# Cookbook:
## ideation tools to create successful (smart city) ventures

**IRIS Utrecht**

## FIWARE (Digital) hackathon

### Abstract

A hackathon is an idea-creating event originating from the cybersecurity sector, where companies would ask hackers to expose security leaks for payment. A hackathon is a short and intensive session, which usually lasts 24-hours, during which teams are explained a problem and through the use of some tools like data or basic training, are expected to pitch a solution or idea at the end of the session. Sometimes, parts of the problem, data, or introductory masterclasses are already provided beforehand. In the fall of 2019, FIWARE organized a digital hackathon. Such a hackathon differs from a physical one as information is spread online, and submissions are digitally received. Furthermore, it differs as the time-constraint for 24-hours can be relaxed. In the case of the FIWARE hackathon, both were true; participants received online information and were given several weeks to come up with a solution. The winner of the hackathon was announced at the FIWARE Global Summit in Berlin.

In the hackathon the goal was to use the open source FIWARE technologies, which are open-source tools which aim to aid developers in developing smart solutions. Their technologies could be used for four different aims: 1) the development and long-term sustainability of (but not limited to) European cities, 2) the implementation of innovative systems applied to the Smart Manufacturing sector, 3) the reuse of Open Data in the context of all the vertical domains of the hackathon, and 4) unleashing the innovation potential for the digital transformation of the European Agrifood Sector using FIWARE open source technologies. Participants could win €2.500,- per aim, with the possibility of multiple ideas winning for a single aim and the possibility of an idea winning multiple prizes (if it covered multiple aims). In addition, winners received fully paid attendance to the Smart City Expo World Congress in Barcelona, and a year of free FIWARE technical services as well as a year of free social media promotion through FIWARE's channels.

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**Dish:**
hackathon,
12W preparation + 14W execution,
€10.000

## The Ingredient List



- **Budget**
  - €10.000 prize (flexible)

- **Time**
  **Preparation (minimum of 12 weeks):**
  - Finding and finalizing challenges
  - Tender for incubation program

  **Challenge (14 weeks):**
  - Hackathon launch (29 July)
  - First masterclass: week 7
  - Challenge open for entries: week 8, for 6 weeks
  - Pitches: week 11, 3 days
  - Announcement winner: week 14, 1 day

- **Network**
  **Promotion/distribution partners (to disseminate the call)**
  **Reputation (to motivate participants)**

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- **Resources**
  - **Types of organizations involved**
    - Organization with problem question (FIWARE)
    - Event announcement winner (if chosen)
      - Location
      - Local governance
    - Judge providers
      - Practitioners, experts
  - **Types of roles involved (mentors, organizing team, experts, etc.)**
    - Organizing team
      - Promotional team
    - Judges for selection of ideas
    - Experts for providing webinars
  - **Location(s)**
    - Registration and selection via
      *https://www.fiware.org/summit-berlin/startup-day/hackathon/*
    - Location for final (if chosen)
  - **Terms and conditions**

## The Preparation Method

- **Preparation (= Planning)**

FIWARE is a foundation with a twofold of major roles. First, they provide 'a framework of open source platform components to accelerate the development of smart solutions'. These components should add to FIWARE's mission: 'to build an open sustainable ecosystem around public, royalty-free and implementation-driven software platform standards that will ease the development of new Smart Applications in multiple sectors'. In other words, they develop open source development tools for new smart solutions. Their public API's can for example be used to allow objects to connect to the IoT. Second, the foundation supports a variety of start-up fostering initiatives. The foundation for example hosts a start-up accelerator, and provides guidance to many incubators and other accelerator programs.

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The FIWARE team has an employee specialized in organizing similar events. So far, they have organized around 8 events. Originating from the EU Future Internet Public Private Partnership (FI-PPP), FIWARE is in essence a European organization. Their network is spread all over Europe. As such, the hackathons are not focused on a specific locale and accept international submissions.

