EUROPEAN POLICYBRIEF

PROCURING SOCIO-TECHNICAL SOLUTIONS TO CLIMATE CHALLENGES IN EU CITIES

Lessons learned from an innovative procurement experiment

January 2025

EXECUTIVE SUMMARY

The impacts of **climate change** know no borders: such is the case of dust storms or particulate matter spreads, which are also a consequence of urbanisation. Cities already host more than half of the world population, and the trend is to reach 75% by 2050. However, urban areas are the main producers of GHG (GreenHouse Gas) responsible for global warming, which is another borderless drama of our times. Thus, it is becoming imperative to identify and replicate on a massive scale emerging successful solutions for climate change mitigation and adaptation, which can help improve the sustainability of our cities.

The European Union's **single market** was designed to facilitate the free movement of goods, services, capital, and people across its Member States. However, despite significant progress over the past years, **regulatory and administrative barriers** continue to impede the smooth circulation of innovations across country borders, an issue recently brought back again to the attention of policy makers by the so-called Letta report. These barriers keep the EU market so fragmented that replication and scaling of successfully deployed solutions, including for climate change mitigation and adaptation, between different countries are practically hindered, ultimately affecting the EU's competitiveness and its ability to achieve ambitious goals like those mentioned in the Green Deal.

Public procurement benefits from harmonised implementation rules across the EU Member States. It can therefore play a crucial role in bridging national barriers and facilitating the replication of successful pilot solutions across cities and countries. This Policy Brief explores the lessons learnt from an innovative public procurement procedure involving 8 European cities: Athens, Cascais, Differdange, Grenoble, Ioannina, Maribor, Sofia and Torino, most of which belonging to the EU Mission "100 climate neutral and smart cities by 2030", in the context of the EU co-funded project CLIMABOROUGH.

ANCI Toscana, the Association of Tuscan municipalities based in Florence, Italy, launched in 2023 the first edition of a call for tender with an initial budget of €2.4 million, which awarded 15 economic operators, single or associate, to pilot deploy innovative socio-technical solutions for climate resilience in the 8 cities. The chosen procurement instrument was the **Innovation Partnership** (Art. 31 of Directive 2014/24/EU). While the activities of the 15 pilots are now underway, a second edition of the same call for tender is in preparation, to be launched in Spring 2025 with a budget of €1.2 million and involving 5 cities: Grenoble, Issy-Les-Moulineaux, Pilsen, Prijedor and Sofia. The new procedure has already been announced on TED, the electronic version of the Supplement to the Official Journal of the European Union dedicated to public procurement.

THE PROBLEM: CLIMATE CHANGE HAS NO BORDERS, WHY SHOULD CLIMATE RESILIENCE?

Climate change manifestations, such as extreme weather events and shifting ecosystems, do not respect political boundaries. For instance, floods can affect entire river basins, spanning multiple countries and regions; air pollution from one city can compromise air quality in neighboring ones. Even the dramatic effects of global warming don't know borders. For instance, a severe drought can lead to water shortages in many neighboring territories; agricultural losses can lead to food price spikes and shortages nationally and also internationally.

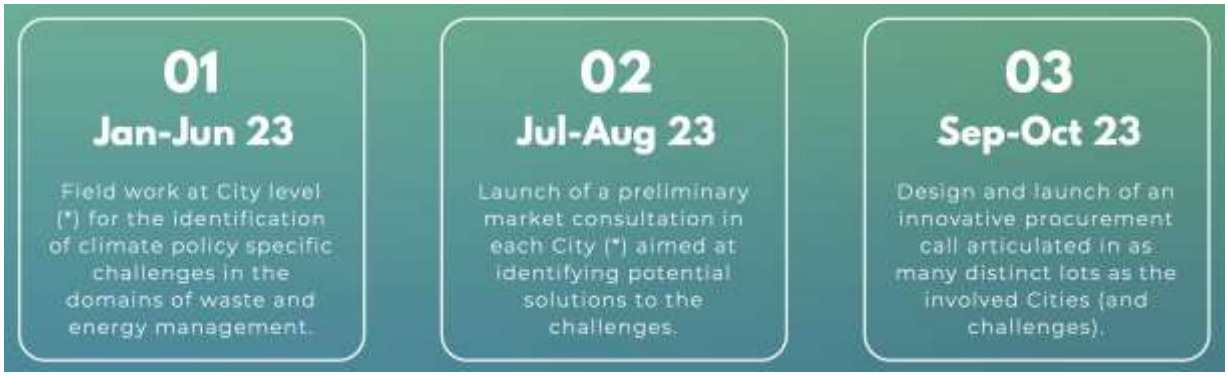
Recognizing the interconnected nature of climate change challenges, Sir David Attenborough delivered a powerful speech at the COP26 conference in Glasgow, November 2021, emphasizing the urgent need for global cooperation to address them. He particularly called on political leaders to **foster an environment where millions of innovations supporting climate action can grow and prosper**.

