

# TEACHER'S GUIDE

## MODULE 1

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# THE *EARTH* PROJECT

The EARTH (Ethical and Responsible Transportation and Handling) project's mission is to enhance the sustainability focus on logistics through integrating digital approaches to innovation management practices.

## Teacher's Guide & OERs

The **Teacher's Guide & Open Educational Resources (OERs)** support teachers in integrating **sustainability and innovation management** into logistics curricula. These resources empower teachers, enhance student learning, and align education with industry needs and the **Sustainable Development Goals (SDGs)**.

## Purpose of the Teacher's Guide

The guide provides a **structured approach** to using OERs, offering an overview of available materials and guidance on selecting the most suitable resources. It equips teachers with **pedagogical strategies** to enhance student engagement and maximise the impact of sustainability-focused learning. It also explains the connection between SDGs, OERs, and logistics case studies in addressing **global challenges** and **sustainability guidelines**. Clearly defined learning objectives related to innovation management and SDGs ensure that teachers can confidently integrate digitalised innovation management and sustainability into their logistics courses.

## EARTH's OERs

The EARTH Project's OERs offer **practical, interactive, and ready-to-use materials**, including **problem-based learning case studies, real-world scenarios, worksheets, and multimedia content**. Designed to bridge theory and practice, these resources foster **hands-on learning** and **critical thinking**. They are available for download via the project website. By using the innovation process framework, students explore how **digital tools support innovation management practices, implement SDGs, and gain** a deeper understanding of sustainability in logistics.

## Impact & Benefits

The Teacher's Guide and OERs aim to:

- ❑ **Empower Teachers:** Teachers gain confidence in integrating **SDGs into innovation management**, supported by practical tools and structured guidance.
- ❑ **Develop Students:** Students actively engage with **real-world logistics challenges**, building critical thinking and problem-solving skills.
- ❑ **Institutional Alignment:** Curricula evolve to align with **SDG frameworks, innovation management strategies, and industry sustainability goals**.

By embracing digital tools and **innovative teaching methodologies**, this initiative **supports the transition** toward a more sustainable and technologically advanced logistics sector.



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*This Problem-Based Learning Open Educational Resource, a part of the Erasmus+ Cooperation Partnerships Project “Ethical and Responsible Transportation and Handling”, was conceptualised and produced by Maynara Furquim and Paula Schüppenhauer, FH Münster University of Applied Sciences, in collaboration with the EARTH Project Partnership.*

# 01

## INTRODUCTION





# INTRODUCTION

## Welcome to the EARTH Teacher's Guide

Welcome to the EARTH Teacher's Guide, designed to **support teachers** in delivering engaging, innovative, and sustainability-focused content on a digitally facilitated innovation management process for logistics. This guide is part of the EARTH OERs, designed to equip teachers with **practical tools, case studies, and methodologies** that inspire students and foster critical thinking in sustainable logistics.

## Why Sustainable Logistics Matters

Sustainable logistics play a vital role in addressing **global environmental challenges**, reducing carbon footprints, and promoting resource efficiency. This guide equips teachers to inspire students to become **future leaders** who can drive innovative, sustainable solutions in the logistics industry. This guide is to empower teachers to deliver dynamic lessons that not only educate but also **motivate students** to think critically about the role of innovation in shaping a more sustainable future.

## Purpose of this Guide

The goal of this guide is to help teachers seamlessly **integrate EARTH's resources** into their lessons, whether in-person, online, or in a hybrid format. It provides a clear framework for navigating the course content, selecting suitable materials, and applying recommended teaching strategies. **Designed to be flexible and adaptable**, the materials can be tailored to different teaching styles and classroom needs rather than being followed rigidly. By incorporating **real-world case studies, digital tools, and problem-based learning activities**, this guide bridges the gap between theory and practice, making learning both meaningful and impactful.

## What to Expect

### ■ Module Structure

This section outlines the structure of the EARTH modules, detailing the components of each module – introduction, exercises, and evaluation – designed for flexibility and adaptability across different teaching contexts.

### Module 1 – Warm-Up Exercise

Here, an overview of Module 1 is presented, focusing on the fundamentals of innovation management applied to logistics contexts.

### Module 2 – Innovation Management Digitalisation and Sustainability

This section explores the application of innovation management, with a focus on identifying sustainability challenges and applying innovation management processes to address them.

### Module 3 – Real-Life Challenge

This module focuses on hands-on activities within the innovation management stages, teaching students how to utilise digital tools to implement innovative and sustainable logistics solutions.

**The module sections include** week-by-week descriptions, learning outcomes, and suggested activities to engage students in critical discussions.

### ■ Additional Resources

A collection of supplementary materials, including external resources and case studies, designed to support the lectures and enhance classroom discussions.

Teachers are encouraged to regularly **review and adapt the OERs materials**, including language, imagery, and case selection, to help **eliminate implicit biases** and ensure the OERs' content **remains inclusive**. The EARTH Good Practice Compendium, for instance, supports this by highlighting diverse models and inclusive innovation strategies. Using these examples challenges common stereotypes and broadens students' understanding of the logistics sector.

# 02

MODULE

STRUCTURE



# MODULES STRUCTURE

The **EARTH Open Educational Resources (OERs)** comprise three modules, varying in length, that complement one another. While developed as a cohesive programme, the modules are designed to be **flexible and adaptable** to meet the **specific needs** of both **teachers and students**. Each module can be **implemented independently**, allowing teachers to select the modules that best align with their students' needs and learning requirements.

The **duration** of each module is also **flexible**, with time management left to the discretion of the teacher. Although recommended durations are provided, some modules may have a more intensive workload and could require additional support for students.

