



Think 2030

Science-policy
solutions for a more
sustainable Europe

09.2022 Policy brief

Towards a Transformative Sustainable Food System Legislative Framework

Paper realised in the framework of the Think Sustainable Europe network by:



IDDRI



Towards a transformative Sustainable Food System Legislative Framework

Key messages:

1. A radical change is needed in the EU food system. Such a transition must address environmental and health issues while also considering the diversity of agri-food systems in Europe and being just. Change is also essential to maintain the productive capacity of the EU agri-food systems in the face of increasing environmental challenges.
2. The governance framework to date has failed to enact a shift to sustainable food systems. A strong and ambitious SFS framework law is therefore needed to create the capacity to radically change all the constituent parts of food systems where necessary (a systemic approach).
3. Amongst other things, a reduction of both the total animal protein intake of EU consumers and the feed-food competition for livestock systems is central to such a sustainable transition.
4. The SFS Law should create the conditions for a transparent discussion between policy makers, scientists, and stakeholders, regarding the definition of sustainability, the indicators used to assess it and their respective importance.
5. The SFS law should be an “umbrella” law (or *lex generalis*) with the CAP becoming one of its daughter laws (*lex specialis*). The key objectives of the law would thus be embedded in agricultural policy, increasing the chance of coherence and meaningful delivery on the ground; in particular spending under the CAP should be fully aligned with the SFS law’s objectives.
6. The engagement of Member States, through a multi-level governance structure, is key as they have the competency in many food-related areas.

Introduction

The Farm to Fork Strategy published in May 2020 aims to increase the social, environmental, and economic sustainability of the EU food system, covering all stakeholders (farmers, consumers, retailers, and processors). Since its publication, successive crises including the COVID-19 pandemic, the war in Ukraine, and a severe drought affecting the whole continent have underlined the urgent need for a systemic transition of EU food systems to reinforce their resilience and sustainability.

To accelerate and facilitate the transition called for by the Farm to Fork Strategy, the European Commission proposed to develop a legislative framework for sustainable food systems (SFS) before the end of 2023. As a first step, in 2021 it identified three policy options in an inception impact assessment for this legislative framework (see EC, 2021): a voluntary approach using soft-law instruments; the reinforcement of existing legislation; and the development of new comprehensive framework legislation on the sustainability of the European Union's food system. In this brief, we contend that the level of ambition laid down by the Farm to Fork Strategy calls for the creation of a new comprehensive framework, whose function will be, amongst other things, (a) to amend / reform the existing regulations / policy instruments in the food domain and (b) to create new instruments essential to reach the needed level of resilience and sustainability.

In what follows, we seek to identify the key challenges that need to be overcome for such a framework to meet its objectives, considering both policy and political aspects. Our main objective is thus threefold:

- to identify the sub-objectives that need to be included in a SFS legislative framework for it to contribute significantly to increasing the sustainability and resilience of the EU food system;
- to set out what could be done in terms of both the content and the governance of a SFS legislative framework itself, and in terms of its relationship with existing policy instruments; and
- to outline political pathways to meet these objectives, the stakeholders involved, and the overarching institutional framework within which this legislation is to be negotiated.

The brief proceeds in five parts. Section 1 defines what a sustainable agri-food system should look like according to the scientific literature and how an SFS law could bring EU food systems more in line with the evidence. Section 2 then explores the potential objectives of a law and how to define a sustainable EU agri-food system. Section 3 discusses the architecture of the law, and section 4 explores the need for a multi-level governance framework involving Member States. Finally, the conclusion considers possible political pathways to the achievement of an ambitious SFS law.

1. The main dimensions of a sustainable EU Food system: consequences for the SFS legislative framework

Towards a sustainable EU food system: issues and challenges

There is mounting evidence that the EU food system is neither environmentally nor socially sustainable (see e.g. Pe'er *et al.*, 2020; SAPEA, 2020). This has been acknowledged by the Commission in the text of the Farm to Fork Strategy (EC, 2020).

On the environmental and health side,¹ recently published food system scenarios, based on biophysical models (e.g. Muller *et al.*, 2017; Karlsson *et al.*, 2018; Poux & Aubert, 2018; Searchinger *et al.*, 2018; Springmann *et al.*, 2018; Schiavo *et al.*, 2021; van Selm *et al.*, 2022), all point towards four main changes in order to bring EU agri-food systems within planetary boundaries:

1. A transition towards healthier and more sustainable diets, including a decrease in animal protein consumption (at least by 20-30% and preferably 50% – compared to 2010 levels) and an increase in consumption of fresh fruit and vegetables and pulses (by at least 80% for both);
2. A sustainability transition in the EU livestock sector including a sharp reduction in the use of food-competing feedstuffs through both efficiency gains and changes in feeding strategies, leading to a decrease of between 30% and 10% compared to the 2010 overall EU herd size (depending on the studies), alongside meaningful improvements in animal welfare;

¹human nutrition and health, nutrient flows, greenhouse gas (GHG) emissions, biodiversity, and natural resources conservation

3. A reduction by half, and preferably by two thirds, of food waste and losses;
4. A significant decrease in agriculture's dependence on external and synthetic inputs – pesticides and fertilisers – both through using them more efficiently and by proactively re-diversifying agroecosystems at all scales, from individual plots to whole landscapes.

For such transformations to take place on an appropriate timescale, demand, supply, and food chain actors will all have to change in a coherent way on a similar timescale, which raises three key questions.

First, how can these **transformations be just**? At a general level, the concept of a just transition refers to the need to provide decent jobs and livelihoods for the affected communities (Rosemberg, 2010). When applied to the agri-food system (see in particular Aubert *et al.*, 2021b ; Baldock & Buckwell, 2021), four aspects of the just transition can be distinguished: ensuring a stable and fair living for farmers (Hill & Bradley, 2015); better conditions and remuneration for low income food workers, in a context of increased precariousness at all stages of food chains (Rye & Scott, 2018; Palumbo & Corrado, 2020); maintaining, or even expanding the range of jobs provided to society; and improving citizens' access to healthy food, as nearly 10% of the EU population was unable to afford a nutritious meal every second day in 2020. Preliminary research shows that under certain conditions, the transition can generate more jobs and income than the business-as-usual scenario, even in certain segments of the livestock sector (Aubert *et al.*, 2021a ; Aubert *et al.*, 2021b), and that food accessibility² could be maintained and even increased if dietary changes are actively encouraged (Rogissard *et al.*, 2021). An inclusive and participatory approach is most likely to deliver on such objectives (Bergquist *et al.*, Under Review) – see also section 4 of this paper.

