

# Upon Arrival

## Warm-up exercise

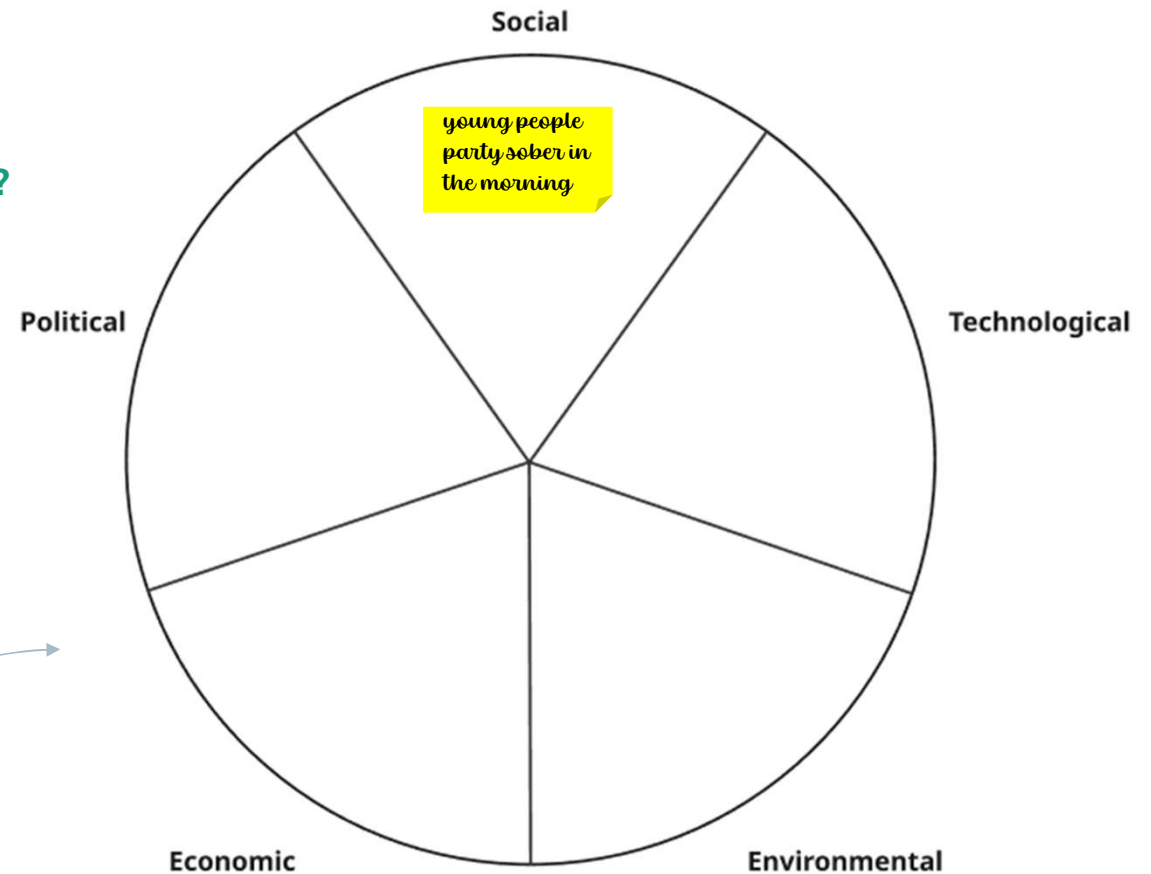
### What signal of possible change surprised me today?

- Could be anything that made you wonder today or in the last couple of days, e.g.
  - what you heard or read in the news
  - learned from your children during breakfast
  - experienced on your way to this workshop
  - ...

Please write this on a sticky note and add it to the STEEP Radar (area of origin)

Example:

*Moon is back on the agenda*



<b>P</b> olitical	Political factors, such as interventions in societies and economies, geopolitical tensions, development goals, etc.
<b>E</b> conomic	Economic factors, such as overall economic growth, markets, inflation, etc.
<b>S</b> ocial	Societal factors, such as demographic change, change of people's behavior, values and beliefs, etc.
<b>T</b> echnological	Technological advancements and its influence on society, businesses, new innovations, etc.
<b>E</b> nvironmental	Environmental factors, such as the effects of climate change, loss of biodiversity, new energy sources, etc.
<b>L</b> egal	Legal/regulatory factors, such as data protection, discrimination laws, gender equality issues, etc.

# Workshop „Foresight for Resilience & Crisis Research“

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**Wiener Wissenschafts-, Forschungs- und Technologiefonds WWTF**

**Wien, 8. / 9.4.2026**

Simone Kimpeler | Fraunhofer ISI

Susanne Giesecke, Wenzel Mehnert | AIT

# AGENDA

## 3 hours Foresight journey

08:30		Arrival
09:00	<b>1</b>	<b>Welcome by WWTF</b> <i>Michael Stampfer, Michael Strassnig</i>
09:05	<b>2</b>	<b>Introduction to Foresight</b> <i>Simone Kimpeler, Susanne Giesecke</i>
10:00	<b>3</b>	<b>Foresight process step by step:</b> a case study in scenario development and analysis; with practical exercises
11:40	<b>4</b>	<b>Wrap-up and Q&amp;A</b>
11:55	<b>5</b>	<b>Next steps</b> <i>WWTF</i>
12:00		End & networking

### 2 Introduction

- Defining Foresight
- Origins and Foresight today
- Systemic approach: Foresight cycle
- Debiasing with Foresight -> participatory foresight
- Example scenario-centred foresight process (futures cone)

### 3 FOD Consumer: A foresight process covering all phases

- Impact of COVID-19 on European Consumer Behaviour for DG JUST
  - Scoping -> search fields and sources -> methods
  - Context analysis and horizon scanning: - > influencing factors, trends and weak signals
  - Sensemaking -> assessment of trends and factors (impact – uncertainty)
  - Scenario development -> key factors and assumptions - combined
  - Scenario analysis -> risks, opportunities -> challenges -> needs for action

### 4 Wrap-up and Q&A

# 2 Introduction to Foresight



Foresight is the discipline of **exploring, anticipating and shaping the future** to help **build and use collective intelligence in a structured, and systemic way...**

Strategic Foresight is **not about predicting the future;**

it **explores different possible futures** alongside the opportunities and challenges they might present.

Ultimately, it will **help us act in the present to shape the future we want.**

[Source: Strategic foresight | European Commission \(europa.eu\)](#)



## 2. 1 Defining Foresight

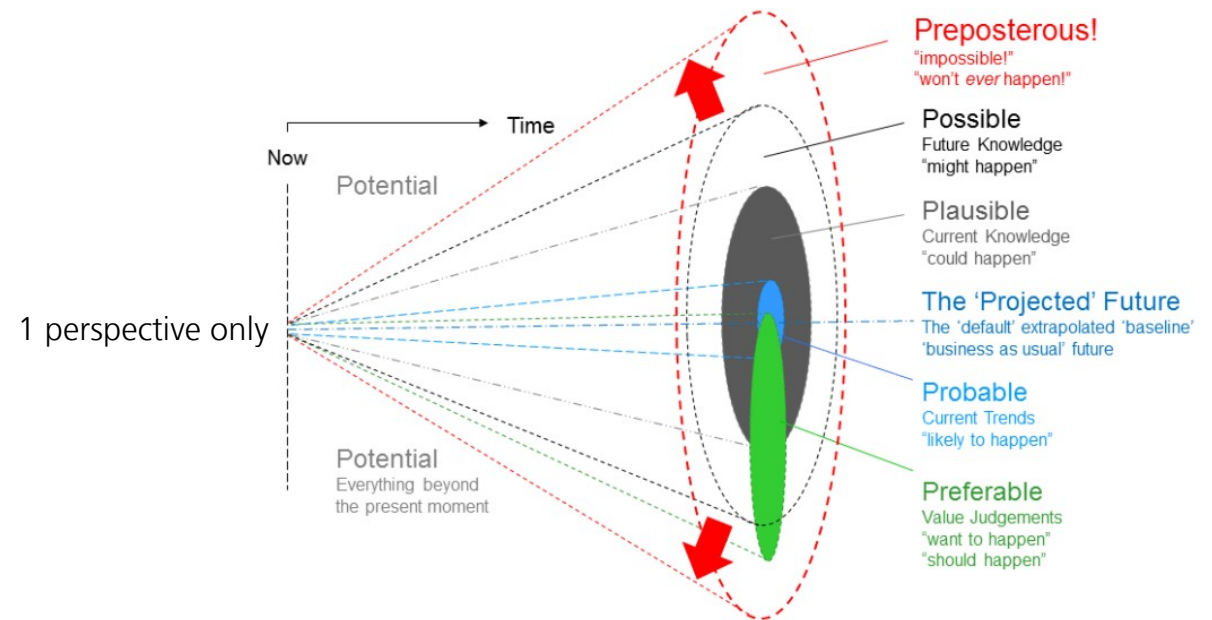
## 2.1 Defining Foresight

Why Foresight: The world is complex and the future in large parts uncertain

### Complex developments are hard to predict

- **Interconnectedness:** all parts are linked, a change ripples across the system (war in Middle East -> supply chains -> drugs delivery)
- **Emergence:** the whole behaves differently than its parts
- **Non-linearity:** Small changes can have large impact (Butterfly effect)
- **Adaptation:** Components of system adjust to changes (constant transition)
- **Feedback loops and cross-impacts:** changes in the system reinforce and counteract each other

### Future cone



Sources: cf CFS Singapore

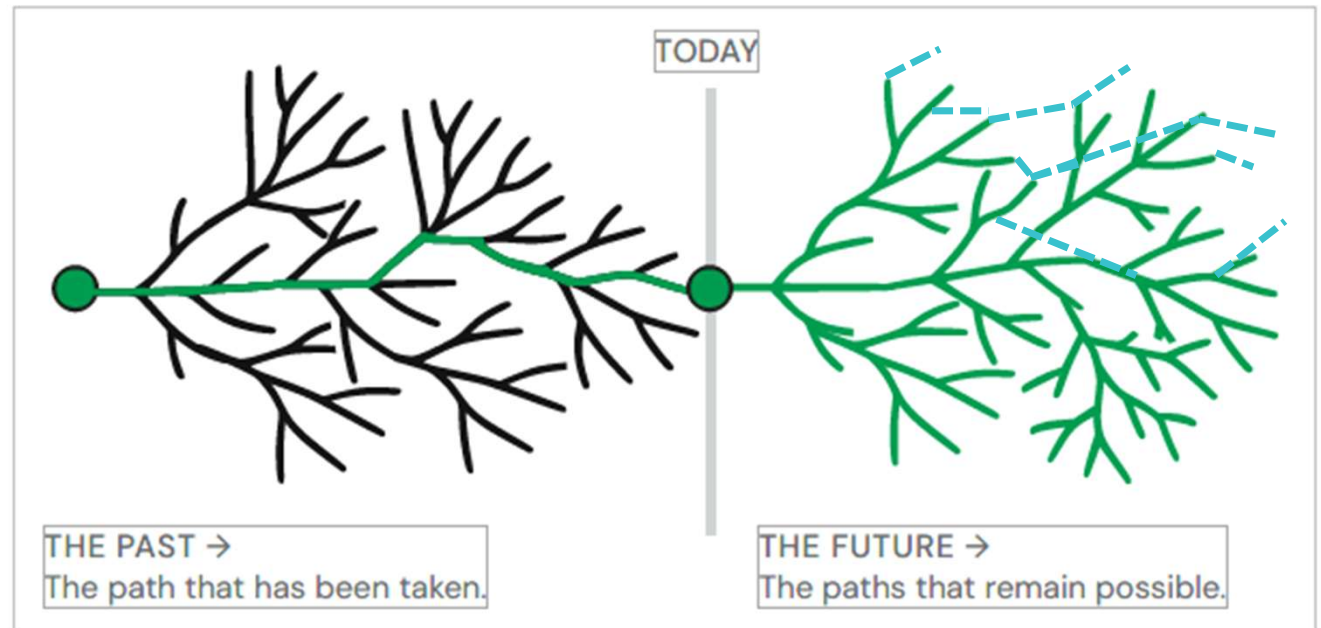
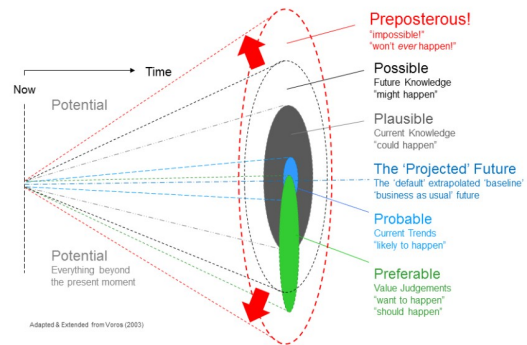
Joseph Voros: <https://thevoroscope.com/2017/02/24/the-futures-cone-use-and-history/>;

Voros 2007 doi:[10.1007/978-3-319-31737-3\\_95-1](https://doi.org/10.1007/978-3-319-31737-3_95-1)

## 2.1 Defining Foresight

Why Foresight: The world is complex and the future in large parts uncertain

### Future cone



Source: CFS Singapore, adapted from T. Urban, extended by author



## 2.1 Defining Foresight

### Dealing with uncertainty

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Emerging uncertainties present a challenge to decision making.

- Everyone thinks about the future: Individual vs. shared perspectives
- Prediction works only when pattern hold.
- Many futures are possible (as are present and past).

