



Summary of the European policy workshop “Precaution for Responsible Innovation” and adjustment of RECIPES guidance

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Abstract

This deliverable (D 4.2) provides a summary of the main outcome of the RECIPES European policy workshop “Precaution for Responsible Innovation” (online, 22-23 February 2022). At this workshop, a pre-final version of the RECIPES guidance on the application of the precautionary principle was presented by the RECIPES team and discussed with a range of experts from EU and national policy-making institutions, European and national agencies, EU policy support organizations and bodies, scholars of science and technology governance, and similar experts. The document provides an overview of the feedback and suggestions from the plenary and group discussions and sets out how these were taken into account in the final revision of the RECIPES guidance.

The three policy dialogues that were planned according to the RECIPES description of action were organized in response to the RECIPES midterm review as one bigger policy workshop instead of three separate smaller workshops. The workshop documentation is concise and to the point, as required by the midterm evaluation.

1 Introduction

On February 22 and 23, 2022, the RECIPES project held the European policy workshop “Precaution for Responsible Innovation”. This workshop was the final event in a series of review-workshops in which draft versions of the RECIPES guidance on the application of the precautionary principle were discussed amongst a diversity of experts and stakeholders. The draft versions drew on the findings of the RECIPES stock-taking report of the application of the precautionary principle since the year of 2000, nine case studies, and a year-long stakeholder engagement process in which stakeholders identified needs with regard to the future application of the precautionary principle.

The present deliverable provides an overview of the feedback and suggestions from the plenary and group discussions at the European policy workshop and sets out how these were taken into account in the final revision of the RECIPES guidance. The presentation of the workshop results is preceded by a brief description of the purpose and programme of the workshop.

The three policy dialogues that were planned according to the RECIPES description of action, were organized in response to the RECIPES midterm review as one bigger policy workshop instead of three separate smaller workshops. The workshop documentation is concise and to the point, as required by the midterm evaluation.

2 Workshop purpose and programme

The purpose of the workshop “Precaution for Responsible Innovation” was to review a pre-final version of the RECIPES guidance. The guidance addresses the question of how to ensure the precautionary principle’s ability to help drive and implement responsible innovation. The two-day-workshop took place online and was hosted by RECIPES partner DIALOGIK. It brought together 25 invited experts from EU and national policy-making institutions, European and national agencies, EU policy support organizations and bodies, scholars of science and technology governance, and similar experts (see [Annex 1](#) for a list of the institutional affiliations of the workshop participants).

The workshop participants had received the pre-final version of the RECIPES guidance before the event¹. The discussion took place mainly in break-out sessions which were part of the programme on both workshop days (see [Annex 2](#) for the workshop agenda). The discussion in the small groups was guided by pre-defined questions. The participants were asked to comment on the clarity, argumentative strength and policy relevance of the guidance documents and to brainstorm on the exploitation of the documents.

The discussions were preceded by some presentations by the RECIPES team. The Maastricht University team (RECIPES coordinator) offered insights into the research policy context in which the RECIPES project was launched and how this context has changed over the life of the project. Further, it presented the RECIPES guidance in its current version and outlined its purpose, target groups, sources and development process, and structure. The Maastricht University team also explained how the guidance is supposed to be used. The team from the Danish Board of Technology Foundation (DBT) presented the RECIPES process of engaging a broad range of actors in the development of the guidance document in which the European policy workshop was the final step. The DBT team highlighted that the main structure of the guidance – the tripartite division and treatment of the overarching themes ‘scope of application’, ‘organisation of expertise’, and ‘participation’ – is a result of the insights gained from the engagement process.

¹ The executive summary of the guidance had been brought into the format of a policy brief.

3 Workshop outcome and adjustments to the guidance

Several of the workshop participants expressed great appreciation for the work done (e.g., “clear, easy reading, good examples”). The idea that the precautionary principle works best in a double role, as safeguard and compass, seemed to resonate with many participants. It was recommended, however, that it should be further elaborated.

