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GLOSSARY AND ACRONYMS

(‘EU’ designates terms referring to policies or instruments used within the European Union)

CAP	Common Agricultural Policy (EU)
CFP	Common Fisheries Policy (EU)
COMM	Communication (EU)
COSME	Competitiveness of Enterprises and Small and Medium-sized Enterprises (EU)
CSR	Corporate Social Responsibility
EASME	Executive Agency for Small and Medium Sized Enterprises (EU)
ECAP	Environmental Compliance Assistance Programme (EU)
EEN	Enterprise Europe Network (EU)
EID	Environmental Identification Document
EMAS	Eco-Management and Audit Scheme (EU)
EMS	Environmental Management System
EU	European Union
EUR	Euro
FAB	UN Global Compact Food and Agriculture Business Principles
FAO	UN Food and Agriculture Organization
GAP	Green Action Plan (EU); Good Agricultural Practice (GlobalGAP)
GDP	Gross Domestic Product
GPP	Green Public Procurement (EU)
OEF	Organizational Environmental Footprint (EU)
ISO	International Organization for Standardization
IED	Industrial Emissions Directive (EU)
IPPC	Integrated Pollution Prevention and Control (EU)
KEPI	Key Environmental Performance Indicators
LCA	Life Cycle Assessment
OJ	Official Journal of the European Union (EU)
PEF	Product Environmental Footprint (EU)
RSPCA	Royal Society for the Prevention of Cruelty to Animals



SAFA	FAO's Sustainability Assessment of Food and Agriculture systems
SAI	Sustainable Agriculture Initiative
SALSA	Safe and Legal Supplier Assurance
SCP	Sustainable Consumption and Production
SD	Sustainable development
SENSE	Harmonised Environmental Sustainability in the European food and drink chain
SGF	Sure, Global and Fair
S-LCA	Social Life Cycle Assessment
SME	Small and medium-sized enterprises
UEAPME	European Association of Craft, Small and Medium-sized Enterprises
UN	United Nations



Foreword

This report provides a Policy and Governance Implementation Roadmap for the SENSE tool. It outlines key policy synergies and opportunities for the tool at the European level. It then sets out public and private governance steps that could support the dissemination and deployment of the tool among SMEs in the European food and drink sector, in furtherance of the EU's Sustainable Development agenda.

1 Executive Summary

SMEs, including micro-businesses, are the backbone of the European food and beverage sector, accounting for 99% of enterprises, 49% of turnover and 63% of employment. They are very diverse in terms of scale, activity and conduct. In the past, they have found it difficult to take advantage of measures to 'green' their operations by reducing negative environmental and social impacts.

The SENSE tool was designed to help meet the need for simple, low-cost tools to enable SMEs to participate in efforts to improve the environmental and social sustainability of the European food and beverage sector.

By enabling SMEs to demonstrate their competence and commitment to measuring environmental and social impacts, it can help them reduce impacts, save costs, boost efficiency and extend their market access and competitiveness. By allowing them to benchmark their sustainability performance – internally or within sectors – it enables them achieve continuous improvement. It thereby helps them to meet societal, supply-chain and policy expectations for greener products and performance. It also enables their customers – manufacturers, retailers and foodservice – to assess SMEs' credentials and choose greener products.

The purpose of this Roadmap is to summarize the policy context for the tool, describe the challenges that have emerged, and identify opportunities and synergies between the tool and other initiatives. It draws on research among project participants and external expert stakeholders in three sectors: salmonid aquaculture, fruit juice and meat.

The web-based SENSE tool uses a simplified version of environmental and social lifecycle assessment (LCA and S-LCA) methods to enable SMEs to calculate the impacts of their products. It is specifically tailored to the requirements and capabilities of SMEs, and flexible enough to accommodate different products and production processes. The criteria are similar to those used in many public and private schemes to measure environmental and social performance.

EU food and beverage policy terrain is complex and heterogeneous. The food and beverage sector is one of the most regulated in the EU, with both national and EU laws and a proliferation of private certification schemes. It is important to stress that *the SENSE tool is not another regulation or standard* with which SMEs must comply. Rather, it is a tool that *enables SMEs to measure and benchmark their performance and demonstrate awareness of and / or compliance with laws and schemes*.

Research has found that although a majority of SMEs think that their environmental impacts are negligible compared with the activities of larger companies, SMEs are estimated to be responsible for 60-70% of the environmental impacts of EU business. The widespread view, from SMEs, from past policy, from the experience of this project and from expert stakeholders, is that where SMEs are reluctant to take steps to reduce their environmental impacts, this is because:

- They do not see these measures as being *relevant* to their own businesses;
- They lack capacity (time, financial resources, staff) to *inform themselves* about problems and available solutions;
- They lack capacity (time, financial resources, staff) to *implement* changes.

The Roadmap therefore proposes measures to address these challenges by:

1. Promoting and educating for sustainability literacy, to make clear the relevance of the issues and the benefits of making changes; and providing local, tailored, practical **support with implementation,** to help SMEs put changes into practice.

2. Using the SENSE tool to support EU policy. The tool reflects and dovetails with EU policy frameworks on resource efficiency, Sustainable Consumption and Production, industrial development, climate, energy, the Single Market for Green Products, Corporate Social Responsibility, energy, waste and water, as well as the Common Agricultural Policy, the Common Fisheries Policy and the 7th Environmental Action Plan. It also supports a number of sectoral policies, such as the Guidelines on Sustainable Aquaculture. SMEs and the sector as a whole could use it to measure progress against targets in these agendas, or to demonstrate (cross) compliance.

3. Working synergistically with other EU policy instruments. A number of initiatives exist or are under development to increase SMEs' participation in green markets. They include actions listed under Green Action Plan for SMEs, the ENVIFOOD Protocol, the Product Environmental Footprint, the Green EcoNet, the EU Eco-management and audit scheme (EMAS) and EMAS Easy, the Environmental Compliance Assistance Programme (ECAP), the programme for the Competitiveness of Enterprises and Small and Medium-sized Enterprises (COSME), the Enterprise Europe Network (EEN), the innovation support themes of Horizon 2020, and the Executive Agency for Small and Medium Sized Enterprises (EASME). A number of sector-specific policy instruments also offer opportunities, such as the European Maritime and Fisheries Fund (EMMF) or (in the fruit juice sector) the Best Environmental Manufacturing Practices Guidelines (BEMP). This emerging policy framework could use the SENSE tool to further its objectives of improving sustainability performance, allow firms to demonstrate compliance or a track record for relevant and systematic data-keeping, or assess eligibility for finance. Many of the initiatives are at a developmental stage, and are therefore well placed to integrate the tool and adapt it to suit their needs.

4. Using the SENSE tool to support voluntary standards and certification schemes. This is potentially an important use for the tool, which covers the same criteria as many voluntary schemes, and could therefore be used either to demonstrate compliance or to show that firms have appropriate record-keeping systems in place and are conducting business responsibly. Schemes proliferate in all sectors and work at national, EU or global level. Examples in the sectors studied include GlobalGAP, the SGF Voluntary Control System, the Global Roundtable for Sustainable Beef, the Aquaculture Stewardship Council standards and the fruit juice CSR platform. Private standards run by retailers, manufacturers and food service companies are also important here.

2 Introduction

2.1 The need for the SENSE tool

Small and medium-sized enterprises (SMEs) comprise the great majority of food businesses in the EU, and struggle to find the time, knowledge or resources to meet rising demands for more sustainable production¹. The SENSE tool was designed to help meet the well recognised need for tools and methods to enable SMEs to participate in efforts to improve the environmental and social sustainability of the European food and beverage sector. Specifically, it uses simple technology and data which companies will easily be able to collect, to calculate products' environmental and social impacts at successive stages in supply chains.

It is intended to enable:

- SMEs to meet societal, supply-chain and policy expectations for greener products and performance;
- SMEs to extend market access by demonstrating both commitment and performance on environmental and social improvement;
- Downstream supply chain partners (eg manufacturers, retailers and food service customers) to assess suppliers' credentials and choose greener products, thus supporting sustainability and CSR goals;
- The EU food sector to demonstrate high environmental and social standards as competitive advantages in world markets;
- The furtherance of EU policy on Resource Efficiency / Sustainable Development (namely to move to greener production and pursue smart, sustainable and inclusive growth);
- The furtherance of EU policy in support of SMEs (the bedrock of the economy, but at risk of falling behind in the quest for greener production).

2.2 The aim of this Roadmap

An important objective of the SENSE project was to provide a Policy Implementation Roadmap to support the continuous development and adoption of the SENSE tool and methodology. The Roadmap builds on current EU policy on Sustainable Development, sustainable food supply chains, and SMEs. It also draws on the practical experience of project partners who developed and piloted the tool, and on research involving stakeholders in three food and drink sectors: aquaculture, meat and fruit juice. A Blueprint of the Roadmap was circulated for consultation, and this final version incorporates feedback.

It aims to summarize the policy context for the tool, describe the challenges that have emerged, and identify opportunities and synergies between the tool and other initiatives – whether public policy, voluntary certification schemes, company CSR policies, Good Practice codes, or other activities. It focuses on the EU level of policy and regulation. It is recognised that some regulation in both environmental and social realms is enacted at national level (and thus varies among Member States),

¹ COM (2007) 379 *Small, clean and competitive: A programme to help small and medium-sized enterprises comply with environmental legislation*. <http://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:52007DC0379&from=EN>

but there is nevertheless considerable harmonization – and the research found a desire for much more harmonization among voluntary schemes and standards, which the SENSE tool could facilitate.

It is hoped that by identifying these opportunities, the Roadmap will encourage SMEs, their customers, policy makers and others involved in supply chain governance to make use of the SENSE tool, as:

- a helpful monitoring tool in its own right, improving business efficiency and sustainability;
- a means of demonstrating compliance with public regulations or voluntary private schemes;
- a way of showing commitment, readiness and capacity to collect data on environmental and social impacts.

These efforts will improve both the competitiveness of food SMEs and the sustainability of the food supply in the EU.

3 About the SENSE tool

The SENSE tool allows SMEs to calculate the environmental and social impacts of their products, using criteria which are widely considered to be highly relevant to food sustainability. The tool is web-based – users access it with a personal log-in via their own computers and input their own data (which remains confidential). The data collected covers ‘Key Environmental Performance Indicators’ or KEPIS, which encompass the use of raw materials, water and energy, farming practices (such as use of fertilizers and pesticides), as well as packaging and transportation. The software then calculates the product’s environmental impacts, e.g. carbon footprint, eutrophication and acidification. The SENSE tool thus provides a common framework in which users from every stage of the supply chain are able to enter a simplified set of environmental data and compare respective environmental impacts. The results are reflected in an Environmental Identification Document (EID), identifying the most critical and relevant sustainability information that should accompany a food item through the supply chain. Social impacts are scored separately.

The tool uses a simplified version of environmental and social lifecycle assessment (LCA and S-LCA) methods, specifically tailored to the requirements and capabilities of SMEs. The tool is designed to be flexible enough to accommodate different products and production processes. The criteria (Table 1) are similar to those used in many public and voluntary schemes to measure environmental and social performance.

