



Green urban mobility

Promoting **green, smart and inclusive** movement of people and goods in cities

Horizon 2020



European Climate, Infrastructure and Environment Executive Agency (CINEA)
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Foreword

Cities host 70% of the European population and are centres of economic and social activity. Cities are key actors when it comes to achieving climate neutrality. In fact, 23% of EU transport greenhouse gas emissions come from urban areas. Moreover, health issues due to poor air quality remain also a major concern. There is a huge potential in addressing people's mobility habits and encouraging the use of more sustainable transport modes. New planning, organisational and management solutions as well as emerging transport technologies are also key to improve urban mobility while reducing emissions.

The European Green Deal and its target to achieve a 90% reduction in transport-related greenhouse gas emissions by 2050, together with the New European Urban Mobility Framework, has put urban mobility and logistics in the spotlight of the Commission's mobility policy.

CINEA, the European Climate, Environment and Infrastructure Executive Agency, plays a key role through the efficient and effective implementation of EU funding programmes parts supporting the European Green Deal. These include transport and mobility projects in the EU research & innovation programme Horizon 2020 - and its successor Horizon Europe -, in the EU infrastructure programme Connecting Europe Facility (CEF) and in the EU environmental programme LIFE. CINEA manages projects throughout their lifecycle, from idea to implementation.

This brochure presents a comprehensive overview of the Horizon 2020 projects managed by CINEA that develop, test and implement innovative solutions for urban transport and mobility. These projects have been selected from a broad portfolio that covers domains such as active mobility, collective

passenger transport, smart mobility, inclusive planning and urban logistics, with a total EU contribution of more than EUR 1 billion. Furthermore, examples of synergies with other programmes are presented. Such synergies further highlight the importance of the work of CINEA in supporting green, smart and inclusive movement of people and goods in cities.

This brochure is an update of the INEA "Making European cities greener: Towards clean and smart mobility" brochure published back in 2019. Since then, the project portfolio has expanded and the new CINEA Agency was established, with new programmes delegated to it.

I hope that you will find this brochure informative and interesting.

**Dirk Beckers,
Director, CINEA**



Introduction to Urban Mobility

Sustainable and competitive mobility and transport services are vital to accommodate the needs of citizens and businesses in and around urban areas. However, while playing an important role for society, the negative impacts of transport and mobility remain a cause of concern.

The EU has pledged to achieve climate neutrality by 2050. The [‘European Green Deal’](#) is the EU’s strategy for reaching its climate goals and this requires current greenhouse

gas emission levels to drop substantially in the next decades. For the transport sector in particular, the objective is to reduce greenhouse gas emissions by 90% compared to 1990 levels.

As an intermediate step towards climate neutrality, the EU has raised its 2030 climate ambition, committing to cutting overall greenhouse gas emissions by at least 55% by 2030. The [‘Fit for 55’](#) legislative package will turn the EU’s ambition into reality.



The EU has pledged to achieve climate neutrality by 2050. The ‘European Green Deal’ is the EU’s strategy for reaching its climate goals and this requires current greenhouse gas emission levels to drop substantially in the next decades. For the transport sector in particular, the objective is to reduce greenhouse gas emissions by 90% compared to 1990 levels. ”

” *The New European Urban Mobility Framework encourages and provides guidance for local action and offers cities a toolbox that supports the changes that will help to ensure that transport in cities contributes to long-term prosperity, and delivers the goals of both the European Green Deal and the Sustainable and Smart Mobility Strategy.*

The Fit for 55 package includes a proposal on Alternative Fuels Infrastructure (AFIR) where the main objective is to ensure that the public has access to a sufficiently developed infrastructure network for recharging or refuelling road vehicles with alternative fuels.

The European Commission has also presented its [‘Sustainable and Smart Mobility Strategy’](#), which lays the foundation for the future EU transport system that can achieve a green and digital transformation and become more resilient.

The [New European Urban Mobility Framework](#) encourages and provides guidance for local action and offers cities a toolbox that supports the changes that will help to ensure that transport in cities contributes to long-term prosperity, and delivers the goals of both the European Green Deal and the Sustainable and Smart Mobility Strategy.

[Sustainable Urban Mobility Plans](#) (SUMP) are a cornerstone of the Commission’s urban mobility policy and the SUMP approach has inspired many towns, cities and regions within and beyond Europe, with over 1,000 SUMP (or similar plans) currently in place.



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CINEA's contribution to greening Urban Mobility

The [European Climate, Infrastructure and Environment Executive Agency](#) (CINEA) was established by the European Commission to implement parts of EU funding programmes for transport, energy, climate action, environment and maritime fisheries and aquaculture.

The parts of the programmes managed by CINEA that provide financial support to urban transport and mobility projects are **Horizon 2020**, **Horizon Europe**, **LIFE Programme** and **Connecting Europe Facility (CEF) Transport**.

Horizon 2020 and Horizon Europe Programmes

The Agency continues to manage the legacy projects from the Horizon 2020 societal challenges 'Smart green and integrated transport' and 'Secure, clean and efficient energy'.

Since 2014, the Agency has managed a total of 126 projects in the field of urban mobility with a total EU contribution of more than EUR 1 billion, including projects under the umbrellas of the CIVITAS initiative and the Smart Cities and Communities (SCC).

CIVITAS is one of the flagship initiatives that helps the European Commission in achieving its ambitious mobility and transport goals, and in turn those of the European Green Deal. CIVITAS acts as a network of cities, for cities, dedicated to sustainable urban mobility.

The Smart Cities and Communities (SCC) projects demonstrate sustainable, cost-effective and replicable district-scale solutions to increase cities' overall energy and resource efficiency.

In [Horizon Europe](#), the EU's new Research and Innovation Framework Programme (2021-2027), the focus for transport and mobility is on accelerating the transition towards a green, smart and sustainable mobility. CINEA manages the 'Cluster 5 – Climate, Energy and Mobility' and the 'Climate Neutral and Smart Cities Mission' Work-Programmes with an expected total budget of more than EUR 9 billion.

[Cluster 5 – Climate, Energy and Mobility](#) aims to tackle climate change by better understanding its causes, evolution, risks, impacts and opportunities, and by making the energy and transport sectors more climate and environment-friendly, more efficient and competitive, smarter, safer and more resilient.

CINEA supports its stakeholders in delivering the European Green Deal by providing expertise and high-quality programme management, while at the same time promoting synergies between programmes.

CEF Transport Programme

The transport sector of the [CEF programme](#) supports the construction and upgrade of transport infrastructure in Europe. It also contributes to the deployment of sustainable and efficient mobility solutions, as well as seamless connections between transport modes and ICT.

The CEF and Trans-European Transport Network (TEN-T) policies aims to better integrate long-distance transport with the urban traffic system for both passengers and freight.

This is why, since 2014 the CEF programme has a funding priority on urban nodes. So far, five calls for proposals have been launched, which have resulted in 50 projects being selected for funding with a total EU contribution of EUR 298 million.

During the current programming period 2021-2027, CEF Transport continues to support the development of accessible, multimodal, green and efficient transport systems in the CEF urban nodes, in line with the EU Green Deal and the European Commissions' Sustainable and Smart Mobility Strategy.



LIFE Programme

The [LIFE Programme](#) is the EU Programme for Environment and Climate Action.

The LIFE programme has financed around 75 projects worth EUR 350 million over the last decade, dealing with sustainable mobility mainly under the Circular Economy and Quality of Life and Climate Change Mitigation priorities, mainly because of their impacts on air quality and the reduction of greenhouse gases emissions.

CINEA has managed a total of 126 projects in the field of urban mobility with a total EU contribution of more than EUR 1 billion and involving more than 1,900 different partners.

HORIZON 2020 and HORIZON EUROPE

Since 2014, 108 projects in the field of urban mobility were implemented under H2020 Societal Challenge ‘Smart green and integrated transport’, with a total contribution of more than EUR 690 million. The focus was on boosting the competitiveness of the European transport industry and achieving a European transport system that is resource efficient, environmentally-friendly as well as safe and seamless, for the benefit of all citizens, the economy and society. These projects involved more than 1,300 partners from more than 50 countries, including all EU member states.

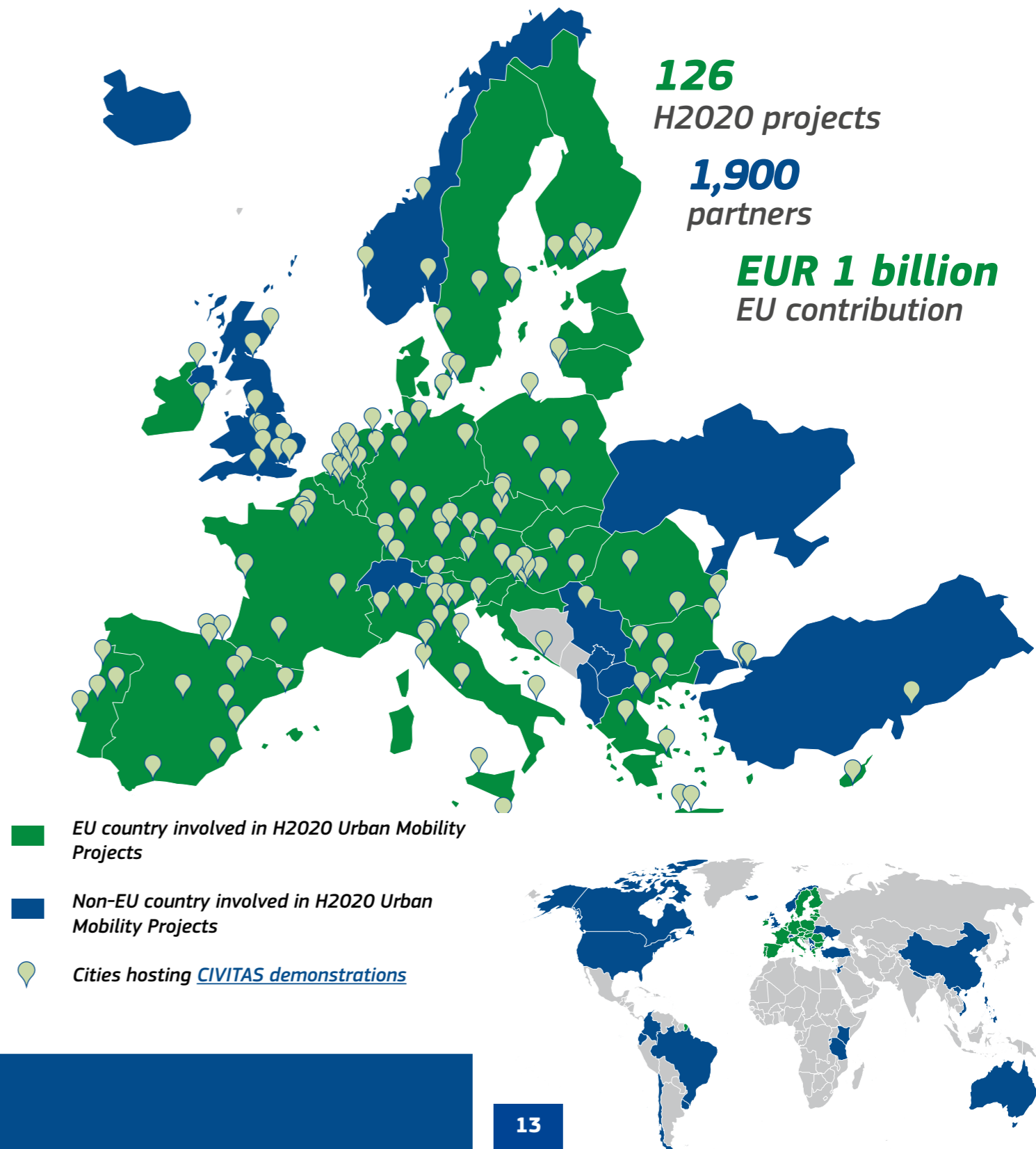
Moreover, 18 projects were implemented as part of the H2020 Societal Challenge ‘Secure, clean and efficient energy’, that included Smart Cities and Communities (SCC) calls between 2014 and 2020, with a total contribution of more than EUR 380 million. The SCC

projects demonstrate sustainable, cost-effective and replicable district-scale solutions to increase cities’ overall energy and resource efficiency. These projects brought together more than 700 partners and engaged 120 cities, including 48 so-called ‘Lighthouse Cities’ as well as 72 ‘Fellow Cities’.

