SCAR FOOD SYSTEMS SWG

KICK-OFF MEETING

Second mandate 2020-2023

Full Meeting Report

18th and 19th February 2020, Brussels

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INTRODUCTION

A kick-off meeting took place on February 18th and 19th, 2020 in Brussels to launch the second mandate of the SCAR FOOD SYSTEMS SWG.

The meeting was hosted by the European Commission, chaired by Monique Axelos (chair of SCAR FS SWG) and facilitated by Isabelle De-Froidmont-Goertz (DG RTD). It brought together the SCAR FS SWG members, representatives of JPI HDHL, FACCE-JPI, ETP 'Food for Life', and European Commission (DG RTD and DG SANTE). Almost all members of SCAR FOOD SYSTEMS, 18 out of 19 Member States and associated countries, attended the meeting. The meeting was also attended by representatives of BIOEAST Food Systems TWG.

The kick-off was foreseen in the Terms of reference (ToR) of the Food Systems SWG and its aim was to discuss and rethink the objectives and deliverables of the identified actions, as well as to establish an action plan.

The first part of the meeting was dedicated to an update on the EU policy context (FOOD2030 Pathways for action, Horizon Europe, Food System partnership). The chair then briefly introduced the 3 selected actions identified by the members of the FS SWG and reminded that this selection was a result of MS consultation started in June 2019.

The following meeting report provides details on the presentations and the discussion outcomes, and summarises further actions to be undertaken by the Food Systems SWG.

PART 1. EU POLICY CONTEXT

1.1 Building Horizon Europe: Deploying FOOD 2030 for Food Systems Transformation – *presentation by Keren Fabbri, Deputy Head of Unit Bioeconomy & Food Systems, DG RTD C.2*

Karen Fabbri, informed the participants on the new political context, priorities and agenda for Europe: Green Deal, Farm to fork strategy, the FOOD 2030 pathways for action and the Horizon Europe.

The **Green Deal** aims to make Europe the first climate neutral continent by 2050. It should enable us to produce, consume and live in an environmentally responsible way. A very relevant policy initiative, which is a part of the Green deal, is the Farm to fork strategy on a sustainable food.

The objectives of **Farm to fork strategy** (F2F) is to transform the food systems to sustainable, healthy, climate-resilient systems; providing new business opportunity and integrating all the actors. The strategy will be built on a broad stakeholder debate:

- A roadmap consultation of this strategy was launched on 17th February 2020.
- The communication and the Action Plan is going to be published by the end of March.
- A missioning plan will be ready by May.
- Scientific Advice Mechanism will also publish a scientific opinion on sustainable food systems in spring 2020.

The DG RTD is engaged in the co-creation process together with DG AGRI and other DGs but the leading DG is SANTE.

In the next slides, Karen recalled the history of FOOD2030, the main events, outcomes and publications that contributed to the building of the **FOOD2030 pathways** for actions. She also underlined that the notion of building a co-benefit upstream is a key for driving the transformation.

10 pathways for action – the strategic area that the EC would like to focus on in the next few years going into the Horizon Europe:

1. Governance and system change
2. Urban food systems transformation
3. Food from the oceans and fresh water resources
4. Proteins and dietary shift
5. Food waste

=>

6. The microbiome world
7. Health and Sustainable personalised nutrition
8. Food safety systems of the future
9. Food systems Africa
10. Food & data

Each of these pathways sets out:

- Systemic challenges
- R&I Actions required
- Co-benefits
- Barriers to change
- Enablers of change
- Deliverables and milestones
- Relevant stakeholders
- Deployment in Horizon Europe (IA, Missions, partnerships, etc.) and beyond
- Relevant EU R&I projects
- Key references

These pathways are strategic, long-term and go beyond Horizon Europe. They advocate at high policy level how we would like to steer R&I.

The roadmaps that will be developed are more technical and tailor-made to deploy in the first calls of Horizon Europe.

The priority R&I topic areas are currently discussed in detail with other DGs and will be shared with the Shadow Programme Committee in March.

Next Steps:

- An expert workshop on Pathways to be held on 4th March 2020. The purpose of the workshop is to get an external feedback on prioritisation of the pathways and possible R&I actions. It will be a small workshop, only experts are invited to bring new ideas. The other stakeholders could provide their idea and fit the workshop trough the survey launched on 19th February.

Other possible events related to FOOD 2030 are under discussion and to be confirmed:

- Food 2030 High Level Even in Milano
- World Food Days in October 2020
- Germany presidency 2020
- World Food Summit in 2021

Horizon Europe (HE) –the next EU Research and Innovation Investment Programme (2021-2027)

Each framework program has its particular jargon and Horizon Europe uses "**cluster**" instead of societal challenges and "**Intervention areas**" (IA) instead of focused area.

Food topic belongs to cluster 6: *Food, Bioeconomy, Natural Resources, Agriculture and Environment* of pillar 2 *"Global Challenges and European Industrial Competitiveness"*

There are also seven Intervention Areas (IA) in Cluster 6:

- Environmental Observation
- Food Systems
- Biodiversity and natural Resources
- Agriculture, Forestry and Rural Areas
- Seas, Oceans and Inland Waters
- Bio-based Innovation Systems in the EU Bioeconomy
- Circular Systems

The most relevant one for the Food systems is Agriculture, Forestry and Rural Areas.

To maximise the impact, Horizon Europe will use new approaches and instruments as missions and partnerships.

There are **five missions** that will be launched in Europe on different issues and they are expected to achieve measurable goals:

- Adaptation to climate change, including societal transformation;
- Cancer;
- Healthy oceans, seas, coastal and inland water;
- Climate –neutral and smart cities;
- Soil health and food

Partnerships will address common priority and food is concerned by the partnership on "Safe and Sustainable Food Systems for People, Planet and Climate". More details on this partnership will be given in the next presentation. Karen pointed out that we should link with other partnerships as Agriculture of data, Biodiversity, Oceans, Circular bio-based sector, Water, One health, Cities and possibly other partnership which would be relevant.

Discussion:

Q*uestions*: Why is technology not named?

A*nswer*: Knowledge and technology are not mentioned because the R&I are more than technology. It could be about methods, practices, tools, social and governance, institution or open innovation. Technology is not mentioned but it is included and embedded within other overarching areas. For

instance, in the internal protein for the dietary shift, the food processes technologies would be delivering new proteins.

1.2 European Partnership: Safe and Sustainable Food Systems for People, Planet and Climate- *presentation by Hans-Joerg Lutzeyer, DG RTD Unit C.2 –Bioeconomy and Food Systems*

Hans-Joerg Lutzeyer gave a comprehensive overview on the food system partnership and the status of preparation.

Policy context: the European Green Deal, the Farm to Fork Strategy (F2F) and the CAP:

Regarding one of the primordial policies in Europe, the new **Common Agricultural Policy** (CAP) is considered as benefitting farmers' incomes.

As mentioned in the previous presentation, a big push towards the food system approach is expected from the Green Deal and Farm to Fork strategy.

The Farm to Fork approach is also linked to other policies such as health and environment and could lead to fundamental change in EU policy toward system thinking.

The five objectives of the F2F strategy are in line with the citizens' expectations from the food system:

- make sure Europeans get affordable and sustainable food
- tackle climate change
- protect the environment
- preserve biodiversity
- increase organic farming

Food Systems Partnership – Status of consultation

The creation of the partnership is a co-design process but there are different sectors and groupings.

The programme committee (PC) is associated with each research programme framework and is operational whenever a framework programme serves as a legal basis.

Actually, the Horizon Europe does not exist yet as a legal text; therefore, **the Shadow Programme Committee** (SPC), which is of strategic nature, is the unique entry point to discuss the partnership during the transition period. The SPC also makes decision on how many partnerships will be accepted (currently they are 48).

A survey on each partnership has been launched through web consultation by the SPC and the results are as follow:

- The relevance of the food system partnership for national policies, for research organisations and their respective countries and for industry is considered quite high. This is a positive signal for the safe and sustainable food systems partnership.
- The 2nd question is about "Existing national/regional R&I strategies, plans and/or programmes in support of the given area". The results show a strong emphasis on national and regional R&I strategies and dedicated funding programmes.
- The next question on "national interest to participate…." confirms a significant interest in participating and potential co-fund interest from the national funding context.

Co-design process– status of preparation - contributions to the creation of the FSP

- the fist step was the food safety workshop on 17th January 2019. Indeed, the first step has already been made by the topic in the Horizon 2020 workprogramme "Supporting the food safety systems of the future" and its objectives are linked to the workshop outcomes.

- Next step was the SCAR SWG on FOOD SYSTEMS workshop held on 18th September 2019, in Brussels that brought together the FS SWG members, relevant commission services, JPIs representatives, EIT Food and technology platforms. The highlight was put on dietary shifts as well as circularity and efficiency of natural resources, urban food systems, consumer behaviour. All these elements have been highlighted, but it remains to be decided how they should be implemented within the partnership context.