The table below provides an overview of the suggestions made in the plenary and group discussions on how to improve the RECIPES guidance and how this feedback was taken into account in the final revision of the guidance. The suggestions for improvement are presented across breakout groups and plenary sessions and sorted according to the three overarching topics of *clarity, transparency, and argumentative strength* (topic 1); *policy relevance* (topic 2); and *exploitation* (topic 3).

The comments and suggestions on these topics should not automatically be taken as group opinion. They can also be opinions of individuals or several individuals that were not contradicted in the group of workshop participants. Where contrasting recommendations were made, this is noted.

Topic 1: <i>Clarity, transparency, and argumentative strength</i>	Feedback and suggestions	Adjustments to the guidance
	Key messages listed in the executive summary should be at the beginning of the text, then it would be clearer right away what the guidance is about.	The key messages have been moved to the beginning of the executive summary.
	The purpose of the guidance should be further clarified, and the key term “uncertain risks” should also be defined in the executive summary.	The opening phrases in both the general introduction (full guidance) and the executive summary were reformulated to better express the remit and concern of the guidance. A footnote was added to the executive summary that defines the term “uncertain risk”.
	Make it transparent who participated in the RECIPES engagement processes.	In both the full guidance and the executive summary information has been added on which stakeholder groups have contributed to the development of the RECIPES guidance through input and/or feedback. Both documents include footnotes that refer a) to more detailed reports on the different engagement processes and b) to the RECIPES

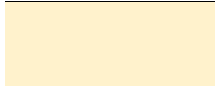
		<p>policy brief which provides a summary report of the "needs assessment process". In this process stakeholders were asked what they thought needed to be done to ensure that the application of the precautionary principle encourages responsible innovation. The policy brief that deals with the needs assessment process includes also an overview of the stakeholder groups that participated in this process.</p> <p>Because the participants in the engagement processes were assured full anonymity, the individual organisations or persons are not named in the reports.²</p>
	<p>Elaborate on the description of the "compass" function of the precautionary principle and explain how it can help guide in the early stages of innovation.</p>	<p>In both the full guidance and the executive summary the use of the precautionary principles as a compass has been explained in more detail. The explanation includes reference to the "dilemma of control" of technologies and other innovations, highlighting that anticipation can, however, help to understand the relevant uncertainties and possible ways of exploring alternative innovation pathways. In the executive summary, the difference between the two uses of the precautionary principle, safeguard and compass, has been further clarified.</p>
	<p>Highlight that foresight is needed for affected groups, for vulnerable groups, and groups that cannot speak for themselves.</p>	<p>We included in both the full guidance and the executive summary that foresight is needed for affected groups (e.g. consumers or workers), for vulnerable groups (such as children or elderly people) and groups that cannot speak for themselves (such as future generations).</p>
	<p>Revise the bullet points on participation in the executive</p>	<p>The bullet points were reformulated: The challenges</p>

² The European policy workshop documented in this report is an exception in that the report includes a list of the institutional affiliations of the participants of this workshop (see [Annex 1](#)). The authors of the report ensured that there were no objections to this approach from the participants before submission of the deliverable to the European Commission and publishing the report on the RECIPES website.

	summary: the text should be more realistic as regards the instrument of participation (now it is overoptimistic), and it should not suggest that participation is something new.	associated with the tasks that participatory processes should face are highlighted. It is stressed that participation is already deeply anchored in EU legislation and policy.
	Highlight creativity as a dimension of innovation that has brought many benefits for humanity.	The following has been added to the general introduction of the full guidance: "Creativity, entrepreneurship and the general impulse to create solutions with the help of science and technology are certainly admirable traits which have brought many benefits for humanity".
	Provide more/elaborate on illustrative examples .	The revised general introduction points out the relevance of the precautionary principle for different policy sectors; examples used in the guidance for illustration purposes were partly revised to improve the clarity and strength of argumentation.
Topic 2: <i>Policy relevance</i>	Feedback and suggestions	Adjustments to the guidance documents
	There is a need to better explicate the policy context of the guidance and its urgency and strategic (policy) relevance for the EU (esp. in the executive summary).	In the executive summary, a paragraph has been added that stresses the relevance of the precautionary principle at international, EU and national level. In both the executive summary and the full guidance the explanation of the concept of responsible innovation now refers to the European Green Deal and the EU Framework Programme Horizon Europe with its mission-oriented approach and the thematic clusters centred around the United Nation's Sustainability Development Goals. These EU policy frameworks and approaches can be seen as incorporating the idea that responsible innovation requires a form of governance that will drive innovation towards societally desirable outcomes, using inclusive innovation processes in which all relevant