CINEA has managed a total of 126 projects in the field of urban mobility with a total EU contribution of more than EUR 1 billion and involving more than 1,900 different partners.

In Horizon Europe (2021-2027), the focus for transport and mobility is on accelerating the transition towards a green, smart and sustainable mobility. Under this thematic, CINEA manages the ‘Cluster 5 – Climate, Energy and Mobility’ and the ‘Climate Neutral and Smart Cities Mission’ Work-Programmes.

Outreach of Urban Mobility Projects funded by Horizon 2020



Presentation CIVITAS

The [CIVITAS Initiative](#) was launched by the European Commission in 2002. It is a network of cities dedicated to achieving ambitious mobility and transport goals, such as those of the 'European Green Deal' and the 'Sustainable and Smart Mobility Strategy'.

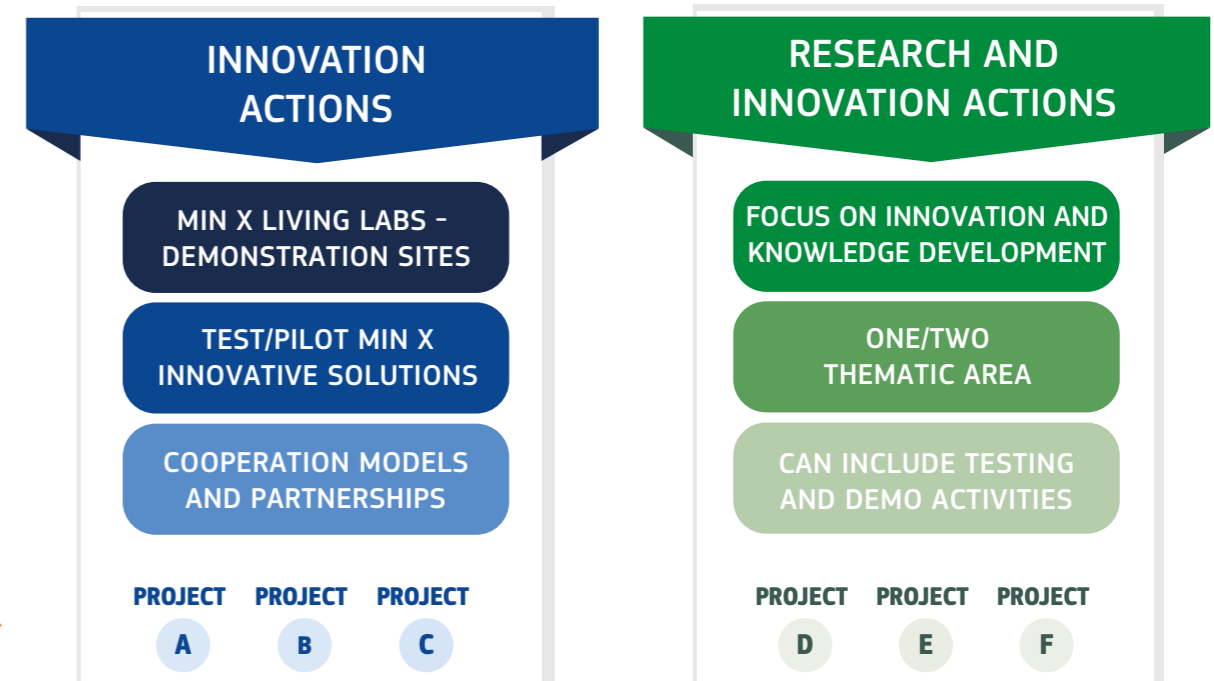
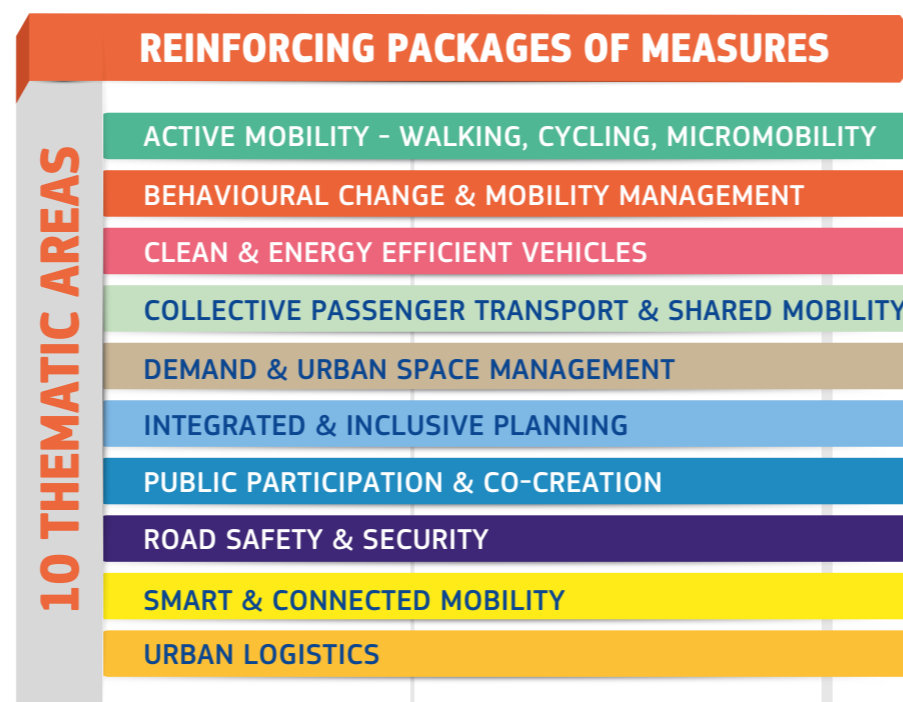
The CIVITAS initiative increases the collective expertise and political commitment for the development and roll-out of 'green'/sustainable urban mobility measures. It does this by engaging a multitude of urban actors, from local authorities to practitioners and decision makers, in a variety of capacity building, networking and on-the-ground real-life demonstration activities. Some of the functionalities supporting the CIVITAS Community are:

- [CIVITAS Cities Network](#) – Over 340 local authorities are CIVITAS members and signatories of the CIVITAS City Declaration, committed to introducing ambitious sustainable urban mobility policies.
- [CIVITAS National Networks – CIVINETs](#) are networks of cities and relevant institutions promoting the CIVITAS approach at the local level, overcoming language and contextual barriers for local stakeholders interested in sustainable urban mobility.
- [Policy Advisory Committee – PAC](#) is a group of elected politicians that acts as an advisory board to the CIVITAS community. It meets regularly and provides a local perspective on EU mobility policy.

Since its launch, the CIVITAS Initiative has had five funding phases in which more than 80 demonstration cities have tested, implemented and evaluated integrated packages of urban mobility measures and solutions as part of the [CIVITAS Living Lab projects](#). The complementary nature of these measures and solutions is demonstrated by their concrete contribution to the relevant policy goals.

In addition, as part of the last two CIVITAS funding phases (CIVITAS 2020 and CIVITAS 2030), [research and innovation projects](#) explore how new or improved technologies, products, processes, services or solutions can support a more carbon-neutral and energy-efficient urban transport, and how economic and social trends influence the functioning of urban transport systems.

The CIVITAS projects demonstrate and assess impacts in [ten thematic areas](#) that reinforce each other: Active mobility – walking, cycling and micromobility; Behavioural change and mobility management; Clean and energy efficient vehicles; Collective passenger transport and shared mobility; Demand and urban space management; Integrated and inclusive



planning; Public participation and co-creation; Road safety and security; Smart and connected mobility and urban logistics.

Besides the quantitative impact of the tested and rolled-out measures, the CIVITAS Impact and Process Evaluation Framework assesses each measure/solution implementation processes and the users' responses to it as well as the measures' cumulated effect for the urban area covered.

Through its [Learning Centre](#), the [Tool Inventory](#) and the newly developed [Mobility Powered by the Youth](#) programme, the CIVITAS Initiative is a well-recognised Capacity Building and Knowledge Exchange Network. The CIVITAS Forum / Urban Mobility Days conferences and the CIVITAS website are other key elements supporting the CIVITAS Community.

Thematic Areas



- 1 **Active Mobility** 
- 2 **Behavioural change & mobility management** 
- 3 **Clean & energy-efficient vehicles** 
- 4 **Collective passenger transport & shared mobility** 
- 5 **Demand & urban space management** 
- 6 **Integrated & inclusive planning** 
- 7 **Public participation & co-creation** 
- 8 **Road safety & security** 
- 9 **Smart & connected mobility** 
- 10 **Urban logistics** 

Featured Projects

- » [City Changer Cargo Bike](#)
- » [HANDSHAKE](#)



Other Projects

- » [TRACE](#)
- » [FLOW](#)

Active Mobility

Thematic Area 1

Making walking and cycling the preferred travel choices for people in cities.





City Changer Cargo Bike

Enabling the full potential of bikes to transport freight and more passengers

The City Changer Cargo Bike (CCCB) project aims to tap the limitless potential of cargo bikes. Through the support of the Horizon 2020 programme, CCCB brings together 20 partners from across Europe to raise awareness and support the uptake of cargo bikes and cargo bike initiatives.

From Oslo (NO) to Rimini (IT), CCCB cities are implementing a host of measures to foster a local cargo bike culture in their cities. Some of their most notable achievements include launching purchase subsidies for cargo bikes in Gdynia (PL), Mechelen (BE) and Lisbon (PT) introducing a free cargo bike sharing scheme in Rimini (IT) and replacing vans with cargo bikes for public service deliveries in Cambridge (UK). Another important achievement was the prototyping of cargo bike parking racks in Strasbourg (FR), and opening the first cargo bike depot in Prague (CZ).

With the support of five technical partners, CCCB also organises workshops and webinars, conducts research and surveys, and runs cargo bike expert groups to transfer knowledge and best practices to cities and stakeholders beyond the



© CITY CHANGER CARGO BIKE

project. The project has organised a [webinar](#)¹ on cargo bike adoption for businesses, conducted a European cargo bike industry survey and shot cargo bike TV commercials that ran in German and Austrian cinemas.

¹ <https://www.youtube.com/watch?v=OzUaCinhfXI&t=10s>

COORDINATOR

GEMEENTE UTRECHT

PROJECT DURATION

01/09/2018 to 31/07/2022

EU FUNDING

€ 3,808,646

WEBSITE

www.cyclogistics.eu

OTHER THEMATIC AREAS



HANDSHAKE

Inspiring a shift to everyday cycling

Handshake helps cities become more liveable places by improving conditions for cycling as an everyday mode of transport. It focuses on improving the quality of cycling infrastructure, urban space management and cycling-related communications by identifying innovation in areas such as bike sharing and parking, modelling, socio-economic assessment and governance and decision-making.

With 13 cities involved, the project aspires to encourage a European transition to two wheels by sharing and inspiring cycling excellence. By harnessing the knowledge and expertise of three world-renowned Cycling Capitals - Copenhagen (Denmark), Amsterdam (the Netherlands), and Munich (Germany) - ten Future Cycling Capitals across Europe are supported in their uptake of cycling solutions.

The Handshake [self-assessment tool](#)¹ allows cities to analyse all aspects of their cycling policy using a survey. The results of the survey are being used to inform the Cycling Community of Practice (CCoP), a website planned to follow the completion of the project, which aims to support local governments to build and achieve their cycling plans faster and more

¹ <https://form.jotform.com/213221696373355>

² <https://youtube.com/playlist?list=PLZeu6U1bMaVh--ylmuJZPurJgy4x9S9ar>

COORDINATOR

ISTITUTO DI STUDI PER L'INTEGRAZIONE DEI SISTEMI (I.S.I.S) - SOCIETA' COOPERATIVA

PROJECT DURATION

01/09/2018 to 31/08/2022

EU FUNDING

€ 4,859,094

WEBSITE

<https://handshakecycling.eu>

OTHER THEMATIC AREAS



© HANDSHAKE

effectively. The cycling infrastructure available in all 13 Handshake cities is also available via this [video playlist](#)².

