LSC
Laboratorio di Scienze della Cittadinanza

In collaboration with
Ufficio "Parco Scientifico" Università degli studi di Roma Tor Vergata
Maastricht University, Department on Technology and Society
Science and Research Centre of Koper, University of Primorska
Fundación General Universidad de la Rioja
University of Aarhus, The Danish Centre for Studies in Research and Research Policy

Seminar

SOCIAL SCIENCES FOR THE SCIENTIFIC AND TECHNOLOGICAL ADVANCEMENT

Dialogue on governance and development policies of the European Research Area

European Parliament
Brussels, October 16, 2007

NOTE

1. Foreword

Laboratorio di Scienze della Cittadinanza (LSC) is organising a seminar, titled "**Social Sciences for the Scientific and Technological Advancement. Dialogue on Governance and Development Policies of the European Research Area**" to be held in Brussels on October 16, 2007.

The initiative is organized in collaboration with Ufficio "Parco Scientifico" Università degli studi di Roma Tor Vergata, Maastricht University – Department on Technology and Society, Science and Research Centre of Koper – University of Primroska, Fundación General Universidad de la Rioja and University of Aarhus, The Danish Centre for Studies in Research and Research Policy. The seminar, moreover is supported by the Permanent Representation of Italy to the European Union and the Italian Vice-Presidents of the European Parliament and with a contribution of IntesaSanpaolo Spa.

The seminar is part of the growing effort made by LSC in the field of the social studies on science and technology (S&T). Presently, the institute is involved in the implementation of **two different projects** financially supported by the EU through the FP6. The first project, titled "*Social Sciences and European Research Capacities (SS-ERC)*" and co-ordinated by the Scientific Park Office of the Tor Vergata University, is aimed at strengthening the role of human and social sciences in support to S&T. The second project, titled "*Measuring the Impossible Network (MINET)*" and co-ordinated by the Stockholm University, is focused on the measurement of phenomena at the crossroad between the research fields of both natural sciences (chemistry, physics, biology, etc.) and social sciences (sociology, psychology, cultural anthropology, etc.).

This note is aimed at presenting the main issues which will be discussed in the seminar.

2. Two processes of change

The seminar is based on the recognition of two dramatic processes of change affecting scientific and technological research in the last decade.

The first process is the increasing importance of S&T within **the social life and the political agenda**. In fact S&T are currently acknowledged as the foremost factor of economic competitiveness and development active within contemporary societies, able to profoundly influence the "social fates" of a local, national or trans-national community. In this regard, one can refer to it as a sort of "politicisation" process of S&T-related issues, which has a broad set of complex effects, for example, on the investments on research, on the relationships between research sector and business sector, on the ways in which citizens are involved with the decisions concerning science and technology, on the interaction between researchers and decision makers or on the role of the universities (for example, in relation to issues such as the "University's Third Mission" or the "Entrepreneural University".

The second process – only partially overlapping the previous one – is that of the emerging of **new modes of scientific and technological production that are profoundly different** with respect to those which were dominant even in the recent past. One can refer here to, for example, the increasing differentiation of the "settings" in which the research is made (universities, non university institutions, governmental agencies, industrial settings, non profit organisations, etc.); the growing trans-disciplinary nature of research activities; the need for ever broader and more complex research networks; the soaring involvement in the research process of actors different from the researchers (such as decision makers, civil society organisations, evaluators, project designers, research managers or local administrations); the ever stronger social pressure towards a higher accountability of and a public control on the research as well as a more effective social and economic exploitation of its results.

3. Implications and risks

These transformations are clearly visible. Less evident are their implications and risks.

As for the **implications**, many of them are easily deducible. Scientific and technological research is acquiring the features of a **complex social enterprise**. Therefore, for being carried out, it needs for a **vast social consensus**, a **broad sharing of responsibility** and **more effective and advanced mechanisms of governance**.

In this regards, the primary issue to cope with seems to be that of the **socialisation of S&T**, i.e. the overall capacity to identify, to understand and to treat the social factors (in a broad sense, including economic, cultural, psychological and communicational elements) involved with the research process, in all its components: scientific practices; evaluation; innovation and technology transfer; management; research policies; scientific communication.

Forms of socialisation of research have undoubtedly always existed, in most cases embedded in the usual scientific practice. However, the present ways of scientific production are requiring **more advanced socialisation processes** entailing, for example, the mobilisation of specialist high level knowledge and skills, the mobilising of many different subjects, the forming of new professional figures or the dissemination of innovative ways in managing research programmes and institutions.

