EDUCATIONAL MODULE; SHORT EXERCISE

Promoting healthy and sustainable diets: Why is it so complex?

In a nutshell

This activity aims to facilitate mutual learning around the complexity of the system of promotion of healthy and sustainable diets by reflecting around factors in different areas of the system and their interconnections and dynamics

Food 2030 focus

What for?

To explore and understand the food system
To work with my community on transforming the food system
To improve R&I policy coherence and alignment
To train or educate people on food system transformation

For whom?

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

How long?

3h 30 min

Created by

Living Lab for Health at IrsiCaixa within the Barcelona "la Caixa" Living Lab (Barcelona, Spain) with contributions from the participants of the community of practice Fit4FoodBcn.
We acknowledge the feedback provided by the Food Lab Graz who piloted this exercise.

Something to share?

Leave us a comment about this tool on the FIT4FOOD2030 Knowledge Hub. We encourage you to share your results with the Living Lab: livinglab@irsicaixa.es
This tool was developed as part of the FIT4FOOD2030 project; find this tool and many more on the FIT4FOOD2030 Knowledge Hub.

Date of creation: December 2020

How to cite?

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What will you gain from this?

After implementing this multi-stakeholder exercise, participants should be able to:

1. Understand the complexity of the system of promotion of healthy and sustainable diets (HSD) and the need to address its problems taking into account different variables identified (system knowledge)

2. Explore the main factors and dynamics in the different areas of the system (health, food, social, economic, environmental, technological, political) and how they relate to each other (system knowledge)

3. Contribute to build knowledge around the key variables that play a role in the current dynamics of the system of promotion of HSD by participating in debates with other key stakeholders (system knowledge)

4. Reflect on the importance of system approach as a problem-solving method.

PROMOTING HEALTHY AND SUSTAINABLE DIETS: WHY IS IT SO COMPLEX?

Introduction

There is more evidence than ever before that the food system is facing multiple challenges that are affecting human and planetary health. Some of these challenges are linked to the social area, such as the changes in dietary habits, the rise of fake news or the increase of global food demand. Other challenges are health-related, such as the increase of obesity and other food-related illnesses or health inequalities. We also face environmental challenges, such as environmental degradation and climate change, scarcity of natural resources and food waste. At the same time, there are also technological challenges, such as the improvement of technological processes in food production or food traceability. Other challenges happen at political and economic levels, such as the difficulties in aligning food policies among different administration departments, or the lack of consensus in the definition of concepts such as the short chain supply. In order to make our food system more sustainable at environmental, economic and social levels, we need to change the way we are addressing all these problems affecting the different areas of the system, as they are interconnected and therefore need to be addressed with a more systemic approach and a stronger impact of Research and Innovation (R&I).

Several organizations such as the European Commission (EC) with the FOOD 2030 policy framework, the United Nations (UN), or the Milan Urban Food Policy Pact (MUFPP) highlight the urgency of rethinking strategies with new approaches that take into account the complexity of the food system. They call for a more systemic approach inspired by methodologies of system thinking and with a more open and inclusive approach to the way research and innovation is defined and implemented, inspired by methodologies within the frameworks of Open Science and Open Innovation and Responsible Research and Innovation (RRI), among others.

To promote a systemic transformation, on the one hand, it is necessary to facilitate **systemic reflection processes** that take into account interconnected factors from a wide variety of challenges, such as those of the different areas of the system (social, health, technological, economic, environmental, political) (Figure 1), phases of the value chain (Figure 2) and organizational and geographical levels (organization, collective and systemic and local, national and international). On the other hand, it is essential to have the participation of

Thematic areas

Food system approach, Responsible Research and Innovation, Nutrition, Innovation, Co-creation, Multi-stakeholder approach, Stimulating change, Digital-proof tool, Healthy and sustainable diets, Health promotion

Target audience

Stakeholders representing different sectors and disciplines related to food systems: research and innovation community, industry representatives, policy makers, civil society organisations and the education community. Some examples are: policy makers in charge of food innovation, public health experts, health care providers, patients' associations, consumers' organisations, food and agriculture producers and industry, researchers working in a wide variety of disciplines, innovators, research and innovation funding organisations, educators, communicators and journalists and environmental organisations.

However, this module can also be adapted to other audiences such as students in Higher Education (as the activity covers a wide range of disciplines, it can be appropriate for different degrees and subjects), families and citizens. If the target are not professionals, we recommend that the activity is adapted (see Tip suggesting not to use the 'System Map').

Age of participants

18+

Number of participants

We recommend a maximum of 20 participants.