Featured Projects

- » [Park4SUMP](#)
- » [SUMP-PLUS](#)



Other Projects

- » [CIVITAS ECCENTRIC](#)
- » [CIVITAS ELEVATE](#)
- » [CIVITAS SATELLITE](#)
- » [CIVITAS DESTINATIONS](#)
- » [EMPOWER](#)
- » [MODALES](#)
- » [MUV](#)
- » [PROSPERITY](#)
- » [REBALANCE](#)
- » [SUMPS-UP](#)
- » [SPROUT](#)
- » [uCARE](#)



Behavioural change & mobility management

Thematic Area 2

Influencing and changing attitudes and travel behaviour through “soft” measures.





Park4SUMP

Strategic integration of innovative parking management solutions into SUMP policies

Good parking management has proven to be beneficial in delivering sustainable urban mobility in our cities. An overall reduction of parking space in city centres, combined with investments in park & ride facilities, can help to reduce the burden of private vehicles. Furthermore, the enforcement and earmarking of parking revenues can finance additional transport measures that foster sustainable and active urban mobility. However, parking management is still underdeveloped within the Sustainable Urban Mobility Planning (SUMP) policies.



Park4SUMP aims to reverse this status by considering parking management as part of a wider strategy that can benefit urban mobility but also the overall quality of life for citizens. Sixteen cities from across Europe are co-operating to demonstrate and transfer benefits of strategically and smartly managed parking. Besides the identification of challenges and the exchange of best practices, the project is helping to reduce the negative impact of private vehicles in the cities and preparing them for a resilient future. Park4SUMP has trained practitioners in more than 20 European

countries, published several [guidelines](#)¹ and launched a participatory [ParkPAD audit tool](#)² that can support cities in re-evaluating their parking policy with a rational and evidence-based approach.

Park4SUMP has delivered evidence that parking management can offer a strong contribution to Green Deal strategies in a way that is easy and feasible for most cities.

1 <https://park4sump.eu/resources-tools/publications>
 2 <https://parkpad.eu/>

COORDINATOR

MOBIEL 21 VZW

PROJECT DURATION

01/09/2018 to 31/08/2022

EU FUNDING

€ 3,526,206

WEBSITE

www.park4sump.eu

OTHER THEMATIC AREAS



SUMP-PLUS

Sustainable Urban Mobility Planning: Pathways and Links to Urban Systems

The SUMP-PLUS project is helping towns and cities of all sizes and at varying stages of development to bridge the implementation gap and become accessible, green and liveable places where people can easily move from A to B.

In this effort, the project is creating new approaches and tools, and introducing these in co-creation laboratories in six cities - Antwerp (Belgium), Alba Iulia (Romania), Greater Manchester (UK), Klaipeda (Lithuania), Lucca (Italy), and Platania (Greece).

The good practices and lessons learned from the labs will be transferred to politicians, practitioners and researchers via a three-tier sharing and learning community. Through these actions, SUMP-PLUS is putting mobility at the heart of sustainable urban transformation.

The project consortium, led by the City of Antwerp, comprises 16 partners – gathering local authorities, transport operators, city networks, renowned research institutions, and mobility experts – from nine European countries.

The project objectives include:

- developing context-specific mobility transformation pathways, along with supporting tools and methodologies, that enable cities to map out implementation pathways;



© SUMP-PLUS

- forging cross-sectoral links between transport and public services;
- implementing and monitoring cutting-edge mobility solutions for freight and passenger transport; and
- creating new forms of public-private partnerships and business models.

COORDINATOR

STAD ANTWERPEN

PROJECT DURATION

01/09/2019 to 28/02/2023

EU FUNDING

€ 3,987,863

WEBSITE

<https://sump-plus.eu>

OTHER THEMATIC AREAS



Featured Projects

- » [MEISTER](#)
- » [ReVeAL](#)
- » [SOLUTIONSplus](#)
- » [USER-CHI](#)



Other Projects

- » [ASSURED](#)
- » [DREEM](#)
- » [eCharge4Drivers](#)
- » [ELECTRIFIC](#)
- » [ELVITEN](#)
- » [ESPRIT](#)
- » [EU-LIVE](#)
- » [GreenCharge](#)
- » [GVI](#)
- » [INCIT-EV](#)
- » [LEONARDO](#)
- » [Multi-Moby](#)
- » [RESOLVE](#)
- » [Silver Stream](#)
- » [STEVE](#)
- » [URBANIZED](#)
- » [WEEVIL](#)

Clean & energy-efficient vehicles



Thematic Area 3

Travel options and infrastructure for cleaner vehicles and fleets.





MEISTER

Mobility environmentally-friendly, integrated and economically sustainable through innovative electromobility recharging infrastructure and new business models

MEISTER's strategy was twofold: to increase the offer on charging infrastructure by developing new cooperation frameworks and to increase demand by reducing charging prices (i.e. smart charging), simplifying the process of charging (i.e. interoperable Electric Vehicle Supply Equipment or EVSE), providing integrated services and EVSE real-time information (i.e. routing, booking parking-charging spaces), and establishing ultra-low emissions areas.

The results have clearly proven that the market ramp-up of EVs and EVSE has been accelerated in all three pilot cities during the project period: Malaga (ES), Berlin (DE), Stockholm (SE). MEISTER was able to demonstrate: the potential to reduce CO2 emissions; to incentivise citizenship to change from private transport towards shared mobility systems; to reduce parking demand; to optimise the use of charging infrastructure; to make more cost-efficient the EV fleet in municipalities; to manage the capacity issues in the distribution grid; to introduce environmental criteria in the procurements of city councils and to make greener the last mile distribution.



The business models and public-private partnership frameworks developed and demonstrated by the project have been well documented to facilitate trans-European transferability and impact. This can be found in the [MEISTER Replication, Market Uptake and Deployment Handbook](#)¹.

¹ <https://meisterproject.eu/meister-handbook>

COORDINATOR

ETRA INVESTIGACION Y DESARROLLO SA

PROJECT DURATION

01/09/201 to 28/02/2022

EU FUNDING

€ 4,717,275

WEBSITE

<https://meisterproject.eu>

OTHER THEMATIC AREAS



ReVeAL

Regulating Vehicle Access for improved Livability

ReVeAL is an EU-funded R&I CIVITAS project that aims to add Urban Vehicle Access Regulations (UVARs) to the range of urban mobility transition approaches in European cities. The overarching goal is to enable cities to optimise urban space and mobility practices to improve accessibility, sustainability, and livability for every member of society.

ReVeAL combines conceptual work and case study research with hands-on UVAR implementation in six pilot cities, namely Bielefeld (DE), Helmond (NL), Padua (IT) and Vitoria-Gasteiz (ES), London (UK) and Jerusalem (IS). Each city implemented a combination of UVAR mechanisms (“measure fields”) including spatial interventions, pricing aspects and regulatory measures. To do so, they had to mobilise supportive mobility measures, safeguard user needs and public acceptance, align governance and finance, and ensure compliance (“cross-cutting themes”).

The Consortium is focusing on using the data and best practices from the project to create decision supporting tools to help cities find their perfect UVAR match. These include online UVAR Readiness Assessment and Process Advisor interfaces, policy recommendations, and UVAR evaluation frameworks and metrics. Ultimately, ReVeAL's outputs will help cities understand their current readiness level for these



© REVEAL

regulations and draw the steps they need to take to implement adapted UVARs. At a wider scale, ReVeAL, in cooperation with the UVAR Box and UVARExchange projects, is assisting in laying the foundation for an accurate and interoperable EU-wide real-time UVAR information digital service.

COORDINATOR

STADT BIELEFELD

PROJECT DURATION

01/06/2019 to 30/11/2022

EU FUNDING

€ 3,942,068

WEBSITE

<https://civitas-reveal.eu>

OTHER THEMATIC AREAS





SOLUTIONSplus

Integrating Urban Electric Mobility Solutions in the Context of the Paris Agreement, the Sustainable Development Goals and the New Urban Agenda

The SOLUTIONSplus project aims to enable transformational change towards sustainable urban mobility through innovative and integrated electric mobility solutions. To deliver this objective the project will boost the availability of electric vehicles, foster the efficiency of operations and support the integration of different types of e-mobility in large urban areas and addressing user needs and local conditions in Europe, Asia, Africa and Latin America. SOLUTIONSplus brings together highly committed cities, industry, research and implementing organisations.

The project has launched the co-development of demonstration actions to test different types of innovative and integrated e-mobility solutions, complemented by a comprehensive [toolbox](https://emobility.tools)¹, capacity development and replication activities. Demonstration actions will be launched in Hanoi (Vietnam), Pasig (Philippines), Lalitpur/Kathmandu (Nepal), Nanjing (China), Kigali (Rwanda), Dar es Salaam (Tanzania), Quito (Ecuador), Montevideo (Uruguay), Madrid (Spain) and Hamburg (Germany). The replication in twenty additional cities will be closely coordinated with the sister project funded by the Global Environment Facility.



© SOLUTIONPLUS

¹ <https://emobility.tools>

COORDINATOR

URBAN ELECTRIC MOBILITY INITIATIVE (UEMI)
GGMBH

PROJECT DURATION

01/01/2020 to 31/12/2023

EU FUNDING

€ 17,996,080

WEBSITE

www.solutionsplus.eu

OTHER THEMATIC AREAS



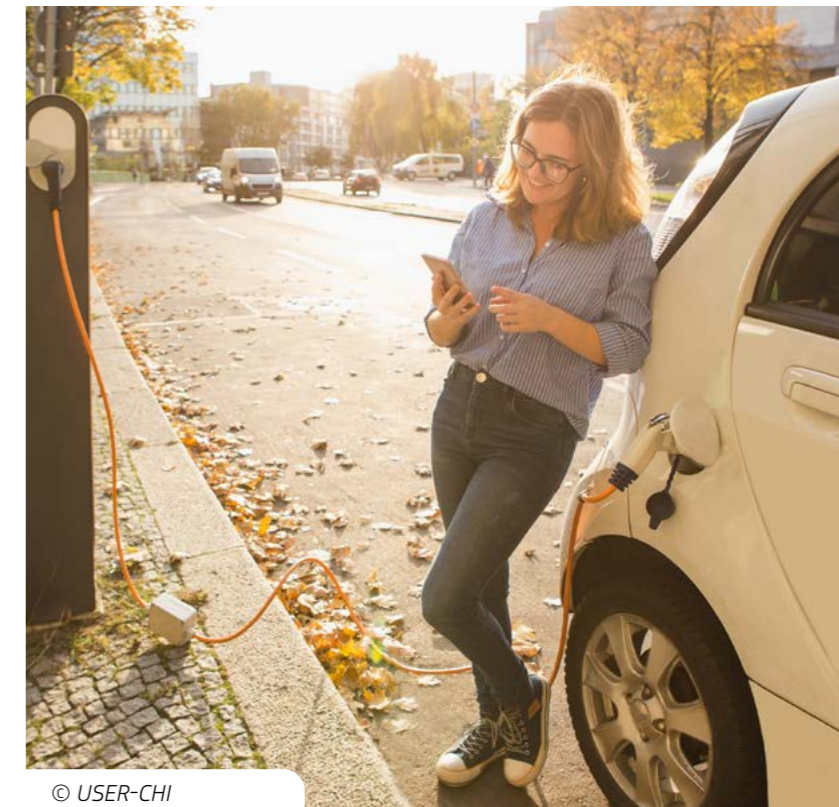
USER-CHI

Innovative solutions for USER centric CHarging Infrastructure

USER-CHI is an industry powered, city-driven and user-centric project that co-creates and demonstrates smart solutions around seven connecting nodes of the Mediterranean and Scandinavian-Mediterranean Trans European Network-Transport (TEN-T) corridors to help boost a massive e-mobility market take-up in Europe. USER-CHI achieves so by:

- Designing electric charging networks around user needs
- Deploying an interoperability framework and platform
- Enhancing scalable infrastructure roll-out by means of smart grid integration
- Developing marketable, innovative and highly convenient charging systems
- Co-designing and demonstrating novel and sustainable business and market models
- Making legal and regulatory recommendations for a massive deployment of electric vehicles

The USER-CHI solutions will be piloted and validated until January 2024 in the urban areas of Barcelona, Rome, Berlin, Budapest and Turku, and will be replicated in the cities of Florence and Murcia. These demonstration sites with their different sizes, complementary contexts and e-mobility maturity levels offer a holistic view of e-mobility in Europe,



© USER-CHI

facilitating the scalability and replicability of the demonstrated solutions.

