

EGI services for the long tail of science

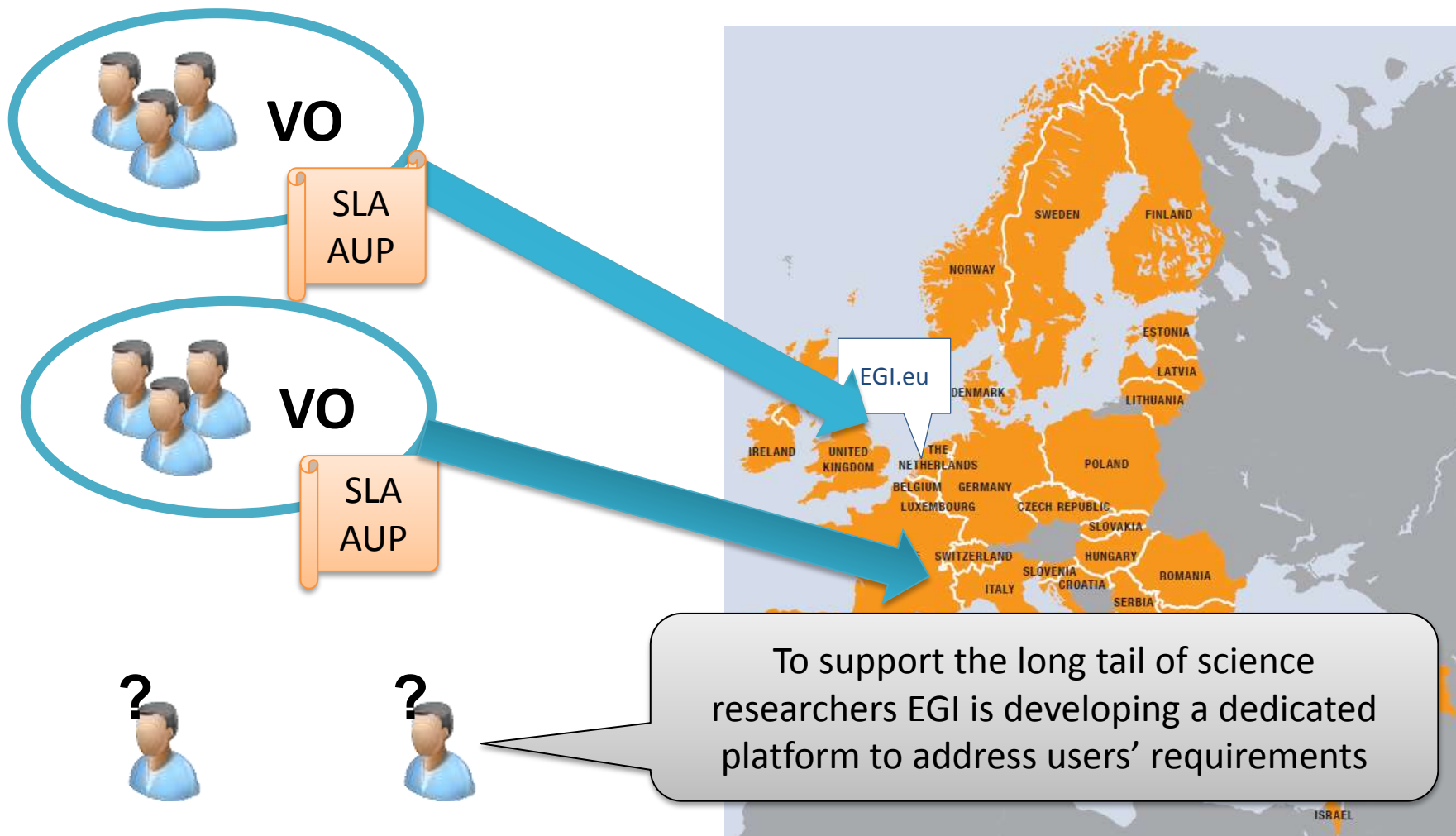
Peter Solagna
Senior Operations Manager
peter.solagna@egi.eu

Gergely Sipos
Technical Outreach Manager
gergely.sipos@egi.eu

[wiki](#)