Table 1: Indicators used in the SENSE tool to compile a snapshot of sustainability performance

Environmental:	Social
Abiotic resource depletion	Labour rights
Climate change	Working conditions
Freshwater ecotoxicity	Impacts on local communities
Human toxicity (cancer and non-cancer effects)	
Land use	
Soil acidification	
Terrestrial, marine and freshwater eutrophication	
Water resource depletion	

4 The policy context

4.1 SMEs in the EU food supply

The EU food and beverage policy terrain is both complex and heterogeneous, with around 17 million holdings and enterprises in all. These make up an important element of the EU economy, employing more than 48 million people (more than one fifth of the EU's workforce), and generating around 6% of GDP. With a turnover of close to 1 trillion EUR, food and beverage processing is the largest manufacturing sector of the EU economy and also the leading employer, with 4.1 million.²

SMEs, including micro-businesses, play an important role in the sector, accounting for 99% of food and beverage manufacturing enterprises, 49% of turnover and 63% of employment. Enterprises in this category include those with fewer than 250 employees (medium), 50 (small) or 10 (micro).³ Research for this project confirmed that SMEs vary widely in scale, activities and conduct. A large majority of SMEs in the food supply chain are micro-enterprises: across the EU, the average number of employees per company in the food sector is 15.⁴

The food sector is exceptionally diverse compared to many other industrial sectors, presenting a challenge for both regulation and the development of generic tools such as SENSE.⁵ This diversity can be seen in the size and nature of companies; the wide range and numerous combinations of raw materials, products and processes involved; the production of both intermediate and finished products; and the production of both homogenized global products and specialist or traditional products on regional or national scales. All of these aspects are reflected in the three product chains involved in the development of the SENSE tool.⁶

The food and beverage sector is one of the most regulated in the EU, both in terms of public laws and a proliferation of voluntary schemes and standards. In light of this, and especially with reference to Commissioner Juncker's stated intention to reduce the regulatory burden on SMEs⁷, it is important to stress that the *SENSE tool is not another regulation or standard* with which SMEs must comply. Rather, it is *a tool that enables SMEs to measure their own performance* and thus demonstrate awareness of or compliance with legislation and schemes operating in the sector; and also to benchmark and compare performance over time or between enterprises.

4.2 Food policy for sustainability

It is now beyond argument that to meet Europe's complex social needs, to mitigate climate impacts, to remain competitive in global markets, and above all to protect the natural resource base on which

² Commission Staff Working Document *A fitness check of the food chain, state of play and next steps*. SWD (2013) 516, http://ec.europa.eu/food/food/foodlaw/docs/st-17996_en.pdf

³ As defined in EU recommendation 2003/361; annual turnover may also be used as a measure.

⁴ Commission Staff Working Document *A fitness check of the food chain, state of play and next steps*. SWD (2013) 516

⁵ EC (2006) *Integrated Pollution Prevention and Control: Reference Document on Best Available Techniques in the Food, Drink and Milk Industries*, http://eippcb.jrc.ec.europa.eu/reference/BREF/fdm_bref_0806.pdf

⁶ EC (2006) *Integrated Pollution Prevention and Control: Reference Document on Best Available Techniques in the Food, Drink and Milk Industries*: http://eippcb.jrc.ec.europa.eu/reference/BREF/fdm_bref_0806.pdf

⁷ 'A New Start for Europe: My Agenda for Jobs, Growth, Fairness and Democratic Change ; Political Guidelines for the next European Commission', Opening Statement in the European Parliament Plenary Session, Jean-Claude Juncker, 15 July 2014, [Juncker_politicalprinciples_May2014.pdf](http://ec.europa.eu/juncker/politicalprinciples_May2014.pdf)

all productivity and prosperity ultimately depend, the EU's food supply must become 'greener'. Sustainability is therefore a 'critical objective' for the EU food industry⁸. This has been defined by the EU as:

- The need to ensure adequate supplies of food for human requirements;
- The need to ensure that human activities in the food processing industry and in the primary production sector are consistent with the requirement of protecting the environment;
- The need to provide employment designed to give a good standard of living and working conditions⁹

There is no single policy setting out the path to sustainable food production and consumption. Rather, the requirement for sustainable development (SD) has been 'mainstreamed' as a priority in many of the agendas and implementation groups that influence the food supply. These include the Common Agricultural Policy and Common Fisheries Policy, the policy framework on climate change, the overarching policy for economic and social development *Europe 2020*, the Flagship Initiatives on Resource Efficiency and on Industrial Policy, the Sustainable Consumption and Production (SCP) agenda (which gave rise to a number of initiatives in the food chain, including the Food SCP Roundtable), CSR policy (seen as key to enrolling business in SD policy) and more recently the proposal for a Circular Economy.

The EU's approach stresses that over the long term, growth, competitiveness, well-being and jobs all depend on the ability of EU businesses to *build SD into their core activities*. Key to this process has been the development of methods for measuring, benchmarking, comparing and improving performance. These have included indicators, targets, standards, codes, labels, life cycle assessments and footprinting techniques. However, these approaches have often been beyond the means of SMEs. The SENSE tool helps fill this gap.

4.3 Policy for green SMEs

The EU's food supply depends on the successful operation of millions of food SMEs. It is well understood that while the overall transition to greener food production and consumption cannot take place without the participation of these small enterprises, they face particular difficulties in adapting to the demands of the green economy. This has led to a body of policy and research to help SMEs comply with environmental legislation^{10,11} or to 'enable SMEs to turn environmental challenges into opportunities',¹² culminating in 2014 in the Green Action Plan for SMEs.¹³ This set out a number

⁸ High-level Group on the Competitiveness of the Agro-Food Industry (2009) *Report on the Competitiveness of the European Agro-Food Industry*. Food Industry Unit of DG Entr. HLG007, p16

⁹ High-level Group on the Competitiveness of the Agro-Food Industry (2009) *Report on the Competitiveness of the European Agro-Food Industry*. Food Industry Unit of DG Entr. HLG007, p23

¹⁰ COM(2007) 379, *op. cit.*

¹¹ Planet S.A.-Danish Technological Institute (2010) *SMEs and the environment in the European Union*. Report prepared for DG Env

¹² COM (2008) 394 p4, *'Think Small First': A 'Small Business Act' for Europe*. <http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=COM:2008:0394:FIN:EN:PDF>

¹³ COM (2014) 440 *Green action plan for SMEs: Enabling SMEs to turn environmental challenges into business opportunities*. <http://ec.europa.eu/transparency/regdoc/rep/1/2014/EN/1-2014-440-EN-F1-1.Pdf>

of practical and financial measures¹⁴ which may help the implementation of the SENSE tool, discussed in more detail in Section 6.

4.4 Voluntary and multilateral governance for sustainability

Contemporary governance has been marked by a shift away from top-down regulation by states or the EU, towards a 'softer' approach, in which companies, sectors or external organisations such as civil society groups set rules and standards for various aspects of business behaviour. The environmental and social impacts of business have given rise to many such standards, schemes and labels (e.g. the Aquaculture Stewardship Council certification scheme, or the Fruit juice CSR platform). These 'voluntary' (as distinct from legally required) schemes often involve some form of verification (such as third-party certification), of which the costs are borne by the company wishing to be certified. They also generally require some form of reporting: firms are required to collect data on specified impacts (such as energy use, or worker health and safety measures), in order to be able to demonstrate performance and improvement to supply chain partners or consumers.

The idea that clear, consistent information on the environmental performance of products can enable purchasers to choose resource-efficient goods and thus raise standards underpins much voluntary and public policy for sustainability. It is also crucial to the success of the EU's single market for green products.¹⁵ The SENSE tool was designed to help SMEs meet this rising need for environmental and social impact data.

The shift to more pluralistic methods of governance has been accompanied by the emergence of policy guidance on sustainable practice from a range of multilateral bodies, such as the FAO's Sustainability Assessment of Food and Agriculture systems (SAFA)¹⁶ and the UN Global Compact Food and Agriculture Business Principles.¹⁷ This normative guidance – on topics such as water usage and management, environmental pollution, workers' rights and conditions and community impacts – is also supported by the SENSE tool.

¹⁴ SWD (2014) 213 *Green Action Plan list of actions*. <http://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1406033013367&uri=CELEX:52014SC0213>

¹⁵ COM (2013) 196 *Building the Single Market for Green Products: Facilitating better information on the environmental performance of products and organisations*. <http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=COM:2013:0196:FIN:EN:PDF89+>

¹⁶ http://www.fao.org/fileadmin/templates/nr/sustainability_pathways/docs/SAFA_Guidelines_Final_122013.pdf

¹⁷ https://www.unglobalcompact.org/docs/issues_doc/agriculture_and_food/FABPs_Flyer.pdf

5 Challenges for the tool

As already stated, SMEs face particular challenges when they try (or are required by regulation or downstream partners) to take steps to green their activities. Some of these have been identified in earlier policy and research, and others were identified in the research for this project, which explored both the experiences of project partners who tested the tool, and also the views of expert stakeholders.

5.1 Lessons from policy

Research has found that although a majority of SMEs think that their environmental impacts are negligible compared with the activities of larger companies, SMEs are estimated to be responsible for 60-70% of the environmental impacts of EU business.¹⁸ While around a quarter of SMEs take action to reduce their environmental impacts – mainly by reducing energy, materials use and waste in order to cut costs – less than 1% use a certified Environmental Management System.^{19,20} Moreover, the smaller the company, the less likely it is to have taken action to reduce environmental impacts – and a high proportion of food SMEs are micro-enterprises. Nevertheless, where such action is taken, it can make a significant difference, both to costs and to environmental effects.²¹ Although their *combined* impacts are substantial, SMEs are often not bound by environmental legislation such as the Industrial Emissions Directive (formerly Integrated Pollution Prevention and Control, IPPC)²² or the Emissions Trading System²³, because individually they fall below the thresholds that trigger these instruments.

SMEs face disproportionate financial and administrative burdens in keeping abreast of and implementing environmental legislation. Consequently, SMEs miss the chance to reap the rewards (in cost savings and greater productivity) of improved resource efficiency, and EU targets for reduced impacts are less likely to be met.

The main barriers facing SMEs have been found to be:

- Lack of awareness of environmental impacts;
- Lack of awareness of potential benefits of environmental management systems and lifecycle thinking;
- Inadequate local access to information, tools and training;
- Limited financial and human resources to deal with compliance;
- Short-term planning at company level;
- Limited market incentives / recognition for environmentally friendly behaviour.²⁴

¹⁸ Planet S.A. -Danish Technological Institute (2010) *SMEs and the environment in the European Union – Main report*. Report for DG Env, http://ec.europa.eu/enterprise/policies/sme/business-environment/files/main_report_en.pdf

¹⁹ *ibid*

²⁰ Flash Eurobarometer 381 (2013): *SMEs, resource efficiency and green markets: Summary*.

