



Munich Personal RePEc Archive

The relevance of foresight for accession countries and possibilities for co-operation

Havas, Attila

Institute of Economics, Hungarian Academy of Sciences

April 2003

Online at <https://mpra.ub.uni-muenchen.de/49562/>

MPRA Paper No. 49562, posted 06 Sep 2013 20:39 UTC

THE RELEVANCE OF FORESIGHT FOR ACCESSION COUNTRIES AND POSSIBILITIES FOR CO-OPERATION

ISSUE:

Accession countries, faced with the same challenge of joining the EU while still characterised by their own distinct level of socio-economic development, set of institutions, culture and norms, can benefit significantly from conducting foresight programmes. Yet, foresight should not be conducted for its own sake – just because it is becoming “fashionable” throughout the world, and currently being promoted by the EU. On the contrary, there should be a strong link between foresight, decision preparation and policy-making.

RELEVANCE:

Foresight has now reached a point, at which different approaches can be compared to highlight ‘good practices’: what has worked in certain circumstances (level of development, challenges and hence policy aims), and thus what set of tools and approaches are likely to be useful in different environments. International co-operation, therefore, can be extremely useful for accession countries in various ways. The simplest one would be to share information, exchange experience, as well as compare methods and achievements, i.e. to learn from each other. A more ambitious way could be to conduct joint foresight programmes on issues that go beyond the national boundaries, such as accession countries’ role and prospects as members in the new, enlarged EU, scope for their re-invigorated co-operation in those new settings, etc. However, trans-border foresight exercises would also require adequately adapted or even entirely new methods and techniques.

ANALYSIS:

ACCESSION CHALLENGES AND FORESIGHT

Fundamental technological, organisational and structural changes exert an ever increasing pressure on all countries to adopt, that is, develop and implement adequate strategies to enhance international competitiveness, and thus being able to improve quality of life of their population. Accession countries (ACs) face all these tasks, but some of those are even more demanding for them than for advanced countries: they need to put more emphasis on changing attitudes and norms in general, developing new skills for decision-makers and workers, facilitating co-operation between policy-makers, businesses and researchers, as well as among firms (large and small, foreign and domestic), and balancing their budgets. Moreover, most ACs also have to cope with the challenges of transition from central planning to market economy: loss of former markets (hence the need to find new ones); weak international competitiveness; relatively poor quality of life and brain drain. These all point to the need to devise an appropriate development strategy, together with a sound innovation policy as one of its cornerstones, and strengthen their innovation systems.

Foresight – as a systematic, participatory process, collecting future intelligence and building medium-to-long-term visions, aimed at influencing present-day decisions and mobilising joint actions – can be a useful tool in meeting these challenges. (EC, 2002) It helps in making choices – and shaping our future – in an ever more complex situation by discussing

alternative options, bringing together different communities with their complementary knowledge and experience. In doing so, and discussing various visions with stakeholders, it also leads to a more transparent decision-making process. Foresight processes can reduce certain types of uncertainty, too: participants would learn about each other's broad strategic goals, moreover, can align their endeavours once they arrive at a shared vision. Many governments have already realised the importance of foresight activities, and thus this relatively new technology policy tool is spreading across continents. (Fleissner, 1998, Gavigan and Cahill, 1997, OECD, 1996, *Technological Forecasting and Social Change* [Vol. 60])

Foresight can also contribute to tackle yet another challenge of ACs: most of them are struggling with 'burning' short-term issues – such as pressures on various public services, e.g. health care, education, pensions and thus severe budget deficit; imbalances in current accounts and foreign trade; unemployment; etc. – while faced with a compelling need for fundamental organisational and institutional changes. In other words, short- and long-term issues compete for various resources: capabilities (intellectual resources for problem-solving); attention of politicians and policy-makers who decide on the allocation of financial funds; and attention of opinion-leaders who can set the agenda (and thus influence discussions and decisions on the allocation of funds). These intellectual and financial resources are always limited, thus choices have to be made. A thorough, well-designed foresight process can help identify priorities, also in terms of striking a balance between short- and long-term issues.

