

## There's a Future for FUTUR The FUTUR Process and Its Results

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**Edelgard Bulmahn, the Minister of Education and Research, launched the FUTUR process in the Summer of 2001. Its goal was to identify future priorities for research funding. The intention was to involve a broader segment of the public in the selection of topics than had been the case in the past and, in this way, to make decision-making in science policy more transparent.**

The subjects in FUTUR were to be derived from the opening question: how will our society develop until the year 2020? As their point of departure, the FUTUR topics thus had societal demand and not specific technologies. From the outset it was also clear that the results developed within FUTUR would affect research funding. FUTUR was to elaborate so-called "lead visions" which would then be implemented in concrete projects.

In lead visions, interdisciplinary topics are addressed. Interdisciplinary subjects frequently have difficulties in asserting themselves against the established structures for support (Wissenschaftsrat 2003). Thus FUTUR is also an instrument for the Ministry of Education and Research to evaluate its own structure of funding. New interdisciplinary foci are to replace long-standing but completed specific research programmes.

Research policy has the obligation to present its preferred areas in a way that is comprehensible to the public. The readily understandable presentation of the results of FUTUR in the shape of illustrative "future visions" (scenarios) was thus a component of the process.

FUTUR was carried out as a process of dialogue with around 1,500 male and female experts<sup>1</sup>. A detailed description of the process is contained in publications by Banthien (2002) or the present author (Dietz 2002). In FUTUR value was attached to an equal balance between the social sciences, the humanities, engineering and the natural sciences, between industry, associations and the scientific sector<sup>2</sup>. To kick off the dialogue, the following instruction was provided: all subjects of research can be addressed

in the discussions. The intention was to go in this way beyond the established structure of specific funding programmes. The subjects introduced into the dialogue were developed in several stages and selected partly by the participants and partly by the Ministry of Education and Research. The Innovation Council (Innovationsbeirat), a high-level advisory board of the Ministry consisting of 12 personalities from industry, science and NGOs, played an important role in the final selection. About a year after its start in Summer 2002, four lead visions were presented to the public as the first results from FUTUR. These lead visions are:

- "Healthy and Vital throughout Life by Prevention
- Creating Open Access to Tomorrow's World of Learning
- Living in a Networked World: Individual and Secure
- Understanding Thought Processes"<sup>3</sup>

These four lead visions are to be implemented through research projects. There will be the appropriate calls for proposals this year.

By means of the four lead visions, an approach will be made to tackle undoubtedly central and burning challenges facing our society, to which research can make an important contribution. For example: the lead visions selected address the problems of the ageing society. They are concerned with the future of education and also address the societal changes linked with the new media, e.g. the threat of a digital divide. Thus the lead visions are appropriate for FUTUR's goals.

In the sense of viability and financial resources for implementation, it made sense to limit the first phase to four lead visions. Even so, these are by no means a complete range of current themes for research motivated by societal needs. Further lead visions must be added to achieve a complete picture of research requirements.

Thus FUTUR has not come to an end. There is a need for a roadmap of issues for research and a systematisation of lead visions. FUTUR will continue at least until the end of 2006. Existing experience from FUTUR up to now will flow into a modified concept.

### Experience from the FUTUR Process

FUTUR has been evaluated by an international panel. The evaluation comes to the conclusion that FUTUR was a success. It has been possible to involve a far broader range of actors in the process of selection of topics than is usually the case in similar processes. It was possible to involve non-traditional actors whose perspective goes beyond that of experts in the narrow sense. The requirement of producing concrete results which could have practical impact on support policy within the relatively short period of one year was fulfilled. The evaluation report summarises: "There is a clear case for continuation of this path-breaking experiment which is the first attempt in any country to engage socially-oriented foresight with national research policy making." In this summary, FUTUR is correctly rated as an experiment. The following experience should be considered in the continuation of FUTUR:

1. The results of FUTUR are not particularly original. The problem areas addressed in the four lead visions are well-known and partly the subject of much discussion. This is not surprising if one considers the approach of FUTUR from societal needs: If one starts by asking about the trends which will determine the future of our society in the year 2020, the result will not include many answers from beyond the mainstream. One will receive – in line with the goals of FUTUR – subjects with priority for society. The continuation of FUTUR will attach greater importance to novelty and originality of topics.
2. The concept of involving a larger circle of male and female experts leads to the need for achieving consensus in the discussion groups. Processes to achieve consensus further restrict the originality of results. Participation and the originality of results are thus in a state of tension which has to be balanced in such a foresight process.
3. The aim of FUTUR to achieve as high a degree of transparency in decision making as possible by means of a participatory process was only partially achieved. A survey among the FUTUR participants during the evaluation revealed that, for some, decision-making in the process was not entirely comprehensible. The reason for this was the experimental character of FUTUR: decision making routes and the criteria for decision making have now been clearly defined following the first phase of experimental optimisation.
4. A very broad range of specialist knowledge was essential for the beginning of FUTUR which was open to all subjects. The reason was not to favour certain subjects or to exclude others through the selection of experts. Instead of the "generalists" the next phase requires more and more specialists to focus and develop topics. This change in character of the working groups must be considered in process planning. A participatory foresight process should foresee analytical phases, in which the ideas receive specialist underpinning in the shape of such things as expertises, to follow creative phases.
5. The time pressure to produce lead visions after a mere year led to a high degree of fluctuation in the working groups due to problems of agreeing on dates for meetings as well as to scenario processes restricted in their scope. This suggests a need for greater temporal flexibility. On the other hand, time pressure had the advantage that only a short period elapsed between the first idea and its implementation in support practice, meaning that FUTUR was able to prove its worth as an instrument to react quickly and flexibly to new developments.
6. The task of describing in a comprehensible way the subjects of research support to the public has not yet been solved. The graphic scenarios developed within FUTUR to be able to depict to the average citizen the lead visions in a demand-oriented way are a step in the right direction. There is a need to intensify the discussion of lead visions in the general public in the next phase of FUTUR.
7. FUTUR was an instrument to verify the range of funding programmes provided by the Ministry of Education and Research. For this reason, it was important for FUTUR to be managed independently of the specialist units of the Ministry responsible for research funding. On the other hand, permanent exchange between the results of FUTUR and ongoing support of research in specific programmes is needed to avoid duplication of effort. FUTUR should not lead

to the development of subjects which are already established in ongoing funding. For this purpose, there is a need to foresee in the process planning for FUTUR a systematic exchange of information with the project management agencies responsible for specific programmes on behalf of the Federal Ministry of Education and Research.

8. FUTUR participants have introduced a multiplicity of subjects into the discussion, which are worth discussing, but not all of which have the potential to be developed into lead visions. There was obviously a need to communicate to politics general questions related to research funding. For example, participants suggested discourses on the question of how interdisciplinary research can be organised, the question of ethics and values in industry or the question of young talents in the natural sciences or engineering. A future FUTUR process should give more attention to this demand for dialogue.

### **The Concept for The Continuation of FUTUR**

In FUTUR, there will be two main fields of work in future. On the one hand, the identification of feasible lead visions will remain a principal goal of FUTUR. On the other hand, FUTUR will enter into so-called future dialogues with the interested public.

According to the subject, working groups of experts, young people, senior citizens, entrepreneurs or others will be formed in future dialogues. Future dialogues have the following aims:

1. They serve the purpose of collecting the central future questions facing society, to describe the challenges and possible approaches for their resolution. The overall result of the FUTUR future dialogues is a panorama of questions of the future, and in some cases even an approach to roadmaps to tackle these questions.
2. The future dialogues serve to deepen the participatory approach: the future dialogues will provide an impression of society, on how the various groups in our society view certain questions on the future.
3. Above all they are to communicate to a broader public than in the previous FUTUR

process: Thinking about the future is thrilling. The interface between the future dialogues and the experts from research is to show that research has much to contribute to shaping the future. Future dialogues are thus to encourage thinking about the future. The requirement is that the questions of the future can be compressed into comprehensible future scenarios which have a direct link with the world in which people live.

