

Summary sheet

**Common Features and National Differences
– Preliminary Findings –**

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The comparison of the eight Foresight exercises chosen for the first phase of analysis within FISTERA proceeds in three steps: (1) some general indicators are used to highlight country differences, (2) then six foresight features (scope, duration: time horizon, main motivation, methods, and participation) are compared, and (3) existing Foresight typologies are used to classify and compare the eight studies.

Data from Eurostat and OECD reveal the expected differences in terms of GDP, GERD, and GBAORD. What is interesting is the relatively equal purchasing power per capita in the EU countries. The high GERD of Sweden and the relatively high one of the Czech Republic are also interesting. Looking at some IST-specific indicators like ICT market value, the relatively high ratio of the two accession countries is worth highlighting, and the relatively weak position of Spain. In our opinion this type of indicators can really help to clarify differences and to raise Foresight relevant questions.

The comparison of case study parameters leads to the following picture:

Austria – Delphi Austria

Name	Delphi Austria
Scope	7 problem-oriented fields in Technology + 7 in society/culture Delphi
Duration:	1996 to 1998
Time horizon	15 years, in Society and Culture Delphi additionally 5 and 30 years
Main Motivation	to find R&D niches and niche markets (“to identify Austrian strength in R&D with sustained future potential”)
Methods	Surveys Panels Delphi (decision Delphi) / Technology Delphi + Socio-cultural Delphi
Participation	Technology Delphi: 10 to 20 expert for 7 thematic fields, 128 experts in total; Society and Culture Delphi: similar size;

Czech Republic – Technology Foresight 2002

Duration:	2001 – 2002 (1 year)
Scope	14 thematic fields; 3 cross-cutting subject matters;
Time horizon	10 years
Main Motivation	Draft the National Research Programme; including identification of key technologies
Methods	Expert panels; foreign advisors, expert interviews

Germany – Futur : The German Research Dialogue

Duration:	2001 – 2002 (ongoing)
Scope	Refining from 10,000 keywords to 25 subjects of societal demand, and to 6 prioritized fields for which future scenarios are produced and which will be implemented.;
Time horizon	20 years
Main Motivation	to provide input for the strategic research funding policies of the BMBF by means of an orientation towards societal goals, aiming at connecting the needs of the society with technological and social innovation; societal problem-oriented; shared awareness
Methods	Workshops, open space discussions, panels / scenarios – lead visions / future workshops / electronic communication (online-voting) / roadshows /
Participation	Broad societal participation (e.g. schools, artists) , general public

Spain – Technological Foresight Programme (OPTI)

Duration:	1998 – 2001 (ongoing production of deliverables)
Scope	8 industry sectors; 3 sequential foresight studies were devoted to each of the economic sectors with a shift of focus each year
Time horizon	15 years
Main Motivation	Strengthening the Spanish innovation system; Exploring future technological trends and needs of Spanish industry; competitiveness
Methods	Panels / Delphi / trend reports / scenario building /
Participation	More than 5000 experts and stakeholders involved in Delphi; high percentage of industry; always more than 50%; in two Delphi surveys more than 80%.

France – Technologies Clés 2005

Duration:	1998 – 1999 (published 2000)
Scope	8 thematic panels; in the end 119 critical technologies
Time horizon	5 years
Main Motivation	Identification of critical technologies and benchmarking position of France and Europe in global competition; update of former exercise
Methods	Panels / experts survey / Internet forum of experts
Participation	More or less 12 experts per panel and further 500 additional experts involved

Hungary – Hungarian Foresight Program

Duration:	1997 – 1999 (2 years)
Scope	7 thematic panels (+ 1)
Time horizon	15 – 25 years
Main Motivation	Enhancing competitiveness; improving quality of life; identify problems to be addressed by research; identify required changes in regulation and government policies; how to meet the challenges of EU accession.
Methods	Panels / 15 to 25 background papers per panel / Delphi / visions and scenarios /
Participation	11 to 24 experts per panel; > 2,000 experts involved in Delphi; > 100 workshops

Sweden – The Foresighted Society

Duration:	1998 – 2000 (3 years)
Scope	8 thematic panels
Time horizon	10 – 20 years
Main Motivation	“To strengthen a futures-oriented approach in companies and organisations, to identify areas of expertise with potential for growth and renewal in Sweden, to compile information and design processed for identifying high-priority areas in which Sweden should build expertise”.
Methods	Expert panels / scenarios building / many workshops over a long time
Participation	Ca. 15 experts per panel; broad dissemination and awareness activities

United Kingdom – Second UK Foresight Cycle

Duration:	1999 – 2002 (4 years)
Scope	8 panels 3 thematic panels; associate 30 programmes
Time horizon	Ca. 15 – 20
Main Motivation	Forward thinking; setting science and technology priorities
Methods	Expert Panels / task groups / some scenarios / consultation
Participation	Panels with public participation

Interesting findings are:

- Of the eight exercises reviewed, two can not be classified as fully-fledged Foresight, namely the French and the Czech exercise, because of a lack of broad participation.
- We may also observe that societal problems are more present in the minds of all foresight makers than years before. This is not only visible in the advanced societal foresights.
- The difference the chosen time horizon makes, between 5 and 30 years, is rather unclear.
- More and more electronic means of communication are used to get more people involved and to broaden participation during the proper exercise and afterwards.

Starting from a classification scheme proposed by Rémi Barré (2002) we see that the eight studies don't fit well into one of the thematic classes nor do they strictly adhere to one major objective. In most cases they fall in more than one class.

Thematic class:	technology area	Economic sector	Policy area	strategic issues
Main objective:	research priority setting	National innovation system		shared awareness
Actor involvement	no direct implication	limited		Many groups of social actors

Legend: Adopted from Barré 2002

Taking into account the differentiation of Foresight into generations, proposed by Luc Georghiou, we see that these generations are not exclusive but complement each other like nested circles. In any case however Foresight is about research priority setting.

1. Generation	2. Generation	3. Generation
"... consists of technology forecasts"	"... combines technology and market perspectives"	"... integrates technology, markets and the social dimension"
<i>Main orientation:</i> S&T system	<i>Main orientation:</i> National innovation system	<i>Main Orientation:</i> Socio-economic problems and new type of governance
<i>Main interface:</i> science and research policy	<i>Main interface:</i> science / research policy / industries & markets	<i>Main interface:</i> science / research policy / industries & markets / society at large
Technology Foresight	Innovation System Foresight	Societal Foresight

Following this model of circles the eight studies can be positioned like this:

