



ELIXIR AAI

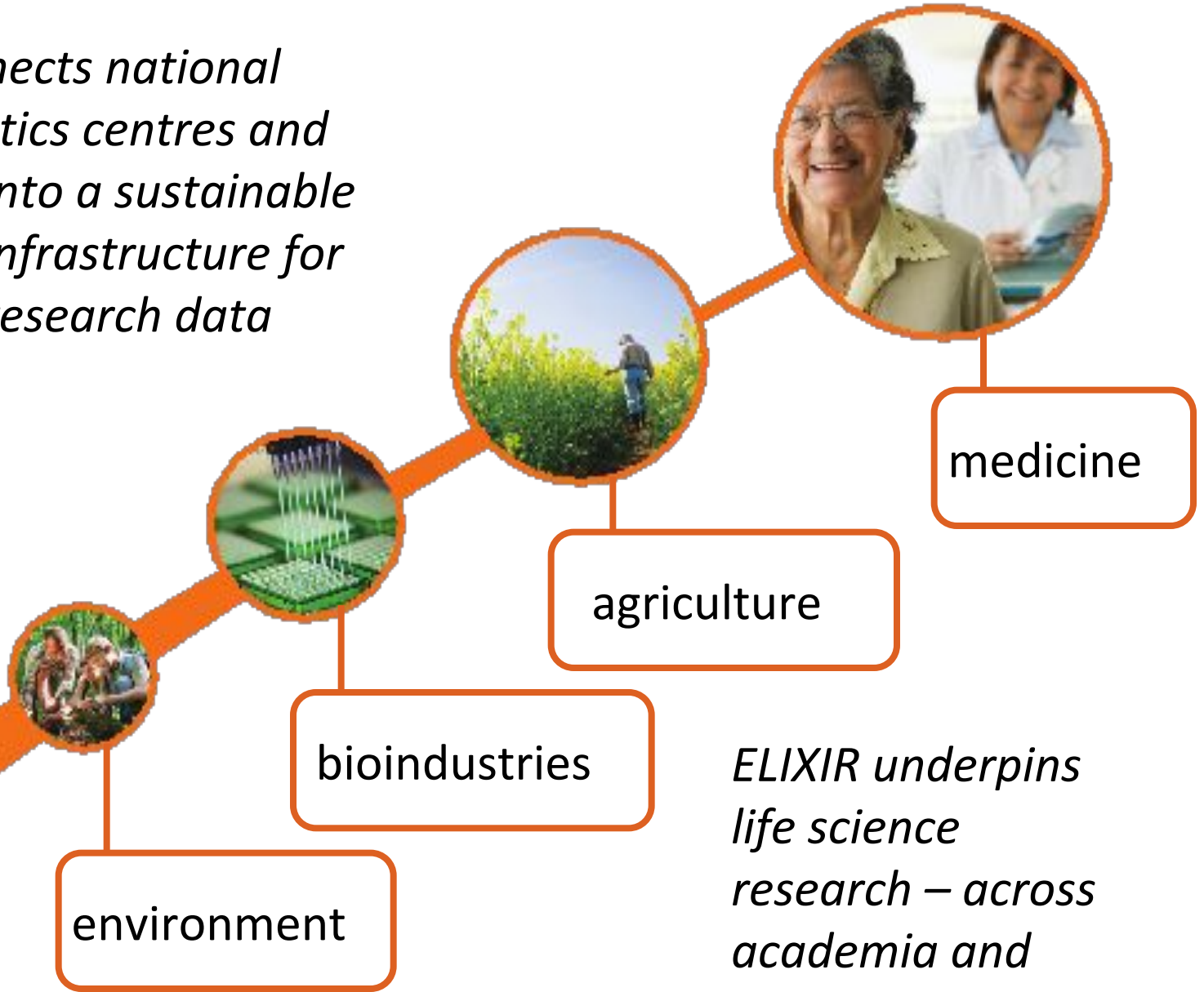
FIM4R 2017

Michal Procházka



www.elixir-europe.org

ELIXIR connects national bioinformatics centres and EMBL-EBI into a sustainable European infrastructure for biological research data



