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ECO-MERCE

EMBEDDING SUSTAINABLE MARKETING IN E COMMERCE FOR AGRI FOOD

ECOMERCE SKILLS FRAMEWORK



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1. Introduction

1.1. ECO-merce Project

ECO-merce: Embedding Sustainable Marketing in e-commerce for Agri-food is a European funded project (Erasmus+) aiming at strengthening the capacity of agri-food producers and small and medium-sized enterprises (SME's) to apply sustainable marketing in e-commerce.

With increasing demand for both eco-friendly products and online grocery shopping, agri-food actors face several challenges in leveraging digital tools and sustainable principles for marketing. Within the ECO-merce project, the term "*sustainable marketing*" emphasises on the ethical, transparent, and eco-friendly aspects of the products when conducting marketing campaigns, going beyond sales and profits, and ensuring the promotion of agri-food products while balancing economic growth, environmental responsibility, and social impact. As consumers now expect transparency and instant access to products' insights (from ethical sourcing to environmental impact), agri-food producers face the raising challenge of having to adopt sustainable practices while communicating them in real-time and with credibility, resulting in a growing struggle to having to adapt to the twin pressures of sustainability and digitalization.

The ECO-merce project addresses these challenges by developing an integrated, value-based digital training program, aligning skills needs with consumer values within the European GreenComp and DigComp frameworks. The resulting ECO-merce framework, presented in this report, will guide the sustainable marketing training needed to enable agri-food producers to guide consumers towards sustainable products in the competitive e-commerce landscape. Agri-food actors will be better equipped to meet consumer demands and guide their choices for high-quality, sustainably sourced products, fostering trust and loyalty while contributing to reducing environmental impact.

1.2. What is the ECO-merce Skills Framework

The **ECO-merce Skills Framework** provides a practical and structured approach for supporting sustainable marketing in e-commerce within the agri-food sector. Developed through the integration of empirical evidence collected from producers and consumers and aligned with the GreenComp and DigComp European frameworks, the ECO-merce skills framework translates sustainability and digital competences into concrete skills that respond to the realities of agri-food actors.

The framework recognises that sustainable marketing goes beyond promoting products. It requires the ability to manage evidence, communicate transparently, use digital technologies responsibly, collaborate across value chains, and continuously adapt to evolving expectations and regulatory requirements. At the same time, the framework acknowledges the growing importance of consumer values, which increasingly influence in spending and purchasing decisions.

The **seven sustainable marketing skills in e-commerce identified in the framework** combine green competences, digital competences, and sector-specific capabilities identified through the needs analysis and competence lists of the ECO-merce project. As a result, the framework offers a comprehensive model that can support the development of training programmes, educational resources, and practical tools aimed at strengthening the capacity of agri-food actors to operate successfully in e-commerce.

The target users of the framework are **agro-food sectors educators and trainers**.

Within the ECO-merce project, the framework will serve as the basis for the development of learning modules, the implementation of training activities for educators and trainers, and the piloting programme involving agri-food actors.

Beyond the project, the framework provides a transferable and replicable reference model that can support lifelong learning and competence development across Europe. By strengthening sustainable marketing capabilities, agri-food actors can enhance consumer trust, improve competitiveness, and contribute to a more transparent, resilient, and sustainable marketing

2. Methodology

With the aim to support agro-food actors in developing sustainable marketing skills in e-commerce, the methodology of the ECO-merce skills framework was built on resources and materials developed in the previous stages of the project, namely ECO-merce Skills Analysis Report, ECO-merce Consumer Persona and Value Map Summary Report, ECO-merce Competence List.

2.1 Data Collection

First, ECO-merce partners conducted focus groups and interviews with producers and actors from the agri-food sector across different European countries in order to identify priority capability areas and skills that matter for agri-food actors seeking to integrate sustainable marketing into e-commerce practice. Data collection included:

- **Focus groups**: five online focus groups; a total of 28 participants
- **Producer survey**: online survey; a total of 50 responses
- **Interviews:** 2 in depth interviews with participants serving with distinct roles in the agri-food sector

To complement the data collected by producers and other stakeholders operating in the agri-food sector, a **comprehensive survey** was conducted with consumers across European countries to identify consumer persona profiles and sustainability value dimensions characterising them. The survey included demographic questions and a set of structured items regarding their spending and purchasing behaviours measured primarily on Likert-type scales (1-5). A total of 132 responses were collected with participation of consumers located in 9 European countries.

2.2. Data Analysis

During the second phase, the collected data were analysed using mixed methods:

- **Producers Skills and Competences Areas**

The analysis of the data collected in the focus groups was conducted using a thematic analysis which led to the identification of patterns at the level of themes and capability areas of focus groups

participants. This was further supported by a deductive coding structure, which was applied to organise a consistent data set (ECO-merce skills analysis report; pag.5)

Data collected from the producers' survey were then analysed using descriptive statistics. In parallel, data from the interviews transcripts and interview reporting templates resulted in detailed practice-based explanation and reasoning as well as a standardised synthesis of key points, capability implications, competence mapping, and issue-specific clarifications relevant for cross-source interpretation (ECO-merce skills analysis report; pag.5)

- Consumer persona and sustainability value dimensions

The data from the consumer survey were analysed using descriptive statistics which provided summaries about participants samples profiles, leading to the identification of a set of consumer persona. The sustainability values were further defined by thematic analysis and clustering of consumers responses which resulted in the definition of key elements characterising each dimension.

The analysis of the collected data was completed through a triangulation of the sources based on a comparison of patterns across the data sources (ECO-merce skills analysis report; pag.6).

- Relevant DigComp, GreenComp and Sector-specific competences

Finally, a cross-check analysis of both GreenComp[1] and DigComp[2] frameworks against producers' capability areas identified during phase 1 was conducted to identify relevant competences for the agri-food sector. The analysis was conducted by based on 3 main guiding criteria:

- Relevance: Each competence is examined in relation to the capability areas and recurring issues identified in the needs analysis.
- Practical fit: Priority is given to competences that could be meaningfully connected to the tasks, decisions, and communication demands faced by agri-food actors.
- Coverage: Attention is given to how far the competence captures the identified need directly, and where the fit remained only partial or required further sector-specific interpretation.

[1] The European Sustainability Competence Framework (GreenComp) is a reference model to support education for sustainability across all sectors of lifelong learning in response to the European Green Deal and the European Education Area, which both call for equipping learners with the competences necessary to contribute to the ecological transition.

