Co-funded by the European Union

DesignSmart

MODULE 6

Sustainable Business Strategies and Regulatory Readiness



Co-funded by the European Union

Funded by the European Union. Views and opinions expressed are, however, those of the author(s) only and do not necessarily reflect those of the European Union or the European Education and Culture Executive Agency (EACEA). Neither the European Union nor EACEA can be held responsible for them.
Project Number: 2025-ES01-KA220-VET-000358027

CONTENTS

Lesson Plan 3

Topic 1: Sustainable Business Models and Strategic Alignment 8

The Triple Bottom Line (TBL) 8

ESG Integration in Business Strategy 9

The Business Case for Sustainability 9

Topic 2: Circular Fashion Business Models 9

Topic 3: Regulatory Requirements: EU Frameworks Overview 9

Corporate Sustainability Reporting Directive (CSRD) 9

Eco-design for Sustainable Products Regulation (ESPR) 10

Digital Product Passport (DPP) 10

The EU Green Claims Directive & Greenwashing 10

Topic 4: Ethics, Fair Labour, and Responsible Supply Chains 10

Core Labour Standards (ILO Conventions) 10

EU Corporate Sustainability Due Diligence Directive (CSDDD) 10

Traceability Technologies 11

Topic 5: Certifications and Standards Landscape 11

Case Study 12

Because There Is No Planet B: Ecoalf's Journey from Recycled Waste to Regulatory Leadership 12

Best Practice 14

SME Digital Product Passport Pilot – Textiles Genesis Platform 14

Activity 1: Sustainability Audit Simulation 15

Activity 2: Design a Transparent Fashion Supply Chain 16

Assessment 16

Post-Evaluation Quiz 16

Case Study Analysis – Assessment Rubric 17

Co-funded by the European Union

Funded by the European Union. Views and opinions expressed are, however, those of the author(s) only and do not necessarily reflect those of the European Union or the European Education and Culture Executive Agency (EACEA). Neither the European Union nor EACEA can be held responsible for them.
Project Number: 2025-ES01-KA220-VET-000358027

Lesson Plan

Module purpose: This module equips VET providers and trainers to deliver practical learning on sustainable business strategies and regulatory readiness in fashion. Trainers will guide learners in comparing sustainable business models, identifying relevant regulatory requirements, assessing organisational readiness, and developing practical sustainability action plans with clear priorities, responsibilities, and progress indicators.

Relevant topics: Sustainable business models, EU regulatory frameworks (CSRD, ESPR, DPP), ESG reporting, certifications, ethical supply chains, greenwashing prevention

EQF Level: 5

Estimated Learning Time: 4 hours 20 mins

Learning Outcomes: Participants can formulate sustainability strategies aligned with EU regulations and ethical standards

After completing this topic, learners will:

Knowledge

- Possess comprehensive, specialised knowledge of sustainable and circular fashion business models and how to align them with strategic sustainability principles.
- Understand complex regulatory frameworks, specifically the Corporate Sustainability Reporting Directive (CSRD), Eco-design for Sustainable Products Regulation (ESPR), and the Digital Product Passport (DPP).
- Maintain a deep understanding of ESG reporting requirements, transparency tools (such as Blockchain, RFID, and QR codes), and ethical production standards.
- Comprehend the legal landscape surrounding labour rights, fair wages, safe working conditions, and the various certification standards (e.g., GOTS, OEKO-TEX, B Corp).
- Aware of the intersection between regulations and business operations, specifically how to avoid greenwashing while meeting product information requirements.

Skills

- Conduct sustainability audits and develop comprehensive compliance strategies to meet emerging EU frameworks.
- Implement transparency systems and design traceable supply chains that utilize modern tracking technologies.
- Align business operations with regulatory requirements, ensuring that environmental and social governance is integrated into daily management.
- Perform sustainable planning even within contexts of limited resources, balancing business feasibility with eco-design rules.

Co-funded by the European Union

Funded by the European Union. Views and opinions expressed are, however, those of the author(s) only and do not necessarily reflect those of the European Union or the European Education and Culture Executive Agency (EACEA). Neither the European Union nor EACEA can be held responsible for them.
Project Number: 2025-ES01-KA220-VET-000358027

- Communicate sustainability performance effectively to stakeholders, using verified ESG metrics to ensure transparency and accountability.

Responsibility & Autonomy

- Exercising management and supervision over regulatory compliance and the execution of organizational sustainability strategies.
- Taking responsibility for organizational compliance, ethical supply chain management, and the accuracy of sustainability reporting.
- Guiding teams in the implementation of new EU measures and adapting business strategies as international frameworks evolve.
- Leading the transition toward ethical distribution and responsible sourcing practices within a professional fashion context.
- Critically evaluating and overseeing the integration of sustainability practices to ensure they are treated as core business functions rather than standalone initiatives.