Foresight, however, is not a panacea; it cannot solve all the above problems, and cannot even solve any of them just on its own.

LEVEL AND SCOPE OF FORESIGHT

The 'maturity' of foresight reached a point, at which it can be classified. (Barré, 2001, 2002, Johnston, 2002, Renn, 2002) In other words, no 'optimal' approach or any form of 'best practice' can be identified, yet, taxonomies can be developed to highlight 'good practices': what has worked in certain circumstances (level of development, challenges and hence policy aims), and thus what set of tools and approaches are likely to be useful in different environments.

Foresight programmes can be either holistic, or just concentrate on particular technologies or business sectors. Holistic programmes, in turn, may have rather dissimilar foci, ranging from the identification of priorities in a narrowly defined S&T context to addressing broad socio-economic needs. They can have different geographical scopes, too, i.e. they can be conducted at international (group of countries, collaborating regions transcending national borders), national, regional, local, sectoral or firm level.

Foresight programmes can be product or process-oriented, depending on the policy needs to serve, e.g. informing specific decisions with analytical reports, list of priorities, recommended actions vs. facilitating networking, communication and co-operation among key players. These programmes can be supported by a number of analytical and participatory methods ranging from desktop research, expert discussions and brainstorming, SWOT- and trend analyses, scenario-building, Delphi-survey, to various forms of stakeholder involvement (workshops, consensus conferences). Some of them are exploratory in their nature (starting with the present situation and then identifying potential future states), while others are normative ones (describing desirable futures and asking what paths could lead there). In

certain contexts, for certain purposes quantitative methods are more relevant, whereas in other cases qualitative ones can or should be used. (Cuhls *et al.*, 2002, FOREN, 2001)

Needless to say that the broad aims, scope, orientation, geographical level, participants and methods are closely interrelated. Although one can come up with a large number of combinations on paper, only several of them are feasible in practice: they cannot be ‘mixed’ freely. In other words, relevant policy needs should be addressed by applying appropriate tools, and involving relevant players. Given the wide choice of aims and techniques, it is of utmost importance to develop a clear programme concept at the outset, and then design a consistent, thorough project plan.

So far two ACs, Hungary and then the Czech Republic, have concluded holistic foresight programmes at a national level, following different approaches. Hungary took a broader approach, focussing on socio-economic issues, and hence methods were similar to the ones applied in the UK. (Havas, 2003, www.tep.hu) The Czech programme, on the contrary, aimed at identifying S&T priorities, and thus applied a modified version of the so-called key (or critical) technologies method. (www.foresight.cz) This difference has confirmed that context does matter: even countries with a more or less similar history, facing similar challenges on the whole and being broadly at a similar level of development can opt for different foresight approaches/ methods. Other ACs might consider taking somewhat different routes, given their own specific circumstances and goals. It all depends on the policy challenges, as well as on the policy environment: if decision-makers strongly favour a certain approach, it is definitely not a good idea to try to push through a drastically different programme design – even if it might seem to be relevant from an abstract theoretical/ methodological point of view.

THE DESIGN AND USE OF VARIOUS FORESIGHT METHODS IN ACCESSION COUNTRIES

The proposals below are formulated in the conceptual framework of the so-called innovation system approach. This understanding of the innovation process emphasises the importance of communication, mutual learning and co-operation among various actors (e.g. scientists and engineers, business people and policy-makers), strengthening the existing – and building new – institutions, formal and informal networks conducive to innovation. It is systemic as well, in the sense that a successful innovation process encompasses not only technological elements (inputs, actors and factors) but economic, organisational and social ones as well. (Lundvall and Borrás, 1999; OECD, 1998)

Given the specific accession challenges, it seems to be more appropriate to start with a holistic foresight programme at a national level. Then, relying on the various results achieved this way – including not only the information collected and analysed, reports published, but also the skills and experiences accumulated, as well as the so-called process results – sectoral and/or regional foresight programmes can be launched with a higher probability of success. Some countries, however, might find it more appropriate to launch sectoral or regional programmes as pilot projects to ‘test’ the willingness of potential participants, collect experiences about various techniques, etc., that is, to use these pilot projects as ‘on-the-job’ training and preparation for their future national foresight programme.

