

**Xlth International Academic Conference “Foresight and Science, Technology and Innovation Policy**

# **Reposition, Representation, Resolution**

## **Three Influencing Factors on Foresight-Based Advising Processes**

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# Antecedents

- Doctoral thesis

Velasco G. (2017) *Understanding the generation of research and innovation policy advice with foresight processes* (PhD Thesis), Manchester: The University of Manchester.

[https://www.research.manchester.ac.uk/portal/files/57431200/FULL\\_TEXT.PDF](https://www.research.manchester.ac.uk/portal/files/57431200/FULL_TEXT.PDF), accessed 28.08.2020.

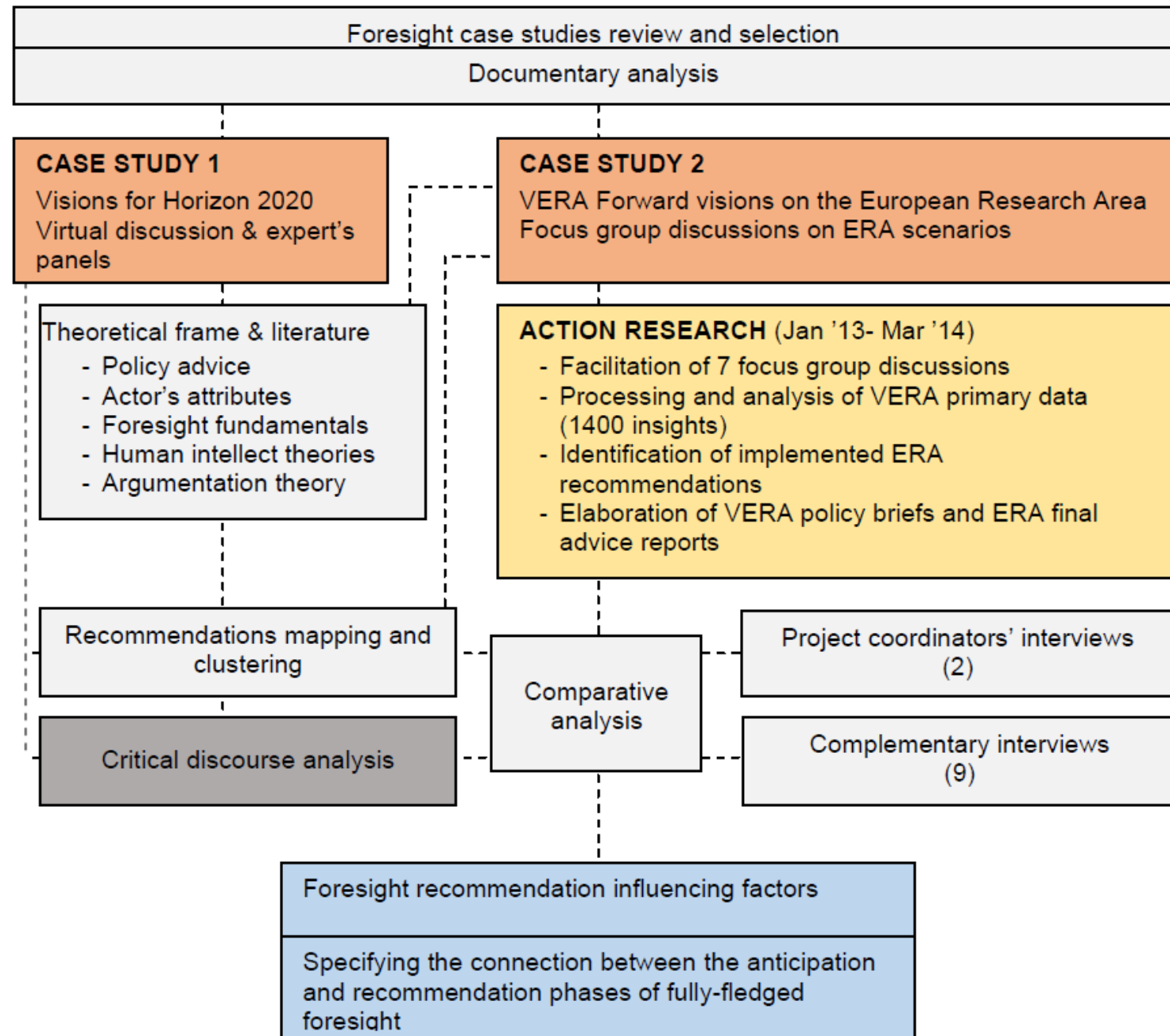
- Recently published paper:

Velasco G., Popper R., Miles I. (2021) Repositioning People in Creative Futures: A Method to Create Sound Advice with Exploratory Scenarios. *Foresight and STI Governance*, 15(2), 25–38. DOI: 10.17323/2500-2597.2021.2.25.38

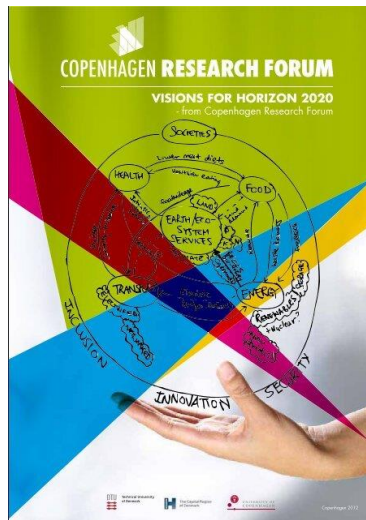
# Motivation and objectives of the research

- Foresight scenarios are not only useful presentational devices to show that many aspects of the future are open. Scenarios are means for generating advice that helps policymakers initiate actions in the present or near future that will be of long-term significance.
- Despite the influence that such advice may have on policy decisions, the Foresight literature has paid very little attention to the creation of policy recommendations.
- The method proposed and the findings (Three Influencing Factors on Foresight-Based Advising Processes) have implications for why and how these factors can be incorporated as 'key features' in the design of Foresight activities.
- The aim is also to raise awareness of the need for more exploration of Foresight recommendation methodology.

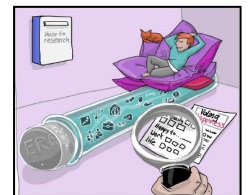
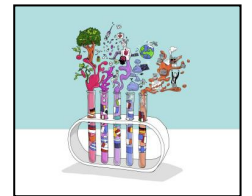
# Research methodology



# Case studies characteristics & comparison



Visions for Horizon 2020		VERA
Targeted problem	R&I to tackle societal challenges	R&I system improvement
Topic	Horizon 2020 societal challenges (Inclusive and innovative societies)	European Research Area
Rationale	"To assess the European funding agenda addressing societal challenges and to face ERA priorities according to the Europe 2020 strategy" (Innovation Union flagship initiative)	"To provide relevant strategic intelligence for the future governance and priority-setting of the RTDI system in Europe and for better adapting STI policy to the shifting global environment and upcoming socio-economic challenges"
Scope	Europe	Europe
Period	2011	2012-2014
Horizon	2020	2030
Political relevance	Very high	Very high
Urgency	Very high	Medium
Possibility of action research	No (completed)	Yes (ongoing)
Anticipating method	Virtual forum, experts' panels	Exploratory future scenarios
Actors' representation	European elite scientists	European R&I stakeholders
Participation	High	High
Interaction	Medium	High
Empirical evidence	Low-medium	Low-medium



# VERA exploratory scenarios

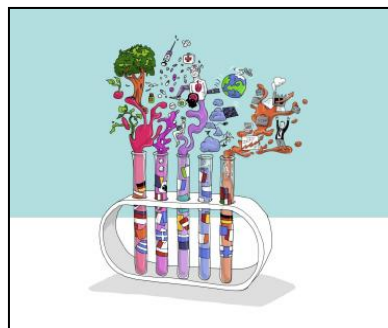
## Four scenarios on European RTDI governance in 2030

