Institute for Advanced Studies on Science, Technology and Society: The Concept

Background and guiding principles

The Styrian economy has been through a rapid restructuring process in the past few years. To put it simply, one could say that this restructuring from a large-scale primary industry to a technology-intensive structure characterised by a great number of small- and medium-sized high-tech companies and a few large technology enterprises has been successful. The concerted orientation of Styrian science and economic policy in line with technology policy guidelines and the increased use of non-monetary, informational promotion instruments (e.g. within the framework of technology clusters) have made an essential contribution to this restructuring process.

The capital city of Graz plays an essential role in these efforts by focusing attention on the promotion of activities relevant to environmental technology: the Ökocluster and Ökoprofit programmes, the establishing of a municipal energy agency and the Cleaner Production Centre, the introduction of a study course in Environmental System Sciences at the University of Graz and a postgraduate study course in Technical Environmental Protection at the Technical University of Graz, environment-related research activities at the University of Graz, the Technical University of Graz, Joanneum Research etc.

It is therefore quite justifiable to say that the province of Styria and the capital city of Graz provide excellent prerequisites for technology-related research. This applies not only to research covering the development of new technologies and products but also to research that makes the products and technologies them-

selves and their consequences the subject of its investigation, such as for instance sociological or ecological technology research. Within this context, a special position is held by the Institute for Interdisciplinary Studies of Austrian Universities (IFF), whose Department of Research on Technology and Science has considerable expertise in the multi- and interdisciplinary approach to technology. A section of this department, the Inter-University Research Centre for Technology, Work and Culture (IFZ; presently fifteen employees) is located in Graz.

The technology research programme at the department follows a two-fold strategy: firstly, research is aimed at finding and developing theoretical approaches that allow the social, psychological, economic and political prerequisites and consequences of technology within selected fields to be reflected. Another focus is placed on developing practical strategies for the shaping and treatment of technologies. Both aspects of this programme must be considered open: the theoretical concern with technology cannot be limited to a reflection of history and the assessment of the effects of technology. It calls rather for the integration of aspects of philosophy, sociology, cultural science, ecology, economy, economics and engineering.

The intention to develop practical strategies for the shaping and treatment of technology can no longer be implemented simply by preparing expert opinions. Technology design means intervening in actor networks in order to create the organisational basis for the use of technological innovations, establishing links between the organisations and actors involved in technology development and technology use and organising joint learning processes.

The two aspects necessarily interact with each other closely. Just as theoretical approaches can only be developed and verified by applying them to tangible tasks, strategies for the shaping and treat-

ment of technologies can only be entrenched within a theoretical context which is able to properly reflect the situation to be shaped.

Such an interaction can only be taken into account adequately if science is interpreted not as a "virtual machine", but rather as a form of communication characterised today by its interdisciplinarity. Interdisciplinarity does not mean relinquishing the consequence and success of individual disciplines in favour of commonplaces. Quite the contrary! The different disciplines constitute a second level of tension in the field of tension between technology theory and technology design. Different methods, perspectives and results, and also different disciplinary cultures and theoretical traditions, which do not merge at a meta-level, outline the contours of the subject matter under investigation in such a way that open problems become visible and allow the scope of decisions to be shaped. Against this backdrop, interdisciplinarity must be open to aspects not directly related to science in a narrower sense. Dealing with "technology" as a social construct in particular extends to fields of arts theory and practice, design etc., thus creating a multi-dimensional field of tension that also constitutes the field of modern science and technology research.

The original contribution of the Institute for Advanced Studies on Science, Technology and Society in Graz, within the context of numerous technology-related research efforts in Graz, will shape and enrich this multi-dimensional field of tension, while at the same time opening it up to international discourse.

Tasks of the Institute

The establishment of an Institute for Advanced Studies on Science, Technology and Society in Graz could constitute an important step towards the further integration of the successful

technological restructuring processes, technology policy initiatives and environmental technology activities in Styria and in Graz into the international academic discourse. The Institute thus assumes a significant networking function both with regard to different actors (university institutes, regional agencies and initiatives) and in the fields of teaching and further education, which are characterised by a lack of coherent courses dealing with these issues. This could be counteracted by the subsequent establishment of university courses in close connection with the Institute. The Institute can also make an important contribution to the international reception of Styrian and Graz-based activities in the fields of science, technology and environmental policy and support their dynamic development.

