AI4Cities
Accelerating carbon neutrality

What is AI4Cities about?

Helsinki (Finland), **Amsterdam** (Netherlands), **Copenhagen** (Denmark), **Paris Region** (France), **Stavanger** (Norway) and **Tallinn** (Estonia) are **looking for artificial intelligence (AI) solutions to accelerate carbon neutrality**.

Through the EU-funded AI4Cities project, this group of cities and regions (the Buyers Group) is asking suppliers to provide them with **AI solutions** (not-market-ready) for **mobility and energy challenges** that will be defined at an initial stage. **"We are following a pre-commercial procurement (PCP) approach for those suppliers who can respond to our needs."**

The total funding amount to be divided among the selected suppliers throughout the whole challenge-based procurement process is **4.6 million euros**.

Competing companies and developers will be given the opportunity to come up with innovative ideas for new digital-based solutions **(not market-ready)**, based on AI and related key enabling technologies including **big data applications, 5G, edge computing and IoT**.

AI4CITIES

Duration: 36 months
(1.1.2020 – 31.12.2022)

Funding instrument:
Pre-commercial procurement
(PCP)

PCP Budget:
4,666,622€

City of Helsinki

City of Stavanger

City of Tallinn

City of Copenhagen

City of Amsterdam

Cap Digital (Paris Region)

ICLEI – Local Governments
for Sustainability

Buyers Group

Expert partner

www.ai4cities.eu

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Public procurement

Public procurement accounts for about 14% of the European Union's (EU) gross domestic product - meaning it has enormous potential to guide new developments in a range of sectors, help to stimulate future markets and address key societal challenges.

What is innovation procurement?

Innovation procurement can involve buying the **process of innovation**, or buying the **outcomes of innovation**.

- **Pre-Commercial Procurement (PCP)**: the public buyer describes their need, and procure businesses and researchers to develop innovative products, services or processes to meet the need.

- **Public Procurement of Innovation (PPI)**: instead of buying 'off-the-shelf' solutions, the public buyer acts as an early adopter or launch customer of innovative solutions new to the market. In AI4Cities, we are implementing a PCP process.

Pre-commercial procurement

Pre-Commercial Procurement (PCP) **challenges industry from the demand side to develop innovative solutions for public sector needs** and it provides a first customer reference that enables companies to create competitive advantage on the market.

PCP enables public procurers to compare alternative potential solution approaches and filter out the best possible solutions that the market can deliver to address the public need (*).

The Pre-Commercial Procurement tool presents a **huge potential as an innovation instrument** capable of helping cities to modernise public sector services and solve key societal challenges.

(*) https://ec.europa.eu/digital-single-market/en/pre-commercial-procurement

Who are we addressing to?

AI4Cities is addressing:

Companies, developers and consortiums with innovative ideas for innovative or disruptive new digital-based solutions, based on AI & other Emerging Technologies.

Cities and other public procurement organisations, interested in potential take up of the solutions developed within the PCP process.

Others with an interest in promoting entrepreneurship, climate change, reduction of greenhouse gas emissions, etc.

Benefits for Procuring Cities

- Steer development of solutions towards concrete public sector needs
- Enable a focus on the critical R&D phase before actual commercialisation
- Input from different suppliers who compete using grants for different phases of development
- Risks and benefits are shared between procurers and suppliers under market conditions

Benefits for Suppliers

- Better preparation to address the future market through early collaboration with public authorities
- Lower investment to generate new market opportunities due to financial support from the public side
- Potential new opportunities unlocked through collaboration/competition with other suppliers
- A focus on the core tasks of R&D with the public sector supporting the creation of a new market

What are we looking for?

Entrepreneurs, startups, companies, academia, and other relevant stakeholders to present their proposals for innovative or disruptive solutions based on AI & other emerging technologies for our challenges on:

Mobility (Lot 1)

Energy (Lot 2)

...with the final goal of **accelerating carbon neutrality**.

Pre-commercial procurement overview

- The prior information notice for the open market consultation will be published and the PCP contract notice will be promoted and advertised widely.

- Results of the Open Market Consultation (OMC)* will be taken into account to fine-tune the tender specifications.

- The PCP contract notice will be published EU-wide in, at least, English.

- The PCP call for tenders will remain open for at least 90 days.

