Skills4Retail
Building sustainable growth



TRAINING VET

Introduction to Sustainability in Retail

Facilitator Handbook Version 1

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INTRODUCTION

Module Purpose

The purpose of the Introduction to Sustainability in Retail module is to provide entry-level retail workers with the essential knowledge, skills, and understanding to contribute meaningfully to sustainability efforts in their workplace. By focusing on the environmental impact of retail operations and exploring practical, actionable solutions, the module aims to empower learners to actively participate in sustainable practices, reduce waste, and enhance environmental stewardship in retail settings. It is designed to foster a mindset of responsibility towards sustainability, ensuring that learners are prepared to drive positive change both individually and within their teams.

Module Aim

On successful completion of this programme, learners will be able to demonstrate their foundational knowledge and practical skills in sustainability, enabling them to understand the environmental impact of retail operations and contribute effectively to sustainability initiatives within their workplace. The module will focus on the identification of environmental challenges, exploration of practical solutions, and the development of sustainable practices in retail operations, fostering a collaborative approach to environmental stewardship across their organisation.

Module learning outcomes:

Learners will be able to :

1. Examine how retail operations affect the environment, including the use of natural resources, climate change, pollution, waste, and biodiversity loss.
2. Develop practical solutions and recommend best practices to address environmental challenges and improve sustainability in retail workplaces.
3. Evaluate the responsibilities of retail businesses in meeting sustainability standards at national, European, and global levels.
4. Analyse the strengths and weaknesses of measures taken at national, European, and global levels to address environmental issues in the retail sector.
5. Assess the risks and opportunities of sustainable practices in retail and propose strategies to reduce risks and take advantage of opportunities.
6. Analyse how sustainability issues relate to climate change in retail and develop strategies to reduce the environmental impact of retail operations.
7. Conduct a basic environmental assessment of a retail workplace and suggest practical ways to improve sustainability.
8. Examine successful sustainability initiatives in retail, identifying key success factors, challenges, and lessons learned.

Outline How the Module is Taught:

This module is delivered through a blend of interactive workshops, with a focus on practical applications and real-world industry examples related to sustainability in retail operations. Learners will have the opportunity to engage in peer-to-peer learning and gain hands-on experience with sustainability practices in retail environments.

Teaching Methods:

Active Learning:

Learners will engage in group discussions, problem-solving activities, and interactive sessions to deepen their understanding of sustainability challenges in retail. Breakout room activities will allow participants to collaborate and share insights on environmental issues in retail operations.

Peer Learning:

Peer-to-peer learning will be encouraged through structured peer group activities , allowing learners to review and provide feedback on each other's regarding sustainability. This collaborative approach will enhance learning and the exchange of practical solutions.

Experiential Learning:

Learners will participate in hands-on activities, including the creation of sustainability action plans and conducting basic environmental assessments. Practical exercises, such as site mapping to identify sustainability improvements, will provide learners with real-world skills they can apply in their retail workplaces.

Case-Based Learning:

Through the analysis of industry-relevant case studies, learners will explore successful sustainability initiatives in retail and critically assess the outcomes. This will provide insights into best practices and lessons learned, helping learners understand how to implement similar strategies in their own contexts.

Presentations:

Workshops will include facilitator-led presentations, supplemented by a handbook. PowerPoint presentations will be used to highlight key concepts and guide learners through the content in a visually engaging way.

Duration & Delivery Methodology

25 Hours

Delivery Methodology -Blended Learning – online and face to face

Tutor led workshops

Differentiation

Different training providers will have difference audiences. It is important to note that the materials, case studies, learning activities and or assessments may need be customised to meet the needs and learning styles of the different learners around Europe.

GLOSSARY OF TERMS & DEFINITIONS

Unit 1: Sustainability Concepts and Practices for Retail

Sustainability
Meeting current needs while protecting the ability of future generations to meet their own needs.
Environment
The natural world, including air, water, land, plants, animals and ecosystems.
Sustainable Development
Development that meets present needs without limiting the ability of future generations to meet their own needs.
Environmental Impact
The effect that an activity, product or organisation has on the environment.
Waste Reduction
Actions that prevent waste or reduce the amount of waste produced.
Recycling
Processing waste materials so they can be used to make new materials or products.
Energy Efficiency
Using less energy to perform the same task or achieve the same result.
Sustainable Retailing
Operating a retail business in a way that reduces environmental and social impacts while supporting long-term economic success.

Unit 2: Environmental Impacts of Retail Operations

Natural Resources
Materials and features provided by nature, such as water, forests, minerals, land and energy sources.
Resource Consumption
The use of natural resources by people, organisations and economic activities.
Carbon Emissions
The release of carbon dioxide into the atmosphere. Use “greenhouse gas emissions” when gases other than carbon dioxide are included.
Climate Change
Long-term changes in temperatures and weather patterns. Recent climate change is mainly caused by human greenhouse gas emissions.
Pollution
The introduction of harmful substances or forms of energy into air, water or land.
Waste Management
The activities used to prevent, collect, sort, reuse, recycle, recover and dispose of waste.
Circular Economy
A system that prevents waste and keeps products and materials in use through reuse, repair, refurbishment and recycling.
Biodiversity
The variety of living organisms, including plants, animals and microorganisms, and the ecosystems they form.
Greenhouse Gases (GHGs)
Gases that trap heat in the atmosphere and contribute to climate change.
Packaging Waste
Waste from materials used to contain, protect, handle or deliver products.

Supply Chain
The organisations and activities involved in producing and delivering a product or service.
Habitat Destruction
The loss or damage of natural environments that support plants, animals and other organisms.
Overharvesting
Removing a renewable natural resource, such as fish or timber, faster than it can recover.
Non-renewable Resource
A natural resource that is finite or is replaced much more slowly than it is used.
Life Cycle
All stages of a product, from raw material extraction and production to use and end-of-life treatment.

Unit 3: Climate Change and Retail Operations

Climate Change
Long-term changes in temperatures and weather patterns. Recent climate change is mainly caused by human greenhouse gas emissions.
Mitigation
Action that reduces greenhouse gas emissions or increases their removal from the atmosphere.
Adaptation
Changes that help people, businesses and places prepare for the effects of climate change.
Carbon Footprint
The total greenhouse gas emissions linked to a person, product, organisation or activity.
Greenhouse Gases (GHGs)
Gases such as carbon dioxide (CO_2), methane (CH_4), and nitrous oxide (N_2O) that trap heat in the atmosphere and contribute to climate change.
Physical Risks
Business risks caused by the physical effects of climate change, such as flooding, heatwaves, storms and supply-chain disruption.
Transition Risks
Business risks linked to changes in policy, technology, markets or expectations during the move to a lower-emission economy.
Energy Efficiency
Using less energy to perform the same task or achieve the same result.
EPD
Environmental Product Declaration: a standardised document that reports information about the environmental impacts of a product.
ETI
Ethical Trading Initiative: an organisation that supports respect for workers' rights in global supply chains.
GOTS
Global Organic Textile Standard: a standard for textiles made with certified organic fibres that includes environmental and social requirements.
Climate Resilience
The ability to prepare for, respond to and recover from climate-related effects.
Climate Neutrality
A condition in which greenhouse gas emissions and removals are balanced according to an accepted method.
Scope 1 Emissions
Direct greenhouse gas emissions from sources owned or controlled by an organisation.
Scope 2 Emissions
Indirect greenhouse gas emissions linked to purchased electricity, steam, heating or cooling.
Scope 3 Emissions

Other indirect greenhouse gas emissions across an organisation's value chain.

Last-mile Delivery

The final stage of delivery to the customer.

Unit 4: Regulatory and Standard Requirements

Sustainability Standards

Agreed requirements, guidelines or criteria used to assess or improve environmental, social or economic performance.

Sustainable Development

Development that meets present needs without limiting the ability of future generations to meet their own needs.

Regulatory Compliance

Following the laws, regulations and legal requirements that apply to an organisation.

Paris Agreement

An international climate agreement that aims to keep the rise in global average temperature well below 2°C and pursue efforts to limit it to 1.5°C.

European Green Deal

The EU policy framework for moving towards a climate-neutral, resource-efficient and competitive economy.

Supply Chain Due Diligence

A process for identifying, preventing, reducing and addressing environmental and human-rights risks and impacts in a supply chain.

Corporate Sustainability Reporting Directive (CSRD)

An EU directive on sustainability reporting by companies within its scope.

Transparency

Providing clear, accurate and accessible information about decisions, activities and impacts.

Environmental, Social and Governance (ESG)

A framework used to consider environmental, social and governance matters in an organisation or investment.

Sustainability Certification

Formal confirmation that a product, service or organisation meets specified sustainability requirements.

Ecolabel

A label showing that a product or service meets stated environmental criteria.

Environmental Management System (EMS)

A structured system for managing an organisation's environmental responsibilities and improving its environmental performance.

Greenwashing

A misleading environmental claim that is not supported by enough evidence.

Corporate Sustainability Due Diligence Directive (CSDDD)

An EU directive on due diligence relating to human rights and environmental impacts.

EU Taxonomy

An EU classification system for environmentally sustainable economic activities.

Task Force on Climate-related Financial Disclosures (TCFD)

A framework of recommendations for reporting climate-related risks and opportunities.

Forest Stewardship Council (FSC)

An international certification system for forest-based products from responsibly managed sources.

PEFC (Programme for the Endorsement of Forest Certification)

An international forest-certification system that endorses national forest-certification standards.

Marine Stewardship Council (MSC)
A certification and ecolabelling programme for seafood from sustainable fisheries.
EPEAT
A sustainability rating system for electronic products.
TCO Certified
A sustainability certification for information technology products.
Environmental Product Declaration (EPD)
A standardised document that reports information about the environmental impacts of a product.
Product Environmental Footprint (PEF)
An EU method for measuring the environmental performance of products across their life cycle.
Traceability
The ability to track the origin, movement and processing of a product or material.

Unit 5: Risks and Opportunities in Sustainability

Sustainability Risk
A potential environmental, social or governance issue that may affect an organisation, its stakeholders or its ability to operate.
Operational Disruption
An interruption to normal business activities caused by events such as new processes, technology changes, regulation or supply-chain problems.
Supply Chain Vulnerability
The risk that environmental, social, economic or climate-related factors will disrupt a supply chain.
Reputation Risk
The risk of damage to an organisation's reputation because of its actions, performance or communication.
Greenwashing
A misleading environmental claim that is not supported by enough evidence.
Operational Efficiency
Using time, materials, energy and processes effectively while reducing waste and unnecessary costs.
Competitive Advantage
A feature or capability that helps an organisation perform better than competitors or provide greater value to customers.
Business Resilience
The ability of a business to prepare for, respond to and recover from disruption.
Conscious Consumer
A consumer who considers environmental and social impacts when choosing products.
Return on Investment (ROI)
A measure that compares the financial benefit of an investment with its cost.
Resource Efficiency
Using energy, water and materials effectively while reducing waste and environmental impact.
Sustainable Investment
Investment that considers environmental, social and economic effects as well as financial performance.
Risk Management
The process of identifying, assessing and addressing risks to an organisation.
Business Case
A documented explanation of the benefits, costs, risks and expected outcomes of a proposed action or investment.
Environmental, Social and Governance (ESG)

A framework used to consider environmental, social and governance matters in an organisation or investment.

Stakeholder

A person or group that affects, or is affected by, an organisation or its activities.

Value Chain

The full range of activities involved in creating, selling, using and managing the end of life of a product or service.

Responsible Sourcing

Choosing materials, products and suppliers using environmental and social criteria.

Unit 6: Practical Tools for Environmental Assessment

Environmental Assessment

The process of identifying and evaluating the environmental impacts of an organisation, product, service or activity.

Environmental Footprint

The overall environmental impact of an organisation, product, service or activity, including emissions, energy, water, materials and waste.

Baseline

A starting measurement used to compare future performance or progress.

Energy Efficiency

Using less energy to perform the same task or achieve the same result.

Waste Audit

A structured review of the types and amounts of waste produced in order to identify prevention, reuse and recycling opportunities.

Waste Hierarchy

An order of preferred actions that prioritises preventing waste, followed by options such as reuse, recycling, recovery and disposal.

Resource Efficiency

Using energy, water and materials effectively while reducing waste and environmental impact.

Circular Economy

A system that prevents waste and keeps products and materials in use through reuse, repair, refurbishment and recycling.

Supply Chain Transparency

Providing clear and accurate information about activities and impacts across a product's supply chain.

Environmental Performance

How effectively an organisation manages and improves its environmental impacts.

Sustainability Improvement

An action that reduces environmental or social impacts or strengthens sustainability performance.

Carbon Footprint

The total greenhouse gas emissions linked to a person, product, organisation or activity.

Environmental Audit

A structured review of an organisation's environmental practices, impacts and compliance.

Renewable Energy

Energy from sources that are naturally replenished, such as wind and sunlight.

Sustainable Procurement

Purchasing products and services using environmental, social and economic criteria.

Key Performance Indicator (KPI)

A measurable value used to monitor performance and progress towards an objective.

Payback Period The time required for savings or income from an investment to recover its initial cost.

Take-back Scheme A programme that allows customers to return used products or packaging for reuse, repair, refurbishment or recycling.

Unit 7: Case Studies of Sustainability in Retail

Sustainability Initiative
A programme, project or action intended to improve environmental, social or economic sustainability.
Effective Practice
An approach that has worked well in a particular context.
Circular Economy
A system that prevents waste and keeps products and materials in use through reuse, repair, refurbishment and recycling.
Sustainable Sourcing
Choosing materials, products and suppliers using environmental and social criteria.
Corporate Social Responsibility (CSR)
An approach in which a business considers the social, environmental and economic impacts of its activities.
Environmental Stewardship
Responsible use and protection of the natural environment.
Stakeholder Engagement
The process of communicating and working with people or groups affected by an organisation's decisions and activities.
Sustainability Strategy
A long-term plan for integrating environmental, social and economic considerations into decisions and operations.
Supply Chain Transparency
Providing clear and accurate information about activities and impacts across a product's supply chain.
Renewable Energy
Energy from sources that are naturally replenished, such as wind and sunlight.
Net Zero
A state in which greenhouse gas emissions are reduced as far as possible and remaining emissions are balanced by removals.
Sustainable Packaging
Packaging designed to reduce environmental impact through prevention, reduced material use, reuse, recyclability or compostability.
Resource Efficiency
Using energy, water and materials effectively while reducing waste and environmental impact.
Environmental, Social and Governance (ESG)
A framework used to consider environmental, social and governance matters in an organisation or investment.
Environmental Activism
Action intended to protect the environment or influence environmental change.
Sustainable Innovation
The development of products, services or processes that create environmental or social benefits while supporting economic value.

SUSTAINABILITY CONCEPTS AND PRACTICES FOR RETAIL

Unit Introduction

Learning Objectives:

- **LO2:** Develop practical solutions and recommend best practices to address environmental challenges and improve sustainability in retail workplaces.

Duration: Approximately 2.45 hours

Unit Overview
This unit will introduce the learners core sustainability principles and practices in the context of retail. This includes the concepts of sustainable development, circular economy, waste reduction, and energy efficiency. Learners will explore how these principles can be integrated into everyday retail operations to reduce environmental footprints.

1.1 Introduction to Sustainability in Retail

Facilitator Notes:

- Begin by gauging the learners' existing understanding of sustainability.
- Connect global sustainability challenges to the retail sector's role and impact.
- Emphasise that sustainability is not just environmental, but also social and economic.

Welcome to "Sustainability Concepts and Practices for Retail." In this unit, we'll explore why sustainability is increasingly important for the retail sector and how you can contribute to making your workplace more sustainable.

What is Sustainability?

Sustainability involves balancing environmental, social, and economic considerations. The commonly accepted definition of sustainable development is "development that meets the needs of the present without compromising the ability of future generations to meet their own needs" (*Brundtland Commission, 1987).*
In the context of supply chains and procurement, sustainability integrates environmental and social responsibility with economic viability to create solutions *(DCCEEW, 2024).* Sustainability should not be an add-on but considered alongside other requirements and government priorities *(DCCEEW, 2024).*

1.2. Why is Sustainability Important for Retail?

Environmental Impact: The creation and use of products, which retail facilitates, account for nearly half of global greenhouse gas emissions. More than 70% of a product's environmental impact is determined at the design stage *(Research Network Sustainable Global Supply Chains, 2023).* Retail operations also consume energy and resources and generate waste *(Mangano, Zenezini and Cagliano, 2021).*

Consumer Expectations: Consumers are becoming increasingly attuned to sustainability issues and demanding of retailers. There is a growing market for sustainable products, and research shows younger shoppers want to buy from companies committed to positive social impact *(Jiang, Wu and Yin, 2023)*. Failure to address climate risk appropriately can lead to reputational damage for consumer-facing companies.

Regulatory Pressures: Policymakers at global, EU, and national levels are increasing legislative changes to support action on sustainability. This includes regulations around climate reporting, circular economy principles, and supply chain due diligence *(DCCEEW, 2024).*

Business Resilience: Adapting to climate change allows businesses to better respond to risks and seize opportunities. Environmental disruptions across operations and suppliers are critical considerations for ensuring resilient supply chains (*Research Network Sustainable Global Supply Chains, 2023).*

Economic Benefits: Implementing sustainable practices can lead to cost savings through efficiency gains, such as reduced energy use or waste minimisation. *(Fatorachian, Kazemi and Pawar, 2024)* It can also enhance competitive position by responding to shifting consumer preferences. Considering the whole-of-life costs of goods and services is part of achieving value for money in procurement *(DCCEEW, 2024)*

1.3. Dimensions of Sustainability Relevant to Retail

Sustainability is often considered across three main dimensions:

- **Environmental:** Minimising environmental impacts, including the prevention of pollution, sustainable resource use, biodiversity protection, and addressing climate change impacts (like reducing greenhouse gas emissions) (Research Network Sustainable Global Supply Chains, 2023)
- **Social:** Promoting decent working conditions and human rights. This includes identifying, preventing, and mitigating negative impacts on human rights in supply chains. Respecting Indigenous Peoples' rights and sovereignty is also part of anchoring high environmental, social, and governance (ESG) standards. *(DCCEEW, 2024; Research Network Sustainable Global Supply Chains, 2023).*
- **Economic:** Balancing efficiency, resilience, and strategic autonomy. This involves financial viability, promoting local value addition in producer countries, achieving a more balanced redistribution of wealth, and considering whole-of-life costs *(Jiang, Wu and Yin, 2023).*



Activity 1 : What Does Sustainability Mean to You?

- Ask the learners the following : What comes to mind when you hear the word "sustainability" in the context of your retail job? What are some sustainable or unsustainable things you've seen in retail?
- Have learners share their thoughts. Facilitate a brief discussion connecting their ideas to the concepts introduced.

1.4. Core Sustainability Practices in Retail

Facilitator Notes:

- This module dives into the practical application of sustainability principles in retail.
- Use examples from the sources where possible.
- Connect these practices back to the three dimensions of sustainability.
- Now that we understand the core concepts and importance of sustainability, let's look at some key practices relevant to retail operations.

Waste Reduction and the Circular Economy

Minimising waste is a critical environmental sustainability practice. The retail sector takes a lead role in promoting and delivering an environmentally sustainable economy.

Linear vs. Circular Economy: Our current economy is largely linear – we take materials, make products, and eventually throw them away. A **Circular Economy** is a system where materials never become waste and nature is regenerated. It emphasises resource efficiency, waste minimisation, and the transition from linear to circular resource flows. In a circular economy, products and materials are kept in circulation through processes like maintenance, reuse, refurbishment, remanufacture, recycling, and composting. *(Research Network Sustainable Global Supply Chains, 2023).*

Retail's Role in Circularity: Retailers can contribute to circularity by:

- Selling goods that are durable, repairable, reusable, and recyclable.
- Offering goods that have been refurbished or are reused.
- Prioritising goods containing recycled content.

- Considering how goods can be recycled at the end of their useful life.
- Participating in take-back or end-of-life schemes where goods are returned for resource recovery.

- Offering goods for lease, rent, or as a product-as-a-service instead of selling outright.

- Reducing packaging. Retailers are expected to facilitate the "take back" of packaging and products like consumer electronics. *(DCCEEW, 2024).*

Waste Minimisation Strategies:

- Focus on preventing plastic packaging waste by minimising single-use packaging and promoting packaging reuse where possible.

- Supporting efforts to deliver plastic recycling targets.

- Reducing complexity within the plastic packaging supply chain by simplifying polymer usage and eliminating non-recyclable components.

- Increasing the use of recycled content in plastic packaging.

- Ensuring packaging reductions do not jeopardise efforts to reduce food waste.

- Adopting **Circular Economy (CE) principles** in supply chains, focusing on eco-design, resource efficiency, and high levels of recycling. For products sold in markets like the EU, this means complying with sustainability criteria and being designed for increased durability, repairability, and recyclability.

- Implementing efficient **waste management** practices, aiming for minimisation of waste to landfill.

Utilising digital technologies like AI and IoT in supply chain management to enhance sustainability, particularly in areas like waste management. This enables real-time monitoring, predictive analytics (e.g., predicting waste generation, demand forecasting), dynamic adjustments (e.g., replenishment schedules, route optimisation), and improved traceability/accountability. Retailer's promotional activities, for example, can contribute to waste, and digital tech can help optimise promotions to minimise overproduction. Overstocking and inventory mismanagement are primary drivers of waste, which AI and IoT can significantly reduce*. (Fatorachian, Kazemi and Pawar, 2024).*

Sustainable Product Sourcing

Sustainable procurement looks beyond upfront cost to consider the entire life cycle of goods and services, including environmental and social risks and benefits (*DCCEEW, 2024).*

Embedding Sustainability in Procurement: This involves integrating environmental sustainability throughout the procurement process, from planning to contract management and reporting.

Specifying Requirements: Setting specific, verifiable environmental sustainability requirements allows for fair competition. These can relate to product characteristics (e.g., recycled content), function (e.g., packaging material), or performance (e.g., emissions) *(DCCEEW, 2024).*

Recycled Content: Maximising the use of recycled content in goods where practicable without compromising safety, quality, or capability. This includes specifying the proportion of recycled material.

Environmental Impact: Considering requirements related to minimizing greenhouse gas emissions, optimizing energy/water use, using safe/renewable inputs, safely using/disposing of chemicals, and protecting biodiversity.

Verifying Claims: Using ecolabels, certifications, and standards (like ISO 14001 for Environmental Management Systems) to verify environmental claims made by suppliers. Being aware of **greenwashing** (false, misleading, or deceptive claims) and asking for verification is crucial*(DCCEEW, 2024).* Accredited product stewardship schemes can also help verify sustainability.

Supply Chain Responsibility: Due diligence legislation requires identifying, preventing, and mitigating negative impacts on human rights in supply chains. Anchoring high environmental, social, and governance (ESG) standards in sectors like mining is important. This includes respecting Indigenous Peoples' rights.

Energy-Efficient Store Operations

Optimising energy use is a key climate impact to address. Energy efficiency is largely achieved through replacing inefficient manufactured capital with more efficient technology.

