



European Commission

European Political Strategy Centre



From Words to Action: How Can EU Policy Drive Sustainability Transitions?

Background Paper EEA-EPSC High-Level Workshop • 10 September 2019¹

Background to the high-level workshop

It is widely acknowledged that **achieving a sustainable Europe will require far-reaching societal change, engaging all sectors of the economy and society.** This reality is already reflected in key policy documents, such as the European Commission’s long-term vision for a climate-neutral Europe and its reflection paper, ‘Towards a Sustainable Europe by 2030’. The new ‘Political guidelines for the next European Commission 2019-2024’, presented to the European Parliament on 16 July 2019 by the President-elect, Ursula von der Leyen, likewise emphasise the need for ambitious, transformative action in the next five years and the huge opportunities that this would create for Europe. As such, **the key question is no longer why or whether transitions are necessary, but how to make them happen and operationalise them.**

In interaction with policy audiences, the European Environment Agency (EEA) and the European Political Strategy Centre (EPSC) are exploring how new knowledge on sustainability transitions can support EU efforts to achieve its long-term goals. The present paper

draws on EEA and EPSC reports, including the new EEA report ‘Sustainability transitions: policy and practice’ (EEA, 2019) and its forthcoming five-yearly assessment of Europe’s environment, ‘SOER 2020’, the EPSC note ‘Europe’s sustainability puzzle: broadening the debate’ (EPSC, 2019), and insights from recent workshops on the future of EU environmental policy and sustainability transitions, hosted by the Environmental Knowledge Community (EKC).²

The high-level workshop on 10 September provides an opportunity to reflect on these insights and develop a shared understanding – across the European Commission – of what is at stake and of possible response options. **To make the discussions tangible a particular focus will be put on the food system.**

‘Europe must lead the transition to a healthy planet and a new digital world. But it can only do so by bringing people together and upgrading our unique social market economy to fit today’s new ambitions.’

Ursula von der Leyen, Political guidelines for the next European Commission 2019-2024

- In 2020, the EU has a unique opportunity to lead the global response to sustainability challenges, for example by implementing an ambitious Green Deal that makes Europe **the world’s first climate-neutral continent**, preserves and restores our ecosystems, **makes Europe’s economy circular** and better protects citizens’ health from environmental pollution.
- Europe must find ways to transform the societal systems that drive sustainability problems, such as our food, energy and mobility systems. This means **rethinking not just technologies and production processes but also consumption patterns and ways of living.** It means engaging society as a whole by developing shared visions and promoting inclusive, participatory governance. EU institutions have a vital role in these processes.
- EU policies can promote innovation, foster networking, **mobilise the creativity of communities and cities, and reorient finance towards sustainability.** They can also create the conditions for a **just transition** across Europe, help identify and navigate risks and unintended consequences, and develop needed knowledge and skills.
- Sustainability needs to become the overarching principle guiding coherent policies and actions across society. Enabling transformative change, requires that **all areas and levels of government work closely together** to harness the ambition, creativity and power of citizens, businesses and communities.



Globalised, systemic sustainability challenges

Environmental pressures are growing fast, as an expanding global population shifts towards the resource-intensive consumption patterns of developed regions. Since 1950, the global population has tripled to 7.5 billion; economic output has expanded 12-fold, matched by a similar increase in the use of fertilisers; primary energy use has increased five-fold. Looking ahead, these global megatrends look set to continue increasing pressures. The world population is projected to grow from 7.7 billion in 2019 to 9.7 billion in 2050 and 10.9 billion in 2100 (UNDESA, 2019). Globally, resource use could double by 2060, with water demand increasing 55 % by 2050, and energy demand up 30 % by 2040 (OECD, 2012; IEA, 2017; IRP, 2019). Already, planetary boundaries relating to climate change, biosphere integrity, land-system change and biogeochemical cycles have been crossed, increasing risks of irreversible, abrupt and highly disruptive environmental change.

‘We need to change the way we produce, consume and trade. Preserving and restoring our ecosystem needs to guide all of our work. We must set new standards for biodiversity cutting across trade, industry, agriculture and economic policy.’

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For advanced economies in Europe and elsewhere, achieving prosperity while protecting ecosystems will require huge improvements in environmental performance. **Change at the needed scale and pace will not be achieved through incremental improvements to established modes of producing and consuming.** Rather, it will require more fundamental transformation of the systems that meet essential needs, such as food, energy and mobility. These core production-consumption systems account for much of humanity’s burden on the environment, in terms of resource use and harmful emissions, but they also comprise a complex web of socio-economic, technological, institutional and cultural elements (Figure 1). Resource flows are thereby linked to jobs and earnings across the value chain; investments in infrastructure, machinery, skills and knowledge; behaviours and ways of living; public policies and institutions.