		actors commit themselves to these outcomes.
	Elaborate on the product dimension of responsible innovation . The process dimension of responsible innovation is well covered but the product dimension is rather implicit. Point out already existing EU policies that incorporate the product dimension of responsible innovation.	We have also highlighted the product dimension of responsible innovation in the description of the concept, and we have explained how the idea that innovation should be given a direction towards societally desirable ends (the “product” of responsible innovation) has already entered into the substance of research, technology, and development policy in the EU (compare the above adjustments in response to requests for better contextualisation).
	Change from “politically relevant” to “ strategically relevant ” in the subtitle in the executive summary in order to achieve better attention by policy makers.	We changed the subtitle into “Why is it strategically relevant to address the relationship between precaution and innovation?”
	Make it clear that the precautionary principle is already broadly applied in EU policy sectors.	We have added to the executive summary and the general introduction of the full guidance that, at EU-level, the precautionary principle is not only a key principle for EU environmental policy, but also by virtue of the integration principle included in all policy areas. The focus of application is still in the “traditional” policy areas of environmental, consumer and health protection, but the principle has gained relevance also in other policy fields.
	Include more references to social impacts and social rights , e.g. as regards health and safety at work.	We included these references in the executive summary and the full guidance.
	The question of whether the guidance should be fleshed out (concretisation) using example cases or sectors was answered differently by workshop participants: One view was that the guidance would need to be translated into more specific applications to achieve policy relevance. A contrasting advice was that the guidance should not	The RECIPES project will draft briefs to illustrate how the guidance can be used, using selected sectors (e.g., the chemical sector) as examples (formal RECIPES deliverable that will be published on the RECIPES website).

	be too technical, because otherwise it would lose the political point of view.	
	The guidance seems to implicitly focus on the application of the precautionary principle to technological innovations. Widen the focus of the guidance beyond technological innovations and discuss the precautionary principle's relevance in regard to dealing with systemic challenges such as ecosystems or climate change and/or in regard to dealing with areas of innovation linked to digitalisation, circular economy and the energy transition.	<p>We have added connections between technological innovations and these broader innovation areas in some places in the text of both documents, but have kept the project's focus on technological innovations. We have made this focus more explicit and justified it better in both the executive summary and the general introduction of the full guidance.</p> <p>We see the value of the proposed widened focus. However, the project call to which the RECIPES research proposal responded did not require, for example, that the relevance of the precautionary principle to systemic challenges be shown, and broadening the focus at this late stage in the project was not an option.</p>
	Present ideas for governance mechanisms to institutionalise the link between responsible innovation (process and product dimension) and the precautionary principle . Reflect on what a governance system could look like that both anticipates risks and characterizes uncertain risks and guides innovation towards societally desirable ends.	The RECIPES project considers these tasks to be very important and strategically relevant. However, the tasks were not a formal part of the project's task package and the associated issues were not discussed in the various stakeholder engagement processes. They could possibly be addressed in a follow-up project.
Topic 3: <i>Exploitation</i>	Feedback and suggestions	Adjustments to the guidance
	The target groups of the guidance should be expanded: Make innovators and the European citizenry part of the target group (the guidance identifies EU policy makers, European agencies, and EU policy support organisations and bodies that are concerned with risk regulation or the governance of science, technology and innovation as its main target groups).	It has been added to both executive summary and the full guidance that the guidance also addresses researchers and innovators and the multitude of societal actors who can contribute to a society-wide innovation system. The guidance illustrates these target groups that their contributions are needed for applying the precautionary



principle for responsible
technological innovation.