²¹ COM (2007) 379, *op. cit.*

²² <http://www.defra.gov.uk/industrial-emissions/eu-international/industrial-emissions-directive/>

²³ http://ec.europa.eu/clima/policies/ets/documentation_en.htm

²⁴ COM (2007) 379; COM (2014) 440, *op. cit.*

More fundamentally, SMEs may feel that the thrust of EU policy on sustainability is not appropriate to their needs and capacities, and can even obstruct their competitiveness. This is illustrated by the use of Corporate Social Responsibility (CSR) as a vehicle for the SD agenda. The EU now defines CSR as ‘the responsibility of enterprises for their impacts on society’.²⁵ An EU umbrella organisation for SMEs has criticised this approach for failing to take into account ‘the reality of SMEs’, and advocates instead the term ‘responsible entrepreneurship’.²⁶ One of the objections raised was the problem for SMEs of disclosing non-financial information – a lynchpin of many CSR and sustainability programmes, but often a difficult and costly exercise for SMEs.

5.2 Lessons from project partners

The SENSE project involved SMEs, trade associations, academic researchers, information technologists and others from several countries. In order to get a more practical understanding of the environment in which SMEs operate and the realities of using the tool, feedback was collected from project partners as part of the work for this Roadmap.

The research confirmed that SMEs are a very heterogeneous group, and that differences in size, technologies, operating conditions, country of operation and resources represent particular challenges for the adoption of sustainability schemes. In general terms, the adoption of a tool such as SENSE would be easier for bigger SMEs than for micro SMEs with fewer personnel or resources. Likewise, there are differences between food sectors. SMEs in the aquaculture sector are already dealing with a wider variety of sustainability standards compared to the juice and beef sectors.

The SMEs’ main priority was to overcome economic challenges and stay in the market. The SMEs involved in the project reported positive experiences of using the tool – they found it relatively easy to manage and able to provide useful information. However, since they were not used to life-cycle thinking, support was needed to ensure correct data entry into the tool. Persuading companies to invest their limited resources in sustainability programmes proved to be a challenge. A wide variety of schemes already exists, and companies may need to fulfil different sets of requirements to gain access to the market. The message from participants was that for companies to get involved in a new scheme there would have to be clear benefits. One possibility could be working synergistically with other similar schemes, as a way to simplify SMEs’ workload. Another important issue that was highlighted was the need for some kind of verification scheme, to ensure data reliability.

The final lesson concerned the importance of collaboration along supply chains. If a sustainability scheme is to be successfully adopted, different actors in the chain need to be involved. In particular, producers’ willingness to adopt sustainability schemes and practices is connected to actors further along the chain and their requirements. Ideally, therefore, any framework for the adoption of the SENSE tool would include producers, processors, retailers, consumers and policy makers.

5.3 Lessons from expert stakeholders

In addition to obtaining feedback from project participants (discussed in 5.2 above), research for the project involved interviewing expert stakeholders from each of the three sectors in which the tool was piloted: salmonid aquaculture, fruit juice and meat²⁷. The findings from 18 semi-structured

²⁵ COM (2011) 681 p6 *A renewed EU strategy 2011-14 for Corporate Social Responsibility*.

http://ec.europa.eu/enterprise/policies/sustainable-business/files/csr/new-csr/act_en.pdf

²⁶ UEAPME (2014) *Position paper on the European Commission’s Strategy on Corporate Social Responsibility 2011-2014*, http://www.ueapme.com/IMG/pdf/UEAPME_Position_Paper_-_CSR.pdf

²⁷ The tool was also piloted in the dairy sector, but the dairy sector is not covered in this Policy Roadmap, and dairy stakeholders were not interviewed.

interviews have informed the policy Roadmap (the findings are very briefly summarised in Annex 9.1).

The stakeholders were supportive of regulation for sustainability, and both public laws and voluntary certification schemes were felt to be useful, in different ways, in making progress towards greener production. Overall, it was felt that they had raised awareness of issues and driven up standards. The sectors studied were perceived to be highly regulated. Compliance costs and requirements were acknowledged to be a disproportionate burden for SMEs, and duplication of schemes was felt to be a problem by many (though not all) interviewees. There was wide support for including both environmental and social aspects of sustainability in a single tool, though stakeholders felt that this could present practical difficulties in terms of data collection, because of the sensitivity of the topics and the relative newness of the demand for this type of data.

The interviewees identified public policy makers, the large manufacturers and retailers who are SMEs' customers, NGOs and consumers as holding power in the supply chains studied. Since the SENSE tool does not (at present) communicate to consumers, this suggests that policy to boost uptake of the tool should target not just SMEs but also, crucially, the customers they supply. There was also a strong view that change could only be accomplished if stakeholders from the whole length of the chain, from primary producers at one end to final consumers (or even waste managers) at the other, were involved in programs for change.

A strong message to emerge from the interviews was that SMEs can only afford to risk investing in change if there is *either* a legal requirement to do so (in which case all businesses in the sector will have to do likewise) *or* there is a market incentive for doing so. For example, access to the supply chain of a large retailer could depend on compliance with a scheme; or compliance with a niche standard such as organic could offer access to a premium price; or changes could be seen to cut costs. The lesson for the SENSE tool, which is not a standard but a means of demonstrating responsible business conduct, is that uptake by small businesses is likely to depend on encouragement or requirement to do so from later stages in the supply chain.

This reinforces the importance of sustainability literacy along supply chains and among consumers. It also suggests that downstream partners – that is, the SMEs' customers: the processors, manufacturers and retailers, as well as policy makers – have an important role to play in not just demanding but also supporting and making possible sustainability performance and reporting by SMEs. Policy action to promote the SENSE tool should therefore be directed at the large brand owners, manufacturers, processors, retailers and food service companies that were identified as key gatekeepers between consumers and small-scale suppliers in supply chains.

Ease of use and cost were also important factors. The SENSE tool has been specifically designed to be easy to use by SMEs. Support with costs – such as training time or staff costs to cover data inputting – is dealt with below.

Finally, it was felt that the tool could help SMEs to communicate important and neglected messages about themselves to customers and regulators: as suppliers of food products, upholders of tradition, creators of employment and custodians of natural resources.

6 Routes forward

The objective of the SENSE project is to help food SMEs and their products to become greener, in order to:

- boost their efficiency, productivity and competitiveness;
- meet rising demand for green products;
- and further the EU's policy for the food supply of cutting negative environmental impacts, improving resource efficiency, enhancing wellbeing and becoming more sustainable.

A precursor, and often a prerequisite, for action in this area is *measurement*. The ability to measure, monitor and compare inputs and impacts, over time and between processes or products, is essential if improvements are to be made and best practice identified. The ability to track impacts is increasingly an entry-level requirement for markets where standards and certification schemes apply. In this context, the SENSE tool helps SMEs by providing a simple, low-cost method for measuring and monitoring environmental and social performance, using readily available data and covering criteria that are widely used in environmental and social impact assessment.

The tool has been developed and piloted. This section sets out what can be done next to enable it to be used most effectively.

6.1 Engage SMEs and promote 'sustainability literacy'

The widespread view, from SMEs, from past policy, from the experience of this project and from expert stakeholders, is that where SMEs are reluctant to take steps to reduce their environmental impacts, this is because:

1. They do not see these measures as being *relevant* to their own businesses;
2. They lack capacity (time, financial resources, staff) to *inform themselves* about problems and available solutions;
3. They lack capacity (time, financial resources, staff) to *implement* changes.

It follows that the first task of any effort to green SMEs – even before offering support with implementation – must be *to engage the SMEs in the process*. This means convincing the people who run and work in SMEs that the environmental issues they are being asked to act on have urgency, benefits and relevance for them.

Social measures tend to present bigger problems, both because SMEs in Europe tend to take the view that social issues such as pay and worker safety are well covered by EU and national regulations; and also because some issues in this area can be seen to trespass into sensitive or private areas – especially in micro-businesses, where trust and family ties can play an important part in company conduct. Nevertheless, social dimensions of sustainability are now seen to be inseparable from environmental aspects, and are frequently combined in sustainability guidance or reporting requirements. The SENSE tool follows widespread practice in combining reporting on environmental and social impacts, though the social component is separated in the score to recognise that social reporting is at a less advanced stage than environmental reporting.

Convincing SMEs that environmental and social business impacts are relevant and legitimate areas of concern is a complex task for all of society (which of course includes the people who make up SMEs, who are citizens and consumers as well as entrepreneurs). Policy makers can help by, for

example, routinely incorporating green awareness, or ‘sustainability literacy’, in vocational and academic qualifications and in professional development and training. Sustainability literacy should also be a component of all EU-sponsored business support. Large companies (which tend to have the resources to employ sustainability practitioners or consultants) can help by providing and funding sustainability literacy training for their SME suppliers.

6.1.1 Provide local, tailored, practical support for implementation

Following on from the above, the second imperative is to provide *practical support for implementation*.

Although the thrust of current policy is to reduce the burden of regulation in SMEs, demand for sustainability certification is increasing and is often, in effect, a requirement for market entry. Compliance costs – including the cost of becoming informed about problems, solutions and available technologies – can be prohibitive for SMEs. Meeting the EU’s ambitions for resource efficiency therefore depends on enabling SMEs to comply with sustainability standards and regulations. (Lack of provision for capacity-building was a criticism of the Green Action Plan for SMEs by UEAPME, an SMEs’ umbrella organization in Europe.²⁸)

The SENSE tool is designed to help SMEs meet rising demands for information on environmental and social impacts. It is easy to use, but does entail a cost, in time and money – staff need to learn how to input and update data, interpret the results, then allocate management and training time to initiate improvements. In pilot testing of the tool with companies, lack of capacity was the main difficulty mentioned by SMEs, who said they were already stretched to their limits. This reinforces the point that an important part of policy for implementing the tool consists of facilitating practical support.

6.1.2 Provide help with finding help

Practical measures that could be encouraged or facilitated by policy include provision of financial assistance (possibly via tax incentives or rebates), for example to cover staff or training costs, or to install IT systems or change equipment or working practices; or provision of practical support – for example mentoring, data inputting or free audits. It could come from public or private agencies, trade bodies, larger and better-resourced supply chain partners, academic institutions or civil society groups – all of these could be enlisted to help teach sustainability literacy and skills, or provide practical assistance with use of the tool.

A number of support mechanisms and funds are already available to help SMEs adopt greener practices, but finding and assessing them can be complex and time-consuming. Dedicated *support with finding appropriate help* may be a necessary precursor to helping SMEs implement sustainability changes.

6.1.3 Identify SMEs ‘trusted partners’

SMEs are preoccupied with their primary activities of producing food, and may perceive demands to change or monitor their activities as threatening and distracting. Support needs to be tailored to their needs (which vary by region and sector), and also delivered as locally as possible to reduce costs and increase relevance. This suggests that SMEs’ trusted partners, who share SMEs’ concerns and understand their problems, are best placed to mediate advice and support. These may be Chambers of Commerce, Trade Associations, SMEs’ support organizations or sectoral support associations at

²⁸ UEAPME (2013) *Position paper on the Green Action Plan for SMEs*,
http://www.ueapme.com/IMG/pdf/UEAPME_position_on_GAP_SMEs_December_2013_final.pdf

regional, national or EU level, or Producer Organizations (support for the latter is currently being strengthened). Local government and civil society groups may also be able to play a role. All these organizations can coordinate or deliver assistance to SMEs. One approach might be to follow the example of the environmental management tools EMAS and EMAS Easy (discussed below), which worked through clusters of organizations to facilitate dissemination and sharing of knowledge.

