

**Evaluation of participants' benefits  
in a Regional Foresight study, the  
Four Motors Foresight Initiative**

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## Content

<u>Introduction</u> .....	3
<u>Potential benefits of Foresight</u> .....	4
<u>Four Motors Foresight Initiative (FoMoFo):</u> .....	6
<u>The foresight goals of Fomofu</u> .....	7
<u>The methods</u> .....	8
<u>The FOMOFO pilot project method in Catalonia</u> .....	8
<u>The FOMOFO pilot project method in Baden-Wuerttemberg</u> .....	8
<u>The FOMOFO pilot project method in Rhône-Alpes</u> .....	10
<u>The FOMOFO pilot project method in Lombardy</u> .....	12
<u>Expectations and benefits of the FoMoFo participants</u> .....	12

## ***Introduction***

The Lisbon Strategy calls for strengthening the European Research Area to be number one in due time. One way among others to achieve this might be the mobilisation of regional actors to strengthen their regional system to generate growth potential by using Foresight processes. *RF requires a wide range of participants to be involved.*

The quality of Foresight processes is dependent on various factors such as the organisation of the foresight, the applied methods and the people involved. Focusing only on the main phase of a foresight process, where relevant data is already identified and summarised, the people involved in evaluating the data and creating the vision are the most important factor. Depending on the purpose of the foresight, representatives of the relevant stakeholder and experts have to be involved. Depending on the selection criteria for stakeholder representatives and experts, the "right" people have to be identified and, even more difficult, have to be recruited to participate in the foresight. How do you involve people being strongly involved in business or public life and having little spare time? How much time is necessary? Are they willing to participate and how much time are they willing/able to spend? If the target goals of the foresight is directed towards rather impersonal goals like generating regional growth potential, a candidate's motivation to get involved into a foresight project can be quite diverse and is not that easy to determine. In the FoMoFo foresight, conducted in the Four Motors Regions of Europe, the organizing team tried to invite people to participate in their foresight based on the following reasons resp. possible benefits:

- intrinsic motivation to contribute to society
- the honour of being chosen to participate because of expertise and position in society
- curiosity
- getting to know the methods used in the process
- exchanging and discussing ideas
- making new contacts
- learning aspects
- discussing future trends.

**Purpose of this paper is to elaborate why people might be interested to participate in Foresight processes and which benefits participants of foresight workshops have.**

Therefore we will first take a look at some **benefits foresight processes potentially** have and how they could apply especially to participants.

Taken the Regional Foresight Project of the "Four Motors Foresight Initiative" (FoMoFo) as an example we will show which benefits participants actually experienced by participating in the Regional/Foresight exercise, focusing on the foresight in Baden-Wuerttemberg. It can be expected that the goals and objectives of a specific Foresight exercise as well the method used have a dominant influence on the experienced benefits. We will therefore have a look on the **objectives of FoMoFo and the methods used** before turning to the experienced benefits as stated by the participants of the Foresight exercise. Though the research has not been finalized some first results are given.

### ***Potential benefits of Foresight***

The Regional/Foresight goal goes along with the goal of any regular Foresight study to produce valuable outcomes like writing reports containing visions, scenarios, priorities, recommendations for action etc. Next to these tangible outcomes the intangible - also called soft-outcomes are important. Though the tangible outcomes are at hand if it is necessary to demonstrate the usefulness (money-wise) of conducting foresight, the soft outcomes or process benefits are even more important when thinking of mobilising stakeholders to take action and shape the future. The process benefits can be categorized by Irvine and Martin's 'five Cs'<sup>1</sup>: Communication, Concentration, Co-ordination, Consensus and Commitment. We will have a short look at them from the perspective of foresight participants.

#### **Communication:**

The means of communication have extended, not only face to face communication, phone and postal mail is possible but e-mail, video and short messaging services are used as well. Real time communication via long distances is not only affordable but as well integrated in the commercial and private life. Though the means of communication have improved and more information is exchanged regarding the flow of data, this does not automatically imply that the communication between different actors has intensified when we consider it from the sustainable viewpoint.

Communication in the sense of Regional Foresight calls for "bringing together disparate groups in a novel forum in which they can interact"<sup>2</sup>. Exchanging ideas, needs and viewpoints can be seen as a vital benefit in a person's or group's process of decision building.

