



# Infoshare: Global Platform for Labs (GP4L)

GÉANT GN5-2, WP6T2

GP4L infoshare, virtual

10 February 2025

Public (PU)

GN5-2



# What is GP4L?

The Global Platform for Labs

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WP6T2

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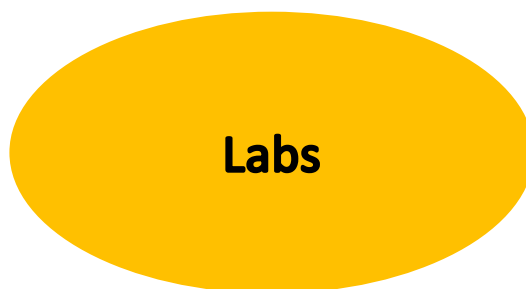
# Agenda

- Short introduction to GP4L
- Components
- Users
- Objectives
- Opportunities

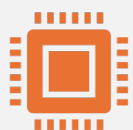
## GÉANT Global Platform for Labs



Dedicated to advancing network transformation by providing a **comprehensive ecosystem for experimentation, innovation, and collaboration** in network programmability and new networking practices.



## GP4L Objectives and Users



### Access to Experimental Facilities

advanced data plane programming facilities to **test innovative and geographically distributed** network experiments



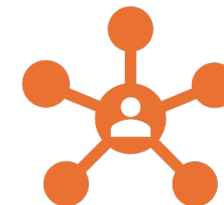
### Enable testing and validation

empower users to **explore and validate various approaches** to network transformation



### Co-Creation of Network Solutions

improve network operational efficiency



### Network Engineers and Managers, NetDevOps Teams

From NRENs or affiliated R&E organizations, interested in conducting advanced network experiments or exploring specific use cases in network transformation



### Research Organizations and Teams

Individuals or groups looking to test and collaborate on innovative network research projects and solutions

# Values



**Network Evolution**



**Real-World Network Experimentation**



**Isolated Test Environment**



**Accessibility**



**Accelerated Research**



**Collaborative Ecosystem**



**Community Building**



**Education**



## GP4L components



01

### GP4L Experimental Testbed

A P4 distributed infrastructure for researchers to run network experiments

### GP4L Playground

Spin up network management containers on top of the testbed

02

03

### Community

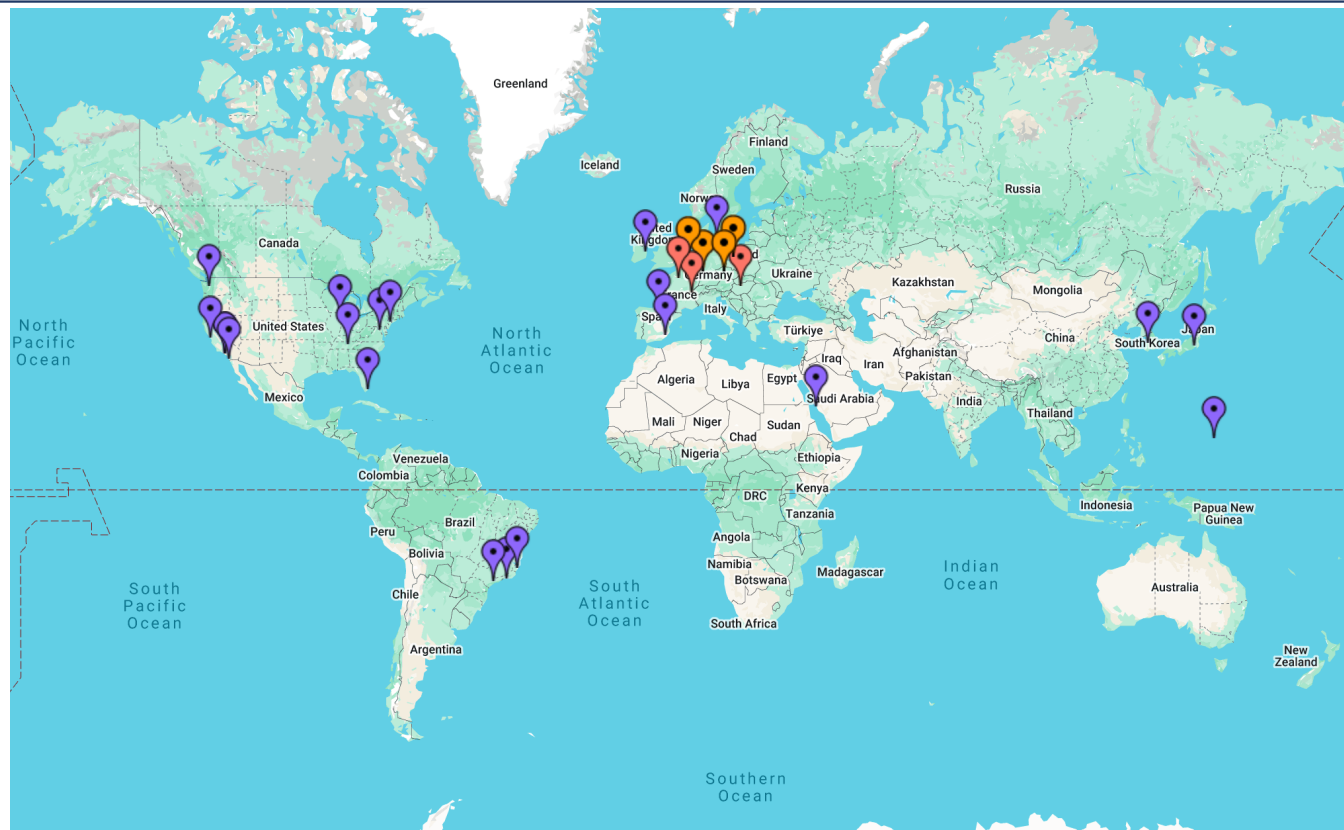
Open discussion, support and collaboration on pilots