Number of facilitators

1 facilitator for face-to-face activities

At least 2 facilitators for online activities, one of whom focused on technical aspects

multiple social actors who provide knowledge and perspectives from different scientific disciplines and sectors. These multiple perspectives are taken into account when defining problems, their causes and consequences, and at the same time when identifying the **changes** needed and defining the **solutions** and possible **actors** to be involved.

To make this systemic transformation possible, different organizations are developing tools to facilitate a system thinking approach in food systems, such as models intended to identify the interconnections and factors that need to be taken into account when making decisions and designing roadmaps for change (Figure 1)

The overall goal of these new approaches is to co-design strategies, action plans and solutions that better take into account the complexity and that are implemented in a coordinated and simultaneous manner in different areas of the system.
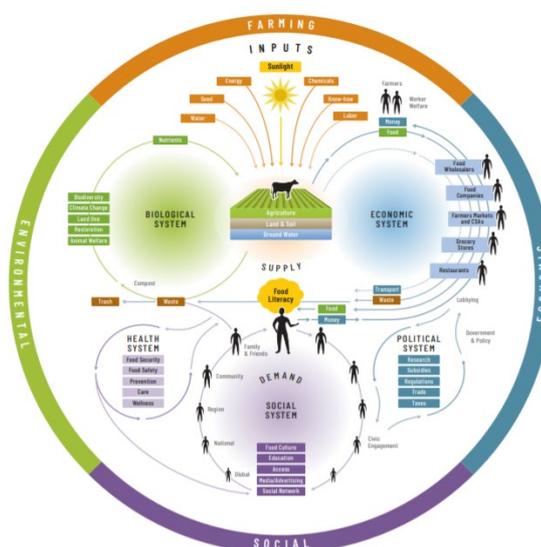

Figure 1. System map that represents the complexity of the food system. Image courtesy of the Nourish initiative (http://www.nourishlife.org). Copyright 2014 WorldLink, all rights reserved.
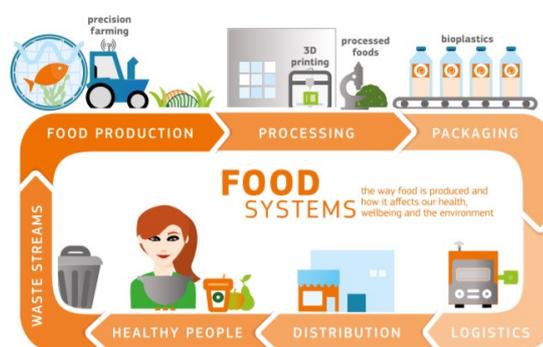

Figure 2. Phases of the value chain, FOOD 2030 Policy framework

Prior knowledge required

Prior knowledge required for participation

For facilitation: None. However, the level of knowledge needed will differ depending on the expected results.

For participation: The activity is designed for professionals. If the aim is to validate a robust system map, the more knowledge participants have, the richer the result will be. As suggested in a Tip, we recommend substituting the 'System Map' by another tool when adapting the target audience.

What is this exercise about?

This exercise is focused on the challenge of promotion of healthy and sustainable diets (HSD), which is a complex challenge that needs to be addressed with a systemic transformation approach to find impactful solutions.

This exercise is the first part of a series of exercises based on a three-phase process intended to be facilitated within multi-stakeholder workshops. The whole series of exercises include:

- 1st phase: to explore the complexity of the current system
- 2nd phase: to collectively define a shared vision on a desired future, and
- 3rd phase: to design strategic and actions plans as roadmaps to promote the needed change to achieve such vision.

This exercise focuses on the 1st phase, which can be finalised with a second Short Exercise named 'Promoting healthy and sustainable diets: Where is change needed?' in which participants identify factors in different areas where change is needed. The second exercise also covers the 2nd phase where participants collectively define a shared vision. Finally, the 3rd phase described in the Training and Educational Module 'Promoting healthy and sustainable diets: Roadmaps for change' leads to the production of a roadmap that includes solutions targeting the previously identified factors and will be implemented in coordination among different stakeholders from different areas of the system.
In this manner, the series of exercises explore and define the changes needed in the present to move towards the desired future.

Figure 3. Participants in a face-to-face reflection about problems and opportunities of the promotion of HSD. Workshop organized by the Living Lab for Health at IrsiCaixa.

The current exercise facilitates mutual learning around the complexity of the system of promotion of HSD by **reflecting around factors** in different phases of the value chain and areas of the system and their interconnections and dynamics. Participants are invited to exchange their perspectives and experiences around the challenge and to check whether their main **problems and behaviours are represented in a 'System Map for the Promotion of HSD**' facilitated in Appendix A. They adapt it with their inputs to their local context while they gain a sense of urgency to think and work in a more systemic and transdisciplinary manner to change the system.

