C.H.A.N.G.E.R.S. - 2.0

SUSTAINABLE MOBILITY

https://changers2.eu/

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Clarifying important concepts and terms

The list below contains the main concepts to be used in this methodology:

- **Energy** – is an abstract physical quantity that relates to the capacity to produce action and/or movement, which can be expressed in many forms: kinetic, chemical, potential, etc.
- **Energy poverty** – is the inability of households to maintain adequate levels of energy services at an affordable cost.
- **Climate Change** – refers to global climate variation or regional climate changes that occur over decades and affect the balance of ecosystems.
- **Sustainable Development** – ”meeting the needs of the present without compromising the ability of future generations to meet their own needs”. (UN, 1987)
- **Intergenerational Commitment** - is a moral and ethical obligation related to sustainability which includes the defence of a healthy environment as a duty and inalienable right of current and future generations.

Module 5 – Sustainable mobility
Lesson Plan

Aim:- To identify own potential for sustainability and to actively contribute to improving prospects for the community and the planet.
Objectives:- To relate sustainable mobility with the preservation of natural resources and quality of life. Intervene with the competent authorities, namely the municipalities, with proposals conducive to the promotion of sustainable mobility.

Proposed Activities from WP3-A1

1. Facilitate a discussion to help participants identify behaviours that promote sustainable mobility (including talking about e-mobility) and investigate the effects on health and the environment of the increasing use of individual transport. Let participants research the weight of the transport sector in the total energy consumption of their country and in the emission of greenhouse gases.

2. Let seniors search at local level for concrete examples of adoption of behaviours and practices promoting sustainable mobility. Help participants understand that sustainable mobility requires a combination of behavioural changes and environmentally sound policies, namely in public and private transport. Inform them how to participate in a) in awareness-raising campaigns for the promotion of sustainable mobility, and b) in the development of a plan, at local level, with measures leading to sustainable mobility and make it available in a participatory way to the competent authorities (e.g., a parish council or a town council/municipal council).

Module 5 – Sustainable mobility
Connection to WP3

WP3 structure	WP3 unit topics
1. Living sustainably *Aim: To reflect on personal values, identify and explain how values vary among people and over time, while critically evaluating how they align with sustainability values*	1A - Intergenerational Responsibility 1B – Waste 1C - Green Economy
2. Problems of the world today *Aim: To manage transitions and challenges in complex sustainability situations and make decisions related to the future in the face of uncertainty, ambiguity and risk.*	2A - Adaptation to climate change 2B - Mitigation to climate change
3. Energy: Resources, Poverty & Sustainability ***Aim: To identify own potential for sustainability and to actively contribute to improving prospects for the community and the planet.***	3A - Energy resources 3B - Energy poverty 3C - Energy sustainability **3D - Sustainable mobility**

WP4 TRAINING MODULES
1. Green ABC
2. House performance
3. House renovations
4. Waste
5. Sustainable mobility
6. Sustainable food
7. Biodiversity and zero pollution

Table of content

1) Understanding sustainable mobility
2) Different types of sustainable transportation suitable for rural areas
3) Technology and smart solutions

1) Understanding sustainable mobility

Transport sector is important

Connects people, places, cultures

Today transport sector accounts for **25% of the EU's total greenhouse gas emissions** and it continues to rise as demand grows.

What is sustainable mobility?

