Trust, Identity and Assurance

(NREN perspective)

SWITCH

Ann Harding
ann.harding@switch.ch

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SWITCHaai 2005 – today
A Classic Identity Federation

Identity Provider (IdP) asserts authentication and identity information about users.

Service Providers (SP) check and consume this information for authorization and make it available to an application

A group of organizations running IdPs and SPs that agree on a common set of rules and standards that build trust

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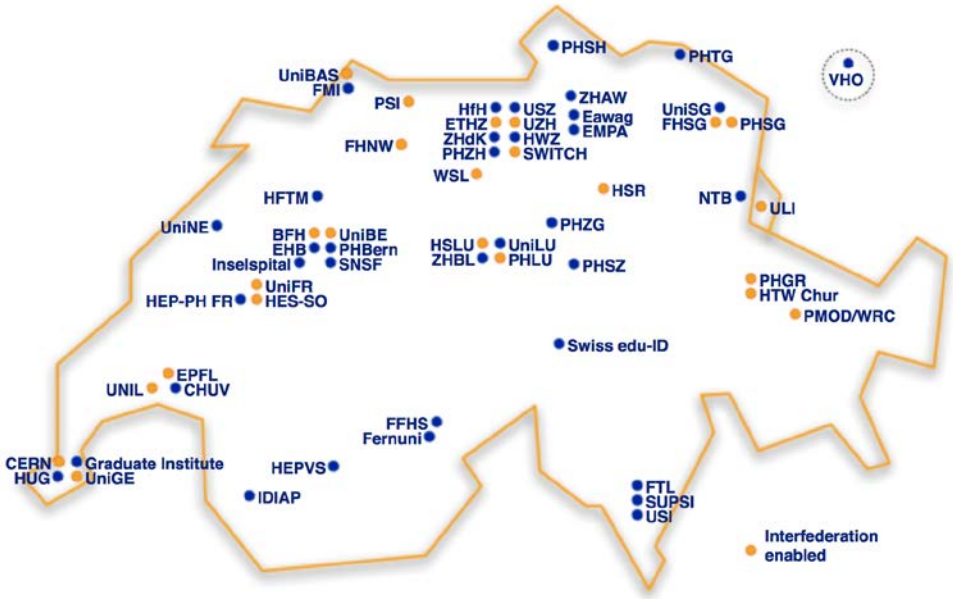
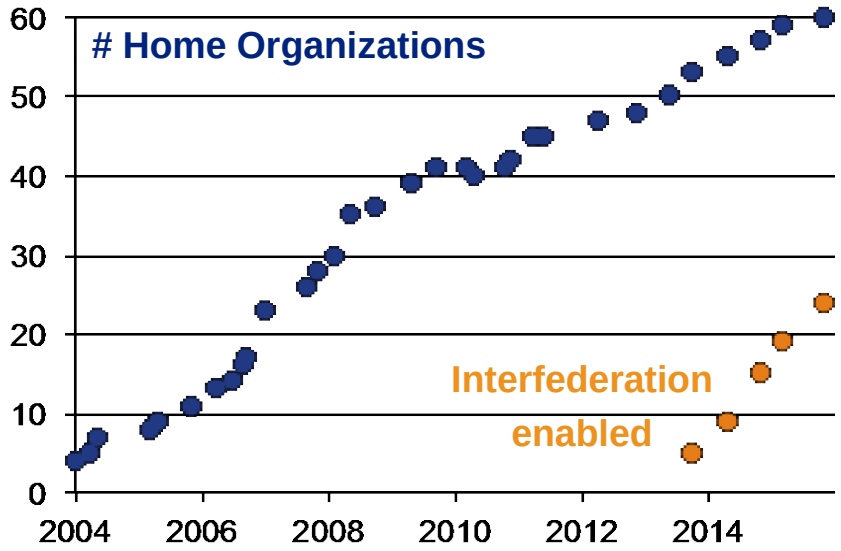
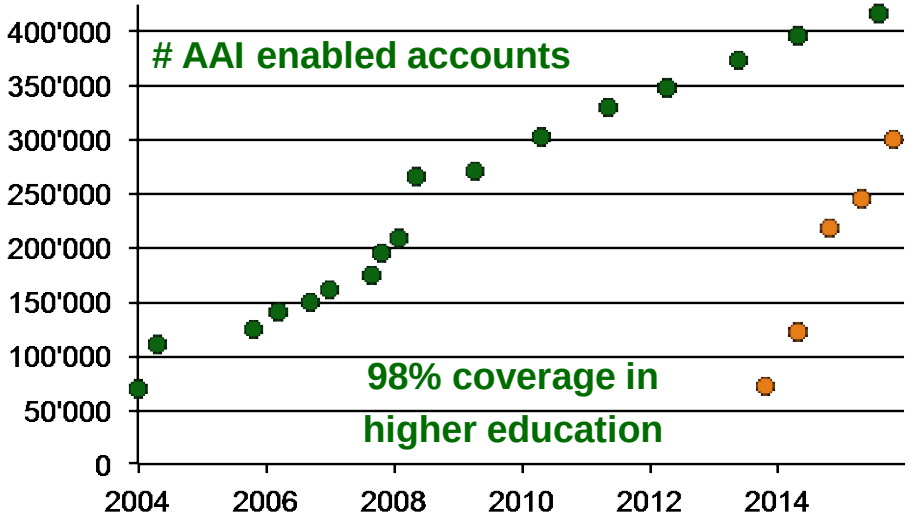
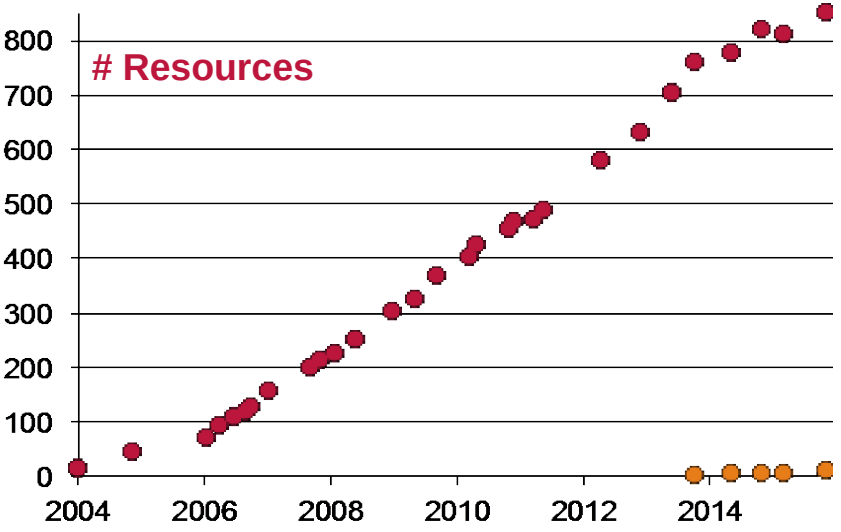
SWITCHaai Federation Autumn 2015









