## SHORT EXERCISES

# Exercise for identifying potential R&I breakthroughs

## In a nutshell

Exercise to support the identification of potential R&I breakthroughs

## What for?

- To explore and understand the food system.
- To work with communities (to run a Lab)

## How long?

75 minutes

## For whom?

Policy makers, Researchers, Businesses, Funders, Non-Governmental Organisations / Civil Society Organisations, Professionals

## Created by

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## Something to share?

Leave us a comment about this tool on the platform.
You can also contact fit4food2030.beta@vu.nl
This tool was developed as part of FIT4FOOD2030 project, see this tool and others on the FIT4FOOD2030 Knowledge Hub.

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How to cite?

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## What will you gain from this?

This exercise will help you or your Lab/network to identify the breakthroughs necessary to change the food system/R&I system in the direction of the formulated Lab/network vision. To this end, system awareness is created by linking up the breakthroughs with showcases and trends.

# EXERCISE FOR IDENTIFYING BREAKTHROUGHS

## Introduction

**Breakthroughs** are potential, significant achievements that may lead to an increased impact of the current initiatives in the field of Food Nutrition Security (FNS) and a step/radical change of the food system, making it more sustainable and resilient.
The identification of possible R&I roadmaps may lead to an increased effectiveness and impact of future measures, programmes and initiatives. With the identification and analysis of past breakthroughs, knowledge is gained on the key barriers and key enablers that have had the most impact on the implementation of these breakthroughs. Based on these insights, possible pathways to R&I breakthroughs can be formulated to increase the impact of the current initiatives in the field of FNS.

Apart from breakthroughs, trends and showcases also play an important role in food system transformation. In Figure 1 you can visualise the relationship between these three elements. This visualization is based on the multi-level perspective framework that is used for analysing socio-technical transitions (Geels, 2002[1]). It distinguishes three analytical levels: regime, landscape and niche. The regime represents the incumbent/existing system with its norms and rules. Change does occur at the regime level but it is normally slow and incremental. The niche, however, is characterized by radical innovations. Some innovations will change the existing regime while others fail. The last level is the landscape, representing a broad range of factors, such as social trends, economical factors, wars, that put pressure on the regime. At the landscape level, change occurs at an even slower rate than at the regime level.

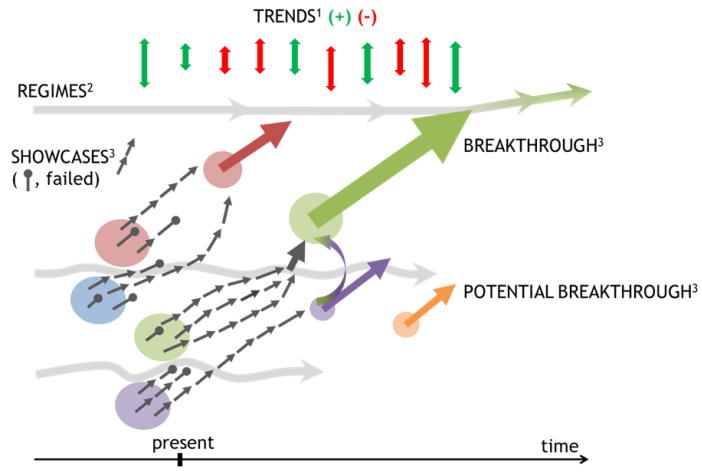



*Figure 1.The multi-level perspective applied to the FIT4FOOD 2030 project*

[1]Geels, F-W. (2002). Technological transitions as evolutionary reconfiguration processes: a multi-level perspective and a case study. Research policy, 31 (8-9), 1257-1274.

## Thematic area

Potential R&I breakthroughs, Food system transformation, Food system approach, Research and Innovation, Responsible Research and Innovation

## Target audience

Policy makers, Researchers, Businesses, Funders, Non-Governmental Organisations / Civil Society Organisations, Professionals

## Age of participants

From 12 onwards

## Number of participants

6 per facilitator

## Number of facilitators

1 per 6 participants

## Prior knowledge required for participation

No prior knowledge required but it is desirable to have interest of food systems and R&I food system transformation.