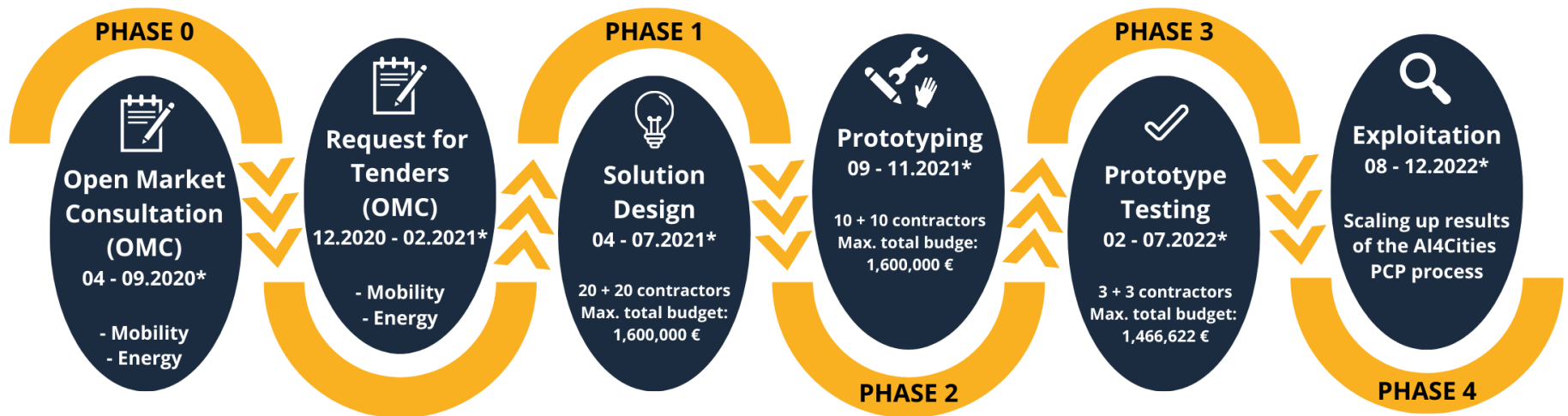- All offers will be evaluated according to the same objective criteria.

The open market consultation represents a specific phase during the overall PCP preparation, aiming at actively approaching the market to find out about the state of the art and current development in the related sector. It is where the first dialogue between demand and supply side takes place.

Pre-commercial procurement overview

- The PCP process will take care to avoid any conflict of interests.

- R&D providers generating results in PCP will own the attached IPRs.

- The procurers will enjoy royalty-free access rights to use the R&D results for their own use.

- The PCP contract with each selected tenderer will take the form of one single framework agreement covering all PCP phases.

