FOODLEVERS

Milestone 3.3:
Common Scenario Preparation Guidelines

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1. Objective of the Workshop

Task 3.3: Qualitative scenario modelling

The scenario workshop is carried out as a participatory workshop with external experts (from agriculture, nutrition, sustainability) and the stakeholders from the innovative case studies. The scenario workshop focuses on the field of deep sustainability levers in order to project the effects of these levers for the future. The scenario workshops are intended to define variants of future developments based on qualitative expert opinions. We will define boundaries of development to highlight routes for the future-oriented design of food systems and derive policy recommendations for future changes towards sustainable food production. This task should be viewed as an outlook at the end of the project.

The aim is to develop 3-5 scenario-based assumptions per country to build corridors for future developments. This will allow to highlight routes for the future-oriented design of food systems and to derive policy recommendations for future changes towards sustainable food production

Milestone 3.3: Common Scenario Preparation Guidelines

Milestone 3.3 is the first step towards achieving the task's aim by developing a common guideline to implement the qualitative scenario workshops. Each partner will hold a scenario workshop based on these guidelines.

Risks

The projection of future scenarios depends on much more variables than those observed within this project. Therefore, the scenarios might be incomplete. In addition, the scenarios developed could be biased by the involvement in this project. One means to reduce this risk is to draw on independent external imagination and to invite the workshop's participants to help formulate scenarios.

Table I

Task	Contribution to assess levers for sustainable transitions	Realms of deep leverage addressed			
		re-thinking	re-connecting	re-structuring	
3.1 Stakeholder decision making model	Influence decision-making of individuals and communities forward a sustainable style of life and develop adequate policy actions			x	Contributes to an understanding of how knowledge flows through stakeholders of the systems.
3.2 Agent-based modelling	Experiments with different parameters corresponding to levers resulting in short-term and long-term changes	x		x	Defines a long-term perspective on how a value chain is structured and how it can be changed over time.
3.3 Qualitative scenario modelling	Formulates corridors of development for the future, working as guidelines for policy makers			x	Defines a common perspective and shared vision among all the stakeholders contacted and involved in the 3 years project.

2. Preconditions, Framing and Context of the Workshop

Pre-conditions

Following the participatory workshop in Romania and a subsequent adaptation by the lead partner of this task, the following pre-conditions should be fulfilled for the implementation of the scenario workshops:

Table II

1. Stakeholder groups	Farmers, policy makers, consultants, researchers but preferably also beyond these groups
2. Number of stakeholders	approx. 15 participants MINIMUM: 6 participants, but preferably more (to be able to develop at least 3 scenarios with 2 people for each Scenario)
3. Scope	national or regional food system
4. Duration	3-4 hours
5. Format	Though workshops in presence were preferred by the majority of the consortium members, the guidelines presented here are elaborated for an online format of the workshop, but can be equally applied to workshops in presence. It is up to the project partners to choose the format dependent on the availability of the national stakeholders, the budget and capacities.
6. Number of scenarios	A minimum of 3 Scenarios should be developed by each partner country (max. 5 Scenarios) See chapter 3d.
7. Time horizon	Develop scenarios for 2050

Conceptual framework of the workshop and link to FOODLEVERS

The workshop is built on the concept of backcasting scenarios. Countering the original approach of forecasting as outlined in the project proposal, this method allows to develop scenarios by starting from potential futures and moving backwards to the present (Figure I). The fact that all three tasks within FOODLEVERS that are dedicated to developing scenarios are applying the forecasting perspective is the reason for choosing this technique as it might be a valuable amendment.

Backcasting is based on the idea to delineate future visions and draw pathways backward from these visions to the present (Dreborg, 1996; Robinson, 1990). If desirable futures are sought, backcasting scenarios allow to explore options, e.g. in technology or policy, that should be taken to reach those futures (Kishita et al., 2016).