1. Global market  
coordination for jobs  
and growth

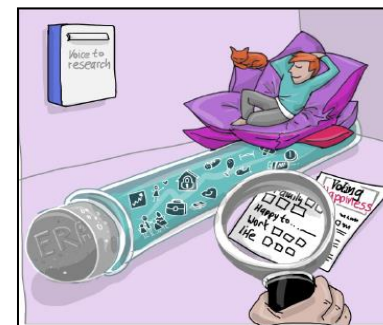


Incremental changes in RTDI  
governance and surroundings

2. Intergovernmental  
action for Grand  
Challenges



3. Public participation  
for human well-being



New socio-technical regimes,  
transformative structural changes

4. Integrated expertise  
for sustainability



<http://www.eravisions.eu/scenarios>

# Sample size in the VERA recommending phase

Total number of discussion groups				
Stakeholder's workshop	Scenario 1	Scenario 2	Scenario 3	Scenario 4
Society	1	2	1	2
Academy	2	2	1	1
Industry	1	1	1	3
Funders	1	3	1	1
ERA instruments	1	2	2	1
International	1	1	1	1
Policy makers	3	1	1	1
	10	12	8	10

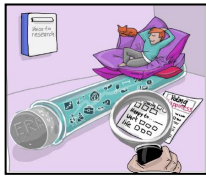
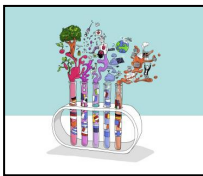
Total number of participations in the discussion groups				
Stakeholder's workshop	Scenario 1	Scenario 2	Scenario 3	Scenario 4
Society ( <i>9 persons</i> )	3	6	3	6
Academy ( <i>12 persons</i> )	8	8	4	4
Industry ( <i>10 persons</i> )	4	3	3	10
Funders ( <i>11 persons</i> )	4	11	4	3
ERA instrument ( <i>13 persons</i> )	4	9	9	4
International ( <i>6 persons</i> )	3	3	3	3
Policy makers ( <i>12 persons</i> )	12	4	4	4
	38	44	30	34
Participants per group	3.80	3.66	3.75	3.40

# Fluency of ideas in VERA : REPOSITION factor (1/2)

Scenario stimulation ranking (insights/participant) (4: most stimulating; 1: least stimulating)

Stimulation ranking	More realistic scenarios		More transformed scenarios (less plausible)	
Stakeholder	Scenario 1	Scenario 2	Scenario 3	Scenario 4
Society	1	3	2	4
Academy	2	1	3	4
Industry	1	3	4	2
Funders	4	3	2	1
ERA instruments	1	3	2	4
International	1	2	3	4
Policy makers	2	1	4	3
Total	12	16	20	22

	No. times most stimulating	No. times least stimulating	Ranking points	Total
Scenario 1 (realistic)	1	4	12	28
Scenario 2 (realistic)	0	2	16	
Scenario 3 (highly transformed)	2	0	20	42
Scenario 4 (highly transformed)	4	1	22	





# Originality of ideas: REPOSITION factor (2/2)

No. of ideas (per participant) generated by a stakeholder group (in the scenario) and have not been mentioned in any other scenario or by other stakeholder	Scenario 1	Scenario 2	Scenario 3	Scenario 4
Society	0.00 (**)	1.00	1.33	2.50 (*)
Academy	0.25 (**)	0.38	0.25 (**)	1.50 (*)
Industry	0.75 (**)	1.67 (*)	1.33	1.50
Funders	2.00 (*)	0.55	0.25 (**)	0.33
ERA instruments	1.00 (**)	1.56	1.33	2.50 (*)
International	0.67 (**)	1.33	1.67	2.00 (*)
Policy makers	1.67	1.25 (**)	2.75 (*)	1.50
Total across seven groups	1.03	0.98	1.27	1.74

