

CHAPTER 3: Trends for more effective LMD logistics

UNIT 4: Improving logistics' effectiveness & impact

Capsule 3.4.6

Influencing circular economy flows



To be done prior to this capsule:

2.4.1, 2.4.2, 2.4.3, 2.5.1, 2.5.2, 2.5.3, 2.5.4,
3.4.1.

Capsule linked with:

Link with the topics of capsules 3.4.1, 2.5.3,
2.5.4.

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Objectives of the Capsule

This capsule relies on three documents to offer learners an overview about influencing circular economy flows:

- Logistics as key enabler for a circular economy
- Accelerating the scale-up across global supply chains
- Urban Mobility System

Category	Document, source	EQF		
		4	5	6
			X	X

Exercises included	YES
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Effort for the capsule	Content 10 Min.	Exercises 10 Min.	Extra material 40 Min.
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Contents

1. Logistics as key enabler for a circular economy
2. Accelerating the scale-up across global supply chains
3. Urban Mobility System
4. Examples and case studies of circular economy success stories

Instructions for the document, source revision

Last mile distribution is becoming more and more an **enabler and a strategic cornerstone** for organisations not only in the circular economy but also in relation to cost management, environment impact or social services to the society.

By reviewing the documental sources of this capsule, the learner will be able to:

- Understand the role of the logistics sector in the circular economy
- See logistics as an enabler of circular economy
- Identify the different flows that close the loop in the circular economy system
- Understand the circular organisation of chains for recovering products

1. Logistics as key enabler for a circular economy

In the Circular Economy, **logistics plays a key role**. Logistics is necessary to coordinate material flows. Use and waste management logistics in particular has to contribute to a sustainable economy. The following report by the Fraunhofer Society identifies logistics trends and provides examples for the Circular Economy.



Source (pdf in EN): FRAUNHOFER (2018). *Moving in circles: logistics as key enabler for a circular economy*.
https://www.iml.fraunhofer.de/content/dam/iml/de/documents/101/09_Whitepaper_CE_EN_WEB.pdf

2. Accelerating the scale-up across global supply chains

This report by the Ellen MacArthur Foundation presents some **solutions for the challenges** that arise when scaling a circular model. Options include setting up global reverse networks or reorganizing the materials flows.

The full potential value of the circular economy goes well beyond simply recycling used materials. This value is embedded in the **reuse, maintenance, refurbishment, and remanufacturing of components and products, services.**



Source (pdf in EN): Ellen MacArthur Foundation. (2019). *Towards the Circular Economy (Volume 3). Accelerating the scale-up across global supply chains*
<https://emf.thirdlight.com/link/t4gb0fs4knot-n8nz6f/@/preview/1?o>

**TOWARDS THE
CIRCULAR ECONOMY**

Accelerating the scale-up
across global supply chains

3. Urban Mobility System

This document by the Ellen MacArthur Foundation explains how in a **circular economy**, where goods and materials will increasingly circulate locally, **effective urban freight and logistics are key**.



Source (pdf in EN): Ellen MacArthur Foundation.
(2019). *Urban Mobility System*
<https://emf.thirdlight.com/link/qepnjpdledzh-ooj65j/@/preview/1?o>

MOBILITY



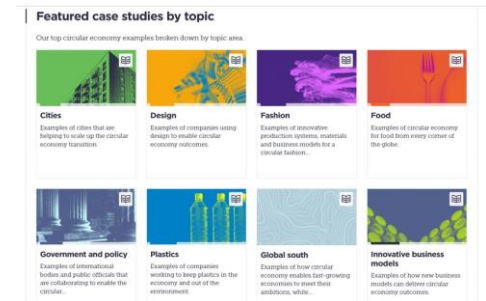
4. Examples and case studies of circular economy success stories

This collection of case studies by the Ellen MacArthur Foundation presents **circular economy success stories** from around the world, showing how businesses, governments and cities are transforming our economy into one that works for people and the environment.

These examples will help you **get inspired by new business models, policies and strategies** that demonstrate how we can fundamentally change the way we design, make and use the things we need.



Source (website in EN): Ellen MacArthur Foundation. (2022). *Circular economy examples and case studies*
<https://ellenmacarthurfoundation.org/topic/s/circular-economy-introduction/examples>



Exercise

The potential of the Circular Economy can only be realized when adequate logistics solutions are used.

- Name some trends and developments that the logistics sector is living today that help in the transformation towards a Circular Economy

Setting up efficient reverse logistics networks facilitates materials/product flows through the system.

- Think about the stakeholders/ players involved in such a network

Urban planning pertaining to transport, infrastructure and buildings, is very often within the remit of city governments.

- Think about what these city government could propose to ensure effective logistics and resource flows.