

Authentication and Authorisation for Research and Collaboration

#### WP3: Policy and Best Practice Harmonisation addressing the research communities' requirements

David Groep NA3 Activity Coordinator Nikhef

AARC EC Review 27-28 June, 2017 Brussels

version 20170517-03 DRAFT DO NOT USE FOR REAL PURPOSES





#### Structure and administrative matters

- Team tasks, task leaders, and partners
- Resources budget and effort utilisation
- Objectives

## Achievements

- Differentiating Assurance Profiles for Research with Distinct Risk Levels
- Trusted Security Incident Response for Federations
- Sustainable Services: Models and Mechanisms
- Enabling Infrastructures to Collaborate by Permitting Sharing of User Data
- Building Agreements on Policy in a Scalable Fashion

## Conclusions

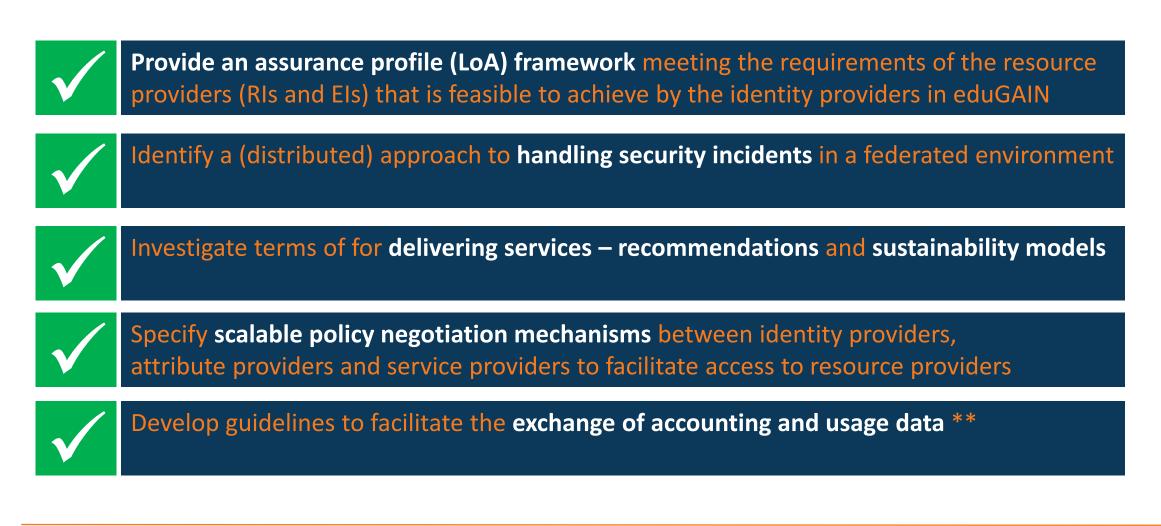
#### **Activity Structure**





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#### **Policy and Best Practices Harmonisation**

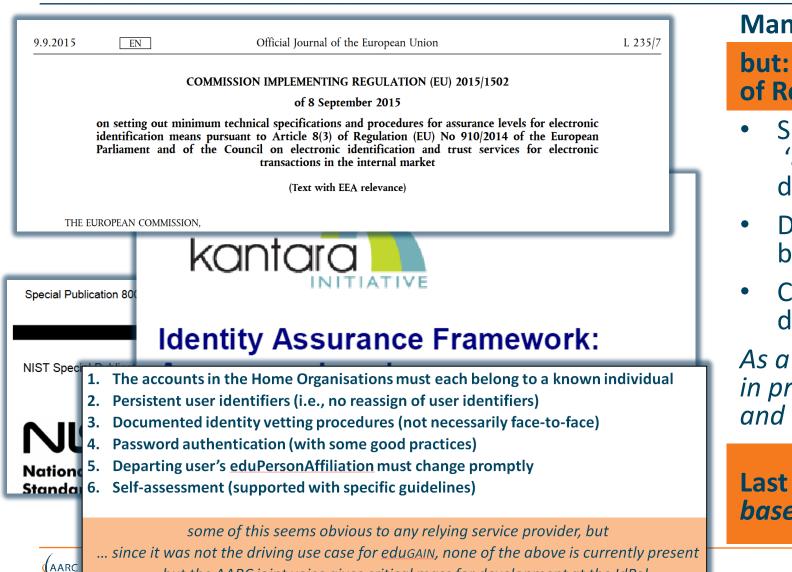


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## Task 1 Development of best practices for Levels of Assurance



#### Assurance Profiles and 'differentiated' levels of assurance



... but the AARC joint voice gives critical mass for development at the IdPs!

