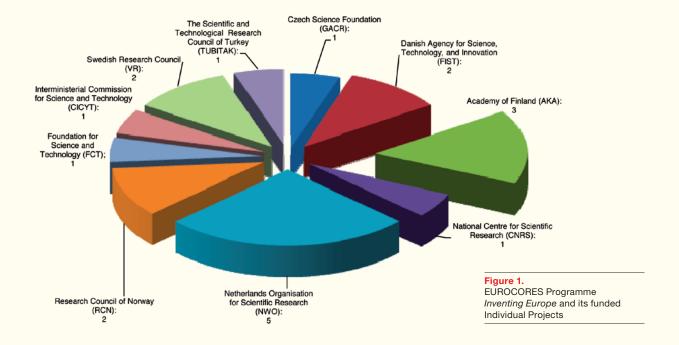


1. Research Funding

Research funding for the Inventing Europe programme was generated from 10 European funding agencies through the European Science Foundation (ESF). The selection of project proposals was achieved through a two-stage process, with outline proposals being sifted by the international Inventing Europe Review Panel (which included leading academics from 13 European countries), and full proposals for Collaborative Research Projects (CRPS) being selected by the Review Panel on the basis of reports drawn by international expert referees.

Eventually, out of the 13 outline proposals for Collaborative Research Projects (CRPs with 60 individual project teams and 43 associated partners) four CRPs obtained funding, with 19 individual project teams and 21 associated partners. The duration of projects was between three and four years, depending on the funding granted under national rules and regulations.

The following funding agencies supported the 19 projects within the four collaborative research projects in the Eurocores programme Inventing Europe: Czech Science Foundation (GAČR), Danish Agency for Science, Technology and Innovation (FIST), Academy of Finland (AKA), National Centre for Scientific Research (CNRS), Netherlands Organisation for Scientific Research (NWO), The Research Council of Norway (RCN), Foundation for Science and Technology (FCT), Interministerial Commission for Science and Technology (CICYT), Swedish Research Council (VR), The Scientific and Technological Research Council of Turkey (TÜBITAK).



The research budget granted by the above list of national funding agencies exceeded €3.3m. The accompanying graphics show the number of funded Inventing Europe projects per funding agency (see Figure 1) and the proportion of the research budget allocated by national funding agencies to the Inventing Europe projects in the context of the general research budget (see Figure 2).

2. Networking and Dissemination Funding

Inventing Europe networking activities were collaborative activities (e.g. workshops, conferences, summer schools, etc.) that brought together scientists from at least two collaborative research projects and, on occasion, external experts in order to discuss, plan and implement future collaboration and interaction. Until the end of 2008, coordination and networking by the European Science Foundation was covered through the EC FP6 Programme, under contract number ERASCT-2003-980409. Since January 2009, national funding agencies participating in EUROCORES programmes have provided the networking budget on the principle of a common pot. The Inventing Europe networking funding also covered short-term visits and dissemination activities that were intended to deepen the impact of the research and strengthen the field by facilitating the dissemination of results whilst raising the profile of Inventing Europe as a whole. Contributions to the common pot were calculated proportionally according to the amount of projects being funded by the national agencies. In this way the spread of funding amongst national agencies was in direct relation

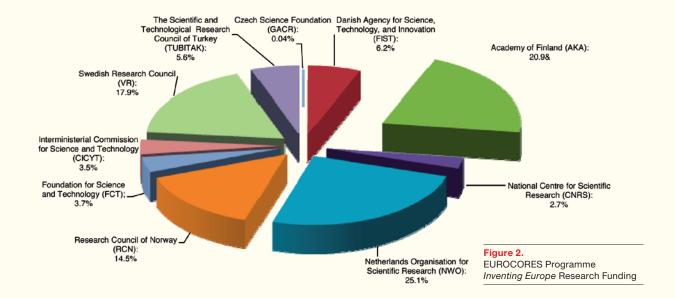
to the distribution shown in Figure 1. In terms of the life-span of the programme in its entirety, though, almost 80% of funding for Networking and Dissemination came from the FP6 contract (see Figure 3).

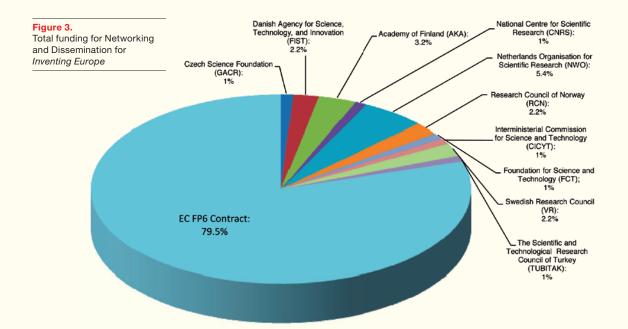
3. Networking and Dissemination Activities

Networking and collaboration within a EUROCORES Programme take place at two levels: between the various Individual Projects within each Collaborative Research Project (CRP), and between the funded CRPS within the programme as a whole.

The intra-CRP collaboration is motivated by the nature of the CRP's research objectives, *i.e.*, by the scope and the complexity of the questions it deals with. In a CRP, the participating groups have the opportunity to gather the required critical mass to successfully address the objectives and challenges of their project.

The cross-CRP networking and collaboration, of which you will find more in this section, is prompted by the aims and the nature of a particular EUROCORES programme. The Inventing Europe programme has been developed precisely because of the clear need for enhanced collaboration in this field. The funded CRPs have collectively set up and further streamlined this new collaboration. To this end, the CRPs have engaged their members and, when of clear benefit, colleagues from outside the programme in joint activities such as seminars, workshops, expert meetings, conferences and training activities – either as stand-alone or as part of other larger events.





Through the active participation of scientists in the above-mentioned activities, not only have existing collaborations been enhanced, but also new and strategic partnership opportunities have been identified. Furthermore, these activities provided opportunities to explore aspects of the Inventing Europe programme which are not covered by the funded research projects.

The integrative activities between the CRPs have helped to strengthen the field by building coherence within this emerging research community, and served as a platform for the research work which is done in the programme.

Further information can be found at the programme website www.esf.org/inventingeurope by clicking on Events.

The following activities were organised and funded through the Inventing Europe networking and dissemination budget:

Inventing Europe Launch Conference
 7-10 June 2007, Rotterdam, the Netherlands



Participants in discussion at the opening conference © The Foundation for the History of Technology

The launch conference, held in conjunction with the Third Plenary Conference of the Tensions of Europe Network, provided participants in the Inventing Europe programme with the opportunity to present their planned projects to a broad community and to discuss their collaboration.

Summer School: 'Cold War Technology in Europe'

27 August – 1 September 2007, Chios (Greece) and Izmir (Turkey)

The aim of this summer school was to incorporate the latest research developments on European science and technology into a new historiography of Cold War Europe. The summer school introduced a broader set of innovative research strategies for identifying and explaining the processes that shaped, sustained and sometimes undermined various transnational European identities in ways that have seldom been visible in traditional bilateral political narratives.

 Professor Mikael Hård's Short-Term
 Visit to the Royal Institute of Technology in Stockholm, Sweden

(host: Professor Arne Kaijser) 28 August – 3 September 2007

 Dissemination Activity: Workshop 'Virtual Europe I – Towards a Virtual Exhibition for Inventing Europe'

16 September 2007, Oslo, Norway

The purpose of this one-day workshop was to create a common theme that will serve as a platform

for a virtual exhibition. The participants discussed the main theme for the exhibition which was *Traffic* – *Network and Circulation*. Traffic was defined as a basic cultural phenomenon and fundamental social activity in the development of late-modern European society during the short 20th Century.

