

# VERA Policy Roundtable

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*Orienting research and innovation policy towards societal challenges – what can be the contribution of Foresight and other forward looking activities?*

*14 May 2013, 9.00 -14.00*

*Vertretung des Landes Baden-Württemberg, Rue Belliard 60-62, 1040 Brussels*

## Workshop Background and Objective

The European Commission and several national governments are currently implementing policy strategies for orienting research and innovation (R&I) towards key societal challenges. New approaches and instruments have been developed and implemented to realize these challenge driven R&I policy strategies. Prominent examples on EU level are:

- The European Innovation Partnerships (EIPs) provide “a new way of bringing together public and private actors at EU, national and regional level to tackle the big challenges we face”.
- The Joint Programming Initiatives (JPIs) “pool national research efforts in order to make better use of Europe's precious public R&D resources and to tackle common European challenges more effectively in a few key areas”
- The EIT's Knowledge and Innovation Communities that “integrate higher education, research and business in areas of high societal need”.

It is widely argued that forward looking activities (FLAs) and in particular future oriented stakeholder dialogues (Foresight) have a key role to play in designing and implementing such challenge-led strategies. Foresight can support stakeholders with a diverse range of backgrounds and perspectives in developing a shared understanding of key challenges, and defining suitable settings for addressing them. In addition, Foresight may pave the way for the changes in organizational structures needed to address these cross-cutting issues and thereby for putting challenge-led RTI strategies into practice. Accordingly, several of the on-going initiatives used Foresight or similar approaches.

For this purpose, the VERA project organised a policy roundtable with some 15 experts, policy makers and administrators from EU and national level who have several years of experience in dealing with the challenged-led RTI priority setting. This workshop aimed at stocktaking of the experience of

the participants to date and to assess the potential contribution of Foresight for designing and implementing challenge-led R&I policy strategies.

## Foresight and its benefits

What, Why, and Which Foresight were the leading question in the introductory presentation by Philine Warnke on “WWW Foresight”. Herein she defined Foresight as a “structured dialogue around complex futures”. Thus, FS is *no mere desk-research*, instead we define it as “Collective strategic conversation with key actors actively engaged”. Data and research results serve as input. A further decisive characteristic is that FS is not a *loose discussion of the future*. Rather, *Foresight methods structure the futures debate* in order to ensure the emergence of *collective intelligence and the questioning of anticipatory assumptions*.

In addition, Foresight adopts a *systemic perspective on the interplay of diverse factors* in the evolution of complex systems instead of pursuing an *isolated view on one aspect of change*.

Finally Foresight does not attempt *prediction* but rather supports consideration of *multiple futures and thinking in alternatives*.

Now, “Why do we need a structured dialogue around complex futures?” We believe that FS can generate several benefits; benefits in terms of the outcome of a FS exercise (product benefits) and benefits owed to the procedure or set up of the dialogue, so called process benefits.

### Product benefits

- Understanding of:
  - complex systems’ dynamics
  - actors’ expectations
  - own capabilities (SWOT)
  - strategic options
  - challenges and opportunities
- Visions and goals
- New ideas
- Agreed priorities
- Action plans (Roadmaps)



Future oriented decisions & strategies

### Process benefits

- common ground
- new linkages of diverse elements
- futures attitudes and mindsets
- stakeholder commitment
- Seeds for organisational change
- Bridges across silos
- Learning/innovation capacity



More responsive & resilient systems



Unlocking the potential of the present

## Challenges of Challenge-led RTI policy

Before we discuss the potential contributions of these two distinctive groups of benefits we would like to summarise the expert discussion on the challenges of the so called “challenge-led RTI policy making”. These are the results of the introductory and brainstorming round at the beginning of the workshop on the issues which policy makers need to cope with when designing policy strategies for addressing societal challenges. These issues can be grouped into nine clusters:

### 1. Governance of systemic change

The first cluster on “Governance of systemic change” combines some crucial aspects with regard to the blockages and hindrances in the administrative structures and procedures we encounter when trying to react to Grand Challenges and alter policies accordingly. One major inhibitor is the “Short-termism of national policy cycle is blocking the needed long-term policy approaches”. Further, “Grand challenges do not often correspond to governance structures in government”, thus they would require “Decision making process for complex inter-related issues” which most of the time do not yet exist but would have to be created in order to cope with the “Emergence in complex systems” nature of these Grand Challenges. The dominating structures and processes in policy making are not very favourable because they are characterized by “Poor systemic thinking”.

