

Setting the scene

Vision and Mission



Serge Fdida
Sorbonne Université, France

Past and present, Lessons learned

Building a First Large Internet test Platform



Open-Access Research Testbed for Next-Generation Wireless Networks (ORBIT)



Impact assessment



slicesRI

Planetlab cited in more than 18,000 publications

Google Scholar

planetlab

Articles

Environ 18 000 résultats (0,08 s)

Date indifférente

Depuis 2022

Depuis 2021

Depuis 2018

Période spécifique...

Trier par pertinence

Trier par date

Toutes les langues

Rechercher les pages en Français

Planetlab: an overlay testbed for broad-coverage services
B Chun, D Culler, T Roscoe, A Bavier... - ACM SIGCOMM ..., 2003 - dl.acm.org
... overlay network called **PlanetLab**. Our goal is to grow **PlanetLab** to 1000 geographically ...
This paper describes an early version of **PlanetLab** (Version 0.5 in January 2003), originally ...
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[PDF] **Planetlab architecture: An overview**
L Peterson, S Muir, T Roscoe, A Klingaman - 2006 - cseweb.ucsd.edu
PlanetLab has evolved rapidly over the past three years according to a set of design principles [9], but without formal documentation of its underlying architecture. This document ...
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ORBIT testbed cited in more than 34,000 publications

Google Scholar

orbit testbed

Articles Environ 34 400 résultats (0,08 s)

Date indifférente
Depuis 2022
Depuis 2021
Depuis 2018
Période spécifique...

Trier par pertinence
Trier par date

Toutes les langues
Rechercher les pages en Français

Overview of the **ORBIT** radio grid **testbed** for evaluation of next-generation wireless network protocols
[D Raychaudhuri, I Seskar, M Ott, S Ganu...](#) - IEEE Wireless ..., 2005 - ieeexplore.ieee.org
... The **ORBIT testbed** consists of an indoor radio grid emulator for controlled experimentation and ... The process of specifying and running experiments on the **ORBIT testbed** is explained ...
☆ Enregistrer Citer Cité 756 fois Autres articles Les 21 versions

Orbit testbed software architecture: Supporting experiments as a service
[M Ott, I Seskar, R Siraccusa...](#) - ... Conference on Testbeds ..., 2005 - ieeexplore.ieee.org
... services which will be visible to a user of the **ORBIT testbed**. ... As mentioned in the introduction, the **ORBIT testbed** is a shared ... Specifically, experiments on the **ORBIT testbed** are defined ...
☆ Enregistrer Citer Cité 123 fois Autres articles Les 5 versions

A global initiative towards ICT Test Platforms

- **NSF GENI**
 - 2008-2016
 - 120 M\$
- **NSF TIPOFF**
 - 2017-2020
 - 10 M\$
- **NSF CloudLab & Chameleon**
 - 2013-2018
 - 20 M\$
- **EU FIRE (inc. Fed4Fire)**
 - 2007-2020
 - 200 M€



Directorate General for Communications Networks,
Content & Technology (DG CONNECT)



Fully Controllable, programmable Virtualized Digital Infrastructure Test Platforms



USA NSF PAWR (Platforms for Advanced Wireless Research): NSF + Industry, 100M€, 2017-2022

NSF Fabric: NSF, 20 M€, 2019-2023

Colosseum: NSF-DARPA, 20+7,5M\$, 2017-2025.

BRIDGES: NSF, 2.5M€, 2021-2024



EU Horizon Europe
ICT 17-19-52
2018-2022, x M€



China CENI
Chinese Experimental National Infrastructure
2018-2022
190 M€

Important “competition”



Large Scale Infrastructures as a support to the design and validation of systems

- ACM SigComm scientific publications
- See Facebook Terragraph Lab



Lessons learned

Previous and current generations are successful but however,

- Not recognized
- Not sustainable

Change the narrative

- Federation is not transformative
- Science driven

ESFRI SLICES

- On the ESFRI Roadmap 2021
- New generation





Research Infrastructures as a Scientific Instrument





MAKING SCIENCE HAPPEN

A new ambition for Research Infrastructures in the European Research Area

The European ESFRI framework

European Strategy Forum on Research Infrastructures

<http://www.esfri.eu/>

SLICES in a nutshell

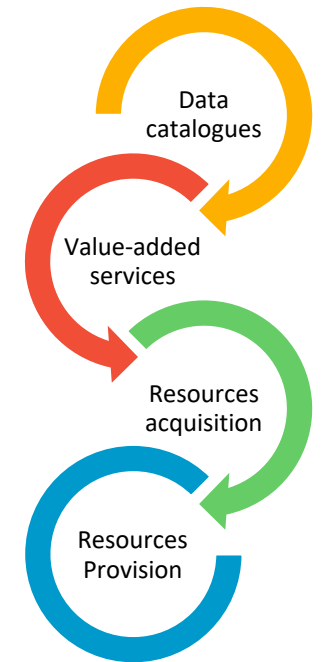
Entered the ESFRI Roadmap 2021



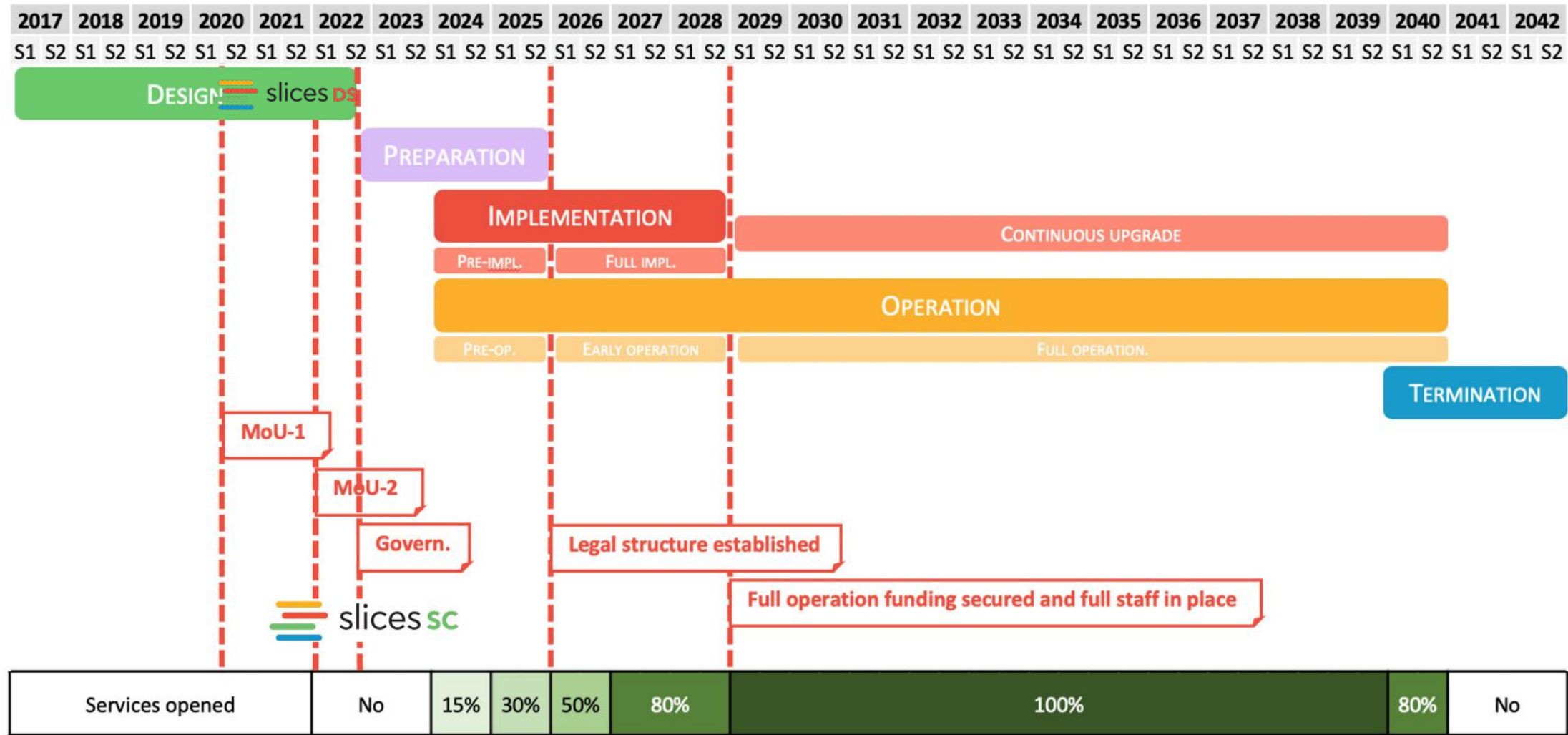
what we offer

- Launched in 2017, **SLICES** is an **RI** to support the **academic and industrial research community** that will design, develop and deploy the **Next Generation of Digital Infrastructures**:
 - **SLICES-RI** is a **distributed RI** providing several **specialized instruments** on challenging research areas of Digital Infrastructures, by **aggregating** networking, computing and storage **resources** across countries, nodes and sites.
 - **Scientific domains**: networking protocols, radio technologies, services, data collection, parallel and distributed computing and in particular cloud and edge-based computing architectures and services.

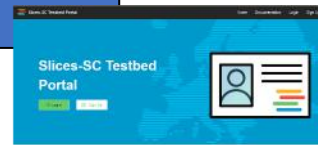
www.slices-ri.eu



SLICES timeline



2012-2022



Current status of the partnership



SLICES
ESFRI successful application – 2020



Countries	Government	Research and Academia		Industry	Clusters, networks and others	NRENs	Worldwide support
	National support	Partners	Support				
	Flemish conditional support + Walloon financial support to a linked project						
	Local support confirmed						

Fully Controllable, programmable Virtualized Digital Global Infrastructure Test Platform



SLICES Full research lifecycle

Open data & Reproducibility



Thanks for your attention

For more information, please
contact:

Serge Fdida
[serge.fdida@sorbonne-
université.fr](mailto:serge.fdida@sorbonne-universite.fr)

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