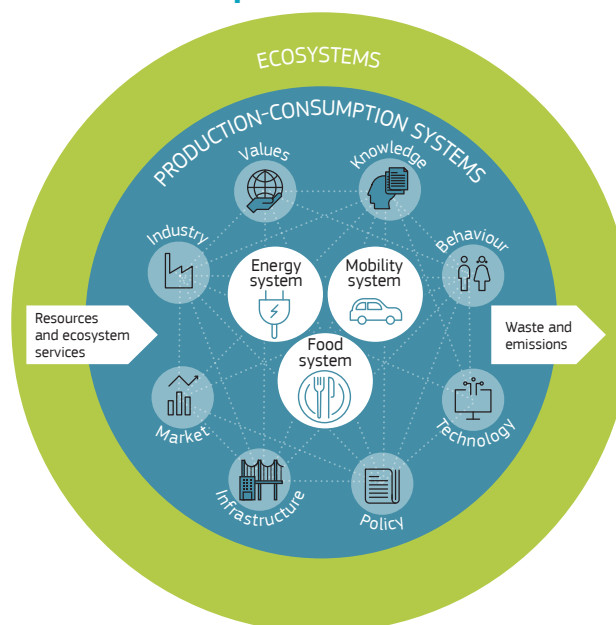
These are multi-functional systems, influencing diverse human interests and sustainability outcomes – social, economic and environmental. Box 1 illustrates these different functions and outcomes in relation to the food system.

The many interlinkages within and between these complex, multi-functional systems mean that **there are often strong economic, social and psychological incentives that lock society into particular ways of meeting its needs.** Interventions to alter one part of the system are bound to produce costs and benefits elsewhere, generating an uncertain mixture of feedbacks and trade-offs. System transitions create new opportunities for jobs, green growth and a better quality of life. But they also disrupt established investments, jobs, behaviours, knowledge and values, with impacts often concentrated in particular sectors or regions.

These systemic characteristics create a difficult challenge for policymakers. **Resistance from business or citizens can constrain public authorities in their ability to impose regulations and pricing instruments that are consistent with long-term sustainability goals.** In competitive, globalised markets, the capacity of the state to address externalities and act in the interests of future generations is further diminished. Yet resolving persistent problems, such as inequality, biodiversity loss and climate change, requires that policymakers find ways to overcome lock-ins and reconcile the trade-offs and conflicts between different interests and sustainability goals.

Europe’s ‘sustainability puzzle’ (EPSC, 2019) becomes even more complex when we take into account the **potential impacts of external drivers of change and disruptive innovations**, such as artificial intelligence, 3D printing and nanotechnology. Such new

Figure 1: Core systems meet diverse human needs but also drive environmental pressures



Source: EEA (2019)



Box 1 Europe’s food system

Europe’s food system is interwoven with its societies and economies, its cultures and landscapes. The food system contributes to a diverse array of sustainability outcomes, linked to food security, ecosystem health in Europe and globally, and social well-being (Figure 2).

The environmental pressures associated with the food system are considerable. Food consumption accounts for more than half of all land and water use associated with European consumption, one third of acidifying emissions and one sixth of greenhouse gas and ground ozone precursor emissions (EEA, 2019). Agriculture accounts for roughly 40 % of the land area in the EU, creating wide-ranging impacts on ecological resilience.

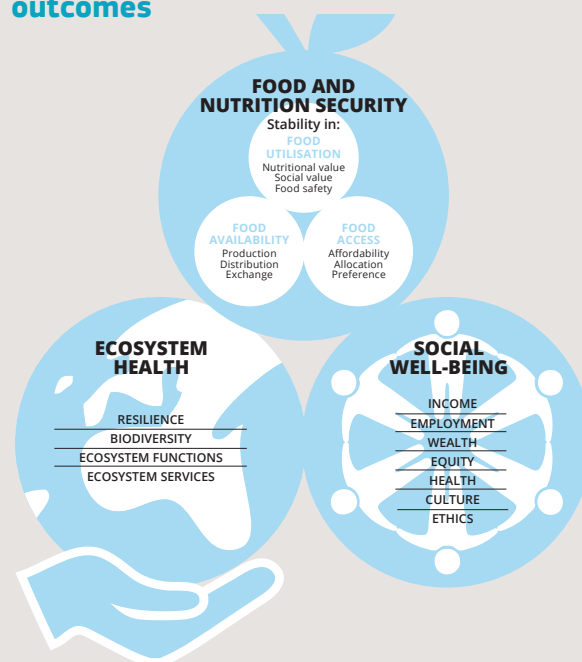
The food system includes a very diverse set of socio-economic actors and interests across the value chain and engages us all as consumers (Figure 3). Even within the agricultural sector, farmers are very heterogeneous, be it in terms of size, production methods and the subsidy schemes they benefit from. While agriculture and fisheries make a modest contribution to GDP, they often provide the foundation for the local economy in rural and coastal communities, playing a key role in social cohesion and natural resource management. The broader food system — also including food processing, retail and services — is **one of the largest employers and productive sectors in the EU** accounting for 44 million jobs and more than EUR 800 billion in gross value added (EC, 2017). Reconfiguring the food system is therefore likely to impact livelihoods, even if it also generates new opportunities.

Food accounts for a large part of household expenditure, ranging from 10 % to 32 % depending on the country (EEA, 2017). This means that policy interventions or innovations leading to increased food costs (e.g. sugar tax, organic produce) are likely to have regressive impacts on poorer and more vulnerable households.

Current policies and initiatives mainly target primary producers and consumers. While these actors are largest in numbers (Figure 3) they do not necessarily have the most power or influence to bring about change in the food system. **Food manufacturers, suppliers and retailers actively shape food choices.** Their scale and concentration give them considerable political power to resist change but they can also catalyse substantial change in the food system.