“We have to **relax the plausibility requirements** and focus the analysis on futures that are perceived to be non-probable. In this way we are able to **challenge existing perceptions** and **multiply the number of mental models of the futures.**”

Ilmola & Rovenskaya 2016

## 2.1 Defining Foresight

Strategic foresight as a participatory approach to uncertainty for decision making

### Strategic Foresight

- is not a forecast, but complements data-driven prognosis by consciously addressing the uncertainty and complexity of future interactions
- is not but can be complemented by futures research ("Deep dives")
- expands the scope for action in the present
- strengthens the future viability of organizations.

### Key characteristics of Strategic Foresight

- A structured **approach to uncertainty**
  - Thinking in terms of alternative futures
- **Debiasing**
  - Breaking down thought patterns and perceptual filters that narrow our view of the future
- **Collective** intelligence
  - Interdisciplinary: integrating different perspectives and bodies of knowledge
  - Participatory methods: mobilizing stakeholders and experts
- **Exploratory and/or normative** elements and approaches
  - Exploring the space of possibilities
  - vs. assessing opportunities and challenges
- **Product and process benefits**
  - Strategic insights into the need for action and available options
  - Knowledge building and changes among those involved

## 2.1 Defining Foresight

### Key vocabulary of change

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#### From weak signals to megatrends

- **Risk:** Situations in which outcomes are unknown, but the probabilities of those outcomes are known or measurable.
- **Uncertainty:** Situations in which neither outcomes nor their probabilities can be specified.

#### **Risk assessment is not foresight**

- **Weak Signal:** subtle, often early signal of change, not yet validated, recognized widely nor fully understood; has potential to emerge into a trend - or fade away.; “pockets of the future”, embedded in the present.
  - An observation that causes irritation and is interpreted as an indication of possible change. (*“Seed of Change Hypothesis”*)

- **Drivers of change:** Forces causing change by shaping and amplifying trends, increasing or decreasing impact.
- **Wild card:** Events with low (perceived) probability, but with very high impact when they occur; significantly alter the future landscape.
- **Trends:** Observable or measurable directional development of change over a period
- **Megatrends:** Long-term and large-scale agglomeration of trends that profoundly shape the present and future; global at scope but with varied local impacts.
- **Back-casting:** starting from a specific future (e.g. desired vision or possible scenario), a step-by-step analysis backwards of milestones, conditions required.
- **Stress-testing:** analyze effects and outcome of different strategies across scenarios to identify most robust strategy
- **Forecasting:** Process of projecting future developments based on extrapolation and analysis of past data and observations. **This is different to Foresight !!**

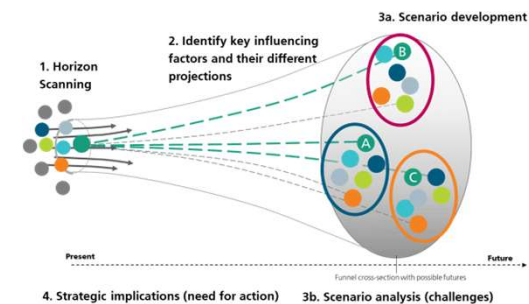
## 2.1 Defining Foresight

### Key vocabulary of change

#### From weak signals to influencing factors to context scenarios

- **Weak Signal:** subtle, often early signal of change, not yet validated, recognized widely nor fully understood; has potential to emerge into a trend - or fade away.; "pockets of the future", embedded in the present.
  - An observation that causes irritation and is interpreted as an indication or symptom of possible change. (*"Seed of Change Hypothesis"*)
- **Trends:** Observable or measurable directional development of change over a period
- **Drivers:** conditions or developments pushing a trend

- **Influencing factor:** Variable with direct or indirect impact on (our/ a specific) future, framework conditions in the future
- **Key factor:** Influencing factors with highest impact and highest uncertainty
- **Assumption:** possible future state of a key factor
- **Scenario:** combination of assumptions (one per key factor) = draft scenario. Can be enriched with narratives, storylines, personas, description of impacts (all based on scenario analysis)

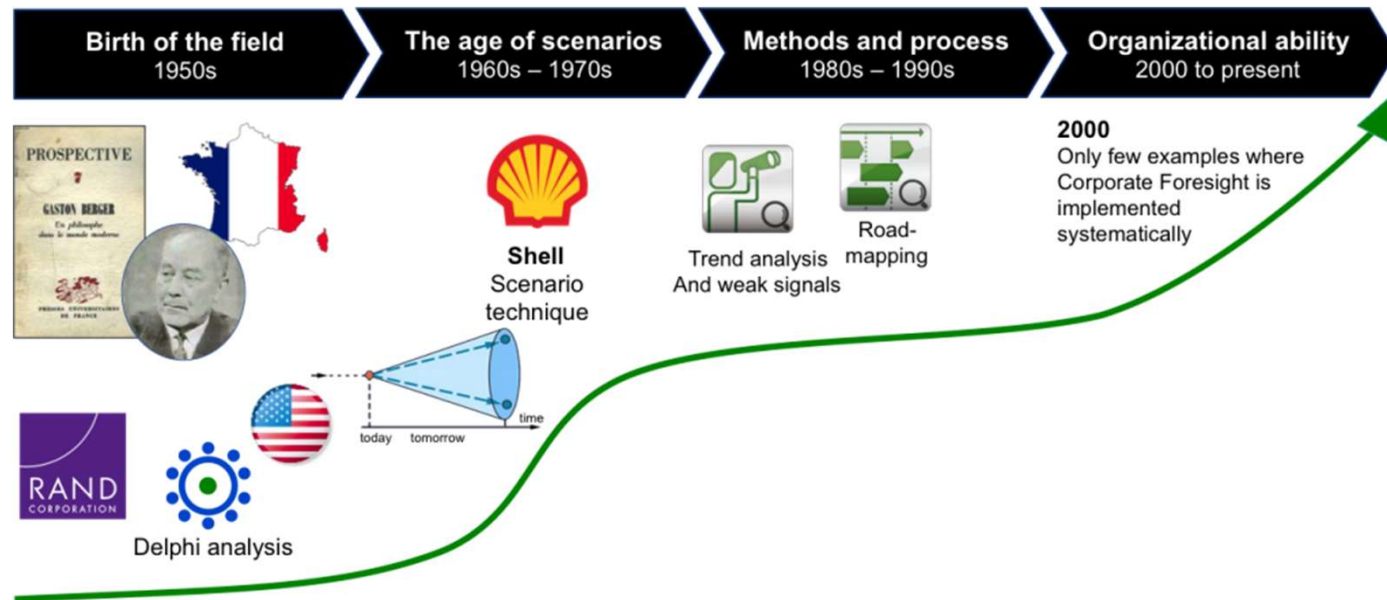


## 2.2 Origins and Foresight today



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As a discipline in government and corporations



Source: <http://futureorientation.net/wp-content/uploads/2016/01/History-of-Corporate-Foresight-1024x438.png>

### Historically

- has been developing since the 1930s, when it became apparent that decisions would have a lasting impact on the future.

Source: Saritas, Burmaoglu & Ozdemir

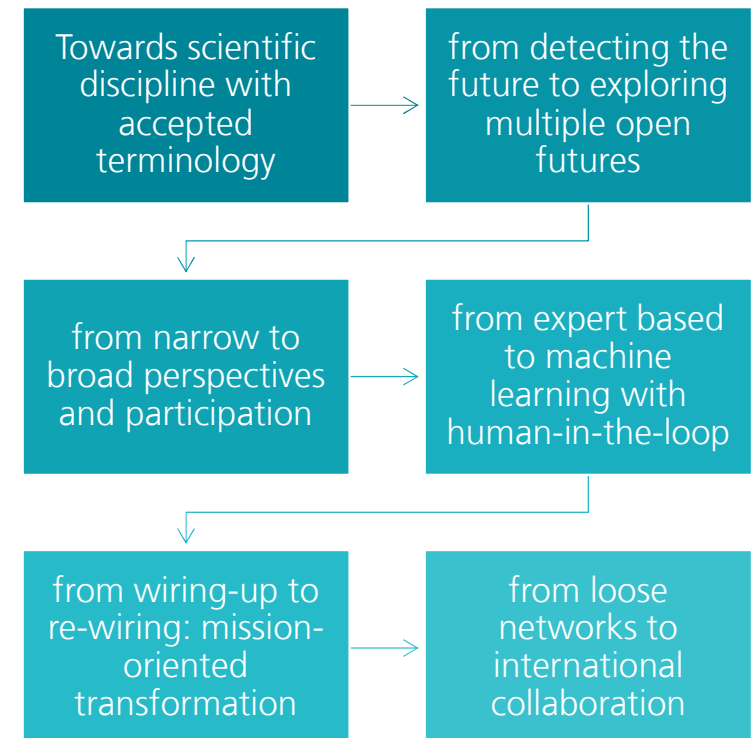
## 2.2 Origins and Foresight today

### Evolution

#### 8 Generations of foresight, overlapping

1. Technological Forecasting: prediction of future technologies
2. Technology Foresight; Using technology for markets
3. Technology and Social Foresight: broaden market perspective
4. Innovation Foresight: integrated model of system
5. Industrial Foresight: sector domain foresight (STS policy)
6. Systemic Foresight: grand societal challenges
7. Applied Foresight: from concept to commercialization
8. Foresight on-site: institutionalization of Foresight
9. **recent trend: participatory** Foresight - integrating different stakeholder perspectives and new actors.

Sources:  
Georghiou, L. et al. (Ed.) 2009;; Cuhls, K. et al. 2024



## 2.2 Origins and Foresight today

Who does Foresight? Some examples

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### Capacity at central management level in many national governments, e.g.

- [Policy Horizons Canada](#)
- [Oficina Nacional de Prospectiva y Estrategia, Spain](#)
- [Centre for Strategic Futures Singapore](#)
- [UK Science Advisor](#)
- [Committee of the Future, Finland](#)

### EU

- [Comissioner for Foresight \(Glenn Micallef\)](#)
- [JRC Competence Centre on Foresight](#)
- [European Environment Agency EEA](#)
- [DG RTD \(FOD\)](#)

### Global

- [OECD Government Foresight Community, OECD OPSI](#)
- [UNESCO Futures Literacy Labs](#)
- [UNEP](#)

### Ministries and public authorities in Austria and Germany

- [BMFTR Germany](#)
- [Environment Agency Germany](#)
- [Office of Technology Assessment at German Bundestag TAB](#)
- [Federal Academy for Security Policy BAKS](#)

### Corporate foresight in companies

- [Evonik](#)
- [Siemens](#)
- [BMW](#)

### Business Associations, Think Tanks, NGOs

- [VDMA](#)
- [Bertelsmann Foundation](#)
- [SOIF](#)
- [Foresight Foundation](#)
- [Wissenschaftsrat](#)
- [DAAD](#)

### Universities

- [Master Zukunftsforschung Berlin](#)
- [FFRC, Turku/Finland](#)
- [FH Ingolstadt](#)

### Research organisations and consulting

- [AIT](#)
- [ITA](#)
- [JBZ - Salzburg](#)
- [ZSI](#)
- [VTI](#)
- [IZT](#)
- [VDI/TZ, VDI/VDE/IT](#)
- [RAND](#)
- [IFTE](#)
- [Fraunhofer ISI](#)

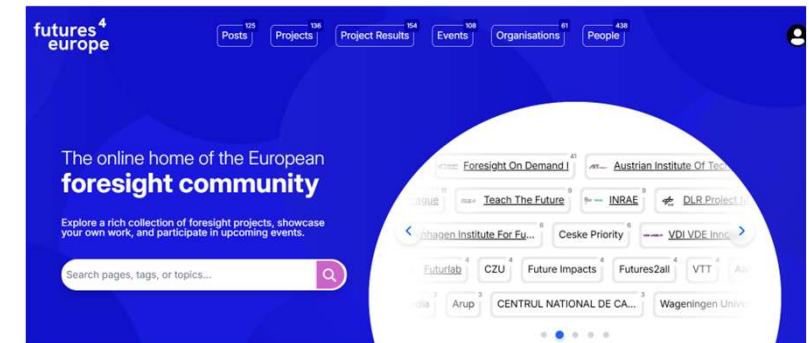
## 2.2 Origins and Foresight today

### Variety of reports and European platform Futures4Europe

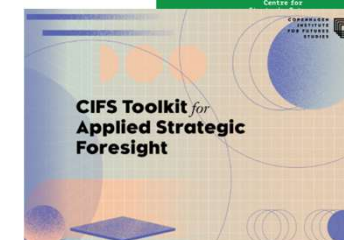


Scenario reports  
Foresight briefings

### Eye of Europe, Manifesto



### Foresight Toolkits



## 2.3 Systematic approach



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### Different research questions

#### ... and their goals

##### Early identification of opportunities and risks for the organisation / the country ("us")

- What is changing?  
Which developments should we keep an eye on?

