eit Urban Mobility

Co-funded by the European Union

Highlights

projects 2020-2021

Mobility for more liveable urban spaces

Contents

→ eiturbanmobility.eu

Foreword

While the European Union's greenhouse gas emissions dropped by 22% overall between 1990 and 2018, transport is the only sector where emissions actually increased over the same period – and by an alarming 23.1%. With the European Green Deal and unprecedented NextGenEU investments in the sustainable green recovery of Europe from the pandemic, **the EU has embarked on an ambitious path to reduce emissions sharply by 2030 and achieve climate neutrality by 2050.**

This ambition requires a profound transformation of the transport sector and will be a tremendous catalyst for innovation. **EIT Urban Mobility is here to contribute to the achievement of this ambition, leveraging the power of innovation and accelerating the transformation towards more sustainable forms of mobility across Europe**. Launched by 48 organisations in 2019, EIT Urban Mobility is now driving change by connecting more than 250 organisations across cities, industry, research and academia.

This report offers a snapshot of our 2020 and 2021 projects and an overview of the start-ups that EIT Urban Mobility has invested in. These projects and start-ups are providing solutions in the areas of multimodal transport, green city logistics, active mobility, human-friendly urban environments, and energy solutions. This document can furnish only a glimpse into the diversity of activities run by the EIT Urban Mobility community. Other activities involve, for example, reskilling and upskilling academic and professional staff to bolster the entrepreneurial mindset, accelerating and incubating start-ups and scale, supporting pilots and the market uptake of new mobility solutions, and the scaling-up of innovative solutions.

Our 2020 and 2021 project highlights and start-ups all contribute to the EIT Urban Mobility mission to: **accelerate the transition towards sustainable urban mobility and more liveable urban spaces.**

Let's move!

Dr. Maria Tsavachidis,
Chief Executive Officer, EIT Urban Mobility

A European initiative for the future of our urban mobility

EIT Urban Mobility is an initiative of the European Institute of Innovation and Technology (EIT), a body of the European Union. EIT Urban Mobility supports innovative solutions that increase liveability in European cities and accelerate change towards a sustainable model of urban mobility.

All activities of EIT Urban Mobility serve the purpose of eventually achieving three socetal impact goals:

1. Improved quality of life in cities

2. Mitigation of climate change

3. Job creation & strengthening of the European mobility sector

We engage

City challenges are at the centre of everything we do. We stimulate behavioural change that benefits people and cities by engaging citizens and transport users from the word go.

We connect

We bring all the key players in urban mobility together and encourage them to co-create. We aim to align solutions with the values and needs of society and to break down the silos between the actors.

We accelerate

We boost the competitiveness of Europe's urban mobility industry by facilitating new business ideas and innovation, highlighting market opportunities and encouraging the appearance of new business models and players.

We educate

We work on closing the knowledge gap on urban mobility through challenge-based training aimed at students and professionals using the latest education methodologies across disciplines and sectors.

An innovation community to educate and inspire mobility solutions for 21st century cities

EIT Urban Mobility is a network of more than 250 partners bringing together Europe's leading companies, innovative cities, and research and education institutions.

As the leading European innovation community for urban mobility, we foster integration by bringing together the key players across the whole value chain of mobility.

Through this community, EIT Urban Mobility

> drives systemic solutions that will improve mobility and create more liveable urban spaces

> brings together all key stakeholders in urban mobility

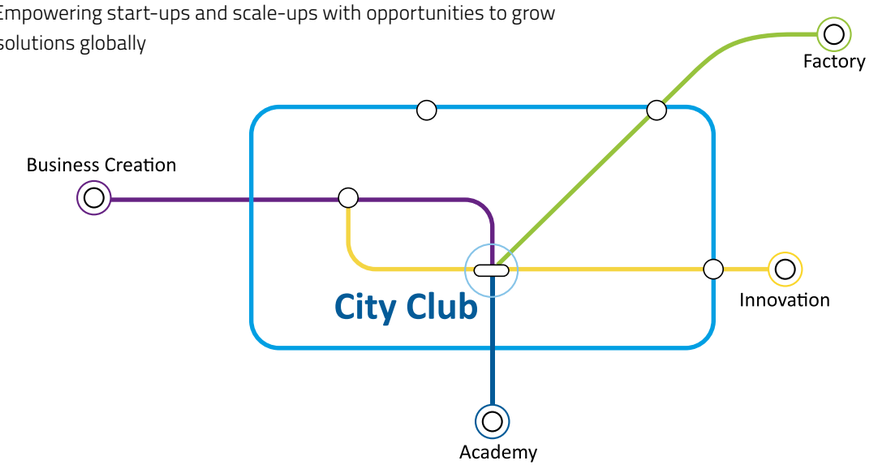
> ensures fast deployment of solutions & scaling to the cities of Europe and beyond

> stimulates behavioural change that benefits cities and all citizens

Transforming urban mobility

Complex problems call for a highly integrated approach. With our five interconnected programmes we cover the full range of activities needed to enable the transformation of urban mobility.

- **City Club & Living Labs:** Defining challenges & sharing best practice
- **Academy:** Closing the knowledge gap
- **Innovation:** From research to applied ideas
- **Business Creation:** Empowering start-ups and scale-ups with opportunities to grow
- **Factory:** Leveraging solutions globally



We are delivering our mission through our five thematic areas:

City Club & Living Labs

Putting urban mobility solutions into practice

Cities are at the core of our activities. City Club – our network of cities – is a platform for collaborating, sharing best practices, upscaling ideas and putting them to work. Our cities act as living labs and test beds for pilots and demonstrations to enhance innovation in urban mobility.

Living Labs network
A single living lab environment to co-develop solutions and services in real-life environments with the citizens

Innovation and knowledge transfer
Workshops and webinars on relevant innovations in transport

Citizen engagement
Innovative methodologies, tools or processes for engaging citizens in co-developing the future of urban mobility

Public realm
Generating social innovation by improving and transforming streets and public spaces with tactical urbanism and street experiments

Academy

Collaborative arena for lifelong learning on urban mobility

We train the next generation of practitioners who are needed for the urban mobility ecosystem of the future by building critical capabilities for innovation and transformation. Our programmes are intersectoral, interdisciplinary, international and entrepreneurial.

Our main vehicles are:

Master School:
· Double degree of two years
· Training in innovation & entrepreneurship
· Intensive summer school visiting two European cities
· Scholarship programme

Doctoral Training Network:
· For urban mobility PhD candidates
· Bridge between research and innovation
· Annual doctoral forum
· Networking opportunities

Competence Hub:
· For urban mobility professionals
· WebTV videos
· Online courses – SFOCs (short free online courses) and MOOCs (massive open online courses)
· Face-to-face and blended training

Innovation

From innovative ideas to real-life applications

We aim to resolve the urban mobility challenges that face European cities through action-oriented innovation.

Our vehicles for Innovation projects:

· Challenge-driven, market-based and solution-oriented
· Financial sustainability
· Pan-European Living Labs
· Real-life contexts
· Research, technology & societal innovation

Action and Impact Groups:
· Supporting businesses, cities and universities to target in early innovation funding for greater impact
· Community building and ideation

Rapid Applications for Transport:
· Agile solutions to niche urban transport challenges
· Mentoring and opportunities for start-ups and SMEs

Business Creation

Funding and hot network leads for startups and scale-ups

We boost the competitiveness of Europe's Mobility landscape by supporting startups: incubation, acceleration and scaling-up.

Our vehicles for business creation are:

Finance2move:
· Access to public and private funding opportunities
· Fundraising with expertise in the mobility industry
· Investment Readiness Programme

Accelerator Programme
· Coaching/mentoring
· Co-working space
· Investors matchmaking
· Access to market
· Living Labs access

ScaleTHENGlobal
· Internationalisation
· Pilots with cities
· Access to EU ecosystems
· Expert workshops
· Mentoring/coaching

Factory

Scaling solutions for urban mobility challenges

We support the deployment of innovative solutions that drive sustainable mobility in cities through our Factory activities:

#ChallengeMyCity
Enabling cities to test innovative mobility solutions addressing their challenges

Mobility Innovation Marketplace
Showcasing novel mobility solutions aimed at making our cities more sustainable on our digital marketplace and our physical matchmaking activities
⟶ https://marketplace.eiturbanmobility.eu

Future Mobility Foresight
Positioning technologies, products and best practices with positive impact through our foresight and mobility workshop solutions.