Eight products, from software (CLICK, INCAR, SMAC) to hardware (INSOC, INDUCAR) or replicability (Stations of the future, eMoBest, INFRA), are being developed and deployed within the project. They can be found in <https://www.userchi.eu/products/>.

COORDINATOR

ETRA INVESTIGACION Y DESARROLLO SA

PROJECT DURATION

01/02/2020 to 31/01/2024

EU FUNDING

€ 14,283,189

WEBSITE

<https://www.userchi.eu>

OTHER THEMATIC AREAS



Featured Projects

- » [SCALE-UP](#)
- » [SMARTER TOGETHER](#)



Other Projects

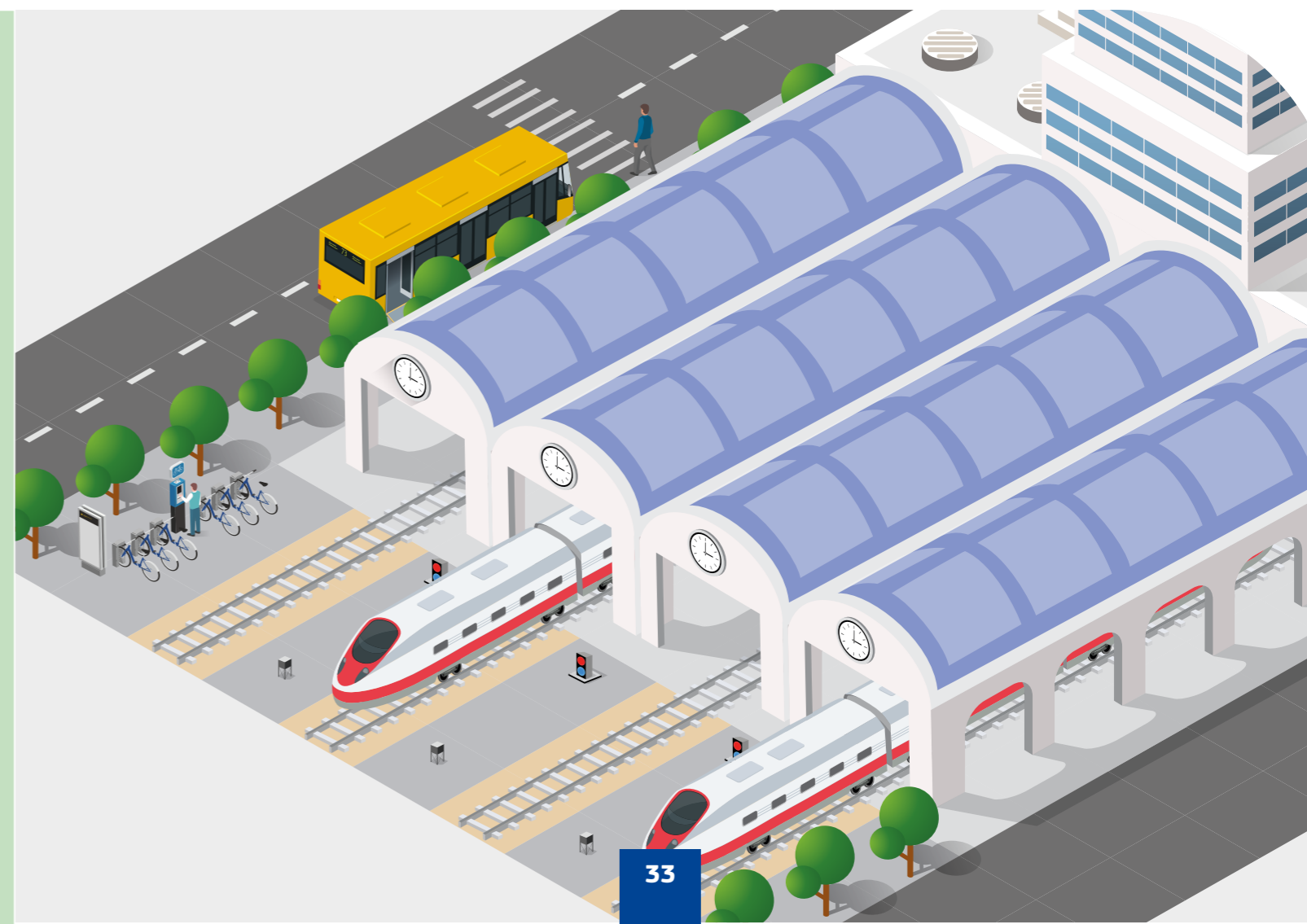
- » [CIPTEC](#)
- » [EBSF_2](#)
- » [ELIPTIC](#)
- » [IMOVE](#)
- » [MaaS4EU](#)
- » [MyCorridor](#)
- » [SocialCar](#)
- » [STARS](#)

Collective passenger transport & shared mobility



Thematic Area 4

Using public transport and shared mobility to put private cars in the shade.





SCALE-UP

User-Centric & Data Driven Solutions for Connected Urban Poles

SCALE-UP is an EU-funded Innovation Action, focusing on three European urban nodes and exploring options to render them better connected and climate-resilient while further developing complex multi-modal transport systems. The main outcomes are at least 28 newly developed innovative mobility measures to ensure the vertical (governmental) and horizontal (dimensional) upscaling of urban mobility. The measures focus on five thematic topics: governance, multimodality, data, clean, safe and inclusive transport and behaviour.

The cities of Antwerp (Belgium), Madrid (Spain) and Turku (Finland) participate actively in developing new measures but also implement them in real life to test them under realistic conditions and in different settings. Each of these cities lies on a different European TEN-T corridor. Their variation in climate, culture, size, population density and geography allows the project to develop mobility measures with a high potential for replicability.



The SCALE-UP consortium consists of a wide range of partners covering the entire value chain, including city and regional councils, universities, commercial partners and non-for-profit organisations from five different European countries.

COORDINATOR

STAD ANTWERPEN

PROJECT DURATION

01/06/2021 to 31/05/2025

EU FUNDING

€ 9,005,116

WEBSITE

<https://www.scale-up-project.eu>

OTHER THEMATIC AREA



SMARTER TOGETHER

Smart and Inclusive Solutions for a Better Life in Urban Districts

Within Smarter Together, Lyon, Munich and Vienna worked towards decarbonising mobility in the demonstrative districts, especially by developing e-mobility solutions. The three Lighthouse Cities have deployed 13 e-charging stations and developed four e-car sharing services. In Munich and Vienna, information on the e-mobility services is available on the municipal apps (Munich Smart City app, WienMobil) while smart charging points have been installed in Lyon to collect data and monitor the use of e-charging points.

FOCUS on Vienna:

Elaboration of a first Local Mobility Strategy, sent to the district's local governance, partly integrated in the local action plans.

WienMobil station in Simmering:

- **E-car sharing in social housing:** a specific funding scheme was adopted. A bankable follow-up with a business scheme already implemented has been widened to all inhabitants of the neighbourhood;
- **E-bike sharing:** the Vienna Cemetery has developed an own self-funded follow up project resp. e-bike sharing scheme;
- **Cargo bike sharing:** included in the city wide free of cost cargo bike platform;



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- **Facilities:** Bicycle storage boxes, pump, and info terminal including touch screen.

“Beat the Street”: a gamification focusing on healthy mobility by promoting soft transport modes (walking, biking). Munich has successfully replicated it. Munich's experience and new devices have then been used in Vienna to improve “Beat the Street”.

COORDINATOR

LYON CONFLUENCE

PROJECT DURATION

01/02/2016 to 31/07/2021

EU FUNDING

€ 24,943,538

WEBSITE

<http://smarter-together.eu>

OTHER THEMATIC AREA



Featured Projects

- » [ASSURED-UAM](#)
- » [HARMONY](#)
- » [MOMENTUM](#)
- » [MORE](#)



Other Projects

- » [AiRMOUR](#)
- » [AURORA](#)
- » [COREALIS](#)
- » [CREATE](#)
- » [DIT4TraM](#)
- » [E-ferry](#)
- » [FRONTIER](#)
- » [INFRAMIX](#)
- » [IW-NET](#)
- » [ORCHESTRA](#)
- » [CIVITAS PORTIS](#)
- » [TANGENT](#)

Demand and urban space management



Thematic Area 5

Managing urban space and travel demand to reduce congestion, for the benefit of sustainable modes and people-centric places.





ASSURED-UAM

Acceptance Safety and Sustainability recommendations for Efficient Deployment of Urban Air Mobility (UAM)

ASSURED-UAM aims to guarantee outstanding robustness in terms of safety, sustainability and acceptability of UAM. It promotes aviation best practices, standards, recommendations and organisational solutions to administrative and legislative bodies. Authorities, policy makers and urban industry organisations will receive complete policy definition support to implement vertical transport with the horizontal urban space and peri-urban mobility systems. Moreover, the project is carrying out the U-Space Air Traffic Management System, so that the introduction of unmanned UAM will be well integrated with organisational and policy framework.

ASSURED-UAM has defined specific use cases (UAM operational models) and identified envisaged path for the integration of Urban Air Mobility into urban and peri-urban mobility system, with the execution of all the

related studies according to consideration of multiple time horizons (5, 10, and 15 years) that will be the base for policy recommendations in eight languages. The project is performing community integration and wide consultations, cooperation, and synergy with other projects, industry and user groups, paving the way for the future UAM deployment. ASSURED-UAM is providing support and technical assistance for the implementation of vertical transport in three regions and cities: Górnośląsko-Zagłębiowska Metropolia (Poland), Bari (Italy) and Porto city (Portugal).



COORDINATOR

SIEC BADAWCZA
LUKASIEWICZ-INSTYTUTLOTNICTWA

PROJECT DURATION

01/01/2021 to 30/04/2023

EU FUNDING

€ 1,458,990

WEBSITE

<https://assured-uam.eu>

OTHER THEMATIC AREAS



HARMONY

Holistic approach for providing spatial and transport planning tools and evidence to metropolitan and regional authorities to lead a sustainable transition to a new mobility era

HARMONY develops a new generation platform of harmonised spatial and multimodal transport planning tools. The platform comprehensively models the dynamics of the changing transport sector and spatial organisation, enabling metropolitan areas to develop their SUMP and achieve a sustainable and just transition to a low carbon mobility era.

The [HARMONY platform](#)¹ consists of three integrated levels of modelling: 1. Strategic models (land-use, economic growth), 2. Tactical models (activity-based models for people and freight activities), and 3. Operational models (multimodal network). This approach is necessary to allow authorities simulate and assess if policies are economically viable, while also contribute to meeting climate-neutrality targets, social equality and wellbeing.

Several rounds of co-creation activities take place in Athens (EL), Katowice (PL), Rotterdam (NL), Oxfordshire (UK), Turin (IT) and Trikala (EL) to co-design transport-related scenarios with cities and citizens. The HARMONY platform has been applied in Rotterdam to simulate Zero Emission Zone scenarios for freight, and in Athens to simulate how traffic flows



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will change given land use changes in the city. In Oxfordshire, HARMONY simulated scenarios related to demand responsive autonomous vehicles, while in Turin it simulated how citizens travel patterns change when MaaS services are available.

The project has also developed the MOBYapp, a smartphone-based travel demand survey tool that automatically generates the activity diaries of the individuals and builds stated preference experiments upon them.

¹ <https://harmony-h2020.eu/model-suite/>

COORDINATOR

UNIVERSITY COLLEGE LONDON

PROJECT DURATION

01/06/2019 to 30/11/2022

EU FUNDING

€ 7,649,645

WEBSITE

<https://harmony-h2020.eu>

OTHER THEMATIC AREAS



MOMENTUM

Modelling Emerging Transport Solutions for Urban Mobility

The EU-funded three-year MOMENTUM project developed a set of new data analysis methods, transport models and planning support tools to capture the impact of emerging transport options on the urban mobility ecosystem. The emerging mobility solutions that were taken into consideration were demand-responsive transportation, shared vehicles and ride hailing services. The tools and models that were developed by the MOMENTUM project were tested in the cities of Leuven (Belgium), Madrid (Spain), Regensburg (Germany) and Thessaloniki (Greece).

