



MOBILITY FOR MORE LIVEABLE URBAN SPACES

Highlights Report 2023



Co-funded by the
European Union



CONTENTS

04
OUR MISSION

05
OUR COMMUNITY

06
OUR GEOGRAPHIC SCOPE

07
OUR FOCUS AREAS

11
OUR IMPACT

17
OUR SELECTION OF PROJECTS

29
INVESTMENT PORTFOLIO

Foreword

On 1 January 2023, eight European countries reported their warmest day on record, starting a year that would come to be defined by heatwaves and extreme weather events. Months later, the Northern Hemisphere saw its hottest summer in recorded history, threatening water supplies and the health of individuals; highlighting how urgently change is needed.

The speed and scale of change required to mitigate and adapt to climate change will necessitate collaboration across industries and sectors. EIT Urban Mobility is working to accelerate the transition to sustainable mobility by facilitating connections between research institutes, universities, cities, experts, businesses, start-ups, and EU entities. By bringing together these actors, and providing access to markets, talent, funding, and knowledge, we aim to enable the adoption of innovative solutions at a rapid pace.

The following report is a snapshot of our projects and investments in 2023. In addition to an overview of our numerous projects taking place across Europe, we are excited to present, for the first time, several Impact Stories. These Impact Stories illustrate the scope and effects of our activities throughout Europe; with concrete examples of how our activities, projects, and companies we support are positively impacting cities and urban mobility.

Lastly, our portfolio of start-up investments is more robust than ever before, with €9.2 million deployed in 86 different ventures, driving impact across 25 different countries. From autonomous electric ferries to solutions extending the life of EV batteries, our start-up portfolio contributed to 10 out of 17 UN Sustainable Development Goals.

Emboldened by our ever-growing network of partners across Europe, we look forward to continuing to accelerate the transition to sustainable urban mobility and the creation of more liveable cities.

Dr. Maria Tsavachidis

Chief Executive Officer, EIT Urban Mobility



OUR MISSION

Accelerating the urban mobility transition

Europe is in the midst of a climate emergency. Following the European Commission's 2030 Climate Target Plan, 55% of greenhouse gas emissions have to be cut by 2030 and net-zero emissions achieved by 2050. EIT Urban Mobility is committed to helping the EU accomplish its ambitious CO2 reduction goals.

As the leading European network for innovating mobility in cities, our mission is to accelerate change towards a sustainable model of urban mobility and liveable urban spaces.

EIT Urban Mobility is an initiative of the European Institute of Technology (EIT), a body of the European Union. As such, we align with EU-level, national, and local government transport and mobility plans and strategies and are committed to making a positive impact on citizens' quality of life and the environment.

We enable the partners in our network to speed up the transition to a decarbonised urban transport system in four ways:

Match and connect

We bring together players from industry research, academia, and the public sector at local, national and European levels, to develop and deploy innovative solutions.

Innovations to market

We support partners to develop, deploy and commercialise mobility products and services in real-life city environments. Our activities accelerate the innovations' time to market and scale their impact in European cities.

Talent to business

We attract, foster and retain talent for Europe's green mobility transition by promoting entrepreneurship and innovation, skilling, upskilling and reskilling students, researchers, and professionals.

Start-ups to scale

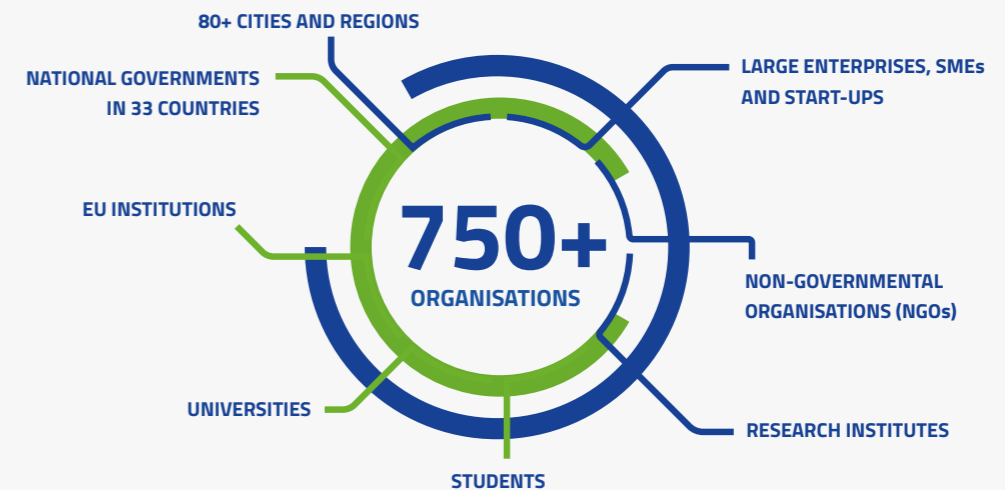
We provide financial support to start-ups and provide them with services to grow quickly.

OUR COMMUNITY

The leading European network for transport innovation in cities

EIT Urban Mobility is the largest European innovation community for urban mobility.

We work closely with an extensive community of over 250 partner organisations, and we engage with a wider ecosystem of more than 750 stakeholders across Europe. We collaborate with our partners on local projects and initiatives and establish strong relationships with regional and city governments.



Part of the EIT Community

We collaborate with other EIT Knowledge and Innovation Communities on common initiatives.

These include:

- **EIT Community New European Bauhaus (NEB)** – an initiative translating the European Green Deal into tangible change on the ground by placing culture and citizens needs at the core. This EIT Community initiative supports community-based capacity building initiatives and start-ups to accelerate the shift towards a more sustainable, inclusive, and beautiful Europe.
- **Supernovas** – a programme that promotes female leadership in deep-tech start-ups and more women working and leading in innovation in general.
- **EIT Jumpstarter** – a programme pushing early-stage innovators from emerging European regions onto the market.
- **AI Challenge** – a programme fostering collaboration and innovation in artificial intelligence across Europe.
- **Start for Future** – an incubator programme for students wanting to become entrepreneurs.
- **Higher Education Institution (HEI) Initiative** – a capacity building project, through which higher education institutes access the EIT innovation ecosystem and receive expertise and coaching support to boost innovation and entrepreneurship in their institutions.
- **Girls Go Circular** – an online learning programme aimed to equip young people, aged 14-19 (with a special focus on girls) with digital and entrepreneurial skills in the circular economy field.
- **Deep Tech Talent Initiative** – a programme aiming to skill one million people in deep tech by 2025.
- **EIT Campus** – a one-stop shop for innovation and entrepreneurial training in the area of technology developed by the EIT Community, to provide Europe with the skills it needs to accelerate the decarbonisation of its economy.
- **EIT Regional Innovation Scheme (RIS)** – a programme boosting the competitiveness of regions and countries classified as emerging or moderate innovators by the European Union.

OUR GEOGRAPHIC SCOPE

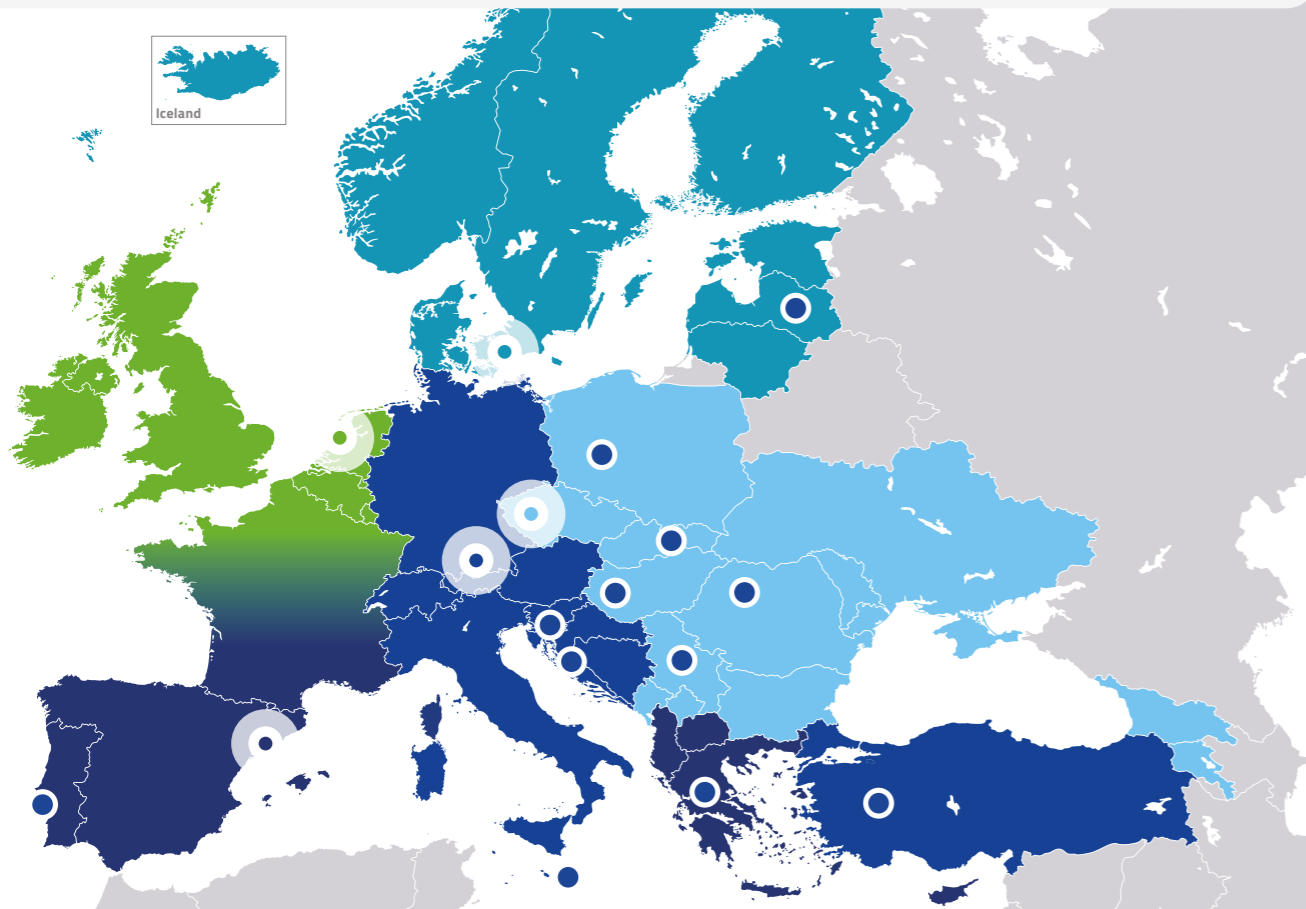
EIT Urban Mobility Innovation Hubs

Five Innovation Hubs in Barcelona, Copenhagen, Amsterdam, Prague and Munich are the main points of contact for, and between, cities, innovators and educators across Europe.