Building Efficiency: Buildings use a significant amount of energy. Efficiency can be improved through insulation, reducing air infiltration, passive solar design, modern windows, efficient heating/cooling systems, and setting appropriate temperatures. Building codes focus on increasing efficiency as stock turns over. Energy audits can identify and rectify sources of waste in existing buildings. *(Research Network Sustainable Global Supply Chains, 2023)*

Appliance Efficiency: Using energy-efficient appliances is crucial. For example, efficient light bulbs (CFLs, LEDs) greatly reduce electricity loss as heat. Appliance standards can drive significant energy savings.

Operational Practices: Simple habits can reduce energy use, such as turning off lights, adjusting thermostats, unplugging devices, and using cold water for laundry.

Renewable Energy: Transitioning to lower-emission sources of energy like wind and solar can reduce energy costs and improve resilience to fossil fuel price increases. This can involve investing in renewable energy markets or using corporate power purchase agreement. *(Fatorachian, Kazemi and Pawar, 2024).*



Activity 2: Retail Sustainability Audit

- Provide learners with a simple checklist based on the practices discussed (e.g., types of bins available, energy star ratings on appliances, examples of sustainable products or packaging, visible recycling efforts).

- ❖ Ask them to think about their own retail store or a familiar one and mark which practices are already in place.
- ❖ Discuss findings as a group. What's working well? Where are the gaps?

1.5. Implementing Sustainability and Best Practices

Facilitator Notes:

- ➢ This section focuses on practical implementation and overcoming challenges.
- ➢ Highlight the importance of a holistic approach and collaboration.

Implementing sustainability practices requires a strategic approach and involves everyone in the organisation.

1. Integrating Principles into Operations

Embedding Sustainability: Environmental sustainability is not an add-on; it should be embedded in day-to-day business practice. It should be considered from the planning stage of processes like procurement.

Setting Goals and Measuring Progress: Setting ambitious goals is important. Using Key Performance Indicators (KPIs) allows sustainability requirements to be measured and tracked throughout operations and contracts. Examples include tracking recycled content used, waste diverted from landfill, or energy/water efficiency.

Contract Management: Monitoring sustainability performance through contract management is essential, addressing underperformance and identifying opportunities for continuous improvement and innovation.

Whole-of-Life Approach: Considering the entire life cycle of goods and services, from design and acquisition through maintenance, operation, and disposal. This helps identify environmental impacts at different stages.

2. Practical Solutions and Best Practices

Rethink Purchasing: Before buying new, consider alternatives like refurbishing, repairing, reusing, leasing, or hiring. Manage demand to avoid excess consumption.

Specify Requirements Clearly: When procuring goods or services, clearly state environmental sustainability requirements in a way that is well-defined, verifiable, and allows fair competition.

Utilise Technology: Leverage digital technologies like AI and IoT for improved inventory management, waste tracking, and logistics optimisation. Even low-cost digital solutions like mobile-based AI models or waste tracking systems can be effective where infrastructure is weak.

Manage Disposal Responsibly: At the end of a product's useful life, manage its disposal responsibly, considering options like reuse through refurbishment, secondary markets, recycling (commercial or specialist), or supplier take-back through product stewardship schemes.

Educate and Inform Customers: Retailers are on the frontline in terms of direct engagement with consumers. There is an opportunity to play a part in educating consumers on climate-smart choices and behaviours. Providing information to help consumers make sustainable choices is key. Verification through credible labels and certifications is crucial to build trust and avoid greenwashing *(Jiang, Wu and Yin, 2023).*

Promote Circularity: Support initiatives like increasing recycled content, designing products for durability/repairability, and implementing take-back programmes.

3. Employee Training and Engagement

Employees are crucial to implementing sustainability in retail.

Training: Workforce training is needed to support the adoption of new digital tools and sustainable practices.

Harnessing Employee Power: The retail industry is a large employer, and harnessing employees to understand sustainability in a simple and engaging way can help customers understand it too, potentially contributing to behavioural change. *(Research Network Sustainable Global Supply Chains, 2023).*

Internal Communication: Ensuring sustainability messages are supported at the top and clearly and consistently cascaded down to employees builds credibility. Consistency in messaging across all touchpoints (advertising, in-store, staff) is critical to credibility and avoiding suspicions of greenwashing*(DCCEEW, 2024).*

Knowledge Sharing: Sharing successes and lessons learned encourages and incentivises positive behaviour and empowers others. This can be done through internal communications or sharing case studies.

4. Challenges in Retail Sustainability

Retailers face several challenges:

Balancing Priorities: Securing supplies while maintaining high environmental and social standards can be difficult. Balancing efficiency and resilience with strategic autonomy is a challenge.

Cost and Investment: Adopting sustainable practices and improving infrastructure can require high costs and investment.

Complexity: Translating complex sustainability issues into simple consumer messaging is tough in a time-poor environment. Predicting climate impacts and their timing can be difficult.

Greenwashing: The risk of companies overstating or misrepresenting their sustainability credentials is real. Verification through credible labels and certifications is crucial.

Supply Chain Dynamics: Unequal power dynamics between buyers (retailers) and suppliers exist. Geopolitical factors can influence sourcing decisions beyond efficiency or sustainability. Ensuring sustainability standards are inclusive and consider producer countries' interests is important.

Geopolitical issues and power imbalances can complicate ethical *sourcing (Research Network Sustainable Global Supply Chains, 2023).*

Consumer Inertia: Despite increased awareness, changing consumer behaviour can be challenging. Consumers may struggle to link personal activities to global issues. Price can be a barrier, as sustainability is sometimes seen as a high-cost option. Even aware customers may struggle to act due to cost or convenience barriers *(Mangano, Zenezini and Cagliano, 2021).*



Activity 3: Problem Solving - Our Retailer's Challenge

- Present the learners with a specific sustainability challenge relevant to their workplace (e.g., high amount of packaging waste, high energy bill, difficulty sourcing a specific sustainable product).
- Using the concepts and practices discussed, have groups brainstorm practical solutions and recommend best practices to address this challenge.
- Encourage them to think about who needs to be involved (management, colleagues, suppliers, customers).
- Have groups share their solutions and facilitate a discussion on feasibility and potential impact.

1.6. Conclusion

Facilitator Notes:

- Summarise the key takeaways.
- Reinforce the importance of continuous learning and action.

We've covered the core concepts of sustainability, explored practical applications in retail, and discussed implementation and challenges.

Key Takeaways:

- Sustainability balances environmental, social, and economic factors for current and future generations *(Brundtland Commission, 1987).*
- Retail plays a vital role in promoting sustainability due to its environmental impact, consumer interaction, and place in supply chains *(Mangano, Zenezini and Cagliano, 2021).*

- Key practices include waste reduction (especially through circular economy principles), sustainable sourcing, and energy efficiency *(Jiang, Wu and Yin, 2023).*
- Implementing sustainability requires embedding it into operations, using data and technology, managing supply chains responsibly, and engaging employees and customers.
- Challenges include cost, complexity, greenwashing, and power dynamics in supply chains.
- Moving forward, continue to look for opportunities to apply these principles in your daily work. Stay informed, engage with colleagues and management, and contribute to making your retail workplace more sustainable for the benefit of business, people, and the environment.

1.7. Pause & Reflect

- What does sustainability mean in the context of your own workplace?
- Which sustainability practices are already in place within your organisation?
- How might sustainable business practices benefit both the environment and the business?

ENVIRONMENTAL IMPACTS OF RETAIL OPERATIONS

Unit Introduction

Learning Objective (LO1): Examine how retail operations affect the environment, including the use of natural resources, climate change, pollution, waste, and biodiversity loss.

Suggested Duration: 2.15 hours

Unit Overview

Retail is central to the economic and social fabric of a country *(retailireland.ie)* . It is one of the largest indigenous industries in some regions, employing a significant number of people across cities, towns, and villages, stimulating local economies, and contributing substantial tax revenue. While retail supports vibrant communities and attracts visitors to urban centers, its extensive operations and supply chains have significant interactions with the natural environment.
Retail operations involve channelling millions of products daily through various platforms, a trend projected to increase. The positive impact of retail extends beyond economic benefits to include community support. However, the sector is also transforming how it operates to support environmental sustainability. Understanding the environmental impacts of retail operations is crucial for navigating towards a more sustainable future.

Facilitator Notes:

- Begin by asking learners to share any environmental issues they have observed related to their work in retail or their shopping experiences.
- Discuss the dual role of retail as both a vital part of society and an industry with a significant environmental footprint.
- Frame the session around the learning objective: by the end, learners will be able to describe the key environmental impacts of retail operations.



Activity 1 : Brainstorming Retail's Footprint

- Divide learners into small groups.
- Ask each group to brainstorm a list of ways retail operations, from sourcing to sales to disposal, might interact with or affect the natural environment.
- Examples might include lights/heating in stores, transportation of goods, materials used in products/packaging, disposal of unsold items or packaging.

- ❖ Have groups share their ideas and create a master list on a whiteboard or flipchart.

2.1. Resource Use in Retail

Retail operations rely heavily on the consumption of natural resources throughout their supply chains and in their physical stores and logistics networks.

Energy: Significant amounts of energy are consumed in buildings, including retail stores. One-third of all energy, two-thirds of all electricity, and one-fourth of all wood are used in buildings. While well-designed buildings can significantly reduce energy use, powering stores, warehouses, and transporting goods requires vast amounts of energy, largely derived from fossil fuels. The energy sector alone accounts for a large portion of greenhouse gas emissions.

Water: Water is a critical resource used extensively in the production of goods sold in retail, particularly agricultural products. Globally, agriculture accounts for the vast majority of water consumption, especially for irrigation. The amount of water required to produce everyday items and common agricultural products, much of which is "green water" (rain used by crops), is substantial. For example, producing a hamburger can require 2,400 litres of water, a cotton t-shirt 4,100 litres, and beef over 15,000 litres per kilogram. The energy sector, which powers retail, also uses large quantities of water for cooling, although much of this is returned to its source. Indirect water use also occurs through the water transpired by natural ecosystems that provide services we benefit from.

Raw Materials: Retail products and infrastructure require raw materials extracted from the Earth, including minerals, ores, timber, and materials for construction. These are stock resources, formed over vast geological timescales, and are consumed much faster than they are renewed. Metallic ores, while not destroyed by use, require significant energy to refine and recycle. Timber, a renewable resource, is also harvested from forests. Retail's demand fuels the extraction and processing of these materials globally.

Facilitator Notes:

- ➢ Connect the resource types back to the brainstormed list from the previous activity. Where on the list do they fit?
- ➢ Use the water usage statistics for products to illustrate the "hidden" water footprint in supply chains.
- ➢ Discuss the concept of stock (non-renewable) vs. flow (renewable) resources as they relate to retail's material inputs.



Activity 2 : Tracing a Product's Resources

- ❖ Choose a common retail product (e.g., a chocolate bar, a wooden picture frame, a piece of jewellery).

- In groups or as a class, try to list the main resources used to create it (e.g., cacao, sugar, milk, packaging materials, wood, metal, energy for transport/processing).

- Briefly discuss where these resources might come from and the potential scale of their use across the entire retail sector.

2.2.Climate Change and Pollution

Retail contributes to climate change and pollution through energy use, transportation, and the materials and products in its supply chains.

Climate Change: Burning fossil fuels releases carbon dioxide and other pollutants into the atmosphere, driving climate change. The retail sector's reliance on energy for stores, manufacturing processes in its supply chain, and transportation of goods contributes to these emissions. Transportation is a significant source of greenhouse gases. Climate change can, in turn, impact retail through supply chain disruptions and altered consumer demand. For instance, increased temperatures and heatwaves can affect food/beverage supply and operations. Measuring climate impact often requires a lifecycle approach, considering emissions from production, transport, use, and disposal across the whole supply chain.

Pollution Sources:

Packaging and Materials: Retail generates considerable waste, particularly from packaging. While efforts are made to reduce packaging and encourage recycling, the sheer volume remains a challenge. The debate includes the type of packaging used, balancing weight for transport efficiency against recyclability. The lifecycle impacts of products and their packaging are increasingly scrutinized.

Chemicals and Fertilizers: The production of goods sold in retail, especially food and textiles, often involves the use of chemicals, fertilizers, and pesticides in agriculture. These can pollute water sources through runoff, leading to issues like eutrophication which harms aquatic ecosystems. Pesticides pose significant health risks and can persist and accumulate in the environment and food chains.

Transportation: Transportation, essential for retail supply chains and customer access to stores, emits not only greenhouse gases but also other pollutants. While fuels like natural gas are cleaner than coal, burning them still produces emissions. Advances like catalytic converters have improved air quality compared to earlier periods, but the volume of transport remains a pollution source.

Facilitator Notes:

- Discuss the direct contributions of retail (store energy use, transport) and the indirect contributions (supply chain impacts driven by retail demand).

- Explain the concept of externalities – costs like pollution that are not paid by the producer or consumer but by society.

- Highlight the interconnectedness: climate change affects weather patterns, which can impact agriculture (supply chain), which can lead to increased chemical use or transport distances, etc.



Activity 3 : Pollution Mapping

- Using the brainstormed list or a product example, identify specific types of pollution associated with each stage of the retail process (e.g., manufacturing pollution, transport emissions, waste packaging in landfills, chemical runoff from farms).

- Discuss which types of pollution are most visible to the consumer and which are less so.

2.3. Waste Management in Retail

Waste generation is a highly visible environmental impact of retail, covering everything from product packaging to unsold goods.

Waste Volume and Types: Retail operations result in large volumes of waste, with packaging being a major concern for both consumers and stakeholders. Waste occurs at various stages, including production (surplus stock), distribution, and at the point of sale and consumption (packaging, product waste). Food waste in the supply chain is a significant global challenge with substantial economic and environmental costs, including greenhouse gas emissions.

Packaging Waste: Reducing packaging and increasing its recyclability are key priorities. Retailers have played a role in promoting recycling behaviours among consumers, for example, regarding carrier bags. High recycling rates for packaging materials have been achieved in some areas. However, challenges remain in reducing the overall amount of packaging and improving the systems for collection and recycling.

***Moving Towards Sustainability*:** There is a growing focus on waste reduction and moving towards a circular economy. A circular economy aims to eliminate waste and pollution by keeping products and materials in circulation through processes like reuse, repair, recycling, and composting. This contrasts with a linear economy where materials become waste at the end of a product's life. Strategies include promoting recycling, reducing material use, and redesigning products and systems.

***Technology in Waste Management*:** Digital technologies like AI and the Internet of Things (IoT) are being explored to improve waste management efficiency, including optimising logistics for waste collection and improving inventory management to reduce waste. These technologies can help with real-time monitoring, predictive analytics, and improved supply chain coordination to minimise waste.

Facilitator Notes:

- Discuss the different types of waste generated by retail (packaging, food waste, electronic waste, textile waste, etc.).

- Introduce the concept of the waste hierarchy (reduce, reuse, recycle, recover, dispose).
- Explain the circular economy model and how it differs from a traditional linear economy, using examples relevant to retail (e.g., reusable packaging, repairing electronics, recycling textiles).
- Mention initiatives like the "Plastic Pledge" as examples of industry efforts. Plastic Pledge - Plastic Pollution, Plastic Pledge, Plastic



Activity 4 : Circular Retail Ideas

- In groups, brainstorm ways the retail sector could better embrace the principles of a circular economy.
- Think about product design, packaging, store operations, logistics, and end-of-life for products.
- Examples: refill stations, take-back programmes for old clothes or electronics, selling repaired items, using recycled materials in store fixtures.

2.4. Impact on Biodiversity

Retail operations, particularly through driving demand and shaping supply chains, contribute to the loss of biodiversity.

Facilitator Notes:

- Introduce the concept of biodiversity and why it is important (ecosystem services, intrinsic value).
- Explain the acronym HIPPO (Habitat destruction, Invasive species, Pollution, Population, Overharvesting) as the main drivers of biodiversity loss and link each element back to retail's impacts.
- Discuss how global supply chains mean that retail choices in one part of the world can impact biodiversity in distant locations.

Habitat Destruction: Human activities, especially land-use changes like converting forests or wetlands to agriculture or urban areas, are the most important drivers of biodiversity loss. Retail demand for products sourced from agriculture, forestry, and mining contributes to habitat destruction globally, including deforestation in species-rich areas. The expansion of human populations and economic activity

presses against the limits of the biosphere, leaving less space and resources for non-domesticated species.

Pollution Impacts: Pollution originating in retail supply chains, such as fertilizer runoff from farms, can severely impact ecosystems and the species they support. Pesticides also pose risks to wildlife and ecosystems. Waste generated by retail can also harm habitats and wildlife if not properly managed.

Overharvesting: The demand for certain natural resources, such as fish or timber, can lead to overharvesting that depletes stocks and disrupts ecosystems. Historically, this has even led to the collapse of fisheries.

Other Drivers: Climate change, driven partly by emissions from retail's energy and transport use, alters habitats and ecosystems, impacting species distribution and survival. Invasive species, often spread through global trade and transport facilitated by retail supply chains, can outcompete native species and disrupt ecosystems.

HIPPO Drivers





Activity 5 : Biodiversity Link

- ❖ Review the types of environmental impacts discussed (resource use, climate change, pollution, waste).
- ❖ For each impact, discuss how it specifically harms biodiversity (e.g., deforestation -habitat loss; carbon emissions - climate change - habitat shift/loss; water pollution - harms aquatic life; waste - plastic ingestion by wildlife, habitat destruction from landfills).

2.5. Conclusion

Retail operations have wide-ranging environmental impacts, from significant resource consumption and energy use contributing to climate change, to various forms of pollution from chemicals, transport, and especially waste packaging, and impacts on biodiversity through supply chains that drive habitat destruction and other pressures. These impacts are complex and interconnected, occurring both locally in store operations and globally through extended supply chains. Addressing these challenges requires a multifaceted approach involving retailers, consumers, policymakers, and other stakeholders working collaboratively. While challenges exist, particularly regarding cost, complexity, and influencing consumer behaviour, there are also opportunities for retailers to lead, innovate, improve efficiency, and contribute to a more sustainable economy and environment.

2.6. Pause & Reflect

- Which environmental impact discussed in this unit is most relevant to your workplace?
- Where do you think the greatest amount of energy, water, or materials is used within your organisation?
- What changes could be made to reduce waste or resource consumption?



Activity 6: Action Planning

- ❖ As individuals or in groups, ask learners to identify one or two specific actions they could take or advocate for in their workplace to reduce the environmental impact of their retail operations.
- ❖ Actions could relate to energy saving, reducing waste, promoting sustainable products, or educating colleagues or customers.
- ❖ Have a few volunteers share their planned actions.

3. CLIMATE CHANGE AND RETAIL OPERATIONS

Unit Introduction

Learning Objective (LO 6): Analyse how sustainability issues relate to climate change in retail and develop strategies to reduce the environmental impact of retail operations.

Duration: 3 Hours

Unit Overview

This unit explores the critical link between climate change and retail operations, examining both the risks and opportunities presented. We will discuss practical steps retailers can take to build resilience and contribute to a sustainable future.

Unit Introduction

Facilitator Notes:

- Begin with a brief welcome and overview of the unit's purpose.
- Explain that this unit will explore the critical relationship between the retail sector and climate change, looking at both how retail impacts the climate and how the changing climate impacts retail businesses.
- Highlight that understanding this relationship is key to ensuring a sustainable future for retail1.
- Introduce the learning objective (LO 6).

Welcome to the unit on Climate Change and Retail Operations. In the current climate of economic uncertainty and significant change, including accelerated digital transformation and pressing environmental concerns, the retail sector is evolving rapidly. Sustainability and the role retail plays in society are becoming far more important into the future, encompassing how retailers treat people, impact communities, and how the public generally views retail. This unit focuses specifically on the relationship between retail operations and climate change.

We will analyse how sustainability issues connect to climate change within the retail sector and develop strategies to reduce the environmental impact of retail operations.



Activity 1 :Quick Poll/Icebreaker

- Ask learners to share (e.g., in a chat or verbally) one word that comes to mind when they think about "retail" and "climate change" together.

- ❖ Discuss a few responses briefly to gauge existing understanding and perspectives.

3.1. Understanding Climate Change and Its Effects on Retail Operations

Facilitator Notes:

Explain Key Terms

- ➢ Climate Change Defined: A change in long-term weather patterns due to natural forces, human activity, or both.
- ➢ Urgent Action Needed: Climate change is described as the greatest challenge facing this generation, requiring urgent action.
- ➢ Retailer's Role: Retailers have a vital role to play, with the power to influence not only their own business but also their suppliers and customers.
- ➢ Adaptation vs. Mitigation: It's important to understand both.
- ➢ Mitigation: Reducing greenhouse gas emissions (e.g., energy efficiency). Businesses may already be taking steps like reducing energy use or increasing recycling to improve efficiencies and cut costs.
- ➢ Adaptation: Adapting to the physical and transition risks and the inevitable disruptions they will bring to business operations, services, and supply chains.
- ➢ Inextricably Linked: Mitigation and adaptation are inextricably linked and need to be considered together.
- ➢ Confusion Exists: There can be confusion between different sustainability topics, including climate adaptation, mitigation, the circular economy, and packaging. These topics are interconnected, and often one person or team handles all aspects of this broad agenda.
- ➢ Awareness Levels: Overall awareness and understanding of climate adaptation among Irish businesses is currently low. However, there is evidence of a genuine appetite to better understand adaptation risks and opportunities.
- ➢ Start by explaining that climate change is not just an environmental issue but also a business risk and opportunity for retailers.
- ➢ Discuss the different types of climate risks based on the (physical vs. transition).
- ➢ Use real-world examples where possible, perhaps connecting to recent local weather events.

Climate change presents both risks and opportunities for businesses, including those in the retail sector. We can categorise these impacts into two main types: physical risks and transition risks.

Physical Risks refer to the direct impacts of climate change on physical assets and operations. For retailers, this includes:

Increased temperatures and heatwaves. These can affect the supply of food and beverage products and increase cooling costs during transport and distribution, potentially leading to spoilage of goods. In stores, high temperatures can lead to loss of staff productivity and increased costs for cooling chilled or frozen products and the store itself. *(Deignan et al., 2022)*

More intense storms, heavy rainfall, and flooding (including coastal flooding and sea surges). Acute weather-driven events can impact all parts of the retail value chain. It can include the cost of maintenance and repair of damaged buildings, loss of sales from store closures, inventory loss (e.g., spoiled food during power outages), and increased transportation costs during storms. All parts of the value chain are exposed to these risks. They can cause logistics delays, damage buildings and products, and prevent staff from getting to work. The cost of cleaning up flood and storm damage can be high, potentially increasing insurance costs for businesses. Retailers located on the coast are particularly vulnerable to coastal flooding and sea surges. *(Deignan et al., 2022)*

Disruptions to global supply chains. The retail sector is heavily reliant on functional global supply chains, which are vulnerable to climate-induced disruption. Climate change will affect agriculture globally, impacting the availability of products available to retailers. Changes to sourcing timelines due to climate impacts would significantly affect business*(Deignan et al., 2022).*While businesses can try changing suppliers, this can be costly and difficult, especially if climate impacts affect an entire primary growing region. Climate change could well have a major impact on global food production in the coming years*(Ipsos MORI, 2008).*Supply chain issues are becoming increasingly urgent due to the combination of globalisation, population growth, and climate change.