#### Many layered models (3-4 layers)

## but: specific levels don't match needs of Research- and e-Infrastructures:

- Specific combination 'authenticator' and 'vetting' assurance doesn't match research risk profiles
- Disregards existing trust model between federated R&E organisations
- Cannot accommodate distributed responsibilities

As a result, in R&E there was in practice hardly any documented and agreed assurance level

## Last year: baseline assurance for research use cases

#### **Differentiated assurance from an Infrastructure viewpoint**



#### 'low-risk' use cases

few unalienable expectations by research and collaborative services

#### **Baseline Assurance**

1.known individual
 2.Persistent identifiers
 3.Documented vetting
 4.Password authenticator
 5.Fresh status attribute
 6.Self-assessment

#### generic e-Infrastructure services

access to common compute and data services that do not hold sensitive personal data



#### **Slice includes:**

**1.assumed ID vetting** 



*'Kantara LoA2', 'eIDAS low', or 'IGTF BIRCH'* 2.Good entropy passwords 3.Affiliation freshness better than 1 month

## protection of sensitive resources

access to data of real people, where positive ID of researchers and 2-factor authentication is needed

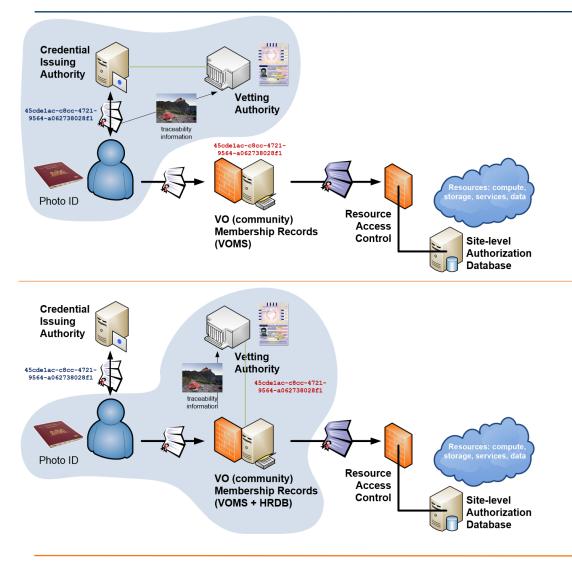


#### Slice includes:



1.Verified ID vetting *'eIDAS substantial', 'Kantara LoA3'*2.Multi-factor authenticator

# An example from EGI: beyond a single baseline with *differentiated assurance*?



- managed identity information
- real names, unique identifier
- user-level traceability through the IdP
- managed credential expiration or revocation
   IGTF 'Birch' traditional assurance from IdP
   Limited vetting requirements on community
- unique identifier based on some process
- not necessarily face-to-face
- credential expiration set at issuance only
   IGTF 'Dogwood' identifier-only assurance from IdP

Traceability requirements added on community

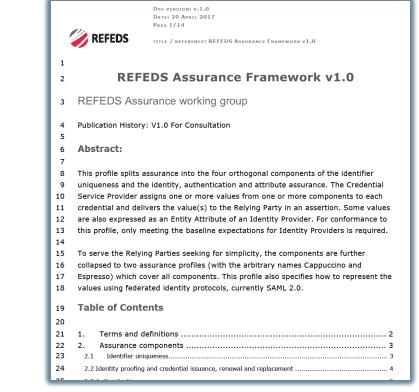
#### **Gaining global adoption: REFEDS Assurance Framework**

#### Why a REFEDS process?

- open forum AARC does not have all stakeholders inside
- international forum a Europe-only approach not helpful
- link to identity federations adoption needs IdP to act and federations to communicate
- re-enforces complementary work on the REFEDS MFA profile

#### **Expression and technical adoption**

- leads to new eduGAIN metadata and new attributes for IdPs
- Definite implementation guidance in normative form helps



#### Facilitate evaluation and peer review by kick-starting a self-assessment tool

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#### Differentiated Assurance Profile – in eduGAIN, REFEDS, and beyond



## Specific definitive guidance to IdPs and federations

- Uniqueness at least ePUID or ePTID/NameID
- **ID proofing**: 'local enterprise', 'assumed' (Kantara LoA2, IGTF BIRCH, eIDAS low), or 'verified (LoA3, eIDAS substantial)
- Authenticator: follow REFEDS MFA 'good-entropy' or 'multi-factor'
- Freshness: better than 1 month

Any and all assurance profiles organisational-level authority, also used locally for 'real work', good security practices

#### Logical grouping and profiles for the Infrastructures

Value	Cappuccino	Espresso
<pre>\$PREFIX\$/ID/unique</pre>	х	Х
<pre>\$PREFIX\$/ID/no-eppn-reassign</pre>		
<pre>\$PREFIX\$/ID/eppn-reassign-1yr</pre>		
<pre>\$PREFIX\$/IAP/local-enterprise</pre>	Х	Х
<pre>\$PREFIX\$/IAP/assumed</pre>	Х	Х
<pre>\$PREFIX\$/IAP/verified</pre>		Х
<pre>\$PREFIX\$/AAP/good-entropy</pre>	Х	
<pre>\$PREFIX\$/AAP/multi-factor</pre>		Х
\$PREFIX\$/ATP/ePA-1m	х	Х

#### ... and simplicity for all – mandatory expression of profiles

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https://wiki.refeds.org/display/CON/Consultation%3A+REFEDS+Assurance+Framework

