



# EXPERIMENTING NEXT GENERATION INTERNET TECHNOLOGIES: SUCCESS STORIES, CHALLENGES AND OPPORTUNITIES

**Peter Van Daele**

*imec – Ghent University, IDLab*

**IoT Week 2022**

*Dublin – June 23, 2022*

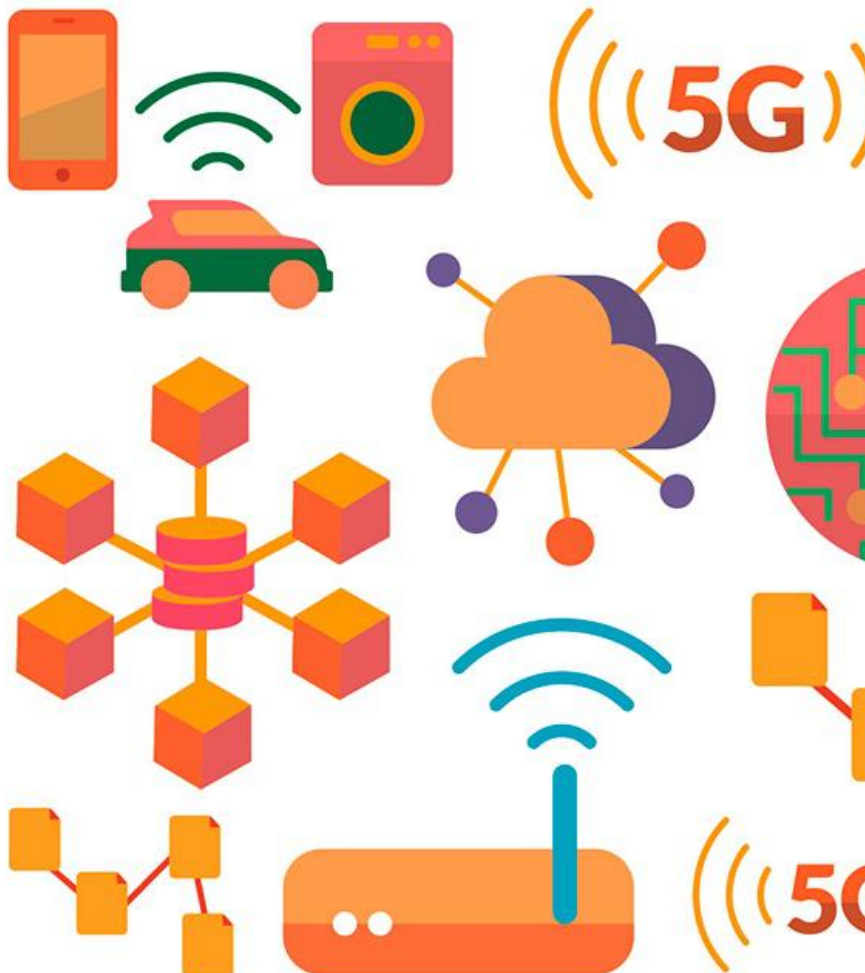
# Some info for today



Please feel free to share your experience on Twitter, via: [@Fed4Fire](https://twitter.com/Fed4Fire) and [@NGI4eu](https://twitter.com/NGI4eu), using [#NGItech](https://twitter.com/hashtag/NGItech)



A promotional poster for a workshop. The top half has a dark red background with white text: "EXPERIMENTING NEXT GENERATION INTERNET TECHNOLOGIES: SUCCESS STORIES, CHALLENGES AND OPPORTUNITIES". Below this, on a lighter red background, it says "Workshop 23 June 2022, 1:45 pm" and "IoT Week Dublin, IE". At the bottom center is the FED4FIRE logo. The right side of the poster features a black background with colorful, abstract geometric shapes and the text "IoTWeek" in a large, multi-colored font.



## Workshop agenda

# Welcome and introduction

13:45-13:55



**Peter Van Daele,**  
*imec – Ghent University, IDLab*



# Setting the scene

13:55-14:05



**Serge Fdida,**  
*Sorbonne University*



# Panel session: Hands-on experiences of federated testbeds

15:05-15:15



**Brecht Vermeulen,**  
*imec – Ghent University, IDLab*

**Cédric Crettaz,**  
*Mandat International*  
*IoT Lab testbed*



**Diarmuid Collins,**  
*CONNECT, Trinity College Dublin*  
*IRIS testbed*

**Blaž Bertalanič,**  
*Jožef Stefan Institute*  
*Log-a TEC testbed*



# Wrap-up and conclusion

15:05-15:15



**Peter Van Daele,**  
*imec – Ghent University, IDLab*





# The Fed4FIRE+ Project



# Objectives

Fed4FIRE+ has the objective to serve the community by:

- offering **low threshold** access to
- **top-quality** experimental facilities
- **federated** into a
- **unique** platform
- supporting a **broad spectrum** of activities in the NGI domain

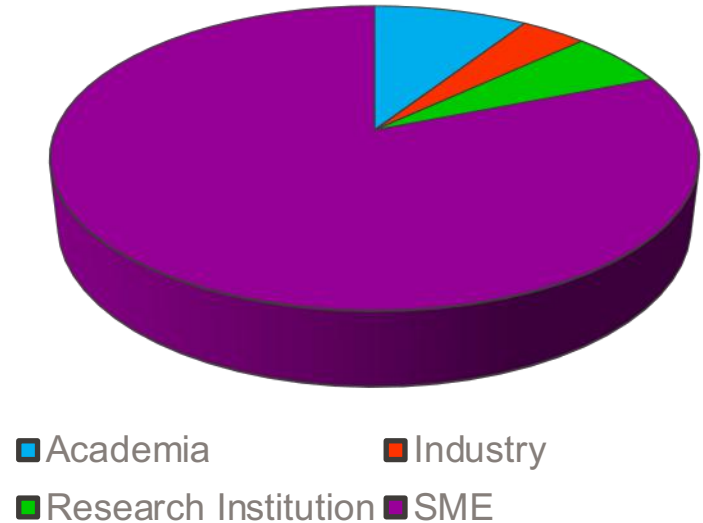


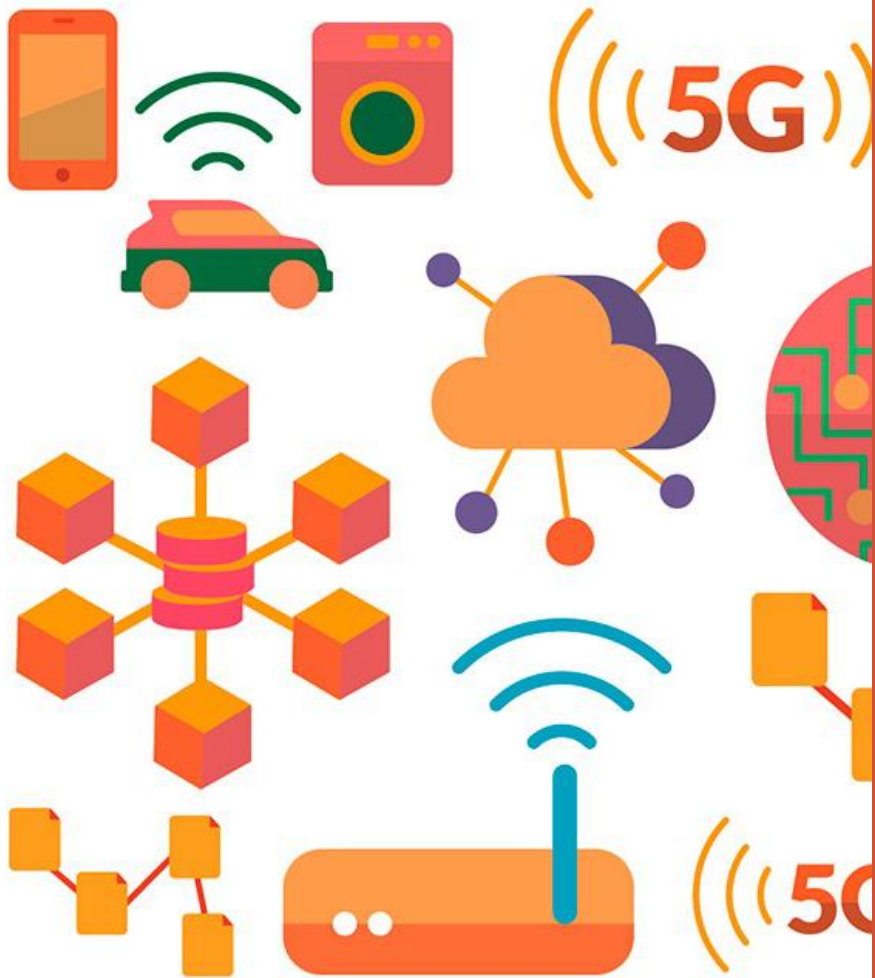
**Our users**

# Low Threshold

- Fed4FIRE+ is accessible through:
  - Open access (no fees)
- Open Calls (financial support)
  - 383 submissions
  - 153 funded