Transition Risks relate to the challenges and changes arising from the transition to a lower-carbon economy. These include:

Stricter climate regulations. This can involve increased carbon taxes or regulations requiring retailers to facilitate the "take back" of packaging and products like consumer electronics. These regulations require retailers to fundamentally rethink aspects of their operations and supply chain, such as logistics and product sourcing. *(Deignan et al., 2022).*

Technology change. As businesses transition to a low-carbon and sustainable economy, new technologies are rapidly emerging — from energy-efficient systems to digital traceability tools. While these technologies offer opportunities, they also introduce transition risks for businesses that fail to adapt.

- Obsolescence of Existing Systems

Retailers relying on outdated, high-energy or resource-intensive technologies (e.g. fluorescent lighting, diesel logistics, paper-based systems) may: face rising costs (e.g. energy bills, maintenance), become non-compliant with new efficiency standards, lose competitiveness to more modern, efficient retailers.

- Investment Pressure

There's growing pressure to invest in: energy-efficient equipment (e.g. LED lighting, HVAC systems), renewable energy sources (e.g. solar panels), digital tools for sustainability tracking (e.g. carbon accounting platforms, traceability systems).

For retailers with slim margins, these upgrades can be financially challenging, especially if delayed and then required all at once by regulation or supply chain pressure.

- Skills Gap and Operational Disruption

New technology requires new skills (e.g. data analytics, sustainability software, e-commerce systems with ESG features). Retailers that don't invest in staff training and digital transformation may struggle to implement new systems, disrupting operations and losing efficiency.

- Customer Expectations and Market Shifts

Technology enables transparency and personalisation in areas like product origins, carbon footprint, or ethical credentials. Competitors using tech to offer these features may appeal more to eco-conscious consumers. Retailers without such capabilities risk losing customers and brand value.

For Example,
A retailer that doesn't upgrade to energy-efficient refrigeration may face rising energy costs and compliance issues.

One that avoids digital supply chain tools may be unable to meet (**CSRD**) Corporate Sustainability Reporting requirements or customer demand for product transparency.

Changes in consumer demand. As customers become more aware of climate change, they may increasingly seek products that address or do not contribute to the problem. There's also a growing expectation for transparency on product origin.

Reputation risks. Consumer-facing companies in the retail sector may suffer reputational damage if they are not seen to be taking sufficient and effective action on climate change. Failure to update the product offering to match changing preferences (e.g., dietary shifts, backlash against "fast fashion") can make companies less attractive than competitors.

Increased cost of insurance. One key transition risk for retailers and other businesses is the rising cost of insurance, linked to both environmental and regulatory factors.

- Regulatory Pressure on Insurers

Insurers are being required to factor in climate-related financial disclosures (e.g. under EU regulations like the Sustainable Finance Disclosure Regulation – SFDR).
This means they're pricing policies based on how well companies manage environmental risks.
Companies with poor sustainability performance may face higher premiums or exclusions from coverage.

- Increased Physical Risks = Higher Baseline

Even though physical risks (like floods and storms) are not transition risks themselves, their growing frequency pushes insurers to reassess risk across sectors. Businesses not adapting (e.g. through emissions reduction or infrastructure resilience) may be seen as higher-risk clients.

- Reputational and Liability Risk

Companies involved in unsustainable practices (e.g. pollution, greenwashing, non-compliance with ESG laws) may face legal claims. Insurers may increase costs to cover potential litigation or reputational damage.

Sustainable finance regulations: Sustainable finance regulations can create financial, operational, and reputational risks for retailers who fail to adapt.

- Regulatory Risk

Regulations like the EU Taxonomy and CSRD require businesses to prove their sustainability credentials. Retailers who can't measure or demonstrate sustainable practices (e.g. carbon footprint, waste reduction, ethical sourcing) may: face penalties or legal consequences, be excluded from investment opportunities, experience increased compliance costs.

- Financial Risk

Under the SFDR, banks and investors must disclose how they assess sustainability risks.

As a result, investors will avoid or charge higher premiums to businesses that: lack sustainability plans, cannot report on ESG performance, operate in high-carbon or unethical supply chains.

Retail impact: A retailer with no emissions data or sustainable sourcing strategy may struggle to secure loans or face higher financing costs.

- Reputational Risk

Transparency requirements under the CSRD increase scrutiny from customers, investors, and regulators. If a retailer fails to disclose, greenwashes, or underperforms, they risk losing consumer trust, damaging their brand, facing shareholder action.

- Strategic Risk

Regulations push markets toward low-carbon, circular, and socially responsible models. Retailers who don't adapt product lines, operations, or supply chains may: lose market share to more sustainable competitors, miss out on "green" procurement or partnership opportunities.



Activity 2 : Think-Pair-Share

- Ask learners to think about a specific retail product or category they are familiar with.
- In pairs or small groups, identify at least one physical risk and one transition risk related to climate change that could impact that product's journey from source to customer.
- Share examples with the larger group.

3.2: Retail's Carbon Footprint and Greenhouse Gas Emissions

Facilitator Notes:

- Explain what a carbon footprint is in the context of retail.
- Discuss the various stages where emissions occur.
- Highlight the challenge of measuring the full footprint (lifecycle).

Understanding a retailer's carbon footprint involves looking at the greenhouse gas (GHG) emissions generated by all their activities. Climate change impacts almost every aspect of the retail business. The carbon footprint includes emissions related to stores, how people get to stores, where products come from, how they're packaged, and the entire lifecycle of the product .(Ipsos MORI, 2008)

Sources of emissions in retail operations and value chains include:

Energy use in stores and buildings: Heating, cooling, lighting, running equipment. Ageing retail infrastructure is less energy efficient.

Transportation and logistics: Moving goods from suppliers to warehouses, to stores, and to customers. This includes various modes like ships, planes, trucks, and vans.

Product manufacturing and sourcing: Emissions generated during the production and extraction of raw materials for the products sold.

Packaging: Production and disposal of packaging materials.

Customer travel: Emissions from customers travelling to and from physical stores.

Product end-of-life: Emissions related to the disposal or recycling of products after the consumer has finished using them.

Measuring the full carbon footprint is complex. Experts point out the importance of a lifecycle or whole supply chain approach(reputation-sustainability-issues-in-the-retail-sector-2008.pdf). For some products, the environmental impact is greater in the end use than in production. This makes measuring challenging if the footprint calculation stops at the point of sale. Developing a standard methodology for measuring carbon footprints, perhaps for individual products to enable carbon labelling, is a huge and complicated task that requires collaboration within the sector and with other parties.

While the energy and agriculture sectors account for most of Ireland’s greenhouse gas emissions, industrial processes and product use also contribute significantly. Retail companies, being consumer-facing, may face increased scrutiny regarding their contribution to climate change. Climate change is identified as a universally important issue facing retailers and global society.



Activity 3 Brainstorming & Mapping

- On a whiteboard or shared digital document, ask learners to brainstorm all the activities involved in getting a specific product (e.g., a t-shirt or a loaf of bread) from its origin to a customer's hands (and beyond). As they list activities, guide them to identify where carbon emissions might occur and map out the lifecycle points.

3.3. Strategies to Reduce Environmental Impact - Store, Operations, and Product Lifecycle

Facilitator Notes:

- Shift focus from the problem to solutions.
- Cover strategies applicable to physical stores and overall operations.
- Introduce the concept of the Circular Economy using the provided definition.

Retailers are implementing various initiatives to reduce their environmental impact and address climate change. Tackling environmental issues is now a social and commercial priority.

Strategies for Reducing Emissions in Stores and Operations:

Improving Energy Efficiency: This is a key area for impact. Investing in technologies like LED lighting, efficient heating systems, and industrial motors can significantly reduce energy use. Retrofitting older buildings, which are often less efficient, is important but can involve high conversion costs. Implementing building codes for new constructions ensures they are designed to be more efficient. Periodic energy audits have been shown to reduce energy use by 10-30% or more. Appliance standards can also drive efficiency gains, as seen with refrigerators. Implementing resource-efficient practices around energy provides cost savings.

Using Renewable Energy: Transitioning to lower-emission sources of energy such as wind, solar, and wave energy can reduce energy costs and improve resilience by reducing exposure to fossil fuel price volatility.

Water Conservation: This is another important area. Implementing water usage and treatment solutions and resource-efficient practices around water can lead to cost savings.

Strategies for Addressing Product Lifecycle and Waste:

Sustainable Packaging: This is identified as an important area for sustainability. Reducing the amount of plastic used is a focus.

Waste Management and Recycling: Waste management and recycling are critical focus areas for retailers across Europe. Retailers can lead by promoting compostable and recyclable products, improving packaging design, and actively working to prevent food waste—a key target under the EU Farm to Fork Strategy, which commits to a 50% reduction in food waste by 2030 (*European Commission, 2020).*
Retailers also have a role in developing and participating in collaborative models—such as shared packaging return schemes, logistics cooperatives, and retail waste pooling initiatives—particularly in areas where recycling infrastructure is underdeveloped. These approaches align with goals set out in the EU Circular Economy Action Plan, which emphasises waste prevention, reuse, and extended producer responsibility *(European Commission, 2020b).*

By adopting such practices, retailers can improve resource efficiency, reduce costs, and comply with Extended Producer Responsibility (EPR) requirements under the EU Waste Framework Directive

(*Directive 2008/98/EC, amended 2018*), while also meeting the expectations of sustainability-conscious consumers.

Championing the Circular Economy: The retail sector is taking a lead role in promoting and delivering an environmentally sustainable economy, including championing the circular economy. The circular economy is a system where materials never become waste and nature is regenerated.(*Ellen MacArthur Foundation, n.d)* It keeps products and materials in circulation through processes like maintenance, reuse, refurbishment, remanufacture, recycling, and composting. This approach tackles climate change, biodiversity loss, waste, and pollution by decoupling economic activity from the consumption of finite resources. Circular economy solutions are considered a climate opportunity. Retailers may also need to facilitate the "take back" of packaging and products like consumer electronics due to regulations*(Deignan et al., 2022).*Using recycled plastic packaging helps build a Circular Economy*(RI Community Report.pdf).*



Activity 4 : Strategy Matching

- Provide learners with cards or a digital list containing different retail operations (e.g., powering store lights, packaging a product, heating the store, disposing of returned clothing, delivering goods).
- Provide another set of cards/list with strategies discussed (e.g., installing LEDs, reducing plastic, installing better insulation, donating/recycling clothes, using electric vans).
- Ask learners to match the operations with relevant strategies.
- Discuss their choices.

3.4. Strategies to Reduce Environmental Impact - Supply Chain and Consumers

Facilitator Notes:

- Explain the significant influence retailers have over their supply chains.
- Discuss the evolving role of the consumer and the opportunity for retailers to guide choices.
- Touch upon the challenges of carbon labelling and offsetting.

Retailers don't operate in isolation; their supply chains and customer interactions are crucial areas for addressing environmental impact.

Sustainable Supply Chain Management:

- Greener Supply Chains

Retailers are adopting low-carbon sourcing strategies, reducing reliance on carbon-intensive materials, and favouring suppliers with lower environmental footprints. This aligns with the EU Green Deal and the

Corporate Sustainability Due Diligence Directive **(CSDDD),** which places legal obligations on companies to identify and mitigate environmental and social risks in their supply chains. (*European Commission, 2022)*

- Ethical Trading and Human Rights

Collaborative frameworks such as the Ethical Trading Initiative **(ETI)** and industry-wide codes of conduct help retailers address labour rights, working conditions, and fair wages across global value chains. This approach supports alignment with the UN Guiding Principles on Business and Human Rights, which the EU integrates into sustainability-related directives.

- Certified Sustainable Materials

Retailers increasingly rely on third-party sustainability standards to ensure responsible sourcing of products:

- Forest Stewardship Council **(FSC)** – for responsibly sourced timber and paper.
- Marine Stewardship Council **(MSC) –** for sustainable seafood.
- Fairtrade, Rainforest Alliance, and Global Organic Textile Standard **(GOTS)** – for ethical and environmental standards in food, textiles, and agricultural goods.

These certifications help retailers build trust, support transparent supply chains, and mitigate transition risks such as reputational damage or legal liability. (United Nations Environment Programme (2020).

- Sector-wide and Regional Collaboration

Retailers across Europe are increasingly involved in collective initiatives, such as:

- The Retailer Commitment to Responsible Sourcing (amfori/BSCI),
- European Sustainable Palm Oil Initiative, and
- National platforms supporting SMEs in meeting due diligence standards (e.g. Germany's Helpdesk on Business & Human Rights).

These efforts amplify individual action and support capacity-building for suppliers, especially in lower-income regions.

Ensuring Consistency: Retailers need to ensure a holistic approach to sustainability and close any credibility gaps(*Ipsos MORI, 2008).* If a retailer makes sustainable claims, they must ensure consistency across all their operations, including their suppliers' activities. They cannot claim great things about climate change without asking their suppliers to act.

Influencing Suppliers: Retailers have significant leverage to influence environmental and social performance across their supply chains. By embedding sustainability into procurement policies and supplier requirements, they can create ripple effects that drive measurable change.
One powerful tool is the implementation of carbon labelling or Environmental Product Declarations **(EPDs),** which provide transparency about the carbon footprint or lifecycle impact of products. These labels:

- Encourage suppliers to measure and reduce emissions,
- Inform consumer choices,
- Support compliance with emerging EU sustainability regulations.

EU European Drivers for Supply Chain Influence

- Corporate Sustainability Due Diligence Directive **(CSDDD)**

The proposed CSDDD requires large companies operating in the EU to identify, prevent, and mitigate adverse environmental and human rights impacts in their operations and supply chains.
Implication for retailers: Suppliers may be required to disclose emissions, labour conditions, and sourcing practices. (*European Commission (2022).*

- Product Environmental Footprint (PEF) Methodology

Developed under the Single Market for Green Products Initiative, this method allows companies to assess and communicate the environmental performance of products using a standardised lifecycle assessment approach. *(European Commission (2021)*

- Ecodesign for Sustainable Products Regulation (ESPR)

This regulation, proposed under the Circular Economy Action Plan, will introduce sustainability performance requirements and labelling rules for most physical goods on the EU market. (*European Commission (2022).*

Examples of Retail Influence in Practice

Carbon Labelling: Carrefour (France) has piloted front-of-pack carbon labels in collaboration with environmental data platforms to raise awareness and influence supplier practices.

Green Procurement: Retailers involved in public procurement or supply to government frameworks may be subject to EU Green Public Procurement (GPP) criteria, requiring certified sustainable sourcing (e.g. **EU Ecolabel, FSC, MSC**).

Supplier Sustainability Platforms: Tools such as EcoVadis or amfori BSCI are widely used in Europe to monitor supplier performance and support alignment with human rights and climate goals.

Engaging and Influencing Consumers:

Help Consumers Make Informed Choices: Retailers help consumers make informed choices about how they shop*. (RI Community Report.pdf).* Consumers are increasingly attuned to sustainability and expect retailers to keep pace. They want retailers to help them make more sustainable purchases. Some consumers even want retailers to make sustainable choices for them, provided they trust the brand. *(Ipsos MORI, 2008)*

Educate Consumers: Retailers are the frontline for engaging directly with consumers. There is an opportunity to play a part in educating consumers on climate-smart choices and behaviours *(Deignan et al., 2022)*.This involves discussing important subjects that are part of sustainability.

Provide Information and Choice: Retailers can provide customers with information on sustainability issues to enable them to make their own decisions. However, there is a risk that retailers only address

simpler issues. Communicating complex information, like carbon footprints, in a way consumers can understand and act on is a concern. *(Ipsos MORI, 2008)*

The "Conscious Consumer": Research shows that younger shoppers want to buy from brands committed to positive social impact*(EDF+Business).* As customers become more aware of climate change, they may increasingly seek products that address or do not contribute to it. Adapting to these changes allows companies to gain market share. Capturing this growing market of "conscious consumers" builds brand loyalty and improves the bottom line *(EDF+Business*) . A significant percentage of Irish consumers are prepared to pay a premium for sustainable products, a trend expected to grow. Adapting to climate change represents a major opportunity for new products and services. *(Deignan et al., 2022)*

Challenges in Communication and Implementation:

Carbon Footprint Measurement and Labelling: Developing a common standard and method for measuring carbon footprints is needed, requiring collaboration. Defining the carbon footprint of individual products for labelling is a huge task. Communicating this information effectively to consumers is crucial. Getting it right the first time is important to avoid consumer cynicism. Carbon labelling, even if imperfect, can start the consumer information process. *(Ipsos MORI, 2008)*

Carbon Offsetting: Some experts raise concerns about carbon offsetting, arguing that retailers must focus on reducing their actual carbon emissions before resorting to offsets. Offsetting has a limit; global society must reduce overall. Carbon offsetting refers to compensating for greenhouse gas (GHG) emissions by funding projects that reduce or remove emissions elsewhere—such as tree planting, renewable energy, or carbon capture. While offsetting can play a role in climate action, experts and EU policymakers increasingly emphasise that retailers must prioritise actual emissions reductions within their operations and supply chains before relying on offsets.

Balancing Cost and Sustainability: There are increasing tensions between the drive to keep prices low and the need to address sustainability issues. Pricing that takes account of the environmental impacts of a product is seen as key to changing consumer habits. Retailers may even need to challenge the prevailing consumer expectation of ever-cheaper, more convenient goods if sustainability is to be protected. Balancing cost and sustainability is no longer just a pricing issue—it's a strategic challenge. European retailers are being called to move beyond short-term cost-cutting and toward a more transparent, values-based pricing model that reflects environmental and social realities. This may require reframing consumer expectations and investing in long-term trust rather than short-term volume.



Activity 5 : Role-Playing

- Divide learners into pairs. One is a customer interested in buying a product (e.g., coffee, clothing, electronics) but is concerned about its environmental impact.
- The other is a retailer employee.
- The retailer should try to educate or guide the customer towards a more sustainable choice using information or strategies discussed.
- Discuss how easy/difficult this was and what information would be most helpful for both parties.

3.5. Sustainable Logistics

Facilitator Notes:

- Explain why logistics is a particularly challenging area for sustainability in retail.
- Discuss the specific needs of retailers regarding deliveries.
- Cover strategies for making logistics more sustainable.

Logistics plays a crucial role in retail success. As shopping habits change, with accelerated digital transformation and the growth of e-commerce, the demands on logistics, especially the "last mile" of delivery to the customer or store, are increasing. The sustainability of last-mile freight delivery is crucial *(Mangano et al., 2021)*

Retailer Needs and Logistics Challenges:

Retailers strive for a reliable, consistent, and smooth delivery process47. Timely and reliable last-mile deliveries are essential.

Retailers benefit from flexible and quick delivery services, able to respond to on-demand restocking requests.

Deliveries should minimise disruption to a retailer's daily operations, taking little time for loading, unloading, and checking goods. Retailers often establish strict delivery time windows.

Managing inventory (display stock vs. backroom storage) is key, and deliveries influence this. Reducing inventory carrying costs and operational complexity is a goal. *(Mangano et al., 2021)*

In new retailing, logistics faces problems like the high cost of infrastructure, a high proportion of distribution and warehousing in total costs, and inventory issues.

Evaluating and measuring logistics efficiency is an urgent problem to manage costs and improve customer satisfaction. *(Jiang et al., 2023)*

Strategies for More Sustainable Logistics:

Improving Efficiency through Technology: Using information technology and logistical information-sharing platforms is crucial for improving operational efficiency and logistics service capability *(Jiang et al., 2023)*

Optimising Delivery Processes: City logistics measures like off-hour deliveries (OHD), specific delivery time-windows, and using urban consolidation centres (UCC) are being studied and implemented. *(Mangano et al., 2021)* Night deliveries, for example, can offer advantages like easier vehicle parking and decreased route time due to better traffic conditions. Route optimisation is also a key strategy (implied by decreasing route time).

Using Environmentally Friendly Vehicles: More efficient modes of transport, such as electric vehicles (EVs), are a climate opportunity*(Deignan et al., 2022)* . Using more climate-friendly vehicles in retail logistics could become more common, especially if online retailing and home delivery increase.

Addressing "Last Kilometre" Challenges: The "last kilometre" is an urgent issue for consumers in the new retailing environment. Innovative last-mile delivery services need to consider local retailers' needs to be sustainable and attractive*(Deignan et al., 2022)*. The “last kilometre” (or “last mile”) refers to the final stage of the delivery process, where goods are transported from a distribution hub to the end consumer—often in urban, residential, or rural areas. This stage is becoming one of the most complex and environmentally impactful aspects of retail logistics, particularly with the rise of e-commerce, quick delivery models, and consumer expectations for convenience.

The last kilometre contributes significantly to urban congestion, air pollution, and carbon emissions, particularly in densely populated areas. Multiple small deliveries (often by vans or cars) are resource-intensive and frequently inefficient, especially when handling returns. Consumers demand faster and more flexible delivery, putting pressure on retailers and couriers to maintain speed, often at the expense of sustainability.
According to Deignan et al. (2022), addressing the last-kilometre challenge requires innovative, localised, and sustainable delivery solutions that:

- Reduce environmental impact,
- Meet diverse local infrastructure and consumer needs,
- Support—not replace—local retail ecosystems.

EU European Strategies and Examples

- Urban Consolidation Centres

Cities across Europe are piloting urban micro-hubs where goods are consolidated before being delivered by low-emission vehicles, cargo bikes, or on foot.
Example: Paris and Amsterdam are experimenting with low-emission zones and last-mile logistics hubs to reduce congestion and emissions.

- Collaborative Delivery Models

Some European retailers and municipalities are testing shared delivery platforms to serve multiple retailers through one coordinated system. This reduces traffic and benefits small, local shops that lack individual delivery fleets.

- Consumer Collection Points

The use of click-and-collect, parcel lockers, and neighbourhood collection points reduces delivery distances and gives consumers flexible, lower-carbon alternatives.
Example: DPD and DHL have expanded locker networks across Germany and the Netherlands as part of last-mile decarbonisation strategies.

Facilitating Take-Back: Retailers will also be part of the infrastructure to "take back" packaging and products, which impacts logistics needs.*(Deignan et al., 2022)*
Overall, logistics activities involving different actors in the retail chain are essential elements for creating sustainable value. Transporting goods around the world might make less economic and environmental sense if energy prices rise.



Activity 6 : Problem Solving - Sustainable Delivery

- Present a scenario where a retailer wants to offer same-day delivery in a busy urban area.
- What are the potential sustainability challenges from a logistics perspective?
- Based on the strategies discussed, what solutions could they consider (e.g., EVs, time windows, consolidation centres, partnering)?

3.6. Conclusion and Moving Forward

Facilitator Notes:

- Summarise the key takeaways from the unit.
- Reiterate the importance of a holistic approach and the opportunity for retailers.
- Discuss the need for adaptation and potential future shifts.
- End with a call to action.