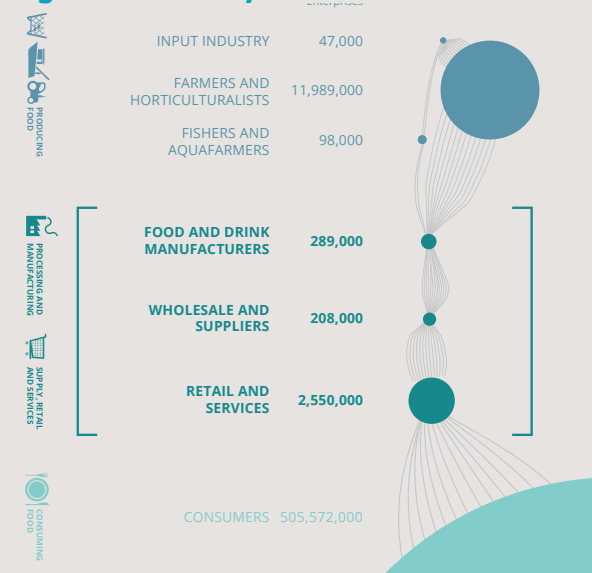
The Common Agricultural Policy (CAP) is a cornerstone of EU policy. It supports stable access to affordable food, livelihoods in farming and fisheries, and modernisation of European agriculture. But is also criticised for its associated environmental outcomes (ECA, 2018). The structural stability of the CAP framework encourages gradual adjustment of agricultural practices, rather than more radical reform.

Figure 2: Food system sustainability outcomes



Source: EEA (2017)

Figure 3: Food system actors



Source: EEA (2017)



technologies create numerous opportunities to move our production and consumption patterns in a more sustainable direction. But they may also accelerate environmental pressures (e.g. energy demand, waste) and disrupt work relations, potentially reducing job security, boosting inequality and raising difficult questions for social security systems. In combination with demographic changes in Europe, these trends may also weaken fiscal sustainability, undermining the tax base at the same time that pension and health system obligations are expanding fast.

Europe faces a major challenge in navigating these processes. Yet a clear conclusion emerges: **the future is open and it can be shaped**. Europe can either be carried by current trends or it can seek to actively shape them towards a more sustainable trajectory. The EU and its citizens are not powerless in their efforts to live well, within the limits of our planet. Indeed, in the context of globalised markets and challenges, the EU is a powerful force to drive forward sustainability transitions.

Characteristics of transitions and implications for governance

A growing body of research and practice provides insights into how transitions occur and what this means for policy and governance. According to these perspectives, **sustainability transitions are long-term, society-wide processes that depend critically on the emergence and spread of diverse forms of innovation that trigger alternative ways of thinking and living** – new social practices, technologies, business models, nature-based solutions and so on. Since the emergence and impacts of such innovations cannot be predicted in advance, transitions are fundamentally uncertain processes, with frequent surprises and unintended outcomes.

This understanding of systemic change has important implications for governance. Transitions are understood to require a **combination of top-down government interventions and bottom-up action by diverse actors**, ranging from innovators and businesses to communities and civil society organisations. Although governments cannot simply plan and implement transitions from the outset, public policies and institutions retain an essential role – for example in convening stakeholders and setting long-term goals, mobilising and coordinating action across society, and managing risks and unintended consequences.

In practice, achieving sustainability transitions requires that all policy areas and levels of government operate together to achieve shared goals. Environmental policy tools remain essential to drive efficiency improvements, stimulate innovation and steer the direction of change. But promoting

transitions requires a **policy mix that promotes innovation and experimentation, enables new ideas and approaches to spread, and ensures that structural economic change produces beneficial and fair outcomes**. This implies contributions from diverse policy domains, ranging from research and innovation, economy, industry, competition and trade, to environment, climate, employment, education and welfare.

Following from this logic, the remainder of this paper identifies **10 focus areas for policy and action** in the next decade, and concludes with a set of questions that can guide the workshop discussion.

Focus area 1: Developing visions, targets and missions to guide transformative action across society

Achieving sustainability transitions requires concerted action across government and society. Developing ambitious, long-term and shared visions and goals provides an essential means to engage leaders, policymakers and other stakeholders, building a shared narrative that extends beyond electoral cycles and short-term objectives. **Visions help all actors in society to understand the direction of travel, enabling them to adapt economic thinking, production systems and behaviours**. They help in coordinating actions and steering innovation processes and investments, as well as in defining more specific missions and targets that translate societal aspirations into quantifiable actions and results. Agreeing shared visions involves making social choices between alternative futures and how to get there, with different kinds of opportunities and trade-offs. As such, it provides a key step in identifying ways to maximise opportunities, mitigate risks and support those left behind in transitions.

I want Europeans to build the future of our Union. They should play a leading and active part in setting our priorities and our level of ambition. I want citizens to have their say at a Conference on the Future of Europe, to start in 2020 and run for two years. The Conference should bring together citizens, including a significant role for young people, civil society and European institutions as equal partners.'

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The EU has made important progress in defining long-term visions and goals in recent years. For example, the EU's broad 2050 vision of 'living well, within the planet's ecological limits' (set out in the 7th Environment Action Programme) is complemented by its vision for a climate-neutral Europe, as well as strategic



frameworks and targets for the energy and mobility systems. The Sustainable Development Goals (SDGs) provide an additional framework for orienting policies and actions in the 2030 timeframe.

Adopting more ambitious EU-level visions and goals through participatory processes will be important to mobilise and orient transformative action across Europe.

The planned Conference on the Future of Europe could enable stakeholders to contribute to a politically agreed 2050 vision for the EU. Building on existing EU visions, this process could elaborate sustainability objectives in general and for specific systems, notably the food system.