Co-funded by the European Union

Funded by the European Union. Views and opinions expressed are, however, those of the author(s) only and do not necessarily reflect those of the European Union or the European Education and Culture Executive Agency (EACEA). Neither the European Union nor EACEA can be held responsible for them.
Project Number: 2025-ES01-KA220-VET-000358027

Topics and Sub-topics/Learning activities	Duration	Training methods used	Materials used (PPt, case studies, best practices, activities etc.)	Suggestions for implementation
Ice-breaking activity "**The Compliance Puzzle**" Learners match real EU regulation names to their plain-language descriptions using cards.	10 min	Peer discussion & card-matching	Printed or digital regulation-card set (CSRD, ESPR, DPP, GOTS, B Corp)	Trainer reveals correct matches and asks: 'Which regulation affects your business most?'
Pre evaluation 4 questions (MC/True-False) testing familiarity with EU sustainability regulations and circular business models	10 min	Multiple Choice or True-False Quiz	Mentimeter or printed quiz sheet	
Introduction to module 6 Trainer presents the module roadmap, learning outcomes, and real-world relevance of EU compliance for SMEs.	15 min	Interactive Lecture & Q&A	PPT slides – Module 6 Intro (slides 1–6)	Open with a real news headline (e.g. EU fines brand for greenwashing). Ask: 'Could this happen to you?'
Topic 1: Sustainable Business Models & Strategic Alignment Triple Bottom Line, B Corp model, ESG integration, business case for sustainability.	25 min	Interactive Lecture + Case Discussion	PPT slides 7–16; Patagonia / Eileen Fisher case study excerpt	Use Think-Pair-Share: 'How does your business currently balance profit and planet?' Debrief in plenary.

Co-funded by the European Union

Funded by the European Union. Views and opinions expressed are, however, those of the author(s) only and do not necessarily reflect those of the European Union or the European Education and Culture Executive Agency (EACEA). Neither the European Union nor EACEA can be held responsible for them.
Project Number: 2025-ES01-KA220-VET-000358027

Topics and Sub-topics/Learning activities	Duration	Training methods used	Materials used (PPt, case studies, best practices, activities etc.)	Suggestions for implementation
Topic 2: Circular Fashion Business Models Rental/subscription models, resale & recommerce, take-back schemes, design-for-disassembly strategies.	25 min	Problem-Based Learning (SME focus)	PPT slides 17–24; video clip (e.g. Mud Jeans rental model, 5 min)	Small groups map one circular model to a participant's own business context. Share back 3-min pitch.
Topic 3: EU Regulatory Frameworks (CSRD, ESPR, DPP) Scope, obligations, timelines; Digital Product Passport structure; mandatory disclosure requirements; greenwashing law.	30 min	Interactive Lecture + Demonstration	PPT slides 25–40; live DPP demo (EU Commission prototype link); EU Green Claims Directive summary handout	Use a 'Regulation Timeline' wall chart. Pose compliance challenge: 'You launch a denim jacket in 2027. What data must the DPP contain?'
Topic 4: Ethics, Fair Labour & Responsible Supply Chains ILO core conventions, EU Corporate Sustainability Due Diligence Directive (CSDDD), traceability technologies (Blockchain, RFID, QR), ethical distribution.	25 min	Case-Based Learning + Group Discussion	PPT slides 41–52; Rana Plaza timeline infographic; Blockchain supply chain video (4 min)	Group audit exercise: given a fictional supplier profile, identify 3 ethical risks and propose mitigating actions.
Topic 5: Certifications & Standards Landscape GOTS, OEKO-TEX, FairTrade, B Corp, EU Ecolabel – purpose,	25 mins	Interactive Lecture + Peer Learning	PPT slides 53–62; certification comparison matrix handout	'Certification Speed Dating': each learner researches one certification and presents in 2 min. Class builds a shared comparison chart.