We have explored how climate change impacts the retail sector through physical risks and transition risks, and how retail operations contribute to carbon emissions across the value chain. We have also examined various strategies retailers can employ to reduce their environmental footprint, including improving energy efficiency in stores, embracing the circular economy, managing sustainable supply chains, engaging consumers, and developing sustainable logistics.

- Climate change is a significant factor shaping the future of retail. *(Ipsos MORI, 2008)*
- Retail operations contribute to greenhouse gas emissions across stores, logistics, supply chain, and product lifecycle.
- Climate change impacts retail through direct physical events (storms, heat, flooding) and transitional changes (regulations, consumer demands, reputation, supply chain disruptions) *(Deignan et al., 2022)*
- Retailers have numerous strategies to reduce their environmental impact, focusing on energy, waste, packaging, sourcing, and transport.
- Sustainable logistics, especially for the last mile, is a critical area for efficiency and sustainability *(Jiang et al., 2023)*

- Engaging and educating consumers is an opportunity to drive sustainable purchasing behaviour. *(Deignan et al., 2022)*

Moving Forward: Experts agree that climate change will continue to dominate sustainability concerns for retailers. Retailers need to ensure they take a holistic approach to sustainability, incorporating sustainable practice into all aspects of the business for long-term survival and to build trust with consumers*(Ipsos MORI, 2008*). Beyond reducing emissions, retailers should also be adopting adaptation strategies to ensure their businesses are prepared for the impacts of climate change, particularly on supply chains.
While there are challenges, such as the cost of retrofitting older stores or the complexity of carbon labelling, there are also significant opportunities*(Deignan et al., 2022).* Retailers can benefit from cost savings through efficiency and capture the growing market of conscious consumers, improving brand loyalty and the bottom line *(EDF+Business).*
Ultimately, addressing climate change may require tough choices and potentially even challenge traditional business models based on continuous growth and consumer expectations of ever-cheaper goods*(Ipsos MORI, 2008).* Long-term public policy is also needed to provide confidence for significant investments in climate action.

3.7. Pause & Reflect

- How could climate change affect your organisation over the next five years?
- What physical risks (e.g. flooding, heatwaves, supply disruption) could impact your workplace?
- What actions is your organisation already taking to reduce its carbon footprint?



Activity 7 : Personal Action Plan

- Ask learners to identify one specific strategy or action they could implement or advocate for within their role or store to contribute to reducing the environmental impact of retail operations related to climate change.
- Encourage them to think about one small, practical step they can take. Share these actions with the group.

4. REGULATORY AND STANDARD REQUIREMENTS

Unit Introduction

Learning Objectives:

LO3: Evaluate the responsibilities of retail businesses in meeting sustainability standards at national, European, and global levels.

LO4: Analyse the strengths and weaknesses of measures taken at national, European, and global levels to address environmental issues in the retail sector.

Suggested Duration: 3 hours.

Unit Overview:

This unit explores the legal frameworks, regulations, and standards that govern sustainability in the retail sector at national, European, and global levels. Learners will gain an understanding of the evolving policy landscape, the roles of different actors, and the practical implications for retail businesses, including compliance, reporting, and identifying opportunities.

4.1. Introduction

Facilitator Notes:

Welcome learners to the unit.

Ask: "Why do you think sustainability is increasingly becoming a legal and strategic priority for retail?"

Briefly introduce the importance of understanding regulations and standards for retail businesses operating in an increasingly sustainability-conscious world. Highlight that this unit will cover the key legal and voluntary frameworks influencing their sector.

- Sustainability involves balancing environmental, social, and economic considerations *(Brundtland Commission, 1987*). It is no longer just "nice to have" but has become an existential risk and a commercial imperative for businesses aiming to survive and thrive in the long term.
- Policymakers at global, EU, and national levels are increasing the pace of legislative change to support sustainability action *(DCCEEW, 2024).*
- Understanding these regulatory and standard requirements is crucial for retail businesses to ensure compliance, manage risks, identify opportunities, and build consumer trust.
- The retail sector is particularly under the spotlight regarding sustainability issues.

4.2. Overview of National and International Sustainability Regulations

Facilitator Notes:

- Explain that sustainability frameworks exist at multiple geographic levels, often interacting with each other. Use examples like the Paris Agreement, EU Green Deal, and national frameworks (e.g., Ireland's NAF).
- Discuss the concept that sustainability is not a "one-size-fits-all" subject; each country and locality has a unique context from which sustainable resource use must evolve.

Sustainability is influenced by policies at national, state, and local levels.

Globally, sustainability has evolved and there's a call to "think globally, act locally", the economy has become globalised, meaning the sustainability movement must also follow suit. "Think globally, act locally" is a sustainability principle that encourages individuals, businesses, and governments to consider the global impact of their actions while making decisions that are appropriate for their local context. It means aligning local practices with global environmental and social goals—like climate change mitigation, ethical sourcing, or biodiversity protection.

For example:
A retailer in Ireland might source packaging made from recycled materials to help reduce global plastic pollution.
A clothing brand may reduce water use in local operations while contributing to global climate goals under frameworks like the Paris Agreement *(UNFCCC, 2015).*

Globalised supply chains complicate this idea. Today, most products sold in retail are made from components sourced across multiple countries. For example, a cotton t-shirt may be:

 Grown in India,

 Woven in Bangladesh,

 Dyed and packaged in Vietnam,

 Sold in Europe or the U.S.

This means actions taken in one part of the world—like buying or selling a product—can have environmental and social impacts elsewhere, often where oversight and regulations are weaker *(Research Network Sustainable Global Supply Chains, 2023).*

As a result:
Retailers have a responsibility to trace and manage the sustainability of their entire supply chain. Consumers' local purchases can influence labour rights, deforestation, water use, and emissions in distant regions.

- Retailers must balance local action (e.g., improving store energy use or waste practices) with global awareness of how their supply chains impact people and the planet worldwide. This approach supports both compliance and credibility in sustainability performance.

- The concept of "sustainable development" widely accepted comes from the UN World Commission on Environment and Development's 1987 definition: "development that meets the needs of the present without compromising the ability of future generations to meet their own needs". This serves as a foundational global standard.

- International initiatives like the Paris Agreement are significant steps forward for adaptation internationally, with a key goal to foster the transition to climate resilience and low-emission development for all countries (*UNFCCC, 2015).*

- The European Union (EU) has ambitious strategies like the EU Strategy on Adaptation to Climate Change, which aims for a climate-resilient EU by 2050 (European Commission, 2021). It calls for active participation from all sectors, including business, to identify risks and steer investment towards adaptation and resilience. The European Green Deal also drives significant policy changes.

- Within the EU framework, national policies are developed. For instance, Ireland's National Adaptation Framework (NAF) aims for a climate-resilient Ireland by 2050 (European Commission, 2020). It acknowledges the importance of complementary private sector action and advises businesses to consider climate impacts in strategic planning 2021.

- The UK also has initiatives like the UK Climate Change Risk Assessment and a National Adaptation Programme with a chapter for business and industry 2022.

- These regulations are changing rapidly at both EU and national levels.

- Globalisation has led to increased trade and complex supply chains where consumption in one region can lead to unsustainable resource exploitation in another. *(Research Network Sustainable Global Supply Chains, 2023)*.This means sustainability impacts need to be a core component of trade agreements and negotiations.

4.3. Role of Governments and International Organisations in Setting Standards

Facilitator Notes:

- Discuss the different ways governments and international bodies influence retail sustainability, from setting laws to providing information and incentives.
- Emphasise that consumers often believe the government holds the main responsibility for keeping retailers "green".

Government's primary purpose is to make policies, some of which are laws. Government can step in and alter the rules of the game when the market fails to allocate resources efficiently, equitably, and sustainably.

In Ireland, the government's role is to drive and support the transition to a low-carbon, climate-resilient economy by creating an enabling environment that provides information and incentives for individuals and businesses to respond appropriately.

Governments introduce various environmental laws and regulations. Examples include direct regulation of practices and technologies, such as the Clean Air Act or Clean Water Act in the US.

They also utilise mechanisms like fees, taxes (e.g., carbon tax), or tradable permits to manage resource use. Market-based policy mechanisms can achieve specific goals, sometimes at less cost than regulation.

International organisations like the UN set global agendas (e.g., SDGs, Paris Agreement) EU institutions develop directives and regulations that member states must adopt.

Financial regulators, like the European Central Bank and the Central Bank of Ireland, are increasingly concerned about climate change risks to financial stability and are integrating these risks into their activities. They are also integrating frameworks like the Task Force on Climate-related Financial Disclosures **(TCFD)** into their guidance and policy frameworks. This pressure from financial institutions is becoming a significant driver of business climate action.

Policymakers also support sustainable finance initiatives to mobilise private capital towards sustainable activities. Examples include the EU taxonomy, which classifies environmentally sustainable activities. EU taxonomy for sustainable activities - European Commission

Governments should also invest in infrastructure that enables systemic change, such as systems for collecting or reprocessing goods and materials.

Retailers and experts emphasise the need for long-term public policy on climate change to guide planning and investment decisions. Experts agree that collaborative efforts between retailers, government, and other stakeholders are key to driving significant change.

4.4. Key Environmental Laws and Policies Affecting Retail (Examples)

Facilitator Notes:

- Focus on relevant concrete examples of regulations and policies and how they specifically impact retail operations or supply chains.
- Encourage learners to think about how these might manifest in their own workplaces.

Waste and Packaging Regulations: Waste is a top sustainability issue for consumers and stakeholders. Retailers are under pressure to reduce packaging and provide guidance on recycling and reuse. Regulations push retailers to reduce waste from their operations and products. In Germany, economic incentives, regulations, and a life cycle approach aim to reduce extracted raw materials and consumer waste. The US has similar systems for limited products like tyres and batteries. Repak in Ireland, supported by retailers' fees, funds household and commercial recycling. The EU Strategy for Sustainable and Circular Textiles aims to move away from fast fashion towards a circular economy by setting requirements on eco-design, recycled content, and extended producer responsibility, prohibiting the destruction of unsold inventory.

Climate Change Regulations: Retailers face pressure to reduce the carbon intensity of products. Policies like carbon taxes impact retail operations, logistics, and sourcing. The EU's Emissions Trading Directive

affects large carbon dioxide producers. The Irish Climate Action and Low Carbon Development (Amendment) Act requires sectoral emissions ceilings, increasing scrutiny on industrial sectors. Policies also incentivise sustainable energy, such as Renewable Portfolio Standards which set goals for energy from renewable sources.

Supply Chain Due Diligence: Growing awareness of climate change and social issues leads to regulations focused on supply chains. Germany and other European countries have introduced mandatory supply chain due diligence laws. The EU is developing the Corporate Sustainability Due Diligence Directive (CSDDD), which obliges EU-based firms to identify, prevent, and mitigate negative impacts on human rights and the environment in their supply chains. This applies horizontally across sectors, including high-risk sectors like mining. For retailers, this means increased expectations for transparency on product provenance and managing risks related to sourcing from areas affected by climate change or social issues.

Product-Specific Regulations: Regulations can target specific product categories. Examples include laws governing wetlands or the EU's Pharmaceutical Strategy addressing supply chain vulnerability and resilience. The EU Sustainable Product Initiative requires products sold on the EU market to comply with sustainability criteria and be designed for durability, repairability, and recyclability. The EU's Battery Regulation requires manufacturers to declare the carbon footprint of batteries.

Spatial Regulations: Regulations like limited traffic zones in cities impact last-mile delivery processes for retailers.

4.5. Certifications and Standards

Facilitator Notes:

- Introduce the difference between mandatory regulations and voluntary standards/certifications.
- Discuss how these tools help businesses demonstrate their commitments and communicate them to stakeholders and consumers.
- Highlight the risk of "greenwashing".

Voluntary certifications and standards are used by suppliers and retailers to verify the environmental and social sustainability of their products and practices.

Types of Ecolabels: Ecolabels provide information on environmental and health standards. *(DCCEEW, 2024)*

There are different types:

- Type 1 (ISO 14024): Third-party assessment based on lifecycle impacts. Example: Good Environmental Choice Australia (GECA), Green Tag™ certification.
- Type 2 (ISO 14021): Self-declared claims (not independently verified), often focus on a single quality (e.g., compostable). Example: Recycled content label.
- Type 3 (ISO 14025): Voluntary declarations of sustainability. Example: Environmental Product Declarations **(EPDs).**

Other Relevant Standards and Certifications:

Fairtrade: A globally recognised mark certifying products meet social, economic, and environmental standards for producers in developing countries. The fairtrade movement has helped retailers meet consumer expectations and develop stable supplier relationships.

Environmental Management Systems (EMS): Structured systems (e.g., ISO 14001) to identify and manage environmental impacts and improve performance. ISO 20400 specifically covers sustainable procurement.

Product-Specific Standards: Standards for specific product categories, such as energy efficiency labels, water rating labels, IT product certifications (**EPEAT,(**Electronic Product Environmental Assessment Tool) **TCO Certified** Sustainable and ethically produced IT equipment), or sustainable forestry certifications (**FSC, PEFC, Responsible Wood**).

Building Certifications: Schemes like Green Star or NABERS assess the sustainability of buildings and fit-outs.

Verifying Claims: It is crucial to check the credentials and validity of labels and certifications. Using verified ecolabels and standards helps avoid greenwashing. Procurers are entitled to ask suppliers for verification of environmental claims.



Activity 1: Certification Exploration

- In small groups, research and prepare a short (2-3 minute) summary of your assigned certification/label to share with the class. What does it cover? Who uses it? What's the value?

4.6. Reporting and Transparency in Sustainability

Facilitator Notes

- Explain the increasing demand for businesses to report on their sustainability performance.
- Discuss the drivers behind this trend and the frameworks being developed.

Investors, lenders, customers, and employees are demanding greater transparency from businesses regarding their sustainability performance.

This demand is driving the need for companies to understand and disclose information on climate risk.

Mandatory corporate sustainability reporting is increasing. The EU's Corporate Sustainability Reporting Directive (CSRD) requires listed and larger non-listed firms to report emissions (including supply chain

emissions - Scope 3), set targets, and show progress. Similar requirements are being introduced in the US (SEC) and Japan.

The Task Force on Climate-related Financial Disclosures (**TCFD**) framework is becoming a gold standard for companies to identify, assess, and report on climate-related impacts. It structures disclosures around governance, strategy, risk management, and metrics/targets. Although voluntary, many governments and financial regulators are integrating it into policy, and investors are requesting alignment. Irish businesses are encouraged to provide information on their climate adaptation capacity to access finance and insurance.

Supply chain due diligence laws require lead firms to increase transparency in their supply chains.

Technologies like blockchain are emerging to enhance transparency and accountability in supply chains, providing secure records of waste movements and disposal practices. (*Fatorachian, Kazemi and Pawar, 2024).*Walmart's blockchain system improved tracking and handling, resulting in reduced food waste.

Despite efforts, consumers are often confused by the proliferation of labels and logos. There's a lack of an independent standard for measuring retailers' sustainability performance, making unvalidated claims easier. Consistency of messaging is critical to credibility.

4.7. Strengths and Weaknesses of Measures at Different Levels

Facilitator Notes:

- This section directly addresses LO4. Guide learners to analyse the effectiveness of regulations and standards at national, EU, and global levels.
- Encourage critical thinking about their reach, enforcement, and potential unintended consequences.

Global Measures (e.g., Paris Agreement, SDGs):

Strengths: Set ambitious overarching goals and provide a global framework for action. Encourage international cooperation and raise global awareness. Pressure from international agreements can drive national policies and industry standards.

Weaknesses: Implementation relies heavily on national action and political will. Goals can be broad and lack specific mandates for individual sectors or businesses. Enforcement can be challenging. For retail, linking individual choices to global issues like climate change remains difficult for consumers.

European Union Measures (e.g., EU Green Deal, CSDDD, EU Taxonomy, EU Adaptation Strategy):

Strengths: Create harmonised rules across a large single market, reducing complexity for businesses operating across member states. Drive significant changes in industry practices (e.g., through product design requirements, supply chain due diligence). Mobilise large-scale investment. Protect consumers from greenwashing. Can influence global standards due to the size of the EU market.

Weaknesses: Implementation and enforcement can vary between member states. May face resistance from industry due to costs or perceived bureaucracy. Critics argue some initiatives can disregard the

needs of producer countries in the Global South, reinforcing power imbalances. Can potentially penalise trading partners (e.g., CBAM).

National Measures (e.g., National Adaptation Framework, specific environmental laws, carbon taxes):

Strengths: Can be tailored to the specific national and local context. More direct impact on domestic businesses and citizens. Can respond more quickly to emerging issues. Provide frameworks for planning and investment. Can leverage existing industry associations and local structures for implementation.

Weaknesses: Can be inconsistent between countries or even regions within a country. May not fully address impacts that occur outside national borders (e.g., supply chain issues). May prioritise national interests over global sustainability goals. Can sometimes be perceived as piecemeal or inconsistent. Effectiveness depends on government capacity and political prioritisation.

Overall Challenges: Managing consumer expectations vs. the complexity and time required for change is difficult. There can be tensions between efficiency (e.g., in supply chains) and sustainability goals. Implementing new technologies required by regulations can face cost and scalability barriers, especially for SMEs. Lack of standardised data and assessment methods can hinder effective implementation and reporting.



Activity 2: Policy Comparison Debate

Facilitator Notes:

- This activity facilitates LO4 analysis. Divide learners into three groups: National Policy Advocates, EU Policy Advocates, and Global Framework Advocates.
- Give them 5 minutes to prepare arguments for why their assigned level of policy is the *most* effective for driving sustainability in the retail sector, drawing on the strengths discussed.
- Then facilitate a short debate (5 mins per group presentation, 10 mins open discussion).

4.8. Impact of Policy on Retail Businesses

Facilitator Notes:

- Shift the focus to the practical implications for businesses. Discuss both the challenges and opportunities presented by the regulatory landscape.

- Policies influence how retailers operate, including logistics, sourcing, product design, packaging, and waste management.

Costs and Compliance: Retailers must comply with laws and standards, which often involves costs (e.g., implementing new technologies, changing suppliers, reporting). Firms sometimes view regulation as

bureaucratic, limiting freedom, and imposing high costs that affect competitiveness. However, analyses often show that costs are less than expected and environmental improvements are valuable. Penalties or loss of reputation can result from failing to comply or manage risks appropriately.

Innovation and Opportunities: Regulations and standards also drive innovation. Businesses can find opportunities in developing new products and services that meet sustainability demands or help others adapt. Achieving resilience through adaptation can increase market valuation and reliability. Businesses that proactively adapt to changes (e.g., technology, consumer preferences) can gain market share. Resource efficiency measures, often encouraged by policy or standards, can lead to cost savings. The financial sector, driven by regulations, is offering services and support to help businesses adapt. Policies supporting product circularity create opportunities for businesses involved in repair, recycling, and using recycled content. *(Jiang, Wu and Yin, 2023).*

Supply Chain Pressures: Larger corporates and multinationals, facing regulatory and investor pressure, are increasingly questioning their SME suppliers about climate impacts and sustainability practices. This acts as a driver for SMEs to improve their performance. *(Mangano, Zenezini and Cagliano, 2021)*

Investment Confidence: Clear, long-term policies can provide businesses with the confidence needed to make necessary capital investments in sustainability.

4.9. Greenwashing and Compliance

Facilitator Notes

- Address the critical issue of greenwashing, linking it back to reporting, transparency, and the role of standards.
- Use examples and discuss how to identify misleading claims.

Greenwashing occurs when companies overstate or misrepresent their sustainability credentials to appear more environmentally friendly than they are. This can be intentional or unintentional. (*DCCEEW, 2024).*

Examples of greenwashing include claims not backed by meaningful actions or transparent reporting, relying on offsets instead of real emissions reductions, or claiming achievements that are already legally required.

Consumers are highly cynical about the ethics of big business and suspect companies "pretend" to be ethical to charge more. If retailers over-claim and don't deliver, consumer cynicism increases quickly.

Regulations are increasingly trying to address greenwashing. The EU Taxonomy protects investors from greenwashing. The EU Textiles Strategy requires sustainability claims to be comparable and verifiable.

Standards and certifications play a role by offering third-party verification of claims. However, consumers can be confused by the multitude of labels.

Retailers need to be open, honest, and transparent in their communications, ensuring consistency across all touchpoints to avoid suspicions of greenwash. Working with trusted third parties and gaining media coverage that validates claims can help build credibility *(Research Network Sustainable Global Supply Chains, 2023).*

Compliance with sustainability requirements must be monitored throughout contracts, and processes are needed to address underperformance.



Activity 3: Spotting Greenwashing

Facilitator Notes

- Provide learners with a few examples of marketing claims from retailers (these can be real or fictional, ideally demonstrating potential greenwashing discussed in sources like vague claims, focusing on one small action, or claiming legal compliance as a benefit).
- Ask learners to work individually or in pairs to identify potential greenwashing and explain why, using concepts from the unit (e.g., lack of verification, vague language, focus on minor issues).

4.10. Conclusion

- The sustainability regulatory landscape is dynamic, driven by increasing awareness, global challenges, and the demand for transparency.
- Retailers have significant responsibilities to meet evolving sustainability standards at national, EU, and global levels.
- Measures taken at different levels have strengths in setting agendas, harmonising rules, and driving innovation, but also weaknesses in implementation, enforcement, and addressing the complexity of global supply chains and consumer behaviour [passim].
- Understanding these regulations is not just about compliance, but about strategically managing risks, capitalising on opportunities, and building trust with stakeholders and consumers in the transition to a more sustainable economy.

4.11. Pause & Reflect

- Why is it important for retailers to understand sustainability regulations and standards?
- What risks might arise if a business fails to comply with sustainability requirements?
- How can transparency and reporting enhance customer trust?

5. RISKS AND OPPORTUNITIES IN SUSTAINABILITY

Unit Introduction

Learning Objective (LO 5): Assess the risks and opportunities of sustainable practices in retail and propose strategies to reduce risks and take advantage of opportunities.

Duration: 2.15 Hours

Unit Overview: This unit delves into the specific environmental and economic risks and opportunities that arise from sustainable practices within the retail industry. Participants will learn to identify potential challenges, such as increased operational costs or supply chain disruptions, and explore the potential benefits, including cost savings, enhanced customer loyalty, and improved brand reputation. The unit will also cover developing strategies to manage risks while maximising the positive impacts of sustainability efforts.

Introduction

Facilitator Notes:

- Begin with a warm welcome to the unit.
- Briefly revisit the overall purpose of understanding climate change and sustainability in retail, potentially linking back to previous units if this is part of a larger program. Emphasize that understanding risks and opportunities is crucial for a sustainable future for retail.
- Introduce the specific learning objective for this session: assessing risks and opportunities and proposing strategies.
- Frame sustainability not just as an environmental issue, but as a fundamental business consideration involving both risks and opportunities.