In addition, through the Regional Innovation Scheme (RIS) we support regions and cities that traditionally have faced challenges to compete either in the EU or global markets. Currently, we operate twelve RIS Hubs.

Regional Innovation Scheme Hubs locations:

- Portugal
- Latvia
- Slovakia
- Romania
- Slovenia
- Malta
- Greece
- Poland
- Hungary
- Serbia
- Croatia
- Türkiye



SOUTH
Barcelona

NORTH
Copenhagen

WEST
Amsterdam

EAST
Prague

CENTRAL
Munich

MATCH AND CONNECT

Creating the largest community of innovators and connecting local, regional and European ecosystems

We match and connect players from industry, research, academia, and the public sector at all levels of governance to develop and pilot innovative solutions throughout all our activities.

Knowledge exchange

Events such as Tomorrow.Mobility World Congress (TMWC), our annual flagship event jointly organised with Fira de Barcelona, enable our partners to connect, share insights, and learn about the latest trends in the urban mobility sector. City members, and private sector and education partners can engage with relevant stakeholders at tailored formal and informal sessions and side events. Over 20,000 participants, 400 speakers, and 800 exhibitors from 60 countries attended the 2022 TMWC edition.

Future mobility studies

EIT Urban Mobility's future mobility studies combine the expertise of our community and cutting-edge transport research. Drawing on a range of different fields, the studies are data-based and provide recommendations on topical urban mobility issues. These insights are shared with the urban mobility community through dedicated events. Importantly, these studies have engaged 60 partners from across 15 European countries. With over ten available studies, some highlights include "±15-minute city: human-centred planning in action" and "The role of AI in urban mobility", amongst numerous other prominent urban mobility topics.

Special Interest Groups (SIGs)

Our Special Interest Groups (SIGs) serve as thematic-focused groups gathering EIT Urban Mobility partners and external experts to discuss crucial urban mobility innovation issues. Distinguished thought leaders from various disciplines convene at roundtable meetings and expert workshops, fostering idea exchange and deeper insights into best practices and practical use cases to tackle mobility challenges in European cities. To date, three groups actively collaborate, namely Urban Air Mobility, Mobility Data Spaces, and Hydrogen.



20,000+
participants attended
the 2022 Tomorrow.
Mobility World
Congress edition

EIT Urban Mobility Marketplace

The EIT Urban Mobility Marketplace is a comprehensive digital platform showcasing 300+ market-ready mobility solutions offered by innovative entities. EIT Urban Mobility also runs the EU's Smart City Marketplace for enhanced matchmaking, knowledge base building and dissemination, which will increase the opportunities of our marketplace users.

Horizon Lab: access to non-EIT funding

Horizon Lab is an initiative that supports and expands the financial and strategic value for EIT Urban Mobility's community by targeting external funding from national and EU programmes. Horizon Lab helps our partners navigate access to external funding and form consortia to bid on long-term, large-scale projects.

In 2023, EIT Urban Mobility boosted these non-EIT funded projects:

NetZeroCities – Supporting the EU's Mission of 100 climate-neutral and smart cities by 2030

PrepDSpace4Mobility – Laying the foundation for the common European mobility data space

UPPER – Unleashing the potential of public transport in Europe

CIVITAS MUSE – Boosting the impact of CIVITAS Community activities on sustainable urban mobility policy

BatteReverse - Enabling the next generation of battery reverse logistics

TRANS-SAFE - Promoting radical transformation of road safety in Africa

UNCHAIN – Anticipating urban freight generation and demand through digitalisation

URBANE– Developing green urban last-mile delivery solutions and city learning

Educating the next generation of urban mobility entrepreneurs

We attract, foster and retain talent in the European urban mobility sector by upskilling and reskilling students, researchers and professionals, as well as promote innovation and entrepreneurship in higher education institutes.

Master School

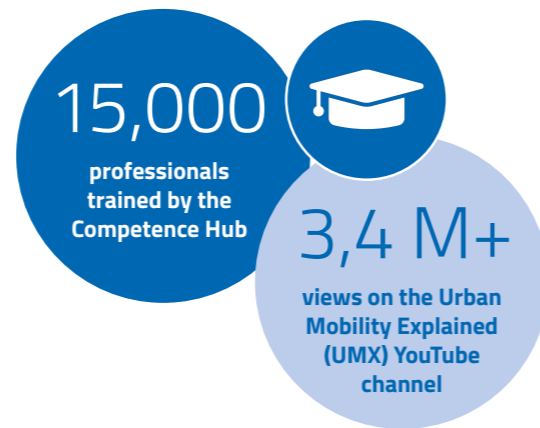
The Master School offers unique EIT-labelled double-degree master programmes that prepare students to lead the transition to sustainable urban mobility. Students combine innovation and entrepreneurship training with technology and technical knowledge, gaining practical experience through internships and projects. The programmes run in partnership with seven leading European universities. Students complete a two-week summer school in two European cities, working on real-world challenges with industry and cities.

Doctoral Training Network (DTN)

This EIT-labelled hands-on innovation and entrepreneurship continuing education programme brings together 14 leading European universities to bridge the gap between PhD research and practical implementation. PhD students can connect with international peers during the DTN Annual Forum (see page 21) as well as build connections with industry, city governments and international mobility providers through international placements of up to six months.

Competence Hub

The Competence Hub provides multi-disciplinary and cross-organisational learning experiences and EIT-labelled courses for urban mobility professionals. The Urban Mobility Explained (UMX) YouTube channel offers short videos showcasing cutting-edge practices on key themes. Learners can deepen their knowledge with e-courses, or through the applied learning offer, which provides customised training for organisation and face-to-face, and blended, courses in collaboration with renowned practitioners and academic partners.



Education Capacity Building

The Education Capacity Building team aims to build and strengthen education capacity, infrastructure and collaboration frameworks. It delivers and supports education activities that raise awareness of, and provide essential skills in, innovation and entrepreneurship in urban mobility, as well as leading the delivery of RIS and EIT Community education projects.

Urban Mobility Consultancy

The Urban Mobility Consultancy offers access to a remarkable pool of doctoral students and recent graduates specialised in the field of urban mobility, sustainability and energy to cities, start-ups, SMEs and other organisations. Our consultants provide valuable insight and develop customised solutions tailored to the specific needs of organisations that aim to innovate.

EIT Campus

The EIT Campus is a one-stop shop for education resources produced by the EIT Knowledge and Innovation Communities, with a strong focus on innovation and entrepreneurship applied to technology. The EIT Campus offers over 150 courses in 24 languages for learners and professionals with 30,000+ users to date. Its goal is to further accelerate the acquisition of skills needed to reach net-zero carbon emissions. The EIT Campus is an EIT Community initiative coordinated by EIT Urban Mobility and supported by EIT and the European Commission.



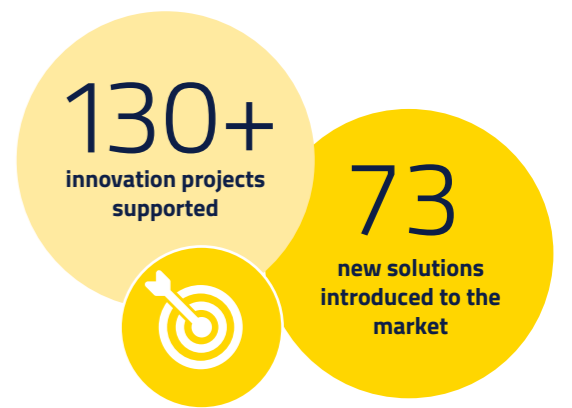
New solutions transforming urban mobility

EIT Urban Mobility supports the development and validation of innovative mobility solutions by running pilots, accelerating time to market and scaling impact in European cities.

For cities, pilots offer multiple benefits, such as accelerating rollout, increasing public adoption and shaping policies that promote behavioural change. By engaging urban citizens in these pilots for close-to-market innovations, partners are also able to gather user-driven feedback, make adjustments and assess overall impact.

Since 2020, over 240 pilots have been implemented across 100 European cities; many led to longer-term collaborations, growth for private sector partners and the integration and scaling up of viable solutions within cities' mobility strategies.

You can find out more about the solutions that EIT Urban Mobility supports on the EIT Urban Mobility Marketplace.