##### Identification of possible futures as a basis for developing options for action

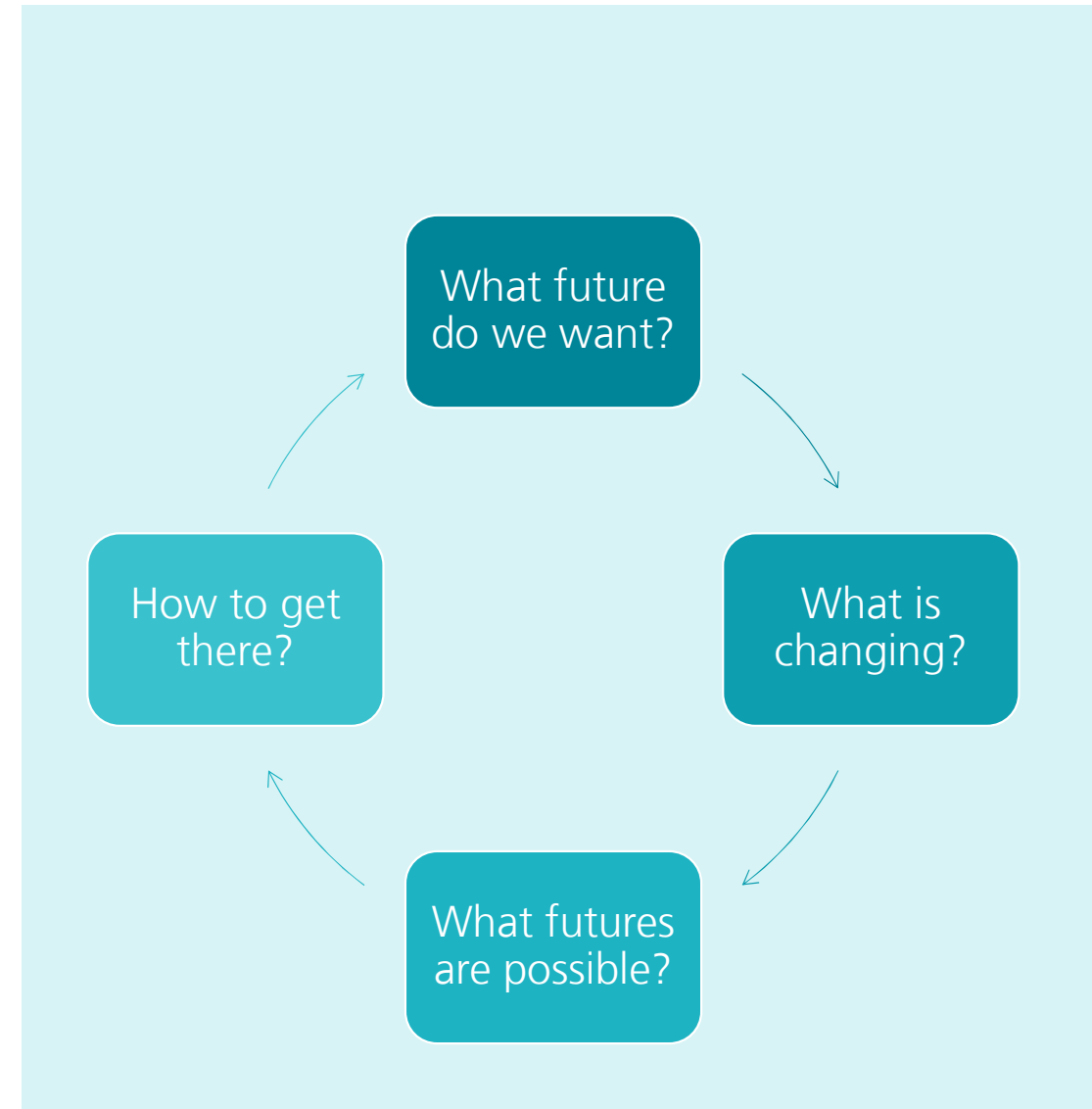
- What futures might lie ahead of us? And what does that mean for us?

##### Development of visions as part of the process of negotiating goals and the paths to them.

- What futures do we want?

##### Development of robust strategies and roadmaps for achieving environmental and sustainability goals

- How do we get there?



## 2.3 Systematic approach

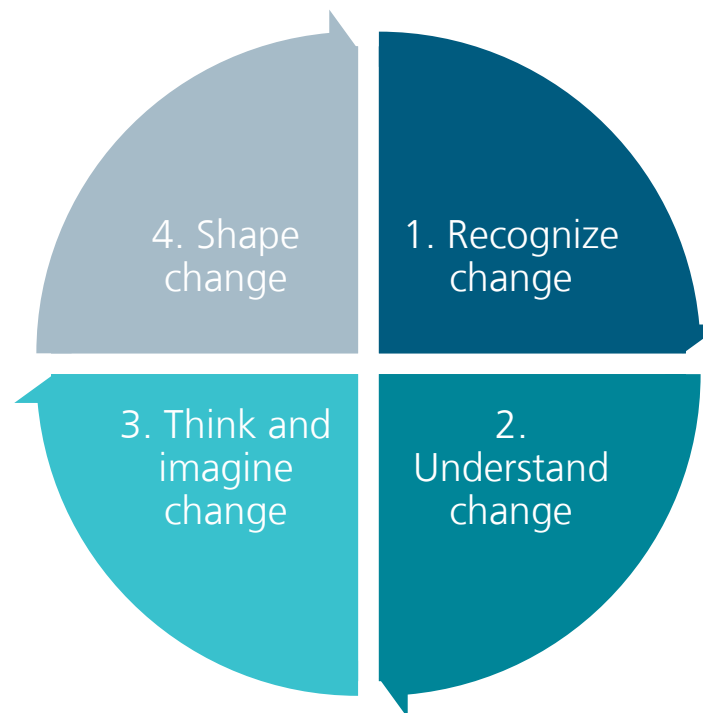
### The Foresight Cycle – a change-oriented strategic research process

#### Methods for strategy development and implementation:

Roadmapping to derive strategies, backcasting to develop alternative development paths, change management, design thinking, monitoring ...

#### Methods for scenario development and analysis:

Scenario processes/sprints, Futures Wheel, future dialogues with stakeholders, visioning/mission statement development, wind tunneling/wildcards for robustness checks...



#### Methods for horizon scanning and environmental analysis:

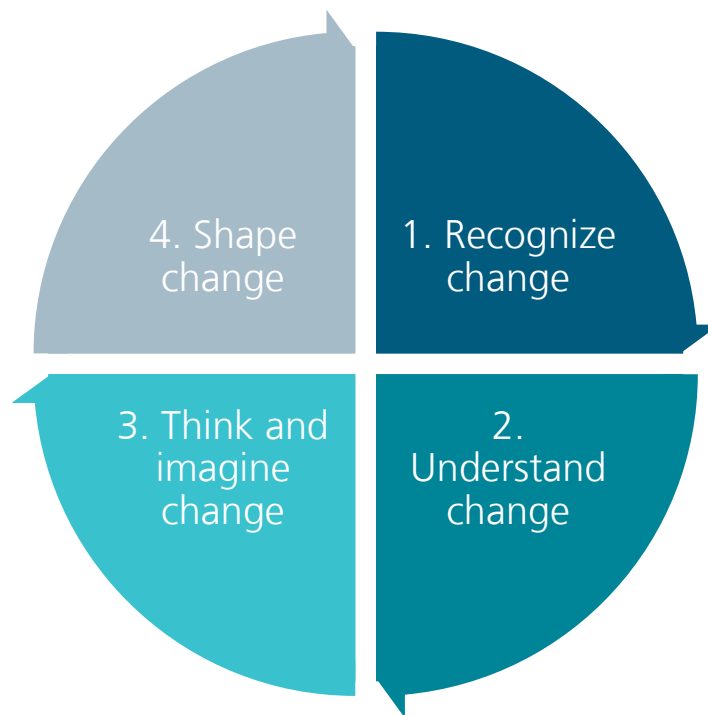
Identifying signs of change and drivers: weak signals, AI-based automated scanning, expert-led trend analysis, impact assessments ...

#### Methods for sense-making:

System analyses, trend assessments, influencing factors and assumptions, future-oriented surveys (e.g. Delphi, interviews, future workshops) ...

## 2.3 Systematic approach

The Foresight Cycle – a change-oriented strategic research process



### Key principles

- Depending on the issue and context, different priority is given to the various phases.
- Methods are always tailored to specific needs and combined along phases.
- Participatory methods where required: integrate knowledge and consider interests, both internal and external.

## 2.4 De-biasing with Foresight

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Cognitive biases, heuristics and filters of perception of possible futures

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### Cognitive Biases

- systematic patterning of information filtering during subjective ‚world building‘ that deviates from objective reality often impacting personal behavior.

*“It is well known that this group exhibits related characteristics and behaviours, so they probably will ...”*

*“That evidence perfectly fits the picture, no need to check it more closely...”*

### Heuristics

- Mental shortcuts or simple rules that enable an individual to engage with its surroundings in an efficient way.

*“Things have changed so much in the past, but now we’ve clearly arrived at a plateau.”*



## 2.4 De-biasing with Foresight

### Examples of „End-of-history illusions“

#### Effects

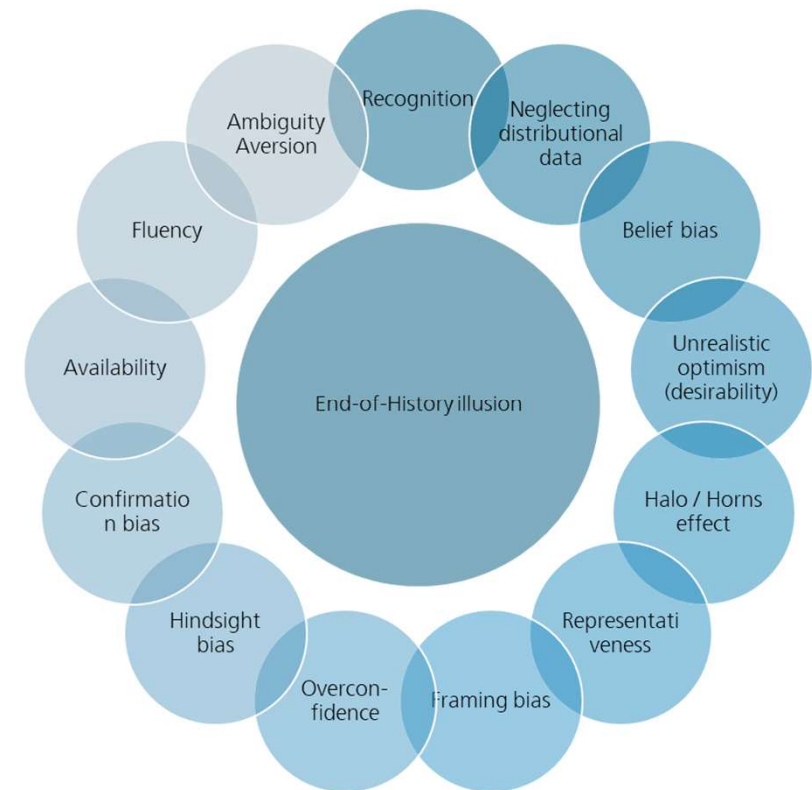
- The present is experienced as stable and the future as its linear continuation;
- Selective recollection of aspects of the past that are consistent with the subjective present (autobiographically influenced).

#### Relevance for foresight

- Developments that are not a continuation of the current state are neglected.

#### Methodological approaches

- High diversity of sources, expertise and perspectives in scanning
- A brief look back at the outset to illustrate the dynamics of change; outlining causal pathways for alternative developments
- Rationalising contradictions as a mode of thinking



Schirrmeister, E., Göhring, A. L., & Warnke, P. 2020

## 2.5 Scenario-centred Foresight process

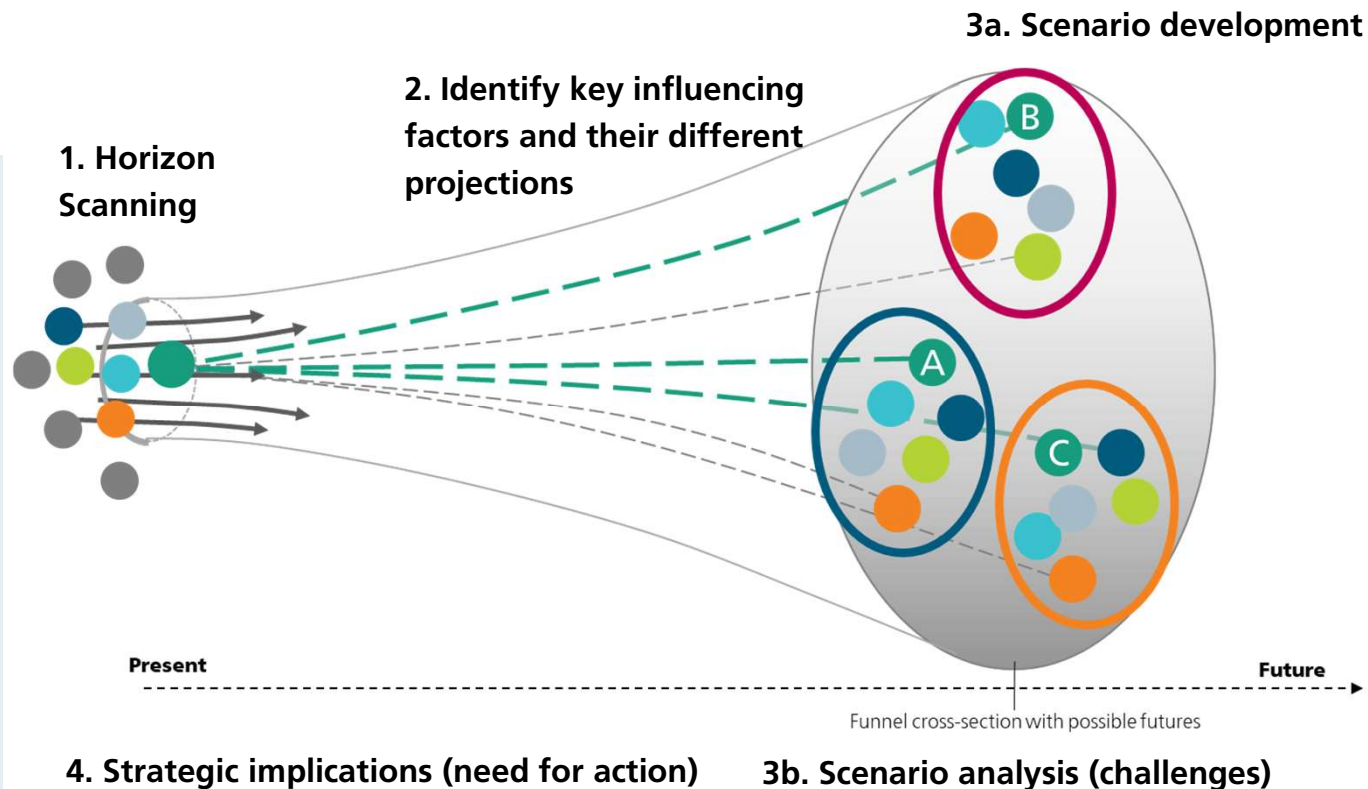
## 2.5 Scenario-centred Foresight process

