

### **Exploring trust for Communities Trust & Identity Enabling Communities**

### Maarten Kremers, SURF

EUgridPMA #55 24<sup>th</sup> May 2022 LRZ, Garching bei München

















23











### **Operate T&I services**





**Develop and Enhance the T&I services** 

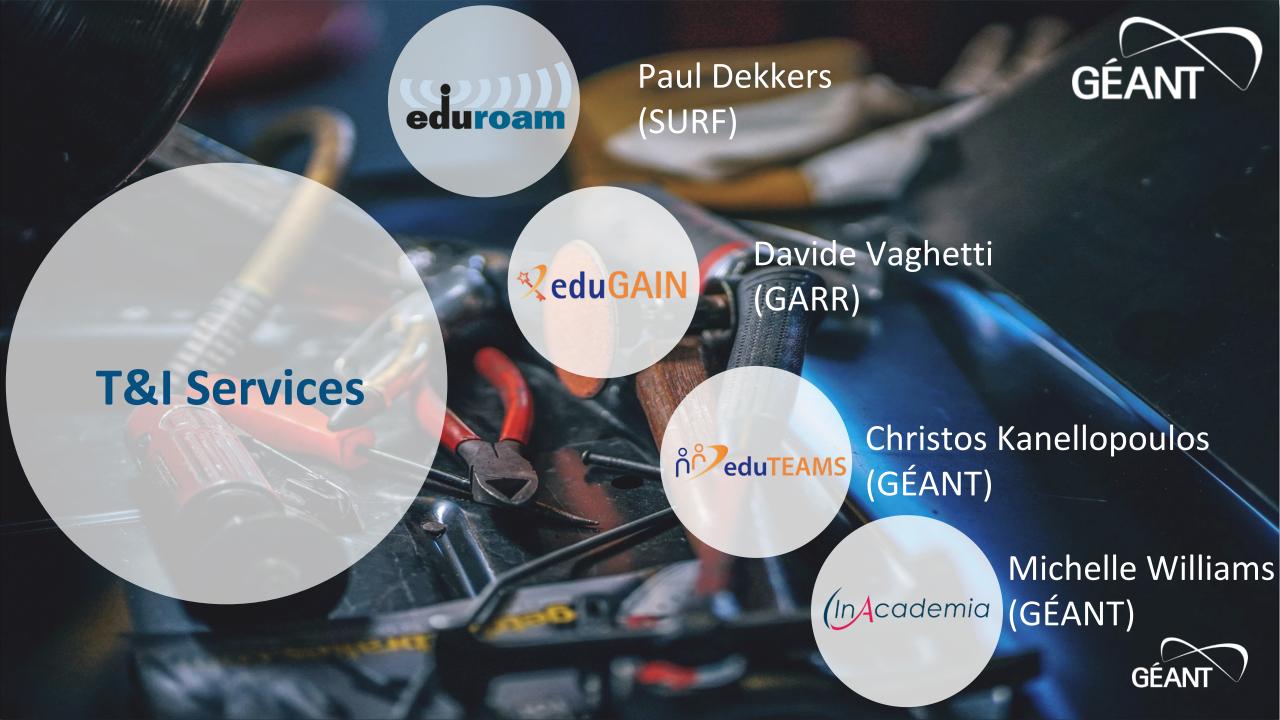


**Explore new or disruptive ideas** 

Expand the Reach of Federated Access



**Engage with the relevant stakeholders** 





Incubator

**T&I Services** 

Enabling Communities

Identity r/e-infras EOSC EOSC AARC

**Operational Support** 





The 'eScience Global Engagement' of EnCo in the GEANT project is there to support those developments in the policy and best practice areas that would benefit the community at large, and do that by means of supporting the work in the existing forums such as WISE, FIM4R, IGTF, REFEDS, AARC-community, and the research and e-Infra communities directly

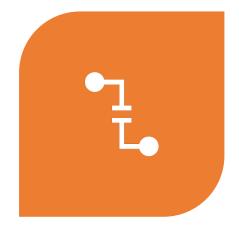
















**TRUST** 



**SECURITY** 

### **REFEDS**

EnCo











WISE



FIM4R



### **AEGIS**



The AARC Engagement Group for Infrastructures (AEGIS) brings together global representatives from AAI operators in research infrastructures and e-infrastructures, which are implementing authentication and authorisation services that support federated access, to discuss adoption of policy and technical best practices that facilitate interoperability across e-infrastructures ands e-infrastructures.



