



# Horizon of possibilities

Grazyna PIESIEWICZ

Head of Unit - Open Science and Digital Modelling (CNECT.C1)

*GÉANT Project Symposium*

*13 December 2023  
Montpellier, France*

# Agenda

- Our past successful collaboration
- To the community, by the community
- Outlook beyond the horizon
- Responsible for the future
  
- Questions and answers



# Our past successful collaboration

**GÉANT is well positioned at the cross-road of many strategic EU policies**

# Strong policy alignment

- 30+ years of continuous EC support
- Strong policy alignment with ERA – European Communications Commons

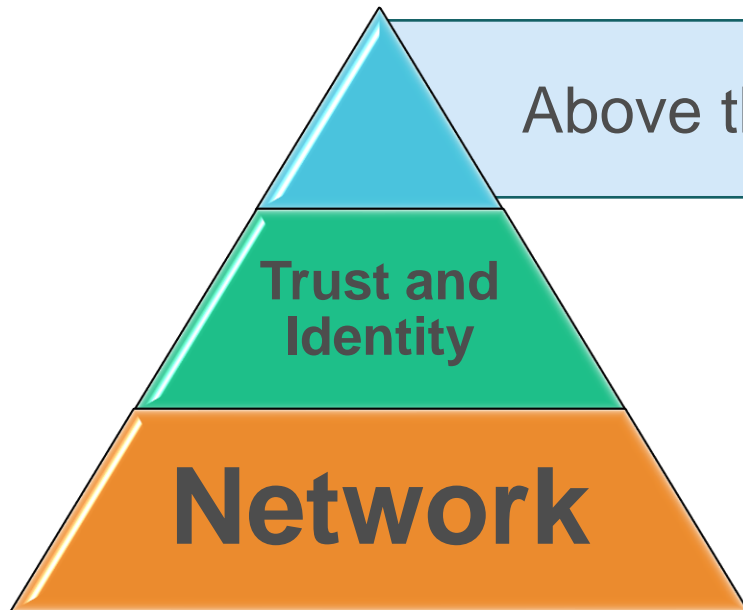


- 7-year GN5 Framework Partnership Agreement
- Valuable community engagement
- Proven service delivery model of GÉANT and NRENs.

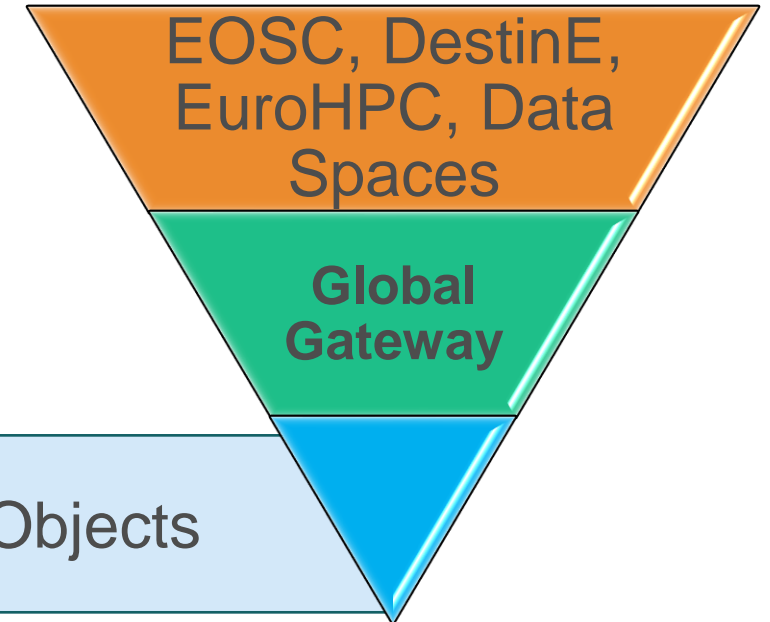


# Building on strong foundations

- Building a solid foundation, it's important to do the basics right
  - GN4-3N is the latest and largest GÉANT's backbone network upgrade
- Stakeholders are trusting and relying on it



Above the Net Services & FAIR Data Objects



- On a strong foundations many relevant activities can be supported
- The broader community is looking at it