[2] DigComp 3.0 is the European Digital Competence Framework. It is a standardise reference tool created by the European Commission and organised into 21 competences across five competence areas. DigComp is a model that can be adapted and tailored to specific uses, applications and contexts, allowing to serve multiple purposes

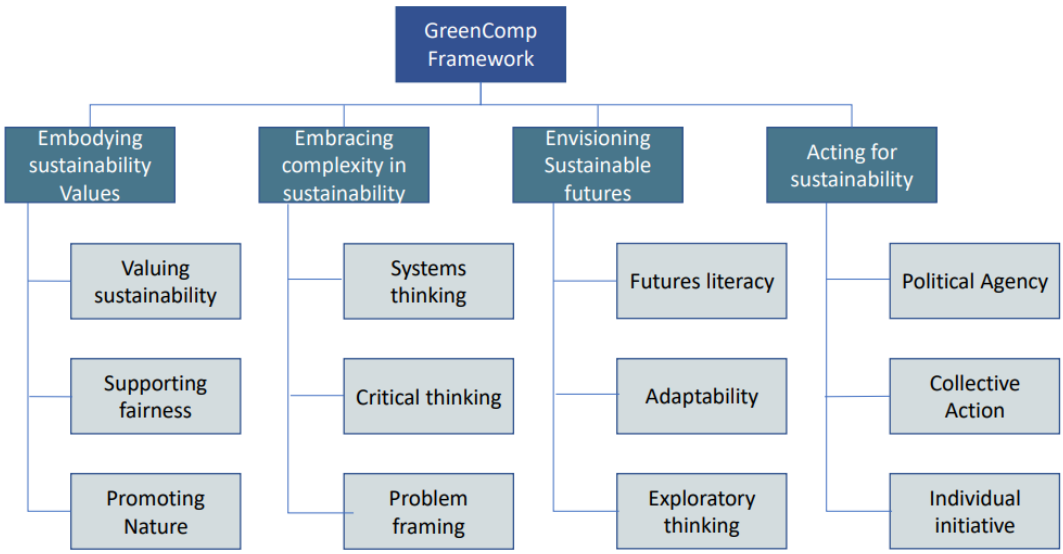


Figure 1. GreenComp Framework



Figure 2. DigComp Framework

2.3 Key Findings

The findings from the data collection and data analysis were inserted in 3 key documents:

Skills Need Analysis Report:
The results from the Skill Needs Analysis identified six main priority capability areas reflected into 32 identified skills across producers. The full table in attached as Annex 1

Consumer Persona and Value Map Summary Report: The results from the analysis of the consumer survey led to the identification of 5 consumer persona profiles and 5 main sustainability value dimensions. The table in Annex 2 collects the description and key-elements used to define each dimension.

Competence List:

- The selection of GreenComp competences and skills relevant to the agri-food sector led to the identification of nine skills across the four GreenComp competence areas. The full results are available in Annex 3.

- The selection of DigComp competences and skills relevant to the agri-food sector led to the identification of ten skills across the four DigComp competence areas. The full results are available in Annex 4.

- The Competence List includes also a list of sector/specific identified primary competence areas which were extracted from the Needs Analysis Report and addressed skills tied specifically to sustainable marketing practice in agri-food e-commerce. The full results are available in Annex 5.

3. Framework Design Process

Following the analysis of the results collected in the ECO-merce Skills Analysis Report, ECO-merce Consumer Persona and Value Map Summary Report, ECO-merce Competence List, a step-by-step process was designed to guide the process towards the definition of sustainable-marketing skills in e-commerce (Figure 3). This step was necessary in order to set the foundation of the ECO-merce skills framework, ensuring the model to be value-driven, evidence-based, aligned with EU instruments and tailored to the specific needs of the agri-food sector:

Step 1 – Collection of key results and findings from producers and consumers
In the first phase, the identified producers' needs and capability areas to be developed were matched with consumer values characterising consumer persona identified. The matching process was based on cross-check analysis of key elements emerging from each need/capability areas and value dimension.

Step 2 – Integration of relevant European and sector-specific competences
In the second step, the relevant GreenComp, DigComp and sector-specific competences reported in the Competence List were integrated in the model, ensuring alignment with producers' skills needs and consumer values.

Step 3 - Definition of sustainable marketing in e-commerce skills

A synthesis of the previous steps led to the identification of the key sustainable marketing in e-commerce skills required by agri-food producers. This resulted in a structured set of competences that combines sustainability principles, digital capabilities, and market-oriented skills, providing a practical foundation for training, capacity building, and the development of future learning activities targeting actors operating in the agri-food sector.

Step 4 – Identified Skills Clustering

The final step consisted in clustering the identified sustainable marketing in e-commerce skills according to the context and level at which they are can be applied. The clustering process resulted in the organisation of the skills into three interconnected layers: Individual, Organisational, and Ecosystem. This structure reflects the progressive development and application of competences, but also a pathway for educational use of the framework, providing educators, trainers and self-learners clear guidance on how to movie from individual awareness and capability building, towards organisational implementation and, ultimately ecosystem-level collaboration.