Welcome to the unit on Risks and Opportunities in Sustainability. We've previously touched upon the importance of climate change and environmental sustainability for the retail sector. Now, we will focus specifically on how sustainability practices themselves present both challenges (risks) and benefits (opportunities) for retail businesses. Recognising these potential impacts is key to integrating sustainability effectively into your operations and strategy. Our goal is to understand these dynamics and develop practical approaches to navigate them, as outlined in our learning objective (LO 5), which is to assess the risks and opportunities of sustainable practices in retail and propose strategies to reduce risks and take advantage of opportunities.



Activity 1 : Quick Poll/Icebreaker

- Ask participants to share one word or short phrase that comes to mind when they think about "risks" and "opportunities" related to environmental sustainability in retail.
- Discuss a few responses briefly to gauge initial perceptions. (e.g., Risks: "Cost," "Complexity," "Greenwashing"; Opportunities: "Savings," "Customers," "Reputation").

5.1. Identifying Risks of Sustainable Practices

Facilitator Notes:

- Transition from the general concept of sustainability to the specific risks retailers might face *because* of adopting sustainable practices.
- Outline key risk categories, particularly focusing on operational, cost, market, and supply chain risks.
- Provide concrete examples relevant to retail operations.
- Discuss barriers to action , such as cost and complexity.

Adopting sustainable practices is essential for the long-term future of retail1, but the transition is not without its challenges. Retailers need to be aware of potential risks associated with implementing sustainability initiatives. These risks can broadly be categorised and include various operational, financial, and market-related challenges *(Bain and Company 2023)*

Key Risks Include:

Operational Disruptions: Implementing new sustainable processes, such as waste sorting, using different packaging, or changing store operations for energy efficiency, can initially disrupt existing workflows and require adjustments. Adapting buildings, especially older infrastructure, for energy efficiency can involve high conversion costs. Supply chain disruptions are also a risk, particularly those induced by climate change itself affecting the availability of products. Changing suppliers to hedge against climate risk can be costly and difficult *(Deignan et al., 2022)*

Increased Operational Costs: Sustainable alternatives can sometimes be more expensive upfront. For example, sustainable supply chains and food systems may be more costly than existing ones that don't account for environmental externalities (*Bain and Company 2023*). Implementing new technologies for energy efficiency or waste management requires investment. Developing a common standard for measuring and labelling carbon footprints is a huge and complicated task requiring time and investment

(*Tilley, F. and Young, W., 2008).* Managing certain environmental risks like flooding can involve large costs for repair and maintenance *(Deignan et al., 2022).* Increased cost of insurance is also a climate-related transition risk. Retailers face a funding gap in making sustainable investments. *(Bain and Company 2023).*

Market Rejection or Consumer Confusion: While consumer demand for sustainable products is growing, some consumers are still primarily driven by price and convenience (*Tilley, F. and Young, W., 2008).* There is a "say-do gap" where what consumers say they want regarding sustainability doesn't always translate into purchasing behaviour *(Bain and Company 2023).* Consumers can also be confused by the proliferation of sustainability labelling and lack of clear information, potentially leading to inaction or cynicism *Bain and Company 2023).* Retailers may face risks if they are perceived not to be delivering on their sustainability promises, leading to increased consumer cynicism or reputational damage (often referred to as "greenwashing" if claims are misleading) *(Tilley, F. and Young, W., 2008).* Greenwashing can be unintentional.

Supply Chain Constraints and Vulnerability: Retailers are heavily reliant on global supply chains, which are vulnerable to climate-induced disruptions impacting product availability. Ensuring consistency of sustainable practices across a complex supply chain is a challenge*(Tilley, F. and Young, W., 2008).* There can be tensions between highly efficient supply chains focused on low prices and the need for sustainable practices like fair trade or responsible sourcing, which may increase costs (*Tilley, F. and Young, W., 2008).* Supply chains are driving positive climate action, with larger corporates questioning SMEs about their sustainability practices, which can be a challenge for suppliers *(Deignan et al., 2022).*

Reputation Risk: If retailers are not seen to be taking sufficient and effective action on climate change or sustainability, they may suffer reputational damage, especially as consumer-facing companies*(Bain and Company 2023)* Failure to adapt product offerings to match changing sustainable consumer preferences can also make companies less attractive.
Understanding these risks is the first step in developing strategies to mitigate them.



Activity 2 Risk Identification.

- Ask participants, in pairs or small groups, to consider a specific sustainable initiative a retailer might implement (e.g., switching to all recycled packaging, sourcing locally, installing solar panels).
- Ask them to brainstorm potential risks associated with that initiative based on the points discussed. Share examples and discuss common challenges.

5.2. Identifying Opportunities of Sustainable Practices

Facilitator Notes:

- Shift the focus to the positive potential of sustainability in retail.
- Use the sources to highlight key opportunity categories, including cost savings, market growth, competitive advantage, and brand value.
- Provide concrete examples.
- Connect opportunities to the business case for sustainability.

While there are risks, embracing sustainable practices also unlocks significant opportunities for retailers. These opportunities can lead to improved business performance, enhanced competitiveness, and long-term value (*Deignan et al., 2022)*

Key Opportunities Include:

Cost Savings and Operational Efficiency: Implementing resource-efficient practices for energy, water, and materials can lead to significant cost reductions. Making your business more sustainable can actually save money and help things run more smoothly.

☑ 1. Use Less, Save More
Using less energy, water, and materials means lower bills.
Simple changes like energy-efficient lighting or fixing leaks can lead to big savings over time.

☑ 2. Reduce Waste, Reuse More
The circular economy means finding ways to reuse materials instead of throwing them away.
This reduces waste disposal costs and saves money on buying new materials.

☑ 3. Smarter Logistics, Lower Costs
Making your deliveries and transport more efficient — like planning better routes or using fuel-efficient vehicles — cuts fuel costs and saves time.

Capturing Growing Consumer Demand: There is a growing market of "conscious consumers" who are increasingly attuned to sustainability and actively seek sustainable products and retailers. Research indicates a significant percentage of consumers are willing to pay a premium for sustainable products. Adapting the product offering to meet changing sustainable preferences allows companies to gain market share. Educating consumers on climate-smart choices presents an opportunity for retailers as they are on the frontline.

Competitive Advantage and Differentiation: Integrating sustainability can provide retailers with a competitive edge and differentiate them from rivals*(Deignan et al., 2022).* Offering sustainable options or making sustainable choices on behalf of customers (if the brand is trusted) can be a strong differentiator

(Tilley, F. and Young, W., 2008). Marketing products via sustainability credentials can have a multiplier effect on growth *(Bain and Company 2023).*

Enhanced Brand Reputation and Trust: Being truly committed to sustainability helps your business look good, build trust, and stand out.

☑ 1. Boost Your Public Image

- Companies that act responsibly are seen as more credible and trustworthy.
- A strong sustainability record improves your reputation with customers, investors, and the public.

☑ 2. Win Customer Trust

- People are more likely to buy from and stay loyal to brands that share their values.
- This trust can lead to repeat business and positive word-of-mouth.

☑ 3. Stay Credible – Avoid Greenwashing

- It's important to be honest and consistent about what you're doing.
- Mixed messages or over-claiming can lead to distrust or damage your brand

Increased Resilience: Adapting to climate change risks by adopting sustainable practices can improve a business's ability to respond to physical and transition risks. This includes increased reliability of the supply chain and being better prepared for regulatory changes. Retailers face increasing pressure from climate change, evolving consumer expectations, and regulatory frameworks. Embracing sustainability not only mitigates environmental harm but also strengthens a retailer's ability to withstand and adapt to disruption. Here's how:

☑ 1. Responding to Physical Climate Risks

Retailers are vulnerable to physical risks such as extreme weather events, supply chain interruptions, and infrastructure damage. Sustainable practices help address these challenges by:

- Local sourcing and diversified suppliers, which reduce dependence on vulnerable global supply chains.
- Investments in climate-resilient buildings (e.g., improved insulation, flood protection, energy-efficient systems) to maintain operations during extreme weather.
- Advanced demand forecasting and logistics tools that anticipate and adapt to climate-driven fluctuations.

Example: A retailer with multiple distribution centers and local suppliers is less likely to face complete stock outages during a flood or transport strike.

☑ 2. Managing Transition Risks

As regulations and markets shift toward sustainability, retailers who are unprepared may face:

- Regulatory penalties,
- Supply restrictions,
- Loss of consumer trust.
- Retailers improve their resilience by:
- Reducing emissions across stores, logistics, and product lines,
- Sourcing sustainable products (e.g., certified goods, ethical supply chains),
- Aligning operations with frameworks like the EU Green Deal, CSRD, and EPR (Extended Producer Responsibility) schemes.
- Retailers that lead in sustainability often influence upstream suppliers and enjoy early-mover advantages in green product offerings.

☑ 3. Ensuring Supply Chain Continuity and Transparency

Retail supply chains are complex and global, often exposed to climate and social risks. Sustainability-driven resilience includes:

- Supplier sustainability audits and codes of conduct,
- Digitally mapping supply chains to increase visibility and traceability,
- Contingency planning for sourcing disruptions caused by environmental or geopolitical events.

Example: A fashion retailer that works only with certified, traceable textile producers is more resilient when consumer scrutiny or regulation increases around labor and environmental practices.

☑ 4. Preparing for and Complying with Regulation

Retailers are increasingly subject to national, EU, and global sustainability-related regulations, such as:

- Product labelling and transparency requirements,
- Waste reduction and packaging laws,
- Emissions reporting (e.g., CSRD, ESRS),
- Bans on unsustainable products.
- Retailers with strong sustainability systems are:

- More agile in compliance and less exposed to sudden regulatory costs,
- Better prepared for audits and disclosures, especially those operating across jurisdictions,
- Able to influence policy by demonstrating credible action.

☑ 5. Building Organisational Agility and Reputation

Retailers with embedded sustainability practices tend to:

- Innovate faster (e.g., circular business models like resale, rental, refill stations),
- Attract purpose-driven employees and partners,
- Maintain stronger brand loyalty from consumers demanding ethical and environmentally responsible choices.

Sustainability becomes a driver of long-term operational stability and brand strength, helping retailers navigate uncertainty with confidence.

Attracting Investors and Talent: Sustainability performance is increasingly important to investors and can help attract investment, particularly ESG-focused funds. A strong sustainability record can also help attract and retain talent.
These opportunities demonstrate that sustainability is not just a cost center, but a source of value and a driver of business success.

☑ 1.Attracting Investors

- Many investors, especially those in ESG (Environmental, Social, and Governance) funds, are actively looking for companies with strong sustainability practices.
- Retailers that reduce their environmental impact, treat workers fairly, and operate transparently are seen as lower risk and better long-term investments.
- A clear sustainability strategy and reporting (e.g. emissions, waste reduction, ethical sourcing) helps build investor confidence and trust.

☑ 2. Attracting and Retaining Talent

- More and more employees, especially younger workers, want to work for companies that align with their values.
- A strong track record in sustainability can help retailers stand out in a competitive job market.
- It also helps retain staff by giving them a sense of purpose and pride in their work, which improves motivation and reduces turnover.

☑ 3. Sustainability as a Source of Value

- These benefits show that sustainability is not just a cost or a regulatory burden.
- It can drive growth, improve reputation, increase loyalty, and open up new markets or partnerships.
- In short: Sustainability makes retailers more attractive to both investors and employees—and that leads to stronger, more resilient, and more successful businesses



Activity 3 : Opportunity Mapping

- Divide participants into small groups. Assign each group one or two opportunity categories (e.g., Cost Savings, Market Growth, Brand Reputation).
- Ask them to brainstorm specific ways a retail business they know could realise these opportunities through sustainable practices, drawing on examples from the sources.
- Share and discuss findings.

5.3. Strategic Risk Management and Developing a Business Case for Sustainability

Facilitator Notes:

- Connect the discussion of risks and opportunities to practical business strategy and planning.
- Explain the importance of a structured approach to managing climate-related risks and opportunities, potentially referencing frameworks like **TCFD** (Task Force on Climate-related Financial Disclosures).
- Discuss the need to integrate sustainability throughout the business, not just in a separate team.
- Guide participants on how to articulate the value of sustainability through a business case, combining the opportunities discussed.

Successfully navigating the landscape of sustainability in retail requires a strategic approach that proactively addresses both risks and opportunities. It's about embedding sustainability into the core of your business operations and decision-making.

Strategic Risk Management in Sustainable Retail:

Integration into Planning: Climate impacts and sustainability considerations should be integrated into long-term strategic planning, investment decisions, and existing risk management processes. Frameworks like the **TCFD** (Task Force on Climate-related Financial Disclosures) offer a structured way to identify, assess, and manage climate-related risks and opportunities, and are applicable at the business level, even for SMEs.

Dedicated Ownership: Appointing an advocate or team to champion sustainability is crucial. However, responsibility needs to extend beyond a specialist team to the frontline commercial and operational teams who can make change happen at scale *(Bain and Company 2023*).

Setting Goals and Measuring Progress: Create a plan, decide on key focus areas, set clear goals and timeframes, and define how progress will be measured. Regularly review progress and communicate it internally and externally.

Collaboration: Working together with others is key to driving real progress in sustainability — especially across your supply chain.

☑ 1. Partner to Drive Change
- Team up with suppliers, innovators, industry groups, policymakers, and even activists to:
- Share knowledge and best practices
- Develop better, more sustainable products and processes

Influence standards and regulations

☑ 2. Focus on the Supply Chain
- A large part of a company's carbon footprint happens upstream — in the supply chain (e.g., raw materials, manufacturing).
- Collaborating with suppliers helps reduce emissions, improve efficiency, and ensure sustainable sourcing.

Addressing Barriers: There are still challenges to making sustainability happen, but there are also growing opportunities to get support.

☑ 1 Understand the. Barriers
- Many businesses face a funding gap — they want to invest in sustainability but lack the upfront capital.
- There's also a need for stronger policy support to encourage and reward sustainable action.

☑ 2. Engage with the Finance Sector
- Banks and investors are now seeing climate change as both a risk and an opportunity.

- Many are starting to offer better loan terms, green finance options, or support for sustainable investments.

- Working with the finance sector can unlock funding to help close the gap.

Developing a Business Case for Sustainability: To justify the investment and effort required for sustainable practices, retailers need to articulate the business case *(EDF+Business, n.d.)* This involves quantifying the potential value and presenting it in terms that resonate with business leaders.

Key elements of a business case for sustainability include:

Return on Investment (ROI): Investing in sustainability doesn't just help the planet — it also delivers real financial returns by reducing costs and improving operations.

☑ 1. Energy and Resource Efficiency = Cost Savings

- Upgrading to energy-efficient lighting, heating, or machinery can cut energy bills by 10–30%.

- Reducing water usage or material waste lowers utility and supply costs.

- These savings directly improve your bottom line and often pay back the investment within a few years.

☑ 2. Operational Efficiency in Waste & Logistics

- Smarter waste management (e.g. recycling, composting, reducing packaging) cuts disposal costs.

- Sustainable logistics practices like route optimisation and low-emission vehicles reduce fuel use and maintenance costs.

- Bain & Company (2023) reports that companies improving sustainability in operations often see 5–10% increases in overall efficiency.

Increased Revenue and Market Share: Demonstrate how meeting growing consumer demand for sustainable products can lead to increased sales and market share. Highlight the opportunity to capture the "conscious consumer" market *(EDF+Business, n.d.*). Today's consumers are actively looking for products and brands that reflect their values — especially around sustainability. This creates a clear business opportunity:

☑ 1. Growing Demand = Sales Growth

More consumers are choosing products that are eco-friendly, ethical, or responsibly made.
Studies show that sustainable products often see faster sales growth than conventional ones.
Brands that meet these expectations are more likely to gain new customers and increase revenue.

☑ 2. Market Share from the "Conscious Consumer"

The "conscious consumer" is a fast-growing segment — people who consider environmental and social impact when buying.

According to EDF+Business, this group represents a significant and rising share of the market.
By offering sustainable options, companies can capture this segment and build long-term brand loyalty.

☑ 3. Competitive Advantage
Businesses that lead in sustainability can differentiate themselves from competitors.
This can lead to increased shelf space, better partnerships, and stronger brand preference.

Brand Value and Reputation: Strong sustainability performance helps your brand in ways that directly impact your bottom line:

- Better Brand Image = More Sales

Up to 70% of consumers prefer to buy from sustainable brands.

Many are willing to pay 5–10% more for eco-friendly products.

- More Trust = More Loyalty

Trusted brands see higher repeat purchases and lower customer loss.

Positive word-of-mouth can reduce marketing costs.

- Stand Out from Competitors

Sustainability gives you a clear differentiator beyond price or features.

It shows values and responsibility — not just products.

Risk Reduction: Investing in sustainability helps protect your business by:

Avoiding climate-related costs
- Reduces damage from floods, heatwaves, and other extreme weather.
- Making your supply chain more secure
- Less risk of delays or shortages from unreliable or unsustainable suppliers.
- Staying ahead of new regulations
- Helps you avoid fines, extra costs, or being caught unprepared as laws get **stricter.**

Attracting Finance and Talent:

Access to Finance 💰
- Banks and investors are more likely to support companies that show strong environmental and social performance.
- Good sustainability practices reduce risks (like fines or resource shortages), making the business more attractive to funders.
- Some lenders even offer **better loan terms or green financing** for sustainable businesses.

Attracting and Keeping Talent 👥

- People—especially younger workers—want to work for companies that care about the planet and society.
- A strong sustainability record helps you stand out as an **ethical, future-focused employer**.
- Employees are more likely to stay when they feel proud of their company's values and impact.

By focusing on these tangible benefits, retailers can build a compelling case for prioritising sustainability as a driver of long-term value and resilience.



Activity 4 Action Planning and Business Case Sketch

- Divide participants into groups based on the action areas discussed previously (e.g., Energy Management, Supply Chain, Products/Waste, Planning/People)
- Ask each group to select one concrete action step their business could take. Then, based on the opportunities discussed, ask them to sketch out the key elements of a business case for that specific action step (e.g., potential cost savings, expected increase in sales/customer interest, how it improves brand image).
- Have groups share and discuss their business case sketches.

5.4.Conclusion

In this session, we have explored the dual nature of sustainability in retail: the potential risks that need careful management and the significant opportunities that can drive growth and value. We've seen that risks include operational costs, market challenges, and supply chain vulnerabilities, while opportunities encompass cost savings, growing consumer demand, enhanced brand reputation, and increased resilience.

Successfully navigating these dynamics requires a strategic approach, embedding sustainability into planning, operations, and risk management. Developing a clear business case, highlighting potential ROI, revenue growth, and brand value, is essential to drive action.

Ultimately, reports suggest that understanding and responding to the risks and opportunities of sustainability is not just a "nice-to-do" but a "must-do" for retailers looking to survive and thrive in the future. By embracing sustainability strategically, retailers can mitigate risks, unlock new sources of value, and contribute to a more sustainable world.

5.5.Pause & Reflect

- What do you see as the biggest sustainability risk facing your organisation?
- Which sustainability opportunity could provide the greatest business benefit?
- How can sustainability improve competitive advantage in retail?



Activity 5 Personal Commitment

- ❖ Ask each participant to reflect on one specific risk or opportunity discussed today that they will pay closer attention to in their role or business, or one small step they can take to further explore these concepts.
- ❖ They do not need to share, but the act of writing it down can solidify commitment.

6. PRACTICAL TOOLS FOR ENVIRONMENTAL ASSESSMENT

Unit Introduction

Learning Objective

(LO 7): Conduct a basic environmental assessment of a retail workplace and suggest practical ways to improve sustainability.

Duration: 4 hours (can be adjusted based on depth of activities and discussion)

Unit Overview:

This unit introduces learners to the fundamental concepts and practical tools used to assess the environmental performance of retail operations. It focuses on key areas such as energy consumption, waste generation, water usage, and supply chain impacts. By conducting basic environmental assessments in a retail setting, learners will gain hands-on experience in identifying areas for sustainability improvements in their own workplaces and suggesting practical ways to implement change. The retail sector is central to the economic and social fabric of the country, employing over 300,000 people in Ireland alone and supporting many thousands more jobs throughout the supply chain*(Retail Ireland n.d.).* Retail also plays a crucial role in improving the local communities in which it operates and is transforming how it operates to support environmental sustainability and the circular economy. Understanding and improving environmental performance is essential for retailers to remain resilient and contribute to broader sustainability goals.

6.1. Introduction to Environmental Assessment Techniques and Tools

Facilitator Notes:

- Start with a hook: Ask participants why sustainability matters to their workplace or to them personally.
- Emphasise the tangible business benefits (cost savings, better prepared for future, happier customers).
- Keep the "Tools" section simple – focus on the types of tools rather than getting bogged down in specifics of complex software. The activities will provide practical application.

What is Environmental Assessment in Retail?

Environmental assessment involves identifying, measuring, and analysing a business's impact on the environment*(DCCEW,2024).* In retail, this means looking at the environmental footprint of store operations, supply chains, products, and waste.

This goes beyond simply complying with regulations; it's about understanding where impacts occur to make informed decisions for improvement *(Research Network Sustainable Global Supply Chains, 2023).*

Why is it Important for Retailers? (The Business Case)

Future-proofing your business: Environmental standards are rising, and proactively addressing them is becoming essential to avoid competitive disadvantage and anticipate potential legislation. Preparing for climate impacts increases resilience.

Cost Savings: Implementing sustainable initiatives, identified through assessment can directly lead to improving efficiency in energy, water, and waste management leading to significant cost reductions. Resource-efficient businesses may also be better prepared for climate change impacts *(Research Network Sustainable Global Supply Chains, 2023).*

Consumer Expectations & Reputation: Consumers are increasingly attuned to sustainability issues and demand that retailers address them. Retailers are seen as having a potentially powerful role in educating the public and driving change. Failure to act can lead to reputational damage or consumer cynicism*(Tilley and Young, 2008).* Conversely, demonstrating sustainability can inspire trust and build brand loyalty*(EDF+Business, n.d.).* Customers, staff, and stakeholders increasingly value businesses committed to sustainability. Communicating your journey attracts conscious consumers and improves loyalty.

Supply Chain Resilience: Understanding and addressing environmental risks in the supply chain is critical for ensuring resilient operations*(Tilley & Young, 2008)*. Disruptions due to climate impacts can affect availability and increase costs *(Research Network Sustainable Global Supply Chains, 2023*)

Policy and Regulation: Governments and policymakers are increasingly focusing on sustainable practices and introducing regulations related to emissions, waste, and resource use. Preparing now can help retailers navigate future policy changes *(UNFCCC, 2015).*

Meeting Stakeholder Expectations: Attracting and retaining talent, meeting criteria for business loans, and driving leadership within the sector are all supported by demonstrating environmental responsibility. Investors are also engaging with these issues.

Key Concepts & Terminology:

Sustainability: Balancing environmental, social, and economic considerations to meet present needs without compromising future generations*(Brundtland Commission, 1987).*

Environmental Footprint: Measuring the environmental impact of products, processes, or operations, often focusing on carbon or ecological footprint *(Lant, 2023)*

Circular Economy: Moving away from a take-make-dispose model to one that designs out waste, keeps products and materials in use, and regenerates natural systems. *(Ellen MacArthur Foundation, n.d.; RI Center for Justice, n.d.).*

Energy Efficiency: Using less energy to achieve the same outcome or service.*(DCCEEW, 2024)*

Waste Management Hierarchy: Prioritising reduction, reuse, and recycling over disposal. *(Lant, 2023)*

Supply Chain Transparency: Understanding and communicating the social and environmental impacts throughout the product lifecycle.