Next Steps:

- The Farm to Fork communication is expected to provide a food systems policy framing.
- Develop a next draft of the 4 pages "fiche", first for internal discussion in the Commission.
- Organise a workshop bringing different co-design groups together.
- The Horizon Europe workprogramme 2021-2022 announcement will help in making a step forwards the partnership. A reinforcement by a CSA topic on food systems and linkages to the food systems governance objectives is discussed. Indeed, the actions related to the food system governance could address a better view on the food system data, because there are a lot of data on farming but not enough on food systems. The control of the food fraud should also be considered.
- The 5the SCAR FORESIGHT report on "Natural Resources and Food Systems, transitions towards a safe and just operating space" will be presented at a conference hosted by the German Presidency on 14-16 December 2020. It would be a good opportunity to demonstrate that the partnership is one of the answers to the foresight results.
- Further collaboration with SCAR FOOD SYSTEMS SWG on development the Partnership towards a system of better Food System Governance (workshop).
- Keep the links and align with others partnerships: Agroecology, Agriculture of data, Biodiversity, Oceans, Circular bio based sector, Water, One health, Cities, etc..

Discussion:

Q*uestion* on arguments: If we look at the list of arguments, it seems to be that all arguments are for food safety. The arguments for other actions are missing.
A*nswer*: The initial document is based on two partnerships, which had been merged, on food safety and food systems, therefore we expect in a next step to build a common narrative, based on the farm to fork communication. FS SWG members are invited to contribute to build this common narrative for a longer next version.

Q*uestion:* What kind of type of partnership will be? What instrument?
A*nswer*: The type of the partnership, co-funded or co-programmed, needs still to be developed, seeking a format which allows mobilization while avoiding non-adapted instruments, which could create heavy bureaucratic effort.

***Q**uestion*: Why does 'food safety' come out as a key topic?
***A**nswer*: As mentioned, originally we had two partnership ideas. One on food safety and another one on sustainable food system, and then they have merged.

***Q**uestion*: Could you give more details on how the fiche will be developed (the 40 pages documents) and the timing for that with respect to when MS are supposed to give their engagement?
***A**nswer:* The partnerships starting in 2021-2022 should provide their draft of co-design/ co-creation. Since the Food Systems partnership will start later, we have more time to prepare the document.
The question regarding the funding commitment of MSs has been discussed within SCAR Steering Group but the MSs have not yet planned the budget for the years beyond 2021.

***Q**uestion*: Where is primary production like technology? How will it be developed?
***A**nswer*: the primary production and technology are not spread out, but it doesn't mean they are absent. The food system has many components and it depends on later steps of co-design to what extend these different components. It should not duplicate other partnerships.

***Q**uestion*: The 'farm to fork' concept sounds less advanced than previous 'fork to farm' thinking in FP5. The Food System means more than farm to fork because it is including the health concept, sustainability, waste management etc. Why are we going back? It took us time to adapt our thinking that the food system is complex.
***A**nswer*: In the FP5 "from fork to farm" meant putting the consumer in the centre, addressing food safety, food quality and all the rest and how they influence production. The new farm to fork strategy is a strong political signal that farmers are not forgotten. Actually, farmers provide public services, public goods productions, which are linked up with the consumer demand, so they are in line with current thinking.

1.3 Towards a sustainable food system- outcomes of stakeholder meeting – *Henk Westhoek (NL)*

The group of scientific advisors of the EC's Scientific Advice Mechanism is currently preparing a scientific opinion "*Towards sustainable Food System"*[1], which will advise the forthcoming Farm to Fork Strategy. In this sense, the European Commission organised a meeting on February18th, 2020, bringing together wide range of relevant stakeholders from different organisations (organisation COPA-COGECA, Greenpeace, small farmers etc.) to exchange view with them and discuss the report and feasibility of the recommendations.

The group is helped by SAPEA (Science Advice for Policy by European Academies), which also presented the preliminary conclusions of their Evidence Review Report on *Sustainable Food System for EU*[2].

Henk Westhoek (PBL Netherlands Environmental Assessment Agency) who is member of SCAR FS SWG participated in this stakeholder meeting and informed the FS SWG members about the

[1] *Towards sustainable Food System*- Scientific Opinion of the Group of Chief Scientific Advisors (Scientific Advice Mechanism): https://ec.europa.eu/info/files/scientific-opinion-sustainable-food-system-march-2020_en
[2] *A Sustainable Food System for the European Union* –SAPEA Evidence Review Report: https://www.sapea.info/topics/sustainable-food/

key messages that emerged from the discussion between participants and the European Commission.

Key messages:

- The urgency of the food system issues was discussed.
- Framing: food as commodity or right.
- Discussion on agro-ecology or sustainable intensification (neither FS approach) approach.
- Agree with EAT Lancet report
- Policy levers; need to change food environment; consumer responsible for change; more sustainable diet.
- Coordination of the food system governance (currently fragmented).
- Call for scenario analyses
- Power asymmetries in the food system
- Trade-offs and compromises are consider. Discussion focused on losers and winners in the food systems.
- Growing consensus of food system approach

To find out more about the meeting and the report:

- Stakeholder Meeting repot available at: https://ec.europa.eu/info/events/stakeholder-meeting-2020-feb-18_en

PART 2. ACTION 1. FOOD SYSTEMS OF THE FUTURE

Niels Halberg from Danish Centre for Food and Agriculture (DK) and Hugo De- Vries from INRAE (FR) introduced the Action 1. Food Systems of the future and its objectives. Then an interactive session was organised and the aim of the discussion was to rethinking the objectives in order to provide relevant deliverables.

2.1 Action 1. **Food Systems of the future** – *presentation by Niels Halberg (DK) and Hugo De-Vries(FR)*

Mr Halberg has contributed to the study: *«Synthesis of existing food systems studies and research projects in Europe"*[3] and he is one of the lead author of the policy brief on food systems approach: "*The added value of a Food Systems Approach in Research and Innovation*"[4]. Niels recalled that we were far from knowing what to do in a proactive and tangible way to transform food systems, and also reminded the meeting of the importance of the connection between what we eat and what we grow, as well as the interactions between the actors in the food system.

It is crucial to understand the **inter-dependences** in the food systems via different routes. When we illustrate the food systems, we try to describe the whole value chain from the primary production – including fishery, farmers, inputs of manufactures, ingredients, logistics, retail and

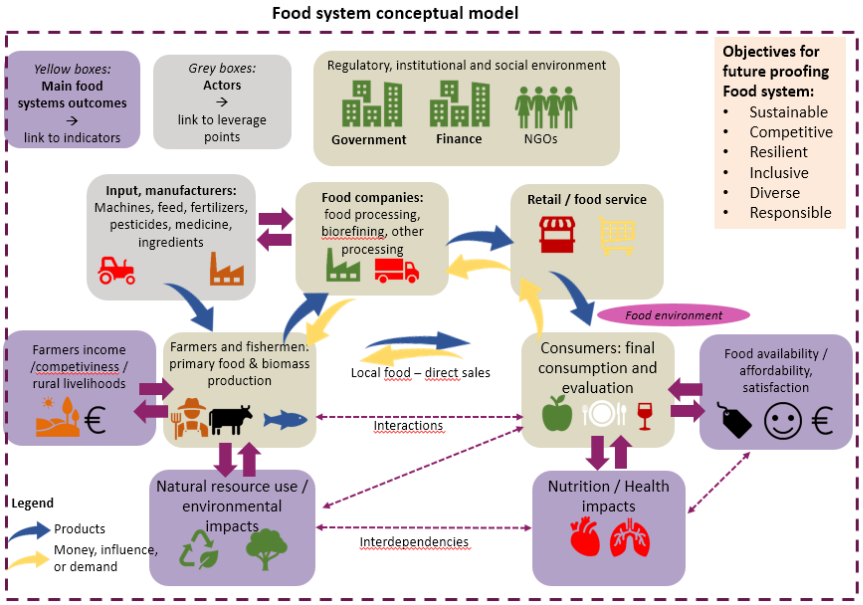
[3] Study: *Synthesis of existing food systems studies and research projects in Europe*: https://op.europa.eu/en/publication-detail/-/publication/84096f43-9d3c-11e9-9d01-01aa75ed71a1/language-en/format-PDF/source-122346589

[4] Policy brief: *The added value of a Food Systems Approach in Research and Innovation*": https://op.europa.eu/en/publication-detail/-/publication/99b01497-e006-11e9-9c4e-01aa75ed71a1/language-en/format-PDF/source-122346535

distribution – to the consumer and taking into account food waste. But, contrary to a classical value chain approach, the food systems approach do not depict connections as a linear transformation from primary production to consumption. It emphasizes the interconnections between the actors and other elements across the food systems.

We also try to consider the impact of these interactions on farmer incomes. Indeed, the farmer incomes and work conditions are very important for the sustainability because it is a challenge to recruit the next generation of farmers producing sustainably. The food system is also about consumers' satisfaction that they get from food in a broad sense and thus, how to give consumers/citizens a strong and central role in transforming the food systems. A **sustainable diet** approach could be a vehicle for food systems change, because if a change the diet in a more sustainable and healthy way, would involve all actors in the food system and has the potential to create and build on positive feedback loops between the interdependent outcomes in natural resource use and nutrition/health, see bottom of figure.

This complex system describes the multitude of interactions and how, therefore, the different social, environmental and economic outcomes are interdependent.



Therefore, **a systems approach** is needed because these interactions are driving the entire systems. It means that we cannot have a mono-disciplinary approach to address the challenges that we are facing: climate change, healthy issues, population growth, urbanisation, resource scarcity etc.

