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Greek National Technology Foresight Programme Perceived Impacts and Success Factors

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Purpose

The brief presents findings about perceived impacts and success factors of the Greek National Technology Foresight Programme. The Greek National Technology Foresight Programme itself was described in detail in EFMN Brief No. 12. The main aim of the programme was to develop a set of key guidelines to assist the central administration in designing the national research and innovation policy, on the one hand, and the business world in its strategy planning, on the other.

Towards the Greek Knowledge Society

The Greek National Technology Foresight Programme (NTFP) focused on investigating how science, research and technology were expected to contribute in shaping the Greek 'knowledge society' with the time horizons 2015 and 2021. It was initiated to help face the big challenge of the country: to achieve real convergence with other EU economies in terms of quality-of-life for the average citizen and to manage its transition to a 'knowledge society' without excluding important segments of the population.

This target was set also in response to the strategic goal agreed on by the Lisbon European Council (2000) that the EU should 'become the most competitive and dynamic knowledge-based economy in the world'.

The implementation of the Greek NTFP was funded under the Operational Plan for Competitiveness 2000-06, the main na-

tional research policy instrument co-funded by the Community Support Framework and the Greek state. It aimed at guiding the General Secretariat for Research and Technology (GSRT) in forming the national research and innovation policy for the coming years. An additional aim was to assist the business world in its strategy planning. The pursuit of these objectives also had to take into account the respective Barcelona European Council target (2002) that the R&D expenses in the EU should reach 3% of GDP with one third coming from industry. The respective target set for Greece was 1.5% until 2010.

Evaluating the Greek Programme

Although almost five years have passed since its completion, no evaluation of the programme has been conducted. A first attempt to record the impacts of the programme was made by the author for academic purposes (Amanatidou, 2010).

As there is no official and complete evaluation so far, the paper was primarily based on the final programme reports, foresight evaluation literature, anecdotal evidence and views of the



initiators and the participants. Nine interviews were conducted for this purpose based on a specific template with members of the contractor, the client, the expert panels, and the Interna-

tional Advisory Committee that was set up. The present brief reports on selected findings and conclusions from the research.

Evaluation Framework Functions, Impacts and Factors

The evaluation framework consisted of three major building blocks: identification of the main foresight *function* of the specific programme, of the consequent *impacts* that were realised in relation to the specific function and beyond, and of the *associated factors* that affected the course of the programme.

According to the relevant literature (Da Costa, et. al. 2008), foresight programmes may serve three major functions associated with certain rationales and objectives:

- **Informing policy:** supply of anticipatory intelligence to improve the knowledge base for policy conceptualisation and design, including agenda setting and strategic counselling;
- **Facilitating policy implementation:** creating linkages, interfaces, knowledge flows and networks across diverse groups of people or organisations, building advocacy coalitions, and providing platforms for joint learning and thus improving the implementation of policies or the ability of the system to initiate and keep up innovation processes;
- **Embedding participation in policy-making:** by providing social forums for strategic reflection, debate and action and thus improving governance by supporting inclusiveness and increasing transparency and legitimacy.

Foresight exercises usually have elements of all the different functions. However, a greater focus on one function may sometimes be evident. In turn, foresight exercises present a variety of impacts that can be clustered under the three major functions. The ‘informing policy’ function, for example, leads to impacts referring to

- a) **‘improved knowledge base about the future’** (e.g. increased awareness of risks or detection and analysis of weak signals),

- b) **‘framing knowledge for policy support’** (e.g. agenda setting) or
- c) **‘capacity building’**.

The ‘facilitating policy implementation’ function relates to impacts in terms of

- a) **‘collective learning and knowledge creation’** including e.g. the development of shared visions,
- b) **‘foresight culture development’** (e.g. strategic thinking capabilities or capacity to engage in foresight),
- c) **‘improved decision and policy-making’** (e.g. better management of pressures and challenges),
- d) **‘improved system actors and inter-actor relations’** (e.g. improved communication and collaboration),
- e) **‘improved policy systems’** (e.g. overcoming path dependency and lock-ins).

