



SUSTAINABLE TRANSPORTATION AND E-MOBILITY



Co-funded by
the European Union



ABOUT THE LOCAL GoGREEN PROJECT



Clean Energy Transition process in 6 small European municipalities

8 partners from 7 European countries leading the capacity building, participatory decision-making and collaborative actions for the design and implementation of integrated climate and energy plans.

Aims:

- Provide **technical assistance** to local pilots in a comparable transnational framework
- Improve **synergies among public & private stakeholders** in implementing ICEPs
- **Facilitate the deployment of targeted investments** provided by the European Funds for improved ICEP planning
- Replicate & upscale the integrated measures for CET through **transnational municipal cooperation**
- Enable green & circular climate & inclusive decarbonisation **plans that support sustainable development**

300 stakeholders with increased skills in the area of Clean Energy Transition

90 local and regional authorities committed to accelerate the implementation of ICEPs

5GWh/year of renewable energy generation

1,600tCO₂/year CO₂ reduction in the 3-year period & 4,500 tCO₂/year in the period 5 years after the project

2.94GWh/year of energy savings in the 3-year period & 8.4 GWh/year in the period 5 years after the project



Co-funded by
the European Union



AGENDA

Part 2: Sustainable transportation and E-mobility

- Importance of sustainable transportation and e-mobility
 - Challenges in urban areas with high rise apartment blocks
 - Need for development and expansion of charging infrastructure
- Planning charging infrastructure
 - Ensuring accessibility and affordability of charging stations
 - Streamlining permitting and construction processes
- Building capacity for municipalities to support e-mobility
- Relevance of planning for accessibility of sustainable transport
- Community engagement and awareness
 - Strategies for promoting e-mobility and sustainable transportation, and engaging with stakeholders and the public

LEARNING OBJECTIVES OF THE TRAINING



After this training you will be able to:

- Understand the importance of sustainable transportation and e-mobility
- Have an overview of how to plan for charging infrastructure
- Understand the importance of planning for accessibility of sustainable transport
- Understand the strategies for promoting e-mobility and sustainable transportation, and engaging with stakeholders and the public



IMPORTANCE OF SUSTAINABLE TRANSPORTATION AND E-MOBILITY



Co-funded by
the European Union



WHY DO WE NEED SUSTAINABLE TRANSPORT?

1. Environmental Benefits

Reduced GHG Emissions: less CO2 emissions locally and globally

Decreased Air Pollution: less nitrogen oxides and fine particles

Reduced fossil fuel use: electric vehicles powered by renewable energy

2. Economic Benefits

Reduced costs: mass transit, carpooling, and cycling reduce individual transportation costs. This leads to reduced costs in infrastructure related to road maintenance and congestion.

Boosted Local Economy: cycling and walking boosts local businesses by making city centres more accessible and attractive for people

Innovation: technological advances in EVs, public transport networks, and alternative fuels creates jobs and fosters economic growth.

3. Social Benefits

Improved Public Health: improved air quality and personal mobility results in better public health. Less cars means less severe accidents.

Increased Accessibility: Well-designed public transit can make cities more inclusive and equitable.

Enhanced Quality of Life: Fewer cars on the road lead to less traffic congestion, quieter urban environments, and more space for public parks and social interactions.

4. Supporting Climate Goals

Transport contributes to ca 25% of Europe's GHG emissions. Sustainable transport is crucial in reducing emissions and impact on climate.

Sustainable transport, like cycling or public transport has direct effect on how much space we need in the cities to just move around.

The initial investment in sustainable transportation may seem costly when it comes to purchasing newer more sustainable vehicles and building infrastructure or implementing smart technologies, however many countries have already proven that investment to be a wise decision.



THE FIRST STEPS TO DEVELOP SUSTAINABLE TRANSPORT ON MUNICIPAL LEVEL

Developing sustainable transport at the municipal level requires a strategic, multi-faceted approach that involves planning, infrastructure development, stakeholder engagement, and policy implementation.

1. Assess Current Transportation Systems
2. Set Clear Goals and Targets
3. Public Engagement and Awareness
4. Invest in Public Transport Infrastructure
5. Promote Active Transport (Cycling and Walking)
6. Encourage Low-Emission and Shared Mobility Solutions
7. Implement Land Use and Urban Planning Reforms
8. Incentivize Behavior Change
9. Pilot Projects and Test Solutions
10. Collaboration with Regional and National Authorities
11. Monitor and Adjust

CHALLENGES IN URBAN AREAS WITH HIGH RISE APARTMENT BLOCKS

Limited space for infrastructure

- Lack of parking and charging stations
- Road congestion

Energy demand and grid capacity

- Increased load
- Peak demand management

Accessibility and inclusivity

- Equitable access
- Affordability

Urban planning and policy

- Lack of zoning regulations on local level
- Lack of policy support on a local level

Environmental impact

- Air quality
- Noise pollution



EFFECTIVE WAYS TO DEVELOP SUSTAINABLE TRANSPORT

Adopt a **multifaceted approach** that includes coordinated freight distribution, green urban mobility policies, strategic planning, and the use of innovative technologies. Collaboration among stakeholders, data-driven decision-making, and the integration of ecological and energy-efficient solutions are key to achieving sustainable urban transport systems.

