



# Catalogue of Public Procurement of Innovation

Smart City Live 2020

**ACCIÓ**



**Generalitat de Catalunya**  
Government of Catalonia



*Business Support on Your Doorstep*



# Table of contents

• Why Public Procurement of Innovation	Page 4
• Why is this tender different?	Page 4
• Opening the doors of Public Procurement to innovators	Page 5
• The objective of public entities in the demand for innovation	Page 5
• Can your sector access public tenders?	Page 6

<b>What project do you fit into?</b>	Page 7
• A tender monitoring task and advice	Page 8
• The Innovative Public Procurement Business in Catalonia	Page 9
• An initiative co-financed by EEN (Europe Enterprise Network)	Page 9
• Let's get started	Page 10
• About ACCIÓ, the Agency for business competitiveness	Page 11

<b>Find your future projects in the Catalogue of Public Procurement of Innovation</b>	Page 12
<b>Early Demand</b>	Page 13
1. Hybrid hyper-converged infrastructure for smart cities	Page 14
2. Shared Bicycle / E-Bike System	Page 15
3. Smart communication infrastructure and Internet Of Things Platform	Page 16
4. Tracking the crowdedness and keeping citizens safe	Page 17
5. Smart City Platform	Page 18
<b>Market Consultations</b>	Page 19
6. AI4Cities challenges - Pre-commercial Procurement to Buy R&D Services to Support Cities' Transition to Carbon Neutrality, by Applying the Use of AI Technologies	Page 20
7. Super City Initiative	Page 21
8. e-Care: solutions supporting continuum of care for frailty prevention in old adults	Page 22
9. Marketplace for the construction life cycle	Page 23
<b>Open Tenders</b>	Page 24
10. Transformation of the hospital emergency care through innovative digital solutions	Page 25
11. Global Open Innovation Ecosystem in Keihanna Science City - ideal access to the Japanese market and tech-society via PoCs	Page 26
12. Using disruptive innovation to reduce leakage in Water Distribution Network to Zero	Page 27
13. Purchase of cybersecurity solutions: 2nd Challenge - Identification of services hidden in the TOR network not indexed by public sources	Page 28

# Why Public Procurement of Innovation?

**Public Procurement of Innovation** is **one of the best strategic public instruments**, because it means a two for one deal. Not only is this an opportunity for public entities to improve and introduce innovation in their services to citizens, but also a way to promote innovation in the market.

Public entities launch this kind of tender asking innovators about their solutions for an identified challenge or expected problem in the medium - to long - term.

The provider of the innovative solution, after bidding and winning the competition, gets a contract to develop their project, make a pilot and test it. Often, the public buyer acts as the first client of this new product/service.

## Why is this tender different?



### **Needs assessment and preliminary market consultation**

The public entity assesses its organisational challenges. Market consultations are frequent in order to scout the state of the art and adjust the future tender.



### **Don't expect to find the exact solution in the tender document**

The document of the tender details the solution functionalities. The buyers expect a wide range of possible solutions.



### **Award criteria: Price, Cost, Quality**

The criteria to evaluate the offers will not only be the price, but also the best added value in terms of cost-efficiency, quality, and environmental and social impact.



# Opening the doors of Public Procurement to innovators?



The Market Consultation represents the most interesting time to express your interest in the future tender and to show your thoughts about what solutions you will propose in the preliminary stage.

**Public Procurement of Innovation** is a good opportunity for companies to develop some new products or services demanded from public entities. For innovators, it means a shorter time-to-market, opening up market/sales opportunities, facilitating scaling and attracting potential investors

## The objective of public entities in the demand for innovation

For public entities this kind of innovation demand is a challenge.

They must move from the short term -the costs of immediate needs- to the medium term or long term shifting focus to unmet needs, the real challenges of the future.