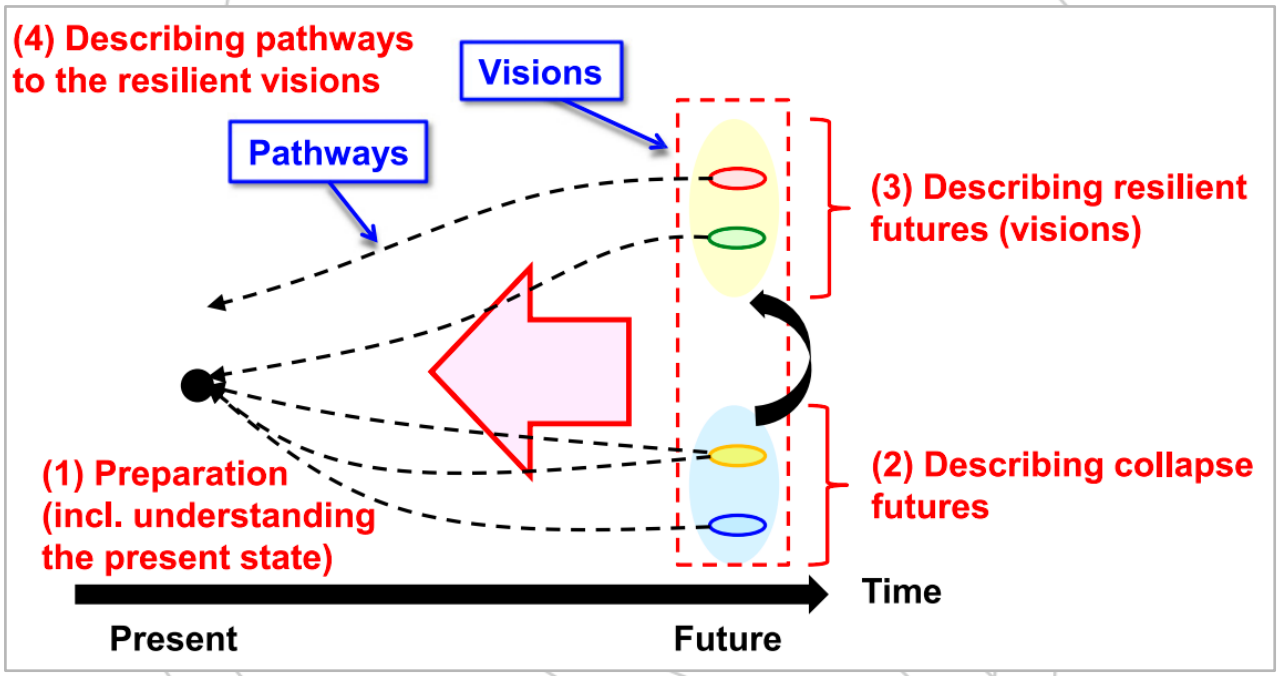
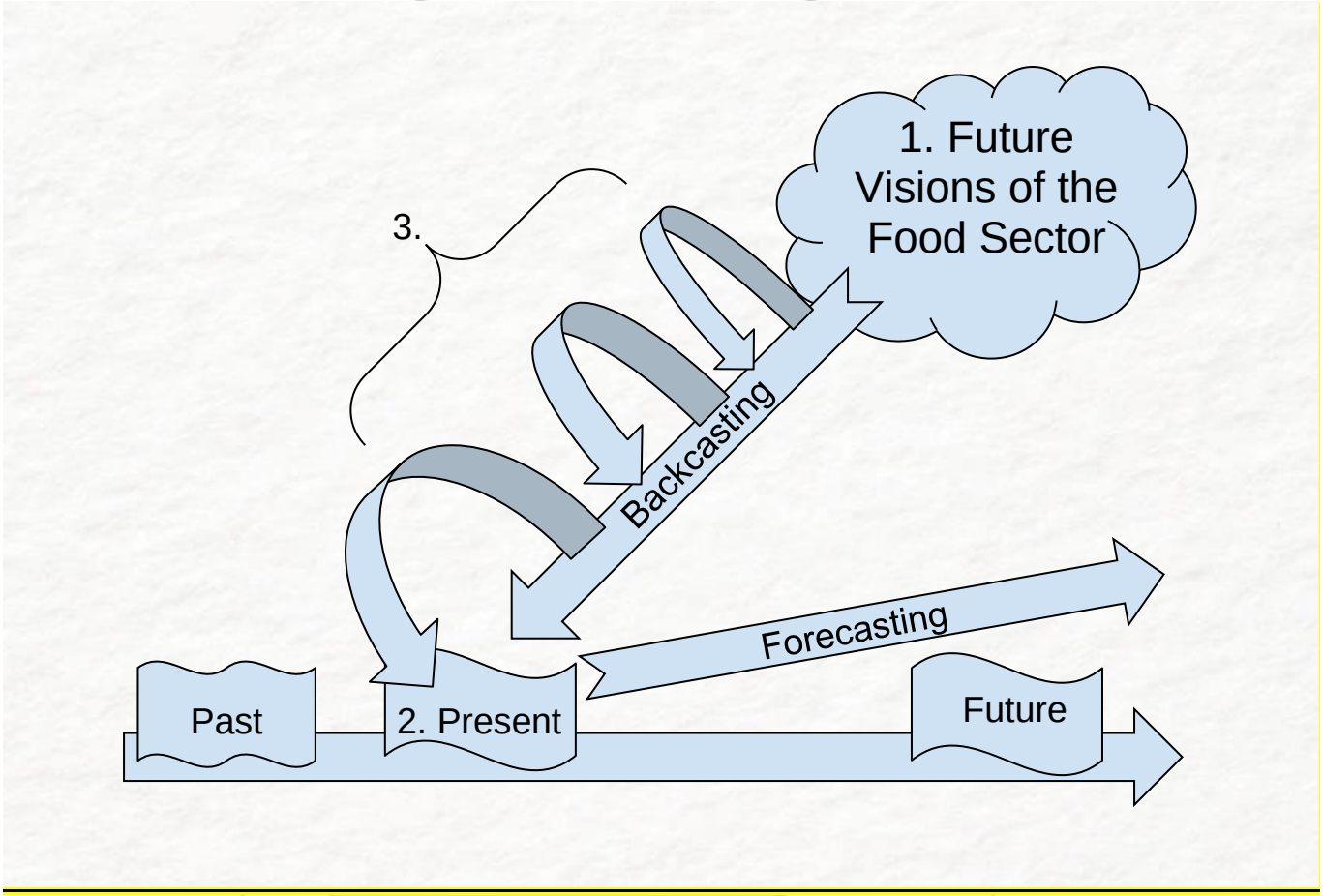