ELIXIR underpins life science research – across academia and industry

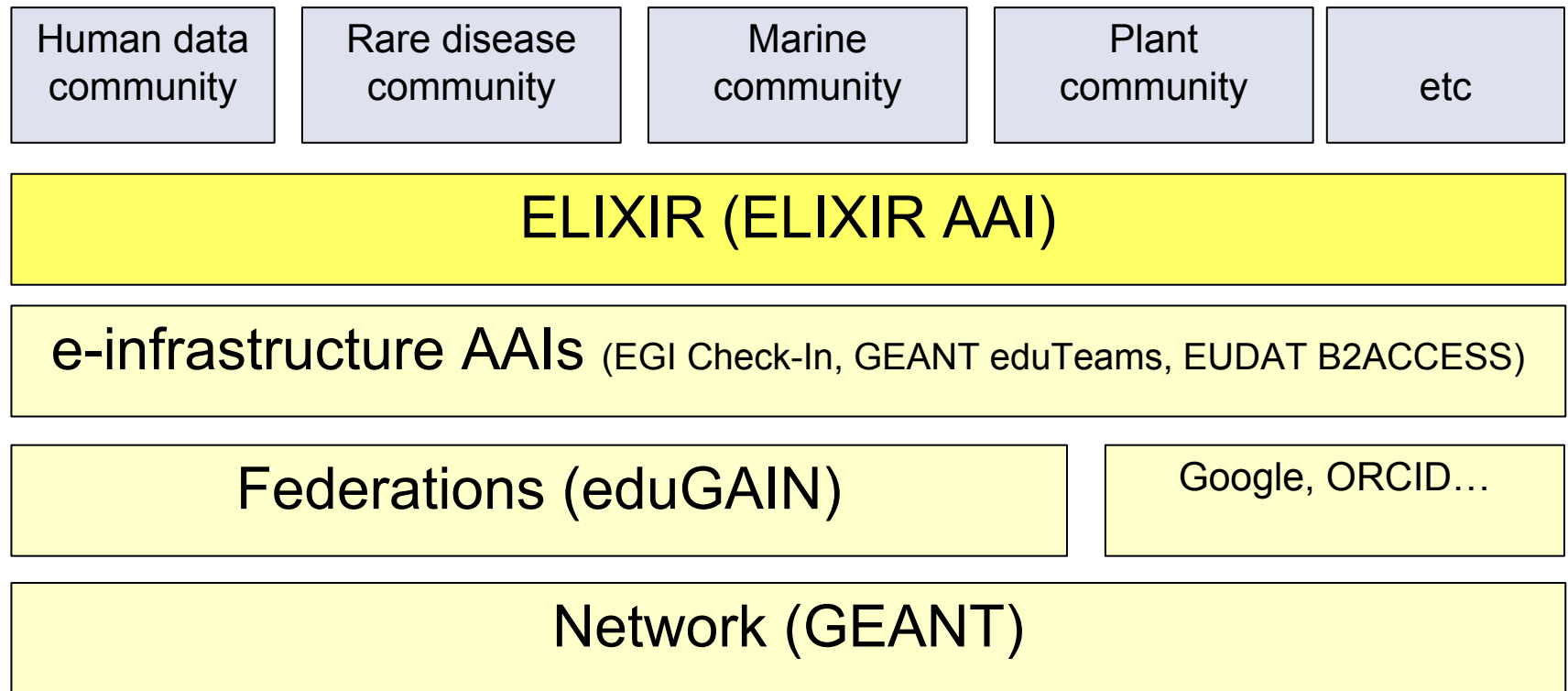


ELIXIR AAI history – where we are now

- Use case gathering -- Autumn 2014
- Requirements and design – Spring 2015
- Deployment starts -- Autumn 2015
- First release -- Autumn 2016
 - Until that ELIXIR AAI in pilot status
 - Key components up and running already
- Today
 - Key components are in production