- Service Provisioning Pilot for PIONIER

<https://geant-netdev.gitlab-pages.pcss.pl/gp4ldocs/>

# GP4L Experimental Testbed

Part of a large-scale programmable network infrastructure that can be used to run cutting-edge network experiments.

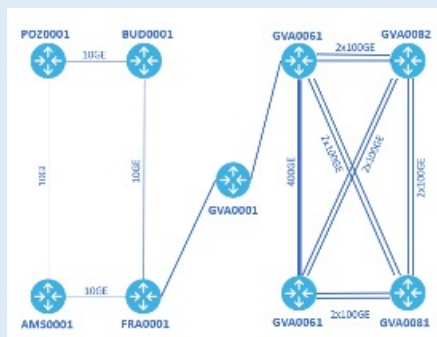





# GÉANT testbed



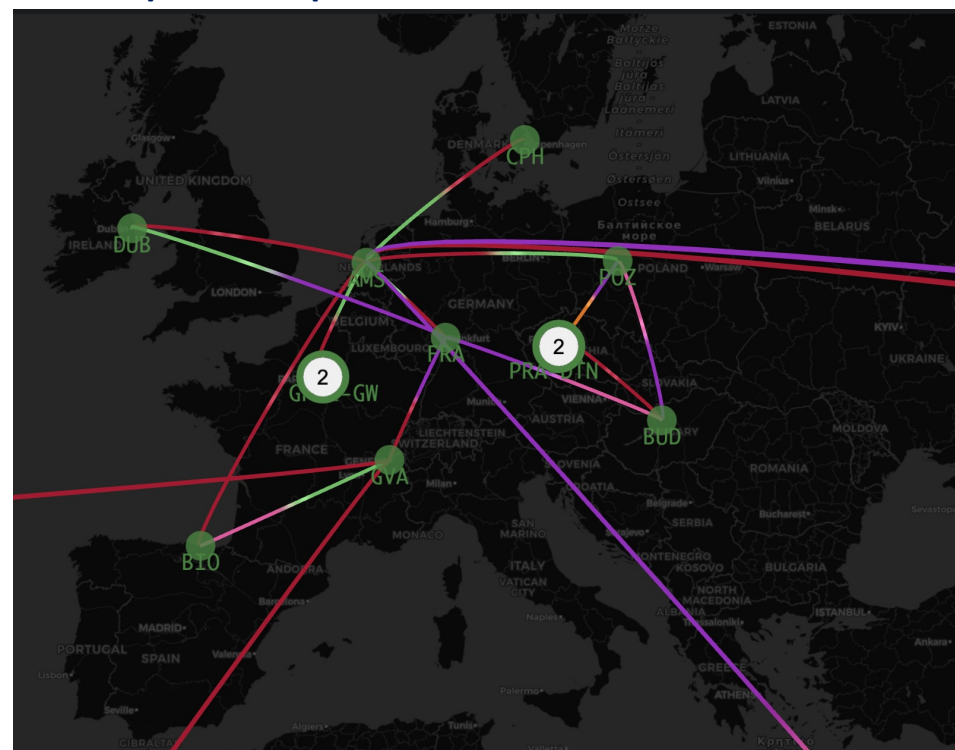
## Physical experimental infrastructure core