# GETTING PREPARED

## Set the scene

When applying the exercise during an event, you may need to:

- Select and put this selection of exercises in a meaningful sequence, and
- Slightly adapt the exercises for context-specific circumstances (e.g. participant knowledge and skills levels).

The identification of breakthroughs can be done with different methods, such as with a survey, consultations with an expert group and also interactive exercises. This document provides an interactive exercise for identifying potential R&I breakthroughs. If you prefer to use another method, for example you can use the survey provided in the Appendix.

TIPS & TRICKS

When applying multiple exercises in a row during events, we highly recommend event coordinators to take a facilitating role, or ask an external facilitator to guide the activities where necessary. We encourage building-in moments for the plenary exchange or collection of questions, concerns and ideas, as well as a moment for (individual) reflection.

## Materials for the interactive exercise

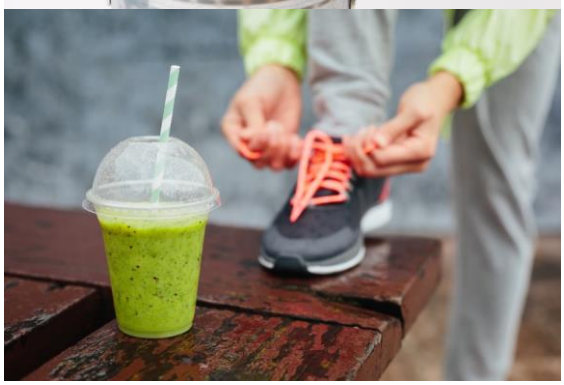
- Templates (see figures below)
- Markers
- Post-its
- A4s

# FACILITATOR TIPS

This tool needs to be carried out together with the participants. During multi-stakeholder dialogues you as a facilitator (or moderator) have an important role to play to ensure the active participation of all the participants in the given time frame while also reaching the session goals.

As a facilitator you need several skills and competences, such as verbal and non-verbal skills, negotiating skills, flexibility, and leadership. You will need to create an environment in which all participants feel secure, are able to speak up and give their perspective on issues being discussed. This means that you may have to stimulate some participants to speak more often, while you may have to prevent other participants to speak too often or too long. It also means that you will need to avoid discussions on issues that are not directly relevant.

A brief guide with facilitation tips are provided in this address: **https://knowledgehub.fit4food2030.eu/facilitatorstips**



# EXERCISE: IDENTIFYING BREAKTHROUGHS

## DURATION: 75 minutes

The **objective** of this exercise is to identify the breakthroughs necessary to change the food system/R&I system in the direction of the formulated Lab vision. To this end, system awareness is created by linking up the breakthroughs with showcases and trends.

For this exercise information on the Lab's vision is crucial. Information on trends and showcases is highly recommended, but not essential to think of potential R&I breakthroughs. Labs will need to adjust the exercise and templates to the information that is available.

## 1. Introduction (3 min)

The facilitator introduces the exercise:

*"This exercise will focus on the identification of breakthroughs that are related to the Lab's vision. To this end, system awareness is created by integrating insights in the Lab's vision, the trends that influence the realisation of the vision, and the showcases that can be learned from. These insights are already summarized in a template. Based on this information, you will think of the breakthroughs that are necessary to realise the aspired vision: what (radical) changes are necessary to come to the Lab's vision? These insights might further be translated into R&I needs, required changes on R&I system level, and educational needs (competences). Based on these insights you will do an outcome mapping exercise. Outcome mapping helps a project team or in this case a Lab, to be specific about the actors it intends to target, the changes it hopes to see and the strategies appropriate to achieve these. Based on outcome mapping, possible roadmaps to R&I breakthroughs can be constructed."*

The facilitator split the group into groups. Based on the aspired Lab vision, the groups will think of R&I breakthroughs. To ensure that all groups start from the same perspective, all groups receive a template that summarizes the Lab's vision, influencing trends, and relevant showcases (see template Figure 3). The groups also receive several empty A4s that can be used to answer the questions and make notes.

