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MODULE 2

Sustainable Materials and Responsible Sourcing



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CONTENTS

Eco-friendly materials, Fibre types and their environmental impact profiles (natural, synthetic, regenerated, innovative bio-based) 10

Material circularity assessment – recyclability, biodegradability, mono-material design 11

Achieving and demonstrating transparency of textile products, traceability, and accountability. 11

Sustainable material sourcing and supplier evaluation criteria 11

Ethical sourcing, production (labour rights, fair wages, safe working conditions) and distribution 12

Certifications and standards landscape (GOTS, OEKO-TEX, Fairtrade, B Corp, etc.) 14

References 13

Case Study template 13

Best Practice 16

Practical Activity Template 17

ANNEX I Guess the Fibre – Activity Cards 21

ANNEX II Pre-Assessment Questionnaire 22

ANNEX III – Orange Fibre: Case Study and Activity 24

ANNEX IV – Compare the Materials (Practical Exercise) 21

ANNEX V - Compare the Materials – Worksheet 22

ANNEX VI – VEJA Mini Case (Trainer Guide) 23

Annex VIIa – Build a Supplier Scorecard (Trainer Guide) 24

Annex VIIb – Supplier Evaluation Criteria (Worked Example) 25

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Lesson Plan

Module purpose: This module equips VET providers and trainers to deliver practical learning on how accessible AI and data tools can support sustainable fashion decisions. Trainers will guide learners to compare material options, assess sustainability data, review AI-generated outputs, document evidence, and keep final decisions subject to human judgement.

Relevant topics

1. Eco-friendly materials: fibre types and their environmental impact profiles (natural, synthetic, regenerated, innovative bio-based)
2. Material circularity assessment – recyclability, biodegradability and mono-material design
3. Achieving and demonstrating transparency of textile products: traceability and accountability
4. Sustainable material sourcing and supplier evaluation criteria
5. Ethical sourcing, production (labour rights, fair wages, safe working conditions) and distribution
6. Certifications and standards landscape (GOTS, OEKO-TEX, Fairtrade, B Corp, etc.)

EQF Level: 5
Estimated Learning Time: 5 hours

Learning Outcomes

Knowledge

After the completion of this module, learners will:

- Comprehend specialised knowledge of textile fibre categories, their environmental profiles and circularity potential.
- Understand the environmental impacts of different fibres (natural, synthetic, regenerated and bio-based).
- Have awareness of supply-chain complexity and the factors affecting material sustainability across different contexts.
- Understand the circularity of materials (recyclability, biodegradability and life-cycle management).
- Know the main certifications and standards (GOTS, OEKO-TEX, Fairtrade, B Corp) and what each one does and does not guarantee.
- Understand ethical-production frameworks, labour legislation and social-responsibility concepts.

Skills

After the completion of this module, learners will be able to:

- Evaluate materials against environmental and ethical criteria, using life-cycle thinking and footprint-data interpretation.
- Conduct supplier assessments and supplier mapping (risk identification and documentation management).
- Interpret and apply certification standards and compliance documentation.
- Develop and apply supplier-evaluation frameworks and ethical-sourcing checklists.
- Design for lower environmental impact (durability, repairability, recyclability and mono-material choices).
- Compare materials using environmental-impact datasets and Digital Product Passport information.

Responsibility & Autonomy

After the completion of this module, learners will be capable of:

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- Justifying material-selection and sourcing decisions, balancing sustainability with practical constraints.
- Exercising management and supervision over material selection and supplier relationships in multi-priority contexts.
- Establishing and maintaining ethical supplier relationships and ensuring supply-chain transparency and accountability.
- Contributing to organisational sourcing-policy development and guiding others in material-selection practices.
- Taking responsibility for documentation, traceability systems, and the implementation of fair-production practices.

Practical Activities:

- Material comparison exercise using environmental-impact data
- Supplier audit simulation and ethical-sourcing checklist development
- Case study analysis: tracing a garment's material journey from source to product

Outcomes:

Participants will be able to evaluate and select materials based on environmental and ethical criteria, and establish responsible sourcing practices aligned with industry standards. They will be able to apply comprehensive, specialised knowledge, perform complex evaluations and decisions, and take responsibility for sourcing processes within organisational contexts.

Methodology (training delivery)

- Blended learning: short theoretical lectures and readings on fibre science, circularity and standards.
- Case studies: real-world garment and textile supply-chain tracing and material analyses.
- Workshops and labs: hands-on material identification, durability and repairability exercises, and mono-material prototype design.

Assessment

- Short quizzes (multiple choice / short answer) on fibre types, standards and legislation.
- Peer-reviewed mini-reports from case-study exercises.
- Reflection logs/journals documenting material and sourcing decisions and learning points.
- In-class polls and scenario-based rapid responses.

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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 - Guess the fibre Learners are shown fabric images or fabric swatches and are asked to guess the fibre type and its hidden impacts (water, energy, chemicals, labour).	10–15 min	Gamification, discussion	Images, fabric swatches, prompt cards PPT slides 2,3 & 4	Trainer asks: "What is this made of, and what did it cost the planet?" Learners name at least one environmental and one social impact. * Alternative: learners may be asked to handle fabric swatches, if used for this activity and be asked the same questions (more suitable for face2face training) After the short discussion present the prompt cards from Annex1
Pre evaluation 4–6 questions to assess the previous knowledge of learners The questions multiple choice/true or false options are listed in ANNEX 2	10–15 min	Quiz-based learning, group reflection	Mentimeter / Kahoot / Google Forms Use questions from Annex2 PPT slide 5	1. Create a Mentimeter / Kahoot / Google Forms questionnaire using the questions from Annex 2a. 2. Give learners the form 3. Analyze the answers given and provide feedback on the correct answers which can be found in Annex 2b
Module Introduction: Materials & Sourcing Overview	5 min	Introductory lecture	PPT slides 6 & 7	Shortly introduce the 6 topics and connect them with the knowledge, skills and responsibilities and autotomy of the module.
Topic 1: Eco-friendly materials, fibre types and their environmental impact profiles (Module 2.1) Natural, synthetic, regenerated cellulosics and innovative bio-based fibres and their environmental profiles.	15 min	Interactive lecture, Questions – Answers demonstration	PPT slides (8-13), Textile Exchange Materials Market Report, fibre swatches (for face2face)	The trainer stimulates learners by asking them to discuss in pairs, using the questions from ppt slide 9. Introduction on the Eco-friendly materials and fibre types, raw data, plus & minus of each category and pros and cons. The trainer compares fibre categories with examples and asks the reflective question "is 'natural' always better?", using the data shared earlier. (ppt slides 10 – 13)