The AI4Cities PCP timeline

PHASE 0

Open Market Consultation (OMC)
04 - 09.2020*

- Mobility
- Energy

Request for Tenders (OMC)
12.2020 - 02.2021*

- Mobility
- Energy

PHASE 1

Solution Design
04 - 07.2021*

20 + 20 contractors
Max. total budget:
1,600,000 €

Prototyping
09 - 11.2021*

10 + 10 contractors
Max. total budge:
1,600,000 €

PHASE 2

PHASE 3

Prototype Testing
02 - 07.2022*

3 + 3 contractors
Max. total budget:
1,466,622 €

Exploitation
08 - 12.2022*

Scaling up results of the AI4Cities PCP process

PHASE 4
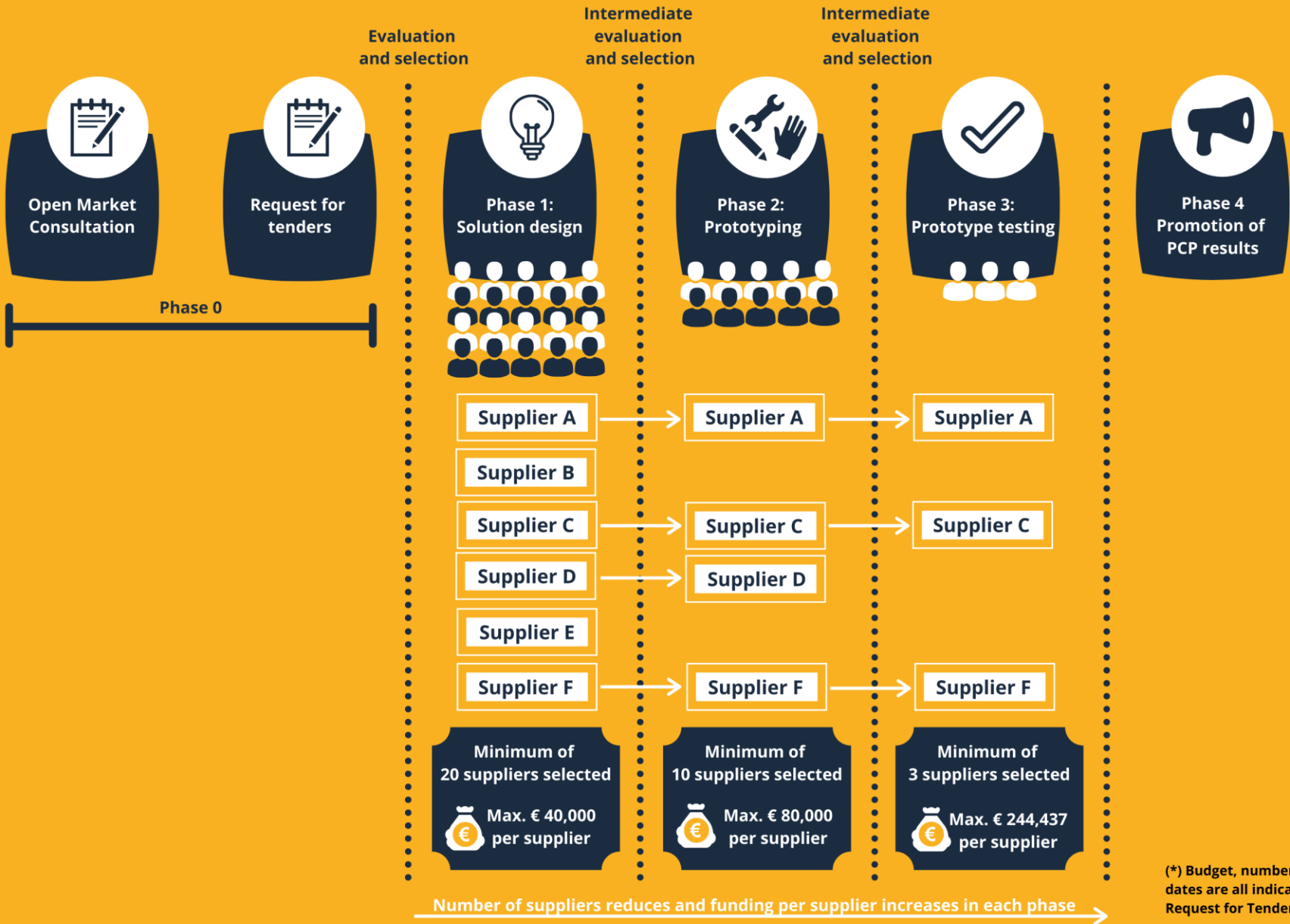
(*) Dates, number of suppliers and budget is indicative until the Request for Tenders is published

MOBILITY CHALLENGE (Lot 1)

PRE-COMMERCIAL PROCUREMENT

Evaluation and selection

Intermediate evaluation and selection

Intermediate evaluation and selection

Open Market Consultation

Request for tenders

Phase 1: Solution design

Phase 2: Prototyping

Phase 3: Prototype testing

Phase 4 Promotion of PCP results

Phase 0

Supplier A	Supplier A	Supplier A
Supplier B		
Supplier C	Supplier C	Supplier C
Supplier D	Supplier D	
Supplier E		
Supplier F	Supplier F	Supplier F