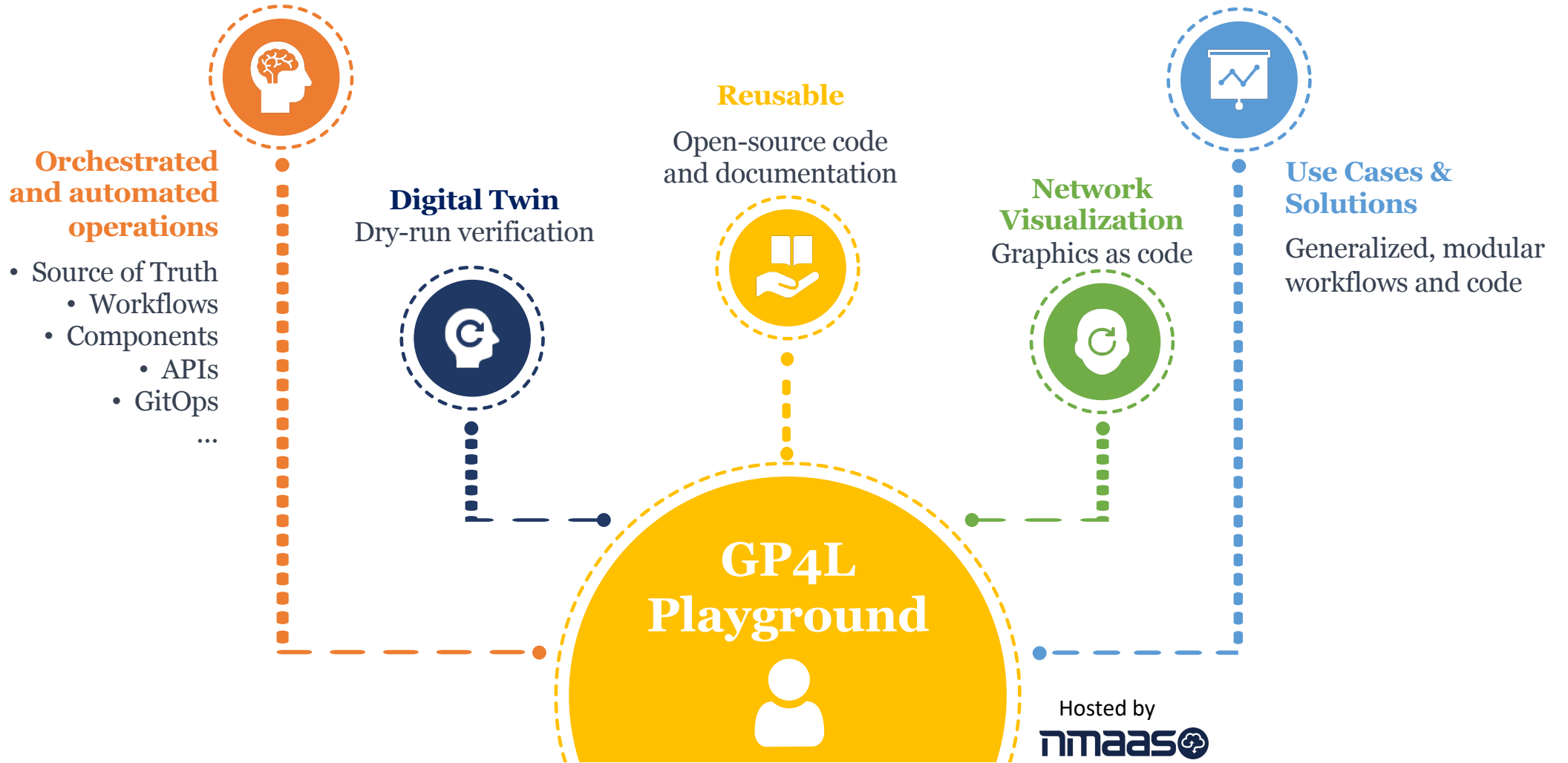
## Labs

- Investigate technologies
- Innovate solutions
- Test network protocols
- Implement NetDevOps principles
- **Virtual sandbox playground powered by nMaas** 

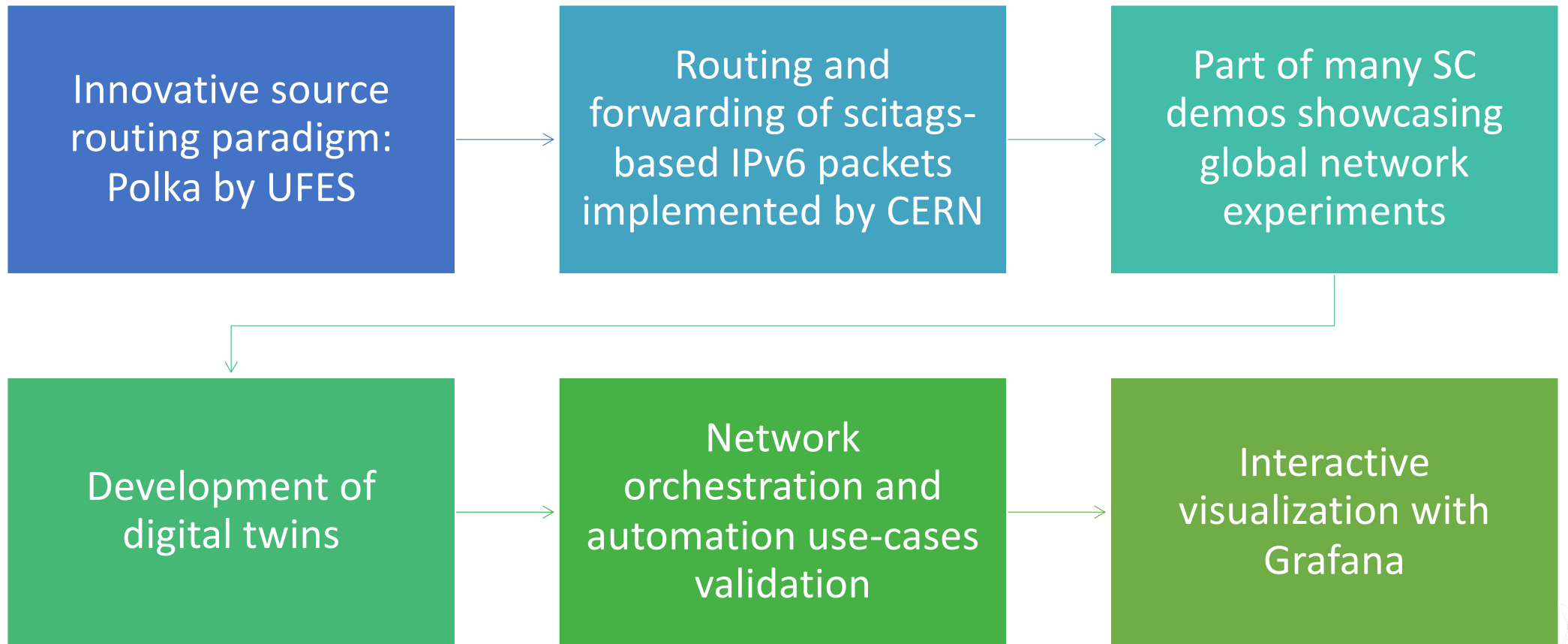
## European footprint



# Labs = The GP4L Playground



## Experiments, Use-cases, Examples



## All GP4L components

Are **free for use**

Open to **anyone** interested

Can be **used independently**

Supported and maintained by WP6T2 in GN5-2

## Interested?



Have an experiment in mind?



Want to test out an idea?



Looking for an infrastructure that offers high data rate transfer?



We invite you to contact us and start to use GP4L



# Thank You

<https://geant-netdev.gitlab-pages.pcss.pl/gp4ldocs/>

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[www.geant.org](http://www.geant.org)



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