Co-funded by the European Union

Funded by the European Union. Views and opinions expressed are, however, those of the author(s) only and do not necessarily reflect those of the European Union or the European Education and Culture Executive Agency (EACEA). Neither the European Union nor EACEA can be held responsible for them.
Project Number: 2025-ES01-KA220-VET-000358027

Topics and Sub-topics/Learning activities	Duration	Training methods used	Materials used (PPt, case studies, best practices, activities etc.)	Suggestions for implementation
scope, cost, and obtaining process for SMEs.				
Practical activity 1 **Sustainability Audit Simulation** Learners conduct a mini audit of a fictional SME using a provided audit checklist aligned with CSRD indicators.	30 min	Hands-on Workshop / Lab/Simulation	Audit checklist template (printed/digital); fictional SME profile cards; CSRD indicator reference sheet	Pairs complete the audit, identify 3 priority gaps, and write a 1-page corrective action plan. Debrief: compare findings across groups.
Practical activity 2 **Design a Transparent Supply Chain** Groups map a full supply chain for a garment, assign traceability technologies at each node, and present their DPP data architecture.	30 min	Project-Based Learning / Group Exercise	Supply chain mapping canvas; sticky notes or digital whiteboard (Miro/Jamboard); DPP data-field checklist	Groups of 3–4 present their chain in 5 min. Peer feedback on completeness and regulatory alignment.
Assessment (post evaluation) Quiz (5 MC questions) + Case Study Analysis: participants evaluate a real brand's compliance posture.	20 min	Quiz + Case Study Analysis	Mentimeter or printed quiz; real brand sustainability report (e.g. Inditex / H&M); assessment rubric	Quiz auto-scored; case study assessed on: regulation identification, critical analysis, feasibility of recommendations.
Wrap-up Each learner shares one actionable regulation or standard they will implement in their business within the next 3 months	15 min	Collaborative Summary / Reflective Learning Log	Commitment cards; module summary handout	Trainer compiles commitments on a shared 'Action Wall'. Follow-up check-in suggested at 4 weeks.

Co-funded by the European Union

Funded by the European Union. Views and opinions expressed are, however, those of the author(s) only and do not necessarily reflect those of the European Union or the European Education and Culture Executive Agency (EACEA). Neither the European Union nor EACEA can be held responsible for them.
Project Number: 2025-ES01-KA220-VET-000358027

Pre-Evaluation

Q1 - The "Triple Bottom Line" framework evaluates a business across three dimensions. Which of the following is the correct set?

A) Quality, Speed, Cost
B) Profit, People, Planet
C) Environment, Innovation, Growth
D) Product, Price, Promotion

Q2 - The EU requires all fashion brands, including very small ones, to publish a full CSRD sustainability report starting from 2025.

A) True
B) False

CSRD currently applies to large companies first; SMEs listed on regulated markets follow from 2027, and a voluntary simplified standard (VSME) exists for non-listed SMEs. Students will find this in Topic 3

Q3 - Which of the following best describes a "circular" fashion business model?

A) A brand that sells new collections every two weeks to maximise turnover
B) A brand that sources materials from a single country to reduce shipping
C) A brand that keeps materials in use as long as possible through rental, repair, or take-back schemes
D) A brand that donates unsold stock to charity

Q4 - GOTS (Global Organic Textile Standard) is a certification that only covers the final finished garment, not the rest of the supply chain.

A) True
B) False

Correct explanation: GOTS covers the entire supply chain from organic fibre processing through to the finished product, including social criteria. Students will find this in Topic 5

Topic 1: Sustainable Business Models and Strategic Alignment

Sustainability is no longer a peripheral concern for fashion SMEs — it is a strategic imperative. This topic introduces frameworks that help businesses align profit, people, and planet simultaneously.

The Triple Bottom Line (TBL)

Developed by John Elkington (1994), the Triple Bottom Line framework evaluates business performance across three dimensions:

- Profit – financial viability and long-term economic health.
- People – social equity, employee welfare, and community impact.
- Planet – environmental stewardship and resource efficiency.

For fashion SMEs, embedding TBL thinking means reviewing decisions — from raw material sourcing to packaging — through all three lenses simultaneously.

Co-funded by the European Union

Funded by the European Union. Views and opinions expressed are, however, those of the author(s) only and do not necessarily reflect those of the European Union or the European Education and Culture Executive Agency (EACEA). Neither the European Union nor EACEA can be held responsible for them.
Project Number: 2025-ES01-KA220-VET-000358027

ESG Integration in Business Strategy

Environmental, Social, and Governance (ESG) criteria have moved from investor reporting tools to operational management frameworks. Key dimensions for fashion businesses include:

- Environmental: carbon footprint per garment, water use, textile waste reduction.
- Social: supplier audits, living wages, gender equity in supply chains.
- Governance: board oversight of sustainability, anti-corruption policies, transparent stakeholder reporting.

Practical entry point for SMEs: begin with a materiality assessment to identify which ESG factors most affect your specific business model.

The Business Case for Sustainability

Research consistently shows that sustainability-committed SMEs benefit from:

- Reduced operational costs (energy, water, waste management).
- Enhanced brand equity and customer loyalty among values-driven consumers.
- Improved access to green financing and EU funding instruments.
- Lower compliance risk and penalties under incoming EU regulation.
- Greater talent attraction and employee retention.