## 2. Creating System awareness (3 min)

The facilitator asks the participants to have a close look to the template. What is the Lab's vision? What trends do have a positive or negative influence on this vision? From what showcases can we learn? If necessary, participants can ask clarifying questions to each other, but also to the Lab coordinator. It is important that all participants are (more or less) on the same page, especially regarding the Lab's vision.

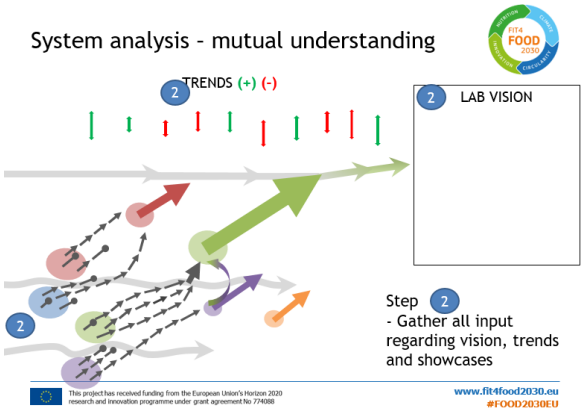



*Figure 2. Template to summarize Lab's vision, the trends that influence the realization of this vision, and relevant showcases to learn from*

## 3. Formulating breakthroughs to realise the aspired vision (30 min)

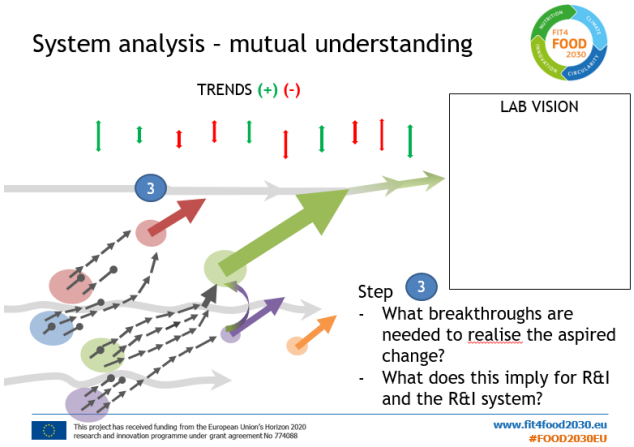



*Figure 4. Template to formulate R&I breakthroughs*

In this step, the facilitator asks the groups to think of breakthroughs that are necessary to realise the aspired vision. Breakthroughs can be anything; technologies, norm and values, systems, cultures, financial structures, etc. These breakthroughs can be written down on an A4. Questions that could help to identify breakthroughs are:

*What really needs to change in the R&I system/R&I policy framework to be able to realise the vision? What is different in the aspired vision compared to the current situation, and how could R&I (policy) help to overcome these differences? What knowledge gaps are present? What research needs to be done to come to the aspired vision? From these necessary breakthroughs, the groups are encouraged to think of/discuss what these would mean for R&I and the R&I system. How should the R&I system look like? What changes of the R&I system are required?* But also: *What topics need to be studied? And 'What are leverage points in our Lab context?* The answers to these questions can also be written down on the A4 with breakthroughs (see Figure 4).

Depending on the Lab's vision, you will prefer focusing on the identification of educational needs, policy needs, or both.

## 4. Identifying educational needs (20 min)

In this step, participants translate the required changes on R&I system level into educational needs. Questions that the facilitator could ask to help the participants to think of educational needs: what competences are necessary/need to be developed to achieve the required changes? What competences do future professionals in the field of FNS need? What needs to change in education to meet the required changes? Educational needs can be written down on a post-it. Each educational need is written on a new post-it (see Figure 5).