6.2 Use the SENSE tool to support EU policy

A fundamental priority for the EU is to enable food production and manufacturing to become more resource efficient and thereby more competitive, both within a Single Market for green products, and in global markets, where high sustainability standards can bring competitive advantage. The SENSE tool can help realize this agenda for food.

SENSE supports several EU policy streams and programmes, including resource efficiency and Sustainable Consumption and Production, industrial policy, climate policy, the CAP, the CFP and the 7th Environmental Action Plan. It also supports sectoral policies, such as the Guidelines for Sustainable Aquaculture and the Fruit Juice CSR platform. (Annex 9.2 lists key policies, both overarching and by sector, and highlights complementarity with the SENSE tool). By enabling food SMEs to measure their environmental and social impacts and work for continuous improvement on key impacts, the tool can help achieve policy objectives for these agendas in two critical, overlapping sectors: SMEs and the food supply. The following sections highlight some policy initiatives where the SENSE tool could be particularly useful.

6.2.1 Single Market for Green Products

Common methods for assessing and communicating products' 'green credentials'²⁹ are seen as fundamental to the smooth circulation of goods in the Single Green Market. The SENSE tool is one of a number of technologies being developed to meet this need. By enabling SMEs to collect data on key environmental and social performance indicators and then collate this information along supply chains, the SENSE tool fits into a policy framework that will eventually enable purchasers in supply chains, as well as final consumers, to choose products that embody high sustainability standards. *For policymakers*, SENSE is a tool that can be recommended in order to foster data collection by SMEs across relevant performance indicators, using a simplified version of well established standard LCA methodology. *For SMEs*, the SENSE tool is an easy-to-use system for collecting and presenting data that will increasingly be called for in green markets.

6.2.2 Policy for greener SMEs

As noted above (Section 3.3), supporting SMEs to become greener is a clear priority of EU policy, most recently laid out in the Green Action Plan for SMEs.³⁰ The SENSE tool fits squarely into this policy agenda, as a tool that allows SMEs to collect data and calculate impacts using widely accepted criteria and methodology. The communication on the Action Plan states that 'resource efficiency improvements ... require combining a value-chain approach with the implementation of complex technical solutions at company level'.³¹ The SENSE tool works at company level to collect data which then may be aggregated to calculate value-chain assessments. It provides companies with the specific and comparable data on which technical change can be based. The policy instruments outlined in the Action Plan are discussed in section 5.3 below.

²⁹ <http://ec.europa.eu/environment/eussd/smgp>

³⁰ COM (2014) 440 *op. cit.*

³¹ *Ibid*, p1

6.2.3 CSR

Corporate Social Responsibility has been seen by the EU as an important vehicle for raising sustainability standards among businesses. Although SMEs often do not have time to develop CSR programmes, most of their large customers have done so, and some of them include the ambition to draw more SMEs into supply chains. Funding, training and supporting suppliers in the use of the SENSE tool could form part of the capacity-building component of the CSR programmes of major manufacturers, processors and retailers, and would contribute to the overall greening of supply chains.

6.2.4 Policy frameworks on the agriculture, fisheries, resource efficiency, environment, water, packaging, waste, climate and pesticide use

The bulk of the EU's environmental legislation is managed through broad, normative policy frameworks as well as through legally binding Directives. The SENSE tool's Key Environmental Performance Indicators reflect the core concerns of these policies. The tool could be used to help implement these policies – for example, by providing regulatory or financial relief to participating SMEs reaching desired performance levels. Beyond this, anonymised data could be collated to provide a picture of performance across sectors or supply chains.

6.3 Work synergistically with other EU policy instruments

As noted, SENSE is one of several tools being developed by the EU for measuring and communicating businesses' environmental and social performance. To avoid duplication, it is important that these tools work synergistically where possible, and for data collection methods and criteria to be harmonized. SENSE allows companies to collect their own data, over a range of criteria used by a large number of schemes and standards. It could therefore be used in support of these schemes, either to demonstrate compliance, or to show that supplier SMEs are 'sustainability literate' and have established a track record for systematically collecting and using sustainability data.

6.3.1 Actions listed under the Green Action Plan for SMEs

The Green Action Plan for SMEs of 2014 was accompanied by a list of 34 EU actions, either planned or underway, to help SMEs adopt green technologies.³² The SENSE tool could support or be supported by several of them, including:

- The planned establishment of a European Resource Efficiency Excellence Centre, to benchmark SMEs' resource efficiency performance, share knowledge of technological options to increase resource efficiency, and assess their cost-effectiveness with a view to financing them;
- A campaign raising awareness of the positive benefits and opportunities offered by resource efficiency;
- A guide for managers of the European Structural and Investment Fund, highlighting support for projects that enable companies to take advantage of green markets (e.g. improving product environmental performance, or developing skills for adopting green business models);
- The updating of several SME-oriented websites of the European Commission, to direct SMEs more clearly to financial and non-financial support for improving resource efficiency;

³² SWD (2014) 213 *op. cit.*

- Various instruments to clarify and coordinate sources of finance for SMEs wishing to make improvements for resource-efficiency;
- Exploration of the possibilities for investment in SME innovation under the European Regional Development Fund and the European Maritime and Fisheries Fund;
- The promotion of green entrepreneurship and related business skills;
- Vocational training to tackle skills gaps;
- Better exploitation of the role of clusters in support of eco-innovative schemes.

These actions form part of a policy program that is still under development, and where the SENSE tool could be useful to:

- Provide company-level, sectoral and value-chain data from SMEs on environmental and social performance;
- Provide information for company-level or cluster-level funding applications;
- Demonstrate that companies applying for financial or non-financial assistance are ready and able to collect environmental data using robust, consistent and systematic methods.

With targeted and tailored financial and non-financial support, the instruments proposed under the Action Plan could address the *implementation challenge* identified by this and other projects, in which SMEs lack time, capacity and resources to make changes for sustainability, even where these might bring long-term advantages in productivity and resource efficiency.

They could also be used to address the *lack of engagement* highlighted by this and other projects, in which SMEs do not see business advantages in adopting green technologies or business practices, and more fundamentally do not see sustainability issues as relevant to their business. Awareness-raising campaigns and education, including vocational training, could be used both to make the business case for greening SMEs and to educate more generally for 'sustainability literacy', which may be a necessary precursor to uptake of either advice or solutions.

6.3.2 ENVIFOOD Protocol

As part of the drive to develop harmonised metrics for the impacts of food products, in 2013 the European Food Sustainable Consumption and Production Roundtable adopted the ENVIFOOD Protocol (1.0)³³. It represents an intermediate step between ISO standards, the European Commission's Product Environmental Footprint (PEF) (below) and product-specific rules. Covering similar criteria, the SENSE tool could be used to help companies collect and analyse the data required by the protocol. The SENSE tool expands on the Protocol by including social aspects of sustainability.

6.3.3 Product Environmental Footprint (PEF)

The Product Environmental Footprint (alongside the Organisational Environmental Footprint, OEF) applies the Protocol described above to specific sectors. PEFs are currently being piloted in several food chains, including feed for food-producing animals, fish, meat and dairy.³⁴ The SENSE tool might be used at company or level to collect data which could then be used for the PEF pilots.

³³ http://www.food-scp.eu/files/ENVIFOOD_Protocol_Vers_1.0.pdf

³⁴ http://ec.europa.eu/environment/eussd/smgp/pef_pilots.htm

6.3.4 Green Public Procurement

Green Public Procurement (GPP), whereby public authorities use their considerable expenditure on goods and services to select products with a lower lifecycle environmental impact, is potentially a useful instrument for increasing sustainability in the food supply. It allows governments at state and EU level both to lead by example and to boost demand for sustainably produced goods.³⁵ Public procurers are free to use the EU GPP criteria directly in tendering documents, and guidelines and criteria for food and catering services have been published.³⁶ Criteria overlap closely with those used by the SENSE tool. Research for this project found that SMEs have difficulty accessing public procurement supply chains. The SENSE tool could be helpful as a means for SMEs to demonstrate they meet GPP criteria, and that they are conducting themselves responsibly on social and environmental impacts and could qualify as 'approved suppliers' for GPP contracts. This would entail recognition of the SENSE tool by public authorities when setting tendering specifications.

6.3.5 Green EcoNet

Green EcoNet is a three-year (2014-2017), EU-funded project to boost the uptake of green business practices by SMEs across Europe.³⁷ It is building the first Europe-wide SMEs platform for knowledge-exchange on the green economy.³⁸ The platform will combine an online hub, including a searchable database of good practices, case studies and tools, with a series of dialogues and workshops. The EcoNet could disseminate knowledge and training on the SENSE tool.

6.3.6 EU Eco-management and audit scheme (EMAS) and EMAS Easy

Developed by the Commission in the 1990s, EMAS is another approach – a voluntary environmental management instrument that enables organizations to evaluate, report and improve their environmental performance. It requires registered companies to have an environmental policy in place, carry out annual updates, take remedial actions, evaluate them, and provide evidence that they comply with all applicable environmental legislation. Compliance is third-party certified, and a logo communicates compliance to the public. In 1996, the international environmental management standard ISO 14001 was recognised as a step towards achieving EMAS. Compliance is said to help reduce costs and risk, improve relations within organisations and with external stakeholders, and can also bring 'regulatory relief', whereby public authorities may relax regulatory requirements for EMAS-registered organisations.³⁹

However, initiating and maintaining a certified EMAS is challenging for SMEs, because it requires specialist knowledge and skills, is expensive, and takes considerable amounts of management time to assess the results and initiate changes. A methodology called EMAS Easy has been developed, to help small and micro enterprises take the first steps on the road to developing Environmental Management Systems.⁴⁰ Again, the SENSE tool could be used in support, by enabling companies to collect some of the data required by Environmental Management Systems, using a tool under their own control.

³⁵ COM (2008) 400 *Public Procurement for a better environment*. <http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=COM:2008:0400:FIN:EN:PDF>

³⁶ http://ec.europa.eu/environment/gpp/pdf/toolkit/food_GPP_product_sheet.pdf

³⁷ <http://project.greeneconet.eu/>

³⁸ <http://greeneconet.eu/>

³⁹ http://ec.europa.eu/environment/emas/tools/faq_en.htm#Section1Question1

⁴⁰ http://ec.europa.eu/environment/emas/tools/emaseasy_en.htm

6.3.7 Environmental Compliance Assistance Programme (ECAP)

The EU has in the past recognised the difficulties faced by SMEs in complying with environmental legislation, and introduced ECAP (as part of the ‘Small, clean, competitive’ plan⁴¹), to help reduce the burden on small companies. A review in 2010 found that although the ECAP had had some success, this was limited because, among other factors, SMEs’ environmental performance is not well understood or measured, and the tools for this are lacking.⁴² SENSE provides a tool for measuring SMEs’ environmental performance for products and supply chains, and potentially for sectors. The Green Action Plan for SMEs of 2014 has updated the EU’s proposed actions to help SMEs become greener; these are discussed in Section 6.3.1 above.