 Workshop: 'A Place in Europe: Historical GIS and New Perspectives on European and World History' in conjunction with Inventing Europe Scientific Committee Meeting 30 November – 2 December 2007, Barcelona, Spain

This workshop explored the opportunities for collaboration based on the use of Geographical Information Systems (GIS). GIS is a technical tool that allows us to represent historical information geographically. The technological progress in contemporary Europe is a very good example as the elements under study, for example transport infrastructures and cities, can be located in space and time using GIS.



SOFT-EU and partners at the software-historic site of St-Pierre-de-Chartreuse (France, January 2008). Courtesy of Judith Schlüter

 Workshop: 'ALGOL, IBM and Software Crisis, the State of Historiography'

20-24 January 2008, St-Pierre-de-Chartreuse, Grenoble, France

This workshop placed the software crisis in the foreground, informing itself by notions of critical event and vulnerability. The meeting developed some issues presented at the kick-off workshop in Prague and emphasised the broader frame of the history of software by making the transnational perspective explicit.

 Workshop: 'Technology and the Making of 20th Century Europe: a Southeast European Perspective'

28 February – 1 March 2008, Plovdiv, Bulgaria The history of technology in South East Europe is one of the fields of research that still lacks both thematic and institutional identity. There are several distinct (and superimposing) technology trajectories related with the Ottoman and Habsburg legacy in the late 19th and early 20th century, the autonomous development and rivalry among the countries in the region until the second World War, followed by divided existence on both sides of the Iron Curtain during the Cold War period. Therefore two main session topics were picked up at this workshop: 1) Trends in the development of infrastructures and 2) Patterns of consumption in 20th century in South East Europe.

 Dissemination Activity: Workshop 'Virtual Europe II – Towards a Virtual Exhibition for Inventing Europe'

5 March 2008, Science Museum London, UK The purpose of this meeting was to agree on a way forward for the Virtual Exhibition and its implementation. Present were representatives of Inventing Europe research groups and major European museums.

 Workshop: 'Transnational Infrastructures: Coping with Scarcity and Vulnerability'

21-24 May 2008, Stockholm, Sweden

The purpose of the workshop was to gather researchers within the history of technology and related disciplines from a wide number of countries which study different types of transnational infrastructural cooperation. How the intertwinement of different systems – both with each other (vertically) and across political borders (horizontally) – has created interdependencies and new types of vulnerabilities and scarcities was explored. Further questions discussed were how those actors which connected the systems have interpreted new risks and how they have tried to handle these with the help of contracts, institutions, standards, etc.



The participants of the Stockholm Workshop Courtesy of Eefje Cleophas



Professor Mikael Hård and Professor Emanuela Scarpellini at the Florence Workshop.
Courtesy of Dobrinka Parusheva

Workshop: 'A Transnational History of European Integration'

3-6 July 2008, European University Institute, Florence, Italy

The aim of this workshop was to analyse the emergence of various spaces in which some notion of Europe or 'non-Europe' constituted social, economic, political and cultural relations, as well as to place the European integration history that began after the Second World War into a much deeper and broader history of constructing and experiencing various 'Europes' since 1850. A jointly produced coherent book series and a virtual exhibition for a general audience were widely discussed.

Summer School: 'Europeanisation,
Globalisation, Americanisation,
Sovietisation... Conceptual Tools of Framing
the History of Technology in Europe'
8-13 September 2008, Deutsches Museum,
Munich, Germany

The conceptual approach of the summer school was to put the issue of Europeanisation central and to discuss and evaluate this secular process from the mid 19th century onwards in the light of a number of partially competing, partially complementary tools to frame the history of technology in Europe. These tools, such as Globalisation, Americanisation, and Sovietisation have all developed into powerful methods of historical analysis, and they all have shaped numerous narratives of the history of Europe. From this orientation, a set of central questions emerged for the summer school, in particular, how to define Europeanisation and how to write its history, how to relate it to European integration on the one hand and to technical change on the other.

 Inventing Europe General Meeting in conjunction with SHOT Annual Meeting 2008 and Inventing Europe Scientific Committee meeting (11 October)

9-12 October 2008, Lisbon, Portugal The Society for the History of Technology (SHOT) concluded its year-long fiftieth anniversary celebrations at its annual meeting, in Lisbon, 10-14 October 2008. In conjunction with the SHOT Annual Meeting, the Inventing Europe General Meeting and Scientific Committee meeting took place to promote Inventing Europe and its results at this unique international forum.

 Workshop: 'Appropriating America: Making Europe: Technology and Europe in the Making' in conjunction with Inventing Europe Scientific Committee Meeting

15-17 January 2009, Amsterdam, The Netherlands The conference was an inter-CRP effort which invited members of the Inventing Europe programme to reflect on the ways US social actors and institutions first sought to impose their practices on European partners, who may have become 'Europeanized' in the process and with how European partners have sought to resist, negotiate, appropriate and rework American models to serve their local needs.

Summer School: 'Oral History and Technological Memory: Challenges in Studying European Pasts'

10–15 August, 2009, University of Turku, Finland The purpose of this summer school was to discuss the challenge of oral history in the history of technology, and was designed with two main objectives. First, it aimed at providing PhD students and postdocs with up-to-date knowledge of oral history methods, especially in the domain of the history of technology and in particular with regard to how these questions and methods can help us better understand the European pasts that are being studied in the Inventing Europe programme. Second, it



Dr Petri Paju stoking the fire of the Turku Summer School, August 2009. Courtesy of Gerard Alberts

offered the participants an opportunity to present their own work and to discuss it with senior historians of technology and international experts in the fields of oral history and cultural history.

Inventing Europe Final Conference in conjunction with the 4th Tensions of Europe Plenary Conference

17-20 June 2010, Sofia, Bulgaria

This conference was jointly organised by Inventing Europe, the Foundation for the History of Technology in the Netherlands and Sofia University 'St Kliment Ohridski', along with the collaboration of Plovdiv University 'Paisii Hilendarski' and the Bulgarian Academy of Sciences. Given that it served as both the final conference of the Inventing Europe programme as well as a plenary conference of Tensions of Europe, the event had a double nature. On the one hand, it marked the end of the Inventing Europe programme so was used as a way for the various members of the CRPs to meet and discuss some of the research they had conducted while engaged in the programme. At the same time, though, the conference aimed at encouraging a continuation of a critical reflection on the role of technology in the shaping of Europe.

To meet the first demand, the day prior to the conference was devoted to internal meetings by the various Inventing Europe CRPs. Similarly, during the first morning of the conference the CRPs presented the outcome of their collaborative efforts in the plenary session.

In accordance with the second objective, the conference reached out beyond the Inventing Europe programme, providing a more general forum for scholars from various disciplines interested in the role of technology in European history. The particular focus was on the circulation and appropriation of technologies between Eastern and Western Europe as an entry point into the contested practice of Europeanisation, with papers dealing with examples of successful co-operation or 'hidden continuities' in inter-European technology transfer during the 20th century.



Dr Adri Albert de la Bruhèze and Dr Vincent Lagendijk (left). Dr Dobrinka Parusheva (right). Courtesy of Jan Korsten

In this way, the organisers hoped that the combined event could have more impact than the two conferences would have had in separation. In view of the large number of applications received – many from outside the Inventing Europe network – the organisers may well have found the right formula.

4. Early-Career Researchers

This section provides an overview of the early-career researchers who participated in the Inventing Europe programme. There are also some personal reflections and project descriptions from a stochastic choice of scholars, so as to give something of an insight into the heart of the programme.