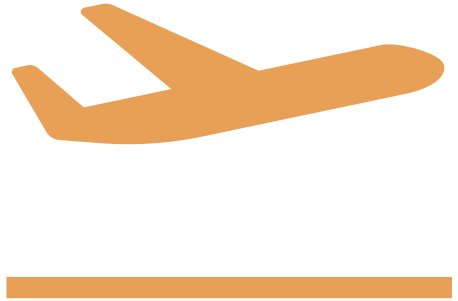
Putting users first

+

More affordable, accessible, healthier and cleaner modes of transport

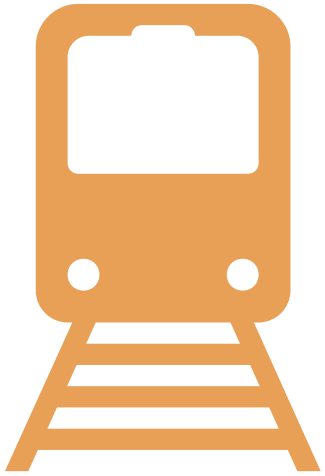
Sustainable mobility in practice

Zero-emission vehicles, renewable & low-carbon fuels



Zero-emission airports and ports

Developing extra cycling infrastructure



Preferring rail freight traffic

Choose local products

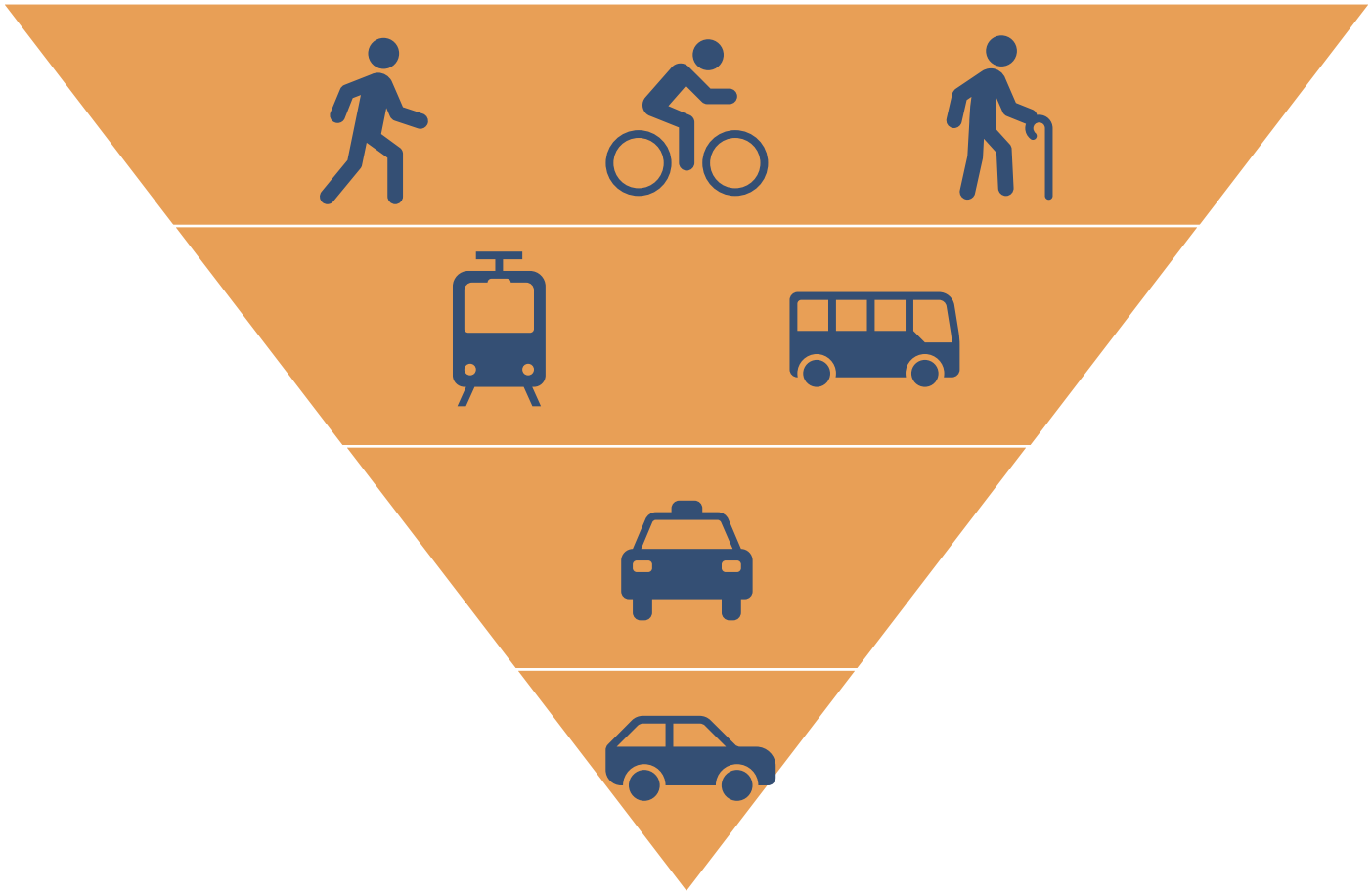
Have you considered the pollution and emissions that the different products cause when transporting them to the shops or delivering them to your house?