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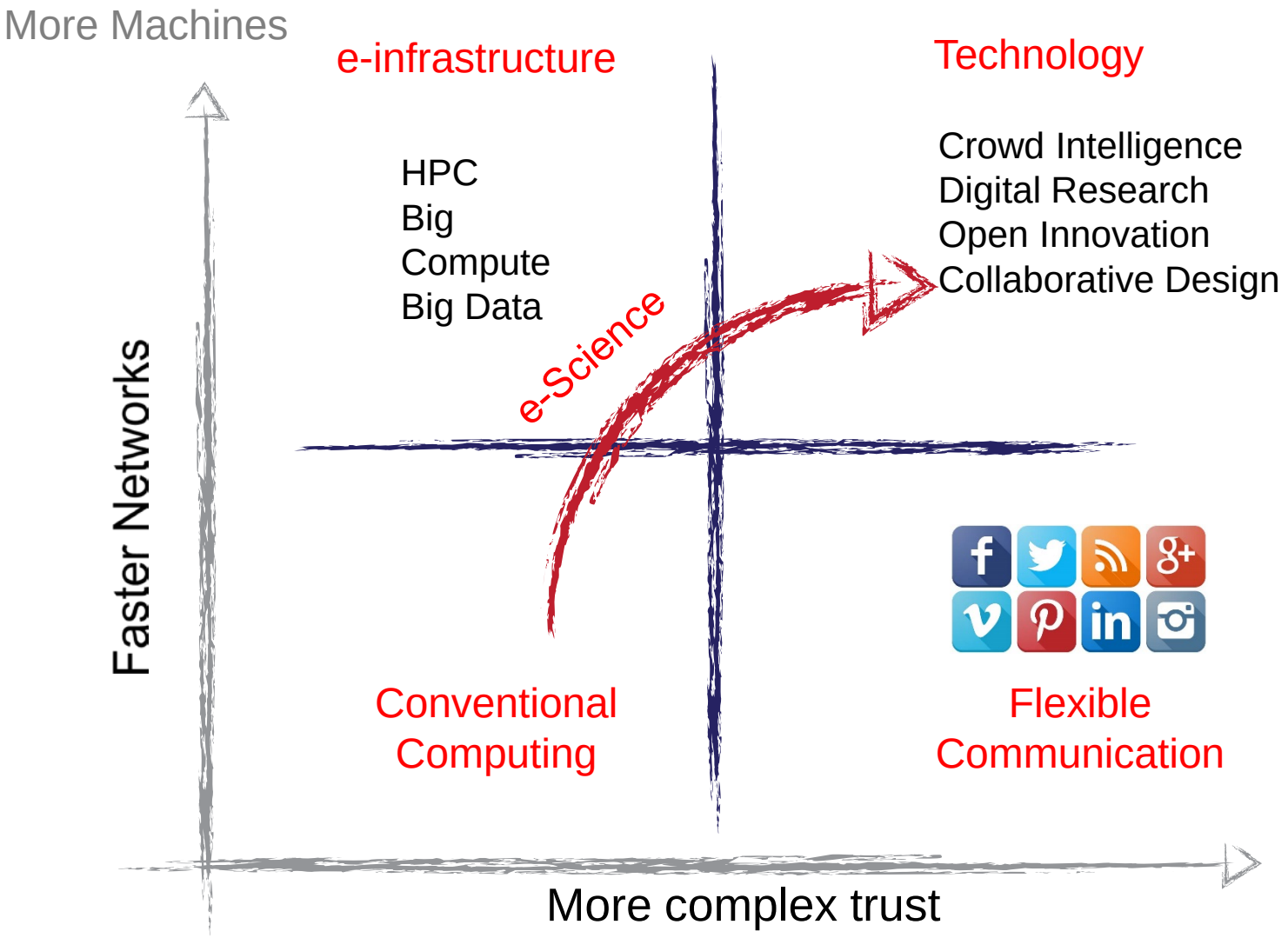
No researcher works in isolation