Topics and Sub-topics/Learning activities	Duration	Training methods used	Materials used (PPt, case studies, best practices, activities etc.)	Suggestions for implementation
Topic 2: Material Circularity (Module 2.2) Recyclability, biodegradability, mono-material design and design for disassembly.	30 min	Case-based, demonstration, lecture	PPT slides (14-20), recyclable vs non-recyclable samples	The trainer stimulates learners by asking them to discuss in pairs, using the questions from ppt slide 15. Use slides 16–20 to introduce material circularity and its three levels — recyclability, biodegradability and mono-material design — and show with the data how little is currently recycled. Then weigh its advantages and challenges, reinforcing that good design (not just recycled content) is what makes circularity work.
Practical Activity **1st Option** **Case study: Orange Fibre** **2nd Option** **"Compare the materials" exercise**	15 – 20 min 15 – 20 min	Case study Applied comparison, group work, group pitch (decision-making)	**Option 1** PPT slide 21 **Option 2** PPT slide 22 materials/data slides for reference, fabric swatches if running it face-to-face	For detailed instructions, see Annex 3 For detailed instructions, see Annex 4 Use Annex 5 to help learners complete the activity.
Topic 3: Transparency, Traceability & Accountability (Module 2.3) -Supply-chain tiers, - traceability tools and -the EU Digital Product Passport.	30 min	Demonstration, discussion	PPT slides 23-29, QR-code / DPP examples, VEJA transparency map	Play the video in slide 24 and stimulate a short discussion on circular economy and textile waste Present the supply-chain tiers and traceability (Tier 4 raw material → Tier 1 assembly) and explain that traceability means following a material across all of them (slide 25) Use the figures to show that most claims and labels go unverified, and stress that real transparency means evidence you can trace and check (slide 26). Paly the video and introduce the Digital Product Passport (DPP) — a digital record of a garment's materials and origin that EU textiles will carry from around 2027 (slide 27)

Topics and Sub-topics/Learning activities	Duration	Training methods used	Materials used (PPt, case studies, best practices, activities etc.)	Suggestions for implementation
				Present the advantages and challenges (slide 28) The trainer demonstrates a brand transparency map and a Digital Product Passport mock-up, linking them to the avoidance of greenwashing.
Practical Activity **The mini case of VEJA** VEJA is a French footwear brand founded in 2004 that makes sneakers from traceable, lower-impact materials. Unlike most footwear brands, it sources raw materials directly from producers and publishes detailed information about its supply chain.	10 – 15 min	Case-based learning, group work, presentation	PPT slide 29; VEJA transparency map / QR code	Ask the learners to scan the QR code and follow the steps they see on the ppt slide 29. For additional support see ANNEX VI – VEJA Mini Case (Trainer Guide)
Topic 4: Sustainable Sourcing & Supplier Evaluation (Module 2.4) Supplier mapping, due diligence and evaluation criteria.	40 min	Problem-based, applied learning	PPT slides 30-36, OECD Due Diligence Guidance, supplier checklist template	Initiate a quick paired discussion before the sourcing content. Learners debate three prompts — what they'd check first (price, quality, ethics or impact), slide 31. The trainer introduces the OECD six-step due diligence cycle; learners draft three supplier-evaluation criteria for a given product.
Practical Activity "Build a Supplier Scorecard"	10–15 min	Applied task, individual or small-group work, peer sharing	PPT slide 36; supplier-evaluation criteria template (the worked organic-cotton example Annex 7); OECD Due Diligence Guidance as reference; a short	Ask learners to pick a material (e.g. organic cotton) and draft three supplier-evaluation criteria they'd use to judge whether a supplier is genuinely responsible, defining what "good" looks like and what evidence would verify it. For detailed instructions, see Annex 7a – Build a Supplier Scorecard For additional information, see Annex 7b – Supplier Evaluation Criteria (Worked Example)

Topics and Sub-topics/Learning activities	Duration	Training methods used	Materials used (PPt, case studies, best practices, activities etc.)	Suggestions for implementation
			certifications list (GOTS, OEKO-TEX, etc.).	
Topic 5: Ethical Sourcing & Production (Module 2.5) Labour rights, fair wages, safe working conditions and responsible distribution.	40 min	Case-based, discussion	PPT slides 37-42, ILO / Fair Wear materials, Rana Plaza case	The trainer uses the Rana Plaza disaster to discuss why due diligence matters, and introduces living-wage and subcontracting risks.
Topic 6: Certifications & Standards Landscape (Module 2.6) GOTS, OEKO-TEX, Fairtrade, B Corp and recycled-content standards.	40 min	Applied learning, tool demonstration	PPT slides 43-51, certification logos and scope sheets	Learners match certification logos to what they actually guarantee, and identify what each standard does NOT cover.
Practical activity Final practical activity — Supplier audit & ethical-sourcing checklist. In teams, learners build an ethical-sourcing checklist from the OECD six-step logic, score four mock supplier profiles, flag risks and documentation gaps, then recommend one supplier in a short evidence-based pitch.	30 min	Simulation/role-play, group analysis, evidence-based decision pitch	PPT slide 52; Supplier Profiles handout (learner annex); Supplier Audit Trainer Guide; OECD six-step due-diligence cycle slide; ethical-sourcing checklist	Form teams of 3–4 and give each the supplier-profiles handout. Teams agree 5–6 checks, score all four suppliers (e.g. 0–2 per check), and flag risks and missing documentation, then pitch one recommendation in 60 seconds. Use the trainer answer key to draw out that the cheapest option is rarely the responsible one, that missing documentation is a red flag (not a neutral unknown), and that certificates must be verified — not trusted on the logo.
Debrief & Reflection learners reflect on the module through three guided prompts: what is still unclear, which material or certification surprised them most, and naming one real	10 min	Facilitated group discussion, reflection, open Q&A	PPT slide 53	The trainer run it as an open, low-pressure discussion rather than a test. Takes each prompt in turn, invites a few responses, and clarifies anything still unclear before the assessment. Reflection questions: Why is no single fibre 'the most sustainable'? What do GOTS and OEKO-TEX each certify? Why

Topics and Sub-topics/Learning activities	Duration	Training methods used	Materials used (PPt, case studies, best practices, activities etc.)	Suggestions for implementation
product to guess what it is made of and where.				does mono-material design improve recyclability? What is the purpose of supplier due diligence and the Digital Product Passport?
Assessment (post evaluation) Self-evaluation, reflection & discussion — learners revisit the whole module through five topic-linked questions (materials and trade-offs, recycled vs recyclable, transparency and sourcing, the wage gap, reading the labels), in pairs or small groups. 4–6 closed questions (multiple choice / true-false) plus a short reflection on material and sourcing decisions.	15–20 min	Open questions and self-assessment	Facilitated group discussion, reflection, peer learning	The trainer run it as an open discussion — there are no single right answers, so asks learners to explain their reasoning and listen for other views. Puts them in pairs or small groups, assign or rotate the questions, then share key points in plenary (Annex 9a). Each learner receives Annex 10, provide answers.
Wrap-up	20 min	Reflective learning, peer sharing	PPT slide 55 – 56 with key takeaways	Each learner shares one “actionable change” they will make in how they choose materials or suppliers; pairs discuss first, then share in plenary.

Sustainable materials and responsible sourcing

Materials and sourcing are at the heart of sustainable fashion. The choice of fibre, the way it is produced, and the conditions under which it is grown, processed and assembled determine the largest part of a garment's environmental and social footprint. This module builds directly on the lifecycle thinking introduced in Module 1, turning impact awareness into concrete decisions about which materials to use and which suppliers to work with. The aim is to give learners the knowledge and practical tools to evaluate materials, assess suppliers, interpret certifications, and source responsibly.

Eco-friendly materials, Fibre types and their environmental impact profiles (natural, synthetic, regenerated, innovative bio-based)

Every garment begins with a fibre, and the fibre largely decides the product's environmental profile. Global fibre production continues to grow rapidly: according to Textile Exchange's Materials Market Report, it reached about 124 million tonnes in 2023 and is expected to rise to roughly 160 million tonnes by 2030 if current trends continue. Polyester alone accounts for around 57% of total production, which means the sector remains heavily dependent on virgin fossil-based synthetics. Understanding the main fibre categories is therefore the first step towards more responsible material choices.

