



European
Research Area

EUROPEAN POLICY BRIEF



Socialising European Research – SS-ERC

Ongoing project

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SUMMARY

Coordinator

Tor Vergata University of Rome (Science Park Office)

Programme

6th Framework Research Programme

What is at stake?

All contemporary societies are experiencing a shift towards the so-called '**knowledge society**', characterized by social diversification, globalisation and increasing importance of cognitive dynamics. In this context, **scientific and technological research (S&T)**, has taken on an importance it never had before in all sectors of social life.

At the same time, even **the way S&T is produced is changing**: it involves a decidedly broader number of actors in addition to researchers; it is increasingly taking on a mainly trans-disciplinary nature; thanks to ICT development, it is proceeding at an incredible pace; the "classical" distinctions between basic research, applied research and development tend to fade. These changes have, on the whole, greatly increased **the importance of social dynamics** embedded in research and have multiplied the **links between science and society**.

Quite paradoxically, despite its growing relevance, S&T risks to be **socially marginalised** and perceived by large sectors of society and by an important part of the social, cultural and political leaderships, as a **body foreign to social life**; and this, while S&T is becoming a "social undertaking" calling for increasingly complex interactions among actors and a wider consensus for attaining high levels of quality and productivity.

Perceiving this risk, European institutions are trying to cope with these questions, through the “**Lisbon Growth and Jobs Strategy**” and the setting up of the **European Research Area**.

However, for matching this gap, it becomes fundamental to have **closer cooperation** or, better yet, **a pact between natural and applied scientists and social researchers** who, in growing numbers, deal with science and technology – a cooperation that has so far been very limited.

Research objectives

The SS-ERC project is concerned to study this set of issues with the **general goal of valorising the role of social sciences** (psychology; economics; anthropology and ethnography; communication sciences; management sciences; evaluation sciences; political sciences; sociology; Science and Technology Studies) in order to increase the overall quality of European scientific and technological research.

In particular, the project is aimed at **producing new knowledge** on the social dynamics (in the broadest sense) involved in S&T, identifying the **hindering and facilitating factors** in order to deal with these dynamics, obtaining **evaluation elements** regarding the current and potential contribution of social sciences in the progress in S&T in Europe and **proposing a series of measures** for managing the social processes connected with S&T.

The project included: a study in five countries of the European Union (Denmark, Italy, Netherlands, Slovenia and Spain) on socialisation dynamics; a state-of-the-art concerning the new disciplinary areas belonging to the social sciences involved in the study of S&T; an inventory of European social research institutes specialising in the study of S&T; an inventory of themes dealt with by social sciences connected with S&T. **Four experiments** concerning S&T socialisation are currently being conducted in Italy, Spain, Slovenia and Denmark. A **S&T socialisation handbook** will be drafted at the end of the experimentations.

EMERGING FINDINGS

**Difficulties
in handling change****Socialisation dynamics**

The changes affecting S&T broaden the research opportunities, but they are also often handled with **great difficulty**, both by individual researchers and by institutions:

- many obstacles to **interdisciplinary cooperation** (interdisciplinary publications are still few; research institutes are organised along disciplinary lines; competitive access to funds feeds competition between disciplines; interaction between “disciplinary cultures” is often conflicting);
- emerging forms of **‘industrialisation’ of research procedures** – that is, the inclusion of industrial type organisational methods in research activities – which produce some potentially negative impacts (under-estimation of the differences between basic research and industrial production; penalisation of the basic research; inappropriate criteria adopted to grant financing);
- an **uneven development of evaluation** in the various member states and **deep uncertainties** on their objectives and use;
- strong signs of a **lack of esteem, confidence or even interest** in science and technology (decreasing status of researchers, also as regards salaries; difficult access of young people have to science careers; poor attention devoted to S&T by public administrations);
- a **deficit of responsibility** with regard to S&T (most politicians do not understand the importance of S&T; many firms do not invest in research; few civil society organisations actively support research; researchers themselves often show disinterest for the social and economic value of their work);
- a **deficit of ability**, especially on the part of political actors and of many heads of research institutes, to interpret and steer the changes affecting S&T.