Improving the understanding of these interactions and interdependences is very important because if we do not really understand them and how they work on each other, we will not be able to fundamentally change and reach healthy and ecological outcomes of the agriculture. Moreover, we need to look for the **"leverage points"** in the food systems, the linkages where changes induced in part of the system, will lead to positive reinforcement of the larger system through the positive feedback loops.

<u>Indicators</u>: - how can we use the indicators? What should they show and what are demands for "indicators" to be useful for driving and documenting changes/improvements in food systems?

If appropriate leverage points are found and we have verified interdependencies between outcomes, then appropriate indicators might be useful to evaluate the progress toward sustainability and healthy diets. Numerous indicators at farm level and also for many food chain activities exist and are updated annually including sets of co-called "**sustainability indicators**". However, too little is known about the impact of calculating and presenting such indicators and what level of detail is relevant, for who and at what level of Food System hierarchy?

Research needs to address the systemic challenges by developing dedicated food systems research projects. Moreover, there is a need for synthesising different types of indicators and

critically assess their use and possible empowerment of stakeholders for transformation and documenting changes. There is still a lot of work, for example to develop protocols or methods (practice) on how to design thematic research or using the system approach. It is also important to define food systems borders and leverage points: both for local food systems, for larger food systems and a generalised overall food system.

Therefore, looking ahead to define future food systems is a political, technical and scientific process and the ambitions of a citizen/consumer centric food systems development has some way to go before it becomes the standard. A number of efforts have designed scenarios and forecasts of food systems and European agriculture and the wider bioeconomy, but it is unclear to which extent these have comparable conclusions and how they may in reality inform development processes.

The SCAR FOOD SYSTEMS SWG intends to carry out a critical assessment of approaches and outcomes of different types of scenarios. The SWG needs new ideas to avoid repeating the same messages and being struck by current obstacles; in addition, the SWG should stay realistic, especially regarding the human and financial resources available.

A question was raised about funding and what could replace CASA. Hans-Joerg Lutzeyer (DG RTD) explained that there was no support action for SCAR after the end of CASA. There is a call for tender but it is a long process. Perhaps could have some resources by the end of the year.

Hugo De-Vries came back to the interdependences in the food systems and highlighted that the actors and their interactions play a key role in the system. However, this raises some questions such as 'how to monitor their interactions and how to deal with the consequences?

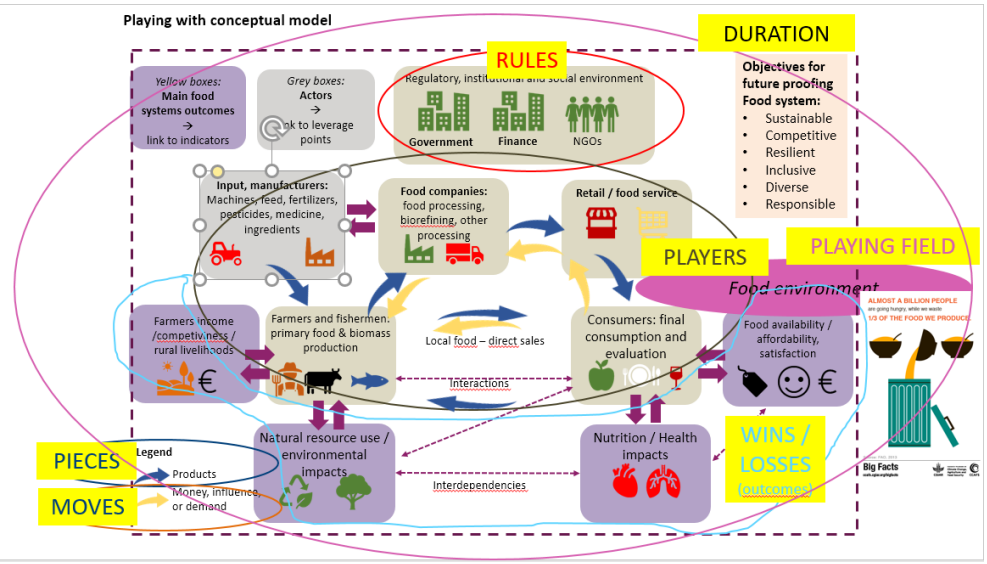
Mr De-Vries pointed out that were many different ways of thinking and analysing the interdependencies:

First, we can change the concept in which interdependencies are taking place. For example if we change our traditional way of thinking about food chains by the new concept of a circular & sustainable bioeconomy, the interdependencies between stakeholders are radically changing. In an ideal circle, there is no beginning neither an end. This means that all actors are suppliers and demanders at the same time, all are depending on each other and share responsibilities. Today, farmers are at the start of the food chain and the power is at the end where the products are sold, hence farmers are not in a favourable position. This consideration may help us in better understanding future dependencies in the food systems. However, this still does not yet provide a logical framework.

Therefore, another way of thinking is exploiting scenarios for understanding interdependencies. Then we need to have a scenario methodology and contrasting **scenarios**, not only the positive ones but also the negative ones in order to identify possible pathways and prioritize options (e.g. R&I programs or policy measures) that fit best to all scenarios. This is the topic of tomorrow (part 2 of the SCAR SWG FS meeting) and possibly an option to pragmatically initiate with the CSA Fit4Food2030 consortium.

Here, we first propose to once more critically look at figure 1 above to get a feeling for interdependencies and interactions. By doing so, we could recognize the seven main elements of a GAME listed below and in the figure:

1. In a game, there are **wins** and **losses**. If we have a positive impact on health, we can say that there is a win outcome, but if we are heading towards unhealthy diets, we are certainly losers.
2. The **resources** and (food) products are **the pieces** of the game.
3. Those we can create and transform; these are the **moves** that we can make.
4. The actors in the food chain, able to create, transform, etc. are the **players**.



5. **Rules** – we need rules to regulate the "game". The rules could be legal regulations, they can also be a framework for appropriate incentives.
6. Then there is the **playing field** that could be a geographical area, such as a rural, urban, peri-urban, coastal, area or other kind of playground.
7. Finally, the **duration** of the "game" is an important element, e.g. a time horizon of (2030 or to 2050). The duration is linked to when wins and losses can be realized and finally lead to food systems that are sustainable, resilient, etc.

How to work with such a GAME approach? This is the topic of the interactive session:

- Select two different territorial food systems, e.g an island like Crete or Guadalupe, an urban environment in your country, a rural-urban interface, an agropark); these are your playing fields.
- Consider the players – take into account all actors not only the farmers or citizens (maybe also retail or manufacturers in a cluster)
- Check the pieces - what are the resources? What products do the actors produce?
- What moves are taking place (production, transformation, packaging, distribution,…)?
- Define the wins or losses. (e.g. the highly unhealthy diets could be an outcome, but also a sustainable healthy diet).
- Select some rules or define relevant rules that for example protect the smaller players.
- The duration for a sustainable outcome for this territorial food system. Is this realistic?
- Discuss each territory to simply find 2 potential outcomes.

Two suggestions are given below that may be helpful:

Suggestion 1. Suppose that the outcome of the game is a healthy affordable diet from agro-ecological production in a region in your country.

- How to reach that situation?
- What do we need to change for all elements of the play: do we need to change the players or their business? Do we need to change the resources or the moves? So how to come from today to outcomes tomorrow? => Provide propositions for the elements of a game.

Suggestion 2: farmers are already adopting sustainable production practices. If we leave it only to the farmers to reach sustainable food systems, certainly, it will not be possible because it is not only their problem, it is a problem of all players in the entire food systems. How could we facilitate the existing food systems to reach these outcomes? What we need to do in the system today? In

other words, how should the main elements (the players, the pieces, the rules, the move, other resources etc.) be modified to reach the potentially sustainable outcome of the game?

Using "game theories" may help to identify the leverage points and potential steps to go ahead in the right direction.

Karen Fabbri reminded us to take into consideration the two drivers of the food systems: impacts of **climate change** on the food systems and **social – demographic pressures** (growing and aging population), when we go into the exercise and look at the details of more specific objectives. We should also relate to resilience because the food systems are currently focused on optimisation and in a changing world, we need resilience in systems.

Participants recognised that this kind of game is an interesting approach of getting insights in showing the complexity of a food system and the different pieces of the puzzle. However, they estimated that they need more time to familiarize with the concept of game theory and game playing and for defining a framework for a potential game in their country.

Hence, it has been decided that the interactive session could follow the game approach, however, not necessarily. If the participants in a session prefer to discuss the figure above in a different way in order to get more insights in the interdependencies, and consequently, come up with propositions for activities in this action 1, this is also well appreciated.

2.2. Interactive session – *summary of the outcomes*

Issues:

- Profitability for farmers and other actors ⇔
- Healthier diets => Consumers
- Green Deal → Food & renewable energy
- Climate impacts → "interpretation"
- Social-demographic pressures

Challenges:

- Limited experience in "whole Food Systems" thinking
- Need to engage experts and have a structured way of working
- Increase awareness (better education / communication / participation)
- More inter-disciplinary research and innovations needed to contribute to Food systems transitions
- Taking into account very different regional contexts and priorities

Utilization of scenarios is considered as an option to be exploited in a workshop with Fit4food:

- Synthesis of scenarios should be made before the workshop (Identify the successful policy scenarios/ Foresight and indicator sets).
- Share the Scenario methodology with optimistic – neutral- pessimistic scenarios.
- Explain before how scenarios are utilized for prioritizing options (R&I programs, policy measures).
- Consider well who should be invited and why (citizens are more considered to be involved in a later stage when experts are familiarized with a common approach).
- Check scenarios with local boundary conditions.

