

FIM4R



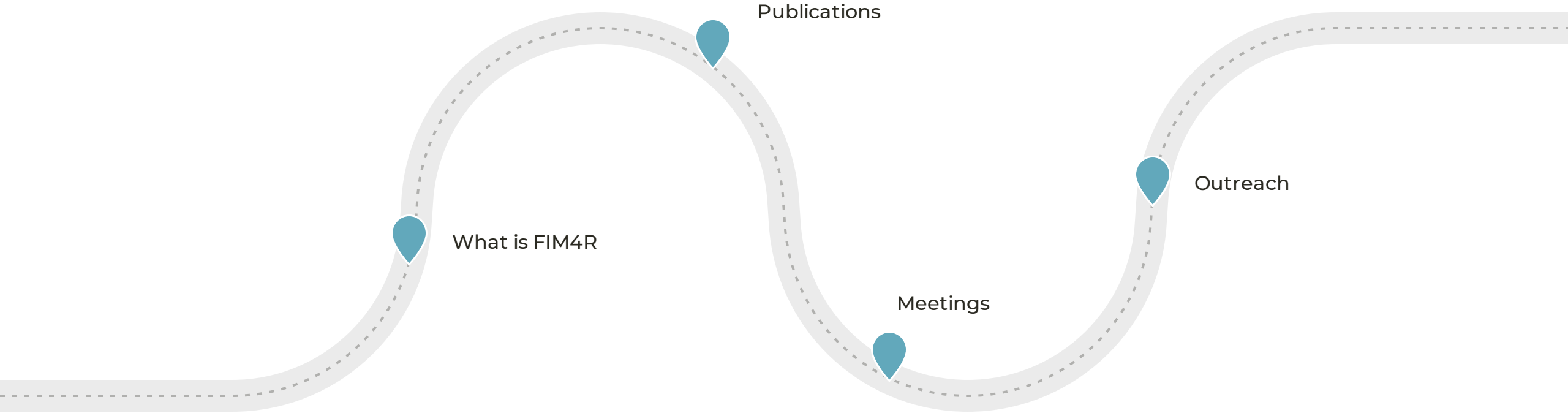
# 2024 and Beyond: FIM4R's Contributions to the AAI landscape for Research

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ISGC2024, Taipei

# Special thanks to:

- Tom Barton
- David Kelsey
- David Groep
- Peter Gietz
- Hannah Short
- *And all predecessors*

# Outline



What is FIM4R

Publications

Meetings

Outreach

What is 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.

These requirements may apply to R&E Federations, the research cyber infrastructures, or proxies and other components that link them together. **FIM4R members collaborate with organisations in both domains, R&E Federation and research cyber infrastructures**, to help implement these requirements.

# Participants (1)

## Research Fields

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- Arts and Humanities
  - Climate Science
  - Earth Observation
  - European Neutron and Photon Facilities
  - Gamma-Ray Astronomy
- Gravitational Wave Astronomy
  - High Energy Physics
  - Ionospheric and Atmospheric Science
  - Infectious Disease Research
- Life Sciences
  - Linguistics
  - Nuclear Physics
  - Radio Astronomy
  - Virtual Atomic and Molecular Data Centre

# Participants (2)

## Research Driven Services

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- HNSciCloud
- ORCID

## Projects / Communities

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- AARC Projects
- GÉANT / GN Project
- Internet 2/ InCommon



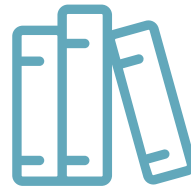
# Publications

# FIM4R Publications



## FIM4R Paper 2012

An initial white paper was produced in 2012 to document common requirements, a common vision and recommendations



## FIM4R Paper 2018

A second white paper was published in 2018 to highlight the progress since 2012 and the prevailing challenges.



## Position Paper on the Desired Evolution of EOSC AAI 2020

# FIM4R Paper 2018

## Federated Identity Management for Research Collaborations

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# Recommendation FIM4R Paper 2018 (1)

## Governance and Coordination

- Increase research representation in FIM governance to prioritise input from all stakeholders
- Ensure sustainability and reliability of FIM services with adequate user support
- Foster ongoing coordination among parties involved in the FIM ecosystem

## Baseline of Research User Experience

- Release Research & Scholarship attributes to enhance usability
- Provide usability essentials like logos and error URLs for better user experience
- Address interoperability barriers in eduGAIN metadata processes.

## Enable Researcher Mobility

- Support account linking techniques and leverage ORCID IDs to facilitate researcher mobility.

# Recommendation FIM4R Paper 2018 (2)

## Security Incident Response Readiness

- Apply best practices in operational security and participate in security incident response frameworks like Sirtfi
- Develop and periodically test security incident response plans.

## Harmonisation of Research Community Proxy Operations and Practices

- Follow the proxy model and AARC guidelines for stable and sustainable operations
- Encourage re-use of shared AAI services and related components to avoid unnecessary duplication.