(\*): top scenario in terms of originality

(\*\*): bottom scenario in terms of originality

# Perspectives flexibility: REPRESENTATION factor (1/1)

Insights (%) generated by actor and ERA dimension: actors' preferences

	Society	Academy	Industry	Funders	ERA instrum.	Internat.	Policy makers
Research& Innovation	5%	0%	17% **	7%	6%	0%	3%
Global ERA	6%	5%	10%	27% **	9%	8%	13%
R&I evaluation	6%	0%	0%	7% **	1%	0%	0%
R&I governance	25% *	25%	43% *	45% ***	38% *	33% *	38% *
Society-science	25% ***	21%	8%	0%	13%	13%	12%
Research careers	2%	12% **	6%	2%	8%	13% **	3%
Knowledge	19%	29% ***	10%	10%	14%	17%	13%
Gender	6% **	4%	2%	0%	1%	4%	1%
Regional	6%	4%	4%	2%	10%	12%	17% **
	100%	100%	100%	100%	100%	100%	100%

How to read this table?

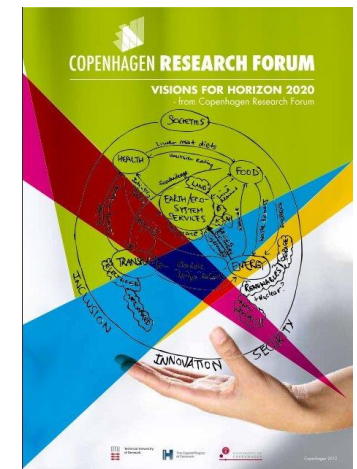
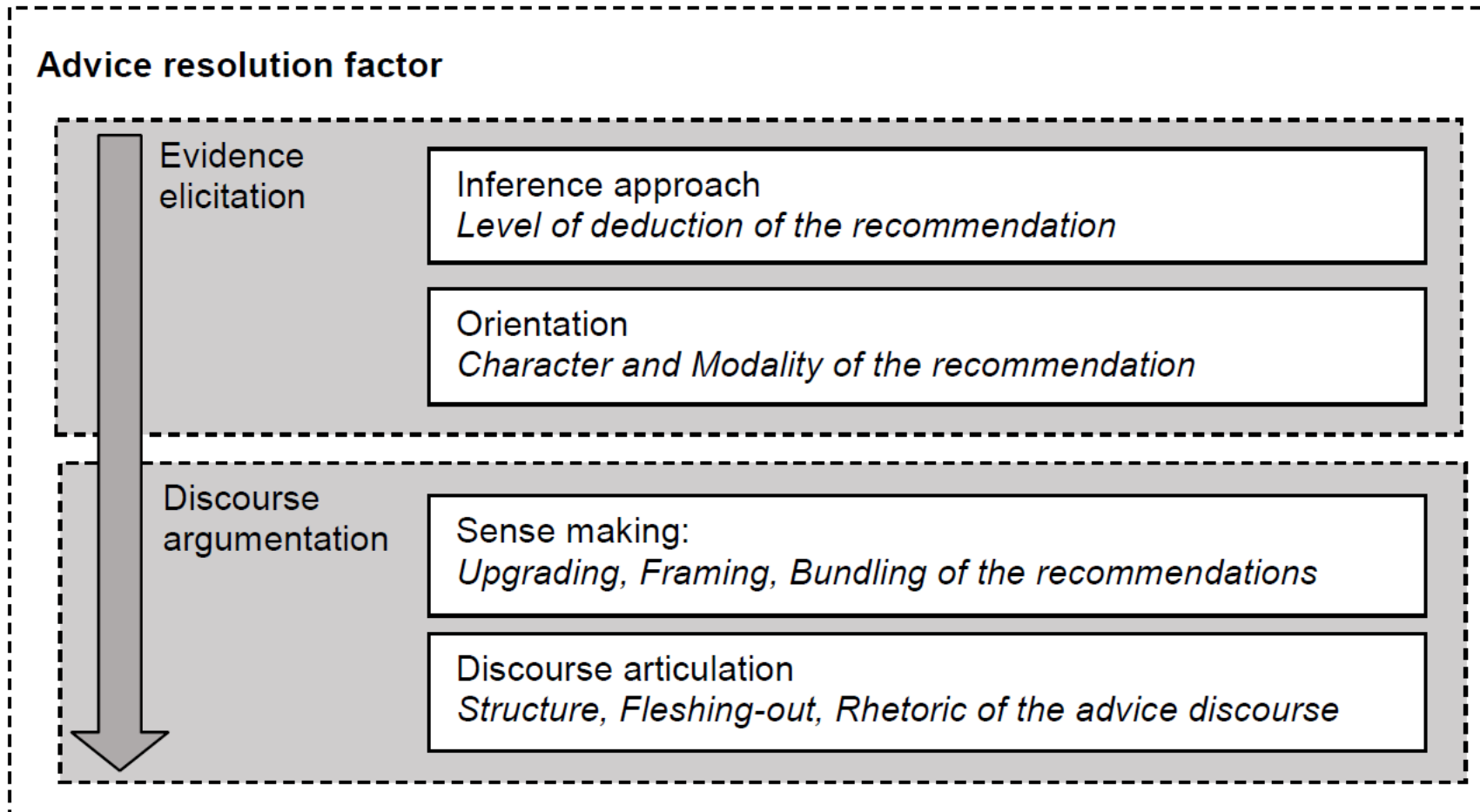
(\*) stakeholder's preferred dimension