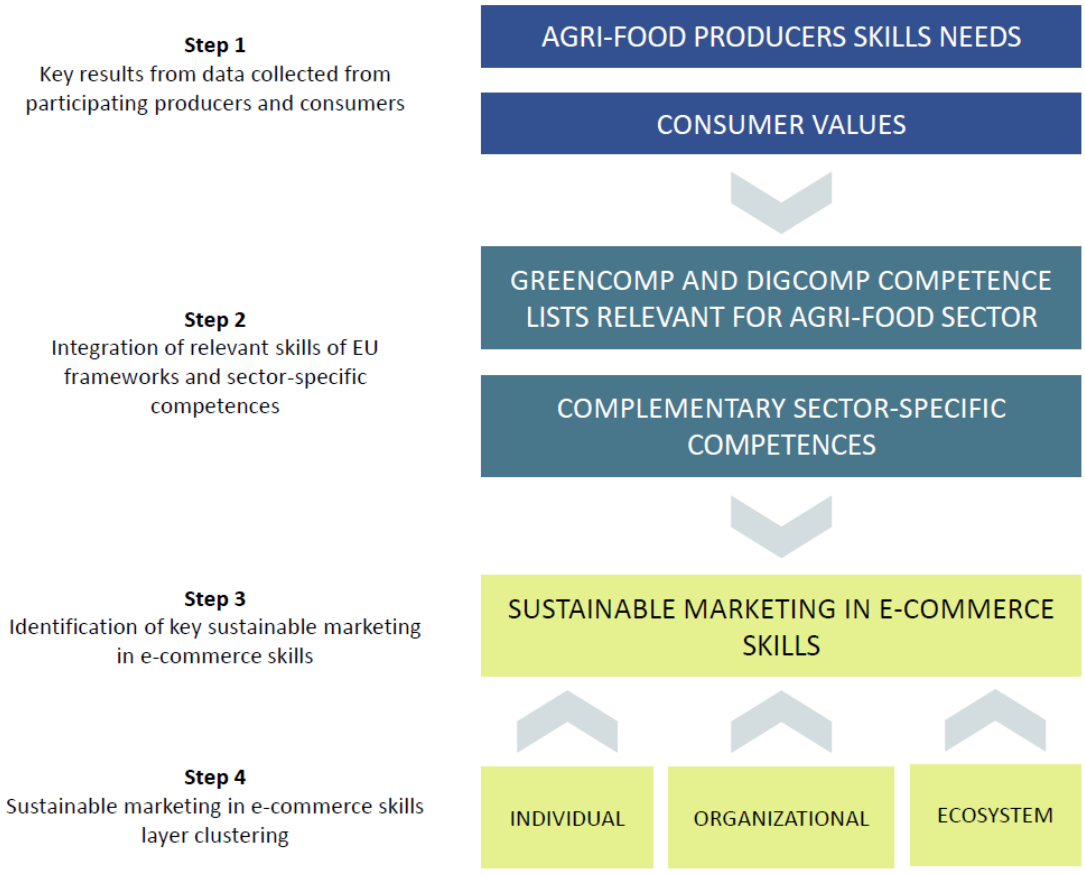


Figure 3. framework design step-by-step process

4. ECO-merce Skills Framework

The ECO-merce Skills Framework presents **seven core sustainable marketing in e-commerce skills** specifically designed for agri-food producers and other actors operating in the agri-food sector (Figure 4). The framework provides a structured approach to strengthening the knowledge, skills, and competences of actors operating in the agri-food sector required to implement sustainable marketing practices through digital tools.

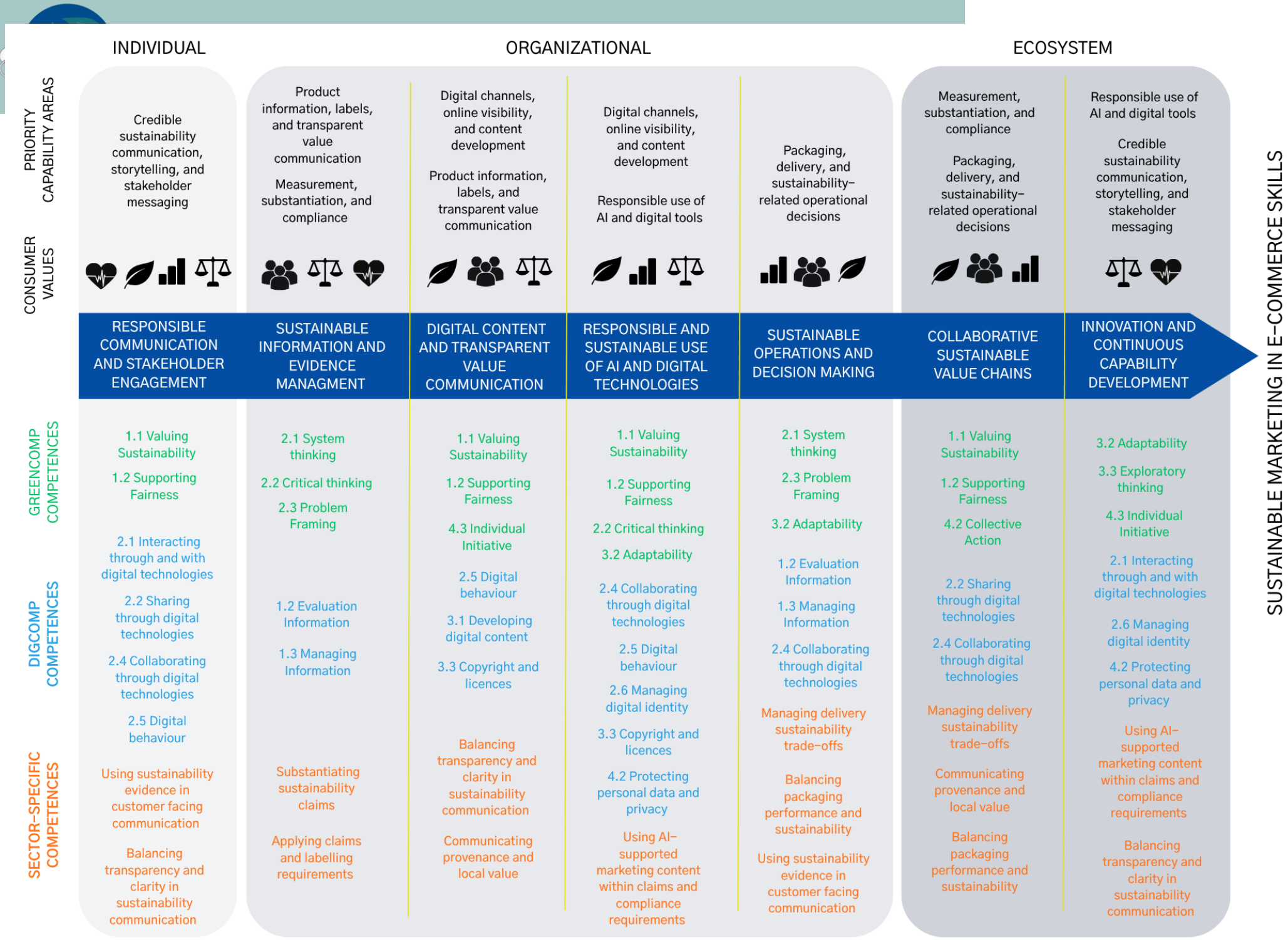
Following the 3-step process, the framework was developed by combining two complementary perspectives identified during the research phase of the ECO-merce project:

- the capability areas that agri-food producers need to strengthen to successfully implement sustainable e-commerce practices (included in the Needs Analysis Report)
- the sustainability values that characterise consumer persona and increasingly influence consumer purchasing decisions.

The intersection between these two perspectives enabled the identification of seven priority skills that help producers communicate sustainability more effectively while responding to consumer expectations.

To ensure consistency with European competence frameworks, each skill integrates selected competences from the **European Sustainability Competence Framework (GreenComp)** and the **European Digital Competence Framework (DigComp)** identified in the ECO-merce Competence List (Annex 3). These transversal competences are complemented by sector specific competences, also reported in the Competence List, that reflects the realities of sustainable marketing in the agri-food sector. Together, they provide a comprehensive set of competences that combines sustainability, digitalisation, and industry specific expertise.

Beyond supporting individual competence development, the framework establishes the pedagogical foundation for the ECO-merce learning programme, guiding the design of training materials and learning activities, offering a transferable reference model that can be adapted by organisations and training providers to support lifelong learning and sustainable competence development across the agri-food sector in Europe.