#### **Concentration:**

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<sup>1</sup> Martin and Irvine 1989

<sup>2</sup> Martin and Irvine 1989

To focus "on the longer term, forcing participants to look further into the future more than they might otherwise"<sup>3</sup> is one of the potential benefits of foresight. In everyday life everybody is confronted with a massive flow of information. Though "information has stopped growing exponentially in the 1970ies"<sup>4</sup> in comparison to the last 300 years it still grows rapidly. Nobody has enough time to consume the information and to transform it into knowledge, especially not if considering that the half-life of knowledge lays somewhere around 5 to 7 years according to Fischer<sup>5</sup> and Marx/Gramm<sup>6</sup>.

Dealing with the information overflow of today, influenced by the mass media, which powerfully affects what, how and why people think and which tries to attract people's attention "by focusing on the dramatic, the visual and the negative"<sup>7</sup>, one can hardly escape the grasp of the information society and the compulsion to be constantly updated. This happens in spite of the need in our fast changing world not only to reflect and discuss current problems as mentioned above but also to deal with the future when we want to avoid flowing somewhere along the waves of time without being able to steer.

Slaughter examined a range of young people's media and came to the conclusion: "Though [the media is] showing images of futures in compelling detail they foster the fears of depersonalisation"<sup>8</sup>. "What is not provided in the media is material which can be used to actually create the future. In other words, much of this material is disempowering".

Taking time off of the daily operational work concentrating on the longer term, forcing participants to look further into the future more than they might otherwise can see as a benefit, with which the participants of foresight exercises can escape the trap of today's disempowering. They have the possibility to empower themselves by discussing the needs and beliefs in and for possible futures.

### **Consensus**

"Creating a shared vision of the future that participants would like to achieve"<sup>9</sup> in a group with different stakeholders shows possible paths into the future not only for the targeted industry/society but for the participants as well. The inclusion of diverse aspects in the vision

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<sup>3</sup> Irvine, John; Martin, Ben: Foresight in Science: Picking the Winners, London 1984

<sup>4</sup> Mary, Werner; Gramm, Gerhard: Literaturflut – Informationslawine – Wissenexplosion Wächst der Wissenschaft das Wissen über den Kopf (1994/2002); Max-Planck-Institut für Festkörperforschung, Stuttgart

<sup>5</sup> Fischer, Markus: Die Evolution multimedialen Lernens, wissensmanagement online Nov/Dec 1999

<sup>6</sup> Mary, Werner; Gramm, Gerhard: Literaturflut – Informationslawine – Wissenexplosion Wächst der Wissenschaft das Wissen über den Kopf (1994/2002); Max-Planck-Institut für Festkörperforschung, Stuttgart

<sup>7</sup> Slaughter, Richard: The Foresight Principle, Cultural Recovery in the 21<sup>st</sup> Century, London 1995

<sup>8</sup> Slaughter 1995

<sup>9</sup> Irvine, John; Martin, Ben: Foresight in Science: Picking the Winners, London 1984

implies a quality that a single person is generally unable to deliver. This and the consensus building process of coming to such a shared vision foster the belief of the participants in the possibility that the vision comes true, giving them a base for their own personal or business relevant decision processes.

**Co-ordination:**

The creation of a common vision of various representatives of different stakeholder includes the belief in productive partnerships mastering the challenges of the future<sup>10</sup>. From anticipating possible partnership to achieving a vision does leaves only a small step for considering partnerships in the near future, especially since more information about viewpoints and situations is exchanged in the setting of a workshop than when searching for a partner via formal search methods.

**Commitment:**

”Ensuring that individuals fully participate, and are able and willing to implement changes in view of the foresight exercise”<sup>11</sup> is one of the most crucial points of foresight since commitment to a shared vision of the future can become a self-fulfilling prophecy.

The commitment, participants’ experience and share in a foresight group reinforce the self-fulfilling prophecy effect. An additional effect is the creation or reinforcement of trust in the future.

***Four Motors Foresight Initiative (FoMoFo):***

The “Four Motors Foresight Initiative” (FoMoFo) is a project involving teams from the “Four Motors for Europe” regions. The ‘Motors’ regions are Baden-Wuerttemberg, Lombardy, Rhône-Alpes and Catalonia. The network was established in 1988, and together the four members undertake activities in all cultural and economic spheres to enhance competitiveness and quality of life.

The goals of the FoMoFo project can be divided into operational goals and goals regarding the purpose of the Regional/Foresight, the foresight goals. The operational goal of the project was to demonstrate the value of light, practical and flexible foresight methods in the ‘Motors’ regions and to contribute to the development of European ‘best practice’.