Slightly updated by DavidG for the TTC meeting





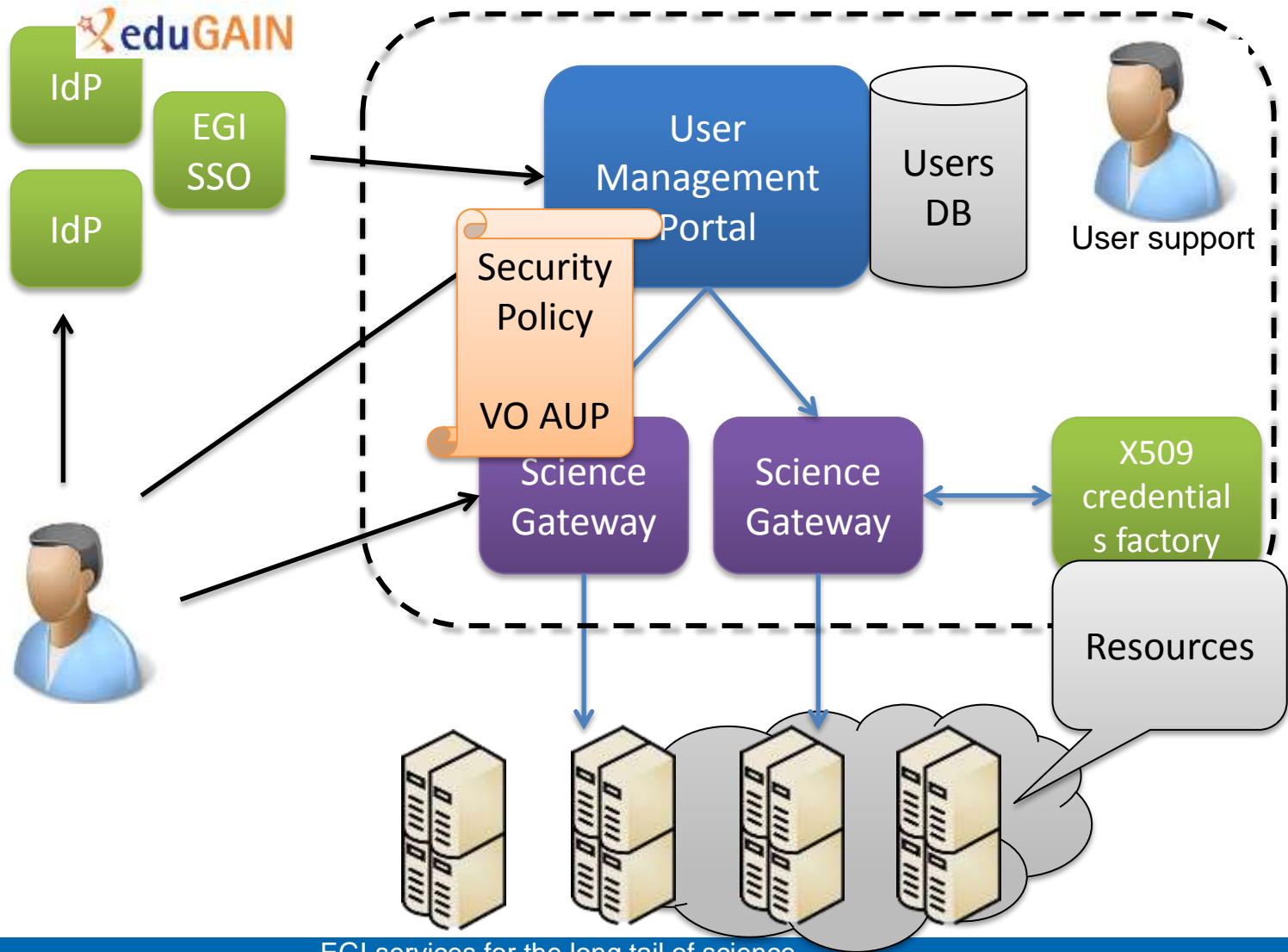
For European researchers and their international collaborators

Users requirements for a LToS platform

- **Availability of resources** HTC, cloud and storage
 - Short-medium term access
 - Quick access, avoid unnecessary bureaucracy
 - Long-term, dedicated resource access, dedicated SLAs, will still require separate community Vos
 - Pilot with resources from NGI_PL, NGI_GR, NGI_IT
- **“Zero-barrier” access**: any user who carries out relevant research can access resources
 - No need for specialised relationship with an NGI, NREN, or CA
 - No need to establish an Registration Authority at user’s institute
- **User support**
 - Available through the NGIs

- reuse existing technology building blocks as much as possible
- provide acceptable level of tracking of users and user activities
- can scale up to support large number resource providers, technology providers, use cases and users
- tangible outcomes
 - Traceable scientific publications from the long tail – with EGI acknowledgements
 - User stories from the long-tail
 - Easier to involve users in EGI

Long tail of science platform architecture



- User facing features, users can:
 - Log in using their federated identity
 - Provide the additional information not available in the IdP
 - Submit a request for resources
- EGI/NGIs facing features:
 - Assign a UID to all the users of the long tail of science platform
 - Approve the user's request, or suspend a user
 - Check the user's usage of resources

Improve User tracking

- For EGI X509 certificates are at the moment still a requirement
- Most of the science gateways are using robot certificates to generate short-term proxies for the users
- Use of robot certificates proxies can be extended for the LToS platform

For the LToS platform the UID is provided by the User Portal. The user will have the same UID using different science gateways. It's a [per-user sub-proxy](#)

X509 Proxy DN:



The same for every user of the gateway

- User tracking
 - Services get “different” credentials for individual users
 - It’s possible to block one user without blocking all the users using the same robot certificate
- Security
 - Individual users can be isolated, e.g. preventing them to access other users’ workspace
- Accounting
 - Account for individual users’ usage
 - Report the actual number of real users accessing the infrastructure

And the online CA?

- It’s an alternative (more elegant?) solution for the same problem
- Not as commonly available as the robot-certificates
- Robot-certificates at the moment are the easiest solution to have the platform online in few months

Problems we want to solve:

- Fragmentation of resources for the long-tail
 - Catch-all European VO
- Lack of support for the long tail in some NGIs
 - European community with EGI.eu leadership
- X509-based access even for individual users
 - Per-user sub-proxy mechanism
- Restricted usability of robot certificates
 - Extended possibilities for user code on the new VO
- Difficulties in engaging with individual researchers
 - User registration portal with links to NGI staff

Next steps

- Science gateways are already in production
- Developments to support per-user sub-proxies available in a couple of months
- User Management Portal to be presented during the EGI Conference in May
 - Open for testing during the conference

Project wiki: https://wiki.egi.eu/wiki/Long-tail_of_science_pilot

Thank you for your attention!

Questions?