New Funding sources
Facilitating access to funding and consortium building

Our Challenge Areas

Nine urban mobility "Challenge areas" identified as following:

Active mobility

A key element of tomorrow's sustainable transport system. Individuals and society benefit of physical activity such as walking, cycling and skateboarding

Multimodality

Using different modes of transport in a single journey requiring seamless and safe interchanges and digital infrastructure

Mobility infrastructure

The physical and digital components that are needed to transport people and goods in a reliable, safe and sustainable way

Mobility for all

Mobility for all groups considering a heterogeneous view of transport and urban planning

Sustainable city logistics

Transport of freight in urban areas and driving towards zero-emission and optimised freight solutions

Creating public realm

Re-thinking the use of public space by re-allocating urban space for people, tactical urbanism and street experiments

Future mobility

New mobility services enabled through digitalisation and technologies such as AI, blockchain, 5G and Internet of Things

Mobility and energy

Less fossil fuel dependence by enabling widescale deployment of electric vehicles and other cleaner fuel types

Pollution reduction

Reducing noise and local air pollution while at the same time reducing CO2 emissions and increase urban quality of life

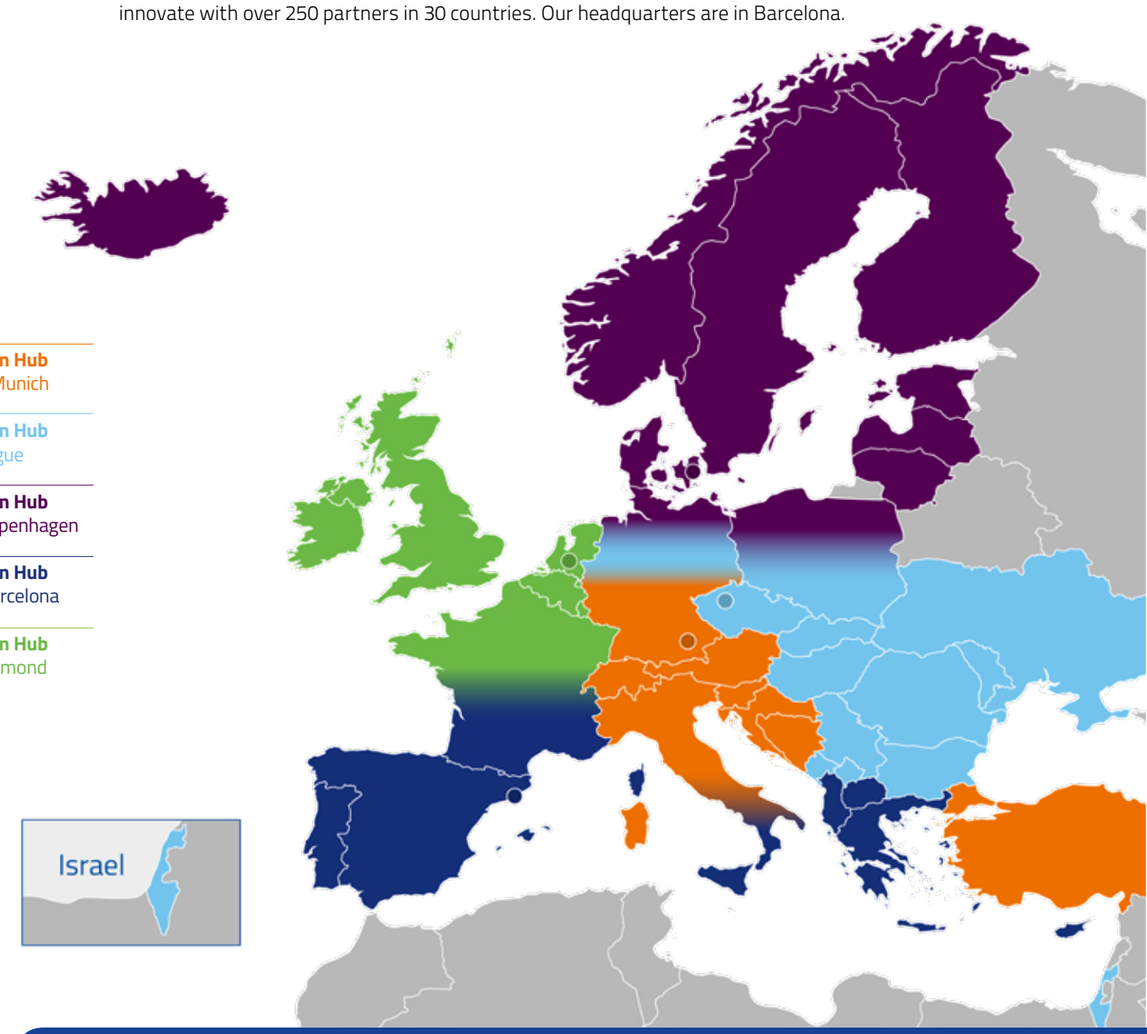
The relevance of the urban dimension in solving global societal challenges and driving change has been recognised at international level. EIT Urban Mobility activities are also addressing some of the **Sustainable Development Goal targets:**

(United Nations Sustainable Development)

Our geographical reach

EIT Urban Mobility Innovation hubs

EIT Urban Mobility activities cover the whole European Union and beyond. We have five Innovation Hubs across Europe to animate local networks active on urban mobility topics. We gather locally experts and practitioners from industry, cities, academia, and research. With locations in Munich, Prague, Copenhagen, Barcelona, and Helmond we innovate with over 250 partners in 30 countries. Our headquarters are in Barcelona.



Regional Innovation Scheme

Regional inclusiveness is one of our priorities: our RIS programme has been designed to help boost the innovation in urban mobility within those countries and regions classified as emerging or moderate innovators according to the European Innovation Scoreboard. RIS stands for Regional Innovation Scheme and contributes to a pan-European spread of our community engagement opportunities and networks.

We currently have established 12 RIS Hubs including 5 news RIS hubs that have started in 2021: Croatia (2021), Greece, Hungary, Latvia (2021), Malta, Poland, Portugal, Romania (2021), Serbia, Slovakia (2021), Slovenia, Turkey (2021).

The power of a European partnership

EIT Urban Mobility is above all a network and our excellence comes from our partners. We are bringing together more than 250 partners are Europe's leading companies, research and education institutions and cities.

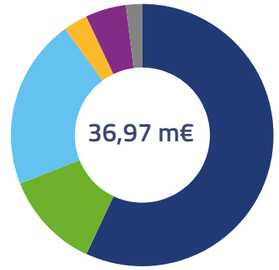
Overview of EIT Urban Mobility core partners

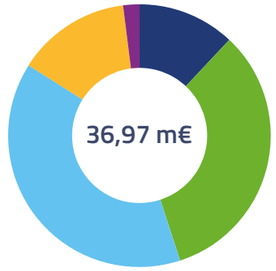
Key figures

EIT Urban Mobility funding (2020-2021) as of June 2021

Per Thematic Area

Innovation	21,12 m€ (57,1%)
Business Creation	4,24 m€ (11,5%)
Academy	7,82 m€ (21,2%)
Factory	1,07 m€ (2,9%)
RIS	2,07 m€ (5,6%)
Dissemination & Outreach	0,65 m€ (1,8%)





Per side of the Knowledge Triangle

Research	4,59 m€ (12,4%)
Business	12,24 m€ (33,1%)
Higher Education	14,28 m€ (38,6%)
Cities & regions	5,16 m€ (14%)
NGOs	0,69m€ (1,9%)

Academy

500 Master students

50 Doctoral candidates

50,000 Urban Mobility professionals participating in our courses

(per year)

