GEANT Trust & Identity

Overview for MSP-TF

19 January 2021

Marina Adomeit, SUNET

As part of the GÉANT 2020 Framework Partnership Agreement (FPA), the project receives funding from the European Union's Horizon 2020 research and innovation programme under Grant Agreement No. 856728 (GN4-3).

Work Packages in GN4-3

GN4-3 : Jan 2019 – Dec 2022

GN4-3 Service DevOps Work Packages

- WP4 Online Services Development and Delivery
- WP5 Trust & Identity
- WP6 Network Technologies and Services
- WP7 Network Core Infrastructure and Services
- WP8 Security

GN4-3 Operations Work Package

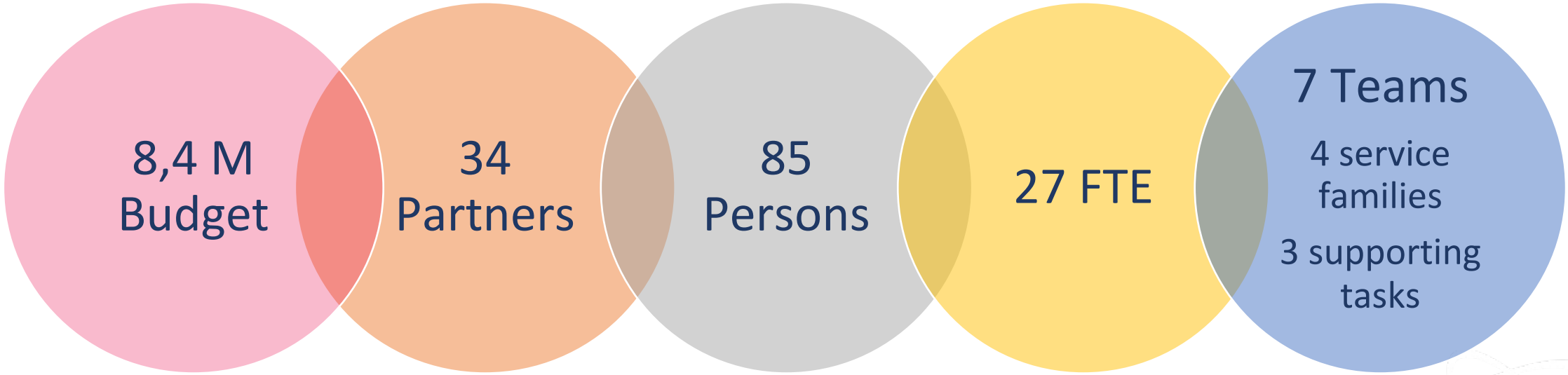
- WP9 Operations Support

Helpdesk: TTS+FLS optionally
Software Management and Testing
Software Development Infrastructure

GN4-3 Support Work Packages

WP1 Project Management	WP2 Marketing, Communications, Events	WP3 User/ Stakeholder Engagement
Product Lifecycle Management **Technical Authors** **Learning & Training team**	**Design, Web sites, Marketing** **Trademark**	**Partner relations** **Outreach** **E-Science engagement**

The TEAM!

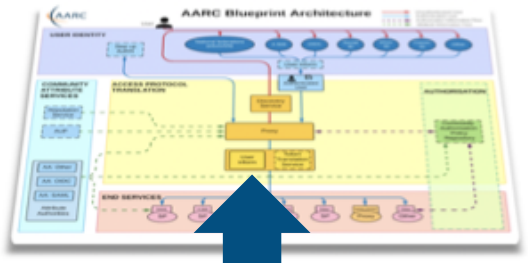


Partners

T&I service portfolio

The big picture

eduTEAMS



Support virtual teams and share resources

InAcademia
ONLINE STUDENT VALIDATION

Offering a validation service based on the “studentness”

Widening scope with OpenRoaming

eduGAIN

eduroam

haka
SWITCHaai
cafe
grnet
SWAMID
COFRE
The UK Access Management Federation
confia
arnes
GakuNin
TAAT
Carsi
RCTSaai
MINGA
FEIDE
WAYF
SURF CONEXT
Belnet
eduID
SIFULAN
InCommon
aconet
RENATER
AUSTRALIAN ACCESS FEDERATION
Colfire
idem garr aai
Edugate
Tuakiri
DFN-AAI
AFIRE
@EduHr
eduID cz
SIR

