Business Plan 2023–2025

Targeted Open Call 4 (2025) Call Manual

EIT Urban Mobility - Mobility for more liveable urban spaces

EIT Urban Mobility

Barcelona| 14 August 2024

eiturbanmobility.eu

History of changes

Version	Publication Date	Change
1.0	14.08.2024	Initial version

Any updates to this Call Manual are identified in the table above. Amended versions are published on the EIT Urban Mobility Call website.

Contents

Abbreviations

B2B	Business to Business
B2G	Business to Government
CAC	Customer Acquisition Cost
CCAM	Connected, cooperative and autonomous mobility
CEO	Chief Executive Officer
CFO	Chief Financial Officer
CLV	Customer Lifetime Value
CRL	Commercial readiness level
EIT	European Institute of Technology and Innovation
EV	Electric vehicles
FS	Financial sustainability
FSA	Financial Support Agreement
FSM	Financial sustainability mechanism
HE	Horizon Europe
HRS	Hydrogen Refuelling Stations
ICE	Internal combustion engine
IP	Intellectual property
KIC	Knowledge and Innovation Community
KPIs	Key performance indicators
MGA	Model Grant Agreement
MRE	Market readiness evaluation
RIS	Regional Innovation Scheme
SA	Strategic Agenda
SAM	Serviceable Addressable Market
SDG	Sustainable Development Goals
SER	Summary Evaluation Report

SME	Small and medium enterprise
SO	Strategic objectives
SOM	Serviceable Obtainable Market
TAM	Total Addressable Market
TRL	Technology readiness level
TTM	Time-to-Market

Glossary

Project Leader	The Project Leader is the main contact for EIT Urban Mobility from the time the funding is awarded until the project has been implemented. In multi-beneficiary Calls, the Project Leader represents the project and the consortium partners (the other partners participating in the project) to EIT Urban Mobility. For mono-beneficiary grants, the single legal entity involved in the project also acts as Project Leader.
Call for Proposals	The Call for Proposals is the instrument used by EIT Urban Mobility to allocate funding through projects to third parties, to support the deployment and development of the Strategic Agenda. EIT Urban Mobility uses two types of Calls in accordance with the provisions outlined in the specific rules for EIT Knowledge and Innovation Community (KIC) actions in the Horizon Europe Model Grant Agreement (HE MGA) Annex 5: Open Calls and Calls for Partners.
Call Manual	The Call Manual is the main document outlining the terms, conditions and criteria for any Call for Proposals launched by EIT Urban Mobility. Its contents adhere to the principles of transparency, equal treatment, open competition and sound procedural management.
Deliverable	Deliverables capture the achievement of key outputs and may take the form of analysis reports, feasibility studies, strategy documents, pilot action reports, and training documentation. The deliverables need to fully demonstrate the project's achievements and the judicious use of public funds.
EIT KPIs	Set of key performance indicators (KPIs) defined by EIT that reflect its operational objectives for education, entrepreneurship and innovation. These KPIs are used to measure how effectively a KIC/project meets the objectives of EIT.
Evaluation Process	Process by which EIT Urban Mobility, supported by external experts, examines the quality of a proposal to determine whether it should be selected for EIT funding.
Evaluation Panel	Group of expert evaluators (usually at least three external individuals for Calls) along with a rapporteur with proven expertise in a specific area or topic of the Call for Proposals. The panel's role is to evaluate eligible proposals submitted in response to a particular Call, based on a set of predefined evaluation criteria. The evaluation panel is assisted by a quality controller from EIT Urban Mobility to ensure process compliance.
Horizon Europe Model Grant Agreement	HE MGA sets out the rights, obligations, terms and conditions that apply to the grant awarded.
KIC Specific KPIs	Set of indicators defined by EIT Urban Mobility that reflects the societal challenge that the KIC seeks to address.

Knowledge Triangle Integration	EIT Urban Mobility aims to create close partnerships between European education, research and business entities (knowledge triangle). It also involves cities, either through the composition of project members or through the impact that the project is expected to have.
Milestone	Control points to chart progress. They may correspond to the completion of a key deliverable that allows the next phase of work to begin.
Ranking List	List of proposals ranked according to the score awarded by the Selection Committee.
Selection Committee	The Selection Committee is responsible for selecting shortlisted proposals assessed by the evaluation panel, and for defining conditions for funding the selected proposals in the final EIT Urban Mobility's portfolio. The Selection Committee is usually, but not exclusively, composed of members of EIT Urban Mobility's executive management team.
Summary Evaluation Report	The rapporteur issues a single and final summary evaluation report (SER) for each proposal after the consensus meetings. This document provides a concise overview of the proposal's final evaluation score, its strengths, weaknesses, associated risks and any recommendations made.

Introduction

EIT Urban Mobility's mission is to accelerate the transition to a sustainable mobility model for liveable urban spaces. We aim to support innovators in developing solutions that help mitigate and adapt to climate change while improving urban quality of life, creating jobs, and strengthening the European mobility sector.

Since 2020, the Innovation Thematic Area has supported a wide range of projects across Europe in various sectors including autonomous and electric vehicles, charging infrastructure, and shared mobility. For BP2023-2025, our goal is to advance commercially viable innovative solutions aligned with our mission.

In 2023, we introduced a responsive model called Targeted Calls with the objective of keeping pace with rapid changes in technology, policy, and global circumstances, complementing the Main Innovation Call in delivering our strategic agenda. This model allows us to identify and support emerging trends, technologies, or underrepresented solutions in our innovation portfolio. Targeted Calls place a strong emphasis on involving industry in our innovation efforts. They address very specific topics with clearly defined problems and expected outcomes complementing the Main Innovation Call which this year has focused on urban logistics, energy transition, and public transport.

The final targeted Call of BP23-25 addresses four critical topics for urban mobility due to industry needs and new regulations, policies, and European objectives: promoting a competitive and sustainable European cycling industry[1], the uptake of hydrogen refuelling stations for sustainable urban transport[2], mitigating non-exhaust pollution from urban transport[3], and achieving Vision Zero and safety for vulnerable urban road users[4].

We look forward to broadening our partnership and our portfolio of innovation projects to build socially impactful and economically viable products, services and solutions.

Maria Tsavachidis - Chief Executive Officer (EIT Urban Mobility)

[1] The European Declaration on Cycling, signed on April 3rd at the Informal Transport Ministers' meeting in Brussels, is the EU's most ambitious cycling policy, recognising it as a strategic priority with major benefits for Europe.
[2] Europe plans to set up at least 1,000 hydrogen refuelling stations by 2030 under the Alternative Fuels Infrastructure Regulation (AFIR). This supports the EU Green Deal and mandates stations every 200 km along the Trans-European Transport Network (TEN-T).
[3] The Euro 7 regulation, adopted in April, 2024, establishes rules for non-exhaust emissions from brakes and tyres, aiming to reduce overall vehicle pollution. Also, in October 2022, the European Commission proposed revising the Ambient Air Quality Directives to align with WHO guidelines and address non-exhaust emissions from sources such as tyre and brake wear.
[4] The European Union's Road Safety Policy Framework 2021-2030 supports the Vision Zero goal, aiming for zero fatalities and serious injuries on EU roads by 2050.

1 Call summary

Call for proposal's main features	
Key dates of the Call calendar[5]	• **Call opening:** 14 August 2024 • **Call closure:** 15 October 2024 at 17.00 CET • **Eligibility and admissibility check:** October 2024 • **Evaluation of proposals:** October - November 2024 • **Communication of results:** November 2024 • **Conditions clearance and stand-still period:** December 2024 • **Tentative start of the projects:** January 2025
Total estimated EIT funding allocated to this Call	€5 million
Link to the submission portal	Refer to Section 4.2 How and when to apply
List of documents to be submitted	• Application form available on the Netsuite online submission portal. • Annex – Business model canvas. • (If applicable) Letter of commitment from observer demo host (if not listed as project partner). • (Recommended) Freedom to Operate study; link to one minute video of the proposed solution.
List of documents to take into consideration	• Call Manual • EIT Urban Mobility Strategic Agenda 2021–2027 • List of KPIs • Financial Sustainability Guidelines • Guidelines for Applicants • Eligibility of expenditure • Appeal procedure • Project Implementation Handbook • Financial Support Agreement (FSA) template • Horizon Europe Model Grant Agreement • Business Model Canvas template • Letter of commitment from observer demo host template

[5] Please note that this calendar is indicative. Dates might be subject to slight changes.

Short summary of the topics to be addressed	• **The uptake of hydrogen refuelling stations for sustainable urban transport** This topic covers easy-to-deploy and/or hydrogen refuelling solutions that comply with a majority of EU countries' safety regulation requirements and go beyond the current status of art for such stations. • **Mitigating non-exhaust pollution stemming from urban transport** This topic covers solutions for the reduction of non-exhaust emissions (NEE) at source, NEE filtration near the source, NEE removal from the environment, and advanced non-exhaust particulate matter (PM) emissions monitoring. • **Achieving Vision Zero and safety for vulnerable urban road users** This topic covers ITS[6] solutions that reduce the number of fatalities and severe injuries on urban roads by preventing collisions, with a primary focus on vulnerable road users. • **Promoting a competitive and sustainable European cycling industry** This topic covers solutions related to e-bike compliance with the new EU battery regulations, new business models and services for the cycling industry, and (e-)bike manufacturing innovations that promote onshoring and sustainable manufacturing.
Evaluation criteria (first stage – external expert evaluators)	For the ***strategic fit evaluation***: • contribution to EIT Urban Mobility Strategic Objectives and the EU dimension; • alignment with the scope of the relevant topic; • potential to achieve the expected outcomes and impacts. For the ***full proposal evaluation***: • excellence: novelty and innovation, • impact: social, economic, financial and general sustainability, • quality and efficiency of the implementation.
Portfolio selection criteria (second stage – internal selection committee)	• Business intelligence, including applicant's track record and viability • Portfolio fit, complementarity of the proposal, and alignment with strategic priorities and Call topics.