(\*\*) stakeholder that is most interested in this dimension

(\*\*\*) both previous circumstances (\*) and (\*\*) happen simultaneously.

# Intervention in advising: RESOLUTION factor (1/2)

Interventions associated to the resolution factor



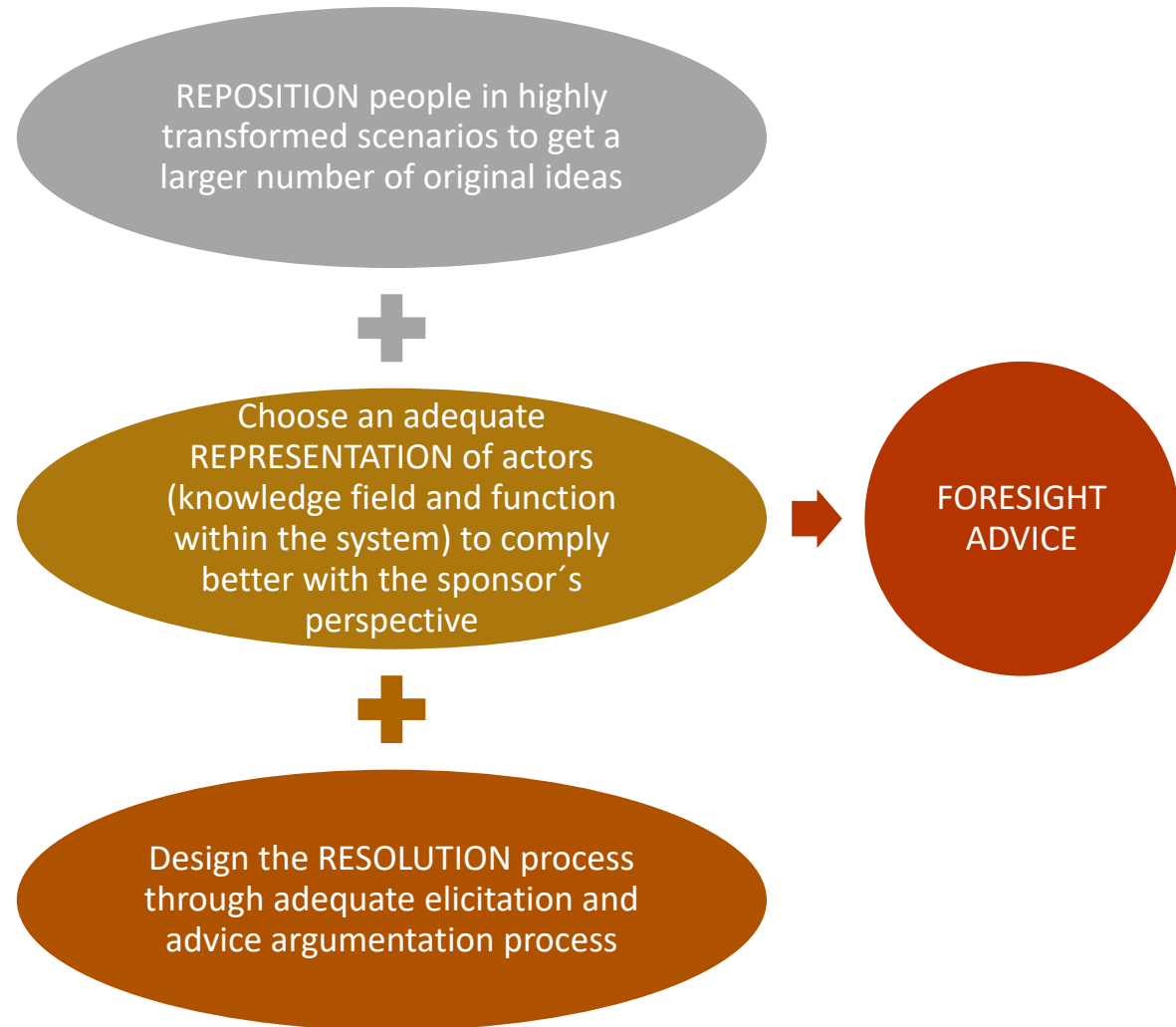
# Influence of RESOLUTION in advice elaboration (2/2)