Assurance – an aspect of Trust



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e-Research Trust and Identity Infrastructures

Campus

- Hundreds of thousands of users

GÉANT

eduGAIN

eduGAIN

- Thousands of services

Individual Experiments

- Tens to hundreds*

GENERIC

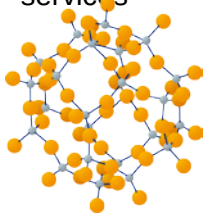
SPECIFIC

Federation

- Tens of thousands of services

General and Specific e-Research Infrastructures

- Hundreds of services



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Assurance and Trust in Identity Federation Today

- "Classic" LoA approaches on national scales
  - SWAMID (SE) c30% uptake on LoA1, LoA2 launched soon, linked to student registrar system
  - InCommon (US) Assurance Program Silver & Bronze
    - Less than 1.5%
- Cost, scalability and demand are concerns

Observations about Assurance

Key principle decisions about access need to be made by the service

- What in the data/ToU influences the need for high assurance

Even where no LoA is officially supported, many criteria required by research groups are supported

- GÉANT Enabling Users Survey 2013-2014 for ELIXIR

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Minimum Assurance to drive Trust

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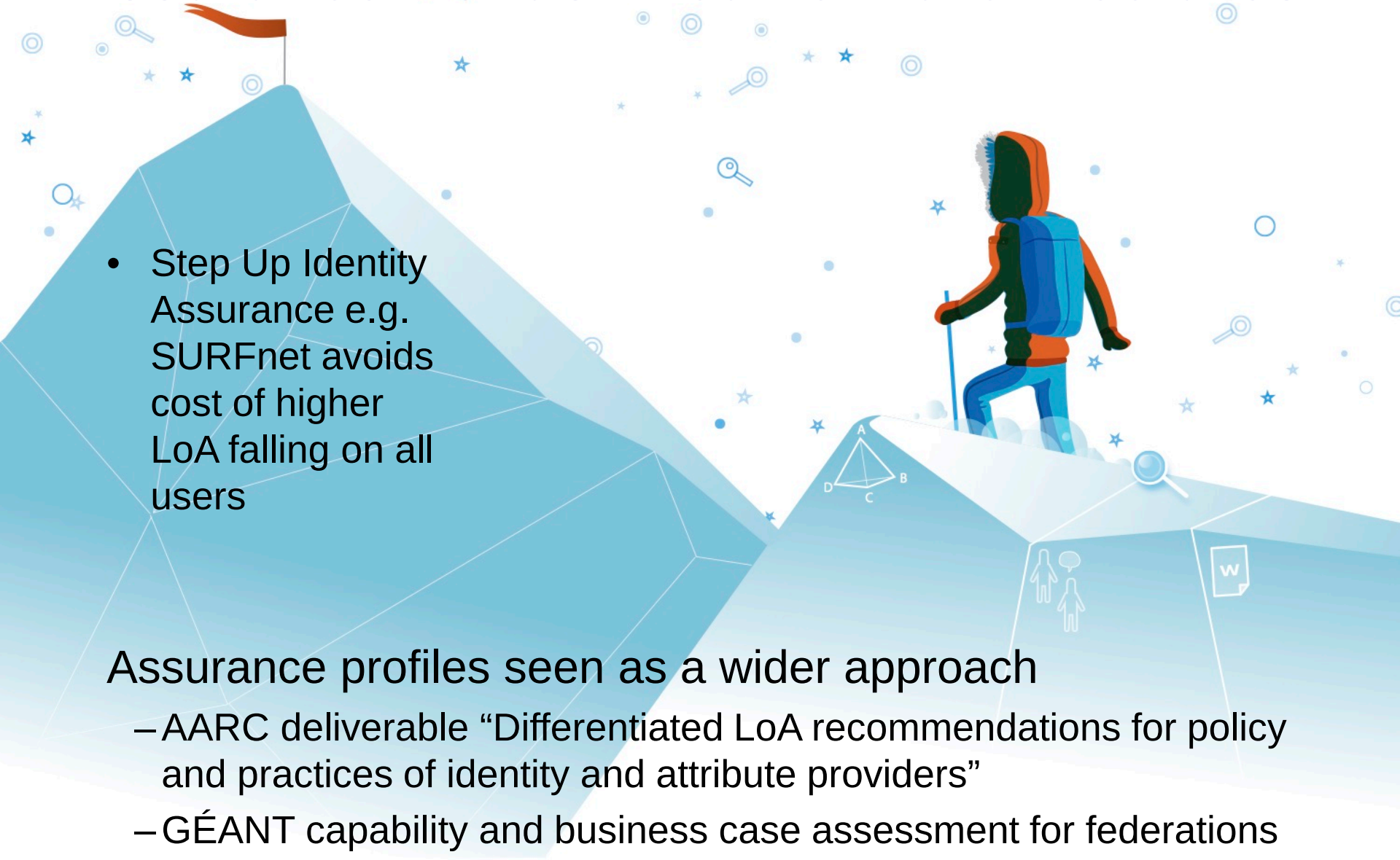
Early findings from AARC MNA3.1 "Recommendation on minimal assurance level relevant for low-risk research use cases"

Assurance trends in current architectures



- Step Up Identity Assurance e.g. SURFnet avoids cost of higher LoA falling on all users

Assurance profiles seen as a wider approach

- AARC deliverable “Differentiated LoA recommendations for policy and practices of identity and attribute providers”
- GÉANT capability and business case assessment for federations

