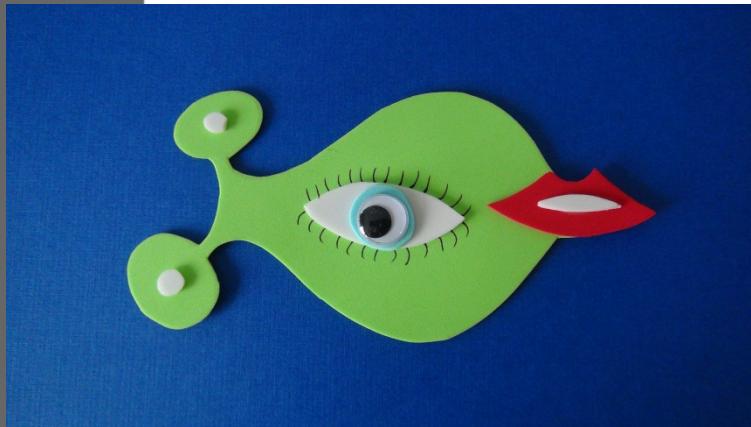


European Foresight Platform Final Event “Forward Looking Activities Governing Grand Challenges”

Looking back and looking ahead

27 Sept 2012



Dr. Susanne Giesecke
Austrian Institute of Technology (AIT)

What Challenges for EU Research and Innovation Policy?

Incentives:

- Global shifts
- Scarcity
- Vulnerability and systemic risks
- New opportunities in emerging markets and technology breakthroughs

Why did we not see:

- The financial crisis
 - technology accidents (Fukushima)
 - Natural disasters (Eyjafjallajökull)
- ?

Challenges for the European Research & Innovation Systems: Setting the Right Course for Smart, Green and Inclusive Growth

Address key **societal challenges**:

- sustainable lifestyles involving converging social innovations;
- active & healthy ageing and a new 'inter-generational contract';
- renewable energy deployment strategies, clean transport; smart, green and inclusive cities, urban ecosystems and city-rural ensembles
- new welfare state arrangements focusing on the eradication of poverty, social inclusion and the empowerment of individual and groups;

Requiring research in many fields of natural sciences, technological developments & demonstration activities, social and humanities research and user engagement in **novel hybrid environments**.

Foresight in Europe

- A long history of foresight and TA in the European Union
 - FAST programme on Forecasting and Assessment in S&T
 - Cellule de Prospective, now BEPA Bureau of Economic Policy Advisors
 - European Parliament STOA
 - JRC-IPTS Institute for Prospective Technological Studies
 - Dedicated foresight/ forecasting action under FP5, FP6 and FP7
 - „Political“ reports such as Gonzales Report „Europe 2030“
- A broad range of activities in the Member States
 - Parliamentary TA offices
 - National Delphi studies since the late 70ies
 - Foresight processes since the late 80ies, at national and regional level
- ...and in industry – corporate foresight
 - Large firms with dedicated foresight units (Daimler, Shell, Philips, etc.)
 - Foresight consulting for networks/clusters of SMEs

Renewed Interest in Foresight

- Growing interest and, prominence of foresight/FLA at European policy level, not the least triggered by the financial crisis and other unexpected events
- Creation of EFLA (European Forum on Forward-Looking Activities) as a high-level advisory body to the EC
- Uptake of foresight and FLA as common practice in other policy areas and DGs than those dealing with RTI: industrial policy, regional policy, environmental policy, security, etc.
- Reinforcement of international networking on FLA, as a response to the increasingly global nature of many Grand Challenges and S&T developments
- Growing importance of foresight on matters of international cooperation between EU and other countries/regions

The European Foresight Platform - EFP

- Socio-economic Sciences and the Humanities – Part 8
 - CSA – co-funded by EC
 - Duration: 01/2010 – 12/2012 (36 months)

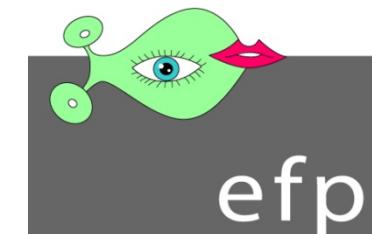
Consortium:



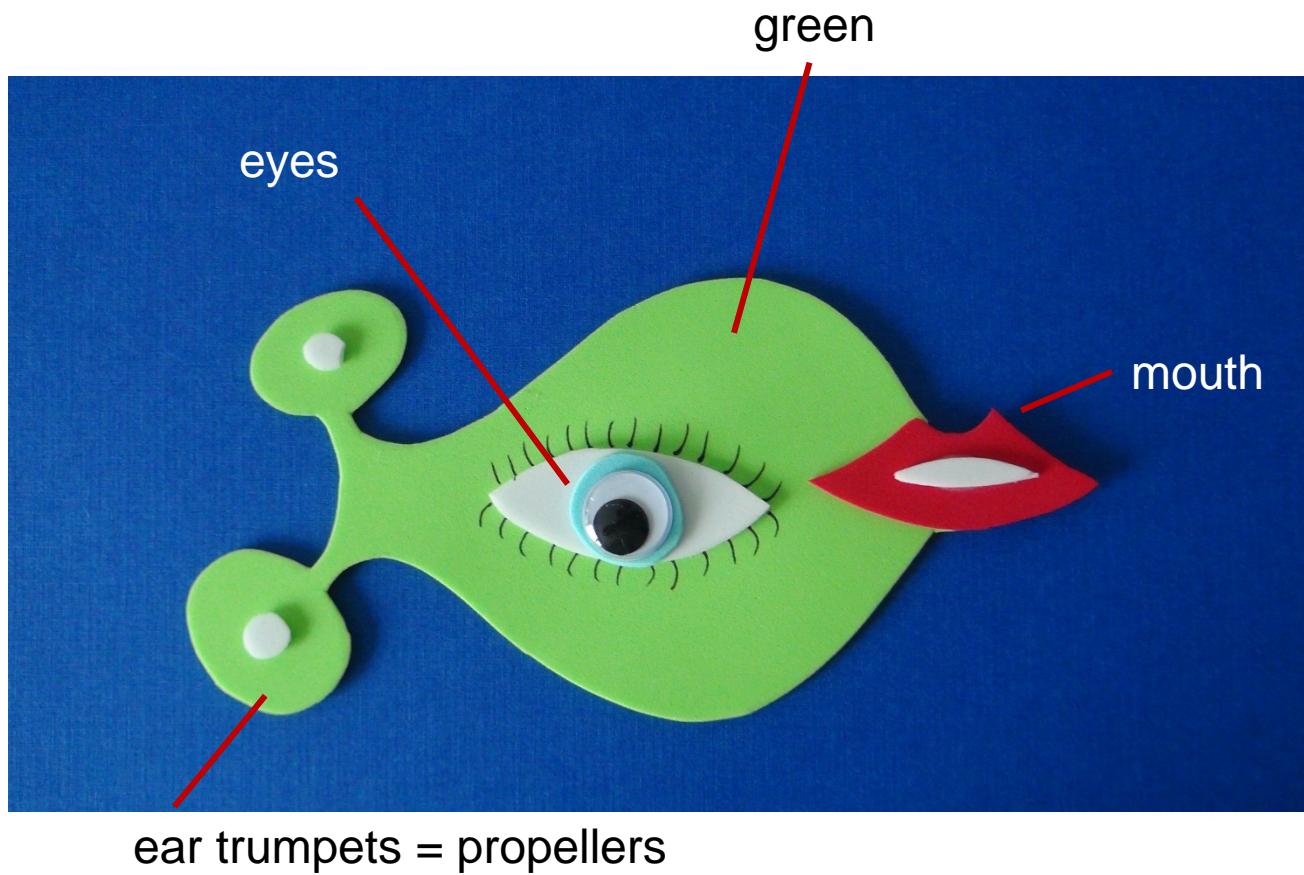
The University
of Manchester



Predecessor projects:



The Secret of the Fish Logo

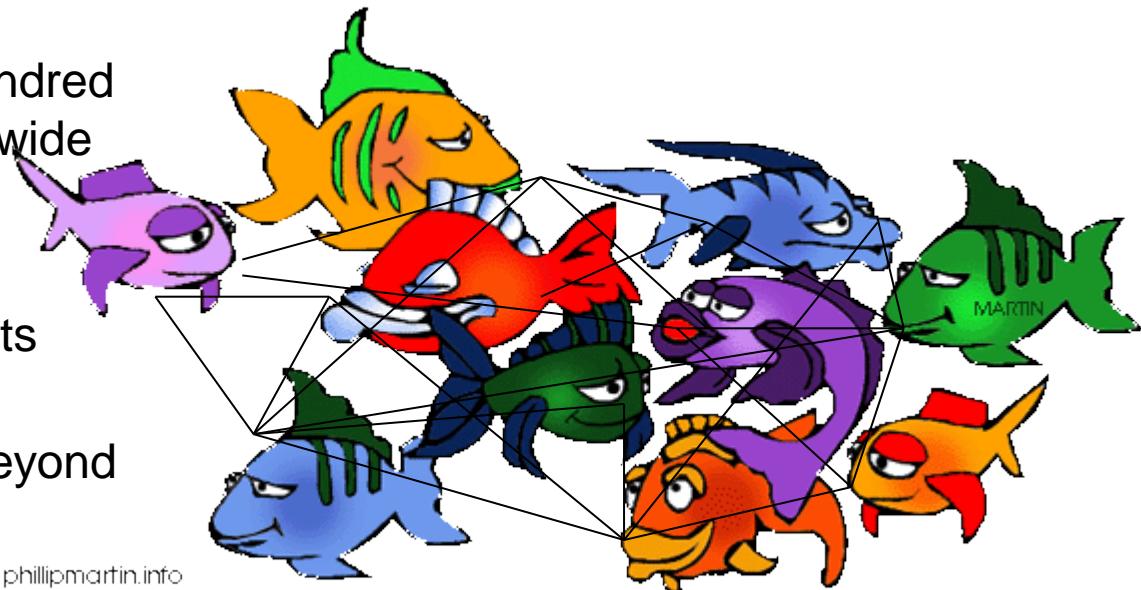


The Purpose of the EFP

- to give continuity and expand access to foresight information and knowledge
 - ... through the building of a network of foresight networks
 - ... as a central knowledge hub and repository on foresight related activities in Europe and worldwide
 - ... on projects, actors and practices
 - ... as a service to both practitioners and users

Community Building

- network of several hundred correspondents worldwide
- About 60 additional network hubs
- About 20 contact points offering FS trainings
- around Europe and beyond



Lessons learnt for community building

- A visible 'label' is essential to make the community attractive
- Access and contributions to valuable information and knowledge
- Combination of physical and virtual interaction
- Transition from EC-funded project towards a self-sustaining platform?



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supporting forward looking decision making
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The EFP website is a central tool to connect network partners to each other and to create the EFP community.

It is open to practitioners to become correspondents and to present their profile on the EFP website so that others can benefit from their expertise and publications.

The Website





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Provide in a storyline an overview of the methodology, the results and the impacts of important foresight initiatives as well as the most important forward looking studies.

Overview Briefs summarise foresight activities on Grand Challenges.

Follow-up Briefs assess the impact of past foresight activities.

The EFP Briefs



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Delphi-based Disruptive and Surprising Transformation Scenarios on the Future of Aviation

EFP Brief No. 192

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Type: Single issue brief
Organizer: Center for Futures Studies, EBS Business School, Marco.Linz@ebs.edu
Duration: 06/10 – 05/13 Budget: 2.3m € Time Horizon: 2025 Date of Brief: June 2011

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scenarios, with a significant impact on the future and enrich decision making process. The scenario support system and creating awareness (in our case a real-time variant) can be conducted using deductive wildcard analysis.

o-culture, politics, the economy and the environment. Our highly standardised scenario development applies qualitative as well as quantitative methods and equips policy and decision makers with reliable decision support systems.

specifically how the Delphi method can be used to identify wildcard developments deductively and point in time (Daneke, von der Gracht et al. 2008). We also illustrate inductive wildcard analysis.

The results of our study and adjacent work to derive an 'opportunity radar', which identifies opportunities and challenges for government and companies (von der Gracht, Gratzy et al. 2008) is the product of several participatory workshops in which the examined scenarios were designed to provide a pragmatic but also prospective on the future while displaying different degrees of innovativeness.



Systematic Mapping of FLAs



Creation of a comprehensive data set of foresight exercises in Europe and beyond for empirical analysis on various types of activities, methods, customers, experts, countries, clients, results, etc.



Delphi Survey

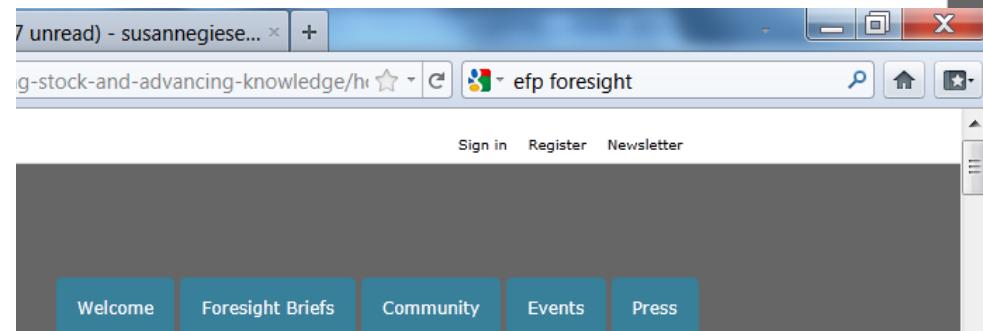
The **Delphi method** is based on structural surveys and makes use of information from the experience and knowledge of the participants, who are mainly experts in the relevant field(s).