Each module contains a specific relevant **set of resources**:

- 1 Introduction:** Clear learning objectives, recommended resources for pre-session reading or viewing, session slides (Slide Deck), and materials to work on during the session (Worksheets).
- 2 Exercises:** Detailed instructions for both students and teachers, along with examples, task requirements, templates, and worksheets to guide the activities.
- 3 Evaluation:** An explanation of the evaluation criteria, along with evaluation templates (if applicable) and any online questionnaires or similar assessment tools.

All modules incorporate **problem-based learning activities**, where students will engage with real-world problems in a collaborative environment. This approach **enhances** their critical thinking and problem-solving skills while bridging the gap between theory and practice.

The following section outlines a week-by-week plan for the module, accompanied by detailed descriptions to guide its implementation, which teachers can adapt as needed.



# INDIVIDUALISING MODULES

## Adapting Content to Fit Your Teaching Style

As mentioned, the **modules** are designed to be **flexible and adaptable** to different teaching styles, learning environments and needs. All modules and the **individual weeks** within them **can be used separately** – it only requires some adaptations to ensure the content is plausible and without open or missing aspects. They can be **delivered** from a complete semester course format to an 8-hour course, a workshop (extracurricular or in-course), or spread through class discussions – the teachers choose.

The steps presented below serve as **examples of how you can adapt** the content to meet specific needs, tailoring it to particular objectives, time constraints, and student requirements.

### Step 1: Define your Teaching Objectives

- ☐ **Align** the module/weeks' content with the course/class learning goals.
- ☐ **Identify** which parts of the module are essential and which can be adjusted or omitted based on the curriculum and objectives for the class(es).
- ☐ **Consider** how the module/week supports broader educational frameworks or competencies, particularly in diversity, equity, and inclusion (DEI) principles.

### Step 2: Adapt the Module Duration

- ☐ **Adjust** the number of sessions or time spent on each module/activity based on the course/class schedule.
- ☐ **Compress or expand** activities; for shorter sessions, focus on core exercises, while for longer ones, incorporate in-depth discussions or case studies.
- ☐ **Offer** asynchronous options, such as pre-recorded lectures or additional reading, to remain flexible (for students and the course/class schedule).

### Step 3: Customise Learning Activities

- ☐ **Modify or combine** exercises to accommodate different class formats (in-person, online, or hybrid) and session durations (e.g., 90-minute class, 1-day programme, etc.).
- ☐ **Integrate** active learning techniques, such as group discussions, peer reviews, or hands-on projects, as the core of problem-based activities.
- ☐ **Adjust** difficulty levels by simplifying tasks for introductory students or introducing complex problem-solving elements for advanced students.
- ☐ **Cross-reference** module/week topics and activities with existing course materials to create a seamless learning experience.
- ☐ **Always review and adapt the worksheets and slides before sharing them with students** to ensure they align with the revised structure and learning goals.

### Step 4: Modify Assessment and Evaluation

- ☐ **Adapt** evaluation methods to fit your grading system and assessment strategy.
- ☐ **Use** formative assessments (e.g., quizzes, reflections) for ongoing learning feedback.
- ☐ **Provide** flexible evaluation formats, such as written reports, presentations, or digital submissions, to accommodate diverse learning styles and ensure DEI integration.

### Step 5: Adjust Workload to Suit Students Needs

- ☐ **Break down** complex tasks into smaller, manageable steps for gradual learning and understanding.
- ☐ **Offer** optional or extra-credit assignments for students who wish to explore specific topics in depth.

By following these steps, you can **personalise** the modules to align with your **teaching approach** while maintaining their **core structure and effectiveness**. Adaptability is key to fostering an engaging and impactful learning experience for students.



# INDIVIDUALISING MODULES

## Examples of Adaptations

The EARTH OERs are designed for **flexibility**, and some teachers **have already applied** them in a variety of ways – from in-class workshops to full-semester classes. Here are some **implementation examples** that demonstrate how the materials can be adapted to various teaching formats, learning goals, and time frames.

### Version 1: Interactive Workshop (90-120 minutes)

**Focus:** Applying the six-stage innovation process to a logistics sustainability challenge.

#### Session Structure:

- ☐ Begin with a **20-minute input** using condensed slides from Modules 1 & 2 (innovation basics, SDGs, and sustainability in logistics), along with a brief introduction to a **real-world case study** (e.g., from this Teacher's Guide or the EARTH Good Practice Compendium).
- ☐ Students are divided into **six groups**, each working on a **specific stage** of the innovation process for the real-world challenge presented.
- ☐ Each group receives:
  - A **worksheet** for their stage (from Module 3).
  - The **shared case study** + an **add-on brief** containing information from previous stages.
- ☐ **Digital templates** (e.g., Miro, Mural) are used to visually organise and structure ideas.
- ☐ Groups work in parallel for **60-70 minutes**, applying their **stage to the** case, with the support of the teacher(s) when necessary.
- ☐ Groups prepare and hold a **5-minute presentation** to share their results and experiences with their classmates.
- ☐ A short **class reflection** on the process and learnings follows the presentations.

#### Tips for this Format:

- ☐ Take time to **explain** the case study clearly and address any initial doubts.
- ☐ **Define** any unclear or ambiguous **terms** upfront to ensure clarity.
- ☐ Provide **clear, practical guidance** for each innovation stage – especially the later ones – so students can confidently begin mid-process without needing to develop earlier stages themselves.
- ☐ **Support students** as needed, especially with new methods and the use of digital tools.
- ☐ Be **flexible with timing** – some tasks may take longer than planned for some students, so include some buffer time when designing the workshop.