Swiss edu-ID…
Identity Management tomorrow

Swiss edu-ID

School

University education

Employment

Self-Employment

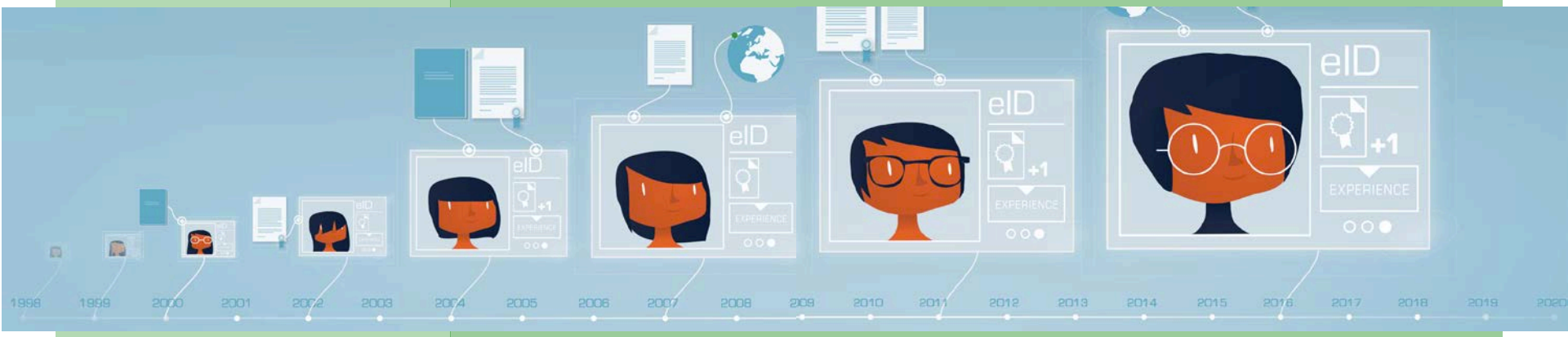
Side Job

Post-graduate

Further education

Further education

Community Work



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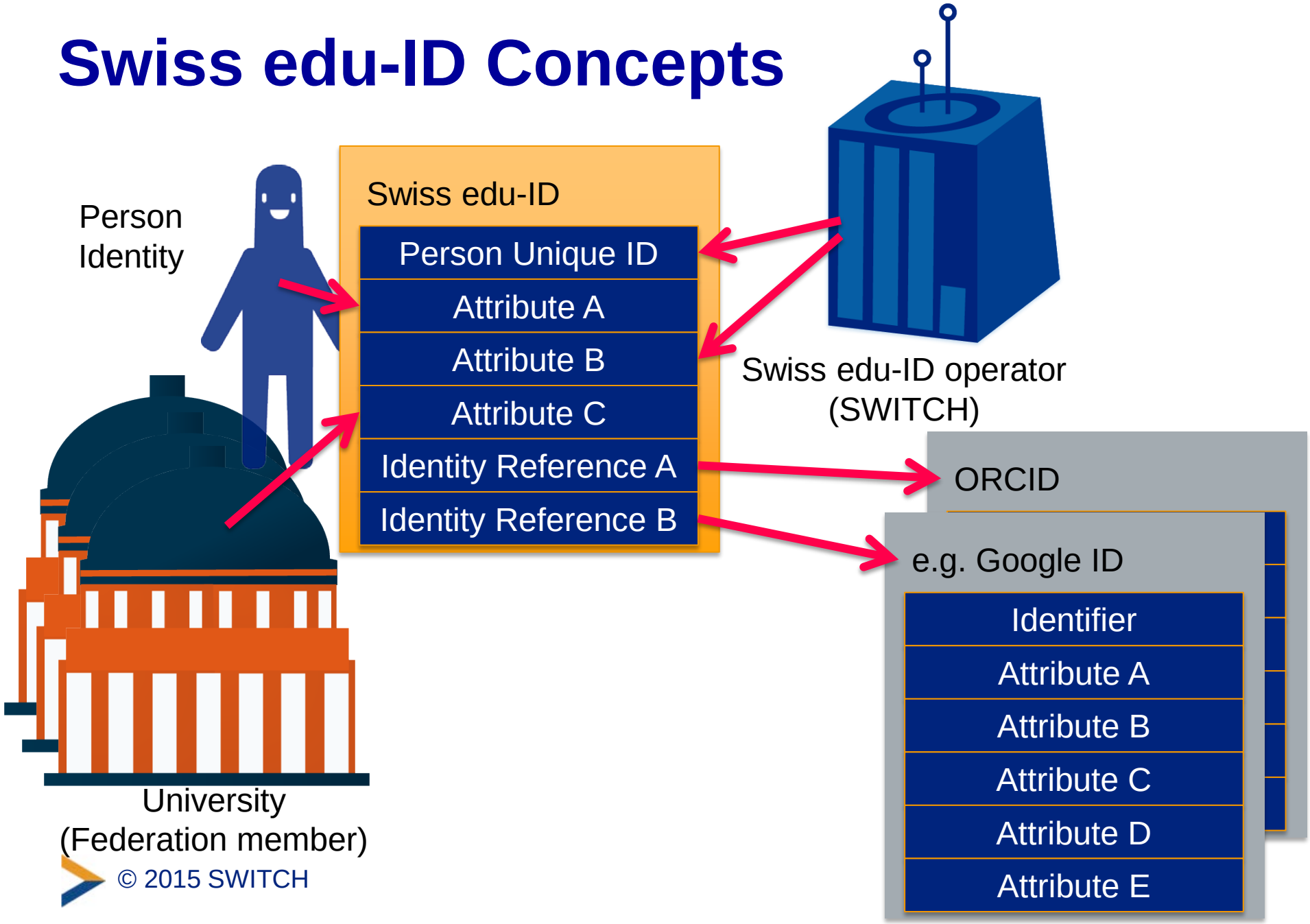
Swiss edu-ID Concepts