Innovation

158 pilots and living labs actively involving citizens and local organisations

72 designed and tested state-of-the-art urban mobility solutions

51 urban mobility solutions launched in the market

* by 2023

Business Creation

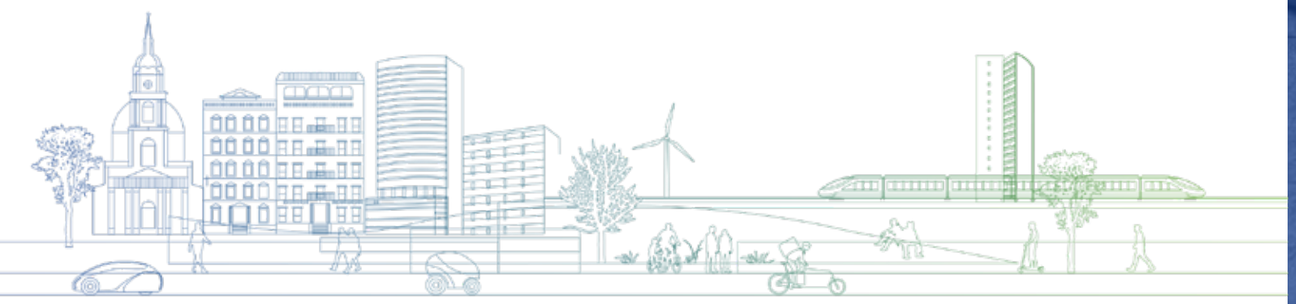
+120 supported Start-ups

21 investments

2m€ of funding

* by end of 2021

our selection of projects



Countries:
Spain, Germany, Bulgaria

Lead partner:
UnternehmerTUM GmbH

Partners involved:
UnternehmerTUM GmbH, Universitat Politècnica de Catalunya (UPC), CARNET, JA Bulgaria.

Start date:
01 January 2021

End date:
31st December 2021

WUM – Women in Urban Mobility

Empowering women in urban mobility

→ www.unternehmertum.de/en/landingpages/women-in-urban-mobility

Activity objective:
Create a unique network of urban mobility experts across Europe and raise awareness of female perspectives and gender equality in urban mobility.

Activity output:
Inspiring meetups, hands-on workshops, and a flourishing community creatively merging diverse European perspectives on gender and urban mobility.

Activity challenge addressed:
Empowering women in urban mobility and enriching the innovation process in urban mobility with more diverse perspectives.

Women in Urban Mobility aims to **raise awareness of female perspectives and gender equality in the urban mobility sector.**

The project strives to empower women to take entrepreneurial action; encourage companies, cities, and governments to foster gender equality; and enrich the innovation process in urban mobility with female perspectives to increase social inclusion and shape the future of urban mobility for everyone.

Three European cities – Barcelona, Sofia and Munich – come together to contribute with their knowledge about urban mobility and passion for empowering women to:

> build a thriving community and fostering creative exchange on innovative urban mobility concepts and perspectives.
> contribute a more gender diverse perspective to urban mobility.
> enable rich and immersive collaboration between cities, research fields, corporates, and start-ups.

Citython

Mobility hackathons fostering innovation in our cities

→ www.citython.eu

Activity objective:
Creating reference co-ideation events in Europe that attract the best talent to develop innovative solutions to real urban mobility challenges.

Activity output:
2021 saw four Citythons held by Eindhoven, Hamburg, Lublin, Bilbao and Barcelona. Winners then went on to pilot their solutions in the cities.

Activity challenge addressed:
Ensuring the next generation of urban mobility experts are equipped to engage with citizens and positively solve cities' real-life problems.

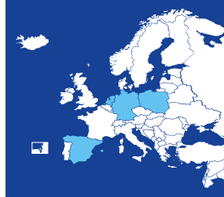
Citython events are designed to address the lack of practical solutions to current city urban mobility challenges by developing new targeted applications, technological tools, prototypes and business concepts in a short time frame.

In cities across Europe, multidisciplinary teams of students and professionals from different backgrounds (including architecture, urban planning, data science, engineering, human science and business creation) come together to **create the best solutions to the real-life urban mobility challenges** defined by the host cities.

Participants are supported by mentors from top European universities and industry partners and given feedback by experts in the field of urban mobility and data science. Composed of members of EIT Urban Mobility, public institutions, and industry experts, the jury awards the best solutions with a financial prize. Winners then go on to work with the host cities and industry professionals to implement their solutions as well as present their ideas to a wider audience at the Smart City Expo World Congress in Barcelona.

Our selection of projects

In the last 5 years, the Citython's events have helped to educate in urban mobility, to develop innovative products and services, to create a strong relationship between business and public authorities, and the most important to resolve urban challenges. **The Citython's events have reached more than 1200 participants, solving 20 real urban challenges, providing more than 300 innovative solutions during the event days.**



Countries:
Spain, Germany, Poland, Netherlands

Lead partner:
CARNET

Partners involved:
City of Eindhoven, City of Hamburg, City of Lublin, City of Bilbao, City of Barcelona, Breda University of Applied Science, Universitat Politècnica de Catalunya (UPC), Digital Hub Logistic Hamburg, Tecnalia

Start date:
01 January 2021

End date:
31 December 2021

Innovation
Bike-Longer

Countries:
Denmark, Hungary, Czech Republic, Netherlands, Israel

Lead partner:
Technical University of Denmark

Partners involved:
Budapest University of Technology and Economics, Czech Technical University in Prague, City of Eindhoven, City of Copenhagen, Technion - Israel Institute of Technology, Eindhoven University of Technology, Municipality of Tel Aviv - Yafo.

Started date:
01 January 2020

End date:
31 December 2020

Total budget:
€ 572,062

Bike–Longer

Modelling bicycle user behavior and preferences

Activity objective:
Provide methods and data that support increased bicycle-use policies with a focus on long-distance trips facilitated by e-bikes and bicycle highways.

Activity output:
Substantial data, methodological processing protocols and the quantitative model development needed for analysis of bicycle-user behaviour.

Activity challenge addressed:
Mobility planning transport models often lack quality representation of bicycles, in comparison with other transport modes.

There is a global increase in urban cycling with cities planning to invest significantly in bicycle infrastructure over the coming decades for reasons of health, urban space, mobility and climate change. Bicycle transport, however, is still included in most transport models in a very simplistic manner.

The Bike-Longer project seeks to improve the methodological progress, digital networks and real-life observations of behaviour and preferences relevant for the modelling of cyclists, with a particular focus on e-bikes and long-distance bicycle trips.

WalCycData

A data infrastructure for vulnerable road users

Activity objective:
To improve the safety of vulnerable road users with a pilot framework to integrate and analyse data related to bicycle and pedestrian transport.

Activity output:
WalCycData platform based on CIGO! cloud platform for AI-based data accident analysis; a bicycle-mounted sensor URBAN-i-Box; and car-to-car communication platform.

Activity challenge addressed:
Fatal accident statistics highlight the need to make cities increasingly safer for pedestrians and cyclists but better data and analysis is needed.

According to the European Transport Safety Council, the statistics for fatal vehicle and pedestrian accidents decreased by 24% and 19% respectively, the deaths of people on bicycles however remains the same.

Increasing the uptake of green and active transport, such as cycling and walking, is a priority for many governments and transport authorities because of their positive impact on public health, air quality and the reduction of traffic congestion in cities.

WalCycData aims to increase the safety and experience of vulnerable road users, namely cyclists and pedestrians, by integrating and analysing bicycle and pedestrian data.

Main part of the project is the creation of a WalCycData platform, based on Universitat Politecnica de Catalunya's CIGO! system for data evaluation and analysis of crisis situations and accidents using special data algorithms.

The goal of this international consortium is to develop and test WalCycData platform in pilot cities (Munich, Ostrava). The test will include not only data analysis but also practical verification using Urban-i-Box, a special bicycle sensor that monitors the interaction of cyclists, pedestrians, and cars in a dynamic urban environment through video, GPS and other sensors. Škoda Auto is focusing its efforts on creating a communication platform between car, pedestrian, cyclists, and other infrastructures.