## Sensitive Research User Experience

- Implement strong forms of authentication and access control to manage confidentiality of research data
- Encourage identity provider organisations to provide strong authentication credentials and implement assurance frameworks like REFEDS Assurance Framework

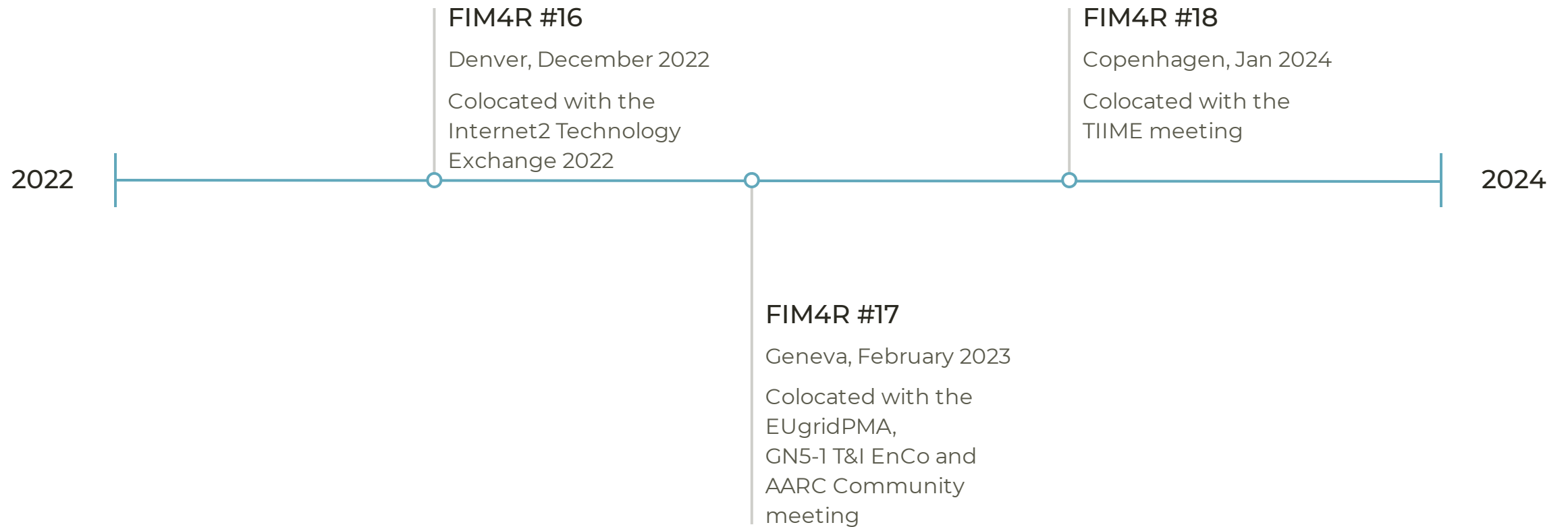
## 5.6 Mapping of Groups to Recommendations

Groups	Recommendations
GÉANT, Internet2, NRENS	Increase research representation in FIM governance Sustain operation of critical FIM services Provide avenues for ongoing coordination
Research funding bodies	Sustain operation of critical FIM services Provide avenues for ongoing coordination
Home organisations	Release Research & Scholarship attributes Provide usability essentials Security Incident Response Readiness Sensitive Research User Experience
R&E federations	Increase research representation in FIM governance Sustain operation of critical FIM services Provide avenues for ongoing coordination Release Research & Scholarship attributes Provide usability essentials Remove interoperability barriers in eduGAIN metadata processes Admit research organisations to federation Security Incident Response Readiness
eduGAIN operator	Remove interoperability barriers in eduGAIN metadata processes Security Incident Response Readiness
Research e-Infrastructures	Sustain operation of critical FIM services Re-use shared AAI and related services
Research community proxies	Enable researcher mobility Security Incident Response Readiness Follow the proxy model and related AARC guidelines Re-use shared AAI and related services Sensitive Research User Experience
Research communities	Re-use shared AAI and related services
REFEDS	Sensitive Research User Experience

**Table 5.** Requirements Mapping

# Meetings

# FIM4R meetings 2022 - 2024





# FIM4R #16, #17 & #18

## Lenses



### Needs for FIM

Proxies / middlethings

E-infrastructures

IdPs & Federation Operators



### Needs for token-mediated access within e-infrastructures

Harmonized functional requirements

User/subject access information management systems

GA4GH Passport-ish



### Assurance-y things

Authentication and/or identity assurance

Requirements or measuring sticks?



### Changes to research community characteristics published in FIM4R v2



### Changes in perception of value of FIM

# FIM4R #16, #17 & #18

## Topics

- **Support for small and medium research communities**
  - for 10 to 100 users
  - To big to use 'personal' tools
  - To small to use 'enterprise' tools
- **Proxies / Middlethings**
  - Opaque or Transparent
  - Policies & simple policies
  - Multi proxy set-up
- **OpenID Federation**
  - How will it change the FIM landscape
  - Bridging trust
- **Assurance**
  - Deemed important
  - Yet appears to be hard
  - Solve in the proxies?

Outreach

““If you want to go fast, go alone.  
If you want to go far, go together””

African Proverb

# Environment



<https://aarc-community.org/>



<https://www.igtf.net/>



<https://wise-community.org/>



<https://refeds.org>

# Workshop #19



Date:

To be determined

Look at our website & mailinglist



You've heard from us.

we want to hear  
from **you.**

 <https://fim4r.org>

 [contact@fim4r.org](mailto:contact@fim4r.org)

 [federatedIdentity-members@cern.ch](mailto:federatedIdentity-members@cern.ch)

 [https://e-groups.cern.ch/e-groups/EgroupsSubscription.do?  
egroupName=fim4r-members](https://e-groups.cern.ch/e-groups/EgroupsSubscription.do?egroupName=fim4r-members)



Your community wants you!

AI generated picture by Adobe Firefly



IDENTITYMANAGEMENT  
INTEROPERABILITY  
INTEGRATION AUTHENTICATION PROTOCOLS  
COLLABORATION SINGLE PRIVACY DATA  
ACADEMIC CREDENTIALS  
SECURITY  
FEDERATED MULTI-FACTOR  
COMMUNITY AUTHORIZATION  
ACCESS RESEARCH  
INSTITUTIONAL SIGN-ON SEAMLESS SCHOLARLY  
SHARING AUTHENTICATION  
FEDERATION CROSS-INSTITUTIONAL  
AUTHENTICATION