It is important to have a dedicated person coordinating the strategic planning and implementation.

Possible strategies for developing sustainable transport in the municipality:

- Coordinated Freight Distribution: Reduce CO2 emissions by coordinating the distribution of goods and separating the purchase of goods from distribution services.
- Green Urban Mobility Policies: Developing green urban mobility policies that leverage digital technologies can enhance sustainable public transportation. Data-driven initiatives help in analyzing and forecasting mobility demand and supply.
- Strategic Planning and Policy Indicators: Effective urban transport strategies can be identified by analyzing correlations between sustainability and policy indicators.

EFFECTIVE WAYS TO DEVELOP SUSTAINABLE TRANSPORT 2

- Multicriteria Decision-Making for Project Prioritization: Using methods like the Analytic Hierarchy Process (AHP) and fuzzy TOPSIS (Technique for Order of Preference by Similarity to Ideal Solution) can help prioritize public transportation projects based on economic, social, and environmental criteria. This approach ensures transparent and sustainable decision-making.
- Ecological and Energy Efficiency Approaches: Implementing ecological and energy-efficient transport solutions, such as digitization of traffic management and diversification of transport types, can significantly reduce emissions. Partnerships between energy service companies and transport providers are also beneficial.
- Innovative Directions in Sustainable Transport: Innovations such as New Mobility, City Logistics, Intelligent System Management, and Livability are crucial for a systems-oriented approach to sustainable transport.
- Sustainable Urban Mobility Planning (SUMP): Integrating multilevel transport system models into the SUMP process can enhance the effectiveness of urban mobility planning. This approach helps in meeting mobility demands while ensuring a high quality of life for residents.
- Ecological Diversification Policy: Promoting ecological types of transport (e.g., bicycles, electric cars) and incorporating smart technologies can improve municipal transport management. This policy supports sustainable development and reduces carbon emissions