Page contents:

- [Main characteristics](#)
- [When is this method appropriate?](#)
- [Who is it for?](#)
- [Who is usually involved?](#)
- [Main steps](#)
- [Resources](#)
- [Outputs](#)
- [Pros and cons](#)
- [Variations](#)
- [Complementary methods](#)
- [Checklist](#)
- [Examples](#)
- [References](#)

Overall description

Online FLA Guide



A screenshot of a web browser window. The address bar shows '7 unread) - susannegiese...' and 'g-stock-and-advancing-knowledge/h...'. The page title is 'efp foresight'. The header includes 'Sign in', 'Register', and 'Newsletter'. Below the header is a navigation menu with tabs: 'Welcome' (highlighted in blue), 'Foresight Briefs', 'Community', 'Events', and 'Press'.



A screenshot of a 'ForLearn' section. At the top is a search bar with the word 'Search'. Below it is a heading 'ForLearn'. A sidebar on the left contains a tree view of topics: 'Open all | Close all', 'What is foresight' (expanded), 'Foresight for policy makers' (expanded), 'Impactful foresight for policy making' (expanded), 'Practicing Foresight' (expanded), 'Why do foresight' (expanded), 'Rationale' (expanded), 'Foresight and Grand Societal Challe...', and 'Foresight objectives' (expanded). At the bottom of the sidebar is a link 'Move towards implementation and i...'.



Policy Workshops

- cross-fertilize ideas by discussing forward looking activities
- provide support to policy-makers at European, national and regional levels for preparing strategic responses to the major challenges that Europe may face in the coming decades.

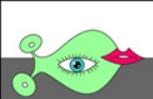
Events:

- **Active and Healthy Ageing**
(January 2011)
- **Technology and Services in the Wake of Demographic Change**
(March 2011)
- Screening of **Urban Foresight** activities with a time horizon of 30+ years (April 2011, November 2011)
- Policy options for **surprising and emerging futures** in Europe
(November 2011, Brussels)
- **Smart Mobility and Transport** (June 2012)
- **Logistics and Transport of Cargo** (October 2012)
- **Preservation of Cultural Heritage** (November 2012)



Collaboration Opportunities for All of You

- Briefs
- EFP Policy WS 2012 on Logistics and Transportation of Cargo
- EFP Policy WS 2012 on Preservation of Cultural Heritage
- FTA Conference 2014



Prevent Fish Mortality!

- fill out the cards and pin them to the boards
 - *From your perspective: What do you see as an option to continue the global networking of Forward Looking Activities?*
 - *What do you consider the future role of EFP in this option?*



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What Challenges for EU Research and Innovation Policy?

Incentives:

- Global shifts
- Scarcity
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- New opportunities in emerging markets and technology breakthroughs

Why did we not see:

- The financial crisis
- technology accidents (Fukushima)
- Natural disasters (Eyjafjallajökull)?

Do we

- ask the right questions
- have the proper instruments
- communicate our messages so they can be understood by policy makers and turned into the right strategies?

Areas Covered

- S&T oriented
 - Focus on identification and assessment of the socio-economic impact of new and emerging technologies
 - Examples: SESTI, Future of Manufacturing, PromTech
- Structurally oriented
 - Focus on future structural and coordination requirements of socio-economic systems, in particular research and innovation systems
 - Example: Farhorizon, Future of FET-Open
- Innovation-oriented
 - Focus on social / organisational practices in research and innovation
 - Examples: INFU, RIF, Sectoral Innovation Foresight
- Grand Challenges-oriented
 - Focus on societal challenges (e.g. Energy supply, climate change, health) and how to tackle them with technol. and socio-econ. means
 - Examples: ForeSec, Urban Europe JPI, VERA

The concept of "Grand Challenges" in the EU context

severe global challenges, such as climate change, food and energy security, or (re-) emerging infectious diseases, which can only be dealt with on a **multilateral or global level**, since both the originating factors of the challenges and their consequences are **global in nature**. **Institutional coordination and collective action** are therefore required, in order to efficiently bundle the necessary resources.

Science, technology and innovation (STI) play an important role in most strategic responses to global challenges. This coordination and regulation of international STI cooperation can be based on very different settings of **global governance**.

(as suggested by the ERA Expert Group "Rationales for the European Research Area")

VERA: Visions for the European Research Area

How do we define a Grand Challenge?

- **first it is problem driven,**
- **second a solution needs to found,**
- **and third a scenario of how society will change if this solution is found or not found.**

There are very different understandings and definitions of this term.
Some present already
a technological solution to a problem that is only roughly
sketched.

Others imply **devastating dystopias**.

Some are focusing on **one sector only (for example defense, engineering, health)**,

others point primarily to **global developments such as climate change**.

In all cases, action orientation is implicit. Another point they have in common is that they want **to “make the world a better place”**, starting from the normative notion that some developments are going in the wrong direction and that concerted action is needed to change the path in order to improve the situation.