In this context, it sounds like a paradox that emergent, successful innovations born in one European country experience so many issues in breaking the national barriers and scale to the Single Market. The paradox is even more puzzling if one considers that almost by definition, the aim of any pilot project is to pursue replication. Yet replication proves in fact so difficult that it may be compared to the "search for the Holy Grail". With the consequence, among others, that too few European startups or SMEs, particularly those developing solutions for climate change mitigation and adaptation, manage to scale up and become **"unicorns"** - larger enterprises with a huge asset valuation, fast developing on wide and promising markets and attracting investors attention and support. More modestly, our interpretation of such a huge problem narrowed down to two basic (rhetoric) questions:

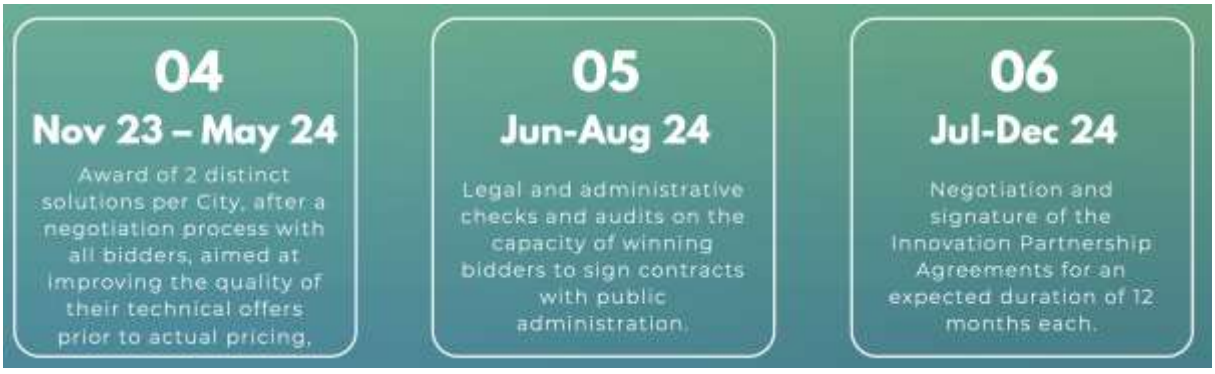
- If climate change is a global challenge, which has profound roots in the local environments, why is the coordination between involved policy actors, e.g. urban leaders, so limited or experiencing so many difficulties to tackle its consequences?
- If working solutions for improving the climate resilience of e.g. cities already exist, why do we spend so much time reinventing them from scratch rather than importing and adapting what already proved successful elsewhere?

OUR ANSWER: THE INNOVATIVE PROCUREMENT MECHANISM AND ITS IMPLEMENTATION PROCESS

Our approach consisted of the following 6 steps:



(*) involving Athens, Cascais, Differdange, Grenoble, Ioannina, Maribor, Sofia and Turin.



To pave the ground for the definition of the call for tender, co-design methods and tools were adopted with the participation of members of the 8 city teams involved, with the aim of **identifying specific challenges of climate action**

at the urban level in the thematic domains of the CLIMABOROUGH project, namely energy, mobility and waste. Then **8 preliminary market consultations** were held, from 3 to 19 July 2023, with the objective to acquire information regarding the potential solutions to be envisaged. The consultations were opened to all interested economic operators, coming from all over Europe, particularly SMEs and start-up enterprises, as well as R&D institutions from both the public and the private sector. The consultations were run in a hybrid mode to ensure the widest possible participation.

Based also on the written inputs received from the attendees during and after those events - for which an optional window was left open to submissions of project ideas, until end August 2023 - **the proper call for tender was designed**, agreed with the City representatives and ultimately published on 19 October 2023, using the phased model that is peculiar of the Innovation Partnership instrument, with an initial deadline for the request of accreditation of economic operators (single or associate) set by 30 November 2023.

The proper tender procedure lasted only 7 months - until May 2024 - during which a 5-phased mechanism was implemented to gradually reduce the number of applications, from the 64 requests for accreditation initially received to the 15 finally awarded solution proposals (2 per Host City, with the only exception of Maribor), as shown in the Table below:

Phase	Description	Deadline	N. of applications
Phase 1	The candidature phase, during which any economic operator (single or associate) can ask the Contractor to be invited to submit a Technical Offer, and to this purpose, provides a set of documents to qualify.	30/11/2023	**64**
Phase 2	The negotiation phase, during which selected Candidates are invited to submit a Technical Offer only, which will be discussed bilaterally with representatives of the Contractor and the Host City.	16/02/2024	**46**
Phase 3	The proper tendering phase, during which Candidates are invited to submit a revised Technical Offer accompanied by a Financial Offer, which the Contractor will evaluate in the next phase of competition.	15/04/2024	**38**
Phase 4	The award phase, at the end of which 2 Solution proposals per Host City, showing the highest quality vs price ratios, will be awarded by the Contractor and Tenderers will be invited to sign a Partnership Agreement.	17/05/2024	**31**
Phase 5	The Solution deployment phase in the Host City environment, initiated by an advance payment paid by the Contractor and globally lasting no longer than 12 months, without the possibility of an extension.	31/12/2025	**15**

As one can notice, salient aspects of innovativeness of the proposed procurement mechanism include that

- **More than one, actually 2, solution proposal(s) were awarded** in each Host City. The rationale is very simple: when one speaks of breakthrough innovation, there can be several alternatives that show all the right credentials to become impactful on urban climate policy, if properly tested and pilot deployed. Our approach gave full recognition to such possibility;
- **Each competing bid was not evaluated once, actually twice**. To be more precise, in Phase 2 all the economic operators (single or associate) qualified after the positive verification of their credentials, were not invited to present a full bid - ie. including both a description of the proposed solution and a price for it - but simply an outline of the ways in which the requirements set out by the Host City would be fulfilled at a minimum level. Then each of the 46 received technical offers were invited to bilateral negotiations (basically online talks) with members of the corresponding City Teams. After which, 8 offers were discarded for failing to convincingly document the fulfilment of minimum requirements, while the remaining 38 were allowed to be reformulated and presented again, taking benefit from the discussions held during the negotiation phase.

The rationale here is obvious: the quality of received technical offers increased, and those not fulfilling the minimum requirements were immediately excluded from the competition.

FEDERATED OR JOINT PROCUREMENT?

One interesting question is whether the proposed approach belongs to the category of "federated" or "joint" procurement experiments.

- In literature and practice, the term **"federated"** is used whenever a group of procurers join forces while at the same time maintaining their individual purchasing processes. For instance, if they make their respective strategies converge or align, e.g. by sharing common contract templates or procurement frameworks. Notable examples of this approach are CONSIP in Italy and NASPO in the US. The procurers adhering to a federation can make their purchases independently, but take benefit from the collective bargaining power and shared knowledge with other members.
- On the other hand, the term **"joint"** is used when a group of procurers come together to make a single purchase (or a series thereof), to achieve economies of scale (ie. better value for money) and/or increased efficiency thanks to resource pooling and/or streamline respective procurement processes. A well known example is the role played by the European Commission during the Covid-19 crisis, acting as an aggregator of the demand (for vaccines and other medical materials) that was coming from the Member States. Here all involved procurers act as a single buyer, combining their purchasing power to negotiate better terms, prices, or quality with the suppliers.

The approach proposed in **CLIMABOROUGH is intermediate between the two**, namely:

- Like in federated procurement, we chose a single public procurement framework - the innovation partnership - for all 8 cities. But unlike federated procurement, the 8 did not make their purchases independently from one another, but were simply 8 distinct "lots" of the same procedure;
- Like in joint procurement, there was a single procurer, ANCI Toscana, acting on behalf of the 8 cities. But unlike joint procurement, resources were not pooled - they were all originally belonging to the procurer - and so is the property of the results. ANCI did not act according to any mandate received from the cities, apart from the contents of the Horizon Europe grant agreement signed with the Commission. However, a bilateral agreement with each Host City is under signature now, to irrevocably transfer the property of the results from ANCI Toscana to the ultimate beneficiary of each pilot action.

PROJECT IDENTITY

PROJECT NAME	Building Green and Climate Neutral City-Hubs
COORDINATOR	ANCI Toscana, IT - m.satta@matteosatta.com
DURATION	January 2023 - December 2025 (36 months)
PARTNERS	ANCI Toscana, Politecnico di Milano, Links Foundation, Torino Urban Lab, Città di Torino (Italy), Aalborg University (Denmark), Helmholtz-Zentrum Hereon Gerics, Data Competence Center Citie and Regions - DKSR (Germany), Institut Mines-Télécom, Grenoble Alpes-Metropoles, Issy Média (France), E-Zavod, City of Maribor, ZUM Urbanizem, Planiranje,Projektiranje d.o.o. (Slovenia), Luxembourg Institute of Science and Technology - LIST, City of Differdange (Luxembourg), Norwegian University of Science and Technology - NTNU (Norway), DAEM SA, City of Ioannina (Greece), City of Sofia (Bulgaria), Cascais Ambiente (Portugal), City of Krk (Croatia), City of Katowice (Poland), Smart City Pilsen (Czech Republic), City of Prijedor, Development Agency "PREDA" (Bosnia and Herzegovina), Urban Dna (UK).

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