International Tenders in Public Procurement of Innovation
18.11.2020

AI4Cities, Project Coordinator Kaisa Sibelius, Forum Virium Helsinki

5.11.2020

AI4Cities - AI accelerating Cities' transition to carbon neutrality

The purpose of this Pre-Commercial Procurement (PCP) is to support Cities' transition to carbon neutrality, by applying the use of Artificial Intelligence (AI) and related enabling digital technologies to tackle the challenge of reducing the Cities' CO_2 and other GHG emissions.
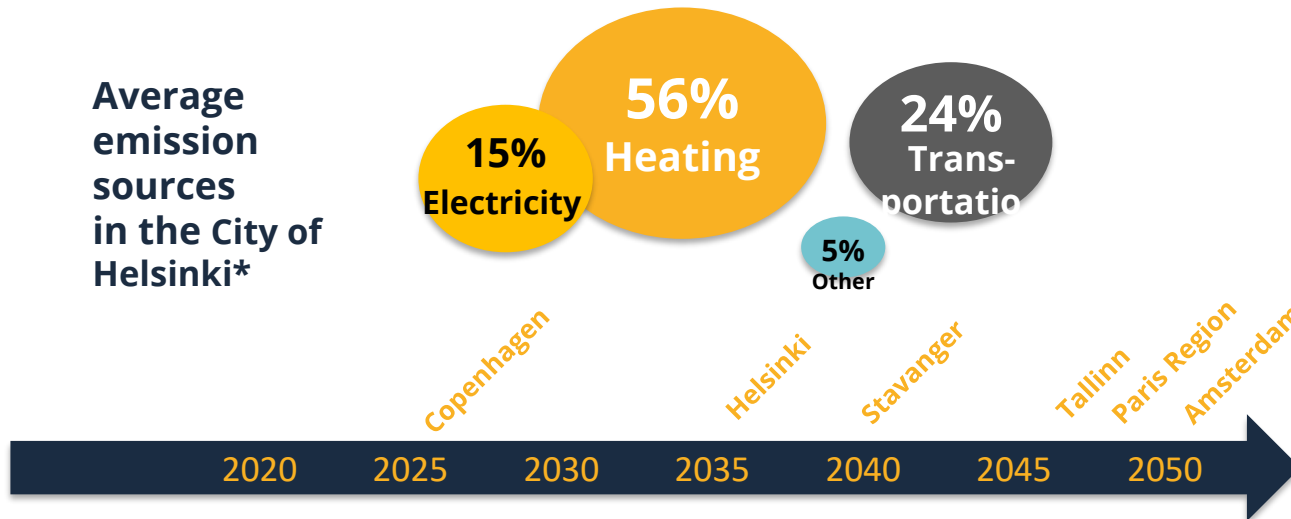
Mobility (Lot 1)

Energy (Lot 2)

AI4Cities challenges are built on highly innovate and not market-ready technologies, to be applied in difficult contexts in two domains: Smart Mobility (Lot 1) and Smart Energy (Lot 2).

Why Energy and Mobility?

- Emissions of CO2 and other GHG are big and complex problems which need to be solved in near future
- Traffic and heating are fundamental activities in the cities

Average emission sources in the City of Helsinki*

15% Electricity

56% Heating

24% Trans-portatio

5% Other

Copenhagen

Helsinki

Stavanger

Tallinn Paris Region Amsterdam

2020   2025   2030   2035   2040   2045   2050

*) Source: Helsinki Region Environmental Services Authority HSY, 2019

Why AI

- the scale and volumes of the interventions has to be higher to achive the CO2 reduction targets

- the demand on utilizing data-driven methods on improving resource-efficiency has grown

- big data and AI are seen as elements having a significant role in the data platforms of the cities

- Open source, distributed systems, re-usability and open data models are vital elements of creating future ecosystems that will benefit products based on AI technologies.

- enabling technologies and platforms are becoming easily available and mature

- AI can help to track exceptions in source data preventing incorrect decisions, identify bias or even deliberate attempt to affect decision making.