Connecting explorative context and landscape analysis with normative strategy conclusions



### Debiasing with foresight

1. **Horizon scanning** to identify relevant trends and signals of change
2. **Sensemaking** to identify the most uncertain and relevant influencing factors
3. **Scenario development** (co-creative and participatory)  
**Scenario analysis** to assess opportunities, risks and the need for action
4. **Strategy development** using future workshops (backcasting), strategy dialogue and roadmapping



# **3. FoD Consumer:**

## **A foresight process covering all phases of Foresight**

### 3. Foresight-on-demand project „FoD Consumer“

Impact of COVID-19 on European Consumer Behaviour (EC DG JUST 2021)

#### Foresight process to prepare new ideas for Post-COVID policy actions in consumer protection for Europe

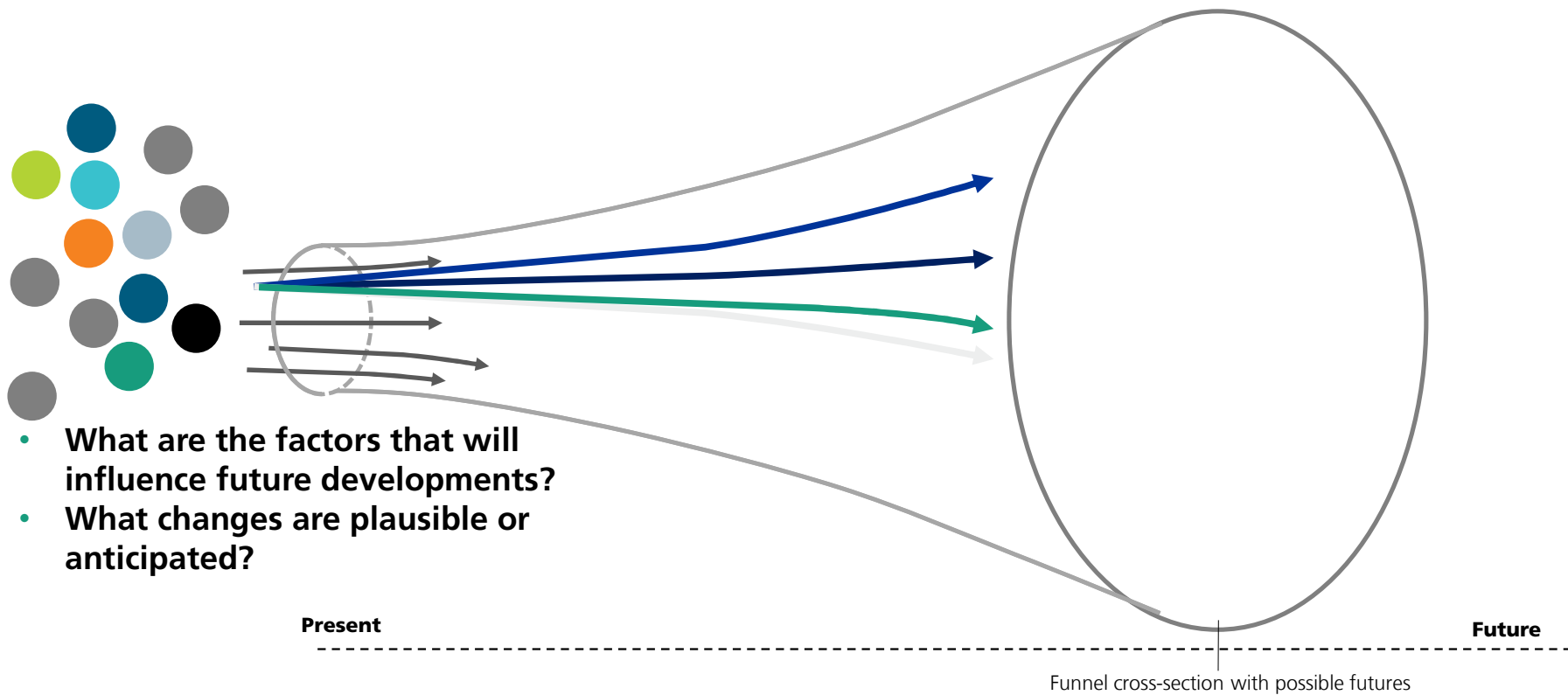




# 3.1 Scoping

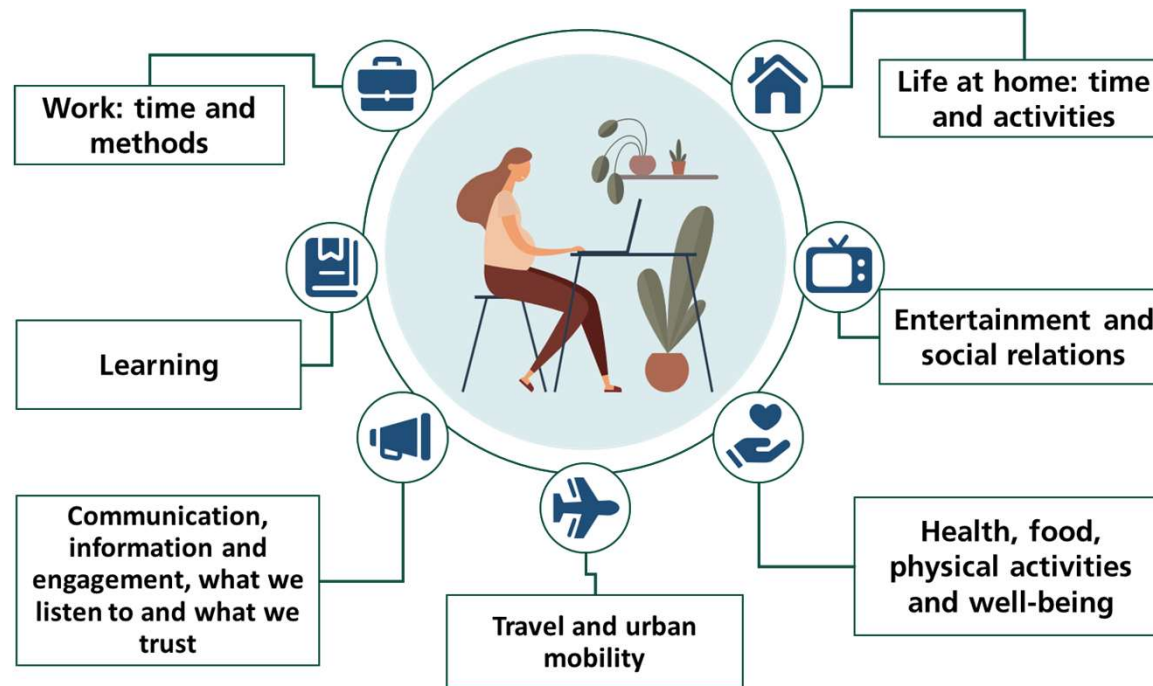
## 3.1 Scoping

Step 0 in scenario process



## 3.1 Scoping

### Example FOD Consumer: Search fields and sources



### COVID-19 changes

- Big changes in just a few months
- Radical shifts in consumer behaviour and consumption
- Uncertainty: distinguish temporary changes from those that will endure
- Key variable: persistence over time

### Sources

- International Organisations  
UNCTAD, OECD, WEF etc.
- EU Institutions, Agencies, Committees, JRC
- EU Federation of consumer organisations
- Multinational insurance firms (Allianz, Axa, etc.)
- Market Research (GFK, Nielsen Company, IPSOS)
- Consultancies (McKinsey, PWC, etc.)
- European Think-Tanks
- Academic research papers

## 3.1 Scoping

### Example FOD Consumer

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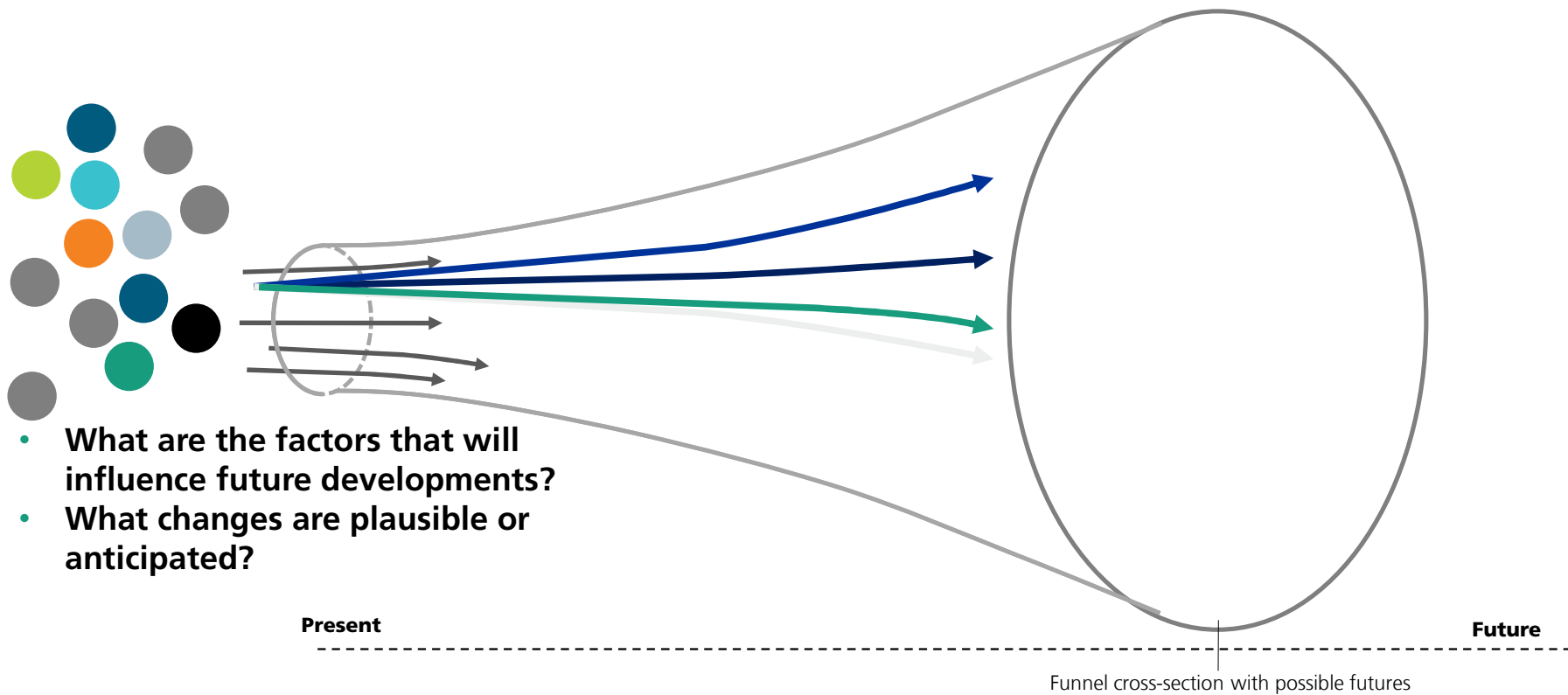
#### Criteria for sources classification

Origin of the source	<ul style="list-style-type: none"> <li>• institutional, scientific, grey literature</li> </ul>
Year of publication	<ul style="list-style-type: none"> <li>• 2020- 2021</li> </ul>
Time horizon	<ul style="list-style-type: none"> <li>• 2025</li> <li>• 2030</li> <li>• 2040 or later (especially for geopolitical factors)</li> </ul>
Territorial level	<ul style="list-style-type: none"> <li>• Local, national, <a href="#">European</a>, Global</li> </ul>
Type of impact	<ul style="list-style-type: none"> <li>• direct/indirect</li> <li>• market/consumers</li> </ul>
Consumer Agenda priorities	<ul style="list-style-type: none"> <li>• The green transition;</li> <li>• The digital transformation;</li> <li>• Redress and enforcement of consumer rights;</li> <li>• Specific needs of certain consumer groups;</li> <li>• International cooperation.</li> <li>• Consumer literacy/empowerment</li> <li>• Financial aspects</li> </ul>
Direct references to DG policy	<ul style="list-style-type: none"> <li>• Consumer policy</li> <li>• Consumer marketing law</li> <li>• Consumer enforcement</li> <li>• Product safety and rapid alert system</li> </ul>

## 3.2 Context analysis and horizon scanning

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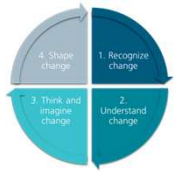
Step 1 in scenario process





## 3.2 Context analysis and horizon scanning

### Introduction



### Horizon scanning

- Objective: broaden the perspective beyond what is currently on the radar
- Structured gathering of early signals and emerging developments that may have significant impact when they develop
- Signals originate from the margins of thinking, fringes of STEEP

### Context analysis / Environmental scanning

- Objective: identifying influential driving forces and trends that exist and have the potential to change the future environment
- Analysing data on trends or signals that already exist
- Starts with definition of factor, current situation, drivers, then uncertainties and why it could have an impact and which)

## 3.2 Context analysis and horizon scanning

### Horizon scanning

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#### Key aspects

- Systematic identification and scrutiny of perceptual filters
- Careful development of the search strategy, including the selection of sources
- Systematic and structured recording of findings
- **Separation of search and discursive evaluation ('sense-making')**
- **Weak signals:** observed signal that causes irritation and is interpreted as an indication of possible change. (*"Seed of Change Hypothesis"*)

**IMPORTANT: Iterative reflection on biases**

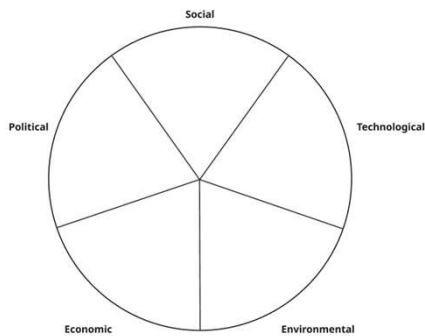
#### Typical process

- Systematic search at the 'fringes' of attention
- Analysis of highly sensitive sources (e.g. including art/literature, the avant-garde)
- High diversity of sources/participants
- Combination of semi-automated text mining approaches, AI and machine learning with manual scanning (human in the loop)
- Use of templates and visualisations (e.g. dashboards, radars)
- **Major trends** substantiated quantitatively
- **Identify** fringe topics that have been picked up from variety of sources (e.g. interviews with "antennas" or news sites)

## 3.2 Context analysis and horizon scanning

### Horizon scanning exercise

#### Take a look at our radar...



#### Search / scouting strategies

1. Screening existing horizon scanning sources
2. Scouting a specific antenna source
3. Scouting a specific peripheral source
4. Mobilizing personal antenna expertise
5. Open internet search

**You have 15min to do this in small teams (2-3), choose a strategy and start scanning**

**Only 1 signal, please**

[Title] What is going on?