Topic 2: Circular Fashion Business Models

The circular economy requires rethinking value creation — moving from linear 'take-make-dispose' to closed-loop systems that keep materials in use for as long as possible.

Key Circular Business Model Archetypes

Model	How it works	SME Example
Rental / Subscription	Consumers pay to use garments for a period, returning them for cleaning and re-rental.	Mud Jeans (NL) – lease-a-jeans model
Resale & Recommerce	Brand-run or partnered platforms for authenticated second-hand sales.	Patagonia Worn Wear programme
Take-Back / Repair	Customers return end-of-life products; brand repairs, recycles, or upcycles.	Eileen Fisher Renew (USA)
Design for Disassembly	Products engineered from the start to be easily separated into mono-material streams at end of life.	Adidas x Parley shoes designed for material recovery

Topic 3: Regulatory Requirements: EU Frameworks Overview

The EU has introduced an interlocking system of regulations that will reshape how fashion businesses operate and report. Understanding these is not optional — compliance timelines are already in effect.

Corporate Sustainability Reporting Directive (CSRD)

- Replaces the Non-Financial Reporting Directive (NFRD), dramatically expanding scope.
- From 2026, applies to all large EU companies; SMEs listed on regulated markets from 2027; voluntary standard for non-listed SMEs (VSME) available from 2025.
- Requires disclosure against European Sustainability Reporting Standards (ESRS), covering climate, biodiversity, social factors, and governance.

Co-funded by the European Union
Funded by the European Union. Views and opinions expressed are, however, those of the author(s) only and do not necessarily reflect those of the European Union or the European Education and Culture Executive Agency (EACEA). Neither the European Union nor EACEA can be held responsible for them.
Project Number: 2025-ES01-KA220-VET-000358027

- Double materiality: companies must report both the impact of sustainability on their finances AND their own impact on the world.
- Action for SMEs: begin data collection now; engage with your supply chain partners about their reporting needs.

Eco-design for Sustainable Products Regulation (ESPR)

- Entered into force in 2024. Sets minimum sustainability requirements for products placed on the EU market.
- Covers durability, reusability, repairability, recyclability, recycled content, and carbon and environmental footprints.
- Textiles and apparel are among the priority product groups in the initial work plan.
- Prohibits destruction of unsold textiles above certain company sizes (from 2025 for large companies).

Digital Product Passport (DPP)

- A key tool under ESPR: a structured data set linked to a physical product (via QR code, RFID, or NFC) containing information about origin, materials, repairability, recycled content, and carbon footprint.
- Pilot programmes for textiles are expected 2026–2027; mandatory implementation to follow.
- DPP data must be accessible to consumers, repair shops, recyclers, and authorities.
- For SMEs: start mapping which product data you currently hold and identify gaps against likely DPP fields.

The EU Green Claims Directive & Greenwashing

- Prohibits vague environmental claims ('eco-friendly', 'sustainable', 'natural') without substantiation.
- Claims must be based on recognised scientific methods and verified by an accredited third party before being made public.
- Penalties include fines and mandatory corrective advertising.
- SME checklist: audit all marketing materials, swing tags, and website copy for unsubstantiated claims.

Topic 4: Ethics, Fair Labour, and Responsible Supply Chains

The fashion industry's global supply chains carry significant human rights risks. Regulatory developments are rapidly transforming voluntary ethical commitments into legal obligations.

Core Labour Standards (ILO Conventions)

- Freedom of association and collective bargaining rights.
- Elimination of forced and compulsory labour.
- Abolition of child labour.
- Elimination of discrimination in employment.

These are the baseline for any ethical sourcing policy. Brands should require suppliers to sign a Code of Conduct referencing these conventions and conduct regular audits.

EU Corporate Sustainability Due Diligence Directive (CSDDD)

- Requires large companies (and their supply chains) to identify, prevent, and remediate actual and potential adverse impacts on human rights and the environment.
- Includes a civil liability mechanism for victims.

Co-funded by the European Union

Funded by the European Union. Views and opinions expressed are, however, those of the author(s) only and do not necessarily reflect those of the European Union or the European Education and Culture Executive Agency (EACEA). Neither the European Union nor EACEA can be held responsible for them.
Project Number: 2025-ES01-KA220-VET-000358027

- SMEs are not directly in scope but will face pressure from larger buyers requiring due diligence data from suppliers.

Traceability Technologies

Technology	Application	Cost / Complexity
QR Code	Links garment to product information page or DPP. Consumer-facing and supply chain use.	Low cost, accessible to SMEs. Requires digital content maintenance.
RFID	Radio-frequency tags enable bulk scanning in warehouses and retail. Strong for inventory & returns management.	Moderate cost; requires scanner infrastructure.
Blockchain	Immutable ledger recording each supply chain event (e.g. fibre harvest, spinning, dyeing, cut & sew). High trust for B2B.	Higher setup cost; best via shared industry platforms (e.g. TextileGenesis).

Topic 5: Certifications and Standards Landscape

Certifications provide third-party verified proof of sustainability claims. For SMEs, choosing the right certification(s) depends on target market, product type, and available resources.

Certification	Scope	Key Requirements	Target User	Market Signal
GOTS (Global Organic Textile Standard)	Organic fibre processing through entire supply chain	Min 70% organic fibre; prohibits hazardous inputs; social criteria	Brands, manufacturers, retailers	Strong in EU & US markets
OEKO-TEX STANDARD 100	Product safety: harmful substances in textiles	Tests every component; updated annually to reflect latest science	Manufacturers, brands, retailers	Consumer trust; common buyer requirement
Fairtrade Textile Standard	Fair trade conditions for cotton farmers and textile workers	Fairtrade Premium; safe conditions; living wages	Brands sourcing from developing-country supply chains	Growing consumer awareness
B Corp Certification	Whole business: governance, workers, community, environment, customers	Min 80/200 points on B Impact Assessment; legal accountability clause	SMEs through to large brands; any sector	Strong investor & media credibility
EU Ecolabel	Product environmental performance: textiles, footwear	LCA-based criteria; restricted substances list; durability tests	EU-based or EU-selling brands and manufacturers	Aligned with EU Green Deal procurement

Key advice for SMEs: Prioritise certifications demanded by your primary buyers or most relevant to your market claims. Start with OEKO-TEX STANDARD 100 (lower cost, broad market recognition) before progressing to full supply-chain standards like GOTS.

Co-funded by the European Union

Funded by the European Union. Views and opinions expressed are, however, those of the author(s) only and do not necessarily reflect those of the European Union or the European Education and Culture Executive Agency (EACEA). Neither the European Union nor EACEA can be held responsible for them.
Project Number: 2025-ES01-KA220-VET-000358027

Case Study

Because There Is No Planet B: Ecoalf's Journey from Recycled Waste to Regulatory Leadership

Country: Spain (Madrid)

Link: ecoalf.com/en-us/pages/proposito | ecoalf.com/en-us/pages/memoria-de-sostenibilidad

Main Content including the following:

Background

Ecoalf is a Spanish fashion brand founded in Madrid in 2009 by Javier Goyeneche, with a mission to prove that premium fashion and radical sustainability can coexist. Its slogan — 'Because There Is No Planet B' — captures a business model built entirely around recycled and low-impact materials: discarded fishing nets, post-consumer plastic bottles, used tyres, and ocean debris are transformed into high-quality garments and accessories. Ecoalf sells across Europe and beyond, and is recognised as one of Spain's most environmentally responsible companies (Merco ranking, 2022). Critically for this module, Ecoalf became the first fashion brand in Spain to achieve B Corp certification (2018), and has built a documented traceability and transparency architecture that directly anticipates the requirements of the EU Digital Product Passport and ESPR.

The Challenge

Despite its sustainability-first founding principles, Ecoalf faced three compounding pressures as EU regulation accelerated:

- Supply chain opacity: producing with recycled materials sourced from multiple countries (Spain, Greece, Italy, Portugal, Thailand) created complex traceability requirements that legacy documentation systems could not meet at the level demanded by incoming ESPR and DPP rules.
- Substantiation gap: as the EU Green Claims Directive moved toward adoption, informal sustainability language used in marketing — however well-intentioned — needed to be replaced with verified, third-party-audited data at the product level.
- SME resource limits: while pioneering in ethos, Ecoalf was navigating the same resource constraints as any growing SME, competing for compliance bandwidth against much larger players with dedicated legal and reporting departments.

Actions Taken

1. Integrated BCOME, a pioneering Spanish-developed intelligent sustainability management platform, across the entire product lifecycle. BCOME quantifies social, environmental, and ethical performance from raw material to finished product, generating product-level data directly compatible with Digital Product Passport architectures. Over one million Ecoalf products have been assessed through this system.
2. Obtained Global Recycled Standard (GRS) certification in 2017, subjecting the brand to annual audits verifying traceability and chain of custody of recycled content across the full supply chain, as well as

Co-funded by the European Union

Funded by the European Union. Views and opinions expressed are, however, those of the author(s) only and do not necessarily reflect those of the European Union or the European Education and Culture Executive Agency (EACEA). Neither the European Union nor EACEA can be held responsible for them.
Project Number: 2025-ES01-KA220-VET-000358027

compliance with international labour rights standards. GRS certification now covers the core product range.