6.3.8 Competitiveness of Enterprises and Small and Medium-sized Enterprises (COSME)

COSME is the EU programme for the Competitiveness of Enterprises and Small and Medium-sized Enterprises (SMEs) running from 2014 to 2020 with a planned budget of €2.3bn.⁴³ It offers support to SMEs in areas such as access to finance, access to markets and policy coordination. This program could support the SENSE tool at various levels, from recognizing that the costs of green practices (for equipment, training, staff or changed working practices) qualify for support under competition and market-access agendas, to encouraging the use of the tool as a standardized instrument for green reporting by SMEs.

6.3.9 Enterprise Europe Network (EEN)

The purpose of the Enterprise Europe Network is to help small companies make the most of business opportunities, by connecting business support organisations. It has a dedicated agrofood sector group.⁴⁴ The services offered include help with finding technological solutions for SMEs, and sharing information about available technologies via its databases. The Network could thus help companies wishing to use the SENSE tool, and also help to disseminate information about the tool to SMEs looking for help with requirements for green reporting and data collection.

6.3.10 Executive Agency for Small and Medium Sized Enterprises (EASME)

EASME was set-up by the European Commission to manage on its behalf several EU programmes, including some elements of COSME and EEN, discussed above. Its remit includes initiatives on the environment and energy efficiency. SMEs’ actions in these areas are dependent on systematic and credible collection of relevant data. The SENSE tool could be recognised as a simple tool by which SMEs can assess impacts, as a qualifier for other schemes and initiatives.

6.3.11 Horizon 2020

Horizon 2020 is the EU’s principal research and innovation funding programme – the financial instrument implementing ‘Innovation Union’, one of *Europe 2020*’s flagship initiatives. The work stream on ‘Access to Risk Finance’ acknowledges that that lack of early-stage investment is a major factor blocking technology transfer and the commercialisation of research and innovation. It has a section on ‘Boosting the investment-readiness of SMEs’.⁴⁵ The ‘SME instrument’⁴⁶ aims to help SMEs

⁴¹(COM (2007) 379 *op. cit.*

⁴²AEA and Ecologic (2011)*First assessment of the Environmental Compliance Assistance Programme for SMEs*, <http://ec.europa.eu/environment/sme/pdf/First%20assesment%20of%20the%20ECAP%20for%20SMEs.pdf>

⁴³ http://ec.europa.eu/enterprise/initiatives/cosme/index_en.htm

⁴⁴ <http://een.ec.europa.eu/about/sector-groups/agrofood>

⁴⁵ http://ec.europa.eu/research/participants/portal/doc/call/h2020/common/1587761-06_accesstoriskfinance_wp2014-2015_en.pdf, p18

⁴⁶ <http://ec.europa.eu/programmes/horizon2020/en/h2020-section/sme-instrument>

to innovate in ways that boost global competitiveness; support includes grants for feasibility and demonstration, as well as free coaching.

6.3.12 Sectoral initiatives

Most of the initiatives mentioned here could apply to enterprises in all food sectors. However, some policy instruments are designed for specific sectors.

Of the three sectors studied, aquaculture stood out as having a number of targeted policy measures that could dovetail with SENSE.

The **European Maritime and Fisheries Fund**⁴⁷ (EMMF, one of five European Structural and Investment Funds) targets support to fishing communities or aquaculture enterprises wishing to operate more sustainably, by financing projects and also helping with access to finance. Within EMMF, Community-Led Local development (CLLD) supports community initiatives in support of sustainability.⁴⁸

In some areas, at a local level, **Fisheries Local Action Groups** (FLAGs) might be able to use the SENSE tool. These public-private partnerships work towards the sustainable development of their areas and manage Axis 4 funds to support fishing and coastal communities.⁴⁹ Benefits could include evidence at area level of environmental responsibility.

At higher level, the new (EU-funded, stakeholder-led) **Advisory Council (AC) for Aquaculture** could possibly play a role. Although it is not yet clear what its mandate will be, it is likely to incorporate environmental concerns, and the general rubric on the other ACs also covers socio-economic issues.

In the fruit juice sector, The EU Joint Research Centre is currently drafting a **Best Environmental Manufacturing Practices guideline (BEMP)**⁵⁰ for fruit juice processing. The SENSE tool could be used for data collection to develop and support this.

6.4 Use the SENSE tool to support voluntary standards and schemes

Voluntary certification schemes and standards have become common features of food supply chains, with a number of different schemes operating in each of the sectors studied. Although the focus of this Roadmap is European-level policy, many of the voluntary schemes operate globally or at national level. Collectively, these schemes offer an important opportunity for the SENSE tool. SMEs and other stakeholders involved in this project reported that complying with voluntary standards is costly and onerous for SMEs, especially where it involves duplicating work to satisfy different schemes. By enabling SMEs to compile and make available good-quality, consistent and comparable data covering the core topics (or Key Performance Indicators) common to many such schemes, the SENSE tool can help SMEs both to comply with specific schemes and also avoid the need for duplicate data-gathering.

Annex 9.3 lists some of the main schemes and highlights their complementarity to the SENSE tool. They are run by private standard-setting bodies, sectoral associations, multi-stakeholder organisations or NGOs. Not listed, but equally important, are the proprietary standards and contracts imposed by retailers, manufacturers and food service companies, which are very influential in food supply chains.

⁴⁷ http://ec.europa.eu/fisheries/cfp/emff/index_en.htm

⁴⁸ http://ec.europa.eu/fisheries/cfp/emff/clld/index_en.htm

⁴⁹ <https://webgate.ec.europa.eu/fpfis/cms/farnet/>

⁵⁰ <http://susproc.jrc.ec.europa.eu/activities/emas/>

One route for policy is to encourage scheme operators to recognize SENSE data (a form of cross-compliance or mutual recognition). Scheme operators might include retailers, manufacturers, food service companies, NGOs, or the organizations controlling (for example) GlobalGAP, the SGF Voluntary Control System, the emerging Global Roundtable for Sustainable Beef, or the Aquaculture Stewardship Council standards.

An example from the fruit juice sector might be SGF (Sure, Global Fair⁵¹), the trade association initially set up to protect safety and quality standards in the juice sector, which is increasingly turning its attention to environmental and social standards. SGF is currently reviewing its CSR Code of Conduct criteria: there is potential for SGF to support use of the SENSE tool for collection of data. The SENSE tool could also support the farm-level data collection and reporting agreement between Global GAP and SGF, as part of the Control Concept within the fruit juice industry which is currently being developed. Another emerging standard in the fruit juice sector is the CSR platform and Roadmap⁵², developed with EU funding but now continuing as an industry-led voluntary initiative with potential to mesh with the SENSE tool.

More generally, scheme operators or retailers /manufacturers / food service companies wishing to buy from SMEs could recognize that use of the SENSE tool shows that SMEs have (i) accepted the importance of collecting data on impacts and (ii) have put systems in place to collect this data consistently. This can be a token that these firms are 'standard-ready' – able and willing to fulfil the certification requirements of standards, manufacturers or retailers. Use of the SENSE tool can also show that firms are collecting data relevant to schemes such as ISO 14000, the FAO Sustainability Assessment of Food and Agriculture systems (SAFA) and the UN Global Compact Food and Agriculture Business Principles (FAB).

Another opportunity for synergy is presented by sectoral schemes operating at national level in supply chains, such as the Soft Drinks Sustainability Roadmap⁵³ or the RSPCA 'Freedom Food' welfare standard for farmed salmon⁵⁴ (both in the UK), or the Naturane environmental standard for fruit and vegetable production (run by Anecoop in Spain).⁵⁵

A powerful trend in global food supply chains – strongly supported by the research for this project – is the impetus for *harmonisation* among standards and schemes. In the seafood sector, the multistakeholder Global Sustainable Seafood Initiative (GSSI) is attempting to benchmark proliferating certification and labelling schemes. Another ambitious example is the multi-stakeholder Declaration of Abu Dhabi, a global collaboration among large food corporations and other stakeholders to develop a common set of 'good agricultural practices' (G.A.P.) criteria that defines 'safe, environmentally sustainable and socially responsible agriculture and aquaculture'. The criteria will draw upon existing standards and assessment tools.⁵⁶ By enabling SMEs to collect and benchmark data across common criteria, the SENSE tool could help SMEs to access the supply chains these standards and initiatives will control.

Finally, there is a potential for the SENSE tool to be recognised as part of a sustainability certification scheme specifically tailored for SMEs. A similar scheme operates in the UK for food safety – SALSA,⁵⁷

⁵¹ <http://www.sgf.org/en/home/>

⁵² <http://juicecsr.eu/csr-platform>; http://juicecsr.eu/wp-content/uploads/2013/09/Fruit_Juice_CSR_Draft_Sector_Roadmap.pdf

⁵³ <http://www.britishsoftdrinks.com/Soft-Drinks-Sustainability-Roadmap>

⁵⁴ http://www.freedomfood.co.uk/media/15733/salmon_rspca_welfare_standards.pdf

⁵⁵ <http://www.anecoop.com/en/about-us>

⁵⁶ <http://www.declaration-of-abu-dhabi.org/about/>

⁵⁷ <http://www.salsafood.co.uk/>



Safe and Legal Supplier Assurance, which was developed specifically for food companies too small to take on BRC food safety certification. It allows them to demonstrate that they operate to standards that satisfy the requirements of major retailers and food service companies. Developing a parallel scheme for sustainability would require concerted effort and endorsement from the supply chain, but would give substance to large companies' claims that they wish to draw SMEs into their supply networks.

7 Concluding remarks

The SENSE tool provides a simple tool for food and beverage SMEs in Europe to record and analyse their environmental and social impacts. It uses information that is fairly readily available in most companies, and is designed to be easy and quick to use. As such, it allows SMEs to fulfil requirements for environmental and social reporting, increasingly demanded by buyers, certification schemes, regulators and financiers. By providing a consistent supply of basic data, across widely used criteria, it can prevent duplication of data-inputting, and demonstrate that individual SMEs have a track record of collecting environmental and social impact data and are competent to meet certification or other criteria. It could also help provide much-needed anonymised data on environmental and social performance across SMEs in the food and beverage sector.

It has been designed to fit with the grain of EU policy agendas for green markets and products, resource efficiency, environmental protection, decent work and competitiveness. It helps SMEs to take advantage of markets for green products, and supports efforts to create global markets for EU food and beverage products with demonstrably high sustainability standards. It thereby furthers EU policy for development that is smart, sustainable and inclusive.

The recommendations in this Roadmap – summarised in the next section – set out some steps by which the tool might be adopted, adapted and promoted, with the objective of embedding sustainability awareness and reporting in the core business practices of food and beverage SMEs.