T&I Team and Key Collaborations

Expanding the reach of T&I to the broader community

T2 Incubator


InAcademia
Michelle Williams
GÉANT

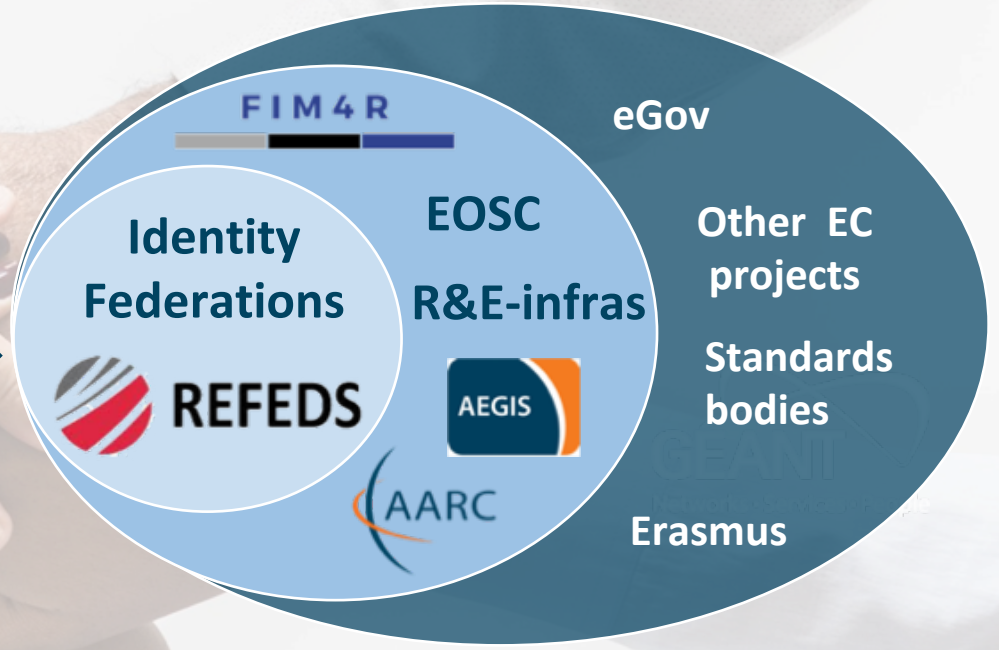

eduTEAMS
Christos Kanellopoulos
GÉANT


eduGAIN
Davide Vaghetti
GARR


eduroam
Miroslav Milinović
CARNet/SRCE

T1 **T&I Services** **T4** Enabling Communities

T3 Operational Support



https://wiki.geant.org/display/gn43wp5/Trust+and+Identity+Services+Roadmaps

#love2 eduroam

eduroam

GÉANT

National Roaming Operator

R&E Institution

User

European RADIUS server

Supporting Tools

Global Policy

National RADIUS server

National Policy

RADIUS Auth. Infrastructure

Identity Management

WiFi

Can access eduroam in 106 countries

GÉANT Networks · Services · People

Access to thousands of eduroam WiFi locations worldwide, with R&E institutional identity

Operation of Core Service Elements

- European top-level RADIUS server in Netherlands
- European top-level RADIUS server in Denmark

Operation of Support Service Elements

- Monitoring, diagnostics and metering tools: monitor.eduroam.org
- Database: monitor.eduroam.org/db_web/
- Configuration Assistant Tool: cat.eduroam.org
- eduroam Managed IdP: hosted.eduroam.org

Support and Community

- Main site: www.eduroam.org
- Wiki pages: wiki.eduroam.org
- L1 support : help@eduroam.org
- L2 support in various channels
- Participation to the GeGC
- Steering Group chairing

Standardisation bodies

- Open Roaming (WBA)
- WiFi Alliance
- Internet Engineering Task Force (IETF)

Focus on activities

Managed eduroam IdP launch

Delivered Managed eduroam SP prototype

geteduroam pilot

eduroam database v2.0 implemented

Tools adaptation started after critical adoption reached

Development of eduroam audits in progress

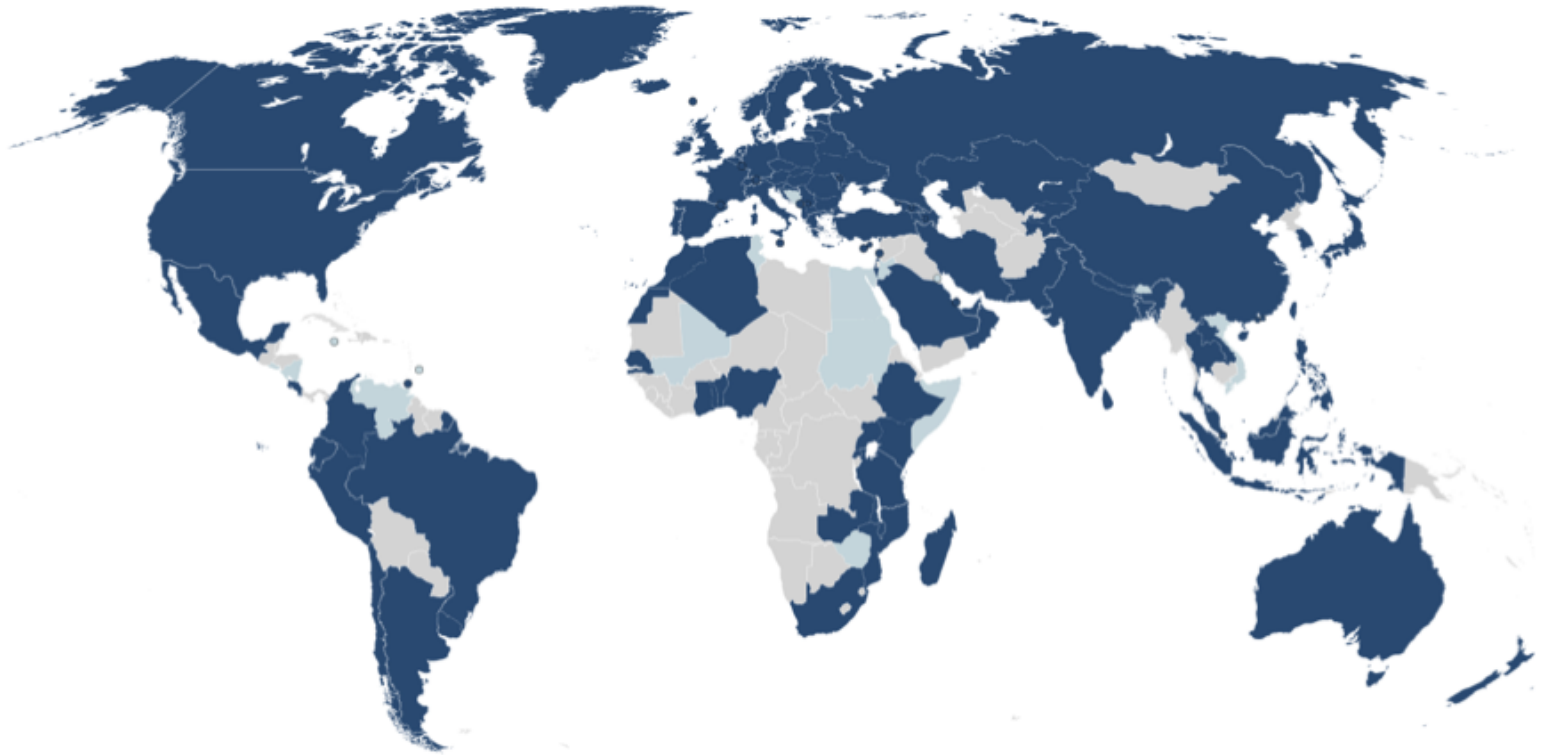
Regular releases of CAT

eduroam policy change in progress

OpenRoaming™ Wireless Broadband Alliance

WBA Integrator Participant

Service uptake – National Roaming Operators (NROs)