INDIVIDUAL
ORGANIZATIONAL
ECOSYSTEM
PRIORITY CAPABILITY AREAS
CONSUMER VALUES
Credible sustainability communication, storytelling, and stakeholder messaging
Product information, labels, and transparent value communication
Measurement, substantiation, and compliance
Digital channels, online visibility, and content development
Product information, labels, and transparent value communication
Digital channels, online visibility, and content development
Responsible use of AI and digital tools
Packaging, delivery, and sustainability-related operational decisions
Measurement, substantiation, and compliance
Packaging, delivery, and sustainability-related operational decisions
Responsible use of AI and digital tools
Credible sustainability communication, storytelling, and stakeholder messaging
RESPONSIBLE COMMUNICATION AND STAKEHOLDER ENGAGEMENT
SUSTAINABLE INFORMATION AND EVIDENCE MANAGMENT
DIGITAL CONTENT AND TRANSPARENT VALUE COMMUNICATION
RESPONSIBLE AND SUSTAINABLE USE OF AI AND DIGITAL TECHNOLOGIES
SUSTAINABLE OPERATIONS AND DECISION MAKING
COLLABORATIVE SUSTAINABLE VALUE CHAINS
INNOVATION AND CONTINUOUS CAPABILITY DEVELOPMENT
SUSTAINABLE MARKETING IN E-COMMERCE SKILLS
GREENCOMP COMPETENCES
DIGCOMP COMPETENCES
SECTOR-SPECIFIC COMPETENCES
1.1 Valuing Sustainability
1.2 Supporting Fairness
2.1 Interacting through and with digital technologies
2.2 Sharing through digital technologies
2.4 Collaborating through digital technologies
2.5 Digital behaviour
Using sustainability evidence in customer facing communication
Balancing transparency and clarity in sustainability communication
2.1 System thinking
2.2 Critical thinking
2.3 Problem Framing
1.2 Evaluation Information
1.3 Managing Information
Substantiating sustainability claims
Applying claims and labelling requirements
1.1 Valuing Sustainability
1.2 Supporting Fairness
4.3 Individual Initiative
2.5 Digital behaviour
3.1 Developing digital content
3.3 Copyright and licences
Balancing transparency and clarity in sustainability communication
Communicating provenance and local value
1.1 Valuing Sustainability
1.2 Supporting Fairness
2.2 Critical thinking
3.2 Adaptability
2.4 Collaborating through digital technologies
2.5 Digital behaviour
2.6 Managing digital identity
3.3 Copyright and licences
4.2 Protecting personal data and privacy
Using AI-supported marketing content within claims and compliance requirements
2.1 System thinking
2.3 Problem Framing
3.2 Adaptability
1.2 Evaluation Information
1.3 Managing Information
2.4 Collaborating through digital technologies
Managing delivery sustainability trade-offs
Balancing packaging performance and sustainability
Using sustainability evidence in customer facing communication
1.1 Valuing Sustainability
1.2 Supporting Fairness
4.2 Collective Action
2.2 Sharing through digital technologies
2.4 Collaborating through digital technologies
Managing delivery sustainability trade-offs
Communicating provenance and local value
Balancing packaging performance and sustainability
3.2 Adaptability
3.3 Exploratory thinking
4.3 Individual Initiative
2.1 Interacting through and with digital technologies
2.6 Managing digital identity
4.2 Protecting personal data and privacy
Using AI-supported marketing content within claims and compliance requirements
Balancing transparency and clarity in sustainability communication

4.1 How to Read the Framework

Each skill within the ECO-merce Skills Framework is presented using a common structure to facilitate understanding and implementation. For every skill, the framework identifies:

- **Priority Capability areas**: representing the producers identified capability areas and skills that each sustainable marketing in e-commerce skill supports.
- **Consumer values**: indicating the consumer sustainability values that the skill helps producers connect to through their sustainable marketing activities
- **GreenComp competences**: reporting the identified relevant sustainability competences underpinning the skill.
- **DigComp competences**: identifying the relevant digital competences required for implementation.
- **Sector specific competences**: translating the European competence frameworks into practical learning outcomes tailored to sustainable marketing in agri-food e-commerce.

Together, these components provide a coherent pathway for developing the knowledge, skills and competences required to strengthen sustainable marketing practices across the individual, organisational, and ecosystem levels in the agri-food sector.

4.2 Framework Structure

The ECO-merce Skills Framework is organised into **three interconnected layers** that reflect the different contexts in which sustainable marketing competences are developed and applied.

Individual Layer	Organisational Layer	Ecosystem Layer
The Individual Layer focuses on skills that learners can develop personally and use independently in their working life. These skills enable agri-food actors to improve their own communication, digital capabilities, and sustainability awareness before applying them within their organisations.	The Organisational Layer includes skills that are developed both individually and collaboratively within businesses. These skills support organisational decision making, digital transformation, information management, and sustainable operational practices that contribute to more responsible and sustainable marketing and e-commerce activities.	The Ecosystem Layer recognises that sustainable marketing extends beyond individuals and organisations. It focuses on collaboration across value chains, continuous innovation, and the ability to work with suppliers, customers, institutions, and other stakeholders to generate wider sustainability impacts.

The framework encourages learners to progressively develop competences across these three layers. Rather than representing isolated skill sets, the layers build upon one another, enabling producers to move from individual capability development towards organisational implementation and ultimately ecosystem level collaboration. Across all layers, each skill combines:

- **GreenComp competences**, supporting sustainability thinking and behaviour;

- DigComp competences, strengthening digital capabilities relevant to e-commerce; and
- Sector specific competences, addressing practical sustainable marketing activities identified through the ECO-merce research.

Furthermore, the three layers build progressively: individual capability supports organisational implementation, while ecosystem collaboration enables wider value-chain impact and continuous learning

4.3 The Seven ECO-merce Skills

The framework identifies seven sustainable marketing in e-commerce skills distributed across the three framework layers.

4.3.1 Individual Layer

Responsible Communication and Stakeholder Engagement

Skills Definition	Key Competences developed	Applicability in the Agri-food sector	Connecting with Consumer Values
This skill refers to the ability of agri-food actors to communicate sustainability related information clearly, responsibly, and transparently while building trust with consumers and stakeholders.	It combines competences such as valuing sustainability and supporting fairness (GreenComp) to recognise the environmental, social, ethical, and economic values that matter to consumers and stakeholders. This skill also refers to competences related to interacting, communicating, collaborating, and behaving appropriately through digital technologies (DigComp). Together, these competences enable producers to tailor sustainability messages to different audiences while maintaining credibility and transparency	In the agri-food sector, this skill can be applied by developing awareness about key-concepts such as greenwashing and sustainability story-telling, or by enhancing stakeholder communication literacy and trust-based communication (Credible sustainability communication, storytelling, and stakeholder messaging)	Developing this skill enables producers to connect more effectively with consumers who value environmental sustainability, ethical business practices, social responsibility, community engagement, and health related information.