Natural fibres such as cotton, wool, linen and hemp are renewable and biodegradable, but they are not automatically sustainable. Conventional cotton, for example, is water-intensive and uses heavy pesticide loads, whereas organic and regenerative cotton substantially reduce chemical inputs and improve soil health. The impact of a natural fibre depends strongly on how and where it is grown.

Synthetic fibres such as polyester, polyamide (nylon) and elastane are derived from petroleum. They are durable, versatile, and inexpensive, which is why they dominate the market, but they come from a finite resource, do not biodegrade, and shed microplastics during washing. Recycled polyester reduces dependence on virgin petroleum, yet most recycled polyester is made from PET bottles rather than from old textiles, and textile-to-textile recycling is still limited.

Regenerated (man-made cellulosic) fibres such as viscose, modal and lyocell are produced by chemically dissolving natural cellulose, usually wood pulp. Their impact depends on responsible forestry and on the chemicals and energy used in processing. Closed-loop processes, such as the one used to make lyocell, recover most of the solvent and water and represent a clear improvement over older viscose production.

Innovative, bio-based materials are an emerging category that turn agricultural or industrial by-products into fibres, for example, regenerated cellulosic fabric from citrus waste, leather alternatives from pineapple leaves, grape marc, or mycelium, and recycled-fibre blends. These materials can divert waste and reduce reliance on virgin resources, but most still face challenges of cost, performance and scaling up to industrial volumes.

The key message is that **no fibre is universally 'sustainable**'. The most responsible choice depends on the **intended use**, the **durability** required, the **production conditions** and what happens to the product at the **end of its life**. Rather than relying on labels alone, designers and buyers should compare materials using credible environmental-impact data, such as the datasets published by Textile Exchange and life-cycle indicators discussed in Module 1.

Material circularity assessment – recyclability, biodegradability, mono-material design

Circularity asks whether a material can stay in use – through reuse, repair and recycling – rather than ending up as waste. A crucial distinction is between recycled content and recyclability: a fabric may contain recycled fibres yet still be impossible to recycle again, while a simple, well-designed product may contain no recycled content but be fully recyclable.

Recyclability depends heavily on material composition and design. Mechanical recycling shreds textiles back into fibres but shortens them and lowers quality; chemical recycling can regenerate higher-quality fibres but is energy-intensive and not yet widely available. Blended fabrics, elastane and bonded laminates are very difficult to recycle because the different materials cannot easily be separated. For this reason, mono-material design (using a single fibre type) and design for disassembly (making trims, zips and linings easy to remove) are among the most effective ways to keep materials circular.

Biodegradability is another dimension: natural fibres can break down at end of life, whereas synthetics persist in the environment and release microplastics. Designing for circularity therefore means choosing materials with the end of life in mind from the very beginning, an approach strongly encouraged by the circular-economy principles of the Ellen MacArthur Foundation and increasingly required by EU policy on durability and recyclability.

Achieving and demonstrating transparency of textile products, traceability, and accountability.

Responsible sourcing is only credible if a company can show where its materials come from. **Traceability** is the ability to identify and follow a material's origin and journey through the supply chain, which typically runs across several tiers: raw-material production, spinning, weaving or knitting, dyeing and finishing, and final assembly. The further back along this chain, the harder traceability becomes – yet that is often where the greatest environmental and social risks lie.

Transparency tools help close this gap. Product-level QR codes, RFID tags and, in some cases, blockchain records allow brands to share verified information with customers and auditors. More examples of such tools can be found in module 5. At policy level, the European Union's Ecodesign for Sustainable Products Regulation (ESPR) introduces the **Digital Product Passport (DPP)**, a structured digital record – accessed via a QR code or tag – that will hold data such as fibre composition, origin, environmental footprint and end-of-life guidance. The textile-specific rules are expected to be adopted through delegated acts around 2027, after which a transition period will apply, so brands selling in the EU are already starting to build the necessary data systems.

Traceability supports accountability: it makes sustainability claims verifiable, helps prevent greenwashing, and underpins the due-diligence obligations discussed in the next section.

Sustainable material sourcing and supplier evaluation criteria

Sourcing is the practical process of deciding which materials to buy and which suppliers to work with. Every component involves trade-offs between environmental impact, social conditions, cost, lead time, quality, and compliance. **Responsible sourcing** makes these trade-offs explicit and manages them deliberately rather than defaulting to the cheapest option.

A structured approach usually starts with **supplier mapping** – knowing who the suppliers are and at which tier they sit – followed by **risk identification** and **supplier evaluation** against clear criteria. The most **widely recognised framework** is the OECD Due Diligence Guidance for Responsible Supply Chains in the Garment and Footwear Sector, developed after the 2013 Rana Plaza disaster and adopted by more than fifty governments. It sets out a **six-step due-diligence cycle**: embed responsible business conduct in management systems; identify actual and potential harms; cease, prevent or mitigate them; track implementation; communicate; and provide for remediation. In the European Union, elements of due diligence are becoming legally binding through the **Corporate Sustainability Due Diligence Directive**.

For an **SME, due diligence** does not require enterprise systems. It can begin with a simple approved-supplier list, a supplier code of conduct, requests for certificates and test reports, and an ethical-sourcing checklist used consistently for every new material or supplier. **Good documentation** – keeping records of origins, certificates and audits – is what makes a sourcing decision defensible to buyers and regulators.

Ethical sourcing, production (labour rights, fair wages, safe working conditions) and distribution

Materials are made by people, and responsible sourcing must address **working conditions** as well as **environmental impact**. The collapse of the Rana Plaza factory complex in Bangladesh in 2013, which killed over a thousand garment workers, was a turning point that pushed the industry towards mandatory due diligence. **Ethical production** rests on **internationally recognised standards**, in particular the core labour conventions of the International Labour Organization, which cover freedom of association, the elimination of forced and child labour, and non-discrimination.

A central issue is the **difference between a legal minimum wage and a living wage** – an income sufficient for a decent standard of living. Multi-stakeholder initiatives such as the Fair Wear Foundation and the Ethical Trading Initiative work with brands and factories to improve **wages**, **hours**, **health** and **safety**. Particular risks arise from unauthorised subcontracting, where work is passed to undisclosed factories with poorer conditions, which is why **supply-chain transparency** and **accountability** are essential. Ethical considerations also extend to **distribution** and **logistics**, including the **carbon impact of transport** and **fair treatment of workers throughout the chain**.

Certifications and standards landscape (GOTS, OEKO-TEX, Fair Trade, B Corp, etc.)

Certifications provide **independent verification** that a material or supplier meets defined criteria. They are valuable, but only if their scope is understood: each certification answers a different question, and none guarantees overall sustainability on its own.

GOTS (Global Organic Textile Standard) certifies textiles made from organic fibres and sets environmental and social criteria across the whole processing chain, from harvesting to labelling.

OEKO-TEX STANDARD 100 tests finished textiles and components for harmful substances; it tells you that a product is chemically safe to wear, but not how or where it was produced.

Fairtrade standards (including the Fairtrade Textile Standard and Fairtrade cotton) focus on the social and economic conditions of producers, setting minimum prices, premiums and labour requirements.

B Corp certification assesses a whole company's social and environmental performance, governance and transparency, rather than a single product.