The foresight goal was to involve the full range of stakeholders (e.g., researchers, big companies, sector representative organisations, SMEs and of course the regional

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<sup>10</sup> Cuhls, Kerstin; Wie kann ein Foresight-Prozess in Deutschland organisiert werden? Friedrich-Ebert-Stiftung, Bonn 2000

<sup>11</sup> Irvine, John; Martin, Ben: Foresight in Science: Picking the Winners, London 1984

governments) of the industrial sectors where the foresight took place to help them to identify strategic issues, build consensus around a vision for the sector and generate commitment for co-ordinated actions in order to create the future they want.

For achieving these goals, each team had to develop a foresight process fitting to their specific region<sup>12</sup> and being feasible during one year. Furthermore each team had to test it in two key industrial sectors in the respective region. Before the methods of the teams are described in short, a summary of the foresight goals is given.

The foresight goals of Fomof

All four teams developed next to the given operational goals of FoMoFo their foresight goals for conducting a small scale regional foresight for testing the method. The list below is a summary of the major goals of the teams though all four teams assessed them differently:

- to identify significant market opportunities and threats looking beyond normal commercial time scales
- to highlight areas of policy, education, research and training where regional government action would deliver widespread benefits
- to identify areas of action by the business, scientific, voluntary and public sectors to increase/keep regional wealth and quality of life
- to foster the expansion and further development of collaborative networks
- to add a different shade of light into the planning of the region and the companies not by only focussing on technology developments but as well on the social needs of the sectors and regions.
- to bring together stakeholders who usually operate in different contact circles to foster the exchange of ideas and their discussion and
- the opportunity for a "time to think ahead" for participants should be created taking time off from operational work.

Throughout the pre-phase of the foresight it was evident that one major challenge was to conduct a foresight which is done mainly to test methods and which was not ordered by a governmental body or industry organization. Although the project was supported by the Four Motors network and the four teams partnered up with industrial organisations or industrial promotion agencies focussing on the foresight goals, it would have made the process of finding the right stakeholders and experts easier if the exercise had been officially conducted as a regular foresight exercise.

The methods

### **The FOMOFO pilot project method in Catalonia**

The Catalonian Team, IALE Tecnologia selected two sectors in which Catalonia is the leading region in Spain, the pork products industry and the sector Multi-Media and Publishing. For both sectors a time horizon of up to three years was targeted and the discussion regarding the future developments and trends between the stakeholders was initiated by the presentation of technology roadmaps. The roadmaps are the product of Tetralogie, a method of patent and bibliometric mapping.

Tetralogie searches databases of patent abstracts, patents, journal and other publications. It uses key words to identify and map recent activity in a particular field to construct visualisations showing who is researching and patenting which aspect of a particular technology and which new technologies are emerging.

Technology maps produced by using Tetralogie have a 1-3 year time horizon which are more interesting to the technology competent SME audience.

The result of the exercise was shared and discussed with the stakeholders of the sectors during workshops.

### **The FOMOFO pilot project method in Baden-Wuerttemberg**

In Baden-Wuerttemberg the team of the Center of Technology Assessment in Baden-Wuerttemberg decided to work in the sectors of Multi-Mmedia and Biotechnology as important industries for the future. For the purpose of the projects the regional focus for Multi-Media is directed onto the Stuttgart region. The regional focus for the biotechnology area is directed to the region Stuttgart-Neckar-Alb, one of Germany's renowned Biotechnology regions. In both industrial sectors Networks and local promotion agencies exist.

The foresight process can be split into three phases, the preparation phase, the main phase and the dissemination phase, see Figure 1 below.

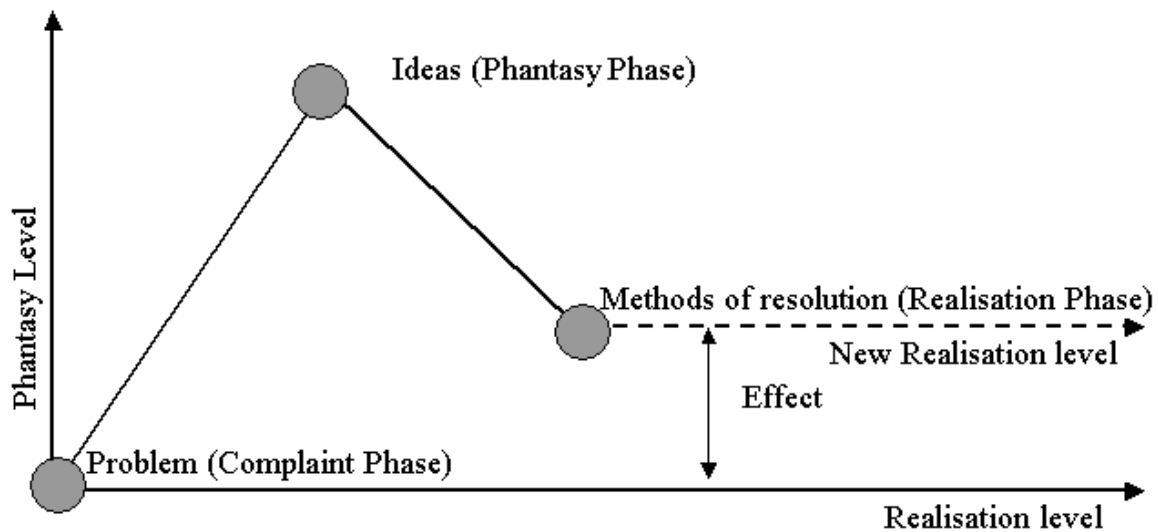
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<sup>12</sup> Definition of Region (siehe Practical Guide)