These broad visions need to be complemented by missions and targets (for example relating to reducing greenhouse gas emissions in the food system or cutting the use of plastics in food packaging). Setting these broad visions and targets at EU level would also provide an important basis for other levels of governance, while enabling them to reflect the diverse realities across Europe.

Focus area 2: Enabling coherent actions across policy areas and levels of governance

The multidimensional nature of transition processes means that they are influenced – positively or negatively – by policies in diverse domains and at multiple levels of governance, implying **significant risks of conflicts and incoherence**. **Policy coordination and policy integration provide two mechanisms to ensure that policies and actions work coherently to enable systemic change.**

A first step towards **policy coordination** involves **identifying and reconciling contrasting objectives and measures across the diverse array of policy areas that affect production-consumption systems**. In the food area, this would include e.g. agriculture, fisheries, environment, climate, health, taxation, trade and development, research and innovation, rural development and employment.

Coordination can be strengthened through **institutional innovations**, such as super ministries or interministerial bodies. In the EU context, this could mean creating a cross-DG taskforce to coordinate actions or appointing one of the Commission Vice-Presidents to lead on the food system. The European Commission already has positive experiences with the ‘project team’ approach, which brought together different services to tackle comprehensive legislative packages such as the sustainable finance and circular economy action plans, as well as the 2030 climate and energy framework.

Similar mechanisms can also support multi-level governance – for example establishing a multi-stakeholder platform on food systems would provide a means to engage actors from across the food chain, including vulnerable groups. The European Economic and Social Committee has suggested a ‘European Food Policy Council’ to bridge EU decision-making and citizen involvement.

Policy integration is a complementary mechanism for promoting coherence. Macro-level strategies, such as the EU’s growing set of integrated, long-term policy frameworks addressing key systems (e.g. the Energy Union and the ‘Europe on the move’ agenda) and economic transformation (to a low-carbon, circular and bio-based models) exemplify this approach.

In contrast, there is currently no overarching policy addressing the food system in Europe. Instead, the broad range of policies relevant for food has to respond to many competing forces and interests, often leading to conflicting goals. For example, commitments to align policies with climate and development goals, run in parallel to initiatives encouraging meat and dairy producers to seek new export markets (IPES Food, 2019). Europe needs to identify pathways forward that reconcile these competing goals – ensuring that the food system delivers food security, social well-being and resilient incomes.

‘We must preserve the vital work our farmers do to provide Europeans with nutritious, affordable and safe food. This is only possible if they can make a decent living for their families. We will support our farmers with a new “Farm to Fork Strategy” on sustainable food along the whole value chain.’

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Elaborating a common policy framework for the food system that integrates all actors and sustainability outcomes could be an enabler for system change – helping align sectoral policies across the food chain, link SDGs and EU policies, and mobilise and guide contributions from multiple policy areas. It could provide a basis for engaging a broad range of stakeholders to explore pathways for transition. As such, the comprehensive ‘From farm to fork’ strategy proposed in the Political guidelines for the next European Commission presents a great opportunity to elaborate goals, targets and actions for transforming the food system.

In combination with long-term visions and targets, **strategic policy frameworks** also provide a valuable mechanism for promoting vertical policy coherence. For example, the recent evaluation of the 7th Environment Action Programme (EAP) underlines its value in promoting coherent EU and national policies and



actions, and ensuring coherence and common messages on the international stage. Many EU Member States have responded to the EU Circular Economy Strategy by voluntarily preparing national circular economy plans. At the sub-national level, regional governments and cities are committing to greenhouse gas emissions reductions that often exceed national targets.

The SDGs provide a mechanism to take this further. The EU has committed to being a frontrunner in implementing the 2030 Sustainable Development Agenda. An overarching EU strategy for achieving the SDGs would provide a powerful tool to mobilise and coordinate actions by EU institutions, Member States and other actors across society.

Focus area 3: Promoting experimentation with diverse forms of sustainability innovation and building transformative coalitions

Many promising innovations can stimulate new ways of living but they often need more support. Strict regulations and pricing instruments can incentivise businesses to innovate and shift to genuinely sustainable business models. But fostering a culture of experimentation and radical innovation means **broadening the focus of innovation policy to support a wide range of sustainability innovations, ranging from technologies and social practices to business models and new organisational forms.**

In the food area, innovations are emerging across the value chain, ranging from precision farming and no-till agriculture, through plant-based meat and dietary change, to urban agriculture initiatives and alternative food networks. Social and grassroots innovation can enable deeper and more transformative transition pathways – yet broadly focused EU and national policies are currently ill-equipped to support this kind of experimentation. This points to the need for better multi-level governance. ‘Rather than focusing primarily on regulating markets and supporting farmers through EU-wide policy tools, the EU must find ways to encourage local food initiatives, which are increasingly circumventing conventional markets and supply chains’ (IPES Food, 2019).

‘Those who act first and fastest will also be the ones who grasp the opportunities from the ecological transition. This is why we will invest record amounts in cutting-edge research and innovation, using the full flexibility of the next EU budget to focus on the areas with the greatest potential.’