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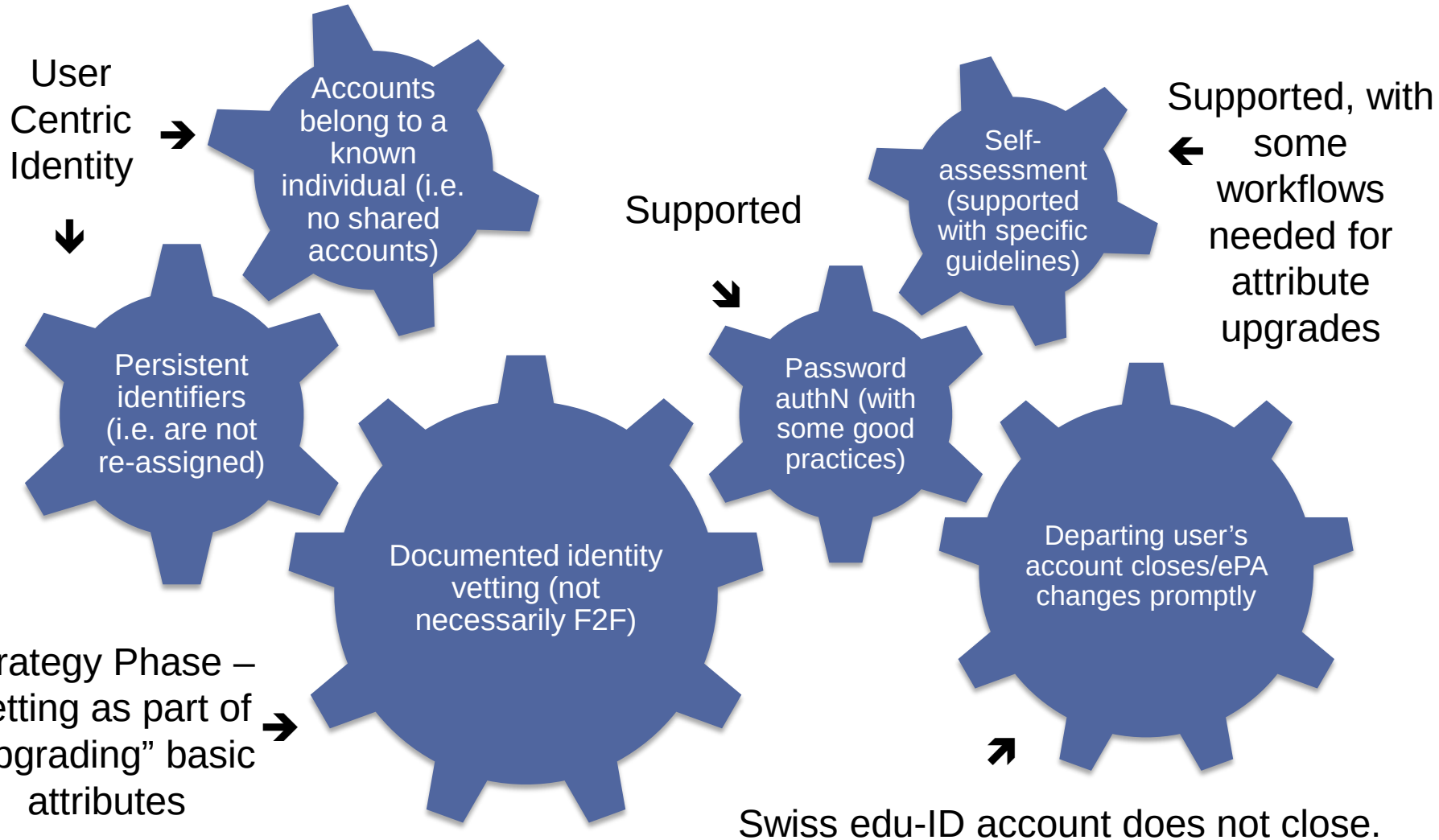
Assurance and Swiss edu - ID



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Conclusions

Federated Identity delivers scalable trust by having the responsibility for providing information closest to where it is determined and managed

Swiss edu-ID approach takes this further, putting identity in the hands of the user and integrating attributes from other parties

Scaling assurance with detailed vetting processes over multiple jurisdictions remains a challenge

But one with solutions now grounded in research needs