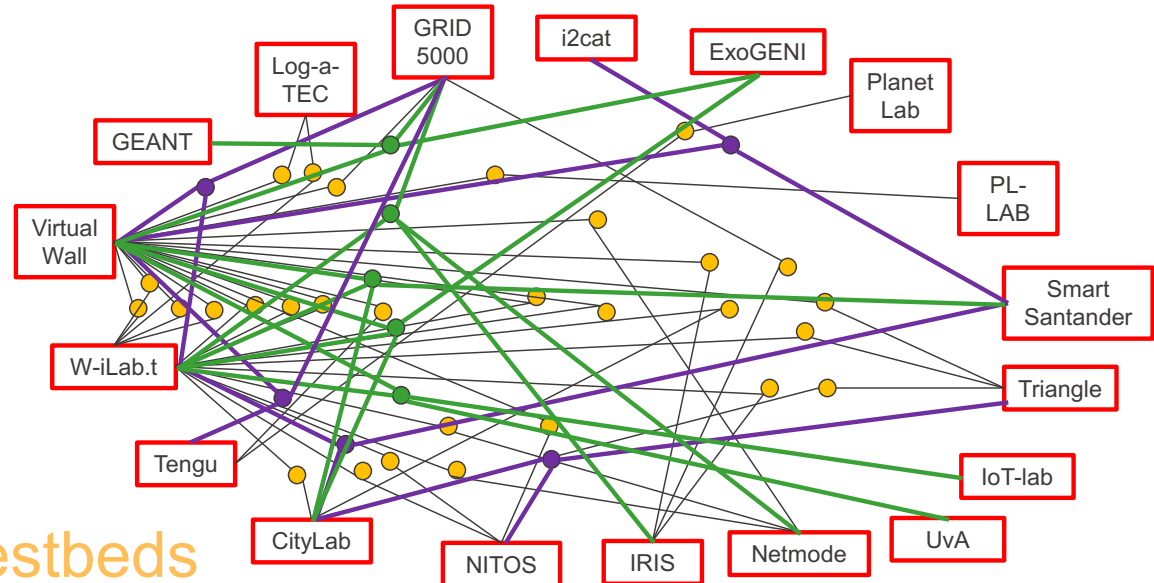
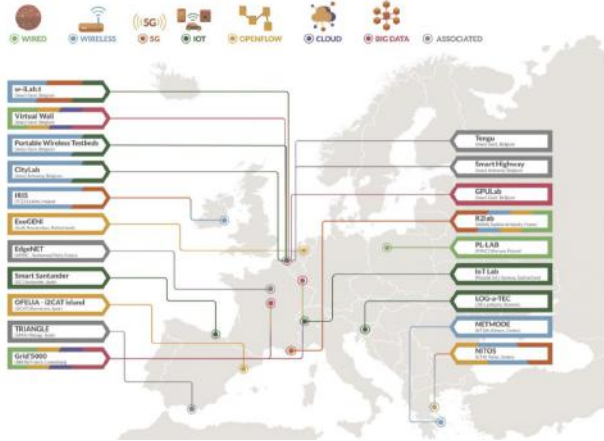
Accepted proposals - all calls