🔍 TIPS & TRICKS

We recommend to build on this exercise by implementing two follow-up exercises devoted to:
- explore needs for change - '[Promoting healthy and sustainable diets: Where is change needed](#)?'), and
- to design roadmaps for change in a region, city, neighbourhood, school, etc. - '[Promoting healthy and sustainable diets: Roadmaps for change](#)'.

This exercise has been specifically designed to be implemented in a non-formal education context with a wide variety of professionals (see target audience) and it can be facilitated in face-to-face or online formats.

Moreover, it can be adapted to different scenarios and targets. For example, it could take place:
- Within a governance initiative organised by a government where key stakeholders from the country reflect on the difficulties to promote HSD,
- Within a local context with representatives of different projects that aim to transform the local system of promotion of HSD,
- Within a classroom aiming to build knowledge around the complexity of the food system by exploring it within the promotion of HSD. This is a good option in case you are planning to do a rehearsal before the official workshop with professionals.
- During a congress for participants to build knowledge around the complexity of the promotion of HSD and for facilitators to adapt and improve the map with new perspectives.

GETTING PREPARED

Materials and resources

For the face-to-face and online formats, you will need to prepare:
- A presentation to introduce the complexity of the food system and the challenge of promoting healthy and sustainable diets. To prepare it, you can get inspired by the introduction of this activity and you can also use the [Video on food system's complexity](#) developed by The Lancet. You can also include information from your local area and/or country.
- A presentation to introduce the 'System map for the promotion of HSD' based on the narrative you will find in Appendix B.
- An evaluation questionnaire
- An informed consent

For the **face-to-face format**, you will need:
- Room with several tables and chairs for working in groups of 5-6 people
- Tables to display the materials
- Tables for the facilitators
- Computer and projector
- Green and red cards, 50 each
- 20 yellow cards
- Sticky notes for editing the System Map
- Bookmarks
- 1 'Visual Thinking Tool: The Food System' printed in DINA2 for each workgroup. Extracted from: Parsons K, Hawkes C, Wells R. Brief 2. What is the food system? A food policy perspective. London: Centre for Food Policy, 2019 (see Appendix A)
- 1 'System map for the promotion of HSD' printed in DINA2 for each workgroup (see Appendix B)
- Office supplies (pencils, pens, marker pens, blank sheets, etc.): minimum 1 set per participant

For the **online format,** we suggest you to use:
- A digital workspace such as Mural or Miro: you need to prepare a workspace as described in the Set the scene section of this document
- A video conferencing software such as Zoom

Set the scene

For the **face-to-face format** we recommend you to set up a space on a wall to display the red, green and yellow cards as described in the steps below. Make sure that the bookmarks stick well on the surface. If not, use another sort of glue or surface. Also make sure you have your computer and projector are set up.

For the **online format**, we recommend you to use a videoconferencing software combined with a digital workspace, such as MURAL or MIRO. There are tutorials available to learn how to use them on their respective websites. However, in case you have difficulties in using these programmes, it is also possible to use a slides presentation shared using the screen share function by the facilitators. In that case, participants can express their ideas through the chat while facilitators can include them in the slides presentation shared live. Although we do not recommend this option as it makes participation difficult, we understand that it may be an option for those that do not feel confident with digital workspaces.

In case you decide to use a digital workspace, you will need to create a template and invite participants to join it. You can get inspired by the template you will find in Appendix C. Notice that you will need to replicate the visual for the activity in parallel groups as many times as groups you will create.

FLOW

STEP 1: Welcome, introduction and participants' presentations - 35 minutes

STEP 2: Exploration and analysis of problems and opportunities in the current system of promotion of HSD – 1 hour

Break- 10 minutes

STEP 3: Validation of a 'System Map for the Promotion of HSD' – 1h and 30 minutes

STEP 4: Wrap up and evaluation –15 minutes

When applying the steps, you may need to (1) put the selection of steps in a meaningful sequence and (2) slightly adapt them for context-specific circumstances (e.g. participant knowledge and skills levels).

FACILITATOR TIPS

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.