First, the team identified four clear aims for applications in the Smart Cities, Smart Manufacturing, Open Data, and Smart Agrifood topics. The aims of the hackathon were:

1. The development and long-term sustainability of (but not limited to) European cities;
2. The implementation of innovative systems applied to the Smart Manufacturing sector;
3. The reuse of Open Data in the context of all the vertical domains of the hackathon.
4. Unleashing the innovation potential for the digital transformation of the European Agrifood Sector using FIWARE open source technologies.



For this particular hackathon, the team set three clear themes – which are provide more structured guidance to participants. In essence, the aims serve a grander strategy, the themes are specific concepts which may help completing the aims. Participants needed to use the open FIWARE data to:

1. Enhance public administration efficiency;
2. Provide user-centered services;
3. Reduce the digital divide.

At times, aims are shaped towards the needs of cooperating stakeholders. Otherwise, they are geared towards specific needs of cities identified by the organization.

Participants then need to provide a new idea which uses the FIWARE data and platform which adheres to one or multiple of these goals. Furthermore, the ideas needed to be relevant for the aforementioned aims in the four specified sectors. Teams registered using an online form. The final deadline for the proposal was on the same date as the first pitches.

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## • Serving instructions (= Event)

On the July 29, 2019, FIWARE launched the FIWARE Hackathon, complete with the aforementioned timeline (ask about postponing deadline, this was mentioned but not specified). Besides monitoring submissions, organizing webinars, and promoting the Hackathon, there is little mid-period organization required.

The jury was announced on the same date as the challenge. The jury is often regarded as one of the most important factors for a Hackathon, as they provide both expertise and legitimacy. For this Hackathon, the jury consisted out of a member of the EC, a project lead manager at EIT Digital, a senior researcher from ATB-Bremen, and the COO of FIWARE.

The deadline for submissions was 15 October 2019 (10:00 CET) – elevator pitches followed between the 15th and the 17th. Pitches were given a maximum of 10 points in total. These 10 points are made up out of a maximum of two points within the following 5 categories; the use of technology, extent of problem solving, quality of the pitch, marketability, and realism. The original registration required a short abstract of the idea and the problem which the idea aims to tackle, an architecture of the solution, a demo/prototype, further plans for final development, and some basic market analysis. The final winner was decided by the jury on the basis of elevator pitches which followed after the registration deadline.

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Winning ideas were then announced during FIWARE's startup day in Berlin, on the October 24, 2019. In total, winners were decided by category, with a total prizepool of €10.000,-. In other words, the best Open Data, Smart Manufacturing, Smart City, and Smart Agrifood ideas could win €2.500,-. As ideas can cover multiple topics, it is also possible to win multiple prizes. If one category had a multitude of good proposals, multiple winners are also possible. This happened during this Hackathon; 3 ideas won €2.500,-. Next to the financial incentive, winners receive fully paid attendance to the FIWARE world summit in Barcelona, a year of free technical services on the FIWARE platform, and a year of free social media promotion through the FIWARE channels.

Lastly, much of the organizational work was put into two additional factors. First, FIWARE organizes a weekly webinar series at the start, during which experts provide lectures on certain specific topic. These webinars delve both into conceptualizations and coding options. Second, much time was spent on promotion. The event was promoted though official press releases, Eventbrite, social media accounts, and members of the FIWARE community. Next to contacting personal contact Eventbrite was identified as the most time/cost-efficient promotion technique.

- **Review (= Evaluation)**

  ▶ There is significant flexibility in this form of Hackathon, especially with regards to costs (next to an incentive, most of the costs are optional);

  ▶ Promotion is key and works significantly better if there is a decent reputation and network;

  ▶ The webinars aid teams by making sure their proposals better suit what is expected;

  ▶ Hackathons become increasingly easy to organize (and promote) as the organization becomes more experienced, making them suitable for repetition (e.g. annual);

  ▶ (Digital) Hackathons are not very dependent on third parties and may function well in logisticaly constrained situations;

  ▶ In the current set-up, a digital Hackathon is similar (but more hands-off) than a challenge;

  ▶ Guiding the idea to become more than just an idea is difficult, even when this is is taken into account by the organizer.

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