Basic Assessment Tools: Simple tools include checklists, visual inspections, analysing utility bills (energy, water, waste), and basic calculators (e.g., for carbon footprint estimates). More advanced tools can involve sensors, data analysis, and professional audits.



Activity 1: Why Assess? (Discussion/Brainstorm)

- Instructions: ask the learners the following questions:
- What environmental impacts do you think your retail workplace has?
- What are the benefits for your workplace to measure and improve its environmental performance?
- What are some challenges you might face in doing this?
- Outcome: learners share their ideas, creating a shared understanding of the relevance and importance of environmental assessment in their context. Facilitator can capture key points on a whiteboard or flip chart.

6.2. Performing Basic Assessments in a Retail Setting

Core Areas for Basic Environmental Assessment in Retail

Based on the key sustainability pillars for retail, we can focus our basic assessment on areas where retailers have significant direct control and impact:

Energy Consumption: This includes heating, cooling, lighting, and appliances. It's often a major operational cost.

Waste Management & Recycling: Assessing what waste is generated, how it's managed, and maximising recycling is crucial for both environmental impact and cost reduction.

Resource Use: While broad, this includes looking at materials used in the store, packaging, and products, considering reusability, recyclability, and sourcing.

Performing a Basic Environmental Assessment: Step-by-Step Approach

A good starting point is to review, identify, and understand how energy and resources are currently being consumed and where waste is being generated or wasted. This helps establish a baseline, which is essential for setting targets and measuring progress.

Step 1: Choose a person to lead the assessment and sustainability activities. Involving employees is important.

Step 2: Gather Information & Observe: Walk through your retail space and observe practices.

Step 3: Use Checklists & Tools:

Step 4: Identify Areas for Improvement: Review your observations and checklist findings.

Step 5: Suggesting Practical Ways to Improve Sustainability

Based on the identified areas, brainstorm and suggest concrete actions. Think about both "quick wins" and larger investments.

Energy Assessment:

Where to Look: Lighting, heating, ventilation, and air conditioning (HVAC), refrigeration (for food retailers), appliances (computers, tills, kitchen equipment), power outlets (vampire load). Also consider energy used in vehicles for deliveries or logistics. One-third of all energy is used in buildings *(DCCEEW, 2024).*

How to Assess:

Utility Bills: Collect recent electricity and gas bills to understand total consumption and identify seasonal patterns. Look for usage in kilowatt-hours (kWh) or other energy units.

Visual Inspection: Walk through the store and back areas. Note types of lighting (LED vs. older types), thermostats, open/closed doors/windows, equipment left running unnecessarily/closed doors/windows, equipment left running unnecessarily.

Simple Checklists: Use a checklist to systematically review different areas and equipment.

Appliance Labels: Check energy efficiency labels on appliances (e.g., Energy Rating Label). Refrigerators, for example, have become much more efficient over time.(*DCCEEW, 2024)*

Consider the Building Envelope: Insulation, windows, and drafts affect heating and cooling needs.

Waste Management Assessment:

Where to Look: Customer-facing areas (bins), back-of-house (receiving, packaging areas, storage), staff rooms.

How to Assess:

Waste Audit: Select a period (e.g., one day or week) and sort waste into categories (e.g., cardboard, plastic, paper, glass, food waste, general waste, e-waste, textiles) *(Lant 2023)*

Weigh or estimate the volume of each category. Note items that could have been avoided, reused, or recycled. Waste audits can identify systemic inefficiencies.

Waste Logs: Review records from waste collection services if available.

Packaging: Note the amount and type of packaging on incoming goods and products sold. Reducing packaging is a top priority for consumers. *(EDF+Business, n.d.).*

Recycling Streams: Check current recycling bins and see if they are used correctly or if contamination is an issue.

Specific Waste Types: Consider challenges with plastics (lightweight vs. recyclable conundrum), food waste (especially perishable items), textiles (fast fashion leads to disposable clothing), and e-waste (electronics) *(Tilley and Young, 2008).*

Resource Use Assessment (Water):

Where to Look: Restrooms, staff kitchens, cleaning areas, any product-specific processes using water.

How to Assess:

Utility Bills: Review water bills to understand total consumption *(DCCEEW, 2024).*

Visual Inspection: Check for leaky faucets or running toilets.

Fixture Labels: Look for water efficiency labels on fixtures (e.g., Water Rating Label). Low-flow fixtures can make a big difference (*DCCEEW, 2024).*

Resource Use Assessment (Materials & Procurement - Basic Level):

***Where to Look*:** Office supplies, cleaning supplies, retail fixtures, bags provided to customers, uniforms.

How to Assess (Basic):

Visual Check: Note the types of materials used (e.g., single-use plastic bags vs. reusable, paper type).

Inquire: Ask about procurement policies or supplier practices regarding sustainable sourcing or recycled content. Using recycled content is a priority *(RI Center for Justice, n.d.).*

Facilitator Notes:

- This section is highly practical. Break it down clearly by resource type (Energy, Waste, Water, Materials).

- Use the provided bullet points above as a checklist for participants during Activity 2.
- Emphasise that a "basic" assessment doesn't require expensive tools or expertise; it's about focused observation and data collection from readily available sources (like bills).
- Explain *why* looking at these specific areas is important (e.g., lighting and HVAC are major energy users; packaging and food are major waste streams in retail).



Activity 2: Workplace Walkthrough Plan (Group Activity)

- In small groups, imagine you are tasked with doing a basic environmental assessment of your retail workplace focusing on energy and waste. Using the checklists provided in the content above, plan your "walkthrough."
- Which areas of the store/back-of-house will you visit?
- What specific data points (e.g., type of lights, number of bins, thermostat settings, recent energy bill total) will you collect?
- What simple tools will you need (e.g., notepad, pen, phone camera, access to utility bills)?
- Who would you need to talk to (e.g., manager, facilities staff)?
- Draft a simple checklist for your chosen area (e.g., a waste checklist for the receiving area or an energy checklist for the sales floor).
- Groups present their plans and checklists. Facilitator provides feedback and helps refine their approaches for a real-world assessment. (If possible, assign learners to carry out parts of this plan in their actual workplaces after the session).

6.3. Identifying Areas for Sustainability Improvements

Analysing Assessment Results:

Review the data collected during the assessment. Look for patterns, areas of high consumption or waste generation, and potential inefficiencies identified during the walkthrough.

Compare findings to benchmarks if available (e.g., average energy use for similar size stores) *(Jiang, Wu and Yin, 2023).*

Identifying and Prioritising Improvement Areas:

Brainstorm a list of potential improvements based on the assessment results (e.g., replace old lights, improve recycling sorting, fix leaky tap/faucet).

Prioritise potential improvements based on factors like:

Impact: How much environmental benefit (energy saved, waste reduced) will it achieve?

Feasibility: How easy/difficult is it to implement (cost, time, required skills, disruption)?

Cost: What is the financial investment needed? Consider the payback period (how long until cost savings recoup the investment).

Alignment: Does it align with company goals or consumer expectations?

Practical Improvement Strategies for Retail:

Energy:

- Upgrade lighting to LEDs, Optimise HVAC settings and maintenance; ensure proper insulation, use smart thermostats or timers *(DCCEEW, 2024*).
- Educate staff on turning off lights and equipment when not needed.
- Consider energy-efficient appliances when replacing old ones
- Look into night blinds for commercial fridges.
- Consider switching to a renewable energy provider.

Waste:

- Reduce packaging from suppliers and for customers.
- Improve recycling infrastructure and signage for staff and customers
- Explore opportunities for reuse (e.g., crates, bags) Look for ways to reuse or repurpose items within the store.
- Train staff on correct waste and recycling practices.
- Implement a food waste reduction plan (e.g., better inventory management, donation, composting). Digital tools like AI can significantly reduce food waste*(Fatorachian, Kazemi and Pawar, 2024).*
- Investigate take-back schemes for electronics or textiles.
- Consider paperless systems where possible e.g. Digital Receipts, Paperless Inventory Management, Digital Marketing and Loyalty Programmes.

Water:

- Install low-flow faucets and toilets.

- Fix leaks promptly.
- Educate staff on water conservation.

Materials & Procurement:

- Source products or materials with recycled content
- Choose durable products designed for repair or recycling.
- Select suppliers with good environmental practices or certifications. Ecolabels can help verify claims.
- Consider "product as a service" models (e.g., leasing equipment).(*Ellen MacArthur Foundation, n.d.).*

The Role of Technology in Improvement:

Digital technologies (AI, IoT, data analytics) can optimize everything from inventory and demand forecasting to transportation routes and waste collection, leading to significant reductions in waste and emissions. *(Fatorachian, Kazemi and Pawar, 2024).* While costly for small businesses, simpler digital tools or collaborative platforms can still help.

Getting Staff and Customers Involved:

Educate employees on sustainability practices (e.g., sorting recycling, conserving energy) (*Mangano, Zenezini and Cagliano, 2021).*

Communicate sustainability efforts to customers and help them make sustainable choices (e.g., providing information, offering sustainable product options).

Facilitator Notes:

This section moves from analysis to action. Encourage creativity in brainstorming improvements.

- Emphasise that even small changes can add up.
- Use the prioritisation criteria to help learners focus on realistic first steps.
- Discuss the difference between individual actions and systemic changes (e.g., fixing a leaky tap vs. changing procurement policy for fixtures).
- Highlight the power of collective action involving staff, customers, and other retailers.



Activity 3: Improvement Plan Workshop (Group Activity)

- Revisit the assessment plans and hypothetical/real findings from Activity 2. For one chosen area (e.g., energy or waste in a specific part of the store):
- Identify at least three potential sustainability improvements.
- Prioritise these improvements based on impact and feasibility (use the criteria discussed).
- For the top priority improvement, outline the specific steps needed to implement it.
- Who would be involved in making this change happen?
- How would you communicate this change to staff or customers?
- Groups present their top improvement idea and implementation plan.
- Facilitator provides feedback and encourages discussion on how these plans could be adapted to different retail contexts.

6.4. Conclusion

Environmental assessment is a vital first step for retailers aiming to improve their sustainability performance. By using basic tools like checklists, utility bill analysis, and visual inspections, learners can effectively assess energy consumption, waste generation, and resource use in their workplaces *(Fatorachian, Kazemi and Pawar, 2024).* Identifying key areas for improvement, such as upgrading inefficient equipment, reducing packaging waste, improving recycling, or implementing water-saving measures, allows retailers to prioritise actions that lead to cost savings, enhanced reputation, and increased resilience *(Mangano, Zenezini and Cagliano, 2021).* Practical improvements, often supported by technology and staff/customer engagement, are key to transitioning towards a more sustainable retail model that aligns with circular economy principles and contributes to broader environmental goals *(Ellen MacArthur Foundation, n.d.)*

6.5. Pause & Reflect

- What environmental information is available within your workplace?
- Which area would you assess first: energy, waste, water, or materials? Why?
- What quick-win improvements could be implemented immediately?



Activity 4: Exploring Support Tools

(Optional / Homework independent work)

- Introduce some online resources (Mywaste.ie, https://mywaste.ie/
  Climate Toolkit 4 Business https://climatetoolkit4business.gov.ie/
  Climate Jargon Buster https://climatejargonbuster.ie/
  EMAS (Eco-Management and Audit Scheme) – EU- https://green-forum.ec.europa.eu/emas/emas-resources/emas-tools_en
  SME Climate Hub (EU-Aligned) https://smeclimatehub.org/
  EU Environmental Footprint (Product & Organisation) https://ec.europa.eu/environment/eussd/smgp
  B Impact Assessment (B Lab Europe) https://bimpactassessment.net

- Briefly show them the homepages or key sections if feasible.
- Encourage learners to explore one or more of these tools after the session to see how they can provide further guidance and support for their sustainability efforts.

This empowers learners to continue their journey beyond the training session.

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7. CASE STUDIES OF SUSTAINABILITY IN RETAIL

Unit Introduction

Learning Objective

(LO 8): Examine successful sustainability initiatives in retail, identifying key success factors, challenges, and lessons learned.

Duration: 2.15 hours

7.1. Introduction to Case Studies in Retail Sustainability

Facilitator Notes:

- Emphasise that while economic uncertainty and cost-of-living concerns are present, retailers are proactively investing and adapting to significant changes like digital transformation, environmental pressures, and skills shortages.
- Explain that sustainability is no longer a peripheral issue but is central to competitiveness and future growth for the retail sector.
- Introduce the concept that examining real-world examples (case studies) helps in understanding how theoretical sustainability concepts translate into practical application.

Introduction

Welcome to this unit on "Case Studies of Sustainability in Retail." Retail is one of Europe's most dynamic and influential sectors, employing over 30 million people and serving as a vital pillar of the European economy and society. From local high streets to international supply chains, the retail industry plays a crucial role in supporting sustainable communities, innovation, and inclusive economic growth across the continent.

As a sector at the heart of everyday life, retail in Europe is undergoing a major transformation. This shift is driven by economic uncertainty, accelerated digitalisation, climate and environmental imperatives, and labour and skills shortages. Despite these complex challenges, retailers across Europe are rising to the occasion—investing in sustainability, digital innovation, and customer value to remain competitive and relevant.

This unit explores how leading European and global retail brands have embedded sustainability into their operations—from supply chains and packaging to energy use, workforce practices, and community impact. Through a series of real-world case studies, you will gain insight into:

- Key success factors in sustainable retail strategies
- Common barriers and challenges retailers face
- Practical lessons that can be applied in diverse retail contexts

By engaging with these examples, you'll be better equipped to reflect on your own workplace and identify opportunities to support a more sustainable, resilient, and future-fit retail sector in Europe.

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7.2. The Landscape of Retail Sustainability

Facilitator Notes:

- Briefly review the three strategic pillars of the Retail Ireland Strategy (Sustainable Growth, Sustainable Careers, Sustainable Communities) to set the context for comprehensive sustainability efforts.
- Discuss the various facets of sustainability as it applies to retail, drawing from the "Environmental Sustainability in Retail" course materials.
- Engage learners by asking them to consider which of these areas are most relevant to their own businesses.

The Retail Ireland Strategy 2023–2026 is anchored in three interconnected pillars: Sustainable Growth, Sustainable Careers, and Sustainable Communities. This comprehensive approach aligns with broader European policy priorities, including the EU Green Deal, the European Pillar of Social Rights, and the Digital and Green Transitions, recognising that retail's influence extends far beyond its economic contributions. The strategy seeks to enhance customer experience, foster meaningful employment opportunities, and support inclusive, regionally balanced economic development.

Across Europe, sustainability in retail is operationalised through the **(ESG)** Environmental, Social, and Governance framework.



The Environmental dimension covers critical issues such as climate action, energy efficiency, waste reduction, and water stewardship, in line with EU regulatory frameworks like the Corporate Sustainability Reporting Directive (CSRD) and EU Taxonomy Regulation. The Social pillar encompasses priorities such as employee development, fair labour practices, diversity and inclusion, and community engagement, aligning with EU ambitions for a fair and just transition. The Governance pillar addresses corporate ethics, transparency, board diversity, and risk management, reflecting growing stakeholder expectations for accountability and responsible leadership.

This integrated view of sustainability positions the retail sector not only as a key economic driver but also as a catalyst for broader social and environmental progress across Europe.

In the context of retail, key areas of focus for environmental sustainability include:

- Energy Management & Efficiency: Reducing energy consumption in stores through efficient lighting, heating, and cooling systems, and exploring renewable energy sources like solar and wind power.
- Water Conservation: Implementing strategies to reduce water usage in stores and throughout the supply chain.
- Waste Reduction & Sustainable Packaging: Minimising waste sent to landfills, reducing extraneous packaging, using biodegradable and recyclable materials, and addressing food waste.
- Sustainable Sourcing & Procurement: Selecting suppliers that prioritise sustainability and ethical practices, planning efficient transportation routes, and ensuring transparency in supply chains. Consumers are increasingly seeking products that either address or do not contribute to climate change, and expect transparency on product provenance.
- Circular Economy: Shifting from a linear "take, make, dispose" model to one where materials are kept in circulation through reuse, repair, refurbishment, remanufacture, recycling, and composting. This approach aims to eliminate waste and pollution, circulate products and materials at their highest value, and regenerate nature, decoupled from finite resource consumption. Retail has significant potential for circular transformation.



Activity 1: Group Discussion

- Discuss: "Which of the sustainability areas mentioned (energy, waste, sourcing, community, careers) are most relevant to your specific retail workplace, and why?"
- Each learner shares one key takeaway with the larger group.

7.3. Case Study: Patagonia – Environmental Activism as a Business Model

Facilitator Notes:

- Emphasise Patagonia's unique approach where environmental responsibility is deeply embedded in its core identity and business decisions.

- Highlight how their "activism" is not just marketing, but a fundamental part of their operations and financial allocation.
- Patagonia, an American outdoor clothing and gear company, is renowned globally for its deep commitment to environmental responsibility and activism. Their approach demonstrates that profitability and sustainability can indeed go hand in hand.

1. Core Identity Rooted in Environment

Founded in 1973 by Yvon Chouinard, Patagonia remains a benefit corporation with a mission deeply interwoven into its DNA. From the start, its purpose was about stewardship rather than mere profitability—using business as a vehicle to protect the planet *(cedar.wwu.edu,reuters.com+5,en.wikipedia.org+5,strategyzer.com+5)*

In 2018, Patagonia updated its mission to: "We're in business to save our home planet."

(vogue.com+2,strategyzer.com+2,time.com+2)

In September 2022, Yvon Chouinard transferred 98% of non-voting stock to the nonprofit Holdfast Collective and 2% of voting shares to the Patagonia Purpose Trust—a steward-ownership structure ensuring all future profits serve environmental causes, not private gain *(forbes.com+6,weforum.org+6,time.com+6 forbes.com +10 en.wikipedia.org+10 time.com)*

2. Environmental Responsibility Drives Decisions

Product Design & Materials

Patagonia prioritises durability, organically-grown and recycled materials, and strong supply-chain environmental standards—accepting higher costs to uphold its values *(strategyzer.com)*

They were early adopters of organic cotton in 1996, responding to supply-chain audits highlighting high environmental impact of conventional cotton .

Circular Economy & Repairs

The Worn Wear program (since 2017) encourages customers to repair, trade, and reuse apparel—Patagonia operates global repair centers alongside clothing swaps and tutorials *(.wikipedia.org+1,time.com+1)*

They introduced Re-Crafted, a line repurposing textile scraps into new garments, further reinforcing reuse . Collaborations with iFixit provide DIY tutorial support, and Patagonia has sold over 120,000 repurposed items to date *(time.com+12circularx.eu+12patagoniaworks.com+12)*

Resale on the official Worn Wear platform counters the industry norm where 85% of clothing ends up in landfill *(wornwear.patagonia.com+1voguebusiness.com+1*)

Extending product life by just 50% can cut clothing carbon emissions by 60% and water use by 4% per item—Patagonia's initiatives are model examples circularx.eu.

3. Activism as Business, Not Just Brand

The "Earth Tax" & Funding

Since 1985, Patagonia commits 1% of total sales annually to environmental causes—this "Earth tax" is non-negotiable, not charity *(patagonia.com+4,en.wikipedia.org+4,cascade.app+4)*

In 2018, Patagonia donated its entire Black Friday sales (~$10M) to climate organisations and again in 2017 donated tax-cut windfalls to environmental causes *(en.wikipedia.org)*

Public Advocacy & Legal Action

Patagonia uses its platform to encourage environmental action and support local organisations working to protect nature and address climate change.

In 2011, Patagonia ran the iconic "Don't Buy This Jacket" ad, encouraging anti-consumerism aligned with climate action.*(en.wikipedia.org+1,time.com+1)*

In 2017, Patagonia boycotted Outdoor Retailer, sued the U.S. government over national-monument rollbacks, and boldly stated "The President stole your land" on its homepage. *(time.com+2,en.wikipedia.org+2,washingtonpost.com+2)*

The company also joined Facebook ad boycotts in 2020, and created clothing with activists' messages.

4. Strategic Integration of Sustainability and Profit

Patagonia uses a premium pricing model—customers are willing to pay more, recognising the environmental and ethical investments built into the products *(strategyzer.com)*

Their anti-growth stance is deliberate; campaigns like "Don't Buy This Jacket" and biodiesel mobile repair workshops advocate buying less and repairing more—yet the company continues to grow sustainably (newyorker.com) Despite intentionally promoting reduced consumption, Patagonia's revenues exceeded $1 billion annually, proving circular practices can co-exist with growth .

The anti-growth "Responsible Economy" road tours, repair campaigns, and used-item frameworks foster customer loyalty while aligning with their sustainability ethos *(newyorker.com).*

5. Outcomes & Impact

Area	Achievements
Funding	US$140M donated through 1% for the Planet; ~US$240M in environmental grants.
Policy & Awareness	High-profile advertising campaigns, legal action, and community campaigns.
Circular Economy	Global repair centers and sales of repaired clothing.
Governance	The ownership structure supports climate action for the long term.

(Source patagonia.com)

As TIME observed: “Patagonia 'really walks the walk and talks the talk' … investing a lot of time and energy into being a catalyst for change” *(time.com+1cascade.app+1)*

6. Key Takeaways

Environmental purpose is the business purpose: Every decision is calibrated for planet stewardship.

Activism is baked into the financials: Not a side program, but a must have

Profit and planet coexist: Profitability and sustainability reinforce each other

Conclusion

Patagonia’s model stands as a blueprint for businesses embedding environmental commitment at their core. Its activism isn’t marketing—it’s fundamental: in its capital allocation, its advocacy, its product design, and its ownership structure. Truly, Patagonia offers a compelling case that you can build a thriving, profitable business that serves—and saves—our planet.



Activity 2 : Individual Reflection & Group Share

- Individual Reflection (10 min): Think about your own retail workplace. In what ways could it "act more like Patagonia" (i.e., integrate environmental activism or a strong social cause directly into its business model)? What are the biggest barriers to doing so?

7.4. Case Study: IKEA – Global Sustainability Progress

Facilitator Notes:

- Acknowledge that specific details on IKEA's sustainability initiatives are not extensively provided in the sources beyond mentioning a "highlight video".
- Leverage general information on retail sustainability (e.g., waste, energy, supply chain) to discuss what a large global retailer like IKEA would typically focus on for "sustainability progress."
- Encourage learners to think broadly about the challenges and opportunities for large-scale retailers.

IKEA, as a global retail giant in home furnishings, is noted for its focus on sustainability progress.

Core Identity Rooted in Sustainability:

Its design approach focuses on affordable products, efficient use of resources, and environmental responsibility.

Its vision of creating a better everyday life is supported by sustainable products and solutions.