4. Thanks to the results of the future dialogues, the lead visions should have an even stronger link to society. The lead visions should refer to the central questions of the future from the future dialogues.

The second major goal in FUTUR remains the identification of lead visions that can be implemented. Lead visions should address interdisciplinary subjects and be oriented toward societal needs. Through packaging in lead visions, the Federal Ministry of Education and Research creates visible thematic foci of research policy and reviews and enhances the flexibility of the existing funding structure of the specific programmes. FUTUR will develop about two lead visions per year.

The circle of participants in FUTUR is in principle open. FUTUR is not a closed discussion circle. Interested persons can apply to participate in FUTUR. At the moment, the circle of participants is being updated via a co-nomination process.

The proposals for subjects which have been introduced into the FUTUR process up to now have by no means all been processed. FUTUR will start with these subjects. A new collection of topics resulting in further thematic approaches will start among the participants from Autumn 2003. The list of topics with which FUTUR will start is thus only preliminary:

- Generation of products: Need-driven innovation through customer integration, adaptive products
- Implementation of sustainability between state control and self-regulation
- The silent city
- Change in the structure of services (centrality versus decentralisation)
- The bionic house
- Living in security – risk prevention in the protection of the private sphere

- Healthy nutrition
- Learning from cultural coexistence
- Beyond the family? The development of social cohesion in demographic change
- Changing economic systems
- The energy turning point in transport
- Ethics in research
- The future of education – education for the future.

## Notes

- 1) FUTUR was organised and conceived by a consortium led by the Institut für Organisationskommunikation (IFOK GmbH). The complete consortium is listed in the contribution by Kerstin Cuhls in this issue.
- 2) The 1462 participants in FUTUR consisted of 17.8% social scientists, 16.4% engineers, 22.0% natural scientists, 16.6% economics and law, 6.5% physicians and others.
- 3) Detailed descriptions on the goals and contents of the lead visions are available from <http://www.futur.de>

## Literature

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## On Key Issues of Foresight: Participation, Prioritisation, Implementation, Impact

Report on the "Futur-Workshop" in Berlin, December 13 - 14, 2002

by Knud Böhle, ITAS

On December 13 and 14 of last year, an international workshop took place in Berlin on "*Participatory Priority-Setting for Research and Innovation Policy – Concepts, Tools and Implementation in Foresight Processes*". The event was part of „Futur – The German Research Dialogue“. Its outstanding characteristics are the involvement of a broad range of societal groups in the dialogue, its wealth of methods (e.g. panels, future workshops, open space discussions, online-voting), and the expected implementation of „lead visions“ generated by this process at the level of research funding policies of the German Ministry of Education and Research (BMBF). In December 2002 *Futur* had already worked out four „guiding visions“. One of them "Understanding Thought Processes" was about to be adopted as a guideline for research and innovation policy by the BMBF. The evaluation of *Futur* by a panel of international foresight experts was in its final phase, and Luke Georgiou (PREST, University of Manchester) chairman of this group presented preliminary results, some of which will be later referred to. The final results of the evaluation were delivered 28<sup>th</sup> of May 2003. As project *Futur* is well documented, and also subject of an article by Volkmar Dietz in this issue (see page 29 ff.), it needs no further introduction here.<sup>1</sup>

The workshop was organized by two of the *Futur* consortium members, namely IFOK (Institute for Organisational Communication) and FhG-ISI (Fraunhofer Institute for Systems and Innovation Research). Speakers invited beyond the *Futur* context were renowned experts closely related to recent foresight or TA exercises in their countries. In order of appearance: Terutaka Kuwahara, National Institute of Science and Technology Policy (NISTEP), Japan; Peter Waller, Young Foresight, UK; Ahti Salo, Helsinki University of Technology, Finland; Thomas Durand, CM International, France; Jan de Wilt, Innovation Network Rural Areas and Ag