Innovation
WalCycData

Countries:
Czech Republic, Germany, Spain, Israel, United Kingdom

Lead partner:
PowerHUB

Partners involved:
Fraunhofer Society for the Advancement of Applied Research, City of Munich, ŠKODA AUTO, Technion –Israel Institute of Technology, Universitat Politècnica de Catalunya (UPC), University College London, Pompeu Fabra University, City of Ostrava

Started date:
01 April 2021

End date:
31 March 2022

Total budget:
€ 726,268

Countries:
Greece, Portugal, Spain, France

Lead partner:
Centre For Research & Technology Hellas (CERTH)

Partners involved:
Altran Technologies, Universitat Politècnica de Catalunya (UPC), TUSGSAL, Aimsun, Barcelona Metropolitan Area, Carris, Factual, CARNET, Municipality of Sant Cugat del Valles, TheTA (Transport Authority of Thessaloniki)

Started date:
01 April 2021

End date:
31 March 2022

Total budget:
€ 944,819

MultiDEPART

A multi-operator tool for managing demand responsive transport

→ www.multidepart-project.eu

Activity objective:
To define a common methodology to plan, design and monitor a DRT service as well as developing KPIs, simulation and decision support tools for public transport authorities.

Activity output:
The project will deliver a methodology for planning DRT services and a multi-operator monitoring dashboard tailored for public transport authorities.

Demand Responsive Transit (DRT) services are gathering momentum in Europe, especially in medium and small size cities and low-density suburbs surrounding large metropolitan areas. Also known as bus on-demand or microtransit, DRT allows the provision of public transport services through flexible routes and schedules, based on actual demand collected from users through digital or other communication tools.

DRT also has the potential to solve accessibility issues for urban low-demand areas thanks to the digitalisation of public transport and mass adoption of mobile phones. Accessibility to public transport in poorly served areas can impact the social and economic possibilities of vulnerable communities and reduce private car usage.

The project is developing tools to plan, manage and monitor DRT solutions. Applied in Lisbon, the Barcelona Metropolitan Area and Thessaloniki, MultiDEPART is targeting public transport authorities and facilitating the harmonisation and scalability of DRT services across European cities.

Countries:
Netherlands, Spain, Poland, Portugal, France

Lead partner:
Stichting Amsterdam Institute for Advanced Metropolitan Solutions

Partners involved:
Altran Technologies, CARNET - Universitat Politècnica de Catalunya (UPC), Ferrocarrils Generalitat Catalunya, City of Amsterdam, City of Eindhoven, City of Helmond, SKODA AUTO, Technical University Delft, Universitat Politècnica de Catalunya (UPC), Barcelona Metropolitan Area, Pon Holdings B.V., Public Transport Authority in Warsaw, ZTM, EIT Urban Mobility, University of Lisbon, Municipality of Sant Cugat Del Vallès, Frog Portugal, Lisbon Metropolitan Area, EMEL.

Start date
1 January 2021

End date
31 December 2021

Total budget
€ 1,550,555.00

SmartHubs

Increasing the implementation and use of shared mobility hubs in metropolitan areas

Activity objective:
The main objective is to develop and validate effective and economically viable mobility hub solutions.

Activity output:
A detailed planning and analysis toolkit to help cities decide on the type, location, and mobility services offered at smart mobility hubs.

Activity challenge addressed:
The climate crisis and increasing pressure on urban space create a clear need for new and effective mobility solutions, such as shared mobility.

Worldwide the pressure on urban areas and climate crisis mitigation is increasing. Cities need to implement new and effective mobility solutions, such as shared mobility, to deal with this pressure. The adoption rate of shared mobility is already rising, however, it is not yet actually changing the way people move around their cities.

This means that the reduction in pressure on transport networks and public space, as a positive side effect of shared mobility, remains limited. Previous research shows the potential of shared mobility, but there is a need for effective planning and piloting tools. **Smarthubs will bridge this gap by testing, developing and validating hub concepts and by developing a decision-support planning tool to enhance the implementation of smart hubs.**

As part of the project, pilots will be run at different mobility hubs in six cities. These pilots will provide information about the needs of the hubs including locations, contexts and users. The partners will translate this information into a decision-support planning tool for cities to help them decide at a street, district and city level on the type, location, and mobility services they offer in their smart mobility hubs. The project will also deliver a validated list of criteria and a process for the public procurement of smart mobility hubs in public space.

Countries:
Spain, Italy

Project Lead:
Tecnalia

Partners involved:
Energy and Sustainable Development Agency, AXIRO, Municipality of Bergamo, Bosch VHIT, Bilbao City Hall, One Less Van

Start date:
01 July 2020

End date:
31 December 2020

Total budget:
€ 699,255

Inclusiv_eBike

A new concept in rickshaw e-bikes for safe urban transport

Activity objective:
Development of a new electric vehicle to improve the inclusivity of the transition to personalised, self-driving, micromobility services.

Activity output:
Delivering a prototype of a new Inclusiv_eBike including innovations to improve safety for drivers and pedestrians.

Activity challenge addressed:
There are currently very few safe, comfortable and socially distanced urban mobility options for people with limited mobility.

The project is particularly focused on empowering those with limited mobility who have seen their independence significantly reduced due to restrictions during the COVID-19 pandemic.

The prototype includes several innovations to improve safety, comfort and accessibility, while supporting policies promoting the re-use of public spaces and cycling infrastructure. As part of the innovations to improve safety, the project used a carbon fibre chassis, hydraulic braking system, advanced driver-assistance system functionality for improving driver and pedestrian safety, and included an assisted wheelchair elevator.

Inclusiv_eBike envisions a new inclusive electric vehicle for personalised transport that responds to the demands for less energy consumption and affordable automated micromobility; enhances sustainable urban mobility plans; and enables the transition to new personalised, self-driving micromobility services.

Country
Spain, Sweden, Netherlands.

Lead partner
Àrea Metropolitana de Barcelona (AMB)

Partners involved:
CIMNE (UPC), Vanapedal, City of Stockholm, Gateways, KTH Royal Institute of Technology

Start date
1 April 2021

End date
31 March 2022

Total budget
€ 530,000

HALLO

Hubs for last mile delivery solutions

Activity objective:
HALLO alleviates environmental and traffic problems in urban areas through the creation of shared urban consolidation and distribution centres.

Activity output:
Creation of UCDCs around the LEZ in the metropolitan area of Barcelona and in the city of Stockholm operated by local cyclo-logistics companies.

Activity challenge addressed:
This project is a response to the Sustainable City Logistics challenge (with a focus on last mile distribution).

The HALLO project is creating shared urban consolidation and distribution centres (UCDCs) through a series of pilots in Barcelona and Stockholm.

In Barcelona, the centres are being implemented in municipalities bordering the Low Emission Zone (LEZ) in the Metropolitan Area of Barcelona. Partner Vanapedal has developed new solutions for cargo bikes (to serve the UCDCs) focusing on containerisation. In Stockholm, the project is demonstrating complementary activities including implementing fossil-fuel free delivery logistics; and holding a stakeholder dialogue to outline a roadmap for the future development of fossil-free logistics.

In addition, the project is also compiling a roadmap detailing location planning, business models and implementation challenges to facilitate the replication of the approaches in other cities.

ZEUS

Zero emission off-peak urban deliveries

Countries:
Belgium, Spain, Germany, Sweden, Hungary, Estonia

Project lead:
Colruyt Group

Partners involved:
Barcelona City Council, Fraunhofer Society for the Advancement of Applied Research, KTH Royal Institute of Technology, City of Munich, MOL Hungarian Oil and Gas PLC, City of Stockholm, TRATON SE, Barcelona Metropolitan Area, University of Tartu

Start date:
01 October 2019

End date:
30 November 2020

Total budget:
€ 1,200,000

Activity objective:
Testing and evaluating of electric vehicles, new generation material-handling equipment and silent trailers as scalable, off-peak delivery solutions.

Activity output:
Guidelines and an impact estimation toolkit for European cities based on stakeholders' needs and scalable use cases for off-peak deliveries.

Activity challenge addressed:
Tackling the growing supply needs of cities including the congestion, air and noise pollution and citizen safety issues caused by daytime deliveries.

The Zero Emission off-peak Urban delivereS project (ZEUS) focused on implementing a concept for silent and emission-free city deliveries enabling a safer, cleaner and more liveable urban space.

It aimed to demonstrate the benefit of shifting high-volume retail deliveries in cities from peak hours to off-peak hours. **The project partners developed a data-driven, real-time, traffic-noise monitoring and mapping methodology that takes into account different categories of vehicles,** in order to assess the impact of a range of different traffic scenarios, including night-time deliveries.

FURNISH

Fast Urban Responses for New Inclusive Spaces and Habitat

→ https://furnish.tech/results/

Activity objective:
The objective of FURNISH was to select and deploy seven winning prototypes of mobile urban elements in cities around Europe.

Activity output:
An open-source repository of urban planning, mobility, social behaviour and temporary space design solutions, replicable for anywhere in the world.

Activity challenge addressed:
The (temporary) repurposing of public space – for example, pedestrian and cyclist areas demanded by the COVID-19 pandemic – needs to be more agile.

FURNISH organised an open call for teams from across Europe to digitally fabricate and deploy urban elements to temporarily adapt public spaces to meet the challenges and opportunities presented by COVID-19.

The aim of FURNISH was to merge local digital manufacturing with the challenge of recapturing public space through tactical urbanism, which can reconfigure a street to expand the area for pedestrians and leisure. The call was open to fab labs, research groups, designers or makers able to produce rapid solutions to the urgent spatial problems and opportunities posed by the coronavirus pandemic.

Seven design teams successfully developed, fabricated, installed and tested their prototype urban elements in five different European cities: Espoo (Finland), Barcelona (Spain), Budapest (Hungary), Guimarães (Portugal), and Milan (Italy). The prototypes have been tested by more than 300 people through 'living labs", as the end-users of these designs have intervened in the evaluation of the pieces.

Countries:
Spain, Italy, Portugal, Hungary, Finland

Project lead:
CARNET – UPC (Universitat Politècnica de Catalunya)

Partners involved:
City of Milan and the Agency of the Municipality of Milan (AMAT), Institute for Advanced Architecture of Catalonia, Elisava Barcelona School of Design and Engineering.

Start date:
01 July 2020

End date:
31 December 2020

Total budget:
€ 348,488

Countries:
Germany, Turkey, Denmark, Poland, The Netherlands, Belgium, United Kingdom

Project lead:
Fraunhofer Society for the Advancement of Applied Research

Partners involved:
Business Plan 2020 partners:
City of Lublin, City of Munich, Achmea Risk Insurance, BMW, University College London

Additional Business Plan 2021 partners:
TomTom, ISBAK, Gehl Architects, City of Istanbul, City of Copenhagen, Open & Agile Smart Cities, Eindhoven University of Technology

Start date:
01 Jan 2020

End date:
31 Dec 2021

Total budget:
€ 1,558,903

AI-TraWell

AI-powered, proactive travel assistant to self-monitor user's experience

Activity objective:
Supporting the long-term health and wellbeing of residents in European cities through digital innovation and promoting an inclusive urban environment.

Activity output:
Personalised, interactive multi-modal navigation chatbot with incentive strategies to promote positive behaviour change and physical and mental health.

Activity challenge addressed:
Negative health impact for citizens due to long daily commutes, multiple interchanges, overcrowding, journey delays, noise and air pollution.

Population growth in our cities results in increasing traffic, high demand for public transport and congestion due to limited capacity and lack of resilience. The negative health impacts include long daily commutes, multiple interchanges, unreliable journeys, overcrowding, journey delays, noise, and air pollution, all of which decrease travellers' health and wellbeing (mentally and physically).

The AI-TraWell collaborative project is creating an artificial-intelligence powered, proactive chatbot for smartphone devices to recommend personalised travel alternatives that fit travellers' needs and preferences and promote long-term health and wellbeing for all citizens living or moving within our cities.

It combines data about users' needs, preferences and physical and mental wellbeing with real-time and predictive information about all modes of transport to help users understand and manage the increasing number of mobility options available to them. It also selects the option that best matches users' needs and preferences and delivers better and more reliable mobility services to improve traffic in general.

Countries:
Spain, Germany, Hungary, Finland

Project lead:
Aalto University

Partners involved:
Business Plan 2020 partners:
Aalto University, City of Hamburg, CARNET Universitat Politècnica de Catalunya (UPC), SEAT, Technische Universität Braunschweig, Niedersächsisches Forschungszentrum Fahrzeugtechnik (NFF), Universitat Politecnica de Catalunya (UPC), Zone Cluster

Additional Business Plan 2021 partners:
Municipality of City of Zalaegerszeg, Plezintor

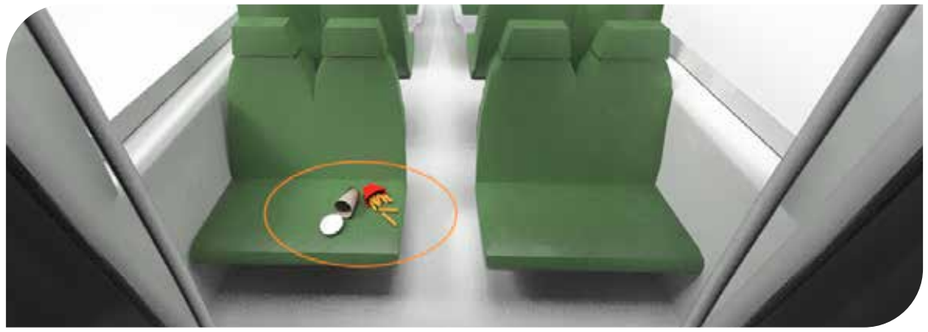
Start date:
1 January 2020

End date:
31 December 2021

Total budget:
€ 1,784,323

Anti-Trash

Anti-Trash detection and damage prevention for shared mobility



Activity objective:
The Anti-Trash developed a cutting-edge solution for automatic trash and damage detection and in-cabin air quality control.

Activity output:
The project spin-off, AIVisionEye, offers two cutting-edge detection systems – for trash and damage, and odours – to operators of shared transport vehicle fleets.

Activity challenge addressed:
The project tackles the urgent need to increase the uptake of shared and public transport and reduce private vehicle use.

Cleanliness and a pleasant environment are extremely important for attracting shared transport passengers. However, users can be disrespectful, treating the interior of the vehicles carelessly or wilfully damaging them with graffiti and the like. This translates into passenger discomfort and reluctance to use shared modes as well as contributing to high maintenance costs for service providers.

The Anti-Trash project emerged with the intention of revolutionising the in-cabin user experience of shared and public transport services, as well as making the operation of these vehicles much more efficient and cost-effective**. The project will help offer the healthiest and most pleasant rides possible using public transport, car and ride-sharing services, and future autonomous vehicles, such as robot taxis.**

Anti-Trash brought together a multidisciplinary European consortium piloting cutting-edge innovations in Barcelona, Hamburg, and Zalaegerszeg. The pilots demonstrated an in-camera vision-based trash, damage and malodour detection system, communication infrastructure and a platform for managing the environment-enhancing systems. Additionally they piloted sustainable materials suitable for shared vehicle applications and gathered feedback on customer satisfaction and perceptions about the attractiveness of different transport.

AIVISIONEYE

→ www.aivisioneye.com

The Anti-Trash project resulted in a spin-off company called AIVisionEye, which is currently offering two products to operators of shared transport vehicle fleets:

Travel Clean: a machine-vision based detection system allowing fast and reliable recognition of trash and damage inside a vehicle.

Travel Fresh: an automatic indoor air quality monitoring system that continuously controls in-cabin air quality, while optimising cleaning routines and keeping fleet managers and operators informed.

Countries:
Germany, Netherlands, Belgium, Spain, Poland, Hungary, United Kingdom, Finland

Project lead:
Achmea

Partners involved:
Business Plan 2020 partners:
Achmea, BMW, Budapest University of Technology and Economics, Colruyt Group, CARNET Universitat Politècnica de Catalunya (UPC), Cities of Amsterdam, Eindhoven, Copenhagen, Hamburg, Milan and Lublin, SKODA AUTO, Eindhoven University of Technology, Tractebel Engineering, University College London, Siemens Mobility, Pon Holdings, Public Transport Authority in Warsaw (ZTM), UNStudio

Additional Business Plan 2021 partners:
DATS 24, Eoly, Fraunhofer Society for the Advancement of Applied Research, Hamburg, Helsinki, Eindhoven University of Technology, HaCon, Mobility Mixx

Start date:
1 January 2020

End date:
31 December 2021

Total budget:
€ 2,086,041

MobilitEU

A universal open service platform for optimised, customised and seamless mobility for travellers

→ www.mobiliteu.eu

Activity objective:
To develop a platform that integrates a wide range of multimodal services to remove the barriers between different mobility ecosystems and solutions.

Activity output:
MobilitEU, a trusted pan-European, universal service platform integrating mobility and related services for more sustainable, optimised travel.

Activity challenge addressed:
Increasingly fragmented and incompatible ecosystems meaning customers need different apps and accounts for each service.

The MobilitEU project aims to become a universal open service platform for optimised, customised and seamless mobility for travellers, by integrating various multi-modal mobility and related services into a one-stop platform..

However, MobilitEU is not only a Mobility as a Service (MaaS) solution; it is beyond MaaS. It envisions an ultimate experience for the traveller incorporating other complementary services, such as parking, insurance, and even accommodation and entertainment. **With the support of policy makers, the customer-friendly system will contribute to the increased liveability and inclusivity of cities by offering more sustainable alternatives to private vehicles.**

MobilitEU will achieve its vision through a service platform accessible to travellers via an application (mobile/web) and to other systems through application programming interfaces (APIs) that use standardised data exchange mechanisms. This GDPR-compliant service platform is the critical backbone of the MobilitEU architecture, where real-time service data (traffic and mobility and other services) is published by providers and kept up-to-date through APIs.

MobilitEU will be a not-for-profit organisation and a pan-European solution acting in accordance with EU laws and regulations, and as such, aims to become the trusted body for all citizens and service providers across the EU.

Countries:
Spain, Portugal, Italy, Hungary, Czech Republic

Project lead:
Universitat Politècnica de Catalunya (UPC)

Partners involved:
Barcelona City Council, Barcelona Regional Agency for Urban Development, Czech Technical University in Prague, City of Milan, AMAT, CARNET, TUSGSAL, IDIADA Automotive Technology S.A, Ferrocarrils Generalitat Catalunya, Technical University of Catalonia, Municipality of Decin, ZONE Cluster Nonprofit Ltd., Electrobus Europe, Barcelona Metropolitan Area , TMB-Bus, University of Lisbon , Politecnico di Milano, Municipality of City of Zalaegerszeg, HUMDA, Almadesign, Carris

Start date:
1 April 2021

End date:
31 March 2022

Total budget:
€ 787,994

eUltimate

Improve public transport electrification to fight against climate change

Activity objective:
Create a decision support system to identify optimal charging systems for specific routes when deploying electric battery bus services in cities.

Activity output:
A toolkit to design the optimal electric bus charging scheme for a designated route, based on the analysis of operational data from 7 EU cities.

Activity challenge addressed:
Improving public transport electrification to decarbonise bus systems and reduce local emissions in EU cities

Battery electric buses are being launched in many cities, with multiple charging technologies and operational schemes available. Along the lifetime of a vehicle, different charging schemes have specific impact on the operating costs, allocation of public space and emissions. In general, the electrification of existing bus routes usually implies an increment in the number of vehicles and operating costs in comparison to conventional fleets.

The aim of this project is to develop a decision support system (DSS) that designs the optimal charging system for a given city and quantifies the impact of the electric service on bus agencies and other stakeholders. The project is focused on the link between vehicle and charger, the cornerstone for their deployment in cities.

Data related to the performance of battery electric buses is being gathered in seven cities, including two Hungarian cities, Badalona, Barcelona, Děčín, Lisbon and Milan. This data will be statistically analysed to characterise how vehicle technology, vehicle size, route parameters, ridership and climatic conditions affect the energy consumption of electric fleets in significantly different conditions. In a second step, a toolkit will also calculate the required resources (vehicles and chargers) needed for the deployment of a specific technology as well as the total cost to be incurred by the transit operator.

Countries:
Portugal, Greece, Czech Republic, Spain

Project lead:
Barcelona City Council / Barcelona Regional

Partners involved:
CARNET - Universitat Politècnica de Catalunya (UPC), PowerHUB, VUB-MOBI, Centre for Research & Technology Hellas (CERTH), University of Lisbon, Institute For Advanced Studies And Awareness (IASA), Major Development Agency Thessaloniki (MDAT), Municipality Of Cascais, Municipality Of Fundão, European Passengers' Federation (EPF), Edenway

Start date:
13 May 2021

End date:
31 December 2021

Total budget:
€ 199.873

CES4Kids

Co-creating mobility planning with children and youth

Activity objective:
To empower children and youth to become actors for change with the knowledge and technical capability to tackle mobility challenges.

Activity output:
Guidelines, tools and processes to better engage and empower citizens in urban mobility planning through the use of digital and innovative means.

Activity challenge addressed:
Empowering youth to co-create cleaner, safer, more accessible and better-connected mobility around schools.

The project Children and youth empowerment or CES4Kids, aims to deliver a participatory experience for children and youth in the co-creation of mobility planning, while at the same time enabling cities, academia and industry actors to gain valuable data & knowledge about their mobility habits to be able to design more suitable solutions for them.

As children are often forgotten in the planning and decision-making process, CES4Kids aims to listen and understand the mobility habits, needs, and preferences of children and youth, as well as empower new generations to be part of co-creating mobility solutions.

CES4Kids creates educational content about sustainable mobility to be used in class as well as hands-on learning activities and organises awareness-raising events. It also enables the elaboration, debate and prioritisation of proposals for improving paublic space and mobility services through the citizen engagement digital platform DecidiUM. In parallel, workshops serve as testbeds for new mobility solutions aimed at improving daily mobility around schools and accelerating social acceptance of change. Pilot projects in Portugal, Greece, the Czech Republic and Spain offer different contexts and environments for deployment and engage with at least two schools in each country.

The ultimate goal of CES4Kids is to provide EIT Urban Mobility with a strategy and an array of tools and processes that will enable the organisation to engage and empower citizens, thus contributing to the promotion and impact of sustainable mobility initiatives.

Citizen Bench

Understanding seating-needs for active mobility

→ www.hogga.me

Activity objective:
To empower citizens, as end-users of public seating, to get involved in the ideation of quality, functional solutions that encourage active mobility.

Activity output:
User-centric methodology combined with an online web app (hogga.me) to encourage citizens to communicate their urban seating opinions and needs.

Activity challenge addressed:
Vital to the usability and quality of urban spaces, public seating is often decided by planners with little participation or feedback from users.

The public bench represents a practical and emotional link between the city and its citizens. It is a key element for the success of active mobility, public modes of transport and the well-being of citizens.

With a user-centric approach, the Citizen Bench project helps cities to understand better the different needs of citizens, their restrictions and their expectations in terms of seating in the public realm. Feedback from the general public allows cities to verify and adapt the seating it offers in order to encourage active mobility and to increase the quality of urban spaces.

Citizens are encouraged to describe and share their needs from public seating through a user-friendly tool and structured process that empowers citizens. The project strengthens environmental awareness, connects stakeholders and promotes exchange; it allows involvement in the ideation process and promotes emotional ownership and advocacy. The city, in turn, gets feedback on citizen's needs, obstacles and preferences concerning the form, material, location, orientation and use of benches.