The project developed data analysis methods and modelling tools to help cities to plan the potential deployment of

emerging mobility solutions in line with their policy objectives and Sustainable Urban Mobility Plans (SUMPs). Among these tools, the [Decision Support Tool \(DST\)](#)¹ offers a user-friendly interface for the data analysis and modelling algorithms provided by the project. The tool enables cities to have first-hand experience in transport modelling unrelated to the level of available data, as it provides solutions



© MOMENTUM

for every level of complexity. For several of the four MOMENTUM cities, the project was a great opportunity to get firsthand experience of the capabilities of transport modelling.



1 <https://momentum.imet.gr>

COORDINATOR

EMPRESA MUNICIPAL DE TRANSPORTES DE MADRID SA

PROJECT DURATION

01/05/2019 to 30/04/2022

EU FUNDING

€ 2,928,125

WEBSITE

<https://h2020-momentum.eu>

OTHER THEMATIC AREAS

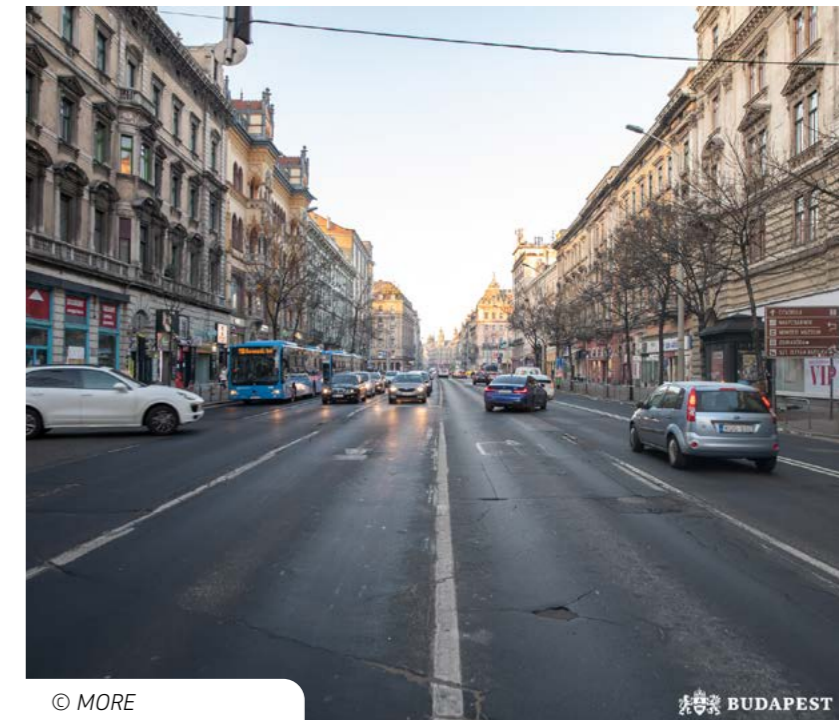


MORE

Multi-modal Optimisation of Road-space in Europe

Busy urban streets face serious challenges as users compete for limited space, and cities deal with a variety of street-level problems including congestion, road safety, carbon emissions, poor air quality and the need to improve economic vitality and social cohesion and liveability.

MORE advocates the need to consider all street uses simultaneously, not one mode at a time, recognising that streets fulfil both 'movement' and 'place' functions and form a complex interacting 'ecosystem'. On the streets of five European cities, MORE has developed and applied a comprehensive process for the redesign of busy streets, including four sets of supporting tools. These cover [the generation of ideas for innovative street design](#)¹ (including an electronic library of 210 design elements and a tool for developing cross-sectional design options), tools for stakeholder co-creation of comprehensive street designs (using both a physical street design toolkit, and digital [mapping](#)² and [consultation](#)³, comprehensive [micro-simulation](#)⁴ of all activities taking place in busy street environments, and a [design appraisal spreadsheet](#)⁵, providing assessments based on political priorities, cost-benefit



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BUDAPEST

analysis or multi-criteria analysis.

The project has also investigated likely future street conditions, and the methods developed are now being more widely applied in our partner cities.

1 <https://ifpedestrians.org/roadoptions/public>
 2 <https://www.buchanancomputing.net/linemap.html>
 3 <https://www.buchanancomputing.net/traffweb.html>
 4 <https://www.mypvt.com/en/mobility-software/ptv-vissim>
 5 <https://discovery.ucl.ac.uk/id/eprint/10144317>

COORDINATOR

UNIVERSITY COLLEGE LONDON

PROJECT DURATION

01/09/2018 to 28/02/2022

EU FUNDING

€ 5,537,114

WEBSITE

<https://www.roadspace.eu>

OTHER THEMATIC AREAS



Featured Projects

- » [DIGNITY](#)
- » [TINNGO](#)
- » [TRIPS](#)
- » [GECKO](#)



Other Projects

- » [DIAMOND](#)
- » [EN-UAC](#)
- » [HiReach](#)
- » [INCLUSION](#)
- » [INDIMO](#)
- » [MOBILITY4EU](#)
- » [MoTiV](#)

Integrated & inclusive planning



Thematic Area 6

Integrated urban mobility planning for creating liveable cities for all citizens.





DIGNITY

Building an inclusive and user-friendly digital transport system

DIGNITY fosters a user-friendly digital travel eco-system able to make daily travel more sustainable, accessible, inclusive and pleasant for all.

DIGNITY identifies challenges and disparities in the uptake of digital mobility solutions by mapping digital transitions from multiple perspectives: end-users (citizens), transport operators, digital mobility products and services providers and policy makers.

Barcelona (Spain), Tilburg (Netherlands), Ancona (Italy) and Flanders (Belgium) are the pilot cities/regions in Europe involved in testing DIGNITY's multi-phase approach:

- framing the digital gap – deep analysis (desk-based, surveys, customer journey mapping and focus groups) of digital excluding factors in mobility (vulnerable groups);
- bridging the digital gap – evaluation of inclusivity levels in products and services currently available and foresight thinking to envision future scenarios;
- testing solutions – pilots engage in a co-creation process to develop inclusive digital mobility solutions by involving users and local transport/



digital mobility players;

- validation and fine-tuning – evaluation of impact on the digital gap and best practices for user-centred policies.

Through a web-based [Learning Community Platform](#)¹, DIGNITY shares its innovative inclusive design guidelines, policy recommendations and decision support toolkits to make mainstream digital travel solutions truly accessible to all.

¹ <https://community.dignity-project.eu/>

COORDINATOR

ISTITUTO DI STUDI PER L'INTEGRAZIONE DEI SISTEMI (I.S.I.S) - SOCIETA' COOPERATIVA

PROJECT DURATION

01/01/2020 to 31/12/2022

EU FUNDING

€ 2,750,367

WEBSITE

<https://www.dignity-project.eu>

OTHER THEMATIC AREAS



TINNGO

Transport Innovation Gender Observatory

Poor transport provision has a disproportionate, negative impact on the mobility of those who most need and value sustainable modes of transport (e.g. elderly, women, those with dependents and disabilities, from lower socio-economic and ethnic groups) and who already suffer from multiple levels of deprivation. When people are denied access to transport, their quality of life is affected through, for example, reduced access to education, employment, and recreation.

TinnGO's main objective was to create a framework and mechanisms for a sustainable game change through a transformative strategy of gender and diversity sensitive smart mobility.

In terms of creating a paradigm shift, TinnGO's outputs (e.g., policy briefs, guidelines, GaDAPs, training material and the gender smart mobility charter) together with action research of the 10 national hubs (Spain, Portugal, France, Italy, Greece, Germany, the Baltics, Scandinavia, UK and Romania) provide a means of challenging the lack of diversity and the prevailing quantitative approaches to understanding mobility.

The Observatory has been used to disseminate ideas,



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methods, training material, design provocations, best practices and project outputs. Using the [Open Data Repository](#)¹, we have shared and invite others to contribute gender-disaggregated data to create a foundation for future research, policy and practice.

¹ <https://tinnngo.sboing.net/>

COORDINATOR

COVENTRY UNIVERSITY

PROJECT DURATION

01/12/2018 to 30/11/2021

EU FUNDING

€ 3,979,503

WEBSITE

<https://www.tinnngo.eu>

OTHER THEMATIC AREAS



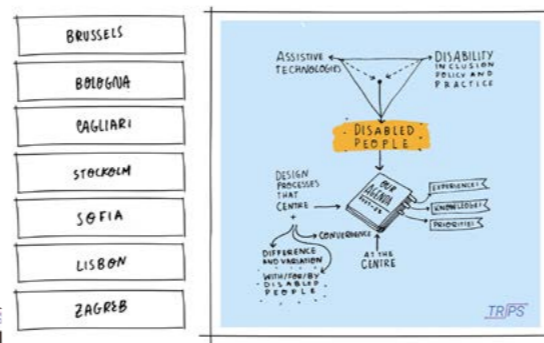


TRIPS

A New Approach to Designing Transport Systems Free of Mobility Barriers

TRIPS is a three-year EU-funded project aimed at making public transport more accessible. The goal of TRIPS is to design, describe and demonstrate practical steps to empower people with mobility challenges to play a central role in the design of inclusive digital mobility solutions. The project builds on existing accessibility, mobility services and technologies with the aim of innovating procedural, consultation and co-design methods.

The project brings together pan-European networks of disabled users (ENIL), transport organisations (UITP), assistive technology experts (AAATE), and municipalities to engage in open innovation and co-design of mobility solutions. This work is supported by design methodology experts (TUE), systems integration experts (TB) and privacy experts (TRI). The TRIPS project will deliver and deploy a Co-design-for-All methodology in 7 pilot cities: Lisbon (PT), Zagreb (HR), Bologna (IT), Cagliari (IT), Brussels (BE), Sofia (BG), Stockholm (SE), through processes led and managed by local stakeholders.



© TRIPS

The TRIPS project is dedicated to the creation of processes that are co-designed with/by/for persons with disabilities. Our contribution comes in the form of a co-design methodology that can be adapted to engage persons with disabilities in decision-making processes aimed at making public transport more accessible.

COORDINATOR

TECHNISCHE UNIVERSITEIT EINDHOVEN

PROJECT DURATION

01/02/2020 to 31/01/2023

EU FUNDING

€ 2,831,175

WEBSITE

<https://trips-project.eu>

OTHER THEMATIC AREAS



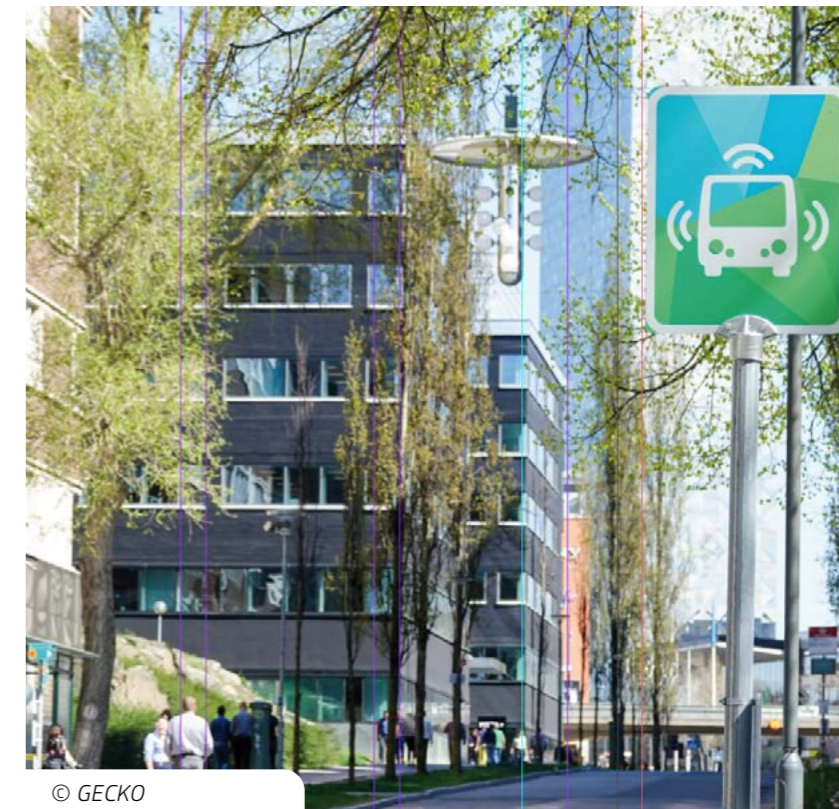
GECKO

Developing regulatory frameworks and governance models for the transition to a new mobility

GECKO's overall goal was to provide authorities with tools and recommendations for new regulatory frameworks to lead the transition to the new mobility era of cooperative, inclusive, competitive, sustainable and interconnected mobility across all modes.