# Strategic initiatives landscape

Industry engagement



EUROPEAN ALLIANCE FOR INDUSTRIAL DATA, EDGE AND CLOUD

Geopolitical relevance



EuroHPC  
Joint Undertaking

OCRE | Cloud Catalogue

EllaLink



GÉANT  
Networks • Services • People

Open Science  
Digital Modelling

eduGAIN

eosc

Trust and Identity  
Security

Destination Earth

European Common Data Spaces



eduroam

Rich pool of data (varying degree of accessibility)	Health	Industry & Manufacturing	Agriculture	Finance	Mobility	Green Deal	Energy	Public Administration	Skills
Free flow of data across sectors and countries	<ul style="list-style-type: none"> <li>Technical tools for data pooling, sharing</li> <li>Standards &amp; interoperability (technical, semantic)</li> <li>Horizontal framework for data governance and data access</li> <li>Sectoral Data Governance (contracts, licenses, access rights, usage rights)</li> <li>IT capacity, infrastructure, processing and services</li> </ul>								
Full respect of GDPR									
Horizontal framework for data governance and data access									

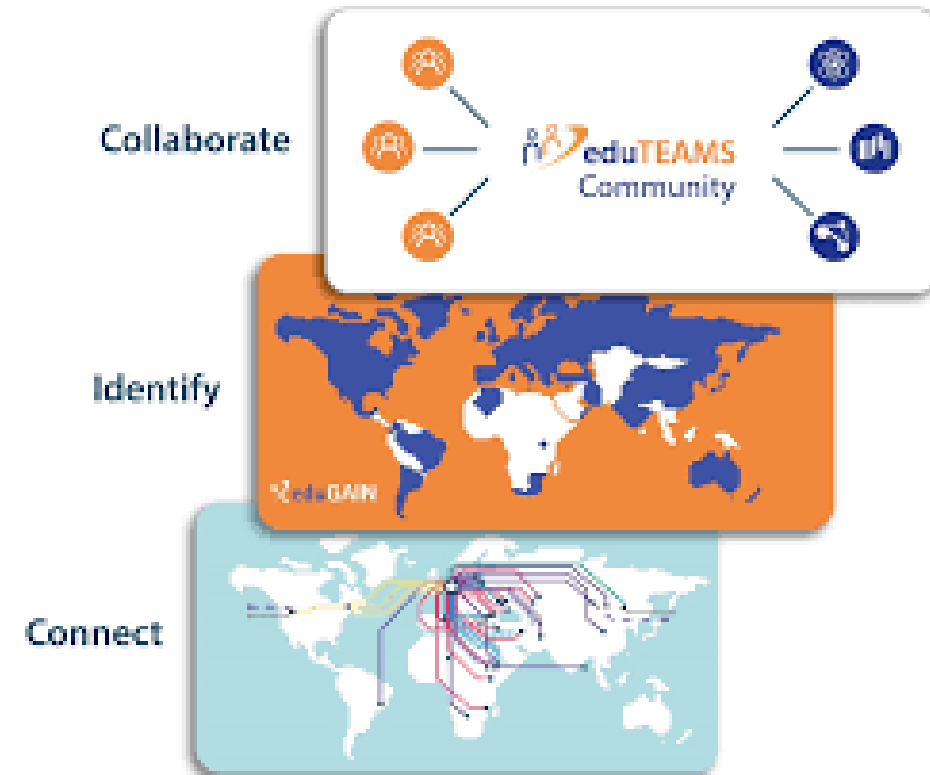
# To the community, by the community

Subsidiarity principle and efficient service delivery model via NRENs

# Community is delivering

EC recognizes that GÉANT and the NRENs deliver

- Fast and secure connectivity
  - A new network under GN4-3N, inclusive and geographically wide and at the same time offering the capillarity offered by NRENs
- Access and trust and identity services to the European research and education community
  - 6.4B eduroam authentications
  - 28M eduGAIN users
- Europe's R&E international connectivity to a global community of more than 115 NRENs world-wide
  - GÉANT's growing global cooperation, including the GN5-IC1 project and new Asia Pacific link to Singapore





# Right people doing the right work

- Strong alliance of NRENs under the GÉANT Association.
  - User community engagement at the right level as close as possible to institutions. Right decision must be made at the right levels.
  - In a privilege position to early identify the needs of the Research & Education community, and experiment and evaluate new services to add to their ever-expanding service catalogue
- Multiple success stories within the Research Community ([GÉANT IMPACT](#))
  - Contributors to “A Europe fit for the Digital Age” and the “Digital transformation” priority areas, and serves important European initiatives such as data spaces, EOSC, and EuroHPC.