Minimum of 20 suppliers selected

Max. € 40,000 per supplier

Minimum of 10 suppliers selected

Max. € 80,000 per supplier

Minimum of 3 suppliers selected

Max. € 244,437 per supplier

Number of suppliers reduces and funding per supplier increases in each phase
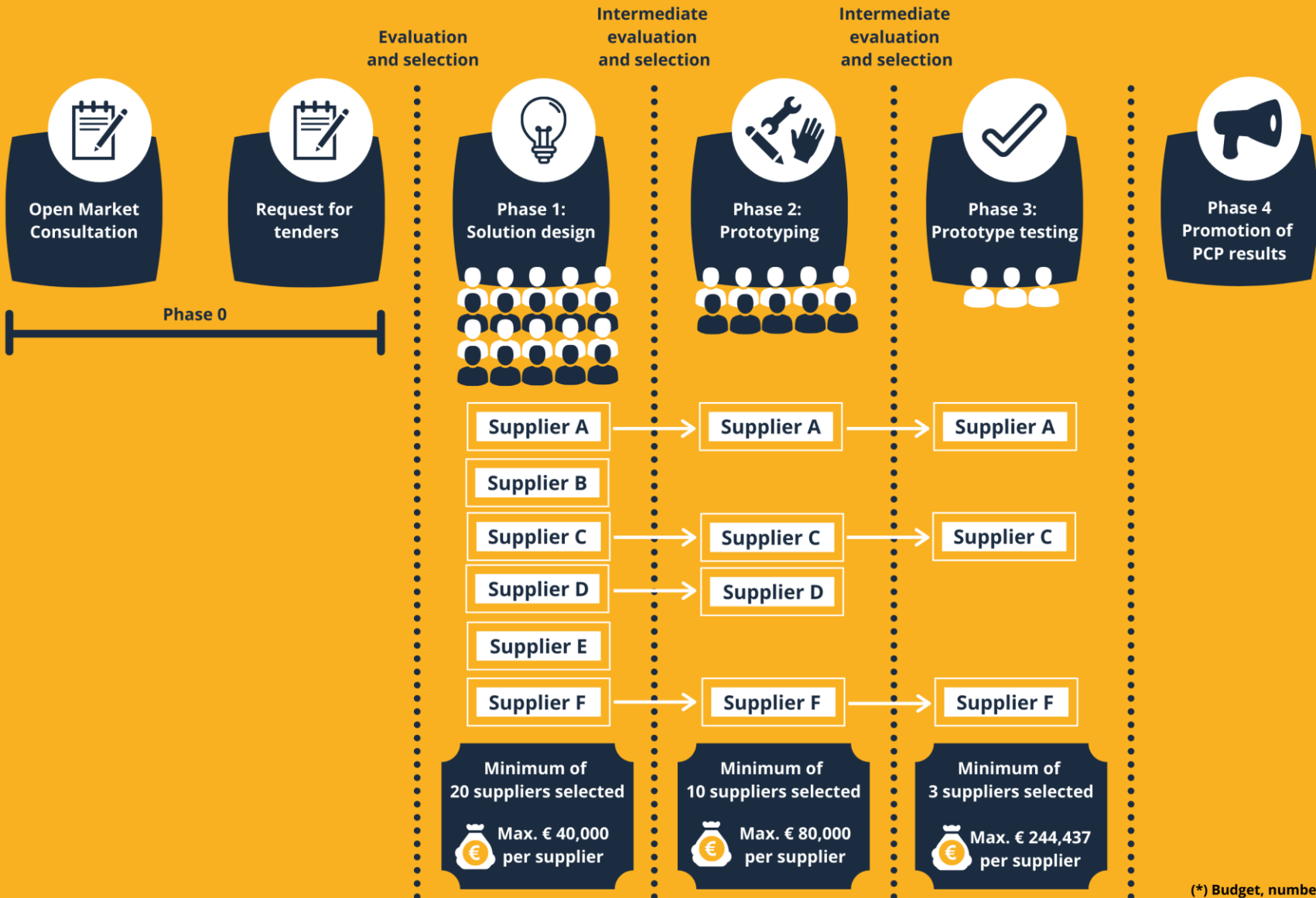
(*) Budget, number of suppliers and dates are all indicative until the Request for Tenders is published

ENERGY CHALLENGE (Lot 2)

PRE-COMMERCIAL PROCUREMENT

Evaluation and selection

Intermediate evaluation and selection

Intermediate evaluation and selection

Open Market Consultation

Request for tenders

Phase 1: Solution design

Phase 2: Prototyping

Phase 3: Prototype testing

Phase 4 Promotion of PCP results

Phase 0

Phase 1	Phase 2	Phase 3
Supplier A	Supplier A	Supplier A
Supplier B		
Supplier C	Supplier C	Supplier C
Supplier D	Supplier D	
Supplier E		
Supplier F	Supplier F	Supplier F

Minimum of 20 suppliers selected

Max. € 40,000 per supplier

Minimum of 10 suppliers selected

Max. € 80,000 per supplier

Minimum of 3 suppliers selected

Max. € 244,437 per supplier

Number of suppliers reduces and funding per supplier increases in each phase

(*) Budget, number of suppliers and dates are all indicative until the Request for Tenders is published

Phase 0 – Preparation phase

Timeframe: To run from January 2020 to November 2020 (estimated dates)

Aim: Cities are trying to get a better understanding of the market.

Core activities: The procuring cities will:

- Define their challenges, and
- Organise meetings, workshops, roundtables... with domain experts, decision-makers, businesses and other relevant stakeholders to undertake an Open Market Consultation (April to September 2020) as a truly ambitious co-creation process.