Figure I: Example for the concept of backcasting scenario design for resilient and collapse futures. The numbers correspond to the steps in the scenario design process applied by (Kishita et al. 2017).

For FOODLEVERS' scenarios, backcasting involves three main stages, representing the framework underlying the workshops:

1) Development of **visions** pertaining to desirable futures (here: of the national/regional food system)
2) Elaborating on **what** needs to change at the present state, **how** and **by whom**
3) Develop a **storyline/pathway** to get from the present to the visions for desirable futures



Hence, the scenarios developed in the workshops are normative scenarios. They aim at characterising possible futures of European food systems to meet pre-defined objectives. By doing so, a portfolio of scenarios will be developed, reaching different objectives through different approaches, i.e. leverage points or 'chains of leverage' (Fischer & Riechers 2018). Each scenario will be described by using the respective futures to **backcast from 2050 to now** to identify potential transition pathways.

3. Implementation of the Workshop

a. General Instructions

- The guidelines are designed for online workshops. However, the project partners can equally apply them to workshops in presence.
- If the workshop is held online, use a platform that allows breakout sessions in separate online rooms (e.g. Webex).
- For the fixation of results, use the online platform Mural to note and gather information.
- Break out Groups will be formed based on the preferences expressed by the participants. The groups should be equal in size.
- There will be 3 to 5 online break out groups
- Each group works on min. 1 Vision creating one Scenario
- Each break out group can be supported by a facilitator and a note taker
- Plenary Sessions take place in one online room

b. Exemplary Agenda

1. Welcome. What is at stake, who is in the room. Objectives of the workshop.	15 min
2. Setting the scene (plenary). Presenting the pre-defined Visions.	20 min
3. Introduction to break out sessions (plenary).	15 min
Break	*10 min*

4. First break out group session.
• In each group:
  • Identifying key objective(s) and desired level of ambition
  • Identifying key components in the scenario, characterising potential changes on these components and articulating a coherent scenario in view of developing the top line narrative.
	90 - 120 min

Break	*10 min*
5. Second break out group session. Preparing a summary of the developed scenarios	20 min
6. Wrap up.	10 min
Total Time Required:	**max. 3h 40m**

Remark:

If you choose the visions to be defined by the workshop's participants themselves (see chapter 3b), you can skip "2. Setting the scene" and add it as a first task for the participant to "4. Break out session".

c. Setting the Scene

Present national/regional food system

- Scope
- Import/Export
- Specialisation
- Historic and current challenges

Present pre-defined Vision

- The visions below are based on the principle of backcasting, meaning the participants should ponder and discuss the necessary developmental steps that need to take place for the visions to be realised.
- They are presented in a highly stylized (and, to some extent, "caricatural") way to make them as "comprehensible" as possible – with a strong focus on agriculture and food production – while many aspects are left quite open/undetermined.
- The objective of the workshop is to complexify, develop (in particular with respect to other dimensions: food industry, retail, consumption/diets, trade…) and nuance them, while keeping a certain level of contrast between them (role of facilitators)
- The question of spatial heterogeneity is not addressed per se at this stage (but will be later in the process). The objective is to identify key principles for farming systems/processing/retail/diets that might apply in different ways depending on the geographical contexts.
- As this is all about developing normative scenarios (e.g. objective-driven scenarios), big "drivers" like climate change, geopolitics, energy prices (to name a few) are not considered in this first step. Yet, "boundary conditions" can be identified during the workshop.