Agile innovation pilots with cities and businesses

Rapid Applications for Transport (RAPTOR) is a competition for start-ups/SMEs to create and test solutions that address niche urban mobility challenges. Winners receive a cash prize, customised mentoring sessions, and work closely with host cities for live testing. In 2023, 12 pilots were implemented in Ajka, Akureyri, Ankara, Barcelona Metropolitan Area, the Capital Region of Denmark (see page 26), Debrecen, Dubnica nad Váhom, The Hague, Helsingborg, Mechelen (see page 26), Munich and the Stuttgart Region.

Similarly, the Innovation Small Call project strengthens the European urban mobility sector by supporting SMEs to grow and enter commercial relations with cities, transport operators, logistics and mobility providers, contributing to job creation as a result. In 2023, 11 pilots were implemented with the Harbour Community of Paris (see page 25), Stefanco, Vienna Rail Transit, Celis Consultant, Istanbul Metropolitan Municipality, SERNIS, Selectum Home, ESCO, Municipality of Torrelavega and Ox Drive (see page 25).

Market-ready solutions for cities

#ChallengeMyCity works with cities to identify their urban mobility issues and procurement plans, shortlisting three challenges that can be addressed by innovative solution providers and piloted for six months. Citizens participate in testing the solutions to make them more user-friendly and their impact is assessed to improve roll-out. This year's cohort has run five pilots in Braga and Heraklion.



START-UPS TO SCALE

Boosting growth for long-term impact

We invest in gender-balanced start-ups and provide them with a full range of services to grow quickly, via our accelerator programmes, access to funding, coaching and concrete opportunities.

Support programmes

Our accelerator, scale-up and investment readiness programmes support founders to take their start-ups to the next stage of development. Thanks to our strategic alliances with leading ecosystems, we offer targeted internationalisation opportunities.

Impact investment

We invest in start-ups that demonstrate the potential for positive social and environmental impact, as well as strong return on investment. We assist with securing funding and concrete opportunities through EIT Urban Mobility's network of cities and investors. See more on page 30 (equity start-ups portfolio).

Investing in gender-balanced, diverse start-ups

We actively seek gender-balanced start-ups. In addition to ensuring that more women are included in our programmes and portfolio, we support women to become investors and match aspiring female founders with mentors through the EIT programme Supernovas.

The leading community for urban mobility start-ups

The Start-ups Growth Lab community gathers funding opportunities, calls for projects with cities, the latest sector news, connections with peers in the sector, events, educational content and more. Furthermore, the easy-to-use platform helps urban mobility founders simplify their work life and stay focused on their businesses, by providing everything they need in one centralised place.

growthlab.eitum.eu

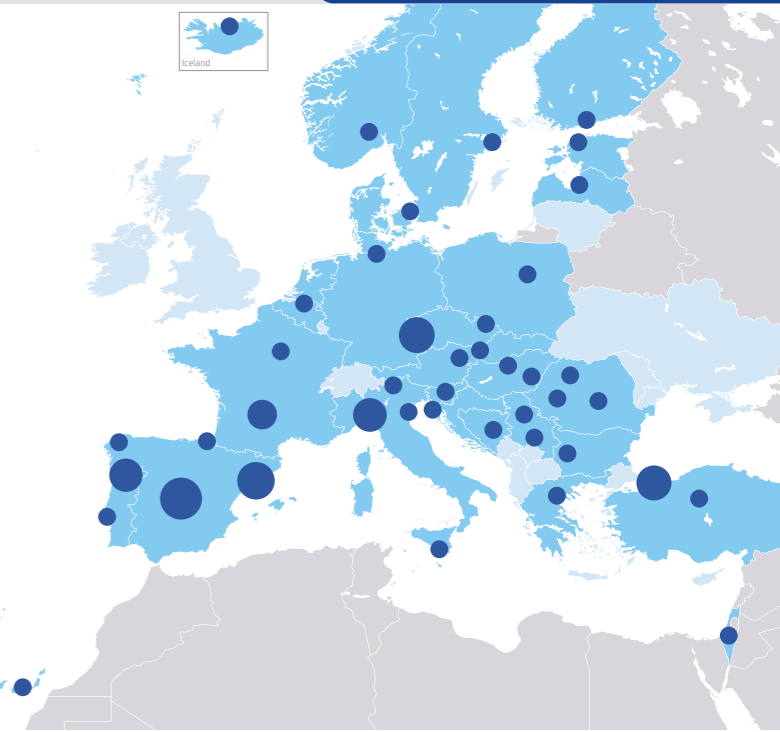


OUR IMPACT

Creating impact in cities across Europe

We are committed to making a positive impact on citizens' quality of life and the environment. Our work has real impact on society as we support innovations that repurpose road space to create green and blue space for citizens while also encouraging emission-free, safe, affordable, and inclusive solutions.

We are unique in implementing and supporting initiatives where cities and innovators test, pilot and scale up new solutions. Since 2020, our partners have implemented more than **240 pilots** in over **100 cities**.



Increasing impact and relevance through strong collaboration

EIT Urban Mobility consolidates several high-level partnerships to further common goals on key policies, regulations, initiatives and strategies relating to a greener, safer mobility system in Europe.

With the European Commission

- We are members of the multi-stakeholder **Member State Expert Group on Urban Mobility**, providing evidence and policy recommendations for the implementation of the EU Urban Mobility Framework.
- We actively participated in the **European Commission Urban Mobility Days 2023** in Sevilla, amongst others by co-hosting a workshop on city co-creation skills, together with the POLIS Network.
- We are partners in the EU Flagship urban mobility projects - the **CIVITAS initiative** - supporting capacity building and the market uptake of CIVITAS solutions.
- We contributed to the **ERTRAC roadmap** (European Road Transport Research Advisory Council) uniting road transport stakeholders to shape a shared European vision for transport research and innovation.

With key stakeholders, amongst others:

- We signed a memorandum of understanding with:
 - the **International Association for Public Transport (UITP)** to collaborate on ways to improve public transport
 - the **European Investment Bank (EIB)** to become to become external advisors to our Innovation programme and funnel scale-ups to EIB financing instruments
- We co-organise with **Fira de Barcelona** the global event on urban mobility, Tomorrow.Mobility World Congress.
- We signed an agreement to foster an ecosystem of innovation in the transport and mobility sector with the **Innovation Agency for Transport (AIT) in France** and with the **Spanish Ministry of Transport**.
- We are part of the board of directors of the **Gaia-X Association for Data and Cloud (AISBL)**, an EU initiative. Members create new data spaces between different mobility actors, ensuring that they are harmonised, secure, ethical and privacy-focused.
- We support the development of the mobility start-up ecosystem with:
 - the **Moove Lab**, the leading mobility start-up incubator in France, based at Station F, the world's biggest start-up campus located in Paris
 - **8200 Impact** and its partner **CityZone** to build connections with Israel's vibrant start-up ecosystem
 - the fifth edition of the **European Startup Prize for Mobility**, an EU-founded acceleration and investment programme for sustainable mobility start-ups
 - **Micromobility Industries**, to reshape our cities with the impact of small vehicles

Bruntor Cargo: the four-wheeled electric scooter that's shaking up Latvia's postal service

Kitted out with four wheels and a convenient cargo box on the front, this stable hop-on-and-off e-scooter can be used in bike lanes, overall improving delivery efficiency, enhancing worker wellbeing and lowering emissions.

Measuring in at 1,5 metres long and 1,2 metres tall, the Bruntor Cargo four-wheeled e-scooter is the creation of co-founders Raimonds Jurgelis and Elvija Vanaga.

Having originally intended to design his own off-road skateboard, the idea came to him when his wife asked him to pick up something extra on the way home: *"I couldn't because I couldn't carry any more things,"* explained Raimonds.



"We are looking for an investment of €500,000 ... it will help us to get to the point where we can secure our first large contracts with companies, and then of course there will be the next steps of building a factory or building the company to the next level,"

explains Co-Founder Raimonds Jurgelis.

Testing the first prototype for a 'cargo scooter' at a Hackathon, using a cat carrier as the box, the idea wowed the judges and won first place. This initial success spurred Raimonds' budding team to also apply for EIT's Jumpstarter competition later that year, where they moved from the business plan evaluation stage to the finals, gaining valuable advice from mentors.

Despite almost throwing in the towel because of nerves, the team smashed the Grand Final and took home the €10,000 prize, which they invested back into development efforts. Winning EIT's competition *"gave us confidence, it gave us approval from the experts that we were doing something right. For first time founders, it's important to have this expert approval, it gives us the necessary steps to go forward."* Bruntor Cargo is now part of EIT Urban Mobility's start-up portfolio and has participated in the Investment Readiness Programme.

Today the Bruntor Cargo is being successfully rolled out in Latvia's postal service, where Raimonds is also joining for 6am delivery shifts to gather user feedback. For staff the e-scooter is a welcome change from the physical work they usually endure and could even help to attract more young people into the profession, as well as increase inclusivity.

In European cities, the invention would reduce the number of delivery vans, avoiding parking dilemmas, traffic jams, reduce CO2 emissions and increase efficiency. It's no surprise, then, that the startup is now on the lookout for investment to grow the team, their product and nascent partnership contracts: *"We cannot give up on what we have started to get to our goal, this keeps us motivated."*

Spotlight on EIT's Jumpstarter competition

EIT Jumpstarter is an 8 month long programme that helps early-stage start-ups find and validate the best business model for their fledgling companies. Successful applicants are guided through a series of courses based on the 'lean start-up methodology' (on topics such as market segmentation, customer value proposition, financials, investment basics, legal basics), in addition to receiving mentoring from experts. Furthermore, for the best teams in each category, the final competition offers the opportunity to win a €10,000 prize. Since 2017 over 750 start-ups have participated in the programme.