Level of elaboration of advice		Elicitation (level of intervention)	
		Low	High
Argumentation (level of intervention)	Low	<p><b>1. BRAINSTORM</b> Non-elaborated advice. A relation of untapped ideas is generated through a very flexible elicitation and open method. The integration of these insights is not analysed. There is an absence of discourse.</p>	<p><b>2. RECOMMENDATIONS LIST</b> List (no discourse) of focused and precise recommendations, many of which have been deeply analysed and inferred from participants' concerns.</p>
	High	<p><b>3. NARRATED BRAINSTORM</b> Attempt to justify, through a elaborated narrative, those loose and untapped ideas resulting from an unstructured elicitation process.</p>	<p><b>4. ELABORATED ADVICE</b> Precise and detailed advice. It is based on a smart elicitation strategy, with a balanced deduction of advice from participants' messages. The discourse provides adequate and structured contents supported by a consistent argumentation.</p>



# Modulating foresight advice: conclusions

- REPOSITION: Influence on the volume (fluency) and originality of insights
- REPRESENTATION: Influence on insights perspectives
- RESOLUTION: influence in the level of elaboration of advice



# 3R Methodological Frame for Sound advice

Factor	Description	Effect on foresight sound advice
Reposition	This factor refers to the process whereby participants situate their mindsets in a hypothetical future context and adopt decisions or devise strategies as if they were living or immersed in these contextual circumstances. Repositioning participants in highly transformed scenarios stimulates their creativity in particular by facilitating the generation of more numerous and original ideas.	Modulate the number and originality of ideas by repositioning participants in innovative future contexts
Representation	This factor relates to the composition of advisory panels and multi-stakeholder workshops in the foresight processes. The presence of different actors and areas of knowledge within these panels has an important influence on the variety and flexibility of themes/perspectives considered by the participants to find solutions in problem-solving situations.	Adapt participants' perspectives with an adequate representation of actors
Resolution	This is associated to the intervention needed to elaborate upon the advice discourse from the initial insights generated by participants 'repositioned' into incremental or transformational scenarios. Such interventions are supported by argumentation, which influences the type of advice generated and the level of elaboration of the final recommendations.	Increase the quality and soundness of advice with argumentation rules

Source: compiled by the authors basing on [Velasco, 2017].

# Questions

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# Thanks

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