# INDIVIDUALISING MODULES

## Examples of Adaptations

The EARTH OERs are designed for **flexibility**, and some teachers **have already applied** them in a variety of ways – from in-class workshops to full-semester classes. Here are some **implementation examples** that demonstrate how the materials can be adapted to various teaching formats, learning goals, and time frames.

### Version 2: Project-Based Seminar Format (Multi-Session)

**Focus:** Creative ideation, sustainability in logistics, and real-world inquiry.

#### Session Structure:

- ☐ Begin with the **EARTH Slides Deck and Starter Kit content** to introduce SDGs, sustainability challenges, and innovation concepts.
- ☐ Students select a **real-world case study** (e.g., from this Teacher's Guide or the EARTH Good Practice Compendium) and **explore** it in depth using structured worksheets and mind-mapping or brainstorming tools (e.g., MindMup, Miro).
- ☐ Include **questionnaires**, where students have the opportunity to conduct brief interviews with professionals using a guided template to gather outside perspectives.
- ☐ Use an **innovation challenge**: from ideation (100+ ideas) to clustering, prioritising, and concept refinement with selected tasks from the worksheets or other suggested methodologies (e.g., How-Now-Wow Matrix or other similar methodologies, like Six Thinking Hats for Stage 2).
- ☐ Implement **peer feedback** at key milestones to help evaluate and improve selected ideas.
- ☐ The final output can include a **team presentation** and a brief **written report reflecting** on the process, tools used, and idea development.

#### Tips for this Format:

- ☐ Help students select **meaningful case studies** and guide them in using mind-mapping or brainstorming tools to deepen their analysis.
- ☐ Provide **structured interview templates** to support student outreach and ensure focused, relevant insights from professionals.
- ☐ Use **creative ideation methods** like the How-Now-Wow Matrix or Six Thinking Hats to guide students from idea generation to refinement.
- ☐ Schedule **peer feedback checkpoints** to keep projects on track and encourage collaborative improvement before final presentations.

# INDIVIDUALISING MODULES

## Examples of Adaptations

The EARTH OERs are designed for **flexibility**, and some teachers **have already applied** them in a variety of ways – from in-class workshops to full-semester classes. Here are some **implementation examples** that demonstrate how the materials can be adapted to various teaching formats, learning goals, and time frames.

### Version 3: Learning Unit – Part of Study Course (180 minutes)

**Focus:** Driving Innovation for Sustainable Logistics.

#### Session Structure:

##### Part 1 – Introduction (30 minutes):

- ☐ **Presentation** using **selected** slides from EARTH modules (1, 2, and 3):
  - Briefly explain the concept of the **SDGs** and how they **apply to logistics** (e.g., reducing CO<sub>2</sub> emissions = SDG 13: Climate Action).
  - Discuss the **role of innovation** in promoting sustainability and developing **sustainable logistics practices** (e.g., electric vehicles, AI route optimisation).
  - Present **real-life examples** of companies from the EARTH Good Practice Compendium or OERs' Slide Deck/Teacher's Guide showcasing **sustainable logistics practices**.

##### Part 2 – Group Work (70 minutes):

- ☐ Group division: Students are divided into **groups of 3 to 5**.
- ☐ Task focus: Each group **analyses sustainable solutions implemented in logistics** based on chosen companies (selected from EARTH Good Practice Compendium or OERs' Slide Deck/Teacher's Guide).
  - **Identify and analyse** the solutions applied to achieve **sustainable goals** (e.g., reverse logistics, zero-emission transport, digital parcel tracking, warehouse optimisation).
  - **Assign** 1 to 3 SDGs (e.g., SDG 9, SDG 12, SDG 13) that the **solution** supports.
  - **Determine** whether and which **innovation management** tools/methods were used to manage the implementation of the sustainable solutions.

##### Part 3 – Presentations and Reflection (80 minutes):

- ☐ Structuring the information: Groups prepare an **infographic or visual map** using a digital tool (e.g. Miro, Mural, MindMup, Canva).
- ☐ Short **group presentations** (3–5 minutes each): Each group shares their findings.
- ☐ Reflection: **Group reflection** guided by the following questions:
  - *Which SDGs are supported by logistics companies?*
  - *How do logistics companies contribute to the achievement of the SDGs?*
  - *Which solutions/types of solutions are most adopted and why?*
  - *Were appropriate innovation management tools/methods applied during the solutions' implementation?*

#### Tips for this Format:

- ☐ If suitable, this could be divided into **two 90-minute sections**, with the first focusing on the introduction and group work, and the second on presentations, reflection, and a deeper discussion.
- ☐ Clearly **explain the SDGs and provide concrete examples** of how they relate to logistics solutions (e.g., CO<sub>2</sub> emission reduction → SDG 13: Climate Action).
- ☐ **Define any unclear or ambiguous terms** upfront to ensure clarity.
- ☐ Provide students with **clear guidance on the analysis scope**, ensuring students focus on key sustainable solutions and their impact.
- ☐ Support students as needed when preparing an infographic/visual map on the **technical issues during creation**, and encourage creativity in the design.
- ☐ **Encourage students to think critically** when evaluating the extent to which a given solution contributes to sustainable development.


# 03

## MODULE 1

### WARM-UP EXERCISE







# MODULE 1 OVERVIEW

## About the module:

This module introduces students to the fundamentals of **innovation management**, with a focus on logistics practices. Students will explore the topic independently, deepening their understanding through guided research and instructions.

## INTRODUCE STUDENTS TO INNOVATION MANAGEMENT IN LOGISTICS

**Duration:** 3 weeks – Minimum 3 sessions of 1,5 hours each, along with readings and task completion.

### Learning Outcomes:

- ☐ Understand the six stages of innovation management and their practices in logistics (Week 1).
- ☐ Differentiate between innovative and non-innovative practices in logistics (Week 2).
- ☐ Gather and analyse information on logistics issues based on provided instructions (Week 2).
- ☐ Develop digital pitches using the information collected (Week 3).

**Evaluation:** Student participation in module discussions, peer review feedback in Week 3, and a reflection summary submitted via an online form, including both quantitative and qualitative elements.

Regarding **timing**, be structured and give students sufficient time to engage with activities and understand the concepts. For teaching this module in a 90-minute session, we recommend allocating approximately **60 minutes for input and discussion**, and **30 minutes for the worksheet activities**. Ensure that you adapt this to your students' needs and clearly communicate the allocated time for the activities.

# WEEK 1: UNDERSTANDING INNOVATION MANAGEMENT

## Content

This lecture is designed to introduce students to the **concept of innovation management**, with a focus on its six stages. By breaking down this structured approach, the lecture will highlight why this framework is valuable, why innovation is essential in the logistics industry, and how individuals and organisations can effectively engage in innovation processes. Students will gain a **foundational understanding of how innovation drives progress and solves challenges in logistics**, setting the stage for deeper exploration in the steps to come.

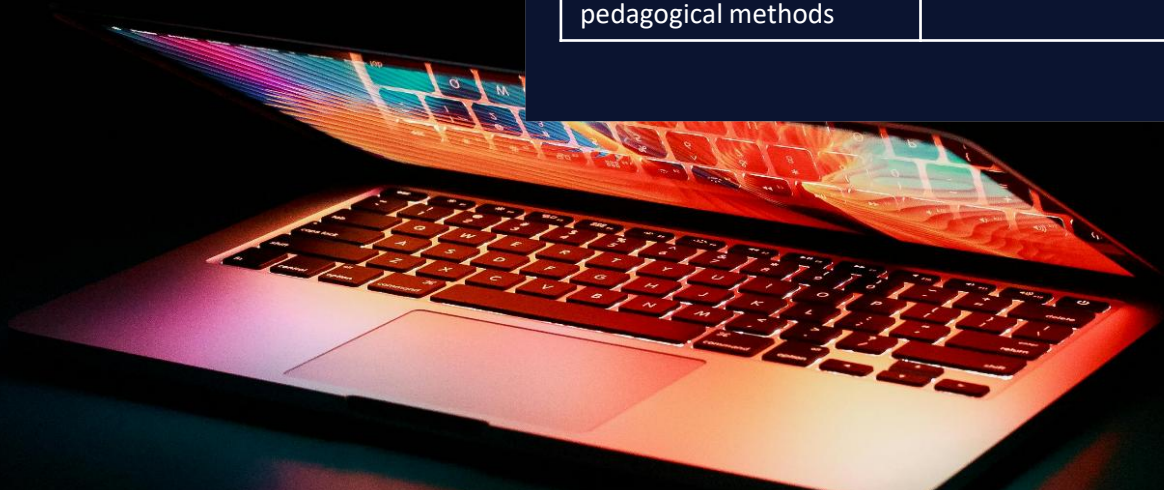
To encourage active engagement with the topic, students should discuss various **types of innovation** supported by real-world examples from the logistics sector drawn from the before-class activity. This exercise will help them **connect theoretical concepts to practical applications**, fostering a deeper understanding of the subject.

## Activities

- ❑ Students **read assigned materials** on innovation management and logistics case studies from the EARTH Good Practice Compendium, as well as external resources, to prepare for class.
- ❑ In class, students engage in a problem-based activity, **discussing a sustainability challenge in logistics**. They explore how innovation management and its stages can address the issue, applying their knowledge to real-world scenarios like reducing emissions or improving waste management.

## MATERIALS

<a href="#">EARTH Starter Kit</a>	p. 17-22
<a href="#">EARTH Good Practice Compendium</a>	e.g., pp. 9-11; 66-69
Slide Deck: Innovation Management Overview and Stages	Download PPT “EARTH – Slide Deck Module 1” pp. 13-25
Worksheet for students: Before-class Activity & Guidance on Problem-based Activity	Download PPT “EARTH – Worksheets Module 1” pp. 2-4
External Sources on different innovation type/management and pedagogical methods	<a href="#">pp. 21-24</a>



# WEEK 1: UNDERSTANDING INNOVATION MANAGEMENT

## How to Introduce the Six Stages of Innovation Management

While the approach and visuals can be adapted to individual teaching preferences, the provided Slide Deck offers a structured suggestion for introducing the six stages of innovation management. Begin by clearly defining **what innovation management is** – emphasising that it is not just about generating new ideas but about systematically managing the process from idea generation to implementation and commercialisation. Highlight **why innovation management is essential**, particularly in the logistics sector, where it drives efficiency, sustainability, and competitiveness in rapidly evolving markets.

To maximise class engagement, assign **pre-class readings**, such as those from the EARTH Starter Kit (pp. 18-20) or the EARTH Good Practice Compendium (e.g., pp. 9-11; 66-69), which provide an overview of innovation in logistics. This will give students a foundational understanding, enabling richer discussions. During the session, use the slides to **guide students through each stage**, illustrating the process with relevant logistics examples to contextualise the theory.

## How to Lead the Discussion

The **discussion** should centre on innovation management as applied specifically to logistics, rather than broader discussions about business transformation. Encourage students to consider how **structured innovation processes** can optimise supply chains, reduce environmental impact, and address practical challenges in logistics operations.

Move beyond the examples provided in the case studies – use them as starting points, but **challenge students to think critically** about how these concepts apply in different contexts. Prepare for the **problem-based activity**, where students will explore how innovation management stages contribute to solving sustainability issues and operational challenges in logistics. Prompt them to consider questions like:

- ❑ *How can each stage of innovation management address specific sustainability challenges?*
- ❑ *What types of innovation are most relevant in logistics, and how can they improve both operational efficiency and sustainability?*

## Where to Find Examples

The **EARTH Good Practice Compendium** offers excellent case studies to illustrate key concepts. Two illustrative examples are:

- ❑ **Amazon** (pp. 9-11): Amazon's case highlights how structured projects like the "Sustainability Corner" improve recycling and reduce waste. It also shows how tools like Asana and AI support efficient logistics and climate goals, including electric vehicle pilots and reduced emissions.
- ❑ **Bumerang** (pp. 69-71): Bumerang is modernising its cold chain logistics with a gradual shift toward data collection and digital tools. Though its innovation approach is traditional, it's taking steps to improve efficiency and reduce fuel use with newer vehicles.

Both cases offer different insights into how logistics companies are responding to sustainability challenges through practical improvements and evolving operational practices.

## Guiding Students through the Worksheet

Start by setting clear expectations: students will **analyse a case study** from the EARTH Good Practice Compendium to explore how logistics companies address sustainability challenges by applying the innovation management concept.

### Before Class:

Ensure students become familiar with the concept of innovation management and read some case studies from the Good Practice Compendium.

### During Class:

Guide students through **Step 1 (Selecting a Case Study)** by ensuring they are familiar with the EARTH Good Practices Compendium. For **Step 2 (Analysing the Challenge)**, prompt them to define the core sustainability issue. For **Step 3 (Connecting Innovation Management)**, ensure students focus on specific actions at each stage. Encourage reflection in **Step 4** by discussing lessons learned, challenges faced, and broader applications to logistics operations. Keep students engaged by linking insights with other real-world cases.



# WEEK 2: EXPLORING INNOVATION IN PRACTICE

## Content

This lecture aims to help students distinguish between **innovative and non-innovative practices** in logistics. Begin by discussing real-world examples, using the provided Slide Deck to illustrate key differences. Encourage students to reflect on how innovation is applied in logistics and what factors drive or hinder its adoption. Then, introduce the **methodology for identifying innovation management practices**, using the additional information on how to guide and support students. Ensure that students clearly understand the key criteria for recognising and assessing successful, innovative solutions in logistics before they begin their own research.

Students will participate in a problem-based activity, exploring **innovation management practices in logistics** through desk research or interviews (if sufficient time between weeks 2 and 3). Guide them in selecting relevant companies or case studies and structuring their research approach using the provided worksheet. As they draft their initial research insights, encourage them to focus on trying to **identify (if any) digital tools that support innovation management in logistics**. Their research will serve as the foundation for a **digital pitch**, which they will develop at home and present in the coming class (adaptable). Throughout the process, provide support by clarifying any questions and ensuring students stay on track with their research objectives.

## Activities

- ❑ Students will begin by **identifying innovation management practices in logistics** at both local and global levels and, if possible, the **digital tools used**. This will be achieved through interviews with industry professionals or desk research on sustainable logistics examples, enabling them to gather firsthand insights.
- ❑ Based on their findings, they will draft **initial research summaries** that will serve as the foundation for their digital pitches, which can be presented as either videos or animated presentations showcasing sustainable innovative practices in logistics.

## MATERIALS

<a href="#">EARTH Starter Kit</a>	pp. 17-22
Slide Deck: Innovative vs. non-innovative practices & introduction to the problem-based activity	Download PPT "EARTH – Slide Deck Module 1" pp. 26-31
Worksheet for students: how to conduct an interview or desk research	Download PPT "EARTH – Worksheets Module 1" pp. 5-11
External Sources on innovative vs. non-innovative practices, digital pitches and pedagogical methods	<a href="#">pp. 21-24</a>





# WEEK 2: EXPLORING INNOVATION IN PRACTICE

## How to Guide and Support Students During Research

### Objective:

Students will explore **innovation management practices in logistics** through **desk research** or, if time allows, **interviews with logistics professionals**. Their findings will help them explore innovation management practices in logistics and identify digital tools that support innovation, forming the basis of their **digital pitch** presentation.

### Step 1: Introducing Innovation in Logistics

Begin by discussing **real-world examples of innovation in logistics** using the provided Slide Deck. Encourage students to reflect on:

- ☐ *What makes a logistics practice innovative?*
- ☐ *What factors drive or hinder innovation in logistics?*
- ☐ *How do digital tools contribute to logistics innovation?*

### Step 2: Research Approach

Students will conduct research through one of these methods:

#### A. Interviews (recommended if weeks 2 and 3 are not consecutive):

- ☐ If there is time between the classes, students may conduct **interviews with logistics professionals** to gain firsthand insights.
- ☐ Make sure interview partners sign the **consent form** on the worksheet.
- ☐ Support students in leading a **structured interview**, focusing on:
  - How the company approaches innovation.
  - Challenges faced and how they were overcome.
  - Digital tools are used to support innovation management.

Encourage students to consider reaching out to interview partners who bring **diverse perspectives**, such as women in logistics, professionals from underrepresented regions, or companies operating in non-traditional markets. This not only enriches the discussion but also helps ensure a **more inclusive understanding** of innovation in logistics.

#### B. Desk Research:

- ☐ Identify case studies of **sustainable and innovative logistics solutions** at the **local and global levels**.
- ☐ Research how companies **manage innovation**, the role of digital tools in this process and the contribution of these practices to the SDGs.
- ☐ Use **credible sources** such as industry reports, academic articles, and company websites.

### Step 3: Structuring Research Findings

Students should organise their research using the **worksheet provided**. Key elements to focus on:

- ☐ Company Name & Industry
- ☐ Type of Innovation (process, product, service, technology, etc.)
- ☐ Drivers of Innovation (market demand, regulation, sustainability goals, etc.)
- ☐ Digital Tools Used (if any)
- ☐ Impact on Logistics Efficiency & Sustainability

### Step 4: Preparing for the Digital Pitch

Students will use their research findings to **create a digital pitch** showcasing an innovative logistics practice. This can be presented as:

- ☐ A **video presentation**
- ☐ An **animated slideshow**

Encourage students to focus on **clarity** and **visual engagement**.

### Teacher's Role:

- ☐ Clarify research expectations, ensure DEI implementation, and **provide guidance on reliable sources**.
- ☐ Ensure students **stay on track** and help them refine their research approach.
- ☐ Provide feedback on **research summaries** before students develop their digital pitch (if applicable).

By following this structured approach, students will gain valuable insights into **innovation management in logistics** and enhance their **research, critical thinking, and presentation skills**.

# WEEK 3: PRESENTING DIGITAL STORIES

## Content

This week is dedicated to showcasing students' research findings through **digital pitches**. Begin by setting clear expectations for the presentations and explaining the **evaluation criteria**, which include clarity, relevance, and innovation focus. Encourage students to consider how they can effectively communicate their findings, whether through video, animation, or another digital format. Facilitate the **showcase session** by ensuring each group has an opportunity to present and receive constructive feedback from peers and teachers.

Following each presentation, lead a brief **peer feedback session** where students evaluate one another's work. Use the worksheet to guide them in providing structured feedback, focusing on strengths and areas for improvement.

To reinforce learning, ask students to write a **reflection summary** connecting their findings to broader concepts of innovation management. Students should complete this through an **online form**, giving them time to reflect after presentations and peer review. Create the questionnaire using a survey tool of your choice, following the **instructions** in Section 04. This exercise will give students time to reflect after presentations and peer review, helping them consolidate their insights and submit their work as part of the **module's evaluation**.

## Activities

- ❑ To present their research, students will deliver **digital pitches** that communicate their key findings on innovation management in logistics, potentially including the role of digital tools in this context. The **format can be adapted** (e.g. video, report, infographic, presentation) to suit students' needs, abilities, and available resources.
- ❑ Following this, they will **reflect on their findings** by writing and delivering a summary that connects their research to broader concepts in innovation management. This allows them to **critically engage** with the topic and understand the practical implications of innovation management in logistics.

## MATERIALS

Slide Deck: Digital Pitches and Peer Feedback	Download PPT "EARTH – Slide Deck Module 1" pp. 32-37
Worksheet for students: how to create digital pitches, how to provide peer feedback to the pitching, and how to write the reflection summary from the module's results	Download PPT "EARTH – Worksheets Module 1" pp. 12-14
External Sources on reflection summaries and pedagogical methods	<a href="#">pp. 21-24</a>
Reflection Summary Questionnaire Instructions	<a href="#">pp. 25-27</a>



# WEEK 3: PRESENTING DIGITAL STORIES

## How To Moderate the Showcase Session

To ensure a structured and engaging showcase session, it is essential to set clear expectations regarding timing and participation. Each group should have **5-7 minutes to present** their digital pitch, followed by a **3-5-minute feedback session** where both peers and teacher(s) can provide constructive insights. Keeping the session organised is key. Encourage students to actively listen and **take notes** during their peers' pitches, as it will be essential in the peer feedback process.

During the presentations, remind students that their focus should be on **clear communication and the relevance of innovation management**, especially in logistics. If a group exceeds their allotted time, kindly prompt it to wrap up its key points to ensure fairness and allow time for discussion. Encourage an **interactive and supportive environment** where students feel comfortable sharing their insights while maintaining respect for their peers' work.

To foster engagement, consider including a **short Q&A segment** at the end of each presentation, allowing the audience to ask questions or request clarifications. This will help deepen understanding and encourage further discussion on innovation management.

## How to Guide the Peer Review Process

Providing **structured and meaningful feedback** is an essential part of the learning process. During each presentation, students should assess their peers based on the following criteria:

- ☐ **Clarity of Message:** *Was the main idea easy to understand?*
- ☐ **Engagement:** *Did the pitch maintain the audience's attention?*
- ☐ **Visual Appeal:** *Were visuals and animations effective in conveying the message?*
- ☐ **Structure & Flow:** *Was the presentation well-organised and easy to follow?*
- ☐ **Overall Impression:** *What worked well, and what could be improved?*

To help students provide **constructive and balanced feedback**, encourage them to highlight at least **one strength** and **one area for improvement** in each pitch. Feedback should be **specific and actionable**, focusing on aspects that can be improved rather than vague or overly critical comments. The structured **peer review worksheet** will ensure consistency in evaluations and make the process more effective.

## How to Set Clear Expectations for a Reflection Summary

After the showcase, students will complete a **reflection summary** that connects their research findings to broader concepts of **innovation management in logistics**. This summary is not just a review of their own pitch but an opportunity to **synthesise insights from the entire module**. Encourage students to consider the following key questions in their reflections:

- ☐ *What did you learn about innovation management in logistics from your research and the presentations? How did the six stages of innovation management apply to your project?*
- ☐ *What distinguishes an innovative logistics practice from a non-innovative one? Provide examples based on your research.*
- ☐ *How did you approach collecting information for your research? What challenges did you face, and how did you overcome them?*
- ☐ *How did your research shape the development of your digital pitch? What feedback did you receive, and how would you improve your pitch if given another opportunity?*
- ☐ *What are the real-world implications of your findings? How do they apply to sustainable logistics?*

The reflection should be **concise, well-structured, and submitted via an online form** as part of the module's evaluation. The teacher needs to create this form to assess individual learning outcomes (instructions can be found on [pages 25-27](#)). These sample **questions can be adapted** to suit different teaching styles and students' needs and can be distributed via a preferred survey tool. To ensure timely feedback and maintain relevance, it is recommended to have a submission deadline within **one week** after completing week 3. This allows them to reflect on the presentations more thoughtfully, drawing deeper connections between their research and the broader concepts of **innovation management and logistics innovation**.



# 04

ADDITIONAL

RESOURCES





# EXTERNAL SOURCES

To provide a comprehensive overview, the following pages offer additional information on specific topics relevant to each week's content as well as general pedagogical resources. Teachers may use this material to supplement their lessons as needed.



# EXTERNAL RESOURCES

To support learning and spark deeper reflection, students (and teachers) are encouraged to check out the following **external resources**:

## Week 1: Understanding Innovation Management

### Innovation Types

- ❑ Digital Innovation Processes for Services: [Digital Innovation Project Whitepaper](#)
- ❑ Radical Innovation: [Radical innovations: Between established knowledge and future research opportunities](#) OR [What 40 Years of Research Reveals About the Difference Between Disruptive and Radical Innovation](#)
- ❑ Disruptive Innovation: [What Is Disruptive Innovation?](#) OR [Moving beyond disruptive innovation: A review of disruption in sustainability transitions](#)
- ❑ Incremental Innovation: [Determinants of radical and incremental innovation: the influence of transformational leadership, knowledge sharing and knowledge-centred culture](#)
- ❑ [The Four Types of Innovation and the Problems They Solve](#)

### Innovation management and the six stages

- ❑ [Innovation Management Challenges: From Fads To Fundamentals](#)

## Week 2: Exploring Innovation in Practice

### Innovative vs. Non-innovative practices in logistics

- ❑ [The Future of Logistics: Exploring the Latest Trends and Innovations](#)
- ❑ [A vision on the future of European logistics](#)

### Digital Pitches

- ❑ [The Perfect Elevator Pitch - Best Examples and Templates](#)
- ❑ [Pitch Videos](#)

## Week 3: Presenting Digital Stories

### Writing a Reflection Summary

- ❑ [Reflective Writing](#)
- ❑ [Learning Journals, A Handbook for Reflective Practice and Professional Development](#) By [Jennifer A. Moon](#)

# EXTERNAL RESOURCES

For **teachers**: The following provides general external resources to support **pedagogical aspects** of the course, including **leading feedback sessions and facilitating discussions**. These materials are relevant throughout the module and can enhance teaching effectiveness.

## 1. Guidelines to Moderate Discussion (Flow & Reflection)

- ❑ [Classroom Discussions: Strategies & More](#)
- ❑ [Moderate A Panel Discussion](#)
- ❑ [Behind The Capsule - How to be a good moderator for a panel - useful tips](#)
- ❑ ["Facilitating Effective Discussions"](#) by University of Waterloo Centre for Teaching Excellence
- ❑ ["Leading Discussions"](#) by Harvard University

## 2. Guiding Students Through Research (Interview & Desk Research)

- ❑ [How to do a research interview](#)
- ❑ [UX Research - Get Started With Qualitative User Research](#)
- ❑ [Semi-structured interviews guidance for novice researchers](#)
- ❑ ["Pedagogic Approaches to Developing Students as Researchers"](#) – Advance HE
- ❑ ["Introduction to Research Methods"](#) – University of London via Coursera

## 3. Guidelines on Reflection Summary

- ❑ [How To Write a First Class Reflective Essay in 5 Simple Steps](#)
- ❑ [Steps to Write a Reflective Essay with Examples](#)
- ❑ ["Structure of Academic Reflections"](#) – Reflection Toolkit, University of Edinburgh
- ❑ ["Introducing Reflection as an Assignment"](#) – Reflection Toolkit, University of Edinburgh
- ❑ ["Learning to Teach: Becoming a Reflective Practitioner"](#) – OpenLearn by The Open University

## 4. Guidelines on Peer Reviews

- ❑ [How to Peer-Review Like a Pro](#)
- ❑ [No One Writes Alone: Peer Review in the Classroom - A Guide For Students](#)
- ❑ ["A Guidebook for Peer Evaluation"](#) – Valdosta State University
- ❑ ["Peer Review in Assessment and Improvement: An Overview of Five Principles to Promote Effective Practice"](#) – Loyola University Chicago
- ❑ ["Accreditation Peer Review Handbook"](#) – NAEYC
- ❑ ["Policies for Evaluating Faculty: Recommendations for Incorporating Peer Review"](#) – University of Texas System

# EXTERNAL RESOURCES

## 5. Guidelines on Hold/Moderate Presentations/Showcasing

- ☐ [HOW TO START A PITCH OR PRESENTATION](#)
- ☐ [Become A Better Workshop FACILITATOR In 8 Minutes \(Facilitation Technique\)](#)
- ☐ [Fear of Presenting? How to Give a Great Presentation at Work](#)
- ☐ [Good Presentation VS Bad Presentation](#)
- ☐ ["Public Speaking: How to Moderate and Present"](#) – Coursera, University of Washington

