Introduction to Foresight

Prepared for the project

INNOVATIVE FORESIGHT PLANNING FOR BUSINESS DEVELOPMENT

INTERREG IVb North Sea Programme

By

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This text is to be used in conjunction with the Powerpoint presentation Introduction_to_Foresight.ppt. Numbers in table correspond to slide numbers.

NOTE: FOR FURTHER GUIDANCE ON PRACTICAL ISSUES CONCERNING REGIONAL FORESIGHT IN YOUR COUNTRY, WE RECOMMEND CONSULTING THE "COUNTRY SPECIFIC PRACTICAL GUIDES TO REGIONAL FORESIGHT" AVAILABLE IN NATIONAL LANGUAGES ON THE EU COMMISSION/CORDIS WEBSITE: http://cordis.europa.eu/foresight/cgrf.htm

1. Title	
2. Basic questions of foresight	What is foresight, basically? It has a lot to do with trying to look into the future, which is a basic aspect to human behavior. We all try to look ahead, at least to some extent. So the first question is "what will the future look like".
	Note the passage "for our region or our industry". This has to be defined early on. Foresight studies most often focus on one particular industry or technology, such as biotech or air transport. But in other cases the "we" is defined by territory. In those cases we would probably look at a wide range of industries and activities, including living conditions and such, in that particular area or "region".
	The cluster foresight can sometimes be something in between these. Business clusters consist of related industries and supporting services, but they have a territorial foundation which can sometimes be defined geographically. But not always.
	It is anyway important to ask early on who's future we are talking about!
	Second question: What do we want it to look like? This is what takes Foresight one step further from scenario building and other forms of futurology. The basic assumption is that the future is contingent on human action, and so we don't just ask passively what the future will bring, but also what future we would like to work towards. This means that foresight has a lot in common with various forms of planning.
	Third question is how to link the first two. There is an element of decision-making and implementation in foresight; the intention is often to achieve effective joint action.

3. Doing foresight means…	What is foresight in practice? The term is elusive to many, so this is an attempt to provide a bit clearer footing.

Firstly, doing foresight means organising and implementing a *process*. The duration could be anything between a few months and two or three years. During this process, a number of different actors will be involved at various stages. The selection of participants has a lot do with the context of each specific process, but a basic idea in foresight is the emphasis on broad participation. Stakeholders, lay citizens, public officers and politicians, experts of various kinds can be relevant participants.

During the foresight process, a number of different methods will be used. Many or most of these methods are familiar. They include workshops, scenario building, interviews, literature studies. But there are more exotic methods as well! The methods are used partially to obtain, analyse and discuss future-oriented intelligence of various kinds. So the knowledge content that accumulates through a foresight process can be extensive and varied: "Facts and figures" reports, reports based on interviews, workshop proceedings, powerpoint presentations, spreadsheets…

These methods are used in a sequence through the foresight process, as vaguely illustrated in the bottom of the picture. I'll return to this in more detail later. But it's important to grasp the idea that doing foresight means organising processes over a period of time, containing many different methods and events.

But then there's the last little sheet of paper. The purpose is not just to produce fancy reports or actionable strategies. The idea is that foresight can be used to develop networks between the participants. This is important for many reasons. Firstly, network building means building trust and knowledge of each other. In many of most situations this is a prerequisite for building common visions of a shared future. And some sort of common vision is a logical prerequisite for building and implementing strategies for joint action.

BUT this could also have a value beyond that of the specific foresight process in questions. The networks that are built during the foresight process could perhaps serve to make the region or the industry more dynamic and |

	innovative. If people get to know and trust each other, the capacity for joint action will probably increase on a more general level.
4. Networks enable joint action	This is why it is often said that the foresight process is valuable in itself, not just as a means to produce action on a specific issue. An important criteria for success is if the participants get bonded and develop a sense of interdependence and common identity, lowering the threshold for increased interaction and thus paving the way for network-based innovation.
5. Piecing it together	This is just to illustrate a previous point. Foresight is a lot about obtaining all kinds of relevant knowledge, and somehow piecing it together. More on this later, let's first look a bit closer at the methods for obtaining knowledge and developing networks, joint visions and strategies.
6. The signpost of methods	It can be useful to try to categorize the methods, because this illustrates what kinds of knowledge we are looking for. But this is a bit tricky, and so far we don't really have a very good typology. In stead, we have tried to illustrate how different methods can be sorted in terms of the kinds of knowledge and insights they can be used to obtain, and in terms of the participants – who participates, and how many at a time. The arrows on the signpost point at sets of methods that are opposites in terms of the dimension written on the arrow. The first arrow makes the distinction between factual knowledge and insights gained through creative methods. "Factual" methods aims at gathering all sorts of factual evidence which could be relevant. In many cases the information is already available, but in other cases it is relevant to commission reports of various kinds. What kinds of evidence is relevant? This will vary from case to case. In a regional foresight analysis one commonly looks for such things as demographical composition, including level of education and age distribution in the population, furthermore the business structure, data on economical output, environmental indicators, data on infrastructure, public services and so forth. The emphasis in this category is on "hard facts", not so much on analysis and dialogue. The purpose is to inform the foresight process by providing an anchorage in current knowledge. The "creative" methods are located on the other end of this arrow. These are methods that are used specifically to aid the cognitive processes to induce creativity, seeing things from new perspectives. Here we find several slightly

