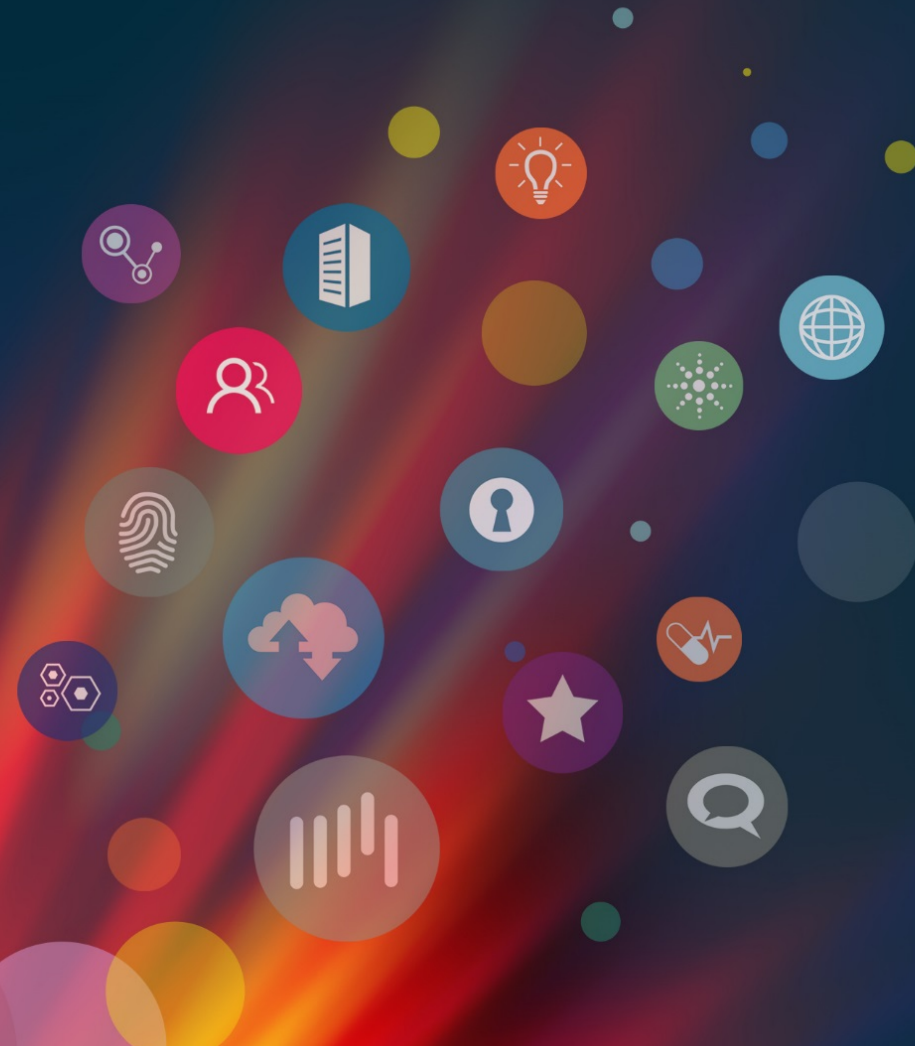# White Paper process
Info-share

Matthew Scott

16 October 2017
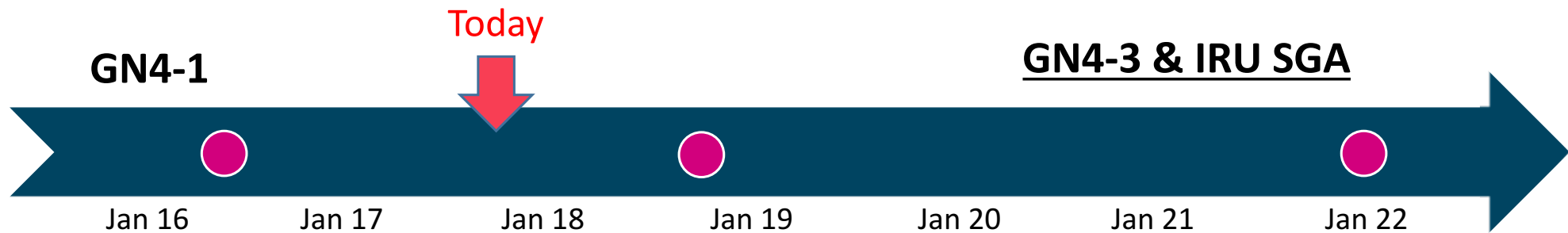
What's in the pipeline after GN4-2?
i.e. 2019 onwards

GN4-2 is the second phase in the 2020 FPA

GÉANT2020 FPA

GN4-1

Today

GN4-3 & IRU SGA

Jan 16   Jan 17   Jan 18   Jan 19   Jan 20   Jan 21   Jan 22

GN4-2

We have 14 more months of GN4-2   **+**   ~4 years of GN4-3 & IRU SGA (2019-2022)