4 Outlook

The workshop participants provided the RECIPES team with valuable input and inspiring information and ideas on how to further improve the guidance³. The finalised guidance will be published on the RECIPES website and presented at the RECIPES conference "Precaution for Responsible Innovation: New Options to Move Forward"⁴.

³ Some of the workshop participants sent detailed, written comments to the RECIPES team after the workshop, which were also taken into consideration in the final revision of the RECIPES guidance.

⁴ The RECIPES dissemination conference will be held on May 11, 2022, in a hybrid format (online and in Brussels at the Representation of the State of Baden-Württemberg to the European Union).

Annex 1: List of the institutional affiliations of the workshop participants⁵

All European Academies (allea), Council of Finnish Academies, Finnish Academy of Science and Letters, University of Tampere

Brunel University, Centre for Pollution Research and Policy

Community Plant Variety Office (CPVO)

EPFL — École Polytechnique Fédérale de Lausanne, Tech4Impact

Eurofound — European Foundation for the Improvement of Living and Working Conditions (2 persons)

European Agency for Safety and Health at Work (OSHA)

European Centre for Governance in Complexity (ECGC), University of Bergen, Centre for the Study of the Sciences & the Humanities

European Centre for Governance in Complexity (ECGC), Universitat Oberta de Catalunya, Internet Interdisciplinary Institute

European Commission, Cabinet of Commissioner Johannes Hahn

European Commission, Directorate-General Joint Research Centre (DG JRC)

European Commission, Directorate-General for Maritime Affairs and Fisheries (DG MARE)

European Commission, Directorate-General for Research and Innovation (DG RTD), Common Policy Centre

European Environment Agency (EEA)

European Food Safety Authority (EFSA)

European Medicines Agency (EMA)

European Parliament, European Parliamentary Research Service (EPRS)

European University Institute (EUI), School of Transnational Governance

Forest Stewardship Council International (FSC)

German Environment Agency (UBA)

German Federal Institute for Risk Assessment (BfR)

Hellenic Parliament, Directorate of Studies, Department of Economy, Technology and the Environment

National Institute for Public Health and the Environment (RIVM), The Netherlands

RWTH Aachen University, Technical University of Darmstadt

Saeima (Parliament) of the Republic of Latvia, Committee of the Education, Culture and Science, Presidency of the Baltic Assembly, Ventspils University of Applied Sciences (VeA)

⁵ Four of the total of 25 participants took part in parts of the workshop.

Annex 2: RECIPES European policy workshop programme

“Precaution for Responsible Innovation”

RECIPES European Policy Workshop (online) – February, 22-23, 2022, CET

Feb 22nd, 09:00 – 12:30, CET

08:45	Online check in – arrival
09:00	Welcome & introduction into the 2-day-workshop Marion Dreyer (DIALOGIK)
	RECIPES in context: Precaution and innovation Ellen Vos & Kristel de Smedt (University of Maastricht)
	RECIPES engagement approach Aske Palsberg & Niels-Kristian Tjelle Holm (The Danish Board of Technology Foundation)
	RECIPES guidance: Precaution for responsible innovation Ellen Vos & Kristel de Smedt (University of Maastricht)
10:10	Break
10:20	Breakout sessions I: Clarity and plausibility of the guidance
12:00	Break
12:10	Harvesting of main discussion points and results
	Outlook for the second workshop day Marion Dreyer (DIALOGIK)
12:30	Closure

Feb 23rd, 09:00 – 11:30, CET

08:45	Online check in – arrival
09:00	Welcome & introduction into the day Marion Dreyer (DIALOGIK)
	Stakeholder perspectives on the future application of the precautionary principle Niels-Kristian Tjelle Holm (The Danish Board of Technology Foundation)
09:30	Breakout sessions II: Policy relevance, future orientation and exploitation of the guidance
11:00	Break
11:10	Harvesting of main discussion points and results
	Concluding remarks and next steps in RECIPES Marion Dreyer (DIALOGIK)
11:30	Closure