In any case, the organisation and the management of any foresight programme is crucial:

- The design of the programme should take into account the level of the socio-economic development; the size of the country in question; the socio-psychological legacy of central planning; the overall communication, co-operation and decision-

making culture (norms, patterns, written and tacit rules); the legal, organisational and institutional framework, etc.

- Objectives should be formulated clearly at the very beginning. To juxtapose two extremes, a foresight programme can be:
 - confined to assist the decision-making process of setting narrowly defined R&D (as mentioned above, that was the case in the Czech Republic, accordingly the ‘key technologies’ method was used); or
 - geared towards broader socio-economic needs and problems of a country in question, i.e. what is the role of S&T developments, various policies and regulation in solving these broader problems, what are the responsibilities of the various actors: government, scientists and researchers, businesses, NGOs, families, individuals? (that was the approach taken in Hungary)

Given the challenges of enlargement in general, and the very nature of the systemic changes in the case of transition countries, it seems appropriate to stress the importance of ‘visions’ (‘futures’, or fully fledged scenarios) for ACs both at panel (i.e. micro or mezzo) and macro levels. Visions (scenarios), however, have been mainly used at micro level so far (e.g. in the case of the UK, Portugal, Sweden and Spain), with the exception of Hungary and South Africa. Yet, it is not an elementary, evident task to combine micro and macro visions. (Havas, 2003) Obviously, there is a need for methodological innovations in this respect.

If the panel method is to be applied, the decision on the issues for panel discussions/ reports is also crucial in terms of the expected output. One possibility is to set up panels to analyse various disciplines and/or economic sectors (e.g. the first UK foresight programme). A different approach would be to analyse broader socio-economic issues, like human resources, health, environment, business processes, of course with a strong emphasis on technological drivers/ opportunities, too, in that context (see e.g. the Swedish and the second UK foresight programmes). Again, taking into account the various accession challenges, the latter approach is clearly more appropriate for ACs.

The process of accession also calls for explicit policy recommendations (as opposed to, e.g. the German and Japanese foresight exercises). Again, the decisions on the objective, methods and scope (if it has a technological or a broader socio-economic focus) of the programme would influence the issues for policy proposals (e.g. narrowly defined S&T policy vs. human resources, various fields of regulation, competition, innovation, FDI and regional development policies, institution- and network-building).

Besides panel discussions/ reports, a Delphi-survey can also be useful in ACs. Its benefits are threefold: (i) it collects information (experts’ opinion), but (ii) also disseminates those pieces of information, and by doing so, contributes to consensus building or identifies dissenting views, and (iii) usually it involves more participants in the process (as opposed to the case when only panels are included). However, it should be carefully designed, and certain aspects need to be considered thoroughly. Just to give a few examples:

- Is there a sufficient number of technical/ technological experts to conduct a large-scale postal survey, or is it better to use it as a supporting tool at experts’ meetings?
- What structure is more appropriate: the traditional one aimed at collecting opinion or the more decision-oriented Austrian version?
- What is the appropriate balance between the strictly technological and non-technological issues in the Delphi-statements?

- What are the appropriate questions, i.e. the column headings (taken into account the nature of statements/ issues and the country characteristics)?
- What is the appropriate size of the questionnaire (the number of statements and questions)?

For a successful, effective foresight programme strong emphasis should be put on organising awareness raising seminars in the first stage, and then on continuous, wide-ranging dissemination, discussions in parallel with the analytical activities. It is needless to say that without a carefully designed dissemination and implementation most of the efforts and resources committed to the programme (time of experts, tax-payers' money to cover the organisational and publication costs) would be wasted.

In sum, it is not only the 'products' – i.e. the different documents, final reports, policy recommendations – that are important results of a foresight programme, but also the 'process' itself, namely disseminating a new, participatory, transparent, future-oriented decision-making method; intensified networking, co-operation and institution-building activities. In other words, a foresight programme can contribute to the strengthening of the national system of innovation in two ways: through reports, recommendations as well as via facilitating the communication and co-operation among various professional communities.