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

Some recommendations that we would highlight:
- Create a comfortable environment
- Make sure all the participants express their perspectives and avoid that some of them lead too much the discussionSupport all the ideas that have been said
- Manage well the time spent
- Make sure the discussion focuses on the aims of the workshop

It is preferable that when implementing this exercise as an online workshop, one facilitator focuses their work on the technical aspects of the meeting.
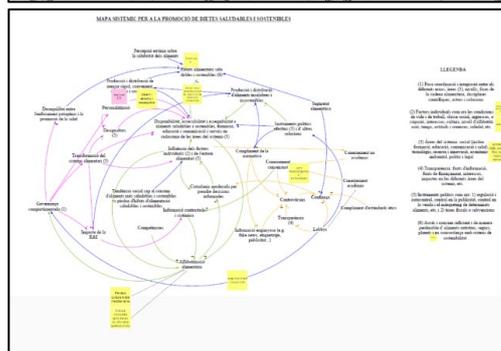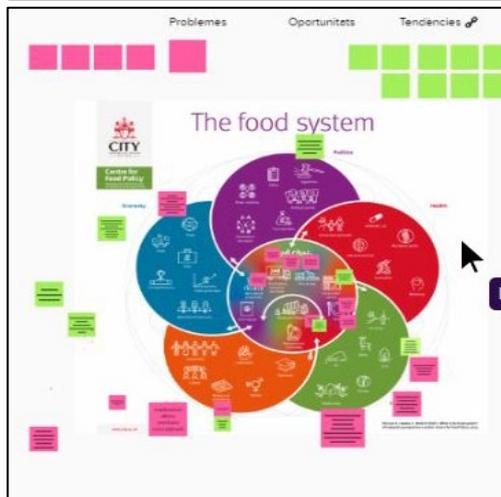
Figures 4-7. From top to bottom: participants in a face-to-face and online reflection about problems and opportunities and around the edition and validation of the system map

STEP 1: WELCOME, INTRODUCTION AND PARTICIPANTS' INTRODUCTIONS
DURATION: 35 minutes

1. Welcome the participants and present the objectives and the programme of the session.
2. Give a presentation about the complexity of the food system and the challenge of promoting HSD (see the section 'Materials and resources' for hints on how to prepare it).
3. Ask participants to present themselves (1 minute each) and to sign the informed consent prepared in advance.

> **TIPS & TRICKS**
> If you want to provide extra information about the topic, you can invite an expert to give a short speech.

STEP 2: EXPLORATION OF PROBLEMS AND OPPORTUNITIES IN THE CURRENT SYSTEM OF PROMOTION OF HSD
DURATION: 1 hour

1. **Introduction of the activity and reflection on problems and opportunities (35 minutes):**
   - Explain that the aim of this activity is to explore the problems and opportunities of the current system of promotion of HSD.
   - To start the activity, divide participants in small groups of 5-6 people organised with diversity of profiles.
   - In the **face-to-face format**, distribute the office supplies, the green and red cards and the printed 'Visual thinking tool: Food Systems' between the groups. If you are preparing an **online format**, you can organise 'breakout rooms' and display on the digital workspace different areas (one for each group) with the 'Visual thinking tool' and some sticky notes following the colour code (green and red). To divide participants in breakout rooms you can use a functionality available in Zoom. In case you use another software, check whether this functionality is available. If it is not available, prepare other rooms with different links in advance. For those who have difficulties to enter in the digital workspace, you can also share the screen on the videoconferencing software. For the online format: give the instructions before you split the participants and after the individual and small group reflections, bring all the participants back to the plenary.
   - They work with the 'Visual thinking tool: The Food System' (Appendix A) that broadly presents the areas of the system and phases of the value chain and their interconnections. They first work in

> **TIPS & TRICKS**
> To inspire participants, you can also prepare cards with facts or bring photographs/pictures depicting elements of the (local) food system to share examples of facts that illustrate problems, opportunities and trends at local, national or international level. Alternatively, you can ask people to bring them and/or use the trend cards from the FIT4FOOD2030.
> Another idea is to use cards from this PlayDecide game on food systems.

small groups, starting with an individual reflection followed by a small group discussion, and then, they come back to plenary where they present the results of their reflections.

- During the first activity in small groups, they first reflect individually and write one idea per card/sticky note, following the code of colours (red: problems; green: opportunities). For the online format, remind participants how to add sticky notes. They reflect using the 'Visual thinking tool' that help them to think about factors in the different areas and phases. After that, they present their perspectives with the rest of the small group while locating them in the corresponding areas or phases. During this activity they may come up with more cards/sticky notes that they can add.

2. **Cluster of problems and opportunities (25 minutes):** Participants share the results while you, as a facilitator, cluster the results using yellow cards/sticky notes on the wall using the bookmarks. After each participant presents one card/sticky note, the other groups also add cards/sticky notes in case they belong to the same cluster. Once all the information is clustered, the group reflects on the results.