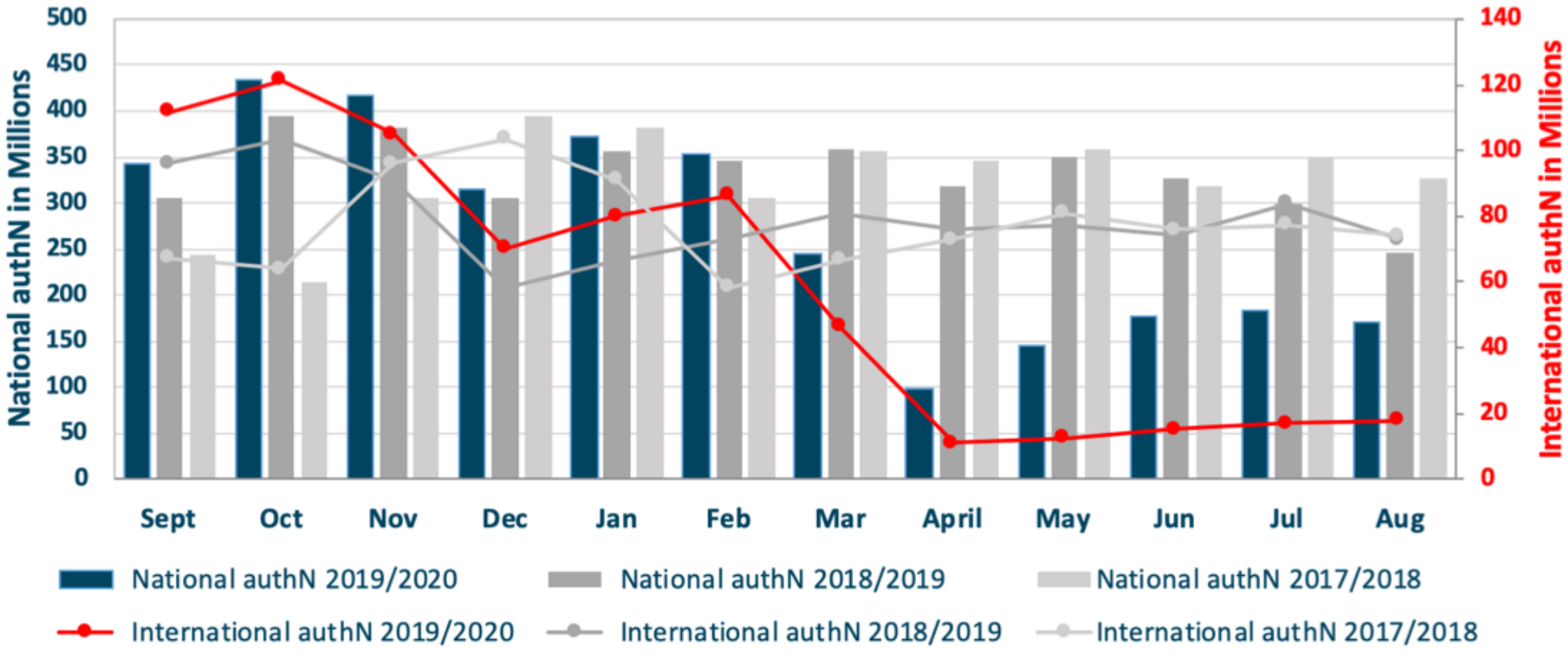


106
Countries

6000+
Institutions

28,000+
Service Locations

Service uptake – number of user authentications



Fall of traffic during COVID-19 lockdowns

GÉANT

Identity Federation

R&E Institution

User

eduGAIN

Global Metadata Service

Supporting Tools

Global Policy

National Metadata Service

National Policy

SAML Auth Infrastructure

Identity Management

Web Service

Can use over 2900 Web services

Access to thousands of WebSSO services available via eduGAIN, with R&E institutional identity

Operation of Core Service Elements

- Metadata Service (MDS): mds.edugain.org
- Metadata Validator: validator.edugain.org

Operation of Support Service Elements

- Technical site: technical.edugain.org
- Entities database: technical.edugain.org/entities
- Federation as a Service

Support and Community

- Main site: edugain.org
- Wiki pages: wiki.edugain.org
- Support contact: support@edugain.org
- Security contact: abuse@edugain.org

Collaboration

- REFEDS
- FIM4R
- Seamless access

eduGAIN

Focus on activities

eduGAIN metering

Started business pilot
Success depends on federation adoption

f-ticks.edugain.org

eduGAIN signing strategy

Certificate with the signing key close to expiry
Short-term strategy for certificate renewal defined and executed
Long-term strategy to change and straighten the signing key defined