#### Assurance with global impact – LIGO Gravitational Waves Observatory response (REFEDS list, May 16<sup>th</sup>) Re: [refeds] Consultation: REFEDS Assurance Framework 18:30 warren.anderson 🗟 Reply List 🔻 🔶 Forward 🍌 Redirect Reply From warren.anderson <warren.anderson@ligo.org> Subject Re: [refeds] Consultation: REFEDS Assurance Framework To refeds@lists.refeds.ord Dear All, These profiles address some substantial issues with assurance currently experienced by LIGO and similar research VOs. LIGO believes that it will be a relatively straightforward process to have it's IdP satisfy Cappuccino requirements. In conjunction with Jim's proposal to accept Cappuccino for CILogon Silver, this will address a longstanding issue with LIGO using European Grid Infrastructure resources which has traditionally been an issue. I endorse these profiles and look forward to their adoption. Cheers, Warren but can struggle to meet the complete requirements at any given level. The REFEDS Assurance Framework and assurance profiles intend to meet known use-cases in a pragmatic and tailored way. With thanks to AARC for supporting man-power to create this proposal. +=======[ WARR Best wishes LIGO Scientist, IAM Ma PO Box 413, Milwaukee Nicole AAI

#### Main achievements in assurance profile development



Infrastructure interviews and FIM4R analysis	<b>→</b>	Baseline assurance requirements aligned with REFEDS R&S + Sirtfi
Analysis of assurance mechanisms IETF VoT and SP800-63v3 – balanced to relying party needs	<b>→</b>	Proposed Assurance <i>Profiles</i> , not <i>levels</i> , aligned with community needs
IdPs and federations need specific implementation guidance	→	Decomposition of assurance in 4 independently assessable components
Relying parties need actionable assertions	<b>→</b>	Profiles linked to concrete cases: baseline (IGTF identifier-only), 'cappuccino' (e-Infrastructures, IGTF Birch), and 'espresso' (biological, medical use cases)

#### **Policy and Best Practices Harmonisation**





## Task 2 Security Incident Response

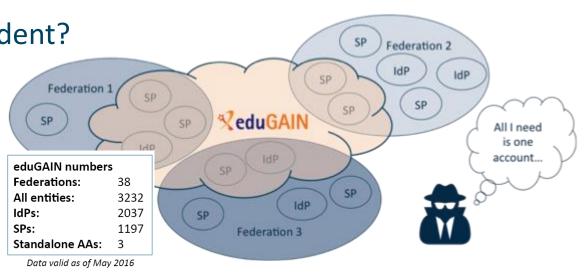


#### **Security Incident Response in the Federated World**

- How could we determine the scale of the incident?
  - Do useful logs exist?
  - Could logs be shared?
- Who should take responsibility for resolving the incident?
- How could we alert the identity providers and service providers involved?
- Could we ensure that information is shared confidentially, and reputations protected?

### **Security Incident Response Trust Framework for Federated Identity**

Sirtfi – based on Security for Collaborating Infrastructures (SCI) & FIM4R Recommendations





#### A Security Incident Response Trust Framework – Sirtfi summary



#### **Operational Security**

• Require that a security incident response capability exists with sufficient authority to mitigate, contain the spread of, and remediate the effects of an incident.

#### Incident Response

- Assure confidentiality of information exchanged
- Identify trusted contacts
- Guarantee a response during collaboration

#### Traceability

- Improve the usefulness of logs
- Ensure logs are kept in accordance with policy

#### Participant Responsibilities

• Confirm that end users are aware of an appropriate AUP

#### Sirtfi adoption in eduGAIN



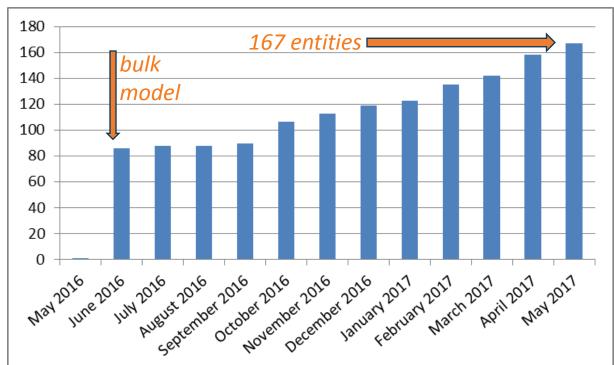


- Adds security contact meta-data in eduGAIN
- namespace for Sirtfi Assurance at IANA
- with R&S specification: meets baseline assurance requirements and IGTF "assured identifier trust"

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#### Promotional activities successful

- REFEDS, Internet2 TechX, ISGC Taipei, TNC, TF-CSIRT, FIM4R, Kantara webinars, ...
- Used in CyberOps role play exercises



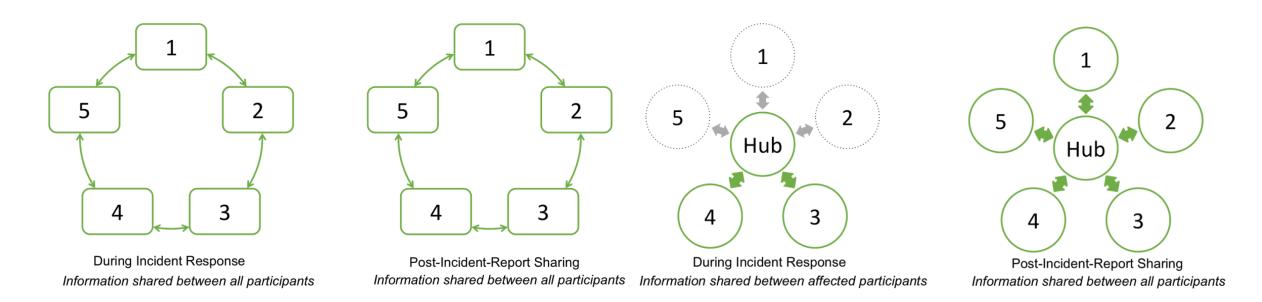
#### Compare: 376 REFEDS R&S after 3+ yrs