4.2.2 Organisational Layer

Sustainable Information and Evidence Management

Skills Definition	Key Competences developed	Applicability in the Agri-food sector	Connecting with Consumer Values
The skill refers to the ability of agri-food actors of effectively managing, evaluating and communicating information and evidence about sustainability.	This include being able to use competences such as system and critical thinking (GreenComp) as well as problem framing (GreenComp) to understand and manage sustainability-related information. Additionally, it refers to use the above competences in alignment with evaluating received and shared information (DigComp).	On an industry level, this skill refers to conducting activities such as translating technical information, tracking and monitoring performances and measuring sustainability in practice (Measurement, substantiation, and compliance). Additional activities may include developing sustainability label awareness, using labels and claims credibly, and Making sustainability-related information transparent and easy to verify (Product information, labels, and transparent value communication)	This skill is particularly useful to consumers' values of environmental sustainability, fair and economic considerations, brand ethical and brand values, and information, health and lifestyle

Digital Content and Transparent Value Communication

Skills Definition	Key Competences developed	Applicability in the Agri-food sector	Connecting with Consumer Values
The skill refers to the ability of developing digital content and adopting transparent value communication to create and manage digital content that communicates product value, origin, and sustainability characteristics in a transparent and accessible way.	This encourages producers to uptake different individual actions (GreenComp) to explore digital content creation (DigComp) and value communication as well as to promote and support fairness during the process (GreenComp). On top, digital content creation and online material communication calls for the capacity to manage digital identity, and applying copyright and licensing principles (DigComp).	This skill will enable agri-food actors to engage in activities such as communicating the provenance and local value of their products (Product information, labels, and transparent value communication) as well as using balance between transparency and clarity in sustainability communication. Furthermore, agri-food actors will improve their online visibility management, product-page optimisation, and sustainability copywriting (Digital channels, online	This skill is particularly useful to connect with consumers' whose key values match with ethical and brand values, environmental sustainability, social responsibility and community, and information, health and lifestyle.

		visibility, and content development).	

Responsible and Sustainable Use of AI and Digital Technologies

Skills Definition	Key Competences developed	Applicability in the Agri-food sector	Connecting with Consumer Values
Ability of agri-food actors to use AI and digital technologies responsibly, ethically, and efficiently to support sustainable marketing activities.	This skill includes being able to use competences such as valuing sustainability, supporting fairness and using critical thinking (GreenComp) and adaptability (GreenComp) to learn how to behave digitally, including managing their own digital identity and protecting personal data and private information (DigComp). Increased digital literacy will foster collaboration through digital technologies.	Key activities that agri-food actors could perform in this context is using AI-supported tools for marketing compliance with sustainability claims, selecting digital tools, designing AI-supported workflows, promoting digital sustainability awareness, and ensuring privacy and cybersecurity literacy (Responsible use of AI and digital tools).	Consumers' values reflected in this skill include ethical and brand values, information, health and lifestyle, and environmental sustainability.

Sustainable Operations and Decision Making

Skills Definition	Key Competences developed	Applicability in the Agri-food sector	Connecting with Consumer Values
The skill supports agri-food actors to make operational decisions that balance sustainability objectives with requirements including economic, logistical, and customer ones.	Key green and digital competences identified in this context are the ability to use systems thinking and problem framing (GreenComp), for instance to understand the interconnected effects of packaging, delivery, logistics, and value chain decisions and the management and evaluation of information (DigComp) as well as of digital collaboration (DigComp) to support decision-making processes and address sustainability challenges.	Applicability in the sector and according to sector-specific skills can include managing delivery sustainability trade-offs and balancing packaging performance and sustainability. The development of this skill will result in the capacity of agri-food actors, among others, of increasing their sustainable packaging and logistics literacy and to be more aware of value-chain and trade-off operations (Packaging, delivery, and sustainability-related operational decisions).	Producers will be able to bridge the gap with consumers who value environmental sustainability, economic fairness and considerations, ethical and brand values, and social responsibility and community.

4.2.3 Ecosystem Layer

Collaborative Sustainable Value Chains

Skills Definition	Key Competences developed	Applicability in the Agri-food sector	Connecting with Consumer Values
The skill entails the ability of agri-food actors to cooperate with partners and stakeholders to ensure that sustainability commitments are consistently reflected throughout the whole value chain.	GreenComp competences include collective action, supporting fairness, and valuing sustainability, while complementary key DigComp competences are interacting and collaborating through digital technologies, which are useful to exchange information and coordinate activities among producers, suppliers, advisors, and other stakeholders across the supply chain. Sector-specific activities connected to this skill entail communicating provenance and local value and aligning customer-facing claims with practices implemented by different actors throughout the supply chain.	On an industry level, this skill refers to conducting activities such as translating technical information and applying labelling and regulatory requirements across the supply chain (Measurement, substantiation, and compliance) as well as building value-chain awareness and sustainable logistics literacy (Packaging, delivery, and sustainability-related operational decisions).	This skill is particularly useful to engage with consumers that value social responsibility and community, ethical and brand values, environmental sustainability, and economic fairness and considerations.

