

ESF Exploratory Workshop on

# **PUTTING SCIENCE ON THE AIR IN EUROPE, 1920s TO 1980s**

Berlin (Germany), 3-5 May 2012

Convened by:

**Arne Schirrmacher**

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## **SCIENTIFIC REPORT**

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## Executive Summary

The workshop aimed at exploring key issues of science communication in the 20th century. Starting from the fact that it were primarily radio and television, which created the prevalent experience of a "knowledge society" both history of science and media studies were re-examined in order to extend their current foci beyond restrictions to print media and temporally to the 19th century. The different political, economic and cultural forces that interacted in such an "scientification" of the European societies in the 20th century were analysed by investigating the processes of putting science on the air in comparative studies.

For this end a three-day workshop was held at the Humboldt University of Berlin, which was organized in collaboration with, and with support of its Faculty of Philosophy I, the Institute of History, and the Chair for the History of Science (Prof. Dr. Anke te Heesen). The university offered as venue the Luisensaal, which is part of the Humboldt Graduate School and which was the former Royal Veterinary School ("Königliche Tierarzneischule") built by Ludwig Ferdinand Hesse in 1839/40, a place which proved to be a stimulating atmosphere for intense discussion of the participants.

Participation numbered 21 scholars from 8 European countries, which was, however extended both by the presentation of a paper of a US scholar, who eventually could not come in person due to visa problems but provided nonetheless pertinent input to the meeting, and the ESF representative (Jan Jirak, Prague), who was actually very near to the subject, so that he was able to add rather important contributions to the discussions, too.

Two scholars that intended to attend the workshop had to withdraw on rather short notice due to administrative duties within a university selection committee and a national science foundation committee session concerning important funding, resp. (Bernadette Bensaude-Vincent in Paris, Andeas Fickers in den Haag for the NWO). In addition one invitee fell ill.

Although roughly half of the participants had met before and some even had been collaborating on some projects such as science in newspapers around 1900 or on science education, this congregation of scholars from history of science and media studies was a very new constellation, which for the first time approached the history of 20th century science communication in audiovisual media from a European comparative point of view. It turned out to be very instructive to bundle case-studies from two or three countries for joint discussion, e.g. Britain v. France, German v. Poland and Hungary, in order to explicate cultural influences on the various European cultures of popular science.

In this way it was possible to explore the key idea of the workshop, which aimed at bridging a kind of double gap in the history of 20th century science communication. The coverage of non-print media from the 1920s to 1980s in particular served as the

arena to explain the prevalent experience of a "knowledge society", a concept that has now become as strongly a (laudatory) descriptive notion as it is used to define a (politically important) societal goal.

The key questions of the workshop can be summarised in two points,

(A) with regard to general questions of history of science, media and education in the various European societies:

- ⤴ factors favouring science programmes
- ⤴ radio as a "scientific" medium (both the producer as well as the listeners had to acquire a certain technical aptitude); therefore with respective content?
- ⤴ radio and television as means of education
- ⤴ media-related paths of scientification

(B) with regard to historical and sociological questions on society:

- ⤴ new "understanding" or new "culture" of science through new media
- ⤴ political, economical and cultural agendas impeding science communication, e.g. i) in authoritarian regimes of Eastern Europe, ii) in the German or Iberian dictatorships, but also, iii) in democratic states

The workshop thus helped to identify fields of comparative work and to incite farther-reaching collaborative projects e.g. on pairs or groups European countries by bringing together scholars that can at least for their home countries specify general developments, help locate relevant sources and identify primary dimensions of comparison.

## Scientific content of the event

The programme of the Exploratory Workshop was scheduled on three days that in a certain sense suggested a methodological approach.