Based on a holistic approach with innovative concepts, methodologies and forward-looking tools, GECKO developed three main products that will support authorities in creating the most appropriate regulatory framework and governance model. The [Knowledge Bank](#)¹ presents a state of play on innovation and new mobility services, while the [Regulatory Frameworks Dashboard](#)² assesses the economic, technological and social impacts of disruptive technologies and business models on regulatory and governance frameworks. Finally, the [Compliance Map](#)³ shows practical synthesis of the similarities and differences, across different regulatory schemes that share the common focus goal of enabling newly emerging disruptive innovations.

GECKO will allow for the effective introduction of innovative new mobility technologies and business



© GECKO

models, while at the same time safeguarding an adequate level of security, safety, data privacy, and social protection.

1 <https://h2020-gecko.eu/tools/dashboard>

2 <https://h2020-gecko.eu/tools/dashboard>

3 <https://h2020-gecko.eu/tools/compliance-map>

COORDINATOR

UNION INTERNATIONALE DES TRANSPORTS PUBLICS

PROJECT DURATION

01/12/2018 to 31/08/2021

EU FUNDING

€ 1,996,781

WEBSITE

<http://h2020-gecko.eu/>

OTHER THEMATIC AREAS



Featured Projects

- » [SUNRISE](#)
- » [IRIS](#)



Other Projects

- » [CITIES-4-PEOPLE](#)
- » [METAMORPHOSIS](#)
- » [SUITS](#)

Public participation & co-creation



Thematic Area 7

Involving citizens and stakeholders in planning to improve the quality and acceptance of urban mobility measures.





SUNRISE

Co-creating mobility solutions at neighbourhood level

The mission of the CIVITAS and Horizon2020 project SUNRISE was to develop, implement, assess, and facilitate co-learning about new, collaborative ways to address common urban mobility challenges at the neighbourhood level. This was achieved through ‘neighbourhood mobility labs’ in districts of six cities: Bremen (DE), Southend-on-Sea (UK), Jerusalem (IL), Budapest (HU), Malmö (SE), Thessaloniki (GR).

The cooperation with local citizens and stakeholders was done in a holistic and highly participatory ‘co-creation’ process to identify local needs, as well as to develop, implement and evaluate new transport solutions in the neighbourhood. Local achievements based on the SUNRISE project range from the alteration of a local parking strategy (Bremen), promotion of active mobility of school children (Jerusalem) and the implementation of traffic-calming measures (Budapest).

In addition to these locally specific co-creative measures, all neighbourhoods are embedded in city-wide mobility strategies, such as SUMP. This



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relationship between neighbourhood-level and city-wide level turned out to be crucial for lasting success. The findings were therefore articulated in an [SUMP Topic Guide](#)¹ on this matter. General findings and recommendations from SUNRISE are available in the [final brochure](#)².

1 https://www.eltis.org/sites/default/files/sump_topic_guide_on_neighbourhood_planning.pdf

2 https://civitas-sunrise.eu/wp-content/uploads/2021/10/SUNRISE_D5.8_WEB_final.pdf

COORDINATOR

RUPPRECHT CONSULT-FORSCHUNG & BERATUNG GMBH

PROJECT DURATION

01/05/2017 to 31/07/2021

EU FUNDING

€ 4,081,481

WEBSITE

<http://civitas-sunrise.eu>

OTHER THEMATIC AREAS



IRIS

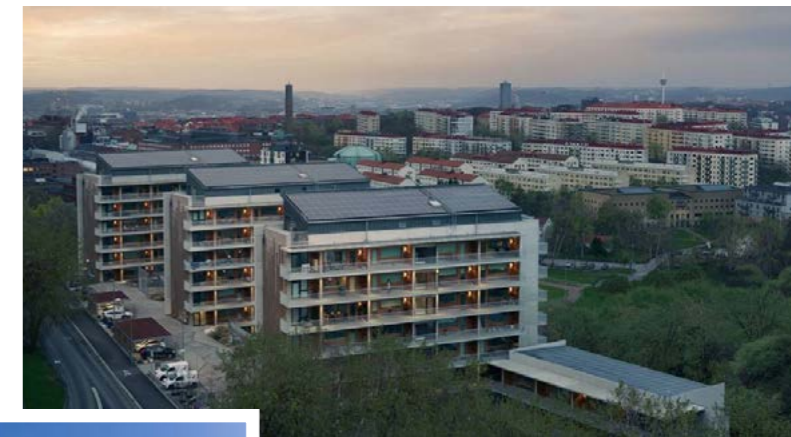
Co-creating smart and sustainable cities

IRIS is an EU Smart City project that brings together 45 partners across seven cities to work on 16 Integrated solutions. In relation to Smart Mobility, the IRIS lighthouse cities have spearheaded several solutions in flexible grid technologies like Vehicle-to-Grid (V2G) and smart solar charging as well as in innovative mobility services (vehicle sharing) for follower cities to take inspiration from.

In Utrecht, innovations were demonstrated by LomboXnet, implementing “We Drive Solar”, a car sharing system by means of 25 solar powered V2G e-cars and 500+ bidirectional charging points. Alongside this, “QBuzz” trialed 10 smart solar V2G e-buses.

In Gothenburg, Trivector demonstrated the EC2B (Easy to be) concept, offering tenants in 132 apartments in Brf Viva, where no private car parking is available, attractive alternatives to owning a car through easy access to a variety of transport modes (as e-cars, e-bikes or public transport) including mobility coaching.

In Nice, EDF and VULOG focused on testing business cases related to the implementation of smart charging



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infrastructures where electric vehicles, charging stations and charging operators share data connections to optimize energy consumption as well as the booking and forecasting of the use of a shared EV fleet.

Find out more by visiting: <https://showcase.irissmartcities.eu/intelligent-mobility/>.

COORDINATOR

GEMEENTE UTRECHT

PROJECT DURATION

01/10/2017 to 31/03/2023

EU FUNDING

€ 17,996,569

WEBSITE

<https://irissmartcities.eu>

OTHER THEMATIC AREAS



Featured Projects

- » [PANACEA](#)
- » [INDEV](#)



Other Projects

- » [FITDRIVE](#)
- » [MeBeSafe](#)
- » [PIONEERS](#)
- » [PROSPECT](#)
- » [SAFE-UP](#)
- » [SENIORS](#)
- » [SIMUSAFE](#)
- » [XCYCLE](#)

Road safety & security

Thematic Area 8

Ensuring the well-being of all those navigating urban environments.



PANACEA

Practical and Effective tools to monitor and Assess Commercial drivers' fitness to drive

PANACEA will create a holistic pre-, during and roadside monitoring and assessment solution for driving ability.

The solution will reliably and efficiently assess the physical, cognitive, and physiological Fitness-to-Drive of commercial drivers in separate pilot sites:

- Sweden: with bus drivers and shuttle operators;
- Greece and Austria: with taxi drivers and delivery service riders;
- Spain: with electric dustbin and coach drivers; and
- Norway: real-life roadside assessment performed by police officers.

In the case of impairment, a complementary cloud-based countermeasures and coaching tool will deploy appropriate solutions to drivers, operators, and enforcement agencies through mobile and web applications.

A literature review for each impairment addressed has been conducted, followed by benchmarking and gap analyses to identify the key competitors and gaps that need to be closed in relevant markets, research



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and legislation. Interviews and focus groups took place and questionnaires were given to drivers, riders and stakeholders to gather the main user needs and requirements. These activities led to the definition and development of the implementation and user testing scenarios and scripts along with the first version of the PANACEA architecture.

COORDINATOR

CENTRE FOR RENEWABLE ENERGY SOURCES AND SAVING FONDATION

PROJECT DURATION

1 /11/2017 to 28 /02/2021

EU FUNDING

€ 1,999,500

WEBSITE

<http://www.panacea-h2020.eu/>

OTHER THEMATIC AREAS

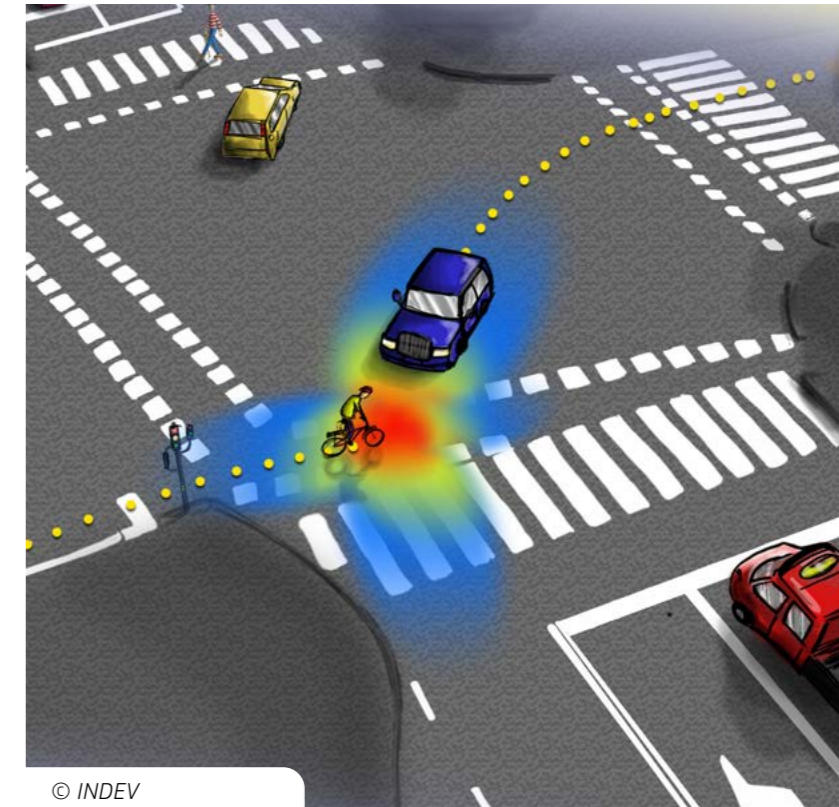


InDEV

In-Depth Investigation of accident causation for Vulnerable road users

The goal of InDeV was to put together, ready-to-use by road safety professionals, a collection of methods for studying safety of cyclists and pedestrians in traffic. The methods included a wide palette from accident report analysis to behavioural and observational studies as well as road safety inspections. A specific topic of interest for the project was surrogate measures of safety (also known as traffic conflicts or almost-accidents)—events that possess significant similarities to real accidents but are much easier to observe and study. The work included development of advanced video analysis software able to recognise the motion and interactions of road users in video recording. It also included further work on the theoretical foundations of the method, such as the development of causal and statistical models relating traffic conflicts to accidents, search for most suitable traffic conflict metrics and definitions that take into account the vulnerability of cyclists and pedestrians and methods for conversion of the observed conflicts into expected number of accidents.

The project also worked with analysis of the socio-economic costs related to cyclist/pedestrian accidents, particularly how their under-reporting leads to underestimation of the problem scale and imbalanced decisions that tend to favour motor traffic occupants.



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COORDINATOR

LUNDS UNIVERSITET

PROJECT DURATION

1/05/2015 to 3 /11/2018

EU FUNDING

€ 4,900,000

WEBSITE

<http://www.indev-project.eu/>

OTHER THEMATIC AREAS



Featured Projects

- » [FastTrack](#)
- » [RECIPROCITY](#)
- » [MOVE21](#)
- » [SMARTENCITY](#)



Other Projects

- » [AVENUE](#)
- » [BONVOYAGE](#)
- » [C-MOBILE](#)
- » [COEXIST](#)
- » [L3PILOT](#)
- » [LEVITATE](#)
- » [MASAI](#)
- » [NUMIDAS](#)
- » [SHOW](#)
- » [TIMON](#)

Smart & connected mobility

Thematic Area 9

Establishing the critical link between new user-friendly transport services and decarbonisation.