Second, what **level of ambition for the four areas of change** identified should be targeted? The studies give different answers regarding the extent of the transformation required. For example, while all authors agree on the need to increase the efficiency of input use (the fourth change), some argue that a significant *absolute* reduction in input use should be avoided due to the risk of decreasing EU production and impacting farmers' livelihoods, consumer choice (through price increases) and

² For the FAO, food security relies on 4 pillars (FAO, 2006): the availability of sufficient quantities of food through production, distribution, and ex-change (food availability), the affordability of food and the possibility for individuals to access adequate resources for acquiring appropriate foods (food accessibility), the quantity and quality of food that reaches individuals (food utilisation) and the ability to obtain food over time (food stability).

world food security (Bremmer *et al.*, 2021; Baquedano *et al.*, 2022). On the other hand, others point out that positing opposition between food security and the environmental sustainability of food systems is misguided because of the impacts that environmental degradation has on food security (IPCC, 2022; Midler, 2022). Thus, the *quantitative* reduction targets set out in the Farm to Fork Strategy are a strict *minimum* below which sustainability improvements would be very limited (e.g. Pörtner *et al.*, 2022), putting at risk the EU's long run productive capacity. Furthermore, accompanying changes in supply with changes in overall demand – in particular for animal proteins – would in the end enable the EU to become a net exporter of calories – thus increasing its contribution to global food security – while it is today a net importer (Schiavo *et al.*, 2021 ; Röös *et al.*, 2022) .

Finding the right balance between these trade-offs is a priority and is essential before the potential impacts of the systemic transformation laid out by the Farm to Fork Strategy, can be assessed (Aubert *et al.*, 2021a; Candel, 2022; EC, 2022).

Third, how should these objectives be translated across the **heterogeneous agri-food systems** in Europe? Dietary habits and culture, agricultural practices, and pedo-climatic conditions³, as well as food chain dynamics, vary greatly from Southern to Northern and across Eastern and Western Europe. As a result, each region will need to face specific challenges and to find relevant transition pathways to reach the four key objectives identified above.

Fostering the transition while addressing these three questions will require a substantive evolution in the current public policies impacting food systems, as discussed in the following sections of this paper.

Consequences for the European sustainable food system legislative framework

If it is to deliver on its promises⁴, the SFS legislative framework should contribute to changing supply, demand, and the activities of multiple food chain actors across

³ i.e. the temperature and humidity conditions of a soil profile, which gives rise to the micro-climate of this soil (Quillet Suppl. 1971).

⁴ As laid out in the Farm to Fork Strategy it will aim to "accelerate and facilitate the transition and ensure that all foods placed on the EU market become increasingly sustainable." It will also "promote policy coherence at EU and national level, mainstream sustainability in all food-related policies and strengthen the resilience of food systems. [...] The framework will also address the responsibilities of all actors in the food system."

Europe to reach a greater level of sustainability in a fair and just way. As noted earlier, the European Commission is currently exploring three options for the EU Sustainable Food Systems framework (EC, 2021).

The first is a voluntary approach that would be based only on soft law instruments. While such an approach would most likely be welcomed by many EU Member States, it has been shown that, in the areas of environmental policy and health, voluntary policies often have insufficient environmental benefits (OECD, 2003); (Swinburn et al., 2019). Furthermore, experience shows that when Member States (in this case, agricultural ministries) have extensive latitude to define their own objectives and approaches within a common framework (e.g. in the Common Agricultural Policy), they often choose less ambitious environmental options (Swinen, 2015).

The second option is simply to reinforce an unspecified suite of existing legislation that affects the objectives set out by the Farm to Fork Strategy. While better enforcement of existing environmental legislation is undoubtedly needed, it remains unclear in the current proposition which legislation would be reinforced and how, neither is it explained how this would achieve the fundamental transition to a new systems approach, which is central to the SFS concept. For example, without substantial changes in the ambitions of the Common Agricultural Policy (CAP), not achieved in the recent reform, the impact of current legislation on food systems seems most unlikely to bring about the necessary changes (see e.g. on sustainability issues Pe'er et al., 2020). Moreover, such a model is unlikely to impose a strategic direction or to ensure the necessary coherence between the expanding number of different pieces of legislation involved (e.g. between food laws themselves and with other related but separate legislation, such as the CAP, the ESR, the Fit to 55 package, etc).

The Commission's third option is new comprehensive framework legislation on the sustainability of the Union food system. According to the inception impact assessment, "this framework legislation could serve as a *lex generalis* [and] set out the **common basis** composed of general objectives, definitions, principles and requirements for ensuring that sustainability considerations [...] are taken into account when food is produced/placed on the Union market [and] serve as an **integrated general approach** for *lex specialis* addressing specific sustainability considerations including in the context of the sustainability assessment of regulated products, **throughout the food value chain**" (EC, 2021, emphasis original).

This latter approach would allow food systems to be managed and taken forward as a coherent entity, rather than relying on diverse regulatory changes focusing on

separate elements within the systems and thus risking incoherence. Yet, it raises three questions that we aim to address in the next sections:

(a) if the overarching objective as stated in the quotation above is to ensure that sustainability is better taken into account, how could this general objective be operationalised, for instance through the use of specific indicators and targets?

(b) what would the *lex specialis* that would become subject to the newly created SFS legislative framework actually be? How would coherence with other related laws (e.g. the European Climate Regulation) be ensured?

(c) what sort of governance would best enable the implementation of such a law and support its objectives?

2. The need for - and the difficulty of establishing - a robust approach to sustainability in law

The purpose of a strategic SFS regulatory driver would be to bring about progressively more sustainable food systems in the EU. For this objective to be realistic, clear indicators and targets need to be identified for food sustainability such as have been established in other fields (e.g. the climate neutrality target for the European Climate Law). How to define such indicators and targets is not a trivial question.

From a technical point of view, food system sustainability has numerous facets. Some are well-defined and have agreed-upon metrics such as thresholds for maximum nitrogen application, or methodologies for calculating nutrient burdens and nitrogen surpluses emanating from agri-food systems. Others are more complex to characterise, let alone to measure. This is particularly the case for the conservation of biodiversity and natural resources. Proxies will thus need to be used where necessary, as in the Farm to Fork and Biodiversity Strategies in which targets for nitrogen and pesticide use reduction and landscape features have been set to decrease the pressure of agri-food systems on ecosystems.