trust relationships: allow information to flow rapidly to all that need to know

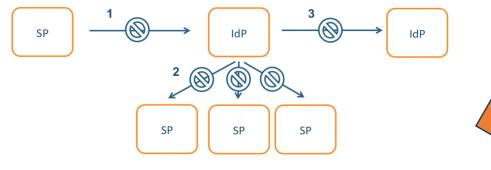
Infrastructure sharing model: PRACE, XSEDE, ...

Infrastructure sharing model: EGI, WLCG, ...



#### Incident response process evolution in federations

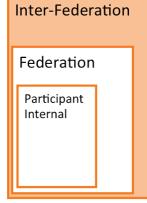




Incident Response Communication, communication blocks

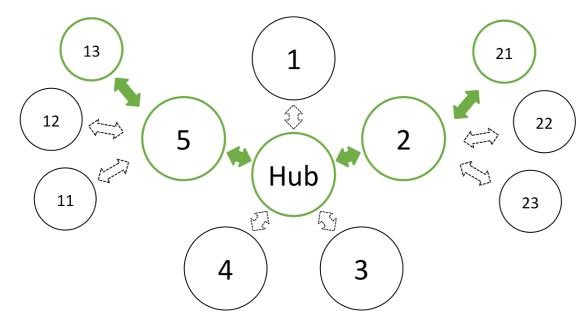
#### Challenges

- IdP appears outside the service' security mandate
- Lack of contact, or lack of trust in IdP which is an unknown party
- IdP fails to inform other affected SPs, for fear of leaking data or reputation
- No established channels of communication



#### **Proposed solutions**

- Stronger role for federation operators, as they are known to both SPs and IdPs
- Add hub capability centrally (@ eduGAIN)



Inter-Federation Incident Response Communication

#### **Addressing Security Incidents – a Joint Effort**

31-12-2016

Deliverable DNA3.2: DNA3.2 - Security Incident Response Procedure



#### **Each federation should**

- provide a federation security contact point which is well-known
- appoint a Security Coordinator when notified about a potential incident and help out

#### The eduGAIN inter-federation should

- coordinate the incident response process and communications until it is resolved
- produce and share a report of the incident with all Sirtfi-compliant organisations

#### Template procedure – in DNA3.2:

- Closely co-developed with GEANT "The Project" and eduGAIN
- the new eduGAIN support desk will take on the coordination role and act as last resort

#### Infrastructures

- Appear as a single SP towards the federations (its SP-IdP Proxy)
- Leverage existing global trust relationships and detection capabilities and intelligence
- Now also interact with their federation partners

#### Main achievements in federated incident response



Sirtfi defined and achieved global consensus	<b>→</b>	Federation participants can identify trustworthy peers and self-assert compliance
Entity category defined in REFEDS	<b>→</b>	eduGAIN now carries contact data alongside R&S used in scalable access control
Multiple deployment models: both per-entity and per federation	<b>→</b>	> 167 IdPs in eduGAIN are Sirtfi'd today
Incident response procedure agreed	<b>→</b>	Prevent spreading of incidents and increase confidence within R&E federation
eduGAIN support pilot takes on security coordination	<b>→</b>	Information sharing between affected parties improved, reducing misunderstanding

#### **Policy and Best Practices Harmonisation**





## Task 3

## **Recommendation for sustainable services and models**





'Investigate terms of (AAI) usage for delivering services'

>

Making services sustainable – beyond funding cycles and across domains *Guidelines, templates, and how to apply them to the AARC pilots* 

>

Mitigating heterogeneity in Infrastructure and Federation policies and practices Recommendations for future federation development in line with FIM4R



Identity providers 'of last resort', by the Infrastructure or the community *Strategies and risks in staring a guest identity provider* 