Innovation and Continuous Capability Development

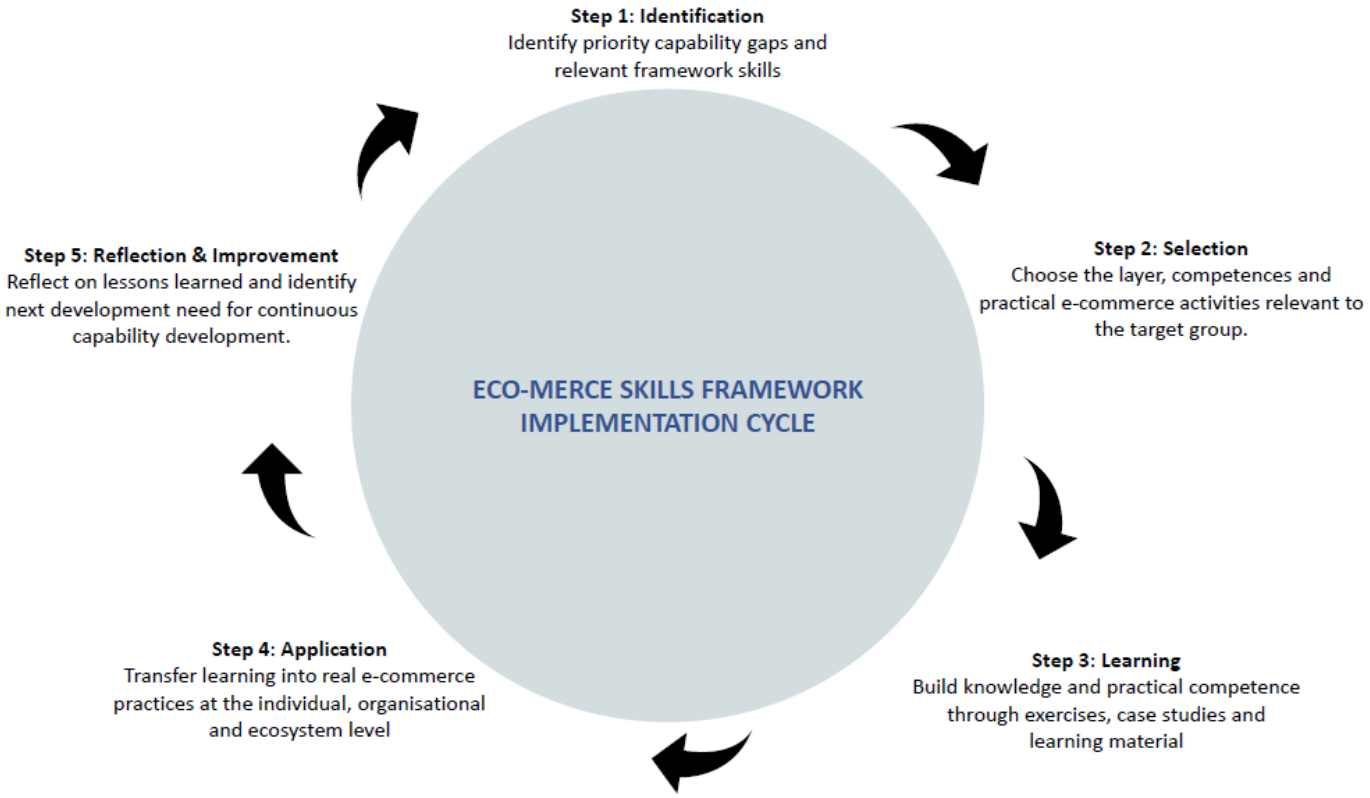
Skills Definition	Key Competences developed	Applicability in the Agri-food sector	Connecting with Consumer Values
Ability of agri-food actors to continuously improve their competences and explore innovative approaches to sustainable marketing in e-commerce.	This includes being able to use competences such as adaptability, exploratory thinking, and individual initiative (GreenComp) and to interact with and through digital technologies while learning how to manage	On an industry level, this skill refers to activities such as using AI-supported marketing content within claims and compliance requirements (Responsible use of AI and digital tools) and enhancing sustainability	Showcasing continuous innovation and capability development will support agri-food producers in connecting with consumers who especially value environmental sustainability, ethical and brand values,

	their own digital identity and protecting personal data and privacy (DigComp).	communication capabilities (Credible sustainability communication, storytelling and stakeholder messaging).	information, health and lifestyle, and economic fairness and considerations.

5. Implementation Cycle for Agri-food Educators and Trainers

The framework is designed to move from competence identification to practical learning and application. Within the ECO-merce project, it will be used as a valuable resource to create a series of train the trainers educational modules, which will be piloted among relevant stakeholders.

Beyond the project, the framework can be used through a simple implementation cycle which can be adapted to short workshops, modular VET courses, and other learning programs learning.



5. Conclusions

Building on the same principle of European frameworks (e.g. DigComp, GreenComp), the ECO-merce skills framework serves as model for replication for learners interested in developing key competences and skills for operating in sustainable marketing and e-commerce in the agri-food sector.

The framework is composed of seven key skills which span across 3 main layers of development and applicability: individual, organizational and ecosystem layer. Each skill encloses identified and pre-selected relevant competences from EU GreenComp, DigComp and the agri-food sector, and connects to producers priority capability areas and consumers sustainability values.

As a value-driven framework, the model bridges the gap between evolving consumer sustainability expectations and the capabilities of agri-food producers to respond through effective sustainability-oriented marketing practices, particularly in digital and e-commerce contexts.

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7. Annexes

Annex 1

Priority Capability Areas and Skills
Included in the ECO-merce Skills Needs Analysis Report (pag36-38).

Capability area	Skills	Evidence from the needs analysis	What actors need to do in practice
Credible sustainability communication, storytelling, and stakeholder messaging	Writing clear/plain sustainability messages Audience awareness Sustainability storytelling Greenwashing awareness Trust-building communication Stakeholder communication literacy	Focus-group evidence links the need for clear, credible, and proportionate communication to legitimacy, information overload, and greenwashing risk, while the producer survey and open-ended responses point to demand for clearer sustainability language and stronger communication of green value. The interviews extend this into turning real sustainability practices into coherent stories and adapting messages for different stakeholder groups.	Communicate sustainability in clear, proportionate, and credible language for different audiences. Actors need to connect messages to evidence, turn real sustainability practices into coherent stories, and adapt communication for consumers, business customers, farmers, suppliers, shareholders, internal teams, and wider public audiences.
Responsible use of AI and digital tools	Digital-tool selection Responsible AI literacy AI-supported workflow design Digital sustainability awareness (environmental impact of digital marketing choices) Privacy and cybersecurity literacy Data protection literacy	In the producer survey, responsible AI use for marketing records the strongest skills-need score, while open-ended responses present AI as a practical support need for marketing communication, content development, and process-related work. Focus-group and interview evidence indicate that this capability should be developed as part of responsible digital practice, including content credibility, privacy, cybersecurity, consent, data protection, and awareness of the environmental impact of digital activity.	Use AI and digital tools responsibly to support marketing, communication, content development, and related work processes. Actors need to protect personal data, maintain content credibility, manage privacy and cybersecurity risks, and consider the environmental impact of digital activity.
Measurement, substantiation, and compliance	Measuring sustainability in practice Performance tracking and monitoring Label and regulatory literacy Applying labelling and regulatory requirements Technical information translation	The needs analysis presents substantiation and compliance as core conditions for credible sustainable marketing. Focus-group evidence connects credible claims to monitoring, indicators, and regulatory awareness, while the producer survey shows a clear need for stronger skills in measuring and tracking sustainability in practice. Open-ended and interview evidence further point to the importance of	Generate, organise, and use evidence to support sustainability claims. Actors need to understand relevant rules, labels, and compliance requirements, and translate technical or regulatory information into practical guidance for claims, funding, advisory support, and planning.