There is a need for the SFS Law to establish indicators and set targets that would then be measured at several levels (including the regional, national, and EU levels), building on existing metrics and a results-based framework (see Schwoob et al., 2018). The list

below provides some examples of such indicators, some of which are already in use either in the CAP or in other pieces of legislation (e.g. the Nitrates Directive, Water Framework Directive, etc). and Box 1 delves into the indicators that could be used to assess the transition in the livestock sector.

- on environmental sustainability: nitrogen surplus, pesticide use and toxicity, soil carbon, levels of food-competing feedstuffs used in animal farming and livestock unit density, crop rotation, degree of landscape heterogeneity (measured e.g. in terms of % of agroecological infrastructure), scale and health of ecological components, GHG and atmospheric pollutant emissions and food waste along the food chain. Some of these indicators are also relevant in the area of health (e.g. those on air pollution or pesticides);
- on social and economic questions: number of jobs in the agri-food sector, minimum wages and incomes along food chains, respect of labour rights (including for seasonal workers), share of the added value for each actor within the value chain;
- on dietary questions: at the population level, proxies could include the level of consumption of fibres, salt, fat, and sugar, as well as animal and plant-based proteins, organic products and the total amount of calories consumed.

While the list certainly is not exhaustive or fully operational, it nevertheless points to two subsequent problems that need to be addressed.

First, as mentioned in the section above, there are important debates regarding the targets that need to be set for each indicator, and the relative weight given to each indicator. Both synergies, and trade-offs, exist between the pursuit of different objectives such as climate, biodiversity, or animal welfare⁵, or when choosing to emphasise environmental rather than social objectives. The capacity to identify and promote systems that maximise synergies is clearly critical here. These challenges are well illustrated by the case of reducing livestock numbers for environmental and animal welfare reasons. While this could lead to positive socio-economic outcomes if accompanied by appropriate supporting policies (Parsons & Hawkes, 2018 ; Aubert et al., 2021b), it could also easily worsen the situation of a sector that is already suffering from a succession of shocks, and which has invested most of its efforts in increasing production volumes at the expense of (almost) anything else (e.g. Blattner, 2020).

⁵See for instance the debate between land sharing and land sparing options (Kremen, 2015),

Against this backdrop, and in a context where there is no consensus amongst stakeholders on how to balance and prioritise objectives as illustrated by the heated debates sparked by the publication of the Farm to Fork Strategy, a key role for the SFS Law will be twofold: (a) to establish evidence-based minimal thresholds for critical requirements such as climate mitigation and biodiversity conservation and (b) to create the conditions for a transparent and evidence-based discussion between policy makers, scientists and stakeholders about trade-offs and how to mitigate these (e.g. using just transition policies). This is not a small question in a context where such debates have become more and more polarised (Turnhout et al., 2021).

Second, defining the sustainability of food systems at an aggregated level will not be sufficient or informative enough for consumers. Therefore, indicators and targets defined at the system level need to be accompanied by or translated into indicators and targets at the product level for consumers to foster changes in diets. Yet, there are tensions between capturing sustainability at the system versus product level (see Frehner et al., 2020). In a nutshell, while defining sustainability at the level of the product is necessary to support consumer choice, it also usually relies on metrics that tend to overlook the specificity of production methods and how they relate to each other at the landscape level. A given product (e.g. beef) can have very different impacts depending on how and where it is produced (Poore & Nemecek, 2018) that will not necessarily be reflected well using a product-centred approach. Even more, beef from similar animals produced in the same way in the Netherlands or in Spain may not have the same environmental impacts because of differences in carrying capacities and other characteristics at the regional level (Harris & Kennedy, 1999).

Box 1: Indicators to foster a sustainable transition of the animal farming sector

Transforming EU animal farming is at the heart of any sustainable transition of EU agri-food systems. The average consumption of animal proteins per capita in the EU is double what is needed to cover nutritional requirements (100g / day / person *versus* between 50 and 60g / day / person) (Westhoek *et al.*, 2014) and nearly 60% of all cereals and 75% of all oilseed crops consumed in the EU are used for animal feed – to which one has to add over 30 million tons of imported soybean cake from Latin and North America, contributing to the EU protein deficit. This increasing demand for animal feed has gone hand in hand with the intensification of crop production, and

the mounting recourse to synthetic fertilisers and pesticides. Together, they have led to a move away from a closed nitrogen cycle across European farmland. The lack of nutrient cycling and resulting pollution is responsible for many of the environmental challenges that the Farm to Fork Strategy sets out to tackle (Sutton & Billen, 2011).

Any transition of animal farming systems has however to take into account the key roles played by animals, in terms of:

- landscape management, in particular the maintenance of semi natural vegetation areas, mainly extensive grasslands and rangelands, for the ecosystem services they render (Garibaldi et al., 2020) and the biodiversity they host (over 25% of all habitats the European Union has set out to conserve as per the implementation of the Convention on Biological Diversity depend upon extensive livestock systems, see Halada et al., 2011);
- nutrient cycling through the transfer of nutrients from grasslands to croplands through manure management: while as of today the net transfer of nitrogen and phosphate from grassland to cropland is close to zero in Europe as shown in (Barbieri et al., 2021 ; Billen et al., 2021), nitrogen supply from permanent grassland could amount to as much as 18% of requirements in a fully agroecological Europe (Poux & Aubert, 2018, submitted).
- the provision of easily digestible and widely enjoyed proteins to citizens.

A truly ambitious SFS Law should thus enable the transformation of animal farming systems, from intensively managed systems (including intensive grazing systems that are still predominant) to extensive ones, to maximise their benefits and minimise their negative impacts (Karlsson, 2022). While a change in the supply should of course be accompanied by changes in patterns of demand towards fewer animal sourced foods to avoid increasing demand for land, this box focuses on broad supply-side indicators for sustainable animal farming systems. Of course, the precise shape and functioning of an environmentally sustainable pattern of livestock farming depends on local agroecological conditions. However, three indicators that would, in general, maximise synergies emerge from the literature, for which thresholds would need to be defined at the level of landscapes or coherent administrative regions (at least at the regional level). They are:

1. the level of feed self-sufficiency of animal farming systems. The more feed is imported from outside a region, the greater the impact on the nitrogen cycle and water pollution (Bouraoui et al., 2014 ; Van Grinsven et al., 2015), and the more likely are animals to be confined (Koknaroglu & Akunal, 2013);

2. the level of competition between feed and food. In a context of growing resource scarcity, the need to reduce feed-food competition is widely acknowledged (Mottet et al., 2017; Karlsson & Röös, 2019; van Selm et al., 2022);
3. the desired or maximum livestock density / ha, that can be defined in two ways: total Livestock Unit (LU) / ha of agricultural land (Dumont et al., 2019); and ruminant LU / permanent grassland (Buckwell & Nadeu, 2018).