to achieve our FPA objectives

Two (2) GÉANT Framework Partnership Agreement projects, total budget **€128M**

GN4-3

- Operational Services (TRL 8 or above)

- Prototyping of new services (TRL6 or above for the **technologies** we use to develop our services)

- International Cooperation, skills and dissemination
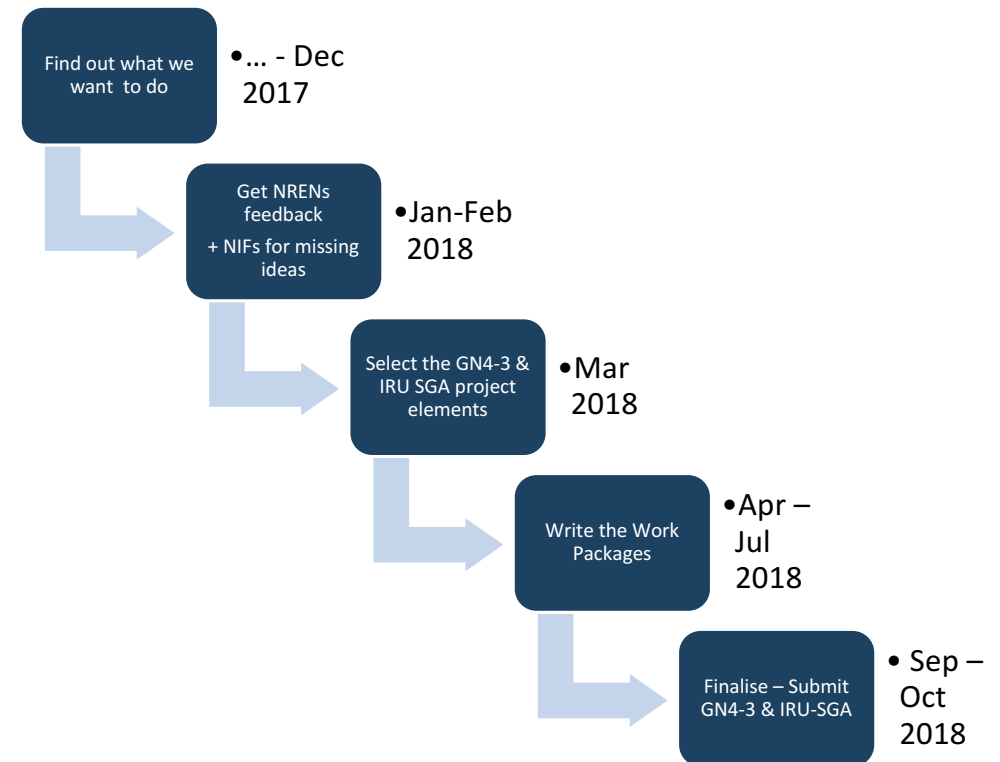
> Total Budget up to **€112M**