eduGAIN support team – in GN4-3 period 1

193 tickets resolved
60 errors resolved by proactive support

Training and Outreach

ASREN training material

eduGAIN security team

Established team
Security response procedure developed with SIRTFI WG

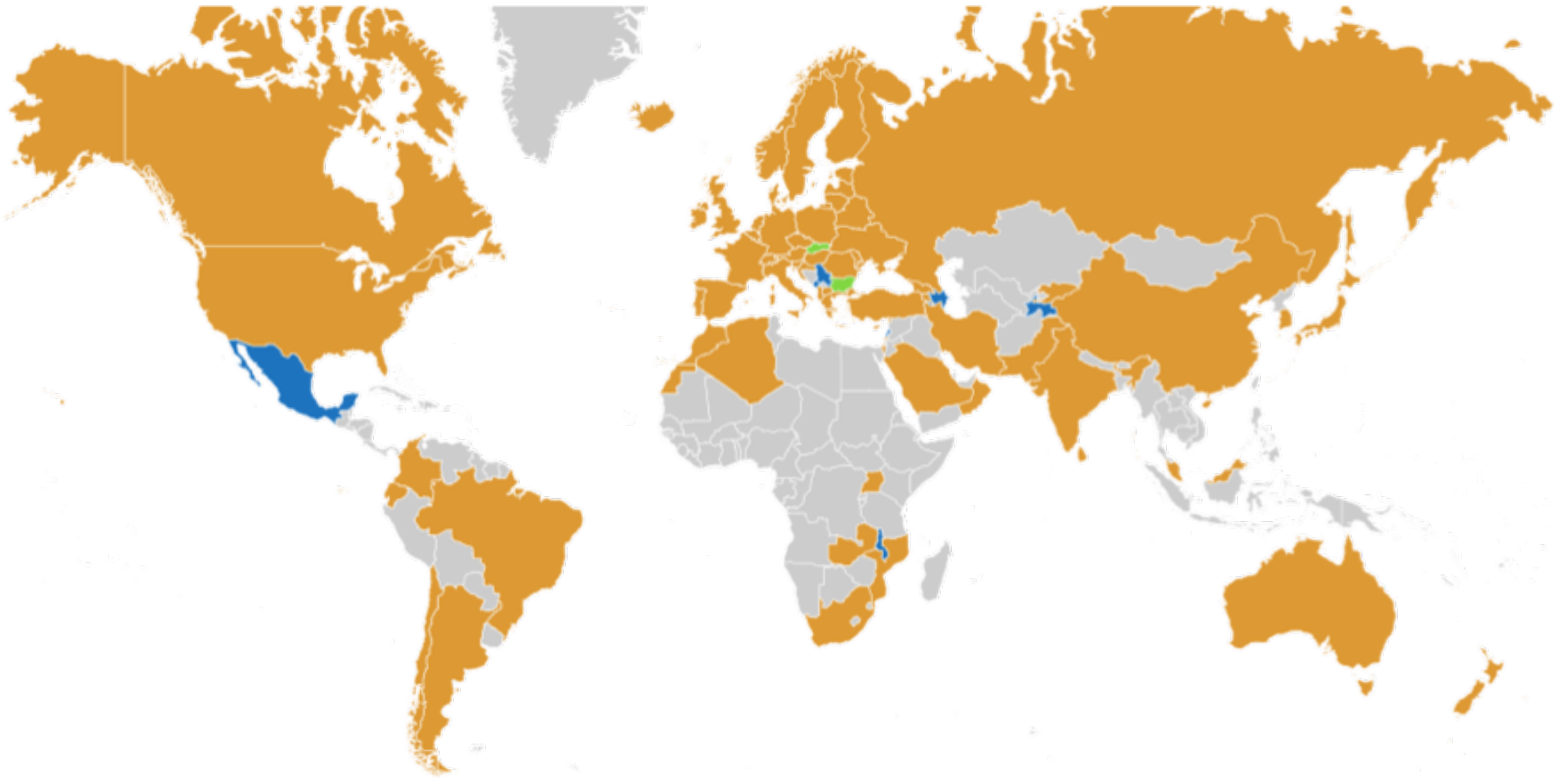
edugain.org/edugain-security

eduGAIN operations

Metadata aggregation practice statement published
Operational Practice Statement published
Periodical updates to the MDS and introduced versioning of metadata feeds