Importantly, none of these indicators is, by itself, a proxy for the level of sustainability of animal farming systems, and many more could be utilised. Rather, their joint use would provide critical information on the level of pressure exerted by animal farming systems on the environment and natural resources in a given region.

3. The shape of the SFS Law: relationships with other policy instruments

Architecture of the umbrella law

Given the need for a *lex generalis*, as opposed to the other options proposed by the Commission, the new legislation should take the form of an umbrella law (Baldock & Hart, 2021). This reaches across to other legislation rather than being an isolated measure seeking to achieve all its objectives on its own. Consequently, it should be part of and implemented through a wider legislative package including both old and new subsidiary “daughter” measures/policies as well as setting up the machinery for cross-cutting coordination with existing parallel “sister” laws (see figure 1 below). Indeed, like the EU Climate Law passed in July 2021, the SFS Law should revise existing policy instruments (regulations or directives) and create new ones, thus forming hierarchical relationships. In addition, it should establish linkages to action at the Member State level, as responsibilities for the food system stretch well beyond the EU level.

The “daughter laws” would share the general context and objectives of the umbrella law but develop certain aspects or policy areas in more detail. They could include already existing laws that either would need to be revised according to the umbrella

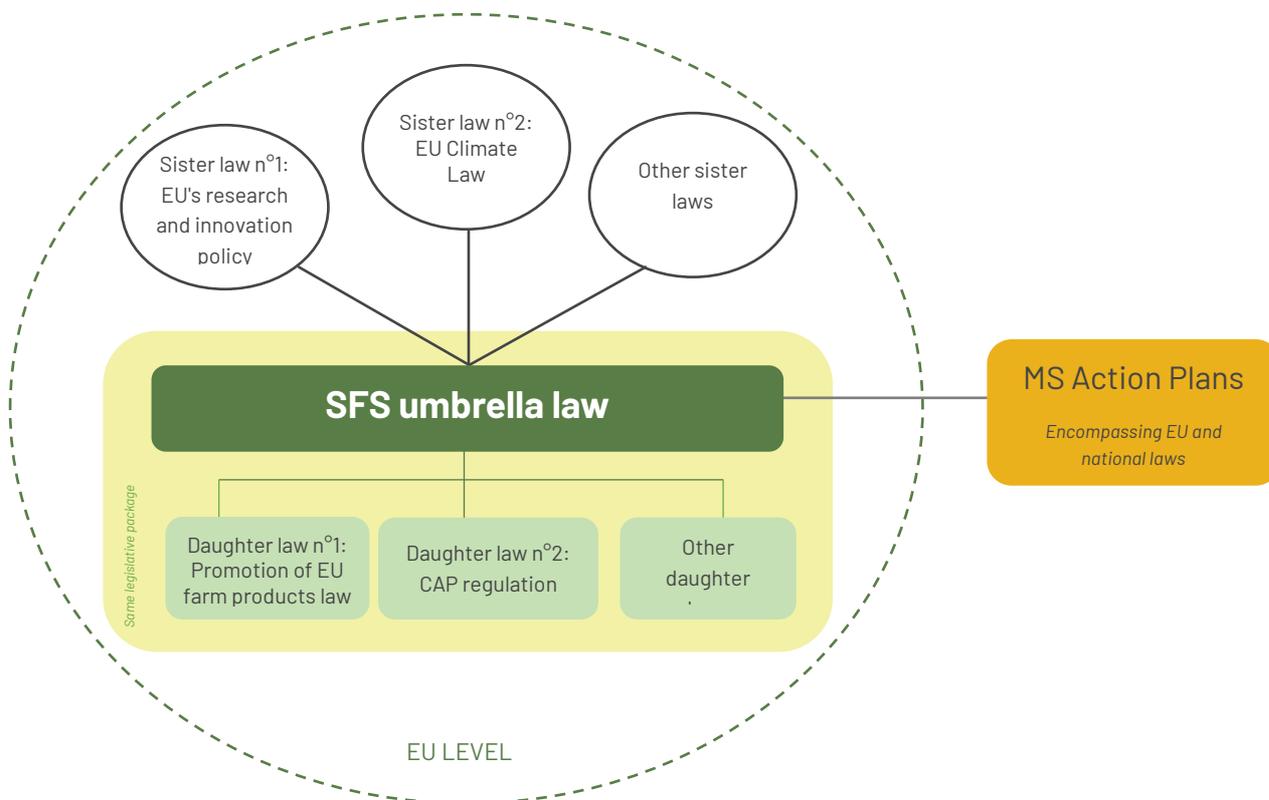
law's objectives (e.g. existing laws on farm animal welfare), or are already being reviewed under the Farm to Fork Strategy (e.g. on food labelling), and new ones, which could be added to over time. These could include, for example:

- Requirements for key food chain actors to report on a range of agreed sustainability indicators and to ensure that a certain proportion of their annual food sales complied with a new threshold of sustainability, so long as this could be defined through an evidence-based, robust, and transparent decision-making process that would avoid 'greenwashing'. This proportion could be reviewed regularly and increased over time.
- A systemic legal framework to reduce food waste building on the binding targets to reduce food waste already planned in the revision of the Waste Framework Directive, with measures to coordinate the actions required of different actors, lay out appropriate metrics and create new incentives for consumer action.
- A directive aiming at creating a food environment promoting healthy and sustainable consumer food choices, including increasing the proportion of plant products in diets and reducing livestock consumption. Such a directive would complement and modify existing legislation, for instance the policy on the promotion of farm products.
- A directive addressing sustainability in public procurement, with goals for increasing the proportion of sustainably produced food in public procurement.

The “sister laws” would be essential for the transformation of food systems, hence the need for coordination, but in many cases, their scope extends far beyond the food domain. Since accelerating the development and use of new science, technology and social innovation will be a crucial part of the transition, this type of law could include, for instance, parts of EU's existing research and innovation policy, in particular the Horizon Europe Programme (see Box 2 below).