#### Promoting sustainability through recommended templates

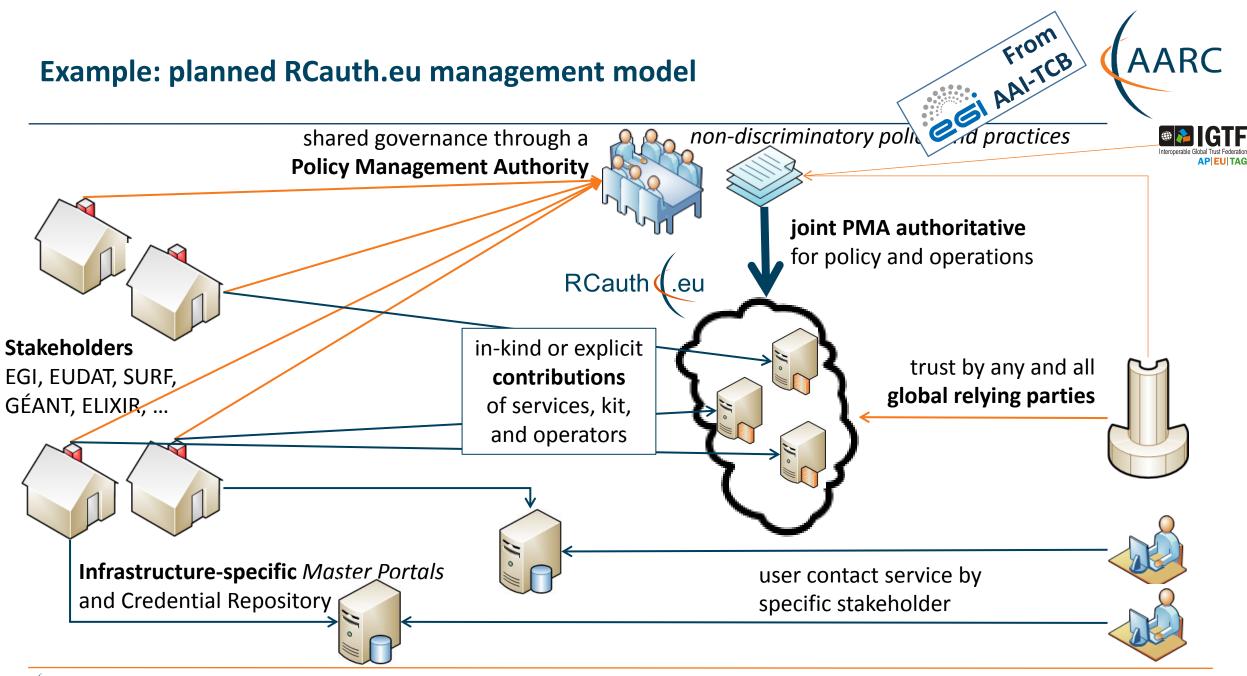


Use-cases and	Users		Common analysis
List the		and Funding	<ul> <li>Initial focus usually on 'use cases' and 'service implementation' this misses the long-term sustainability</li> </ul>
Whic Which What N	Vhat a Gov	ernance, Policies and Processes	
Estim Who is In	n gene Are Eac Who		<ul> <li>Only few pilots have yet addressed full set</li> </ul>
Who si Costs k	Est pla Thi	What is the current architecture?	
14	What a Who	t How many elements compose the service?	

#### AARC SA1 Pilots with a sustainability plan

- RCauth.eu\*
- DARIAH Guest IdP

- Social IDs to SAML
- WaTTS



#### Planned RCauth.eu: operator distribution and support plans



#### Beyond just the 'Nikhef Best Effort<sup>™</sup>' service

- what is 'the service' in this context: Delegation Service & WAYF
- can be anywhere between a few kEur to well over 100+kEur cost per year ...

**Recuperation model** 

- Credential Management services from other (non-RCauth) sources, per-Infrastructure
- Delegation Service and RCauth.eu: free at point of use
- funded via in-kind contributions by the major e-Infrastructures
- distributed H/A setup, leveraging existing capabilities and some additional person effort
   EOSC Hub Consortium picked middle ground
- contribute effort and some hardware resources to the joint pan-European pool
- help steer the development through joint, independent, management body (PMA)
- partners with existing security operations expertise: GRNET, STFC, FZJ + SURF/Nikhef



#### For Research and generic e-Infrastructures

- Following the AARC BluePrint and the intent of the FIM4R group make it easier for users
- Support GEANT DP CoCo when possible + R&S ease the liability on IdPs to give you data
- Joint Sirtfi and help the R&E security stance
- Apply homogeneous policy mapping frameworks inside your Infrastructure: 'Snctfi'!

#### For Federations, REFEDS, and eduGAIN

- Support an omnidirectional, non-reassigned ID for users that is standard everywhere
- Don't filter authentication to only services you know about: allow meta-data to flow
- Support attribute release through R&S, and collaborate in Sirtfi
- Help eduGAIN operate a support desk to help international research and collaboration

Recommendations go to REFEDS, eduGAIN – and the Infrastructures through FIM4R & IGTF



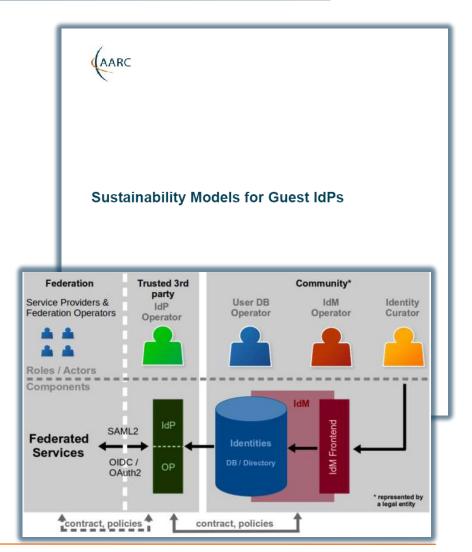
#### Guest IdPs are critical to almost all collaboration use cases

> Collaboration does not end at the door of the university!