**Figure 1 Baden-Württembergs Method**

The main phase builds on the concept of the Future Workshop developed by Jungk und Müllert in the 1970s. The future workshops is a participative problem solving method with three phases. Characteristic for this method is the goal-oriented moderated work in groups and subgroups, where the participants decide on the content and focus and the use of a "creative" detour. Ideas and methods of resolution resulting in actions are developed from imagination and visions for the future and not from criticism and complaints of today. To achieve this, three phase are necessary: the Complaint or Criticism phase, the Fantasy or Vision phase and the Realization phase. The goal of the Criticism and Fantasy phases is for the participants to let go restrictions and handicaps of reality so that desirable solutions come to the surface.



Drei-Phasen-Modell  
Source: Kuhnt & Müllert 96

**Figure 2 Three Phase Model (Drei-Phasen-Modell)<sup>13</sup>**

The future workshop has been modified to the needs of the foresight workshop. The first workshop comprises the complaint phase and the vision phase. The vision phase is then taken up once more in the second workshop which is held two to three month later and then leads to the realisation phase. The purpose of taking up the vision once more is to verify it after the participants had time to think about the developed vision, and leading over to the realisation phase to involve new members into the group. Depending on the outcome of the first workshops, new members are invited to the groups for helping to find methods for resolution to translate the visions into real life.

### **The FOMOFO pilot project method in Rhône-Alpes**

In Rhône-Alpes, the team developed a Foresight method that will be applied to the two sectors of automotive industry (car manufacturer and sub contractors) and textile industry.

The method itself is a light Delphi<sup>14</sup> method of questioning experts in the two different sectors, coming from institutional actors, research institute or private firms. The Delphi

<sup>13</sup> [Kuhnt 2000] Kuhnt, Beate; Müllert, Norbert R.: Moderationsfibel Zukunftswerkstätten verstehen – anleiten – einsetzen; das Praxisbuch zur Sozialen Problemlösungsmethode Zukunftswerkstatt Münster 2002

<sup>14</sup> Dalkey N. (1972): "An elementary cross impact model", Technological Forecasting and Social Changes".

method is carried out by a questionnaire given to a pool of experts, in order to highlight the convergence and divergence of points of views, and in order to achieve a consensus.

- Determination of a pool of experts (institutional, research, SMEs, big companies) in collaboration with the different stakeholders of the sector.
- The questionnaire is drafted by determining the key variables (structural analysis method) of the sector by an interaction with experts and the different stakeholders.
  - o Organisation and strategy variables.
  - o Product variables, market variables, technology variables.
  - o Productions variables
  - o Social variables
  - o Finances variables
  - o General variables
  - o Distribution variables
  - o Consumer variables
  - o Risk variables
- Analysis of the answers of the questionnaire (an eventual second questionnaire may be necessary).

Accompanying this 'light' and flexible Delphi method, the future technology tendency in both sectoral pilots is examined, by using patent studies in data bases and bibliometric studies for the key technologies of the sectors.

The results of each sector are stated in a summary document and are presented to the different stakeholders and experts of each sector. The result are discussed at a meeting with the representatives of the different stakeholders and actors. In addition, different scenarios (short-term, long-term) are proposed for the evolution of the sectors anticipating that the future can be shaped.

A final document is delivered in an open meeting session for all participants presenting the results and the scenarios of both sectoral pilots. This meeting gives the opportunity to present decision makers the synthesis of this foresight project and the interest in the Foresight process on a regional level.