Specific tasks and characteristics of the Institute

(1) Promotion of the interdisciplinary scientific discourse within the framework of research projects focusing on the interdependence of science, technology, society and culture in the following fields

- Technology genesis
- Technology design
- Technology assessment
- Risk research
- Technology evaluation
- Technology and education

(2) Organisation of lectures and further education courses in the fields mentioned under (1)

(3) Enhancement of the opportunities for scientific contact and cooperation for young scientists

(4) Emphasis on internationality

(5) Scientific postgraduate qualification in the fields mentioned under (1), for example through the establishment of university courses.

Organisation

The IFF – Institute for Interdisciplinary Studies of Austrian Universities (Head: O.Univ.-Prof. Dr. Roland Fischer) is the establishment responsible for the Institute for Advanced Studies. The Department of Research on Technology and Science (Head: O.Univ.-Prof. Dr. Arno Bammé) of the IFF looks after the scientific and administrative organisation of the Institute. This Department has offices in Graz and in Klagenfurt. The Head of the Department of Research on Technology and Science of the IFF is also the Director of the Institute for Advanced Studies. The IFF secures the interdisciplinary orientation of the Institute, while the four supporting universities guarantee a high degree of integration into the Austrian academic environment. The Department of Research on Technology and Science of the IFF can also be considered as a Centre of Excellence in the Institute's focal areas of activity.

The Head of the Department of Research on Technology and Science of the IFF bears the ultimate responsibility for the selection of the Fellows and the awarding of grants. He/she decides on these issues after consulting the Scientific Advisory Board, comprising one representative each from the University of Graz, the Technical University of Graz and the Graz office of the IFF (IFZ – Inter-University Research Centre for Technology, Work and Culture).

Fellows have their own secretariat at their disposal and also have access to the technical library of the Department of Research on Technology and Science of the IFF, which currently houses 8,400 publications.

Fellows

The Institute for Advanced Studies is open to – preferably younger – scientists, who intend to use their stay at the Institute to write scientific publications or perform projects in the focal areas mentioned above and/or wish to continue their education.

To be eligible for fellowship, candidates must have completed university studies. Fellows are encouraged to work on their dissertation or habilitation during their stay at the Institute (the Institute acting as a graduate college). Upon request, doctoral candidates can write their dissertations under the supervision of IFF. Graduates from Fachhochschul courses of study and similar courses can also apply for Fellowship at the Institute for Advanced Studies.

The Institute for Advanced Studies provides Fellows with a workplace equipped with modern information and communications technology and an administrative infrastructure.

Interested scientists can apply for admission to the Institute for Advanced Studies. Applications for Fellowship at the Institute may be submitted to the Director of the Institute, who finally decides on appointment of Fellows, taking into account the recommendations of the Scientific Advisory Board. In order to ensure an interdisciplinary structure and wide variety of methods, the Institute endeavours to appoint Fellows from a wide range of disciplinary backgrounds. Staff members of the University of Graz, the Technical University of Graz and the IFF can nominate

Fellowship candidates for the Institute for Advanced Studies. In the selection of Fellows, special attention should be paid to the internationality and interdisciplinarity as well as the scientific profile of the Institute. The aim is to create interdisciplinary work contexts changing at one- or two-year intervals, thus providing thematic focal points for research and teaching.

The Institute for Advanced Studies can award grants to specially qualified applicants. As a rule, Fellows who are permanent employees should retain their existing employment contract during their stay at the Institute in order to cover their living costs. The Institute may award grants where this is not possible, or to Fellows without an employment contract. Applicants must furnish evidence that no funding can be supplied by their employer or other institution. The Director of the Institute decides on the awarding of grants after consulting the Scientific Advisory Board. Under such grants, the Institute can assume Fellows' travel expenses, living costs and further education costs.

Duration of stay at the Institute for Advanced Studies is usually one academic year (October to September). In exceptional cases, this period may be shorter, but should not exceed two years. There are specific deadlines to be observed in application for Fellowship. If possible, the terms of the academic year should be taken into account. The Institute can – subject to the financial situation – provide about 10 Fellows with the opportunity to work at the Institute each year.

Fellows of the Institute are expected to give lectures and offer further education courses. During their stay Fellows have to present their work at workshops regularly held at the Institute. Fellows are encouraged to conduct research projects in cooperation with staff of the IFF, the University of Graz, the Technical University of Graz and other scientific institutions in Graz and Styria.

In terms of its selection policy, the Institute for Advanced Studies does not impose any restrictions regarding country of origin, discipline or academic position. However, in view of the geographical location of Graz, care is taken to give particular consideration to applicants from south-east and eastern Europe when appointing Fellows. Moreover, the Institute endeavours to appoint an equal number of male and female Fellows.

Fellows have to perform their research work at the Institute and they are obliged to participate in joint events organised by the Institute.