



IOT NETWORK TO MONITOR AND REPORT ON LIFE RINGS FOR EFFICIENT AND EFFECTIVE REPLACEMENT IN DUBLIN AND IRELAND

Example of a two-phase and framework agreement procurement strategy for testing and mini-competitions with multiple vendors and buyers

Dublin City Council (DCC) manages approximately 140 ring buoys in Dublin. These ring buoys are located on the banks of the two canals, the three rivers (Liffey, Tolka and Dodder), in the Docklands area and in the city council beach areas. Unfortunately, approximately 15 of these life rings go missing/are stolen every week. This problem exists across all 31 local authorities area in Ireland with 18 managing coastal water safety and all managing inland water safety. Missing ring buoys are putting people's lives at risk across the world every day.

The innovation challenges are:

- To decrease the number of ring buoys that go missing.
- To reduce the period of time that a ring buoy is missing.
- To lower the level of emissions currently released from the vehicles used by operatives checking the ring buoys.
- To reduce the waste created from ring buoys that have been tampered with and are no longer usable.
- To decrease the bill to the tax-payer of purchasing new ring buoys/rope/housing.

The strategy for the Procurement of Innovative Solutions (PPI) is based on an open procedure with a two-phase approach and framework agreements. The aim is to first test and pilot end-to-end solutions of low-power IoT (Internet of Things) sensors which have not been used for monitoring ring buoys before. The system should be cheaper to manage than standard cellular/SIM solutions which are readily available, and should be entirely battery operated.

The complete innovative solution will consist of a network of low-power, low-cost sensors that will monitor the ring buoys. These sensors will be connected to a platform that will visualize what ring buoys are missing at any time and have the ability to notify Local Authority staff when a ring buoy and/or its rope are taken.

A number of vendors will be selected to trial their solutions for a 12-month period in Dublin and will also receive small financial support during this trial. After this, each solution will be evaluated and only those vendors who are deemed to be successful will be invited to submit a proposal to Phase 2.

Each local authority in Ireland can avail of the framework agreement as they were informed of the process and listed in the tender documentation. Once the 'Phase 1: Testing' is complete they can invite offers from successful vendors and individually agree on a second phase contract for the deployment of the end-to-end solutions. The best offers will win based on best quality-price ratio.

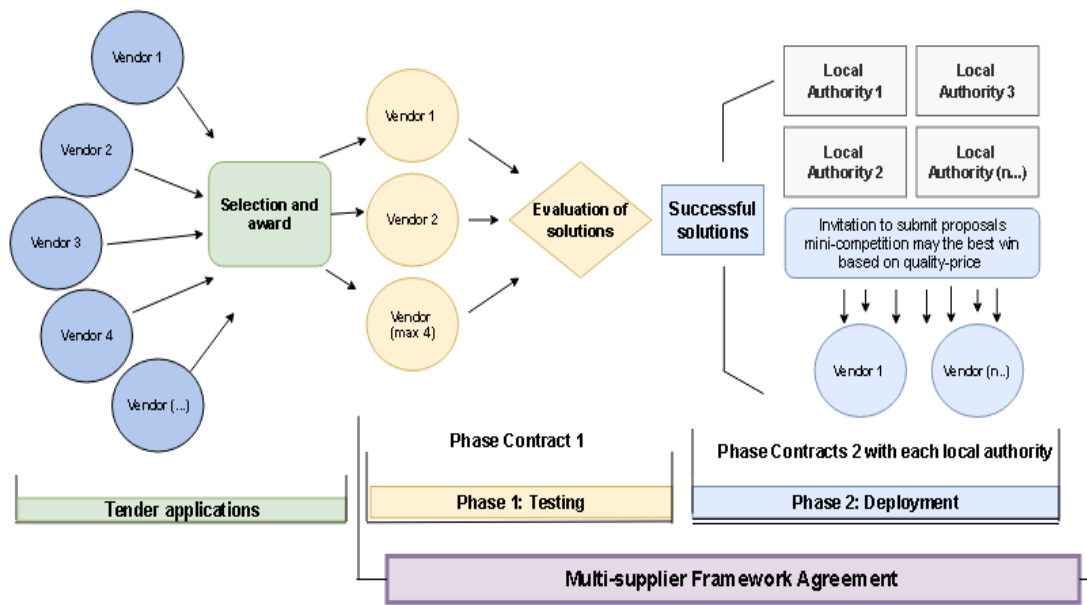


Figure 1. Flowchart of the open procedure with a two-step approach of testing and deployment of successful solutions

Framework agreements have been awarded to 4 suppliers and 23 local authorities can avail of the framework agreements as purchasers.

Source: Dublin's Public Procurement of Innovative Solutions

<http://www.ringbuoys.ie/>

Contract notice:

<https://ted.europa.eu/udl?uri=TED:NOTICE:361503-2020:TEXT:EN:HTML>

Tender documents available here:

https://irl.eu-supply.com/app/rfq/publicpurchase_docs.asp?PID=171198&LID=193051&AllowPrint=1

Contract award notice:

<https://ted.europa.eu/udl?uri=TED:NOTICE:588792-2020:TEXT:EN:HTML&src=0>

<https://irl.eu-supply.com/ctm/Supplier/PublicTenders/ViewNotice/238901>