The stack





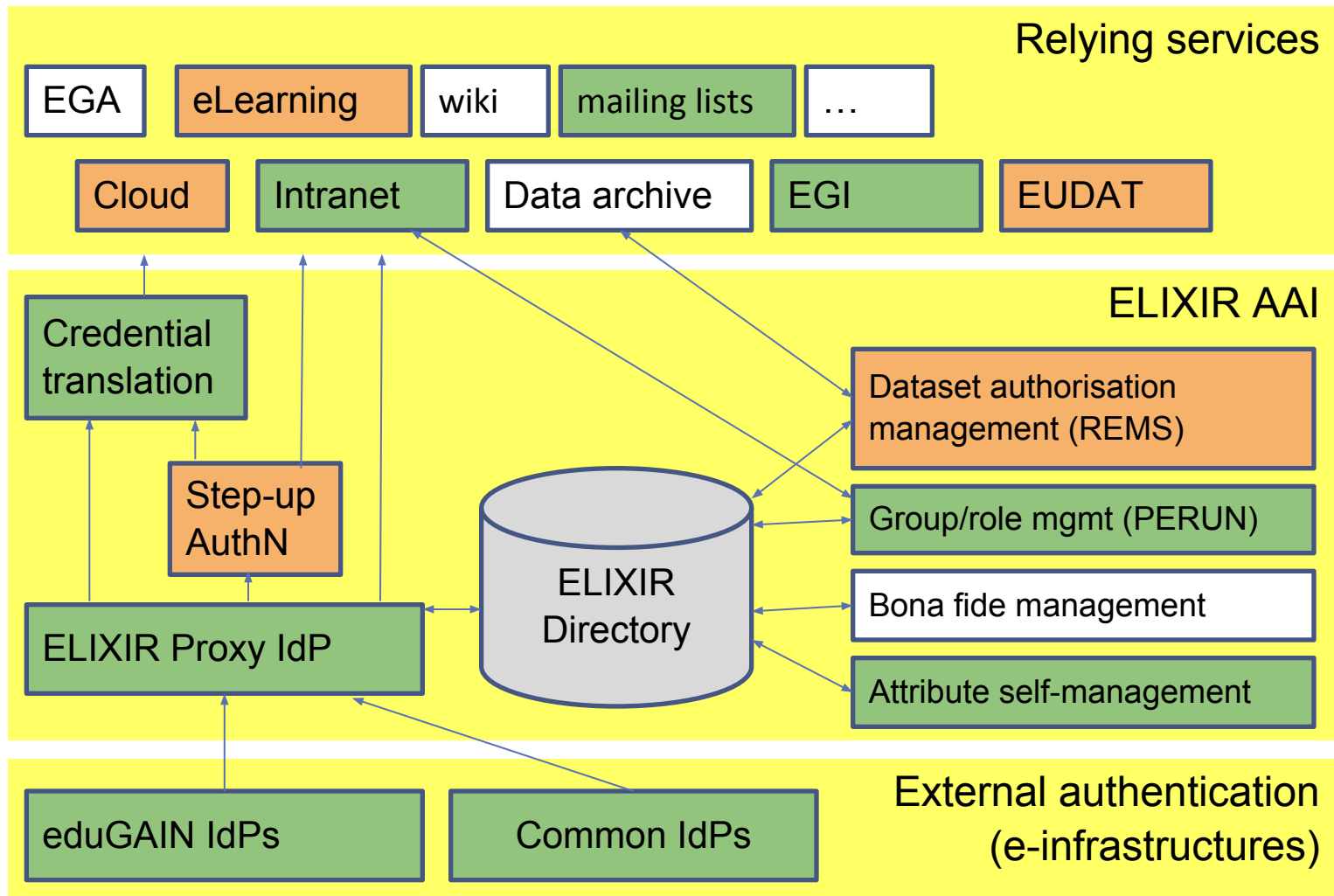
Design of ELIXIR AAI



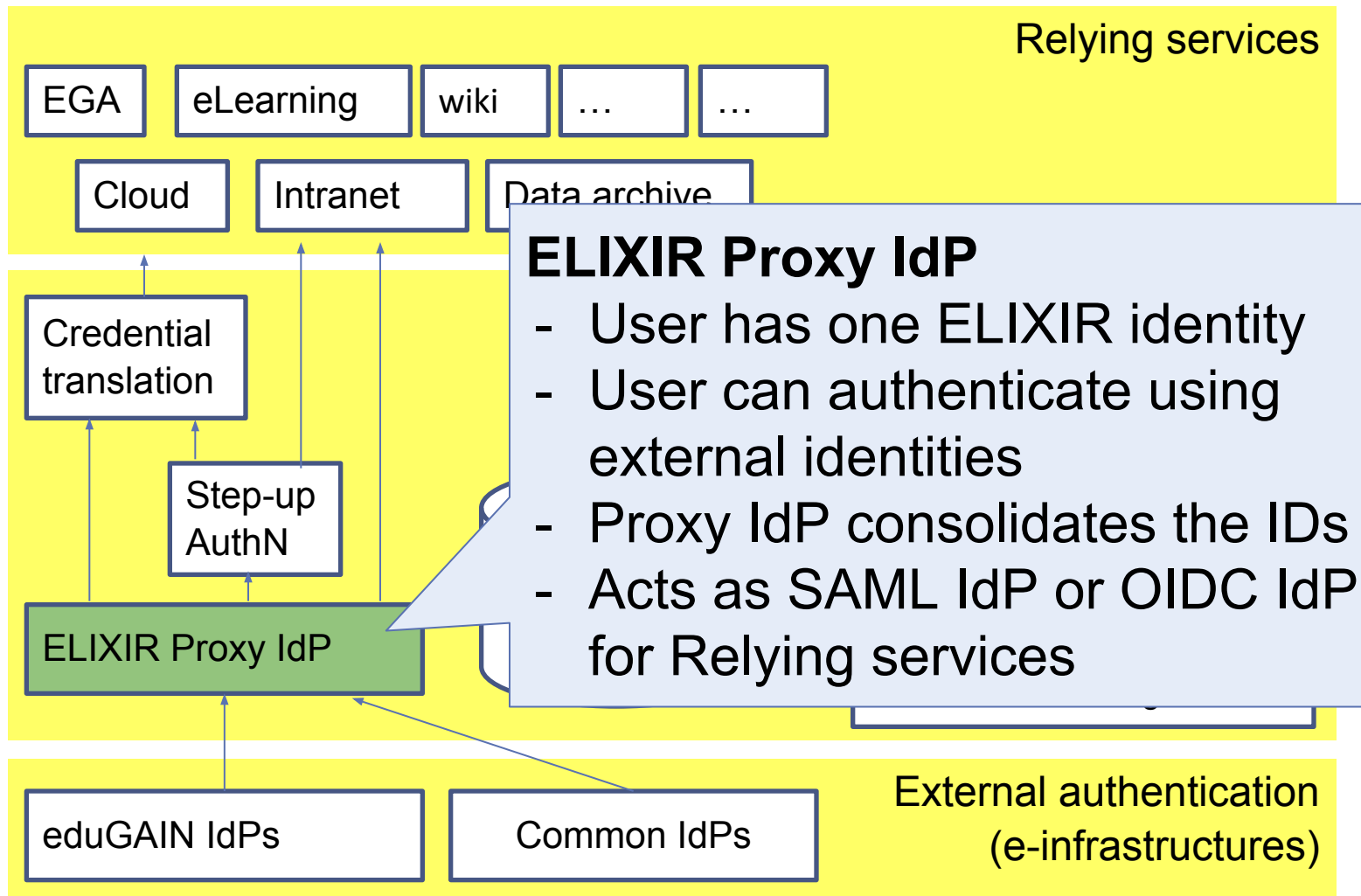
ELIXIR AAI design

Work in progress

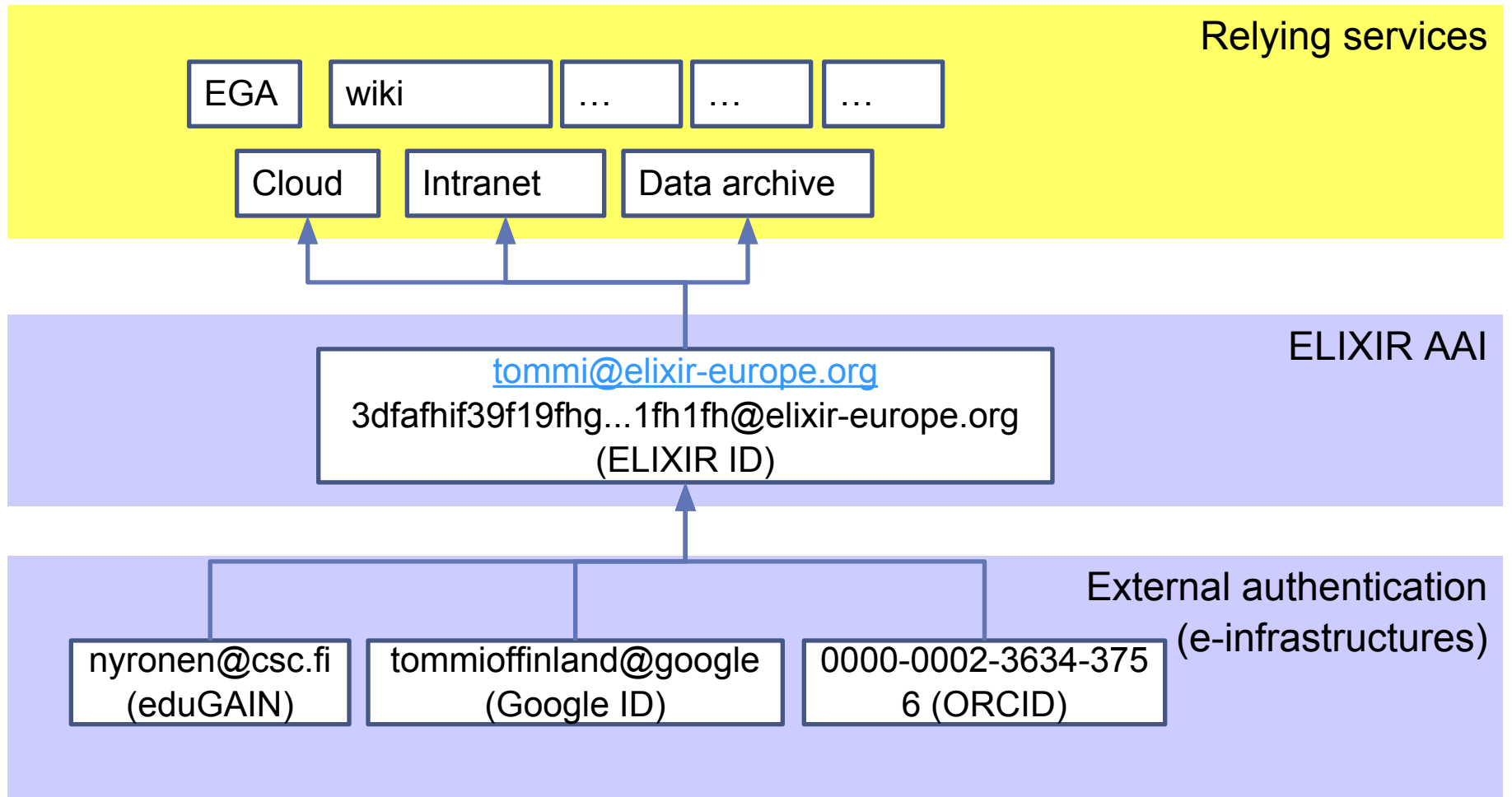
Completed