The function ‘embedding participation in policy-making’ relates to impacts like **‘strengthened role of society’** or **‘improved governance’** by, for example, broadening participation and democratic renewal.

The appearance of these impact types is dependent on certain factors. The literature is rich in terms of factors considered to influence foresight and related endeavours. While some refer to elements internal to, and thus controllable by, the foresight exercises, there is a variety of others that refer to equally important, external, elements that fall outside the control of the foresight exercise. The internal factors include those related to the internal foresight elements, like actors and stakeholders, the objectives and scope, the methods and processes of an exercise as well as the inputs and outputs. External factors include factors related to the external environment where foresight is applied, that is the institutional context, structures, socio-cultural, and governance features (Amanatidou and Guy, 2008).

Greek Foresight Programme – Informing Policy

Interviewees stated that the Greek programme mainly served the first foresight function: informing policy. The participatory elements of the methodology (stakeholder consultation, sectoral and thematic panels and scenario workshops) also associate it with the third function although just in methodological terms.

The impacts that were identified confirmed the primacy of the ‘informing’ function. According to the interviewees, primary

impacts included better informed strategies and policies for the sectors examined, increased awareness of risks, detection and analysis of weak signals of scientific, technological or socio-economic developments potentially capable of disrupting the current state of affairs (but only in terms of pushing people to learn about things outside of their field of sight), and strategic thinking and vision building capabilities. Secondary impacts included agenda and priority setting (broadly for the sectors examined but not specifically for the research and innovation policy element in the sector), better understanding of strengths, weaknesses, opportunities, threats and dynamics of change (for each sector examined), and increased experience in using foresight tools. Other impacts that were less achieved

were the disclosure of hidden agendas and obstacles, and the use of foresight within organisations and other settings.

The interviewees also recognised impacts in relation to facilitating policy implementation. These had to do mostly with collective learning and foresight culture development in the sense of stimulating the application of foresight via improved

communication and collaboration and the creation of new networks. It is remarkable, however, that even though the second aspect of the main aim of the exercise targeted the business world, the interviewees noted no case of linkages and networks between industry and research. An exception may have been the panel for defence, which attracted the interest of a considerable number of firms.

Success Factors & Obstacles

As noted above internal factors can be grouped under four headings: actors and stakeholders, objectives and scope, methods and processes, and inputs and outputs.

Too Little Involvement of Policy-makers

Concerning the actors involved in the Greek programme, in general the most important ones were invited to participate. However, the degree to which the most important stakeholders were indeed engaged in each of the panels varied considerably. As regards public officials, they were included as silent observers on the side of the 'client' rather than as active participants. Other policy-makers were engaged mainly at the dissemination phase rather than during the implementation. This had a negative affect on the relevance of the outputs with regard to the needs of the 'client'.

Expectations Not Clearly Communicated

The objectives were rather vague or general, which also negatively affected the focus and scope of the exercise as set by the client. The fact that the programme had a definite client might have been a positive factor. However, it was counterbalanced by the inability to establish a clear understanding about the needs of the client and the expectations regarding the programme.

The programme seems to have suffered from a major misunderstanding about what the GSRT wanted and what the contractor understood they wanted. GSRT wanted to focus the exercise on informing policy and setting research priorities to inform policy documents. According to an interviewee, this was the area that the exercise contributed less to. The work of the panels (albeit with exceptions) focused much more on the sector(s) they were dealing with as a whole and failed to pay specific attention to the contribution of research and innovation to the sector(s) in question. The results were thus not as usable as expected.

More Fine-tuning of Methods Needed

The methodology had some unclear points especially in relation to synthesizing all the different outputs and scenarios into a comprehensive outcome of high quality and relevance for GSRT.

The main methods applied (stakeholder consultation, thematic panels and working groups) facilitated social interactions. However, most of the participants were from the academic

world, thus leading to a more 'academic' type of discussions that might have hindered a strong focus on clear and practical conclusions and recommendations. In addition, they fell short in producing non-trivial results in terms of really looking into and developing designs for the future.

As some interviewees put it, the process stumbled over the inability of Greek people to think collectively and systematically and organise themselves with regard to the future. Additionally, the scenario approach was novel and the training provided fell short of providing adequate instructions and guidance.