1. Core Identity Rooted in Sustainability

Founded in 1943 by Ingvar Kamprad in Sweden, IKEA has designed its democratic design philosophy around affordability, resource efficiency, and environmental care *(en.wikipedia.org*) Its vision for "better everyday life for the many people" is directly linked to designing sustainable solutions as an integral part of its business model .

🛠 2. Governance & Strategic Commitment

IKEA operates via multiple entities (Inter IKEA Group, Ingka Holding), each aligned under a group-wide sustainability governance model, ensuring every part of the value chain—franchisees, suppliers—is engaged (*deloitte.wsj.com+15,ikea.com+15,en.wikipedia.org+15)*

The company follows the Science-Based Targets initiative (SBTi), aiming to halve emissions by 2030 and reach net zero by 2050 (*reuters.com+4,ikea.com+4,wsj.com+4)*

3. Circular Economy & Product Lifecycle

Design for Durability & Reuse

Products are designed to last longer, be repaired, and be recycled. This includes flat-pack designs and recyclable materials.

IKEA's product strategy embeds flat-pack design, repairable components, and recyclable materials from inception (*ikea.com+reuters.com+11)*

Sell-Back Service: Customers can return used items to be repaired or sold again.

The Worn Wear-inspired Sell-Back Service enables customers to return used items, which are then refurbished and resold—part of its pivot to mass circularity *(ivey.uwo.ca)*

Spare Parts & Second-hand Marketplace

In 2023, IKEA shipped over 23 million spare parts, enabling customers to repair instead of discard.

(wsj.com)

The IKEA Preowned platform debuted in Madrid and Oslo in 2024 as a peer-to-peer resale channel with bonuses for buyers opting for store credit *(wsj.com+1,time.com+1)*

Milestone: Circular & Climate Positive by 2030

IKEA publicly commits to eliminating virgin materials where possible and enabling product reuse or recycling across its entire value chain by 2030 (*wikicorporates.org+15,ikea.com)*

4. Renewable Energy & Resource Management

IKEA invested US $2.8 billion in renewable energy by 2019, including wind and solar farms, aiming to power its operations with renewables .

The rollout includes solar installations at U.S. stores and major wind farms in Sweden, Finland, Texas, and beyond .

5. Sustainable Sourcing & Forestry

In FY2021 over 97.8% of IKEA's wood is FSC-certified or recycled, with a goal of one-third recycled wood usage by 2030, though cattle environmental watchdog reports have flagged forestry issues in Romania and Ukraine *)*

IKEA has acquired and committed to protecting vast tracts of forest—c. 600,000 acres globally—with reforestation efforts in Georgia, USA .

(Source: Adapted from Ingka Group sustainability reporting, renewable energy investment disclosures, and IKEA sustainability and responsible sourcing publications (2019-2025)

6. People, Social Responsibility, & Governance

With 219,000 co-workers globally, IKEA fosters a diverse, inclusive work culture centered on sustainability awareness and shared values (*ikea.com)*

The IKEA Foundation channels grants towards sustainable livelihoods and climate action in emerging economies, targeting renewable energy, clean cooking, and just transitions (*en.wikipedia.org*)

7. Activism & Stakeholder Engagement

IKEA works actively with regulators and NGOs to support circular economy policies—e.g., lobbying Canada to remove taxes on second hand goods (*ikea.com+15,time.com+15,ikea.com+15)*

The firm publicly acknowledges its sustainability challenges, including supplier-driven deforestation, and is investing in transparency and verification to ensure compliance .

8. Results & Impact Dashboard FY2024/FY2025

Initiative	Result
Climate Footprint	30.1 % lower than the FY2016 baseline, net zero target 2050
Circular Economy services	Preowned marketplace, 26.7 million spare parts, global sell-back
Renewables Investment	€4.2 billion invested: broad solar and wind uptake
Wood Sourcing	96.5% of wood FSC-certified or recycled (FY2025)
Philanthropy	€268M grants for climate & livelihoods via the IKEA Foundation

Source: IKEA Sustainability Reports and Ingka Group Sustainability Reports (2023-2025)

9. Lessons & Best Practices

Governance breeds resilience – Sustainability goals are included in all franchise and supplier agreements. This helps IKEA respond to future challenges..

Circular design is profitable –Selling spare parts, reselling products, and repairing used items reduces waste and supports business growth.

Sustainable activism is policy-driven – IKEA's sustainability policies help shape customer choices, laws, and supply chain practices.

Transparency builds trust – Being open about challenges and taking action to address them helps build trust.

Conclusion

I*KEA combines circular business practices with clear sustainability goals and practical actions*.

IKEA exemplifies a purpose-aligned, circular business model where environmental stewardship, renewable energy, sustainable sourcing, and community investment form a cohesive strategy integrated into its global operations. It balances aspirational goals with concrete actions, reinforcing that large-scale retail can be environmentally progressive, socially responsible, and commercially sustainable



Activity 3: Brainstorming

- Imagine your company is as big as IKEA. What one large-scale sustainability initiative related to waste reduction or energy efficiency would you implement, and what immediate benefits would you expect to see?

- Discuss the potential challenges in implementing such an initiative given your company's current size and resources.

7.5. Case Study: Lidl – Success in Sustainable Practices

Facilitator Notes:

- Focus this section on the unique aspects of sustainability within the grocery retail sector, given that Lidl is a major grocery retailer.
- Emphasise how grocery retailers interact with consumers and supply chains differently from other retail types.
- Lidl, as a significant player in the grocery retail sector, has also achieved success in becoming more sustainable. Grocery retailers, specifically, have a direct and tangible impact on daily consumer choices and the broader food supply chain.

1. Context & Strategy

Lidl, part of Germany's Schwarz Group, reported global revenue of €125.5 billion in 2023 with over 12,600 stores in 31 countries *(en.wikipedia.org), (mediacenter.lidl.com)*

The company's sustainability strategy is focused on key areas: respecting biodiversity, protecting climate, conserving resources, acting fairly, promoting health, and engaging in dialogue *(mediacenter.lidl.com*) *(info. Lidl)*

Lidl's sustainability vision—"A Better Tomorrow"—is framed around three core values: "Good for the planet," "Good for people," and "Good for you" *(info.lidl)*

These values align with global frameworks like the UN Global Compact and SDGs and are embedded in cross-functional programmes across Lidl's value chain *(abettertomorrow-lidl.ie)*

🛠 2. Governance & Reporting

Governance occurs via structured sustainability reporting. Lidl publishes a comprehensive sustainability report biennially (last covering FY 2018–2020), audited to ISAE 3000 standards (*abettertomorrow-lidl.ie)*

Within Lidl's parent group (Schwarz Group), sustainability oversight spans retail and logistics, notably via its GreenCycle/PreZero environmental arm (*procurementmag.com)*

3. Climate & Emissions

Net-zero target by 2050 across all greenhouse-gas emissions *(info.lidl)*

In the U.S., Lidl US cut Scope 1 and 2 emissions by 63% (baseline 2019) by end-2022, targeting a 70% reduction by 2030 (*mediacenter.lidl.com)*

Achieved 100% renewable electricity use (via certificates) in U.S. operations by 2022 (*mediacenter.lidl.com)*

4. Resource Management & Waste Reduction

Within Schwarz Group: 84 % of waste is recovered (reused, composted, recycled)—over 2.26 million tonnes in 2019 (*abettertomorrow-lidl.ie)*

Targets include zero waste by 2025, non-recoverable waste ≤ 5% in pilot sites by 2022, and halving food waste by 2030 are set group wide.(*abettertomorrow-lidl.ie)*

GreenCycle/PreZero operates manages recycling.

Reverse vending machines are used in stores participating in Ireland's Deposit Return Scheme *(abettertomorrow-lidl.ie)*

5. Sustainable Sourcing & Packaging

Commitment to certified sourcing for private-label palm oil, chocolate, fish & shellfish, with Fairtrade-certified chocolate (*mediacenter.lidl.com*)

In Ireland and Northern Ireland, Lidl cut own-brand primary plastic packaging by 20% in 2022

(abettertomorrow-lidl.ie)

Packaging and plastics reduction is a core pillar under "conserving resources" *(info.lidl)* Efforts are underway globally to ensure all suppliers use recyclable, reusable, or compostable packaging by 2025

6. Social Responsibility

Human rights due diligence embedded in supplier audits and risk-based approaches . A risk-based due diligence programme underpins human-rights oversight across suppliers . Several reporting channels exist for violations.

In the U.S., Lidl donated over 3 million pounds of food to Feeding America (2021–22)

(mediacenter.lidl.com)

Staff development: Over 1 million training hours for team members in the U.S. since 2021; global training in sustainability topics ongoing (*abettertomorrow-lidl.ie)*

7. Partnerships & Dialogue

Long-standing WWF collaboration to advance sustainable value chains and promote sustainable consumer choices *(procurementmag.com)*

Lidl Ireland supports local communities, e.g., Electric Vehicles & Hydrotreated Vegetable Oil trucks in logistics (June 2022), and schools' initiatives like #SeeYourBees (*abettertomorrow-lidl.ie*) Lidl Ireland partnered with Gaisce's #SeeYourBees pollinator program (2021–22) and launched 20 pollinator-friendly stores as part of biodiversity efforts.

8. Outcomes & Metrics

Area	Progress
Emissions	63% cut in Scope 1 & 2 (US)
Waste recovery	84% of waste
Food donation	3M+ lbs donated (US)
Packaging	20% reduction (Ireland NI)
Renewables	100% electricity from renewables (US)

Annual and biennial reporting, plus internal auditing (via KPMG), ensures transparency and continuous improvement *(abettertomorrow-lidl-ni.co.uk)*

9. Strengths, Challenges & Next Steps

Strengths

- Clear, measurable goals across environmental, social, and resource domains.
- Integrated approach via GreenCycle, bringing operational control to waste management.
- Certification and supply chain transparency with third-party standards.

Challenges

- Scaling best practices globally (targets achieved in U.S. and Ireland need replication).
- Ensuring consistent implementation and data consistency across 31 countries.

Next Steps

- Evolving reporting cadence (biennial deep dive, with interim progress reports).
- Expanded training in sustainability across entire Lidl workforce.
- Pushing circular economy initiatives closer to the 2025 zero-waste and 2030 food-waste targets.
- Expand renewable energy solutions beyond certificates (onsite solar, green tariffs)
- Broaden EV logistics and reverse-vending across all countries

- Strengthen supplier compliance, food-waste metrics, and community partnerships
- Increase customer-facing sustainability education and transparency tools

Conclusion

Lidl provides an example of a retailer using global sustainability goals alongside local initiatives. Further work is needed to apply successful practices consistently.

Note: All sources used here are under CC BY 4.0 (Wikipedia, Lidl PDFs, open-access content).



Activity 4 Pair Share

- Discuss with a partner: What are the biggest sustainability challenges specific to the food/grocery retail sector in your country, from your perspective?
- How might a retailer like Lidl address one of these challenges effectively?

7.6. Broader Retail Sustainability Initiatives & Key Learnings

Facilitator Notes:

This section consolidates learnings across all units, focusing on key themes.

- Encourage active participation and critical thinking on how these apply to their specific roles and organisations.
- Emphasise that sustainability is an ongoing journey requiring adaptability and collaboration.
- Beyond specific company examples, a comprehensive approach to sustainability in the retail sector involves various interconnected initiatives and lessons:

Waste Reduction and the Circular Economy

Initiatives*: Extensive recycling, reuse, reducing packaging, reducing food waste (donations, inventory management) can lower costs and improve reputati*on. Implementing extensive recycling and reuse programmes, focusing on reducing extraneous packaging, and utilising biodegradable materials. This also includes tackling food waste through donations, employee meal programs, and improving inventory management to prevent spoilage. Retailers are moving towards a circular economy model where products and materials are kept in circulation, minimising waste and pollution, and regenerating nature.

Learnings: *Retail sustainability actions are connected. Collaboration is often needed to achieve results.* Waste is a top consumer agenda item, and retailers who actively reduce it often see cost savings and improved public image. Collaboration is key to making recycling and reuse economically viable and widespread.

Energy Management and Efficiency

Initiatives: *Energy-efficient lighting, heat pumps, sensor doors, renewable energy.* Installing energy-efficient lighting (LEDs), high-efficiency heat pumps, and sensor-activated automatic doors. Investing in renewable energy sources like solar panels on rooftops or wind turbines.

Learnings*: Leads to reduced operating costs, business advantage, reduced carbon footprint, and the ability to adapt to change*. Energy efficiency directly leads to reduced operating costs and improved competitive advantage. It is also a key strategy to reduce carbon footprint and build resilience against rising energy costs.

Sustainable Sourcing and Supply Chain Management

Initiatives: *Choose suppliers that meet environmental and social standards*. Improve transport efficiency and packaging. Selecting suppliers committed to ethical and sustainable practices, optimising transportation routes, and using recyclable packaging materials for product distribution. This includes addressing issues like fair trade, responsible procurement, and mitigating impacts of climate change on global supply chains.

Learnings: *Supply–chain responsibility includes both local and international impacts. Transparency and collaboration are important.* While consumers may prioritise local suppliers, retailers have a responsibility to ensure fair treatment across their entire supply chain, both domestic and overseas. Transparency and collaboration within the supply chain are crucial for managing risks and meeting consumer demands for ethical products. Digital tools like blockchain can enhance supply chain transparency.

Digital Transformation and Logistics for Sustainability

Initiatives: *Accelerating digital transformation, investing in new logistics tech (Electric Vehicles , route planning software), automated waste management (Artificial Intelligence , Internet connected devices).* Accelerating digital transformation to enhance online capabilities and customer experience, including improved omnichannel design and personalisation. Investing in new technologies for logistics like electric vehicles, route optimisation, and data-driven inventory management. Retailers are increasingly adopting smart waste management systems using Artificial Intelligence and Internet connected devices for real-time monitoring, predictive analytics, and optimised waste collection.

Learnings: *Important factor in sustainable growth, improves efficiency and the ability to adapt. Artificial Intelligence and Internet connected devices can reduce waste by improving inventory management, transport, and supply chain coordination*. Digitalisation is a key driver for sustainable growth, improving efficiency and ability to adapt in the face of rapid change. Artificial Intelligence and Internet connected devices technologies can significantly reduce waste by improving inventory management optimising transportation, and improving supply chain coordination, leading to reduced emissions and resource consumption.

Employee and Customer Engagement

Initiatives: "*Green teams," employee ideas, volunteering, training, digital receipts, eco-friendly products, green loyalty programs, in-store recycling, transparent supply chains.* Forming "green teams" or providing avenues for employees to submit sustainability ideas, organising environmental volunteering events, and offering training on sustainability best practices. For customers, this includes digital receipts, eco-friendly product lines, green loyalty programs, in-store recycling bins, and transparent supply chains.

Learnings: *Creates shared responsibility, creates effective initiatives. Retailers educate consumers on environmentally responsible choices, increasing demand for sustainable products.* Engaging employees can foster a sense of shared responsibility and generate impactful initiatives. Retailers are frontline in educating consumers about climate-smart choices, which can drive market share for sustainable products.

Key Success Factors Across Initiatives:

Successful initiatives usually have leadership support, clear responsibilities, collaboration, innovation, open reporting and a clear business benefit

- Leadership and Proactivity: Retailers leading rather than just reacting to consumer demands.
- Integration: Embedding sustainability into core business practices, not just as a separate initiative.
- Collaboration: Working with other businesses, government, and stakeholders.
- Innovation: Embracing new technologies and business models to improve efficiency and reduce impact.
- Transparency: Openly communicating efforts and progress builds consumer trust.
- Financial Imperative: Recognising that sustainability can drive cost savings and competitive advantage.

Common Challenges:

- Economic Pressures: Cost-of-living concerns, sustainability is often seen as expensive
- Customer Trust & Knowledge: Some customers doubt environmental claims or lack clear information
- Supply Chain Complexity: Managing environmental/social impacts across global/local chains.
- Labour & Skills Shortages.
- Physical Climate Risks: Extreme weather impacts on operations, logistics, insurance.
- Infrastructure & Investment: High costs for upgrading ageing infrastructure, investing in new technology



Activity 5 Developing Practical Strategies

- Individual Task (10 min): Based on all the case studies and insights discussed, identify 2-3 practical sustainability strategies that could be implemented in YOUR retail workplace. For each strategy, consider:
- What specific action would you take?
- What are the potential benefits (economic, social, environmental)?

- ❖ What are the likely challenges you would face?

Or

- ❖ Group Discussion (10 min): Share your ideas with a partner or small group. Provide constructive feedback and brainstorm ways to overcome identified challenges.

7.7. Conclusion

This unit has aimed to fulfil Learning Objective 8: Examine successful sustainability initiatives in retail, identifying key success factors, challenges, and lessons learned. We have seen how companies like Patagonia, IKEA, and Lidl, along with the broader retail sector, are addressing sustainability through varied and impactful initiatives.

Key Takeaways:

- Sustainability is a strategic imperative: It's not just about compliance, but about long-term competitiveness, resilience, and growth.
- Holistic approach is crucial: Addressing environmental, social, and economic aspects is necessary for comprehensive impact.

Innovation and digital transformation are key enablers: Technologies like AI and IoT can drive significant efficiencies and waste reduction, contributing to sustainability.

Collaboration and communication are vital: Working with stakeholders and educating consumers and employees are fundamental to success.

Challenges are opportunities: Navigating economic pressures, consumer cynicism, and supply chain complexities can lead to innovative solutions and competitive advantage.

As employees in this vital sector, you have a significant role to play in championing these changes and driving positive impact in your own workplaces.

7.8. Pause & Reflect

- Which case study initiative was most relevant to your workplace?
- What was the most important lesson learned from Patagonia, IKEA, or Lidl?
- Which sustainability practice could realistically be adopted by your organisation?



Reflection Point:

What is one actionable step you can take in your role, starting tomorrow, to contribute to a more sustainable practice in your workplace?

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LESSON PLANS

Introduction to Sustainability in Retail Lesson Plan

Target Audience

This module is aimed at New Entrants / Non-Management Employees e.g. Front line employee, Retail newbie, Supply chain worker.

Learning Outcomes & Learning Materials

Module Learning Outcomes

Learners will be able to :

9. Examine how retail operations affect the environment, including the use of natural resources, climate change, pollution, waste, and biodiversity loss.
10. Develop practical solutions and recommend best practices to address environmental challenges and improve sustainability in retail workplaces.
11. Evaluate the responsibilities of retail businesses in meeting sustainability standards at national, European, and global levels.
12. Analyse the strengths and weaknesses of measures taken at national, European, and global levels to address environmental issues in the retail sector.
13. Assess the risks and opportunities of sustainable practices in retail and propose strategies to reduce risks and take advantage of opportunities.
14. Analyse how sustainability issues relate to climate change in retail and develop strategies to reduce the environmental impact of retail operations.
15. Conduct a basic environmental assessment of a retail workplace and suggest practical ways to improve sustainability.
16. Examine successful sustainability initiatives in retail, identifying key success factors, challenges, and lessons learned.

Learning Materials

Outline the materials needed to deliver the lesson (can include recommended reading / videos)

- PowerPoint Presentation
- Facilitator Handbook
- Learner Handbook

Duration

25 hrs = 6.25 hrs per day

Day 1 Lesson Plan

Time	Topic / Workshop	Content
9:45 -10:00am **15 mins** **10:00am – 11:00am** **1hr**	**Induction** **Unit 1 Sustainability Concepts and Practices for Retail**	Aim of Module Purpose of Module Learning Objectives: LO1: Introduce core sustainability principles and practices in the context of retail. This includes the concepts of sustainable development, circular economy, waste reduction, and energy efficiency. Learners will explore how these principles can be integrated into everyday retail operations to reduce environmental footprints. LO2: Develop practical solutions and recommend best practices to address environmental challenges and improve sustainability in retail workplaces.
		Slide Deck covering: • Introduction to Sustainability in Retail Approx. • What is Sustainability • Why is Sustainability Important for Retail? • Dimensions of Sustainability Relevant to Retail **Activity 1** : What Does Sustainability Mean to You? (10 mins)
11.00 – 11:15 **15 mins**	**Tea / Coffee Break**	
11.15-13.00 **1 hour 45 min**		**Slide Deck covering:** • Core Sustainability Practices in Retail • Waste Reduction and the Circular Economy • Sustainable Product Sourcing

		• Energy-Efficient Store Operations • Implementing Sustainability and Best Practices • Conclusion and Next Steps **Activity 2**: Retail Sustainability Audit (20 mins)
13.00 – 13.45 **45mins**	**Lunch Break**	
13.45 -16.00 **2 hour 15 min**	**Unit 2 Environmental Impacts of Retail Operations**	Learning Objective (LO1): Examine how retail operations affect the environment, including the use of natural resources, climate change, pollution, waste, and biodiversity loss.
		Slide Deck covering: • Introduction and Overview • Resource Use in Retail • Climate Change and Pollution • Waste Management in Retail • Impact on Biodiversity • Wrap-up and Conclusion • **Choose 2 activities from 1-5** to use during the session
		Mentimeter Quiz covering learning to date

Day 2 Lesson Plan

Time	Topic / Workshop	Content
9.45 – 10.45am **1hr**	**Unit 3 Climate Change and Retail Operations**	Learning Objective (LO 6): Analyse how sustainability issues relate to climate change in retail and develop strategies to reduce the environmental impact of retail operations.
		Slide Deck covering: • Understanding Climate Change and Its Effects on Retail Operations • Retail's Carbon Footprint and Greenhouse Gas Emissions **Choose an activity – 15 mins** ❖ **Activity 1** :Quick Poll/Icebreaker (5mins) ❖ **Activity 2 :** Think-Pair-Share (10 mins) ❖ **Activity 3** Brainstorming & Mapping (10 mins)
10.45 – 11.00 **15 mins**	**Tea / Coffee Break**	
11.00-13.00 **2hrs**	**Unit 3 Climate Change and Retail Operations**	**Slide Deck covering:** • Strategies to Reduce Environmental Impact - Store, Operations, and Product Lifecycle • Strategies to Reduce Environmental Impact - Supply Chain and Consumers • Sustainable Logistics Conclusion and Moving Forward **Choose an activity- (10 mins)** **Activity 4** : Strategy Matching: (10 mins) **Activity 5** : Role-Playing (10 mins) Activity 6 : Problem Solving - Sustainable Delivery (10 mins)

		Activity 7 : Personal Action Plan (10 mins)
13.00 – 13.45 **45mins**	**Lunch Break**	
13.45 -16.00 **2 hours 15 min**	**Unit 5 Risks and Opportunities in Sustainability**	Learning Objective (LO 5): Assess the risks and opportunities of sustainable practices in retail and propose strategies to reduce risks and take advantage of opportunities.
		Slide Deck covering: • **Activity 1** : Quick Poll/Icebreaker: (5 mins) • Identifying Risks of Sustainable Practices • Identifying Opportunities of Sustainable Practices • Strategic Risk Management and Developing a Business Case for Sustainability • Conclusion **Choose an activity** **Activity 2** Risk Identification: (15mins) **Activity 3 :** Opportunity Mapping (15 mins) **Activity 4** Action Planning and Business Case Sketch (20 mins)
		Mentimeter Quiz covering learning to date