Title of CRP:

European Ways of Life in the 'American Century': Mediating Consumption and Technology in the 20th Century (EUWOL)

Project Leader: Professor Ruth Oldenziel

IP Number: IP-01

IP Title: Producing European Consumption Regimes in the 'American Century': Leisure, Housing and Food Technologies

Principal Investigator: Professor Ruth Oldenziel

Early-career personnel directly funded within the Inventing Europe programme:

• Dr Milena Veenis, Postdoctoral researcher



"As an anthropologist with a longstanding fascination for the relation between people and material/consumer culture and the role of significant others in defining the self, the research programme on European

Ways of Life in the American Century' was at the heart of my intellectual interests. The project's focus on the role of America in the development of European consumption as both an integrating and a differentiating force, proved very rewarding. It helped broaden my research and teaching interests beyond Eastern Europe."

Early-career personnel not directly funded by the Inventing Europe programme:

- Ms Elitsa Stoilova, PhD student
- Ms Emiliya Karaboeva, PhD student

IP Number: IP-02

IP Title: Standardisation and Diversity of Foods in Europe through Technical Innovations of Packaging in the European Food Industry, 1918-1989 **Principal Investigator:** Professor Marc de Ferrière le Vayer

Early-career personnel directly funded within the Inventing Europe programme:

- Dr Florence Hachez-Leroy, *ESF Project Member*
- Professor Nicolas Marty, ESF Project Member



"To me the programme was extremely beneficial. Participating in workshops and open discussions is quite exotic for French scholars. It contributed significantly to the broadening of my literature study and conceptual

development on the issue of standards of bottled water, the roles of market actors and experts, and the role of packaging in the distribution of food products. In particular, it inspired me to approach my research topic from a European and comparative perspective which helped me to formulate new research questions for my treatise on the history of bottled water in Europe and its role in the history of European mass consumption. I believe the incorporation of the new approach also helped me to secure a position as professor at the Université de Perpignan."

• Ms Guyonne Blanchy, PhD student

IP Number: IP-03

IP Title: Separate Summer Homes: Scandinavian Leisure Consumption and its Ideologies during the Short 20th Century

Principal Investigator: Professor Thomas Kaiserfeld

Early-career personnel directly funded within the Inventing Europe programme:

• Dr Per Lundin, ESF Project Member

IP Number: IP-04

IP Title: Icing the Norwegian Nation:
The Import, Transformation, and Appropriation of Deep-freezing Technologies, 1930-1970
Principal Investigator: Professor Per Østby

Early-career personnel directly funded within the Inventing Europe programme:

• Mr Terje Finstad, PhD student

Associated Projects:

AP Number: AP-03

AP Title: Tinkering in Daily Life: People, State, and Consumption in South-East Europe
Associated Partner: Dr Dobrinka Parusheva

Early-career personnel not directly funded by the Inventing Europe programme:

- Ms Emiliya Karaboeva, *PhD student*
- Ms Elitsa Stoilova, PhD student
- Dr Meglena Zlatkova, ESF Project Member

AP Number: AP-04

AP Title: Paradoxical Rurality: Dwelling in Rural

Flanders, 1948-1978

Associated Partner: Professor Leen Van Molle

Early-career personnel directly funded within the Inventing Europe programme:

• Mr Rien Emmery, PhD student

AP Number: AP-05

AP Title: Visions of the South: Consumption, Food and Technology in Italy, 1918-1989 Associated Partner: Professor Emanuela Scarpellini

Early-career personnel directly funded within the Inventing Europe programme:

- Mr (now Dr) Giovanni Moretto, PhD student
- Dr Silvia Cassamagnaghi, ESF Project Member



"Although I had already dealt with Americanisation, I had never worked on leisure or tourism or motorisation. It was very useful working as part of a research group (Leisure Life in the 20th Century). Discussing and

cooperating with senior scholars like Dr Adri A.
Albert de la Bruhèze, Professor Thomas Kaiserfeld,
Dr Per Lundin, and Professor Michael F. Wagner
allowed me to see things from different perspectives,
providing new views also on unexplored aspects of
Italian social history. My work will continue in an
Italian research project coordinated by Professor
Emanuela Scarpellini."

Title of CRP:

Europe Goes Critical: The Emergence and Governance of Critical Transnational European Infrastructures (EUROCRIT)

Project Leader: Professor Arne Kaijser

IP Number: IP-01

IP Title: Natural Gas: Trusting the Enemy Principal Investigator: Professor Arne Kaijser Early-career personnel directly funded within

the Inventing Europe programme:

 Dr Per Högselius, Postdoctoral researcher, July 2007 – June 2010

Early-career personnel not directly funded by the Inventing Europe programme:

• Ms Anna Åberg, PhD student



"As a PhD student in my first years of research, to participate in the Inventing Europe programme was not only an incredible learning experience, but also an invaluable

way for me to build self-esteem and find my place in

the academic world. It has given me an opportunity to discuss my thesis work in an inspiring and helpful environment with scholars from all over Europe in different stages of their academic career, and allowed me to form long-lasting working relationships with colleagues that have also become good friends. And last, but not least: it has been a lot of fun!"

IP Number: IP-02

IP Title: From Reliability to Liability: European Electricity Networks and the Shaping of Transnational Interdependencies and Risks Principal Investigator: Dr Erik van der Vleuten

Early-career personnel directly funded within the Inventing Europe programme:

• Dr Vincent Lagendijk, *Postdoctoral researcher,* 1 April 2008 – 31 May 2010



"The Inventing Europe call came by while I was wrapping up my dissertation. Dr Erik van der Vleuten (PI) involved me in the application process of what would become EUROCRIT, providing a first-hand and

helpful experience in proposal-writing. EUROCRIT was a good mix of (very well) established and early-career scholars. Although experience counted in the process of discussing, planning, and writing, this did not preclude input from the younger scholars. All in all, EUROCRIT was an inspiring and instructive time for me as early-career scholar, and a great example of inter-generational cooperation."

IP Number: IP-03

IP Title: An Uneasy Alliance: Critical Connections

across the European Border

Principal Investigator: Professor Karl-Erik Michelsen

Early-career personnel directly funded within the Inventing Europe programme:

- Dr Tuija Mikkonen, *Postdoctoral researcher*, *July 2007 – March 2009*
- Mr Mikko Kohvakka, *PhD student*, *April 2009 – May 2010*
- Ms Virpi Kaisto, PhD student, April 2009 – May 2010
- Ms Pekka Rautio, *PhD student*, *April 2009 – May 2010*

IP Number: IP-06

IP Title: In Case of Break-down: Emergency

Communication Systems

Principal Investigator: Dr Anique Hommels
Early-career personnel directly funded within
the Inventing Europe programme:

• Ms Eefje Cleophas, PhD student

Associated Projects:

AP Number: AP-01

AP Title: Becoming a Power-Hub of the Balkans: Bulgarian Electric System between National Strategy and COMECON Rules

Associated Partner: Professor Ivan Tchalakov
Early-career personnel not directly funded by
the Inventing Europe programme:

- Mr Ivailo Hristov, PhD student
- Dr Tihomir Mitev, Postdoctoral researcher

AP Number: AP-02

AP Title: Technologies of Network Interface: The International Links of Greece's Power and Communication Infrastructure

Associated Partner: Dr Aristotelis Tympas

Early-career personnel not directly funded by the Inventing Europe programme:

- Dr Stathis Arapostathis, ESF Project Member
- Mr Yiannis Garyfallos, PhD student
- Ms Katerina Vlantoni, PhD student



"My participation in the EUROCRIT project coincided with the beginning of my PhD research and I consider myself lucky for that because it was a rather fascinating and unique experience. During the EUROCRIT

workshops I was able to learn a lot from the experienced and senior scholars, and from the other younger researchers of the group. The EUROCRIT members were generously sharing their knowledge, and the discussions that very often flourished were creative and educative. All our meetings were intriguing, both intellectually and socially. Additionally, my participation in an Inventing Europe summer school proved a very interesting and invaluable training activity."