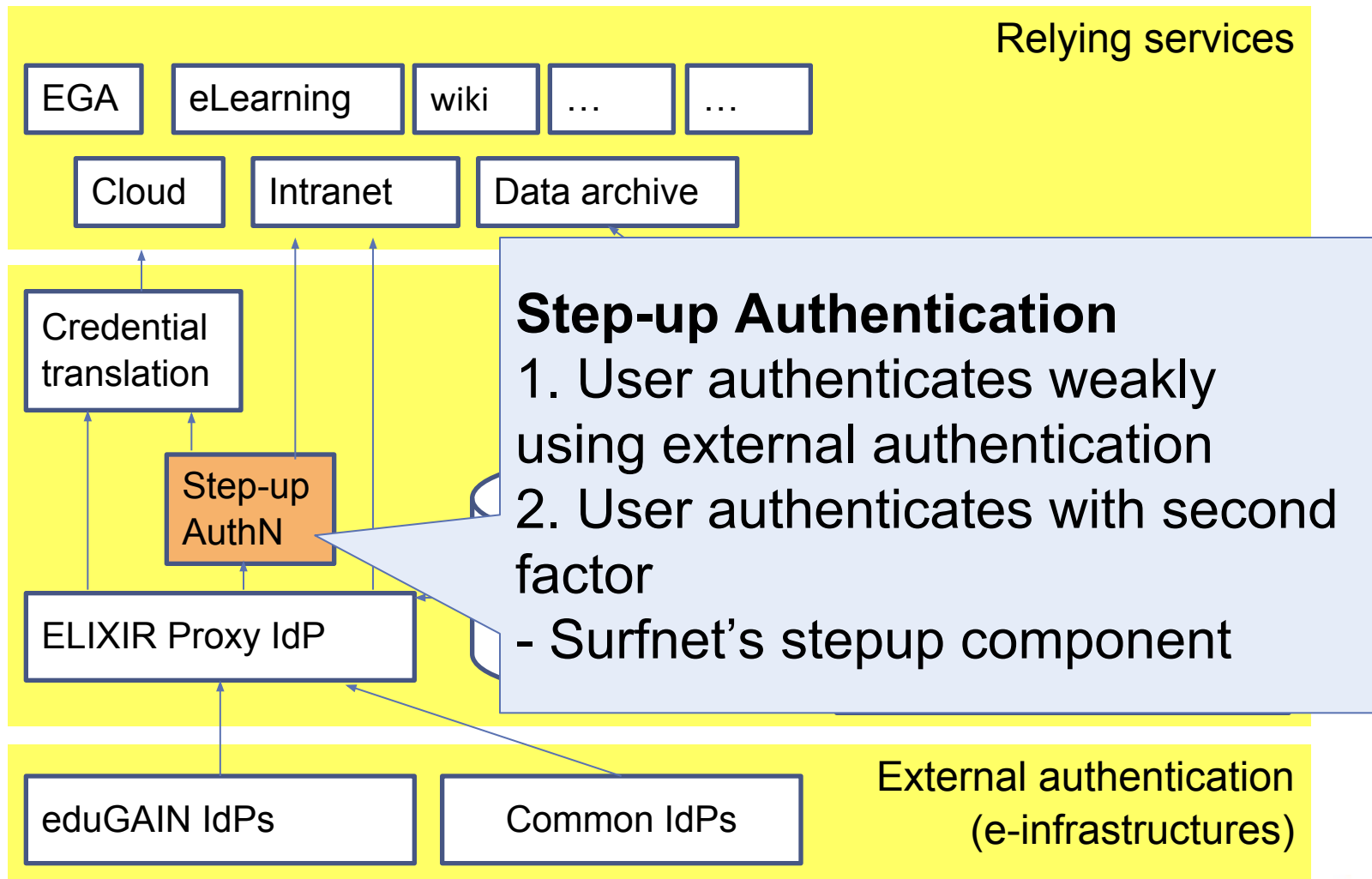
ELIXIR AAI design



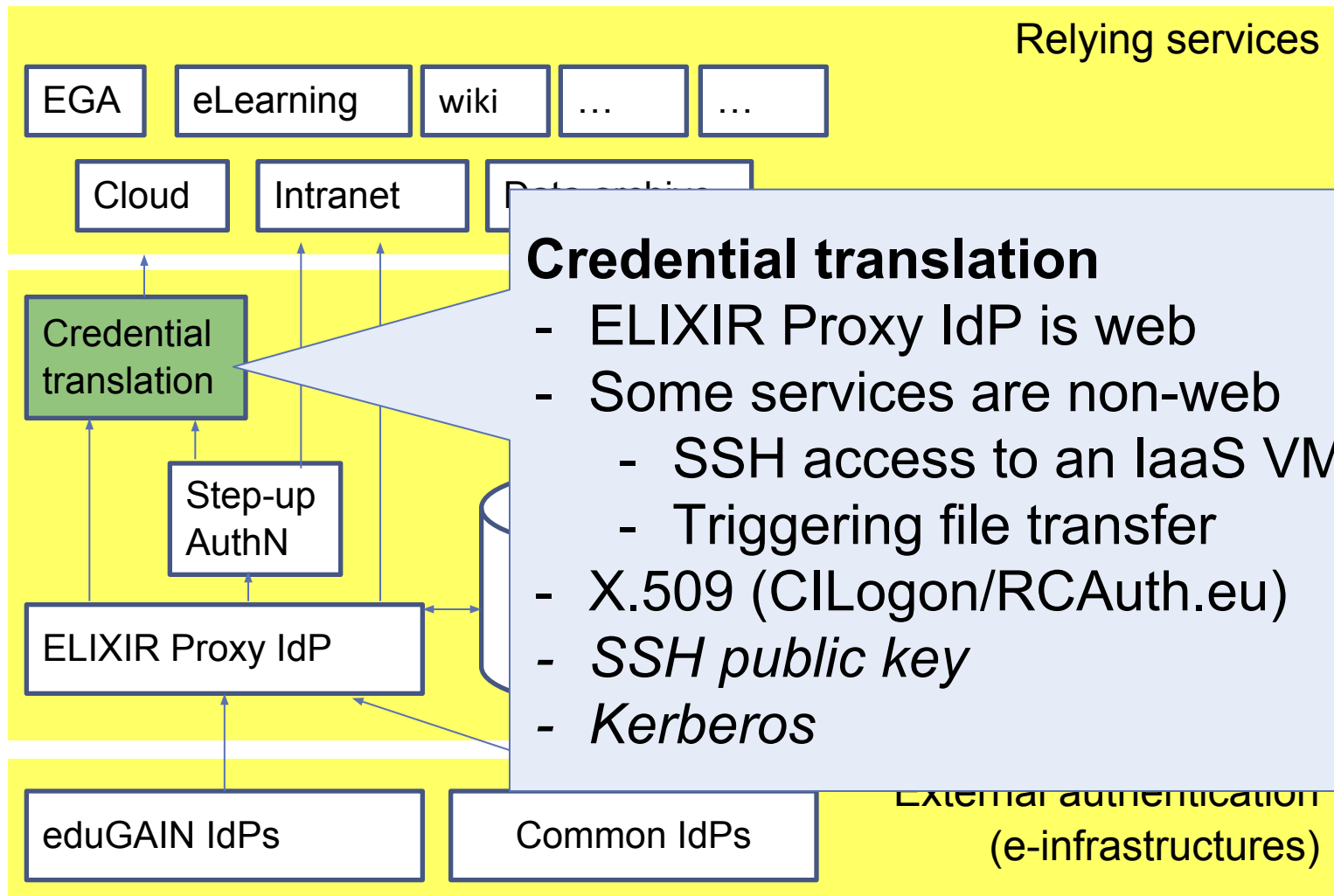
ELIXIR identity



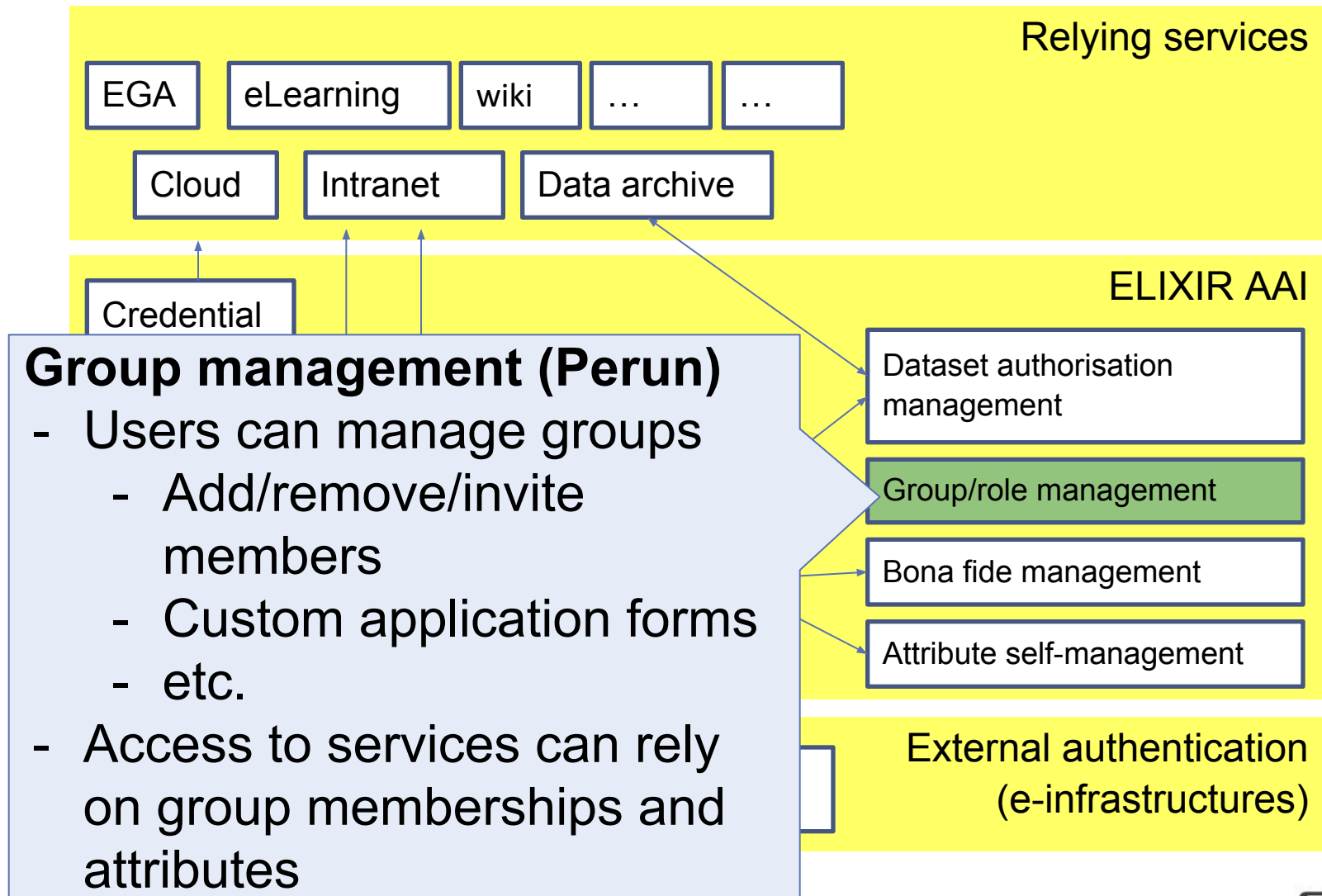
ELIXIR AAI design



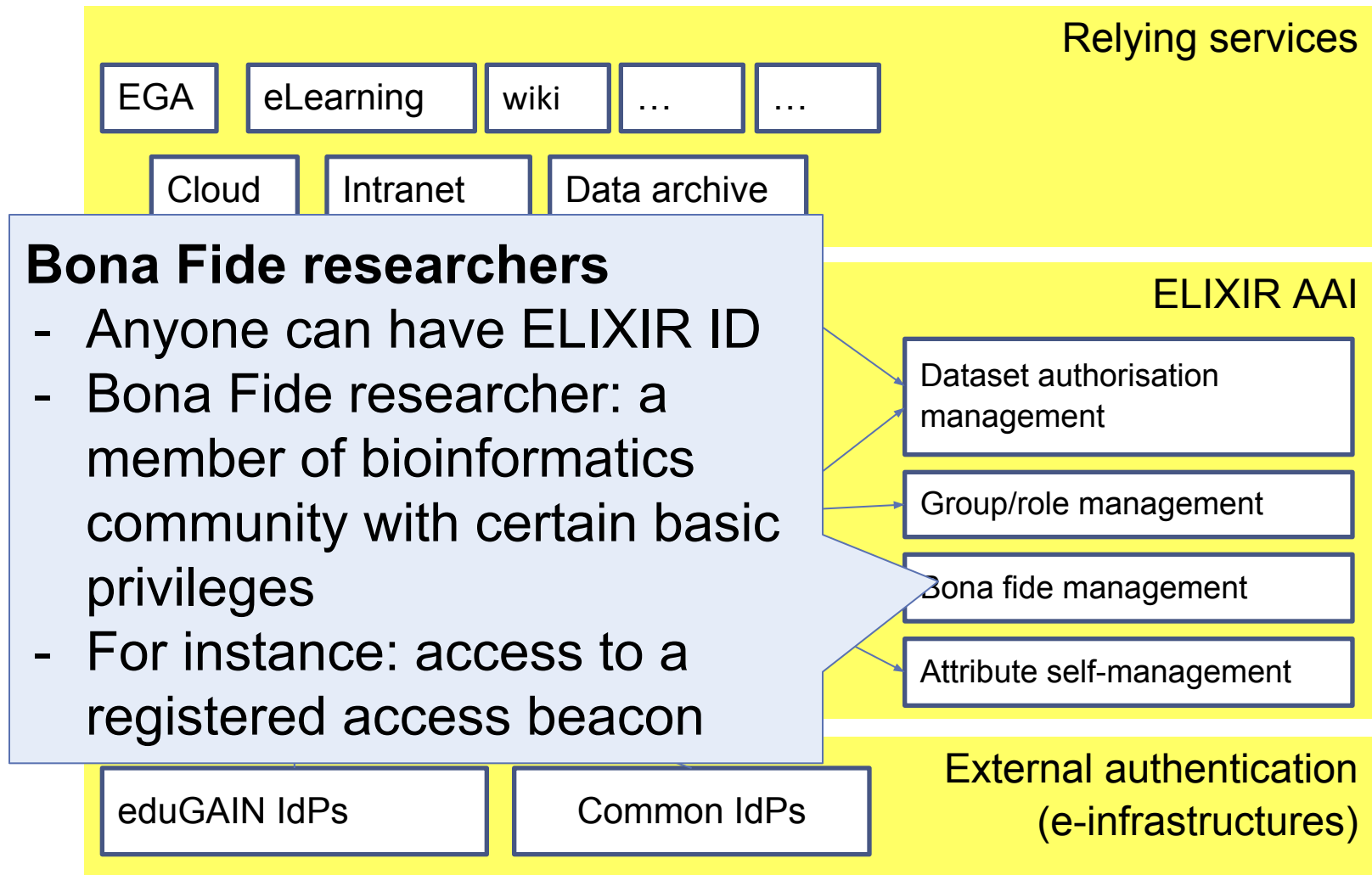