# Outlook beyond the horizon

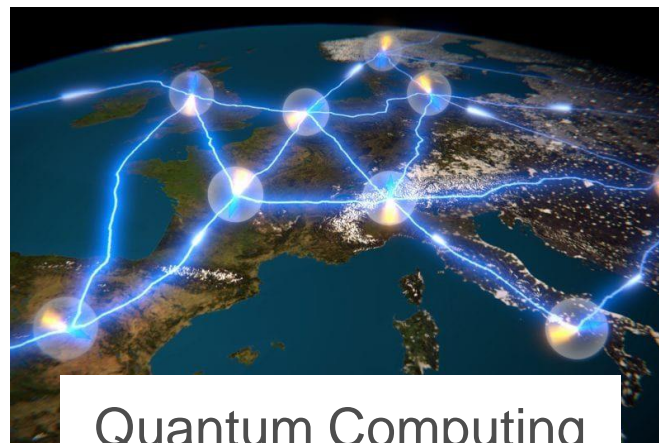
Landscape of opportunities beyond the Horizon Europe Work Programme

# Integrated world-class supercomputing and data infrastructure

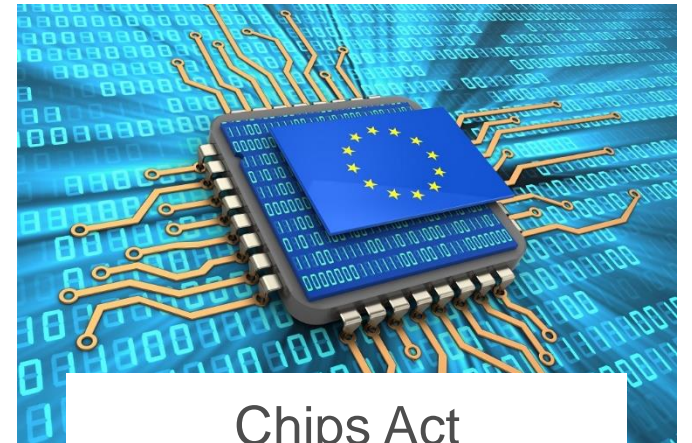
- **Terabit connectivity across the EU:** further expand and upgrade the network infrastructure to the edges of Europe and offer high-speed-terabit capable services in the network infrastructure to serve the intensive point-to-point data flows
- **Automation:** evolve the network configuration automation and services orchestration to have detailed live network knowledge and end-to-end visibility, to reduce downtime and mean time to repair.



EuroHPC



Quantum Computing



Chips Act

Time and Frequency Transmission over GÉANT  
Quantum Key Distribution

# Geopolitical instrument for long-term, sustainable infrastructure investments

- Terabit connectivity
- Global Gateway

**Autonomy:** make future connectivity options as autonomous as possible, in line with EU policy for Europe, to become more autonomous, and the EU Global Gateway initiative by investing in new fiber cables owned and operated by GÉANT or a trusted partner.

**Build on BELLA experience:** achieve long-term contracts and agreements for international connectivity to address upcoming traffic growth and provide a resilient network architecture and participate in new strategic links.