Action needed – a workshop and follow-up actions	**Deliverables:**	**Participants for workshop**
- Check which scenarios have already been developed? - Prepare workshop with Fit4Food2030 Follow-up actions: - Review of impact indicators - Best practices – 1 or 2 per MS - Analyse policy coherences at MS level=> determine lock-ins and leverage points - Involve other Ministries : Agriculture, Food, Health, Education To be discussed: - Consider the link with the remaining four activities identified by SCAR FS SWG (Food waste, Consumers, translate science into policy, Digitalisation and Artificial Intelligence)	- Workshop with Fit4Food prepared and organized - Workshop report - Working protocol for working with scenarios in local context. - Suggestions for CSA to work with tools and methodologies. - Recommendations for the policy makers => policy brief / communication/ leaflet For follow-up actions: - Review report of impact indicators - Report with best practices per MS	SCAR JPIs (HDHL, FACCE, OCEANS) Fit4Food2030 SUSFANS EIT FOOD COPA COGECA European Commission (DG RTD, AGRI, SANTE)

Full notes of the interactive sessions could be found in Annex 1, on page 25.

2.3 Preparation of the **Joint workshop with FIT4FOOD2030 "A joint approach towards sustainable food systems"** –*presentation by Hugo De-Vries (FR)*

Hugo De-Vries (INRAE, FR), presented a proposition for workshop together with FIT4FOOD2030 team (WP4).

- *Working title*: Utilising scenarios to prioritise possible future R&I breakthroughs in Food Systems
- *Date*: to be set – probably in autumn 2020
- *Organiser*: INRAE
- *The content* of the workshop proposed: utilizing scenarios for prioritising R&I Actions

The idea is not to develop scenarios but to become familiar and utilize a short list of existing scenarios (SCAR Foresight, Agrimonde, EC etc.). The real future will not be any of these scenarios but will contain elements of them. Therefore, it is important to have diverse and contrasting scenarios (positive and negative) in order to avoid going only in one direction. In addition, scenarios will provide different ways of thinking and NOT answers or solutions per se.

Once the scenarios selected, we need to prepare a methodology to present them. Here, the following suggestion is given.

The first step is to define a core question related to food systems, which allow imagining challenging **R&*I programmes***. It could be a topic from the Green deal, from the food waste etc. Then two perpendicular axes are to be chosen that allow positioning 4 contrasting scenarios. An imaginary example is given below only for illustration:

There are two extremes: You care only about the planet or you think only about profit (money). But there is also the time as another dimension, e.g. to find solution today or in the far future (somewhere tomorrow).

In this case, we can position four scenarios (convenience, green & affordable food, next generation solutions, favouring your own garden) as basis for potential options (policy measures, R&I programs, investment in Living labs, …): invest in high-tech & sustainably logistics, promote foreign diets in your region, reduce food waste and packaging, develop a specific sector-activity locally, etc.

This kind of thinking could help countries to identify their priority issues and innovative programmes.

Actions needed: It was decided to (i) share the presentation about the scenario approach with SCAR and Fit4food2030 members, (ii) select some scenarios and prepare a list of core questions. Then the information will be circulated to the FS SWG members for reaction/comments and serve as basis for the workshop with Fit4food2030.

PART 3. ACTION 5. FOOD WASTE MANAGEMENT

SCAR FOOD SYSTEMS SWG members have identified "Food waste management" as one of the important topics to focus on. Johannes Bender (DE) introduced the action planned by the group and recalled the challenges, main facts and guide questions. Many actions have been undertaken at national and European level and in order to avoid overlaps and provide complementary deliverables, the SCAR FS SWG invited exerts and representatives of the Commission to present the main initiatives as the EU platform on Food Losses and Food Waste, and the FUSIONS and REFRESH projects' outcomes.

3.1 EU Platform on Food Losses and Food Waste - *Bartosz Zambrzycki, DG Health and Food Safety, Unit E1, Food information and composition, food waste*

Bartosz Zambrzycki presented the EU platform on Food Losses and Food Waste and gave an overview of the EU legislation on food waste.

The topic of food waste was raised in the circular economy communication[5], adopted by the European Commission on 2nd December 2015. Then a platform on Food Losses and Food Waste was established in November 2016. It brings together key actors representing public and private interests and provides advice in order to prevent and reduce food waste. One of the most important actions at EU level was the revision and adoption of legislation, setting a solid legal framework. A lot of progress has been already made but it is still far from its 2030 target.

Status: Informal Commission's Expert Group

Composition: The EU platform is an informal Commission's Expert Group, composed by Member States, EFTA countries, EU bodies, international organisations involved in food waste (FAO, United Nation Environmental Programme, OECD etc.), non-governmental organisations and 37 private sector organisations (COPA- COGECA for farmers, cooperate for restaurants and services sectors etc.).

The **Aim** of the platform is to:

- Facilitate sharing of information, learning and best practices
- Define measures needed to prevent food waste
- Foster inter-sectorial cooperation
- Provide monitoring progress towards SDG 12.3

Several smaller **subgroups** for closer discussion have been created on:

- Food donation
- Food waste Measurement
- Action and implementation
- Date Marking

Current mandate of the platform is extended to 2021. The Platform holds plenary meetings twice per year and each subgroup meets once or (usually) twice per year. All the information, presentations, minutes of the meetings as well as video records are public and available on the platform's website: https://ec.europa.eu/food/safety/food_waste/eu_actions/eu-platform_en

Deliverables:
The EU platform provided some guidelines first to help the Comissions and then the MSs:

- **EU guidelines** to facilitate **food donation** and EU guidelines to **facilitate safe use of food in feed**, giving clarification on how to interpret the EU legislation in different countries and how it should be implemented.
- The platform has also produced **recommendations for action** required on primary production, manufacturing, retail, hospitality/food services, consumers, food donation and cross-cutting issues. This recommendation list is helpful for every food business operator, countries, stakeholders, even for the Commission. However, only those actions which have received a general consensus have been included in the main text, the controversial ones are mentioned in the annex.
- Promotes more consistent use and understanding of **date marking.** Regarding the date marking ("use by" vs. "best before") is ongoing activity. The education of consumer should also be improved.
- The platform **contributed to the legislation** on measuring and monitoring food waste.

[5] Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions "*Closing the loop - An EU action plan for the Circular Economy":* https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A52015DC0614

Key legislation on food waste: *Waste Framework Directive 2008/98/EC (as amended by 2018/851/EC)*
Very ambitious provisions on food waste, giving obligations to MSs, have been added to the legislation (amended directive).

Main provisions related to food waste in Waste Framework Directive concern:

1. *Definition of food waste*
2. *Member States obligations on food waste prevention*
3. *Option for future food waste reduction targets*
4. *Reporting obligation and measurement of food waste*

The amended directive gives a definition of food waste: " *food waste" - means all food as defined in Article 2 of Regulation (EC) No 178/2002 of the European Parliament and of the Council that has become waste."*
This definition of **food waste** as given in the Directive includes inedible part but not by products. Farmers are practically excluded from the food waste, as on farming we do not have a lot of waste.

Member States **obligations on food waste prevention:** MSs to take measures to prevent waste generation:

- reduce the generation of food waste
- Encourage food donation and other redistribution for human consumption. Priority should be given to human use over animal feed and reprocessing into non-food products.
- MSs should adopt specific waste prevention programme (by June 2020)
- Monitor and annually report on levels of food waste, based on common methodology – towards Union- wide food waste reduction target to be met by 2030 on the basis of the data reported by Member States.

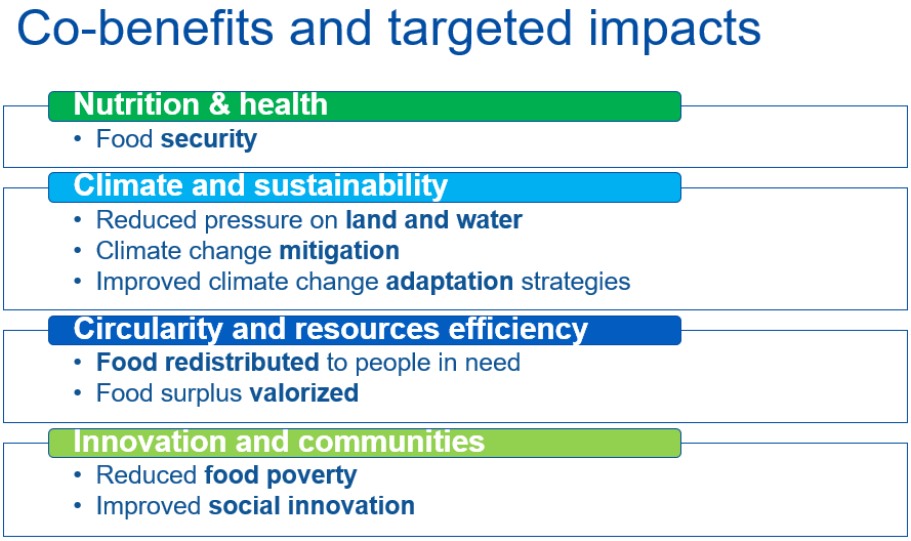
The **next step is Farm to Fork** where the food waste seems largely addressed.