For recycled materials, the **Global Recycled Standard (GRS)** and the **Recycled Claim Standard (RCS)**, managed by Textile Exchange, verify recycled content and chain of custody. Tools such as the **Higg Materials Sustainability Index**, managed by Cascale, help compare the environmental impact of materials. The practical lesson is that certifications are complementary, not interchangeable: responsible sourcing means verifying the scope and validity of each claim rather than trusting a logo at face value.

References

- Textile Exchange (2024) – *Materials Market Report 2024*
- Ellen MacArthur Foundation (2017) – *A New Textiles Economy*
- UNEP (2018) – *Sustainability and Circularity in the Textile Value Chain*
- OECD (2018) – *Due Diligence Guidance for Responsible Supply Chains in the Garment and Footwear Sector*
- European Commission – *Ecodesign for Sustainable Products Regulation (ESPR) and the Digital Product Passport*
- Global Standard – *Global Organic Textile Standard (GOTS)*
- OEKO-TEX – *STANDARD 100 by OEKO-TEX*
- Fairtrade International – *Fairtrade standards for textiles and cotton*
- B Lab – *B Corp Certification*
- International Labour Organization – *ILO core labour standards*
- Fair Wear Foundation – *Fair Wear Foundation*
- Cascale – *Higg Materials Sustainability Index (Higg MSI)*

Case Study

Case Study Title: VEJA – Traceable Materials and Direct, Fair-Trade Sourcing
Country: France / Brazil
Link: https://project.veja-store.com/en

Main Content including the following:

Background

Company / context description

- VEJA is a French footwear brand founded in 2004 that makes sneakers from traceable, lower-impact materials. Unlike most footwear brands, it sources raw materials directly from producers and publishes detailed information about its supply chain.

Initial problem or challenge:

- The footwear industry is material- and chemical-intensive, with around 99% of running shoes made largely from petroleum-based materials and with opaque, multi-tier supply chains. VEJA set out to build a sneaker from responsibly sourced materials while keeping its supply chain transparent.

The Challenge

What sustainability/digital issue is addressed?

VEJA addresses material sourcing and supply-chain traceability: choosing lower-impact materials (organic cotton, wild rubber, chrome-free leather) and being able to trace them back to source in order to prove its claims and avoid greenwashing.

Actions Taken

- Step 1: Direct sourcing – VEJA buys organic and regenerative cotton from producer associations in Brazil and Peru and wild rubber from Amazonian communities, paying well above market price and cutting out intermediaries.
- Step 2: Lower-impact materials – it uses chrome-free, low-water leather from Leather Working Group-certified tanneries and recycled materials (for example mesh made from recycled plastic bottles), and applies a Restricted Substances Policy requiring supplier test reports.

Tools / methods used:

- Direct sourcing and long-term producer relationships
- Organic and Fairtrade certification of cotton
- Leather Working Group-certified, chrome-free tanning
- Supply-chain mapping and traceability
- Restricted Substances Policy and chemical testing

Results

VEJA has shown that a footwear brand can build a transparent, traceable supply chain while using lower-impact materials. By sourcing directly and paying fair prices, it has supported small producer communities and protected forest by buying wild rubber rather than plantation rubber. Its public transparency – sharing material origins, certifications and supplier information – has built strong consumer trust and differentiated the brand without conventional advertising. The main lesson is that traceability and direct relationships, rather than certificates alone, are what make sourcing claims credible.

Key Takeaways

- Direct sourcing improves both traceability and producer livelihoods
- Material choice (organic cotton, wild rubber, chrome-free leather) sharply reduces impact
- Transparency about origins builds consumer trust
- Certifications work best combined with first-hand supply-chain knowledge
- Responsible sourcing can be a competitive advantage

Discussion Questions

Is full supply-chain traceability realistic for a small brand?
How much should consumers pay for traceable, fair-trade materials?
What are the limits of certifications without direct sourcing?
Could a fast-fashion brand replicate VEJA's model? What would stop it?

Practical Exercise (optional)

Learners can:

- Choose a garment or shoe
- Map its likely materials and where each comes from
- Identify the two weakest points in its traceability
- Propose how to source those materials more responsibly

Case Study Title: Nudie Jeans – 100% Organic Cotton, Radical Transparency and Fair Wear
Country: Sweden
Link: https://www.nudiejeans.com/

https://www.fairwear.org/brands/nudie-jeans/

Main Content including the following:

Background

Company / context description

- Nudie Jeans is a Swedish denim brand founded in Gothenburg in 2001, built on durable raw denim, organic materials and a 'wear, tear and repair' philosophy rather than fast fashion.

Initial problem or challenge:

- Conventional denim is associated with intensive cotton cultivation, heavy water and chemical use, and opaque supply chains with poor working conditions. Nudie Jeans aimed to make denim from responsibly sourced materials while being fully transparent about how and where it is produced.

The Challenge

What sustainability/digital issue is addressed?

Nudie Jeans addresses sustainable materials, supply-chain transparency and ethical production: sourcing certified organic cotton, disclosing its suppliers, and ensuring fair labour conditions across its value chain.

Actions Taken

- Step 1: Materials – since 2012 all of its denim has been made from 100% organic cotton, certified by GOTS or equivalent EU organic certification, avoiding synthetic pesticides and reducing water and chemical impact.
- Step 2: Transparency and ethics – it publishes a production guide naming the suppliers behind each product, with audit summaries, and is a long-standing 'Leader' member of the Fair Wear Foundation; it also offers free repairs, resale and recycling to extend product life.

Tools / methods used:

- 100% organic, GOTS-certified cotton
- Product-level supply-chain transparency (public production guide)
- Fair Wear Foundation membership and brand performance checks
- Supplier code of conduct and audits
- Repair, reuse and recycling programme

Results

Nudie Jeans is widely regarded as a benchmark for transparent, responsibly sourced denim. By committing to 100% organic cotton and publishing its supplier list at product level, it has demonstrated that material sourcing and labour conditions can be made fully visible to customers. Its Fair Wear 'Leader' status shows sustained attention to working conditions, while its repair and reuse programme extends product life. The case shows that responsible sourcing works best when combined with transparency and accountability across the whole supply chain.

Key Takeaways

- Certified organic cotton reduces chemical and water impact at source
- Product-level transparency turns claims into verifiable facts
- Ethical sourcing requires ongoing supplier auditing, not one-off checks
- Materials, transparency and durability reinforce one another

- Disclosure can become a powerful trust signal

Discussion Questions

Why is publishing a full supplier list still rare in fashion?
What does a 'living wage' mean and how can a brand verify it?
Is organic cotton always the most sustainable choice? Why or why not?
How can a small brand begin to map and disclose its suppliers?

Practical Exercise (optional)

Learners can:

- Pick a garment they own
- Draft the supply-chain tiers it likely passed through
- List the documents needed to verify its materials and labour conditions
- Identify which certifications would strengthen its claims

Best Practice

Title: Orange Fiber – Fabric from Citrus Waste (Made-in-Italy material innovation)
https://orangefiber.it/
https://circulareconomy.europa.eu/platform/en/good-practices/orange-fiber-converts-orange-waste-versatile-biodegradable-fabric
x Business practice **x** Technological solution ☐ Educational approach ☐ Policy

Content (Executive Snapshot):

Orange Fiber is an Italian SME founded in 2014 in Catania, Sicily, by Adriana Santanocito and Enrica Arena. In partnership with the Politecnico di Milano, it patented a process that extracts cellulose from citrus juice by-products – the peel and pulp left after juicing – and turns it into a silk-like, regenerated cellulosic fabric. Italy alone produces hundreds of thousands of tonnes of citrus waste each year, which would otherwise be costly to dispose of. Orange Fiber is a recognised best practice because it shows how a small enterprise can create a high-quality, lower-impact material from a waste stream, and bring it to market with major brands such as Salvatore Ferragamo and H&M.