- AI can be beneficial in improving the quality of decision making

Merging physical city public assets like infrastructure or public transportation networks with a digital layer through the use of AI with other enabling digital technologies can utilize new solutions to solve climate change challenges.

- A successful solution in PCP will go well beyond the state of art and the minimal solution to the stated problem.

Duration: 36 months
(1.1.2020 – 31.12.2022)

Funding instrument:
Pre-commercial procurement
(PCP)
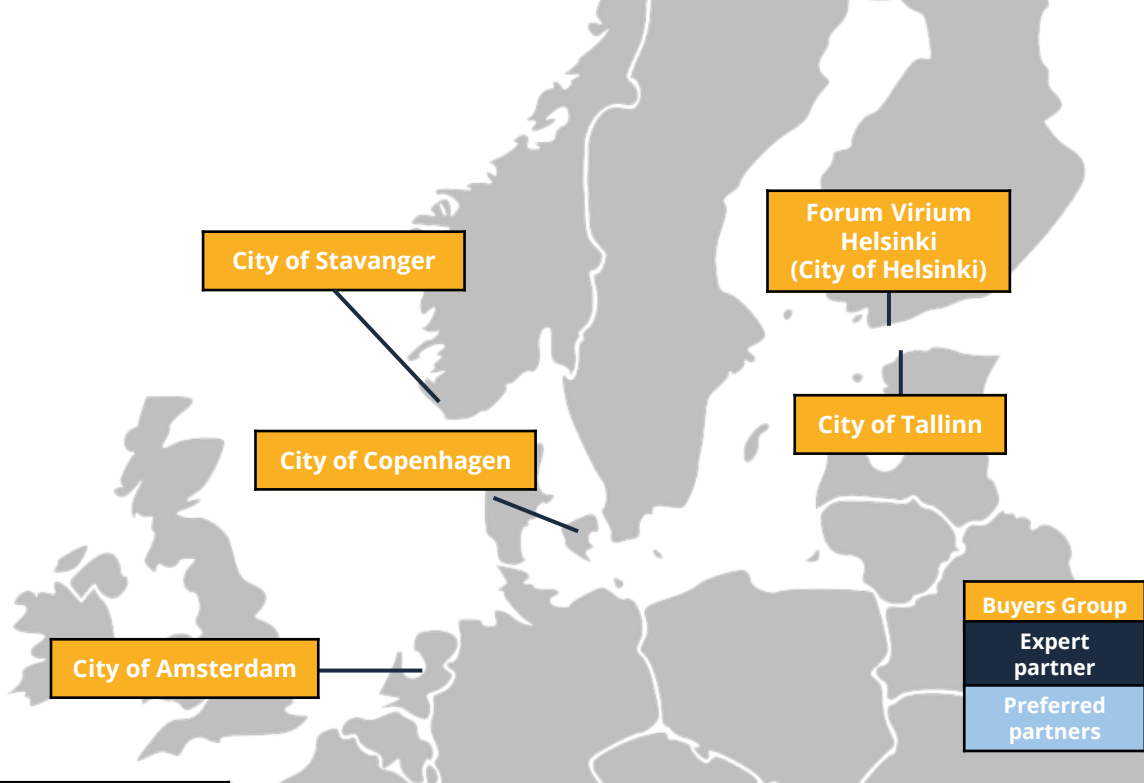
PCP Budget:
4.670.000€

Total Budget:
6.600.000€

City of Stavanger

Forum Virium
Helsinki
(City of Helsinki)

City of Tallinn

City of Copenhagen

City of Amsterdam

Buyers Group

Expert partner

Preferred partners

Cap Digital (Paris Region)

ICLEI – Local Governments for Sustainability

Buyers Group:

Comms:

FORUM VIRIUM HELSINKI

Gemeente Amsterdam

cap·digital
Paris Region

CITY OF COPENHAGEN

Tallinn

City of Stavanger

·I·C·L·E·I·
Local Governments for Sustainability

MOBILITY CHALLENGE (Lot 1) & ENERGY CHALLENGE (Lot 2)
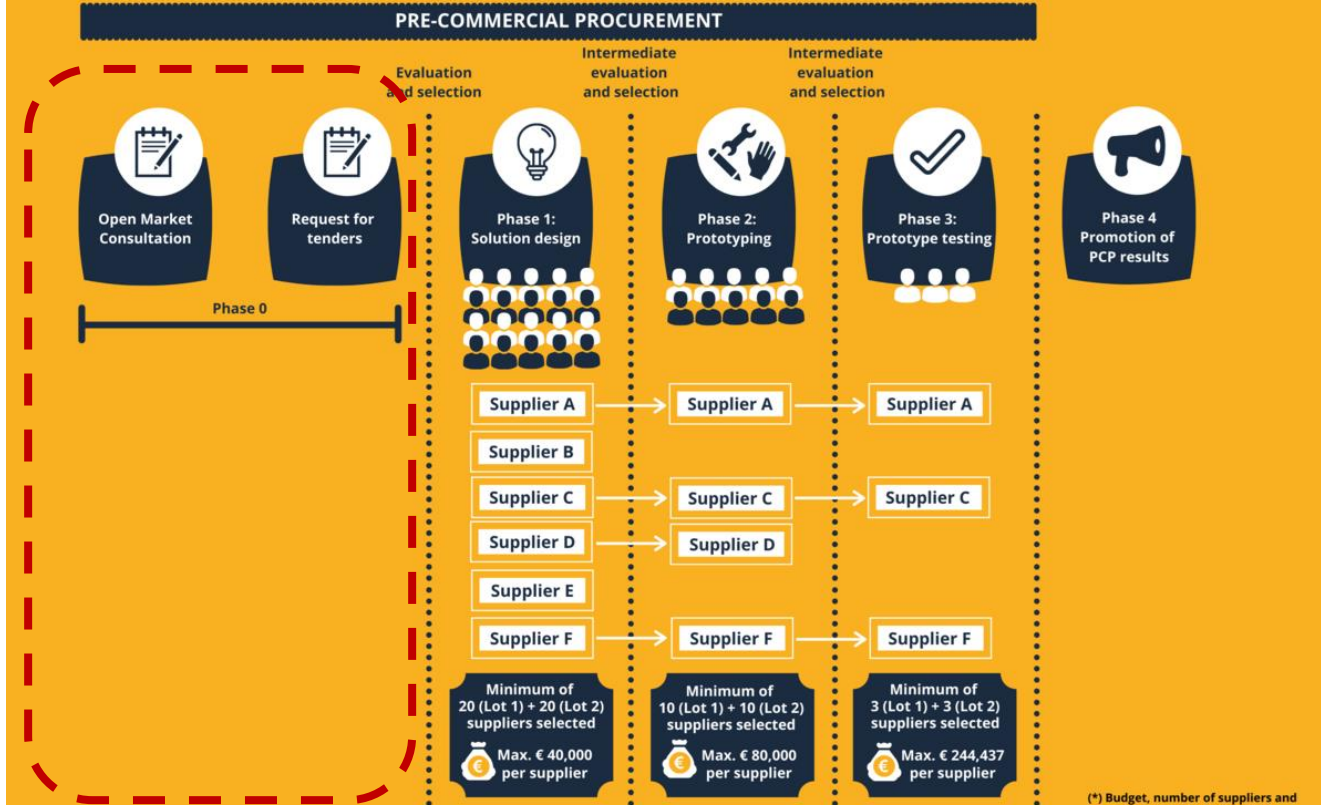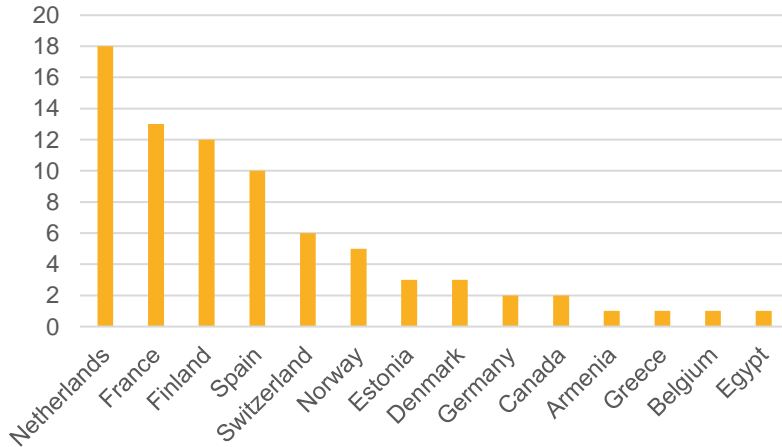
Open Market Consultation - Goals

The goal is to achieve a holistic view on solutions relevant to the project that exist in the market today and how they relate to the challenge defined in this PCP.