One area that should be covered is the farmer sector. There is still need to improve processing and dealing with food parts which are rejected, as well as to ensure the cooperation between the players in the food chain.

3.2 Horizon Europe – Cluster 6 FOOD SYSTEMS: Roadmap 5. Food losses and waste prevention and reduction - *Tatiana Tallarico, DG RTD, Unit C2*

In her presentation, Tatiana Tallarico presented the pathway on Food waste prevention and reduction, the barriers and enablers for change.

Ten pathways for action delivering co-benefice have been identified. One of them is "Food waste prevention and reduction". This pathway on food waste has been included because of its importance and impact on all of the four FOOD2030 priorities:



Some evidence: 14% of food produced is lost from post-harvest up to retail level and 88 M tonnes of Food Waste are generated annually in Europe.

The European Commission identified some **barriers for changes** that prevent solutions to be implemented :

- **lack of data** - need of new data on the impact of the initiative to reduce and prevent food waste.
- **access to credit** to implement potential solution
- **reluctance to adopt innovations** –sometimes operators are skeptical to implement solutions and innovation but sometimes they are not aware that solutions exist.
- **food safety considerations** could prevent operators to donate food.

Enablers of change:

- EU **guidelines** and National **strategies** – priority to be given to food waste management
- **Better data** and monitoring systems to inform policy makers
- **Education** and **awareness**- from school to adult life
- **Economic incentives**
- **Financial support** for operators to include in their business food waste prevention

The roadmap is currently in process of co-creation and consultation with other DGs, Commission's services and external experts to define the priorities. There are still some areas to be improved as for instance to collect more data, invest in technology and innovation and understand consumer behaviour.

3.3 Scaling innovation for food loss and waste reduction across the supply chain. Outcomes of FUSIONS and REFRESH projects- *presentation by Dr. Hilke Bos-Brouwers, Wageningen University & Research*

Hilke Bos-Brouwers, the scientific coordinator of the project REFRESH, presented the outcomes and the challenges of the FUSIONS and REFRESH projects on food losses and waste. She highlights that a systematic approach is extremely important to deal with food waste reduction and both projects have technical, social, economic environmental and policy aspects.

FUSIONS[6] (Food Use for Social Innovation by Optimising Waste Prevention Strategies) project ran from 2012 to 2016 and aimed to:

- Obtain more reliable data, sources and criteria necessary for food waste monitoring.
- Establish multi-stakeholders platforms at EU and regional level to discuss different stakeholders' ideas, concerns and proposals.
- Identify solutions throughout the food chain and use feasibility studies socially innovative measures able to tackle food waste.
- Contribute to policy making

FUSIONS HIGHLIGHTS:

FUSIONS tried to understand what is causing food waste. There are more than 286 drivers, which are related to the nature of the food, social factor and dynamic in the population habits etc.

The exchange between the stakeholders is also important part of the project. 150 members from different stakeholder organisations (social, consumer organisation) across Europe are involved in the project and the platform. They hold 16 regional and 3 European meetings per year and share best practises and learning, discuss the policy recommendations.

Seven pilot projects have been done, identifying solutions because there is no technical solutions, it is rather combination of social innovation and related influences. We need favourable political context, sustainable funding, peer to peer learning and supportive legislation.

Regarding the policy review, it identifies all regulations and legislations that have potential to influence generations of prevention. Over 53 legislative acts at EU level connected to food system and their unwanted discards have been reviewed and analysed.

REFRESH[7](Resource Efficient Food and dRink for Entire Supply cHain) project started in 2015 and ran until 2019. It has built on the FUSIONS outcomes and focused on areas not addressed by the EU Platform on food losses and food waste. The aim was to:

- Move forward to multi stockholders approaches and devise action plan together in voluntary agreement
- Create evidence-based tools
- Understand consumers' behaviour because most of the waste originates in that stage. Try to address questions as: How can we reduce the distances between them, other stakeholders, and the government? How can we valorise to get up to a higher level?
- Develop policy brief

The project focused on the **consumer behaviour** and how connected to origin of food waste. Ability, motivation and opportunity influence householder practices. It is a type of modelling consumer understanding.

Voluntary agreements come from the platform and is built on trust between the stakeholders. This is collaboratively agreed, self-determined 'pact' to take action on food waste and packaging materials generated at relevant stages of the food system.

Another way of dealing with waste is **valorisation of unavoidable side flows** "Food Waste Explorer". However, we need economic modelling of valorisation options to change the status quo.

[6] FUSIONS- Food Use for Social Innovation by Optimising Waste Prevention Strategies : www.eu-fusions.org
[7] REFRESH- Resource Efficient Food and dRink for Entire Supply cHain: www.eu-refresh.org

Regarding the environmental part, REFRESH devised new decision making to link and support scenarios building on least impact, illustrated with case studies.

REFRESH calls for **integrated policies** and **integrated supply chains** and **legislation** to support them. A number of workshops took place during the project and as a result four policy briefs have been provided, where specifically is mentioned the relation between policy and production of food waste.

Next ambitions- Three main challenges:

1. Need to improve quantification. Which measures are efficient? "Leapfrogging" tagging on could help. That means that more harmonised quantification and support is needed. Companies and countries, which are more advanced in their measurement, can help others. Classification of food waste is also necessary.
2. Evaluate for transparency, effectiveness and efficiency
3. Integrated policies to remove barriers and stimulate food losses and waste prevention and reduction.

3.4 Interactive session- *summary of the outcomes*

The main question discussed during the interactive session, held in small groups, was what would be the added value by SCAR FS SWG? Three groups suggested to merge the action 5 on food waste with action 1. on Food systems of the future or integrate it into Translate science into policy (action 3). Participants recognised that many initiatives on food waste and losses have already been performing. However, some gaps and possible activities were identified.

The main messages coming out from the discussions are that SCAR FS SWG could contribute at national and regional level (carry out analyses of national legislation and policies, increase awareness, etc.) and encourage input to Horizon Europe projects and innovation needs.

The outcomes of the discussion, including gaps and possible deliverables, are summarised below. Full notes of the interactive session on Food waste would be found in Annex 2, on page 27.

GAPS:

- Lack of joined common definition on food loss and waste.
- No standardized guidelines
- Data needs to be assessed, e.g. what type, how to collect, assess,
- New R&I needs (e.g. biotechnology for valorization)
- Integrated policies
- Connection between Food safety and food waste and differences in countries
- Interdependencies, trade-offs are very important
- Consumer - inclusion of consumers should be mandatory.

Needs	Actions
Systemic approach	**Systemic approach**, integrating all actors in scenarios Systems view within the whole topic
Collaboration: - Work in collaboration with other relevant stakeholders on common priorities - Create space for mutual learning	Connect and network **all relevant stakeholders** currently active, including regional ones: EC, EU Platform on Food Losses and Food Waste, EU member and associated countries. Create a **multistakeholder platform** or/ and organise (a) **stakeholder meeting(s)** as a starting point for a discussion on how mutual learning and connecting to H2020 projects, etc. Organise **joint workshop with SCAR Bioeconomy** SWG on unused potential produced at farm-level.

Increase Awareness	Increase awareness of the **EU Platform** on Food Losses and Food Waste and **link-up with researchers** to identify research needs (for cluster 6, HE). Enhance awareness on food waste and innovate e.g. **Horizon Europe** –input for projects (at national level). Motivate Member States, which are not yet interested in this topic.
Assessment : - Data needs - Best practices - Thematic network	Assessment **of data**, e.g. what type, how to collect, assess Assessment of **best practices and recommendations in countries and regions**, e.g. on policies. Assessment of **best practices** from policies under an **economic point of view**. Action includes research policies and **food waste data** and contributes to the Horizon Europe –project planning as well as clarifying food waste reduction innovation needs. Assess need for **thematic network** (EIP-AGRI).
Analysis	**National policy analysis**. **Relevant legislation** was analysed at EU level, now the same analyses could be performed at national level. Use the Fusions mapping and update the national information on policy tools in use. **Mapping of studies** undertaken in Member States **Monitoring and evaluation of actions**, which could be transferred to EU and MS, including regions. **Analysis of the game-changers** to reduce food waste. The game-changers include digital and AI-tools as well as packaging (note plastic) /labelling as well as food safety as part of food waste. **Revision of recommendations and prioritization** - Identify common priorities as deliverables, "Moulinette" process for selection of relevant ones.

Possible deliverables:

- Recommendations by SWG on Food Systems –to be ready by the end of 2021
- Assessment of best practices and recommendations in countries and regions, e.g. on policies.
- Mapping of study undertaken in Member States
- Mapping of national policies and legislation (analysis)

Questions:

- How to classify food waste/ different categories and their impact
- Ways of valorization
- What is needed to support a "zero-waste" system (e.g. also awareness, education)?
- How to prevent food waste to be used as non-food side stream, but rather keep it for human consumption?

Actions needed for SCAR FS SWG: Decision should be made on how to engage further in this topic and which activities to be carried out. One possible action could be to "*Raise Policy Awareness*" in countries, which do not put too much attention to the food waste.