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Europe definitely needs to increase its support for innovation. But innovation policy also needs to go beyond simply addressing market failures and promoting economic growth towards stimulating transformative change. This means orienting innovation processes in particular directions, for example towards the SDGs. In practice, this is difficult because **it is impossible to know in advance precisely what innovations will emerge, whether or how they will be integrated into lifestyles, and how they will affect sustainability outcomes.** For example, high-tech innovations such as precision agriculture may offer ways to reduce agricultural inputs but may also lead to more intensive, large-scale monoculture-based production, creating new environmental impacts. They could also deepen socio-economic problems, for example by making farmers more reliant on agribusiness firms and credit, and reducing rural employment (IPES Food, 2019). Transformative innovation policy therefore emphasises the need to promote diverse alternatives and use real-world experimentation to assess results, uptake, sustainability impacts, etc. Accepting and learning from failures, as well as successes, is essential.

As we increase investment in disruptive research and breakthrough innovation, we must accept that failure will be part of our path.’

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The EU has already begun to embrace the logic of transformative innovation policy, for example in **Horizon Europe’s mission-led approach.** But it could go much further, for example embedding transformative innovation in the visions and systemic frameworks addressing key systems and cross-cutting policy areas, such as industrial and cohesion policy.

Radical innovation also requires transformative coalitions and partnerships. Research and firms are crucial, but ‘open innovation’ policy should also engage users, civil society, communities and other actors. In the food domain, for example, the emergence of local ‘food councils’ potentially provides a mechanism to link different stakeholders (e.g. public health professionals, local government, farmers and agricultural organisations, restaurants and local businesses) and to connect policy with bottom-up initiatives. Food councils provide a forum to mobilise local actors to rewire food chains in ways that ensure access to high quality and sustainably produced foods, as well as supporting local producers and other stakeholders.



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Focus area 4: Supporting the diffusion of sustainability innovations and practices

To achieve sustainability transitions, radical innovations and sustainable practices need to spread more widely. Technologies, social practices and business models pose different challenges and diffuse in different ways, requiring different kinds of policy support.

Correcting market failures is important to create a level playing field for promising green innovations. Regulations and economic instruments such as carbon pricing, environmental taxation and subsidies have an important role here, as do actions to eliminate harmful subsidies. However, experience shows that it is often **difficult to introduce pricing tools that reflect full social and environmental costs because of resistance from industry and consumers, and concerns about lost competitiveness, distributional impacts and offshoring.** Promoting diffusion of sustainability innovations therefore requires a **complex mixture of public policies and actions,** ranging from market creation policies and financial incentives, to infrastructural investments and capacity-building. The diverse mixture of policy used to promote the diffusion of electric vehicles in European countries illustrate this complexity (EEA, 2016).

'Becoming the world's first climate-neutral continent is the greatest challenge and opportunity of our times. It involves taking decisive action now. We will need to invest in innovation and research, redesign our economy and update our industrial policy.'

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In the food system context, stronger EU rules on green public procurement could provide a powerful tool – helping transform diets and creating a substantial market for sustainably produced food. Some cities are already introducing sustainable food procurement in schools and public institutions; broader policy support could see this taken up much more widely. Information tools that convey food product lifecycle impacts can also have an important complementary role here, empowering consumers and helping producers to shift business models. Given the huge influence of food manufacturers, suppliers and retailers in shaping food choices and cultures (Box 1), measures that encourage these businesses to reconfigure their supply chains or rethink their business models could have huge leverage.

For social innovations and grassroots initiatives, **diffusion often depends on knowledge sharing and replication or adaptation of projects.** This is certainly important for the food system, where local food initiatives and practices offer promising opportunities for transformative change. This points to the importance of networks and governance systems

that enable knowledge to flow horizontally between farmers and initiatives, and upwards to policy and research. Public institutions often have an important role in creating such networks and infrastructures.

Focus area 5: Anticipating and adapting to risks and unintended consequences

Transition processes are unpredictable and often produce unintended consequences and surprises. Innovations such as novel chemicals and materials can present direct threats to human and environmental health including the risks of irreversible harms. The interplay of innovations and social responses may produce counter-productive outcomes, as in the case where car-sharing schemes cause people to bike or walk less. Interdependencies between systems can produce unexpected harms, such as the deforestation and food price increases that accompanied expanded biofuel production since the early 2000s. Equally, however, sustainability transitions will create diverse new jobs and opportunities – often in ways that are hard to anticipate in advance.

Managing the risks that inevitably accompany systemic change requires a **mixture of anticipatory and adaptive governance approaches.** Foresight tools and horizon scanning can help in early identification of emerging risks and opportunities related to technological and societal developments. Developing scenarios and models can likewise help in exposing trade-offs and negative impacts. In the food system context, the 'resource nexus' perspective (which addresses the interplay of food, energy, land, water and other systems) is potentially particularly useful for identifying and managing synergies and trade-offs, and maintaining resilient ecosystems. All these approaches can support policymakers in developing transformative strategies.

In practice, however, assessing and mitigating all risks in advance is impossible. In addition to acting on early warnings from science and society, there is a need for tentative, adaptive approaches, grounded in **monitoring, learning and reorientation of innovations and change processes** as necessary. Knowledge exchange and societal debate are essential to these processes; engaging citizens in participatory processes provides a crucial mechanism for exploring and potentially reorienting innovation pathways.

Focus area 6: Enabling a 'just transition'

Sustainability transitions create new jobs and economic opportunities but they often imply hardship for those in declining sectors. Impacts can be particularly acute in regions where particular sectors dominate the local economy and are closely tied to the local culture and identity. As a result, sectors, regions



or other interests may strongly resist systemic change. Mitigating these negative impacts and ensuring a ‘just transition’ is essential both to facilitate transitions and ensure socially fair outcomes.