At this stage we suggest to have a break.

STEP 3: VALIDATION OF A 'SYSTEM MAP FOR THE PROMOTION OF HSD'
DURATION: 1h and 30 minutes

1. **Introduction of the activity and edition of a 'System map for the promotion of HSD' (1 hour):**
   - Explain to participants that now they are going to validate the 'System Map for the Promotion of HSD' (see Appendix B) that represents the complexity of the system with the key problems and opportunities, their interconnections and dynamics.
   - Present the 'System map for the promotion of HSD' using the narrative you have prepared based on the one provided in Appendix B. You can combine your presentation with questions to stimulate collective reflection.
   - To start the activity, divide participants in small groups of 5-6 people organised with a different diversity of profiles.
   - In the face-to-face format, distribute the sticky notes and the printed 'Food System Map for the promotion of HSD' for each group. If you are preparing an online format, you can organise 'breakout rooms' and display on the digital workspace different areas (one for each group) with the 'System Map' and some sticky notes. For the online format: give the instructions before you split the participants and after the individual and small group reflections, bring all the participants back to the plenary.
   - Participants first work again in small groups with different participants than the previous ones. They start to observe its different variables and their interconnections by starting to focus on one particular group of interconnected variables. Ask them to analyse the dynamics and reflect on the following questions:
     - *Are the problems and opportunities identified in the previous step represented on the map?*
     - *Is the map useful to understand the current dynamics and their causes and consequences?*
     - *Do you agree with the factors and dynamics described?*
     - *Would you recommend improvements? (i.e. adding extra problems or opportunities or changing interconnections)*
   - Finally, ask participants to edit the map by adding comments, factors and new connections drawing on the map.

A number of issues can arise when working with the System map: participants may feel overwhelmed with the amount of information on it and therefore it may be difficult to implement this activity within in the allocated time, or it may be too complex for non-professional audiences. We suggest that:

1. You can focus the task on a concrete context. In this manner, participants interpret the map within this concrete context, which may help them in its understanding. You can focus the discussion on:
   - Problems and opportunities prioritised from the previous step (e.g. food sovereignty, food literacy, etc.).
   - Specific area of the system map (e.g. if you want to focus the conversation on the dissemination of misleading information, focus the task on the bottom right corner of the map).
   - A specific geographical area (e.g. in a neighbourhood, city, school). In this case, make sure you invite key participants of this area.
2. In case your target audience are not professionals nor students in higher education: instead of using the system map provided in this activity you can design a new one with them. They can try to make interconnections among the problems and opportunities identified in the previous exercise. Make sure you identify their root causes to be able to create the interconnections that will describe the current dynamics in the system. To facilitate this task, you can also use the Nourish map (see Figure 1) as an inspiration and use it as a layout on which you can add sticky notes to complete it with your problems and opportunities.

2. **Validation of the 'System map for the promotion of HSD' (30 minutes):** Participants share the results of the editing exercise while you, as a facilitator, integrate all the edition suggestions on one single map. Once all the suggestions are introduced on the map, facilitate a final round of discussion to validate the map and agree that it represents the main problems and opportunities of the system of promotion of HSD and their dynamics and interconnections in your local context.

STEP 4: WRAP UP AND EVALUATION
DURATION: 15 minutes

To close the activity, summarise the main outputs: main clusters of problems and opportunities identified and the validation of the 'System map of promotion of HSD'. Highlight the importance of analysing the complexity of our challenge and how interesting it has been to explore the system with a more systemic and transdisciplinary approach. Highlight that it could not have been possible without the participation of such interesting professionals, and thank all the participants for their contribution.
If you are willing to organise further activities to facilitate systemic change, you can explain those now.
Finally, ask participants to share some words about what they learned during the activity and next ask them to fill in the evaluation form. Optionally, you can send a summary of the results to all participants after the workshop and invite them to validate the resulting map online until consensus is reached.

Some positive feedbacks received from the participants in the Barcelona pilot:

"This workshop is very enriching and provides a good methodology to tackle complex challenges"

"This multidisciplinary and collaborative space has given me the opportunity to interact between key actors and to know more about their problems"

# APPENDIX A: VISUAL THINKING TOOL

Visual Thinking Tool: The Food System' printed in DINA2 for each workgroup. Extracted from: Parsons K, Hawkes C, Wells R. Brief 2. What is the food system? A food policy perspective. London: Centre for Food Policy, 2019

APPENDIX B: SYSTEM MAP FOR THE PROMOTION OF HSD

NOTE: The "System Map for the Promotion of HSD" has been developed by the Living Lab for Health at IrsiCaixa within the Barcelona "la Caixa" Living Lab with the involvement of more than 113 actors from the region of Catalonia, Spain.