The Challenge Addressed

The fashion industry depends heavily on resource-intensive virgin fibres, while the food industry generates large volumes of organic waste. Orange Fiber addresses both problems at once.

- dependence on virgin raw materials for textiles
- disposal of large volumes of citrus processing by-products
- demand for lower-impact, traceable materials that do not compete with food crops or land

Innovation & Added Value

Orange Fiber's innovation is to valorise a food by-product into a desirable textile, combining circular-economy thinking with Italian textile craftsmanship.

- uses citrus waste instead of dedicated land, water or fertilisers

- produces a regenerated cellulosic fibre that can be blended with silk and other fibres
- diverts food-industry waste from disposal
- proves that waste-derived materials can reach luxury-quality standards
- keeps innovation and production within an Italian / EU supply chain

Tools / Technologies Used

- patented cellulose-extraction process from citrus by-products
- regenerated (man-made cellulosic) fibre spinning
- pilot plant co-located with a citrus juicing facility in Sicily
- blending with other fibres for textile applications
- circular-economy and design-for-sustainability principles

Practical Activity

Activity Title: Material detective: trace the journey
Type:
☐ Hands-on ☐ AI-based **x** Analysis ☐ Design **x** Simulation ☐ Other

Activity Objective:

The aim of this activity is to develop the ability to evaluate materials and trace their supply chains, distinguishing genuine responsible sourcing from greenwashing.

After the completion of this activity, learners will be able to:

- compare fibres using environmental-impact criteria
- trace a material back through supply-chain tiers
- recognise credible certifications and spot misleading claims

Activity outline / Description of the activity:
STEP 1

Learners work in small teams. Each team receives a product scenario (for example a 'recycled' hoodie) with material-impact data for four to five candidate fabrics and a set of supplier profiles with certificates of varying credibility. Teams compare the fabrics across water, carbon, chemical use and recyclability, shortlist two, and map the likely supply-chain tiers of the chosen material.

STEP 2

Each team presents the top three impacts of their chosen material, one 'red flag' sustainability claim they identified, and one improvement suggestion. The trainer then reveals the 'real story' behind the materials and facilitates a short discussion.

Total time: 20–25 minutes

Activity Title: Supplier audit & ethical-sourcing checklist
Type:
☐ Hands-on ☐ AI-based **x** Analysis **x** Design **x** Simulation ☐ Other

Activity Objective:

The aim of this activity is to apply due-diligence thinking by assessing suppliers against environmental and ethical criteria and building a reusable sourcing checklist.

After the completion of this activity, learners will be able to:

- build a simple supplier-evaluation checklist
- assess suppliers for environmental and labour risks
- justify a sourcing recommendation with evidence

Activity outline / Description of the activity:
Step 1

Each group receives two or three mock supplier profiles (with location, certificates, audit notes and price). Using the OECD six-step logic (see ANNEX III), they design a short ethical-sourcing checklist and score each supplier, flagging documentation gaps and risks.

Step 2

Groups recommend one supplier and justify the decision, balancing sustainability, cost and risk, and present it in a 60-second pitch. The trainer highlights the strongest, evidence-based reasoning.

Total time: 20–25 minutes

ANEXX I Guess the Fibre – Activity Cards

Connected to Topic 2.1 – Eco-friendly materials: fibres and their hidden impacts

Show a fabric swatch or image. In small groups, learners use the student prompt card to guess the fibre and its hidden impacts. The fibre cards below are the facilitator's reveal / answer key – print, cut out, and hand over after each guess.

Learner prompt card

1. What fibre do you think this is?
2. Is it natural, synthetic, regenerated or animal-based?
3. Name at least one ENVIRONMENTAL impact (water, chemicals, emissions, microplastics...).
4. Name at least one SOCIAL impact (wages, safety, labour rights...).
5. Would you call it "sustainable"? Why / why not?

Fibre cards (facilitator reveal / answer key)

Cotton **Type:** Natural plant fibre **Environmental:** Huge water use (~2,700 L per T-shirt) and heavy pesticide / insecticide use.	**Polyester** **Type:** Synthetic (from oil)

Social: Low wages; forced and child labour in parts of the supply chain (e.g. Xinjiang).	**Environmental:** Fossil-based, energy-intensive, non-biodegradable; sheds microplastic fibres when washed. **Social:** Cheapness fuels fast fashion built on low-wage, insecure garment labour.
Viscose / Rayon **Type:** Regenerated (wood pulp) **Environmental:** Linked to deforestation of forests; processing uses toxic chemicals (carbon disulphide). **Social:** Carbon disulphide exposure has caused serious health harm to factory workers.	**Wool** **Type:** Animal fibre **Environmental:** Methane emissions and land use; chemical scouring and dyeing. **Social:** Animal-welfare concerns such as mulesing; varies a lot by farm and certification.
Linen **Type:** Natural plant fibre **Environmental:** Often lower-impact: flax needs less water and fewer pesticides than cotton. **Social:** Generally lower-risk, but check processing and where it is spun and woven.	**Leather** **Type:** Animal-derived material **Environmental:** Chromium tanning pollutes water; linked to cattle farming and deforestation. **Social:** Tannery workers face chrome exposure; child labour reported in some tanneries.

ANEXX II Pre-Assessment Questionnaire

Pre-Assessment Questionnaire

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Name: _____ Date: _____

This short questionnaire checks what you already know before the module begins. There is no pass or fail – just answer as best you can. Circle or tick one answer per question.

Questions

1. **What does "sustainable material sourcing" mainly try to balance?**
   - **A)** Only the lowest possible price
   - **B)** Environmental impact, ethics, cost, quality and compliance
   - **C)** Only the fabric's colour and style
   - **D)** Only delivery speed
2. **Which of the following is a regenerated (man-made cellulosic) fibre?**
   - **A)** Polyester
   - **B)** Wool
   - **C)** Lyocell (Tencel)
   - **D)** Nylon
3. **Which fibre is produced in the largest quantity worldwide?**
   - **A)** Cotton
   - **B)** Wool
   - **C)** Polyester

D) Linen

4. **A garment "made with recycled polyester" is therefore automatically recyclable at the end of its life.**
   A) True
   B) False
5. **Which design choice makes a textile easiest to recycle?**
   A) Blending many fibres together
   B) Adding elastane and bonded laminates
   C) Mono-material design (a single fibre type)
   D) Using more trims, zips and linings
6. **What does the GOTS (Global Organic Textile Standard) certify?**
   A) Only that a textile is free of harmful chemicals
   B) Organic fibre content plus environmental and social criteria across processing
   C) A company's overall governance and profits
   D) Recycled content only

Pre-Assessment Questionnaire – Trainer Answer Key

Answers & Rationale

1. **Answer: B) Environmental impact, ethics, cost, quality and compliance**
   Responsible sourcing manages trade-offs across impact, ethics, cost, quality and compliance – not just price.
2. **Answer: C) Lyocell (Tencel)**
   Viscose, modal and lyocell are regenerated cellulosics made from wood pulp; polyester and nylon are synthetic and wool is natural.
3. **Answer: C) Polyester**
   Polyester accounts for roughly 57% of global fibre production (Textile Exchange, 2024).
4. **Answer: B) False**
   Recycled content is not the same as recyclability; blends, elastane and finishes can make a product impossible to recycle.
5. **Answer: C) Mono-material design (a single fibre type)**
   Mono-material design and design for disassembly keep materials circular and recyclable.
6. **Answer: B) Organic fibre content plus environmental and social criteria across processing**
   GOTS covers organic fibres and the environmental and social conditions of processing.