‘I believe that what is good for our planet must be good for our people, our regions and our economy. We will ensure a just transition for all.’

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Discussions around the notion of a ‘just transition’ often focus on supporting the transition **away from fossil fuel production and use**. Yet the challenges for primary food producers and their communities are arguably more wide-ranging. **Agriculture and fishing normally play a major role in rural and coastal economies**, both directly and indirectly. Opportunities for diversification to other sources of employment or income are often far fewer than in cities. And vulnerabilities may be greater in rural areas, for example linked to the ageing of farmer communities, which increases the difficulty to adapt. As a result, substantial shifts in what we eat and how (and where) we produce it are likely to have highly disruptive impacts.

‘Our rural areas are home to more than 50% of Europeans. They are the fabric of our society and the heartbeat of our economy. The diversity of landscape, culture and heritage is one of Europe’s most defining and remarkable features. They are a core part of our identity and our economic potential. We will cherish and preserve our rural areas and invest in their future.’

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Policies have a major role in enabling a ‘just transition’ for example by **supporting companies and workers in industries facing phase-out via retraining, subsidies, technical assistance or investments that help negatively affected regions**. The growing use of EU regional and innovation policy to help affected regions to transform towards sustainable economic sectors is a welcome development. But there is a need for more ambitious and far-reaching actions. In practice, this will require contributions from diverse policy areas, including economic and growth policies, industrial and sectoral, business and education, employment and welfare (ILO, 2015). To enable coordinated actions from across these diverse areas, it is important that the ‘just transition’ be included as a key component in transformative EU visions and strategies, such as a potential Common Food Policy.

Focus area 7: Leveraging and strengthening the role of cities and communities in transitions

Cities have a particularly important role in sustainability transitions. They are often **hubs for innovation and experimenting with new ways of meeting needs** – for example through energy or food cooperatives or shared mobility solutions. Networks of cities and communities provide great opportunities for learning and sharing practices. City authorities often have distinct powers and responsibilities, for example in relation to transport or waste management, creating opportunities for whole system change at local scales. Urban areas also account for three quarters of Europe’s population, meaning that collective choices made by urban communities or administrations can have major impacts on value chains locally, nationally and beyond. Cities thus have huge potential to serve as the engines for sustainability transitions. Governments can support this potential, for example by providing more resources, extending local responsibilities, building capacity and setting clear criteria for urban sustainability.

Cities and communities are becoming as key actors in food system innovation, particularly through bottom-up initiatives based on **formal and informal collaborations between civil society groups, entrepreneurs and local authorities**. Urban agriculture initiatives, for example, are appearing across Europe, providing a combination of environmental and socio-economic benefits (EPRS, 2017). Local food councils are likewise emerging, creating forums for actors across value chains to develop ‘alternative food systems’ that ensure access to healthy food for low-income households, strengthen local producers and reward sustainable production and consumption.

Public policy and institutions have a key role to play in supporting these kinds of initiatives – for example when cities make public land available for urban farming or allocate resource to procure healthy, sustainable local produce in schools. Urban food policies and city-region food strategies provide a basis for reorienting food systems in ways that are tailored to local realities, for example in addressing the needs of vulnerable groups. At the same time, however, EU and national policies often reinforce the dominant food system. Local urban food initiatives are seldom able to access agriculture or rural development funding. The EU could do more to support bottom-up actions, for example by making structural funds available to support the creation of local food councils, or enabling the Common Agricultural Policy to also support alternative food systems or business models.



Collaborative networks such as the Milan Urban Food Policy Pact and Eurocities provide a key source of inspiration and peer-to-peer learning on developing participatory food policies. The EU already supports some networks (e.g. URBACT) but could do more to enable effective multi-level governance, strengthening links between initiatives and EU programmes, and facilitating knowledge exchange horizontally and vertically.

Focus area 8: Reorienting financial flows towards sustainable and transformative innovations

Finance has a central role to play in enabling sustainability transitions. In many instances, this is a matter of **identifying the investment gaps and needs and then directing financial resources towards these needs and away from unsustainable activities and systems.**

But stimulating the emergence of new technologies and solutions requires targeted innovation funding to develop and rapidly bring ideas to market. Public investments have a vital role, since markets seldom incentivise sufficient investment in radical innovation. Governments also need to become much more active in **stimulating, orienting and complementing private investments** at later stages of innovation. This will require greater levels of ambition, engagement and risk-taking, and a willingness to accept failures alongside successes.

'I want to make it easier for small businesses to become large innovators. We must continue developing the growth finance market for the innovative companies of the future.'

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The scale and urgency of investments needed to transform Europe's production-consumption systems necessitates major private sector investment. Achieving this requires action on a number of fronts, including improving the visibility of bankable project pipelines, strengthening sustainability investment governance, accountability and disclosure by the financial sector, revisiting fiduciary duty requirements, creating a common language ("taxonomy") and definition of what is and is not a sustainable investment, addressing short-termism, and improving the availability and quality of company sustainability performance data.

There is also a need to help the financial sector (insurance, investment banks, asset management, etc.) to greatly improve its sustainability risk management capacity and stress-testing. As the risk horizon of issues such as climate change and water scarcity rapidly shortens, the risk of major financial losses and stranded assets could aggregate to a level

that leads to major financial sector instability and, therefore, broader macro-economic instability.