		accessible guidance on claims, labels, compliance requirements, and technical or advisory information.	
Digital channels, online visibility, and content development	Digital content creation Digital channel selection Online platform management Online visibility management Product-page optimisation Sustainability copywriting	The producer survey shows strong demand for skills in working with online platforms and improving visibility, while focus-group evidence points that e-commerce increases pressure around information quality, market visibility, and competition. Open-ended responses and interview evidence broaden this capability area to include digital content, business development, websites, social media, customer presentations, internal communication materials, and corporate sustainability communication.	Use digital channels and platforms effectively to improve visibility, organise product presentation, and communicate sustainable value in suitable formats. Actors need to adapt digital content for consumer-facing, business-to-business, internal, public-facing, and stakeholder-specific communication pathways.
Product information, labels, and transparent value communication	Product information design Sustainability label awareness Provenance communication Social and ethical value communication Making sustainability-related information transparent and easy to verify	The needs analysis shows that transparent value communication depends on information that actors can evidence and audiences can recognise. Focus-group evidence highlights product-page completeness and information quality, while the consumer analysis shows attention to labels, visible product details, trust, and checkable cues. Open-ended and interview evidence further indicate that labels, farm-level practices, responsible sourcing, community engagement, and organisational sustainability initiatives can provide concrete material for credible value communication.	Present sustainability-related product and organisational information clearly on-pack, online, and in wider communication materials. Actors need to use labels and claims credibly, explain provenance, local value, and ethical value, and connect communication to visible practices such as farm-level action, responsible sourcing, community support, and verifiable sustainability initiatives.
Packaging, delivery, and sustainability-related operational decisions	Sustainable packaging literacy Sustainable logistics literacy Trade-off analysis Value-chain awareness	Packaging and delivery recur as operational pressure points. The focus groups identify them as sustainability hotspots in e-commerce, and the producer survey shows weaker current confidence and continuing skills needs in this area. Interview evidence adds that credible communication depends on understanding where operational control sits across the value chain and which packaging, delivery, or logistics-	Make informed packaging, delivery, and logistics decisions by considering sustainability, cost, legal, operational, and customer-facing implications. Actors need to understand where operational control sits in the value chain and align packaging, delivery, and logistics-related claims with what can be credibly supported.

		related claims actors can realistically support.	

Annex 2

Sustainability Values
Included in the Consumer Persona and Value Map Summary Report

Value Dimension	Description	Kex elements
Environmental Sustainability	The extent to which consumers consider the environmental impact of their agri-food choices, including resource use, carbon footprint, packaging, and preference for local or seasonal products, and actively seek options that minimise environmental harm	• Environmental claims • Sustainable packaging • Local/seasonal products • Carbon footprint • Resource use • Eco-labels and certifications (organic, fair trades, animal welfare)
Social Responsibility and Community	The degree to which consumers value the social impact of their purchases, including support for local producers, fair labour conditions, and community well-being, and integrate these considerations into their shopping decisions.	• Products and/or brands that support small farmers and fair labour conditions • Support local producers • Support of community-based systems • Attention to social concerns such as fair labour and/or community impact • Brand economic impact on employees and partners (equal and fair pay)
Economic Fairness and Considerations	The importance consumers place on price, value for money, product availability, and fair pricing practices, balancing personal economic constraints with broader considerations of fairness and long-term economic sustainability	• Fair pricing compared to consumer perceived value, production costs, market value • Importance of price based on consumer economic possibilities • Brand uses long-term and sustainable economic practices
Ethical & Brand Values	The extent to which consumers are influenced by ethical principles and trust in brands, including animal welfare, transparency, responsible business practices, and willingness to change behaviour based on perceived ethical standards.	• Ethical and transparent practices • Brand operates based on high moral standards • Brands are trustworthy • Brands care for customers and environment • Care for animal welfare
Information, Health, Lifestyle	The degree to which consumers rely on information, personal health considerations, and lifestyle preferences in their purchasing decisions, including label reading, use of digital tools, and the role of emotions, habits, and product appeal	• Access to transparent information on the product (production, supply chain, packing, impact on consumer, community and environment) • Product is a healthy option and/or contribute to the consumer health • Product aligns/improves consumer lifestyle

Annex 3

GreenComp Competences Relevant to Agri-Food
Included in the Eco-merce competence Lists (pag.3-4)

Area	GreenComp Competence	Description	Relevance
1. Embodying sustainability values	1.1 Valuing sustainability	To reflect on personal values; identify and explain how values vary among people and over time, while critically evaluating how they align with sustainability values.	Relevant to recognising environmental, social, ethical, and economic values when deciding how sustainable value should be communicated in agri-food e-commerce, including fair remuneration, affordability, local value, product quality, and customer trust.
	1.2 Supporting fairness	To support equity and justice for current and future generations and learn from previous generations for sustainability.	Relevant to communicating the social side of sustainable agri-food products, including fair producer value, labour conditions, community contribution, and ethical sourcing, in ways that are credible for customers and value-chain partners.
2. Embracing complexity in sustainability	2.1 Systems thinking	To approach a sustainability problem from all sides; to consider time, space and context to understand how elements interact within and between systems.	Relevant to assessing how a marketing decision connects with production, sourcing, packaging, delivery, product information, platform visibility, and customer expectations before sustainability is communicated online.
	2.2 Critical thinking	To assess information and arguments, identify assumptions, challenge the status quo, and reflect on how personal, social and cultural backgrounds influence thinking and conclusions.	Relevant to assessing sustainability claims, labels, evidence, product-page statements, campaign messages, and AI-supported content before they are communicated to customers or value-chain partners.

	2.3 Problem framing	To formulate current or potential challenges as a sustainability problem in terms of difficulty, people involved, time and geographical scope, to identify suitable approaches to anticipating and preventing problems, and to mitigating and adapting to already existing problems.	Relevant to defining the sustainability issue behind a marketing or e-commerce challenge, for example whether the problem concerns missing evidence, unclear labels, weak sustainability information, regulatory uncertainty, customer misunderstanding, packaging impacts, delivery trade-offs, or online visibility.
3. Envisioning sustainable futures	3.2 Adaptability	To manage transitions and challenges in complex sustainability situations and make decisions related to the future in the face of uncertainty, ambiguity and risk.	Relevant to adjusting sustainability communication, product information, digital content, packaging choices, and marketing practices when regulations, labels, customer expectations, digital platforms, AI tools, or market conditions change.
	3.3 Exploratory thinking	To adopt a relational way of thinking by exploring and linking different disciplines, using creativity and experimentation with novel ideas or methods.	Relevant to testing new ways to communicate and support sustainable value online, such as improving product pages, trying new content formats, using AI-supported drafts responsibly, or combining sustainability evidence with clearer customer-facing messages.
4. Acting for sustainability	4.2 Collective action	To act for change in collaboration with others	Relevant to aligning sustainability communication and decisions across producers, marketing teams, quality and compliance roles, advisors, logistics partners, and platform actors, so that customer-facing claims remain consistent with actual practice.
	4.3 Individual initiative	To identify own potential for sustainability and to	Relevant to taking responsibility for

		actively contribute to improving prospects for the community and the planet.	sustainability-related tasks within one's own role, including checking claims, improving product information, preparing sustainability messages, coordinating with partners, and applying sustainable marketing decisions in daily work.