ANNEX III – Orange Fiber: Case Study and Activity

Topic 2 – Material circularity assessment (recyclability, biodegradability, mono-material design)

Case study: Orange Fiber

Orange Fiber is an Italian materials company founded in Catania, Sicily, in 2014, which developed and patented its process together with the Politecnico di Milano. The company extracts cellulose from the citrus pulp left over from juice production – a by-product that would otherwise be discarded as waste – and transforms it into a soft, silk-like textile fibre. In doing so, it keeps an agricultural waste stream in use and

reduces the need for virgin raw materials, making it a practical example of circular, bio-based material innovation. Its fabric has since been used by leading fashion brands such as Salvatore Ferragamo and H&M, showing that waste-derived fibres can move from concept to commercial collections.

Learner activity (5 minutes, small groups)

Show the case, then run a short two-step task in groups of 3–4:

Step 1 (2 min): Which circularity principles does Orange Fiber show – using waste as a resource, bio-based input, less demand for virgin materials – and what does it not solve (e.g. blends, recyclability and end of life)?

Step 2 (3 min): Name one other food or farming by-product that could become a textile fibre, and one barrier to scaling it. Share in 1 minute.

How to deliver it (trainer instructions)

1. **Set up (1 min).** Put learners in groups of 3–4 and display the case-study slide. Tell them they will analyse the example, not just read it.
2. **Present the case (2 min).** Read or summarise the Orange Fiber story and ask groups to keep the three circularity levels (recyclability, biodegradability, mono-material design) in mind.
3. **Run Step 1 (3 min).** Groups identify the circularity principles Orange Fiber demonstrates and, importantly, what it does not solve. Circulate and prompt any group that only lists positives.
4. **Run Step 2 (4 min).** Groups propose another by-product that could become a fibre (e.g. pineapple leaves, grape marc, banana stems, coffee husk) and one barrier to scaling it (cost, consistent supply, processing energy, performance, certification).
5. **Share and debrief (3–4 min).** Take one point per group to keep pace, then draw out the key messages below.

Key points to draw out

- Innovation can turn an agricultural waste stream into a valuable material.
- A “sustainable” input does not automatically make a circular product.
- Durability, mono-material design and a real end-of-life route still matter.
- This is exactly what EU rules on durability and recyclability (ESPR) are starting to require.

Facilitation tips

- Keep it tight with visible timing; this works best as a fast, energising task.
- If the room is quiet, seed Step 2 with one example and ask groups to build on it.
- For online delivery, run Steps 1–2 in breakout rooms and collect answers on a shared whiteboard or chat.

ANNEX IV – Compare the Materials (Practical Exercise)

Module 2, Topic 2 – Material circularity assessment (recyclability, biodegradability, mono-material design)

The exercise

In pairs or small groups, learners weigh up real material choices for a specific garment and justify a decision with evidence. The task is:

- Choose a garment (e.g. t-shirt, jeans, jacket).
- Compare two candidate fibres on water, chemicals, durability and recyclability.
- Decide which material you would choose, and why.
- Identify one certification that would back up the claim.
- Present the choice to the group.

How to deliver it (trainer instructions)

1. **Set up (2 min).** Put learners in pairs or small groups and have each pick a garment. Point them to the four comparison criteria on the slide and let them use the fibre-types diagram and data slides as reference.
2. **Compare two fibres (5 min).** Each group chooses two candidate fibres (e.g. conventional cotton vs recycled polyester, or viscose vs linen) and weighs them against the four criteria, noting trade-offs rather than looking for a "perfect" fibre.
3. **Decide and back it up (3 min).** Groups decide which material they would choose and why, then name one certification that supports the claim (e.g. GOTS for organic cotton, OEKO-TEX for chemical safety, a recycled-content standard).
4. **Present (3–4 min).** Each group pitches its choice in about a minute – one decision plus its justification.
5. **Debrief (2 min).** Draw out the key points below and link back to recyclability and end of life from the circularity slides.

Key points to draw out

- No fibre is universally best – the right choice depends on use and durability.
- Sustainability is about trade-offs across water, chemicals, durability and recyclability.
- Certifications turn a claim into something verifiable.
- Durability and end-of-life matter as much as the raw material.

Facilitation tips

- Keep the fibre, data and certification slides visible for reference.
- Push each group to state a trade-off, not just a winner.
- For online delivery, run the comparison in breakout rooms with a shared template or whiteboard.

ANNEX V - Compare the Materials – Worksheet

Module 2, Topic 2 – Material circularity assessment

In your group, pick a garment and two candidate fibres, compare them in the table, then decide which you would choose and back it with a certification.

Group / names: _____

Garment: _____ Fibre A: _____ Fibre B: _____

Compare the two fibres:

Criterion	Fibre A	Fibre B
Water use		

Criterion	Fibre A	Fibre B
Chemicals used		
Durability		
Recyclability / end of life		

Which material would you choose, and why?

One certification that would back up your claim:

One trade-off you accepted:

ANNEX VI – VEJA Mini Case (Trainer Guide)

Module 2, Topic 3 – Transparency of textile products, traceability and accountability

At a glance: Duration 10–15 min · Methods: case-based learning, group work, presentation · Materials: PPT slide 29, VEJA transparency map / QR code.

The case: VEJA

VEJA is a French footwear brand (founded in 2005) widely cited as a best practice in transparency. Rather than spending on advertising, it invests in a traceable supply chain – sourcing wild rubber from the Amazon, organic and agroecological cotton from Brazil and Peru, and publishing detailed information about its materials, suppliers and working conditions. This makes its sustainability claims unusually verifiable, which is why it is a useful example of transparency, traceability and accountability in action.

Learner activity (in small groups)

Step 1: Identify how VEJA demonstrates transparency, traceability and accountability – what exactly could a customer or buyer verify, and at which supply-chain tier?

Step 2: Pick one of VEJA's claims (e.g. wild Amazonian rubber) and explain how you would prove it – what document or evidence would you request?

How to deliver it (trainer instructions)

1. **Set up (1–2 min).** Put learners in groups of 3–4, display the slide and share VEJA's transparency page or QR code. Tell them they will test the claims, not just admire them.
2. **Present the case (2 min).** Summarise VEJA and ask groups to keep the three ideas – transparency, traceability, accountability – and the supply-chain tiers from the previous slides in mind.

3. **Run Step 1 (4 min).** Groups list how VEJA shows each of the three, and at which tier each claim could be checked (raw material, processing, assembly). Circulate and prompt for specifics.
4. **Run Step 2 (4 min).** Each group picks one claim and states exactly what evidence would prove it – e.g. supplier contracts, certificates, audit reports, origin records.
5. **Share and debrief (3–4 min).** Take one point per group, then draw out the key messages below.

Key points to draw out

- Transparency = publishing information; traceability = following materials across tiers; accountability = being answerable, with evidence.
- The deeper the tier, the harder a claim is to verify.
- Real proof means documents, certificates and audits – not marketing language.
- This is what the Digital Product Passport (DPP) and anti-greenwashing rules aim to enforce.