Title of CRP:

Software for Europe (SOFT-EU)

Project Leader: Dr Gerard Alberts

IP Number: IP-01

IP Title: Electrologica's Software:

Co-Entrepreneurship and the Emergence

of a Dutch Software Industry

Principal Investigator: Dr Gerard Alberts

Early-career personnel directly funded within the Inventing Europe programme:

- Dr Adrienne van den Bogaard, *Postdoctoral* researcher, September 2007 August 2008
- Dr David Nofre Mateo, *Postdoctoral researcher*, *March 2008 – October 2011*
- Dr Karel van Oudheusden, *Postdoctoral* researcher, *March August 2010*

IP Number: IP-02

IP Title: Czech(oslovak) Participation in the

ALGOL Effort

Principal Investigator: Dr Helena Durnova

Early-career personnel directly funded within the Inventing Europe programme:

• Dr Helena Durnova, *Postdoctoral researcher*, *July 2007-June 2010*

IP Number: IP-03

IP Title: Using IBM in Europe to Recapture the Lead? Co-constructing Computer Expertise in Europe and Visions of European Know-how through IBM and its Technology

Principal Investigator: Professor Hannu Salmi Early-career personnel directly funded within

Early-career personnel directly funded within the Inventing Europe programme:

• Dr Petri Paju, Postdoctoral researcher, September 2007 – August 2009



"Building upon the previous Tensions of Europe Network experience, I warmly welcomed the chance to study European history through information technology in the Inventing Europe programme. On the one hand, it has

been a pleasure to meet new people all over Europe and to organise an ESF summer school in my home town. On the other hand, studying IBM's European past has made me realise the many challenges, including fragmentations and national boundaries that still remain in sharing and collaborating among the researchers in Europe. At the same time, our American partners and their organisations were most valuable for my work."

Early-career personnel not directly funded within the Inventing Europe programme:

• Dr Petri Paju, Postdoctoral researcher, September 2009 – August 2011

Associated Projects:

AP Number: AP-01

AP Title: Premiers Jalons de l'Histoire de l'Informatique en Belgique: 'Machines Américaines' and Competing Modernities in Belgium, 1940-1968

Associated Partner: Dr Sandra Mols

Early-career personnel not directly funded by the Inventing Europe programme:

 Dr Sandra Mols, Postdoctoral researcher, CERUNA (October 2007 – September 2008) and FRS (October 2008 – September 2009)

AP Number: AP-04

AP Title: Software Tensions in Non-Anglophone European Contexts: the Example of Greece **Associated Partner:** Dr Aristotelis Tympas

Early-career personnel not directly funded by the Inventing Europe programme:

• Mr Theodore Lekkas, PhD student

• Mr Dimitris Ziakkas, PhD student

AP Number: AP-05

AP Title: ICT and Business: the Rise and Development of Software-based Industries in Europe (Integration – Homogenisation – Differentiation)

Associated Partner: Dr Paul Erker

Early-career personnel not directly funded by the Inventing Europe programme:

• Mr Timo Leimbach, ESF Project Member

Associated early-career personnel not directly funded by the Inventing Europe programme:



• Ms Ksenia Tatarchenko, Princeton University "Pursuing a career is easy for no one. Pursuing a career in history would often comprise of the silence of the library or the dust of an archive. My

early steps on the way to becoming a professional historian were unusual in that since the winter of 2008 they went hand in hand with my involvement in the SOFT-EU project. SOFT-EU is about meeting people, senior and younger scholars from all over Europe and across the Atlantic, who are ready to discuss, criticise and encourage. Without SOFT-EU I would have hardly realised that studying history can imply contributing to real research. The best possible grade for a course paper is no longer an

'A' but a publication. It is to SOFT-EU that I owe my first scholarly publication in the leading peer-reviewed journal of our field, IEEE Annals for the History of Computing, and I am excited to work on a chapter for the project's final volume. On top of that, when thinking about my dissertation project, thanks to the Inventing Europe Network I know that there will be scholars interested in my findings. More than that, SOFT-EU started my intellectual connections with the late Professor Michael S. Mahoney from Princeton. I am currently a Doctoral Candidate at the Princeton History of Science programme working on the history of the Soviet and international computing during the Cold War."

- Ms Corinna Schlombs, *University* of *Pennsylvania*
- Mr Gard Paulsen, BI Norwegian School of Management
- Dr Arthe van Laer, *Université de Namur/ Université de Louvain-la-Neuve*
- Dr Simon Donig, Universität Passau



"I came in touch with the SOFT-EU collaboration project through a summer school on Cold War technology. Over the past few years the contacts with the Inventing Europe Network have allowed me

to gain invaluable new insights, both in terms of broadening the scope of my research and of experiencing different national scientific milieus. SOFT-EU introduced me to an international community of scholars to discuss my work with. Inspired by the intense exchange, two colleagues and I decided to carry our collaboration further and submit a follow-up research proposal, 'Going Digital: Landscapes of Computing in Central and Eastern Europe', dealing with the international division of labour of the computer industry within COMECON."

Title of CRP:

The Development of European Waterways, Road and Rail Infrastructures: A Geographical Information System for the History of European Integration, 1825-2005 (Water, Road & Rail)

Project Leader: Professor Jordi Marti Henneberg

IP Number: IP-01

IP Title: A GIS for the History of European Integration (1825-2005): The European Road and Rail Infrastructure

Principal Investigator: Professor Jordi Marti Henneberg Early-career personnel directly funded within the Inventing Europe programme:

• Ms Laia Mojica, *PhD student*



Laia Mojica researched the spatiotemporal dynamics of European countries over the last 150 years. Specifically, Mojica focused on demographic processes related to

the evolution of railway networks of Britain, the Iberian Peninsula and France. She completed her analysis with diverse ancillary data, such as specialisation indexes, tertiarisation rates and population by occupation. Mojica worked under the supervision of Professor Jordi Martí-Henneberg and Dr Francisco Javier Tapiador, but always in strong collaboration with French, American and UK ESF partners. This motivated three research stays (Lancaster University, Université Paris VII-CNRS, and Université Paris I - CNRS), which helped reinforce the day-to-day relationship between the different country members of the group and the publication of common papers.

• Dr Kerstin Burckhart, ESF Project Member



Kerstin Burckhart received her PhD thesis from the Polytecnical University of Catalonia (Barcelona, Spain) and the University of Lleida (Spain) in 2007: Análisis comparativo y evaluación cuantitativa de la

intermodalidad del tren de alta velocidad.
Una perspectiva europea de la interconexión
e integración en estaciones ferroviarias de
ciudades intermedias (Comparative analysis and
quantitative evaluation of the High-Speed train
intermodality: A European perspective on the
interconnection and integration of railway stations
in medium-sized cities). She has had International
research stays, amongst others, in Boston (USA),
Stockholm (Sweden) and Bern (Switzerland), and
transport consultancy activities in the USA, Sweden
and Spain. She has experience in the management
of, and collaboration in, several European projects.
Currently, she is a Spanish member of the ELTISplus
project on urban mobility.