DAY ONE asked "Is History of Science Prepared for Science on the Air?" and two leading media scholars with a strong knowledge about media history summarised the state-of-the-art knowledge about "Histories of radio and television" (Section 1). From the point of view of "Changing structures in European radio broadcasting" dealing mainly with Western, Southern Europe and the US Jürg Häusermann unfolded several dimensions in which radio underwent important transformations from the 1920s and 1930s up to present times. The lecture paradigm was gradually replaced by that of discussion, programme grids became programme clocks, announcers were replaced first by specialists and eventually by journalists, state influence developed from organizer to regulator etc. This presentation was juxtaposed by "Media histories of Eastern Europe" by Tomasz Goban-Klas, who also included rather personal reflections about the media revolution in Poland after the fall of communism. From this he was able to offer insights in to the question of periodisation ("built-up", "moment", and "conjuncture" phases).

The second session of this day focused on "historiographical trends in science communication." Kostas Gavroglu provided a widely-discussed sketch on "the popularization of ideology and the ideology of popularization," in which he gave strong examples for a new trend of reductionistic thinking, which instrumentalise popularisation in modern media, which cannot be characterised but being ideological. From his both examples, genetic determinism in popular molecular biological discourse and media coverage of economical crises to implement an neoclassical economics, the first met general acceptance, while the second, at the present actuality of economic problems, naturally led to an controversial discussion.

Markus Lehmkuhl presented in his talk the results of a project from the 7th Framework Programme "Science in Audiovisual Media. Production and Perception in Europe" which amounted more or less to a present-day version of the kind of historical questions that the workshop addressed. In this way his results offered a wide empiric basis of the current situation of science on the air, that is now up to historical explanation of its historical emergence. The discussions of this paper particularly centred around the point to which extent current typologies may be used for historical data (e.g. "information journalism", "popularisation", "edutainment", "advice", "advocacy").

In any case, the broad array of relevant questions and the necessity of in-depth analysis of science on the air was a common result from the first day.

DAY Two then was the central piece of the workshop "Exploring the European Perspectives of Science on the Air", and offered wide insight into a number of projects, which are all very much work-in-progress. The first two sessions juxtaposed in pairs or triples, British, French, German, Polish or Hungarian models of science on the air.

Based on his work on science programmes of the BBC, Ralph Desmarais analysed the role of "scientific intellectuals and the British public, 1930-1950" in looking at principal speakers of science programmes as well as controversies about (political) scientists like Patrick Blackett. Among the key findings of his research are that the monopoly broadcaster followed a "defence of science" theme and rebuffed repeated tries from the side of the scientific community to control programming and prescribe content. Although the medium helped create the "scientific intellectual" – examples were Gerald Herad or Julius Huxley in the 1930s and 1940s – discourse on the relation of science and war, for example, fell short and also the BBC did not press the issue. The according situation for the case of the Cold War still awaits pertinent scholarship.

Timothy Boon complemented this picture on Britain with a paper on "the origins of British science television" with a case study on Horizon, the most successful science programme, which ran from 1965 to 1968. It turns out, in fact, that it was to great extent a response to prevailing science criticism, and the means to counter this was to give a instrumental role to the reporter shaping the content considerably and acting as a kind of proxy for the (concerned) viewer.

Daniel Rachvarg and Andrée Bergeron were taking up these lead themes – scientist intellectuals, media influence and criticism – and discussed the French postwar developments. While the latter focused on "modern tools for a modern France" and portrayed the French effort to catch-up scientifically with countries like Britain and multiplying the number of scientists and scholars quickly in order to regain a "decent standard of living" and suggested that programmes like "Visa pour l'avenir" should be studied in this regard, the former argued for a broader media and culture approach, which contains programmes more generally discussing technological opportunities like the documentaries of Jacques Cousteau like "Le monde du silence," in particular, and the development of cinema, in general. It became apparent in this contrasting presentations of British and French examples how fruitful it is in the first place to question the various national case studies with respect to those features and mechanisms, which have become visible in studies of cases of other countries.

As the comparison of France and Britain appears for many reasons natural, the second session about the triple of Germany, Poland and Hungary may be less obvious, for rather different political systems on the two sides of the iron curtain may seem too determinant. The speakers approached the issue from the side of a more cultural perspective, hence referring partly to an older historic common background, rather than the dramatic political changes in the 20th century.