Why could this be relevant for societal resilience?

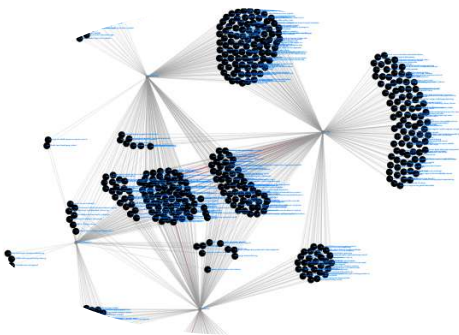
Source(s):

# 3.2 Context analysis and horizon scanning

STEEP radar starts with existing knowledge and helps identifying knowledge gap, then follows scanning

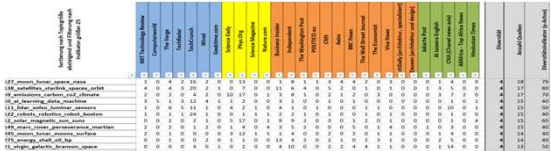
## Verify signals and trends

- desk research (meta-sources e.g. SCOPUS, Web of Science, News)
- Topic modeling



## Search strategies beyond academic papers

- e.g. identify „fringe sources“ like special interest media, experts for interviews etc.

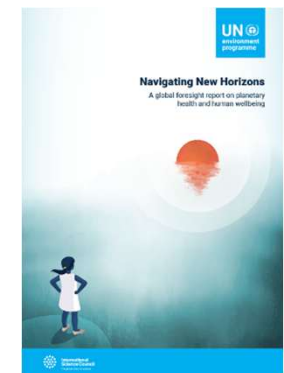
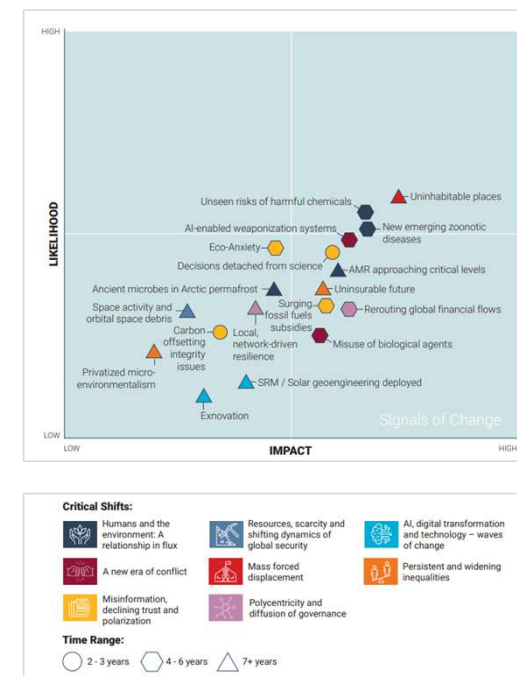
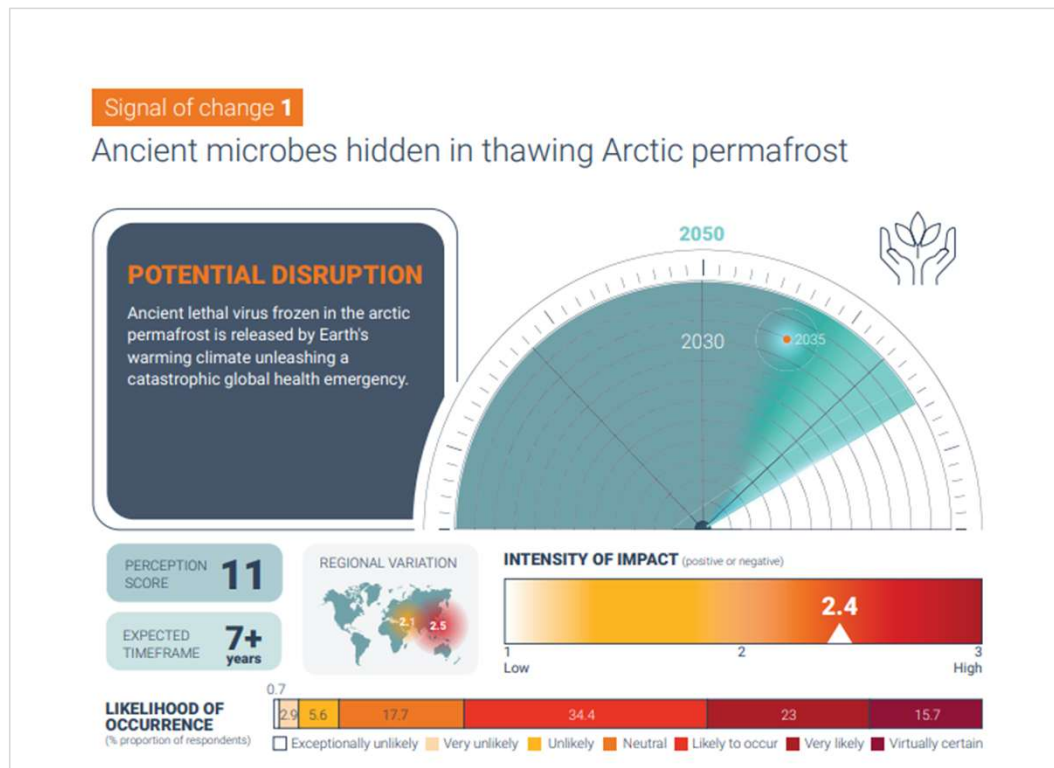


- e.g. interviews and workshops with demand experts

Bedarfsfeld	Expertin	Experten Typ	„Randquelle“
Bewegung	Kinder Parkour Coach	Antenne	
	Paralympics Athletin	Bedarfspionierin	
Kleidung	Gründerin e- shop für Kleidung für Kinder im Rollstuhl	Lead user	
Sicherheit	Nachbarschaftsinitiative gegen Einbrüche	Lead user	
Entfaltung	Kreativitäts-Trainer	Antenne	Lifestyle Magazin Monocle
Beziehungen	Lastfahrrad Werkstatt	Lead user	Jugendradio
Wohnen			Straßenzeitung
Ernährung	Arche Betreiber	Antenne	Foodblog

## 3.2 Context analysis and horizon scanning

### Examples for visualization of results



Quelle: UNEP 2024, S.19

## 3.2 Context analysis and horizon scanning in FOD Consumer example

for influencing factors with drivers, trends and weak signals

Social	Ways of life (e.g. use of leisure time, family living patterns) demographic structures, social inclusion, and cohesion issues (fragmentation of lifestyles, level of (in)equality, educational trends)
Technological	Rates of technological progress, pace of diffusion of innovations, problems and risks associated with technology (inclusion of security and health)
Economic	Level and distribution of economic growth, industrial structures, competition, market and financial issues
Environmental	Pressures connected with sustainability and climate change, more localised environmental issues (including pollution, resource depletion and associated biodiversity and welfare concerns)
Political	Dominant political viewpoints or parties, political instability, regulatory roles and actors, actions of governments, political action and lobbying by non-state actors
Value	Attitude to working-life (e.g. entrepreneurialism, career goals, demands for mobility across places and jobs, preferences for leisure, culture and social relations)



- desk research
- expert-based assessment of factors and signals
- expert workshops

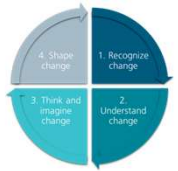
	Remote working & the value of space	X																										
	Purchase priority	X																										
	Loneliness & disillusionment	X																										
	Gender inequalities	X																										
	Access to digital infrastructures & digital skills				X	X	X	X	X	X	X																	
	Digital adoption																											
	E-commerce							X	X																			
	Phygital							X	X																			
	Tech power							X	X																			
	Cognitive biases on platform							X	X																			
	Data privacy							X	X																			
	Income inequalities								X	X																		
	Self confidence								X																			
	Trust in brand								X																			
	Purpose-driven organisations								X	X																		
	Supply chain								X	X																		
	Small and medium enterprises								X	X																		
	Local products and distributors								X																			
	Sense of nature									X																		
	Energy transition									X																		
	Private vehicles use									X																		
	Cycling modal share									X																		
	Trust in EU and national institutions																											
	Fake news & infodemic																											
	Creation of digital information & engagement																											
	Correlations & price gauging																											
	Planning horizon	X																										
	Interpersonal relationships	X																										
	Sharing attitude and economy	X																										



## 3.3 Sensemaking

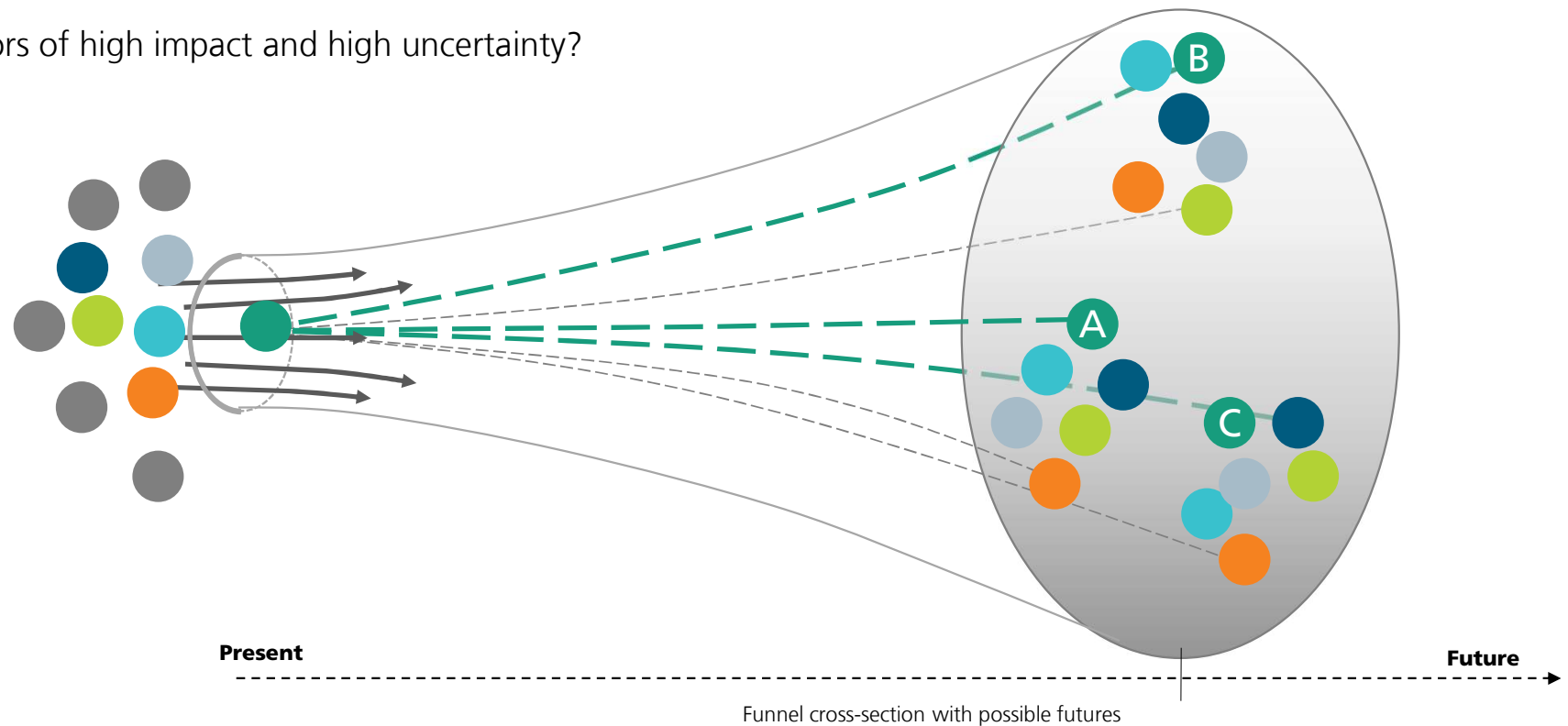
## 3.3 Sensemaking

Assessments of influencing factors and trends for possible impact and uncertainty