ELIXIR AAI design



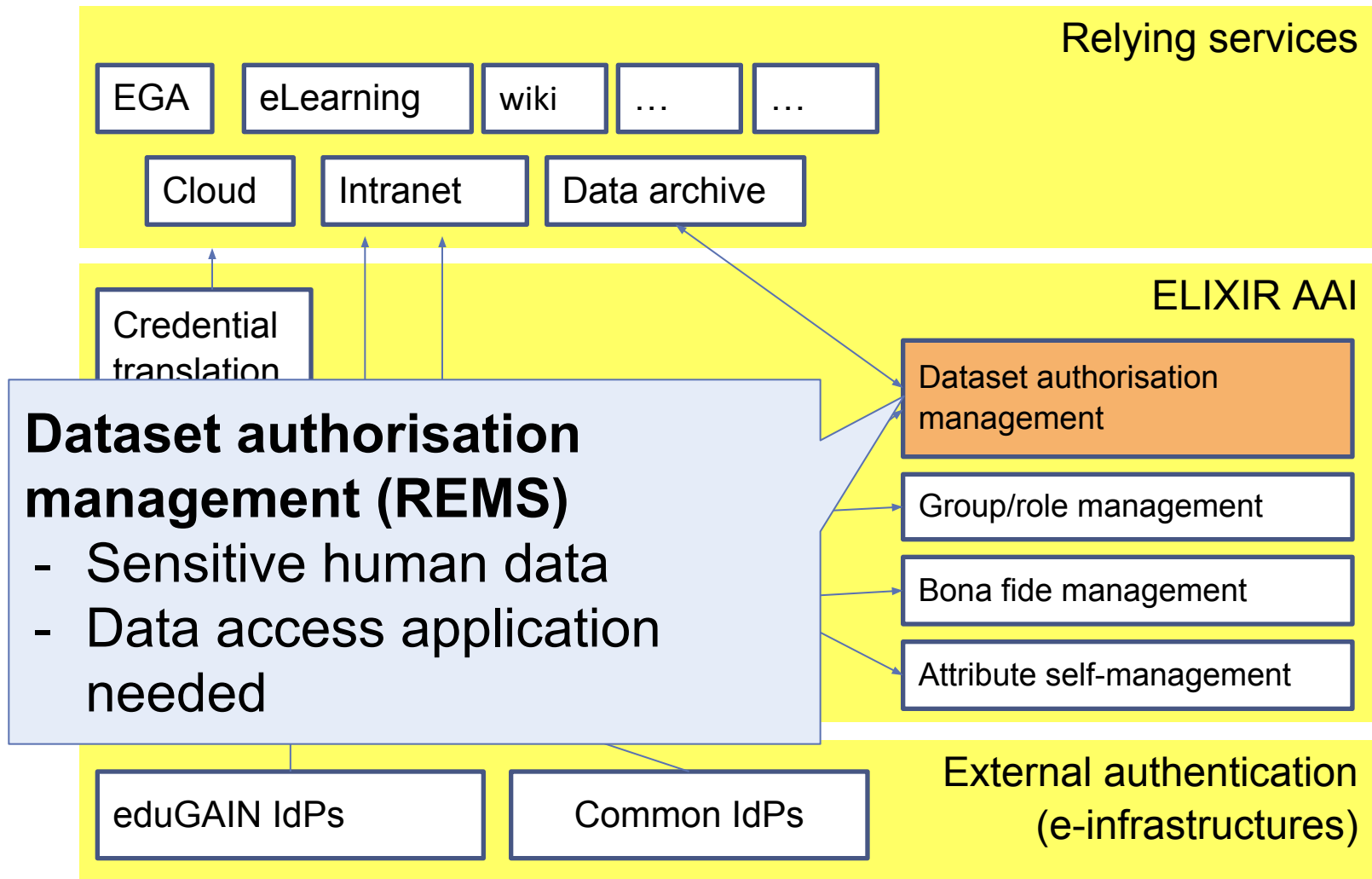
ELIXIR AAI design



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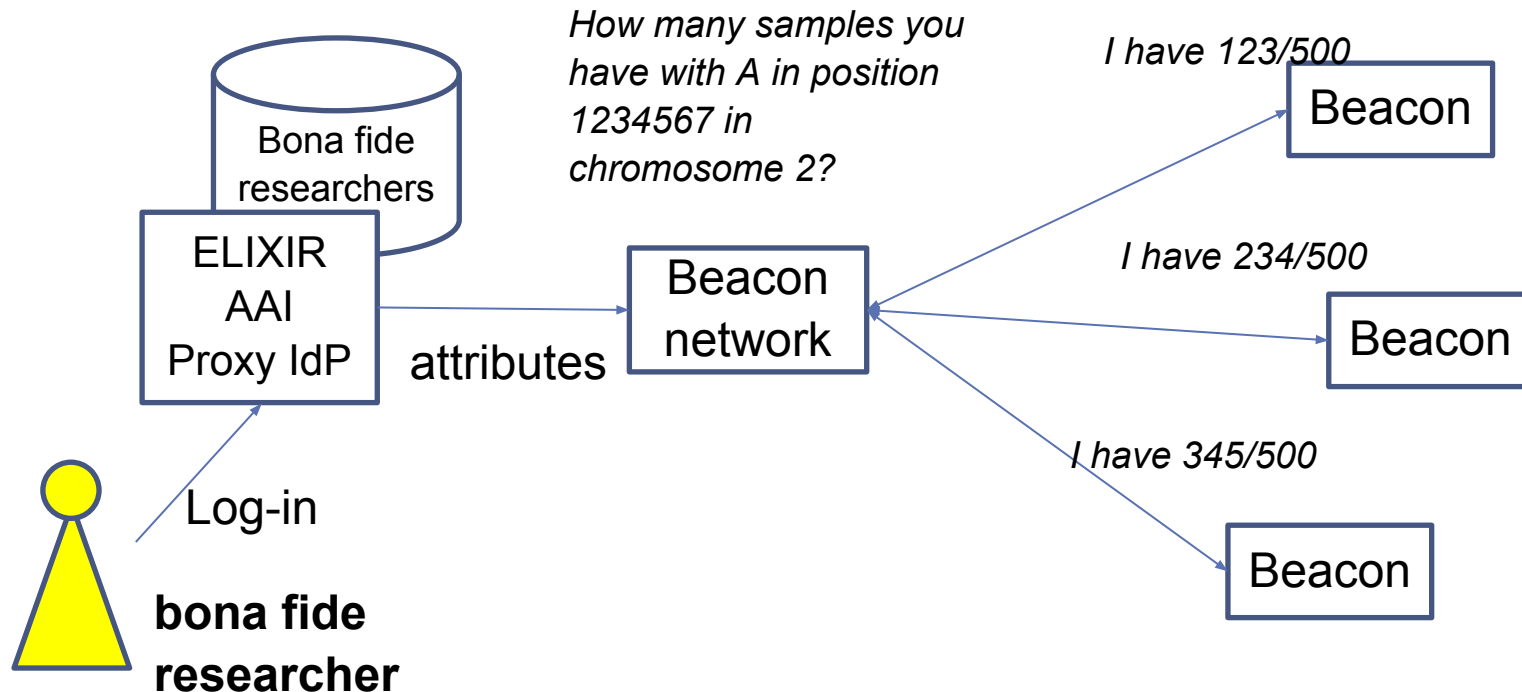




**Use case:
ELIXIR Beacon**