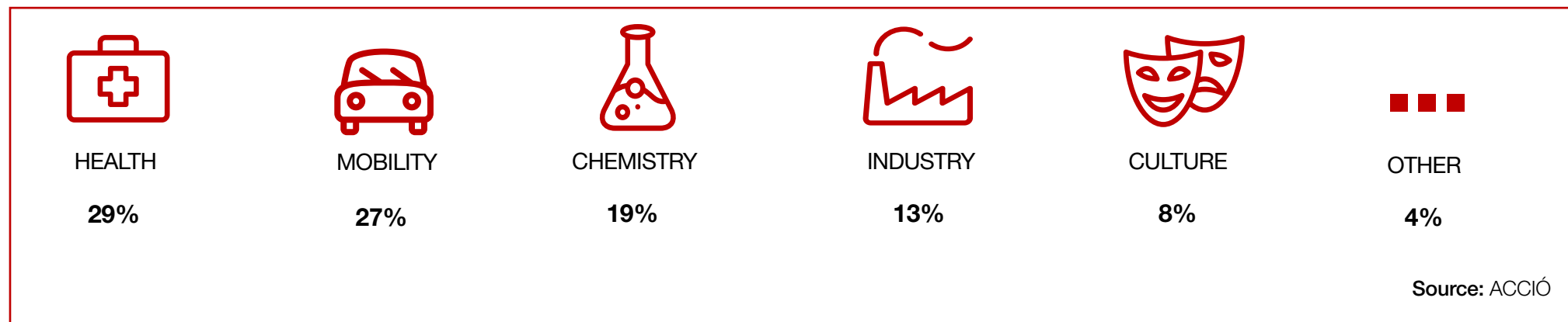
This means the modernization of public services, getting better value for money, removing supplier lock-in and creating growth and jobs.

[Return to the table of contents](#)

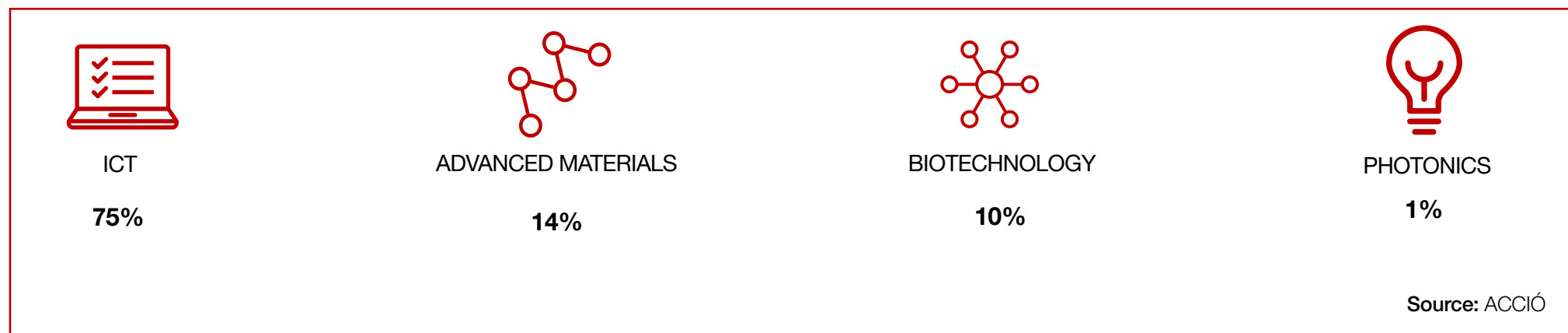


# Can your sector access public tenders?

ACCIÓ has analyzed **253 tenders identified** this year 2020 and has classified them by sectors and technologies involved:



## 2020 TENDERS BY TECHNOLOGIES



# What project do you fit into?





# A tender observatory task and advice

ACCIÓ, with a staff engaged in Barcelona as well as in fifteen offices in the world, identify and monitor these kinds of tenders on our website.

You can find and bid on your next project here:

<https://bit.ly/31aABKs>



Observatory of Barcelona city from Tibidabo hill. Source: istockphoto.com

Thanks to our experience in boosting research and development projects:

ACCIÓ knows which Catalan companies are more qualified to present an innovative offer for each tender.

01



We accompany Catalan enterprises interested and we perform partner searches through the Enterprise Europe Network (EEN).

02



We look for technology partners through our net of **TECNIO certified technological centres**.

03



We have a public list of validated consultants that companies can subcontract.

04



# The Innovative Public Procurement Business in Catalonia

There is a **Public Procurement of Innovation Program** for public entities with co-financing by the **FEDER Operational Program of Catalonia 2014-2020** (PO FEDER Catalonia 2014-2020).

The estimated value of the program is 150 million euros. The budget of the FEDER OP FEDER Catalunya 2014-2020 is **75 million euros**.

## An initiative co-financed by EEN (Europe Enterprise Network)

This catalogue has been co-financed by EEN. It also includes two workshops: the Catalogue of Early Demand and the International Tenders in Public Procurement of Innovation.

**Enterprise Europe Network** ([www.een.ec.europa.eu](http://www.een.ec.europa.eu)) is an international network of close to **600 partners from more than 60 countries with more than 3,000 local experts** ready to help you find the right partners and grow your business through innovation.

Amongst other services, ACCIÓ, the Catalan Agency for Business Competitiveness, as a member of the network, organizes a B2B matchmaking event (Brokerage Event) every year at the Smart City Expo World Congress (SCEWC).



# Let's get started

If you are a **company** with a project that is developing an innovative solution, we want to know about it. We can recommend you for a tender bid and we can help you connect with a partner in the international markets.

If you are a **public entity** we can help you look for partners, in raising awareness of your challenge and in setting up market consultations.

Whether you are a public entity or a company, please contact us:





# About ACCIÓ, the Agency for business competitiveness

**ACCIÓ** is the agency set up by the Catalan Government to make Catalan enterprises more competitive throughout the world. Our key aims are to promote business growth, drive **innovation**, develop **internationalization** and **attract inward investment**.

ACCIÓ functions:

- Developing business competitiveness.
- Encouraging the internationalisation of Catalan firms, their expansion and consolidation.
- Promoting Catalonia as a business-friendly location.
- Encouraging R+D and business innovation, as well as technology transfer.
- Promoting the creation of technological and high-growth potential startups.

To promote internationalisation and innovation, ACCIÓ counts on a network of **40 Trade & Investment Offices** across the globe based in the main economic cities liaising with **over 100 markets**. Our Trade & Investment Offices provide Catalan businesses qualified support, insight and advice in international trade & investment.

**Catalonia Trade & Investment Offices** closely monitor market trends and analyse potential risks. Services provided are tailor-made to specific company needs from creating demand to giving support in productive investment and logistics:

- Market research.
- Search for marketing channels: distributors, agents, customers, etc.
- Search for supply chains: suppliers, manufacturers, etc.
- Search for trade and technological strategic alliances.
- Setting up: business location, legal and labour advice, partnership opportunities, etc.
- Trade missions.
- Contact follow-ups and business networking.
- Recruitment of qualified staff.

# Find your future projects in the Catalogue of Public Procurement of Innovation



# Early Demand: Future Projects

- Mr. Javier Ridruejo, Logroño City Council, Spain
- Mr. Mehmet Fatih Inkaya, Municipality of Bursa, Turkey
- Ms. Burcu Özmedir, Istanbul Metropolitan Municipality, Turkey

# 1 Hybrid hyper-converged infrastructure for smart cities

## Challenge

Logroño has a mix of ICT infrastructures to run civil servants' workstations, support software from the different city areas and provide digital services to citizens. The whole system runs on local servers, generating a lot of work: infrastructure management and incidence solving.

A flexible self-managed infrastructure is needed to control data and processes, combining hyper-converged and cloud infrastructures.

## Expected results

- **Robust and flexible** high-performance-like architecture integrating computation, storage and virtualization resources in a mixed on-premise and cloud server infrastructure.
- **Full integration** of (legacy, current and future) municipal servers, applications, data sources, etc.
- **Workload balance** depending on the particular demand of each sub-system.
- **Easy configuration**, simple operation and low maintenance needs.
- **Performance and cost optimization** for each defined operation.
- **Reduction in the energy consumption** of the ICT infrastructure.

## Coordinator



Ayuntamiento  
de Logroño

## Term to launch the tender

< 1 year

< 2 years

> 2 years

## Type of public procurement innovation

PCP

PPI

## Interested in making a public buyer consortium

Yes

No

## Interest in market situation

Yes

No



## 2 Shared Bicycle / E-Bike System

### Challenge

Due to the increase in the use of individual vehicles, vehicle traffic increases in the urban road network, especially during peak hours, the service levels of the roads decrease, and the delay times increase.

This situation causes traffic congestion and an increase in traffic-related harmful gas emissions. Bursa MM need to find an economical and practical solution for citizens who use or want to use public transportation to make their first and last kilometer journeys and home-based daily journeys in an environmentally friendly way.

### Expected results

- Solutions that promote **environmentally friendly modes of transport** that will enable citizens to use low-emission modes such as bicycles and public transport are expected to be encouraged.
- **Reducing the use of individual vehicles**, carrying out home work, home school and daily trips with these environmentally friendly methods and eliminating traffic problems in the city by supporting public transportation. Thus, increasing the sustainability of the city and protecting human health by reducing the emission of harmful gas emissions caused by vehicle traffic.

[Return to the table of contents](#)

### Coordinator



### Term to launch the tender

< 1 year

< 2 years

> 2 years

### Type of public procurement innovation

PCP

PPI

### Interested in making a public buyer consortium

Yes

No

### Interest in market situation

Yes

No





### 3 Smart communication infrastructure and Internet Of Things Platform

## Challenge

- The city's management needs a common interface, system and infrastructure, to track field objects through the internet while managing filed operations, providing system efficiency and operational reporting, reaching big data.
- Improve city's events and corporate analysis with analysis of big data to be obtained.
- Detecting emergency and disaster events much faster and responding in the shortest time possible.
- Providing citizen satisfaction by measuring the air quality of parks, traffic density on roads, water temperature on the beaches.
- Preventing possible accidents and loss of energy by instantly reading water, natural gas and electrical meters.

## Expected results

- Creating a **common communication and management platform** in our city.
- **Saving labor** and **reducing open costs**.
- **Reaching Big Data** and ensuring increased efficiency by analysis of big data.
- Creation of **open data platform**.
- **Energy efficiency** and **citizen satisfaction**.

## Coordinator



## Term to launch the tender

< 1 year

< 2 years

> 2 years

## Type of public procurement innovation

PCP

# PPI

## Interested in making a public buyer consortium

Yes

No

## Interest in market situation

Yes

No





## 4 Tracking the crowdedness and keeping citizens safe

### Challenge

As a city of almost 16 million people, we need to provide our citizens with public services and make their lives easier. We need alternative smart financial models to bring this idea come to live in Istanbul. During COVID-19, we can collect data related to GTFS and crowdedness throughout Istanbul. After analyzing all these data, we need to propose projects and solutions.

Therefore, we need to orient people to safe zones, and avoid creating crowded areas.

### Expected results

- See where people are located and where they are heading to.
- Understand the travel behavior of people.
- Know the bottleneck point of the city and we want to share this knowledge with citizens instantly.

### Coordinator



### Term to launch the tender

☐ < 1 year

☐ < 2 years

☒ > 2 years

### Type of public procurement innovation

☒ PCP

☐ PPI

### Interested in making a public buyer consortium

☐ Yes

☒ No

### Interest in market situation

☒ Yes

☐ No


## 5 Smart City Platform

### Challenge

Istanbul has many assets around the city (Sensors, Ip cameras, analog cameras, applications, etc.). For making an effective city, we need to manage and control those assets and devices within a smart city platform. We control our assets with a fragmented structure and we cannot command them from a central location.

We need all-in-one solution which is able to control, analyze and simulate all of our assets from one central place.

### Expected results

- **Necessity:** all in one solution which can be able to control, analyze and simulate our assets in a single central platform.
- **Requirements:** platform should have video analytics capability, data obtained from the analyzed images.
- Platform should work on prem. It must have cloud and / or on-premise deployment models.

### Coordinator



### Term to launch the tender

< 1 year

< 2 years

> 2 years

### Type of public procurement innovation

PCP

PPI

### Interested in making a public buyer consortium

Yes

No

### Interest in market situation

Yes

No



# Market Consultations

- Ms. Kaisa Sibelius, Forum Virium Helsinki, Finland
- Mr. Tak Nagumo, Smart City Institute Japan, Japan
- Mr. Javier Grueso, Consorci Sanitari Integral / Mr. Juan Echevarría Cuenca, Santander City Council, Spain
- Mr. Klaus Kodydek, City of Vienna, Austria

## 6 AI4Cities challenges - Pre-commercial Procurement to Buy R&D Services to Support Cities' Transition to Carbon Neutrality, by Applying the Use of AI Technologies

### Challenge

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' GHG emissions.

AI4Cities challenges will be built on highly innovate and not market-ready technologies, to be applied in difficult contexts in 2 sub-challenges, Energy (Lot 1) and Mobility (Lot 2). Sub-challenges will revised during the Open Market Consultation (OMC) phase.

### Market Consultation

- **Challenges:** Energy and Mobility challenges.
- **Phases:** 1- Concept phase will focus on the feasibility of the proposed solutions, 2- Consists of a first prototype development, 3- Limited number of consortia from Phase 2 will be selected for the testing of prototypes in real-life pilots.

Coordinator

FORUM  
VIRIUM  
HELSINKI

### Buyers Consortium

- Gemeente Amsterdam
- Cap Digital
- City of Copenhagen
- City of Stavanger
- Tallin
- ICLEI

### Type of public procurement innovation

PCP

PPI

### More information

<http://ai4cities.eu/>



AI4CITIES

## 7 Super City Initiative

### Challenge

The Japanese government launched the “Super City Initiative” in 2018 which aims to realize the ideal future society through cutting-edge technology and bold deregulation after the fourth industrial revolution. In fall 2020, the government will start taking applications from municipalities to select super cities in Japan that will receive full support as a national project. A municipality that wishes to become a super city must develop their plan in partnership with private companies and obtain approval from residents.

The Smart City Institute Japan will support collaboration between Japanese municipalities and cities in other countries to develop advanced smart cities.

### Market Consultation

Smart City Institute Japan aims to connect Japanese smart cities to the global community of smart cities to promote exchange of best practices, knowledge, and experiences with overseas smart cities. Super City Initiative needs to cover some of the following areas: (1) Transportation, (2) Logistics, (3) Payment, (4) Administration, (5) Medical and nursing care, (6) Education, (7) Energy and water, (8) Environment and waste, (9) Crime prevention, (10) Disaster control and safety.

[Return to the table of contents](#)

### Coordinator



### Buyers Consortium

Japanese Local Councils

### Type of public procurement innovation

PCP

PPI

### More information

[https://www.kantei.go.jp/jp/singi/tiiki/kokusentoc/supercity/supercity-forum2019/supercityforum2019\\_EnglishVer.html](https://www.kantei.go.jp/jp/singi/tiiki/kokusentoc/supercity/supercity-forum2019/supercityforum2019_EnglishVer.html)



## 8 e-Care: solutions supporting continuum of care for frailty prevention in old adults

### Challenge

The objective of eCare is to launch a Pre-Commercial Procurement call for tender to deliver disruptive digital solutions for the prevention and comprehensive management of frailty to encourage independent living, wellbeing and to relieve health and care services budget pressure.

The project will procure the development, testing and implementation of digital tools/services and communication concepts to facilitate the transition to integrated care models across health and social services.

4 procurers are involved with €3,920,000 available for procurement.

### Market Consultation

- **Objective:** actively approach to the market to find out about the state of the art and current development in the related sector.
- **Phases:** Call for tenders (March 2021 – April 2021), 1- solution design - 6 months (July 2021 – December 2021), 2- Prototype development – 10 months (March 2022 – December 2022), 3- operational validation – 12 months (March 2023 – February 2024).

### Coordinator



### Buyers Consortium

- Azienda Sanitaria Locale Benevento
- A. Falkiewicz Specialist Hospital in Wrocław
- Misericordia of Amadora

### Type of public procurement innovation

PCP

PPI

### More information

<https://ecare-pcp.eu>



**Digital solutions for  
frailty prevention in  
old adults**



## 9 Marketplace for the construction life cycle

### Challenge

The City of Vienna is looking for an exchange with companies who want to launch and operate a Europe-wide marketplace or a platform for RE-USE in construction and materials management as a self-sustaining business model.

The City of Vienna would like to get to know viable concepts (business cases) through the challenge and then enter into a partnership to support implementation.

### Market Consultation

**Goals:** create a model that is accepted by the market and is self-supporting. Central functions and aspects of the marketplace “circular construction industry” from the perspective of the city of Vienna:

1. Actors from the construction sector can advertise and sell their relevant services and products.
2. Released secondary materials and requirements come together according to spatial and temporal aspects.

[Return to the table of contents](#)

Coordinator



### Type of public procurement innovation

PCP

PPI

### More information

<https://www.ioeb-innovationsplattform.at/challenges/detail/von-der-planung-bis-zum-abriss-den-baukreislauf-neu-organisieren/>



# Open Tenders

- Mr. Eduard Soler Alonso, Parc Taulí Research&Innovation Institute, Spain
- Mr. Hiroyuki Suzuki, Advanced Telecommunications Research Institute International, Japan
- Mr. Jaime Garzón, EPMAPS Agua de Quito, Ecuador / Ms. Gabriela Maldonado, EPMAPS Agua de Quito, Ecuador
- Ms. Beatriz Casado, Instituto para la Competitividad Empresarial de Castilla y León, Spain / Mr. Antonio Sepúlveda, Spanish National Cybersecurity Institute, Spain

# 10 Transformation of the hospital emergency care through innovative digital solutions

## Challenge

The Consorci Corporació Sanitària Parc Taulí (CCSPT) expects to launch a tender with the aim of improving the support for patients that are in the emergency area with less severity. Therefore, they expect to build up an Assistance Unit of Advanced Resolution (ARA Unit in spanish) with innovative digital technology.

The new solution will give response to users' necessity by using a more problem-solving approach for the assistance model

## Tender

- **Beneficiaries:** any type of innovation supplier as long as it provides with the desired solution.
- **Requirements:** feasible technical and financially, improves innovation and competitiveness, scalable to other regions of Catalonia/Spain, increases efficiency and reduces costs in hospital processes.

Coordinator



## Type of public procurement innovation

PCP

PPI

## More information

[https://contractaciopublica.gencat.cat/ecofin\\_pscp/AppJava/notice\\_pscp?reqCode=viewCtn&idDoc=53044530&lawType=](https://contractaciopublica.gencat.cat/ecofin_pscp/AppJava/notice_pscp?reqCode=viewCtn&idDoc=53044530&lawType=)



# 11 Global Open Innovation Ecosystem in Keihanna Science City - ideal access to the Japanese market and tech-society via PoCs

## Challenge

We provide global startups and SMEs with an ideal access to the Japanese market and tech-society via PoCs conducted on our global open innovation platforms such as acceleration and project creation support programs.

These programs are carried out in collaboration with our global innovation partners in Barcelona (Barcelona Activa), Israel (Israel Innovation Authority), New York (Entrepreneurs Roundtable Accelerator), Canada (National Research Council of Canada) and India (Confederation of Indian Industry), together with Japanese industries, financial sectors, hospitals, local governments as well as local residents in Keihanna Science City.