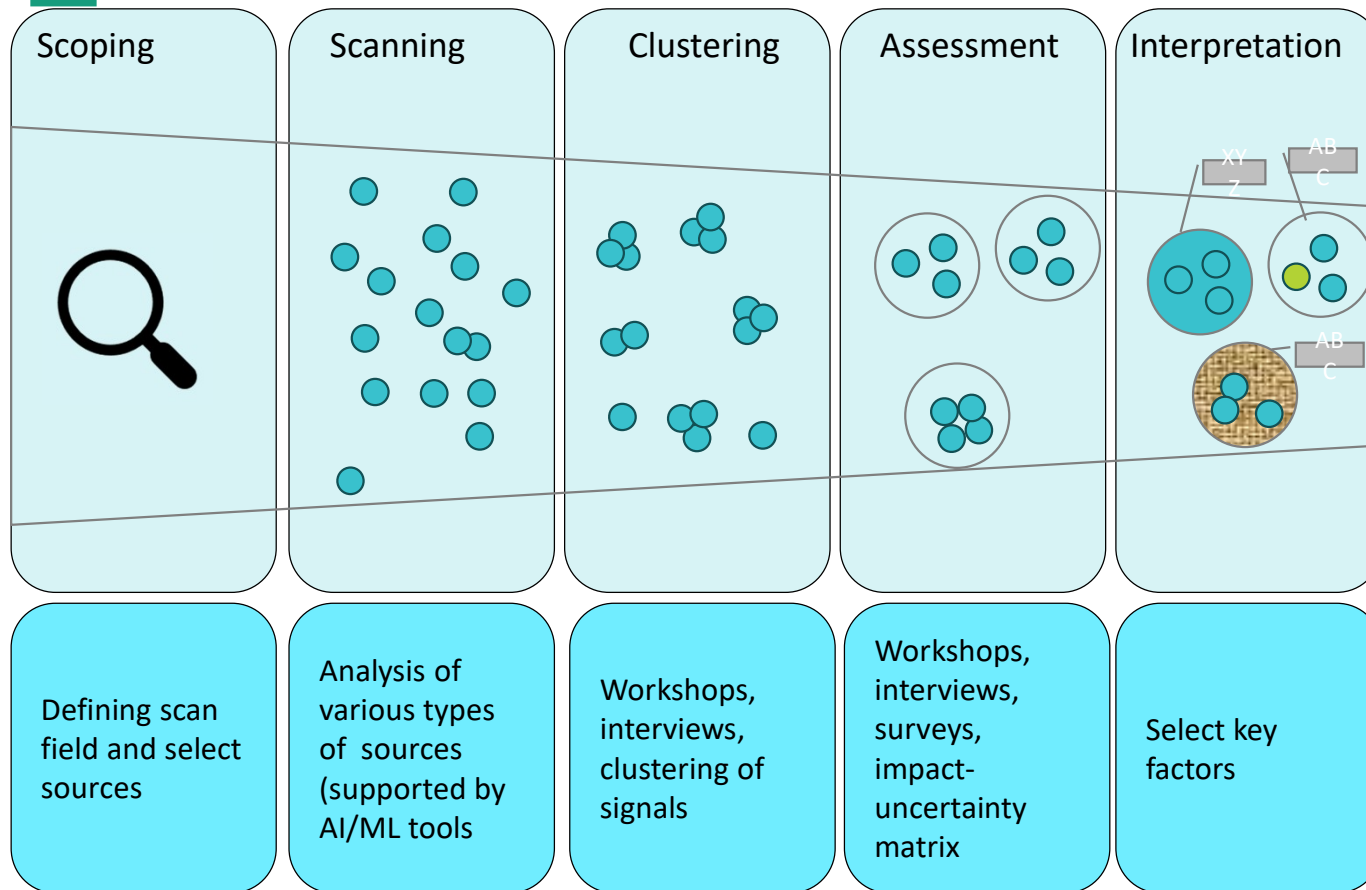
Step 2:

- What are key factors of high impact and high uncertainty?



## 3.3 Sensemaking

Scoping, Scanning -> **Assessment**



**Don't assume that a 'signal' automatically becomes an 'emerging issue', then a trend and finally a megatrend!**

## 3.4 Scenario development

## 2.5 Scenario-centred Foresight process

### Why future scenarios?



- Expand the field of perception
- Combine different areas of expertise.



- Clearly articulate differing expectations
- structure them in a transparent, written format.



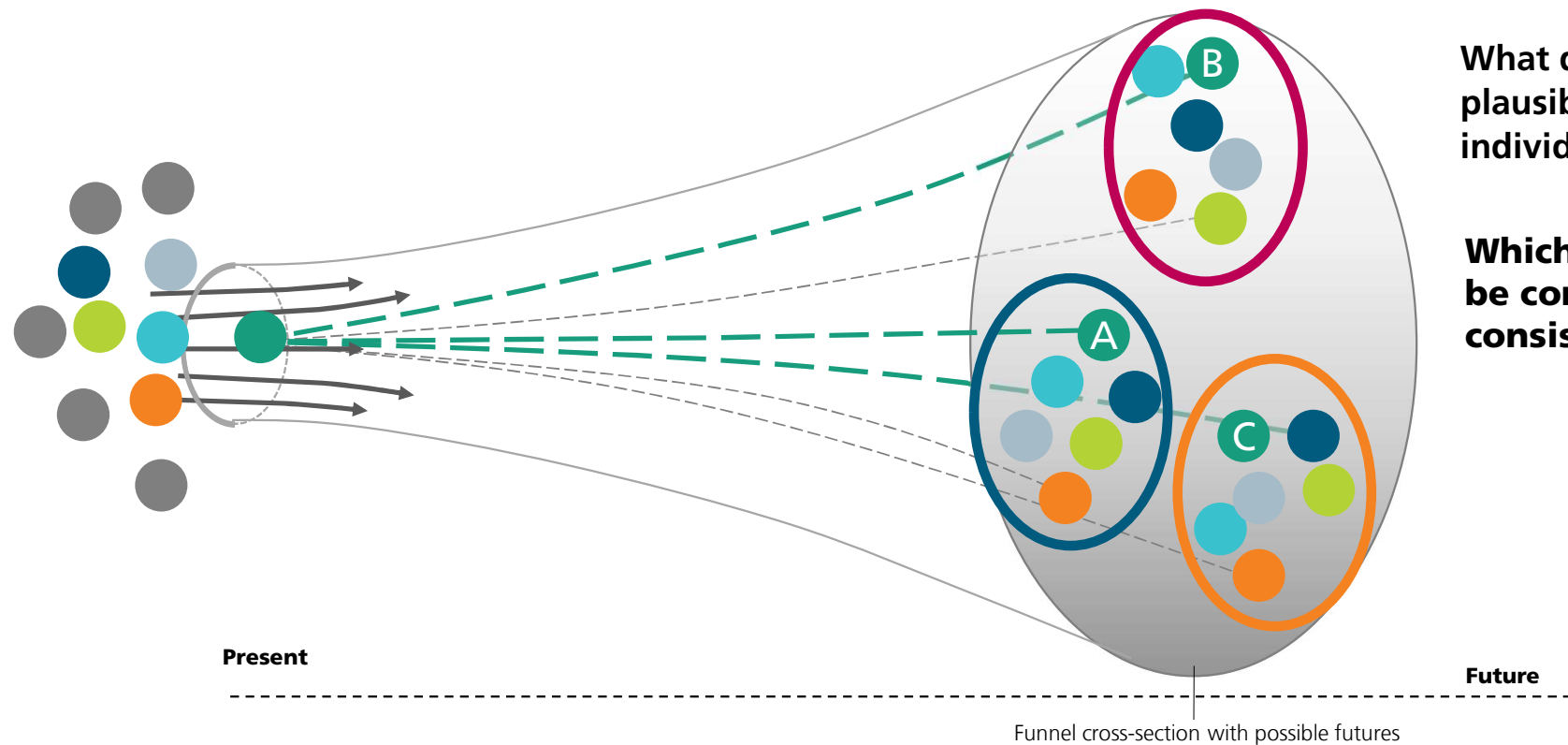
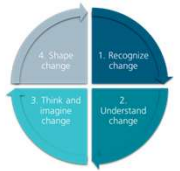
- Systematically consider interactions.



- Development of alternative pathways.
- Illustrate the space of possibilities.

## 3.4 Scenario development

Integration of individual assumptions into consistent scenarios



**What developments are plausible for an individual factor?**

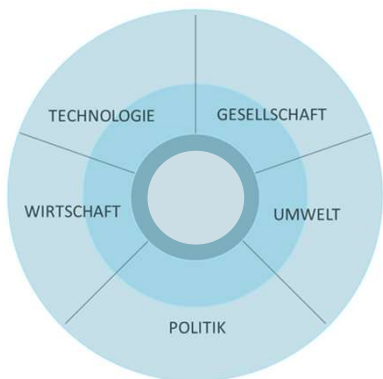
**Which assumptions can be combined to consistent scenarios?**



## 3.4 Scenario development

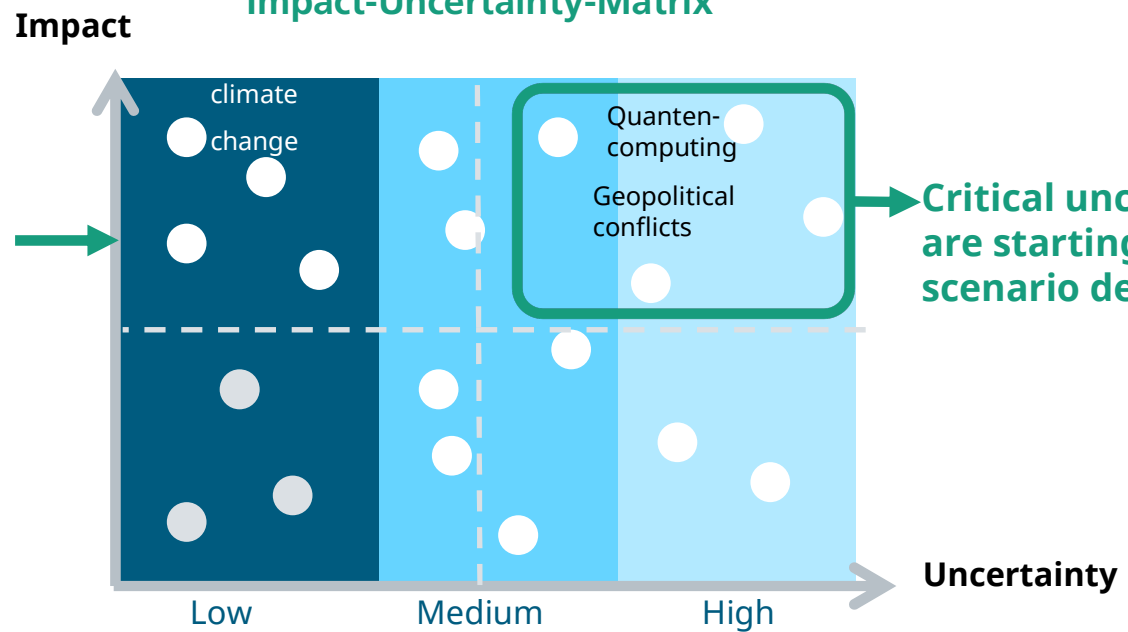
### Step 1: Selection of key factors

#### STEEP Radar



Horizon scanning  
and sensemaking

#### Impact-Uncertainty-Matrix



A high probability and only one possible outcome is assumed.

Various possible outcomes with similar probabilities are conceivable..

## 3.4 Scenario development

Example of Tetralemma-Logic for thinking in alternatives

**Example: Global power distribution**

A – USA  
will lead  
the world

C – geo-  
political vs.  
geo-  
economic  
powers

B – China  
will take  
over

D – Big 5

E – Climate  
change  
impacts  
disrupt  
economy

There is no right A!  
This method only supports  
thinking in alternatives, without  
assessment.