- To engage relevant companies in the open market consultation
- To define functional and nonfunctional requirements for Mobility and Energy Lots
- To start promoting the project and its goals among different audiences
- To start recruiting cities to the Preferred Partners group

Details about project & challenges

Feedback & Market insides

Maximize information flow
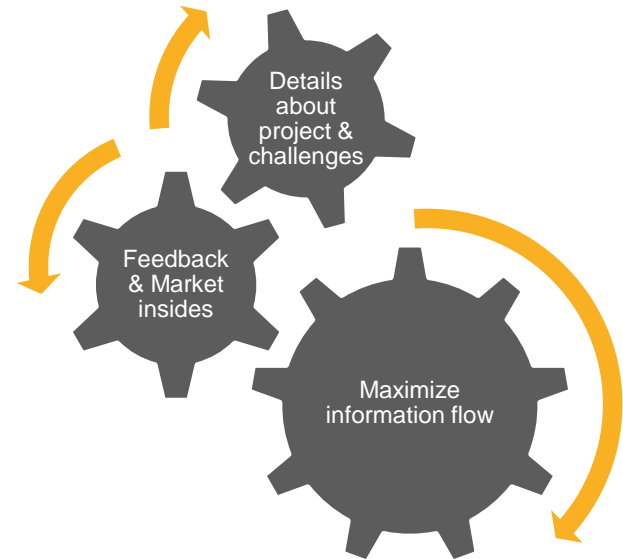
OMC ACTIVITIES IN SHORT

**Participants per Country
- Interactive Events* & Surveys**

* Matchmaking & Bootcamp

Events	Participants
Global webinar, 28 May	267
Webinar Helsinki, 15 June	60
Webinar Paris region, 23 June	73
Webinar Copenhagen, 25 June	226
Webinar Amsterdam, 20 August	76
Bootcamp's info webinar, 3 September	90
Matchmaking Event, 8 September	13
Bootcamp, 23-24 September	40
Surveys for procurers	6
Surveys for suppliers	24
Total	**965**

Examples of data and AI in Helsinki

Helsinki Region Inforshare (www.hri.fi)
- 645 datasets, 174 APIs, 265 applications

3D Models of Helsinki
- The city information model
- Helsinki Energy and Climate Atlas
- Kalasatama Digital Twins

Energy consuption
- Nuuka – the database of energy consumption of buildings

Helsinki AI Registry (https://ai.hel.fi/en/ai-register/)
- Including information of datasets, data processing, risks of the artificial intelligence systems used by the City of Helsinki.

National Land Survey of Finland (https://www.maanmittauslaitos.fi/en)
- Finland geo spatial data and maps

Digitraffic (https://www.digitraffic.fi/en/)
- Information about open data for application development from Finnish road, railway and marine traffic

Examples of AI and data utilization opportunities

Mobility (Lot 1)

Energy (Lot 2)

Sub-challenges

The purpose of the sub-challenges is to describe and give examples
of the cities' current needs.

- Mobility-as-a-Service
- Traffic Flow Optimization
- Optimization of logistics
- Wild card

- Flexible Energy Consumption
- Energy Efficiency
- Development of Renewable Energy
- Wild card

Next steps

- The Request for Tenders will be published 1.12.2020 (- 28.2.2021)

- 15.12. The RfT webinar
- 17.12. Online matchmaking event
      (+ matchmaking form on the website)
- 15.1.2021 The RfT webinar
- In January 2021, "How to write a good tender" webinar

- Q&A https://ai4cities.eu/the-pcp/questions-and-answers

AI4CITIES

Thank you for your attention!

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