- Mr Eloy del Río, ESF Project Member, June 2007 June 2008
- Mr Jose Fenollar, PhD student
- Dr Rafael Giménez i Capdevila, ESF Project Member
- Ms Ana Mateos, PhD student
- Mr Josep R. Modol, ESF Project Member, June 2007 – March 2009
- Mr Alejandro Simón, PhD student until November 2008

- Mr Kaloyan Stanev, PhD student
- Ms Antònia Valentín, ESF Project Member, December 2007 – March 2009

Early-career personnel not directly funded within the Inventing Europe programme:

- Ms Elena Guinaga, GIS Technician
- Mr Mateu Morillas, GIS Technician
- Ms Meritxell Gallart, GIS Technician

IP Number: IP-02

IP Title: Transportation Systems and Developments in Social and Economic Indicators in Turkey

Principal Investigator: Professor Sedef Akgüngör Early-career personnel not directly funded within the Inventing Europe programme:

• Mr Mehmet Aldonat Beyzatlar, GIS Technician



Mehmet Aldonat Beyzatlar was responsible for investigating the effects of railway network development on population density and agricultural production at the province-level for Turkey and the Ottoman Empire

during the 1856-2007 period. Aldonat processed panel data and econometric analyses to explore the direct and indirect interaction between railway network development, population density and agricultural production. Econometric analyses supported and increased the robustness of the results that are also presented with the historical GIS maps. Aldonat worked under the supervision of Professor Yeşim Kuştepeli, as well as with Professor Sedef Akgüngör and Professor Yaprak Gülcan during the course of the project. Aldonat participated in the 5th HSSS Conference in Xanthi, Greece and 4th GlobalEuroNet Summer School in Instituto de Ciancias Sociais (ICS) in University of Lisbon, receiving valuable contributions from different perspectives.

IP Number: IP-03

IP Title: Finnish Railways in the Nordic and Russian Context

Principal Investigator: Professor Jarmo Rusanen

Early-career personnel directly funded within the Inventing Europe programme:

• Mr Ossi Kotavaara, MSc student,



January 2008 – December 2010
Ossi Kotavaara researched the
relationship between Finnish railway
and road accessibility and population
dynamics in 1880-2007 under the
supervision of Professor Jarmo

Rusanen. From the findings, Kotavaara produced

two manuscripts and the core elements for another two, which will be compiled in a doctoral thesis along with a synopsis. The main results are that the historical urbanisation of Finland relates to accessibility by railways, whereas accessibility by roads has a major role in explaining population concentration also in pre-motorised time. The analytical framework relies on population and transport network databases, geographical information systems and statistical analyses.

- Mr Harri Antikainen, Phil. Lic. student, January 2008 – December 2010
- Mr Ari Nikula, MSc student, January – July and October – December 2008
- Ms Johanna Hätälä, MSc student, February July 2008

IP Number: IP-04

IP Title: Crossing Borders: Waterway, Rail and Road Connections between the Netherlands and Germany, Belgium and the UK (1825-2000) Principal Investigator: Dr Hans Buiter

Early-career personnel directly funded within the Inventing Europe programme:

- Dr Irene Anastasiadou, ESF Project Member
- Dr Hanna Wolf, ESF Project Member
- Mr Tom Boot, ESF Project Member
- Mr Pascal Bovy, ESF Project Member
- Mr Daniel Vijge, ESF Project Member
- Ms Inge Wijerse, ESF Project Member

IP Number: IP-05

IP Title: Roads and Railways Network Development in Portugal, 1800-2000 Principal Investigator: Professor Luís Nuno Espinha da Silveira

Early-career personnel directly funded within the Inventing Europe programme:

• Dr Daniel Alves, PhD Student



Daniel Alves has recently finished his PhD in Contemporary Economic and Social History. He conducted studies on the evolution of population and railways throughout the nineteenth and twentieth centuries, under the

supervision of Professor Luís Espinha da Silveira. He also contributed to the design of the database used in the project and to the development of the WebGIS for results dissemination, fields that correspond to some of his main research interests. In addition, he devoted himself particularly to the application of methodologies for spatial interpolation of data, expertise that he developed as a result of the contacts and collaboration offered

by the ESF project, particularly with the Spanish and the UK teams. The work done in these various domains allowed him to present several papers and conference presentations at national and international scientific meetings.

• Mr Nuno Lima, PhD student



Nuno Miguel Lima is a PhD student in History at the Universidade Nova de Lisboa, Portugal. His dissertation intends to discuss the construction of a cross-border regional area through the relation between the

national policies, the action of private agents and the use of the infrastructure, from the Portuguese intervention in the construction and exploitation of the railway lines between Salamanca and the Portuguese border. In the Portuguese project he worked on data collection (railway infrastructure evolution, demographic data), and presented several papers on 19th and 20th centuries population, urban development and railways, and on transnational railways and politics in the Iberian Peninsula during the 19th century.

Associated Projects:

AP Number: AP-04

AP Title: Transport Networks in Germany and

in Central Europe, 1825-2005

Associated Partner: Dr Andreas Kunz

Early-career personnel directly funded within the Inventing Europe programme:

• Ms Monika Krompiec, student researcher (in association with TU-Eindhoven, Project IP-04)

AP Number: AP-05

AP Title: The Background of European Integration: A Physical Geography of Europe **Associated Partner:** Dr Francisco Javier Tapiador Fuentes

Early-career personnel directly funded within the Inventing Europe programme:

• Ms Ana Mateos, PhD student

5. Publications

A comprehensive list of all publications and dissemination activities which resulted from the Inventing Europe research project can be found at: http://www.esf.org/activities/eurocores/running-programmes/inventing-europe/publications.html. We also offer below a selection of five publications per CRP which provides an example of the high level of scientific output from the programme:

Title of CRP:

European Ways of Life in the 'American Century': Mediating Consumption and Technology in the 20th century (EUWOL)

DE LA BRUHÈZE, Adri Albert and Wagner, Michael F. eds. and intro. "Fra Frihed til Fritid – Det Europæiske Fritidmenneske mellem Forbrug og Fornøjelse" – Special Issue *Den Jyske Historiker* (February 2011). With contributions by Adri Albert de la Bruhèze, Michael F. Wagner, Hasso Spode, Silvia Cassamagnaghi, Thomas Kaiserfeld, Tobias Bang, Giovanni Moretto and René Meilby Jensen.

HÅRD, Mikael and Bervoets, Liesbeth eds. and intro. Coping with Modernity: European Ways of Housing in the American Century Special Issue Home Cultures (July 2010) Vol. 7, 2. With contributions by Liesbeth Bervoets, Els De Vos, Mikael Hård, Hilde Heynen, Dobrinka Parusheva and Iliyana Marcheva-Atanasova

LUNDIN, Per and Kaiserfield, Thomas eds. and intro. (currently under consideration)

The Technology of Consumption: European

Consumption Regimes in the American Century

(Cambridge: MIT Press). With contributions by David Nye, Mary Nolan, Ruth Oldenziel,

Adri Albert de la Bruhèze, Giovanni Moretto,

Emanuela Scarpellini, Kjetil Fallan, Terje Finstad,

Per Østby, Milena Veenis, Esra Akcan, Stig Kvaal,

Thomas Kaiserfeld.

OLDENZIEL, Ruth and Hård, Mikael European Technological Dramas: European Users in the American Century (to be published London: Palgrave, 2013), as part of the Making Europe Book Series eds. Phil Scranton and Johan Schot.