eduGAIN

Service uptake – Identity Federations

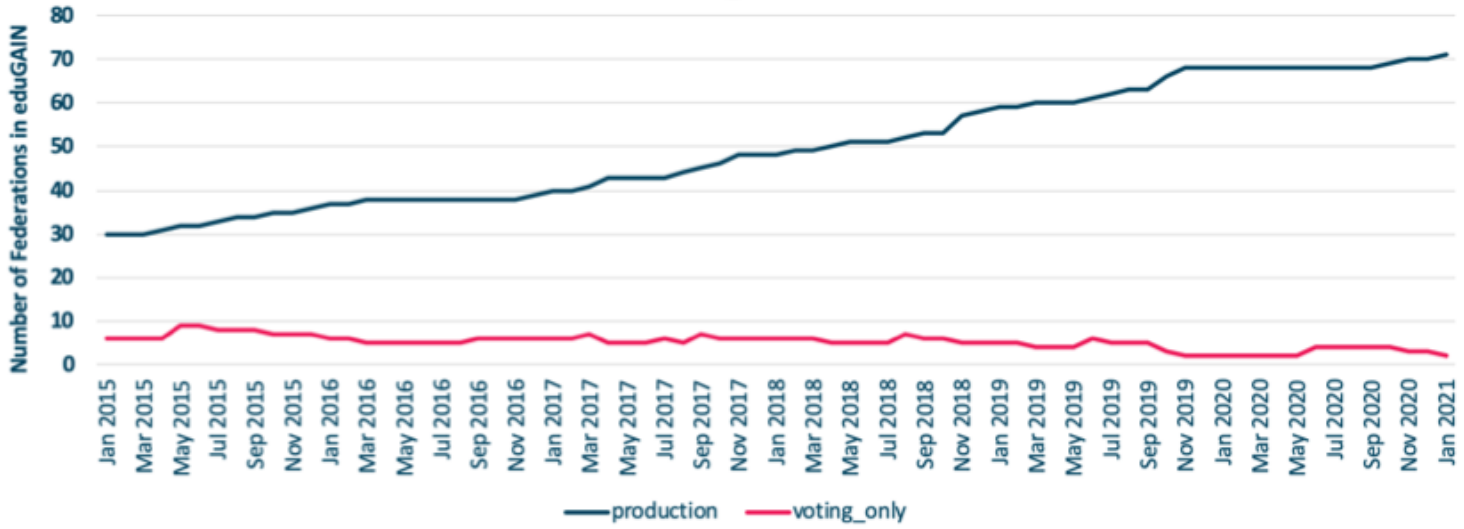


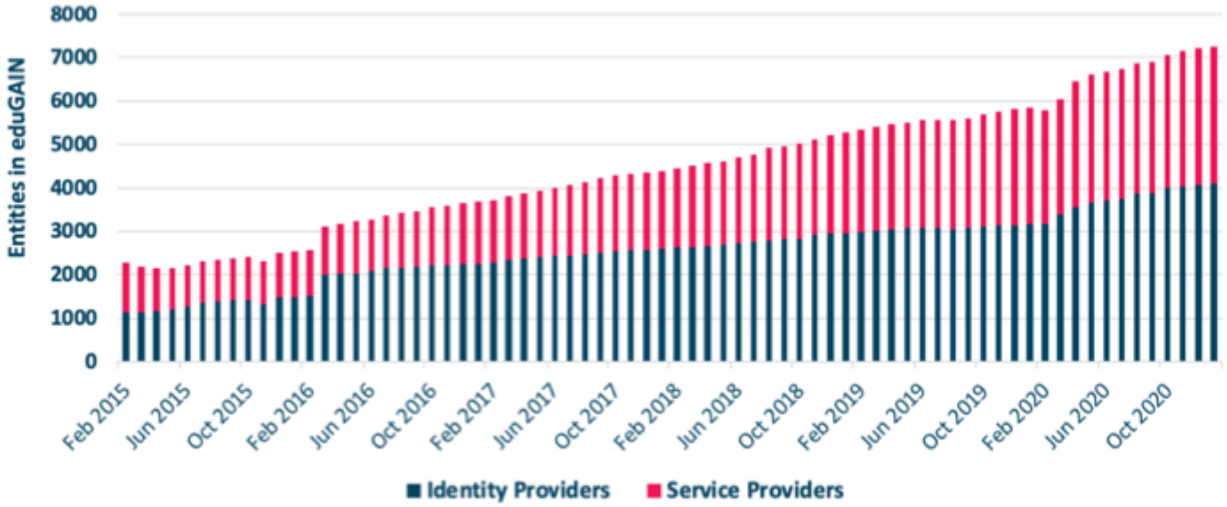
71
Identity Federations

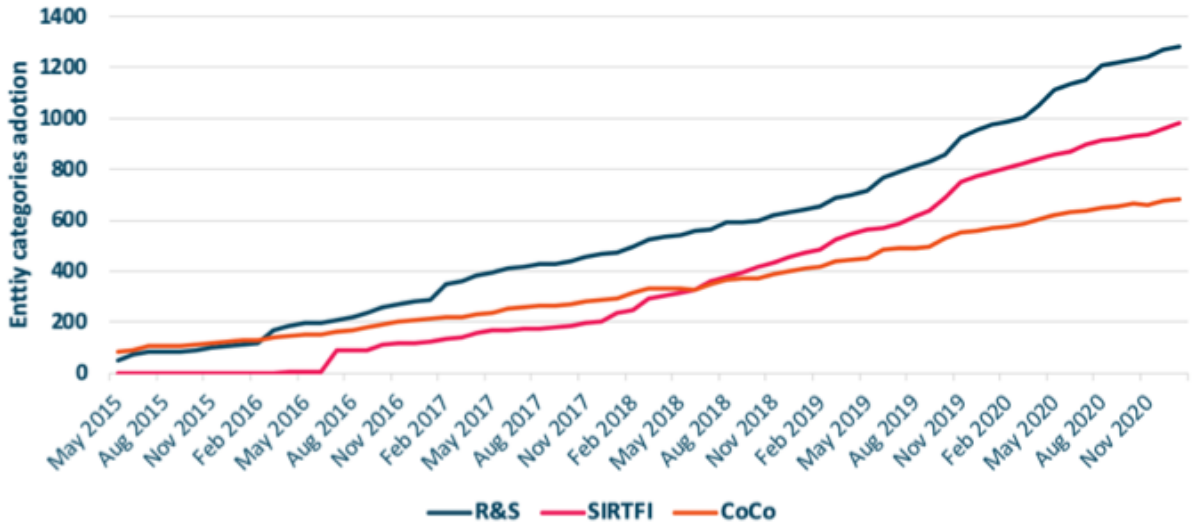
4127
Identity Providers

3164
Service Providers

Service uptake – number of identity federations







eduGAIN

SeamlessAccess

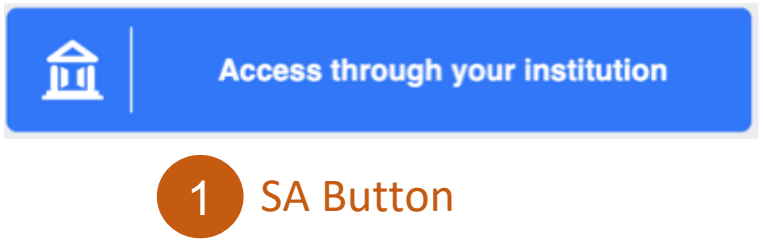
Seamless Access.org

GÉANT Networks · Services · People

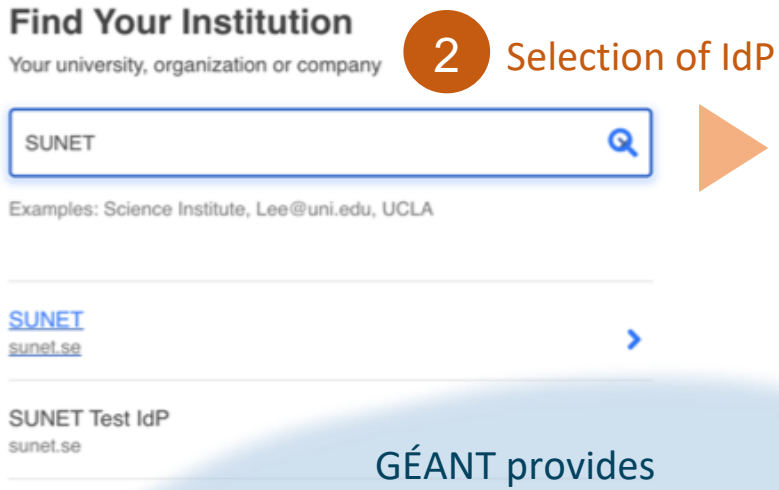
3600+ IdPs in eduGAIN

Challenge to properly implement IdP discovery

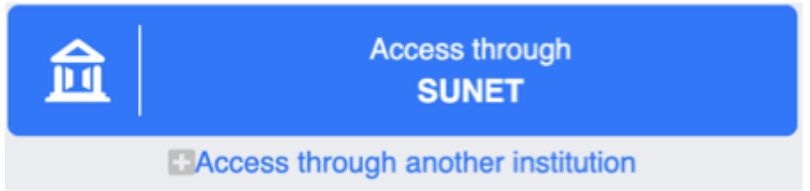
Many SPs, such as publishers, still rely on IP-based authorisation