As far as the **risks** are concerned, the main question to deal with appears to be exactly that of the **limited socialisation of scientific and technological research in Europe**. Despite its growing importance, STR still continues to be 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, to be isolated somehow or simply to be ignored, by remitting the task of handling it to a small group of specialised institutions. There remains a great imbalance between low consensus towards research found in many European countries and the pervasive presence of science and technology, both in daily life, and in the context of economic and social development. Moreover, the level of mobilisation of civil society in support of scientific and technological research is still rather low, above all, with respect to the much stronger mobilisation aimed at limiting its action for ethical or environmental reasons.

The signs of this "**hyposocialisation**" of science and technology are many and widespread. As examples, we can mention: the very low appeal of scientific faculties among European young people and their families (especially if compared to the appeal they exert, for example, among Indian or Chinese youth and families); the low status recognised in many European countries to young researchers; the scarce attention devoted to science and technology in many sectors of public administration; the bureaucratic and routine ways of managing many public research institutions; the low quality of scientific teaching in various European education systems; the persisting forms of discrimination of women in scientific careers; the low interest shown by many researchers towards the social and economic value of their

own research which is paid back with the equally low interest towards their research activities manifested by most economic and social actors; the low levels of scientific literacy among Europeans; the strong resistance to technological innovation by important political actors and trade unions.

4. The role of social sciences

The seminar is intended as an opportunity for debate on these issues, starting from a specific question which, in this context, seems to be particularly relevant, i.e., which is and - above all - which should be the **contribution of the social sciences** for the socialisation and, therefore, for the advancement of scientific and technological research.

Social sciences, on the whole, already had the great merit of enabling a new vision of scientific and technological research, also winning a cultural and scientific battle on the social nature of S&T, which was denied overlooked for a long time.

However, there is **another hurdle to overcome**.

Many **aspects of the socialisation** of science and technology are **still unknown** and **do not have a «name»,** while for many others there is a lack of information necessary to describe their salient features; there are few tools available for measuring and evaluating the dynamics of socialisation; the knowledge generated on S&T by social sciences is still not fully shared by many key actors and therefore it remains "locked" within specialised environments. Therefore, social sciences are increasingly required to broaden the spectrum of their analysis, to cope with the unsolved knotty problems of the European research and to improve their own theoretical and methodological foundations in order to successfully cope with these new challenges.

Moreover, with the exception of some disciplines (e.g. economics, political sciences, evaluation sciences), social sciences are still **scarcely involved with decision making processes and in the research policies**, partly because of their scarce orientation to engage themselves in the policy dimension and partly because their contribution is often under-evaluated and viewed as scantily useful.

It is also to recall here the many cultural, organisational and social barriers hindering a **real co-operation between social sciences and natural sciences**; a co-operation which, in certain research fields (such as biotechnology and ICTs) has become indispensable in order to ensure a high quality research. Many of these hindering factors could be effectively coped with and overcome through a closer dialogue between social researchers and natural scientists; however, there are very few institutional or informal settings enabling to develop it.

In this intricate framework, it is therefore necessary to understand how these questions can be effectively treated, which tools are to be used, which actors (universities, national and local administrations, companies, etc.) are primarily to be mobilised and mainly which role can be played by the European Union

In this regards, it is to stress that the European Institutions, particularly the **DG Research** and the **Commissioner Potocnik** himself, in the last years, have already dealt with the problem of strengthening the governance of S&T also through a higher involvement of social sciences (see, for example, the documents delivered by the European Research Advisory Board in preparation of the FP7). Equally relevant is the attention devoted, in the FP7, to the issue of "science in society". Furthermore, the FP7 specifically indicates that social sciences have to be considered in a cross-cutting perspective. They should in fact be utilised not only in those topics that specifically address "social" issues, but should interact with other disciplinary approaches in many fields of scientific endeavour, such as **Environment, Health, Energy or Transport**, in which social conditions and behaviours are of paramount importance not only for understanding the impact of research findings and technological innovation, but also to contribute in the research activity itself.

However, even among **social scientists** the perception of these new opportunities for truly interdisciplinary cooperative research programs is not spread as one might expect and not many are truly answering to the challenge, posed by the FP7, of mainstreaming social sciences in the common scientific field.

Thus, during the seminar, it will be important to debate on how using the resources made available by the FP7 with the aim of identifying, preventing and dealing with the risks and consequences (unfortunately widespread and clearly visible) produced by a limited socialisation of the European research and how fostering stronger and more stable relationships between social

sciences and natural sciences, making the European Research Area a really unique "scientific field" shared by all disciplines and all researchers.