d. Defining the Visions (Scenarios)

There are three options to define the visions for the workshop:

1. Pre-definition of the visions
    a. Choose predefined visions from the suggestions below
    b. Pre-define your own country-specific visions
2. Definition of visions by workshops' participants

Exemplary VISIONS

1. **Climate-based Vision** 🏭**:** Desertification and Climate Change make for an agricultural landscape in which the cultivation and production of food is limited to certain areas only. This development makes for a spatially very restricted and highly specialised food production whose focus is on producing carbon efficient food with an overall reduction of meat production. Scaled up production makes for a strong top-down distribution of power in the production chain.

2. **Biodiversity-based Vision** 🦜**:** The food production sectors overall aim is to preserve and enhance biodiversity for stabile use and future development. With only a marginal effect of land-usability change due to climate change, the sharing of land for multiple crop and food production by different actors is facilitated by governmental actors. With an increased land efficiency, interfarm competition is minimised implying territorial de-specialisation in favour of less intensive and biodiversity boosting practices. Joining knowledge and workforce capacities fosters a development of economies of scope in which the reciprocal provision of resources is promoted.

3. **Boosting production through Innovation** 🤠**:** Maximising production outputs through ecological, economic and social innovation while strongly increasing climate and carbon efficiency of food production. The "rebound-effect" can lead to subsequent reduction of efficiency potential. The technological fixes lead to strong farm & food processors concentration, and require dietary changes with regard to the range of offered products.

4. **Rural renaissance through food production** 🧒🌾**:** Food production becomes a key driver of rural renaissance, attracting young people and dynamizing rural and marginal areas. Small scale and family farms are favoured over highly concentrated structures, with potential contrasting effects on the production, processing and distribution of food depending on the areas and the type of food production.

5. **Consumption-based Vision** 💭**:** Reduced or changed consumption by changes in consumer behaviour or thinking, including reducing food waste, the consumption of resource, conflict or transport intensive foods (e.g. animal products, avocados).

🏳 Remark:

These exemplary visions are only suggestions for points of departure to build the scenarios from, feel free to use them. If your groups show creative will to formulate their own vision to build a scenario upon, let them do their thing. It is very useful for the development of scenarios if you let imagination take its course.

🏳 Advice for the Participants:

Think about the group's interests (not just your personally preferred topics), try to be open-minded and to build on your group members' comments in a 'yes and...' spirit. If there are major disagreements, capture them for the record but don't dwell on them unless they absolutely prevent the group's progress.

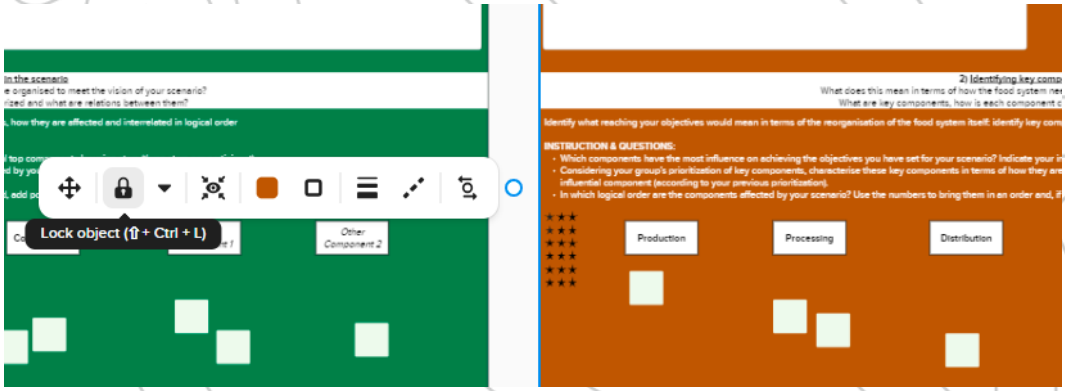
e. Breakout Session

Use your <u>nation-specific template</u> in MURAL for the structure of the breakout session and to capture the results.

- *GERMANY*
- *ITALY*
- *BELGIUM*
- *UK*
- *ROMANIA*
- *FINLAND*
- *POLAND*

Remark:

If you use MURAL during your workshop, please make sure that you <u>lock the elements</u> in MURAL that the participants should not move or edit before starting your Workshop.