Annex 4

DigComp 3.0 Competences Relevant to Agri-Food table
Included in the Eco-merce competence Lists (pag.5)

Area	DigComp Competence	Description	Relevance
1. Information search, evaluation and management	1.2 Evaluating information	To assess and compare the credibility and reliability of sources of information and content in digital environments. To interpret and critically evaluate information and content in digital environments, and the processes used to generate them.	Relevant to checking the reliability of digital information, sources, data, images, and AI-supported outputs before they are used in food product pages, online claims, labels, campaign materials, or customer-facing content.
	1.3 Managing information	To organise, store and retrieve information and data in digital environments. To collect, process and analyse information and data in structured digital environments.	Relevant to organising and updating the digital information needed for agri-food e-commerce, including product details, certificates, label information, provenance information, sustainability evidence, and supporting documentation.
2. Communication and collaboration	2.1 Interacting through and with digital technologies	To interact through and with a variety of digital technologies, and to use appropriate digital	Relevant to using digital channels to communicate with customers, partners, platforms, producers, cooperatives, and other

		communication for a given context.	value-chain actors about products, claims, delivery options, provenance, and responsible business practices.
	2.2 Sharing through digital technologies	To share information and content ethically and responsibly with others through appropriate digital technologies.	Relevant to sharing product information, label details, claims, evidence, campaign content, and other customer-facing materials through websites, marketplaces, social media, newsletters, and partner channels.
	2.4 Collaborating through digital technologies	To use digital technologies ethically and responsibly for collaborative purposes, and for the co construction and co-creation of information, resources and knowledge.	Relevant to coordinating digital work across marketing, sustainability, compliance, product, producer, and partner roles, especially when it requires input from different actors.
	2.5 Digital behaviour	To be aware of behavioural norms, and to know how to behave respectfully while using digital technologies and interacting in digital environments. To adapt communication to specific contexts, and to be aware of and respect cultural, generational and other diversity in digital environments.	Relevant to choosing appropriate tone, format, timing, and level of detail when communicating online about food products, sustainability value, origin, ethical claims, and delivery-related information.
	2.6 Managing digital identity	To manage one or multiple digital identities. To take actions to help protect one's digital reputation (how one is perceived based on online presence), and to manage one's digital footprint (the data that is produced through use of and by digital platforms and services).	Relevant to managing how an agri-food business is represented online through websites, marketplace profiles, social media, platform listings, customer reviews, and other digital touchpoints that shape trust.
3. Content creation	3.1 Developing digital content	To use digital technologies ethically and responsibly to create and edit a variety of	Relevant to creating and improving product-page text, product descriptions, images,

		content. To express oneself through digital means.	short videos, social media content, campaign materials, and AI-supported drafts for sustainable marketing in e-commerce.
	3.3 Copyright and licences	To understand how copyright and licences, as well as associated legal and ethical issues, apply to digital content, and how to correctly apply them.	Relevant to using images, text, product materials, platform content, third-party resources, and AI-supported outputs in ways that respect copyright, licences, and responsible content use in digital marketing.
4. Safety, wellbeing and responsible use	4.2 Protecting personal data and privacy	To be aware of and exercise one's rights in relation to personal data and privacy in digital environments. To evaluate and manage privacy risks and protect personal data and privacy in digital environments. To use and share one's own and others' personal data safely, ethically and responsibly.	Relevant to handling customer data, order information, mailing lists, analytics data, platform accounts, access rights, passwords, and partner information safely in e-commerce and digital marketing work.

Annex 5

Complementary Sector-Specific Competences Relevant to Agri-Food table Included in the Eco-merce competence Lists (pag.8)

Capability Area	Complementary Competences	Description	Relevance
Credible sustainability communication, storytelling, and stakeholder messaging	Using sustainability evidence in customer-facing communication	The ability to turn sustainability evidence, certificates, indicators, and internal sustainability information into clear communication for product pages, campaigns, labels, and stakeholder communication.	Relevant to making sustainability evidence usable in customer-facing communication while reducing the risk of unsupported, vague, or misleading claims.
	Balancing transparency and clarity in	The ability to decide how much sustainability information to communicate,	Relevant to managing the tension between transparency and

	sustainability communication	how much detail is useful for the customer, and how to keep messages clear without losing important evidence or context.	information overload, especially where customers need clear product information, labels, and sustainability claims.
Responsible use of AI and digital tools	Using AI-supported marketing content within claims and compliance requirements	The ability to use AI-supported drafts, images, messages, and campaign content while checking accuracy, human oversight, claim reliability, copyright or licence issues, environmental implications, and compliance with product-information or labelling requirements.	Relevant to using AI in digital marketing without weakening claim accuracy, customer trust, legal compliance, or responsible digital practice.
Measurement, substantiation, and compliance	Substantiating sustainability claims	The ability to support sustainability claims with appropriate evidence, indicators, records, certificates, and documentation before claims are used in product information, campaigns, labels, or online communication.	Relevant to ensuring that sustainability claims are backed by evidence and can be explained, checked, and defended in agri-food e-commerce communication.
	Applying claims and labelling requirements	The ability to check what can be claimed, which labels or product-information requirements apply, and how those requirements affect customer-facing communication in e-commerce.	Relevant to applying claims, labels, and product-information rules correctly when communicating sustainability-related value to customers.
Product information, labels, and transparent value communication	Communicating provenance and local value	The ability to communicate origin, local embeddedness, producer value, community contribution, and ethical value in ways that customers can recognise, understand, and trust.	Relevant to making local, social, and ethical value visible in agri-food e-commerce without reducing it to generic sustainability messaging.
Packaging, delivery, and sustainability-	Balancing packaging	The ability to assess packaging choices in relation to environmental impact,	Relevant to making packaging decisions that are sustainable, feasible, and

related operational decisions	performance and sustainability	food safety, product protection, delivery conditions, cost, customer expectations, and the sustainability message communicated to customers.	consistent with the sustainability message communicated to customers.
	Managing delivery sustainability trade-offs	The ability to assess delivery choices in relation to sustainability, logistics, distance, cost, feasibility, customer expectations, and the credibility of sustainability communication.	Relevant to handling delivery decisions where sustainability goals, operational feasibility, customer expectations, and communication credibility need to be considered together.