

Assessment: Sustainable Logistics Redesign Project

Assessment Type: Group problem-based project with individual reflection.

Group size: 3–4 students. Groups of 5 may be approved where class size requires it.

Assessment Overview:

In this assessment, you will work as part of a small consultancy team responding to a real-world logistics challenge in Vietnam. Your task is to analyze an existing logistics system and propose a realistic redesign that improves sustainability, resilience, and operational performance. Rather than treating logistics as only a question of speed, cost, or efficiency, this assessment asks you to evaluate how logistics systems affect carbon emissions, congestion, waste, circularity, service access, and wider sustainable development goals.

This assessment is designed to bring together the full logistics stream. Across the modules, you have explored logistics systems and SDG trade-offs, sustainable freight and transport policy, resilience under disruption, and circular logistics and reverse flows. Your final task is to apply these ideas to a practical case and produce a solution that is both ambitious and realistic.

Skills You Are Expected to Demonstrate

This assessment brings together the main skills developed across the logistics modules. Your project should demonstrate:

- **Systems mapping:** showing how materials, information, transport, storage, and handoffs connect
- **SDG synergies and trade-offs:** identifying which goals are supported and which are placed under pressure
- **freight and transport reasoning:** explaining how movement choices affect service, carbon, congestion, cost, and access
- **resilience thinking:** identifying vulnerabilities and avoiding solutions that simply shift risk elsewhere
- **circular logistics thinking:** considering reverse flows, waste, recovery, returns, or resource loss where relevant
- **stakeholder-burden analysis:** explaining who benefits, who pays, and who carries new risks
- **feasibility judgement:** proposing improvements that are ambitious but realistic in context

The Challenge

You are part of a junior consulting team working with a Vietnam-based logistics or supply chain partner. Your role is to investigate a current logistics problem and recommend a redesign that better aligns with sustainability and SDG priorities.

Your chosen problem might relate to:

- urban freight and last-mile delivery
- cold-chain loss and distribution reliability
- export supply chain vulnerability
- transport decarbonization
- warehousing and network redesign
- returns, packaging recovery, or reverse logistics
- circular logistics and material recovery

The key question guiding your work is:

How might we redesign a logistics system in Vietnam so that it performs better against sustainability, resilience, and SDG goals without becoming operationally unrealistic?

Why this assessment matters

This assessment is meant to feel authentic. In real logistics work, problems are rarely solved by focusing on cost or speed alone. Decisions about sourcing, delivery, inventory, transport, or recovery create wider consequences for cities, infrastructure, emissions, waste, and communities. This project asks you to think like a sustainable logistics practitioner: someone who can identify trade-offs, analyze systems, and recommend improvements that are feasible in context.

Because this material is new, you are **not** expected to produce a perfect optimization model or an industry-level technical report. Instead, you are expected to show strong systems thinking, clear reasoning, realistic judgment, and a sound grasp of sustainability in logistics.

What you need to do

Working in a small group, you will choose or be assigned one logistics challenge in one Vietnamese context. You will then produce a redesign proposal that:

- explains the current logistics problem clearly
- shows how the system currently works
- identifies the main sustainability and resilience pressures
- connects the problem to relevant SDGs
- proposes a realistic redesign
- acknowledges the trade-offs that remain

Your redesign should include at least:

- one operational improvement
- one sustainability improvement

- one resilience improvement
- one coordination, partnership, or policy improvement

Where relevant, you should also consider circularity, returns, recovery, or reverse logistics.

Suggested partner contexts

Your group may work with either:

1. **A real partner**, such as a logistics provider, e-commerce business, retailer, manufacturer, cold-chain operator, warehousing company, or circular economy organisation; or
2. **A publicly sourced case**, using available information such as company websites, news articles, sustainability reports, government documents, industry reports, public data, or lecturer-provided case materials.

You do **not** need to secure an industry contact to complete this assessment. A realistic public-facing case is acceptable as long as you can explain the logistics problem clearly and support your analysis with evidence.

Final submission components

1. Problem Framing Brief

Recommended length: 800–1,000 words

This section should explain:

- the company, sector, or partner context
- the logistics problem being addressed
- why it matters operationally
- why it matters from a sustainability perspective
- which **2–4 SDGs** are most relevant
- who is most affected by the current system
- what the main trade-offs appear to be

2. Logistics System Map

This should be a visual representation of the current logistics system.

It should show:

- key actors
- major flow stages

- transport, storage, or handoff points
- one or two major pressure points
- one sustainability burden
- one resilience vulnerability
- one circularity or waste issue, where relevant

This can be presented as a diagram, annotated process map, or network sketch.

3. Redesign Proposal

Recommended length: 1,200–1,500 words

This section should explain:

- what you want to change
- how your redesign would work
- why it is realistic
- how it improves sustainability
- how it improves resilience
- how it affects logistics performance
- what barriers or limitations might prevent implementation

Your redesign does not need to solve every problem. It does need to show clear priorities and thoughtful decision-making.

4. SDG and Trade-off Analysis

This should be presented as a short table, matrix, or structured summary.

It should identify:

- which SDGs your proposal supports
- where trade-offs remain
- which stakeholder benefits most
- which stakeholder may carry new burdens
- what you would monitor to evaluate success

5. Partner Pitch

Recommended length: 7–10 minutes

Your group will present your redesign as if pitching it to the client or partner. The pitch should explain:

- the problem
- the current logistics system
- the redesign
- why the proposal is realistic
- the biggest trade-off you had to accept
- why the redesign is more sustainable, not just more efficient

6. Individual Reflection

Recommended length: 600–800 words

Each student should explain:

- what they contributed to the group project
- how their understanding of logistics changed
- one trade-off they found difficult
- what they learned about sustainability and SDGs in logistics
- what they would improve with more time, data, or industry access