ZACHMANN, Karin and Østby, Per eds. and intro. Food, Technology and Trust in Special issue of History and Technology (2011). With contributions from Gabriella Petrick, Uwe Spiekermann, Karin Zachmann, Stig Kvaal, and Per Østby

Title of CRP:

Europe Goes Critical: the Emergence and Governance of Critical Transnational European Infrastructures (EUROCRIT)

HEIDE, Lars (forthcoming), 'Information Technology and Infrastructure: The West European Transnational Air Traffic Control Project, 1960-1986', submitted to *Technology and Culture*

HOMMELS, Anique, Högselius, Per, Kaijser, Arne and Van der Vleuten, Erik (eds.), Europe Goes Critical: The Emergence and Governance of Critical European Infrastructures (under review at MIT Press)

MICHELSEN, Karl Erik (forthcoming), 'Transgressing Boundaries: Cold War and the Finnish Nuclear Power Program 1945-1970', submitted to *History and Technology*

VAN DER VLEUTEN, Erik, 'Towards a transnational history of technology: meanings, promises, pitfalls', *Technology and Culture* (2008) Vol. 49, 974-94

VAN DER VLEUTEN, Erik & Lagendijk, Vincent, 'Interpreting Transnational Infrastructure Vulnerability: 4/11 and the Historical Dynamics of Transnational Electricity Governance'. *Energy Policy* (2010) Vol. 38, 4, 2053-2062

Title of CRP:

Software for Europe: Constructing Europe through Software (SOFT-EU)

ALBERTS, Gerard, ed., Appropriating America, IEEE Annals of the History of Computing. (April – June, 2010) Vol. 32, 2. Special issue: contributions by Thomas Haigh, Helena Durnová, Simon Donig, Ksenia Tatarchenko, David Nofre. Introduction by Gerard Alberts

MOLS, Sandra, 'Chasing Computational Error: How Georges Lemaître Became Fascinated with Decimal Digits, 1930s-1960s', *Revue des Questions Scientifiques*. (2008) Vol. 179, 2, 161-214, vol. 179, 3, 257-264; 265-322

PAJU, Petri, 'National Projects and International Users: Finland and Early European Computerization'. *IEEE Annals of the History of Computing* (2008) Vol. 30, 4, 77-91

PAJU, Petri and Durnová, Helena, 'Computing Close to the Iron Curtain: Inter/national Computing Practices in Czechoslovakia and Finland', *Comparative Technology Transfer and Society*, (December 2009) Vol. 7, 3, 303-322

SCHLOMBS, Corinna, 'Engineering international expansion: IBM and Remington Rand in European computer markets', *IEEE Annals for the History of Computing* (2008) Vol. 30, no. 4, 42-58

Title of CRP:

The Development of European Waterways, Road and Rail Infrastructures: A Geographical Information System for the History of European Integration, 1825-2005 (Water, Road & Rail)

GREGORY, Ian N., MARTI-HENNEBERG, Jordi, and Tapiador, F.J., 'Modelling long-term pan-European population change from 1870 to 2000 using Geographical Information Systems.' *Journal of the Royal Statistical Society Series A*, (2010) Vol. 173, 31-50

GREGORY, Ian N. and MARTI HENNEBERG, Jordi, 'The railways, urbanisation and local demography in England & Wales, 1825-1911' *Social Science History* (2010), Vol. 24, 199-228

GREGORY, Ian N. and SCHWARTZ, R.M., 'National Historical Geographical Information Systems as a tool for historical research: Population and railways in Wales, 1841-1911' International Journal of Humanities and Arts Computing (2009) Vol. 3, 143-161

KUSTEPELI, Yesim, GÜLCAN, Yaprak, and AKGÜNGÖR, Sedef 'Transportation Expenditure, Growth and International Trade' forthcoming 2010

MARTÍ-HENNEBERG, Jordi, 'Characterizing European high speed train stations using intermodal time and entropy metrics', *Transportation Research A*, Vol. 43 (2009) 197–208. With F. J. Tapiador and K. Burckhart

4.

Final Evaluation

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The purpose of the final evaluation is to assess the scientific cooperation and the interactions among the investigators, and to identify the achievements of the Inventing Europe programme and the lessons to be learned for potential follow-up initiatives.

The assessment was based on the scientific achievements highlighted by the project leaders as well as the usefulness and impact of the networking, training and dissemination activities undertaken during this period. To this end, investigators were asked to highlight the activities that proved most useful to each CRP, providing one example to illustrate each case. The balance between input and output indicated whether the CRPs made good, optimal or insufficient use of the Inventing Europe programme.

To limit the workload on the investigators' side, and to avoid overburdening Review Panel members, the progress report was limited to a maximum of four pages per CRP. The investigators were asked to provide concise and clear responses and no more than one example to illustrate each point. Only highlights of the activities undertaken by each CRP were reported, avoiding duplication of information already available at ESF.

The Inventing Europe secretariat at ESF prepared a list of all the networking, training and dissemination activities undertaken during the reporting period, including the programme and the scientific report of each event. This material was featured in a restricted access website which was made available to the Review Panel and the Inventing Europe Management Committee as supporting documentation.

On the basis of the CRP reports and the supporting material provided by the ESF secretariat, Review Panel members were asked to provide an objective

assessment of the achievements of the Inventing Europe programme. These individual assessments then formed the bases of discussion for the Final Review Panel meeting, which was held in Brussels. The outcome of this meeting was a consensus statement which is included below, a document which provides a collective, objective assessment of the achievements of the Inventing Europe programme, identifying strengths and weaknesses and making recommendations for potential follow-up initiatives.

Consensus Statement for Inventing Europe

To begin, the Inventing Europe Review Panel would like to express its appreciation of the results of the Inventing Europe programme, in terms of its research highlights, as well as its networking, training, and dissemination. On the basis of the final reports received from the four participating CRPs, and the final report received from the chair of the Scientific Committee, the Panel awards the Inventing Europe programme an average rating of 3+, or 'very good', in both areas. The discussion of the Panel members at the final assessment meeting on 1 September, 2010 has served to solidify this most positive evaluation of the programme in general.

The final reports are undoubtedly quite impressive. The Panel recognises the high, though at some times varied, degree of collaboration among the four CRPs, who were inspired by the common goal of contributing to an integrated, 'bottom-up' history of Europe, sharing common concepts, strategies and methodologies. The final reports provide clear evidence of this inspiration, showing just how use-

ful this 'bottom-up' perspective can be in terms of analysing the ways in which transnational activities contributed to the emergence of European spaces of different kinds. As the Review Panel mentioned in its mid-term report, the strategy of using the lens of technology to study the making of Europe has been a highly successful endeavour and the Inventing Europe teams have successfully managed to establish Europe's place as a world-leading centre for the study of the history of technology.

The Review Panel finds that all the CRPs have produced valuable research while at the same time recognising how limited the research funding has been. Similarly, the short-lived nature of the funding has made it difficult for the programme to fulfil all of the expectations from the original research idea. In this regard the panel did not find any strong claim in the reports as to whether Europe was indeed created 'from below', as opposed to the more traditional claim of being created 'from above'. Although some arguments are found in the reports for the construction of Europe 'from below', they are not weighed against any opposing arguments for a process of construction 'from above'. Further, at this stage the Panel finds that topic 2, 'Constructing Europeans' Ways of Knowing' has been more selectively discussed and topic 4, 'Europe in the Global World', hardly at all. Anticipating the general conclusion, these findings illustrate if not the need for, then at least the promise of, an extension of the programme.

The Review Panel notices with satisfaction that all of the CRPs indicate that further research publications are expected on the horizon. The reports make mention of a number of forthcoming books which are under contract with leading international publishers. However, the Review Panel expects that there will be more articles targeted for top-level journals as a way of supplementing the rather high number of articles already published in national journals and in the series of working papers which were found to have a rather limited audience. Future publications ought to offer a better balance between both national and international publications, in order to ensure that the research outcomes of the programme reach the widest and highest-level audiences available. The Panel is somewhat disappointed by the fact that this suggestion, also made at the mid-term review, was not fully adopted by the programme participants, but understands that the short time-span (9 months) between the completion of the mid-term consensus statement and the soliciting of the final reports can be a reason for this. The Review Panel welcomes the news that future EUROCORES

reports will highlight the most important publications resulting from the programme, complementing a comprehensive list of all the output produced by the programme members.

