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## THE FABSPACE 2.0 PROJECT FOR GEODATA-DRIVEN INNOVATION

Now that the Galileo and Copernicus satellite programmes are entering their operational phase, innovation possibilities in the field of satellite data driven applications are getting wider. Thanks to these two massive investments in technology, European and worldwide companies are starting to benefit from increasing, regular and cheaper (not to say free of charge) data flows, which could lead to the development of new and innovative applications and services in an incredibly vast range of markets, including non-space markets [1]. The exploitation of satellite data, as well as open data (from public authorities in particular) has the potential to generate a lot of innovative solutions. In this context the FabSpace 2.0 project aims at putting the Universities at the front line for the take-off of Earth Observation based applications in Europe and worldwide. This can be pursued by hosting and animating open places dedicated to space and geodata-driven innovation where young developers from the civil society, experienced developers from industry or academic and research institutes, public administrations as well as civil organizations can meet, work together and co-create new tools and business models. They can create an ecosystem fitting (and developed according to) the particularities of geodata-driven innovation, in particular for the emergence of Space data downstream services. In this innovative environment, innovation is driven by the needs of users through the involvement of civil society in the innovation process and in the definition of new challenges. Moreover the actors making innovation will be anonymous civilians (students and researchers in particular) and will thus be at the same time developers and end-users of the applications they develop. That is why the FabSpace 2.0 project is expected to improve the capacity of Universities to generate more innovations and generate positive socio-economic impacts. All partner universities are centers of excellence in research in the field of geomatics and space based information. They are not only offering a highly-qualified human capital likely to generate innovation, but also providing open access to data generated within previous research works. Thus the FabSpace 2.0 project can be a particularly relevant opportunity for research teams to make a step forward towards Science 2.0.

[1] Harris H. and I. Baumann, "Open data policies and satellite Earth observation," *Space Policy*, Vol. 32, May 2015, pp. 44-53

# FABSPACE 2.0: THE OPEN-INNOVATION NETWORK FOR GEODATA-DRIVEN INNOVATION

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## FabSpace 2.0 Team

Under the lead of Univ. Toulouse III - Paul Sabatier



The FabSpace 2.0 project received funding from the European Union's Horizon 2020 research and innovation programme under the grant agreement no. 693210

## PROJECT BACKGROUND

- Now that the Galileo and Copernicus satellite programmes are entering their operational phase, innovation possibilities in the field of satellite data applications are getting huge
- European and worldwide companies are starting to benefit from increasing, regular and free of charge data flows, which could lead to the development of new and innovative applications and services in an incredibly vast range of markets, including non-space markets
- University resources (knowledge, advanced technologies in particular) are a key asset to foster innovation and growth, however they are underexploited



## THE FABLAB FOR GEODATA-DRIVEN INNOVATION

- BY LEVERAGING SPACE DATA IN PARTICULAR,
- IN UNIVERSITIES 2.0 (FABSPACE 2.0)

### FabSpace 2.0 is

- An open-innovation network for geodata-based innovation - by leveraging Space data in particular, in Universities 2.0
- A one-stop shop-access to Space data and a wide range of other data as well as free software and data processing tools to develop new digital applications



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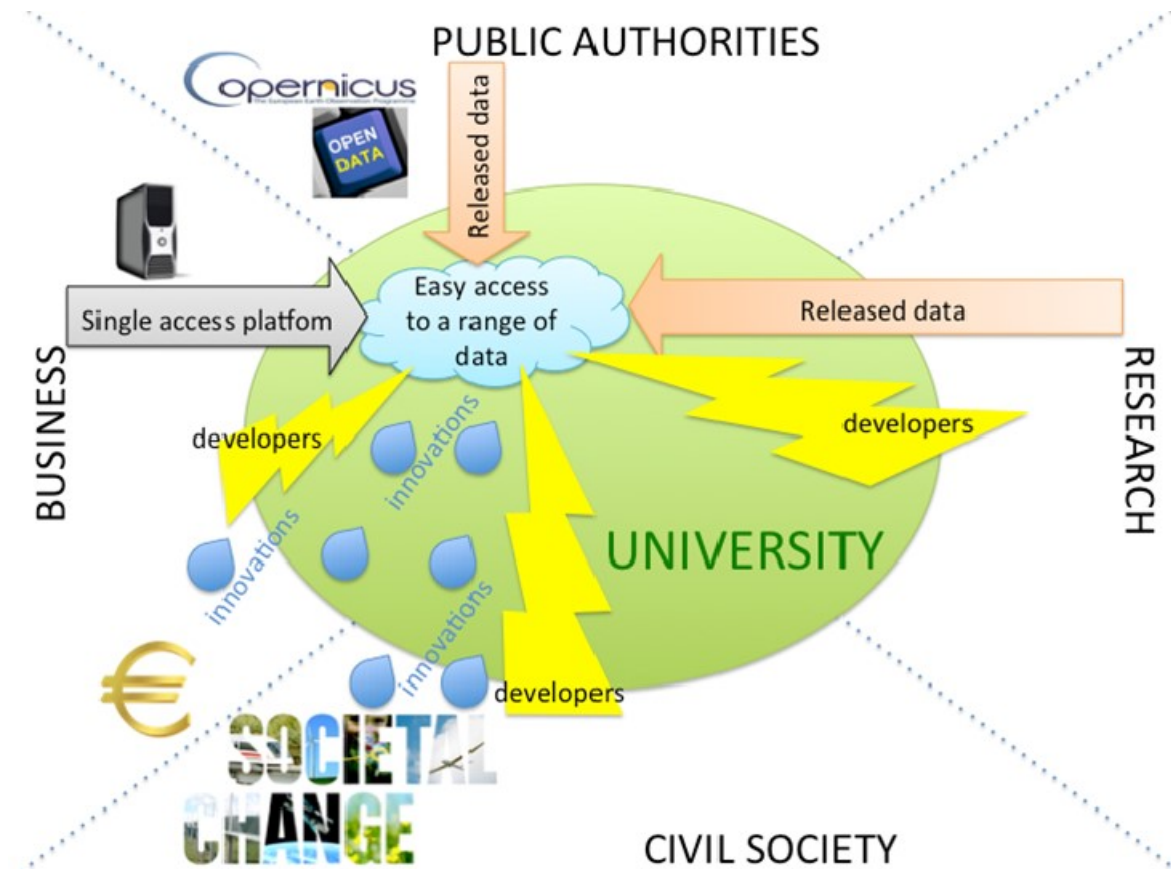
## The FabSpace 2.0 model



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## Overall Objective

Set up and operate at University a free-access place & service where students, researchers and external people can make use of a data platform and design and test their own applications





## Specific Objectives

- Train users to improve their capacity to process data and develop new applications
- Network users and consolidate their needs and industry requirements
- Foster the co-creation of new innovative solutions
- Support further business development
- Exploit, sustain and disseminate the FabSpace concept

First in Europe  
and worldwide



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## Obtained by:

- A data management infrastructure (hardware & software)
- Daily technical support and online support to FabSpace users - Massive Open Online Course (MOOC) aggregator
- Daily FabSpaces animation
- Entrepreneurship-oriented pilot actions & innovation leadership training programmes for researchers
- Space Science shops to collect the needs and the societal challenges of external stakeholders
- Events to tackle the identified challenges
- Bootcamps to mature projects and drive them to the creation of startup





## The FabSpace Shop



### FabSpace

📍 Via del Politecnico, 1  
00133 Roma

#### > ORARI E CONTATTI

- lun-ven 10-18
- solo il primo sabato del mese 10-14

☎ +39 06 72597707

✉ [info@fabspace.uniroma2.it](mailto:info@fabspace.uniroma2.it)



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For the European Commission the Space Science Shop definition is «**a non profit organization bringing together students, researchers and civil society (civil society organizations, public authorities, SMEs, designers, innovators, etc )**, named stakeholders to tackle real life issues and explore opportunities for a sustainable future»

In the Fabspace Project, the scope is to provide support in response to issues of these stakeholders, **offering a demand-driven and bottom-up approach for the Fabspace facility**. As a Space Science Shop these activities are done for free or for a modest sum





(a)



(b)



(c)



(d)



(e)



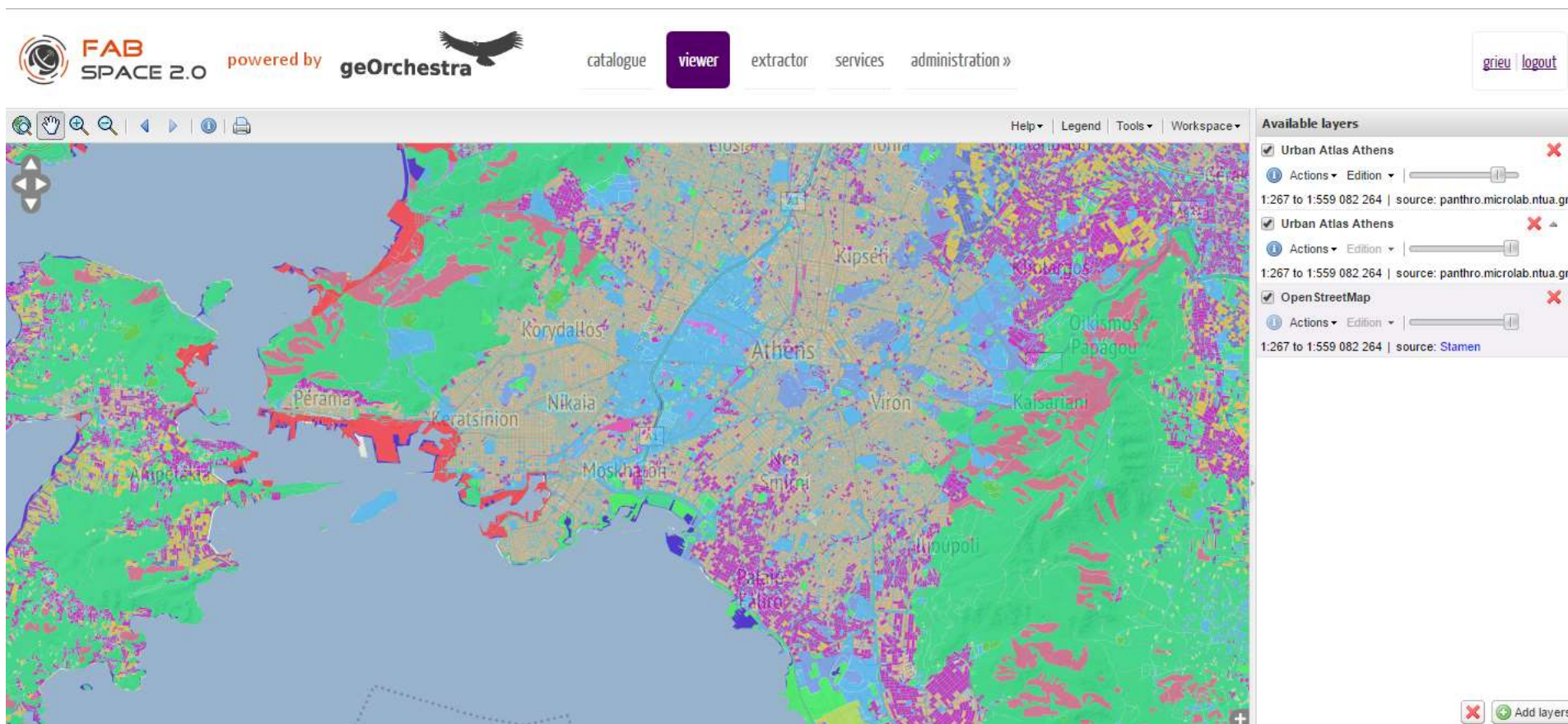
(f)

*Images from each FabSpace platform: a) Belgium, b) France, c) Germany, d) Greece, e) Italy, f) Poland*

The 6 FabSpace are continuously interconnected and share experience and material



Data upload, display, processing, storage, by means of the geOrchestra platform



The screenshot displays the geOrchestra viewer interface. At the top, the FAB SPACE 2.0 logo is on the left, followed by the text "powered by geOrchestra" and a bird icon. Navigation links include "catalogue", "viewer" (highlighted in purple), "extractor", "services", and "administration". On the right, there are "griev" and "logout" buttons. Below the navigation bar is a toolbar with icons for home, pan, zoom, and print. The main map area shows a colorful urban atlas of Athens, with labels for districts like Korydallos, Kipsoti, Kifissos, and others. On the right side, the "Available layers" panel lists three layers: "Urban Atlas Athens" (checked), "Urban Atlas Athens" (checked), and "OpenStreetMap" (checked). Each layer has a legend icon, an "Edition" dropdown, a slider, and a source attribution. At the bottom right, there is a red "X" button and a green "Add layers" button.

# THE OPEN DAYS



Open Day at University of “Tor Vergata” (Italy) –  
About 100 participants



Open Day at ICCS (Greece)  
About 80 participants

**AN INTERNATIONAL COMMUNITY OF NEW POTENTIAL USERS OF EO DATA HAS BEEN CREATED**



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# Training Initiatives (Also integrated in already existing educational programs)



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## Main topics considered for technical sessions

- Understanding the potential of EO data and of EO missions
- The FabSpace 2.0 project and the platform
- Hands on data
- Challenges and Applications
- Start-up Case Histories

## Main topics considered in the business development sessions:

- Better before what is needed rather than I'm able to offer
- Idea generation & time composition
- Design your Business Model Canvas: your company in 1 slide!
- The Business Plan structure
- Financial Pills: basic instructions about the economic and financial aspects of budgeting and control for the management of your enterprise.
- Project Lean Management
- Funding: The start-up fund raising activities for launching your enterprise is in the spotlight.





## CHALLENGES

Space and open data can be useful to respond to issues in a way you may not imagine. FabSpace is a 'science shop' location: external stakeholders can propose and explain some of the issues they face. FabSpace participants (mainly students) will try to solve them thanks to the FabSpace data. We are looking for 'challenges' to feed the FabSpace community. Get in contact with us to submit a 'challenge' to FabSpace 2.0!

### CHALLENGE 1



Title : Fight against hunger thanks to baobab trees

FabSpace : Helbert Arenas -  
 Manager : Helbert.Arenas@irit.fr

[Join challenge](#)

### CHALLENGE 2



Title : Provide info to Farmers in a Simplified Way

FabSpace : Iosif Paraskevas /  
 Manager : Charalampos Marantos

[Join challenge](#)

## UPCOMING EVENTS

< 2017 >  
 March

List

- 02 Fabspace 2.0 Open Days: GREE  
 All day  
 2017-03-02
- 08 Fabspace 2.0 OpenDays: GREE  
 06:14  
 2017-03-08
- 09 FabSpace 2.0 Open Days: ITAL  
 All day  
 2017-03-09

1 2 ...



TACKLE REAL CHALLENGES BY USING EARTH OBSERVATION TECHNOLOGY

IMPROVE THE PLANNING, OPERATION AND MAINTENANCE OF TRANSPORT INFRASTRUCTURES

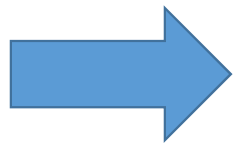
Submit your solution until 30.06.2017



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The ultimate objective of the project is to exploit, sustain and disseminate the FabSpace concept by:

- Demonstrating the financial sustainability of this new university service
- Expanding the concept into new universities in Europe and worldwide
- Creating an international network to consolidate final user needs and industry requirements



**CALL FOR EXPRESSION OF INTEREST LAUNCHED**

We are looking for the best 7 new FabSpaces to go to the next step of the FabSpace initiative (**DEADLINE 30 September**)

Send and email to [fabio.del.frate@uniroma2.it](mailto:fabio.del.frate@uniroma2.it) to receive more info and participate



## What are the benefits for an Organization opening a new FabSpace?

- cooperation with partnering universities and incubators/accelerators in many European countries for new educational curricula and experience;
- use of the free geo-information platform to access open EO and other geo-spatial data;
- access to and cooperation with interdisciplinary project teams creating innovative services and products;
- good practices regarding educational programs and business mentoring;
- innovative application ideas for solving societal challenges with the support of Earth Observation and Geo-Information.





## Acknowledgements

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