

Refining foresight approaches to crisis, inertia and transition

25-27 April 2017 | Aalto University, Espoo, Finland

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This presentation draws on the work of DG Research Expert Group 'Strategic Foresight for R&I Policy in Horizon 2020' - the views expressed are those of the author and do not necessarily reflect the views of the European Commission.

Contents

- Emerging policy context
- Rationales for foresight-based governance
- Futures challenges facing Europe
- Addressing Complex Policy Choices: RRM
- Rapid Response Mechanism
- RRM Security Pilot
- Inertia challenge – Inclusive foresight
- Transition challenge – Innovation ecosystems
- Reflections

Emerging Policy Context

- Increased complexity - domino effect linking crises to long-term challenges
- Designing and implementing appropriate and integrated responses across a range of policy areas has brought European policy-making to its limits.
- Extraordinary policy challenges
 - Long-term challenges: e.g. in climate change, bio economy, ageing
 - Unexpected developments (disruptive system change): e.g. industry 4.0, digitisation,
 - Inertia/timelag in institutional and governance processes

Rationales for foresight-based governance

- At a time of accelerated technological and associated social change, it is not sufficient to define political frameworks in a reactive manner
- Trade-off between urgency and deep reflection
- Nature of challenges calls for a significant shift in policy approach
 - Framing short-term within long-term
 - Framing national within regional, local and global
 - Co-designing policy by engaging more closely with citizens and communities
 - Aligning actions by several actors at different levels of policymaking

Futures challenges currently facing Europe

Three main types of futures challenges :

- 1) Crisis related to the growing incidence of sudden, high impact events including political, economic, social and security crises
 - 2) Inertia related to lock-in to outdated/redundant systems and structures and inability to cope with rapid change and
 - 3) Transition related to engineering change and innovation in response to the onset of paradigm shifts and disruptive technologies.
- Challenges are more complex and approach needs to be more customised and targeted.

Addressing Complex Policy Choices: RRM

RRM uses expert judgements to provide a quick response to a sudden crisis and its knock-on effects.

RRM aims

- (i) to provide a policy brief to give direction, by *exploring emerging challenges, and* providing alternative policy options and solutions on newly emerging and high-stake policy issues requiring urgent responses;
- (ii) To help validate and complement research priorities.

When: Quick delivery of inputs under time pressure, primarily in an early phase of sense-making and policy preparation - innovation ecosystem formation, in the case of new developments of an unexpected nature.

Rapid Response Mechanism

How :

scanning of existing sources (for example, data-mining and advanced analytics of existing foresight databases),

rapid data collection techniques (such as online enquiries, social media analysis and workshops),

a long-developed ability to synthesise a broad spectrum of knowledge (often individual tacit knowledge) and to connect it to current policy agendas.

RRM outputs include:

- Short-term input to respond to decision-making, political or procedural urgencies; e.g. special thematic input.
- Input to the framing and selection of R&I priorities.
- Process for developing/validating new strategic direction(s) in R&I programmes and policies.

RRM Security Pilot: Key structural features

Increasing unpredictability generates threats from outside and within. Rising insecurity.

Scale and complexity of security challenge has reached unprecedented levels due to confluence of destabilizing factors, exposing serious vulnerabilities in societal security.

- Escalation of **high risk, low probability security events** due to inter-connectedness of systems – leading to knock-on effects and far-reaching consequence (cyberattacks)
- Ongoing imminent persistent threats (e.g. long-standing political-military conflicts) are exacerbated by fast-changing diversity of new threats (**hybrid threats**)
- **Domino effects** of security events as consequence of globalization and ICT
- Complexity of inter-dependencies with implications for long-term impacts
- Growing geographical spread of threats (including new threats), dispersion and multi-location coordinated attacks, leading to a proliferation of threats

Business as usual vs New Paradigm

BAU: increased effort in defense technologies and neutralizing threats
Potentially raising security risks (e.g. through leakage)

New paradigm: does not completely replace the old – still increasing investment in defence technologies.

Strong emphasis on:

- Root causes of insecurity
- "Security by design" in infrastructures and in potential dual use technologies.
- Societal security: social participation in security policy and security by design to foster more societal awareness of the importance of security.
 - new **emphasis in security R&I policy on social innovation and citizen engagement rather than mere technological fixes.**
 - **different types of research infrastructures** to address more volatile security threats.

Inertia challenge: Inclusive foresight

- Inertia in policy and governance is a key factor influencing citizen discontent and unrest
- the use of bottom-up approaches, in particular community-driven inclusive foresight as a way of helping citizens to voice their concerns about redundant policies and to help co-design their future.
- Inclusive Foresight calls for projects which are co-conceived, co-designed and co-implemented by citizens and localities with other actors and reflect their priorities in relation to European, national and global challenges.
- This can be implemented through an incremental approach which builds on individual research projects as the basis for developing a more mainstreamed research policy approach.

Inclusive Foresight Initiative

Workshop on foresight processes and tools for programming and policy design in the context of "Democracy 2.0" (transformations of political systems for more deliberative policy-making and public participation in governance).

- Having citizen opinion on a pre-designed R&I programme is not sufficient - participatory budgeting and city led collaborative initiatives and programmes.
- Provide space to citizens' initiatives to develop and to engage in policy-making
- Relevant actors: take into account citizens groups that might be affected by specific policies in the future. Use existing community organisations.
- Focus on building trust between policy makers and citizens
- Work on skills rather than tools selected according to needs, objectives and the idea. In order to obtain lay opinion, a mining of media is an option.
- The participatory approach/process is not suitable for all EC policies. Citizen-centred foresight to inform R&I policy is an adventure but it is worth trying!

Transition challenge : innovation ecosystems

- The transition challenge (e.g. shift to the bioeconomy, Industry 4.0) requires that foresight moves from anticipating emerging changes and shaping the future towards design and implementation.
- This entails engineering required transitions – including helping to build the enabling infrastructures and new innovation ecosystems.
- In order for research and innovation to have an impact in practice, it is essential to build the innovation ecosystems that provide the supportive environments for innovations to grow and flourish.
- These environments are as much subject to change as the innovations themselves, and they are shaped by a broad range of actors.

Reflections

- Growing complexity of policy context due to digitalisation and governance failures calls for better targeted foresight approaches
- One way forward is to distinguish between different policy challenge based on the underlying concern – crisis, inertia or transition
- A policy challenge may over time reflect combinations or a sequence of these conditions adding to the complexity
- Foresight can be tailored to address a policy challenge in crisis/inertia or transition mode to provide better targeted and hopefully more effective results
- Improved alignment, responsiveness and inclusive co-design in policy approaches using foresight are becoming both more feasible and critical.