Model study: too often 'guest' IdPs have faded – sustainable elements extracted:

- Use established, long-lived, institutional partners
- Ensure funding beyond projects
- Framework needed for 'non-trivial' communities

As collaboration moves to meeting at least **baseline assurance**, cheap-and-cheerful guest IdPs will fail



#### Main achievements in sustainability development



Template for sustainability analysis	→	Concrete future plans for SA1 pilot results
RCauth sustainability model	<b>→</b>	Adoption as baseline service by major Research and e-Infrastructures
Recommendations for Infrastructures	<b>&gt;</b>	Better attribute release by federations and increased usability by researchers
Recommendations for federations	<b>→</b>	Increased adoption of R&S and Sirtfi allows research SPs like CERN and EGI to join
Model study for guest IdPs	<b>→</b>	Improve planning and expectations of 'cheap-and-cheerful' project-based IdPs



#### **Policy and Best Practices Harmonisation**





## Task 4 Development of scalable policy negotiation mechanisms



#### Getting agreements in a distributed world: scalable policy mechanisms



#### Group entities to ease agreements with federations

- Aim: improve attribute release by IdPs & Federations
- Entity Category mechanism: 'R&S', DP CoCo, Sirtfi, ...

**Define trust framework for Infrastructures – SPs-to-IdPs** 

- Framework for Infrastructures to assess back-end SPs
- Permit Gateway to assert entity categories with confidence
- Readiness survey for services evaluated with HNSciCloud PCP

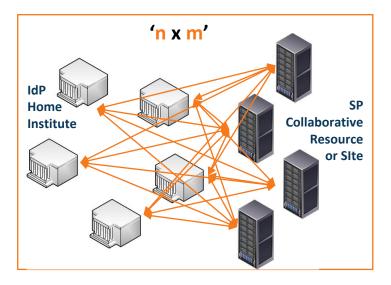
#### **Develop policies models for SP-IdP Proxy – IdPs to SPs**

- Model for service providers that 'hide' complexity of all R&E
- Through concrete (RCauth.eu) use case & with global review

**Collaborations by design have their services distributed** 

and

- not that many collaborations are a legal entity
- or are not 'authoritative' for constituent services





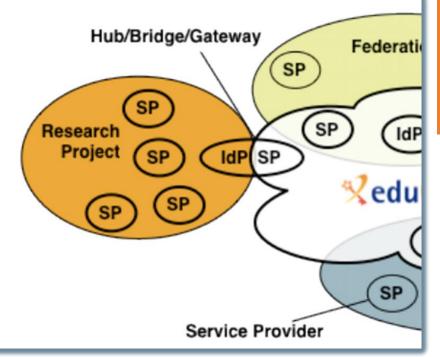
eduGAIN 'SAML' Entity Categories Review	Entity Category Experiment using Sirtfi	<b>Continuous monitoring</b>
• adoption survey	• Sirtfi compliance via ECs	GEANT and eduGAIN
• granularity of categories	• self-assessment facilitates	• technical.edugain.org
<ul> <li>traditionally pushed by IdPs, with requirements on SPs, but that is changing!</li> </ul>	adoption – but does it show in eduGAIN publication?	<ul> <li>Unexpectedly rapid adoption:</li> <li>Sirtfi: 167 entities / ~1 yr</li> </ul>
<b>'</b> REFEDS R&S <b>',</b> 'DP CoCo', but also 'CLARIN', 'SWAMID AL1',		<ul> <li><i>R&amp;S:</i> 284 → 646 entities/1yr</li> <li><i>Both grow together now!</i></li> </ul>
		<i>Thus: time is 'ripe' for EC</i> <sup>(2)</sup>

#### **Snctfi: aiding Infrastructures achieve policy coherency**



allow SPIdP Proxies to assert 'qualities', categories, based on assessable trust

Develop recommendations for an Infrastructure's coherent policy set



### Snctfi

Scalable Negotiator for a Community Trust Framework in Federated Infrastructures

- Derived from SCI, the framework on Security for Collaboration among Infrastructures
- Complements Sirtfi with requirements on internal consistent policy sets for Infrastructures
- Aids Infrastructures to assert *existing* categories to IdPs REFEDS R&S, Sirtfi, DPCoCo, ...

Licia Fiorio (GÉANT), David Groep (Nikhel), Christos Kanellopoulos (GEANT) David Kelsey (STFC), Mikael Linden (CSC), Ian Neilson (STC), Stofan Paetov (Jiloc), Wolfgang Pempe (DPN), Vincent Riballier (IDRIS-CNRS), Mischa Salle (Nikhel), Hannah Short (CERN), Uros Stevanovic (KIT) and Gerben Venekamp (SURFsara)

AARC - Version 1.0 - 26 Apr

Abstract: This paper identifies operational and policy requirements to help establish trust between an infrastructure and identity providers either in an R&E Federation or in another infrastructure, in each case joined via a Service Provider to Identity Provider proxy.

Audience: This document is intended for use by the personnel responsible for th management, operation and security of an Infrastructure and those wishing to assess i trustworthiness.

#### Snctfi infrastructure requirements, a summary



#### **Operational Security**

- State common security requirements: AAI, security, incident and vulnerability handling
- Ensure *constituents* comply: through MoUs, SLA, OLA, policies, or even contracts, &c

#### User Responsibilities

- Awareness: users and communities need to know there are policies
- Have an AUP covering the usual
- Community registration and membership should be managed
- Have a way of identifying both individuals and communities
- Define the common aims and purposes (that really helps for data protection ...)