How start-up Elonroad is making electric roads a reality

While electric roads might seem like something from a science fiction film, they could soon be coming to a European road near you.

Electric vehicles are beneficial for the environment, but charging can be inconvenient, due to long charging times, expensive batteries and range anxiety. Thankfully, Swedish start-up Elonroad, one of EIT Urban Mobility's equity portfolio start-ups, and VINCI group (Europe's largest construction company and highway operator) have the answer – and it's revving up just outside Paris.

How does it work? The road is kitted out with a rail, which connects to the vehicle's underside; instantaneously checking the vehicle's ID and battery level, the system starts charging the vehicle automatically, all while driving.

The A10 highway in France will act as a flagship example of Elonroad's technology, spotlighting two case studies. The first, a 100% electric truck and loaded trailer (weighing 44 tons), will achieve 350-400 kW charging capacity at 90 km/h. The second hints at hopes for multiple electric lanes, charging four vehicles together: a truck at 90 km/h, and a van and two cars at 130 km/h.

In 2021, only 0.8% of cars in the EU were fully electric.



"As the EU eyes up its goal of zero CO2 emissions for new cars by 2035, Elonroad's France-Sweden collaboration will decarbonise the continent further:"

"It is fantastic to see two of the lowest carbon electricity countries in the world joining forces... This partnership is a significant step towards realising the true potential of Gen 2 electric mobility", explains Karin Ebbinghaus, Elonroad's CEO.



Elonroad's 100% automated solution will make it cheaper and more convenient for citizens to drive electric, reducing 'range anxiety' by charging any vehicle (car, van, truck, bus) any time of day, even while idle. Additionally, the technology will accelerate the transition to lighter Gen 2 batteries, which can also reduce CO2 emissions by 64% compared with Gen 1.

Thanks to the game-changing nature of Elonroad's technology, the start-up has been able to participate in and secure funding from various EU programmes through EIT Urban Mobility. Most recently, they procured large investment from the French government, as part of the France 2023 investment initiative. This signifies a partnership between Sweden and France, two leaders in sustainability.

With the solution also promising job creation and industrial activity in Europe, the future looks bright for this clean-tech company. The highway is set to be finished by 2025, "and then of course it will take a couple of years to install more kilometres on more highways...we are dreamers", says Valery Prunier, project developer.

Elonroad: Paving the way for autonomous cars?

The electric roads designed by Swedish start-up Elonroad could also accelerate development towards the 'third generation of e-mobility', which focuses on autonomous cars. Currently, charging for autonomous vehicles in most cases is not automatic: "A lot of autonomous vehicle initiatives in San Francisco, for example, still don't have automated charging. You still have to get a cable", explains Valery Prunier, developer of Elonroad's project. Cables for autonomous vehicles, much like for electric vehicles in general, are known for being bulky and taking up space. By facilitating on-the-go charging with electric highways, autonomous vehicles would be freer to fulfil their main aim, which is to sense the environment and operate without human involvement.

The TandEM programme: fueling female cyclists with confidence

This train-the-trainer programme is empowering women across the EU to lead their own cycling and bike repair workshops for other women.

The TandEM programme, a joint EIT Urban Mobility and BYCS initiative, is on a mission to increase the number of urban female cyclists across European cities. TandEM is simultaneously addressing the gender gap in cycling and increasing the uptake of this sustainable mode of transport.

It's already known that there is a gender gap in cycling, with women perceiving different barriers to entry, including safety risks, roadside aggression, lack of cycling abilities and poor infrastructure. However, as outlined by Julienne Chen, Head of City Partnerships at EIT Urban Mobility, this also means that there is a sizeable "hidden population" of women keen to make the switch to bikes. This is where TandEM comes in, training women to teach cycling skills to others in their communities – and it's so far been wildly successful.



In the end I felt like I had the licence to do what I wanted to do. I was even more confident because I saw that it went well, my participants were so satisfied, so I was motivated",

explains Eszter Dalos, highlighting the 'pass it on' domino effect of the programme.



When Eszter Dalos, an urbanist at the City and Mobilities Institute in Budapest, joined TandEM, she was hesitant about being able to teach cycling skills to others. Nonetheless, Eszter learnt how to lead group rides, do bike repair and structure her own cycling workshops, culminating in her holding her first five workshops in Budapest in 2023. Eszter's workshops were a hit, gathering good feedback and inspiring participants to make lifelong changes, with two participants even buying electric bikes for their commute.

So far, 22 women have passed through TandEM in 2022 and 2023, with over 100 additional women having been trained as a result. Like Eszter's workshops, the programme's overall impact has exceeded expectations, with trainers taking on waiting lists and a network being built in each location.

Looking to the future, EIT Urban Mobility and BYCS are exploring new avenues to grow the programme further, recognising its potential for transformative change. Meanwhile, the participants are forming a powerful network of cycling advocates, ensuring that the programme's impact will continue to roll far into the future.

Axel Rimbaud: EIT Urban Mobility Master's graduate leads changes in road safety laws

This young French engineer participated in EIT Urban Mobility's programme in Sustainable Urban Mobility Transitions, reinforcing his technical knowledge and leadership skills to drive forward the road safety movement he founded.

Axel Rimbaud enrolled in EIT Urban Mobility's Master's in 'Sustainable Urban Mobility Transitions' in 2021 with a specific goal in mind. Already on a mission to reduce speed-related traffic mortalities in Chile through his NGO 'MEL' (Movimiento contra el Exceso de velocidad Letal), he wanted to raise the game of his technical and leadership skills to achieve a wider environmental and societal impact.

Studying across two European locations (Spain and Sweden) over two years, Axel was able to study real-life challenges in Chile, proposing solutions inspired by European transport systems. These data-driven proposals included introducing Sweden's '2+1 roads', the 'Leading Pedestrians Intervals' initiative (giving pedestrians a head start at traffic lights) and recommendations

for bus safety in Santiago de Chile. The results were presented to the Chilean Ministry of Transport and the Ministry of Public Works, and some pilots will be implemented in the country over the next few years.

Despite facing opposition, Axel has helped push through multiple law changes since the creation of his NGO in 2018, such as reducing speed limits from 60 to 50 km/h; making 'reckless speed' an offense; and creating an automated speed control system, which should reduce road fatalities by more than 10% in coming years.

Circling back to the EIT Community, Axel found that his projects gave his fellow students the chance to work on real-life issues. He has since worked with EIT Urban Mobility to deliver trainings on the intertwined topics of road safety and sustainable mobility, additionally he should integrate road safety into the Master's as a guest lecturer in Sweden, with new locations in the pipeline.



Axel reflects on how EIT Urban Mobility's Master's programme has impacted his activism work:

"Beyond the quality of the teachers and the course itself, the Master's programme at EIT Urban Mobility has given me the chance to share knowledge and experiences with others who are passionate about the same topics across two European locations."





SEVES project: giving automotive batteries a second life as energy storage units

This circular economy project repurposes used EV batteries into smart energy storage units that power homes, electric vehicles and industry, simultaneously reducing the need for new, expensive and unsustainable batteries.

The SEVES project, funded and supported by EIT Urban Mobility, has created a truly unique solution that is not yet being tested or used elsewhere. Giving electric vehicle Li-ion batteries an additional 10 years of lifespan in the form of smart 'second life' Energy Storage Systems, their work is already having positive social and environmental effects for multiple stakeholders, including EV manufacturers, citizens, municipalities and industry.

The project's expert consortium is driven by their own experiences. In particular, ŠKODA Auto, one of the world's oldest car makers, was looking to speed up the limited growth of the charging infrastructure and the growing number of installed renewable energy sources. Drawing on the EIT Urban Mobility community, a consortium of keen partners, including Brno University of Technology, Pražská Energetika (PRE), LEEF Technologies, AV Living Lab, and Vrije Universiteit Brussel (VUB)'s MOBI Research Group, was gathered to accelerate the growth of charging infrastructure.

The benefits for EV manufacturers include lowered costs, as the need for new batteries made from (unsustainable and sometimes unethically mined) raw materials is reduced, as well as the accelerated growth of charging networks in dense city areas with



The SEVES project team have spoken about their project:

Our aim is to increase the lifespan of batteries, make mobility more sustainable and make it more convenient to charge electric vehicles where power grid networks are low capacity."

limited power grid connection. For municipalities, SEVES offers a cheaper, faster and more environmentally friendly alternative to building charging stations in low emission areas, which in turn makes charging homes, businesses and industry more convenient.

A pioneer in its field, SEVES was the first to install this kind of solution in Central and Eastern Europe, offering storage devices with a variable capacity up to 300 kWh and power output of 210 kW. Pilot tests have been highly successful, leading to major Czech energy company ČEZ announcing the installation of 150 'second life' units in the next three years.

Although the project was originally forecasted for May – December 2022, due to the continued success of use cases, the pilot test phase of the project is now forecasted to continue until June 2024, to maximise the discovery of new functionalities and investigate the potential for community power supply.

OUR PORTFOLIO OF PROJECTS

A selection of projects we supported in 2023





ULTIME - Digital Twins for Urban Logistics Training in VR

Innovative new courses leveraging VR and digital twins to plan sustainable urban transport.

Challenge addressed:

Reaping the benefits of digitalisation to plan sustainable urban transportation solutions in a human-centred and resource efficient way.

Objective:

By exploiting digital twins and innovative learning methods, stakeholders will be trained to develop new solutions for cities and the communities that inhabit them.

The training programme aims to develop the capacity of stakeholders to exploit digital twins for better urban planning, aiming to design more sustainable, smart and liveable cities.

Learning is reinforced with Augmented Reality (AR), Virtual Reality (VR) and Extended Reality (XR) environments, allowing participants to visualise solutions for cities of any size, which take into consideration elements such as cost and operational efficiencies, better crisis management and more participatory governance.