IRU SGA

- Procurement of long-term backbone capacity

> Total Budget at least **€16M**

Following phases leading up to GN4-3 & IRU SGA submission

- **White Papers phase (Sep 2017 – Feb 2018)**
  - Write White papers, incorporating input from user requirements gathering using PLM, Quality Control and NRENs' review
    - NRENs will provide feedback to white papers mid Jan 2018 – Feb 2018 + NIFs if something is missing
    - the body of each White Paper will be max 10 pages & that the assessment process will be based on short templates giving a general roadmap, budget and milestones
- **Selection of project elements phase (Mar – Apr 2018)**
  - Assess the contents of the White papers taking into account the feedback from the NRENs, based on NRENs' levels of interest
- **Detailed GN4-3 & IRU SGA Planning, Budgeting & Recruitment phase (May – July 2018)**
- **GN4-3 & IRU SGA Proposal writing & Submission phase (July – September 2018, to be submitted Q3 2018)**

Find out what we want to do
- … - Dec 2017

Get NRENs feedback + NIFs for missing ideas
- Jan-Feb 2018

Select the GN4-3 & IRU SGA project elements
- Mar 2018

Write the Work Packages
- Apr – Jul 2018

Finalise – Submit GN4-3 & IRU-SGA
- Sep – Oct 2018

Topic areas and main editors for initial White paper phase

1. Network

Network Architectures & *Services and Tools* (including global connectivity & multi-domain services/ network monitoring, management and performance verification)

Editors: Shaun Cairns, Ivana Golub, Afrodite Sevasti

2. Security & Privacy

Editors: Sigita Jurkynaite, Alf Moens, Steve Kennett

3. Trust & Identity

Editors: Klaas Wierenga, Ann Harding, Licia Florio, Nicole Harris

4. Application Services and Clouds

Editors: Andres Steijaert, Peter Szegedi

5. General services

Part A: Software development

Editors: Marcin Wolski

Part B: Operations (i.e. general first line support), procurement, PLM, Legal, IPR, Project Management

Editors: Toby Rodwell, Paul Rouse, Marina Adomeit

 6. User, Community, Outreach (incl. open calls, other e-infrastructures) **and Human Capital Development**

Editors: Cathrin Stover, Annabel Grant

Network White Paper High Level Overview

- Network evolution
  - Footprint, Optical layer, Transport Layer, IP Layer and above, Global connectivity, Evaluation and collaboration
  - Outline network planning approach for use of new full cost funding model (IRU SGA)
- Software architecture evolution
  - Management plane, Control plane, Application & Service plane evolution, OSS/BSS, Services and Network Orchestration, Software best practices for an integrated architecture, DevOps
- Operations evolution
  - Automation, Process frameworks, Integrated and consolidated operations, monitoring and performance verification
- Services evolution
  - IP-based services, Connection-oriented services, Big data/science-driven services, Testbed services, Over the top (OTT) services, i.e. GTS, Service interoperation (intra-domain orchestration & inter-provider

Community consultation sessions:
June/July 2017: Network evolution workshops plus November workshop(date tbc) for NREN CTOs to discuss the short, medium and long term vision for the GEANT network.

- *review of the short term plans*
- *discussion on the future scope of the GEANT backbone network, and the significance in terms of cost and capability.*

Security and Privacy White Paper High Level Overview

Main topic areas

- Security Baselining for products, services and organisations

- (Managed) Security products and services

- Legal compliance (including privacy compliance)

- Management of risks

- Training and awareness

- Incident response, business continuity and crisis management

Three virtual community consultation sessions scheduled this month
• 16 October 14:00 – 15:00 https://eventr.geant.org/events/2765
• 25 October 10:00 – 11:00 https://eventr.geant.org/events/2766
• 31 October 10:00 – 11:00 https://eventr.geant.org/events/2767

High-level Areas

- Ongoing Operations:
  - eduGAIN, eduroam, eduPKI & related services
  - From GN4-2 pilots– enhanced support, SIRFTI (security response)

- Service Enhancements:
  - geteduroam, letsradsec, eduGAIN OIDC profile, federation catalogue, SIRTFI query and response testing,

- Service Enhancements above eduGAIN:
  - Ongoing development of eduTEAMS, InAcademia. in advanced pilot & production

- New areas:
  - Improved metadata management (per-entity and ledger (e.g. blockchain) approaches, reputation portal.