Facilitation tips

- Have VEJA's transparency page or QR code ready so groups can look for real evidence.
- In Step 2, push for "which document?" rather than a general "they could show proof".
- For online delivery, run Steps 1–2 in breakout rooms and collect answers on a shared whiteboard.

Annex VIIa – Build a Supplier Scorecard (Trainer Guide)

Module 2, Topic 4 – Sustainable material sourcing and supplier evaluation criteria

At a glance: Duration 10–15 min Methods: applied task, individual or small-group work, peer sharing

Materials: PPT slide 36, supplier-evaluation example annex, OECD Due Diligence Guidance, certifications list.

The activity

Learners pick a material (e.g. organic cotton) and draft three supplier-evaluation criteria they would use to judge whether a supplier is genuinely responsible. For each criterion they define what "good" looks like and what evidence would verify it, turning the topic's ideas into a practical, evidence-based checklist.

How to deliver it (trainer instructions)

1. **Set up (2 min).** Have each learner or pair choose a material (organic cotton, leather, recycled polyester, etc.). Remind them of the responsible-sourcing factors – impact, ethics, cost, quality and compliance – and of due diligence.
2. **Draft three criteria (6 min).** For each criterion, learners write (a) what they would require, (b) what "good" looks like, and (c) what evidence would prove it (certificate, audit, document). Encourage a mix across environmental, social and compliance factors.
3. **Make it checkable (2 min).** Ask them to turn each criterion into a yes/no question or a simple score, so it could actually be used to compare suppliers.
4. **Share (3–4 min).** Pairs swap checklists, or groups present one criterion each; the rest test whether it is specific and verifiable.
5. **Debrief (2–3 min).** Draw out the key messages below and link to certifications and the OECD due-diligence cycle.

Key points to draw out

- Good criteria are specific, evidence-based and verifiable – not vague aspirations.
- Balance the factors: environmental impact, social/labour, quality, cost and compliance.
- Evidence means certificates, audits and documentation, not supplier promises.
- Criteria are the foundation of supplier evaluation and due diligence.

Facilitation tips

- Let learners draft first, then show the worked organic-cotton example annex as a model – so they don't just copy it.
- Keep the certifications list handy as a prompt for the "evidence" part.
- For online delivery, learners draft individually, then compare in breakout rooms or the chat.

Annex VIIb – Supplier Evaluation Criteria (Worked Example)

Module 2, Topic 4 – Practical activity: draft 3 supplier-evaluation criteria for a material of your choice

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This is an example to illustrate the activity, not the only correct answer. Material chosen: organic cotton. Learners may pick a different material and different criteria – what matters is that each criterion is specific, evidence-based and verifiable.

Chosen material: organic cotton

Organic cotton is a natural fibre grown without synthetic pesticides or GMOs. The main sourcing risks are false "organic" claims, fibre that cannot be traced to its origin, and poor labour conditions on farms and in ginning and processing. The three criteria below are designed to manage those risks.

Three supplier-evaluation criteria

Criterion 1 – Certified organic fibre and responsible processing

Why it matters: it confirms the organic claim is independently verified and that processing (not just the raw fibre) meets environmental and social standards.

Evidence to request: a valid GOTS certificate (scope, certificate number and expiry date); Transaction Certificates (TCs) for the specific lots; as a minimum, the Organic Content Standard (OCS) for fibre content.

How to verify: look the certificate up in the certifier's public database, and confirm its scope covers the product you are buying and that it is still valid.

Scoring (0–2): 0 = no credible certification; 1 = fibre-content claim only (OCS); 2 = full GOTS covering fibre and processing.

Criterion 2 – Traceability and transparency of the supply chain

Why it matters: organic cotton is vulnerable to mislabelling, so you need to trace the fibre back to its origin and know who is in each tier.

Evidence to request: a supplier map naming the gin and farm group; chain-of-custody / transaction documents; country and region of origin; participation in a recognised traceability scheme or fibre registry.

How to verify: request the supplier map and spot-check the documents against the volumes purchased; cross-check the origin claims.

Scoring (0–2): 0 = origin unknown; 1 = country of origin known; 2 = traceable to gin / farm-group level with supporting documents.

Criterion 3 – Labour rights, fair wages and safe working conditions

Why it matters: an organic label does not guarantee decent work; social criteria protect the people across the supply chain.

Evidence to request: a recent third-party social audit (e.g. SMETA, Fair Wear or SA8000); evidence of no child or forced labour; a working grievance mechanism; progress towards a living wage.

How to verify: check the audit date and findings and that corrective actions were closed; align the checks with the OECD due-diligence steps.

Scoring (0–2): 0 = no audit; 1 = audit with open issues; 2 = recent audit, corrective actions closed and a living-wage commitment.

Putting it together: a simple decision rule

Score each criterion from 0 to 2 (maximum 6). Approve suppliers scoring 5–6; conditionally approve those scoring 3–4 with an agreed improvement plan; reject 0–2. Re-evaluate suppliers at least once a year, because certificates expire and conditions change.

Tip: good criteria are specific, evidence-based and verifiable. Avoid vague requirements such as "the supplier must be sustainable".

Annex VIIIa – Supplier Profiles (Learner Material)

Module 2 – Final practical activity: Supplier audit & ethical-sourcing checklist

You are a sourcing team for a clothing brand, choosing a supplier for a new cotton t-shirt line. Below are four candidate suppliers. The information is deliberately uneven – just like real life – so look for both strengths and gaps.

Your task (30 minutes, in teams):

1. Read the four supplier profiles below.

2. Using the OECD six-step due-diligence logic, agree a short ethical-sourcing checklist (5–6 checks).

3. Score each supplier against your checklist; flag risks and missing documentation.

4. Recommend one supplier and justify it – balancing sustainability, cost and risk – in a 60-second pitch.

Your candidate suppliers:

Supplier A – Atlas Knit *Cheap, but with gaps*

Location: Bangladesh (Tier 1 assembly; fabric mill not disclosed).

Price: Low – about 15% below average.

Certificates: OEKO-TEX STANDARD 100 (chemical safety). No organic or social-standard certification.

Audit notes: Social audit ~2 years ago: passed on safety, but flagged excessive overtime; no living-wage evidence.

Supply-chain visibility: Tier 1 only; cotton origin unknown.

Supplier B – Verde Tessuti *Strong, but pricier*

Location: Portugal (mill + assembly); cotton from Turkey and Greece.

Price: High – about 20% above average; longer lead time.

Certificates: GOTS (organic) + OEKO-TEX STANDARD 100; GRS for its recycled lines.

Audit notes: Independent audit last year, clean; documented living-wage policy.
Supply-chain visibility: Traceable to Tier 3 (spinning), with some Tier 4 (farm) records.

Supplier C – QuickSource Trading *Cheapest, but opaque*

Location: Trading agent; the actual factories are not disclosed.
Price: Lowest – about 25% below average.
Certificates: None provided. "Sustainable" is claimed on the website, with no documents.
Audit notes: None available.
Supply-chain visibility: None beyond the agent; material origin unknown.

Supplier D – Surya Mills *Mid-range, partial evidence*

Location: India (spinning + dyeing); knitting subcontracted (subcontractor not disclosed).
Price: Medium – around average.
Certificates: GRS (recycled content) for a recycled-cotton blend; OEKO-TEX listed as "pending".
Audit notes: Water-treatment plant in place; chemical-management records only partial; last audit ~18 months ago.
Supply-chain visibility: Tier 2 known; the Tier 1 knitting subcontractor is not disclosed.