With regard to the further dissemination of the programme's research results, the Review Panel would also like to see more of an attempt to reach audiences beyond the history of technology, not just within other academic disciplines but also to non-academic audiences. Even general historical conferences would have surely found great benefit from hearing the findings of the Inventing Europe programme. In particular, the GIS results for Water, Road & Rail could have a much wider audience, with massive potential. The Panel feels that the research teams have worked extremely hard and are making a massive impact within the history of technology, and it wants to ensure that this impact is felt at all possible levels.

The Review Panel looks forward to the publication of the planned, six-volume book series, and also to the final creation of the 'Virtual Exhibition' in cooperation with a number of European science museums. Although the plan for the book series is well developed, no texts are yet available for assessment, a fact which makes it somewhat difficult at this stage to gauge the full realisation of the programme's potential. Once completed, though, the book series will certainly be the most important dissemination result of the Inventing Europe programme from the perspective of historians of technology. The Virtual Exhibition, meanwhile, could play an important role for other specialists and even non-academics, perhaps as an instructional tool for teachers. In terms of the exhibition itself, it is clearly an innovative idea with a lot of potential, and has had a lot of hard work already put into it. Although there are currently some problems with navigation, the Panel recognises that, at present, most of the work has gone into the software aspect of the project, as opposed to the content, which is only now really coming to the fore.

As previously mentioned, the Inventing Europe programme has succeeded in overcoming financial problems, an achievement that is especially noticeable given the programme's many networking activities. There has been a very high level of activity with seminars, conferences, workshops and visits from experts. Two members of the Panel who attended the final conference in Sofia bore witness to the energised team-spirit amongst participants, not to mention the quality and innovativeness of the papers presented there by the CRPS. The Panel notes that the Inventing Europe programme managed to

attract some of the best researchers (both junior and senior) to its events, further showing the eminent place the programme has reached within its field.

Inventing Europe was similarly successful in the training activities it organised, which took the form of summer schools for early-career scholars. The feedback from the participants was very positive and the schools managed to help the younger scholars in terms of their capacity building. However, the Review Panel found it difficult at times to establish from the reports the profile and number of participants at these summer schools and would have liked more precise information on the schools themselves. Of course, the Panel recognises that it is difficult to develop a strategy for the integration of training activities into a programme of just three years, not least having to take into consideration the many resources and efforts needed for successful networking and dissemination.

One of the most noticeable successes of the programme was how the organisers, who were mainly located in North-Western Europe, successfully engaged researchers from all of the European peripheries, especially those of Eastern Europe, South-Eastern Europe, and the Iberian peninsula. The programme has been especially efficient in integrating these new researchers into its activities and should be commended for the initiative.

The Review Panel feels that the organisational structure of the EUROCORES scheme remains rather complicated. Nevertheless, the Chair of the Scientific Committee and the leaders of the CRPS have, in collaboration with the ESF, managed to overcome many of the inherent organisational problems. This was in no small part due to the outstanding organisational capabilities of the Chair and his talent for securing additional funding, a factor which has enabled the researchers to achieve most of the research goals which were designated from the outset. In fact, the Review Panel believes that the role played by the Chair of the Scientific Committee is crucial to the success of programmes of this type, as a way of strengthening collaboration and coherence. Of course, enforced cohesion could also be counter-productive, so at the same time the Panel sees room for programmes with a more umbrella-like structure.

The Review Panel welcomes the news that the ESF has succeeded in securing more definitive commitments from the participating agencies before a new EUROCORES programme is launched. When possible, the Panel would appreciate some degree of flexibility from the ESF with regard to the start-time of CRPS which are recommended for funding. As the

Panel members who attended the Final Conference found it very fruitful and beneficial, it should be considered to have all future Panel members attend the Final Conference and to hold the final Panel meeting directly afterwards. Failing this, the Panel feels that the presentations given by the project leaders before the meeting were extremely beneficial and constructive for the review process (though a more common approach between the project leaders would have been welcomed), so would certainly recommend the continuation of this procedure. A final recommendation concerns the mid-term evaluation. Given the three year span of the EUROCORES programmes, a physical meeting is not really necessary for a mid-term review. Instead, written assessments would suffice for this matter.

In the mid-term evaluation, the Review Panel mentioned that one of the main objectives of a collaborative research programme such as Inventing Europe is capacity-building in the long term. In terms of Inventing Europe, this is reflected by the fact that it was a programme which was partly built on the experiences of the Tensions of Europe Network, and by how it will itself continue through the Making Europe programme being financed by the Netherlands Institute for Advanced Study in the Humanities and Social Sciences (NIAS). The ESF ought to give serious thought to how to ensure that the money invested in the Inventing Europe programme gives the highest possible return. Although the return from Inventing Europe has already been high, it might increase even further if some minor funding is made available for continued dissemination and the preparation of follow-up initiatives. And the yield may grow even further still in the future if the ESF announces possible support for a new programme on Inventing Europe, inviting new groups of researchers and allowing an in-depth treatment of those topics that were underrepresented in the projects resulting from the first Call. Such a followup initiative could also use lenses other than that of technology and would thereby help develop a programme expressing more widely the invention of Europe and the European experience in general.

5.

The Future of Inventing Europe



Fortunately, the end of the ESF EUROCORES Inventing Europe programme is neither the end of the research and dissemination, nor of the networking activities. Inventing Europe is dead. Long live Inventing Europe!

Dissemination

In the coming years, the research of Inventing Europe will result in several books, journal articles and papers in the Tensions of Europe working papers series. Each Collaborative Research Project (CRP) is planning its own edited volume. In addition, the CRP research will be integrated in a book series, provisionally entitled Making Europe. Technology and Transformations, 1850-2000, which is under contract with Palgrave Macmillan. The book series aims at a broad scholarly and general audience, ranging from historians to social scientists, from engineers to officials and policy makers, and from students to those who are simply fascinated by European history. The richly illustrated book series, produced by a team of authors and collaborating researchers, does not exclusively draw on Inventing Europe research but also brings in research from other fields, networks and authors. This academic year (2010/2011) the authors are working together at the Netherlands Institute for Advanced Studies in the Humanities and Social Sciences (NIAS) to write larger parts of their manuscripts. The book series project is coordinated by the Foundation for the History of Technology. Its six volumes will be published from 2012 onwards.

The book series consists of six co-authored volumes:

- Maria Paula Diogo, Dirk van Laak, and Matthias Middell, Europe in the Global World
 How Europe was imagined and experienced in colonial, developmental, and other global circulations and exchanges.
- 2. Arne Kaijser, Erik van der Vleuten and Per Høgselius, From Nature to Networks: the Infrastructural Transformation of Europe How Europe (and its landscape) was constituted by the construction and use of transnational communication, energy and transport infrastructures.
- 3. Mikael Hård and Ruth Oldenziel, European Technological Dramas: Histories of Consumption and Use How European transnational spaces emerged in the process of producing, distributing and using a range of consumer goods.
- 4. Andreas Fickers and Pascal Griset, Eventing Europe: Electronic Information and Communication Spaces in Europe How Europe was experienced in the production and use of (mass) media.
- 5. Helmuth Trischler and Martin Kohlrausch, Knowledge Societies, Expert Networks and Innovation Cultures in Europe How Europe became articulated through efforts to construct European standards, expert knowledge, networks – from city planning to computer science – and large-scale projects and artefacts.
- 6. Wolfram Kaiser, Johan Schot and Dagmara Jajeśniak-Quast, Governing Europe: Technology, Experts and Networks How the emergence of multiple European

transnational spaces since 1850 shaped the European integration process. This volume will focus explicitly on a reinterpretation of the European integration process.