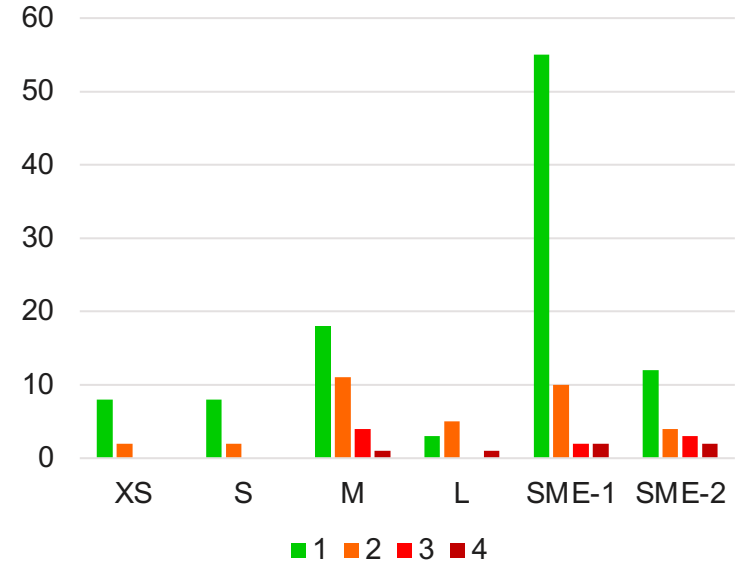
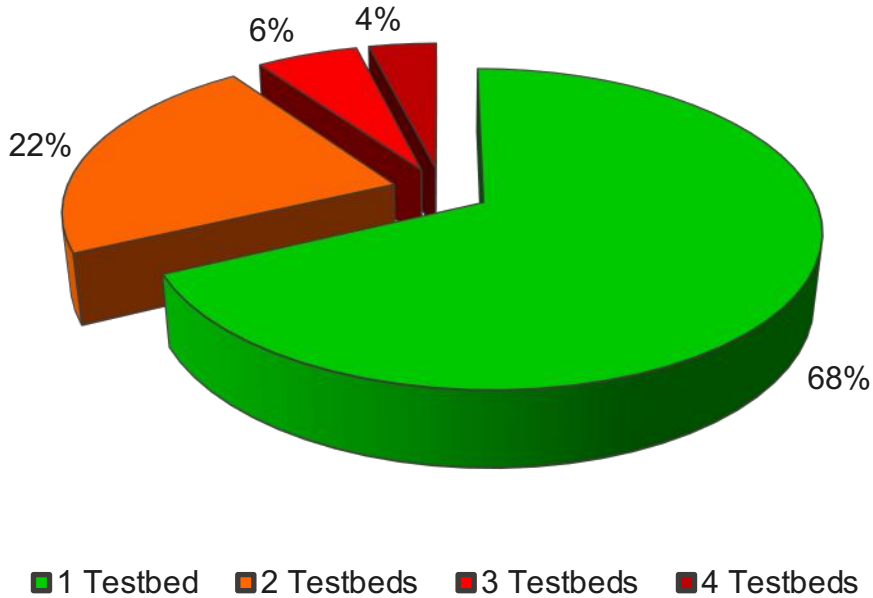
## Fed4FIRE+ Testbeds

# Testbed infrastructure



2 testbeds  
3 testbeds  
4 testbeds

# Federated



# Setting the scene

13:55-14:05



**Serge Fdida,**  
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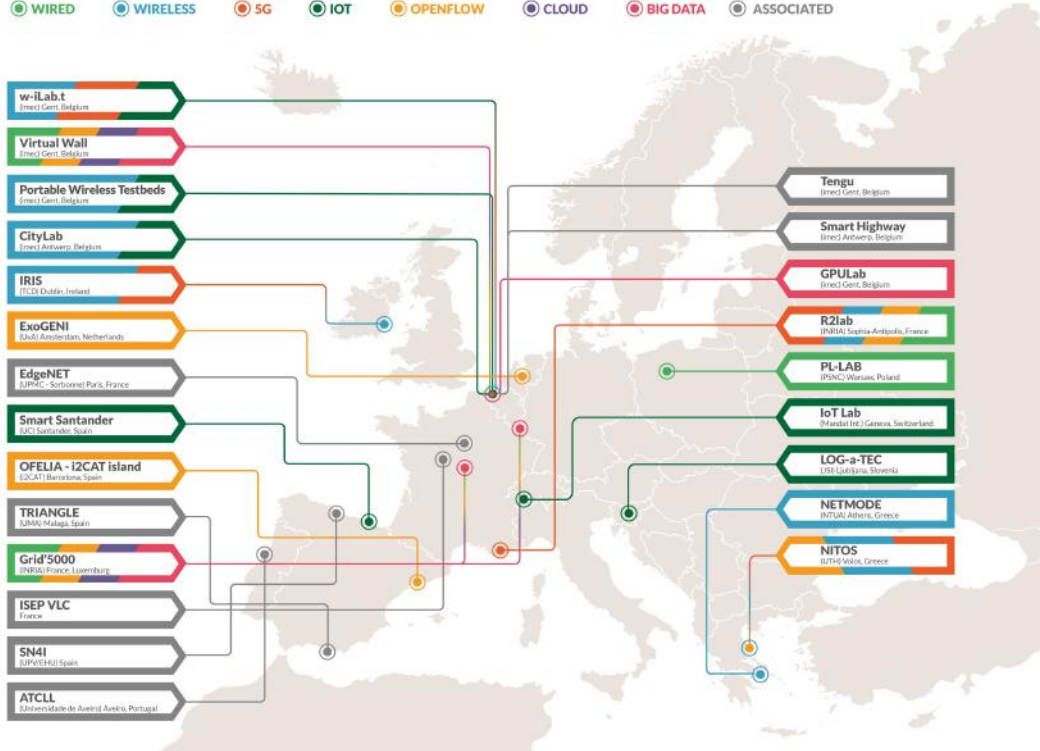
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*Log-a TEC testbed*



# Fed4FIRE+ Testbeds



Fed4FIRE+ offers a plethora of testbeds in multiple technology domains.