Lead partner:
Espaces-Mobilités

Countries:
Belgium



TRAILS – Youth for Sustainable Mobility and Inclusion

Fostering innovation in electromobility education in Bulgaria and Malta.

Challenge addressed:

This programme aims to increase the capacity of young people to address future urban mobility challenges in two emerging or moderate innovators (RIS) countries.

Objective:

Helping young people to become agents of change in the green transition, by increasing their entrepreneurial skills.

The TRAILS programme supports educators and professionals as they train students, young professionals and practitioners in the field of electromobility. It also raises awareness of the context of EIT Urban Mobility and their educational programmes for youth.

The programme establishes networks among students, entrepreneurs and key industry players, so that participants can capitalise on these communities and further develop their skills as actors in future mobility. By creating a truly immersive environment that brings technology, innovation and inspiration together, the project aims to enhance the creativity and engagement of both the students and educators within sustainable urban mobility topics.

Lead partner:
Cleantech Bulgaria

Countries:
Bulgaria, Malta



Doctoral Training Network's Fourth Annual Forum

Gathering PhD candidates for meaningful discussions on future European urban mobility.

Challenge addressed:

The Doctoral Training Network (DTN)'s annual event bridges the gap between PhD research and practical implementation.

Objective:

Connecting PhD students to industry, cities and key players in urban mobility to help support the exchange of ideas.

Hosted at a different partner university every year, the 2023 DTN Annual Forum took place at Aalto University in Espoo, Finland. This edition brought together more than 60 PhD candidates from the urban mobility field, where they presented their research, networked with colleagues and learned about the latest developments in urban mobility. The programme included keynote speeches by professors and researchers, as well as

industry professionals from both the city of Espoo's Centre of Excellence for Sustainable Development, who spoke about the city as an innovation platform, and Forum Virium (the city of Helsinki's innovation company) who spoke about sustainable city logistics. Students went on a trip to the Suomenlinna island, where they pitched their innovative research ideas in an agora-style session and participated in a workshop where they reimagined urban mobility futures. This year is especially important as the DTN held its first graduation ceremony and welcomed its 7th intake of students, reaching an incredible 90 students!

Lead partner:
Technical University of Munich (TUM)

Countries:
Multiple



Remaking the Street

Second edition of the summer school changing the streets.

Challenge addressed:

Discovering new ways to imagine and redesign streets that benefit local businesses and the transportation network.

Objective:

Training students on how to improve and reimagine public spaces, using different scales of urban interventions, and giving them the opportunity to create their own street experiment.

Remaking the Street is a hands-on summer school programme where students learn how small changes to public spaces can lead to big impacts on people's quality of life. This summer school was held for the first time in 2022

with great success and was just repeated in 2023. Students completed a two-week online course followed by a two-week in-person study tour visiting current street experiments in Amsterdam and Munich to learn about the rapidly changing streetscapes. The final project challenged students to pitch an original street experiment to an expert jury. Modules consisted of online coursework taught by experts from EIT Urban Mobility projects.

Lead partner:
Humankind

Countries:
Germany and The Netherlands



Low Emission Zones

Training European cities to implement LEZs and reach pollution reduction targets.

Challenge addressed:

Training practitioners using real-world LEZ development scenarios based in different city contexts, to enhance urban liveability.

Objective:

Developing skills for practical LEZ implementation, building on lessons learnt and the real-life challenges of the cities involved.

Originally aiming to help 67 Catalan municipalities of over 20,000 inhabitants to establish LEZs by 2025, the course aligned with Spain's Law 7/2021 on climate change and energy transition and contributed to the objectives of the EU's Green Deal.

Since 2021, the training programme has surpassed its initial Catalan scope and expanded to other Spanish cities, including Madrid, and in 2023 was extended to Portugal. In this way, the impact of this course has gone beyond its original regional and even national confines, and shows the potential to scale up across Europe, inspiring even more cities to join the LEZ movement.

Lead partner:

CARNET – UPC
Technology Center and
AMB – Metropolitan
Area of Barcelona

Countries:

Spain and Portugal



Designing the Cycling City

Supporting transport officials in Malta on designing a city for cycling.

Challenge addressed:

This blended training programme aims to increase the uptake and implementation of cycling infrastructure and low bicycle ride share.

Objective:

Training transport professionals and city officials on the design and implementation of safe and sustainable cycling solutions.

This course was designed to support the Maltese government's commitment to making their road infrastructure more cycle friendly. The course was taught by cycling experts and focused on bicycle infrastructure design, road safety in shared spaces and specific solutions for the Maltese context. The output of the training programme will be felt in the years to

come, as Malta continues to develop its cycling infrastructure and make it a more liveable and sustainable city for everyone, as reflected in its €35 million plan for safer connections for active mobility, which aims to address many of the practical cycling challenges identified during the course. The course was delivered in collaboration with the Competence Hub and EIT Urban Mobility RIS Hub Malta, as well as the Embassy of The Kingdom of the Netherlands in Malta and the Maltese Transport Authority.

Lead partner:

Transport Malta

Country:

Malta



Lead partner:

Strascheg Center for
Entrepreneurship

Countries:

Multiple countries



Start for Future



An open alliance of academic, governmental and corporate stakeholders leading European systemic innovation.

Challenge addressed:

Accelerating innovation and increasing the capacity of youth through educational programmes, incubators, and capitalising on the network of partners.

Objective:

The alliance aims to nurture one million start-ups in deep-tech, train and mentor two million talented individuals, involve 1,000 universities and connect 3,000 industry partners by 2035.

SFF has trained thousands of students and supported hundreds of early-stage start-ups. The initiative comprises four core programmes:

1. the nine-month open incubation programme where students and early-stage start-ups create innovative solutions to societal challenges;
2. the SFF Academy online platform that gathers resources to advance existing entrepreneurial curricula within European universities;
3. the open incubator network which brings together 16 university incubators to support the best performing student-led start-ups;
4. Regional Valleys, where the SFF network supports its stakeholders to develop their ecosystems in line with smart specialisation strategies and create regional innovation valleys across Europe.



Girls Go Circular & Skills for Future



Supporting young entrepreneurs.

Challenge addressed:

Training the future leaders of the green transition boosting young student's confidence through entrepreneurial and digital skills.

Objective:

The students in these entrepreneurial programmes will build awareness of a diverse set of pertinent topics at an even younger age.

These EIT Community programmes are training youth to develop their entrepreneurial skills and become agents of change in the green transition. Girls Go Circular's learning programme equips young pupils, especially girls, aged 14-19 with digital and entrepreneurial skills.

The online platform has trained +26,000 girls on the circular economy through +15 thematic modules on different topics, such as sustainable mobility, and smart and healthy cities, among others. Similarly, through the Skills for Future programme, the EIT Community aims to empower the next generation of entrepreneurs across Europe through a ground-breaking secondary education programme that boosts their skills and confidence to find innovative solutions to Europe's societal challenges.

Lead partners:

Girls Go Circular: EIT
Raw Materials

Skills for Future: JA
Bulgaria

Countries:

Multiple countries



Lead partner:
VEFRESH

Charging from Lampposts

Electric vehicle charging from lampposts.

Partners involved:

City of Klanjec, City of Samobor, City of Osijek, Iceberg Plus, Jelgava Municipality, North-West Croatia Regional Energy and Climate Agency, ŠKODA Auto, SimpleCharge

Countries:

Czechia, Latvia, Croatia, Malta

Challenge addressed:

These pilots are accelerating the development of e-vehicle charging networks in residential areas, across central and eastern European cities.

Objective:

Making electric vehicle charging more accessible and providing a new revenue stream for municipalities.

Output: Integrating electric vehicle charging stations into the street lamppost infrastructure.

This project aims to support the equitable roll-out of electric vehicle (EV) charging, by piloting EV charging stations that easily integrate into the street lamppost infrastructure. The pilots are running in emerging central and eastern European markets, particularly where current EV infrastructure is limited, such as in dense residential areas, as well as in locations where the development of EV charging networks is lagging behind.

The lampposts, newly equipped with EV charging stations, will have numerous positive

impacts on the economy, local environment and society. Quick to install and requiring no additional infrastructural investments, the solution presents a new revenue stream opportunity for municipalities.

The piloted device is standard and can be installed on either a LED or older diode lamppost to provide on-street EV charging. Furthermore, it substantially reduces resources for installation when compared with EV charging stations, maximises the energy network and optimises space usage in dense settings, all while decreasing CO2 emissions in residential areas.



Lead partner:
Elonroad

Elonroad urban automatic EV charging

Wireless and automatic EV charging in urban parking.

Countries:

Sweden, Estonia

Challenge addressed:

Mitigating e-vehicle adoption challenges, including range limitation, recharge speed, operational downtime, slow roll-out of charging infrastructure and more.

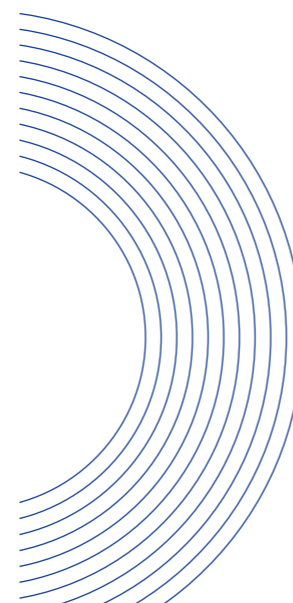
Objective:

Unlocking large-scale fleet charging to further increase demand for electric vehicles.

Output: A wireless, automatic charging solution for electric vehicles that is built into parking spaces.