The culture of science reading, listening and viewing was at the core of the paper of Arne Schirrmacher, who argued for the thesis that in Germany popular science acted much like a "cultural dispositif." Throughout all periods of German history of the war-shattered century supply of popular science was tremendous – even during war times and in the Nazi period. New media like radio and television let the system evolve into a partly multimedia system, in which, for example, the radio magazines provided the pictures for broadcasts in advance, while popular journals offered a great variety of popular science for well-differentiated audiences. While science remained a kind of constant within German national identity, shifts in particular of putting science on the air were mostly gradual, for example, science programmes of the postwar-era had moved to later hours than during the Weimar period.

Leszek Zasztowt focused in his paper on "science, culture, and tradition in Polish radio broadcasting during the inter-war period" first on some cultural leitmotifs as exemplified by the musical signals that identified Polish radio stations and which reflect national and political settings. It seems, in a first assessment, that both German and Russian influenced coined Polish popular science programmes, which, however, led to a rather traditional model of putting science on the air, starting with broadcast of university lectures. In the postwar time some persons may identify as scientific intellectuals (as introduced in the British context). A certain typical Polish romanticism was also glossing over much of science communication putting genius on stage rather than societal conditions.

For Hungary an even more *longue durée* character of science communication was presented by Gábor Palló, who drew a line from the traditions of science theatre of the 19th century and science on the air in Hungary much later. The connecting piece

in order to link these endpoints to a connected story was the wide-spread use of telephone infrastructure for a kind of pre-radio wire broadcasting network. Besides (economic) news and music, lectures including science were part of this wire service, which was operative from the 1890s until the advent of wireless in 1924. For this reason radio could carry on an existent tradition and, for example, offered free university broadcasts. Interestingly, no scientific media stars or scientific intellectuals seem to have arisen.

From these three presentations and the following discussion it became clear, that, although the cultural frameworks of the different nations need to be traced back to the 19th century to exhibit common underlying themes, which then by the political events of the 20th century have been greatly affected and bent in different direction, structural similarities are prominent. Widely available sources in terms of radio magazines, archival holdings of (state) broadcasters etc. make it most welcome to start comparative research in this direction.

The case of southern Europe was addressed at the workshop with a special session on the Iberian peninsula and Greece from the point of view of the perspective of centre and periphery. As in recent years a network of European scholars has initiated much research within a flexible project framework called "Science and Technology in the European Periphery" (STEP), Ana Simões opened the session with "lessons on the role and uses of new media for science," which had been learned from STEP activities. In particular have prominent studies on science in newspapers taught us that for the periphery science news, science education and popular science are much closer related than in the so-called big science nations, viz. Britain, France, Germany, US etc. It is in particular important for these countries to account for the high illiteracy when analysing the impact of audiovisual media for science communication.

This lead was then discussed in more detail in Anna Paula Silva's paper on "Discourses of historical actors around the possibilities of using radio to enhance Portuguese people's literacy." From this perspective science appear within a rather broad educational effort, within which medical and agricultural knowledge probably takes most part.

A further "peripheral" phenomenon was addressed by Oliver Hochadel, who considered the use of popular science for "scientific nationalism" in Spain, i.e. the use of scientific activity or relevance in order to create or to foster a national identity, in particular in the post-fascist period, in the case of palaeoanthropology and archaeology. By contrasting the Spanish case with those of archaeology in Turkey and palaeoanthropology in East-Africa, it is demonstrated how a kind of inferiority complex of Spanish science could be cured by "centralizing" peripheral Spain through making it the "cradle of mankind."

The session on popular science in the Iberian peninsula and Greece stressed in particular the lack of genuine research on science communication in audiovisual media, which is in contrast to the influential work on print media from the STEP group in recent years. Following a further paper on "media adoption for science communica-

tion in the periphery" from Faidra Papanelopoulou, which considered whether peripherality would accelerate or delay media use for education and popularisation, it was agreed that the study of the southern European countries would open a particularly rich and prominent research field, which would turn out most fruitful when it were done in comparative perspective rather than in single national studies.

The last session of day two concerned the propagandistic dimension of popular science on the air as found in Franco Spain, the Soviet Union but also in a sense in Israel, where both Hebrew and Arab programmes had to be aired.