3. Launched the Ecoalf Foundation's 'Upcycling the Oceans' project, building a closed-loop raw material system with over 4,000 fishermen across 60+ ports in Spain, Greece, Italy, and France. Marine plastic waste is collected, recycled, and converted into Ocean Yarn for garments — creating a traceable, circular material stream with documented environmental provenance.
4. Conducted Life Cycle Assessments (LCA) for all retail stores globally as part of B Corp obligations, measuring embodied and operational carbon of physical spaces and offsetting the full impact annually — an approach that anticipates ESPR scope-3 reporting norms.
5. Published annual Sustainability Reports disclosing ESG performance, supply chain maps, certification status, and progress toward net-zero GHG emissions by 2030, positioning the brand ahead of voluntary CSRD reporting timelines for companies of its size.

Results

- **Environmental**: ranked in the top 5% of B Corp companies globally for environmental practices; GRS-certified traceability covering recycled material streams from raw material origin to finished product; Upcycling the Oceans project operational in Spain, Greece, Italy, and France with documented tonnes of marine waste recovered annually.
- **Business**: B Corp score of 122.7 (vs. median of 50.9 for ordinary businesses); recognised as most environmentally responsible company in Spain 2022 (Merco); growing B2B wholesale relationships citing certification credentials as a procurement criterion.
- **Regulatory readiness**: BCOME product-level data architecture positions Ecoalf ahead of mandatory DPP requirements; GRS chain-of-custody audits provide the supplier-level data trails that ESPR will require; proactive LCA reporting aligns with CSRD double-materiality obligations.
- **Lessons learned**: embedding sustainability infrastructure at founding — rather than retrofitting it under regulatory pressure — dramatically reduces compliance cost and creates genuine competitive differentiation; collaborative circular models (Upcycling the Oceans) generate both marketing value and regulatory-grade traceability data.

Key Takeaways

1. Building traceability infrastructure early — before it is legally mandatory — converts a compliance obligation into a competitive asset and a credible marketing story.
2. Product-level sustainability data (via platforms like BCOME) is the foundation of DPP compliance; brands that invest now will face far lower costs when ESPR requirements become mandatory.
3. Closed-loop raw material programmes (such as Upcycling the Oceans) simultaneously address ESPR recycled content requirements, Green Claims substantiation needs, and consumer engagement.
4. B Corp certification provides a rigorous, comprehensive framework for SMEs to demonstrate whole-business sustainability performance to buyers, investors, and regulators in a single verified credential.
5. Cross-border, multi-stakeholder collaboration (fishermen across Spain, Greece, Italy, France) shows that even SMEs can build regulatory-grade circular supply chains through partnership rather than sole internal investment.

Discussion Questions

Ecoalf built its sustainability architecture from founding.

Co-funded by the European Union

Funded by the European Union. Views and opinions expressed are, however, those of the author(s) only and do not necessarily reflect those of the European Union or the European Education and Culture Executive Agency (EACEA). Neither the European Union nor EACEA can be held responsible for them.
Project Number: 2025-ES01-KA220-VET-000358027

How would you approach retrofitting similar systems into an already-operating business? What would be your first three steps?

The Upcycling the Oceans project connects Ecoalf's supply chain directly to communities in Greece and Italy (project partners in DesignSmart).
What opportunities does this cross-border model suggest for your own sourcing or supply chain?

Ecoalf uses BCOME for product-level LCA data.
What barriers might a micro-enterprise face in implementing such a system, and how could those be overcome — individually or through a shared industry consortium?

Practical Exercise (optional)

Using the supply chain canvas from Practical Activity 2, map Ecoalf's 'Ocean Yarn' supply chain — from marine waste collection at a Greek or Spanish fishing port, through recycling and yarn production, to the finished garment. Identify which data fields would populate the Digital Product Passport for an Ocean Yarn jacket. Which traceability technology (QR, RFID, or Blockchain) would you recommend at each node, and why? Compare your design with the BCOME approach described in the case.