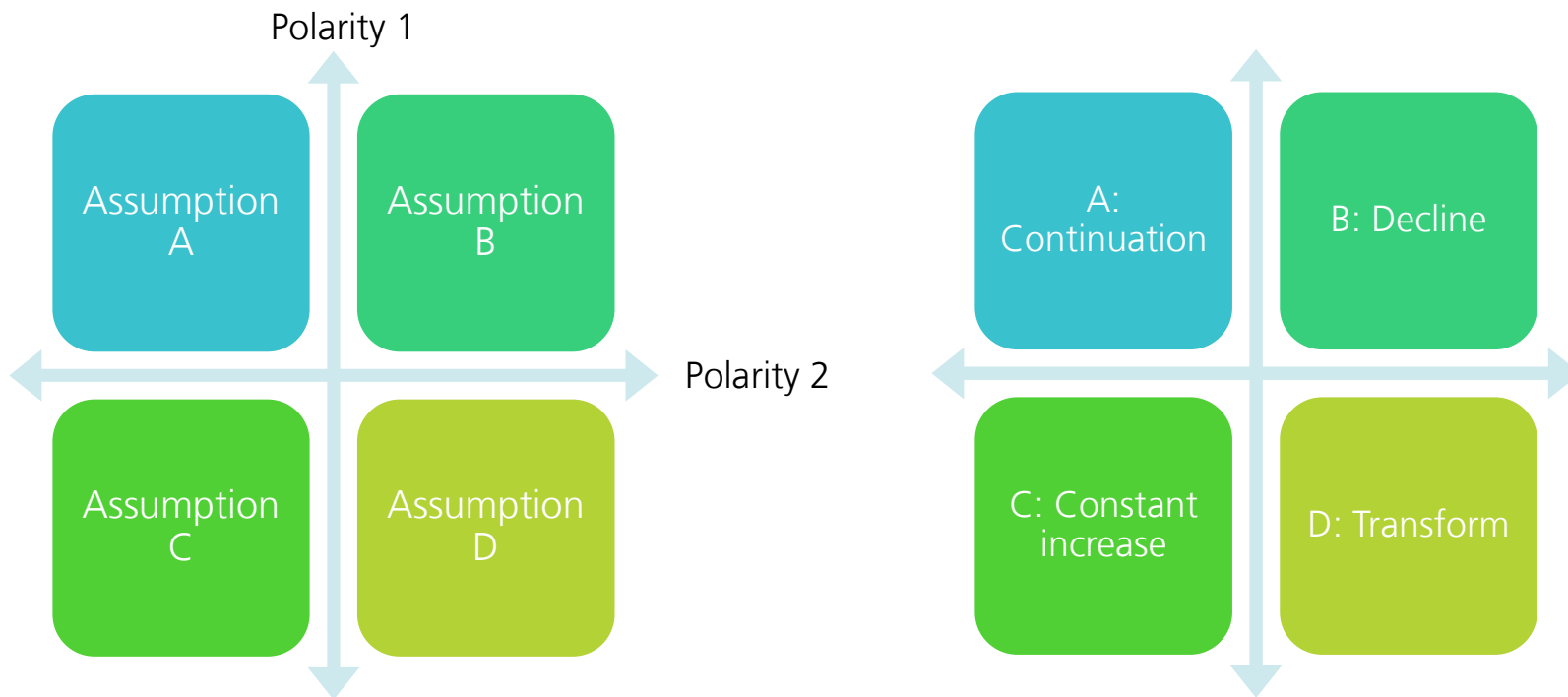
**for each key factor :**

- Individual imagination of possible paths
- Discussion of ideas and possibilities
- Formulation of paths in group

Name des Einflussfaktors:	Name des Einflussfaktors:	Name des Einflussfaktors:
Überschrift, die die zukünftige Situation charakterisiert	Überschrift, die die zukünftige Situation charakterisiert	Überschrift, die die zukünftige Situation charakterisiert
Beschreibung der zukünftigen Situation: <b>A „Das Eine“</b>	Beschreibung der zukünftigen Situation: <b>B „Das Andere“</b>	Beschreibung der zukünftigen Situation: <b>C „Beides - sowohl als auch“</b>

## 3.4 Scenario development

Others methods for creating assumptions – Avoid evaluation !

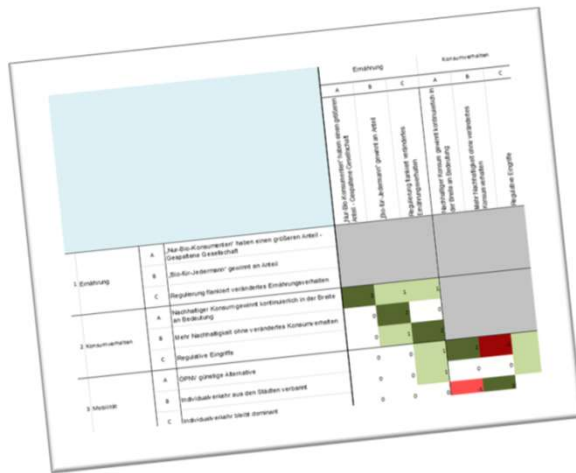


## 3.4 Scenario development

Scenario tool or expert discussion for order of factors in morphological box

### Scenario creation with consistency tool

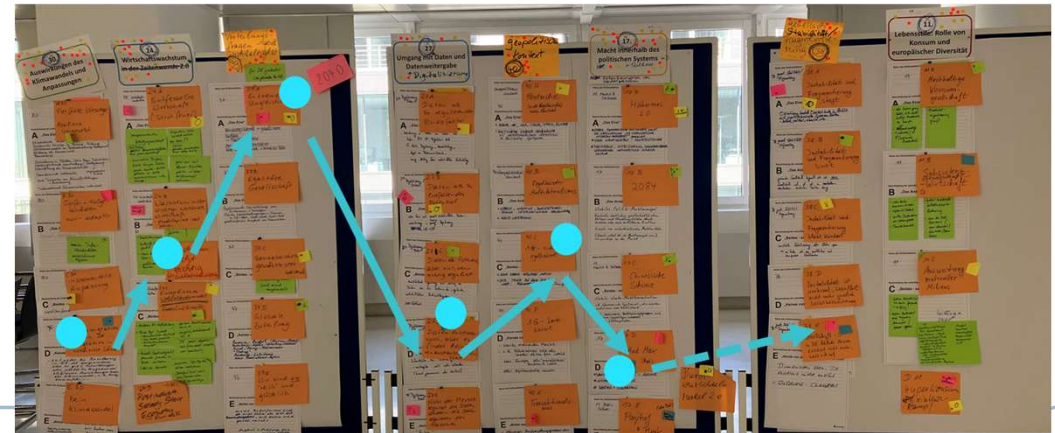
- assessment of plausible consistency for each assumption



### Scenario creation in moderated discussion

- assessment of factor for strength (strongest factor first)

- discussion of plausible relations between assumptions



## 3.4 Scenario development FoD Consumer

Selected key factors with 3-4 assumptions, morphological box

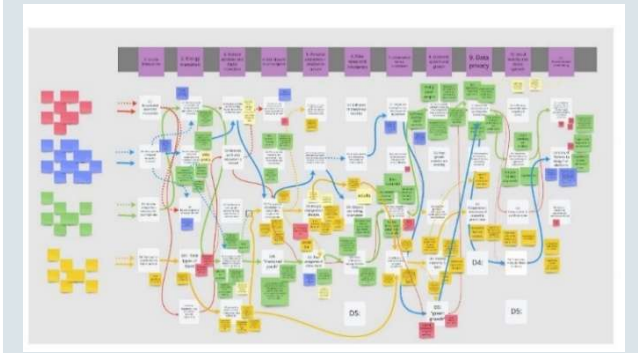
- 45 weak signals
- 14 mega-trends
- trend analysis

<b>S</b>	<b>Social</b>	<b>T</b>	<b>Technological</b>	<b>E</b>	<b>Economic</b>
<ul style="list-style-type: none"> <li>Remote working and the value of space</li> <li>Purchase priority</li> <li>Loneliness and disillusionment</li> <li>Gender inequalities</li> </ul>	<ul style="list-style-type: none"> <li>Access to digital infrastructures and digital skills</li> <li>Digital adoption</li> <li>E-commerce</li> <li>Physical</li> <li>Tech power</li> <li>Cognitive biases on platform competition</li> <li>Data privacy</li> </ul>	<ul style="list-style-type: none"> <li>Income inequalities and increase of savings</li> <li>Self-confidence</li> <li>Trust in brand</li> <li>Purpose-driven organisations</li> <li>Supply chain</li> <li>Small and medium enterprises</li> <li>Local products and distribution</li> </ul>			
<b>E</b>	<b>Environmental</b>	<b>P</b>	<b>Political</b>	<b>V</b>	<b>Value</b>
<ul style="list-style-type: none"> <li>Sense of nature</li> <li>Energy transition</li> <li>Private vehicles use</li> <li>Cycling modal share</li> </ul>	<ul style="list-style-type: none"> <li>Trust in the EU and national institutions</li> <li>Fake news and infodemic</li> <li>Creation of digital information and engagement</li> <li>Cancellations and price gaming</li> </ul>	<ul style="list-style-type: none"> <li>Planning horizon</li> <li>Interpersonal relationships</li> <li>Sharing attitude and economy</li> </ul>			

- 11 key factors driving the future of consumption



- 3-4 future paths for each key factor
- for morphological box of scenario building



Several workshops with stakeholders, trend and consumer experts and EC

# 3.4 Scenario development in FOD Consumer

## Key factors and different assumptions

## Online workshops with stakeholders and experts





## 3.5 Scenario analysis

## Szenario A:

### Assumptions

Factor 1  
Ass. a)

Factor 2  
Ass. c)

F3  
Ass. b)

F4  
Ass b)

F5  
Ass a)

F6  
Ass a)

F7  
Ass b)

F8  
Ass c)

(1) What is increased in this scenario, what is decreased?



xtxtxtxt  
xtt

xtxtxtxt  
xtt

xtxtxtxt  
xtt

(2) Who is winning? Who is affected?

xtxtxtxt  
xtt

xtxtxtxt  
xtt

xtxtxtxt  
xtt

xtxtxtxt  
xtt

(3) Risks and opportunities (for whom?) ?



xtxtxtxt  
xtt

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xtt

xtxtxtxt  
xtt

(4) Implications for our organisation?  
Needs for action?

xtxtxtxt  
xtt

xtxtxtxt  
xtt

xtxtxtxt  
xtt

(5) Trigger points leading to this scenario?

xtxtxtxt  
xtt

(

6) Indicators to be observed?

xtxtxtxt  
xtt

(7) News headline in 2040  
in this scenario?

xtxtxtxt  
xtt



## 3.5 Scenario analysis

alternative: use reference scenarios as starting point

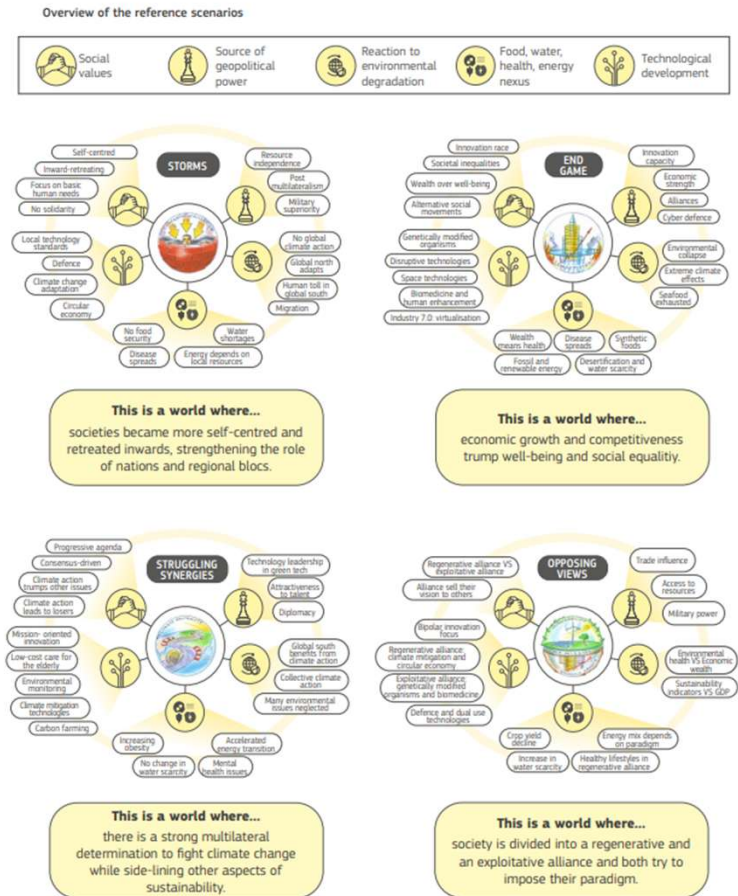
e.g. JRC reference scenarios, FOD consumer scenarios

### Adjust reference scenarios

- Guiding questions for further development of scenarios
- Refining and adjusting scenarios for own research question

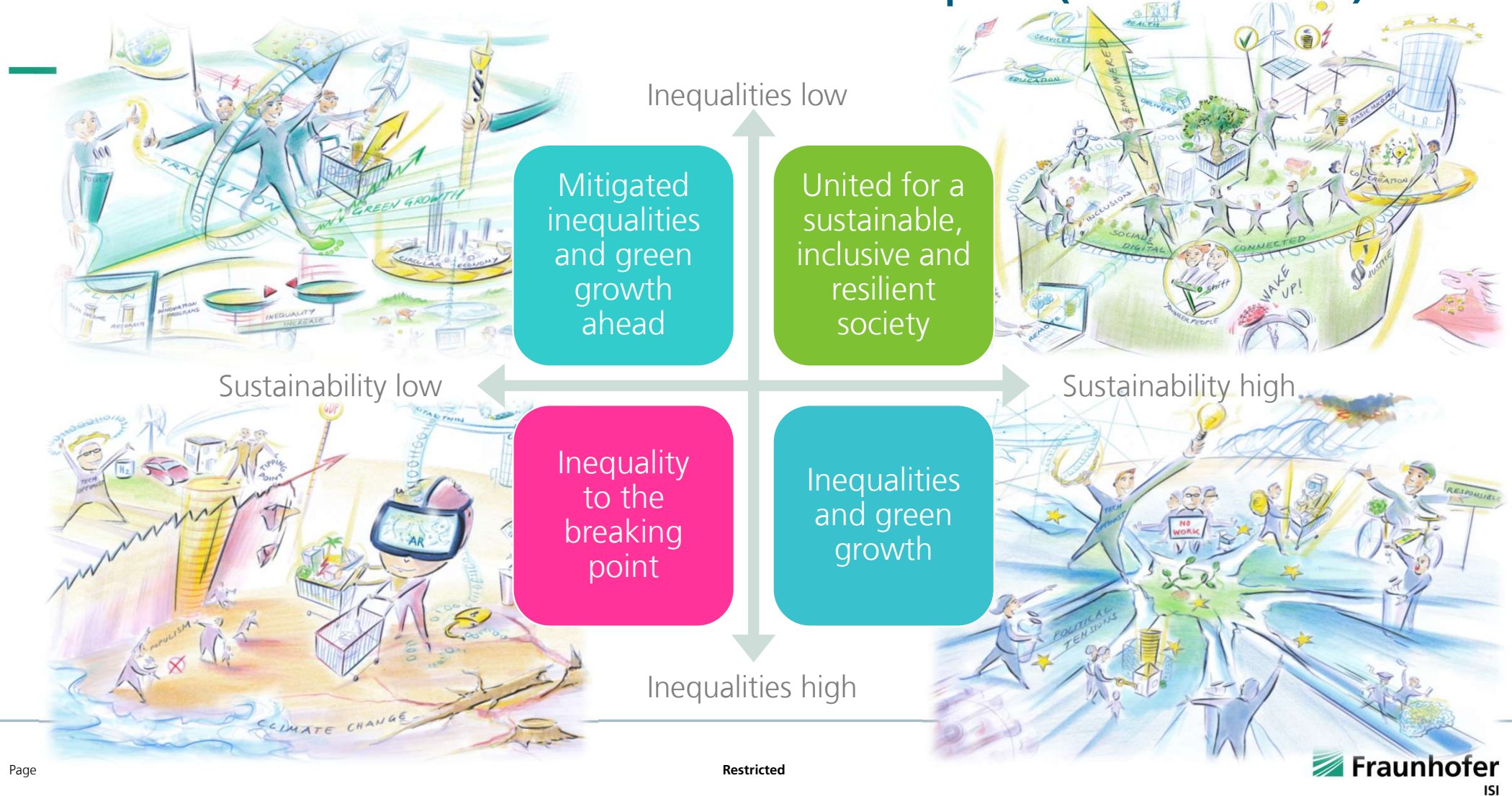
### Wind-tunneling of strategies in scenarios