CO-OPERATION AMONG ACCESSION COUNTRIES

There is an obvious scope for co-operation among ACs. Most of them are relatively small, and have not accumulated much experience with foresight, while facing a number of similar structural challenges. Thus, it can be extremely useful to exchange experiences on methods applied in various countries, as well as identifying success and failure factors. Moreover, some analytical activities on issues going beyond national borders might also be harmonised if there is a mutual interest in doing so. In other words, it cannot, and should not, be imposed by any national or international player. However, various international organisations, notably the EU and UNIDO, as well as national governments and professional associations might play a crucial role in facilitating this co-operation.

The EU, especially, as a sponsor of two foresight projects in accession countries,¹ can contribute significantly to achieve synergies and economies of scale in a number of ways. A well-designed co-operation among the players would assist local (national) capacity building and regional (trans-border) networking by

- promoting interactive learning through joint, tailored workshops (i.e. not a one-way flow of codified knowledge at traditional training seminars) to develop skills and generate shared tacit knowledge. The most important issues are the benefits and drawbacks of various foresight techniques (methods) in the context of accession.
- facilitating future co-operation among major players (once accession is completed) by establishing good, mutually beneficial working relations, i.e. building trust through actual co-operation during the national/ regional foresight programmes.

This type of regional co-operation can also help in exploiting economies of scale (compensating for insufficient intellectual resources in highly specialised fields, be they technical, socio-economic or policy expertise). Some possibilities to kick-off this co-operation are:

- producing (commissioning) joint background studies on major technological and socio-economic drivers (relevant for the co-operating accession countries). More in-depth, context-specific analyses, of course, should be conducted and policy conclusions should be drawn as part of the national foresight programmes.
- devising scenarios on European/ global developments (if scenarios are to be used in the various national programmes);
- building partially aligned scenarios (the structure of scenarios might be partially co-ordinated, in other words some ‘variables’ might be the same, while their actual ‘value’ would differ country by country).

Once co-operation starts, other issues to be discussed jointly and further possibilities for building capabilities and sharing resources, exploiting economies of scale are likely to be identified by the participants themselves. In other words, any rigid ‘blueprint’ for this co-operation might be counter-productive: insisting on a detailed plan (methods and milestones) might cause more harm than good.

International co-operation, however, poses a significant challenge, too: the broader the geographic scope of a programme is, the more difficult and costly is to maintain its participatory character. Moreover, when participants are coming from different countries – in terms of level of development, norms, ways of thinking, values, behavioural routines – it is not only a question of travel time and costs to organise and facilitate meaningful workshops. In that cases potential communication problems should be taken into account carefully when preparing these meetings: possible gaps should be identified in advance, and efforts have to be made to bridge them as well as to remove other obstacles to fruitful discussions. Of course, not all the problems can be envisaged, i.e. some ‘slack’ (e.g. extra time for clarification, reconciliation, other means to exchange ideas) should be allowed for that.

Another important direction to advance methodology – mainly via experimentation, i.e. including ‘action research’ – is to develop and test various methods e.g. for virtual meetings; electronic discussions; arranging and exploiting feedback from a series structured, ‘aligned’ meetings held separately across various countries on the same set of problems (allowing for somewhat different approaches, and yet following the same broad lines of discussions); on-line questionnaires with (almost) real-time (‘instant’) feedback; etc.

CONCLUSIONS

To conclude, foresight can be a useful tool for ACs to devise adequate strategies for the coming years when they continue to be faced with the multiple, complex challenges of building a significantly enlarged, new EU, while fundamental changes occur in the global structures, too. However, the success of any foresight programme depends on the match between its context (level of development, and hence the policy challenges of a given country), scope, goals, methods and participation. In short, it has to be carefully designed. Further, it is crucial to prove the relevance of foresight for decision-making: its timing and relevance to major issues faced by societies, as well as the level of its ‘products’ – reports and policy recommendations – are critical. Only substantive, yet carefully formulated proposals can grab the attention of opinion leaders and decision-makers, and then, in turn, the results are likely to be implemented. Otherwise all the time and efforts of participants put into a programme would be wasted, together with the public money spent to cover organisational and publication cost. The so-called process results – e.g. intensified networking, communication and co-operation among the participants – still might be significant even in

this sad case, but they are less visible, and much more difficult to measure. Thus, the chances of a repeated programme – when it would be due again given the changes in the circumstances – are becoming really thin.