8 Summary of key actions

Recommendation	Action	Relevant actors
<p>1. Engage SMEs, make the business case for change, promote 'sustainability literacy' and provide practical assistance</p>	<ul style="list-style-type: none"> • Make clear the businesses advantages of adopting green technologies and practices • Promote sustainability literacy • Provide local, tailored practical support for implementation • Provide help with finding help • Identify SMEs' trusted partners 	<p>EU and national policy makers, SMEs, their customers in manufacturing, retail and food service, trade associations, SME support agencies (such as those identified in the Green Action Plan for SMEs), academe / educators, civil society, consumers</p>
<p>2. Use the SENSE tool to support EU policy in various areas and sectors</p>	<ul style="list-style-type: none"> • Overarching policy for food, sustainable growth, competitiveness, resource efficiency • Single Market for Green Products • Green Action Plan for SMEs • Green Public Procurement • CSR • Policy frameworks on the environment, water, packaging, waste , climate and pesticide use • Sector-specific policies, such as the Strategic Guidelines for Aquaculture or the fruit juice CSR platform 	<p>EU policy makers, national legislators implementing EU policy, SME lobby groups, public procurers, CSR practitioners in large food companies buying from SMEs</p>

Recommendation	Action	Relevant actors
<p>3. Work synergistically with other EU policy instruments</p>	<ul style="list-style-type: none"> • Actions listed under the Green Action Plan for SMEs • ENVIFOOD Protocol • Product Environmental Footprint (PEF) • Green EcoNet • EU Eco-management and audit scheme (EMAS) and EMAS Easy • Environmental Compliance Assistance Programme (ECAP) • Competition of Enterprises and Small and Medium-sized Enterprises (COSME) • Enterprise Europe Network (EEN) • Executive Agency for Small and Medium Sized Enterprises (EASME) • Horizon 2020 • Sector-specific measures 	<p>EU policymakers, public officials implementing the initiatives mentioned, SME lobby groups and support groups, individual SMEs</p>
<p>4. Use the SENSE tool to support voluntary standards and schemes, at national, EU and global levels</p>	<ul style="list-style-type: none"> • Recognise SMEs using SENSE as responsible business partners; or use SENSE to demonstrate compliance. • Global schemes, e.g. ISO 14000, the FAO Sustainability Assessment of Food and Agriculture systems (SAFA), the UN Global Compact Food and Agriculture Business Principles (FAB). • Sectoral schemes e.g. GlobalGAP, the SGF Voluntary Control System, the Global Roundtable for Sustainable Beef, Aquaculture Stewardship Council standards • Private schemes run by retailers, manufacturers, food service companies 	<p>Supply chain partners – SME suppliers and their customers in manufacturing, retail and food service, scheme operators, trade associations, Producer Groups, local networks</p>

9 Annexes

9.1 Summary of responses from expert stakeholders

9.1.1 Expert stakeholders survey: Salmon Aquaculture

(If blank, not answered).

	A1. Technical adviser, producers' organization	A2. Manager, trade association	A3. Aquaculture officer, NGO	A4. Fisheries official, Member State government	A5. Sustainability officer, fish processor	A6. Consultant	A7. Policy adviser, NGO	A8. Scientific officer, Member State government
Q1 Are laws or private (voluntary) schemes more influential?	Private schemes more important.	Regulation more important. Schemes are 'icing on the cake'.	Schemes more important: prompted by deficiency of regulations, which are 'lowest common denominator'	Private schemes more important.	Both relevant. If a company produces for several countries, then schemes with a 'global presence' are useful.	Both are needed, and a carrot and stick approach is necessary.	Complement each other. Legislative framework creates 'level playing field'. Certification can go beyond this.	Depends on the topic. On the environment, EU laws dominate.

	A1. Technical adviser, producers' organization	A2. Manager, trade association	A3. Aquaculture officer, NGO	A4. Fisheries official, Member State government	A5. Sustainability officer, fish processor	A6. Consultant	A7. Policy adviser, NGO	A8. Scientific officer, Member State government
Q2&3: What have been the main impacts of regulations and schemes?	<p>Overall have raised both awareness and standards.</p> <p>Perceive sector as heavily regulated: 'there's always someone wanting money from fish farmers.'</p>	<p>The 'legislative driver' has made companies more aware of environmental impacts and responsibilities and improved performance.</p>	<p>Strong beneficial impact, eg Marine Scotland Act dramatically reduced number of seals shot by fish farms, and enabled farms to demonstrate responsible behaviour.</p>	<p>Laws not very influential: most important drivers are technology and the market. Schemes satisfy growing request for information from consumers.</p>	<p>Varies by country. In some places, schemes helpful – but tough regulations have also been shown to be effective. Chile didn't have them and saw the sector collapse. Enforcement important.</p>	<p>Low: if benefit would be that producers were getting a better price, being recognised and rewarded for what they are doing, then have failed.</p> <p>Producers = 'hostages to certification'.</p>	<p>Overall, the trend is to improve performance: compliance with schemes shows what can be done, and this raises level and becomes next legal minimum.</p>	

	A1. Technical adviser, producers' organization	A2. Manager, trade association	A3. Aquaculture officer, NGO	A4. Fisheries official, Member State government	A5. Sustainability officer, fish processor	A6. Consultant	A7. Policy adviser, NGO	A8. Scientific officer, Member State government
Q4 Is lack of harmonization a problem?	Yes. Companies comply with several different schemes, compliance is costly and time-consuming, but.	Yes: confusing for all parties, and creates extra work for producers. Also, different standard for different markets (e.g. US, EU).	Yes: very confusing. Lack of harmonization prompted the GSSI, which is trying to benchmark all the global schemes, but the process is contentious.	Not a big problem, though some harmonization would be welcome	Yes, current number can't be maintained. Companies will select one or two (probably ASC), or the schemes will harmonise.	Not a big problem: astute businesses realize that 80% of what the schemes cover is the same.	Yes, confusing. SSC is trying to address this.	Yes, fewer schemes and more harmonization would improve reputation of EU product.
Q5 Is it useful /relevant to include both social and environmental criteria in the tool?		Important to include social, as this would set the SENSE tool apart from other schemes. SMEs offer valued employment, but can't match large firms' peripheral benefits.	Depends – labour etc not relevant in Scotland, for example: covered by national laws. But impact on communities and animal welfare both important.	Important to include both, but varies by region: northern Europe, social and environmental issues better covered than in southern Europe.	Yes, important to combine, because they are complementary, but also more efficient to have a single audit.	Yes: concerns are labour practices at the SME level, and community relations	Yes, important for tool to include social issues. Strong public interest.	Inclusion of social data important, but difficult to collect.

	A1. Technical adviser, producers' organization	A2. Manager, trade association	A3. Aquaculture officer, NGO	A4. Fisheries official, Member State government	A5. Sustainability officer, fish processor	A6. Consultant	A7. Policy adviser, NGO	A8. Scientific officer, Member State government
Q6 Who are the most influential stakeholders?	Retailers and consumers have power.	Power lies with the retailer. They influence the processors. But retailers influenced by consumers.	Government most important: it is keen to support the sector, at expense of environmental concerns.	Retailers most important: they sell a very large proportion of fish sold in EU. NGOs also powerful.	Government is key, then NGOs, then retailers and their customers. All have influence.		Government, industry, NGOs, the public all wield power.	Big companies dominate.
Q7 What are the main challenges for SMEs to improve performance & reporting?	Farmers will use it if it will make a difference to where they can sell their products, if it's the requirement of a particular retailer, or if it's going to give them an advantage in selling their fish'. Doubtful they would use it for internal monitoring	Schemes and certifications can add value, show farmed fish's environmental credentials, especially compared to other proteins. Cost of implementing would be main barrier. More useful as B2B than B2C.	For SMEs in this chain, which is dominated by big players, cost is the dominant factor.	Cost, capacity and also some producers' disconnection from what the market wants: it wants sustainability but producers don't have time for it.	A simple, accessible LCA tool would be a great benefit for SMEs, especially if it was free. But they would still need time to learn how to use it. It requires 'people with a special type of attitude' to consider this relevant.	Sounds laudable, but farms lack time, expertise. To succeed, tool must be credible. Plus, despite calls for transparency, some information must remain proprietary.	Has potential, but depends what controls are in place to ensure input information is accurate and reliable. Otherwise – if abused – would just add to confusion. Good quality audit necessary.	It would be necessary to show the benefits to the companies. In micro-enterprises (common in the sector) levels of knowledge and management low: they would need to be supported to use a tool like SENSE.

	A1. Technical adviser, producers' organization	A2. Manager, trade association	A3. Aquaculture officer, NGO	A4. Fisheries official, Member State government	A5. Sustainability officer, fish processor	A6. Consultant	A7. Policy adviser, NGO	A8. Scientific officer, Member State government
Other comments	GPP not important in this sector. Peer pressure powerful: maybe if a few did it, others would follow.	Cost of compliance may have been factor in massive consolidation of recent years. Producers could increase vegetable content in the diet, but the retailers restrict this because of nutritional concerns.	Environmental performance of aquaculture varies between EU states: SENSE tool most useful where environmental standards are currently least developed.	Key issues are lack of innovation, lack of market awareness and lack of cooperation both between companies and along the whole chain.	'If you set aside the feed part ... fish farming 'has a great story to tell'. Fish are very efficient, sites have relatively low carbon footprint. Tools that help to communicate that story are very useful.	Farms have reputation for polluting, but aquaculture has good environmental credentials: if feed comes from certified sources, it is the most responsible system for producing animal protein.		The big policy issues for EU aqua vary depending on region. National laws (eg on planning) in some cases very cumbersome and obstructive.

9.1.2 Expert stakeholder survey: Fruit juice

(If blank, not answered).

	F1. Assurance officer, fruit processing co-op	F2. Quality officer, bottling company	F3. Technical officer, bottling company	F4. Sustainability manager, fruit processor	F5. Quality officer, brand manufacturer
Q1 Are laws or private schemes more influential?	Now more driven by regulation, e.g. pressure from government to reduce GHG, water intake, energy use. A lot of variation between countries and even regions – eg, noise levels near sites. Also between markets, e.g. EU and US.	Both are important.	Certification schemes more important.	Certification schemes are more important.	Both are important.
Q2&3: What have been the main impacts of regulations and schemes?	IN EU, most issues covered by laws, both environmental and social. Schemes can be anti-competitive, because the costs of certification (maybe one third of an SME's net income) exclude some firms from participating in market.	Not drivers of sustainability: 'If things are improving, it's not because of the laws'.	Cumulatively, the various initiatives have driven standards up – 'if you've got standards, if you've got people checking, it drives performance'.	They have the effect of making companies aware of the issues, and consequently being more careful about the farmers they source from.	Has created an industry of certifiers.