WHAT CAN WE DO ABOUT IT?

Buy more local products to reduce the distances.

Choose delivery services that use electric or alternative fuel vehicles.

Prioritising sustainable transport modes in the rural areas



Human-powered mobility

Public transport

Taxi and shared mobility

Private car

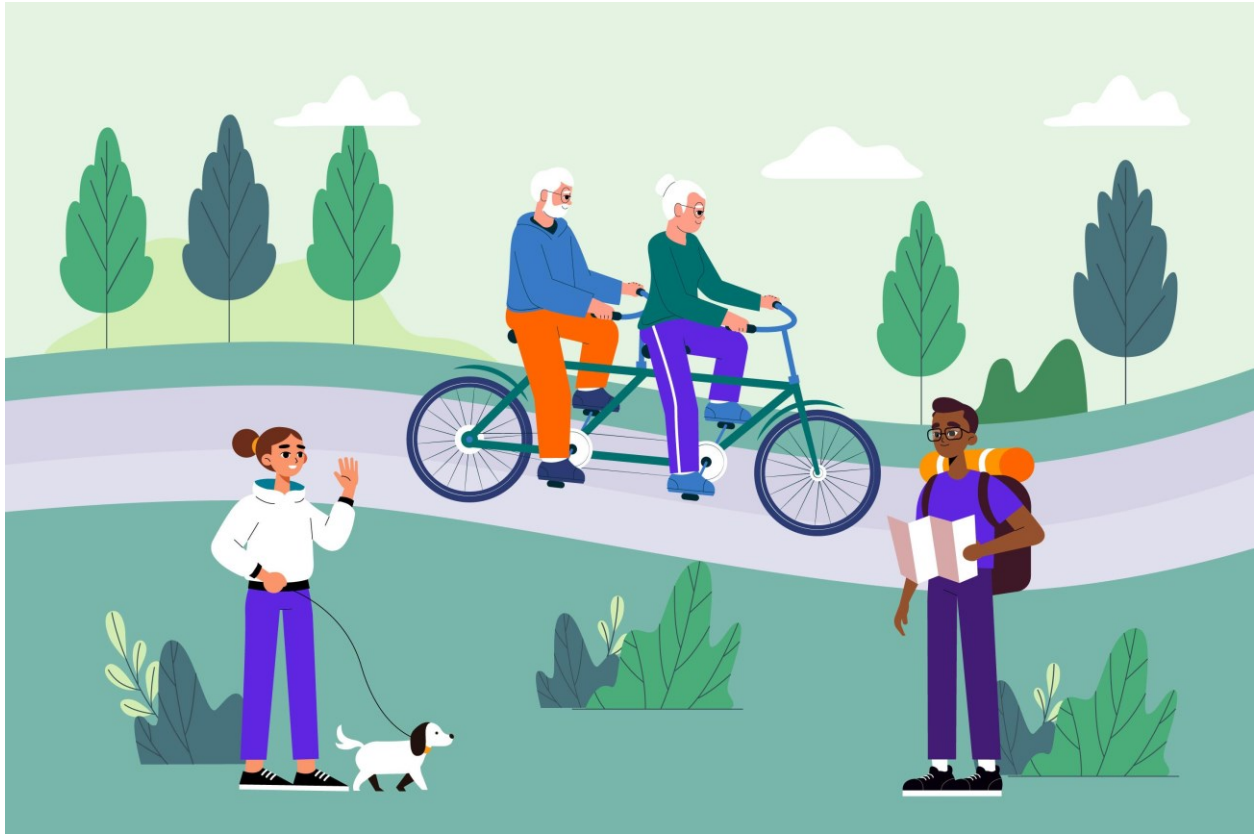
Class Exercise

Understanding sustainable mobility

- What type of transport do you usually use?
- Can you give local examples of sustainable mobility modes?
- What are the costs of private cars and using sustainable mobility?
- Can you name further benefits of buying local products besides reducing pollution and emissions of their transport?

2) Different types of sustainable transportation suitable for rural areas

2.1 Human-powered mobility



Moving around
on foot,
by bicycle or
scooter.

2.1 Human-powered mobility

- **clean**
- **cheap**
- **positive impact on the environment**
- **improves health and well-being**

- It can be **dangerous** in case of different urban fabric or quality of roads.
- **Weather** conditions highly affect these modes.
- In rural areas, **distances** can be too long for these modes.

Class Exercise

Human-powered mobility

- Where do you go on foot and by bike?
- Are there any parts of the city where the conditions are not adequate for walking or biking?
- Have you heard about electric bikes?

2.2 Public transport

Mobility modes with pre-established routes, timetables, frequencies and fares in a regional or inter-regional territory.

2.2 Public transport

- **reduces CO_2 emissions**
- **reduces traffic**
- **affordable**
- **accessible**

- Takes **more time** than a car, and we might need to travel more from the stop to our final destination.
- **No privacy**, lower level of comfort.
- **Cleaniless** and safety can be an issue.