You can find and access the testbeds that match your need thanks to the Fed4FIRE Portal.

[portal.fed4fire.eu](http://portal.fed4fire.eu)

# Added value & impact of Fed4FIRE+ for users



- Testing of concept / Upscaling of product / tool
- Move from emulation- and lab-based evaluation to field testing
- Near-real life / realistic environment
- Validation / quality-label / creating trust / demo to customers
- Comparison of equipment / techniques
- Access to real devices
- Vender-neutral
- Show / exhibit expertise / visibility

# Added value & impact of Fed4FIRE+



For Testbed operators:

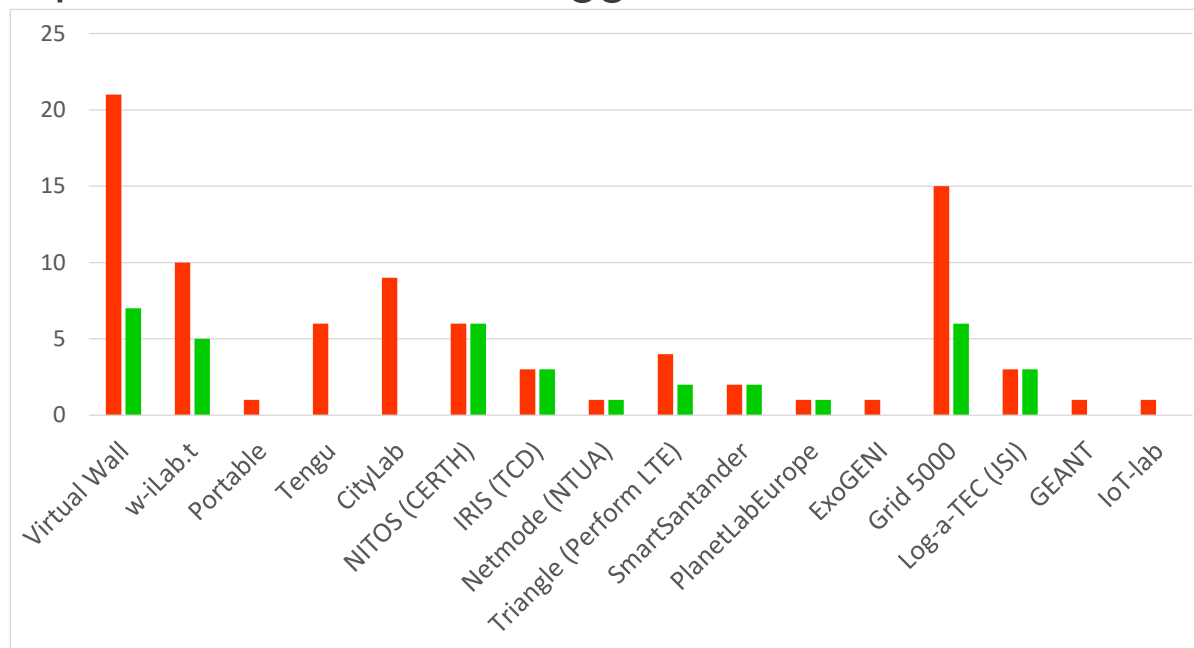
- Improvement of toolset / extension of testbed
- Adding / testing new equipment / features
- Reconsider design choices in testbed
- Adopt to latest trends / requests
- Visibility
- New users / contacts / larger variety of research domains
- Collaboration on worldwide scale (share resources)

# Top quality with improvement based on feedback



Maintained in response to needs

- 36+ experiments out of 85 triggered an action with the testbeds



## Conclusions



- Looking forward to use the federation for further experimentation
- The federation is an **essential tool** for the development of new technologies in the EU
- Need to maintain a **free or low-cost** infrastructure to allow SMEs experiment for new products
- **Expand beyond EU** and recruit testbeds in other continents to allow long distance experiments

**We are proud  
on the comments  
we receive from  
our users!**



Thank You!



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European Union



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**THANKS  
FOR YOUR  
ATTENTION**

[WWW.FED4FIRE.EU](http://WWW.FED4FIRE.EU)