The above factors resulted in a varied quality of the outputs of the different panels. The cases where effective interactions and communication were achieved, in combination with knowledge of the chair-person and rapporteur about foresight methodologies, were the ones that presented highly relevant and high quality outputs. These cases provided a fertile environment for network creation that lead to the positive impacts mentioned above.

Results Lacking Usability for Policy Implementation

The external factors, as mentioned above, have to do with the institutional context, structures, socio-cultural, and governance features. In terms of the institutional context, the programme enjoyed some positive characteristics. It was closely linked and compatible with GSRT's strategy as the major actor of national research and innovation policy in Greece. It was also carried out in time to feed the results into the research policy component of the National Strategic Reference Framework 2007-2013.

However, the lack of understanding and effective communication between the client and the contractor led to the production of valuable results but not necessarily of results relevant to the needs of the client. The networking under the programme was achieved at the individual rather than organization level. Thus, the fragmentation among the actors in the national research and innovation system remained. In fact, it was a major obstacle to the overall success of the exercise and the uptake of the results.

Stakeholder Participation Achieved

On the positive side, it was remarkable to see that over 700 people expressed interest in participating in the various programme panels and structures even though the tradition of public consultation and similar endeavours is rather absent in Greece. The process that highly promoted wide participation and inclusiveness is considered to have positively affected,

even if not to a large extent, the ‘behind closed doors’ decision-making tradition.

However, the programme, which started with enthusiasm, gradually lost both in importance and attention received. The change in government during the course of the programme might also have caused a less favourable disposition towards the results even if the results had been totally relevant and directly usable.

Overall, the programme contributed to raising societal awareness and created a focus on the knowledge society and economy. It also managed to gather a lot of information on research in a single location and exercise, which in itself is a positive outcome given the fragmentation of the system. Yet, due to the wide range of activities and stakeholders involved, it was overambitious. The impact was definitely not transparent given the size of the exercise.

A Starting Point for Upcoming Foresights

In retrospect, the Greek foresight programme was an ambitious endeavour. It was an innovation for the socio-cultural environment in Greece. Yet, the exercise managed to bring together diverse stakeholders with different starting points, interests, and objectives even just for little more than the sake and lifetime of the exercise. Even to a limited degree, it made the participants think about the future and especially a collective (and not individual) future in a systematic way.

The Greek NTFP is a good example of how certain factors interact and strengthen or cancel one another. For example, the fact that there is a definite client does not guarantee implementation of results if good communication with the contractor to ensure high quality and relevance is not established. In turn, if policy-makers are not actively involved from the outset, good communication and relevant results are hard to achieve.

Positioning foresight close to policy-making is not enough if the interest in the results is limited or if their uptake comes up against the fragmentation of the research and innovation system.

The need for in-depth training and coaching cannot be emphasized enough. The Greek case is a good example of applying foresight in a socio-cultural and institutional environment not accustomed to such endeavours. In such cases, it may be wiser to start gradually with exercises of a smaller scale and focus so as to establish credibility both in procedure and content before going on a full scale exercise. Training and use of international expertise are crucial for this initial phase. The Greek NTFP should be considered as a chance and starting point for engaging social actors and creating networks. It should be thought of as a field for testing notions, methods and techniques that were implemented in Greece for the first time.

Foresight is a field where the occurrence of such ‘informal’ impacts has proved as valuable as the achievement of the ‘formal’ ones. This makes imperative a complete and thorough assessment of the exercise now that more than five years have passed.

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About the EFP: Policy professionals dealing with RTD, innovation and economic development increasingly recognize a need to base decisions on broadly based participative processes of deliberation and consultation with stakeholders. Among the most important tools they apply are foresight and forward looking studies. The EFP supports policy professionals by monitoring and analyzing foresight activities and forward looking studies in the European Union, its neighbours and the world. The EFP helps those involved in policy development to stay up to date on current practice in foresight and forward looking studies. It helps them to tap into a network of know-how and experience on issues related to the day to day design, management and execution of foresight and foresight related processes.