### 2. New types of collaboration

Coping with “challenge-led RTI-Policy making” requires new types of collaboration that were discussed in the second group of aspects. These new forms of collaboration require to overcome “administrative silos and borders”, getting “out of the comfort zone” and foster cross-boundary collaborations. It does not only affect administrative structures but individual organisations at various sectors need to incorporate new strategies (e.g. priorities of RPOs are not always clear, how much they take GC on is very dependent on external funding). In order to do so, we need to “move from competitive to collaborative economy” and design “new ways to contribute to transformational collaboration”. This includes mobilising the most relevant stakeholders at national and regional level, Involving young people and integrating “diverging visions”. Not only organisations but also individuals need to be involved in this new type of collaboration.

### 3. Linking different levels

“Challenge-led RTI-Policy making” requires the linking of different policy levels and of different policy fields as they are mentioned in our 3<sup>rd</sup> cluster. This means that an open or semi-structured “bottom-up” process within policy making units has to meet a more “top down” oriented process, both aiming at tackling RTI policies for dealing with Grand Challenges. By the same token, policies across regional boundaries have to be linked and coordinated as well as at multi levels: regional, national, EU and at times even beyond. Various policy fields might need to be affected by RTI policy, for example security policy. Lack of powerful international actors or lack of willingness to delegate power to them from national/regional level might at times be an inhibitor for “challenge-led RTI-Policy making”.

#### **4. Tapping into the bottom up movements**

In an overall climate of a questioned role for the state and changing balance in global powers, bottom-up social movements emerge to have a more serious role in the development of societies. Their roles are multiple, from protecting global ethics and human rights to filling in gaps from a missing governmental sector in meeting societal needs and even actively contribute to socio-economic development through social innovations.

Part of this change includes also changes in societal structures, new hybrid networks and relations among actors as well as emergence of new actors, all of which have to be closely studied and taken into account when designing for the future. New modes of collaborative production / governance also become evident, that have to be considered as an important feature in future societies.

To exploit these changes, public policies need to link to bottom-up developments in order to encourage entrepreneurial discovery and enable their growth and scaling up through dissemination of best practices towards societal transition. Links need also to be made with new modes of collaborative production/governance (p2p). Citizen driven bottom-up revolution needs to be enabled yet under a new understanding of prosperity and shared values promoting collectiveness, common good, solidarity, etc.

#### **5. Getting communication right**

It was generally agreed by the workshop participants that the negative connotation when referring to Grand Challenges is not inspiring and appealing to policy-makers. The communication approach towards persuading policy-makers and other stakeholders to take (joint) action in dealing with grand challenges should be

- Positive underlining the various roles of stakeholders
- viewing challenges/crises as opportunities
- making the win-win outcomes visible to all stakeholders
- leading to building dreams instead of highlighting threats

The communication strategy should aim to contribute to achieving commitment from the different stakeholders towards establishing goal-oriented collaborations in dealing with grand challenges under jointly-agreed visions.

## 6. Quality of leadership

Quality of leadership was discussed in two main aspects. First, it was noted that a charismatic leader is always necessary for making things and even changes happen. Given the special nature of grand challenges, i.e. requiring well-coordinated policies at various governance levels and policy areas, a gifted leader is needed to overcome the existing fragmentation and foster the necessary collaboration, synergies and coordination across different policy areas, as well as stakeholders and governance levels (regional/local, national and international). The gifted leader has to be determined to make things happen and change things where necessary as well as considerate in taking into consideration the perspectives and needs of the different stakeholders.

In the same line, quality in leadership refers to organisations and their alliances/partnerships in dealing with grand challenges, which needs to be inclusive encouraging the engagement of all involved stakeholders.

However, this is a great challenge in itself as the current governance structures (separated or even isolated in ministries and different policy areas) do not correspond to the need to overcome the policy fragmentation in dealing with grand challenges (which affect many diverse actors, sectors, research and policy areas)

## 7. Switching to transition mode

Research driven solutions for grand challenges such as climate change and more sustainable energy production and consumption require long term strategy and well-designed transition program with concrete targets and action plan. In the shift towards transition-thinking we face various challenges retarding or even hindering transition process. Among challenges are insufficient and fragmented strategic Foresight culture, lock-ins with fixed budgets, and barriers with existing governance structures. The point of departure in switching to transition mode is the creation of visions of challenges that move beyond far today's thinking and mindset.

The transition discussion in the workshop introduced innovative ideas to consider, not only dimal but also "positive" aspects of grand challenges. One example is positioning social and ecological challenges as "the silicon valley of the new capitalism" referring also to RTI driven business opportunities of solutions to grand challenges (e.g. new sustainable energy technologies). Moreover the discussion called for new macro economy standards for introducing "positive economy" concept. In the spirit of Nonaka's knowledge transformation model SECI (socialisation – exter-

nalisation – combination - internalisation) the workshop discussion also stressed the necessity to shift from individual to collective consciousness and intelligence.