EMERGING FINDINGS

Major expansion of social research

Social Sciences and S&T

There is a **great expansion of social research on S&T**. Approximately **half** the 217 social research institutes specialising in S&T recorded in the study have been set up over the last ten years; the **number of publications** of social sciences devoted to S&T has dramatically increased in the last decades (according to the discipline, from 3 up to 37 times). Over the last five years, this tendency has become even more marked.

Multi-level use of research results

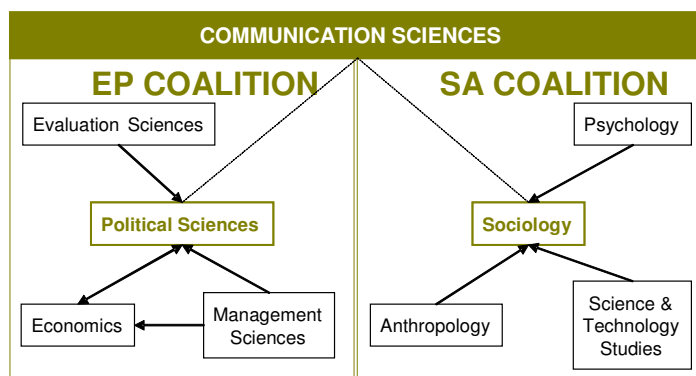
The project highlights at least four different ways of using **social sciences in S&T**. There is a widespread **interpretative use** (social sciences interpret S&T and the relations between science and society) and a less widespread **functional use** (social sciences provide useful tools and knowledge for handling, steering, measuring and guiding S&T). A rare **substantive use** (social sciences cooperate with natural sciences on common research programmes) and a sporadic **practical use** (social researchers play professional type roles) are recorded.

Two major disciplinary ‘coalitions’

The social sciences acting in the S&T field tend to form two different “**disciplinary coalitions**” (see figure 1), having partly diverging behaviours: the more consolidated “**EP coalition**” including economics, political sciences, management sciences and evaluation sciences; the less recognised “**SA coalition**”, revolving around sociology and three “emerging” disciplinary approaches in the S&T field, i.e. science and technology studies, anthropology and psychology. Communication sciences have balanced relationships with both the disciplinary coalitions.

FIGURES 1

Simplified picture (only strong links) of the inter-disciplinary relationships among social sciences working on S&T (for the complete analysis, see the project website) in 217 European social research institutions specialised on S&T-related issues. Communication sciences have balanced relationships with both the coalitions.



Minimal knowledge penetration

There is, in general, **poor penetration** of the knowledge produced by social sciences among research actors and a very little **cooperation** between natural and applied scientists and social scientists due to obstacles of a cultural, organisational and political kind. The former tend to consider social sciences poorly relevant to the S&T field, unreliable, unable to make predictions and not very inclined to propose practical solutions. The latter, on the other hand, show little propensity to get involved in policymaking and to interact with natural sciences. Finally, the disciplinary organisation of S&T limits contacts between social sciences and natural and applied sciences.

KEY MESSAGES TO POLICYMAKERS

Need for a system perspective

At European level

There is a need for recovering a “system” perspective of S&T, by supplementing research support policies, which are sectoral by nature, with cross-cutting **S&T socialisation policies**, committed to identifying and removing all the obstacles preventing the full development of research. In this perspective, different needs can be identified:

Supporting research socialisation champions

- to define, strengthen and spread **professional figures** facilitating the socialisation of research activities such as: research managers; experts in project-designing geared to fund access; research evaluators; research network management experts; experts in technology transfer; communicators; experts in local development connected with S&T;

Supporting closer cooperation between the social and natural sciences

- to support closer **cooperation between social sciences and natural and applied sciences**, viewing them as part of a **single ‘scientific field’** e.g. by encouraging research projects based on common protocols, promoting mixed networks of excellence or supporting university education programmes on S&T socialisation;

Broader subject areas involved in S&T

- to develop a **‘technological responsibility’** – meant as a more conscious commitment to supporting research, to valorising its results and to steering its lines – involving researchers themselves, the research institutes, innovation agencies, firms, but also the many actors who are stakeholders – sometimes unconsciously so – of S&T.