SYSTEMIC MAP FOR THE PROMOTION OF HEALTHY AND SUSTAINABLE DIETS
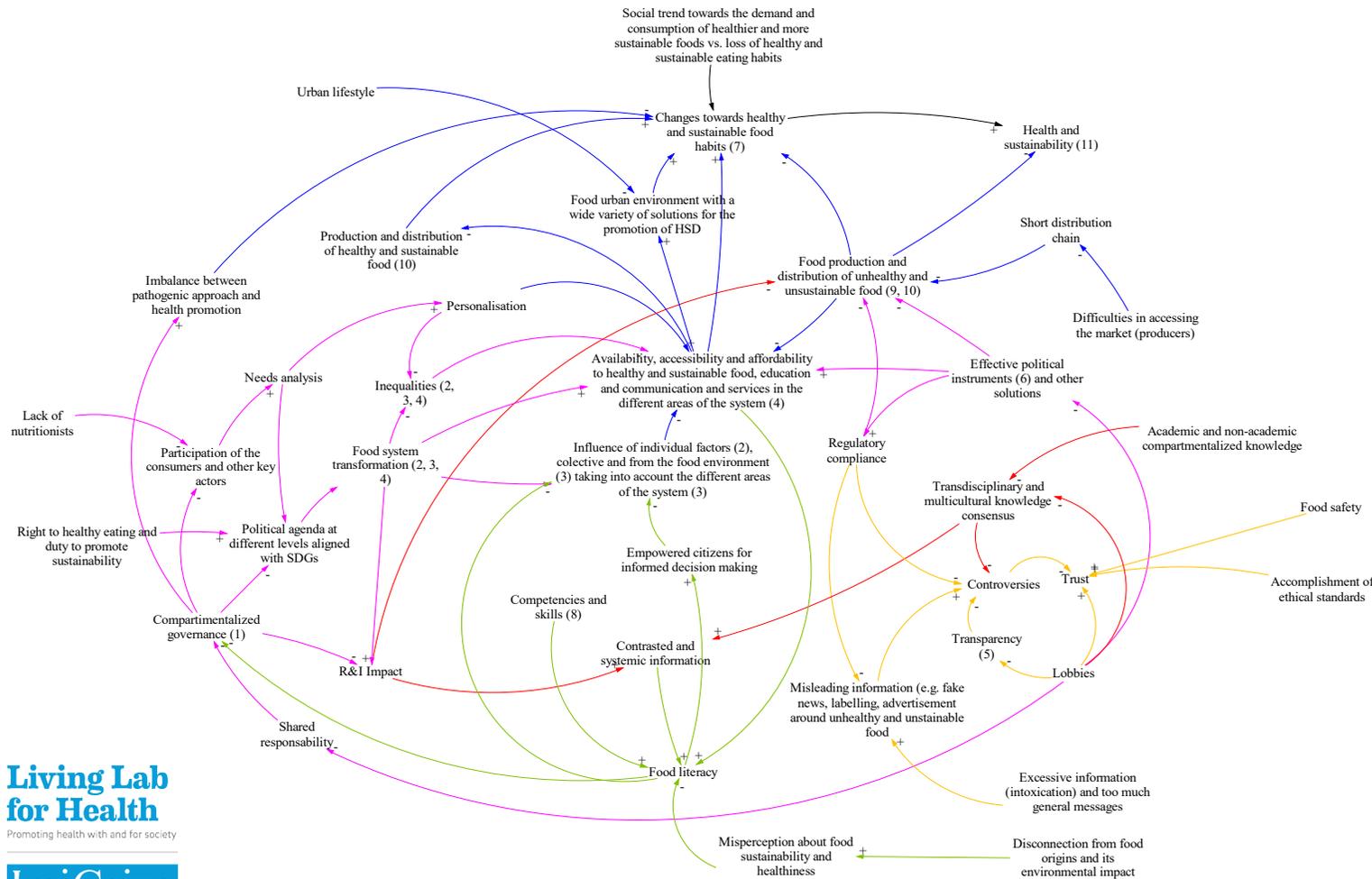
LEGEND - coloured areas of the map

- Governance
- Access
- Knowledge and R&I
- Comunication
- Education

LEGEND- description of the map factors

(1) Low coordination and integration between different challenges, areas of the system (4), levels, phases of the value chain, scientific disciplines, actors and solutions

(2) Individual factors: life and work conditions, social class, socio-economic status, perceptions, needs, interests, culture and adoption of different sorts of diets, food literacy, time, attitudes, beliefs, isolation, motivations, ...