Thus, the umbrella law would establish the machinery to coordinate other EU policies directly related to food systems while also providing strategic direction for the relevant aspects of these policies.

Figure 1: Sustainable food system law architecture



Finally, the umbrella law should also establish and apply a systems-based approach. Like the General Food Law, it should define governance arrangements, including the creation of a new Sustainable Food Systems Agency. It should also specify the necessary processes and mechanisms to reach its goals, including new governance systems, data gathering and review exercises, monitoring regimes, public participation, and accountability requirements. Specific funding could be made available for setting up these processes in all the Member States, for instance by establishing aid for much more ambitious public participation and a new Just Transition fund for the sector. Greatly improved participation by stakeholders is a critical element of a commitment to Just Transition, and essential for building trust. Therefore, it needs a central place in a new approach to governance.

Good governance and reach beyond EU competence will be critical and the Law could include new requirements on the Member States to establish their own action plans (see section on multilevel governance below).

Box 2: Changing innovation policies through the SFS law

Innovation can play a major role in the transition to more sustainable food systems, including by supporting the move to biological pest control, developing novel plant-based foods, and creating new forms of support for SMEs and smaller farmers.

Some EU policy mechanisms already support and fund research in these areas, including Horizon Europe and the EIP-AGRI Innovation partnership. However, without more investment dedicated specifically to innovations targeting environmental sustainability improvements that would not be developed by the market and focus on how these innovations can be applied in the field, the technological dimension of the agri-food transition will be significantly held back.

Removing barriers to sustainable innovation needs to be balanced by effective scrutiny and accountability. As the JRC has argued, good management of innovation should involve “objective science communication and citizen involvement, science-based risk assessment, efficient regulation and approval processes (avoiding regulatory bottlenecks), and appropriate integration into production systems” (Bock et al 2022). The SFS law should enable both the strengthening of the existing governance and legislative system while increasing the flow of public and private investment into sustainable technologies.

Integrating the CAP within the SFS law to foster change in agricultural systems

Agriculture is fundamental to the food chain and its transition is necessary for sustainability. For this reason, the EU has set new objectives for critical aspects of agriculture and land use, that are embodied in the Green Deal and its Farm to Fork and the Biodiversity strategies. These objectives and others, such as the necessary substantial reduction in GHG emissions, cannot be reached without much greater alignment of the CAP, which has been the main European policy shaping agriculture since 1962, and the interventions that it funds with the Green Deal and so with the new SFS law.

The new CAP reform post 2020 relies on a new delivery model and a set of nine specific objectives (including three related to the environment and climate). In this new model, each Member State must draw up a strategic plan explaining its needs in relation to the specific objectives and its intervention strategy to address them which the

Commission must approve. This new structure of the CAP gives Member States the flexibility to pursue their usual objectives rather than adopting the broader EU sustainability objectives. As the Farm to Fork targets are non-binding, the Commission has limited powers to persuade Member States to include substantial measures in their Strategic Plans to achieve them (Baldock, 2020). Moreover, recently leaked letters from the Commission have also made it clear that most governments have ignored the Commission's often strong comments on environmental and climate targets in their draft Strategic Plans⁶. This inclination towards business as usual within the CAP was further evidenced when the Commission, in response to the request of many Member States, proposed derogations from key environmental requirements in the wake of the food crisis caused by the war in Ukraine. All but two countries decided to use this possibility. It is therefore unlikely that Member States' Strategic Plans will contribute to the objectives of the Farm to Fork Strategy, not least because the latter lacks legal leverage to change the operation of the CAP, suggesting that binding objectives and targets must be set for the CAP to change.

The SFS law would provide the opportunity to do this if the CAP became a form of daughter legislation and subject to the high-level objectives specified in the new law (see also Schebesta & Candel, 2020). These key objectives would thus be embedded in agricultural policy, increasing the chance of coherence and meaningful delivery on the ground; spending under the CAP in particular could, as it should, be fully aligned with the SFS law's objectives. At the same time, interactions between farmers and other food chain actors would need to be strengthened, with new policies supporting facilitation and co-operative initiatives, integrated production and marketing investments and new partnerships. Policies at the interface of the existing CAP and new SFS will be critical.

At a more operational level this would have the additional advantage of aligning the indicators used within the CAP with those applying to sustainable food systems as a whole. Two separate systems would be problematic.

There are certain legal issues with a re-structuring of the CAP which do not arise with other potential daughter directives, but these do not look insurmountable provided there is enough political will. Expenditure under the CAP is an important, but increasingly questioned, portion of the EU budget and bringing it within a larger frame of clear long-term value to all EU citizens would give it a stronger political foundation

⁶ <https://www.arc2020.eu/leaked-letters-reveal-environment-climate-commissions-severe-criticism-of-cap-plans/>

whilst helping to provide the resources for a just transition and a more resilient food system.

4. Multi-level governance

The nature and scale of food issues, and the way in which responsibilities are divided between different levels of governance in Europe, requires national action by Member States to be a substantial component of the new governance and policy architecture for the SFS.

Member States' involvement in the shift towards more sustainable food systems

The legal responsibilities for Europe's web of food systems and the many sectors and actors involved do not all lie at the EU level; sizeable elements are either regulated at the national level or are a matter of shared competence. For example, education, social welfare, taxation, and most aspects of industrial activity are national competences (for which the EU can provide assistance) while there are joint competences between Member States and the EU regarding agriculture, public health, environment, consumer protection, and energy. Moreover, as the principle of subsidiarity suggests, Member States generally have a better understanding of local needs and sensitivities and are therefore better placed than the EU to take action close to the ground and on issues with a strong socio-cultural dimension.

Moreover, the diversity of socio-economic and cultural systems needs to be celebrated and protected while ensuring common food safety standards across the bloc. Member States have different political preferences and visions of food policies and are actively considering new approaches to at least some aspects of food policy. For example, as illustrated in Box 3, we found that each country surveyed is at a different point on the path towards developing national legislation on food systems. Most countries still address food systems-related issues through specific sub-sector initiatives without tackling food systems issues as a whole. These measures, along with local and regional ones, generally are contributing to the process of making parts of food systems more sustainable but themselves are not enough to support systemic change.

The case of Ireland is particularly instructive, as it underlines the need for strong participatory processes. Without both political support and the inclusion of all stakeholders in the negotiation process, it is difficult for governments to put policies

into place that not only seek to govern the whole food system but that are also accepted by private actors and civil society alike.