What is needed to move to transition thinking is also “Scalable Foresight” meaning that we have to escape or jump from today’s perspectives and really take an unbiased look into the future. The thorough transition thinking and related management practices will influence both vertically and horizontally e.g. through value chains across institutional, organisational and governance boundaries and structures.

## **8. New policy practices**

On the road towards new policy practices the discussion accentuated the role of prototyping and experimenting instead of creating ever more scenarios. Moreover the role of “entrepreneurial discovery” in the knowledge production was stressed as an important basis for making policies. The workshop discussion also concluded that in a rapidly changing and uncertain world new policy practices cannot lean much on a traditional predictive decision making approach. Backcasting methodology (define a desirable future and work backwards to identify policies and programs that will connect the future to the present) and policy spiral approach (start from individual level, proceed via group level to organisation level, and finally to the level in between organisations) were suggested as promising approaches for new policy practices. The integration of new modes of production, especially the trend from tangible to intangible economy, was mentioned among the challenges of new policy practices.

## **9. Nature of the grand challenges**

The workshop discussion recognized well that the need of RTI in the search for concrete solutions and related required policy practices to grand challenges varies in the case of various grand challenges. In some cases RTI based solutions already exist to a great deal and the solutions, to be supported also by policy-making, are primarily economic and societal in nature (e.g. equity, education or other dimensions of social cohesion). Moreover also the needs of future oriented analysis vary in the case of various grand challenges. In some cases the current and existing knowledge of the state-of-the-art of challenges is already sufficient for starting to look for concrete solutions and supporting policy actions. Among the challenges in policy-making the workshop stated that grand challenges do not often correspond to governance structures in government.

## Discussion on potential contribution of Foresight towards the issues highlighted in the previous session

### Outcomes

Foresight Benefits	Contribution to challenges of challenge-led RTI policy
Product Benefits	
Understanding of:	
<ul style="list-style-type: none"> <li>complex systems' dynamics (STEEP)</li> </ul>	<p>Understanding the dynamics of complex systems is vital for the <i>governance of systemic change</i> and <i>Transition towards integrated and more pro-active policy making</i> as it enables the necessary interdisciplinary view on social shaping of technology. In particular, inspiration of a new perspective on today seems relevant (see below).</p> <p>Such an understanding will underpin the identification of those GCs where research is important and those bottom-up developments that should be taken up for addressing the GC.</p>
<ul style="list-style-type: none"> <li>stakeholders and their expectations</li> </ul>	<p>Knowing stakeholders and listening to their expectations and insights will support the <i>governance of systemic change</i> and in particular enable <i>linking-up to bottom-up breakthrough developments</i>.</p> <p>Secondly, stakeholder knowledge will enhance <i>quality of leadership</i> in the sense of inclusive governance.</p> <p>Thirdly, it will enable the new type of collaboration required for addressing the GCs by allowing us to <i>bring together the right stakeholders to act</i>.</p>
<ul style="list-style-type: none"> <li>current capabilities</li> </ul>	<p>Changing the image of today and recognising new things is a key step into <i>transition thinking</i>. Therefore, better knowledge of current capabilities may form an important step towards establishing transition thinking as and thereby new policy practices.</p>
<ul style="list-style-type: none"> <li>strategic options</li> </ul>	<p>More important even than showing the big strategic options, Foresight may help to identify the small levers of change that make all the difference.</p>
<ul style="list-style-type: none"> <li>emerging threats and opportunities</li> </ul>	<p>Knowledge of emerging threats and opportunities obviously supports the governance of systemic change but also helps to communicate the GCs in the right mobilising and inspiring way. In particular the identification of areas of disruptive change outside actors' comfort zone</p>
Visions and goals	<p>Creating visions that move beyond today's thinking is absolutely key for the success of challenge led RTI policy (see session 1) for finding adequate transition pathways but also for <i>getting communication right</i>.</p>
New ideas	<p>New ideas are an important element for <i>switching to transition</i></p>