(3) Food environment: Accessibility, availability, affordability of food, convenience and preferences for food choices
These dimensions determine food choices, the nutritional quality of diets and individual factors such as food literacy

(4) Areas of the system: social (including education, communication and health- in coordination with promotion of physical exercise, mental health and rest), technological, research and innovation, economic, environmental, political and legal

(5) Transparency: sources of information, financing sources, interests, impacts in the diferent areas of the system, etc.

(6) Political instruments such as: 1) regulation and selfcontrol, control in advertisement, control in marketing, etc, and 2) taxes or subsidies

(7) Long lasting access and consumption of nutritious, safe, attractive, and pleasant food, taking into account sustainability criteria

(8) Examples of competencies: critical thinking, system thinking, discern between contrasted and non-contrasted information, self-healing, culinary techniques, etc.

(9) Production model that promotes food with high content in salt, sugar, fat - specially saturated- and/or have a negative impact at the envronmental level and/or social level

(10) Transition towards a more productive model that promotes healthy, sustainable, convenient, atractive, affordable and pleasant

(11) Less food-related illnesses, greenhouse effect gases, food waste...

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Promoting health with and for society

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Institut de Recerca de la Sida

NARRATIVE TO INTRODUCE THE 'SYSTEM MAP':

This narrative describes the complexity of the current situation in the promotion of healthy and sustainable diets and will help you to understand the interconnections and dynamics represented on the 'System Map'. In order to facilitate to locate the areas on the map that are described in the narrative, throughout the text you will find some coloured words, which correspond to the colours of the arrows within specific areas of the map.

We propose to begin the narrative with a first factor named "Transdisciplinary and multicultural knowledge consensus": it relates to the multiple problems linked to the lack of consensus of knowledge between different social actors. This lack of consensus can be found either within and among academic researchers and non-academic stakeholders including citizens. This fact becomes evident for example when disseminating health related messages, such as when recommending alcoholic beverages such as wine, or the adoption of non-conventional diets, such as vegan or vegetarian diets. This lack of consensus generates controversies and confusion inside and outside the scientific community, and, it contributes to diminish social trust. On other occasions, it is not the lack of consensus between different actors that generates controversies and confusion among citizens, but rather the dissemination of misleading information through social media, television, advertising, food labelling, among other channels. This misleading information often disseminates false messages with lack of scientific evidence and ethical rigor and sometimes lacks transparency when it comes to informing about the sources of information, the financing sources, the hidden stakeholders' interests, the impact of the product in different areas of the system such as the environment, among others. Again, this lack of transparency encourages controversies and decreases trust among the different stakeholders.

Trust is also affected by lobbies, which sometimes provoke conflicts among the different stakeholders (for example between the industry and the public health authorities) due to different interests that they pursue. This fact can also impact on the effectiveness of specific political instruments such as policies, food regulations and on the dissemination of misleading information. However, sometimes even though a regulation is fully implemented, it may not be accomplished entirely or can lead to errors when implementing it, as it happens sometimes with the advertisements and EU labelling regulations. For example, regarding the EU labelling common mistakes are: not highlighting in the list of ingredients certain substances or products causing allergies or intolerances, using unjustified nutrition and health claims (statements about the helpful effects of a certain food consumed within a healthy diet on a person's health) or using an inappropriate name of the food product. On the other side, it can also happen that a current regulation may be generating controversies, as it happens with Nutriscore in some EU countries, a labelling system to classify food taking into account the nutrient profiling. The controversies that has generated this system are related with the way that negatively categorises some products, like olive oil or cheeses. Even though these products have high content in fats and proteins, can be consumed in moderation within a healthy diet. Therefore, it can be noticed that the lack of confidence and trust is not caused by just one factor, but by multiple interconnected factors.

In some contexts, there are already initiatives that encourage knowledge consensus among different scientific disciplines and also with other social actors from outside academia. An example is the EAT-Lancet, a group of experts that has published some articles on transdisciplinary and systemic knowledge that bring light to some controversies, like how dietary patterns should look like in order to achieve a healthy and sustainable planetary food system model. This knowledge contributes not only to health with information focused in nutrient profiling but also to the benefits for the environment.