Best Practice

SME Digital Product Passport Pilot – Textiles Genesis Platform

Type: ü Business practice ü Technological solution ☐ Educational approach ☐ Policy

Content (Executive Snapshot):

TextileGenesis is a blockchain-based supply chain traceability platform specifically designed for the fashion and textiles sector. Launched in 2019 and now operating across 25+ countries, it enables brands and their supply chain partners to track fibre origin, processing steps, and certifications on an immutable, shared digital ledger. In the context of the EU Digital Product Passport rollout, TextileGenesis has pioneered a scalable SME on-ramp model, allowing smaller manufacturers to participate in the DPP ecosystem at a fraction of the cost of proprietary solutions. It directly addresses the data fragmentation that prevents fashion brands from meeting ESPR traceability requirements.

The Challenge Addressed

- The problem: Fashion supply chains involve dozens of suppliers across multiple countries, each using different record-keeping systems. No single brand has full visibility of their Tier 3+ supply chain.
- Why it is important: The DPP mandates product-level data on materials, processing, and end-of-life options. Without traceability infrastructure, compliance is impossible.
- Risk if unaddressed: Market access barriers as ESPR comes into force; inability to substantiate sustainability claims; exposure to greenwashing penalties.

Innovation & Added Value

•Blockchain immutability: data entered by any supply chain actor cannot be retroactively altered, creating audit-grade trust.
•Certification integration: GOTS, OEKO-TEX, and Fairtrade certification data is auto-imported, eliminating manual re-entry.

Co-funded by the European Union
Funded by the European Union. Views and opinions expressed are, however, those of the author(s) only and do not necessarily reflect those of the European Union or the European Education and Culture Executive Agency (EACEA). Neither the European Union nor EACEA can be held responsible for them.
Project Number: 2025-ES01-KA220-VET-000358027

•DPP-ready architecture: data schema aligned with the EU Commission's DPP pilot requirements.
•SME accessibility: tiered pricing model and multi-language interface enable small suppliers and manufacturers to participate without dedicated IT resources.

Tools / Technologies Used

•Hyperledger Fabric (enterprise-grade permissioned blockchain)
•API integrations with major certification bodies (GOTS, OEKO-TEX)
•QR code and NFC tag generation for consumer-facing DPP access
•ESRS-aligned data reporting module for CSRD disclosure preparation

Source: TextileGenesis (www.textilegenesis.com)

Practical Activities

Activity 1: Sustainability Audit Simulation

Type: ü Hands-on ü AI-based ☐ Analysis ☐ Design ☐ Simulation ☐ Other

Activity Objective:

The aim of this activity is to develop practical skills in sustainability auditing by applying CSRD-aligned indicators to a fictional SME scenario.

After completing this activity, learners will be able to:

•Apply a structured sustainability audit methodology to a business context.
•Identify priority compliance gaps against EU regulatory requirements.
•Draft a basic corrective action plan with realistic timelines.

Activity outline / Description of the activity:

Step 1: Audit Preparation (10 min)

Each pair receives a fictional SME profile card (e.g. 'GreenThread S.r.l., Italian knitwear manufacturer, 45 employees, exports to 12 EU countries, no current certifications'). Review the profile and the audit checklist. The checklist covers:

•Environmental: energy source, water use, waste management, carbon footprint measurement.
•Social: supplier code of conduct, worker welfare policy, living wage commitment.
•Governance: sustainability board oversight, ESG data reporting, anti-greenwashing policy.

Step 2: Conduct the Audit (10 min)

Using the checklist, pairs assess the SME profile against each criterion, rating compliance as: Compliant / Partial / Non-Compliant / Not Applicable. For each Non-Compliant or Partial rating, note the specific gap and its regulatory relevance (e.g. 'No carbon footprint data — relevant to CSRD ESRS E1')

Step 3: Corrective Action Plan & Debrief (10 min)

Pairs identify the 3 highest-priority gaps and write one corrective action per gap, including: recommended action, responsible role (e.g. Operations Manager), and target completion timeframe. Groups then share

Co-funded by the European Union
Funded by the European Union. Views and opinions expressed are, however, those of the author(s) only and do not necessarily reflect those of the European Union or the European Education and Culture Executive Agency (EACEA). Neither the European Union nor EACEA can be held responsible for them.
Project Number: 2025-ES01-KA220-VET-000358027

their top-priority gap with the full class. Trainer facilitates a brief comparison: do groups agree on priorities? What does this reveal about risk management?

Total time: 30 minutes

Activity 2: Design a Transparent Fashion Supply Chain

Type: ü Hands-on ü AI-based ☐ Analysis ☐ Design ☐ Simulation ☐ Other

Activity Objective:

The aim of this activity is to apply knowledge of traceability technologies and DPP requirements by designing a transparent supply chain for a specific fashion product.

After completing this activity, learners will be able to:

•Map a complete product supply chain from raw material to consumer.
•Assign appropriate traceability technologies at each node.
•Define the data architecture for a Digital Product Passport.