- European Common Data Spaces
- DestinE and EOSC



Digital Europe Programme

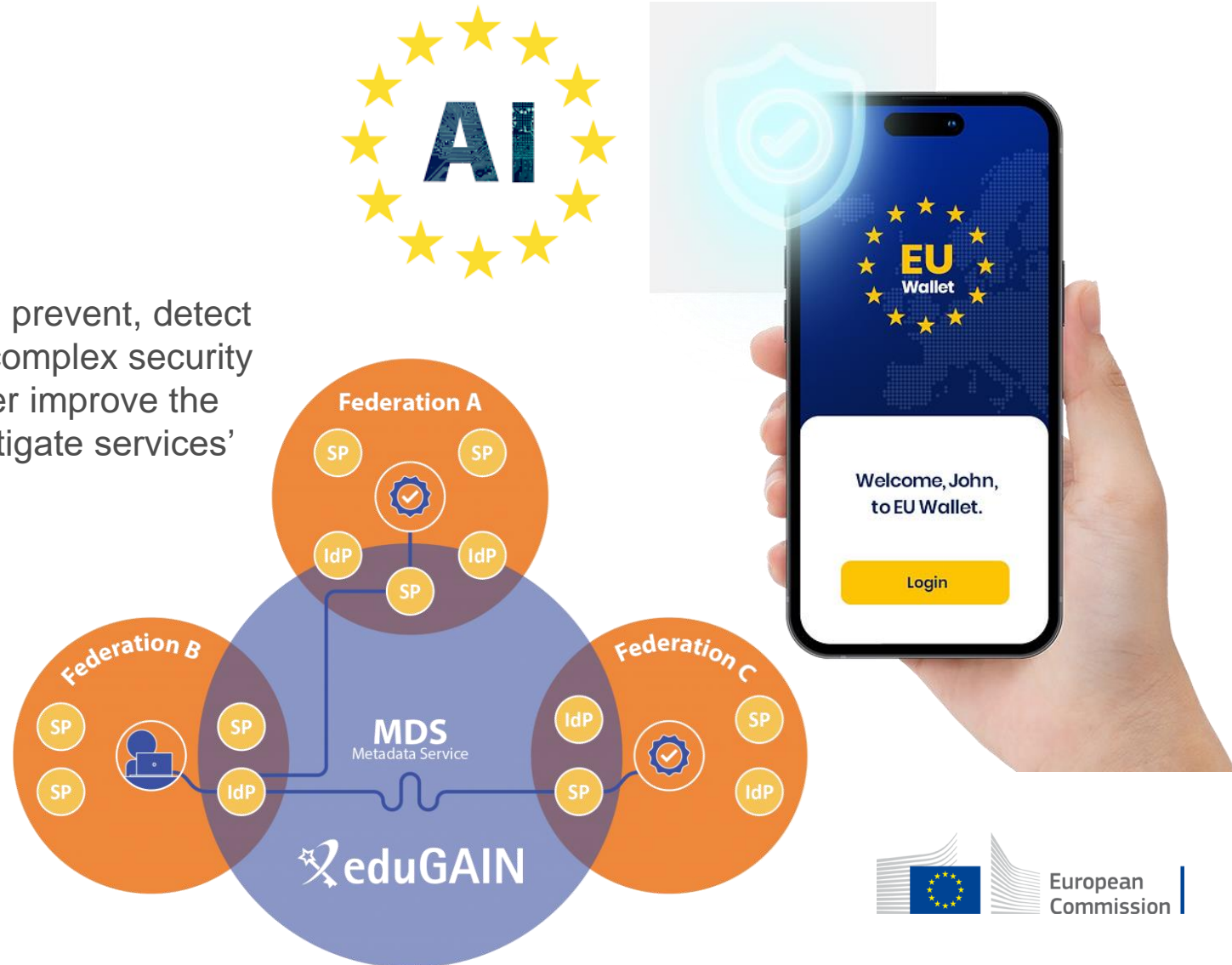


# Centers on excellence and trust, aiming to boost research

- Trust and Identity (eWallet)
- Security Coordination (NIS2)

**Develop Security Intelligence Hub** to prevent, detect and mitigate the increasing and more complex security incidents and evolving threats, to further improve the collaboration of security teams, and mitigate services' disruption at network level.

- Artificial Intelligence (AI)
- Data-driven economy



# Responsible for the future

Great power comes with great responsibility

# Critical European Communication Commons

- Providing critical communications infrastructure in Europe and globally not only networks but middleware and above-the-net services either, requires to go beyond the Framework Partnership Agreement (FPA) model
  - GÉANT should consider steps towards a pillar assessment and qualifying for ISO certifications
- GÉANT & NRENs should recognize and be able
  - To diversify its sources of funding (respecting the principle of no double funding) beyond just grants to compete in public procurements by EC or its operational entities
  - Governance changes may be required to address the challenges that the multi-stakeholder-based policy support of the EC holds for the future



# Horizon of possibilities

- Contribute to EOSC's Operational Platform, ensuring its effective use, both by end-users and by other RIs themselves.
- Implement solutions, within remit of GÉANT's activities, that reduce the environmental and climate footprint of RIs, in line with green and digital transitions policies.
- Contribute to the evolution of the Destination Earth Initiative that will develop over the next 7-10 years a highly accurate digital model of the Earth.



# Time for questions...?

**Grazyna PIESIEWICZ**

*Head of Unit*

Open Science and Digital Modelling (DG CNECT, Unit C.1)

# Thank you !



© European Union 2023

Unless otherwise noted the reuse of this presentation is authorised under the [CC BY 4.0](https://creativecommons.org/licenses/by/4.0/) license. For any use or reproduction of elements that are not owned by the EU, permission may need to be sought directly from the respective right holders.