Annex VIIIb – Supplier Audit Activity (Trainer Guide)

Module 2 – Final practical activity: Supplier audit & ethical-sourcing checklist

At a glance: Duration 30 min · Methods: simulation, group analysis, decision pitch · Materials: PPT slide 52, supplier-profiles handout (4 suppliers), OECD six-step cycle slide, flip chart / shared doc.

Objective

Learners apply the whole module: they build an ethical-sourcing checklist from the OECD six-step logic, score four uneven supplier profiles, and defend an evidence-based recommendation that balances sustainability, cost and risk.

Preparation

- Print or share the supplier-profiles handout (one set per team of 3–4).
- Have the OECD six-step cycle slide and the certifications slides visible for reference.
- Decide the brief: e.g. "choose a supplier for a new cotton t-shirt line".

Step by step (30 minutes)

1. **Set up (3 min).** Form teams, hand out the profiles, and explain the brief. Stress that the information is uneven on purpose – missing data is itself a finding.
2. **Build the checklist (7 min).** Teams agree 5–6 ethical-sourcing checks, mapped loosely to the OECD steps (see model checklist below).
3. **Score the suppliers (10 min).** Teams apply the checklist to all four suppliers (e.g. a simple 0–2 score per check), noting risks and documentation gaps.

4. **Decide and pitch (7 min).** Each team recommends one supplier and gives a 60-second, evidence-based justification. Highlight the strongest reasoning.
5. **Debrief (3 min).** Draw out the key messages below and connect back to due diligence, certifications and transparency.

Model checklist (map to the OECD six-step logic)

- Are environmental risks covered, with evidence? (chemicals, water, materials)
- Are social/labour risks covered? (wages, safety, working hours)
- Are claims backed by valid, in-scope certificates – not just logos?
- How deep is supply-chain visibility (which tiers are known)?
- Is there a recent, independent audit? Any open issues or remediation?
- Are there documentation gaps or undisclosed subcontractors?

What to draw out (facilitator answer key)

Verde Tessuti (B): strongest evidence – GOTS/OEKO-TEX, recent clean audit, deep traceability – but learners must weigh the higher price and lead time. A defensible "responsible" choice.

Atlas Knit (A): cheap and chemically certified, but social red flags (overtime, no living-wage evidence), a stale audit and no traceability beyond Tier 1. Cheap is not the same as responsible.

QuickSource Trading (C): cheapest, but no certificates, no audit and no visibility – the "sustainable" claim is unverifiable. On due-diligence grounds this should be flagged or rejected, not chosen on price.

Surya Mills (D): mid-range with partial evidence (GRS, water treatment) but key gaps – pending certificate, partial chemical records, an undisclosed knitting subcontractor. A "maybe, if gaps are closed".

Debrief points

- The cheapest option is rarely the responsible one once risks are priced in.
- Missing documentation is a red flag, not a neutral "unknown".
- Certificates only count if valid, in-scope and current – verify, don't trust the logo.
- Responsible sourcing is continuous due diligence, not a one-off pick.

Facilitation tips

- Reward teams that name what evidence they would request to close a gap.
- If a team picks the cheapest supplier, ask what risk they are accepting and how they would manage it.
- For online delivery, give each team the profiles in a shared doc and run scoring in breakout rooms.

ANNEX IXa Reflection & Discussion Questions

Module 2 – Sustainable Materials and Responsible Sourcing

Reflection & Discussion Questions

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Use these questions to reflect on the whole module and discuss in pairs or small groups. There are no single right answers – explain your reasoning, give examples, and listen for other points of view.

Discussion questions

1. **Topic 1 - Materials and trade-offs**

No single fibre is "the most sustainable." When you choose a material for a product, which factors should weigh most – water and chemical use, durability, recyclability, or social impact – and why might the right answer change from one product to another?

2. **Topic 2 - Recycled vs. recyclable**

A garment can be made from recycled fibres and still be impossible to recycle at the end of its life. What does that tell us about how we judge a "sustainable" product, and which design choices (mono-materials, biodegradability, design for disassembly) would make the biggest real difference?

3. **Topics 3 & 4 - Transparency and sourcing**

Why is it so hard for a brand to know what actually happens in the deeper tiers of its supply chain, and what practical steps could a small company take to improve traceability and evaluate suppliers without a big budget?

4. **Topic 5 - The wage gap**

There is often a wide gap between a legal minimum wage and a living wage. Whose responsibility is it to close that gap – governments, brands, suppliers, or consumers – and how can transparency and due diligence actually help?

5. **Topic 6 - Reading the labels**

GOTS, OEKO-TEX, Fairtrade and B Corp each certify different things. How would you decide which certification(s) genuinely back up a sustainability claim, and how can you tell a credible label from greenwashing?

ANNEX IXb Reflection & Discussion – Facilitator Notes

Module 2.1 – Sustainable Materials and Responsible Sourcing

These are prompts to steer the discussion, not model answers – most questions have legitimate competing positions. A good move: let learners take a position first, then ask "what would change your mind?"

What to listen for

1. **Topic 1 - Materials and trade-offs**

   Listen for: recognising trade-offs (no perfect fibre), thinking across the whole life cycle and end-of-life, and that priorities shift with the product (e.g. durability for outerwear vs. biodegradability for short-life items).

   Probe: "What would change your mind?"

2. **Topic 2 - Recycled vs. recyclable**

   Listen for: the distinction between recycled content and recyclability; the role of blends, elastane and trims; that recycled content alone can be a form of greenwashing.

   Probe: "Whose job is it to design for recycling – designer, brand, or customer?"

3. **Topics 3 & 4 - Transparency and sourcing**

   Listen for: multi-tier complexity and hidden subcontracting; starting with tier-1 and high-risk materials; supplier mapping; combining certificates, audits and the Digital Product Passport; SMEs can start small.

   Probe: "What is the first practical step you would take on Monday morning?"

4. **Topic 5 - The wage gap**

Listen for: shared responsibility; buyer purchasing practices and commitment; living-wage benchmarks; due diligence (OECD, EU CSDDD); that minimum wage is not the same as a living wage.

Probe: "Who holds the most leverage to change this?"

5. **Topic 6 - Reading the labels**

Listen for: each certification answers a different question (organic fibre / harmful substances / labour & prices / whole company); checking the scope and validity of a certificate; combining them; verifying rather than trusting a logo.

Probe: "Which certificate would you ask a supplier for first, and why?"

ANNEX X – Module 2 Self-Assessment Checklist

Module 2 – Sustainable Materials and Responsible Sourcing

Rate how confident you feel about each statement before and after the module. There are no right answers – this helps you see your own progress and spot what to revisit.

Scale: 1 = not yet · 2 = a little · 3 = mostly · 4 = confidently

I can… (can-do statement)	Before	After
I can describe the main fibre categories (natural, synthetic, regenerated, bio-based) and their environmental trade-offs.		
I can explain why no single fibre is universally "sustainable".		
I can explain recyclability, biodegradability and mono-material design – and why recycled content is not the same as recyclable.		
I can explain transparency, traceability and accountability, and why deep-tier visibility is hard.		
I can list supplier-evaluation criteria and outline the OECD due-diligence steps.		
I can explain the difference between a minimum wage and a living wage, and name key labour-rights risks.		
I can say what GOTS, OEKO-TEX, Fairtrade and B Corp each certify.		
I can tell the difference between a credible certification and greenwashing.		

One thing I still want to learn more about:

One change I will make in how I choose materials or suppliers: