

From Foresight to Anticipation

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What it is all about...

An attempt
to grasp the

link



between Foresight and Anticipation
in three concrete Foresight exercises
and practical implications for the future

Outline

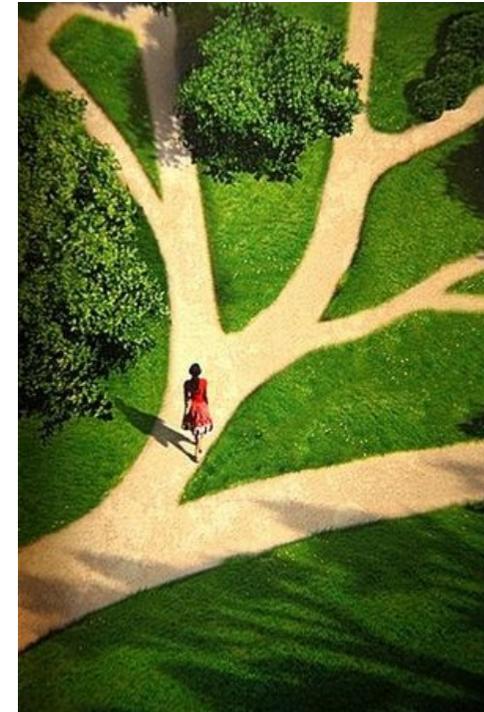
- What we mean when we say **Foresight**
- What we mean when we say **Anticipation**
- **Three Foresight exercises** (characteristics, methods, outcomes)
- **Comparison** between Foresight and Anticipation
- **Significance** of Anticipation for Foresight
- **Promoting** Anticipation in Foresight exercises
- **Conclusions**

What we mean when we say „Foresight“

Foresight is a ...

- **systematic,**
- **participatory,**
- **future-intelligence-gathering** and
- **medium-to-long-term vision-building process** aimed at
- **enabling present-day decisions** and
- **mobilizing joint actions.**

(FOREN Network 2001, European Foresight Platform)



Note:

- It **does not** aim to **predict the future** – but to help us build it.
- It invites us to consider the future as **something that we can create or shape**, rather than as something already decided.

Foresight is also...

- a structured way of dealing with **complex futures** (thinking, debating and shaping the future)
- **anticipatory** of what may happen in the future (e.g. scenarios) (implicit anticipation)
- and uses mainly **qualitative tools**

**Foresight is – and it remains –
essentially practical and qualitative anticipation**
(Loveridge 2009)

What we mean when we say „Anticipation“

- Explicit Anticipation (DoA; uses optimization, contingency, novelty)
- „All efforts to know the future in the sense of **thinking about** and **using the future** are forms of anticipation.“
(Miller et al., The Discipline of Anticipation, 2013)
- 1. The fact of seeing that something might happen in the future and perhaps **doing something about it now**.“ (Oxford Learner’s Dictionary)
2. „A feeling of excitement about something (usually something good) that is going to happen“ (Oxford Learner’s Dictionaries, online)
- “Anticipation is a means to **imagine actions** that can only be **tested** once the future reality happens.“
(Miller et al., The Discipline of Anticipation, 2013)

Anticipation is ...

- **thinking about the future** („know“ the future and imagine actions)
- **using the future now** (take actions)
because of a change of assumptions about the future
- and allows for **perception of anticipatory actions**
(test actions or other tangible outputs) (?)

**To anticipate means
to be prepared for the future.
It involves „knowing“ and acting.**

Practical Examples of Foresight Exercises

- **INNOVA** → European scope → Sectoral
- **Materials Foresight** → National scope → Technology
- **WEGE2025** → Regional scope → Societal

INNOVA – The Europe INNOVA Sectoral Innovation Watch Foresight (Case 1)

- **Duration:** 2008-2010
- **Client:** European Commission
- **Consortium:** 11 partners from research organisations and universities
- **Thematic area:** innovation policy
- **Aim:** to explore future developments in nine industrial sectors, (manufacturing as well as services) in order to identify potential policy issues and challenges of the future
- **Approach:** (sector) stakeholder and expert-driven
 - “classical” Foresight approach for future planning and
 - implicit anticipation approach
- **Stakeholders:** industry, policy making, research, NGOs



The Austrian Materials Foresight (Case 2)

- **Duration:** 2013–2014
- **Client:** The Austrian Research Promotion Agency, Ministry for Transport, Innovation & Technology
- **Consortium:** AIT, Montan University Leoben, The Austrian Society of Metallurgy and Materials
- **Thematic area:** exploring future developments in the area of material science in Austria
- **Aim:** to strengthen and develop the national competence on high-performance material as a significant contribution to sustainability and growth of the Austrian production site
- **Approach:** expert-driven (engineers)
 - “classical” Foresight approach for future planning
- **Stakeholders:** national and international experts from universities / research organisations, companies (metallurgy, polymers, ceramics, non-ferrous metals)



Wege2025 – Living and aging at Mühlviertler Alm (Case 3)

- **Duration:** 2014-2015
- **Client:** The Austrian Research Promotion Agency / *association of ten communities (stop-or-go-decision)*
- **Consortium:** AIT, Association of Mühlviertler Alm
- **Thematic area:** aging, ambient assisted living
- **Aim:** identification of technical solutions for ambient assisted living in a rural, demographically challenged area (exploratory study for a potential test region)
- **Approach:** participatory, user-centered, demand-driven
 - “classical” Foresight approach for future planning and
 - “personal concern” of stakeholders in view of their own aging
- **Stakeholders:** community representatives (mayors), public (young and elderly people), potential end-users, care organisations, health and voluntary sector



Foresight Methods Applied

Phase	INNOVA	Materials Foresight	WEGE2025
Prep.	Desk research (state-of-the-art analysis), analysis of drivers of change, trends & trend breaks, assessment of key future development	Desk research (state-of-the-art analysis), interviews, identification of challenges, (mega)trends, drivers; STEEP factors	Desk research (state-of-the-art analysis), interviews; identification of challenges, (mega)trends, drivers; STEEP factors
Main	Interactive workshops (WS); visioning; scenarios on sectoral level	WS, visioning, scenarios on material level, identification of products & research topics (2030); measures for the near future	WS, visioning, scenarios on personal level (incl. improvisation theatre); identification of main goals for independent living and aging
Shaping	Policy issues for the future for each sector; comparison of sectors	Analysis of measures and research topics; future conference	Roadmapping, “project outlines” for test region

Foresight Outcomes

INNOVA	Materials Foresight	WEGE2025
<ul style="list-style-type: none"> - Generic robust policy strategies to improve preparedness against unforeseen developments while contributing to better policies focused on one single scenario (focused strategies); - Diverging basic assumptions (from mainstream assumptions) 	<ul style="list-style-type: none"> - List of relevant research topics and product ideas; - Plan for action for advancement of knowledge and economic policy - Research proposals for specific topics submitted - Talks with the relevant ministry - Support from the ministry and universities 	<ul style="list-style-type: none"> - List of potential AAL-solutions to be tested; - Roadmap; - “go decision” by the mayors; - volunteers for test regions; - discussion on various regional activities

Comparison of Foresight Exercises

- **Common aspects** between the different foresights:
 - All three case studies use a similar selection of methods
 - “Anticipation” (DoA) was not an explicit feature of the Foresight design
 - no specific intention
 - no specific methods were applied
- **Differences** between the foresights:
 - Scope (European / national / regional or local)
 - Topic (sector / technology / society)
 - Degree of (personal) involvement of the stakeholders that can take actions
 - Possibility to act on different levels (individual – group – community – national – transnational)
 - Different perception of actions as outcomes (objective assessment possible? - actions may be delayed – here focus on unexpected extra actions departing from plan)

Change of assumptions about the future

... triggers actions in the presence:

- **INNOVA**

- New assumptions about the **future economic development** (diverging from mainstream assumption of stakeholders)
- in exploring future developments in nine industrial sectors, (manufacturing as well as services), some of them stuck strictly to the planning approach (e.g. construction), whereas others charted the anticipation path and went beyond classical planning (e.g. wholesale and retail)

- **Materials Foresight**

- New assumptions about the **future importance of a specific technology** (hydrogen metallurgy)

- **WEGE2025**

- New assumptions about the **target group for AAL-solutions**: stakeholders realised that “they” are the target group themselves and that they have to start doing something about it

Link between Foresight and Anticipation (Methods)

Foresight exercises

- are **structured**
- employ a huge **number of methods** (a selection of them in case studies)
- there are **no strict rules for application** - you can choose, adapt and personalise methods according to the specific needs of the Foresight
- use of methods depends largely on the **choice of the practitioner** of Foresight and on the **type of Foresight**

Anticipation

- fulfils a **function** (use the future to think about choices in the presence)
- difficult to **identify specific methods** for “anticipation” (cf. Futures Literacy)
- **no systematised set of methods** currently available
- it is about **HOW** you apply the methods and not about **WHAT** you do
- **Foresight methods** can be used (implicit anticipatory approach) → depends on how you use methods to achieve Anticipation (i.e. create a surrounding / scenario that promotes a change of assumptions)
- Anticipation is **not well controllable** within Foresight process (susceptibility)

Link between Foresight and Anticipation (Characteristics)

- Foresight processes include **implicitly anticipation**
- Foresight is an **umbrella** for (explicit) anticipation (DoA)
- **Anticipation is part of Foresight** → can result in anticipatory actions.
- Anticipation **can be triggered** by some **Foresight methods**
- However, the extent of anticipation and anticipatory actions depend on several factors:
 - the effectiveness of the methods used in changing the assumptions of stakeholders of the future and stimulating for actions
 - awareness of assumptions as a motivational factor
 - the personal involvement of the stakeholders with the topic
 - the scope of the topic (general vs. specific)
 - possibility for the stakeholders to act (are potential implementers involved in the foresight process? implementation power of client?)

Significance of Anticipation for Foresight

- **Awareness** about one's own assumptions about the future increases
- Explicit anticipation can be a **key element for decision-making**
- Stakeholders will be **prepared** in the presence for the future (conscious use of the future in the present)
- Stakeholders can take back knowledge and impulses to their own organisations
- Foresight **outcome** (results) go beyond a report and **will be supported by the awareness of the involved stakeholders**
- **Implementation** of Foresight products is accelerated (implementation becomes more realistic)
- **Measurable results** / products are available

Overall positive effect on foresight!

Promotion of Anticipation in Foresight

Aims:

- **Increase awareness** about own assumptions of the stakeholders
- **Design, develop and systematise methods** for increasing the quality of Anticipation (based on existing Foresight methodology but also new ones) flexible enough to cater for different types of Foresight
- **Design and develop methods and criteria for testing** the quality of Anticipation (tangible results)

Promotion of Anticipation in Foresight

Methods:

- Include specific **means** in foresight processes that allow **for testing** the quality of Anticipation
- **Contact stakeholders of the Foresight process retrospectively** and ask for feedback (any implementations / changes / products / actions?)
- Establish **observers in Foresight processes** with a focus on Anticipation
→ reporting of the observers to the stakeholder groups can change reflection process
- Create a **suitable context for scenarios** that allow stakeholders to separate from own assumptions and make space for new assumptions
- **Train stakeholders** to observe themselves and become aware of established assumptions
- Have **stakeholders reflect on what they have learned** in the foresight process (what was new? What have they learned from others? What methods have the used?)

Conclusions

- We conclude that common **foresight exercises already apply** to some but limited extent **Anticipation** (DoA) .
- The current methods are arbitrary - we **cannot really control the effect of Anticipation** for the time being.
- We need to **adapt the existing Foresight methods** and probably create new ones.
- Anticipation can also provoke **unexpected outcomes** (not previously anticipated effects!)

Thank you for your attention!

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