

Questions and answers

- How many applications can you submit per company?
 - You can submit several concepts per company, but for the PoC development, only one concept per company can be chosen
- Any way to modify the submitted application later?
 - Please submit a new application with a mention that this invalidates a previous submission
- Any chance for a commercial contract?
 - Good solutions could be procured by the city by the normal procurement process (competitive tendering) but this challenge does not guarantee it. Communications about the challenge and participants will also be shared to enable other commercial prospects.
- How many person months of effort are offered from AI partners for free?
 - Approximately one person month worth of effort during the development phase depending on the solution.



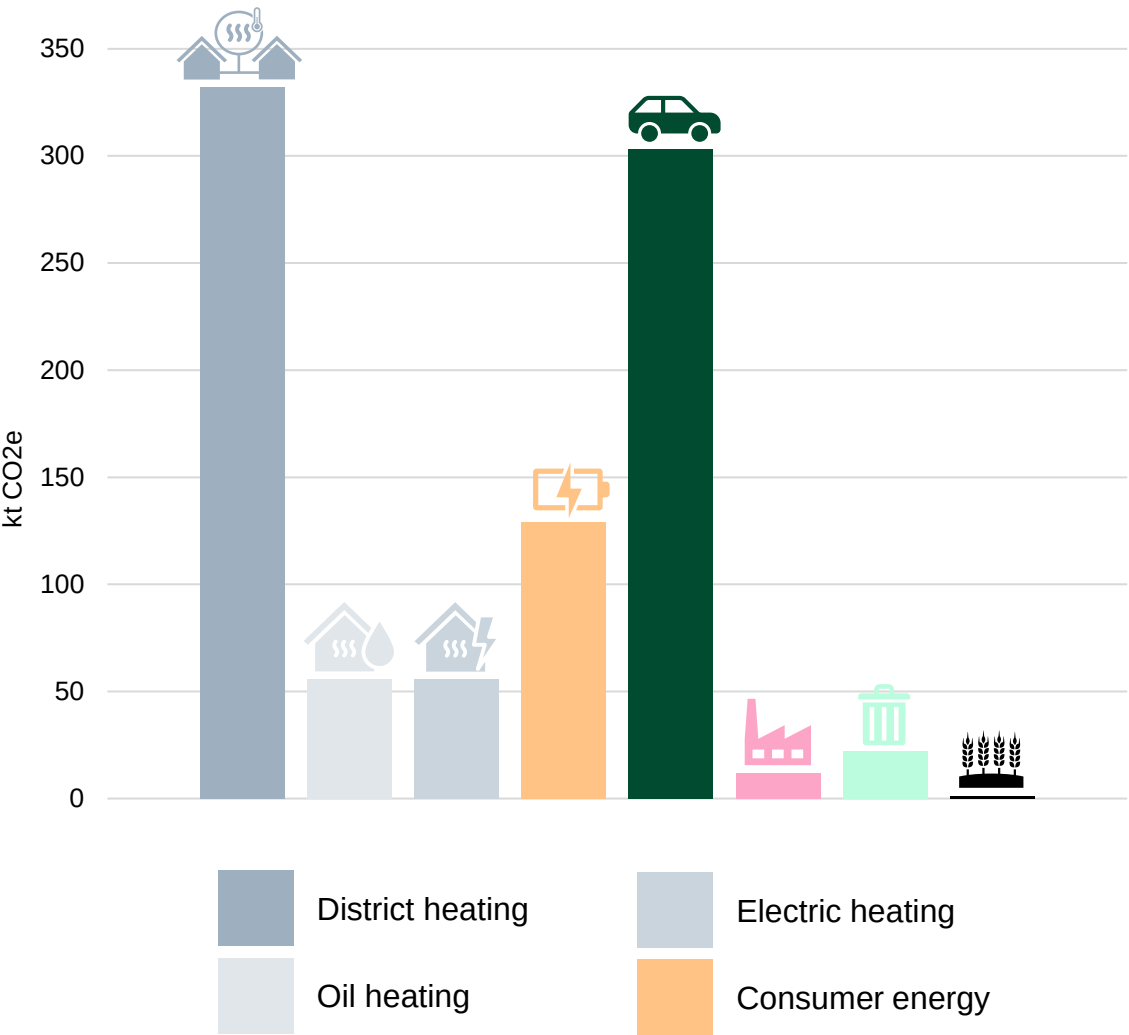
Welcome to the Espoo AI in Mobility Challenge!

**Invitation for startups and SMEs to develop
innovative solutions with data and artificial intelligence
to reduce traffic emissions and
help Espoo achieve carbon neutrality by 2030.**

The city of Espoo is committed to decreasing traffic emissions

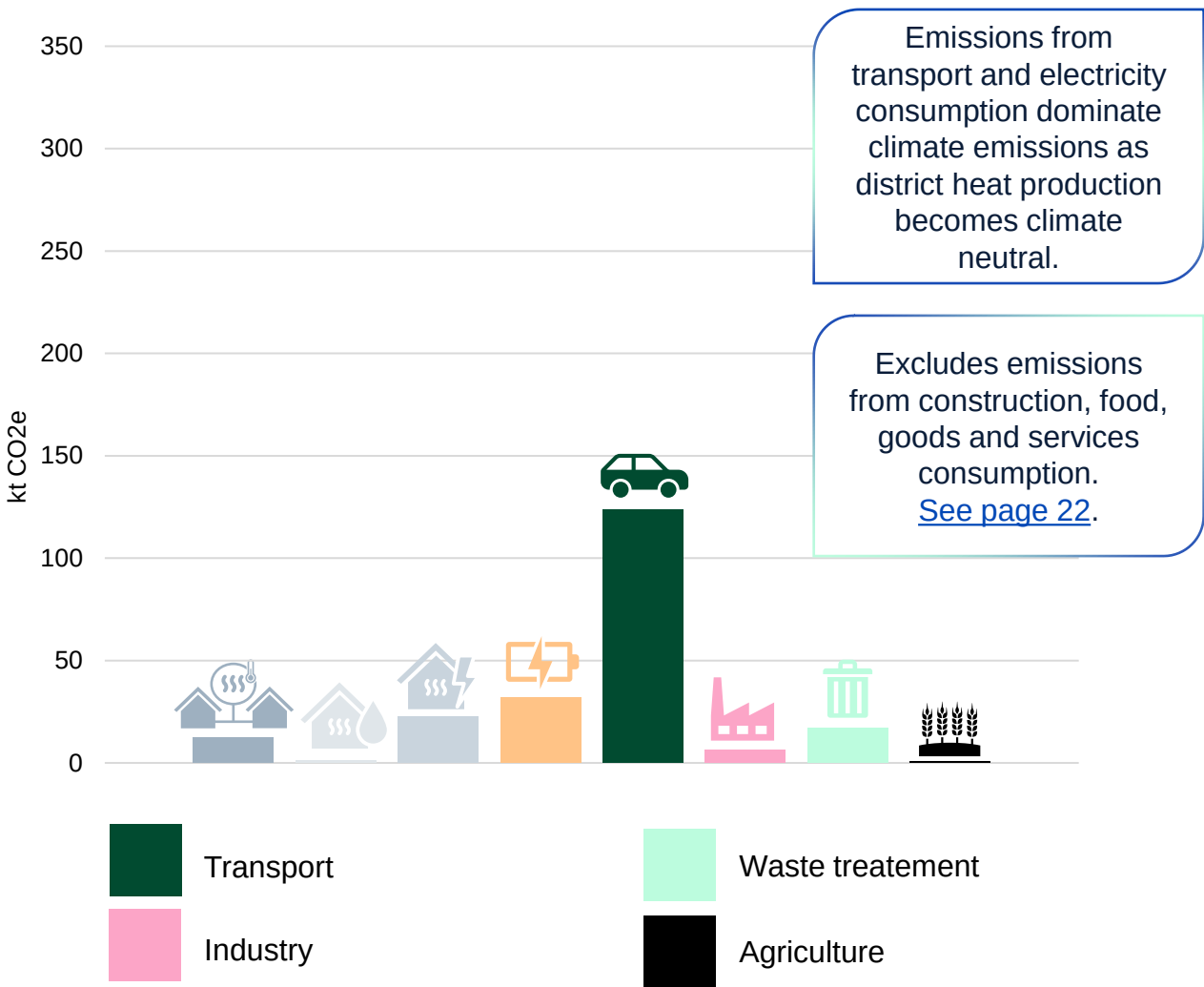
- Climate goals: To battle climate change, Espoo has committed to a goal of carbon neutrality by 2030 and while emissions in other sectors decrease, traffic is becoming the most significant portion of the city's overall carbon footprint. In 2024 the city council approved a climate roadmap with measures to achieve that goal.
- Environmental impact: Traffic emissions contribute significantly to air pollution, which can lead to respiratory problems, cardiovascular diseases, and other health issues.
- Wellbeing of citizens: Safe and sustainable mobility and a more livable city that it enables also contributes to the health and wellbeing of citizens.

Emission distribution in 2022



Estimated emission distribution in 2030

Climate neutral Espoo scenario



Source: Greenhouse gas emissions in the Helsinki Metropolitan Area HSY 2023

Source: Greenhouse gas emissions in the Helsinki Metropolitan Area HSY 2023 and Climate Neutral Espoo 2030 roadmap scenario work, Sitowise 2022 and 2023

Examples of Espoo's commitment to carbon neutral transport

- West Metro and Light Rail Line 15 (2009-2023): Espoo has made significant investments in sustainable traffic, including the West Metro and light rail line 15. The West Metro project began in 2009 and was completed in 2023, while the light rail line 15 project started in 2019 and completed 2024.
- Espoo Climate Community: This pilot activity focuses on developing a community-based approach targeting the levers and domains of energy, transport, and built environment to enable the climate transition. It includes promoting the rapid electrification of transport and the shift to sustainable and active transport modes.
 - 2021-2025: The Sustainable Espoo development program is implemented through extensive cooperation with partners, focusing on innovative, local, and sustainable urban solutions.
 - 2024: Espoo was awarded the EU Mission Label in March 2024, acknowledging the city's strong commitment to climate work and strengthening its role as a pioneer in the green transition.
 - Ongoing: The Espoo Climate Community continues to develop cross-sectoral roadmaps, build climate city partnerships, and engage diverse citizen groups in inclusive climate actions.
- Espoo is actively participating in domestic and international development projects in the field of sustainable transport: Mobilities 4 EU, eCargo, SOLMU, Cycle 4 Climate

Challenge overview

Espoo AI in Mobility Challenge

- Goal:
To use data and AI to develop and implement innovative solutions that help minimize traffic emissions.
- Participants:
 - Startups, SMEs
- Organisers:
 - Espoo Mobility Lab
 - Finnish AI Region FAIR EDIH
 - AI advisory and PoC-projects
 - Innovation Challenge Engine for Cities
- Partners:
 - Nokia Espoo Innovation Garage



Espoo AI in Mobility Challenge

A two-phase challenge for AI solutions to promote sustainable mobility:

Phase 1: ideas and concepts

- Participate with a solution, a prototype or just a concept
- FAIR experts will implement Proof of Concepts for 3 best concept entries
- Expert advice and mentoring for all participants from Nokia and FAIR experts

Phase 2: demos and pitches

- Present your product, prototype or developed PoC
- Prepare a demonstration and a pitch
- The best solution will be awarded 10 000 euros to prepare their pilot
- Other solutions can also be piloted in Espoo



Timeline for the Challenge

- Launch Date: 1.4.2025
- Info Clinic I 3.4.2025 13.00
- Info Clinic II 15.4.2025 10.00
- Application Deadline: 21.4.2025
- Evaluation Period: 1 week
- Announcement of Selected Projects: 30.4.2025
- Mentoring Event 9.5.2025 09.00 – 17.00
- Development Phase: May-June
- Demo day & pitching: 17.6.2025 13.00 – 16.00
- Winner of 10 000 € announced: 19.6.2025
- Pilot Phase: Autumn 2025
- Final Presentation: SLUSH week

Participants

Benefits for participants



Visibility: Gain visibility and recognition for your innovative solutions.



Collaboration: Collaborate with the city of Espoo, other companies, and other stakeholders.



Support, access to data and resources: AI Advisory and option for PoC development



Impact: Contribute to a sustainable future and help Espoo achieve its carbon neutrality goal.

How to participate

Eligibility: All startups and SMEs.

Application
Process: Steps to
apply and submit
proposals.

Selection
Criteria: How
proposals will be
evaluated and
selected.

Application and participation process

Step 1: Register for the challenge by submitting your proposal, including a detailed description of your solution or idea, its impact, and feasibility.

Step 2: Participate in the mentoring and evaluation day on May 9th, where your proposal will be reviewed by a panel of experts.

Step 3: If selected, enter the development phase to work on the Proof-of-Concept with AI experts.

Step 4: If selected, get 10 000 euros and enter the pilot phase to implement and test your solution.

Step 5: Piloting your solution in Espoo

Evaluation criteria for solutions

Innovation:

The degree of innovation and originality in the proposed solution.

Impact:

The potential impact of the solution on reducing traffic emissions and contributing to Espoo's carbon neutrality goal.

Feasibility:

The feasibility and practicality of implementing the solution within the given timeframe and resources.

Scalability:

The potential for scaling the solution to a larger context.

Collaboration:

The extent of collaboration and partnerships with other stakeholders, including the city, research institutions, and industry experts.

Sustainability:

The long-term sustainability and environmental benefits of the solution.

Key focus areas, data sets and expected outcomes

Potential areas to support with AI solutions

Electric vehicles: Development of electric vehicle fleets and charging infrastructure to reduce reliance on fossil fuels.

Sustainable public transportation: Innovations in public transportation to make it a more flexible and lucrative choice.

Active modes of transport: increasing the share of walking and bicycling for reduced emissions and health benefits. Increased safety in electric scoot usage.

Last mile solutions.

Green logistics solutions: Implementation of logistics solutions, such as **drones**, electric delivery vehicles and optimized delivery routes, to minimize emissions from freight transport.

Shared vehicles: Development of apps to facilitate carpooling and ride-sharing, reducing the number of vehicles on the road.

Smart traffic management systems: Implementation of AI-driven traffic management systems to optimize traffic flow and reduce congestion.

Relevant datasets

-  City of Espoo: Open data sets available from the city – maps and other GIS data, traffic and parking counters, city 3D model, etc.
-  HSL Public Transport Data: Includes routes, schedules, and usage statistics, which can be used to optimize public transport services and promote sustainable mobility.
-  HSL Mobility Surveys: Provides insights into residents' mobility habits, helping to develop solutions that encourage the use of public transport, cycling, and walking.
-  HSL Open Data: Offers real-time updates on public transport routes and schedules, enabling the creation of innovative apps and services for commuters.
-  HRI Traffic and Tourism Data: Includes real-time traffic information, public transport data, and tourism data, which can be used to develop smart traffic management systems and sustainable mobility solutions.
-  HRI Environment and Nature Data: Provides information on air quality, noise levels, and green spaces, helping to monitor the impact of traffic emissions and promote sustainable transport.
-  HRI Constructed Environment Data: Includes infrastructure data and parking data, which can be used to plan and implement sustainable transport solutions.
-  HRI Population Data: Offers demographic data and mobility surveys, providing insights into travel patterns and preferences.
-  Fintraffic: National open transport data and APIs
-  Digitransit: Public transport routing data

Disclaimer: Subject to availability

Organisers and partner support

Organiser: Espoo Mobility Lab

- Espoo Mobility Lab connects the city and stakeholders in the mobility and transport field.
- Supporting the city in reaching climate goals by promoting sustainability in mobility and transport
- Studying and piloting new and emerging technology solutions in the city.
- Special interests: electric vehicles, new charging solutions, co-operative, connected and autonomous vehicles (CCAM), hydrogen in transport, mobility data.
- Funded by Mobilities4EU project



Organiser: FAIR EDIH

FAIR EDIH (Finnish AI Region) is one of the European Digital Innovation Hubs, funded by the EU Commission's Digital Europe programme, Business Finland, the City of Helsinki Innovation Funds, and corporate partners.

Expertise: FAIR EDIH provides expertise in AI, XR, high-performance computing (HPC), and cybersecurity.

Services: FAIR EDIH offers a range of services to support SMEs, including AI Needs Analysis, AI Advisory service, HPC Advisory and Proof-of-Concept (POC) service.

Support for participants: FAIR EDIH supports participating companies in developing solutions that deploy AI, XR, or HPC by providing access to resources, expert guidance, and collaboration opportunities.

www.fairedih.fi



Partner: Innovation Challenge Engine for Cities

The Innovation Challenge Engine for Cities (Pääkaupunkiseudun Haastemoottori) is a dynamic platform designed to facilitate innovation and collaboration among SMEs, researchers, and city officials.

Access to Data: Participants gain access to valuable city data, including traffic patterns, public transport usage, and environmental metrics, to develop data-driven solutions.

Pilot Testing: Participants have the opportunity to test their solutions in real-world environments, receiving feedback and refining their projects before final implementation.



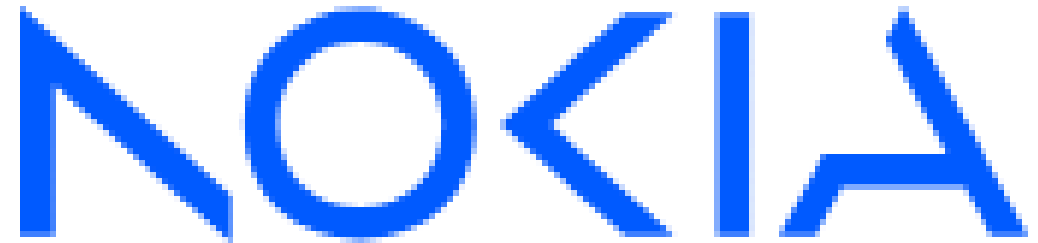
Partner: Nokia Espoo Innovation Garage

Guidance: Join the Nokia mentoring event to receive advice in the development and implementation of your AI solution

Technical Expertise: Nokia will use their expertise in 5G technology, AI, Drones, and IoT solutions to review the solutions participating in the challenge.

Collaboration opportunities: Nokia can facilitate collaboration between participating teams and other industry experts, fostering a collaborative environment for innovation.

Visibility: Best ideas and solutions can be included as part of the Nokia Espoo Innovation Garage demo area.



Potential solutions and incentives

Prizes and incentives



Prize: 10 000 euros for piloting the best innovative solution in Espoo.



Access to Nokia Espoo Innovation Garage: Nokia will organise events to guide the participating companies and give visibility to the best solutions



Development project: Chosen companies will get technical support to develop a Proof-of-Concept. Finnish AI Region's AI experts also provide advisory in AI solution design, data and implementation planning.



Collaboration opportunities: Find partners from other companies in the same field and advice from Nokia and other industry experts, fostering a collaborative environment for innovation.



Recognition and visibility: Winning solutions can gain visibility and recognition, enhancing the company's reputation and attracting potential investors and partners. Testing in real life environments raises the company's technology readiness level.

Join the Espoo AI in Mobility Challenge!

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