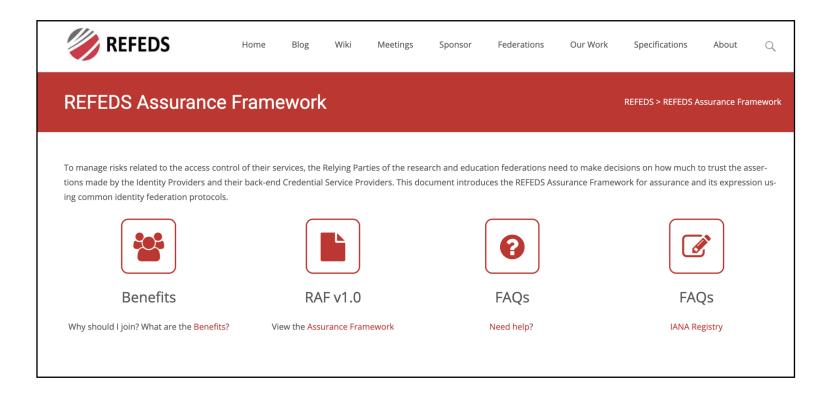






REFEDS (the Research and Education FEDerations group) is to be the voice that articulates the mutual needs of research and education identity federations worldwide.











### **REFEDS Assurance Profile (v1.0)**

- Consisting of three individual specifications:
  - REFEDS Assurance Framework (RAF), ver 1.0, published 2018
  - <u>REFEDS Single Factor Authentication Profile</u> (SFA), ver 1.0, 2018
  - REFEDS Multi Factor Authentication Profile (MFA), ver 1.0, 2017
- Component-based approach
- Two identity assurance profiles: Espresso (high assurance) and Cappuccino (moderate assurance)











#### **Making Identity Assurance and Authentication Strength Work for Federated Infrastructures**

Jule Anna Ziegler, a,\* Uros Stevanovic, David Groep, lan Neilson, David P. Kelsey and Maarten Kremers<sup>e</sup>





<sup>&</sup>lt;sup>a</sup>Leibniz Supercomputing Centre, Garching near Munich, Germany

<sup>&</sup>lt;sup>b</sup>Karlsruhe Institute of Technology (KIT), Karlsruhe, Germany

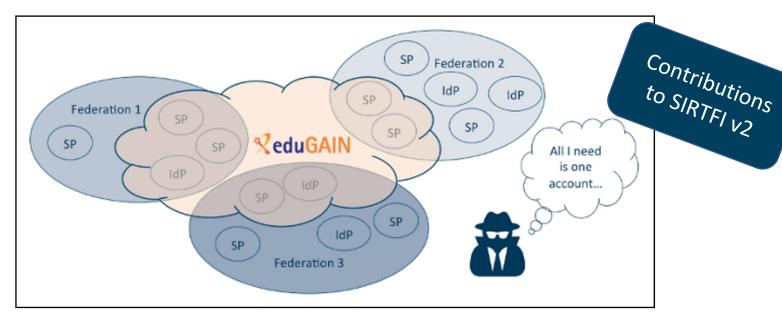
<sup>&</sup>lt;sup>c</sup>Nikhef, Amsterdam, the Netherlands

<sup>&</sup>lt;sup>d</sup> UKRI STFC Rutherford Appleton Laboratory, Didcot, United Kingdom

<sup>&</sup>lt;sup>e</sup>SURF, Utrecht, the Netherlands

















The Wise Information Security for Collaborating e-Infrastructures (WISE) community enhances best practice in information security for IT infrastructures for research.