2.2 Public transport

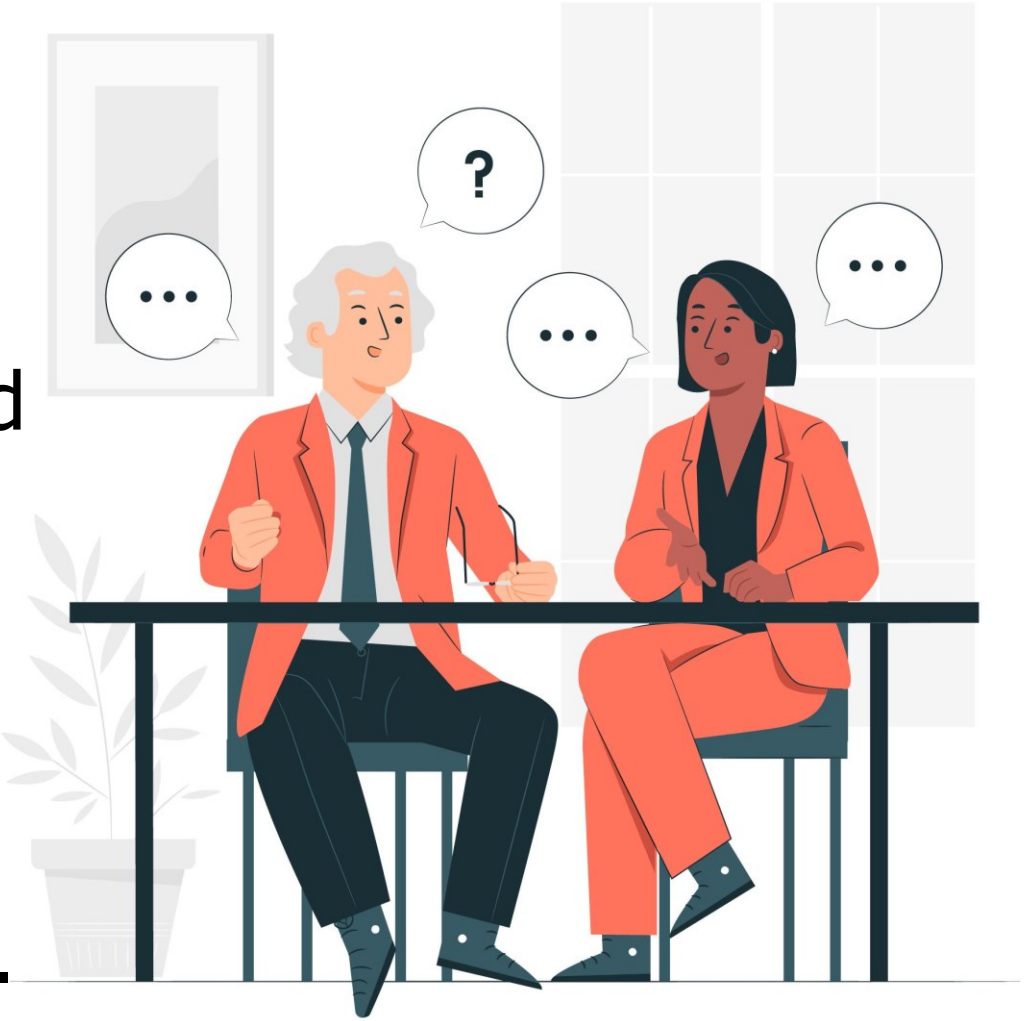
Community shuttle services

A free or low-cost bus service that transports people on fixed routes and schedules, usually in a shorter distance or for a specific destination.

2.2 Public transport - Get involved in local initiatives

For better public transportation services, share your remarks and preferences with the municipality and the service providers on:

- the schedule of buses and trains,
- the location of stops,
- the safety of stops and infrastructure.