Activity outline / Description of the activity:

Step 1: Select Product & Map the Chain (10 min)

Each group selects one product from the following options: (a) Organic cotton T-shirt, (b) Recycled polyester activewear jacket, (c) Leather handbag. Using the supply chain mapping canvas, identify each production stage: raw material origin → fibre/material processing → fabric production → cut, make, trim → quality control → distribution → retail → consumer → end-of-life. For each stage, note: location (country), key sustainability risk, and which traceability technology would be deployed (QR, RFID, or Blockchain node).

Step 2: Design the DPP Data Architecture (10 min)

Using the DPP data-field checklist, groups identify which data fields they can populate for their product and which are currently unavailable. They propose a 12-month roadmap to close the data gaps

Step 3: Present & Peer Feedback (10 min)

Pairs identify the 3 highest-priority gaps and write one corrective action per gap, including: recommended action, responsible role (e.g. Operations Manager), and target completion timeframe. Groups then share their top-priority gap with the full class. Trainer facilitates a brief comparison: do groups agree on priorities? What does this reveal about risk management?

Total time: 30 minutes

Assessment

Post-Evaluation Quiz

Q1 - Which EU regulation introduces the concept of "double materiality" — requiring companies to report both how sustainability risks affect their finances AND how their operations affect the world?

A) ESPR (Eco-design for Sustainable Products Regulation)
B) CSDDD (Corporate Sustainability Due Diligence Directive)

Co-funded by the European Union
Funded by the European Union. Views and opinions expressed are, however, those of the author(s) only and do not necessarily reflect those of the European Union or the European Education and Culture Executive Agency (EACEA). Neither the European Union nor EACEA can be held responsible for them.
Project Number: 2025-ES01-KA220-VET-000358027

C) EU Green Claims Directive
D) CSRD (Corporate Sustainability Reporting Directive)

Q2 - Under the EU Green Claims Directive, a fashion brand can legally label its products as "eco-friendly" as long as it genuinely believes this to be true, even without third-party verification.

A) True
B) False

Correct explanation: The Green Claims Directive requires claims to be based on recognised scientific methods and verified by an accredited third party before being made public. Good intentions are not sufficient.

Q3 - The Digital Product Passport (DPP) is a key tool introduced under which regulation?

A) CSRD
B) CSDDD
C) ESPR
D) EU Ecolabel Regulation

Q4 - A small fashion brand wants to communicate to buyers that its garments are free from harmful substances and that this has been independently verified. Which certification is most directly suited to this claim?

A) OEKO-TEX STANDARD 100
B) B Corp Certification
C) Fairtrade Textile Standard
D) EU Ecolabel

Q5 - Blockchain technology is the only traceability tool available to fashion SMEs that want to meet ESPR supply chain transparency requirements.

A) True
B) False

Correct explanation: QR codes and RFID are also valid traceability technologies suited to different scales and use cases. Blockchain offers the highest level of immutable trust but carries higher setup costs. Students can choose the right tool for their context.

Case Study Analysis – Assessment Rubric

Participants analyse a real company's sustainability report (e.g. Inditex Group Sustainability Report or H&M Group Sustainability Disclosure). They submit a structured 400–600 word analysis addressing the following criteria:

Criterion	Descriptors	Max Score	Weight
Regulation Identification	Correctly identifies which EU regulations apply to the company and maps them to specific disclosed actions or gaps.	25	25%
Critical Analysis	Evaluates the strength of the company's compliance posture;	35	35%

Co-funded by the European Union
Funded by the European Union. Views and opinions expressed are, however, those of the author(s) only and do not necessarily reflect those of the European Union or the European Education and Culture Executive Agency (EACEA). Neither the European Union nor EACEA can be held responsible for them.
Project Number: 2025-ES01-KA220-VET-000358027

	identifies genuine progress vs. potential greenwashing; uses evidence from the report.		
Feasibility of Recommendations	Proposes at least 2 concrete improvement actions; demonstrates understanding of SME resource constraints; links recommendations to specific regulations.	25	25%
Clarity & Structure	Well-structured analysis; clear argument; uses module terminology accurately.	15	15%

Pass threshold: 60/100. Feedback provided within 5 working days of submission. Strong analyses may be anonymised and shared with the cohort as exemplars (with learner consent).

Co-funded by the European Union

Funded by the European Union. Views and opinions expressed are, however, those of the author(s) only and do not necessarily reflect those of the European Union or the European Education and Culture Executive Agency (EACEA). Neither the European Union nor EACEA can be held responsible for them.
Project Number: 2025-ES01-KA220-VET-000358027