Consultation Plans

- *Carried out so far*
  - *Post-it exercise at Symposium.*
  - *RDA workshop*
  - *eduGAIN & eduroam SG calls for ideas*

- *Pending*
  - *Session(s) at Internet2 Technology Exchange.*
  - *AARC Meeting.*
  - *DI4R / FIM4R.*
  - *eduGAIN TownHall / REFEDS meeting. s*

- *Consolidation at T&I leaders meeting.*

- *Final editors meeting (December).*

Cloud and online services white paper, high level overview

GÉANT

- **Deliver the clouds**
    - INTERNAL: national community clouds made available to other NRENs);
    - EXTERNAL: sourcing from commercial suppliers
    - Help the NRENs to deliver services locally in their respective countries.
- **Connect the clouds;** network peerings and IdM (connecting providers using eduGAIN.
- **Control the clouds**
    - Cloud management platforms and marketplaces.
    - Compliance (eg GDPR) and Standardisation (data interoperability and portability)
- **Widen the clouds;** new service offerings
- **Deepen the clouds;** including Machine learning and Artificial Intelligence
- **Educate about clouds:** NREN and GÉANT Cloud competency centres
- **Beyond the clouds;** apply the cloud supply chain model to other IT areas and products, such as: content, hardware and devices
- **Collaborate on clouds**
    - Ensure the GÉANT cloud activity is well positioned inside and outside Europe (incl EOSC and global collaborations

Join one of the following video conferences to continue the cloud outlook discussions

- Wednesday November 1st, from 14:00 to 15:00 CET
- Friday November 3rd, from 14:00 to 15:00 CET

Dial into cloud vc room: http://lifesizecloud.com/2750418

General Services High Level description of future continuing activities

- Software development management
  - analyse the requirements of software development
  - suggest tools and provide guidance that supports software quality and operational management
  - Secure code and quality code audits of services in transition and in production
  - Organisation of secure and quality code trainings
- Operations
  - Operations Centre, Operational Support Systems for:
    - GTS, eduroam, eduCONF, EUMETSAT, VM, PERT, Expanded T&I…
- Service Management
  - Bespoke service support, Service Design, Service Transition, Reporting and Continual Service Improvement,
  - Next Generation Architecture support, New Ticket System, New CRM Integration,
  - Operational Support System Improvements,
  - GWS and Peering Unification
- Procurement, Legal, Product Management, Governance and Project Management

- Stakeholder Outreach and Engagement
    - User
    - E-infrastructures
    - NRENs and Community
        - Account Management to European NRENs
        - Support to Community
            - GCC, SIGs/TFs
            - Development of GEANT Community innovation channel, fostering innovation, from idea to service, develop a strategy towards business, SMEs
        - Global Partnerships
    - Human Capital Development
        - Addressing the digital divide
            - Skills gap analysis and address
            - Learning and development for GEANT all hands
            - Training on GEANT services and products
        - Measures to prevent the brain drain to private sector
    - Marketing Comms and Events
    - EU Relations

General Assembly involvement in the GN4-3 & IRU SGA planning process

- **October 2017: Info-share to explain the white paper process**

- **November GA 2017:** Information about white paper progress and GN4-2 review.

- *Jan-Feb review of white papers by NRENS*

- **March GA2018**: Information about white paper assessment by NRENs.

- **June GA 2018:** Information about the work package (activity) structure. Approve the recruitment process.

- **End September 2018 (extra VC/F2F?):** Approve GN4-3 & IRU SGA proposal

Note: Additional update/ info-share video conferences also likely in 2018.

Thank you
Any Questions?

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