FastTrack

Speeding up the roll-out of sustainable mobility innovations

It can be challenging for local authorities to keep pace with the latest sustainable mobility innovations or to know what innovative solutions will work in their contexts. FastTrack helps address these barriers, in order to accelerate sustainable mobility transformations. This is crucial given the urgency of the climate crisis and necessary to meet European targets.

FastTrack works with 24 urban and peri-urban areas to accelerate the roll-out of sustainable mobility innovations through knowledge-exchange and capacity building. This work revolves around four topical clusters, each led by an Ambassador City. Throughout its learning programme – featuring a bottom-up needs assessment, e-learning opportunities, and Capacity Building Weeks – FastTrack brings its community of local areas together with experts and solution providers to overcome the barriers to innovation deployment.

By the end of the project, each of the 24 local areas will have developed Deployment Plans for the swift implementation of the best mobility innovations for them. In addition, a public database of tried and tested innovative solutions, a best practices portal and final recommendations will all be shared widely to ensure that everyone benefits from FastTrack.



The [project has already](#) completed a [Needs Assessment](#), launched a [searchable database](#) of State-of-the-Art examples of speedy innovation deployment, and completed much of its capacity-building programme.

COORDINATOR

ICLEI EUROPEAN SECRETARIAT GMBH (ICLEI EUROPASEKRETARIAT GMBH)

PROJECT DURATION

01/02/2021 to 31/07/2023

EU FUNDING

€ 1,499,495

WEBSITE

<https://fasttrackmobility.eu>

OTHER THEMATIC AREAS



RECIPROCITY

Accelerating replication for smarter and cleaner mobility

RECIPROCITY aims at responding to mobility challenges by equipping 20+ cities across Europe, of varying size and mobility demand, with the necessary tools, knowledge, contacts and methods to accelerate the replication of existing innovative mobility solutions.

To this end, RECIPROCITY is employing a four-stage replication framework, helping cities and municipalities to: IDENTIFY the right innovative mobility solutions and relevant stakeholders; LEARN about requirements, processes and skills needed to put these solutions into action; ACCELERATE their implementation through guidance and matchmaking for business and finance and SHARE and build upon lessons learnt and best practices to enable fast wide-scale replication.

After engaging with 260+ key stakeholders and identifying 47 replicable use cases, RECIPROCITY supports the replication of mobility solutions by providing various tools and activities to dive deeper into financial, legal, technological and socioeconomic aspects:

- [RECIPROCITY tools](#): Financial & Legal Helpdesk, Information & Communication Platform including matchmaking features, Best mobility practices



© RECIPROCITY

- [RECIPROCITY events](#): Mobility Missions, Mobility Assemblies, Mobility Trainings, Business Model Generation Workshops

The learning from the project will make innovative solutions more accessible for a wider set of cities and municipalities beyond the project's scope.

COORDINATOR

R-Tech GmbH (Regensburg, Germany)

PROJECT DURATION

01/02/2021 to 30/09/2023

EU FUNDING

€ 1,498,831

WEBSITE

<https://reciprocity-project.eu/>

OTHER THEMATIC AREAS





MOVE21

Multimodal and interconnected hubs for freight and passenger transport contributing to a 0 emission 21st century

MOVE21 helps cities and metropolitan areas transform into smart and zero emissions urban nodes for mobility and logistics. The project connects urban systems in an integrated approach and addresses both goods and passenger transport with the aim to improve efficiency, capacity utilisation, accessibility, and innovation capacity in urban transport. MOVE21 delivers innovative, close to market ready solutions that have been proven to work in different regulatory and governance settings.

The idea of cities as testbeds is central to MOVE21, and the project comprises Living Labs in Oslo, Gothenburg and Hamburg and replicators in Munich, Bologna, and Rome. The project tests and upscales different solutions for passenger and goods transport in these six urban areas across the Scandinavian-Mediterranean (Scan-Med) Corridor of the Trans-European Transport Network (TEN-T). The idea is to harness positive effects of new solutions both in cities or metropolitan areas and across the Scan-Med TEN-T corridor. Participating cities and metropolitan areas have committed to upscaling the most prominent solutions – which can range from new technological integrations or business models to new procurement or governance methods



related to urban transport and in particular mobility and logistics hubs, urban logistics and mobility as a service.

COORDINATOR

OSLO KOMMUNE

PROJECT DURATION

01/05/2021 to 30/04/2025

EU FUNDING

€ 8,999,845

WEBSITE

www.move21.eu

OTHER THEMATIC AREAS



SmartEnCity

Towards Smart Zero CO2 Cities across Europe

SmartEnCity aims to develop a systemic approach for transforming European cities into sustainable, smart and resource-efficient urban environments. We aim to develop strategies that can be replicated throughout Europe to reduce energy demand and maximise renewable energy supply in our cities. SmartEnCity's vision is to create Smart Zero Carbon Cities that are more sustainable and inclusive, improve citizens' quality of life, create jobs and wealth, and offer equal growth opportunities.

The SmartEnCity concept has been defined, planned and implemented in three Lighthouse demonstrators Vitoria-Gasteiz (ES), Tartu (EE) and Sonderborg (DK), and replicated in the two Follower cities of Lecce (IT), and Asenovgrad (BG).

Sustainable mobility based on clean energy sources is one of the pillars of Smart Zero Carbon Cities. Actions in the three Lighthouse cities include the deployment of clean energy public transportation infrastructure (both biogas and e-buses, with over 120 clean energy buses deployed in the three cities, and reaching a 100% climate neutral public transportation system in the case of Tartu), making EV fast and intelligent charging accessible in the cities as a catalyser for private E-mobility, electrification of public and private stakeholders' vehicle fleets, successful e-bike



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schemes, and an innovative demonstrator of old car batteries reuse for PV energy storage.

COORDINATOR

FUNDACION TECNALIA RESEARCH & INNOVATION

PROJECT DURATION

01/02/2016 to 31/07/2022

EU FUNDING

€ 27,890,139

WEBSITE

<http://smartencity.eu>

OTHER THEMATIC AREAS



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Urban logistics



Thematic Area 10

Promoting cleaner urban freight vehicles and more efficient goods distribution.





LEAD

Digital Twins for low emission last mile logistics

The change in consumers' habits, speeded up by the successive COVID-19 lockdowns, has led to a boom in online commerce. This pattern, together with consumer's expectations for low or zero cost deliveries and the industry's promises of "instant" delivery, are putting a lot of pressure on the delivery systems in urban contexts. These lead to pollution, congestion and inefficient last-mile logistics.

To respond to these issues, LEAD is creating Digital Twins of urban logistics scenarios in six Living Labs across Europe: Madrid (ES), Porto (PT), Oslo (NO), Lyon (FR), The Hague (NL), and Budapest (HU). Digital Twins are digital representations of complex real-world phenomena, which can help to predict patterns through the help of data and simulation models.

Each LEAD Living Lab will experiment with use case scenarios on demand and last-mile logistics operations involving entities from both public and private sectors. The goal is to create models that can help local decision-makers to make informed decisions on the planning of their urban logistics networks for addressing the existing challenges.



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EMPRESA MUNICIPAL DE TRANSPORTES DE MADRID SA

PROJECT DURATION

01/06/2020 to 31/05/2023

EU FUNDING

€ €3,941,625

WEBSITE

<https://www.leadproject.eu>

OTHER THEMATIC AREAS



ULaaDs

Urban Logistics as an on-Demand Service title or short description

Urban logistics is a 'hot topic'. With the increase of e-commerce, we see a growing volume of deliveries. The European objective of 'essentially CO₂-free city logistics in major urban centres by 2030' became an even more ambitious target. Additionally, the number of delivery vans causes problems for other road users.

The ULaaDS project develops, tests and demonstrates innovative measures for urban logistics in three cycle-friendly pilot cities – Bremen (DE), Groningen (NL) and Mechelen (BE):

- containerised last-mile delivery with modular heavy cargo-bikes via micro-hubs
- cargo-bike sharing as alternative to using a car for private micro-logistics (e.g. grocery shopping, kids to kindergarten or school, weekend excursion)
- multimodal hub on P&R site with neutral parcel-lockers
- integration of parcel transport in automated minibuses – combining on demand passenger and goods transport.

UlaaDS is composed of 25 project partners, including local authorities, logistic operators, private research institutes and universities, NGOs and consulting agencies. UlaaDS has a special focus on integrating logistics solutions in SUMP and developing Sustainable Urban Logistic Plans (SULPs), demonstrating the potential of cargo-bikes for commercial transport as for private micro-logistics in a cycle-friendly environment.



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FREIE HANSESTADT BREMEN

PROJECT DURATION

01/09/2020 to 29/02/2024

EU FUNDING

€ 3,150,390

WEBSITE

<https://ulaads.eu>

OTHER THEMATIC AREAS



Synergies with other programmes

The CEF Transport Programme

The transport sector of the Connecting Europe Facility (CEF) programme supports the construction and upgrade of transport infrastructure in Europe. It also contributes to the deployment of sustainable and efficient mobility solutions, as well as seamless connections between transport modes and ICT.

CEF – Urban nodes

In the area of urban nodes, the CEF and Trans-European Transport Network - TEN-T - policies aim to better integrate long-distance transport with the urban traffic system for both passengers and freight. During the period 2014-2020, the main objectives were related to covering missing links and bottlenecks within and between the transport modes of the TEN-T in urban nodes and increasing multi-

CEF Transport also supports innovation in the transport system in order to improve the use of infrastructure, reduce the environmental impact of transport, enhance energy efficiency and increase safety. The implementation of the CEF Programme is key for the European Union to achieve the goals of the European Green Deal.

modality, by sustainably shifting from cars to alternative modes for both freight and passengers and greening transport by shifting from fossil to alternative fuels.

Since 2014 the CEF urban nodes priority has been implemented through five calls, which resulted in 50 projects selected for funding with a total EU contribution of €298 million.

CEF Transport also supports innovation in the transport system in order to improve the use of infrastructure, reduce the environmental impact of transport, enhance energy efficiency and increase safety.

During the current programming period 2021-2027, CEF Transport is further supporting the development of an accessible, multimodal, green and efficient transport system in the urban nodes in line with the EU Green Deal and EC Sustainable and Smart Mobility Strategy, under different priorities such as:

- Multimodal passengers hubs located in urban nodes based on a local needs assessment in line with the Sustainable Urban Mobility Plans, contributing to the connection with available long-distance transport modes and improving accessibility for all users, especially for passengers with reduced mobility;

- Construction or modernisation of existing rail lines to increase the capacity in nodes, including a better articulation of long-distance and local traffic;
- Support to alternative fuels infrastructure, such as the roll-out of hydrogen refuelling and electricity recharging infrastructure dedicated to public transport and heavy-duty vehicles in urban nodes.