PART 4. ACTION 3. TRANSLATE SCIENCE INTO POLICY

4.1 Action 3. Translate Science into policy – *presentation by Dr. Noeleen McDonald (IE), Dr. Viktória Szűcs (HU) and Dr. Andrea Győrffy (HU)*

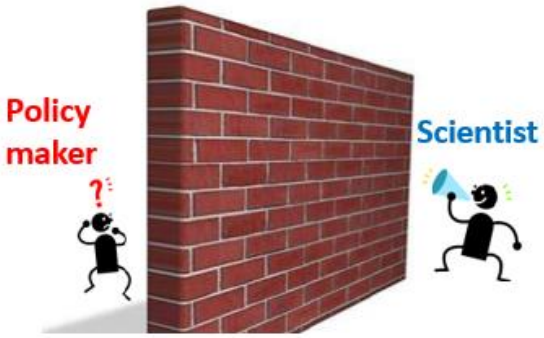
Dr. Noeleen McDonald (IE), Dr. Viktória Szűcs (HU) introduced the context and the objectives of the third action selected by the SCAR FOOD SYSTEMS SWG members *"Translate science into policy".* They highlighted the barriers of poor translation but also shared good examples of science

into policy in Ireland and Hungary and presented example of best practices guidelines. The participants then exchanged their point of views in an open discussion.

Context:

The support for R&I of food systems is significant but it is not apparent if the R&I outcomes are successfully translate into policy.

Barrier for poor translation (examples):



- A lot of **technical jargon** from disseminated research with meaning not understood by policymaker.
- Not clear **which actor is responsible**; Funder, Scientist, Policymaker?
- **Poor research design:** Lack of effective knowledge transfer plan and not clear who the science is meant to reach
- **No clear expectation** in the funding requirements
- **Poor awareness of different landscapes**. Differences in objectives, motivations, means of communication, processes and time frames in which each other group work. The drivers and incentives for the academic is different to that of the policymaker.
- Difficult to create **meaningful professional links between scientist and the policymaker**, as staff movement can be regular in government institutes.
- **No clear guidance strategy** or principles for all actors (Scientists, funders, policymakers) to follow.
- **Poor monitoring** of potential impact.
- **Lack of strategic resources,** i.e. funds and training for all actors.

Basic concept:

Currently there is a link between policy makers (funding bodies) and research area. However, the question is how to improve the existing relationship in the context of achieving the SCAR, as well as supporting international policies and strategies goals (FOOD 2030, COP, SDGs, European Green Deal – Farm to Fork strategy).

Objectives of the action:

1. Explore, within MS, the links between government ministries (departments) and independent research bodies.
2. Evaluate and identify examples within MS of existing policies where scientific/research outcomes have influenced policy.
3. Identify the key requirements e.g. training, funding, and the strategic areas along the system from science to policy, where such key resources would benefit.
4. Establish a set of best practice principles that enables effective translation of science/research outputs for future policy.

Deliverables:

1. Set of best practice guidelines in effective translation of science/research outputs to policy-practice using MS examples.

2. Policy recommendation in the form of a policy brief encapsulating measures identified that can effectively translate science into policy.

4.2 Interactive sessions- *Summary of the outcomes*

During the discussion, a variation of comments and remarks arose:

Policy needs

- Questions arising on behalf of **politicians needs** to be placed in a broader context within food systems.
- It would worth studying the **Policy Support Facility (PSF) tools** for developing bioeconomy strategies.
- A **distinction** must be drawn between **policy leading science** and **science influencing policy** when elaborating the action.
- If it is a case of **policy leading science** type action, the question proposed of what is the baseline. Calling for a **better exchange and understanding** of each member states baseline.

Science and policy

- **Benefits for both sides** must be highlighted: Why is a scientific paper useful/beneficial for a politician? What could be the award for researchers for providing politicians studies that – potentially – will not be published in scientific journals having impact factors afterwards?
- **Linguistic difference** between decision-makers and researchers. A **common language** would be important for the smooth information flow.
- The **diversity among researchers** must be recognized: researchers who are fit for acting as an interface between policy makers and such researcher should be distinguished for their efforts.
- **EFSA** could be an example for requesting targeted research for supporting EU food safety policies.

Best Practices

- DK has offered **exchanging good and bad practices** based on their established cooperation between policymaking and research.
- The **Commission** elaborated a **best practice framework**; concerns are that is demanding, requires a lot of information, and therefore needs much time.
- There might be great variations between countries in what **good practice** is. Therefore, it was suggested that is very important in how to evaluate the **best practices**.
- There are some **good examples for closing the gap** in the scope of the action: USA and Fit4FOOD2030, FOODforce network.
- Timelines of the **Gantt chart** need to be thought through by the coordinators. E.g. it will take longer time to prepare the best practice collection.

Funding

- The **role of funders** as innovation brokers could be considered.
- The request for science to feed into policy might also appear in calls for **grant applications** targeting research organizations.

Actions needed/ recommendations for SCAR FOOD SYSTEMS:

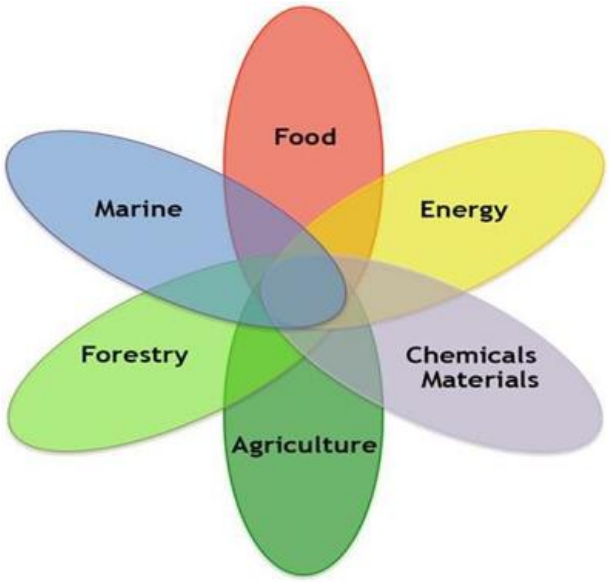
- The policy brief jointly drafted by the SCAR SWG on Food Systems and SCAR AKIS and ARCH : "*Programming Research and Innovation (R&I) for Improved Impact*" should be taken into consideration as a base for the action.

- The question arose whether we should deal with research impact.
- First, a certain area of food systems should be investigated in a pilot step and the scope of the action should be broadened later on.
- It has been noticed that the topic of the action is current and better structuration of our processes are important, however, it should still be investigated how it can be integrated into the topics of SCAR FS SWG.
- It was raised as an opportunity and an unanswered proposal to integrate Action 3. into Action 1.

PART 5. COLLABORATION WITH SCAR BIOECONOMY SWG

5.1 Preparation of joint activity with SCAR Bioeconomy SWG – *presentation by Alexandros Theodoridis/ Sascha Bollerman (chair and co-chair of Bioeconomy SWG)*

As indicated in the ToR for second mandate of the FS SWG, the group intends to collaborate closely with the Bioeconomy SWG (BSW). In order to learn more about the work of the Bioeconomy SWG and to identify a common topic, the chair and co-chair of the BWS presented the missions of the group, their achievements and future plans.



The Bioeconomy Strategic Working Group (BWS) is a thematic working group under SCAR. The group started its 3rd mandate in January 2020 (2years). Currently the group has about 30 members from 18 countries and representatives of the European Commission, Bio-Based Industries Joint Undertaking States Representatives Group (BBI JU SRG) and Joint Research Center (JRC).

The main **mission** of the group is to increase the added value for/of the Bioeconomy. The group provides a platform for exchange, strategic discussions and mutual learning. They support the EC and MSs in designing and implementing of Bioeconomy strategy and provide specific recommendations and strategic advice on R&I in the Bioeconomy. The BSW also discusses how renewable bio-resources can be sustainably produced for the Bioeconomy, as well as more technical questions as those related to the biorefineries.

Future Plans:

- To contribute to **knowledge collection** and pooling in support to the design, implementation and monitoring of the Bioeconomy (R&I related policies at national and EU level).
- **Science to policy** -to support the development of **evidence-based policies** linked to the bioeconomy. Provide tools advice and recommendations.
- **Networking and collaboration –** creation of synergies and alignment between stakeholders and policy areas.

Participants and chairs of BSW exchanged views and ideas on possible joint activity and synergy between the groups. The main points of the discussions are summarised below:

- Common topic**- science into policy,** but the outcomes will be different.
- Possible joint activity (workshop/seminar) on **food waste** generated at farmer level. To address also the economic aspects and the link between bioeconomy and circular economy.
- The **impact of the EU bioeconomy strategy** on food related policy in different countries. MSs have different understanding of the bioeconomy and each country has own definition. For some countries, 'food' is not in the bioeconomy strategy for others, 'food' is essential, (e.g Finland/France). Therefore, in many countries, food is most important on bioeconomy. So, how much do they focus on non-food sector?
- Need of **indicators** to measure the impact of food systems on the bioeconomy.
- Address questions related to **trade-offs**, **policy coherence** and **synergy**. Make the trade-offs explicit and visible. It could be interesting topic for a joint workshop as an objective to produce a paper (policy brief).