	F1. Assurance officer, fruit processing co-op	F2. Quality officer, bottling company	F3. Technical officer, bottling company	F4. Sustainability manager, fruit processor	F5. Quality officer, brand manufacturer
Q4 Is lack of harmonization a problem?	Yes, because it piles costs onto producers. SAI aimed to reduce audit burden on small-scale producers.	Yes it is a problem, but achieving harmonization is difficult – e.g., would be hard to get Fairtrade and organic into same standard.	Yes. Standardization is very desirable, and whereas for safety there is the Global Food Safety Initiative, there is no equivalent for sustainability. AIJN CSR platform trying to establish ‘gold standard’ for CSR in the sector.	Yes, there is a lot of duplication of effort.	Yes. There are many companies now offering certification services. Hard to choose among them. AIJN CSR platform trying to harmonize CSR criteria.
Q5 Is it useful /relevant to include both social and environmental criteria in the tool?	Yes, important to have both. Relevant social concerns = price / pay, and safe working conditions.	Yes, this is important, though will mean more work. ‘Just at beginning of journey’ on collecting social data on supply chains.	Yes, very important to integrate social and environmental impacts.	It is important to integrate social and environmental impacts, but relevant social issues vary by region. Some social issues, such as pay, are sensitive areas – data collection can be difficult.	In EU, social aspects adequately covered by regulation, but gap between EU and supplier countries. In principle a good idea to combine social and environmental impacts in one tool, but practical difficulties may be too great.
Q6 Who are the most influential stakeholders?	The brands are powerful, as are consumer organizations.	The law is the most powerful factor. Hence efforts to lobby, to shape laws.	Customers – ie in this case the retailers and brand manufacturers – are the most influential stakeholders.	Retailers and EU-level government are most important: ‘definitely not the farmers’.	NGOs are powerful, as are retailers, big manufacturers and trade associations.

	F1. Assurance officer, fruit processing co-op	F2. Quality officer, bottling company	F3. Technical officer, bottling company	F4. Sustainability manager, fruit processor	F5. Quality officer, brand manufacturer
Q7 What are the main challenges for SMEs to improve performance & reporting?	The main barrier is finding information and having time to assess it: 'Keeping on top of this can be a full time job'. One way round this is for big companies to share best practice via platforms. The best incentive is to show it adds value and saves money.	Main concerns in the supply chain are food safety and hygiene – not covered by tool. Difficult for a generic tool to provide meaningful data on individual products / sites. Uniqueness of each operation makes benchmarking unwelcome.	Main challenges – the need to understand what's required, then cost in terms of data collection, recording, processing, then management time to run improvement programmes. To promote uptake: share best practice, help SMEs to change equipment, change working practices; possibly give financial incentives such as tax breaks. Expert support, mentoring, free audits.	Time, cost, capacity would be barriers. But also – what is value of 'putting a number' on these issues? It will be meaningless to many people. Difficult and costly to implement: a firm might have 500 different product lines, when all permutations of packaging, transport, sourcing taken into account.	Cost and time are always factors, for companies of any size. Possible large companies might use tool to benchmark individual factories. But danger that it duplicates existing tools or services.
Other comments	Firms whose brand is visible to consumers more likely to participate in schemes, to demonstrate credentials. Safe working conditions need to be prioritized in this supply chain both within and outside EU.	'We are unique and our business is not comparable to other factories.' Too much complex data to be compressed into a single figure.	'What the customer wants defines what we do'.	'I would rather spend time and energy improving things than on measuring things'	Important for SENSE tool to complement other schemes, such as BIER, rather than just add another one. Very important to involve whole supply chain in platforms, etc: at present 'there's a table, but it's not yet round'.

9.1.3 Expert stakeholder survey: Meat

(If blank, not answered)

	M1. Quality assurance scheme	M2. Meat processors' association	M3. Livestock & Meat Trading Union	M4. Bacon and meat council	M5. Beef sector officer –DG Agriculture and Rural Development
Q1 Are laws or private schemes more influential?	Laws and regulations are important, but it is moving towards standards and certification schemes.	Business follows regulations and regulations follow standards (e.g. ISO).	Regulations because they are mandatory. Private schemes might have a high impact but are isolated initiatives.	Sustainability is more influenced by the economic situation.	Laws/regulations set a baseline and then the standards generate further improvements. Regulations and private standards are equally needed.
Q2&3: What have been the main impacts of regulations and schemes?	<p>Companies need to make sure of compliance, so regulations and schemes will determine investments and procedures.</p> <p>Social issues do not have an impact because they are already covered by current legislation.</p> <p>Quality schemes have built-in environmental criteria.</p>	<p>Regulations determine investments to comply with regulation.</p> <p>Social issues treated differently among member states.</p> <p>Beef industry is labour-intensive, so social performance could be good.</p> <p>Retailers have their own private standards that providers need to fulfil.</p>	<p>Regulations and standards are different at each step of the chain; different activities mean different priorities.</p> <p>Baseline for social aspects in Europe is very good.</p> <p>The meat sector is the most regulated food sector.</p>	<p>Legislation in some countries is more advanced than in others.</p> <p>Social issues are treated at a national/country level.</p> <p>All retailers have some sort of sustainability scheme/requirements that companies need to fulfil.</p>	<p>All the regulations needed for the beef sector are included in the CAP, which covers environmental, social and other aspects of production.</p>

	M1. Quality assurance scheme	M2. Meat processors' association	M3. Livestock & Meat Trading Union	M4. Bacon and meat council	M5. Beef sector officer –DG Agriculture and Rural Development
Q4 Is lack of harmonization a problem?	Yes, it makes it hard to compare among different results.	We need harmonization but before that we need to discuss what is relevant. The most important is not to oversimplify.	Different methodologies can cause different results and that could generate confusion and mistrust among consumers.	Does not foresee harmonization in the near future, for practical reasons.	Not necessarily. Harmonization could be good but it needs to take into account regional, country and local issues. It is important to consider that not all products are the same.
Q5 Is it useful /relevant to include both social and environmental criteria in the tool?	Yes, then you will have a much more complete picture.	Yes, we need to represent the truth more accurately.	Ideally yes, but in reality not sure it is feasible. Also, social aspects are perhaps more important outside EU.	Environmental aspects are already hard to balance, if you add social aspects it becomes even more difficult.	Environmental and social issues are very connected, so in a way one cannot deal only with one of them.

	M1. Quality assurance scheme	M2. Meat processors' association	M3. Livestock & Meat Trading Union	M4. Bacon and meat council	M5. Beef sector officer –DG Agriculture and Rural Development
Q6 Who are the most influential stakeholders?	<p>Customers are the main drivers of sustainability; previous steps in the chain follow market signals.</p> <p>At a country level governments shape policy to meet commitments.</p>	<p>NGOs create pressure to fulfil standards and regulations.</p> <p>Retailers ask for standards but they do not pay for them.</p> <p>Sustainability comes about in the meat industry through regulation.</p> <p>All stakeholders have to cooperate, and that is missing.</p>	<p>All stakeholders are needed in order to see what is feasible and what is not.</p> <p>Retailers are in a privileged position because there are in touch with consumers and due to their economic power, but without all actors sustainability will not happen.</p>	<p>There is a role for everyone and all have to be involved.</p>	<p>All actors are equally important and have to be involved. From producers using sustainable practices to consumers willing to pay for sustainable products.</p>
Q7 What are the main challenges for SMEs to improve performance & reporting?	<p>We need to work at farm level, because the majority of the impacts are there.</p> <p>Monetary issues.</p> <p>To have a programme that can be manageable, in terms of SMEs' resources</p>	<p>A challenge is to have real figures, how to get an accurate picture of reality, and show that the meat industry has some positive features.</p>	<p>Costs are a problem, especially for SMEs.</p> <p>It is important to consider usability and to avoid oversimplification. Also to create a tool that is usable in different countries.</p>	<p>We have competitors outside Europe that are working to more lenient environmental legislation. There is a risk of oversimplification or lack of accuracy. Environmental impacts should follow the same methodology, otherwise we could mislead consumers.</p>	<p>The main challenges for SMEs are having the resources and the financial means. SMEs need to maintain their income or profitability, they need to stay in the market. Sustainability is a complex issue and that could be a challenge.</p>

	M1. Quality assurance scheme	M2. Meat processors' association	M3. Livestock & Meat Trading Union	M4. Bacon and meat council	M5. Beef sector officer –DG Agriculture and Rural Development
Other comments	A more efficient use of resources (water, energy) triggers both environmental and social improvements.	The meat industry has low credibility, and downstream actors (retailers, consumers) do not pay for environmental improvement. LCA methodology was imposed through regulation, but does not necessarily represent real sustainability.	The Retail Forum was not a success because it did not involve all actors in the chain. The ERSCP is more inclusive and can achieve better results.	The main issue right now for the industry is economic sustainability.	Does not see the complexity of the chain as a problem, it has actually facilitated access to different (more varied) products.

9.2 EU public policy supported by the SENSE tool, overarching and by sector

9.2.1 Overarching policies (applicable to all sectors)

Policy	Objectives furthered by the SENSE tool	Main sources
Europe 2020	To achieve smart, sustainable inclusive growth: a more resource-efficient, greener economy, based on knowledge and innovation, fostering high employment	COM (2010) 2020
Resource efficiency	To build an economy based on resource-efficient production and consumption, i.e., making most efficient use of resources and doing least possible environmental damage along production life cycles; to create market and policy incentives to reward business investment in resource efficiency; to enable businesses to account for natural capital and ecosystem services	COM (2011) 21
Industrial policy	To strengthen manufacturing sector; to support and 'internationalize' SMEs; to take whole-supply-chain approach	COM (2010) 614
Climate and energy policy framework	To reduce GHG emissions, improve energy efficiency and increase share of renewables	http://ec.europa.eu/clima/policies/2030/index_en.htm
Common Agricultural Policy	To achieve more sustainable agriculture, paying attention to resource base, GHG emissions, land management, biodiversity, and animal and plant health; to improve competitiveness through high sustainability standards. Cross-compliance requires subsidy-recipients to show compliance with regulation on environment, soil protection, water management	COM (2010) 612
7 th Environmental Action Plan + environmental regulation	To become a resource-efficient, green and competitive low-carbon economy; to improve the environmental performance of goods and services; to assist SMEs in particular with uptake of new technologies	OJ 28.12.13 L 354/171-175;
Integrated Pollution Prevention and Control (IPPC) Directive, replaced by Directive on Industrial Emissions (IED)	To control emissions or discharges to water, air or soil from high-polluting sources. Targets industrial activities such as food production and non-industrial activities such as livestock production	Directive 96/61/EC Directive 2010/75/EU http://ec.europa.eu/environment/industry/stationary/ied/legislation.htm
Green Action Plan for SMEs + policy to help SMEs comply with environmental legislation (Environmental Compliance Assistance Programme for SMES (ECAP))	To help SMEs achieve resource efficiency improvements in order to reduce production costs, improve productivity and access markets for green products; and to help EU meet environmental targets	COM (2014) 440 COM (2007) 379