## Tender

- **Beneficiaries:** Startups and SMEs interested in the Japanese market and tech-society.
- **Consortium:** Accelerator, Incubator, R&D sectors.
- **Goals:** construction of the global open innovation ecosystem in Keihanna Science City, in which the city is acting as a hub to connect global startups and SMEs with our global partners two dimensionally as well as the Japanese market and tech-society.

Coordinator



## Buyers Consortium

Japanese Government

## Type of public procurement innovation

PCP

PPI

## More information

<https://keihanna-rc.jp/en>



## 12 Using disruptive innovation to reduce leakage in Water Distribution Network to Zero

### Challenge

EPMAPS aims to identify, repair and reduce minimal leaks in water distribution network pipe system. We are seeking innovative solutions to detect leaks, using new techniques to demonstrate an effective way for water utilities to save thousands of dollars in lost revenue.

We are looking for new technologies that will provide convincing water leaks, but will not saving up replace the current methods (acoustic methods). The solution will help save money and effort to plug leaks.

The Innovative development should be useful to a topography such as that of the Metropolitan District of Quito.

### Tender

- **Goals:** reduce volume of water losses to help conserve one of our most precious resources, improve the Nonrevenue water index, select the best leak test method like an economic decision that balances the cost of meeting the leak test specifications within the conditions and requirements of production.
- **Consortium:** Other entities in charge of drinking water in the country.

[Return to the table of contents](#)

Coordinator



### Buyers Consortium

Banco Interamericano de Desarrollo

### Type of public procurement innovation

PCP

PPI

### More information

<https://www.aguaquito.gob.ec/>





## 13 Purchase of cybersecurity solutions: 2nd Challenge- Identification of services hidden in the TOR network not indexed by public sources

### Challenge

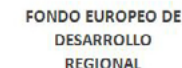
R&D services must address this challenge: Development of a technological solution that allows the identification of new services hidden in TOR that have not been previously identified and that cannot be found in public sources, both in the deep web and on the superficial web. Likewise, innovative solutions will have to be investigated to verify the status of the identified service (active or inactive) at the time of consultation.

Through the development of this new solution, it is intended to discover new illegal services hidden in the TOR network that can be monitored with other systems in order to eliminate them.

### Tender

- **Objective:** purchase research and development services to search for innovative solutions to obtain illegal hidden services in the anonymous TOR network, version 2 and 3, which are not known and have not been indexed by public sources, through the study of techniques and the development of a detection system of these services for their subsequent monitoring.
- **Phases:** 1-“Research” that might have a maximum of 4 contractors and will last for 7 months, 2-“Development” that will last another 6 months, with a maximum of 2 contractors.

### Coordinator



### Buyers Consortium

INCIBE-National Institute of Cybersecurity

### Type of public procurement innovation

PCP

PPI

### More information

<https://empresas.jcyl.es/web/es/idi/consulta-publica-ciberseguridad-html>






# Contact information

If you are interested in any of our future projects, please contact:

Public Procurement for Innovation  
[inint.accio@gencat.cat](mailto:inint.accio@gencat.cat)

Stay connected and get the latest updates and news from ACCIÓ!

 @accio\_cat / @Catalonia\_TI

 [linkedin.com/company/acciocat](https://www.linkedin.com/company/acciocat) / [linkedin.com/company/invest-in-catalonia](https://www.linkedin.com/company/invest-in-catalonia)

## ACCIÓ Worldwide Offices

Accra / Amsterdam / Beijing / Berlin / Bogota / Boston / Brussels / Buenos Aires / Casablanca / Copenhagen / Dubai / Hong Kong / Istanbul / Johannesburg / Lima / London / Mexico City / Miami / Milan / Montreal / Moscow / Mumbai / Nairobi / New Delhi / New York / Panama / Paris / Santiago de Chile / São Paulo / Seoul / Shanghai / Silicon Valley / Singapore / Stuttgart / Sydney / Tel Aviv / Tokyo / Warsaw / Washington DC / Zagreb

# ACCIÓ



**Generalitat de Catalunya**  
Government of Catalonia



*Business Support on Your Doorstep*