	exotic methods, such as science fiction writing and role playing.

The second arrow highlights the distinction between methods for gathering knowledge from individuals in isolation, and those that are used for gathering insights in groups. Most will be familiar with some of the "individual" methods, such as interviews.

As for the methods at the other end of this arrow: The knowledge content that comes out of the "groups" category of methods is the product of facilitated social interaction, such as in workshops. The "scenario workshop" is a typical example. What we look for is not the preconceived opinion of individual participants, rather, we seek to develop opinions in a collective setting.

The third arrow makes the distinction between the "experts" methods, and methods that target the broader range of actors. In many cases, there will be a limited number of people with particular competence in one field of relevance to the foresight process. These can be "experts" in many senses of the word, not just professors. Many enterprises have specialist expertise on their own products or production processes equal to few if any outside the enterprise for instance. Particular methods are used to utilize the particular insights of these rather few persons. This category is distinct from the "evidence" type in that we don't look particularly for just factual evidence, we look for qualified opinion among people with a background that makes them particularly qualified for doing this.

Other methods target a wider audience. |
| 7. Combining the methods | The literature actually says surprisingly little about how to piece the methods together. Evidently this is done in many ways, and there's a lot of flexibility concerning the sequence of methods. We would like however to emphasize the need for giving this some conscious thought.

The motivation for providing inputs sequentially is obviously that you want some sort of accumulation of knowledge as you go on. You want to understand more, to know more and to see more things in conjunction. To be wiser, perhaps. But the sequence means that you at all times build on the |

information that you have already gathered, and you see new information in light of what you already know.

One implication of this is that it could be a good idea to start with the factual information, the "evidence". These data could be very valuable in terms of shaping people's conceptions and making their opinions more well-informed. At the same time the "evidence" is supposed to be fairly robust and not really affected by other kinds of knowledge. Population figures for instance, does not change during the foresight process no matter how many Delphi studies you conduct. So it could be a good idea to start with gathering some factual evidence.

Next step, and remember this is just an illustration. In some contexts perhaps it makes sense to distinguish between knowledge and inputs that you gather from individuals vs what you gain from interactive methods. Some methods are specifically set up to gather information and opinions from individuals. A good example is the Delphi method, conducted as a survey. Other methods are interactive. If you want to use both, you may want to use the individual methods first. Because once you use interactive methods, the inputs from individuals will be affected by the group processes that you initiate with the interactive methods. This is not always a problem, but in some cases you may want to see for instance how people's conceptions change during the process – have business leaders become more or less enthusiastic abut cluster formation, for instance? If such things are relevant for you, you may consider gathering knowledge individually before you start running workshops and the like.

Third step here is the interactive methods – the conferences, workshops, panels and what have you. Many facilitators think of these as the very heart of foresight processes. They tend to organize the entire process around two or three such large events, and then use a number of methods inside the duration of the workshop. Perhaps some factual evidence has been gathered as inputs to the conference, and some interviews or surveys have been conducted mostly to prepare for the conference.

There are several reasons for emphasizing the interactive events, and it is hard to imagine foresight processes without any such events. Workshops,
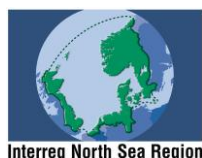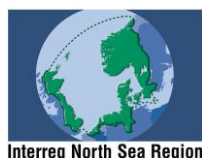
seminars, conferences provide excellent opportunities for social interaction, network-building and development of shared identities and purposes. They also make a wide range of individuals available, and so they can be used effectively to obtain and digest the various kinds of knowledge that these actors possess.

As for the "expert" methods: In this set-up they take place after the process has been up and running for a while. It can be a good idea to get expert knowledge in the sense of informed opinions and analysis, but again the sequence is a good thing to think through. There is a risk that the experts affect the opinion formation unduly at an early stage. Perhaps you want people to be able to express their opinions freely, and not in fear of contradicting the authority of experts. In some cases, highly opinionated and eloquent experts can have a way of dominating the discourse, shaping people's perceptions. This can be a good thing, but it is not always fortunate. There is no unitary expertise on a field as wide as regional development – several different knowledge inputs are needed. It can be argued that regional development is so broadly defined it has clear democratic implications. So perhaps in some cases you want to establish a broad discourse first, and use the experts later.