Class Exercise

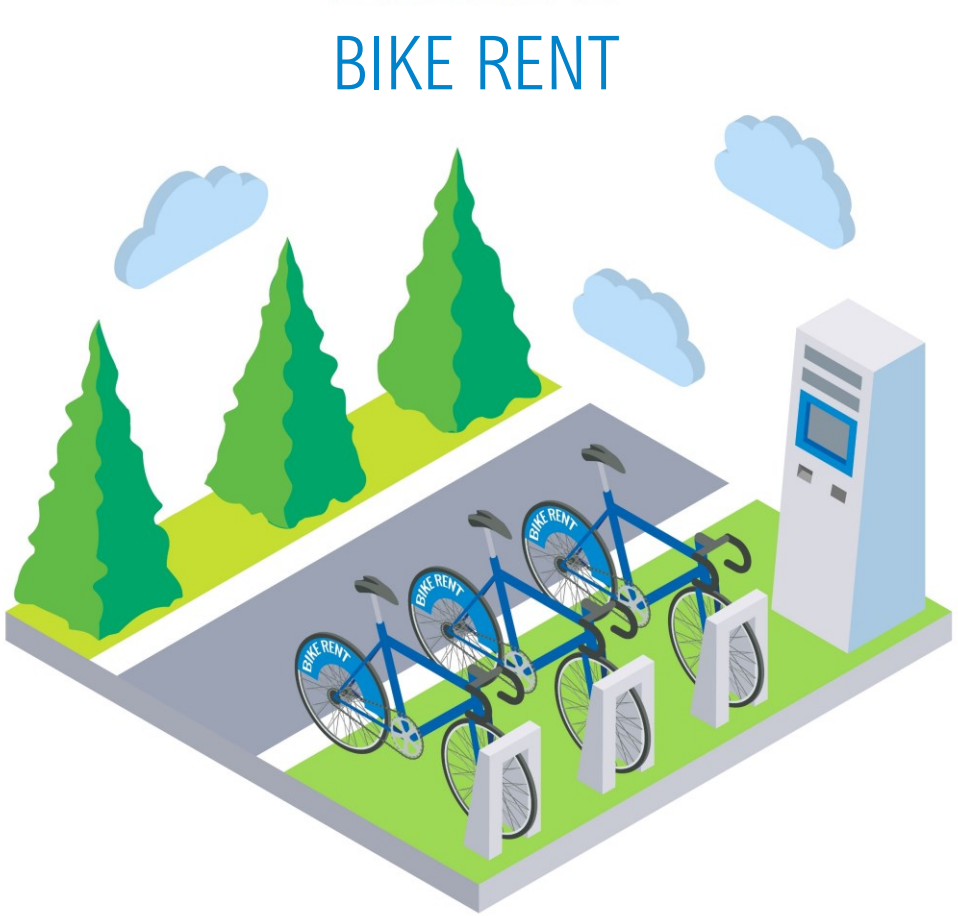
Public transport

- What are the advantages and difficulties of using local public transport services in your area?
- Have you given your opinion about the public transport service? Do you know where (to whom) to address your feedback?
- Is there any community shuttle bus service in the region you know about?

2.3 Taxi and shared mobility

Taxis or other private transfer services can help when you don’t own a car but you need to go somewhere in a specific time.

2.3 Taxi and shared mobility



Forms of SHARED MOBILITY:

- public bike-sharing services
- carsharing
- carpooling

Class Exercise

Taxi and shared mobility

- In which cases do you think it is worth using a taxi?
- Do you know any taxi services in your region?
- What do you think about the concepts of shared mobility and carpooling?

2.4 Alternative mobility options

Electric and alternative mobility can contribute to a shift to low-emission mobility.

2.4 Alternative mobility options - ELECTRIC

- **saving resources**
- **improves local air quality**
- **reduces noise pollution**
- **efficient energy use**

- Limited **range**, dependence on **EV charger** availability
- Need for improvement of **electric grid**
- **Environmental effects** at production and disposal

2.4 Alternative mobility options

Although electric vehicles are the most common type of alternative-fueled passenger cars, **other types of fuels** can also become more relevant in the future.