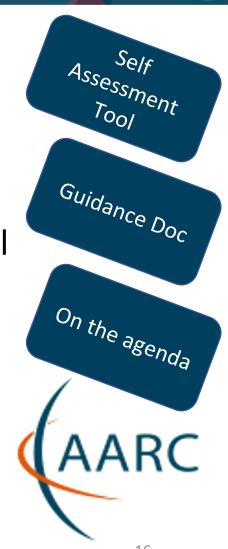
SCI (Security for Collaboration among Infrastructures) Workgroup focusses on best practices, trust and policy standards for collaboration with the aim of managing cross-infrastructure security risks



### **SCI Trust Framework**

- Enable interoperation of collaborating Infrastructures in managing cross-infrastructure operational security risks.
- Builds trust between Infrastructures by adopting policy standards for collaboration especially in cases where identical security policy documents cannot be shared.







#### SCI

### **Security for Collaborating Infrastructures Trust Framework**

#### Introduction

Research and e-Infrastructures recognise that controlling information security is crucial for providing continuous and trustworthy services for the communities. The Security for Collaborating Infrastructures (SCI) working group is a collaborative activity within the Wise Information Security for e-Infrastructures (WISE) trust community. The aim of the SCI trust framework is to enable interoperation of collaborating Infrastructures in managing cross-infrastructure operational security risks. It also builds trust between Infrastructures by adopting policy standards for collaboration especially in cases where identical security policy documents cannot be shared. Governing principles of the SCI framework are incident containment, ascertaining the causes of incidents, identifying affected parties, addressing data protection and risk management and understanding measures required to prevent an incident from reoccurring. The original SCI version 1 Framework was produced in 2013.

The SCI Working Group has produced a second version of the framework, to reflect changes in technology, culture and to improve its relevance to a broad range of infrastructures.

Access the SCI version 2 Framework here



A	В		С	D	E F	G	,2365
Infrastructure Name:		<insert name=""></insert>					
Prepared By:		B C D E F G <insert name=""> <insert name=""> <insert name=""></insert></insert></insert>					
Reviewed By:		<ins< td=""><td>ert na</td><td>, 00</td></ins<>	ert na	, 00			
Operational Security [OS]		Maturity				Evidence	
		Va	alue	Σ		(Document Name and/or URL)	
OS1 - Security Person/Team		_					
OS2 - Risk Management Process							Guidan
OS3 - Security Plan (architecture, policies, controls)				2.0			TYIGAN
1 OS3.1 - Authentication			3				197
OS3.2 - Dynamic Response			1				
OS3.3 - Access Control							
4 OS3.4 - Physical and Network Security							
OS3.5 - Risk Mitigation							
6 OS3.6 - Confidentiality							
OS3.7 - Integrity and Availability	Q		1	1.0			
8 OS3.8 - Disaster Recovery							
9 OS3.9 - Compliance Mechanisms							$\overline{\bigcirc}$ .
OS4 - Security Patching			1	1.0			On the
1 OS4.1 - Patching Process		_					9117
OS4.2 - Patching Records and Communication							
OS5 - Vulnerability Mgmt			1	0.7			
4 OS5.1 - Vulnerability Process							







#### Top Level Infrastructure Policy Template

Questions to ask yourself when defining the policy:

- Who are the actors in your Infrastructure environment?
- How will you tie additional policies together for the infrastructure?
- · Which bodies should approve policy wording?

This policy is effective from <insert date>.

#### INTRODUCTION AND DEFINITIONS

To fulfil its mission, it is necessary for the Infrastructure to protect its assets. This document presents the *policy* regulating those activities of *participants* related to the security of the Infrastructure.

#### Definitions

**Infrastructure** All of the IT hardware, software, networks, data, facilities, processes and any other elements that together are required to develop, test, deliver, monitor, control or support *services*.

**Service** An *infrastructure* component fulfilling a need of the *users*, such as computing, storage, networking or software systems.