International co-operation can enhance the chances of success by sharing lessons, easing the lack of financial and intellectual resources through exploiting synergies and economies of scale. Yet, its more ambitious form, i.e. a joint foresight exercise on trans-border issues also necessitates methodological innovations. International organisations can also facilitate foresight programmes in ACs, and more specifically collaboration among these countries. It is crucial, however, to maintain the commitment of local actors, e.g. in terms of time and funds devoted to the programme, willingness to implement of the results. In other words, the main forms of foreign assistance should be the provision of knowledge-sharing platforms and other fora to exchange experience (among ACs as well as with advanced countries), monitoring and evaluating ACs' foresight initiatives.

KEYWORDS:

foresight, innovation systems, accession challenges, international co-operation in foresight

REFERENCES:

- Barré, R. *Synthesis of Technology Foresight*, in: Strategic Policy Intelligence: Current trends, the state of play and perspectives, p. 71-88, ESTO, IPTS Technical Report Series, EUR 20137 EN, Sevilla, 2001.
- Barré, R. Foresights and Their Themes: Analysis, typology and perspectives, in: The role of Foresight in the Selection of Research Policy Priorities, 13-14 May, 2002, Conference papers, p. 88-109
- Cuhls, K., Blind, K. and Grupp, H. Innovations for our Future, Delphi '98: New foresight on science and technology, Physica-Verlag, Heidelberg, 2002.
- EC DG Research, Thinking, debating and shaping the future: Foresight for Europe, final report of the High Level Expert Group, Office for Official Publications of the European Communities, Luxembourg, 2002.
- Fleissner, P. (ed.) Recent national foresight studies, IPTS, Sevilla, 1998.
- FOREN, A Practical Guide to Regional Foresight, Foresight for Regional Development Network, European Commission, Research Directorate General, Strata Programme, Brussels, 2001. (also at: <http://foren.jrc.es>)
- Gavigan, J.P. and Cahill, E. Overview of recent European and non-European national technology foresight studies, IPTS, Sevilla, 1997.
- Havas, A. Evolving Foresight in a Small Transition Economy, Journal of Forecasting, forthcoming, 2003.
- Johnston, R. The State and Contribution of International Foresight: New challenges, in: The role of Foresight in the Selection of Research Policy Priorities, 13-14 May, 2002, Conference papers, p. 59-74
- Lundvall, B-Å. and Borrás, S. The Globalising Learning Economy: Implications for innovation policy, Office for Official Publications of the European Communities, Luxembourg, 1999.
- OECD, Government Technology Foresight Exercises, STI Review No. 17 (special issue), OECD, Paris, 1996.

- OECD, *New Rationale and Approaches in Technology and Innovation Policy*, STI Review No. 22 (special issue), OECD, Paris 1998.
- Renn, O. Foresight and Multi-level Governance, in: *The role of Foresight in the Selection of Research Policy Priorities*, 13-14 May, 2002, Conference papers, p. 35-45

NOTES:

1. These are eForesee, “Gearing the Small Candidate Countries up for Foresight” (www.eforesee.info) and ForeTech, “Technology and Innovation Foresight for Bulgaria and Romania” (www.arc.online.bg/foretech).

ACKNOWLEDGEMENTS:

This paper draws indirectly on the lessons of TEP, the first Hungarian Technology Foresight Programme, the results of various EU foresight projects, which the author has participated in since 1997, as well as on the discussions held with experts and policy-makers at international workshops and conferences. Comments and suggestions by three anonymous referees on earlier drafts are gratefully acknowledged. The usual disclaimer applies.

CONTACTS:

Attila Havas, Institute of Economics, Hungarian Academy of Sciences
tel. 36-1-309 2664
fax: 36-1-319 3136
e-mail: havasatt@econ.core.hu