Further Actions:

- Integrate FS SWG in the workshop on indicators (September 2020). The chairs of BSW will share the information on the "indicator for monitoring bioeconomy" with SCAR FS SWG for input.
- Several participants raised questions about CAP regulation and how FS SWG can interact and contribute to it. It was suggested that the chairs of the BSW circulate the draft document on the regulation of CAP to FS SWG for comments (in April).
- SCAR FS SWG to be represented to the meeting of Joint Research Center (JRC).

CONCLUSION

After this fruitful discussion on the three actions (Food Systems of the Future, Food waste management and Translate science into policy) and the collaboration with the Bioeconomy SWG, the chair concluded the meeting and reminded to keep the two remaining topics on ''Consumer and 'Digitalisation/ Artificial Intelligence' and to link them with the priority actions mentioned above. As a next step, it was agreed to revise the one-page 'fiche' on the actions in order to update the Terms of references (ToR), as well as to start preparing the joint workshop with FIT4FOOD2030 and the next meeting.

ANNEX 1- INTERACTIVE SESSION (Full notes) - ACTION 1: FOOD SYSTEMS OF THE FUTURE

GROUP 1 – Interactive session: Food Systems of the future- moderator- *Hugo De-Vries*

I. Start with a workshop focused on scenarios as a methodology; hereby, it is important that both optimistic, neutral and pessimistic scenarios are considered.

Suggestions in the group:

a. Organize a workshop focusing on working with scenarios
b. Learn (at the same workshop) how to utilize scenarios for prioritizing options (research and innovation programs, ..)

Questions raised: could scenarios help in playing a GAME and can we learn e.g. which are the players that make the change? Which are the players that make the changes? This question needs to be answered during the organization of the workshop.

* WORKSHOP

II. Before organizing a workshop, the following should be considered:

(i) check which scenarios have been developed => CHECK needed for scenarios developed by e.g. SCAR Foresight group

(ii) Who to be invited:

FIT4FOOD2030 partners

SUSFANS → for Models and Tools

EIT → (to be discussed based on their possible input)

Young generation (including young farmers; check with Copa Cogeca

(iii) Think well about the output of the workshop: suggestion is to have key topics for a (new) CSA to work with scenarios, working protocols, toolbox, tools and methodologies

assembling

III. Which TOPIC could be best addressed in Action 1 for understanding interdependencies: Suggestion is given to link with Action 5 "Waste".

Sub-topics are:

regulation, recycling/ waste, recommendations for waste handling, Evidence based research report on waste to be written(?), new standards and way of communication needed.

An open question is if 'Waste' could be also a central theme for the workshop on scenarios? To be considered.

IV. For working with scenarios and games in territories:

a. take into account the work done in the 3S 'smart specialisations strategies', coordinated by DG Regions. Select their best practices. Check if there is an evaluation report of those strategies with best practices? Could we extract new topics for Horizon Europe?
b. Could consumers/citizens be involved in scenario workshops? It is suggested to propose this after a workshop in which SCAR and Fit4Food2030 members are becoming familiarized with working with scenarios. In a follow-up action consumers can become involved e.g. via City Labs, Policy Labs, Living Labs, surveys, etc. (tools partially developed by Fit4Food2030).
c. After the first workshop, an exchange is proposed with SCAR members to see if a Scenario/Game approach could be made specific for a region taking into account local boundary conditions, local features and exploiting the toolbox (as deliverable of the workshop).

GROUP 2- Interactive session: Food Systems of the future- moderator – Moderator: *Monique Axelos*

FS Scenarios for changes:

1. Food Systems best practices – 1 or 2 per MS and at regional level
2. Future scenarios in MS => in FS research (we should have holistic approach) Identify the successful policy scenarios.
3. Follow up on food policy mapping + update of impact of policy (analysis)
4. Analyse policy coherences at MS level => Analyse the Food policies and effect/ impact by each country => see incoherence and contradictory + determine lock-ins.
5. Increase (political) awareness of Food Systems and how to deal with it.

Interaction => better education of citizens => education also to better understand what are food systems => share best practices (concerning Consumers)

6. A. How to do FS research in a practical way: How does your research fit in FS?

How to make/encourage the researchers to take into account the complexity of Food Systems? Research is very disciplinary organized today. More inter-disciplinary research needed to contribute to transition of food systems.

Involve other Ministries: of Food/ Health/ Agriculture/Education etc.

Deliverables: policy briefs/ leaflets; short! Recommendations for the policy makers, kind of communications. Note: a link between Action 1 and Action 3 'science to policy' makes sense.

B. How to approach/deal with complex system?

Current analyses on FS/ adaptable to FS

Cross –cutting issues: *consider that the remaining two actions (Consumers and Digitalisation) are also part of the FS. Could those help the transition to the sustainable food systems. Some scenarios concern directly the consumers (the way/ behaviour of consumptions). Imagine the consumer of the future!*

7. How can digitalisation/Artificial Intelligence (AI) help with Food System approach?
8. How is the behaviour of the consumer of the future influencing the Food Systems? What are the consequences of these changes? On the industry, on other parts of the food system? => workshop on scenarios, taking into account consumer behaviour (include consumer associations).

GROUP 3- Interactive session: Food Systems of the future- moderator- Moderator: *Niels Halberg*

Action 1. "Food Systems of the future" is closely linked to the action3. Translate science into policy

ISSUES

- Profitability for farmers and other actors ⇔
- Healthier diets => Consumers
- Green Deal → Food & renewable energy
- Climate impacts → "interpretation"

Scientific knowledge and synthesis of scenarios/ Foresights → Best practices*

* Ideas of possible drivers
Future change
Leverage point

Green deal Objectives
Policy makers
CAP in new setting
EU level
National level

Knowledge and knowledge needs?

Challenges:

- Limited experience in "whole Food Systems" thinking } *URGENCY / PUSH
- Need to engage experts

  Scenarios & Foresights
  SCAR FORESIGHT 5th exercise → * reflection paper } Organise plays/workshops
  Foresight for food
  SUSFANS
  Fit4food2030 review of impact indicators

ANNEX 2- INTERACTIVE SESSION (Full notes) - ACTION 5: FOOD WASTE MANAGEMENT

GROUP 1: Interactive session: Food Waste Management – Moderator: *Rolf Stratmann*

Considering the general discussion on the needs and gaps for action 5 before the participatory session, taking stock of previous and currently ongoing activities, addressing the question if there is the need for this activity for SCAR, possible merging it with action 1, group 1 focused on the two questions:

- What can SCAR provide to EC and MS?
- What could be the added value by the SCAR SWG Food Systems?
- The recommendations made by previous projects should be utilized, e.g. the finished FP7 FUSIONS project was mentioned: http://www.eu-fusions.org/
- Recommendations for Action in Food Waste Prevention Developed by the EU Platform on Food Losses and Food Waste; 12 December 2019: https://www.eu-fusions.org/phocadownload/Publications/D3.5%20recommendations%20and%20guidelines%20food%20waste%20policy%20FINAL.pdf

Possible next steps:

- Assess the information provided during the two days of the meeting to identify actions and deliverables. Need for a SWG Food Systems taskforce on food losses and waste?
- Connect and network all relevant stakeholders currently active, including regional ones: EC, EU Platform on Food Losses and Food Waste, EU member and associated countries.
- Identify common priorities as deliverables, "Moulinette" process for selection of relevant ones. (NB: "Moulinette" was a workshop-format with delegates from the programme committee for Societal Challenge 2, H2020, SCAR and EC to priorities e.g. topics for ERA-NETs)
- Interdependencies, trade-offs are very important and inclusion of consumers should be mandatory.
- Recommendations by SWG Food Systems by end of 2021 ready.

Needs and gaps identified during the session:

- Systemic approach, integrating all actors in scenarios.
- Data needs need to be assessed, e.g. what type, how to collect, assess, …
- Assessment of best practices and recommendations in countries and regions, e.g. on policies.
- Lack of joined common definition on food loss and waste.
- No standardized guidelines.

- Increase awareness of EU Platform on Food Losses and Food Waste and link-up with researchers to identify research needs (for cluster 6, HE).
- Assess need for thematic network (EIP-AGRI).
- Monitoring and evaluation of actions, which could be transferred to EU and MS including regions.

GROUP 2: Interactive session: Food Waste Management **–**Moderator: *Nikola Hassan*

Overall, the group was not fully convinced which added value the SCAR SWG Food System could achieve for the topic of waste, taking into account the numerous ongoing activities.