#### Protection and Processing of Personal Data

- Have a data protection policy that binds the infrastructure together, e.g. AARCs recommendations or DP CoCo
- Make sure every 'back-end' provider has a visible and accessible Privacy Policy

Model scalable policies for SP-IdP Proxies – the RCauth.eu example

How can a SP-IdP proxy leverage federation policies?
What are useful design criteria for a scalable service?





Focus on permitting individual access, engaging both federations and Infrastructures

- Avoid an opt-in model, or a scheme where specific countries can opt-out or block access
- Allow infrastructures explicitly to operate an IdP of last resort, and recognise its qualities

#### Meet your (target) infrastructure needs

• For cross-infrastructure services, peer review and accreditation significantly helps adoption

Leverage entity categories and assurance profiles

Don't ask IdPs to do something special just for your gateway

Be ready to deal with a complex, multi-national, and multi-federation reality

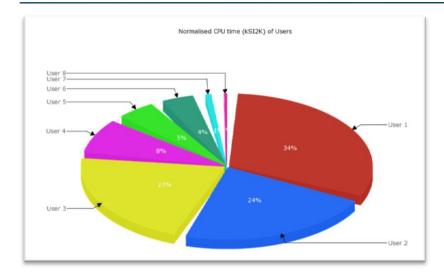
• Incidental non-compliance needs to be mitigated in your service – use Sirtfi & eduGAIN support



Status of Entity Category adoption in eduGAIN	<b>&gt;</b>	Identifying entities speeds adoption done very successfully for Sirtfi
Snctfi policy coherency for Infrastructures	<b>&gt;</b>	Document endorsed by infrastructure reps will be homed long-term by IGTF (or FIM4R)
RCauth.eu policy reference implementation	<b>→</b>	Accredited gateway service with global reach enabling federated access to resources in EGI, OSG, XSEDE, ELIXIR, and others
HelixNebula Science Cloud recommendations	<b>&gt;</b>	Easy checklist to push to new (commercial) providers that we want to be federated

#### **Policy and Best Practices Harmonisation**





## Task 5 Accounting and the processing of data





Protection of personal data in research data	User attribute release by federated organisations	Personal data processing in accounting & collaboration
<ul> <li>patient records</li> <li>survey data collation</li> </ul>	<ul> <li>institutional IdP attributes</li> <li>GEANT DP CoCo*</li> </ul>	• collection of usage data in RIs and e-Infrastructures
<ul> <li>big data analytics</li> <li>research data combination</li> </ul>	<ul> <li>minimal release in eduGAIN</li> <li>REFEDS</li> </ul>	<ul> <li>correlating resource usage to people and groups</li> </ul>
	Research & Scholarship	<ul> <li>collate usage data across countries and continents</li> </ul>
Research Infrastructures Institutional	REFEDS, GEANT4	<ul> <li>personal data used for incident response</li> </ul>
Ethical Committees ESFRI Cluster Projects	• community management Joint RIs, EIs and AARC work	AARC "TNA3.5" – this task

\* GEANT Data Protection Code of Conduct – see http://geant3plus.archive.geant.net//uri/dataprotection-code-of-conduct/v1/Pages/default.aspx Identified needs and structure – MNA3.2 as basis for recommendations



#### Data collection necessary for 'legitimate interests' for Research and e-Infra

- Justification of **global** resource use, with infrastructures collecting data collaboratively
- Operational purposes: fault finding, researcher support, Incident response

#### Global view needed for accounting data

- exchange of personal data is imperative both for EIs and Research Collaboration funding
- roles are defined to limit access to personally identifiable data

#### Policy coherency as enabler – model policies

- put in place policies on retention, permissible use, secure exchange, purpose limitation
- 'binding' in the sense that a party can only remain in the club if it's compliant
- policy suite identified by Security for Collaborating Infrastructures (SCI) group

#### Security Incident Response – data exchange

• add as permissible purpose, but leave its scope to Sirtfi and existing forums

**Three community models – three Recommendations?** 



Ref. Ares/2016/6703253 - 30/

#### GDPR-style Code of Conduct – a new way?

- Global sharing in controlled communities appears attractive
- Uncertainly about requirements (governing body) and timing (> Mar 2018) are not helpful for adoption today ... just yet
- Ongoing work: text needs to allow for (community) attribute authorities

#### Model Clauses

- Only works for tightly and 'legal document' controlled communities
- Puts legal and contract onus on the SP-IdP Proxy (as per our Blueprint)
- Research and Collaboration lack both mechanism and time to do this

#### BCR-inspired model ("Binding Corporate Rules"-like)

- Note that this is not formally BCR, so requires acceptance of some risk
- Collaborations (e.g. based around Snctfi) with control mechanisms benefit
- "Say what you do, and do as you say" transparency and openness is our real benefit towards the person whose data is being handled

eliverable DNA3.5: ecomy endations and template policies r the processing of personal data

Fask Item:

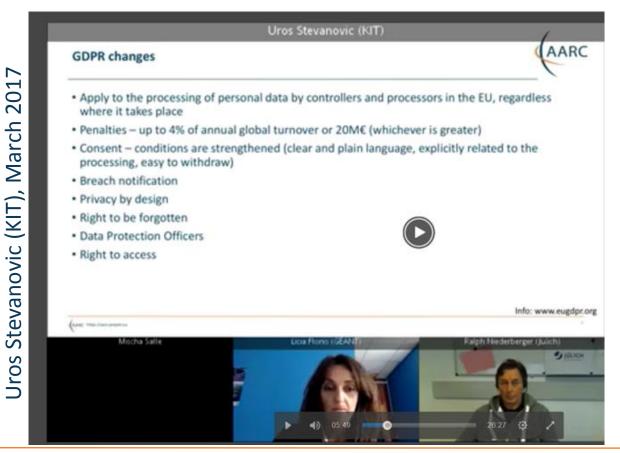
Unos Stevanovic, lan Nielson, David Kelsey, Gerben Venekamp, Stefan Paetow, David Groep, Mikael Linder, Marcus Hardt, Hannah Short, Peter Gietz, Rob van der Wai AARC project. These results has received funding from the European Community's Horizon2020 Programme under

Infat across different administrative domains and across borders in Europe and beyond needs to address the information. In the majority of use cases, and for all cross-domain resource provides and e-infrastructures, onal data in ordor to provide enrices. The main adjective to to provide template to policies that operandos and e infrastructures can use. It provides updates allow the legal context and identifies the minimal set of information in the preventium cances and these treemes from the policies Total compatible ASA1.

#### AARC InfoShare on data related to accounting, monitoring and logging



Talk and present the accounting data protection recommendations everywhere! Especially since most researchers actually don't care about this (and frankly don't understand the fuss we make about their personal data ...)



#### https://aarc-project.eu/aarc-infoshare/

#### Main achievements in infrastructure & accounting data protection



Survey of requirements for AAI data protection	<b>→</b>	Infrastructures collect similar kinds of data, and do not need sensitive personal data for accounting: common guidance is realistic
	<b>&gt;</b>	Global exchange of this data is essential
Review of GDPR changes	<b>→</b>	Identified BCR-like model as basis for data processing in Infrastructures
	<b>→</b>	GDPR-style Codes of Conduct attractive, but uncertainty about need governing body
	<b>→</b>	No straightforward legal basis exists for scalable global research collaboration 😕

#### **Policy and Best Practices Harmonisation**





## Pulling it all together





- Bridged need for specific guidance and actionable assurance with infrastructure-driven profiles
- Developed via REFEDS to get global adoption and federation acceptance
- Sirtfi approved and rapidly implemented: strong growth in eduGAIN with already 167 entities
- Practical process for addressing global incidents, in close collaboration with eduGAIN Support
- Concrete recommendations for Infrastructures and Federation to drive FIM4R and eduGAIN
- Ensure the result will live: sustainability templates lead to successful long-lived services
- Snctfi aids Infrastructures presenting coherent qualities towards federations with confidence
- Accounting Data Protection recommendations help Infrastructures provide services jointly

**Primary Open Challenges – for AARC2 and the Community** 



#### Snctfi is 'just a framework' – now apply it to interoperate

- Provide best practices and give recommendations to infrastructures on how to address responsibilities, security, and trust mechanisms to enable interoperation
- 'Cross-silo' trust between Research Infrastructures, and with generic e-Infrastructures
- Encourage joint trust in acceptable use policies, attribute management, and identity assurance

#### Policy baselines – beyond mapping to harmonisation

- Extend the Assurance Baseline and differentiated Profiles to other areas: traceability and logging, differentiates views on accounting and user data, evolution of the GDPR,
- Create through the AARC2 Competence Centre a global consensus: IGTF, FIM4R, &c

#### Security Incident Response

- Communities and research infrastructures hold the key to mitigating user-centric incidents: involve attribute authorities and involve SP-IdP Proxies in the mitigation process
- Promote organisational & individual trust groups within the eduGAIN constituency: WISE, eduGAIN
- Standards for sharing incident response notifications and reports

https://aarc-project.eu/workpackages/policy-harmonisation/ https://wiki.geant.org/display/AARC/AARC+Policy+Harmonisation

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	In AARC, we put primary boos on a selected set of elements: - Assurance Level Insaferie and differentiated assumance profiles (alongside a self-assessment tool) - Security Incident Response in federated environments - Models of sustainability and support for "guest identity" - Scaleable policy negotiation: adaption of "entity categories" and the development of a policy framework for IdP-SP proteins - Protection of (main's personal) data that is generated as a result of Inflastructure use (e.g. in accounting) - Responses - Protection of (main's personal) data that is generated as a result of Inflastructure use (e.g. in accounting) - Responses - Responses - Response aspects to a suppose are agreed to in a scale web web tables that agreements do not work in a				

Thanks to all P&BP collaborators from CSC, CERN, DAASI, RAL/STFC, KIT, GRNET, DFN, Renater, SURFsara, LIBER, and Nikhef, and to Jim Basney of NCSA, CTSC and CILogon

## Thank you Any Questions?

davidg@nikhef.nl



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© GEANT on behalf of the AARC project. The research leading to these results has received funding from the European Union's Horizon 2020 research and innovation programme under Grant Agreement No. 653965 (AARC)