PLANNING CHARGING INFRASTRUCTURE



Co-funded by
the European Union



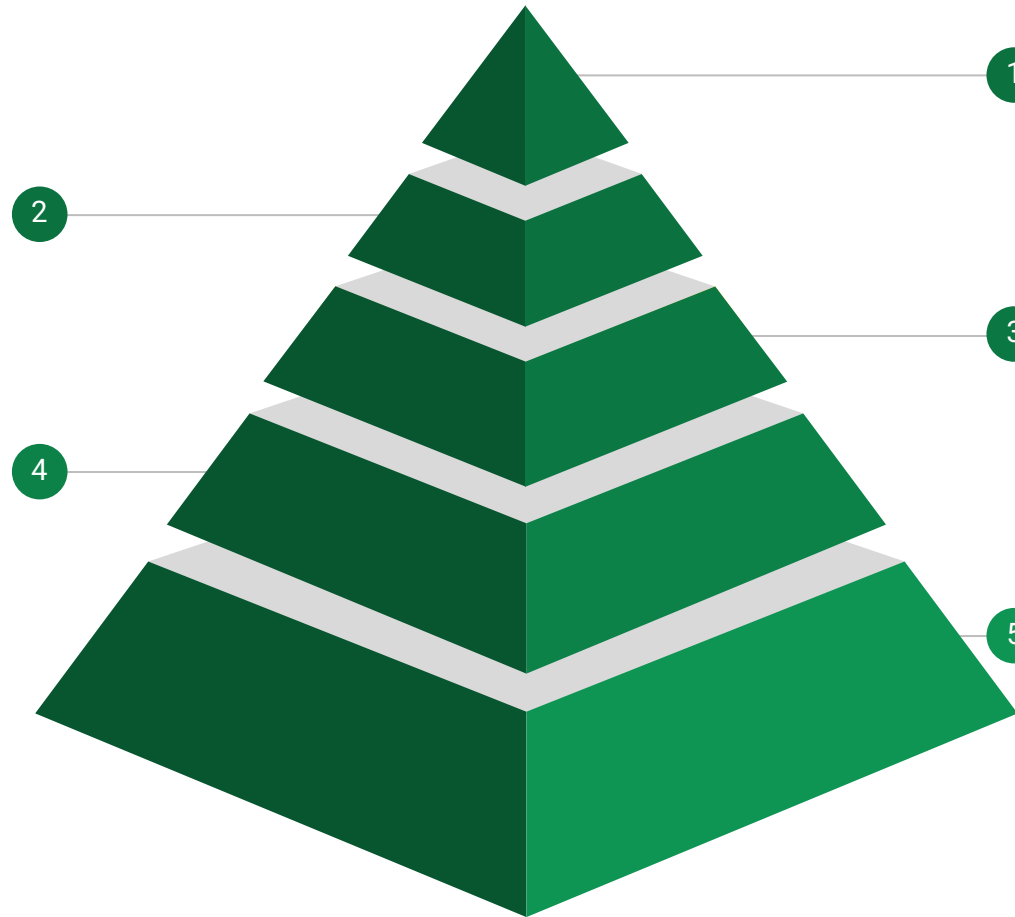
NEED FOR DEVELOPMENT AND EXPANSION OF CHARGING INFRASTRUCTURE

Accessibility and convenience

- Public charging stations
- Residential charging

Environmental benefits and economic opportunities

- Reducing emissions
- Sustainable energy integration
- Job creation
- Local business support



Growing adoption of Electric Vehicles (EVs)

- Rising demand
- Future-proofing

Grid capacity and management

- Upgrading the grid
- Smart charging solutions

Policy framework and community engagement

- Regulatory framework
- Support from government / local municipality
- Raising awareness
- Stakeholder collaboration

ENSURING ACCESSIBILITY AND AFFORDABILITY OF CHARGING STATIONS

Equitable distribution	<ul style="list-style-type: none">● Strategic placement● Public spaces
Affordability initiatives	<ul style="list-style-type: none">● Subsidies and incentives● Affordable pricing models
Inclusive design	<ul style="list-style-type: none">● Universal access● User-friendly interfaces
Partnerships and collaboration	<ul style="list-style-type: none">● Public-private partnerships● Community involvement
Education and awareness	<ul style="list-style-type: none">● Public campaigns● Workshops and training
Technological innovations	<ul style="list-style-type: none">● Smart charging solutions● Renewable energy integration
Policy support	<ul style="list-style-type: none">● Regulatory frameworks● Funding programmes

STREAMLINING PERMITTING AND CONSTRUCTION PROCESSES: BACKGROUND OF THE NEW UMF

- **EU commitment to sustainable mobility**
 - **New Urban Mobility Framework**
 - enhancing urban transport systems across the EU.
 - Reducing greenhouse gas emissions by at least **55% by 2030** and **90% by 2050**
- **Importance of efficient permitting**
 - timely implementation
 - accelerating the deployment of e-mobility infrastructure
- **Regulatory landscape**
 - **Sustainable Urban Mobility Plans (SUMP)s**: Required for major cities by 2025
 - **Trans-European Transport Network (TEN-T)** guidelines that influence urban transport planning
- **Goals of the framework**
 - Promote **safe, accessible, and inclusive** urban transport systems.
 - Encourage the integration of **active mobility** (walking, cycling) and **public transport**.
 - Support the development of **zero-emission solutions** for urban logistics.
- **Digital transformation**
 - Emphasis on leveraging digital tools to streamline permitting processes and enhance data sharing.
 - Initiatives to facilitate **Mobility as a Service (MaaS)** applications for better user experience.
- **Collaboration and funding**
 - Encouragement of public-private partnerships to foster innovation in urban mobility.
 - Access to EU funding for municipalities to implement sustainable transport projects.

STREAMLINING PERMITTING AND CONSTRUCTION PROCESSES

CHALLENGES

- **Bureaucratic delays:** Lengthy approval processes can stall projects.
- **Regulatory complexity:** Diverse regulations across municipalities create confusion.
- **Coordination issues:** Lack of collaboration between departments leads to inefficiencies.

SOLUTIONS

Implement digital permitting systems

Online platforms for applications, tracking, and communication.

Ensure systems are user-friendly and accessible to all stakeholders.

Standardize regulations

Uniform guidelines across municipalities to simplify compliance.

Aligning local regulations with EU directives (SUMPs).

Create One-Stop Shops

Centralized offices or online portals to handle all permitting needs for projects.

Facilitate easier access to information and resources.

Enhance collaboration

Communication between planning, transp., and env. departments.

Joint meetings (ongoing projects, best practices).

Engage stakeholders early

Community members, businesses, and NGOs.

Public consultations for input and building support for projects.

Utilize EU funding opportunities

Leverage EU grants and funding programmes.