As for creative methods, these can be used throughout: In conjunction with the individual methods, to boost the interactive processes, or by experts. It seems however appropriate to ensure that they are well-informed. The "evidence" box should perhaps be used first.

But again, it should be emphasized that this is just a suggestion. The key thing is that organizers of foresight processes should keep these things in mind. Try to think through how you want knowledge to accumulate through the duration of the process. What kinds of knowledge do you want actors at various stages to be able to access and be affected by?

Having said this, let us take a broader look at the process from the organiser's perspective.

8. The phases of a foresight process	This is one way of conceiving the foresight process in its entirety, again based a lot on Popper although other writers use much the same terminology. As foresight organizers this reflects pretty much what you are supposed to do: <u>Scoping</u> is to plan and design the process, <u>recruitment</u> is to recruit the participants, <u>generation</u> is to use the various methods for knowledge gathering and processing (this is labeled "generation" because it's about generating knowledge), <u>action</u> which is implementing the strategies and <u>renewal</u> – making assessments and possibly conducting a new process at a later stage. Let us go through these phases in a bit more detail.
9. Scoping	The scoping phase is where the foresight process is planned and designed. This has to be grounded in a clear conception about the aims and objectives for setting up the process – this could be for instance developing a business strategy or a strategic plan for regional development. In this phase, the project team is assembled. And crucially, this is where the methodology of the process is developed. This means primarily deciding what methods you will use, at what dates.
10. Important: Mind the context!	We believe this is really crucial. Firstly: All regions are different, and have their special characteristics. This needs to be taken into account. Furthermore many, perhaps most of the people you want to involve in the foresight process will have experience with earlier strategy building/forward looking processes. If it's relevant, the outcomes of such recent processes should be referred to in the foresight process, to signal that their earlier efforts have not been a waste of time, but rather provides important input for the foresight process. Also, it's important to identify the aims and objectives of the process. Why was anyone interested in setting up a foresight process in the first place? What is supposed to be the outcome? The time and resources available needs to be taken into consideration. Extensive processes can be costly and time-consuming, and the design should reflect the resources available. Lastly, there is a set of key questions to ask oneself in the scoping phase.

	Who are important decision-makers? What knowledge is needed? From who? How to secure participation? How to translate knowledge into action? The answers to these questions are important for identifying participants and choosing methods.
11. Recruitment	The recruitment phase is where the participants are asked or invited to participate in the process. This is an ongoing activity, not necessarily something that happens once and for all. Again, it is important to be conscious of what is needed for the foresight process to be successful – what kinds of knowledge, resources and competencies are needed to achieve the aim.
12. Generation	The generation phase is the heart of the foresight process, and the phase in which many of the methods are used. Earlier, we looked at one possible way of structuring the generation phase – staring with evidence, moving on to individual methods and then to interactive and creative methods. The generation phase is about exploring status quo and current trends, analyzing how these trends interact, and use these insights to anticipate future developments.
13. Action	The action phase is, plain and simply, the implementation of the strategies and measures decided upon as an integral part of the foresight process. The "actionable" outcomes of the foresight process can of course be more or less precisely defined.
14. Renewal	The last phase, renewal, emphasizes the need for learning and assessment. What parts of the foresight process have worked well, and which have not? To what extent have the goals been achieved? Should other measures be taken?
15. Things to consider	Leave room for reflection and apply norms of unconstrained dialogue. The quality of the outputs will depend on whether the participants get the time and opportunities to utilize their creative cognitive skills, by themselves and in interaction with others. As for the need for transparency and accountability: Remember that a foresight process can have important ramifications for the region or area it applies to, especially in territorially defined foresight. If foresight is used to give direction to policy decisions, it is especially important to ensure transparency and accountability.

| | Lastly, make a decision to provide documentation of the process. This is a precondition for learning, from one's successes as well as from things that didn't work so well.

Thank you! |
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Key reference: Much inspiration is taken from Raphael Popper's article "Foresight methodology" which is published as a chapter in the book *The Handbook of Technology Foresight: Concepts and Practice*, written by researchers at the PREST centre at Manchester Business School in 2007.

Georghiou, L., Harper, J. C., Keenan, M., Miles, I., and Popper, R., eds. (2008): *The Handbook of Technology Foresight: Concepts and Practice.* Cheltenham: Edvard Elgar