The group suggests to

- Integrate the topic of waste into the future-scenario work (Action 1)
- Integrate/combine the topic of waste into other actions, e.g. science to policy (Action 3) or to combine with less-prioritized ones (e.g. consumers, digitization)

Identified needs/ gaps, which were mentioned (potential added value for SWG FS in bold):

- **Revision of recommendations and prioritization**
- **New R&I needs (e.g. biotechnology for valorization)**
- **Integrated policies**
- Systems view within the whole topic
- Mapping of studies undertaken in Member States
- How to classify food waste/ different categories and their impact
- Ways of valorization
- What is needed to support a "zero-waste" system (e.g. also awareness, education)
- How to prevent food waste to be used as non-food side stream, but rather keep it for human consumption
- Connection between Food safety and food waste and differences in countries

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GROUP 3: Interactive session: Food Waste Management **–**Moderator: *Minna Huttunen*

After three experts presented quite a number of initiatives and activities that are being performed already in the area of Food Waste Management the working group was raising the question whether the SCAR FS group could still find their field of action where value could be added to what is already done. The recommendation from Fusions and ReFresh studies for the SCAR food systems WG was to focus on raising interest towards food waste. The interest raising should focus on quantification (e.g. measurement data), innovation (e.g. best practices) and collaboration (e.g. voluntary agreements).
The group innovated the following actions:

CREATE SPACE FOR MUTUAL LEARNING

- **Action:** Create a multistakeholder platform or/ and organise (a) stakeholder meeting(s) as a starting point for a discussion on how mutual learning and connecting to H2020 projects, etc., to enhance awareness on food waste and innovate e.g. Horizon Europe – input for projects. This action could be carried out at **a national level** using the recommendations from ReFresh. Motivate Member States which are not yet interested in this topic.

RAISE POLICY INTEREST TO FOOD WASTE

- **Action:** National policy analysis. Use the Fusions mapping and update the national information on policy tools in use.
- **Action:** Best practices from policies to be assessed under an economic point of view. Action includes research policies and food waste data and contributes to the Horizon Europe –project planning as well as clarifying food waste reduction innovation needs. Relevant legislation was analysed on EU level, now the same analyses could be performed on a national level.
- **Action:** Analysis of the game-changers to reduce food waste. The game-changers include digital and AI-tools as well as packaging (note plastic) /labelling as well as food safety as part of food waste.
- **Action:** Seminar together with SCAR bioeconomy on unused potential produced at the farm-level. Use Farm2Fork content and SUSFOOD results to plan the program. Result would be a discussion paper on the findings.

  The group did not discuss if SCAR FS should carry out a food waste related action or not. However, input from the participants encouraged to focus with this action on feeding Horizon Europe projects and innovation needs.

ANNEX 3- AGENDA of the meeting – Day 1 and 2

SCAR FOOD SYSTEMS SWG – KICK-OFF MEETING
Brussels, 18th February 2020
From 13.30 to 17.30
AGENDA

Venue: building Breydel 2,
Avenue d'Auderghem 19, 1040 – Etterbeek; **Room**: 5/428

DAY 1- 18th February 2020

13.30 Welcome Coffee

14.00 Welcome Speech – *Karen Fabbri, Deputy Head of Unit "Food Systems and Bioeconomy", DG RTD*

14.15 Update on the EU Partnerships and Horizon Europe, **Q+A** - *Hans-Jörg Lutzeyer, DG RTD Unit C.2*

14.45 Introduction and Presentation of the voting results on the actions; discussion.
Explanation of the organisation of interactive session - *Monique Axelos*

15.05 Presentation on Action 1. Food Systems of the future – *Niels Halberg; Hugo De-Vries*

15.25 *Coffee break*

15.40 Interactive session - Discussion (objectives, deliverables, task leaders, funding, timetable)

17.10 Wrap up

17.30 Closing of the day

SCAR FOOD SYSTEMS SWG – KICK-OFF MEETING
Brussels, 19th February 2020
From 9.00 to 16.30
AGENDA

Venue: building Livingstone II
Rue Philippe Lebon 1-3, 1000 - Bruxelles / Brussel, **Room** 2/25

DAY 2- 19th February 2020

9.00 Preparation of the Joint workshop with FIT4FOOD2030 "A joint approach towards sustainable food systems" **–** *Hugo De-Vries*

9.20 Recap and purpose of the day

9.30 Introduction of Action 5. Food Systems waste management – *Nikola Hassan and Johannes Bender*

9.40 Presentation of the EU Platform on Food Losses and Waste – *Bartosz Zambrzycki, DG SANTE, Unit E1*

10.00 Presentation of the Roadmap on Food Waste – *Tatiana Tallarico, DG RTD, Unit C2*

10.15 Scaling innovation for food loss and waste reduction across the supply chain - outcomes of FUSIONS and REFRESH - *Hilke Bos-Brouwers, scientific coordinator*

10.45 – *Coffee break*

11.00 Interactive session - Discussion (objectives, deliverables, task leaders, funding, timetable)

12.00 Wrap up

12.15 Presentation on Action 3. Translate science into policy - *Noeleen McDonald*

12.35 *Lunch*

13.45 Interactive session - Discussion (objectives, deliverables, task leaders, funding, timetable)

15.15 Wrap up

Session on SCAR FOOD SYSTEMS SWG ACTIVITIES

15.30 Preparation of joint activity with SCAR Bioeconomy SWG – *Alexandros Theodoridis/ Sascha Bollerman (chair and co-chair of Bioeconomy)*

16.00 Approval of ToR, Planning the next meeting and AOB –*Monique Axelos*

16.30 Closing the meeting

ANNEX 4 – LIST OF PARTICIPANTS – Day 1 and 2

SCAR FOOD SYSTEMS SWG – KICK-OFF MEETING
Brussels, February 18th and 19th 2020
LIST OF PARTICIPANTS

Family Name	First Name	Country	Organisation/ Institution
European Commission			
Fabbri	Karen	EC	DG RTD, C.2 Bioeconomy & Food Systems, Food2030 *(participated only on Febryary 18th)*
De-Froidmont-Goertz	Isabelle	EC	DG RTD, C.2 Bioeconomy & Food Systems, Food2030
Lutzeyer	Hans-Jörg	EC	DG RTD, C.2 Bioeconomy & Food Systems, Food2030 *(participated only on Fabruary 18th)*
Tallarico	Tatiana	EC	DG RTD, C.2 Bioeconomy & Food Systems, Food2030 *(participated only on February 19th)*
VIVAS-ALEGRE	Luis	EC	DG SANTE, D.1 Food chain science and stakeholder relations
TUIJTELAARS	Alexandra	EC	DG SANTE, D.1 Food chain science and stakeholder relations *(participated only on February 19th)*
Zambrzyck	Bartosz	EC	DG SANTE, E1: Food information and composition, food waste *(participated only on February 19th)*
SCAR FS SWG members and other stakeholders			
Ax	Erika	SE	FORMAS
AXELOS	MONIQUE	FR	INRAE
BASINSKIENE	Loreta	LT	Kaunas University of Technology
Belc	Nastasia	RO	National Institute of Reseach & Development for Food Bioresources
Bender	Johannes	DE	Federal Office for Agriculture and Food (BLE)
Bollerman	Sascha	NL	SCAR BIOECONOMY SWG *(participated only on February 19th)*
Bos-Brouwers	Hilke	NL	REFRESH Project, Wageningen UR *(participated only on February 19th)*
Braun	Susanne	DE	FoodForce, University of Hohenheim
Brierley	Christine	NL	JPI HDHL / FIT4FOOD2030
Chmielinski	Pawel	PL	Institute of Agricultural and Food Economics (IAFE-NRI)/ BIOEAST FOOD SYSTEMS WG
CORDEVANT	CHRISTOPHE	FR	ANSES
COTILLON	CHRISTOPHE	FR	ACTIA
De Ruyck	Hendrik	BE	Instituut voor Landbouw-, Visserij- en Voedingsonderzoek (ILVO)
DE VRIES	HUGO	FR	INRAE

Demirkesen Mert	İlkem	TR	DG of Agricultural Research and Policies, HSGYAD, Vegetable Food Research WG
Győrffy	Andrea	HU	Hungarian Chamber of Agriculture/ Bioeconomy SWG/Animal Health & Welfare CWG/AKIS and FS SWG
HALBERG	NIELS	DK	Danish Centre for Food and Agriculture - Ministry of Environment, Food and Agriculture
Hassan	Nikola	DE	ERA -NET SUSFOOD2 / Forschungszentrum Juelich GmbH (for BMBF)
Huttunen	Minna	FI	Ministry of Agriculture and Forestry
Imberechts	Hein	BE	SCAR Animal Health and Welfare CWG/ SCIENSANO *(participated only on February 18th)*
Lang	Eva	AT	Federal Ministry of Labor, Social Affairs Health and Consumer protection
Lazaro Mojica	Jonas	ES	FoodDrinkEurope and ETP 'Food for Life'
MARZETTI	ANNAMARIA STELLA	IT	Ministry of agricultural, food and forestry policies - MIPAAF
McDonald	Noeleen	IE	Department of Agriculture, Food and the Marine
MCKHANN	HEATHER	FR	JPI FACCE
Pihlanto	Anne	FI	Natural Ressources Institute Finland Luke
Rygh	Mona T Gravningen	NO	The Research Council of Norway
Salaseviciene	Alvija	LT	Kaunas University of Technology
STRATMANN	Rolf	DE	Jülich
Szűcs	Viktória	HU	Hungarian Chamber of Agriculture
Terzieva	Anastasiya	FR	INRAE
Theodoridis	Alexandros	DE	BIOECONOMY SWG *(participated only on February 19th)*
Toft	Annette	DK	Danish Funding Agency Danish Agricultural & Food Council, Brussels
Tueros	Itziar	ES	AZTI - Tecnalia
Turrini	Aida	IT	CREA
Valk	Evelien	NL	The Ministry of Agriculture, Nature and Food Quality/ Department of Strategy
WESTHOEK	Hendrik	NL	PBL Neth. Environmental Assessment Agency *(participated only on February 19th)*