Forward Visions on the  
European Research Area

	<i>mode and for creating visions that move beyond today's thinking and are also required for getting communication right.</i>
Agreed priorities	Agreed priorities are vital for the <i>governance of systemic change</i> . For <i>transition towards integrated and more pro-active policy making</i> in particular agreed priorities across established government structures are key. A relevant type of agreed priority for RTI policy could be <i>an agreement among RTI actors on GCs where research is important</i>
Action plans (Roadmaps) <i>Establishing new transition paths</i>	Rather than “roadmaps” GCs require new transition pathways. Support from Foresight in developing such pathways could be a strong enabler for transition thinking
<b>Process benefits</b>	
Common ground	Identification of common ground is key for establishing collaboration across silos. It will also help for stimulating bottom-up developments.
New linkages of diverse elements/disruption of existing ones	Creation of new linkages is key for new more experimental policy practices, establishing new types of collaboration and for linking different policy levels. Of particular relevance is the <i>empowerment of new actors</i> which may often require the disruption of existing linkages.
Foresight attitudes and capacity	The <i>establishment of new more experimental policy practices</i> requires widespread capacity to deal with uncertainty and engage with futures thinking. Also <i>transition towards integrated and more pro-active policy making</i> will most likely be enhanced if foresight attitudes are more common.
Stakeholder commitment	Creating stakeholder commitment as a new way to empower people beyond the “usual suspects” will be important for linking to the bottom up developments.
Spanning silos/boundaries	Key element in itself (see session 1)
Seeds for organisational change	Initiating organisational change is key for transgressing silos and for establishing transition thinking.
Democratic renewal of decision making/transparency	Reviving democratic practices is certainly important for jointly moving forward towards the GCs. Nevertheless, it should be noted that non-democratic countries such as China have very good Foresight in the realm of RTI policy.
Spaces for learning and experimentation	This is at the core of new, more experimental policy practices and an important lever towards transition thinking Governance of systemic change, new policy practices

### 11.30 Session 2: Assessing the VERA “Grand Challenges”

Presentation Susanne Giesecke: VERA list of grand challenges

#### Discussion

There were some individual comments on possible use of the analysis with regard to the question which of the 28 countries would commit to do something and where we go together and if the cooperation lasts when EU funding stops. By the same taken, the Need to asses where would the ERA make an added value was raised and How GC can give focus / direction to ERA?

There was also some discussion on the degree to which RTI policy should seek technological solutions or rather start with societal solutions. Thus, there is a need for clear responsibilities: We need to assess where technology makes a difference and DG RTI should therefore focus.

Some participants mentioned that the VERA analysis of Grand Challenges could be useful for consultations with regard to RTI policy making in the various organisations and institutions. Also, Foresight is beneficial not only an national or supra-national level but at regional level as well.

### **Move from grand threats to grand dreams**

Everybody agreed on the threats/challenges, however what we need is more granularity and ways out, here Foresight should come in. This could mean, for example to cluster the threats/challenges around solutions and develop visions/opportunities (such as low carbon economy, blue economy), then assess how ERA matters / implications for ERA. Looking at threats might cause a lock-in into the past. The role of Foresight should be to stimulate policy discussion through opportunities instead of sticking to past and current concerns.

### **Missing aspects**

Though there is a cluster of changing societal values, the role of religion appeared to be underrepresented. Further, there should be a cluster around democracy: “resilient Europe”.

### **Comments on specific Challenges**

One participant suggested to view the new separate challenges “Migration” and “Aging Societies” together, because migration could play a very positive role for dealing with aging and develop toward a solution. Migration could also be an opportunity for new collaboration between Mediterranean and Europe.

The “Multipolar World” can be seen as an opportunity that is positive for dispersing the EU model.

Unfortunately, financial research not supported in H2020 but should be a research target. For the so called financial crises more resilient systems and support bottom-up initiatives could be developed with the proper RTI policies.

## Key Messages

From the point of view of the Vera team the following key messages emerge from the discussion:

- Successful challenge-led RTI policy-strategies require moving from today's "grand problems" towards truly future oriented "grand aspirations" that transcend today's paradigms and inspire powerful transition thinking.
- In order to move from transition-thinking to governance of systemic change we need to link-up to on-going bottom-up transition processes such as the current movement towards the "collaborative economy" and to mobilise new actors into new types of collaboration that reach out to ambitious future goals beyond today's comfort zones.
- This again requires breaking up some of today's advocacy coalitions such as today' established sectors, disciplines and domains and building new bridges across today's organisational structures that form a substantial barrier to challenge-led policy strategies.
- In order to truly embark on transition pathways policy instruments need to enable experimental bottom-up exploration i.e. instruments such as transition management and living labs where stakeholders jointly explore transition pathways. At the same time high quality leadership is crucial.

**Foresight** has the potential to contribute to all of these aspects and to become one of the new challenge oriented and experimentation enabling policy instruments. For this to happen however Foresighters need to make a substantial effort to develop and apply rigorous approaches that open up mindsets for new perspectives on today, enable participants to move beyond today's comfort zones towards real transition thinking and break-up established organisational structures.



## Background VERA Project

The VERA project is setting up a stakeholder dialogue on future patterns of governance of research and innovation within the European Research Area (ERA) in order to underpin future oriented priority-setting and strategy-building throughout the ERA. VERA is funded through FP7 in the area of Socio-economic Sciences and Humanities and carried out by a consortium of nine European research institutes under the lead of Fraunhofer ISI (Germany). This workshop is part of VERA workpackage 1 focussing on challenge-driven R&I strategies led by the Austrian Institute of Technology AIT. More information can be found on: <http://eravisions.eu/> and in the attached leaflet.

**Further information:** <http://eravisions.eu/>

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