



# The European Open Ecosystem for Future Internet Experimentation & Innovation

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# Road, Air & Water based Future Internet Experimentation

RAWFIE aims to provide research and experimentation facilities through the growing domain of unmanned networked devices. The project will establish a unique, mixed experimentation environment across the space and technology dimensions by integrating numerous testbeds for experimenting in vehicular (road), aerial and maritime environments. RAWFIE targets to bring EU in the foreground of Future Internet (FI) research and experimentation while facilitating the scientific osmosis between acknowledged IoT research groups with testing infrastructures worldwide.

## How does it work?

The basic idea behind RAWFIE is the automated, remote operation of a large number of robotic devices for assessing the performance of different technologies in networking, sensing and mobile/autonomic application domains. These robotic devices will be:

- Unmanned Ground Vehicles (UGV),
- Unmanned Aerial Vehicles (UAVs) and
- Unmanned Surface Vehicles (USVs).

The devices will be hosted on a testbed that will support the experiment lifecycle with fully detailed, controllable, and replicable conditions. All these items will be managed by a central controlling entity which will be programmed per case and it will fully overview/drive the operation of the respective mechanisms.

- Development of the experimentation suite and tools,
- Definition and implementation of the Experiment Description Language (EDL), and
- The first project demonstration through component integration, during the ICT 2015 event.

## How to get involved?

The consortium of RAWFIE partners will be supplemented through 2 Open Call cycles, with the goal of expanding the infrastructure and allowing a wide spectrum of experiments to be undertaken prior to the RAWFIE self-sustainability, resource autonomy phase. Third parties that will complement the efforts of the RAWFIE consortium through the Open Calls will consist of experimenters providing specific experiment applications, testbed operators and UxV manufacturers. The 1st project Open Call has already been launched.

## Key achievements

The results of the 1st year of the project include:

- Development of the web portal,

## Project Facts

**CALL:** Collaborative Projects Call 1 - ICT11 | **EXECUTION:** From January 2015 to December 2018

**COORDINATOR:** Stathes Hadjiefthymiades (National and Kapodistrian University of Athens)

**PARTNERS:** National and Kapodistrian University of Athens (Greece), Centre Suisse d'électronique et de Microtechnique SA (Switzerland), Intelligence for environment and security solutions (Italy), FRAUNHOFER (Germany), EPSILON (Bulgaria), Hellenic Aerospace Industry (Greece), SAFE (France), Centre for research and technology Hellas (Greece), OCEANSCAN (Portugal), Haute école spécialisée de suisse occidentale (Switzerland), ROBOTNIK automation (Spain), AVIONTEK GMBH (Germany), Ministry of National Defense (Greece)