Phase 0 – Preparation phase

Main outputs:

- Strong understanding of the state of the art (what current solutions are already available) and
- A set of well-defined functional and non-functional requirements for each lot that will be the basis of the tenders.

Based on those, **the Buyers group will prepare the tender requirements, and the tender will be published on a European Tenders** site and advertised across the world.

Once the tender is launched, suppliers will be able to submit their bids (December 2020 to February 2021 – estimated dates).

In March, the bids will be assessed and the selected contractors will be announced.

Phase 1 – Solution Design phase

Timeframe: To run from April 2021 to July 2021 (estimated dates)

The **total procurement budget** for this phase is 1,600,000 euros (800,000 euros for Lot 1 and 800,000 euros for Lot 2).

- **Mobility challenge (lot 1):** a minimum of <u>20 contractors</u> will be funded to respond to it. Each of those will receive a maximum of 40,000 euros.
- **Energy challenge (lot 2):** a minimum of 20 contractors will be funded to respond to it. Each of those will receive a maximum of 40,000 euros.

Core activities: The selected suppliers will refine their proposed solutions concepts, in accordance with the input provided by the Buyers Group, during a number of Workshops to be organised between the Buyers Group and the Contractors. Suppliers will be required to produce a feasibility study of the proposed solutions and the underlying technologies.

Phase 1 – Solution Design phase

Main output: : A report by contractors with a concept design, a description of the results of their feasibility studies and their conclusions for the continuation of the development activities in phase 2.

Phase 2 – Prototyping phase

Timeframe: To run from September 2021 to November 2021 (estimated dates)

The **total procurement budget** for this phase is 1,600,000 euros (800,000 euros for Lot 1 and 800,000 euros for Lot 2).

- **Mobility challenge (lot 1):** out of the 20 contractors in phase 1, 10 will be selected and funded to respond to it. Each of those will receive a maximum of 80,000 euros.

- **Energy challenge (lot 2):** out of the 20 contractors in phase 1, 10 will be selected and funded to respond to it. Each of those will receive a maximum of 80,000 euros.

Core activities and main output: The selected applicants are expected to deliver prototype specifications, a lab demonstration, as well as a plan for the original development of a limited volume of first solutions, a roadmap for testing, and an updated cost/benefits evaluation including a preliminary business plan.

Phase 3 – Prototype Testing phase

Timeframe: To run from February 2022 to July 2022 (estimated dates)

The **total procurement budget** for this phase is 1,466,622 euros (733,311 euros for Lot 1 and 733,311 euros for Lot 2).

- **Mobility challenge (lot 1):** out of the 10 contractors in phase 2, 3 will be selected and funded to do a series of large scale pilots on it. Each of those contractors will receive a maximum of 244,437 euros.
- **Energy challenge (lot 2):** out of the 10 contractors in phase 1, 3 will be selected and funded to do a series of large scale pilots on it. Each of those contractors will receive a maximum of 244,437 euros.

Core activities: Each selected supplier will run its prototype testing phase in a minimum of 2 cities.

Phase 3 – Prototype Testing phase

Main expected outputs: The participating contractors are expected to include a roadmap for consecutive testing, including pilot test specifications, a minimum number of pilot tests, a specification of the final solution and other related technical documentation, and an updated cost/benefit evaluation.

At the conclusion of the pilot phase the IPR and the prototypes will remain the property of the companies involved. The participating partners will have a well-defined access to and a right of usage with regards to the developed and tested prototypes.

Are you an AI supplier interested in using your expertise to accelerate carbon neutrality?

Take part in the AI4Cities challenge!

Stay tuned by:
- visiting our website,
- subscribing to our newsletter,
- following our Twitter handle and our LinkedIn profile to get updates, and
- contacting us

Are you a city interested in the AI4Cities approach? Become a *Preferred partner*!

What does it mean?

- To engage closely with the PCP Process, with a view to ultimately expanding the market uptake of the developed solutions through your own Public Procurement of Innovative solutions (PPI).

- To be kept informed about all aspects of the PCP and afforded access to all information concerning the PCP results.

- To contribute wherever possible to validate the PCP goal by providing background information regarding the specific needs of the cities.

- To collaborate with the consortium's public procurers and to meaningfully support the project's objectives.

To join, contact us: info@ai4cities.eu

FOR MORE INFORMATION

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