These case studies highlight the importance of bringing the Member State dimension into the SFS regulatory initiative, engaging, supporting, and harmonising progress on a European scale as appropriate. This is not a trivial challenge, and the potential pitfalls of the EU legislative project should not be overlooked. Member States need to carry out coordinated actions at national and sub-national level and in cooperation with the EU. One mechanism for trying to achieve this would be through the introduction of national action plans as part of the architecture of the SFS law.

Box 3: Member state experiences

Member States across the EU have different approaches to policies concerning food, ranging from tackling different health, social and environment issues separately to putting in place national food policies

In the case of France and Poland, some specific environmental, socioeconomic and health issues have their own policies. In France, socio-economic issues between producers and processors/retailers are dealt with under the Egalim 2 law. In Poland, the environmental effects on water from intensive livestock farming are covered by specific water legislation. In Spain, some autonomous communities have innovated their own food systems policies: in Catalonia, for example, the Strategic Food Plan for Catalonia 2021-2026 was put into place using a highly participative process, which includes a target to replace 10% of traditional animal proteins with new sources of protein and to promote a transition in the livestock sector.

Germany is a country where there is increased momentum to have an overarching food law. The recent publication of the Future of Agriculture report from the Commission on the Future of Agriculture established by the Government, set the national agenda for an ambitious transition (ZKL, 2021) and the 2021 German elections put the Green Party at the helm of the Ministry of Agriculture, which has since sought more ambitious environmental and health improvements (Lorenzen, 2021). Because of this movement in politics, a nutrition strategy has been proposed for 2023, with the stated goal of taking into account environmental, social and health factors.

In the case of Ireland, the country already has a well-developed national food policy. Food Vision 2030 aims to make Irish agriculture a leader in sustainability and attain climate neutral food systems by 2050. At the same time, NGOs claim that the process was flawed because of lack of participation, ending with a less ambitious policy than they had hoped. They cite inconsistencies between the larger 51% emissions reduction goal set by the Climate Action and Low Carbon Development Act and the current

agricultural sector target of a 20-30% reduction. Nevertheless, the Food Vision 2030 does take a systemic approach to food systems and considers all three dimensions of sustainability.

Potential Solutions: SFS national Action Plans

While an umbrella law is the most promising path towards a change in European food systems, it could meet strong opposition from Member States if it was designed in a way that is too prescriptive (as in the case of a regulation setting targets to be reached at the Member States level and instruments to achieve them). To circumvent this problem while also ensuring that sufficient action is taken at Member State level, one solution could be to introduce a requirement within the SFS law for Member State action plans to be drawn up and implemented (Baldock & Hart, 2021). Such plans would not need to be uniform but should respect some core EU rules, for example on standards for participation and transparency and would need to comply with certain minimum requirements. They would set out how the Member States would meet the requirements falling on them in the transition initiated by the SFS law and both empower and encourage them to adopt a system – based approach both in their own policies and in delivery of the EU model. Here, we refer to such plans as action plans. They would reflect the high level of Member State competence in many areas of food policy and would respect the need for variety, providing extensive discretion to match national and regional policies to local requirements. They would not be a rigid top-down EU corset unduly restraining national action and it is clear that there is no political appetite for such a system. Nor would it be a funnel for dispensing large sums of EU funds, like the CAP strategic plans that have proved ill-suited to delivering the transition. They would, however, be a vehicle to assist capacity building both within and between Member States, utilising an EU framework and targeted resources.

Within the framework of the SFS law, the European Commission could check that Member States' action plans are consistent with the objectives and targets set in the framework law as well as with other related laws (Effort Sharing Regulation, CAP, etc.). Potential minimum requirements for these plans could include:

- A broad description of the measures to be taken to meet the goals and the specific requirements of the EU SFS law and the daughter laws to ensure

delivery, coherence with other EU laws and policies and avoid duplication as much as possible. Reports on measures implemented and results obtained, including those purely within national competence, would follow a similar format to increase transparency. The plan could also show how the measures are linking the supply and demand sides of the food transition, including through deploying the mechanisms of the CAP.

- A plan of how the set of actions will be delivered within specified time frames that can be monitored, with appropriate reporting systems so that progress can be measured. This would also be a mean of linking delivery on the ground to policies and funds within the CAP. The consistency between the CAP and the action plans needs to be ensured.
- An explanation of how Member States plan to use potential EU funding made available for the implementation of some key aspects of the SFS law (e.g. capacity building, public participation and transparency, data collection for monitoring and evaluation, etc.). This could be reviewed and approved by the European Commission.
- Finally, reports under the plans would feed back to EU bodies Member State views on how the transition is progressing, whether EU level measures could be improved and what steps are needed next so that an interactive and dynamic dialogue was in place, reflecting the particular political and cultural sensitivities of food systems.

Conclusion: Which political pathway for an ambitious SFS?

As discussed throughout this paper, there are many areas of discussion, and some of contention, between stakeholders regarding the level of ambition this legislative proposal should have and how sustainability should be defined and weighed against other objectives. This is likely to translate into tough political discussions at each stage of the policy process: during the drafting of the proposal by the Commission (due by the end of 2023), amendments by the Parliament and the Council and final negotiation between the three co-legislators. Moreover, the war in Ukraine and its impacts on global food prices and security are likely to be used as an additional argument for those advocating for a less ambitious law. Nevertheless, the extreme droughts and weather being experienced in Europe and globally, including significant negative

impacts on harvests, highlights the much higher cost of inaction and the need for responsible policies that can support a more resilient food system.

The first step of this process requires the Commission to put an ambitious proposal on the table by the end of 2023. To this end, progressive stakeholders from all stages of the food chain should make their demands for such a proposal heard in as many political arenas as possible. Indeed, the changes needed in the policy framework for the SFS to become a cornerstone of a sustainable transition of the EU food system are massive: for example, it is necessary to make the CAP a daughter law of the SFS, and to have measures to accompany dietary shifts. Such changes will involve tough negotiations within the Commission itself, as different DGs often have competing views and need to find a compromise. Furthermore, these negotiations are themselves influenced by the continuous interactions between the Commission and “external” actors of two broad types: Member States themselves (see Bailer, 2014; Bocquillon & Dobbels, 2014); and private stakeholders (company representatives and NGOs) active in Brussels (Smith, 2014).