Day 3 Lesson Plan

Time	Topic / Workshop	Content
9.45 – 10.45am **1 hour**	**Unit 4 Regulatory and Standard Requirements**	LO3: Evaluate the responsibilities of retail businesses in meeting sustainability standards at national, European, and global levels. LO4: Analyse the strengths and weaknesses of measures taken at national, European, and global levels to address environmental issues in the retail sector.
		Slide Deck covering: • Overview of National and International Sustainability Regulations (Suggested Duration: 30 minutes) • Role of Governments and International Organisations in Setting Standards (Suggested Duration: 20 minutes) • Key Environmental Laws and Policies Affecting Retail (Examples) (Suggested Duration: 20 minutes)
10.45 – 11.00 **15 mins**	**Tea / Coffee Break**	
11.00-13.00 **2hrs**		**Slide Deck covering:** • Certifications and Standards • Reporting and Transparency in Sustainability • Strengths and Weaknesses of Measures at Different Levels • Impact of Policy on Retail Businesses • Greenwashing and Compliance • Conclusion **Choose an activity –(20 mins)**

		Activity 1: Certification Exploration (20 mins) **Activity 2:** Policy Comparison Debate (20 mins) **Activity 3:** Spotting Greenwashing (15 mins)
13.00 – 13.45 **45mins**	**Lunch Break**	
13.45 -16.00 **2 hours 15 min**	**Unit 7: Case Studies of Sustainability in Retail**	Learning Objective (LO 8): Examine successful sustainability initiatives in retail, identifying key success factors, challenges, and lessons learned.
		Slide Deck covering: • Introduction to Case Studies in Retail Sustainability • The Landscape of Retail Sustainability • Case Study: Patagonia – Environmental Activism as a Business Model • Case Study: IKEA – Global Sustainability Progress • Case Study: Lidl – Success in Sustainable Practices • Broader Retail Sustainability Initiatives & Key Learnings • Conclusion **Choose an activity (20 mins)** • **Activity 1**: Group Discussion (15 minutes) • **Activity 2** : Individual Reflection & Group Share (20 minutes) • **Activity 3:** Brainstorming (10 minutes) • **Activity 4** Pair Share (10 minutes) • **Activity 5** Developing Practical Strategies (10 minutes)
		Mentimeter Quiz covering learning to date

Day 4 Lesson Plan

Time	Topic / Workshop	Content
9.45 -10.45am **1 hour**	**Unit 6 : Practical Tools for Environmental Assessment.**	Learning Objective (LO 7): Conduct a basic environmental assessment of a retail workplace and suggest practical ways to improve sustainability.
		Slide Deck covering: Introduction to Environmental Assessment Techniques and Tools **Activity 1** Why Assess? (Discussion/Brainstorm) (15 mins)
10.45 – 11.00 **15 mins**	**Tea / Coffee Break**	
11.00-13.00 **2hrs**		Performing Basic Assessments in a Retail Setting **Activity 2:** Workplace Walkthrough Plan (Group Activity) (15-20 mins)
13.00 – 13.45 **45mins**	**Lunch Break**	
13.45 -16.00 **2 hours 15 min**	**Unit 6 : Practical Tools for Environmental Assessment.**	**Slide Deck covering:** Identifying Areas for Sustainability Improvements . **Activity 3:** Improvement Plan Workshop (Group Activity)(45 mins) Summary & Conclusion Module Conclusion & Final Wrap-up Discussion and Quiz
		Mentimeter Quiz covering learning to date

*Differentiation

Different training providers will have difference audiences. It is important to note that the materials, case studies, learning activities and or assessments may need be customised to meet the needs and learning styles of the different learners around Europe.

UNIT QUIZZES

Unit 1: Sustainability Concepts and Practices for Retail - Quiz

1. What is the widely accepted definition of sustainable development?
A. Development that prioritises economic growth over environmental protection.
B. Development that meets the needs of the present without compromising the ability of future generations to meet their own needs.
C. Development that focuses solely on reducing greenhouse gas emissions.
D. Development that ensures all products are made from recycled materials.

2. Why is sustainability increasingly important for the retail sector?
A. Only due to consumer expectations for ethical products.
B. Primarily to reduce the aesthetic impact of retail stores.
C. Due to environmental impact, consumer expectations, regulatory pressures, business resilience, and economic benefits.
D. To facilitate the creation of more single-use products.

3. Which of the following is NOT one of the three main dimensions of sustainability relevant to retail?
A. Environmental
B. Social
C. Political
D. Economic

4.The "Circular Economy" aims to achieve which of the following?
A. A system where materials are disposed of after single use.
B. A system where materials never become waste and nature is regenerated.
C. A system focused on maximising the extraction of virgin raw materials.
D. A system that solely focuses on reducing energy consumption in stores.

5.How can retailers contribute to circularity?
A. By exclusively selling single-use products.
B. By offering goods for lease or rent instead of selling outright.
C. By ignoring end-of-life recycling for their products.
D. By increasing the complexity of plastic packaging.

6.What does "Sustainable Product Sourcing" primarily consider?
A. Only the upfront cost of goods and services.
B. The entire life cycle of goods and services, including environmental and social risks and benefits.
C. Rapid procurement of materials regardless of origin.
D. Avoiding all forms of verification for environmental claims.

7.Which of the following is a key aspect of embedding sustainability in procurement?
A. Relying solely on verbal claims from suppliers.
B. Specifying verifiable environmental requirements and verifying claims with ecolabels.
C. Ignoring human rights impacts in supply chains.
D. Prioritising the cheapest available materials regardless of their source.

8. What is a crucial strategy for energy-efficient store operations?
A. Keeping all lights on 24/7.
B. Maximizing reliance on fossil fuels.
C. Transitioning to renewable energy sources like wind and solar.
D. Avoiding energy audits to save costs.

9. Which of these is a common challenge in implementing sustainability in retail?
A. High consumer demand for sustainable products.
B. Low investment needs for sustainable practices.
C. Consumer inertia (e.g., price sensitivity) despite increased awareness.
D. Simplified supply chain dynamics.

10.What role can digital technologies like AI and IoT play in retail sustainability?
A. They are primarily used for increasing packaging waste.
B. They can help optimise promotions and inventory to reduce waste.
C. They are irrelevant to waste management efficiency.
D. They are only useful for increasing fossil fuel consumption.

Unit 2: Environmental Impacts of Retail Operations - Quiz

1. **Which of the following is NOT listed as a significant environmental impact of retail operations?**
A. Use of natural resources.
B. Climate change and pollution.
C. Biodiversity loss.
D. Increased staff salaries.

2. Retail operations heavily consume which of the following natural resources?
A. Energy, water, and raw materials.
B. Only renewable resources.
C. Primarily financial capital.
D. Human resources.

3.What is an example of significant water consumption in product production, as mentioned in the sources?
A. The water needed to clean retail stores.
B. The water used by customers in restrooms.
C. Producing a cotton t-shirt requires 4,100 litres of water.
D. The water used for transporting goods.

4. How does retail's reliance on fossil fuels contribute to climate change?
A. By decreasing greenhouse gas emissions.
B. By increasing greenhouse gas emissions from stores, manufacturing, and transport.
C. By promoting the use of renewable energy.
D. By reducing the overall carbon footprint.

5. Which of the following is identified as a major source of pollution in retail?
A. Packaging and materials.
B. Customer foot traffic in stores.
C. Online shopping transactions.
D. Employee breaks.

6. Waste generation in retail primarily consists of which types?
A. Only food waste.
B. Large volumes of packaging waste, surplus stock, and food waste.
C. Only electronic waste.
D. Primarily paper waste from offices.

7. What is the main goal of the Circular Economy in waste management?
A. To increase the volume of waste sent to landfills.
B. To ensure materials become waste at the end of their product life.
C. To eliminate waste and pollution by keeping products and materials in circulation.
D. To focus solely on incineration for waste disposal.

8.How do digital technologies like AI and IoT contribute to waste management in retail?
A. They increase waste generation for more data.
B. They can improve waste management efficiency, including optimizing logistics for waste collection.
C. They make waste management more complex and less efficient.
D. They are only used for marketing purposes, not waste management.

9. Which of the following is a way retail contributes to biodiversity loss?
A. By driving demand for products from agriculture, forestry, and mining, leading to habitat destruction.
B. By promoting conservation efforts exclusively.
C. By reducing the spread of invasive species through global trade.
D. By ensuring sustainable harvesting of all resources.

10. What concept is critical for moving towards a more sustainable retail future, according to the sources?
A. Maximising short-term profits regardless of environmental cost.
B. Understanding the environmental impacts of retail operations.
C. Ignoring the interconnectedness of environmental issues.
D. Shifting all responsibility to consumers.

Unit 3: Climate Change and Retail Operations - Quiz

1. What is the critical link explored in Unit 3 regarding retail operations?
A. The link between retail operations and marketing strategies.
B. The critical link between climate change and retail operations.
C. The link between retail operations and social media engagement.
D. The link between retail operations and local community events.

2. What is the difference between climate mitigation and adaptation?
A. Mitigation refers to adapting to risks, while adaptation refers to reducing emissions.
B. Mitigation means reducing greenhouse gas emissions, while adaptation means adapting to physical and transition risks.
C. They are two terms for the same concept.
D. Mitigation applies only to supply chains, while adaptation applies only to stores.

3. Which of the following is an example of a physical risk of climate change for retailers?
A. Stricter climate regulations.
B. Increased carbon taxes.
C. Disruptions to global supply chains due to altered agriculture or intense storms.
D. Changes in consumer expectations.

4.**"Stricter climate regulations" and "Technology change" are examples of what type of climate risk for retail?**
A. Physical risks.
B. Strategic risks.
C. Transition risks.
D. Operational risks.

5. What is included in a retailer's carbon footprint?
A. Only emissions from customer travel to stores.
B. All greenhouse gas (GHG) emissions from their activities, including energy use, transportation, and product manufacturing.
C. Only emissions from product end-of-life disposal.
D. Just the emissions from store heating and cooling.

6.Which of these strategies is implemented by retailers to reduce environmental impact in stores and operations?
A. Increasing fossil fuel reliance.
B. Championing the Circular Economy.
C. Ignoring waste management and recycling.
D. Avoiding energy audits.

7.How can retailers influence their supply chains for sustainability?
A. By solely focusing on low-cost sourcing.
B. By embedding sustainability into procurement policies and supplier requirements.
C. By avoiding third-party sustainability standards.
D. By disengaging from ethical trading frameworks.

8.What is the growing market segment of consumers actively seeking sustainable products called?
A. Price-sensitive consumers.
B. Traditional consumers.
C. "The Conscious Consumer."
D. Uninformed consumers.

9. **Which of the following is a challenge in sustainable logistics, particularly for "last kilometre" delivery?**
A. Decreased congestion and air pollution.
B. Reduced demands on delivery services.
C. High infrastructure costs and inventory issues.
D. Increased efficiency through outdated technology.

10. Why do experts and EU policymakers emphasise prioritising actual emissions reductions before relying on carbon offsets?
A. Because carbon offsets are always cheaper than direct reductions.
B. Because offsetting has no role in climate action.
C. Because global society must reduce overall emissions, and actual reductions are paramount.
D. Because carbon offsets increase a company's carbon footprint.

Unit 4: Regulatory and Standard Requirements - Quiz

1. What is the foundational global standard for sustainable development, as defined in 1987?
A. The Paris Agreement.
B. The UN World Commission on Environment and Development's definition of "development that meets the needs of the present without compromising the ability of future generations to meet their own needs."
C. The EU Green Deal.
D. The UK Climate Change Risk Assessment.

2. The principle of "think globally, act locally" in sustainability encourages what?
A. Focusing solely on local issues without considering global impacts.
B. Aligning local practices with global environmental and social goals.
C. Delegating all sustainability actions to international organisations.
D. Prioritising national interests over global sustainability goals.

3. **What is a primary role of governments in setting sustainability standards for retail?**
A. To ignore market failures in resource allocation.
B. To drive and support the transition to a low-carbon economy through laws, regulations, and incentives.
C. To prevent all forms of international collaboration.
D. To rely solely on voluntary business initiatives.

4.Which EU initiative aims to move away from fast fashion towards a circular economy by setting requirements on eco-design and prohibiting the destruction of unsold inventory?
A. The EU Strategy for Sustainable and Circular Textiles.
B. The EU Emissions Trading Directive.
C. The EU Battery Regulation.
D. The EU Farm to Fork Strategy.

5.The EU's Corporate Sustainability Due Diligence Directive (CSDDD) obliges firms to do what?
A. To only report on financial performance.
B. To identify, prevent, and mitigate negative impacts on human rights and the environment in their supply chains.
C. To exclusively focus on reducing their own direct emissions.
D. To avoid transparency in product provenance.

6. What is the purpose of "Ecolabels" like Type 1 (ISO 14024)?
A. To make self-declared environmental claims without verification.
B. To provide environmental and health information based on third-party assessment of lifecycle impacts.
C. To only certify social standards for producers.
D. To assess the sustainability of buildings, not products.

7.What framework is becoming a gold standard for companies to identify, assess, and report on climate-related impacts, structured around governance, strategy, risk management, and metrics/targets?
A. ISO 14001.
B. The Task Force on Climate-related Financial Disclosures **(TCFD).**
C. The EU Taxonomy.
D. The Ethical Trading Initiative **(ETI).**

8. What is a key strength of European Union measures (e.g., EU Green Deal, CSDDD)?
A. They rely heavily on national political will for implementation.
B. They create harmonised rules across a large single market and drive significant industry changes.
C. They often disregard the needs of producer countries.
D. They are inconsistent between member states.

9. **What is "greenwashing"?**
A. When companies transparently report all their sustainability credentials.
B. When companies intentionally or unintentionally overstate or misrepresent their sustainability credentials.
C. A certification for genuinely environmentally friendly products.
D. A process of verifying environmental claims through independent audits.

10. How do policies influence retail businesses regarding innovation and opportunities?
A. They restrict innovation and create only compliance costs.
B. They drive innovation, leading to new sustainable products/services and increased market share.
C. They make businesses less resilient to change.
D. They discourage investment in sustainable practices.

Unit 5: Risks and Opportunities in Sustainability - Quiz

1. What is the learning objective of Unit 5?
A. To focus solely on the financial viability of retail operations.
B. To assess the risks and opportunities of sustainable practices in retail and propose strategies to reduce risks and take advantage of opportunities.
C. To analyse only the environmental impacts of retail without considering business implications.
D. To examine historical retail trends unrelated to sustainability.

2. Which of the following is a potential operational risk of adopting sustainable practices in retail?
A. Increased brand reputation.
B. Initial disruptions to workflows, such as waste sorting or packaging changes.
C. Reduced operational costs.
D. Simplified supply chain management.

3. What is meant by the "say-do gap" in consumer behaviour regarding sustainable products?
A. Consumers always buy what they say they want.
B. What consumers say they want regarding sustainability doesn't always translate into purchasing behaviour.
C. Retailers always deliver on their sustainability promises.
D. There is no gap between consumer words and actions.

4. What is a significant supply chain constraint and vulnerability in the context of retail sustainability?
A. The ease of ensuring consistent sustainable practices across complex global supply chains.
B. The complete absence of climate-induced disruptions.
C. Tensions between highly efficient supply chains focused on low prices and the need for sustainable practices.
D. Reduced pressure from larger companies on SME suppliers.

5.How can sustainable practices lead to cost savings and operational efficiency for retailers?
A. By increasing energy, water, and material consumption.
B. By using less energy, water, and materials and reducing waste.
C. By investing in outdated, high-cost technologies.
D. By only focusing on maximising disposal costs.

6. A growing market segment of "conscious consumers" presents what opportunity for retailers?
A. Reduced sales of sustainable products.
B. An opportunity to capture growing consumer demand for sustainable products, often willing to pay a premium.
C. A need to reduce product variety.
D. Increased consumer cynicism.

7. How does integrating sustainability enhance a retailer's brand reputation and trust?
A. By being inconsistent in communications.
B. By overstating sustainability credentials.
C. By improving public image, building trust with customers, and fostering loyalty through true commitment.
D. By focusing solely on short-term profits.

8. What does "Increased Resilience" in sustainable practices imply for a business?
A. Making a business more vulnerable to physical climate risks.
B. Improving a business's ability to respond to physical and transition risks and ensure supply chain continuity.
C. Avoiding all regulatory changes.
D. Reducing investment in sustainable practices.

9. Why is sustainability performance important for attracting investors and talent?
A. Investors prefer companies with high environmental risks.
B. It helps attract investment, particularly from ESG-focused funds, and attracts/retains talent who seek companies aligned with their values.
C. It has no impact on talent retention.
D. It increases financial risk for the business.

10. What is a key element of developing a strong business case for sustainability?
A. Hiding the potential costs of sustainability initiatives.
B. Quantifying potential value, such as ROI from energy/resource efficiency and increased revenue.
C. Relying solely on anecdotal evidence.
D. Avoiding collaboration with suppliers and policymakers.

Unit 6: Practical Tools for Environmental Assessment - Quiz

1. What is the main purpose of environmental assessment in retail?
A. To exclusively comply with existing regulations.
B. To identify, measure, and analyse a business's impact on the environment to make informed decisions for improvement.
C. To avoid competitive disadvantage by ignoring environmental impacts.
D. To only focus on the aesthetic appearance of the retail space.

2. Which of the following is NOT listed as a reason why environmental assessment is important for retailers (business case)?
A. Future-proofing the business.
B. Increasing operational costs without benefit.
C. Meeting consumer expectations and enhancing reputation.
D. Attracting investors and talent.

3. The "Circular Economy" is a key concept in environmental assessment. What does it advocate?
A. Designing products for single-use and disposal.
B. Keeping products and materials in use, designing out waste, and regenerating natural systems.
C. Maximising the extraction of raw materials.
D. Relying solely on recycling as the only waste management solution.

4. What is a basic assessment tool mentioned for environmental assessment in retail?
A. Complex sensor networks and AI-driven analytics.
B. Checklists, visual inspections, and analysing utility bills.
C. Full lifecycle assessments performed by external experts only.
D. Only professional audits requiring significant investment.

5. What is the first step in the "Step-by-Step Approach" to performing a basic environmental assessment?
A. Suggesting practical ways to improve sustainability.
B. Appointing a champion(s) to lead the assessment.
C. Identifying areas for improvement.
D. Reviewing waste logs.

6. When conducting an energy assessment in a retail setting, where should you primarily look?
A. Only in customer restrooms.
B. Lighting, heating, ventilation, AC, refrigeration, and appliances.
C. Only at delivery vehicles.
D. Only at staff break rooms.

7. What is a key method for assessing waste management in a retail setting?
A. Ignoring waste types and volumes.
B. Conducting a waste audit to sort and weigh/estimate categories.
C. Relying solely on anecdotal evidence from customers.
D. Disposing of all waste without tracking.

8. How can you assess resource use (water) in a retail store at a basic level?
A. By installing complex water treatment solutions.
B. By reviewing water bills and checking for leaks.
C. By increasing water consumption for cleaning.
D. By avoiding all water-efficient fixtures.

9. When prioritising sustainability improvements, what factors should be considered?
A. Only the financial investment needed.
B. Impact, feasibility, cost, and alignment with company goals.
C. Only what is easiest to implement.
D. What will cause the most disruption to operations.

10. How can technology, such as AI and IoT, support sustainability improvements in retail?
A. By increasing waste generation.
B. By optimising inventory, transport, and waste collection to reduce waste/emissions.
C. By making supply chains less transparent.
D. By eliminating the need for staff involvement in sustainability.

Unit 7: Case Studies of Sustainability in Retail - Quiz

1. What is the main purpose of examining successful sustainability initiatives through case studies in retail?
A. To learn how to avoid sustainability efforts entirely.
B. To gain insights into how theoretical sustainability concepts are applied in practical, real-world scenarios.
C. To highlight the failures of sustainability in the retail sector.
D. To demonstrate that sustainability is irrelevant to competitiveness.

2. The "three pillars" model of sustainability relevant to retail includes:
A. Profit, Production, and Promotion.
B. Economic, Social, and Environmental sustainability.
C. Global, National, and Local initiatives.
D. Design, Logistics, and Sales.

3. What is Patagonia's core mission, updated in 2018?
A. "To become the largest outdoor clothing company."
B. "We're in business to save our home planet."
C. "To maximise shareholder profit above all else."
D. "To produce the cheapest outdoor gear available."

4. Patagonia's "Worn Wear" programme encourages what?
A. Rapid disposal of old clothing.
B. Repair, trade, and reuse of apparel.
C. Buying new products frequently.
D. Ignoring the carbon emissions from clothing.

5. How does Patagonia demonstrate "Activism as Business"?
A. By avoiding all political statements.
B. By committing 1% of total sales (or 10% of profits) to environmental causes ("Earth Tax").
C. By promoting overconsumption.
D. By solely focusing on internal operational efficiency.

6. IKEA's approach to sustainability from product inception includes:
A. Designing products for single-use.
B. Embedding flat-pack design, repairable components, and recyclable materials.
C. Maximising virgin material use.
D. Avoiding a sell-back service for used items.

7.What is one of IKEA's significant achievements in renewable energy?
A. Reliance solely on fossil fuels.
B. Investing heavily in wind and solar farms to power operations.
C. Disconnecting from renewable energy markets.
D. Generating all energy from non-renewable sources.

8. Lidl's sustainability strategy is structured around how many core pillars?
A. Three.
B. Four.
C. Five.
D. Six.

9. What is a key initiative Lidl implements for waste reduction?
A. Increasing food waste by 50% by 2030.
B. Focusing solely on landfill disposal.
C. Trialling reverse vending machines for deposit schemes and aiming for zero waste by 2025.
D. Avoiding internal auditing of waste management.

10. Which of the following is identified as a "Key Success Factor" across various retail sustainability initiatives?

A. Economic pressures.

B. Leadership and Proactivity.

C. Consumer cynicism.

D. Supply chain complexity.

Answer Sheet

Unit 1: Sustainability Concepts and Practices for Retail

1	B	7	B
2	C	8	C
3	C	9	C
4	B	10	C
5	B		
6	B		

Unit 2: Environmental Impacts of Retail Operations

1	D	7	C
2	A	8	B
3	C	9	A
4	B	10	B
5	A		
6	B		

Unit 3: Climate Change and Retail Operations

1	B	7	B
2	B	8	C
3	C	9	C
4	C	10	C
5	B		
6	B		

Unit 4: Regulatory and Standard Requirements

1	B	7	B
2	B	8	B
3	B	9	B
4	A	10	B
5	B		
6	B		

Unit 5: Risks and Opportunities in Sustainability

1	B	7	C
2	B	8	B
3	B	9	B
4	C	10	B
5	B		
6	B		

Unit 6: Practical Tools for Environmental Assessment

1	B	7	B
2	B	8	B
3	B	9	B
4	B	10	B
5	B		
6	B		

Unit 7: Case Studies of Sustainability in Retail

1	B	7	B
2	B	8	D
3	B	9	C
4	B	10	B
5	B		
6	B		



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