Framework for scenario development

- Step 1: In the box "Block 1", identify the two main objectives of your scenario, and set targets (either qualitatively or quantitatively – the idea is to set a "direction of travel" rather than to give precise figures)
- Step 2: Identify what reaching such objectives would mean in terms of the reorganisation of the food system itself – looking at "Block 2".
- Step 3: Summary of results

Table III

Block 1: Potential OBJECTIVES of food systems

- Food self sufficiency & level of trade balance
- Reduced GHG emissions
- Increased biodiversity & N balance
- Preservation of Resources
- Contribution to GDP & job creation
- Farmers incomes
- Food security
- Maximise production output
- …

Block 2: Food system's COMPONENTs

- **Production**
  - Production inputs
  - Level of Specialisation of Producers
  - Level of Concentration of Producers
- **Processing**
  - Power Distribution
  - Relation of Produce amount to size of Food System
  - Spatial organisation
- **Distribution: Retail, Wholesale**
  - Role of retail own brands in the product mix
  - Retail own brand development strategy
  - Supply/ Purchasing Strategies
- **Consumption**
  - Dietary Practices
  - Product Mix
  - Willingness to Pay
  - Food waste management
- **External drivers**
  - Politics
  - Economy
  - Biophysical & environmental drivers
  - Sociocultural drivers
  - Technological and infrastructure
  - Demographic drivers
  - Global demand
  - Trade rules
  - …

Key guiding Questions

- ➢ Q1) "What are the 1-2 most important objectives of your scenario? What is the level of ambition for each of these objectives?"

- ➢ Q2) "What does this mean in terms of how the food system needs to be organised to meet the vision of your scenario? What are key components, how is each component characterised and what are relations between them?"

Workflow *(see Mural Maps)*

BREAK OUT SESSION 1 (90-120 min)

1) <u>Identifying key objectives & desired level of ambition/targets</u>

Invitation: What are the most important objectives of your scenario? What is our level of ambition/target for each of these objectives?

A) INDIVIDUAL REFLECTION (15 min)

Identify the two main objectives of your scenario, and set targets for each objective (either qualitatively or quantitatively – the idea is to set a "direction of travel" rather than to give precise figures)

- **Work instruction:** Capture your thoughts individually by adding post-its in the boxes below.
- **Questions:**
  - What is the *primary* objective of this scenario and its related level of ambition/target?
  - What is the *secondary* objective of this scenario and its related level of ambition/target?

B) COLLECTIVE DISCUSSION (30 min)

Agree on key objective/s and ambitions/targets

- **Work instruction:** Read through the individual post-its, discuss and agree as a group on the primary and secondary objectives & their related level of ambition. Capture your thinking and final objectives below.
- **Questions:**
  - What is the *primary* objective of this scenario and its related level of

ambition/target?

- What is the *secondary* objective of this scenario and its related level of ambition/target?

2) **<u>Identifying key components in the scenario</u>** (45 Min or more)

Identify what reaching such objectives would mean in terms of the reorganisation of the food system itself: identify key components, how they are affected and interrelated in logical order

Invitation: What does this mean in terms of how the food system needs to be organised to meet the vision of your scenario? What are key components, how is each component characterised and what are relations between them?

- **Work instruction & questions:**
  - Which components have the most influence on achieving the objectives you have set for your scenario? Indicate your individual top components by using stars (three stars per participant).
  - Considering your group's prioritisation of key components, characterise these key components in terms of how they are affected by your scenario (why, how and by whom). Use the post-its notes for explanation and start from most to least influential component (according to your previous prioritisation).
  - In which logical order are the components affected by your scenario? Use the numbers to bring them in an order and, if needed, add post-its or arrows for further explanation of interrelations.

BREAK OUT SESSION 2 (20 min)

3) **<u>Summary of results</u>**

Invitation: What is the story of your scenario? Considering the objective(s) given and level of ambition/targets, how is the food system organised to meet the objectives in your scenario?

- **Work instruction:** Summarize your group's results by using the template below.
- **Requested information:**
  - Objectives for this scenario and level of ambition
  - Key components (what components this objective puts the biggest constraints on) and their relations. Further explaining relations between components and characterization of components

4. Securing results & data transfer

- ➢ Take a screenshot of each group's MURAL/ take a photo of each poster (in-person workshop only)
- ➢ Make notes throughout the discussion of participants (Bullet Points are sufficient)
- ➢ Save the link to your MURAL and also download your version!
- ➢ Once the results are saved, please upload them **here** and inform the Leadpartner when done.

❖ **DEADLINE for implementation: Sep 2023**

5. References

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