However, we realise that we are only at the beginning of this knowledge consensus, as there are still more controversies to be solved and some of them will require to generate more systemic information about the interconnections among the different areas of the food system and the phases of the value chain. The contrasted and systemic information, not only has to take into account the impact on the environment and health areas, but also has to consider other aspects in other areas (social, technological, political, economic…) and phases of the value chain, such as the impact of food processes on the environment, the benefits and potential risks of products

and processes in different areas derived from technological advances, the coherence and alignment of food policies from different areas, etc. Once this knowledge will be generated, it will still be necessary to adapt it to local contexts.

If contrasted and systemic information is disseminated, it contributes to people's food literacy, understood as the acquisition of systemic knowledge, competences, skills and attitudes needed to make more informed decisions taking into account all the impacts derived from the food system activities in the different areas (social, economic, environmental, etc.). Some competences that could be fostered in order to better take into account complexity when adopting healthy and sustainable diets are competences related with science and nutrition, meals planning, culinary techniques, socialization when eating, reducing food waste, etc.

Therefore, increasing food literacy will empower citizens to improve eating habits as it will be easier for them to access verified and truthful information and discern between truthful and untruthful information. However, not only food literacy will promote better eating habits, those are also influenced by other factors in the food environment, such as the influence of the family and the community or food availability, accessibility and affordability within supermarkets and local stores, where it is easy to access unhealthy and unsustainable food. Recently, there is a growing trend for the demand of healthier foods which is stimulating the food industry to continuously innovate and bring new products to the market that are healthier and sustainable.

Improvements in this direction are also being fostered with collaborative governance approaches in other areas of the system, such as in the implementation of smart labelling systems or of healthy eating strategies in collaboration among different departments of governments, or in collaborative agreements for shared responsibility among different industries to improve food composition. All those examples show how the complexity involved in promoting healthy and sustainable diets requires a food system transformation that encompasses systemic and collaborative actions and the reduction of the current fragmentation of the system.

Nowadays, there are multiple strategies to accelerate the transition towards a more sustainable food system at economic, social and environmental levels, and there are many of those that claim that such a transformation needs to be addressed with a more relevant impact of Research and Innovation in order to align at different levels with the Sustainable Development Goals. Some examples of these strategies are the European Commission Policy Framework FOOD 2030 and the "From Farm to Fork" strategy. In Spain (national level), Catalonia (regional level) and Barcelona (local level), there are also existing strategies devoted to this mission. For example, at regional level (Catalonia) there is a food policy that has created a Food Council with a wide variety of stakeholders, including representatives of the administration, food industry representatives, civil society organisations and research organisations, among others. At municipal level, another example is the creation of a new strategy for Barcelona that will be strengthen due to the fact that the city will be MUFPP host in 2021.

If these new strategies are developed with systemic and participatory approaches, they will also better address personalization as the needs of the different stakeholders will be better addressed, including the reduction of inequalities among others. In conclusion, these new strategies seek to respond in a better way to the complexity of the system and to find better solutions with higher impact towards a future-proof food system.
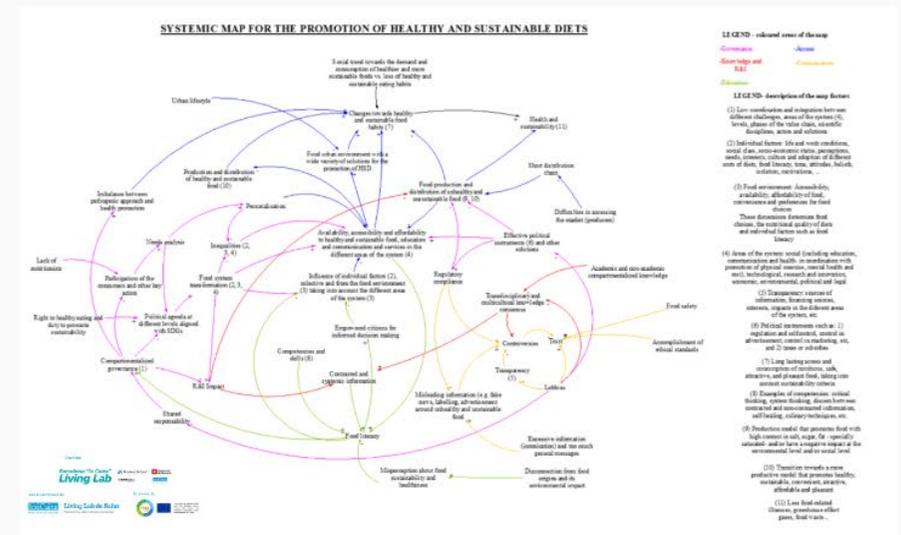
APPENDIX C: EXAMPLE OF A DIGITAL WORKSPACE

Coordinated by:

Partners

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