RAIL-TO-AIR

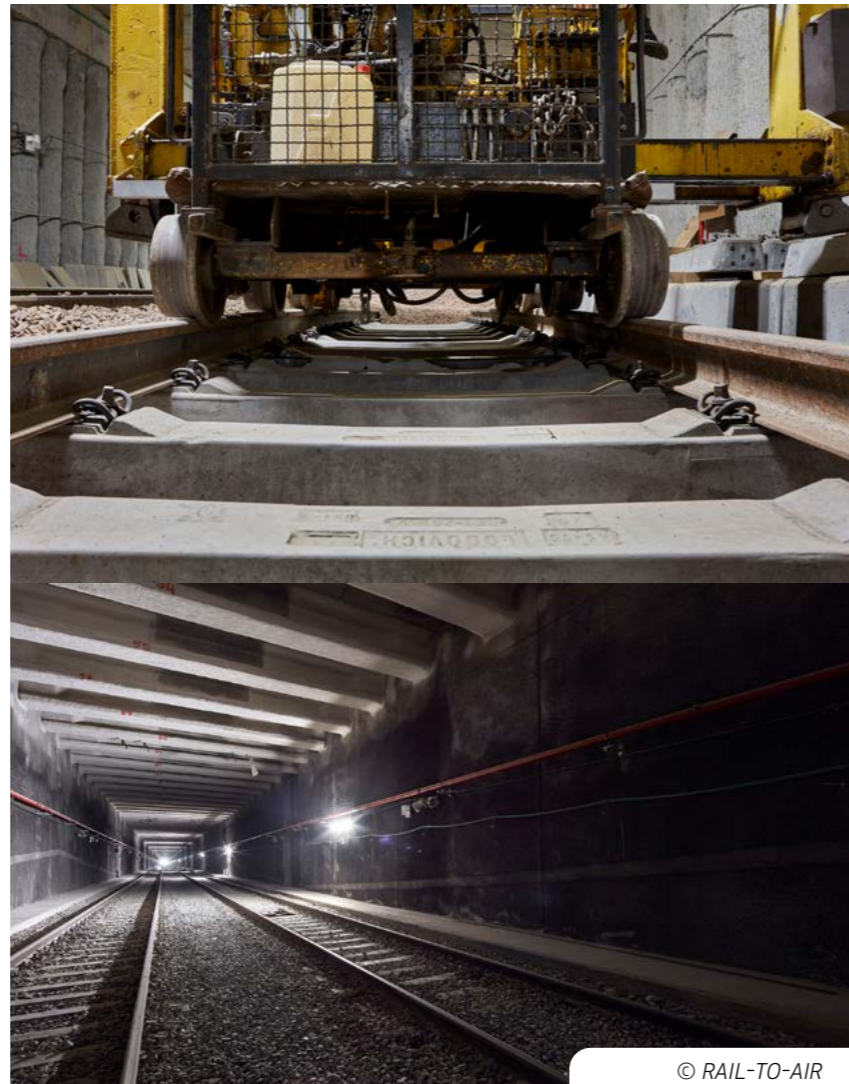
Enhancing the RAIL interconnection between Torino urban node, AIRport and related hinterland

The Action aims to enhance the rail interconnection between Torino urban node, the airport and related hinterland in the Piedmont Region of Italy. It is the last phase of a larger investment to bridge the missing link between the core urban node of Torino and the Torino "Caselle" core airport, on the Torino-Ceres railway line, by re-establishing the rail connection between them.

The Action covers works for the construction of a railway tunnel under "Corso Grosseto" avenue, leading to the Rebaudengo railway station on the Torino-Milano high-speed railway line. This entails the decommissioning of stations "Madonna di Campagna" and "Dora", the construction of a new underground stop along the Corso Grosseto tunnel- "Fermata Grosseto" and the upgrading of the underground Rebaudengo station to accommodate the connection of the two lines.

In addition, the Action will cover the upgrading of the railway line safety and security standards between the new intersection with the high-speed line and Torino "Caselle" Airport.

Once completed, the Action will enable the direct rail connection to the airport (counting four million passengers/year), thus connecting two modes of long-distance transport and fostering the modal shift from road to rail to reach the airport.



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COORDINATOR

REGIONE PIEMONTE

EU FUNDING

€ 14,647,781

PROJECT DURATION

01/03/2020 - 30/06/2023

WEBSITE

<https://ec.europa.eu/inea/en/connecting-europe-facility/cef-transport/2019-it-tm-0338-w>

URBAN-E

e-Mobility, Infrastructure and Innovative Intermodal Services in Ljubljana, Bratislava and Zagreb

In view of achieving the Green Deal target's and the reduction of the GHG emission goals of the European Commission's Smart and Sustainable Mobility Strategy, the Action aims to accelerate e-mobility, intermodal travel and green transportation in the Core Urban Nodes of Ljubljana, Bratislava and Zagreb, as well as to foster the uptake of alternative fuels according to the National Development Plans of these countries.

This study with a pilot component aims to deploy a network of 167 charging stations for electric vehicles and an innovative ICT platform that will enable consumer-friendly end-to-end travelling and effective intermodal services.

The Action will ensure interoperability and standardisation of urban and long-distance infrastructure and open access of this infrastructure to all electric vehicles in order to create one integrated recharging network and it will also explore efficient parking management solutions.



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COORDINATOR

PETROL d.d., Ljubljana

EU FUNDING

€ 3,802,101

PROJECT DURATION

01/03/2017 - 30/06/2022

WEBSITE

<https://ec.europa.eu/inea/en/connecting-europe-facility/cef-transport/2016-eu-tmc-0351-s>

Synergies with other programmes

The LIFE Programme

The LIFE programme has financed various projects dealing with sustainable mobility mainly under the Circular Economy and Quality of Life and Climate Change Mitigation mainly for their impacts in terms of air quality and reductions of greenhouse gases emissions.

The LIFE Programme is the EU Programme for Environment and Climate Action and it is structured in four sub-programmes:

- sub-programme Nature and Biodiversity;
- sub-programme Circular Economy and Quality of Life;
- sub-programme Climate Change Mitigation and Adaptation;
- sub-programme Clean Energy Transition.

The program has a “bottom-up” approach and projects contributing to the objectives of one of the sub-programme can be funded.

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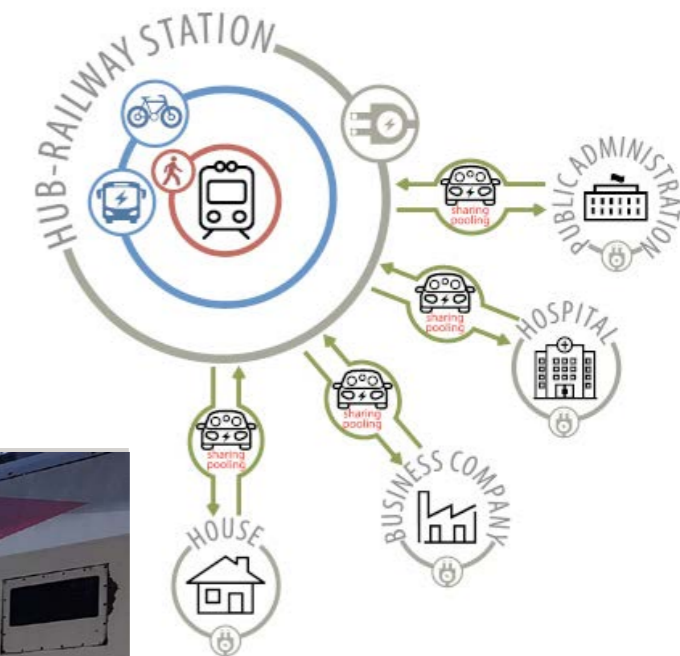
the Circular Economy and Quality of Life and Climate Change Mitigation mainly for their impacts in terms of air quality and reductions of greenhouse gases emissions. The type of projects are mainly focused on developing and testing innovative products/technologies/services with actions to ensure its sustainability and replicability and/or raise awareness and disseminate best practices.

In the last decade, the LIFE Programme has financed around 75 projects worth € 350 million on various aspects of sustainable mobility: production/demonstration of low/zero emission fuels, innovative material and technologies (for instance to reduce the weight of vehicles), digital solutions to optimise and green conventional transport.

I-SharE LIFE

Innovative sharing solutions for full electric travels in small and medium size urban areas

I-SharE LIFE aims at demonstrating the technological and economic feasibility of e-carsharing models of service tailored to smaller urban areas in Lombardy and Croatia, in order to facilitate the uptake of electric and shared mobility in a wider range of urban contexts. I-SharE LIFE includes specific sustainability and replicability & transferability in five demonstration sites and replicability in further 34 sites.



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COORDINATOR

FNM S.P.A

PROJECT DURATION

0/07/201 to 30/06/2021

EU FUNDING

€ 5,667,071

WEBSITE

<http://www.i-sharelife.eu/>

LIFE Alps

Zero Emission Services for a Decarbonised Alpine Economy

LIFE Alps (IPC2017 Zero Emission IP) works on urban mobility and hydrogen.

This project is based on the South Tyrol 2050 Climate Plan from 2011.

This project aims at transforming South Tyrol into an Alpine model region for zero emission mobility. As to reach this ambitious goal, partners from different areas of South Tyrol have decided to join forces and to develop the infrastructure for e-mobility, to bring pilot fleets on the streets and to create zero emission services (e.g. taxi, shuttle service, transport of goods).



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COORDINATOR

SASA SPA AG SOCIETA AUTOBUS SERVIZID'AREA SPA

PROJECT DURATION

01/01/2019 to 30/12/2026

EU FUNDING

€ 18,806,522

WEBSITE

<https://www.life-alps.eu/>

LIFE ASPIRE

Advanced logistics platform with road pricing and access criteria to improve urban environment and mobility of goods

LIFE ASPIRE aims to enhance of sustainability of freight mobility processes and reduce polluting emissions. ASPIRE realized an advanced logistics platform with road pricing and access criteria to improve urban environment and mobility of goods in the RTZ of cities and developed a set of regulatory and operational measures, thanks to a technological system tested in Lucca (IT):

- access/exit monitoring system for commercial vehicles, within the RTZ, using UHF RFID sensors
- cargo-bikes sharing system;
- system for monitoring loading/unloading bay areas.

The integrated management of these systems is allowed by a dedicated software platform (LOCMAP), able to smartly monitor freight urban mobility and realising an award programme related to a set of parameters, such as vehicle features (e.g. emission standards) and operator's behaviour.

Data collected allows to calculate ECOPOINTS feeding the final score in order to reward most sustainable operators.



© LIFE ASPIRE

Results achieved: round 2,700 commercial vehicles monitored equipped with an RTZ access permit provided with RFID, commitment of the Administration to extend the access monitoring system to other user categories, reduction of pollutant emissions, greater attention toward zero-emission and low-carbon transport, promotion of more sustainable transport, transferability of the ASPIRE approach in other cities (Zadar, Stockholm, others).

COORDINATOR

CITTÀ DI LUCCA

PROJECT DURATION

01/10/2017 to 30/09/2021

EU FUNDING

€ 1,729,149

WEBSITE

<http://www.life-aspire.eu/>

CINEA in BRIEF

The European Climate, Infrastructure and Environment Executive Agency has been established by the European Commission to implement parts of EU funding programmes for transport, energy, climate action, environment and maritime fisheries and aquaculture.

CINEA has a multinational team, organised in four departments.

Seven European Commission's Directorates-General oversee CINEA's activities:

- » DG Mobility & Transport (MOVE)
- » DG Energy (ENER)
- » DG Research & Innovation (RTD)
- » DG Climate Action (CLIMA)
- » DG Environment (ENV)
- » DG Maritime Affairs and Fisheries (MARE)
- » DG Regional and Urban Policy (REGIO)

Providing added value to beneficiaries

CINEA's long-standing experience in programme management provides the beneficiaries with:

- » Simplified access to EU funding opportunities
- » Promotion of project results and achievements for increased visibility of EU actions and promotion of the programmes
- » Guidance and technical support in project management, financial engineering, public procurement, and environmental legislation in close collaboration with beneficiaries
- » Streamlined and harmonised procedures for a better use of EU funds and maximised programme efficiency, such as shorter payment times and faster response rate
- » Efficient evaluation procedures, user friendly and transparent call documentation, and customised IT tools to support applicants.

Support to policy making and deployment

The Agency is also supporting the policy makers and the European Commission with:

- Relevant feedback on programme implementation as input to policymaking
- Developing synergies between programmes to bridge the gap between R&I results and infrastructure development
- Bringing innovative ideas, concepts and products to implementation
- Building significant economies of scale

BY 2027
**+500
STAFF**

BUDGET
2021 - 2027
**EUR 58
BILLION**

CURRENTLY MANAGING
**2800
PROJECTS**

ARE YOU AN EXPERT?

The European Climate, Infrastructure and Environment Executive Agency (CINEA) is regularly looking for independent experts to act as external evaluators of project proposals or reviewers of projects in implementation.

If you fit the expert profile, and would like to be considered as a proposal evaluator or project reviewer, you can register in the Funding & Tender portal:

<https://ec.europa.eu/info/funding-tenders/opportunities/portal/screen/work-as-an-expert>





CINEA

Funding a greener future

For a full list of CINEA-managed projects and to stay informed about upcoming funding opportunities, visit our website and follow the European Climate, Infrastructure and Environment Executive Agency on LinkedIn and Twitter.

European Climate, Infrastructure and Environment Executive Agency

European Commission

W910

B-1049 Brussels, Belgium

+32 (0)2 299 5252



<https://cinea.ec.europa.eu>



cinea@ec.europa.eu



[@cinea_eu](https://twitter.com/cinea_eu)



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