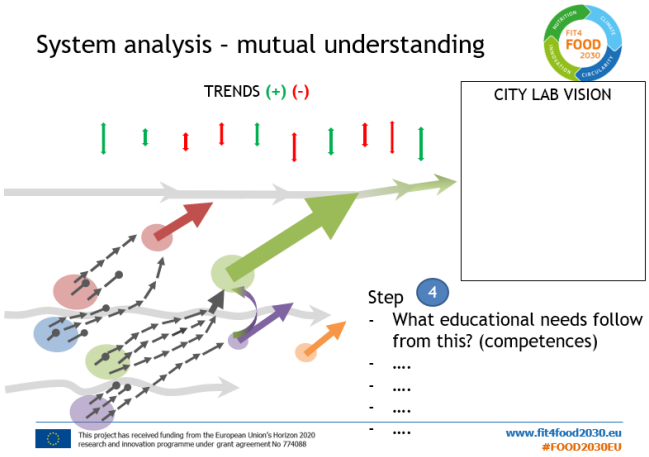
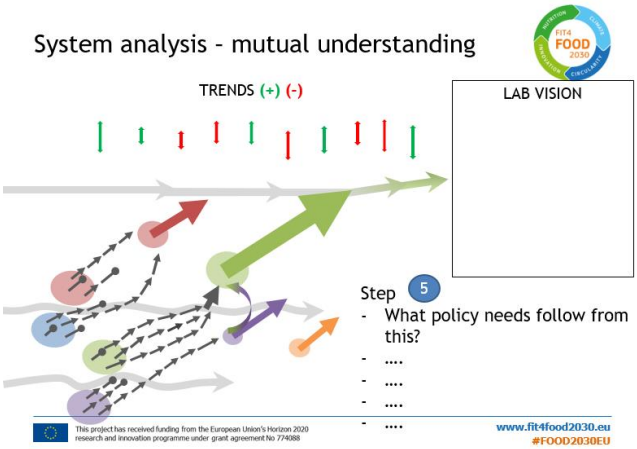



*Figure 5. Template to identify educational needs*

## 5. Identifying policy needs (20 min)




In this step, participants translate the required changes on R&I system level into policy needs. Questions that the facilitator could ask to help the participants to think of policy needs: *What policy measures are necessary/possible to achieve the required changes? What needs to change in the current policy landscape?* Policy needs can be written down on a post-it. Each policy need on a new post-it (see Figure 6).

*Figure 6. Template to identify policy needs*

## 6. Plenary discussion on breakthroughs and educational needs (15 minutes)

The groups shortly present the outcomes of their brainstorm session regarding breakthroughs. After each presentation, the other groups are invited to reflect on the outcomes and/or ask clarifying questions. The post-its with the educational needs/policy needs are collected. The facilitator asks 1 group to name the educational needs/policy needs. The facilitator asks why questions, especially with regard to the link with the Lab's vision. After each post-it, the facilitator asks the other groups whether they have similar needs on their post-its. The facilitator repeats this till all post-its are collected. The post-its are clustered into themes, and the facilitator asks the participants to name the different clusters.

# 7. Outcome mapping (45 min)

This step can be done in the same workshop as step 1-4, but can also be the subject of a separate meeting. The starting point of the exercise is the educational/policy needs as clustered in step 4.
The facilitator explains what outcome mapping is and how it can be useful to the Labs.

The participants are divided into groups. All groups receive the outcome mapping table as reflected in Figure 7. The facilitator asks the groups to fill in the table based on the educational needs clustered in step 4. From the impact on competences, participants can think of concrete outcomes, output and activities. Questions that the facilitator could help the participants to fill in the table: What should be the output of the Lab? What concrete activities need to be done to cover the educational/policy needs?

The tables show what Lab activities need to be undertaken to have impact on the educational needs. In other words, from the tables, possible pathways to the realisation of the educational needs emerge.
After sharing and reflecting upon the tables, the pathways can be prioritized with e.g. stickers, so that a decision can be made regarding the Lab activities.