Partnerships with private sector enhances project viability.

EXPECTED BENEFITS

Faster project delivery / Cost efficiency / Increased public engagement





BUILDING CAPACITY FOR MUNICIPALITIES TO SUPPORT E-MOBILITY



Co-funded by
the European Union



BUILDING CAPACITY FOR MUNICIPALITIES TO SUPPORT E-MOBILITY

EU and national initiatives:

Green Deal alignment: Ensuring municipal actions align with the broader EU Green Deal and national e-mobility strategies.

Multi-level governance: Encouraging coordination between different levels of government to streamline e-mobility implementation.

EU funding and assistance programmes (European Commission):

Recovery and Resilience Facility: Provides funding for the development of EV infrastructure and sustainable transport projects.

Technical assistance: agencies such as European Environment Agency (EEA) offer municipalities support in planning and implementing e-mobility projects that meet EU sustainability goals.

Key approaches for capacity building:

Professional training: enhancing the skills of municipal staff through specialized e-mobility training programmes.

Policy and planning support: developing comprehensive e-mobility strategies.

Resource allocation: ensuring effective use of available resources to maximize the impact of e-mobility initiatives.

BUILDING CAPACITY FOR MUNICIPALITIES TO SUPPORT E-MOBILITY

- **EU Policies and Programmes:**
 - **Connecting Europe Facility**: Supports the development of cross-border EV charging infrastructure.
 - **Horizon Europe (Cluster 5)**: Encourages research and innovation in e-mobility, offering municipalities opportunities to pilot new technologies.
- **Public-private collaboration:**
 - **PPP models**: Promoting partnerships between municipalities and private sector entities for the deployment and management of e-mobility infrastructure.
 - **Innovation partnerships**: Collaborating with tech companies to integrate smart solutions into local e-mobility projects.
- **Benefits:**
 - **Environmental impact**: Reduced emissions and improved air quality through increased adoption of electric vehicles.
 - **Economic growth**: Stimulating local economies through the development of new infrastructure and job creation in the green tech sector.

Case Studies:

- **Hamburg, Germany**: electrification of public transport and charging infrastructure
- **Pamplona, Spain**: decentralised renewables and vehicle-to-grid integration





ACCESSIBILITY OF SUSTAINABLE TRANSPORT



Co-funded by
the European Union



GENDER ASPECTS OF TRANSPORT PLANNING

The **use of urban transport varies significantly between men and women** due to differences in **social roles, safety concerns, and access to resources**. Understanding these differences is crucial when developing sustainable transport systems that cater to the needs of all users.

- **Preference for Public Transport and Sustainability:** Women show a higher affinity towards public transportation and sustainable mobility options compared to men, who prefer cars and technology.
- **Impact of Parenthood:** The presence of children in the household increases car use among women, although they generally use cars less often than men. Parenthood also positively affects the acceptance of carsharing with electric vehicles for both genders.
- **Safety Concerns:** Women face significant safety challenges in public transport, which affects their mobility choices. Safety measures are crucial to encourage more women to use public transport.
- **Travel Patterns and Mode Choice:** Women tend to travel shorter distances and make more frequent stops compared to men. They also have a higher dependency on public transport due to limited access to private vehicles.
- **Perception of Travel Time:** Women perceive travel time as more worthwhile when walking compared to men, who prefer bicycles and private motorized vehicles.
- **Barriers to Mobility:** Women experience barriers to mobility due to historical, cultural, and social factors, which are often not addressed in transport policies. This lack of awareness leads to transport systems that are not fully adapted to women's needs



COMMUNITY ENGAGEMENT AND AWARENESS



Co-funded by
the European Union



STRATEGIES FOR PROMOTING E-MOBILITY AND SUSTAINABLE TRANSPORTATION

1. Public awareness campaigns

- Educational workshops and seminars
- Social media and online platforms
- collaborations with schools and universities

2. Incentive programmes

- Subsidies and grants
- Tax benefits
- Public recognition

3. Infrastructure development

- Charging stations
- Bike lanes and pedestrian paths
- Public transport integration

4. Community involvement

- Local forums and feedback mechanisms
- Pilot programmes.
- Volunteer programmes

5. Partnerships and collaborations

- Private sector engagement
- NGOs and advocacy groups
- Regional and international cooperation

6. Monitoring and evaluation

- Regular surveys and studies
- Performance metrics
- Continuous improvement

THANK YOU!



Website



LinkedIn



X (Twitter)



YouTube



Instagram



Funded by the European Union. Views and opinions expressed are however those of the author(s) only and do not necessarily reflect those of the European Union or CINEA. Neither the European Union nor the granting authority can be held responsible for them.