Public funding plays a catalytic role in sign-posting where investment is needed and helping to crowd-in private sector finance. But governments also have an essential role in mobilising and directing private spending by defining stable and predictable transition pathways to sustainable systems (i.e. sustainable energy systems, transport systems, agri-food systems, building and city systems) and by shaping investment and consumption choices. This will be a critical part of de-risking the investment process for the private sector and of creating the necessary pipeline of bankable investment opportunities. Sustainable **fiscal reform**, aimed at both increasing environmental taxes, removing harmful subsidies and ensuring fairer ways to adequately target wealth owners and income earners, is essential to reorient spending in cost-effective ways. **Achieving a just transition requires that fiscal reform packages be designed in ways that offset regressive impacts.**

Public policies and institutions can also do more to **support investments by households and end users**, which account for a major proportion of the total investment needs to achieve climate goals (for example in financing the retrofitting of housing). Public policies and institutions can help households and financial actors to overcome high upfront costs or transaction costs that currently deter from investments that could produce major socio-economic and environment win-wins.

Focus area 9: Developing knowledge and skills for transitions governance and practice

As policy frameworks embrace the need for sustainability transitions, there is a need for new knowledge systems that combine different types of evidence. Navigating transition processes will require detailed **information about the structure, drivers and dynamics of production-consumption systems** at different scales, as well as **evidence that enables societies to learn from successes and failures**, to upscale promising initiatives, to identify barriers to change and unexpected consequences, and to **evaluate outcomes against diverse sustainability goals and drawing on multiple viewpoints.** Developing new metrics of progress that go 'beyond GDP' will be important to guide investments, policies and actions. Generating the necessary insights into these complex systems and processes requires diverse forms of knowledge, drawing on natural and social sciences, combining quantitative and practice-based evidence, and drawing on multiple viewpoints and perspectives. **At present, a lot of relevant evidence is dispersed across society, held by researchers, businesses, public administrations or communities.** Finding



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ways to combine this evidence and navigate it is a difficult challenge, but it will be essential. The partial and siloed knowledge system that currently informs governance makes it very hard to understand and communicate about the systemic challenges that we face, much less to respond to them.

Creating and employing the required knowledge will require new assessment approaches and tools. For example, the monitoring and evaluation of local sustainability initiatives are often weak, which undermines opportunities to learn from successes and failures, and to exchange or compare findings. This is clearly a problem in the food system, where social and grassroots innovations have considerable potential to enable transitions.

EU action to develop robust metrics and evaluation procedures for local initiatives could be very valuable. In parallel, an EU-wide food knowledge and innovation system that goes well beyond new technologies could provide a hub for exchanging innovative ideas and practices. Connecting it more strongly to the various communities of farmers and fishers that provide most of our food today could accelerate the transformation of Europe's food systems.

Producing and using this new knowledge will also **require new skills and mindsets.** This points to the need to **engage education and vocational training systems, so that citizens, businesses, financial institutions and public administrations can apply sustainable and systemic thinking.** Developing skills is important to enable people to adopt new practices, technologies and businesses models, and avoid being left behind in transition processes. Empowering people with knowledge and skills is also essential to generate public engagement and support.

Focus area 10: Leading international action towards sustainability

Europe cannot achieve its sustainability goals in isolation. Global environmental and sustainability problems require global responses, enabled through multilateral agreements. Building on the ambitious goals for climate-neutrality, biodiversity protection and the circular economy, the EU can use all its influence to push for bold new global frameworks in these areas, and for stronger sustainability clauses in trade agreements.

The 2030 Agenda and the SDGs provide an essential framework for steering and coordinating these international efforts. Full implementation of the 2030 Agenda in Europe and active support for implementation in other regions (e.g. through the EU's external action, development aid and trade policies) will be essential if Europe is to provide global leadership in achieving sustainability transitions. **Outsourcing of unsustainable practices to other regions must be avoided, as this would undermine the efforts of other regions to achieve the SDGs.** This raises questions about external impacts of EU food systems. It points, for example, to the need for efforts to deter dumping of commodities on world markets, and to make investors and multinationals accountable for sustainability impacts across supply chains.

'Multilateralism is in Europe's DNA. It is our guiding principle in the world. My Commission will keep on championing this approach and ensure that we uphold and update the rules-based global order.'