- Test strategies across the scenarios
- Identify gaps
- Adjust strategies if needed



Source: Vesnic-Alujevic, L.; Muench, S.; Stoermer, E. (2023)

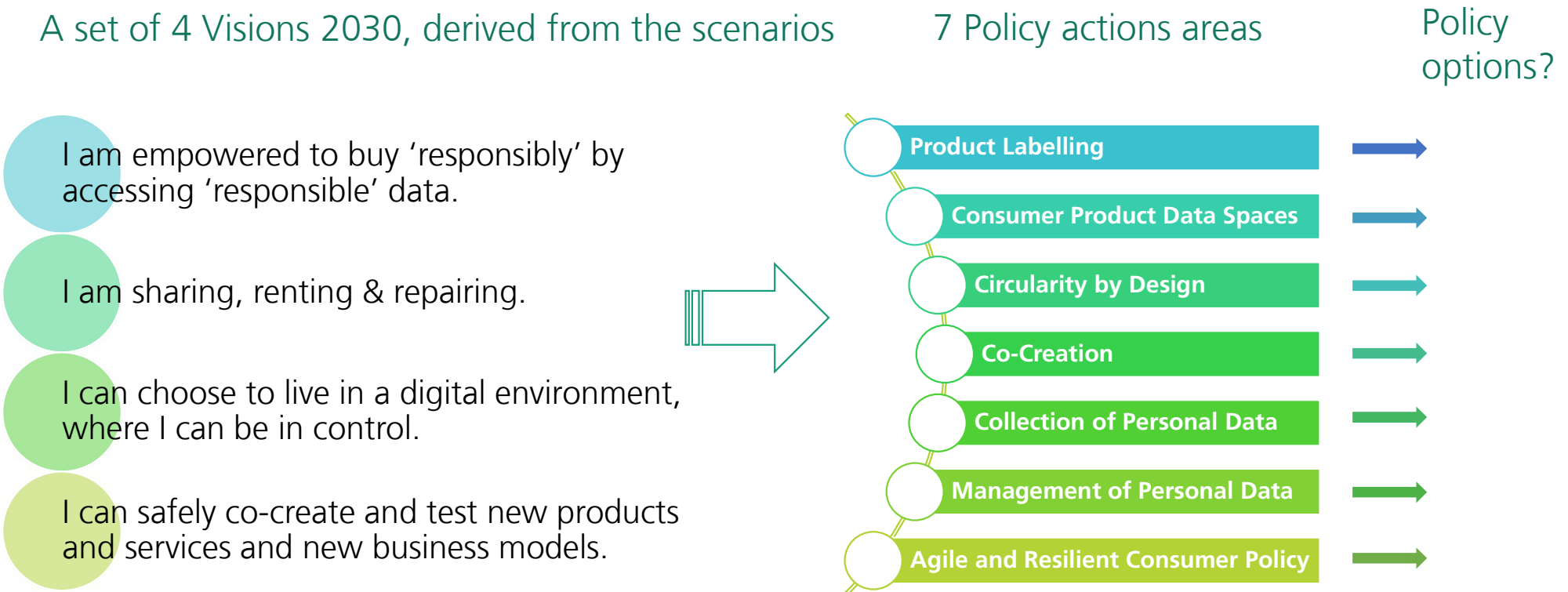
# Overview of 4 scenarios for the future of consumption (FOD Consumer)





## 3.5 Scenario analysis


FoD Consumer example: Stakeholder engagement for deconstructed visions, needs for action



## 3.5 Scenario analysis

FoD Consumer: Development of polic actions with stakeholders and policy experts

7 actions fields and **10 policy actions** to consider

Product Labelling	Consumer Product Data Spaces	Circularity by Design	Co-Creation	Collection of Personal Data	Management of Personal Data	Agile and Resilient Consumer Policy
<ul style="list-style-type: none"> <li>• <b>European “Agency for Sustainability”</b> <ul style="list-style-type: none"> <li>• 2022: initialise</li> <li>• 2023ff: set up</li> <li>• long-term 2030</li> </ul> </li> <li>• <b>Support standardisation</b> with better financing for initiatives <ul style="list-style-type: none"> <li>• 2022: Identify existing agencies and enforce them</li> <li>• 2022ff: increase financing of initiatives /agencies</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>• <b>Facilitate connection for decentralised system,</b> built on QR / new barcode technology <ul style="list-style-type: none"> <li>• 2022: initialise</li> <li>• 2023ff: pilot project(s) for technology development and testing</li> </ul> </li> <li>• long-term 2030+</li> </ul>	<ul style="list-style-type: none"> <li>• Need to act now</li> <li>• <b>Intensify consumer information on sustainability by design</b> <ul style="list-style-type: none"> <li>• 2022: initialise activity across DGs</li> <li>• 2023ff: run campaign and dialogues</li> </ul> </li> <li>• <b>Adjust legislation where necessary and possible</b> <ul style="list-style-type: none"> <li>• 2022: Identify hindering existing legislation</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>• <b>Support design processes that put consumer more in the centre</b> <ul style="list-style-type: none"> <li>• 2022: initialise industry engagement</li> </ul> </li> <li>• <b>Changes in legislation to promote purpose driven products</b> <ul style="list-style-type: none"> <li>• 2022: Study: need to adjust the legislation in the coming years?</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>• <b>Merge this with „management of personal data“</b> (balance of ownership and use)</li> </ul> 	<ul style="list-style-type: none"> <li>• <b>Capacity building inside DG JUST for tackling consumer data</b> <ul style="list-style-type: none"> <li>• 2022: review of existing regulation and need for improvement</li> </ul> </li> <li>• <b>Incentivize changes towards 2030, when not only companies own the data</b> <ul style="list-style-type: none"> <li>• longer-termed, not 2022</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>• <b>Set up coordinated action with partner regions</b> <ul style="list-style-type: none"> <li>• 2022: Identify regions and sectors,</li> <li>• 2023ff: invite stakeholders to dialogues about topics and needs for actions</li> </ul> </li> </ul>

## 3.5 Scenario analysis – Strategy development

FoD Consumer: Policy roadmap, example measure „Product labelling“

### Product labelling

#### Vision and policy options

*The European market share of products that are labelled as socially and/or ecologically sustainable will be larger than those without such a label by 2030.*

**a)** EU level certification for entire factories: any product coming from these is automatically labelled sustainable.

•limited impact in globalised markets

**b)** (Regulatory) benefits for certified sustainable products and factories.

•adopted in Action 1

**c)** Harmonisation of producer/retailer efforts on product labelling or factory-level certifications as well as shared guidelines on implementation and best practices.

•adopted in Action 1 and 2

**d)** EU wide practice for product labels for different consumer product segments addressing traceability, ethics and fairness of their value chains.

•adopted in Action 1 and 2

No.	Suggestion for Policy Action	What is new?	When to start?	Own Role?
1	European “Agency for Sustainability”  (centralised and horizontal capacity across the DGs for sustainability monitoring)	<ul style="list-style-type: none"> <li>Authority to supervise, acts horizontal (across all DGs)</li> <li>Approves new labels, monitors the landscape, supports experimentation</li> <li>Makes use of digital tools (QR-codes, blockchain etc.)</li> </ul>	2022: initialise 2023ff: set up and run it  long-term 2030	Start the initiative, gather partners (DGs, MS, stakeholder), build capacities
2	Support standardisation with better financing for initiatives	<ul style="list-style-type: none"> <li>Follow the path of consumer and stakeholder participation (BEUC etc.)</li> <li>Taking labels much more into account for sustainability and develop good practices (with initiatives like ANEC)</li> </ul>	2022: Identify existing agencies and enforce  2022ff: increase financing of initiatives /agencies	support initiatives and connects stakeholders (EU and MS)

*Relation to key priority areas:*

**Green transition  
Governance**

**Redress and Enforcement of consumer rights**

**Specific needs of certain consumer groups**

**International cooperation**



# 4 Wrap-up

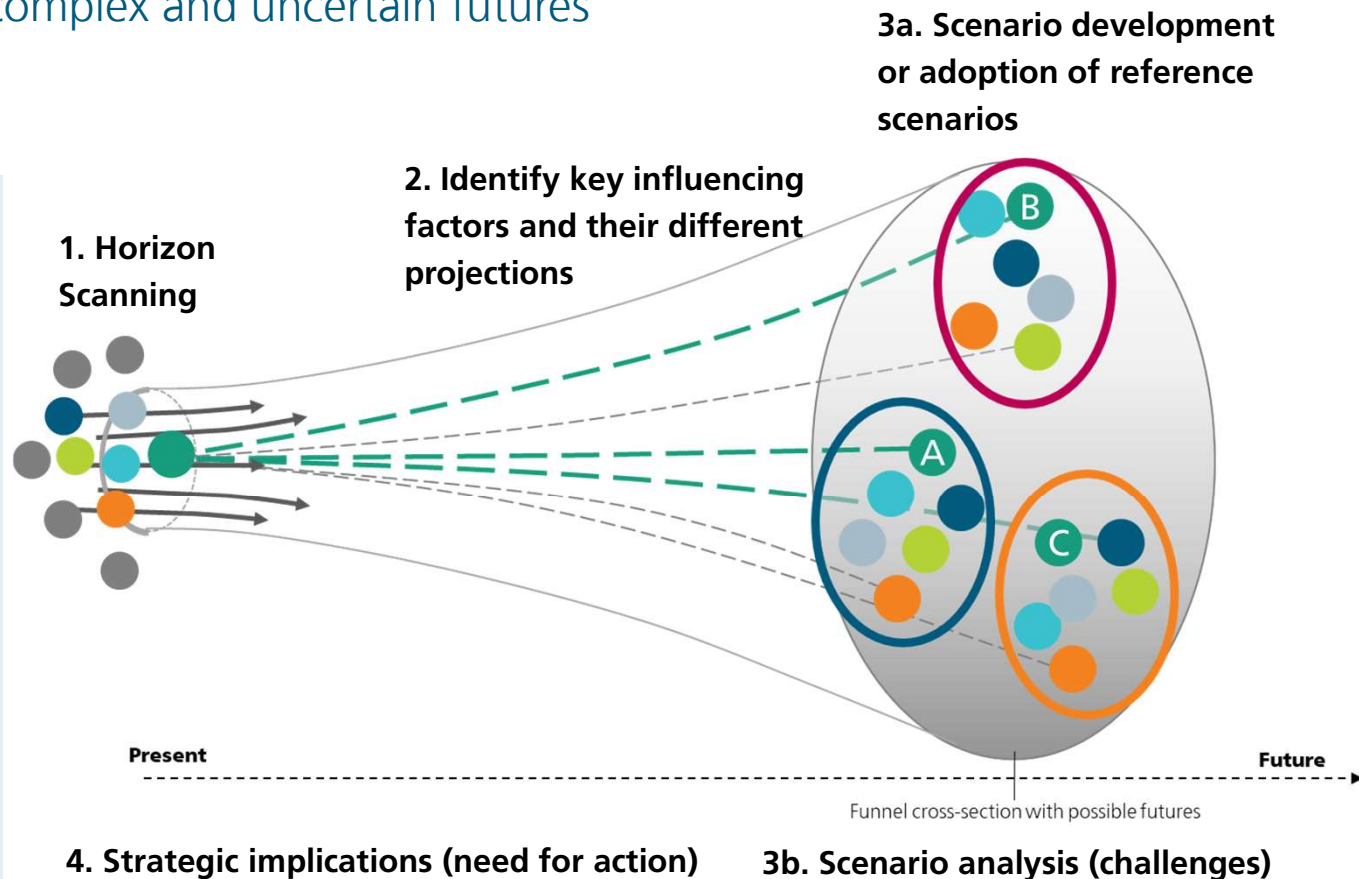
## 4 Wrap-up

### Scenario-centred foresight process for complex and uncertain futures



#### Debiasing with foresight

1. **Horizon scanning** to identify relevant trends and signals of change
2. **Sensemaking** to identify the most uncertain and relevant influencing factors
3. **Scenario development** or Reference scenario adoption (co-creative and participatory)  
**Scenario analysis** to assess opportunities, risks and the need for action
4. **Strategy development** using future workshops (backcasting), strategy dialogue and roadmapping



# Contact



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LinkedIn channel

<https://www.linkedin.com/showcase/competence-center-foresight/>

# Literature

## References and further reading

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