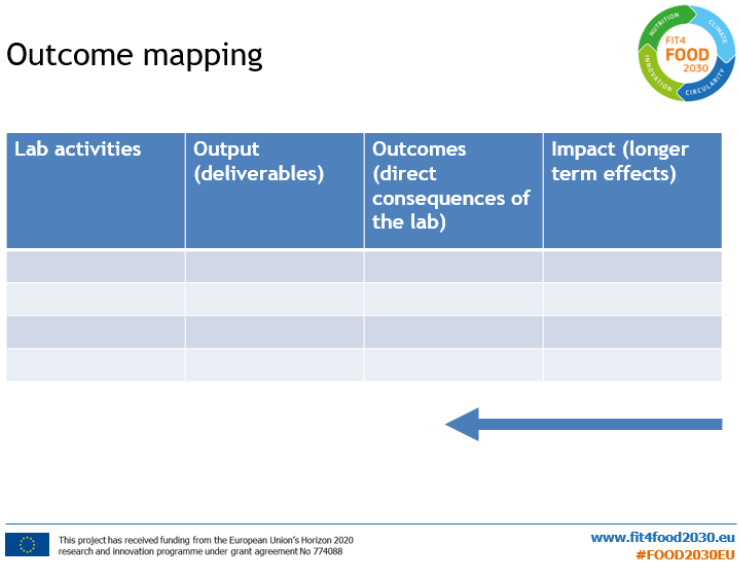



*Figure 7. Table for outcome mapping*

# APPENDIX

## Survey to identify trends, Breakthroughs and breakthroughs

**Welcome to the survey on trends, cases and potential breakthroughs in research and innovation (R&I)**

Your knowledge and examples of trends, cases, and potential breakthroughs in R&I will provide valuable insights and ensure that your voice is heard. We would welcome your participation in this survey to provide us with relevant examples of trends, cases and potential breakthroughs in the R&I sphere for consideration within this project. If you wish to be kept informed about other opportunities to engage with the project members, please leave your email at the end of the survey. The survey contains a maximum of 21 focused questions which should take you about 15 minutes to answer. Feel free to provide us with website links to relevant information, if this saves you time!

Before we start, though, a quick round of explanations of concepts we use:

**Trends**: trends are developments over time or changes over a long run which are likely to affect society or parts thereof after a few years. Trends cannot easily be influenced in a mechanic way by specific/individual organizations, players, or nations. They are often a result of specific drivers or can be promoted by strong influencers. They become visible only in retrospective.

**Cases**: initiatives, key findings, social movements, good practices, networks, projects, case studies, demonstrations that have positively affected the food system. Some cases that had great potential, but ultimately failed, will also be considered to see which criteria are important for a successful showcase.

**Potential breakthroughs**: movements, project findings, new systems, etc. that have the potential to impact the food system significantly in the future.

Cases and potential breakthroughs of interest can be found in all research fields (such as food production/consumption, bio-economy, health, environment, ICT, social sciences and humanities), but also in different areas other than research and innovation (e.g. policy, societal engagement, education, business models, public/private interaction).

1. **Please mark which of the following sectors you see yourself representing:***
   **Choose as many as you like**
   A. NGO/CSO (non-governmental organisation or civil society organisation)
   B. Business/enterprises
   C. Policy making or governmental organisations
   D. Education and/or research
   E. Funding agencies
   F. Other

2. **Please mark which of the following areas you see yourself representing:***
   **Choose as many as you like**
   A. Primary production (agriculture)
   B. Primary production (marine, aquaculture)
   C. Food industry (production, packaging, distribution)
   D. Health
   E. Environment
   F. Other

3. **What trends in R&I are you aware of that in your opinion will influence the food system in the EU (up to three)? Please, provide information on your first example of a trend.**
   Trends: trends are developments over time or changes over a long run which are likely to affect society or parts thereof after a few years. Trends cannot easily be influenced in a mechanic way by specific/individual organisations, players, or nations. They are often a result of specific drivers or can be promoted by strong influencers. They become visible only in retrospective.