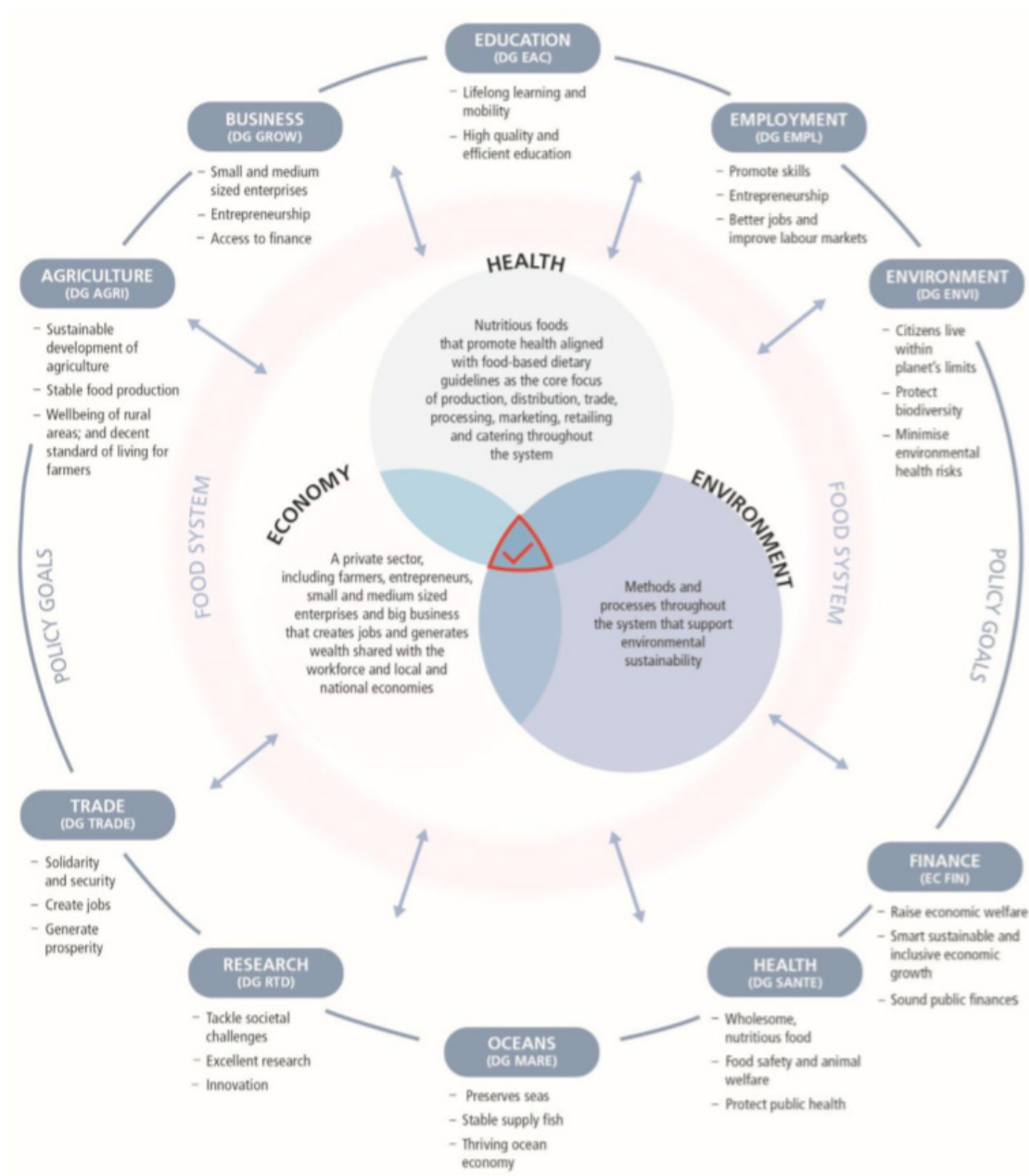
Political guidelines for the next European Commission 2019-2024

Rather than exporting problems through its trade networks, the EU should export sustainable solutions. The EU is well positioned to provide global leadership in relation to the food system. Europe already has state-of-the-art food production systems. **By investing further in innovation and knowledge systems, Europe can lead the way in demonstrating that transitions are feasible and create major opportunities.**

Part of this is about going beyond intergovernmental approaches to embrace transnational networks of civil society organisations, subnational governments and companies seeking to promote sustainable food systems. The EU could find further ways to connect more strongly with such networks, not only from a funding perspective but also to build on their experience and know-how when setting up new international initiatives.



Figure 4: The Food System • Breaking out of the Silos: How can we activate a wide range of integrated policy tools jointly?



Source: Parsons & Hawkes (European Observatory on Health Systems and Policies), 2018, Connecting food systems for co-benefits: how can food systems combine diet-related health with environmental and economic policy goals? - Policy Brief 31



Key questions for the high-level workshop

1. How can we **ensure that the announced 'European Green Deal'**, which includes a wide range of policy initiatives (e.g. European Climate Law, New Circular Action Plan, Biodiversity Strategy, Farm to Fork Strategy) **becomes a coherent package, from design to implementation**?
2. How can we find ways to **overcome lock-ins and reconcile the trade-offs and conflicts** between different interests and competing priorities, and sustainability goals?
3. How can the EU best **engage with citizens and stakeholders** to develop shared visions and pathways forward? How could the planned 'Conference on the future of Europe' contribute?
4. What does it mean to 'leave nobody behind' and how can the EU **help ensuring 'fair/just transitions'**?
5. How can the EU further **reorient its spending** (e.g. cohesion policy, rural development) towards enabling sustainability transition? What should we stop investing in? What further action need to be developed to **mobilise and redirect private capital** to sustainable investments?
6. How can we ensure that **promising technology solutions, social innovation, and financial innovation, new business models are being identified, promoted and scaled-up fast** in the EU?
7. How can we **create a knowledge system** that supports transitions? What **new skills, organisational practices or institutional innovations** (e.g. new networks or partnerships) are needed within the European Commission and the EU system?
8. To what extent **can trade facilitate or on the contrary hamper sustainability** of e.g. EU food systems?

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Notes

1. This document represents the views of its authors, not the official position of the EEA or the European Commission.
2. The EKC is an informal platform of six EU actors: DG ENV, DG

CLIMA, DG RTD, DG JRC, EEA, and Eurostat. It was set up in 2015 to improve the generation and sharing of environmental knowledge for EU policies.