KEY MESSAGES TO POLICYMAKERS

Developing national socialisation policies

At national level

The key question to deal with at national level is developing cross-cutting S&T **socialisation** policies, reducing the present fragmentation of competencies on S&T (research funding and infrastructure, evaluation, innovation, university education, the social valorisation of research, the immigration of new talents, researchers' salaries, scientific communication, the internationalisation of research, etc.) among administrative agencies and administrative levels.

Supporting research actors

Enhanced measures are therefore necessary to support the different research **actors** (researchers, research institutes, laboratory technicians, students, firms etc.), in order to remove the obstacles encountered in carrying out their activities and to increase their capacity to mutually co-operate.

Strengthening social studies on science and technology

In this perspective, national governments should support the **social research on S&T** and **to favour a strategic use of its results**, considering it an integral aspect of the overall research policies.

Increased dissemination

In this same vein, governments should develop a **scientific culture** not limited to disseminating information on the results and prospects of science, but geared to raising citizens' awareness of how science is produced and what problems are faced by S&T in their country.

KEY MESSAGES TO POLICYMAKERS

Promote cooperation between S&T actors

At local level

Despite the tendency towards internationalisation, the **links between S&T and its own territory** are very strong. Most of the technical, material, human and cognitive resources used in research come from its own territory, and many of the actors involved in S&T that use its results or that can support it act, firstly, at a local level.

Multi-level action

In order to support S&T socialisation, local administrators can act on several levels. They can, for instance:

- act on **urban infrastructures** (physical places to favour the meeting of business people and researchers; housing policies geared to attracting students from abroad; roads and means of transport to facilitate access to research centres, etc.);
- on **information** (informative initiatives on the local research system; actions supporting new student recruitment in science faculties; etc.);

- on **participation** (experimenting forms of widespread participation in S&T decision-making);
- on **training** (vocational training initiatives of figures supporting research socialisation);
- on **relationship networks** (between schools, universities and local firms);
- on **local development** (support in the growth of enterprise incubators connected to research centres).

Promoting 'scientific citizenship'

Local administrations could also favour a widespread sense of ownership of S&T, by promoting the idea of a '**scientific citizenship**' that is, of a level of responsibility, rights and duties specifically concerning S&T, involving everyone in the same way, from researchers to ordinary citizens. This means going beyond the distinction between scientists and laymen, which, with respect to the problems of research viewed as a '**social undertaking**', makes no sense.

Key role for universities

At the local level, the university '**third mission**' (that is, opening up academic institutions to the needs of development of their territory and of society as a whole) must be strengthened throughout Europe. It cannot be viewed in purely commercial or industrial terms or as a new organisational function, but as a 'socialisation' strategy of universities as such, involving them in a continuous two-way process with the outside.

Increased involvement of world of enterprise

Local administrations could also countervail the poor propensity of **private firms to invest in research**, devising specific socialisation policies mainly addressed to SMEs. A research system that is little open and socialised tends to reject this kind of firm and leads to underestimating the innovation and research processes that these firms start up.

**KEY MESSAGES
TO POLICYMAKERS****Socialisation as a key
element of policymaking****Concrete ways forward****Overall recommendations for S&T actors**

The **socialisation of S&T** should be seen as a key element for devising effective S&T policies. In particular, six areas of socialisation policies can be here stressed (see figure 2).

Policies relating to scientific practice (geared, for example, to removing the obstacles limiting research activity, to favouring the birth of new research groups, to safeguarding existing ones, to supporting women's careers in science, to facilitating young people's access to scientific careers, to attracting foreign talents and to countering the brain-drain).

Policies relating to scientific mediation (geared, for example, to enhancing the research management, to improving the work of research technicians, to raising the quality of research projects applying for funding, to reducing the weight of administrative activities connected to research or to creating synergies between research activities and teaching activities).

Scientific communication policies (geared to making the communication addressed to the general public and specific targets – such as entrepreneurs or political and trade union leaders – more effective and to facilitating the relations between all the subjects involved in research processes).

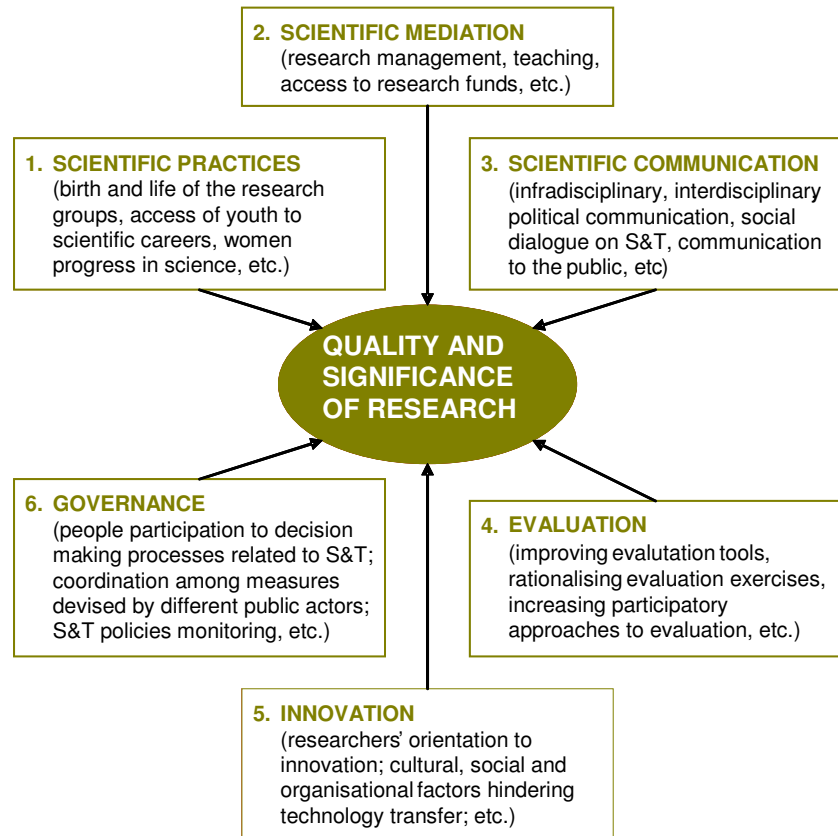
Evaluation policies (geared, for example, to refining evaluation tools, to rationalising their use, to making them more effective, transparent and participative, to valorising the results in terms of better quality in decision-making).

Innovation policies (geared, above all, to facing and solving the many obstacles of a social, cultural and organisational nature that slow down technological transfer processes).

Governance policies (geared, for example, to highlighting and facing the problems concerning the participation of the different actors involved in S&T in political decision-making, to favouring coordination between the measures taken by the various political and administrative bodies, to monitoring the implementation of policies started up).

FIGURES 2

Simplified picture of the domains of socialisation policies.

**Further information**

See the project website (www.techresp.eu) where the project reports and documents are made available.

Project partners

It is being carried out by a group of **five European research institutions**: Science Park Office of Tor Vergata University of Rome (Italy; project coordinator); the Danish Center for Studies in Research and Research Policy of the University of Aarhus (Denmark); Laboratorio di Scienze della Cittadinanza (Italy); the University of Maastricht (Netherlands); Primorska University of Koper (Slovenia); La Rioja Foundation of the University of Logroño (Spain).

Duration

The project started on 1 May 2006 and is expected to be completed on 30 April 2009.

PROJECT IDENTITY

Coordinator	Social Sciences and European Research Capacities (SS-ERC) Luciano d'Andrea Università degli Studi di Roma tor Vergata Ufficio per il Parco Scientifico - Science Park Office
Consortium	<ul style="list-style-type: none"> • Laboratorio di scienze della cittadinanza - LSC (Laboratory of Citizenship Sciences) Feudo Fabio Roma - IT • Maastricht University Bijker Wiebe Eco Maastricht - NL • University of Aarhus Evanthia Kalpazidou Schmidt Aarhus C - DK • University of Primorska, Science and Research Centre of Koper Simona Zavratnik Zimic Koper - SI • Fundaciòn de la Universidad de La Rioja José Martin y Perez de Nanclares Logroño - ES
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