Carlos Tabernero choose a biographic approach to demonstrate how in Spain in the 1960s and 1970s populariser de la Fuente managed to develop in parallel a career during the transition from Franco Spain to democracy and he contributed with his TV series not only to the popularisation of natural science (from a conservationists viewpoint) but also to the overall transformation during regime change.

Barbara Wurm, in turn, in her presentation on "Soviet documentary film as a model for Eastern Europe" stressed the "gaps" of this model and de-constructed the Soviet exemplar as a "shifting device" in science communication, which is prone to ambiguities in genre, in scientific quality, in media quality and in ideological directions. A number of silent and sound film examples introduced much visual material for the discussions. In the same way did the paper of Merav Katz-Kimchi on "screening science, producing the nation: Popular science programs on Israeli television" (which had to be read by the convenor as mentioned above) centre around examples from Israeli popular science programs, which combined in her analysis several stands of the ongoing workshop discussion: periphery, national building and visual strategies. The preliminary results of the discussion can be summarised that Israel made its popular science TV programmes very much with view on Europe (as were its scientific and economical relations), it used popular science in a double way for nation building, as it aired both Hebrew and Arab language programmes, which were rather different, and that it took up analogies from fashion and popular culture to frame the modernity of the Israeli scientific prowess.

DAY THREE tried to draw some "Historical Lessons on Media and Science Understanding" and consisted of two sessions of two presentations each.

The first dimension of drawing preliminary conclusions was with respect to media changes and changed of genre. Néstor Herran suggested that for the case of "science popularisation in Spanish Film and TV" the key question appears to be the role of media in shaping cultural values, the more so as in dictatorships as Franco Spain audiovisual media acted as technological means for social control. As a consequence cinema newsreel served to disseminate conformity of content which also extended to scientific images. On TV this did not change immediately, however, a number of programmes tied to combine political restriction with international influences, which also reflected the new qualities of the medium. More detailed research, however, is needed to answer the question of media changes.

Safia Assouni, next, tried to formulate an opposing thesis to a rather mechanical understanding of media influence in postulating that, perhaps, the "basic function of text in the popular presentation of science" should not be missed. Is it really true that each medium has its own grammar (as Maurice Goldsmith had claimed)? Reminding the audience to the work of Walter J. Ong and his understanding of the primacy of oral culture, and thus of text, it became clear that the advent of radio within an illustrated text culture in the 1920s did give rise to a "second orality," which was more than just doing without pictures and which was not replaced by a pure visuality with television, but still may be judged as primary and picture as secondary.

It was the tasks of Peter Bowler and Agustí Nieto-Galan to wrap talks and ideas together in a session on "Science understanding in context." Bowler approached this question by stressing the different "uses of popular science" and suggested that the question of why people were reading, listening or watching respective media needs to be addressed in order to explain the media-science nexus. Contradictorily, as it may seem, surveys in Britain in the 1940s have shown that most had little interest in the subject *per se* – probably this was different in Germany and elsewhere – but still had other reasons for dealing with popular science. For example, and this again was particularly strong in the United Kingdom, self-education to compensate for lacking university education was one reason. Political agendas, as can be found in post-war France also played a role, as did the image scientists and science writers tried to promote by adroitly framing of the subject matter. Nieto-Galan carried the discussion one step further in claiming that science popularisation acted as a "cultural hegemony," thus suggesting a term which allowed to subsume most of the papers of the workshop. One possibility to theoretically and methodologically substantiate such a view can be found in the work of Antonio Gramsci, who conceptualized intellectuals as the direct reproduction of an effective hegemony, and among other also experts and scientists take up the role of intellectuals. In this picture popular science attains a similar role as folklore in political and cultural respect and media like radio and television act as mediators between elite and popular science. In the 20th century, so Nieto-Galan's verdict, science popularisation became a fundamental part of the culture, one, however, that neither can be separated from scientific authority nor from political control.

A final round-table session was used to connect these thought-provoking theses and lessons to the case-studies and in order to explore, what steps should be taken to deepen and test various theses that emerged in workshop.