1 SA Button



2 Selection of IdP



3 IdP Selection saved in SA button

UX experts proven design

Retains user's IdP choice and presents it next time

Privacy by design

Delivered via coalition: NISO, Internet2, GÉANT and STM

GÉANT provides beta service operations

Robust infrastructure for mission critical service

Beta service since July 2019

Delivered production grade service

GÉANT

Research collaborations or NRENs

Users

eduTEAMS

AAIaaS

Manages groups

Connects services

Manages access

Federated access to research resources

Implements AARC Blueprint Architecture and expands eduGAIN to support virtual teams to share resources

eduTEAMS

Service Offerings

eduTEAMS Service

- Shared platform that can be used by small- to medium-size communities and the long tail of science
- Managed and operated by GÉANT
- eduTEAMS branding
- eduTEAMS service policies
- Connected to EOSC
- Onboarding of community-specific services

eduTEAMS Dedicated

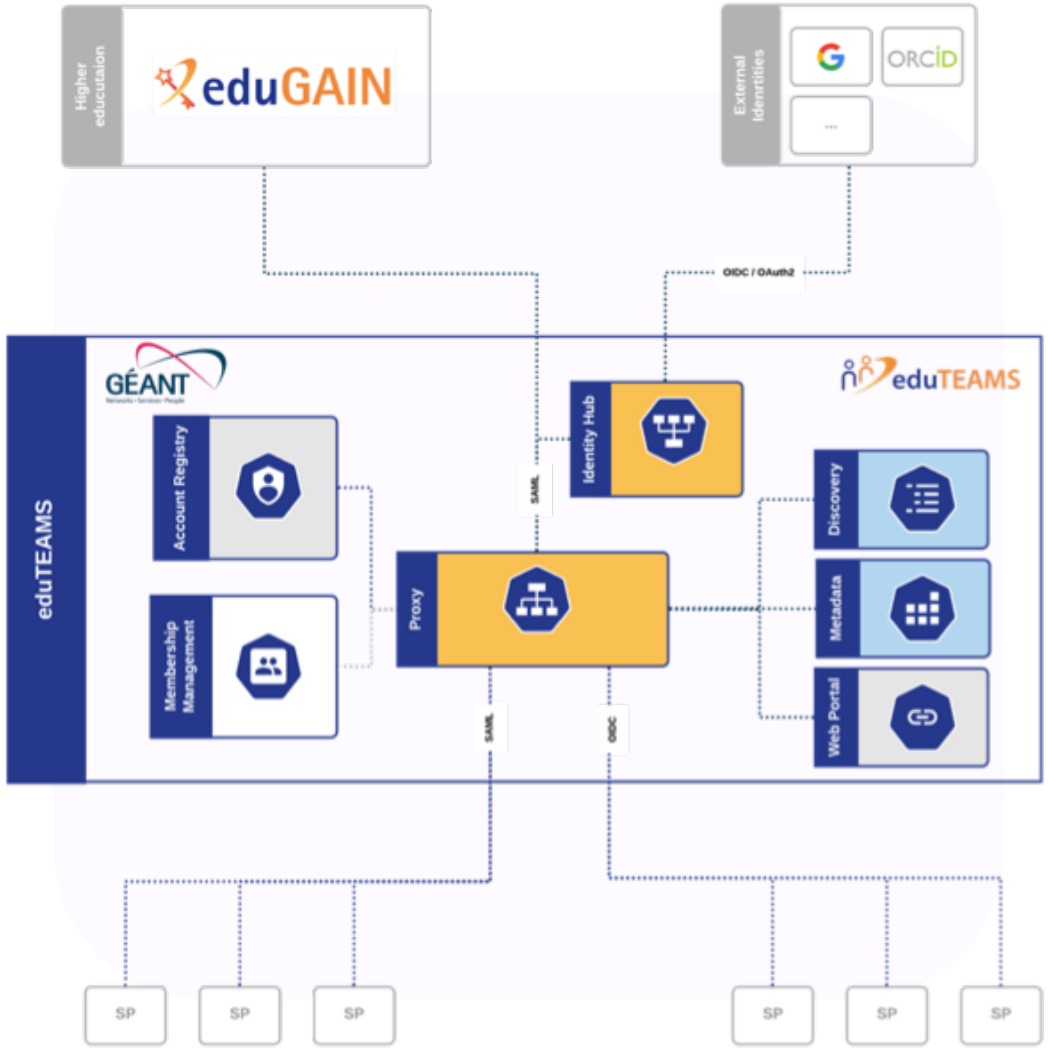
- Dedicated, white-label service offering, specific to a community
- Managed by the community, operated by GÈANT
- Community branding and customisation
- Community managed policies
- Can be connected to EOSC
- Onboarding of community specific services

eduTEAMS Bespoke

- For communities that need tailor-made functionalities (i.e. integration with other tools)
- Ownership model depended on the solution, operated by GÉANT
- Consultancy and development as needed

eduTEAMS

Managing virtual teams made easy



- Users sign in to services with their **community identity** via eduTEAMS
- Users **register once and access any service** (available to the their community)
- Reduces complexity for Service Providers by providing **one integration point for all services**
- **Integration with GÉANT, EOSC and other communities and/or eduGAIN services**

Deployments and Achievements

eduTEAMS Service	Production
FENIX Research Infrastructure	Production
PaNOSC (UmbrellaID)	Production
RedIRIS | NextGEOSS	Production
VESPA (EuroPlanet)	Production
LAGO	Production
SURF Research Access Management	Production
EOSC Life	Transition to Production
GN4-3	Implementation
EUROFusion	Implementation
OCRE	Implementation
ARCHIVER	Implementation

eduTEAMS one of the components of EOSC AAI

eduTEAMS technology underpins AAI for Student mobility

eduTEAMS solution for HPC community

InAcademia
ONLINE STUDENT VALIDATION

GÉANT

SaaS to validate "studentess"