## **The FOMOFO pilot project method in Lombardy**

For the implementation of FOMOFO studies in the silk district of Como and in the mechanical engineering district of Lecco the team of the Fondazione Rosselli decided to rely more on panels and focus groups rather than on sophisticated and complex methods like Delphi, given the rather limited amount of expertise within the districts and the concentration of the examination on rather specific and locally relevant problems typical of most regional foresight exercises. In using these methodologies the purpose was to involve local actors (in the first place, small entrepreneurs and public administrators) into the foresight process and to confront them with the sudden and profound changes that such driving forces as emerging horizontal and pervasive technologies (ICT, biotechnologies and so on), and globalisation, can induce into the well-established cultural structures, rules and standards of the two districts' social systems.

In order to achieve these goals an interaction among "experts", from different areas in the sectors and local social actors was initiated in order to bring about technological evaluation on the following questions:

- Which technologies they are currently using for their processes and products?
- What are the most important requirements at present and in the future – referring to a time span of about 3-5 years -, in order to increase the productivity of business processes as well as to improve the quality of products and services?
- Which technological innovations were recently tried to introduce regarding to the above mentioned issues and which emerging technologies are known, used or of interest?
- Which technological innovations were recently or will be soon introduced by their competitors?

Then the technological experts present their maybe shocking future ideas, hypothesis and breakthroughs in order to give local actors the chance to broaden their views and perspectives and to think beyond today's problems, concerns and objectives. Many different scenarios are outlined and the need to spot the most likely and/or preferred one emerges. A convergence process starts from this stage, ending with a shared vision and strategic objectives.

### ***Expectations and benefits of the FoMoFo participants***

The difficulty in engaging the targeted people resulted in the idea to have a look at the aspect of benefits participants actually enjoyed during and from the FoMoFo foresight workshops.

The reaction that the Baden-Wuerttemberg team got when inviting candidates was very often the question: What effect will it have for me /my company? What benefit will I get in return for my participation? Especially high-ranking manager and owner of SMEs were interested in the return questions. Although they were generally interested in taking part to share their experience and needs with others and to possibly help in giving advise for future decisions, the time pressure was enormous and they had to use their time on their own concerns.

All four teams worked on this aspect throughout the project and had a closer look on the benefits for the participants in the official Final FoMoFo Report <sup>15</sup>. The Baden-Wuerttemberg team examined this aspect a little closer to find out the major benefits the participants expected for themselves or their companies, in how far these expectations were met and whether or not did they change over time.

As described in the method section the Baden-Wuerttemberg team held a two-day Foresight-Workshop in each industry sector, the two days being about three month apart from each other. To get answers to the above mentioned questions standardised questionnaires were worked out to be filled in by the participants before and after the workshops. In addition, about three months after an additional questionnaire and a couple of qualitative interviews was planned.

When writing the report, the final questionnaire and the qualitative interviews were still outstanding but nevertheless some initial results from the first and the fourth questionnaire are presented. The first questionnaire was aimed at finding out the expected benefits from participating in the foresight workshops and the fourth questionnaire dealt with the impression of the participants regarding their experienced benefits.

The benefits are listed according to their relevance.

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<sup>15</sup> To be finalised until Summer 2002.

Expected benefits	Experienced benefits
<ol style="list-style-type: none"> <li>1. exchanging information and experience regarding various aspects</li> <li>2. to get more information regarding future trends</li> <li>3. information to improve the company's strategic planning</li> <li>4. to make new contacts</li> </ol>	<ol style="list-style-type: none"> <li>1. exchanging information and experience regarding various aspects</li> <li>2. to make new contacts</li> <li>3. to get more information regarding future trends</li> <li>4. information to improve the company's strategic planning</li> <li>5. finding co-operation partner</li> <li>6. improved competency in their business</li> </ol>

The listed benefits reflect only the majority of benefits from the point of view of the participants but interestingly the impression of the experienced benefits were higher in comparison to the time before the workshops (and in-between). The results also showed that an exchange of information and the possibility for new contacts were rated significantly higher at the end of the workshops than at the beginning of the workshop three months before. The results of the first and fourth questionnaire give the impression that the participants valued the workshops as the best possibility to exchange and discuss ideas. This impression is also backed up through the open feedback session at the end of both workshop days.

The results are wanted outcomes of FoMoFo as documented in the foresight goals and implicitly part of the goals of any foresight. If all desirable five aspects of foresight, the five C's, as outlined in the beginning or rather the two aspects of communication and co-ordination have been met can not be answered yet. The listed benefits give an idea what could be interesting to potential participants and should motivate to look into these aspects when planning to recruit candidates for foresights.