## Assessment of the results, contribution to the future direction of the field, outcome

Besides the many point mentioned already in the above section some more general results can be put down.

- ⤴ The history of popular science in the 20th century, in general, and on putting science on the air, in particular, has turned out to be a vast field of historical research as well as a complex field for media studies, both of which directions still being in its infancy, e.g. when compared to 19th century science popularisation or recent decades media studies.
- ⤴ The European perspective does not only enrich and let communicate research on nationally bounded studies in the field of science in audiovisual mass media, moreover, only the comparative view allows to see the national peculiarities in the first place. On the other hand, clearly, a global comparative view is currently out of the scope of any group of scholars, thus the focus on the European variety of national developments that have still some common ground, proves to be a feasible and, probably, a most productive comparative perspective.
- ⤴ The workshop that brought together historians as well as media scholars demonstrated the need of further collaboration, as a three day workshop could not seriously communicate the larger theoretical and methodological concepts of both directions.

A certain problem for formulating the next steps emerging from these results of the exploratory workshop was the fact that with the current reorganisation of the ESF and European research founding most avenues for proposing follow-up activities turned out closed. In this respect the ESF representative had a difficult task as he could not be as much a guiding authority as it probably used to be in previous years. These problems are in particular pertinent to this very project as it needs true year-long research work of international groups of scholars and cannot simply be accomplished by setting up a network and conference series. For this reason one of the few available programmes, the COST scheme, has been considered, without, however, being able to reach a clear picture at the end of the workshop. A critical view was also prevalent concerning pushing the project into a direction, which would be closer to science policy issues. Although the whole project's main quest related to explaining the emergence of today's knowledge society, it pursues this aim with a strong interest from the direction of the core questions of history of science and of media studies.

As follow-up activities currently the following is planned:

- ⤴ A topical issue of the journal *Science in Context* is in preparation comprising contributions closely related to the workshop presentations by among others Peter Bowler, Bernadette Bensaude-Vincent, Arne Schirmacher, Agustí Nieto-Galan, Leszek Zasztowt and Merav Katz-Kimchi.

- ⤴ A session has been organised at the 24th International Congress for the History of Science and Technology ICHSTM in Manchester in 2013 with the topic "Is it the medium? Ways of communicating science in the 20th century." This symposium is meant to continue the cooperation between media scholars and historians of science started in Berlin.
- ⤴ Extending the topic of "Science in the Air" Daniel Raichvarg together with Evelyn Cohen is planning a conference on "Science for Children on the Air 1946-1968" in Paris in 2014.
- ⤴ The launching of a COST activity remains in discussion among the participants, this would however need substantial grants for research positions from other sides.
- ⤴ As means of communication and documentation of post-workshop activities a website has been launched, which also contains summaries of the papers of the exploratory workshop:

<http://histscicom.hu-berlin.de/>

## Final programme

### Thursday, 3 May 2012

- 14.30-14.35 **Welcome by the Dean of the Faculty of Philosophy I**  
**Michael Seadle** (Humboldt University, Berlin, Germany)
- 14.35-14.45 **Introductory remarks**  
**Arne Schirmmacher** (Humboldt University, Berlin, Germany)
- 14.45-15.00 **Presentation of the European Science Foundation (ESF)**  
**Jan Jirak** (Member of the ESF Standing Committee for Social Sciences – Charles University Prague, Czech Republic)

### Is History of Science Prepared for Science on the Air?

- 15.00-16.40 I. Histories of radio and television**
- 15.00-15.40 **Changing structures in European radio broadcasting**  
**Jürg Häusermann** (University of Tübingen, Germany)
- 15.40-15.50 **Discussion**
- 15.50-16.30 **Media histories of Eastern Europe**  
**Tomasz Goban-Klas** (Jagiellonian University, Krakow, Poland)
- 16.30-16.40 **Discussion**
- 16.40-17.00 *Coffee Break*
- 17.00-18.30 II. Historiographical trends in science communication**  
Chair: Faidra Papanelopoulou
- 17.00-17.30 **The popularization of ideology and the ideology of popularization: Issues related to the History of Science**  
**Kostas Gavroglu** (University of Athens, Greece)
- 17.30-18.00 **Science in audiovisual media. Production and perception in Europe**  
**Markus Lehmkuhl** (Free University Berlin, Germany)
- 18.00-18.30 **Discussion**
- 18.30 *Buffet reception (on site)*