- Hydrogen
- Compressed natural gas (CNG)
- Liquified natural gas (LNG)
- Biofuels

Class Exercise

Alternative mobility options

- Which types of alternative mobility have you heard before and in what context?
- Do you or your family own an electric vehicle? Do you have any experience with it?
- What do you think about the necessity of the new forms of fuels?

3) Technology and smart solutions

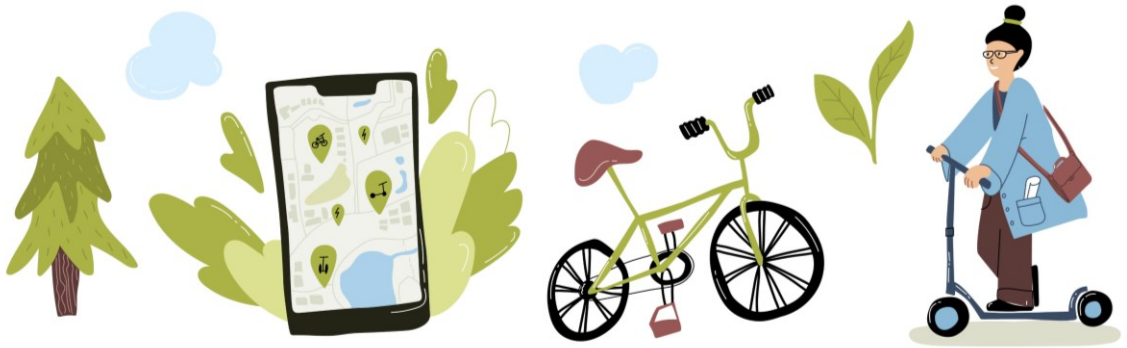
Digital transformation and sustainability

Data gained from digital tools → More targeted policies → More sustainable and fair mobility system

BUT due to digital solutions, transport demand can be increased which can eventually have a negative impact on the environment and climate.

What are the purposes of the transportation-related apps?

- Planning routes
- Buying tickets
- Getting up-to-date information about public transport
- Getting information about the availability of electric vehicle chargers
- Accessing shared mobility services



Class Exercise

Technology and smart solutions

- Do you own a smartphone? Do you or your family use transport applications?

- Do you think that digital transformation supports sustainability, humans and society or it only poses new challenges and risks?

END OF MODULE

Thank you for your attention and please complete the exit questionnaire.

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