Citizen Bench has tested the tool and methodology in Munich and the results will be part of a toolbox, including training programmes, that will support other cities to transform their public seating decisions. The online-web-app hogga.me can easily be tailored to different cities and regions.

Countries:
Switzerland, Italy, Germany, Austria

Project lead:
EPFL

Partners involved:
City of Milan, City of Munich, Bench Association, Institute for Advanced Studies

Start date:
01 January 2021

End date:
31 December 2021

Total budget:
€ 182.037

Countries:
Hungary

Project lead:
GERINFO

Project partners:
Hungarian University of Agriculture and Life Sciences, Flexus Consulting Kft., Ice Cube Hungary

Start date:
01 January 2021

End date:
31 December 2021

Total budget:
€ 263,299

PEREC

Prototypes of specific emission reduction device

Activity objective:
The objective is to create an emission and fuel-consumption reducing device which is simple, inexpensive and adapted to many different vehicle types.

Activity output:
The project outputs are engine specific ERD prototypes, mobile/web applications and the corresponding economical models.

Activity challenge addressed:
Reducing emissions and fuel consumption in vehicles to improve air quality in cities and reduce the use of fossil fuels.

The project Prototypes of ERD for the Reduction of Emission in Cities (PEREC) aims to develop pre-production protypes of an engine-type-specific emission-reduction device (ERD) ready to commence production shortly after the completion of the activity.

The ERD device will be capable of reducing the pollutant emissions and fuel consumption of several types of fossil fuel-powered vehicles with different types of engines.

If widely adopted, this product would be able to significantly contribute to cleaner air and therefore a better quality of life for people in urban areas. Furthermore, it will save significant financial resources for enterprises with large vehicle fleets, such as public and communal transport providers, fleet operators and other service providers. It could also support individual car owners in reducing their ecological footprint and still saving money.

Countries:
Portugal

Project lead:
BGI S.A.

Partners involved:
City of Fundão, City of Abrantes, City of Braga, City of Angra do Heroísmo, Vodafone Portugal, Get in the Ring

Start date:
01 April 2021

End date:
09 June 2021

Total budget:
€ 39,665

Get in the Ring

EIT Urban Mobility Innovation Prize in Portugal

→ www.getinthering.co/event/portugal/

Activity objective:
Develop solutions through a collaborative, co-creation approach and deploy them in cities to positively improve mobility for residents.

Activity output:
With the support of Vodafone Portugal, the four host cities aim to negotiate pilots with their chosen start-ups and sign memorandums of understanding.

Activity challenge addressed:
The cities identified individual challenges aiming to redress the historic focus on private vehicles and its impact on citizens' quality of life.

Building Global Innovators (BGI) organised the EIT Urban Mobility Innovation Prize in Portugal, with the goal of connecting Portuguese cities with urban mobility start-ups.

During this competition, four cities worked with BGI to identify challenges in the mobility sector in their region. Start-ups were then invited to present their solutions to solve these challenges. After receiving more than 40 applications, the start-ups were invited to participate in the event 'Get in the Ring Urban Mobility", work together with executives from Vodafone Portugal to improve their commercial proposition and to present their solutions to the cities. At the end of the event, each city chose the best potential solution to their challenge.

Since then, BGI has been coordinating follow-up meetings with the city's representatives to support potential pilots with the start-ups, with the help of Vodafone Portugal.

Countries:
Turkey, United Kingdom.

Project lead:
Istanbul Metropolitan Municipality (IMM)

Partners involved:
PixelMill Ltd.

Start date:
01 September 2021

End date:
31 December 2021

Total budget:
€ 29,250

Dudullu Metro Station

RAPID 3D model of Dudullu Metro Station

Activity objective:
Apply RAPID 3D modelling to Istanbul's Dudullu Metro station to maximise design and engage with stakeholders before the station and Mobility Lab open.

Activity output:
Creating several design options for the metro station and Mobility Lab access in various formats including video, 3D on a screen and VR headsets.

Activity challenge addressed:
Need for tools to support city decision-making and citizen engagement.

The new Istanbul Mobility Lab within the Dudullu metro station will specialise in future mobility, working with citizens and entrepreneurs to design and create solutions to the city transportation and mobility problems. The Dudullu metro station and Mobility Lab will open in June 2022.

The rapid prototyping in 3D (RAPID) model of the station and the Mobility Lab access will create different design options and demonstrate how AI-controlled avatars use the spaces so that the different flow scenarios can be analysed beforehand, in 2021.

In preparation, the City of Istanbul has done important groundwork on citizen behaviour profiles to reflect the diverse communities across the city including immigrants and tourists. Avatars based on these citizen profiles were created to simulate moving through the digital space. These pedestrian avatars controlled by artificial intelligence behavioural scripts use a UNITY-based solution to allow dynamic changes to the design of the spatial area according to the AI-controlled behaviour profiles.

These changes can be incorporated into the RAPID 3D model area within a matter of minutes and the new proposals are then tested using the different stakeholders. Identifying these characteristics is an iterative process that identifies potential blockages or pinch points and give opportunities for citizen engagement. The vision and the strategy of the project are to link real-life citizen profiles and their needs to the design of the station in an inclusive, democratic and open way.

The New European Bauhaus initiative (NEB) is an environmental, social and cultural European initiative to combine beautiful, sustainable and inclusive forms of living that complement the European Green Deal. As part of the cross-KIC NEB project, EIT Urban Mobility launched a call to capitalise on existing citizen-centered engagement programmes aligned with the NEB mission. Cities, regions and affiliated entities were offered the possibility to select a project solution to a specific challenge in their own urban transformation.

Our selection of projects

our portfolio of start-up investments

Country:
Sweden

Technology field:
Mobility services,
Traveltech, Software

Country:
Spain

Technology field:
Energy

our portfolio of start-up investments

Allihop Travel AB

→ www.allihop.launchrock.com

An easy way to book international sustainable travel

Mission:
Allihop Travel is building a corporate travel platform prioritising trains and green urban mobility. The objective is to help companies reduce their carbon emissions by 30% by redirecting their employees towards train and green urban mobility (including public transport, cars, bikes, e-scooters and pooling) instead of domestic flights or car rental.

Problem solved:
Corporate travel is currently serviced by global distribution systems (GDS) built around selling flights and car rental. Although train tickets have been included recently, the service offered is far inferior to direct booking and hardly any other urban mobility operators have been integrated. Until now these operators have been seen as uneconomical and too complex to be integrated into GDS.

BIA Power Inc.

→ www.biapower.io

Integration of renewable energy to the grid by connecting its variable supply with flexible capacity of electric vehicles

Mission:
BIA Power has developed a platform featuring high performing forecasting algorithms and a powerful optimisation engine to intelligently predict and optimise the flexibility in electric vehicle charging.

Problem solved:
Most electric vehicles operators are not currently equipped with tools to operate their charging facilities efficiently nor are they well prepared to manage increased demand for electric vehicle charging.

Country:
Germany

Technology field:
Smart City, Drones,
Advanced Air Mobility

Country:
Sweden

Technology field:
Smart Mobility

D3 Technologies AG

→ www.d3-tech.com

Air traffic control for urban air mobility

Mission:
The mission of D3 is to enable cities worldwide to integrate a completely new mode of transportation serving their constituencies with added benefits and increased freedom.

Problem solved:
Today's air traffic control is not designed for busy urban airspace and is not able to safely manage it.

Elonroad AB

→ www.elonroad.com

High-tech electric road system for all types of electric vehicle charging

Mission:
Elonroad is developing a high-tech electric road system. It automatically charges all types of electric vehicles while parked as well as while driving. Their vision is to electrify the entire transport sector and make fossil fuel a thing of the past, without increasing the demand for batteries. Elonroad can contribute to reducing road transport CO^2 emissions by more than 50%.

Problem solved:
Lowering local emissions and improving air quality by providing flexible and inclusive infrastructure that enables small units, large heavy goods vehicles and public transport fleets to share the same infrastructure.