Service Operations Security

Protection / ARC





### WISE Community:

Security Communication Challenges Coordination WG (SCCC-WG)

#### Introduction and background

Maintaining trust between different infrastructures and domains depends largely on predictable responses by all parties involved. Many frameworks – e.g. SCI and Sirtfi – and groups such as the coordinated e-Infrastructure – the IGTF, and REFEDS, all promote mechanisms to publish security contact information, and product or implicit expectations on their remit, responsible and level of confidential products of the confi

Contributions by EnCo On the agenda

Dashboard /... / SCCC-JWG 🚡

#### Communications Challenge planning

Created by David Groep, last modified by Maarten Kremers on Jan 22, 2020

Body	Last challenge	Campaign name	Next challenge	Campaign name	Status
IGTF	October 2019			IGTF-RATCC4-2019	Completed
EGI	March 2019	SSC 19.03 (8)			(Completed
Trusted Introducer	August 2019	TI Reaction Test	January 2019	TI Reaction Test	Repeats three times a year

#### Campaign information

Campaigns can target different constituencies and may overlap. The description of the constituency given here should be sufficient for a huit need not be a detailed description or a list of addresses (which would be a privacy concern since this page is public). Challenges can also a contact address does not bounce, to testing if the organisation contacted can do system memory forensic analysis and engage effectively

- ability to receive mail does not bounce or phone rings
- · automated answering ticket system receipt or answering machine
- human responding a human (helpdesk operative) answers trivially (e.g. name)
- · human familiar with subject-matter responding responsible person responds
- service analysis capability a responsible person or team can investigate and resolve common incidents reported to the contact addre

See also https://www.eugridpma.org/agenda/47/contribution/6/material/slides/0.pptx for some background.

ease do not post sensitive data to this Wiki - it is publicly viewable for now





FIM4R









The Interoperable Global Trust Federation (IGTF) is a body to establish common policies and guidelines that help establish interoperable, global trust relations between providers of e-Infrastructures and e-Research, identity providers, and other qualified relying parties.







Guidelines for Secure Operation of Attribute Authorities and issuers of statements for entities

Publication Date 2022-02-24

Authors: Members of the IGTF and the AARC Community; David Groep; Ian Collier, Tom Dack;

Jens Jensen; David Kelsey; Maarten Kremers; Ian Neilson; Stefan Paetow; Hannah

Short: Mischa Sallé: Uros Stevanovic

With feedback from Marina Adomeit; Sander Apweiler; Jim Basney; Christos Kanellopoulos; Johannes

Reetz

AARC Document Code: AARC-G071

AA Operations Security

Guideline 2022 (AARC-G071) AEGIS endorsed https://www.eugridpma.org Lguidelines/adops/



### FIM4R

FIM4R (Federated Identity Management for Research) is a collection of research communities and infrastructures with a shared interest in enabling Federated Identity Management for their research cyber infrastructures. In order to achieve this, FIM4R develops requirements bearing on technical architecture, federated identity management, and operational policies needed to achieve a harmonious integration between research cyber infrastructures and R&E Federations.



FIM4R

Support by Enco

Work in progress: Assurance





FIM4R







### **GN4-3 Project Updates**

- EnCo Policy presentation at ISGC2022
  - Accepted presentation for TNC22!





**GN5-1** preparations

- 1<sup>st</sup> Jan 2023 31<sup>st</sup> Dec 2024 (2y)
  - Proposal submitted





GN5-1 preparations & EnCo Possible new topics

- Policy for token based interopable trust frameworks
  - SNCTFI revisited





### Relevant meetings

- TNC22
   14<sup>th -</sup> 16<sup>th</sup> June (Trieste, Italy)
  - REFEDS 13<sup>th</sup> June (Trieste, Italy)
    - Security day
- 17<sup>th</sup> June (Trieste, Italy)





### **GN4-3 Project Updates**

- Review our own workplan
- Activities that need or more less attention
  - New Activities
  - Activities to dropped

https://edu.nl/ctxxg



### Engage!

- •https://fim4r.org
- •https://refeds.org
- •https://wise-community.org
- •https://www.igtf.net
- https://aarc-community.org

•Contact us: <a href="mailto:policy@aarc-community.org">policy@aarc-community.org</a>









# Thank you Any questions?

maarten.kremers@surf.nl















23



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. 856726 (GN4-3).