## 7. Guidelines on How to Provide Constructive Feedback

- ☐ [How to Give & Get Constructive Feedback](#)
- ☐ [Giving Constructive Feedback in the Workplace](#)
- ☐ [8 EASY Tips on How to Give Constructive Feedback](#)
- ☐ [The 10 Guidelines for Great Constructive Feedback](#)
- ☐ [Guidelines to students on providing constructive feedback](#)

## 8. Guidelines on Complete Online Final Feedback

- ☐ [How to Get Customer Feedback Online \(6 Best Ways\)](#)
- ☐ [Online Pedagogy: How & Why to Give Feedback](#)
- ☐ [3 necessary elements to providing effective feedback](#)
- ☐ [The Effectiveness of Emotional Motivational Feedback Messages](#)



# EVALUATION GUIDELINES

The following contains a guideline for designing the feedback form in week 3. Questions can be adapted to serve individual teaching styles. After creating the questionnaire on a preferred platform, the teacher can distribute the link to students.



# WEEK 3: REFLECTION QUESTIONNAIRE

The following reflection questionnaire is designed for **Module 1**, Week 3. It provides a flexible framework to assess student learning, participation, and engagement throughout the module.

Teachers can **use or adapt these questions** to suit their own teaching style and student needs, and implement them in survey tools such as [Google Forms](#), [Qualtrics](#), [Microsoft Forms](#), or any other preferred platform.

The responses will offer valuable **insights into students' understanding** of the six stages of innovation management, innovation management in logistics, and innovative and non-innovative logistics practices. Additionally, the questionnaire encourages critical reflection on how research and digital pitches are valuable tools to apply in real-world settings.

## Using the Questionnaire:

- ☐ Teachers may **distribute** this questionnaire digitally or, alternatively, in print.
- ☐ The responses will help **evaluate** students' understanding of innovation in logistics and their experience with creating digital pitches.
- ☐ The **peer review and reflection sections** are particularly useful for assessing how well students engage with feedback and critical thinking.
- ☐ The questions that follow are **suggestions**. Teachers may select those who apply better to the activities performed throughout the module and add questions for any aspect that may be missing.

## Reflection Summary Questionnaire

### Section 1: General Information (optional)

1. Student Name:

*[Open text field]*

2. Group Number (if applicable):

*[Open text field]*

### Section 2: Understanding Innovation Management

3. What are the six stages of innovation management? List as many as you remember.

*[Open text field]*

4. How would you define innovation in logistics?

*[Open text field]*

5. Provide an example of an innovative practice in logistics you researched and explain what makes it innovative.

*[Open text field]*

6. Which stages of innovation management could have been most relevant in the logistics innovation you researched?

*[Open text field]*

7. What is an example of a logistics practice that is NOT innovative? Why?

*[Open text field]*

### Section 3a: Research Experience – Desk Research

8. What was the main focus of your research? Briefly describe the topic you explored.

*[Open text field]*

9. What sources did you use for your research? Select all that apply.

*[Multiple choice: Academic journals, Industry reports, Company websites, News articles, Other (please specify)]*

10. What challenges did you encounter during your research process? Select all that apply.

*[Multiple choice: Difficulty finding sources, Conflicting information, Limited access to data, Other (please specify)]*

11. How did you decide which sources were reliable for your research?

*[Open text field]*

# WEEK 3: REFLECTION QUESTIONNAIRE

## Section 3b: Research Experience – Interview

8. What was the primary focus of your interview? Briefly describe the expert's role and the topic you explored.

*[Open text field]*

9. Who did you interview, and what is their professional background?

*[Open text field]*

10. What challenges did you encounter during the interview process? Select all that apply.

*[Multiple choice: Difficulty scheduling the interview, Limited depth of responses, Interviewee's confidentiality concerns, Other (please specify)]*

11. How did you ensure that the information provided by the expert was credible and relevant to your research?

*[Open text field]*

## Section 4: Digital Pitch

12. How effective did you find digital tools (e.g., Canva, Prezi, Powtoon) in presenting your findings?

*[Scale: 1 (Not Effective) – 5 (Very Effective)]*

13. What key message did you aim to convey in your pitch, and how did you ensure clarity and engagement?

*[Open text field]*

14. What improvements would you suggest for future digital pitch assignments?

*[Open text field]*

## Section 5: Peer Review and Learning Experience

15. How helpful was the peer feedback in improving your understanding of innovation in logistics?

*[Scale: 1 (Not Useful) – 5 (Very Useful)]*

16. What was the most valuable feedback you received from your peers?

*[Open text field]*

17. Did case studies represent diverse perspectives fairly?

*[Scale: 1 (Strongly Disagree) – 5 (Strongly Agree)]*

18. What barriers did you face in participating fully?

*[Open text field]*

## Section 6: Reflection and Learning Outcomes

19. What are your key takeaways from innovation management and logistics innovations?

*[Open text field]*

20. How can you apply what you learned to real-world logistics challenges?

*[Open text field]*

21. On a scale of 1-5, how confident do you feel in identifying and evaluating innovation in logistics after this module?

*[Scale: 1 (Not Confident) – 5 (Very Confident)]*

22. What would you have liked to see in this module?

*[Open text field]*

## Interpreting the Results:

- ☐ **Understanding & Application:** Assess how well students recall the six stages of innovation management and apply innovation concepts to logistics case studies.
- ☐ **Research Process:** Identify challenges in desk research or interviews, ensuring students develop strong research and critical thinking skills.
- ☐ **Digital Pitch & Communication:** Evaluate the effectiveness of digital tools in conveying findings and improving engagement.
- ☐ **Reflection & Learning Outcomes:** Measure students' confidence in recognising and applying innovation in logistics and identify areas for module improvement.



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