**Supplementary Material I: overview of enabling conditions to deal with wicked problems based on Termeer et al. (2013) and Termeer & Dewulf (2014)**

**Reflexivity:**

*Tolerance of ambiguity*: noticing and accepting the variety of perspectives through which a problem is approached. Can be enhanced by boundary-spanning organizations or structures between policy sectors or governance levels.

*Embedding reflexive activities*: the embedding of temporary reflexive arrangements in the broader socio-political context, so that the co-ordination of frame differences also becomes acceptable to others who are not involved in the reflexive activities themselves. Both relevant for within organizations and for the relation between organization and their broader environment.

*Process skills*: the ability of individuals to stimulate reflexive activities. This can be done by hiring a process manager or facilitator.

**Resilience:**

*Tolerance of uncertainties*: a culture that tolerates continuous processes of change in unpredictable directions

*Bridging arrangements*: bridging arrangements between scientists and policymakers, or between different sector, networks, levels, etc. enable linkages between different types of actors and knowledge, which enhances the system’s adaptability.

*Flexible institutions*: institutional adjustments are often required to mobilize the necessary actors and enable them to adapt quickly. Includes flexible legislation that allows for experiments and tailor-made solutions, decentralizing decision-making authority, and room for self-governance.

*Redundancy*: the reliability of the systems improves with high levels of redundancy, i.e. through back-up systems.

*Improvisation skills*: the ability of individuals to improvise when faced with change and surprises.

**Responsiveness:**

*Tolerance of information overload*: being capable of monitoring attention and filtering relevant information, for example through corporate communication departments. Should detect issues that will potentially be high on the agenda in the near future.

*Be present where the attention is*: being present in venues where attention is being produced, such as public debates, press releases, social media.

*Parallel structures*: dividing system in various subsystems that communicate with different target groups. Can help to cope with variety of audiences, but may also result in compartmentalization.

*Political-sensitivity skills*: the ability to ‘know’ when to engage responding to extreme calls for attention and when not. For example through developing response strategies or prepare policy solutions that are feasible and acceptable in case of a media hype. This requires political-sensitivity skills.

**Revitalization:**

*Tolerance of disappointments*: ability of actors not to be overwhelmed by disappointments but to try to step out of stagnated patterns and to understand what is going on in terms of interactions patterns.

*Readiness to introduce third actors and contents*: bringing in someone who is not part of stagnated interaction patterns, and who has a fresh perspective on the process, and is in the position to intervene even in power structures. An alternative is bringing in new ideas and innovative approaches, that were not thought of before.

*Postponements of judgments*: willingness to postpone disqualifying judgments and conspiracy

narratives, and to tolerate conflicts as vital elements of policy processes.

*Intervention skills*: ability of individuals to intervene in stagnated interactions and to introduce new perspectives, innovations, etc.

**Rescaling:**

*Openness for multiple scale logics*: openness to the scale logics of different perspectives and thus leaving behind scale as a dogmatic concept

*Flexible institutions to create and recreate fit*: between problem and governance scales.

*Tolerance for redundancy and blurred responsibilities*: matching existing cross-level interactions in the problem scale with cross-level interactions in the governance scale will often require some redundancy in the system, e.g. in the form of polycentric institutional arrangements, with nested quasi-autonomous decision-making units operating at multiple levels. This requires tolerance for redundancy and blurred responsibilities.

**Supplementary Material II: Overview respondents**

|  |  |  |  |
| --- | --- | --- | --- |
| **Directorate-General** | **Number of respondents** | **Unit(s) or directorate(s) in which respondents work** | **Types of respondents** |
| Agriculture and Rural Development (AGRI) | 6 | A3 ACP, South Africa, FAO and G8/G20  B2 Analysis of trade and international policies  C Single CMO, economics and analysis of agricultural markets  E Economic analysis, perspectives and evaluation; communication  E1 Agricultural policy analysis and perspectives | Director (2)  Head of unit (2)  Policy officer (2) |
| Development and Cooperation (DEVCO) | 5 | A1 Development and coherence  C1 Rural development, food security, nutrition | Head of sector (1)  Policy officer (4) |
| Energy (ENER) | 1 | C1 Renewables and CCS Policy | Policy officer (1) |
| Environment (ENVI) | 2 | B1 Agriculture, forests and soil  E2 Sustainability, trade and multilateral agreements | Deputy head of unit (1)  Policy officer (1) |
| Health and Consumers (SANCO) | 1 | - | Deputy director general (1) |
| Humanitarian Aid and Civil Protection (ECHO) | 1 | A4 Specific thematic policies | Policy officer (1) |
| Maritime Affairs and Fisheries (MARE) | 1 | B3 Bilateral agreements and fisheries control in international waters | Policy officer (1) |
| Secretariat-General (SEC-GEN) | 1 | D3 Resource efficiency | Policy officer (1) |
| Trade (TRADE) | 2 | D3 Agriculture, fisheries, sanitary and phytosanitary market access, biotechnology  F1 WTO coordination, OECD, export credits and dual use | Head of unit (1)  Policy officer (1) |