Designing and agreeing an effective EU SFS law is no doubt a complex task and will be met with opposition from powerful stakeholders, but these challenges are surmountable if the political will exists. Given the dominance of entrenched economic actors in agri-food policy making in the EU and most Member States, reforming the governance of agri-food policymaking will be critical to a democratic and fair outcome. A far more transparent, inclusive, and evidence-based governance framework will be essential for the SFS law to achieve its goals whilst addressing legitimate concerns that policies will need to be designed to mitigate. In the long run, the benefits of action now will far outweigh the costs of transition, and the challenges that food system transformation presents should be embraced with this in mind.

References

Aubert P.-M., Gardin B., Huber É., *et al.* (2021a). Designing Just Transition Pathways: A Methodological Framework to Estimate the Impact of Future Scenarios on Employment in the French Dairy Sector. *Agriculture*, 11 (11), 1119.

Aubert P.-M., Gardin B., Schiavo M., *et al.* (2021b). *Towards a just transition of food systems. Issues and policy levers in France*. Paris, Iddri-BASIC, 70 p.

Bailer S. (2014). An Agent Dependent on the EU Member States? The Determinants of the European Commission's Legislative Success in the European Union. *Journal of European Integration*, 36 (1), 37-53.

Baldock D. (2020). Locating the CAP in an escalating green agenda. *Italian Review of Agricultural Economics*, 75 (3), 13-18.

Baldock D. & Buckwell A. (2021). *Just transition in the EU agriculture and land use sector*. Institute for European Environmental Policy, 60 p.

Baldock D. & Hart K. (2021). *Pathways towards a legislative framework for sustainable food systems in the EU*. Bruxelles, Institute for European Environmental Policy, 44 p.

Baquedano F., Jelliffe J., Beckman J., *et al.* (2022). Food security implications for low- and middle-income countries under agricultural input reduction: The case of the European Union's farm to fork and biodiversity strategies. *Applied Economic Perspectives and Policy*, 1-13.

Barbieri P., Pellerin S., Seufert V., *et al.* (2021). Global option space for organic agriculture is delimited by nitrogen availability. *Nature Food*, 2 (5), 363-372.

Bergquist M., Nilsson A., Harring N., *et al.* (Under Review). Determinants for accepting climate change mitigation policies: A meta-analysis. *Nature Climate Change*.

Billen G., Aguilera E., Einarsson R., *et al.* (2021). Reshaping the European agro-food system and closing its nitrogen cycle: The potential of combining dietary change, agroecology, and circularity. *One Earth*, 4 (6), 839-850.

Blattner C. (2020). Just Transition for agriculture? A critical step in tackling climate change. *Journal of Agriculture, Food Systems, Community Development*, 9 (3), 1-6.

Bocquillon P. & Dobbels M. (2014). An elephant on the 13th floor of the Berlaymont? European Council and Commission relations in legislative agenda setting. *Journal of European Public Policy*, 21 (1), 20-38.

Bouraoui F., Thieu V., Grizzetti B., *et al.* (2014). Scenario analysis for nutrient emission reduction in the European inland waters. *Environmental Research Letters*, 9 (12), 125007.

Bremmer J., Gonzalez-Martinez A., Jongeneel R., *et al.* (2021). *Impact Assessment of EC 2030 Green Deal Targets for Sustainable Crop Production*. Wageningen, Wageningen Economic Research, 69 p.

Buckwell A. & Nadeu E. (2018). *What is the Safe Operating Space for EU livestock*. Brussels, RISE Foundation.

Candel J. (2022). EU food-system transition requires innovative policy analysis methods. *Nature Food*, 3 (5), 296-298.

Dumont B., Ryschawy J., Duru M., *et al.* (2019). Review: Associations among goods, impacts and ecosystem services provided by livestock farming. *animal*, 13 (8), 1773-1784.

EC (2020). *Farm to Fork Strategy. For a fair, healthy and environmentally-friendly food system*. Brussels, European Union, 22 p.

EC (2021). *Inception impact assessment for the Sustainable food system framework initiative*. Brussels, European Commission, 9 p.

EC (2022). *Green Deal targets for 2030 and agricultural production studies*. Brussels, European Commission, 2 p.

Frehner A., Muller A., Schader C., *et al.* (2020). Methodological choices drive differences in environmentally-friendly dietary solutions. *Global Food Security*, 24, 100333.

Garibaldi L.A., Oddi F.J., Miguez F.E., *et al.* (2020). Working landscapes need at least 20% native habitat. *Conservation Letters*, e12773, 10p.

Halada L., Evans D., Romão C., *et al.* (2011). Which habitats of European importance depend on agricultural practices? *Biodiversity and Conservation*, 20 (11), 2365-2378.

Harris J.M. & Kennedy S. (1999). Carrying capacity in agriculture: global and regional issues. *Ecological Economics*, 29 (3), 443-461.

Hill B. & Bradley B.D. (2015). *Comparison of farmers' income in the EU member states*. Brussels, European Parliament, 125 p.

IPCC (2022). *Climate Change 2022: Impacts, Adaptation and Vulnerability. Contribution of Working Group II to the Sixth Assessment Report of the Intergovernmental Panel on Climate Change* Cambridge, UK and New York, NY, Cambridge University Press.

Karlsson J. (2022). *Livestock as resource users and landscape managers-A food systems perspective (PhD)*. Upsalla, University of Agricultural Sciences.

Karlsson J.O., Carlsson G., Lindberg M., *et al.* (2018). Designing a future food vision for the Nordics through a participatory modeling approach. *Agronomy for Sustainable Development*, 38 (6), 59.

Karlsson J.O. & Röös E. (2019). Resource-efficient use of land and animals—Environmental impacts of food systems based on organic cropping and avoided food-feed competition. *Land Use Policy*, 85, 63-72.

Koknaroglu H. & Akunal T. (2013). Animal welfare: An animal science approach. *Meat Science*, 95 (4), 821-827.

Kremen C. (2015). Reframing the land-sparing/land-sharing debate for biodiversity conservation. *Annals of the New York Academy of Sciences*, 1355 (1), 52-76.

Midler E. (2022). *Environmental degradation: Impacts on agricultural production*. Brussels, IEEP.

Mottet A., de Haan C., Falcucci A., *et al.* (2017). Livestock: On our plates or eating at our table? A new analysis of the feed/food debate. *Global Food Security*, 14, 1-8.