Policy	Objectives furthered by the SENSE tool	Main sources
CSR	To promote and foster responsible business conduct; to encourage businesses to integrate social and environmental concerns into core strategies, including by self-regulation	COM (2011) 681
Single Market for green products	To facilitate better information on the environmental performance of products; to enable purchasers to choose resource-efficient products, based on clear environmental information	COM (2013) 196
Green Public Procurement	To enlarge markets for environmentally friendly products; to encourage development of harmonized methods for comparing products' environmental credentials	COM (2008) 400
Circular economy	To 'design out' waste throughout value chains, by reducing use of materials, energy, waste	COM (2014) 398
Water usage, quality and management	To safeguard the aquatic ecology, valuable habitats, drinking water resources and bathing water; to control pollution and guarantee a minimum chemical standard for all surface water	COM (2012) 673; http://ec.europa.eu/environment/water/water-framework/index_en.html
Packaging and packaging waste	To prevent or reduce the impact of packaging and packaging waste on the environment, with targets for recovery and recycling of packaging waste	Directive 94/62/EC, Directive 2004/12/EC
Sustainable use of pesticides	To reduce the impacts of pesticide use on human health and the environment, including the aquatic environment; to measure and monitor the use of pesticides; to ensure appropriate training for pesticide handlers	Directive 2009/128/EC
EU Eco-Management and Audit Scheme (EMAS)	To enable companies to evaluate, report, and improve their environmental performance	http://ec.europa.eu/environment/emas/index_en.htm
Product Environmental Footprint (PEF)	To establish a common methodology for measuring products' environmental footprints, in order to facilitate the choice and exchange of green goods in the Single Market	http://ec.europa.eu/environment/eusds/smgp/dev_pef.htm

9.2.2 Sectoral policies: Salmon aquaculture

Policy	Objective furthered by the SENSE tool	Main source
Common Fisheries Policy	To uphold environmental, social and economic standards for the farmed-fish industry	Regulation (EU) number 1380/2013
Guidelines for sustainable aquaculture	To ensure the environmental sustainability of EU aquaculture; to increase competitiveness due to high environmental standards	COM (2013) 229 COM (2009) 0162
Marine Strategy Framework Directive	To protect and conserve the marine environment and prevent its deterioration	Directive 2008/56/EC

Policy	Objective furthered by the SENSE tool	Main source
Product Environmental Footprint (PEF)	See above – aquaculture included in pilot phase of PEF	http://ec.europa.eu/environment/eussd/smgp/pdf/Fiche_fish.pdf

9.2.3 Sectoral policies: Fruit juice

Policy	Objective furthered by the SENSE tool	Main sources
EU Fruit Juice CSR platform and draft Roadmap	To integrate CSR concerns into fruit juice businesses' strategies and conduct; to build capacity among European fruit juice companies on CSR, to establish a common monitoring system	http://juicecsr.eu/csr-platform http://juicecsr.eu/wp-content/uploads/2013/09/Fruit_Juice_CSR_Draft_Sector_Roadmap.pdf

9.2.4 Sectoral policies: Meat

Policy	Objective furthered by the SENSE tool	Main sources
BREF: Best Available Techniques in Slaughterhouses and Animal By-products Industries	Regulates animal by-products and waste in food processing plants. Deals with energy consumption, water use, and emissions. Promotes use of Best Available Technologies (BAT).	http://eippcb.jrc.ec.europa.eu/reference/BREF/sa_bref_0505.pdf

9.3 Examples of voluntary schemes / guidelines complementing the SENSE tool, overarching and by sector

9.3.1 Overarching (applicable to businesses in all sectors)

Name	Type of scheme	Objectives supported by the SENSE tool
ISO 9000 (Quality management), 14000 (Environmental management)	Widely used private performance standards and certification	Criteria not specified, but to gain certification, companies must demonstrate (via records) that responsible quality and environmental management systems are in place, including systems for measuring performance ⁵⁸
FAO Sustainability Assessment of Food and Agriculture systems (SAFA) Guidelines version 3.0	Guidelines developed through multistakeholder consultation	To assess the impact of food and agriculture operations on the environment and people. Relevant criteria include water management, land use, materials and energy, labour rights and human health and safety ⁵⁹
UN Global Compact Food and Agriculture Business Principles (FAB)	Code and self-assessment tool	To enable companies of all sizes to assess performance against Global Compact's principles for responsible business behaviour. Relevant criteria include energy use and climate change, water use and management, waste management, chemical use, resource use, labour rights, workers' health and safety and community impacts ^{60,61}

9.3.2 Salmon aquaculture

Name	Type of scheme	Objectives supported by the SENSE tool
Aquaculture Stewardship Council standard (ASC)	Certification and labelling programme for sustainable aquaculture, developed through multistakeholder collaboration	To strengthen environmental and social sustainability in aquaculture. Relevant criteria include water quality and management, workers' rights and conditions, community impacts ⁶²
Global Aquaculture Alliance BAP standard	Best Aquaculture Practice standard for cage-raised salmon, run by GAA, an international aquaculture producers' trade association	To promote environmentally and socially responsible aquaculture. Relevant criteria include water quality and management, pesticide use, community impacts, worker rights and safety ⁶³
Friend of the Sea	Certification and labelling scheme for fish, including aquaculture	Criteria include habitat impacts, water management, use of harmful substances, carbon footprint reduction, and compliance with social criteria on labour, workers' rights and community impacts ⁶⁴

⁵⁸ <https://www.iso.org/obp/ui/#iso:std:iso:14001:ed-2:v1:en>

⁵⁹ http://www.fao.org/fileadmin/templates/nr/sustainability_pathways/docs/SAFA_Guidelines_Final_122013.pdf

⁶⁰ <http://www.globalcompactselfassessment.org/labour>

⁶¹ https://www.unglobalcompact.org/docs/issues_doc/agriculture_and_food/FABPs_Flyer.pdf

⁶² http://www.asc-aqua.org/upload/ASC%20Salmon%20Standard_v1.0.pdf

⁶³ <http://www.gaalliance.accountsupport.com/cmsAdmin/uploads/BAP-SalmonF-611S.pdf>

⁶⁴ <http://www.friendofthesea.org/aquaculture.asp>

Name	Type of scheme	Objectives supported by the SENSE tool
Global Sustainable Seafood Initiative (GSSI)	Multistakeholder effort to benchmark proliferating certification and labelling schemes in seafood sector	To create an agreed set of indicators for sustainable aquaculture. Relevant criteria include chemical use, and water quality and management ⁶⁵
GlobalGAP aquaculture standard	Industry-led standard for 'Good Agricultural Practice' in fish farming	To promote the sustainable production of farmed fish. Relevant criteria include environmental impacts and worker health and safety ⁶⁶
GlobalGAP Compound Feed Standard	Industry-led standard for 'Good Agricultural Practice' in the manufacture of compound feed	Mainly focuses on food safety, but criteria include worker health and safety, and responsible use of natural resources ⁶⁷
FAO Technical Guidelines for Aquaculture Certification	Freely available guidelines for the development of credible certification schemes for sustainable aquaculture	To promote environmentally and socially responsible aquaculture, and encourage corporate social responsibility in engaging small-scale farmers and other small-scale stakeholders in market chains. Relevant criteria include environmental integrity and workers' rights ⁶⁸

9.3.3 Fruit juice

Name	Type of scheme	Objectives supported by the SENSE tool
GlobalGAP fruit standard	Industry-led standard for 'Good Agricultural Practice' in fruit production and handling	To promote sustainable production of fruit. Criteria include soil management, pesticide use, waste and pollution management, worker health and safety ⁶⁹
Sustainable Agriculture Network (SAN) standard	Standard for sustainable agriculture, developed by coalition of non-profits	To promote sustainable agriculture and community development. Relevant criteria include water use and management, waste, soil management, chemical use, workers' rights and treatment, and community impacts ⁷⁰
Sustainable Agriculture Initiative (SAI) Principle and Practices for Sustainable Fruit Production, & Farm Sustainability Assessment version 2.0	Industry-developed standard for fruit production, and tool to help companies source sustainably produced agricultural raw materials, and farmers to assess their farms' sustainability	To facilitate sustainable production of fruit for the mainstream market in all regions of the world, including by small enterprises. Relevant criteria include soil, water, energy, waste, pest management, chemical use, treatment of workers, community impacts ^{71,72}

⁶⁵ <http://www.ourgssi.org/>

⁶⁶ http://www.globalgap.org/uk_en/for-producers/aquaculture/

⁶⁷ http://www.globalgap.org/export/sites/default/.content/.galleries/documents/131212_gg_cfm_cpcc_v2_1-2_Dec13_en.pdf

⁶⁸ <http://www.fao.org/docrep/015/i2296t/i2296t00.pdf>

⁶⁹ http://www.globalgap.org/export/sites/default/.content/.galleries/documents/120813-InfoKIT_FV_web_en.pdf

⁷⁰ http://www.san.ag/biblioteca/docs/SAN-S-1-1.2_Sustainable_Agriculture_Standard.pdf

⁷¹ <http://www.saipatform.org/uploads/Library/PPsFruit2009-2.pdf>

⁷² <http://www.saipatform.org/fsa/fsa-2>

Name	Type of scheme	Objectives supported by the SENSE tool
Water Footprint Network	Knowledge-sharing platform for sustainable water use	To reduce water use and water pollution, and maximise efficiency. Urges businesses to measure usage and aim for improvement over time ⁷³
BIER (Beverage Industry Environmental Roundtable)	Sectoral collaboration on standards and technologies	To monitor and reduce environmental impacts. Relevant criteria include water, energy & climate, waste recycling, sustainable agriculture and ecosystem services ⁷⁴
Bonsucro	Sustainability standard for sugarcane production and processing, run by multistakeholder organization	To promote measureable standards in key environmental and social impacts of sugarcane production and primary processing. Relevant criteria include climate change, chemical use, water management, energy use, waste, labour rights ⁷⁵

9.3.4 Meat

Name	Type of scheme	Objectives supported by the SENSE tool
GlobalGAP livestock standard	Industry-led standard for 'Good Agricultural Practice' in livestock rearing	To promote sustainable farming. Relevant criteria include worker health and safety, waste, water pollution and management, environment and conservation ⁷⁶
GlobalGAP compound feed standard	Industry-led standard for 'Good Agricultural Practice' in the manufacture of compound feed	Mainly focuses on food safety, but criteria include worker health and safety, and responsible use of natural resources ⁷⁷
Global Roundtable for Sustainable Beef (under development)	Principles and Criteria for sustainable beef production, developed by multistakeholder initiative	To promote sustainability in global beef value chain. Relevant criteria include air quality and emissions, land use and management, soil health, waste, energy use, worker health and safety, pay, community impacts ⁷⁸

⁷³ <http://www.waterfootprint.org/?page=files/CorporateWaterFootprints>

⁷⁴ <http://www.bieroundtable.com/>

⁷⁵ <http://bonsucro.com/site/wp-content/uploads/2013/02/Bonsucro-Production-Standard-v4.pdf>

⁷⁶ http://www.globalgap.org/export/sites/default/.content/.galleries/documents/130315_gg_ifa_cpcc_af_lb_cs_v4_0-2_en.pdf

⁷⁷ http://www.globalgap.org/uk_en/for-producers/cfm/

⁷⁸ http://grsbeef.org/Resources/Documents/GRSB%20Principles%20and%20Criteria%20for%20Global%20Sustainable%20Beef_091514.pdf