Country:
Portugal

Technology field:
Electric Vehicle Charging

Country:
France

Technology field:
Shared-Mobility

EVIO –Electrical Mobility

→ www.www.go-evio.com

Out-of-the box and value-added services platform to different electric mobility players

Mission:
Based on a business model that incentivises sustainable charging, sharing and monetisation, Evio promotes the use of renewable energy and resource efficiency. Evio makes a complementary network of charging stations available by using third-party resources installed in private places and by making them available to the public or to a limited group of users.

Problem solved:
Available electric vehicle charging services are basic and limited, mainly located in private places. There are a lack of solutions to address user needs such as aggregated consumption, sharing, monetisation and advanced options that help the user to be more sustainable. Users also need to have access to a wider charging network, quickly.

Fluctuo

→ www.fluctuo.com

Fluctuo is a third-party data specialist focused on shared mobility services including bikes, scooters, mopeds and cars

Mission:
Fluctuo helps public stakeholders and private companies to make data-driven decisions on mobility services & infrastructures.

Problem solved:
To build the city of tomorrow, we need to be able to observe and analyse how people get around. However, these means of transport are evolving very quickly. This is where fluctuo steps in.

FSE

→ www.fs-e.pl

Innovative modular solutions for light electric delivery vehicles for entities interested in supplying electric vehicles.

Mission:
FSE develops environmentally friendly technologies to reduce the emission of air pollutants in urban agglomerations.

Problem solved:
Reducing emissions in urban areas.

GOTIKKET

→ www.gotikket.com

Platform to determine the best routes and prices across several mobility options and end-to-end services with transport ticket purchasing integrated

Mission:
Gotikket's mission is to empower and inform users, making multi-modal transportation services, including public transport, trains, buses and ferries, easy to access and easy to book. And to support users to make environmentally friendly choices.

Problem solved:
Access to transportation service information and reservations is highly fragmented and difficult to obtain. Gotikket's platform provides a single point of access for up-to-date information and service provision.

Country:
Poland

Technology field:
Electric Commercial Vehicle

Country:
UK

Technology field:
Smart City. Transportation Booking Platform

Country:
Spain

Technology field:
Air & environment, Monitoring & compliance

Country:
Portugal

Technology field:
Last mile delivery

HOPU

→ www.www.hopu.eu

A data-driven solution for urban design decision-making incorporating the human perspective and environmental impact, including climate change and air quality

Mission:
HOPU supports urban development and digital transformation through data-powered tools with dashboards and Internet of Things devices to monitor impact, sustainability and environment. HOPU mixes data, technology and people to enable a powerful urban innovation tool.

Problem solved:
Nowadays, cities need to monitor the impact. HOPU supports urban planners in their decision-making process to accelerate impact and investment for climate change mitigation as well as avoiding penalties and losing grants due to lack of evidence-based indicators and results.

Meight

→ www.meight.com

Building efficiency into road freight layer

Mission:
Using data from millions of journeys, Meight aims to anticipate what drivers will do in the next split-second to help them spend less and use less journey on journey.

Problem solved:
The truck driver is the stakeholder with the highest impact in the sector and the biggest enabler to increase its competitiveness. For every litre of diesel saved 2.68kg of CO^2 are not emitted. While technological adoption among fleet managers in charge of day-to-day operations has been significant, truck drivers have seen little progress despite the remarkable technological evolution in other automotive segments.

Country:
Czech Republic

Technology field:
Mapping and navigation

Country:
Sweden

Technology field:
Mobility services

Mosaic (Unirmi S.R.O.)

→ www.mosaic51.com

The most durable, precise and practical 360° cameras for urban mapping & surveying

Mission:
To revolutionise the quality of data collected for mobile mapping with our 360° cameras and data capturing services. Mosaic aims to build a single, detailed, high resolution photographic map of all the world's streets.

Problem solved:
There are many existing technologies and infrastructures to take advantage of the data collected in streets. However, no company has been able to combine noteworthy 360° cameras, mobile mapping services and software platforms for data analysis.

NUDGD

→ www.nudgd.io

A SaaS platform using behavioural science to establish climate friendly habits by switching from cars to active mobility and public transportation

Mission:
Smart Travel Habits is a digital service using behavioural science to make sustainable travel choices easy. Through friendly, personal nudges, it encourages employees, residents and customers to switch their daily commute to a more sustainable option.

Problem solved:
Being experts in behavioural design and nudging, Nudgd has developed a scaleable digital platform for behavioural change, making sustainable mobility easy for employees, tenants and citizens in general.

Country:
Germany

Technology field:
Mobility information services

Veomo Mobility GmbH

→ www.www.veomo.com

Real-time mobility information reducing daily commute stress, Promoting the commercialisation and attractiveness of a location as well as sustainable mobility behaviour

Mission:
VEOMO aggregates multimodal mobility information on its cloud platform to provide companies and cities with a view of multimodal departure boards, location analyses, utilisation reporting and real-time dashboards. VEOMO's platform has access to over 40 mobility services in the seven largest cities in Germany and Vienna.

Problem solved:
Comprehensive access to mobility data to make mobility an asset.

Country:
Germany

Technology field:
Mobility, Sustainable Infrastructure & Real Estate

VePa - Vertical Parking

→ www.vepa.space

Sustainable and space-efficient parking infrastructure facilitating transition from traditional to emission-free mobility

Mission:
VePa Parking Towers are the most space-efficient, sustainable and flexible parking infrastructure. With vertical greening and electric charging stations, VePa can facilitate the switch to emissions-free, shared and micro mobility and function as urban mobility hubs.

Problem solved:
The future of cities is defined by three challenges in the mobility sector:
· City congestion: the traffic in our cities is on the verge of collapse due to a lack of available parking space and alternative mobility offerings.
· Climate catastrophe: 63% of the world's CO^2 emissions are released by the construction and mobility sectors.
· Mobility turnaround: affordable infrastructure enables the flexible adaptation of public spaces to suit changing mobility needs.

Country:
France

Technology field:
Smart City

Vianova

→ www.vianova.io

The leading European data platform for enabling cities to manage connected, shared and autonomous mobility in the urban public realm

Mission:
Vianova's mission is to help cities and mobility operators better collaborate and communicate, in order to foster more liveable and breathable streets. Vianova provides cities with a web-based dashboard and API suite, offering powerful analytical tools to better understand mobility services and their impact.

Problem solved:
Cities are overwhelmed with an exponential rise in new transport solutions, such as shared e-scooters, delivery vans and soon, autonomous vehicles. Vianova's technology helps cities adapt their traffic regulations and urban planning to this new era.

Country:
Italy

Technology field:
Marketplace, Blockchain, App, AI, Online platform

Volvero

→ www.volvero.com

Connecting vehicle owners (private and commercial) with would-be drivers in a simple, reliable and innovative way

Mission:
Volvero is an app for sharing vehicles that connects owners with people who need a vehicle, saving time and money. Through artificial intelligence and advanced technologies, Volvero improves quality and security with crystal-clear full insurance coverage. Volvero is easier, safer and more reliable than any other app.

Problem solved:
For 96% of the time vehicles remain parked while millions of people struggle every day to find a workable and affordable solution for their mobility needs. Volvero offers an easy, safe and reliable experience to connect vehicle owners with drivers.

Country:
Spain

Technology field:
Smart Mobility

Vonzu

→ www.www.vonzu.es/en/

Last-mile logistics management SaaS empowering the digitalisation of the urban distribution of goods

Mission:
The mission of VONZU is to empower the digitalisation of the urban distribution of goods. VONZU digitises and automates all last-mile logistic processes and operations for retailers and logistics operators.

Problem solved:
Due to the growth in e-commerce, retailers and logistics operators are facing many challenges in how to deal with the increasing number of home deliveries in a sustainable and efficient way. Price per delivery is getting lower, while the expectations of consumers are becoming higher: they want greater control over faster and cheaper deliveries. However, distribution companies lack the technology in their operations to address these fast-evolving market needs.

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This document
is printed on
FSC-certified paper

Co-funded by the
European Union