Muller A., Schader C., Scialabba N.E.-H., *et al.* (2017). Strategies for feeding the world more sustainably with organic agriculture. *Nature communications*, 8 (1), 1290.

OECD (2003). *Voluntary Approaches for Environmental Policy – Effectiveness, Efficiency and Usage in Policy Mixes*. Paris, Organisation for Economic Co-operation and Development.

Palumbo L. & Corrado A. (Eds.), (2020). *Are Agri-Food Workers Only Exploited In Southern Europe?* . Brussels, Open Society Policy Institute, 47 p.

Parsons K. & Hawkes C. (2018). *Connecting food systems for co-benefits: How can food systems combine diet-related health with environmental and economic policy goals?* Copenhagen, WHO Regional Office for Europe, 33 p.

Pe'er G., Bonn A., Bruelheide H., *et al.* (2020). Action needed for the EU Common Agricultural Policy to address sustainability challenges. *People and Nature*, 2 (2), 305-316.

Poore J. & Nemecek T. (2018). Reducing food's environmental impacts through producers and consumers. *Science*, 360 (6392), 987-992.

Pörtner L.M., Lambrecht N., Springmann M., *et al.* (2022). We need a food system transformation—In the face of the Russia-Ukraine war, now more than ever. *One Earth*, 5 (5), 470-472.

Poux X. & Aubert P.-M. (2018). *Ten Years for Agroecology in Europe: a multifunctional agriculture for healthy eating. Findings from the Ten Years For Agroecology (TYFA) modelling exercise.* Paris, Iddri – <https://www.iddri.org/sites/default/files/PDF/Publications/Catalogue%20Iddri/Etude/201809-ST0918EN-tyfa.pdf>, 73 p.

Poux X. & Aubert P.-M. (submitted). Putting permanent grassland at the heart of a European agroecological transition: findings and questions arising from the “Ten Years For Agroecology” (TYFA) scenario. *Grass and Forage Science*.

Rogissard L., Bellassen V. & Foucherot C. (2021). *Une alimentation plus durable augmente-t-elle le budget des consommateurs ?* Paris, I4CE.

Röös E., Mayer A., Muller A., *et al.* (2022). Agroecological practices in combination with healthy diets can help meet EU food system policy targets. *Science of The Total Environment*, 847, 157612.

Rosemberg A. (2010). Building a Just Transition: The linkages between climate change and employment. *International Journal of Labour Research*, 2 (2), 125-161.

Rye J.F. & Scott S. (2018). International Labour Migration and Food Production in Rural Europe: A Review of the Evidence. *Sociologia Ruralis*, 58 (4), 928-952.

SAPEA (2020). *A sustainable food system for the European Union*. Berlin, Science Advice for Policy by European Academies.

Schebesta H. & Candel J.J.L. (2020). Game-changing potential of the EU's Farm to Fork Strategy. *Nature Food*, 1 (10), 586-588.

Schiavo M., Le Mouel C., Poux X., *et al.* (2021). *An agroecological Europe by 2050: What impact on land use, trade and global food security?* Paris, Iddri & INRAe, 54 p.

Schwoob M.-H., Hege E. & Aubert P.-M. (2018). Making the SDGs count in the CAP reform: an analytical framework. *IDDRI Issue Brief*, 04/18, 8 p.

Searchinger T.D., Wirsenius S., Beringer T., *et al.* (2018). Assessing the efficiency of changes in land use for mitigating climate change. *Nature*, 564 (7735), 249-253.

Smith A. (2014). How the European Commission's Policies Are Made: Problematization, Instrumentation and Legitimation. *Journal of European Integration*, 36 (1), 55-72.

Springmann M., Clark M., Mason-D'Croz D., *et al.* (2018). Options for keeping the food system within environmental limits. *Nature*, 562 (7728), 519-525.

Sutton M.A. & Billen G. (Eds.), (2011). *European Nitrogen Assessment – Technical Summary*. UK, Cambridge University Press.

Swinburn B.A., Kraak V.I., Allender S., *et al.* (2019). The Global Syndemic of Obesity, Undernutrition, and Climate Change: *The Lancet* Commission report. *The Lancet*, 393 (10173), 791-846.

Swinnen J. (2015). An Imperfect Storm in the Political Economy of the Common Agricultural Policy. In: J. Swinnen (Ed.) *The Political Economy of the 2014-2020 Common Agricultural Policy — An Imperfect Storm*. Brussels – London, CEPS – Rowman and Littlefield International, pp. 443-484.

Turnhout E., Duncan J., Candel J., *et al.* (2021). Do we need a new science-policy interface for food systems? *Science*, 373 (6559), 1093-1095.

Van Grinsven H.J., Erisman J.W., de Vries W., *et al.* (2015). Potential of extensification of European agriculture for a more sustainable food system, focusing on nitrogen. *Environmental Research Letters*, 10 (2), 025002.

van Selm B., Frehner A., de Boer I.J.M., *et al.* (2022). Circularity in animal production requires a change in the EAT-Lancet diet in Europe. *Nature Food*, 3 (1), 66-73.

Westhoek H., Lesschen J.P., Rood T., *et al.* (2014). Food choices, health and environment: effects of cutting Europe's meat and dairy intake. *Global Environmental Change*, 26, 196-205.

Authors

This paper was co-authored by:

David Baldock, IEEP

Pierre-Marie Aubert, IDDRI

Estelle Midler, IEEP

Juliette Pagnon, IEEP

Nathalie Bolduc, IDDRI

Inmaculada Batalla, BC3

Ana Frelih-Larsen, Ecologic Institute

María-José Sanz Sánchez, BC3

Aaron Scheid, Ecologic Institute

Cleo Verkuijl, SEI



Think 2030

Science-policy
solutions for a more
sustainable Europe

About Think2030

Launched by IEEP and its partners in 2018, Think2030 is an evidence-based, non-partisan platform of leading policy experts from European think tanks, civil society, the private sector and local authorities.

By focusing on producing relevant, timely and concrete policy recommendations, Think2030's key objective is to identify science-policy solutions for a more sustainable Europe.

think2030.eu

#Think2030

For more information on this paper please contact:

Estelle Midler, Senior Policy Analyst CAP and Food programme, IEEP

emidler@ieep.eu

Pierre-Marie Aubert, Senior Research Fellow and Lead, European Agriculture Initiative, IDDRI

pierremarie.aubert@sciencespo.fr

Paper realised in the framework of the Think Sustainable Europe network by:

