



Network Technologies and Services Development

GN4-3 WP6

24 October 2018, SIG-PVM, Manchester

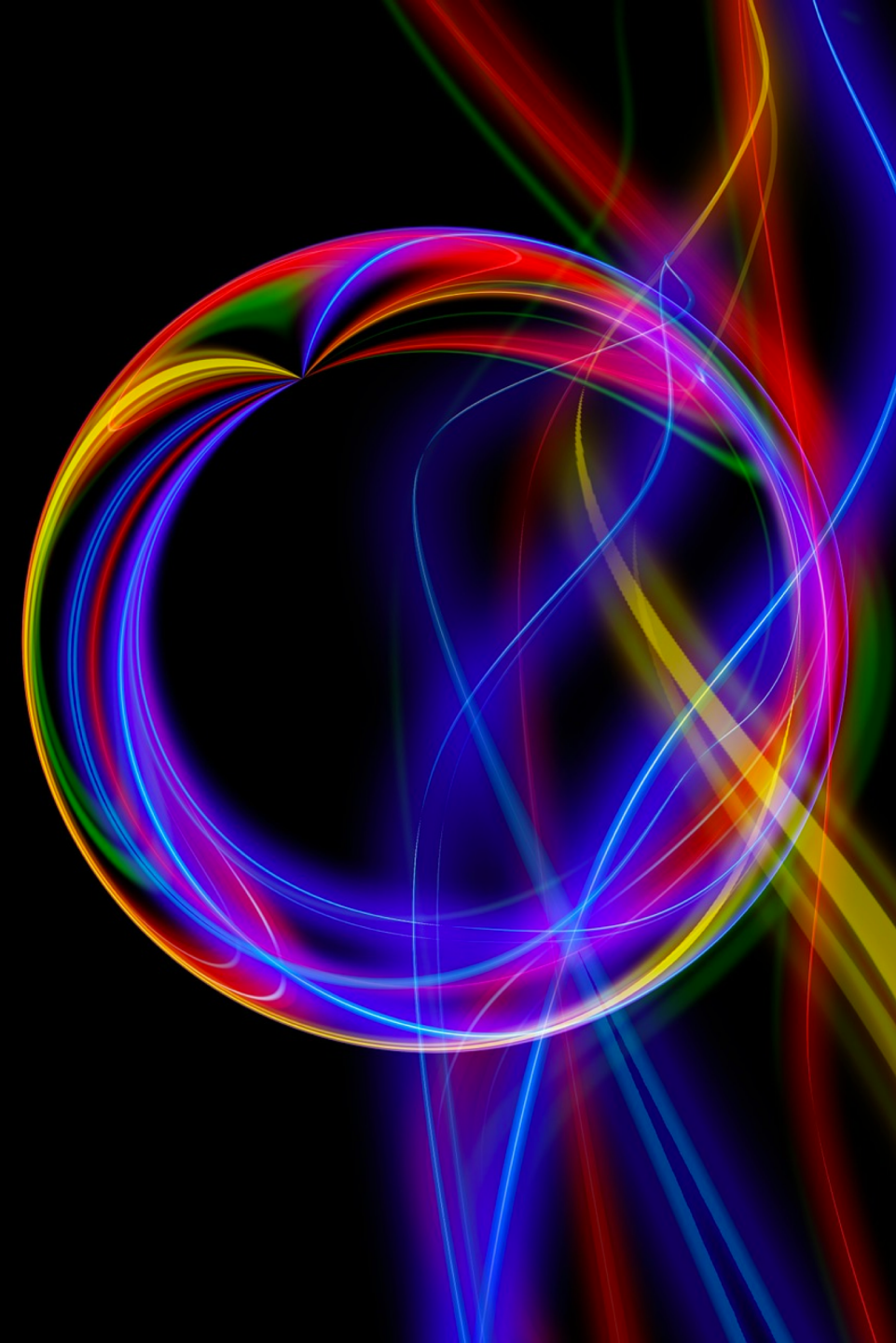
Ivana Golub, PSNC

Tim Chown, JISC

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Agenda

- GÉANT Project Overview
- Network Technologies and Services Development
GN4-3 Work Package



GÉANT Project



- **GÉANT's vision** is to ensure equal network access for all scientists across Europe to the research infrastructures and the e-infrastructure resources available to them.



- A part of the European Union's Horizon 2020 research and innovation programme
 - GÉANT 2020 Framework Partnership Agreement (FPA)



- 40 partners, 500 contributors

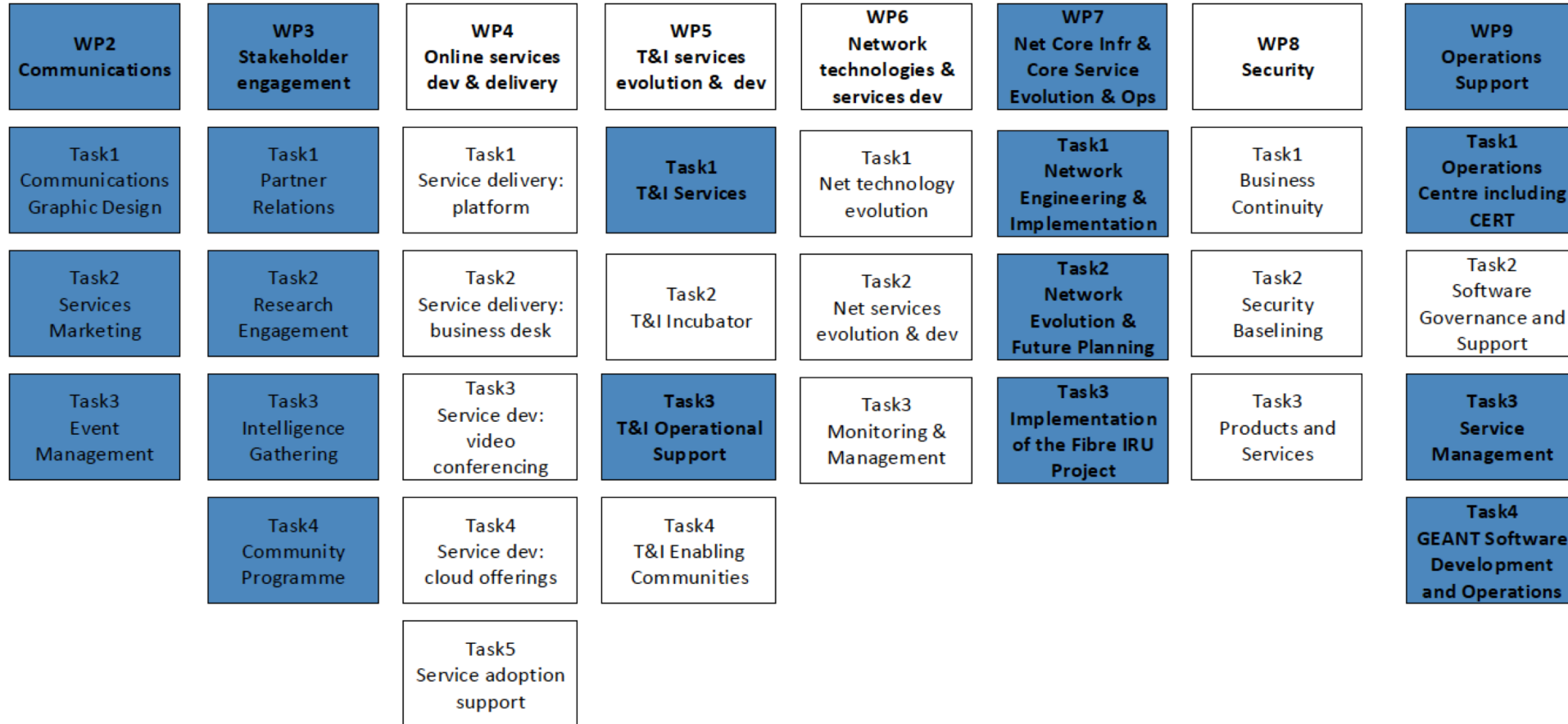


- 50 M users

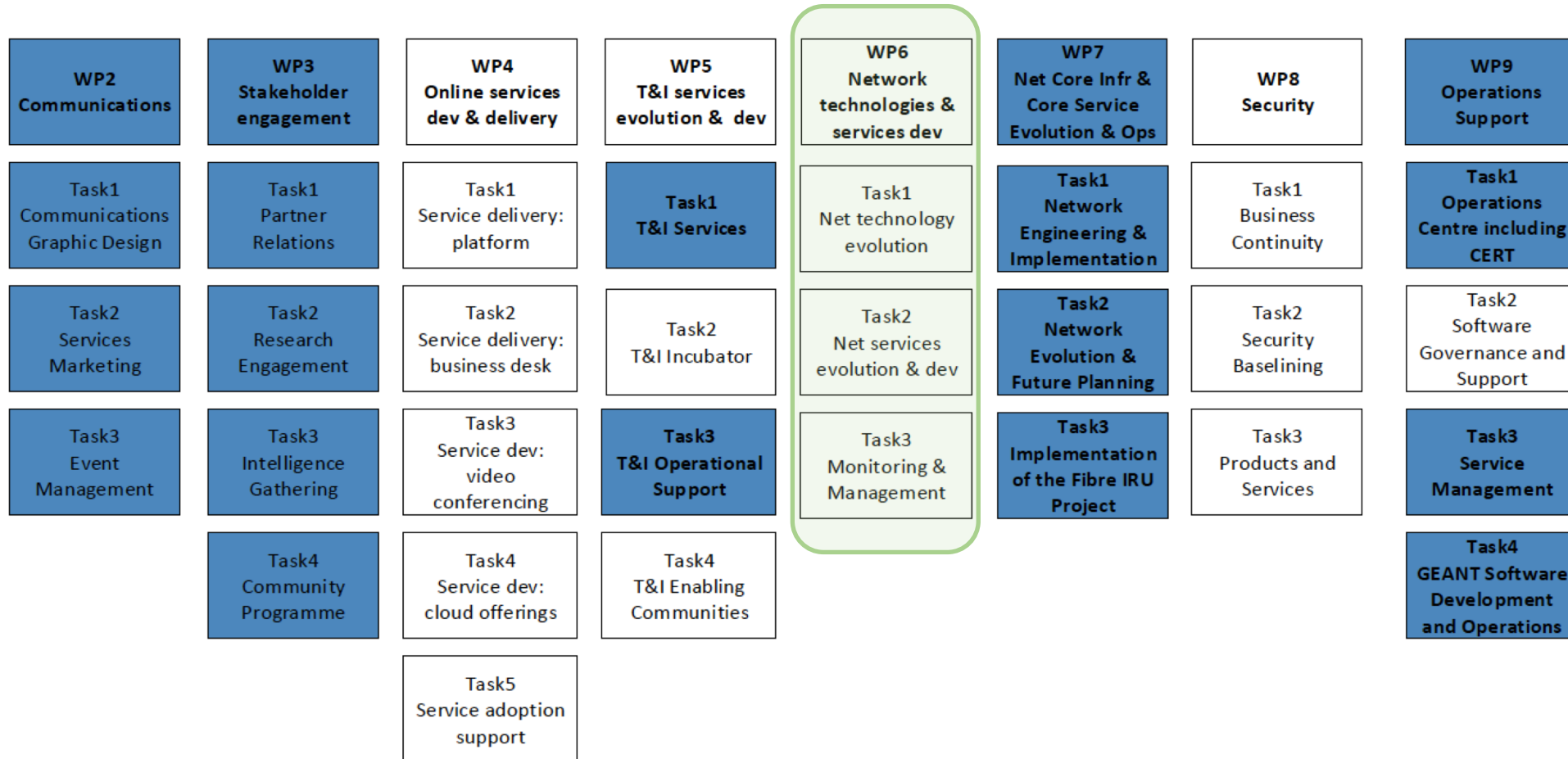


- GN4-3 starts 1 Jan 2019 as 4 year project

GÉANT Project Structure



GÉANT Project Structure



Network Technologies and Services Development Work Package

- Project code - Work Package 6 (WP6)
- WP Leaders:
 - **Tim Chown – Jisc**
 - **Ivana Golub – PSNC**
- WP6 budget: > 6,2 mil EUR
- 33 organisations from 25 countries
- 76 team members

WP6 Structure

- 3 Tasks + Management task (Task 0)
- **Task 1: Network Technology Evolution**
 - Task Leader: **Xavier Jeannin (Renater)**
- **Task 2: Network Services Evolution and Development**
 - Task Leader: **Sonja Filiposka (MARnet)**
- **Task 3: Monitoring and Management**
 - Task Leader: **Pavle Vuletić (UoB/AMRES)**

Task 1: Network Technology Evolution

- **Working with the community** (NRENs, GÉANT partners and operators, interested campuses, etc.) **to build** and maintain a **direction** for new network technology development
- **Identifying** and **prototyping** potential **new technologies**
- Developing successful **prototypes towards a full service**
- Identifying research and/or development activities that could help **enhance production** application services and infrastructure
- Topics:
 - LoLa, White box, OCN, T&FINFRA, QK(D&E), Data plane programmability

Task 2: Network Services Evolution and Development

- **Working with the community** (NRENs, GÉANT partners and operators, interested campuses, etc.) to build and maintain a direction **for new service development**
- Evaluating **existing services** and their usage for particular use cases
- Exploring mechanisms to **orchestrate and automate** the deployment and management of services
- Continuing the work on Service provide architecture (SPA) from GN4-2 JRA2 T2
- Extending and further developing **Service Ordering Portal**
- Identifying opportunities for the deployment of new network services.

Task 3: Monitoring and Management

- **Working with the community** (NRENs, GÉANT partners and operators, interested campuses, etc.) to **build and maintain a direction** for network monitoring and management;
- **Continued development** and evolution of monitoring and management tools:
 - perfSONAR, NMaaS, NetMon, WiFiMon
- **Campus network** monitoring and management

We would like to hear from you

White box

OCN **QK D&E** **DTN**

Data Plane Programmability

Orchestration **Automation**

Virtualisation

perfSONAR **Monitoring**

NMaaS **Performance Monitoring**

NetMon **Telemetry**

Campus Network Management

- What do you have
- What do you use and how
- What would you like to have
- What would you recommend
- What would you (try to) avoid
- ...



Thank you

Any questions?

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