Furthermore, a Virtual Exhibition has been developed to accompany the book series and to open up the research results to an even wider audience. In May of 2008, Robert Bud and Johan Schot submitted a proposal to the European Science Foundation for an online Virtual Exhibition, combining current research from the Inventing Europe CRPs with the online collections of European museums of science and technology. The project resulted in a demonstrator website made up of static and dynamic content. The static content consists of a series of illustrated essays, drawing on current scholarship from the Making Europe projects and illustrations from the digital collections of the science and technology museums. Using online content aggregation, the dynamic portion of the website uses RSS feeds to seek related content from the online collections of participating museums, based on a series of keywords embedded in the exhibit. The project represents unprecedented international cooperation, both between current international research and museum collections, as well as between museums themselves.

In the coming years the demonstrator website will be extended with new virtual exhibitions. These exhibits will not only complement the Making Europe book series, but will also open up the research results for new audiences. In October 2010, the European Science Foundation supported the start-up workshop for the second phase of the Virtual Exhibition. The aim of the workshop was to extend the network of museum partners, to get acquainted with the technical platform, organisation and themes of the Virtual Exhibition, and to bring researchers/book authors and museums into a dialogue about constructing online European histories together. The coming months will witness the further development of these working coalitions and the contents of the Virtual Exhibition, which is planned to be launched in May 2011.

New research and other initiatives

The Inventing Europe programme built on and contributed in crucial ways to the development of the Tensions of Europe Network. This network will sustain its activities in the coming years and currently explores possibilities of setting up several new collaborative research initiatives which fit and extend the Inventing Europe intellectual agenda, i.e. research with a focus on Europe, a transnational approach and the use of the lens of technology. Additionally, various other initiatives are gradually taking shape under the umbrella of the Tensions of Europe Network. Plans are made for a meeting aligned to the SHOT conference in 2012 in Copenhagen and a conference in Paris in 2013. Furthermore, a Tensions of Europe summer school will be organised in Lisbon in 2011, and a European educational initiative entitled 'Europe, Technology, History' is currently being developed. An unresolved issue is how to sustain the Network and its activities in the long-run. Discussions are underway on how to ensure the future life of this Network and suggestions and contributions are welcome. If you want to follow what it is going on, just visit http://www.tensionsofeurope.eu/Activities. asp?wh=Inventing Europe, where you can find all the latest news relating to the future of the Inventing Europe Network.

Professor Johan Schot

Professor of the History of Technology Eindhoven University of Technology Chair of the Scientific Committee for Inventing Europe

6.

Governing Bodies



The quality of the EUROCORES Programme *Inventing Europe* was ensured by the following committees:

1. Inventing Europe Scientific Committee

The Scientific Committee – including the Project Leaders and co-Project Leaders of the Inventing Europe Collaborative Research Projects and the EUROCORES Programme Coordinator – was responsible for the Networking and Dissemination in the programme. At its first meeting the Scientific Committee appointed the main proposer of the original Inventing Europe theme, Professor Johan Schot, as its chair.

(In alphabetical order)

Dr Gerard Alberts

Department of Computer Science, University of Amsterdam, The Netherlands

Dr Helena Durnova

Department of Mathematics, Brno University of Technology, Czech Republic

Dr Ian Gregory

Digital Humanities, Lancaster University, United Kingdom

Professor Mikael Hård

Department of History of Technology, University of Technology Darmstadt, Germany

Professor Arne Kaijser

Department of History of Science and Technology, Royal Institute of Technology, Stockholm, Sweden

Dr Rüdiger Klein

(Secretary until May 2008) European Science Foundation, Strasbourg, France

Professor Jordi Marti-Henneberg

Department of Geography and Sociology, University of Lleida, Spain

Professor Karl-Erik Michelsen

South Karelian Institute, Lappeenranta University of Technology, Finland

Professor Ruth Oldenziel

Department of History, Philosophy and Technology Studies, Eindhoven University of Technology, The Netherlands

Dr Doubravka Olšáková

(Secretary May 2008 – May 2010) European Science Foundation, Strasbourg, France

Professor Johan Schot (Chair)

Department of Technology Management, Eindhoven University of Technology, The Netherlands

Professor Hans Weinberger

The Norwegian Museum of Science and Technology, Oslo, Norway

2. Inventing Europe Review Panel

The independent international Review Panel, formed of leading experts in the field, oversaw the scientific aspects of the programme. The Review Panel plays a key role in the selection and review process.

(In alphabetical order)

Professor Per Boje (Chair)
Institute of History and Civilisation,
University of Southern Denmark,
Odense, Denmark

Professor Albert Carreras

Department of Economics and Business, Universitat Pompeu Fabra, Barcelona, Spain

Professor C.A. Davids

Faculty of Arts, Vrije Universiteit, Amsterdam, The Netherlands

Professor Guðmundur Hálfdánarson

Department of History, University of Iceland, Reykjavik, Iceland

Professor Robert Halleux

(2006 only)

Centre d'Histoire des Sciences et des Techniques, Université de Liège, Belgium

Professor Pierre-Cyrille Hautcœur

École Normale Supérieure, Paris, France

Professor Marja Järvelä

Department of Social Sciences and Philosophy, University of Jyväskylä, Finland

Professor Luda Klusáková

(2006 only) Institute of World History, Charles University, Prague,

Czech Republic

Professor Oldřich Tůma

(from 2009)

Institute for Contemporary History, Academy of Sciences of the Czech Republic, Prague, Czech Republic

Professor Patrick O'Brien

(2006 only)

London School of Economics, United Kingdom

Dr Suzanne Pasleau

(from November 2006) Département des Sciences Historiques, Université de Liège, Belgium

Professor Secondo Rolfo

Ceris-CNR, Moncalieri, Italy

Professor Carmen Sarasua Garciá

Departament d'Economia i d'Historia Economica, Universitat Autonomad de Barcelona, Bellaterra, Spain

Professor Sverker Sörlin

Division of History of Science and Technology, Royal Institute of Technology (KTH), Stockholm, Sweden

Professor Hans Weinberger (2006 only)

The Norwegian Museum of Science and Technology, Oslo, Norway

3. Inventing Europe Management Committee

The programme was overseen by the Management Committee, formed by one representative of each of the participating National Funding Agencies and the EUROCORES Programme Coordinator.

(In alphabetical order)

Czech Republic



Dr Veronika Paleckova

The Czech Science Foundation Department of International Relations Prague, Czech Republic

Denmark



Danish Agency for Science Technology and Innovation

Ministry of Science Technology and Innovation

Mrs Jette Kirstein

The Danish Council for Independent Research Humanities Copenhagen, Denmark

Finland



ACADEMY OF FINLAND

Ms Tiina Forsman

Academy of Finland Research Council for Culture and Society Helsinki, Finland

France



Mr Carlos de Oliveira

National Centre for Scientific Research (CNRS) Département des Sciences de l'Homme et de la Société Suivi des Conventions et Relations Internationales Paris, France

The Netherlands



Ms Rosemary van Kempen

Netherlands Organisation for Scientific Research (NWO) Humanities Section Den Haag, Netherlands

Norway



Dr Rune Schjølberg

The Research Council of Norway Department for the Humanities Division for Science Oslo, Norway

Portugal



Dr Maria Corte-Real

Fundação para a Ciência e a Tecnologica (FCT) Lisboa, Portugal

Spain



Professor Aníbal González

Comisión Interministerial de Ciencia y Tecnología (CICYT) Madrid, Spain

Sweden



Vetenskapsrådet

Dr Marianne Wikgren

Swedish Research Council (VR) Division of Humanities and Social Sciences Stockholm, Sweden

Turkey



TÜBİTAK

Professor Bülent Olcay

The Scientific and Technological Research Council of Turkey (TÜBITAK) Kavaklidere, Turkey