### Friday, 4 May 2012

### Exploring the European Perspectives of Science on the Air

- 09.00-10.50 III. British vs. French models of science on the air**  
Chair: Peter Bowler
- 09.00-09.20 **The BBC, scientific intellectuals and the British public, 1930-1950**  
**Ralph Desmarais** (Imperial College, London, United Kingdom)
- 09.20-09.40 **Horizon and the origins of British science television**  
**Timothy Boon** (Science Museum, London, United Kingdom)
- 09.40-10.00 **Science and the media: Modern tools for a modern France, 1950-1975**  
**Andrée Bergeron** (EHESS, Paris, France)

- 10.00-10.20 **Science in the air: Which questions with which methods?**  
**Daniel Raichvarg** (University of Bourgogne, Dijon, France)
- 10.20-10.50 **Discussion**
- 10.50-11.10 *Coffee Break*
- 11.10-13.00 IV. German v. Eastern European models of science on the air**  
Chair: Tomasz Goban-Klas
- 11.10-11.30 **Popular science as a cultural dispositif**  
**Arne Schirrmacher** (Humboldt University, Berlin, Germany)
- 11.30-11.50 ~~**Science television and its audience in Germany**~~  
~~**Jutta Milde** (University of Koblenz-Landau, Germany)~~
- 11.50-12.10 **Science, Culture and Tradition in Polish Radio Broadcasting during the Interwar Period**  
**Leszek Zasztowt** (Polish Academy of Sciences, Warsaw, Poland)
- 12.10-12.30 **From Science theatre to science on the air in Hungary**  
**Gabor Pallo** (Budapest University of Technology and Economics, Hungary)
- 12.30-13.00 **Discussion**
- 13.00 *Lunch at Restaurant "Traube" (Reinhardtstr. 33)*
- 15.00-16.50 V. Centre and periphery – did it matter for mediatisation of science?**  
Chair: Agustí Nieto-Galan
- 15.00-15.20 **STEP: Lessons on the role and uses of new media for science**  
**Ana Simoes** (CIUHCT, Lisbon, Portugal)
- 15.20-15.40 **Discourses of historical actors around the possibilities of using radio to enhance Portuguese people's literacy**  
**Ana Paula Silva** (CIUHCT, Lisbon, Portugal)
- 15.40-16.00 **"Stay away! But come and see!" Scientific nationalism in "peripheral" countries in paleoanthropology and archaeology**  
**Oliver Hochadel** (Institució Milà i Fontanals, Barcelona, Spain)
- 16.00-16.20 **Late or early? Media adoption for science communication in the periphery**  
**Faidra Papanelopoulou** (University of Athens, Greece)
- 16.20-16.50 **Discussion**
- 16.50-17.10 *Coffee Break*
- 17.10-18.20 VI. Between independent science reporting and propaganda**  
Chair: Néstor Herran
- 17.10-17.30 **Félix Rodríguez de la Fuente's cross-platform broadcasting of nature in a context of social, political and cultural transformation in Spain, 1962-1980**  
**Carlos Tabernero** (Autonomous University, Barcelona, Spain)
- 17.30-17.50 **The Soviet documentary film as a model for Eastern Europe**  
**Barbara Wurm** (Humboldt University, Berlin, Germany)
- 17.50-18.20 **Discussion**
- tbc on Saturday
- 20.00 *Dinner at Restaurant "Jolesch" (Muskauerstr. 1, 10997 Berlin)*

## Saturday, 5 May 2012

cont. of session VI

09.00-09.30      **Screening science, producing the nation: Popular science programs on Israeli television**  
**Merav Katz-Kimchi** (University of California, Berkeley, United States)

### Historical Lessons on Media and Science Understanding

#### **09.30-10.30      VII. Media changes, changes of genre**

Chair: Timothy Boon

09.30-09.50      **Science popularization in Spanish film and TV**  
**Nestor Herran** (University Pierre and Marie Curie, Paris, France)

09.50-10.10      **Reflections on the basic function of text in the popular presentation of science**  
**Safia Azzouni** (Humboldt University, Berlin, Germany)

10.10-10.30      **Discussion**

10.30-11.00      *Coffee Break*

#### **11.00-12.30      VIII. Science understanding in context**

Chair: Kostas Gavroglu

11.00-11.30      **The uses of popular science**  
**Peter Bowler** (Queen's College, Belfast, United Kingdom)

11.30-12.00      **Science popularization as cultural hegemony: From dictatorship to democracy**  
**Agustí Nieto-Galan** (Autonomous University, Barcelona, Spain)

12.00-12.30      **Discussion**

12.30              *Lunch (on site)*

#### **13.30-15.00      IX. Next steps**

13.30-14.00      **Brief statements**

14.00-15.00      **Round table discussion**

15.00              *End of Workshop and departure*

## Final list of participants

### Convenor:

1. **Arne SCHIRRMACHER**, Institut für Geschichtswissenschaften, Humboldt Universität zu Berlin

### ESF Representative:

2. **Jan JIRAK**, Media Studies Department, Faculty of Social Sciences, Charles University

### Participants:

3. **Safia AZZOUNI**, Institut für deutsche Literatur, Humboldt Universität zu Berlin
4. **Andrée BERGERON**, Centre Alexandre Koyré, École des hautes études en sciences sociales
5. **Timothy BOON**, The Science Museum, London
6. **Peter BOWLER**, School of History and Anthropology, Queen's University Belfast
7. **Ralph DESMARAIS**, Centre for the History of Science, Technology and Medicine, Imperial College
8. **Kostas GAVROGLU**, Department of History and Philosophy of Science, University of Athens
9. **Tomasz GOBAN-KLAS**, Instytut Dziennikarstwa, Uniwersytet Jagielloński, Kraków
10. **Jürg HÄUSERMANN**, Institut für Medienwissenschaft, Universität Tübingen
11. **Néstor HERRAN**, Université Pierre et Marie Curie, Paris
12. **Oliver HOCHADEL**, Institució Milà i Fontanals, Consejo Superior de Investigaciones Científicas
13. **Merav KATZ-KIMCHI**, Office for History of Science and Technology, University of California at Berkeley\*
14. **Markus LEHMKUHL**, FB Politik- und Sozialwissenschaften, Freie Universität Berlin
15. **Agustí NIETO-GALAN**, Departament de Filosofia, Universitat Autònoma de Barcelona
16. **Gábor PALLO**, Institut for Philosophical Research, Hungarian Academy of Sciences
17. **Faidra PAPANELOPOULOU**, Dept. of Philosophy & History of Science, National and Kapodistrian University Athens
18. **Daniel RAICHVARG**, CIMEOS, Faculté de Lettres, Université de Bourgogne
19. **Ana Paula SILVA**, Centro Interuniversitário de História das Ciências e da Tecnologia, Lisboa
20. **Ana SIMOES**, Centro Interuniversitário de História das Ciências e da Tecnologia, Lisboa
21. **Carlos TABERNERO**, Departamento de Filosofía, UAB Barcelona
22. **Barbara WURM**, Institut für Slawistik, Humboldt Universität zu Berlin
23. **Leszek ZASZTOWT**, Institute for the History of Sciences, Polish Academy of Sciences, Warszawa

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\* Could only participate by having her written paper presented by the convenor and through discussions which were communicated, since US visa problems rendered physical appearance impossible.

## Statistical information on participants

From the list of invitees that had committed to participation, unfortunately, four scholars were unable to attend on short notice: Bernadette Bensaude-Vincent and Andreas Fickers, who had to sit important university and funding committees, Jutta Milde fell ill and Merav Katz-Kimchi could not overcome visa problems.

	committed participants	actual participants
number	25	21
male	16	15
female	9 [36%]	6 [29%]
no. countries	10	8
leaders	9	8
senior scholars	9	7
junior scholars	6	5
doctoral student	1	1