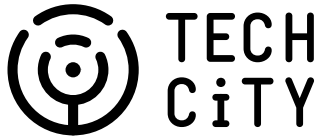




2nd Edition

Aveiro Urban Challenges

Flood's management



Challenge Proposal

Flood's management

Scope of the challenge

The aim of this challenge is to monitor the water level in the urban channels of Aveiro, allowing to predicted the increase of the flow in certain periods, reducing the risk of flooding in the lower areas of the city in extreme situations.

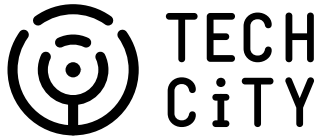
Challenge's development

Technological solutions must be developed in order to be able to respond to the following particularities and technical requirements:

- Monitor water level inside and outside urban channels.
- Determine effluent's flow to the channels.
- Calculate the astronomical tide.
- Estimate the meteorological tide taking into account the predictions about:
 - Variation of atmospheric pressure;
 - Variation of wind speed and direction;
 - Alteration of the flow of the "Vouga" River.

Based on the observed elements and having the technological capacity of calculation and estimates, the solution should respond and advise the following decisions:

- Opening time of each of the locks;
- Closing time of each of the locks;



Challenge Mentorship

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