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4. **Do you have other trend examples?**
   Y. Yes
   N. No

5. **What cases in R&I are you aware of that, in your opinion, will influence the food system in the EU to make it future-proof (up to three)?**
   Cases can be initiatives, key findings, social movements, good practices, networks, projects, case studies, demonstrations, etc. that have positively affected the food system. Some cases that had great potential, but ultimately failed cases will also be considered to see which criteria are important for a successful showcase.

   a. **Give a brief description of your first case.**

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   b. **What category does the case belong to?**
      **Choose as many as you like**
      A. EU Project
      B. Other projects
      C. Social/citizen movement/initiative
      D. Case study
      E. Network/organization
      F. Education (knowledge exchange/transfer)
      G. Policy (movement/initiative: campaign/article/regulation)
      H. Innovation/enterprise/business movement or initiative
      I. Other

   c. **Why do you think this case has been successful?**
      **Choose as many as you like**
      A. The potential number of actor groups involved and impacted
      B. The potential type of actor groups involved and impacted
      C. The life span of the project/initiative
      D. Motivational incentives for participants (monetary considerations: community building or other engagement oriented actions that enable participants to own and participate in the activity)
      E. Positive economic impact (profit, including direct and indirect impacts on jobs and GDP plus generation of fiscal contributions and long-term improvements in productivity)
      F. Environmental impact (planet)
      G. Societal impact (people)
      H. Other

d. **Does this case contribute to meeting any of the four challenges?**
**Choose as many as you like**

**A.** Sustainable, healthy diets; **B.** Climate friendly food systems; **C.** Circular food systems; **D.** Innovation and communities

6. **Do you have other case examples?**
Y. Yes
N. No

7. **What cases in R&I are you aware of that had great potential, but that have not lived up to expectations?**

a. **Give a brief description.**

b. **What category did the cases belong to?**
**Choose as many as you like**
A. EU Project
B. Other projects
C. Social/citizen movement/initiative
D. Case study
E. Network/organisation F. Education (knowledge exchange/transfer)
G. Policy (movement/initiative: campaign/article/regulation)
H. Innovation/enterprise/business movement or initiative
I. Other

c. **Why did these fail in your opinion?**

d. **In your opinion, what features/characteristics does a case have to have to be considered as a successful showcase? Please provide details**

8. **What potential breakthroughs in R&I are you aware of that, in your opinion, will shape a futureproof European food system (up to three)?**
Potential breakthroughs: movements, project findings, new systems, etc. that have the potential to impact the food system significantly in the future.

**a. Give a brief description of your first potential breakthrough**

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**b. In which area of activity (research, policy, social movement, education, etc.) do you see them happening? Choose as many as you like**

A. Research
B. Policy
C. Social movement
D. Education
E. Innovation/enterprise
F. Other

**b. Does this potential breakthrough contribute to meeting any of the four challenges?**

**A.** Sustainable, healthy diets; **B.** Climate friendly food systems; **C.** Circular food systems; **D.** Innovation and communities

9. **Do you have another example of a potential breakthrough in R&I?**
   Y. Yes
   N. No

10. **In your opinion, what are the barriers and the incentives that will determine the successful implementation and application of these breakthroughs?**

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11. **Do you want to stay in touch with us?**
    **Choose as many as you like**
    A. Please send me regular newsletters with news related to XXX
    B. I would like to be invited to meetings and other events organised by XXX

12. **Please, leave your name here if you are interested in staying in touch with XXX:**

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13. **Please, leave your email here if you are interested in staying in touch with XXX:**

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## Coordinated by:

VU VRIJE UNIVERSITEIT AMSTERDAM

## Partners

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eit European Institute of Innovation & Technology

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JPI a healthy diet for a healthy life

OSLOMET OSLO METROPOLITAN UNIVERSITY WORK RESEARCH INSTITUTE AFI

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JPI OCEANS

SUSFANS

MILAN URBAN FOOD POLICY PACT

FACCEJPI Agriculture, Food Security and Climate Change

Living Lab for Health IrsiCaixa Institut de Recerca de la Sida

ESSRG Environmental Social Science Research Group


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