Community Governed

Merchants

OIDC Auth Infrastructure

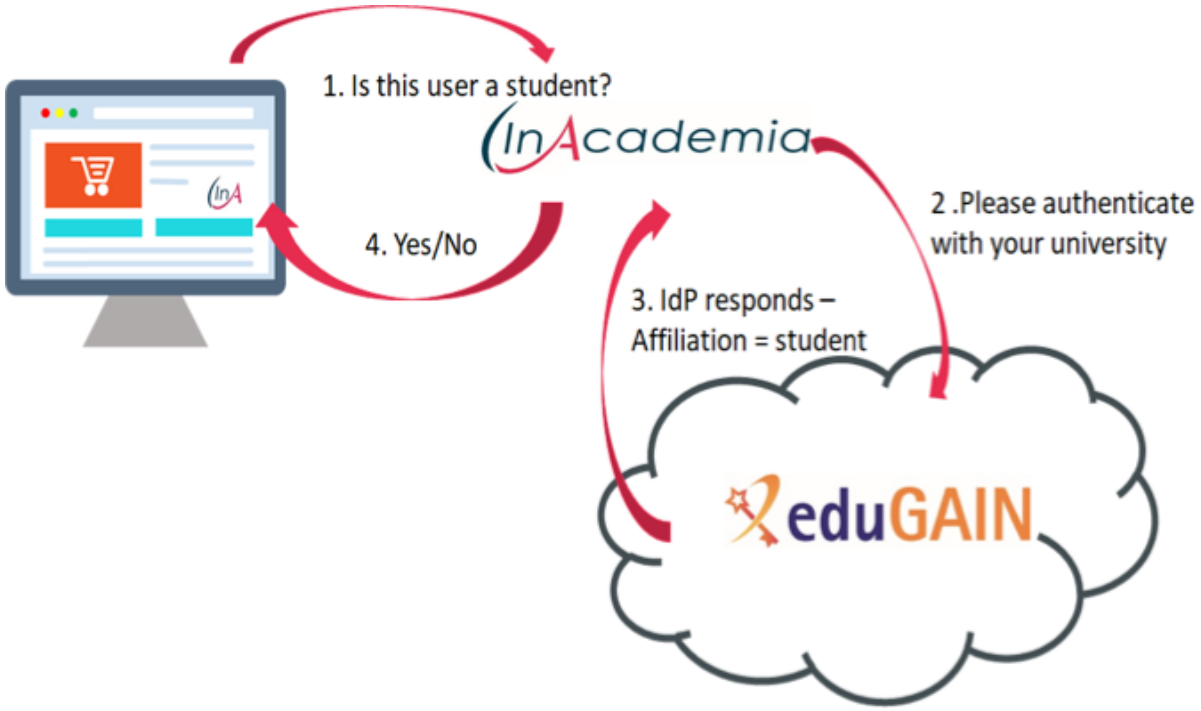
Student tailored offerings

Students

Can make use of student tailored offerings, without disclosing any additional privacy details

The real-time, digital equivalent of asking a student to show their student card to access or buy discounted or specialist services and products

Adding value to identity federations



Reduces burden for IdPs and identity federations

Support and connect merchants

Lighter-weight option for service providers (SPs)