[6] Intelligent transport systems - European Commission (europa.eu)

2 General requirements

2.1 EIT Urban Mobility strategic focus and objectives

Proposals submitted to this Call must support EIT Urban Mobility's vision and mission and directly contribute to tackling our strategic objectives (SOs). Proposals need to demonstrate **how** the proposal will not only align with, but also actively contribute to the EIT Urban Mobility Strategic Agenda 2021–2027 (SA).

2.1.1 Vision and mission

Our mission is to accelerate change towards sustainable mobility for liveable urban spaces. As the leading European innovation community for urban mobility, we facilitate collaboration between cities, industry, academia, research and innovation. We develop and deploy solutions for the mobility of people and goods. All EIT Urban Mobility's activities serve the purpose of achieving three societal impact goals:

- improve quality of life in cities;
- mitigate and adapt to climate change;
- create jobs and strengthen the European urban mobility sector.

Further details on the strategic focus of this Call for Proposals are given in Section 3.

2.1.2 Strategic objectives

Five strategic objectives (SOs), as set out in the Strategic Agenda 2021–2027, steer our activities and ambitions, and will lead us to achieve our mission:

- SO1 – Create liveable urban spaces;
- SO2 – Close the knowledge gap;
- SO3 – Deploy and scale green, safe and inclusive mobility solutions for people and goods;
- SO4 – Accelerate market opportunities;
- SO5 – Promote effective policies and behavioural change.

The submitted proposals must be aligned with **SO3 – Deploy and scale green, safe and inclusive mobility solutions for people and goods** and **SO4 – Accelerate market opportunities**. They must also fit the scope set out in Section 3.

2.2 Applicant eligibility and membership

EIT Urban Mobility creates ecosystems. KICs are anchored in regional and local communities via their co-location innovation hubs. EIT Urban Mobility links the knowledge triangle components of education,

research and businesses with cities. Accordingly, EIT Urban Mobility currently brings together more than 450 partners from 33 countries in the four sectors (academia, research, industry, and cities).

2.2.1 Who can apply

This Call for Proposals is open to all legal entities established in European Union (EU) Member States, and/or in third countries associated with Horizon Europe. These legal entities may be small and medium enterprises (SMEs), universities, research and technology organisations, cities or large businesses, among others.

All proposals must be composed of at **least two independent legal entities**[7] established in two EU Member States and/or third countries associated with Horizon Europe.

The consortium composition must be in line with the following requirements, which are part of the eligibility criteria.

- **A commercial partner**: one partner of the consortia is identified as the lead commercialisation applicant and is responsible for the financial sustainability mechanism (FSM).
- **Demo host**: at least one pilot host where the proposed solution will be demonstrated (linked to KPI: KSN02 or/and KONHE31). Demo hosts could be:
    a) a city/municipal government* or,
    b) a company

*It can also be an entity with direct links to a city/municipal government (e.g. a public transport company, a living lab formally linked to the city or a development agency funded directly by the city) **AND/OR** a private company with an existing concession, contract, licence or permit to operate a mobility service in a city.

**The company and its pilot project must operate in or have a purpose for an urban environment.

Importantly, one single entity cannot be both a commercial partner and a demo host in the same proposal. The commercial partner and the demo host need to be legal entities that are independent of each other.

Important clarification

Every partner within the consortium must have an active role in the project and allocate an appropriate budget to be deemed eligible according to the consortium composition requirements. A partner can request EIT funding or allocate the entire budget as co-funding.

Entities, such as additional demo hosts, wishing to engage in the project without a designated budget, may participate as observers. However, they will not be formally recognised as project partners. As observers, they should not be listed as partners in the proposal, nor will they sign the contract or bear any reporting obligations if the project is approved. Nevertheless, to confirm their involvement, they must submit a letter of commitment (see available template) outlining their proposed role and activities in the proposal.

Importantly, to be eligible, a proposal must include a minimum of one demo host who is a formal partner and has an appropriate budget allocated in Netsuite. Additional demo hosts without a budget can participate as observers.

Special cases

Entities established in Switzerland are eligible to participate at their own cost. These entities are not eligible to receive EIT funding.

Temporary eligibility requirements for Hungarian universities

Following the Council's Decision on measures for the protection of the Union budget against breaches of the principles of the rule of law in Hungary that entered into force on 15 December 2022, special participation and funding restrictions may affect Hungarian public interest trusts and their linked universities participating in any EIT Urban Mobility Calls.

For further information and the list of affected entities, please refer to Annex I of the *Eligibility of Expenditure* document.

This Call for Proposals follows the main rules and principles established by EIT rules and EU general principles. All Call processes respect the principles of openness, transparency, equal treatment and efficacy.

2.2.2 Membership

The implementation of projects is a core activity of EIT Urban Mobility. Beyond this activity, the EIT Urban Mobility community connects members and runs networking activities to design and plan strategic actions to drive impact and enable systemic change, including accelerating market adoption of innovative solutions into everyday city operations.

If an application is selected for funding, then applicants will be required to become part of the community and to choose one of the following membership categories when they launch their projects.

- **Gold members**: pay an annual fee of €30,000 and have full access to all benefit packages offered by EIT Urban Mobility.
- **Silver members**: pay an annual fee of €10,000 and have limited access to all benefit packages offered by EIT Urban Mobility. In the case of small enterprises and NGOs, a reduced annual fee of €5,000 will be applied.

Cities are offered a special membership package:

- **Leading cities**: with an annual fee of €10,000, they have full access to the gold membership package and the additional city-specific service.

A detailed description of all packages and related benefits, and the registration and conditions for membership is given on our website: https://www.eiturbanmobility.eu/become-a-partner/

2.3 Integration of RIS applicants

EIT Urban Mobility fosters the integration of organisations from countries with moderate or emerging innovation scores, as defined by the European Innovation Scoreboard, into the Innovation Programme. To this end, project consortia are encouraged to apply with organisations or countries that fall under the Regional Innovation Scheme.

3 Specific requirements of the Call

3.1 Strategic focus

The overall purpose of the Innovation Programme is to address existing or anticipated mobility challenges facing European cities. In this regard, we support **projects that can develop and test new solutions in real-life demonstrations and attain commercial viability by the end of the project**.

The EIT Urban Mobility Business Plan 2023–2025 currently has 30 consortia-led innovation projects in our portfolio, covering a wide range of topics, from EV charging infrastructure, to first/last mile logistics, public transport management and numerous digital solutions that enable new mobility services. The aim for this Call is to **strategically select projects that complement our existing portfolio** by addressing new sectors, business models, technological advances or market demands. Factsheets on existing projects are available on our website.

Innovation's Targeted Calls aim to keep pace with rapid changes in technology, policy, and global circumstances, complementing the Main Innovation Call in delivering EIT UM's strategic agenda. This model allows us to identify and support emerging trends, technologies, or underrepresented solutions in our innovation portfolio. Targeted Calls place a stronger emphasis on involving industry in our innovation efforts and address specific topics with clearly defined problems and expected outcomes.

This targeted Call of BP23-25 addresses four critical topics based on industry needs and new regulations, policies, and European objectives:

- **The uptake of hydrogen refuelling stations for sustainable urban transport;**
- **Mitigating non-exhaust pollution stemming from urban transport;**

- Achieving Vision Zero and safety for vulnerable urban road users;
- Promoting a competitive and sustainable European Cycling Industry.

We align with the **objectives of the EU Mission on Climate-Neutral and Smart Cities.** As such, any of the **112 cities committed to net zero climate neutrality by 2030 are encouraged to apply.** Transport and mobility is one of the main sectors cities must address to reach climate neutrality. In alignment with the cross-sectoral and demand-led approach of the Cities Mission, we support cities to deliver on the commitments and action plans laid out in their Climate City Contracts.

3.2 Topics

3.2.1 The uptake of hydrogen refuelling stations for sustainable urban transport

Background

The new AFIR directive[8] mandates the deployment of comprehensive and accessible alternative fuel infrastructure, including hydrogen refuelling points, to support sustainable transport. By December 31, 2030, publicly accessible hydrogen refuelling stations must be spaced no more than 200 km apart along the TEN-T[9] core and comprehensive networks, with at least one station in each urban node.

To date, few stations are deployed, resulting in low network density. Limited storage and dispensing capacity hinder support for larger fleets. Additionally, safety permits and lack of regulation make installing hydrogen refuelling stations lengthy and costly.

Limited deployment: According to the HRS availability map[10,] currently, only 185 HRS are deployed in EU territory, and only some of them are fully operational. Approximately 80% of HRS today have limited H2 storage and dispensing capacities (between 100 to 250 kg/day), meaning they can only be used for small urban fleets.

High costs: The construction of a fully operational HRS may require an initial investment estimated between 1.5M€ and 8M€, mostly depending on the HRS capacity and applicable safety standards/regulations[11].

[8] The Alternative Fuels Infrastructure Regulation

[9] The EU's trans-European transport network policy, the TEN-T policy, is a key instrument for the development of coherent, efficient, multimodal, and high-quality transport infrastructure across the EU.

[10] HRS Availability Map

[11] EIT UM estimation after market research

Permitting: The usual timeframe from initiating the permitting procedure to achieving a fully operational HRS can vary from 9 to 24 months, with some projects taking even longer. Only a few EU countries (Germany, Netherlands, France, Italy, and Bulgaria) have dedicated regulations for HRS, while in other countries, the permitting procedure for conventional refuelling stations is applied alongside national rules concerning the handling of potentially hazardous substances[12].

Scope

EIT Urban Mobility supports the development and commercialisation of easy-to-deploy, transportable Hydrogen Refuelling Stations that can be homologated across most EU countries with existing regulatory frameworks, advancing the current state of the art.

Starting from an existing solution with a TRL6 or higher, participants are requested to develop/adapt a solution that can:

1. Be homologised in at least 3 out of the 5 EU countries, where specific HRS rules have already defined.
2. Dispense a minimum of 500kg/day. All HRS shall be able to have storage capacity added to accommodate increasing station throughput over time whilst complying with maximum daily supply frequency.

   The following aspects also need to be considered:

   a. Hydrogen quality: The fuelling station shall not impair the quality of the hydrogen (including particles).
   b. Refuelling pressure: Vehicle refuelling can be achieved by direct fill from the compression system or via high pressure cascade.
   c. Compressor system:
      - The compressor unit should be delivered as a package including complete instrument and HRS control package to ensure safe and reliable operation.
      - The pressure and capacity of the hydrogen compression system shall be designed taking into account the footprint implications and economics.
      - The type of compression system may vary. All types of compressors are acceptable (e.g. diaphragm, reciprocating, hydraulic, ionic liquid or cryo-pump) provided that they have been specifically designed with reference to hydrogen service.
      - Important compressor safety requirements are related to the following:
        - Safety controls shall be installed to ensure that temperature and pressure levels do not exceed or fall below set operating levels.
        - No oxygen contamination shall occur in hydrogen supply.
        - Vibrations from the compressor must not be transferred to connecting pipe work.

[12] MultHyFuel insights

- The control sequence that starts-up and shuts down of the machine also stops the compressor if temperatures or pressures deviate from the required values.
- Safety from over-pressure is provided by soft-wired pressure relief and relief valves through the compression system.
- Positive isolation shall be applied such that the compressor can be isolated for maintenance.
- The compressor system and enclosure shall be designed in order to allow ease for maintenance work and have adequate lifting devices.

d. Cooling system: HRS may be equipped by a cooling system to reach very low refuelling time without overheating or overfilling the vehicle on-board gaseous hydrogen storage tank, the hydrogen gas shall be temperature compensated.

e. Dispensing system:
   - It is strongly suggested to integrate in the dispensing system an infrared communication system to the vehicle according to SAE J2799.
   - Dispensers shall be equipped with means to protect all operating controls and electrical wiring from climatic conditions

3. Improve at least 2 of the following operative parameters of the station based on the state of art (defined below). The rationale for the choice must be explained including the most relevant features of the existing model that will be used as a starting point. Target values for the selected parameters must be clearly defined.
   a. Refuelling time
   b. Max waiting time to fuel consecutive vehicles (back-to-back)
   c. Refuelling pressure (availability to distribute H2 at both 350 and 700 bar)

As part of the project, Consortia are also requested to:

4. Perform a full operational demo in at least 1 EU city during at least 1 month dispensing at least 500kg of H2 at 350bars and demonstrating the minimum time to refuel according with their proposal.
5. Deliver, with the support of EIT UM, a comprehensive study on the existing permitting requirements and risk assessment methodologies for transportable HRS for the EU member stated that have been selected at point 1, which will serve as the basis for developing and assembling the portable HRS and will be published for public use[13].

In terms of financial analysis, transportable HRS should be prepared for both renting and selling business model. In this sense, submitted proposals should also include an estimation of the expected retail and rental price for the final client.

[13] The work developed in the frame of MultHyFuel EU project can be used as basis.

Failure to fulfil any of the previous requirements (1 to 5) will result in the technical disqualification of the proposal. Proposals including additional operative parameters, countries for homologation, and/or demo hosts will be positively evaluated.

Expected outcomes and impacts

- The demo host must help the HRS manufacturer to obtain permission to operate.
- Proposals shall clearly refer to the state of art for the transportable HRS solution describing the standards of compliance, the main characteristics of the station, EU countries in which the station is already homologated, and the status of the Intellectual Property and strategy.
- The following specs can be requested as part of the final dossier of the station in the frame of the project:
    - General description of technology concept
    - Operations manual
    - Maintenance plan or scheme including all periodicities
    - CE certificates
    - Equipment data sheets/certificates
    - Product data sheets
    - List of critical equipment on which FMEA is performed
    - HAZOP of the whole HRS (if applicable)
    - The safety considerations - safety system (detailed description)

A special thanks to the EU Clean Hydrogen Partnership, which provided valuable contributions for reviewing this topic.

Status of art

As a result of a market benchmark, EIT UM has defined the following state-of-the-art operative parameters for the portable HRS.

- H2kg/day (cumulative): 500 kg
- Storage capacity (kg): 300 kg – additional storage capacity can be reached by swopping storage tanks
- Operative range of temperature (ºC): -20º +40º
- Refuelling time excluding handling up to 25kg at 350 bars (min): 20
- Max waiting time to fuel consecutive vehicles (min): 45
- Power (kW): 35
- Refuelling Pressure: usually 350bar is the only available option
- Remote monitoring: yes
- Pre-cooling: no or optional
- Modularity/scalability: yes

3.2.2 Mitigating non-exhaust pollution stemming from urban transport

Background

According to the European Environment Agency, 96% of urban dwellers in Europe are exposed to harmful levels of fine particulate matter (PM) exceeding the guidelines set by the World Health Organisation (WHO)[14]. PM is the most widely used indicator for assessing the health effects of air pollution exposure. The health risks associated with PM less than 10 and 2.5 microns in diameter (PM10 and PM2.5) are well-documented. PM can penetrate deep into the lungs and enter the bloodstream, causing cardiovascular diseases, cerebrovascular events, and respiratory issues. Both short and long-term exposure to PM is linked to increased morbidity and mortality from cardiovascular and respiratory diseases. In addition, the WHO's International Agency for Research on Cancer (IARC) classified PM as a cause of lung cancer[15]. In response to this, the European Parliament and the Council have recently reached an agreement to revise the Ambient Air Quality Directives setting standards that are closer to WHO guidelines for 2030 and aiming to achieve zero-pollution by 2050[16].

[14] Europe's air quality status 2024 — European Environment Agency (europa.eu)
[15] Air quality, energy and health (who.int)
[16] Revision of the Ambient Air Quality Directives | Legislative Train Schedule (europa.eu)

Transport is one of the key sectors contributing to PM air pollution and was responsible for 11.5% of PM2.5 emissions in the EU in 2022[17]. Over the past three decades, targeted policy measures have successfully led to a decline in exhaust PM emissions. However, there has been a simultaneous and consistent rise in non-exhaust PM emissions attributable to the growing demand for transportation. Specifically, sources such as brake, tyre, and road wear in road transport have witnessed a significant increase in non-exhaust PM emissions over the same period. Notably, starting from 2012 for PM10 and 2018 for PM2.5, non-exhaust PM emissions have surpassed exhaust emissions in the transport sector[18]. Recently, the EU approved Euro 7, the first regulation to set limits on non-exhaust emissions. Brake PM10 emissions will be progressively tightened reaching 3mg/km per vehicle for light-duty vehicles in 2035. The initial phase-in will happen in 2027. Intermediary targets for light-duty vehicles as well as brake emission limits for heavy-duty vehicles and tyre abrasion limits will be defined in the upcoming years[19].

In addition, though understudied, rail transport is another source of non-exhaust emissions, with particular concern about PM emissions in closed and semi-closed environments such as subway systems. Rail PM emissions originate primarily from braking, power line wear, as well as the natural wear of trains moving on rails. Due to the enclosed environment, significant amounts of these metallic particles, especially iron oxide, end up accumulating both on station platforms and inside carriages[20].

Scope

EIT Urban Mobility will support the development and commercialisation of innovative solutions that mitigate non-exhaust pollution stemming from urban transportation. The focus is on non-exhaust emissions originating from both road and rail transport within urban environments.

The scope of this Call includes solutions that either reduce non-exhaust emissions at the source, remove existing particles near the source of from the environment, or monitor non-exhaust PM emissions effectively to allow real-time action to be taken.

Projects must involve end-users and/or clients, such as public transport operators or last-mile logistics fleets. Depending on the solution, project scope, and marketisation potential, it can be advantageous to include an OEM (vehicle manufacturer). Research institutes can play a key role to validate the solution and

[17] National air pollutant emissions data viewer 2005-2022 | European Environment Agency's home page (europa.eu)
[18] ETC/ATNI Report 5/2020: Transport Non-exhaust PM-emissions. An overview of emission estimates, relevance, trends and policies. — Eionet Portal (europa.eu)
[19] Regulation - 2024/1257 - EN - EUR-Lex (europa.eu)
[20] ETC/ATNI Report 5/2020: Transport Non-exhaust PM-emissions. An overview of emission estimates, relevance, trends and policies. — Eionet Portal (europa.eu)

measure impacts. Solutions should be cost-effective and avoid significantly affecting the daily operations of end-users such as cities, public transport operators, or private logistics providers.

Expected outcomes and impacts

Proposals must lead to a substantiated reduction in non-exhaust pollution originating from mobility activities in urban spaces and reduce negative externalities of the system. This can be achieved through solutions that either (i) reduce non-exhaust emissions at source, (ii) remove existing particles near the source or from the environment, or (iii) monitor non-exhaust PM emissions effectively to allow real-time action to be taken.

Examples

Examples of solutions EIT Urban Mobility seeks to fund include:

- Solutions for the reduction of non-exhaust emissions at source: e.g. innovative tyre or braking system design/components/materials that are more resistant to wear, releasing fewer PM particles than traditional options.
- Solutions for the removal of non-exhaust emissions near the source: capture/filtration systems to be fixed on road/rail vehicles, e.g. on bus wheels.
- Solutions for non-exhaust pollution removal from the environment: capture/filtration systems to be fixed on road/rail infrastructure, e.g. in underground stations or carriages.
- Monitoring systems for advanced non-exhaust PM detection and categorisation enabling real-time actions by companies, passenger transport operators, or cities. This includes the deployment of sophisticated sensor networks and data analysis tools.

Types of solutions that are not considered to be within the scope of this Call topic:

- Pollution solutions that are similar to those funded by EIT Urban Mobility in the past, specifically in the following projects – IMAGINEXT, CAROLINA, Sant Joan Despí RAPTOR, Mechelen RAPTOR.
- Pollution sensors, software solutions for monitoring, mapping, and predicting general air quality.
- Solutions that address pollution or waste coming from sources other than urban transport.
- Solutions that primarily address exhaust pollution.

3.2.3 Achieving Vision Zero and safety for vulnerable urban road users

Background

In European cities, vulnerable road users such as pedestrians and cyclists represent a significant portion of road fatalities and serious injuries. In 2022, they accounted for nearly 70% of urban road deaths.[21] The European Commission's Vision Zero goal aims for zero fatalities by 2050 and a 50% reduction by 2030. Over the past five years, EU road fatalities have decreased by 12%. However, progress has stalled, with 20,400 deaths last year—a modest 1% decrease from the previous year.

Vision Zero faces challenges in cities. Despite lower urban speeds, traffic complexity and the coexistence of multiple transport modes result in 40% of road fatalities and 56% of serious injuries.[22] Other contributing factors include inadequate traffic laws, unsafe behaviours, and poor road design. Until now, European cities' Sustainable Urban Mobility Plans (SUMPs) often lacked safety objectives for road accidents. However, in March 2024, the European Council approved measures to strengthen the EU's road safety efforts, including mandatory incorporation and monitoring of safety parameters for vulnerable users in SUMPs to improve urban road safety.[23]

Mobility in European cities is rapidly evolving, transforming urban roads with a shift towards active mobility. This includes increased walking, e-bikes, and other micromobility vehicles, especially within shared mobility, alongside the introduction of autonomous vehicles. Maintaining safety amid these rapid developments and new traffic dynamics is a significant challenge for cities. Urban roads must be prepared for these new transport modes and technologies to ensure the safety of all, especially vulnerable users. Investing in safety is crucial to creating greener, healthier urban environments with more public, shared, and active mobility options.

Scope

The EIT Urban Mobility is committed to the EU's Vision Zero goal and supports the development and commercialisation of Intelligent Transport Systems (ITS) [24] to reduce fatalities and severe injuries on urban roads. This effort focuses on vulnerable road users and includes proactive solutions related to road infrastructure design, maintenance, and operations.

A safe road infrastructure must integrate security aspects throughout the road's life cycle, from initial design through maintenance and operations.

[21] 2023 figures show stalling progress in reducing road fatalities in too many countries
[22] Facts and Figures - (europa.eu)
[23] Council approves conclusions to strengthen the EU's efforts to achieve its road safety objectives
[24] Intelligent transport systems - European Commission (europa.eu)

- Road infrastructure design involves planning and creating the layout and features of roadways to ensure functionality and safety; in this phase, integrating Intelligent Transport Systems (ITS) can optimise traffic management and prevent potential collisions.
- Road infrastructure maintenance includes regular and preventive activities to keep road quality, utilising ITS for timely issue detection and efficient repair scheduling. Also, the use of safety auditing tools has been proven to reduce traffic accidents by 10-25% across the entire life cycle and up to 20% for existing roads.
- Road infrastructure operations encompass daily management and traffic control, benefiting from ITS technologies to monitor traffic flow, prevent incidents, and provide real-time information to road users.

Expected outcomes and impacts

By enhancing the design, maintenance, and management of urban roads, these solutions aim to prevent collisions, mitigate traffic jams, and ensure safe layouts and timely maintenance, thereby reducing accidents involving vulnerable road users.

Examples of solutions EIT Urban Mobility seeks to fund include:

- Innovative Safety Evaluation Tools.
- Advanced technologies to assess pavement and road conditions and predict maintenance needs.
- Proactive traffic monitoring systems to detect vehicles, pedestrians, and cyclists, and prevent unsafe driving behaviour.
- Data-driven solutions to assess the risks of accidents in critical parts of the road, such as intersections, and suggest improvements to reduce that risk.
- Connected Vehicle Technology (V2X) like Vehicle-to-Infrastructure (V2I) communications and utilising real-time monitoring and response systems.

Types of solutions that are not considered to be within the scope of this Call topic:

- Safety solutions that are similar to those funded by EIT Urban Mobility in the past, specifically in the following projects – ABC, SCREEN.
- In-vehicle Advanced Driver Assistance Systems (ADAS).
- Smart Traffic Signals such as Adaptive Traffic Control Systems and Pedestrian Countdown Timers.
- Smart Crosswalks or Bicycle lanes such as Illuminated Crosswalks or Sensor-Activated Crosswalks.
- Projects focused on infrastructural road changes, such as building dedicated lanes for micromobility.

3.2.4 Promoting a competitive and sustainable European Cycling Industry

Background

The rapid rise of pedal-assist e-bikes and cargo bikes has spurred innovation and encouraged more people to switch from cars for daily commuting and other trips. In 2023, an estimated 16.8 million bicycles were sold in the EU, with around 5.1 million (30%) being e-bikes[25]. The share of e-bikes is expected to grow to 30 million, and their proportion among bicycles sold is anticipated to increase from 30% today to nearly 50% by 2030[26].

To encourage cycling as a fully-fledged mode of transport, the European Declaration on Cycling, signed in April, emphasises cycling as a strategic priority and describes it as one of the "most sustainable, accessible and inclusive, low-cost and healthy forms of transport and recreation, and its key importance for European society and economy."[27] Member States also strongly support cycling mobility through national cycling plans, leading to investments in infrastructure and fiscal incentives.

Cycling as an industry is increasingly important in the European mobility ecosystem. The bike industry contributes €21 billion to the EU GDP, generates 1.3 million jobs, and saves 2 million tonnes of GHG emissions. It is now integral to the EU Industrial Strategy and on par with the automotive, waterborne, and rail sectors in the Mobility Transition Pathway[28].

Scope

EIT Urban Mobility aims to fund innovative solutions that promote a competitive and sustainable European cycling industry, focusing on three sub-topics: light means of transport (LMT) batteries, new services and business models, and sustainable local manufacturing.

LMT Batteries

In August 2023, the EU introduced the new Batteries Regulation to enhance transparency and sustainability across the battery supply chain[29]. This regulation also targets batteries for LMTs, including e-bikes. It mandates requirements such as European Conformity (CE) markings by 2024, providing information on the state of health and expected lifetime of batteries by 2024, and implementing a battery passport by 2027.

[25] European Bicycle Industry and Market Profile Report - CONEBI
[26] CONEBI Ebikes-and-Bicycles Sales Forecast
[27] European Declaration on Cycling (C/2024/2377)
[28] Transition pathway for the EU mobility industrial ecosystem.
[29] REGULATION (EU) 2023/1542 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 12 July 2023 concerning batteries and waste batteries, amending Directive 2008/98/EC and Regulation (EU) 2019/1020 and repealing Directive 2006/66/EC

Additionally, by 2027, batteries must be removable and replaceable, by independent professionals. For LMT batteries specifically, this includes the requirement that the cells within the battery pack must be removable and replaceable[30]. The regulation also sets ambitious targets for recycling and material recovery, further emphasising environmental responsibility.

Given the significant growth of the e-bike market, and the Light Electric Vehicle (LEV) market as a whole, 23 million new LEVs are expected to be on the road by 2030, with e-bikes accounting for 60% of them[31]. Therefore, innovative solutions for LMT batteries are needed to effectively comply with EU regulations and meet the growing demand.

New services and business models

The Mobility Transition Pathway emphasises the crucial link between industry and service providers in the mobility sector. Europe is at the forefront of developing cycling services and new business models such as public and private ride-sharing schemes, subscription models, leasing, repairs, and bike refurbishments[32].

On the one hand, existing services like bike sharing need optimisation and innovation to expand and serve more citizens effectively. This includes adding more cargo bikes to sharing fleets, implementing innovative solutions for the management of ride-sharing fleets to reduce costs and increase margins, and making fleets more sustainable. On the other hand, the rapid rise of e-bikes and increased leasing opportunities have opened up numerous new opportunities in the cycling services sector. This growth allows for the creation of an ecosystem of services, similar to the automotive sector, including digital retail, insurance, and maintenance/repair, ultimately improving the customer experience.

Sustainable and local manufacturing

The COVID-19 pandemic exposed significant vulnerabilities in global supply chains, particularly in bicycle manufacturing, due to delays and shortages. The EU is advocating for onshoring bike and bike component manufacturing to enhance supply chain resilience, reduce reliance on foreign suppliers, and promote sustainability[33]. To address these issues, Europe is pushing for increased local production, as much of the manufacturing currently occurs in Southeast Asia, even though assembly often happens in Europe[34]. Onshoring can reduce the carbon footprint from transportation and logistics, and Europe's strict environmental standards encourage greener manufacturing processes. This move also aims to create jobs

[30] REGULATION (EU) 2023/1542 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 12 July 2023 concerning batteries and waste batteries, amending Directive 2008/98/EC and Regulation (EU) 2019/1020 and repealing Directive 2006/66/EC , Article 11, Section 5.
[31] LEV-Report-Final-Digital-1.pdf (eiturbanmobility.eu)
[32] Mobility Transition Pathway - pg. 38
[33] European Parliament calls for stronger and more competitive bike industry (bike-eu.com)
[34] important articles lists: Reshoring (ebma-brussels.eu)

and stimulate local economies[35]. The continuous increase in electric bike demand highlights the need to boost manufacturing capacity in Europe, potentially through advanced technologies and automation.

Expected outcomes and impacts

Examples of solutions EIT Urban Mobility seeks to fund include:

- Solutions to support the implementation of the new Batteries Regulation for LMT batteries:
  - The repairability of e-bike batteries without compromising safety.
  - Battery recycling and the upcycling, reuse, or repurposing of batteries.
  - State-of-the-art Battery Management Systems (BMS) to enable information on the state of health and expected lifetime of batteries.
- Solutions related to new business models and services:
  - Solutions to optimise and enhance bike sharing management, through predictive maintenance, battery swapping, data analytics and fleet operations.
  - New repair and maintenance services, particularly linked to leasing companies.
  - Solutions to support the second-hand bike and bike component markets.
- Solutions to onshore sustainable and competitive manufacturing of bike components:
  - Robotisation and automation of (e-)bike (component) manufacturing.
  - Development of cost-effective bike manufacturing components.
  - Sustainable manufacturing processes and circularity-related services, including product passports.

Types of solutions that will not be considered for funding are solutions resembling those previously funded by EIT UM, including in projects like Bike Longer, FutureMOB, InclusivEbike, HALLO, WalCycData, Bicification, NEDAM, H2CargoBike, and SCREEN; as well as solutions similar to pilots funded through the RAPTOR programme, and the SME Market Expansion Call. We do not seek to support solutions related to bicycle storage/parking/charging stations, incentivisation solutions for active mobility, new models of bikes (hardware), or data collection without a replicable or scalable business model.

This topic was reviewed by the Cycling Industries Europe, which provided valuable contributions.

3.3 Supporting knowledge triangle innovation

Collaboration is the cornerstone of innovation. At EIT Urban Mobility, we facilitate collaboration between key actors across the knowledge triangle (businesses, research and education) to solve cities' most pressing mobility challenges. At the same time, our projects are very focused on the latest stages before commercialisation and require a reduced group of compatible partners who will work together on a shared goal.

To support this, proposals should aim to cover the following project roles.

[35] European Declaration on Cycling - Chapter VI

- **Commercial partner:** a company (SME, startup or corporate) that takes the lead in the commercialisation of the future product or service or an entity responsible for creating a startup that will then commercialise the solution. The commercial partner should be the owner or have the right to commercially exploit the intellectual property related to the future product or service. This partner is also responsible for the project's contribution to EIT Urban Mobility's financial sustainability (see Section 3.9.4 for further details).

- **Expert partner:** an entity (company, research centre, university or other) with specific technological and/or market expertise that will support the main commercial partner in developing and/or validating the solution to be commercialised. The partner should demonstrate its added value to the consortium, specifically to the commercial partner.

- **Demo hosts**: end-users/clients of the future product or service that will be developed. The demo hosts should provide the necessary data, infrastructure access, and resources to support the commercial partner in adapting the solution to their needs and testing it in a pre-defined location/use case. They should also demonstrate how the project will solve a true pain point for them and how it aligns with their overall strategy. See further details on the eligibility of demo hosts in *Section 5.1 Eligibility and admissibility check*.

The consortium composition (see Section 2.2.1) must have at least one commercial partner identified and one demo host. While the inclusion of an expert partner is not mandatory, their participation will be positively assessed during the evaluation and portfolio selection.

One of the consortium partners must take the role as **Project Leader**. The key responsibilities of a Project Leader are: to monitor and control the project's work plan (deliverables, milestones and KPIs); to communicate in a timely way any changes/deviations from the project's workplan to EIT Urban Mobility; to arrange meetings with project partners and share relevant information with them; and to ensure that partners meet legal, financial and administrative requirements.

Each consortium partner should have a clearly defined core role, justified by their specific skills and expertise, with an appropriate budget allocated to support their activities. This should be explicitly detailed in the "Project Partner Roles, Skills, and Expertise" section of the project proposal.

3.4 Technology readiness level

EIT Urban Mobility supports projects that are **close-to-market**. Therefore, proposals in this Call should prove that the solution to be piloted has successfully reached a minimum **technology readiness level (TRL)[36] of 6.**

If the solution is a product to be manufactured, this would mean a functional version of the product working in a realistic environment and the ability to draw conclusions on its technical and operational capabilities.

[36] Part 19 – Commission Decision C(2014)4995

For software solutions, the minimum TRL is a beta version of the software functionalities, already tested by selected end-users under control mode.

During the project, the proposed solutions should be demonstrated at pre-commercial scale (TRL7). They should be validated as a first-kind commercial system (TRL8) during the project demos. The project should lead to swift, full commercial deployment (TRL9).

Proposals are encouraged to include as supporting documentation a link to a **one-minute video of the solution** showing its main features and demonstrating the stated TRL level.

3.5 Intellectual property

Protecting intellectual property (IP) is a prerequisite for successful commercialisation. Given the high TRL level, projects applying to this Call should already have taken important steps towards protecting the underlying technologies, processes, components, brands or software of the future product or service. They should also demonstrate that it is commercially "safe" to make or sell the proposed solution, without infringing on existing third-party IP rights.

Proposals should provide details of their IP including:

- **IP landscaping**: a description of the main IP asset/s, background and ownership (identification of the owner/s and whether it is single/joint/transferred ownership);
- **Protection measures:** a description of how this main IP asset/s is/are currently protected or are planned to be protected through patents, utility models, registered designs, trademarks, copyright, database rights, confidentiality agreements and measures, or other methods;

Alignment with the business goals and the planned commercialisation strategy: a description of how the IP strategy adds value to the company's strategic business goals (Are they all used in the core business of the company? Can others be given the right to use them? Should some be dropped, donated or used in other ways? How can they be used to attract investors, partners and collaborators?) and supports the existing commercialisation strategy (geographical scope, markets, competitors, licensing, sublicensing, sale, transfer, collaboration/partnership, etc.).

Proposals are encouraged to include as supporting documentation an **initial freedom to operate (FTO) or similar (patentability analysis, design/trademark clearance, registrability analysis)** including the state of the art, existing similar or related technologies on the market, the list of main competitors, the list of target markets, the list of main jurisdictions, the main obstacles and/or limitation, a risk assessment with regards to infringing third parties' rights, etc. While this document is not mandatory, it will be positively evaluated by the external evaluators. If it is not provided or is incomplete, EIT Urban Mobility may request an FTO as part of the conditions clearing phase for pre-selected proposals.

3.6 Gender and diversity

Diversity powers us to bring the best solutions to pressing global challenges and enables us to make innovation happen. At the same time, we are aware that to make our cities more liveable and address the needs of all community groups, we need to ensure that we have a more diverse workforce and that gender and diversity are considered when new mobility products and services are developed.

EIT Urban Mobility aims to support organisations that also value diversity and gender equality. To this end, projects applying to this Call should:

- Demonstrate how gender and diversity are considered in the design/development of the project outputs (product/services, pilots and marketing material) and how these considerations interact with other identity traits (age, race, class, sexual orientation and physical ability, among others).
- Describe the measures in place to promote a mixed team with women and underrepresented groups taking an active role in project implementation, with a special focus on managerial levels.

3.7 Key performance indicators

3.7.1 Mandatory KPIs

To be eligible, all submitted proposals must address **the mandatory KPIs listed below** and indicate the expected minimum target value for each selected KPI:

- **EITHE 02.4 (minimum expected target: 1)**
- KSN02 **or** KONHE31 **(minimum expected target: 1)**

KPI code	KPI description
EITHE02.4	Marketed innovations (EIT core) [37]

[37] For the purpose of assessing the achievement of this KPI, entities that are considered affiliated entities of the product owner/startup shall not be considered as customers. Affiliated entities are entities with a (usually legal or capital) link to a beneficiary. 'Link to the beneficiaries' means in particular a legal or capital link. This covers:

- permanent legal structures (e.g. the relationship between an association and its members)
- contractual cooperation (e.g. an existing collaboration agreement for activities in a field relevant to the action;)
- capital link, i.e.
    - direct or indirect control of the beneficiary
    - under the same direct or indirect control as the beneficiary or
    - directly or indirectly controlling the beneficiary.

KSN02	Demonstrations/pilots/living labs within a project that actively involve citizens and/or local associations (EIT Urban Mobility specific)
KONHE31	Tested Engineering Innovation

ALTERNATIVE mandatory KPI

If the project's objective is to introduce an existing innovation to a new market, an EITHE02.4 KPI is replaced with an EITHE04.4 KPI (new startup created) as mandatory KPI. The project must clearly demonstrate that the solution commercialised by the new entity is relevant to the targeted market and that the creation of the startup can facilitate its adoption. Furthermore, the workplan should outline what adaptations to the solutions are introduced and tested for the entry into the new market. This enables the solution provider to internationalise for scale up and greater impact.

3.7.2 Additional KPIs

In addition to the mandatory KPIs, proposals are expected to contribute to other KPIs. This will be positively assessed during the evaluation, in particular contributions to KPI EITHE04.4 Startup created (see Section 5.2.2).

KPI Code	KPI description
EITHE04.4	Startup created of/for innovation *(EIT core)*
EITHE01.1	Intellectual property rights
KSN01	# Innovation pilot scaling

Please refer to the detailed definition of these KPIs in the *List of KPIs* document published on the Call webpage.

Moreover, it covers not only the case of parent companies or holdings and their daughter companies or subsidiaries and vice-versa, but also the case of affiliates between themselves (e.g. entities controlled by the same entity).

3.8 Project duration

This Call is open to proposals with a duration of **up to 12 months.** The tentative start date is January 2025. All outputs and KPIs should be achieved within the project life cycle. All projects must end by 31 December 2025.

3.9 Financial aspects

3.9.1 EIT funding allocation

The estimated **EIT funding** allocated to this Call is €5 million. The amounts are expected to be allocated according to the estimations outlined in the table below.

Topics	Indicative EIT funding allocated
Promoting a competitive and sustainable European Cycling Industry	€ 1.5 million
The uptake of Hydrogen Refuelling Stations for sustainable urban transport	€ 650.000
Mitigating non-exhaust pollution stemming from urban transport	€ 2.0 million
Achieving Vision Zero and Safety for Vulnerable Urban Road Users	€ 850.000
TOTAL indicative	**€ 5.0 million**

The indicative EIT funding per project is from **€250,000 to €700,000**, depending on its value for money and expected impact.

3.9.2 Co-funding rate

All proposals must have a minimum co-funding rate of 35% across the project. Partners in a consortium may have different co-funding rates as long **as the overall project co-fund meets** the required 35% minimum.

Any co-funding rate above 35% will be positively assessed by the Selection Committee.

3.9.3 Eligibility of expenditure

For information on the eligibility of costs of your project's budget, please refer to the document *Eligibility of expenditure* published on the Call webpage.

3.9.4 Contribution to EIT Urban Mobility's financial sustainability

To enable the KIC to become financially independent from European Union funding, a Financial Sustainability (FS) Strategy has been developed. This strategy is based on a mix of active earned income and passive investment revenue. These revenue streams will be complemented by financial contributions from projects funded by EIT Urban Mobility.

The project's contribution towards achieving EIT Urban Mobility's financial sustainability will be defined with the proposed commercial partner/s according to the following typologies.

Three types of financial sustainability mechanisms (FSM) are proposed.

Option 1: Sales pathway

Definition	A financial contribution to EIT Urban Mobility is agreed in exchange for support to scale up and grow the sales pipeline.
Description	This option is aimed at SMEs/corporates interested in sales support that are not part of the EIT Urban Mobility equity portfolio. The FSM contribution includes a **fixed fee** of 5% of the EIT UM's total funding to the project i**n exchange for a basic service package**, to be used during the project implementation phase, and a **variable fee** linked to qualified lead generation by the Innovation Advisory Services team and a success fee for sales**.** Potential service upgrades can be assessed between the commercial partner and EIT UM during the conditions clearing phase and/or project implementation phase if attractive to the commercial partner. Further details of the services offered and pricing are available in the document *Financial Sustainability Guidelines.*
Assessment process	The commercial partner will undergo a **commercial readiness level (CRL) assessment.** Based on the outcomes of this assessment, a package of services will be discussed and agreed on.

Option 2: Investment pathway

Definition	The commercial partner will provide equity shares in the company to EIT Urban Mobility.
Description	This FSM option will only be available to companies (primarily startups) that are part of the EIT Urban Mobility portfolio or companies that meet EIT Urban Mobility investment thesis requirements.

	The FSM contribution takes the form of an **equity share/equity increase agreement** to be negotiated with EIT Urban Mobility Impact Ventures. Further details on investment thesis requirements are available in the document *Financial Sustainability Guidelines.* For companies that have EIT Urban Mobility among their shareholders, the selected FSM **must** be an equity increase agreement.
Assessment process	For companies that are part of the EIT Urban Mobility equity portfolio, an equity increase agreement will be negotiated based on the acceleration value of the project partnership and innovation support. Companies that are not part of the EIT Urban Mobility Impact Ventures portfolio will undergo and bear the cost of a **market readiness evaluation (MRE).** Based on the outcomes, an equity share agreement will be negotiated and agreed. If the results of the MRE are poor, an alternative financial contribution (other than an equity share) must be agreed.

Option 3: New company/spin-out created as a result of the project

Definition	EIT Urban Mobility will become a shareholder of the new company created during the project.
Description	This option is only available to projects that aim to create a startup that will then commercialise the product or service developed during the project. Such projects should include KPI EITHE04.4 (Startup created). The FSM option will take the form of an **equity share agreement for the newly created company**, subject to prior qualification in the MRE. Further details on the MRE are available in the document *Financial Sustainability Guidelines.*
Assessment process	The application form should include a clear strategy for creating the new company with associated timelines, milestones and costs. It is advisable to include in the proposal a plan to formally bring the new company into the project consortia via a contract amendment. In Month 3 of project implementation, the commercial partner will have to submit a business plan (mandatory deliverable) and commit financially and through their own resources to participate in the **MRE**. Based on the MRE results, an equity option will be discussed and agreed. If the results of the MRE are poor, an alternative financial contribution (other than an equity share) must be agreed. Further details and pricing are available in the annex *Financial Sustainability Guidelines.*

For companies that have EIT Urban Mobility among their shareholders, the selected FSM **must** be equity.

Based on the chosen FSM option, the following steps are envisaged.

Phase 1: Proposal submission

The commercial partner must be clearly identified in the "partner roles and expertise section" of the application form. Each proposal must **identify a commercial partner/s with a credible commercialisation strategy**.

Phase 2: Conditions clearance

Once a project is selected, it will only be awarded following the fulfilment of specific conditions outlined in the conditions clearance process. Part of this procedure involves establishing the general terms of the commercial agreement between EIT Urban Mobility and the commercial partner, a necessary step that must be concluded before starting the project.

Phase 3: Project implementation

EIT Urban Mobility will monitor the conditions established in the commercial agreement. In the case of companies with a sales pathway FSM, the company will benefit from the selected service package during project implementation.

To further clarify the proposed FSM options, and their obligations and benefits, EIT Urban Mobility offers dedicated support – including one-to-one meetings – throughout the Call process, from the proposal stage to the final selection. Interested entities should contact: fsm@eiturbanmobility.eu

Please note that the details of the financial sustainability model may still be subject to minor modifications over the course of 2024.

3.9.5 Fast-track provisions

Successful execution and completion of activities financed under this Call may unlock the possibility of receiving additional EIT Urban Mobility funding after the project is completed. Commercial partners that choose the Sales Pathway as FSM will be assessed for eligibility to receive further funds to internationalise, scale up, and/or replicate their solutions in a different context with a new demonstration host. This process will be regulated by the provisions included in EIT Urban Mobility's Guidance on Innovation fast-track mechanisms for commercial partners, to be finalised in 2024.

Alternatively, commercial partners choosing the investment pathway (equity) as an FSM may receive additional financial support for the development of new products/services/solutions or the significant improvement of existing products/services/solutions. The selected projects will undergo an additional evaluation to determine whether further support funds will be allocated. This second evaluation will be conducted by an external evaluator and an EIT Urban Mobility evaluator, and the final decision will be made by a Selection Committee comprised of EIT Urban Mobility experts. If the company receives a positive evaluation, an additional grant may be allocated. The types of activities that can be financed by additional financial support and the evaluation criteria are fully described in Annex II.

3.10 Project monitoring and reporting

3.10.1 Specific monitoring requirements

EIT Urban Mobility will manage all projects according to the general rules and procedures outlined in the EIT Urban Mobility Project Implementation Handbook. This document, available as part of this Call package, may be updated in 2024, although no major changes are expected.

In addition to the general rules and procedures, the Innovation Programme emphasises remote tests during the product development stage and on-site visits during the demonstrations. Interviews may be conducted with project users and end beneficiaries to assess the overall value and impact. This monitoring may include videos and demonstrations defined as support for outputs or deliverables.

The consortia must ensure that test sites and city sites plan for quality demonstrations and full access to core applications and hardware in-situ. This may include provision of administrative access to test functionalities and usability of solutions, and priority access to physical sites and equipment. All digital solutions must have a minimum level of real/mock data to allow solution functionalities to be tested. This may include, but is not limited to, the admin/user profiles, geographic information system (GIS) maps, timetables, workflow, code booking/payment systems, images and rules base.

In relation to site visits, the Innovation Team member may be accompanied by representatives from other EIT Urban Mobility departments and/or external experts.

Finally, a formal procedure for post-funding monitoring of an innovation project will be established for a minimum five years. The aim is to follow an impact to be generated by the project's outputs (new products/services contributing to the EIT Urban Mobility Strategic Objectives).

3.10.2 Deliverables

The EIT Urban Mobility Innovation Programme follows results-based management of the portfolio, with a focus on performance and achievement of results outputs, KPIs and impact. Therefore, consortia should limit the number of deliverables included in the proposal. Deliverables should be directly linked to product development, commercial exploitation, company creation (if applicable) and expected impact.

In response to this focus, **each proposal must include the following mandatory deliverables**.

- A **technical sheet** specifying the functional and technical requirements of the solution. These should be derived from the scope and objectives of the project. Due date: Month 1.
- A **product plan** for each marketed innovation (related to KPI EITHE02.4) to be developed within the project. Due date: Month 3.
- If applicable, a **business plan** for each startup to be created (related to KPI EITHE04.4). Due date: Month 3.
- A **demonstration report** covering all demonstrations held during the project implementation (related to KPI KSN02). Due date: Month 12.
- A **final dissemination report** including at least two best practices for the EIT Urban Mobility Marketplace and a short video showcasing the solution developed and the pilots implemented. Specific requirements for the video will be provided to awarded projects. Due date: Month 12.

4 Preparation and submission of a proposal

4.1 Support given to applicants preparing a proposal

Guidelines for applicants

EIT Urban Mobility has developed the *Guidelines for Applicants* document to assist all potential applicants prepare and submit their proposals. The *Guidelines for Applicants* document is published on the Call webpage and provides a full set of information and instructions to prepare and submit a proposal to this Call.

Call information sessions

To help applicants prepare and submit their proposals, EIT Urban Mobility will host information sessions after the Call is published. These online information events will focus on the Call content, topics and requirements, and on general procedures, such as the submission and evaluation process, financial aspects, and monitoring and reporting activities. A series of online matchmaking opportunities to support consortia building are also planned.

Please find details below. To register for the webinars, please click on the corresponding registration link.

Type of event	Topic covered	Date and time (CET)	Link for registration
Webinar	**Info webinar: Call launch and Q&A** Topic explanation, guidelines to application, and hands-on demonstration of the Netsuite online submission tool. This covers registration, proposal creation, budget set up and submission.	03 September, 15h00–17h00 CET	https://eiturbanmobility-eu.zoom.us/webinar/register/WN_DeVuNQstQIaxR4k1EB2aRw
Webinar	**Info webinar: Commercialisation and financial sustainability** Information session on how proposals should address commercialisation and the project's contribution to EIT Urban Mobility's financial sustainability.	04 September, 11h00–12h00 CET	https://eiturbanmobility-eu.zoom.us/webinar/register/WN_B-55-jg7RkWgtbME57CtDA

Webinar	**Info webinar: Intellectual property** Information session on how proposals should address intellectual property rights and commercial exploitation of IP assets.	10 September, 09h30–11h00 CET	https://eiturbanmobility-eu.zoom.us/webinar/register/WN_TC6fvqXVTsWXE9PwRTkPcQ

Call contact points

All applicants may contact the Innovation Team at EIT Urban Mobility to resolve any concerns or doubts on the general/technical procedures and Call content: innovationcall2025@eiturbanmobility.eu

4.2 Submission of a proposal

Before starting to draft a proposal, all applicants (Project Leader and consortium partners) must follow the following steps:

- **STEP 1**: register in the **EU Funding & tender opportunities portal** to obtain the nine-digit Participant Identification Code (**PIC number**). If an organisation has already a PIC number, there is no need to register again.
- **STEP 2**: access the new EIT Urban Mobility NetSuite platform, by submitting the **Partner Information Form (PIF).**

  NB: For organisations that are already registered in the PLAZA platform, do not submit the PIF form but **contact the EIT Urban Mobility Service Desk servicedesk@eiturbanmobility.eu**: you will be provided with the credentials to access the new NetSuite platform.

- **STEP 3**: access the **EIT Urban Mobility NetSuite platform** and find the open calls under *menu --> Call for Proposals --> Open Calls.*

The following documentation must be submitted by the Project Leaders through the Netsuite online submission platform no later than **15 October 2024 at 17.00 CET**:

- Application form,
- Business Model Canvas (see template),
- Other supporting documents:
  - Letter of commitment (if applicable),
  - Freedom to operate study (recommended),
  - A link to a one-minute video demonstrating the current TRL of the solution (recommended).

Please carefully read the registration and submission processes outlined in the *Guidelines for Applicants* document. Be aware that registration of a new entity in the submission tool can take two working days. Therefore, ensure that **all project partners** are correctly registered in the submission tool a few days before the deadline.

Any proposals submitted after the deadline will be ineligible.

5 Evaluation and selection process

Once the applicants have submitted their proposals, EIT Urban Mobility will proceed to:

- check the eligibility and admissibility of the proposals and, if successful,
- start to evaluate the content, assisted by independent expert evaluators.

5.1 Eligibility and admissibility check

A proposal will be admissible if it fulfils the criteria detailed below:

1. Completeness	The proposal is completed, submitted in time by the Project Leader via the Netsuite online submission tool, written in English, and has all the mandatory sections and annexes.

If a proposal is not admissible, it will not proceed to the eligibility check. A proposal will be eligible if it fulfils the criteria detailed below:

2. Applicant registration	Applicants (including all consortium partners) have fully completed the partner information form (PIF) in the Netsuite online submission tool, including their PIC number.
3. Applicant eligibility	Applicants (including all consortium partners) are located in an EU Member State or third country associated with Horizon Europe.
4. Consortium composition	The consortium composition complies with the requirements of Section 2.2.1.
5. Co-funding rate	All proposals must have a minimum co-funding rate of 35% across the project.
6. KPIs addressed	All proposals must identify and address the minimum mandatory related KPIs: • **EITHE 02.4 or the alternative EITHE04.4 (minimum expected target: 1)** • KSN02 or KONHE31 **(minimum expected target: 1)**
7. Supporting documents	All proposals must include a completed Business Model Canvas.

Proposals failing to meet one or more admissibility and eligibility criteria will receive an official communication from EIT Urban Mobility, informing the Project Leader of the outcome of the admissibility and eligibility check and explaining why the proposal failed to meet the criteria.

If there is any missing or incorrect information linked to the applicants' registration, co-funding rate, KPIs, and/or supporting documents applicants will be given **five calendar days** after receiving the official communication to allow them to complete or correct the proposal and resubmit it. If the Project Leader responds positively to this requirement within the time limit, the proposal will progress to the next stage of the evaluation process (See Section 5.2 below). If the Project Leader fails to respond or respond after the deadline, the proposal will be ineligible and will not be processed further.
If a single consortium partner is ineligible, this partner will withdraw. EIT Urban Mobility will then check whether the proposal is still eligible and the Project Leader will be informed accordingly.

The Project Leader may appeal if they disagree with the decision to reject a proposal on the grounds that it is inadmissible or ineligible. This appeal must be made within five calendar days[38] of the official EIT Urban Mobility notification of inadmissibility or ineligibility (see the *Appeal procedure* document published on the call webpage).

5.2 Stage 1 – External quality evaluation of proposals

The purpose of the quality evaluation is to assess the excellence, impact, quality and efficiency of the implementation of each proposal that successfully passes the eligibility and admissibility check.

This individual evaluation process will consist of the **strategic fit evaluation** (first qualifying phase) and the **full evaluation** (second qualifying evaluation phase) carried out by **three independent external expert evaluators**.

Each evaluation phase is comprised of groups of criteria and subcriteria, which will be assessed according to the following scores.

Score	Description	
0	*None*	The information requested is missing or incomplete.
1	*Very poor*	The information provided is considered irrelevant or inadequate with regard to the specific Call provisions.
2	*Poor*	The information provided lacks relevant quality and contains significant weaknesses with regard to the specific Call provisions.

[38] A few additional days might be granted according to the circumstances (i.e. public holidays/weekends). In such cases, the Project Leader will be informed by email of the exact appeal period.

3	*Fair*	The overall information provided is adequate. However, some aspects are unclearly or insufficiently detailed with regard to the specific Call provisions.
4	*Good*	The information provided is adequate with sufficiently outlined details with regard to the specific Call provisions.
5	*Excellent*	The information provided is outstanding in its detail, clarity and coherence with regard to the specific Call provisions.

5.2.1 Strategic fit evaluation

The strategic fit evaluation will focus on how well the proposal idea fits the Call topic in which the proposal has been submitted, and on the main challenges and KPIs reflected in the EIT Urban Mobility Strategic Agenda. Only proposals that successfully pass the strategic fit evaluation will move on to the full proposal evaluation.

In line with the provisions set out in the call, the evaluation criteria that define the strategic fit will be evaluated first and independently from the full evaluation performed by the external evaluators.

The strategic fit evaluation will consist of three questions with a total score of 15 points.

Strategic fit evaluation criteria	Max. score
• The proposal contributes to the EIT Urban Mobility Strategic Objectives, as detailed in Section 2.1.2; and is aligned with the Call strategic focus, as detailed in Section 3.1. • The proposal contributes to the EU dimension. • The proposal clearly addresses a new sector, business model, technological advances or market demands.	5 points
• The proposal is aligned with the scope of the topic, as detailed in Section 3.2.	5 points
• The proposal is aligned with the expected outcomes and impact of the topic, as detailed in Section 3.2.	5 points

The threshold for the strategic fit evaluation is **three points in each subcriterion**, so only proposals that receive at least three points in each of the strategic fit evaluation questions will move on to the full quality evaluation stage.

The score from the "strategic fit" evaluation will be carried forward for inclusion in the final evaluation score.

5.2.2 Quality evaluation

The quality evaluation consists of assessing the excellence, impact, quality and efficiency of the implementation of the proposals. During this phase, each proposal will be evaluated by an evaluation panel composed of three external expert evaluators and one rapporteur. The evaluation panel will be invited to evaluate and score each proposal against the criteria described below.

The Rapporteur will produce a summary evaluation report (SER) for each assessed proposal. The SERs will be discussed and agreed in a consensus meeting attended by the evaluation panel and a quality controller. The result of each SER, together with the evaluation results list of all assessed proposals, will be sent to the Selection Committee.

Excellence: novelty and innovation	Max. scoring
Coherence of the intervention logic	**5 points**
• The proposal objectives are SMART (specific, measurable, achievable, realistic and time bound) and related to the proposed KPIs and outcomes.	5 points
Innovation potential	**15 points**
• The proposal represents a step forward regarding current state-of-the-art innovation and demonstrates its novelty and competitiveness. • The new product/service/solution (KPI EITHE2.4) and the core sub-elements such as components, modules and functionalities to be developed are clearly described. • Alternatively: The new startup created (KPI EITHE4.4) clearly demonstrates that the innovation does not yet exist in the targeted market and that the startup can facilitate its adoption.	5 points
• The proposal clearly addresses an unmet customer need and demonstrates its relevance for society, the target group and the market.	5 points
• The proposal facilitates collaboration between the knowledge triangle (business, research and education) and cities to solve the most pressing mobility challenges.	5 points
Technology readiness level (TRL)	**5 points**
• The proposal demonstrates that the solution to be piloted has successfully reached a minimum TRL of 6 and has a clear strategy for reaching full commercial deployment (TRL9).	5 points

Impact: social, economic, financial and general sustainability	Max. score
Ambition of the proposal and contribution to expected impact	**15 points**

• The proposal clearly identifies the addressable market and customer segments. • Its value proposition and unique selling points are convincing when compared to solutions currently available on the market.	5 points
• The proposed solution (KPI EITHE2.4) is highly scalable. • Alternatively: The proposed solution of the new startup (KPI EITHE4.4) is highly scalable. • The proposal includes additional KPIs, in particular, EIT Core KPI EITHE04.4, supported by a robust and credible plan to create a startup as a result of the innovation project.	5 points
• The proposal supports gender equality and promotes wider diversity and inclusiveness in the mobility sector.	5 points
Impact of demonstrations	**5 points**
• The proposal is well aligned with the strategic priorities of the cities/demo hosts involved in the proposal. • The demonstrations or living labs (KPI KSN02 or KONHE31) are tangible and comparable and demonstrate future scalability and transferability.	5 points
Exploitation, dissemination and commercial strategy	**15 points**
• The proposal defines clear measures for IPR management (as indicated in MGA Article 16) and demonstrates an appropriate level of protection aligned with the product development stage, business goals and planned commercialisation strategy. • The proposal demonstrates that it is commercially "safe" to make or sell the proposed solution (FTO or a similar study is submitted as part of the proposal).	5 points
• The proposal includes a robust business model and credible commercial strategy for each of the product/service/solutions (KPI EITHE2.4) to be developed.	5 points
• The proposal presents a dissemination and communication plan tailored to specific target audiences and aligned to the proposed topic and the outlined commercial strategy (as indicated in MGA Article 17).	5 points
Quality and efficiency of the implementation	**Max. score**
Coherence and effectiveness of the workplan, including appropriateness of the allocation of budget, tasks and resources	**15 points**
• The workplan and tasks are coherent with the proposed outcomes, objectives, KPIs and expected results.	5 points
• The workplan includes core product development tasks aligned with the aims of the KPI EITHE2.4 (new or significantly improved product/service/solution).	5 points

• The workplan includes core product-related tasks aligned with the aim of entering a new market with an existing innovation (KPI EITHE4.4).	
• The budget is clearly outlined and justified. • The budget reflects value for money. • The budget distribution reflects the division of roles and responsibilities among partners.	5 points
Appropriateness of the management structures and procedures, including quality management and risk management	**5 points**
• The proposal provides effective and professional management structures to attain the defined outcomes. • A clear risk and mitigation plan is provided.	5 points
Relevance of the consortium	**5 points**
• All the partners have the right skills and expertise to carry out the workplan. • The partners have differentiated, clear, specific roles. • The consortium includes an expert partner that supports the main commercial partner in developing and/or validating the solution to be commercialised.	5 points

The total score of 100 points is distributed as follows.

	Max score
Strategic fit	*15 points*
Excellence	*25 points*
Impact	*35 points*
Implementation	*25 points*
Total points	*100 points*

If two or more proposals on the same topic receive the same score, funding prioritisation will be based on the following scoring criteria in order of importance: impact, excellence and implementation. Proposals with the same score will specifically be brought to the attention of the EIT Urban Mobility Selection Committee.

Once the full evaluation is complete, all the SERs are provided to the EIT Urban Mobility Selection Committee together with the ranking list.

The total weight of the external evaluation is 70% of the total scoring of a proposal.

5.3 Stage 2 – Portfolio selection (Selection Committee)

Only proposals that score 65 points or above in the external evaluation will be further assessed by the Selection Committee.

The EIT Urban Mobility Selection Committee will select the portfolio of pre-selected proposals and the proposals that will constitute the reserve list[39]. The Selection Committee is composed of the Innovation TA Director and two other members of the management board or their deputies.

The Selection Committee will consider the following portfolio factors and will add up to 20 points to the final scoring obtained by each proposal in the external evaluation phase. The total weight of the portfolio selection process represents 30% of the total scoring that a proposal will receive.

Assessment factor	Description of the assessment	Max score
Business intelligence	• Track record of entities involved in a consortium in terms of performance (KPIs, quality of deliverables and demos), if applicable. • Track record of the identified commercial partner/s in terms of their contribution to EIT Urban Mobility's financial sustainability, if applicable. • Financial clearing status of the proposed commercial partner/s.	5 points x 2 (10 points) Minimum threshold of 6 points
Portfolio fit	• Complementarity of the proposal within the current/past portfolio of the thematic area and/or EIT Urban Mobility. • Alignment with EIT Urban Mobility's strategic priorities (in terms of topic, impact, partnership and KPIs).	5 points x 2 (10 points) Minimum threshold of 6 points

Proposals that do not meet the minimum threshold of six points for business intelligence and portfolio fit will not be considered for portfolio inclusion.

Furthermore, if two or more proposals duplicate or substantially duplicate partners, core activities, technologies or solutions, the Selection Committee will select the one with the highest score.

[39] The reserve list will remain valid for one year from the moment of pre-selection.

Finally, if two or more proposals receive the same score, additional consideration will be given to the factors of KPIs, co-funding, and demonstration impact, as follows:

- proposals that include the KPI EITHE04.4 Startup created, supported by a robust and credible plan to create the startup, will be ranked higher;
- for co-funding, rates higher than 35% will be ranked higher;
- for demonstrations, the commitment and evidence of the demo hosts' applicants and resources allocated will be considered.

The Selection Committee will decide on the final list of projects put forward for funding, those put forward for inclusion in the reserve list (if any), and those put forward for rejection (ranking list). In addition, the Selection Committee may review the pre-selected proposals and make a list of conditions and/or recommendations to improve the proposals.

Finally, EIT Urban Mobility retains the right to reach out to proposals listed on the reserve list within a year from the portfolio selection. If additional EIT funds become available in the current Business Plan and in justified cases, EIT Urban Mobility can use the reserve list.

5.4 Communication of results to applicants

The Project Leader will receive a communication from EIT Urban Mobility with the results of the evaluation (SER) and if applicable, the results of the Selection Committee meeting.

If the proposal is pre-selected, the evaluation results may include a set of conditions, including the requirement to agree to the general terms of the commercial agreement within a defined and non-negotiable period. The Project Leader of a conditionally pre-selected proposal will need to respond and update the proposal according to these conditions within the timeframe. If the Project Leader fails to comply with the conditions and/or recommendations or does not respond in the time allocated, EIT Urban Mobility reserves the right to withdraw the conditional notification. Should this occur, the next proposal on the ranking list will be contacted.

5.5 Appealing against evaluation results

If the Project Leader of a rejected proposal disagrees with the decision, they may only appeal in the event that an SER comment/Selection Committee comment clearly contradicts the information provided in the proposal. In this case, the Project Leader will have five calendar days after receiving the final evaluation results (final SER and Selection Committee comments) to submit an appeal (see the *Appeal procedure* document published on the Call webpage).