Elonroad's wireless charging solution is being piloted with tele-driving rental e-car company Elmo in Estonia. The fully integrated charging solution will overcome the spatial limitations of cities, which represents a large roadblock to scaling EV fleets.

The solution also has many competitive benefits, including user convenience, increased uptime and automation potential. This project and pilot are a step towards a large roll-out of dynamic conductive road-based charging and represents a paradigm shift away from large batteries, obtrusive charging infrastructure and excessive demands on the power grid.



**Lead partner:**

Zeabuz

Partners involved:

Future Mobility Europe

Country:

Sweden

Autonomous and emissions-free passenger ferries

Challenge addressed: Providing an alternative urban mobility option, with the increasingly popular form of transport, electric ferries.

Objective: The solution is providing increased access to sustainable waterborne mobility.

Output: In June 2023 Zeabuz and ferry operator Torghatten launched the world's first commercial, emissions-free autonomous passenger ferry in Stockholm, Sweden.

Although Zeabuz's technology allows the ferries to navigate autonomously from dock to dock, while avoiding traffic and other objects, Zeabuz is introducing a new operational mode 'onshore supervised autonomy', in which a network of small ferries can be supervised by a single safety operator from a shore-based remote operation centre. Zeabuz believes that this new mode will improve the scalability and economic viability of autonomous urban passenger ferries

and increase trustworthiness and the uptake of waterborne autonomous mobility.

The electric passenger ferries maximise use of a relatively untapped passenger transportation system, our urban waterways. By transporting passengers via waterways there is less traffic and congestion on roads and, in turn, reduced air pollution from road-based transport. Zeabuz also finds new routes through cities, shortening distances that might otherwise be taken via a higher-emissions modality.

**Partner:**

VOOVVO

Country:

Latvia

Preventing reckless driving for car-sharing and rental companies

Challenge addressed:

Increasing driver and pedestrian safety.

Objective:

Increasing car-sharing services by improving safety and fuel economy.

The project's output is a GPS-based technology that prevents speeding and aggressive driving in real-time. VOOVVO's technology, VOOBOX, controls reckless driving behaviour in commercial fleets in real time, reducing the risk of accidents and vehicle misuse.

The Riga-based pilot will work with Tesla's car-sharing company, OX Drive, to retrofit 65 vehicles. VOOBOX is fleet management solution that reduces fuel consumption, maintenance costs, insurance premiums and improves safety, promoting growth of the car-sharing industry.

Partner:

Bout

Countries:

Finland, France

A MaaS (Mobility-as-a-service) platform for water transportation

Challenge addressed:

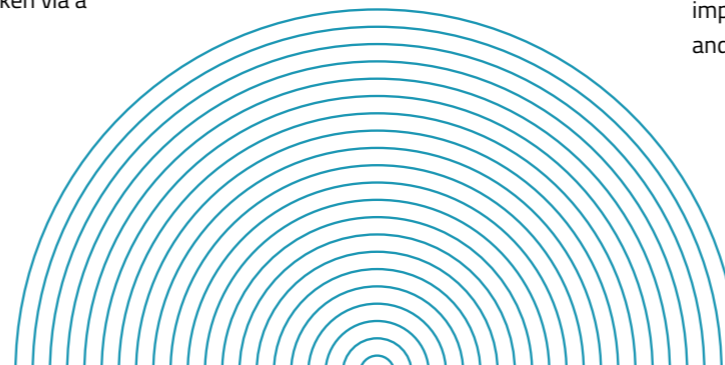
Fragmentation of water transport booking services.

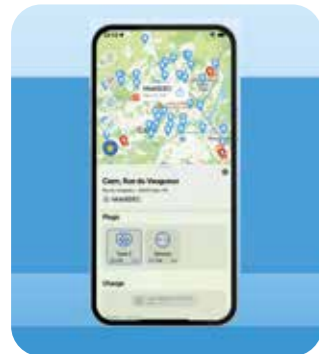
Objective:

Creating a data-driven platform for water transportation bookings.

In many cities across Europe, waterborne transport is fragmented and underused. The Bout platform helps customers to find waterway travel options, and operators to improve their offerings, encouraging more users and reducing empty services.

The modified solution being piloted with the Communauté Portuaire de Paris is being tested to include shuttle traffic and cruises, in addition to traditional water taxis, for the 2024 Olympics.





Electric vehicle charging price comparison

Challenge addressed:

The wide variation in EV charging prices, caused by a lack of transparency.

Objective:

Making EV charging price transparent, to increase EV use and reach global climate neutrality goals.

Chargeprice's EV charging price comparator, which calculates and predicts prices across

thousands of European operators, piloted in the Capital Region of Denmark. The app allows EV drivers to find the best charging stations and prices based on personal choices, including compatible charging cards and apps, time of day, type and charging speed.

Partner:

Chargeprice

Countries:

France, Denmark



Achieving net-zero emissions for logistics traffic by 2030 in Mechelen

Challenge addressed:

Lack of data on CO2 emissions caused by logistics in the city.

Objective:

Monitoring the emissions of logistics traffic to establish a baseline and inform decision making through IoT sensors with carbon tracking technology.

The City of Mechelen aims to achieve zero emission city logistics by 2030, but needs to increase its monitoring and analysis of CO2

emissions. Everimpact will pilot 15 strategically placed IoT sensors, providing real-time data on emissions from freight transportation.

This data-driven solution will provide powerful insights for decision-making and targeted activities, successfully transitioning to zero emission logistics.

Partner:

Everimpact

Countries:

France, Belgium



Digitised logistics for small and medium-sized concrete suppliers

Challenge addressed:

Providing affordable and efficient digital logistics solutions for SMEs.

Objective:

Increasing the efficiency and sustainability of urban concrete logistics.

ProperGate's digital platform supports SMEs to optimise their freight management and compete with larger firms, by providing tools to consolidate orders, optimise delivery schedules and track deliveries in real-time.

The solution reduces unnecessary fuel consumption, optimises delivery routes and decreases the number of vehicles needed. The solution, which will be piloted with Polish concrete supplier STEFANCO, reduces carbon emissions, traffic congestion and noise pollution.

Partner:

ProperGate

Country:

Poland



Audio navigation for the blind and visually impaired

Challenge addressed:

Improving accessibility of public transport stations for blind and visually impaired people.

Objective:

Making navigation in public transport stations accessible and easy for everyone thanks to a hands-free app with 3D audio augmented indoor navigation.

Using public transport can be daunting for blind and visually impaired people due to the challenge of finding their way within large stations.

This inaccessibility leads to low adoption rates of public transport. Dreamwaves' mobile application, waveln, aims to increase accessibility for everyone; its hands-free audio navigation provides directional sounds that users simply need to follow to find their way. Dreamwaves will pilot their solution with Vienna's public transport operator, Wiener Linien.

Partner:

Dreamwaves

Country:

Austria



Lead partner:
Prostorož and
Municipality of Ljubljana

Country:
Slovenia

New European Bauhaus- AwaRE project

Co-creating comfortable and inclusive open spaces in healthcare.

Challenge addressed: This project addresses recent patient experience feedback, enhancing walkability, accessibility and ease of use of Slovenia's largest healthcare complex.

Objective: Co-designing accessible and comfortable open spaces for UMC Ljubljana's health workers, patients and visitors, of all ages and abilities.

Output: Citizen-driven spatial tools for UMC Ljubljana.

The AwaRE project has improved the accessibility and use of public and green spaces at UMC Ljubljana (University Medical Centre Ljubljana). Having collected extensive feedback from patients and medical personnel, as well as underrepresented groups, based on specifically designed workshops and walks, four design proposals were exhibited for the 'pavilion'. Previously seen as poorly maintained and not accessible to key user groups, this 'pavilion' was renovated to become an open, clean and inviting space, which also fosters a sense of belonging. The new design responds to several

different requests; providing a pleasant waiting space, an area for patients to rest outside of their rooms, and a place for healthcare workers to enjoy their breaks. The project continues in a close-knit collaboration between UMC, the Municipality of Ljubljana and Prostorož planning studio. Data gathered has also served as the basis for a series of guidelines for the upcoming climate adaptation strategy of the Municipality of Ljubljana.

INVESTMENT PORTFOLIO



IMPACT INVESTMENTS

Investing in positive impact solutions

As an impact investor, we boost European start-ups that demonstrate the potential to have a significant positive impact, both socially and/or environmentally, as well as strong return on investment financially.

Our core mission revolves around empowering driven entrepreneurs who are committed to addressing critical global challenges. By providing financial support, expertise and networking opportunities, we endeavour to enable these leaders of tomorrow to fully realise the potential of their innovative ideas and amplify their impact.

At the heart of EIT Urban Mobility's investment strategy lies the pursuit of favourable outcomes for people and the planet, while also delivering competitive market returns. To realise this aim, we assess the positive and negative impacts of the products and/or services of the equity portfolio companies across four dimensions and 19 categories of impact, alongside additional financial indicators.

We assess the alignment of these companies with the United Nations' Sustainable Development Goals (SDGs), by focusing on how their products and services tangibly contribute to these objectives. Moreover, we apply the *Upright Project Net Impact Quantification* method - a model enabling smarter decision-making for investors, companies and governments by quantifying the net impact of companies. We utilise this approach because we are confident that it will augment value, decrease investment risks and contribute to global sustainability.

EIT Urban Mobility channels its investments toward enterprises that fulfil specific criteria:

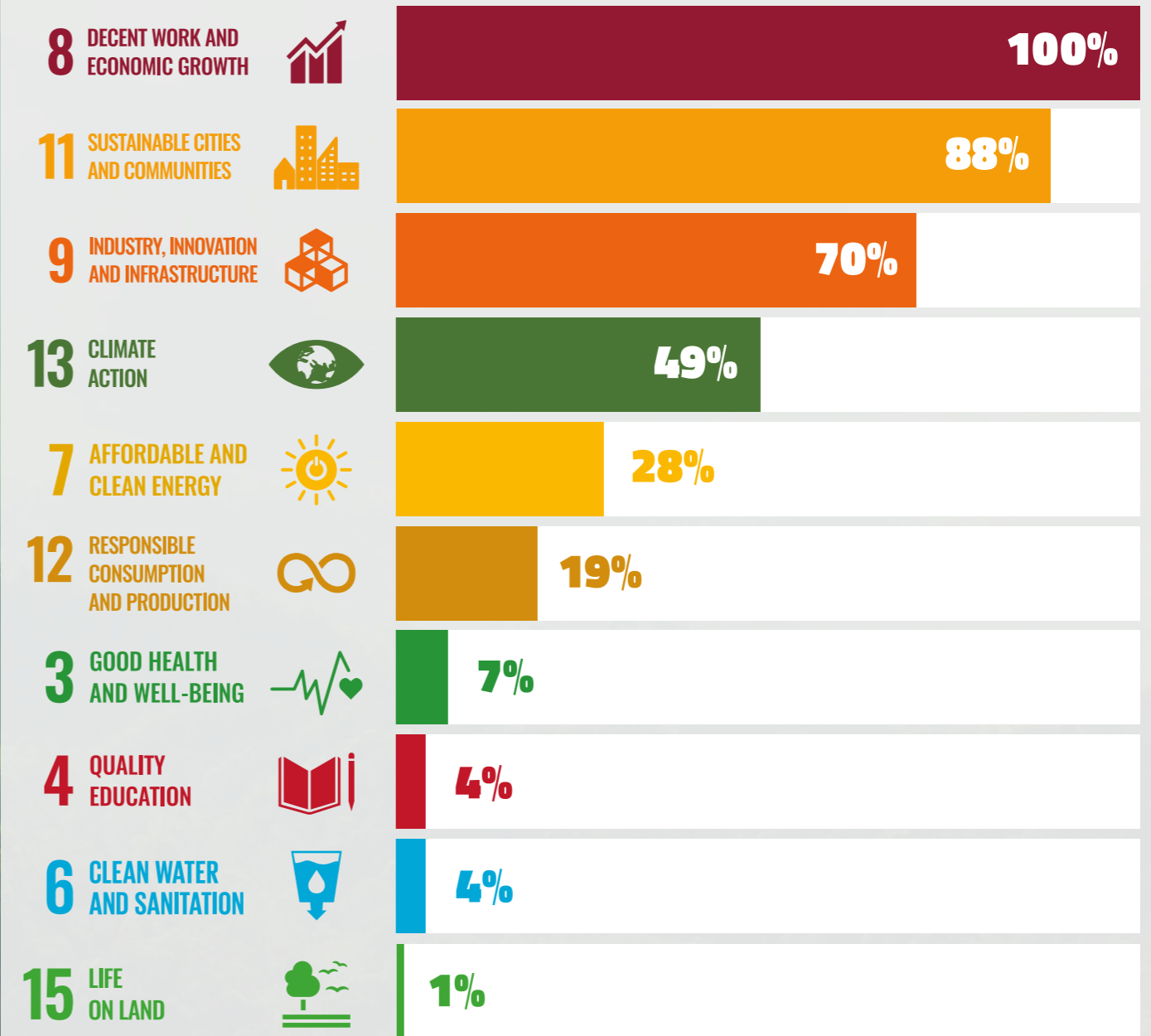
- **Net positive impact:** In order to invest in companies that achieve net positive impact, we assess both the negative and positive impacts of our start-ups' activities.
- **SDG alignment:** We look for alignment with at least one of the designated Sustainable Development Goals (SDG7, SDG8, SDG9, SDG11, and SDG13), along with their corresponding targets.
- **Gender balance:** We look for companies that have gender-balanced teams.



Sustainable Development Goals alignment



% equity portfolio companies aligned



Only 69 of 86 equity portfolio companies were assessed.

IMPACT INVESTMENTS

Measuring net positive impact

EIT Urban Mobility's investment portfolio companies are assessed by the Upright Project Net Impact Quantification, in order to measure the net impact of each company's activities.

For the purposes of our quantification, we define net impact as:

$$\text{Net impact ratio} = \frac{\text{(positive impacts - negative impacts)}}{\text{positive impacts}}$$

Whereas the maximum value is 100%, representing a theoretical company with no negative impacts. There is no minimum value.

THE AGGREGATED NET IMPACT RATIO OF EIT URBAN MOBILITY'S EQUITY PORTFOLIO COMPANIES IS 48%.

To find out more, please visit our [EIT Urban Mobility – Investment Portfolio – Impact Report 2023](#).

How EIT Urban Mobility's investment portfolio companies have a net positive impact on Society, Knowledge, Health, Environment.

SOCIETAL IMPACT



Create **jobs**, fostering financial independence and societal identity;



Contribute significantly to shared resources through direct and indirect **taxes**;



Develop vital **societal infrastructure** essential for the strengthening of the European urban mobility sector and citizen well-being.

Can be translated to

920
direct or indirect jobs

KNOWLEDGE IMPACT



Contribute to **knowledge infrastructure**, enabling the effective and safe creation, distribution, and maintenance of knowledge, information and data, (e.g. MaaS platforms);



Enable, encourage, or practice the **creation and distribution** of data, information, or **knowledge** (e.g. transport planning and optimisation software); autonomy software; route and freight optimisation and management software.



Offer data-driven solutions that help decision-makers optimise routes, reduce transit times and enhance resource allocation, overall improving transportation and logistics efficiency.

Can be translated to

63,434
hours of engineering services



HEALTH IMPACT



Promote sustainable active mobility solutions, such as biking and walking, that positively impact health through the **prevention of diseases and injuries**, while also **enhancing well-being**;



Indirectly **improve human relationships** through mobility services like car-sharing and electric scooter rentals, which bring joy and **sense of meaning** to people's lives.

Can be translated to

42,402
ready meals

ENVIRONMENTAL IMPACT



Remove or reduce **GHG and non-GHG emissions** (compared to their most common alternatives) through the implementation of less-polluting solutions like electric and autonomous ferries, electric bicycles, and EV charging platforms;



Conserve highly **scarce natural resources**, like fresh water and certain minerals and metals, as well as preserve ecosystems through the protection of **biodiversity** (e.g. EV battery upcycling services);



Promote responsible **waste** management, recycling, and resource sustainability through the use of solutions like waste management data analytics and optimisation software.

Can be translated to

8,700
tons of reduced GHG emissions

250,212
cubic metres of treated wastewater

Sustainable City Logistics

	<p>Our portfolio of start-ups in Sustainable City Logistics are revolutionising last-mile delivery solutions, optimising freight transportation and reducing carbon emissions. Their technologies and strategies are shaping a more efficient and environmentally friendly urban logistics landscape.</p>			



GeoFluxus emerged as a spin-off venture resulting from a collaboration between the Delft University of Technology and the Amsterdam Institute for Advanced Metropolitan Solutions (AMS Institute).

Born out of four years of dedicated research focused on the circular economy and sustainable logistics in the built environment, GeoFluxus garnered recognition in October 2020, winning the prestigious inaugural prize from the European Commission. This accolade affirmed GeoFluxus as a leading solution aligned with the 'EU Green Deal'.

GeoFluxus centres its mission on translating the circular economy concept into actionable strategies. Recognising the challenge governments face in crafting policies that reduce emissions and meeting global climate targets, GeoFluxus also acknowledges that businesses struggle to locate local and reusable materials for cost savings and reduced environmental impact.

Functioning as a dual agent, GeoFluxus expertly maps, analyses, and forecasts locations where materials can be rescued from wasteful disposal. This commitment epitomises their dedication to converting waste into valuable resources.



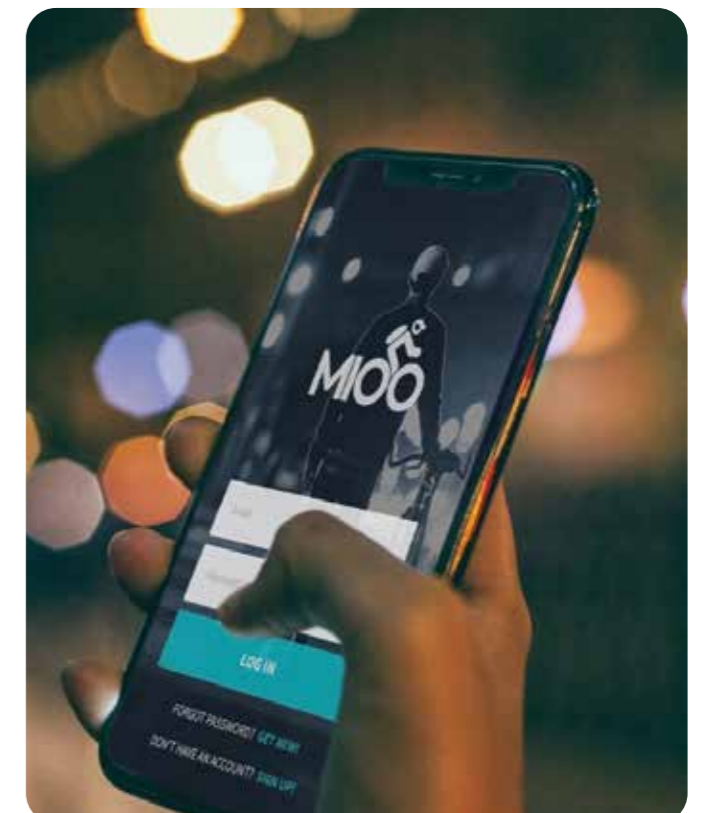
Active & Integrated Mobility

	<p>Our portfolio of start-ups in Active and Integrated Mobility are supporting pedestrians and cycling-friendly infrastructure, seamless intermodal connectivity and enhanced accessibility. Their efforts are making urban spaces more vibrant, liveable and conducive to healthier lifestyles.</p>				

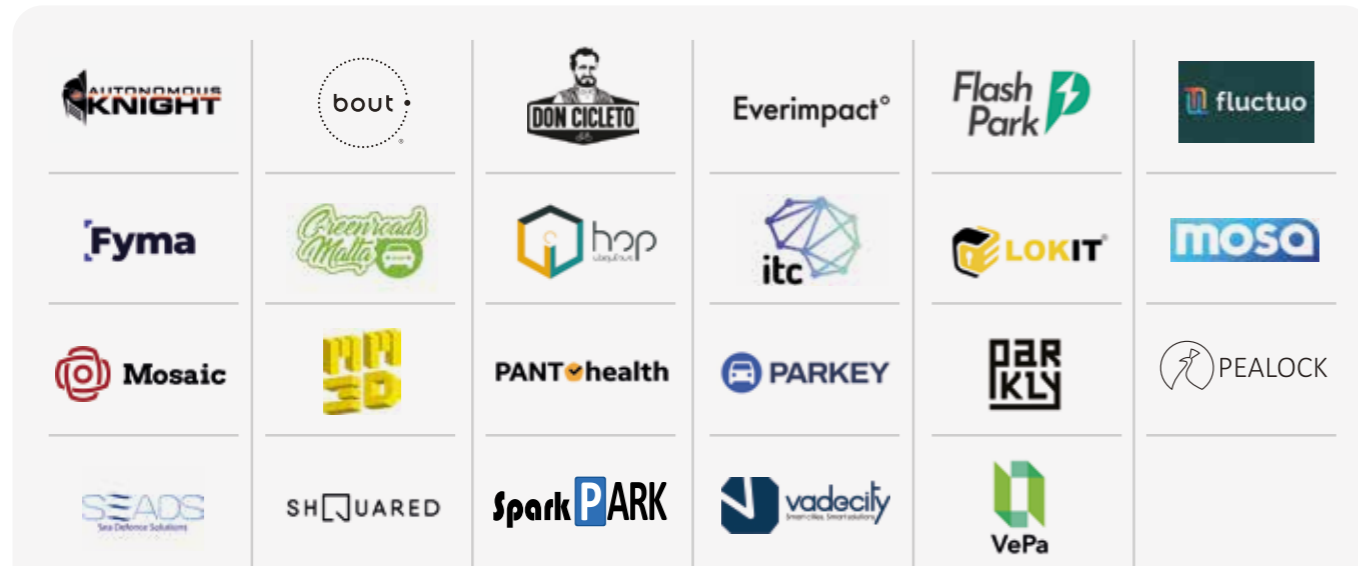


Bicycles are a popular, convenient and sustainable mode of transportation, but they are also vulnerable to theft and damage.

With the increasing popularity of cycling as a mode of transportation, the demand for infrastructure and support for bike riders is on the rise. A solution was needed and MIOO is the answer. MIOO Cycling is an app and platform offering a smoother ride for bike ownership, throughout the bike's lifecycle. The app allows cyclists to keep track of their bike's service history, book repair and maintenance services, and register the bike in the antitheft and insurance programme. Additionally, the app's potential environmental impact aligns with the growing trend of sustainable investing. By investing in these innovative platforms, investors can support a more sustainable and equitable transportation system.



Smart Infrastructure



Our portfolio of start-ups in Smart Infrastructure are driving the integration of technology into urban environments. Their solutions range from smart traffic management systems to sensor-equipped infrastructure, enhancing efficiency and safety while empowering data-driven decision-making.

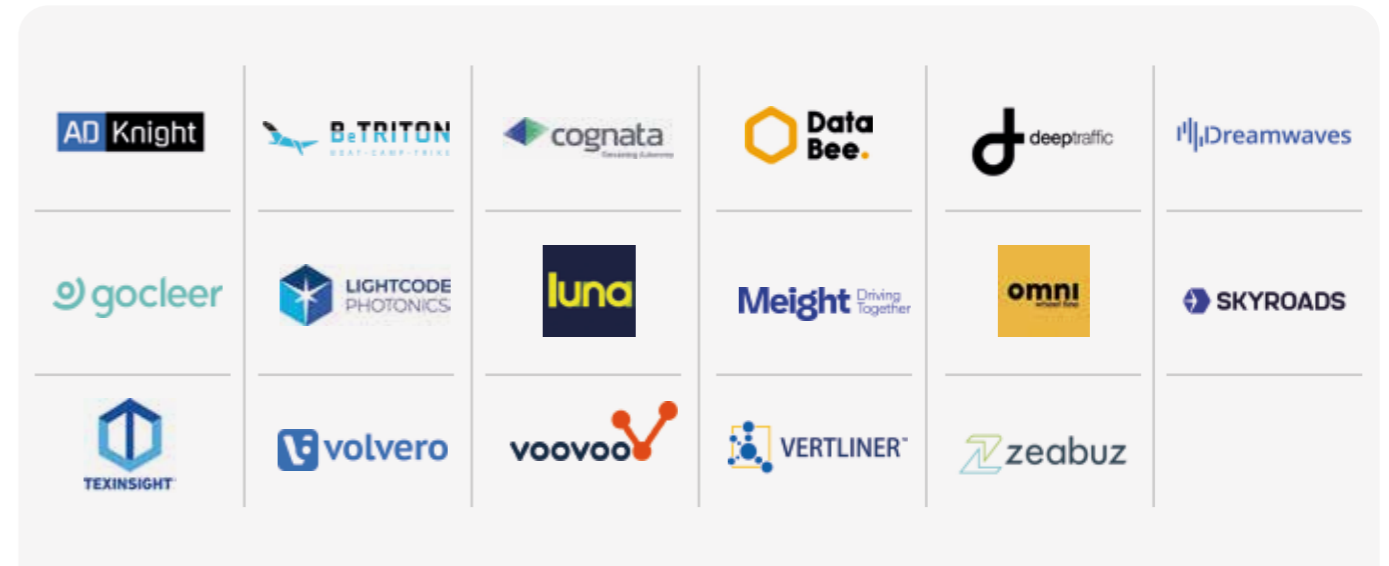


Founded in 2021 in Genk, Belgium, Autonomous Knight’s multispectral cameras transcend human vision, ensuring all-weather visibility.

Autonomous Knight’s advanced sensor technology is at the forefront of multispectral camera systems, reshaping automation across industries like mobility, aerospace, industrial automation, security, shipping, mining, defence, automotive & UAV (unmanned aerial vehicle), whether that be on land, rail, water, or in the skies. By exceeding standard LIDAR (Light Detection and Ranging) and prioritising real-time operations, they are redefining autonomy, advancing level 5 and situational awareness. Their swift sensor deployment and premier knowledge centre serves multiple markets, enhancing efficiency and safety in autonomous operations, where real-time precision is vital for informed decision-making. Additionally, the company contributes to reduced energy consumption and emissions, as well as the conservation of natural resources, by optimising processes and enhancing efficiency.



Future Mobility



Our portfolio of start-ups in Future Mobility are propelling the development of autonomous vehicles, shared mobility platforms and electric transportation alternatives, all contributing to a more sustainable and convenient urban mobility landscape.



Zeabuz revolutionises urban water transport, cutting congestion and emissions while promoting walking and cycling.

Zeabuz’s small, self-driving, battery-powered ferries navigate safely using advanced sensors to enhance waterborne transport, reducing car traffic and emissions, and aiding smart urban planning. Most cities rely on costly bridges and tunnels for water crossings, but Zeabuz makes previously inaccessible areas usable. Being emission-free, it combats air pollution and expands sustainable transport to waterways, contributing to safer, greener cities.

Our investment in Zeabuz stems from its AI-driven autonomy, saving on crew costs, conserving energy, and fostering innovative ship designs. It disrupts transportation norms, benefits urban environments by reducing congestion, noise, and emissions, and shifts commuters to waterways for a more peaceful urban life.



Mobility & Energy

Our portfolio of start-ups in Mobility and Energy are devising novel ways to harness renewable energy sources for transportation, reducing reliance on fossil fuels and internal combustion engines, and making significant strides towards establishing a greener and more sustainable urban transport ecosystem.



Circu Li-ion
AUTOMATED BATTERY & CELL UPCYCLING

Circu Li-ion, a Luxembourg-based European start-up founded in 2021, tackles sustainable battery use in the electric vehicle (EV) era.

Amid the global shift from fossil fuels to electric alternatives, the demand for batteries has surged. On the one side, limited resources, especially lithium which is crucial for electric mobility, hinders production. On the other side, the manufacturing of new battery cells consumes substantial energy. Circu Li-ion aims to solve this dilemma and extend each lithium-ion battery cell's life, by disassembling the battery to cellular levels and revitalising it from there. By granting reusable cells a 'second life', they conserve materials and cut CO2 emissions. Initially targeting micromobility providers and large recyclers, they aim to serve the 'second life market' of EVs and appliances, with ultimate plans for CO2-neutral batteries. The start-up's innovative upcycling solution slashes CO2 emissions by up to 48%; it's no wonder that they've won wide acclaim, such as the regional finale of the Startup World Cup.



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