Quick, reliable and secure way to verify academic identities

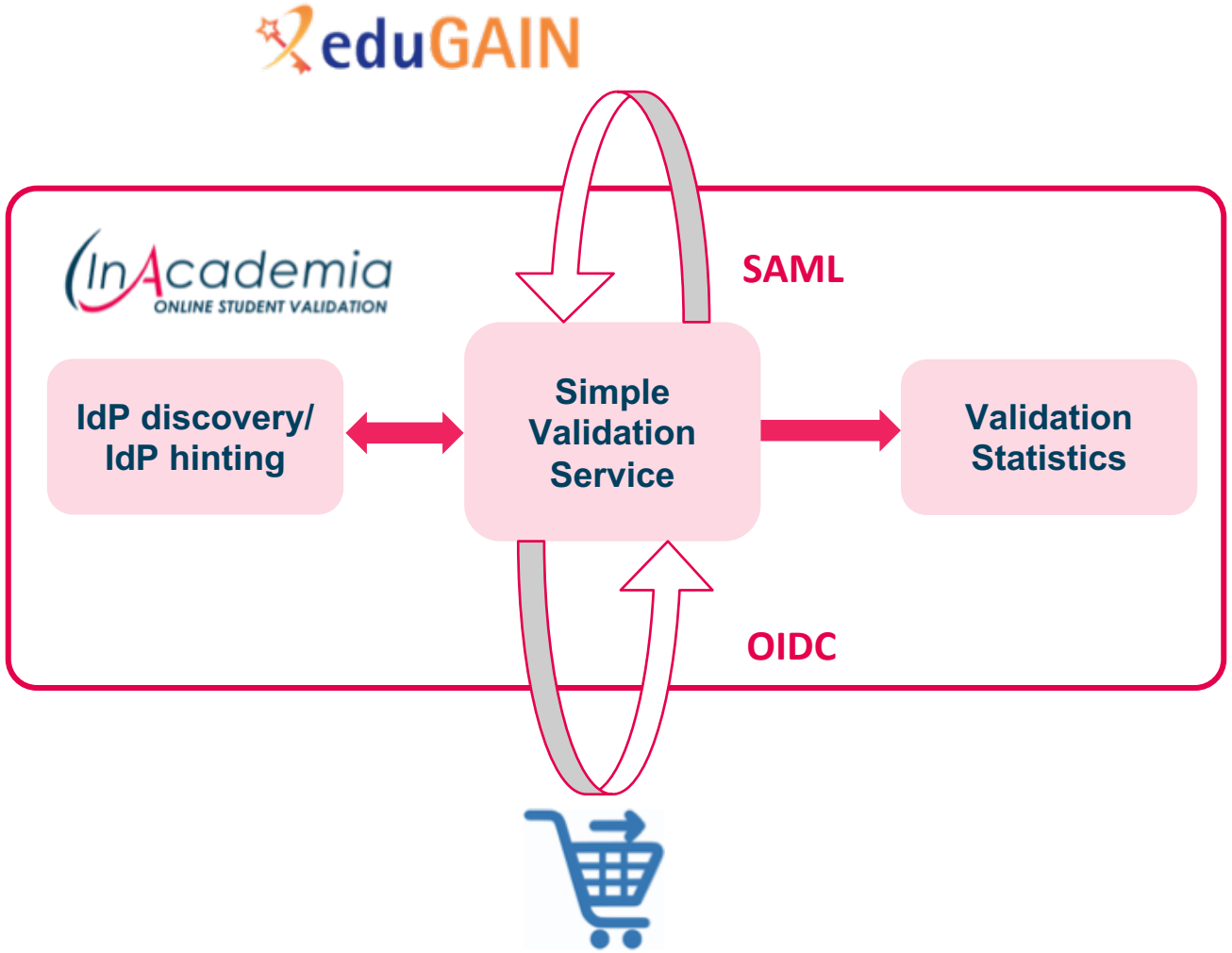
Source of income for T&I

Designed to support Identity Federations and eduGAIN to achieve sustainability

Privacy by design to protect end users

Helps with GDPR compliance

Validating students made easier



- Merchant integrates validation as part of its process (typically during check out)
- One integration point for all eduGAIN IdPs
- Users validates affiliation to academia in the same way they use their federated identity
- Service infrastructure designed to be highly available
- Collect statistics that are necessary for invoicing model

Production service

- Production service since February 2020 - over 200.000 validations
- Two service editions: 'Commercial' and 'Community'
  - Same governance and operational infrastructure
  - Two different models: paid and free to use
  - Defined eligibility criteria and service Constitution

- Designed to be promoted in collaboration with national identity federations and NREN outreach/marcomms teams
- Actively participating federations - Netherlands, Germany, Denmark, Spain, Sweden, France
- Steering Committee composed of participating federation, meets quarterly to discuss strategy

Contact info@inacademia.org to get your federation involved!

Team and work organisation

TRUST & IDENTITY INCUBATOR

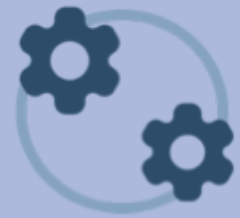
Develop, foster & mature new ideas in technical & business case development or enhancement to data protection and privacy

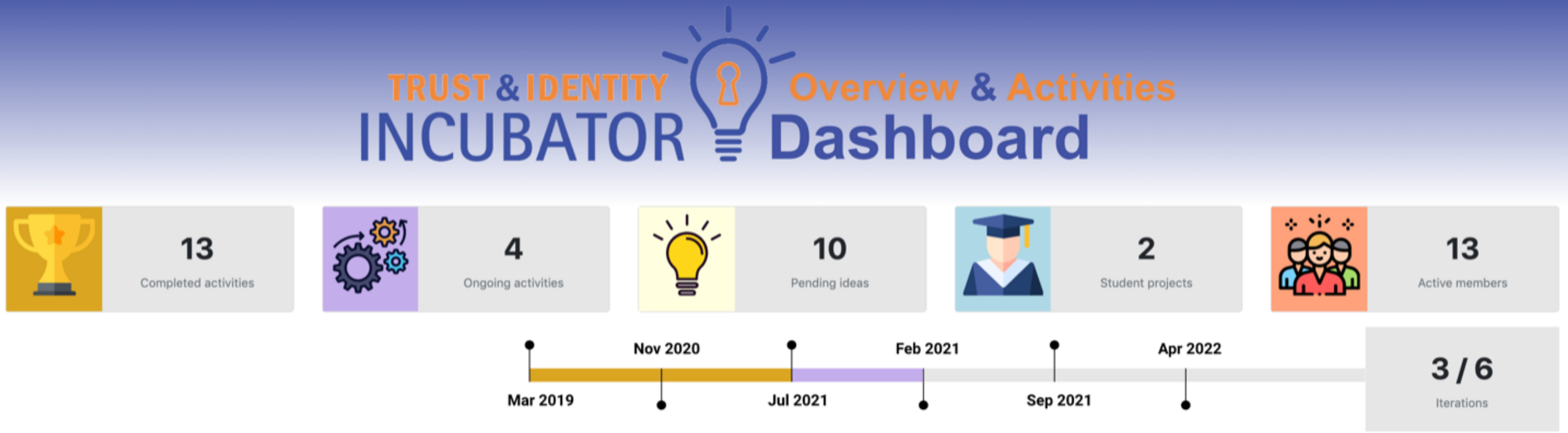
Core teams (alfa and beta) with a scrum master and developers
Mentors (one per topic)
Main incubator board (community provided)

Ongoing activities in parallel
6 sprints
Monthly sprints
Sprint demos (open to all)

https://wiki.geant.org/display/gn43wp5/T2+-+Trust+and+Identity+Incubator

Methodology

Collect proposals for incubator topics	Review and prioritise the proposals	Choose topics for the next cycle	Define goal, stakeholders, results	Work on topic, 6 sprints with demos	Finalize topic handover results/close topic
					
Service Owners GÉANT project T&I community member	Main Incubator Board (MIB)	Incubator Lead + WP leaders	Principle Investigator	Incubator Core Teams MIB feedback	Incubator Activity Teams



Dashboard - https://wiki.geant.org/display/gn43wp5/Incubator+Dashboard

Call for topics - https://wiki.geant.org/display/gn43wp5/TII+Call+for+Ideas

GÉANT Infoshare - T&I Incubator & NREN engagement - https://events.geant.org/event/463

DEVELOPING THE NEXT GENERATION OF T&I PRODUCTS AND SERVICES FOR THE EUROPEAN NREN COMMUNITY

TO FIND OUT MORE CONTACT GLAD@GEANT.ORG

GÉANT

TIM
TRUST & IDENTITY
MENTORSHIP PROGRAMME

TIM Programme - https://wiki.geant.org/display/GIG/TIM+Programme

Thank you

As part of the GÉANT 2020 Framework Partnership Agreement (FPA), the project receives funding from the European Union's Horizon 2020 research and innovation programme under Grant Agreement No. 856728 (GN4-3).