Beacon – registered access



- ELIXIR AAI keep record on bona fide researchers
- ELIXIR AAI use OAuth2/OpenID Connect to deliver the bona fide attribute to the Beacon network & beacons
- Each beacon enforce access control



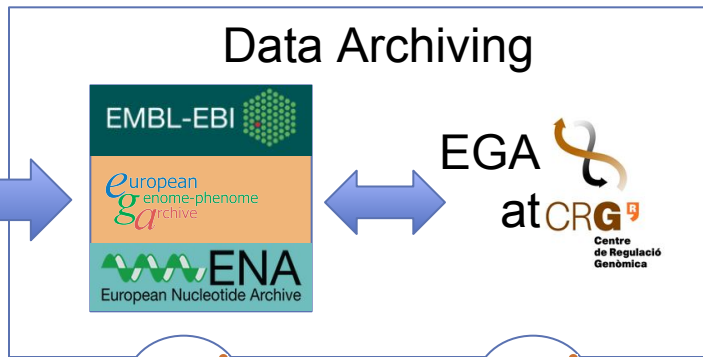
**Use case:
Sensitive human data**



Data Generation



Sequencing centers



Secure data access remote API (GA4GH)

High speed encrypted data transfer

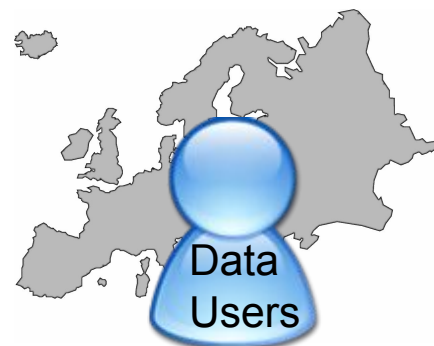
GridFTP/Globus/A spera

Supporting sample logistics



Enforcing the access rights in the data center

- the user launches a VM
- the user has read access to the local replica if the DAC has granted access to him



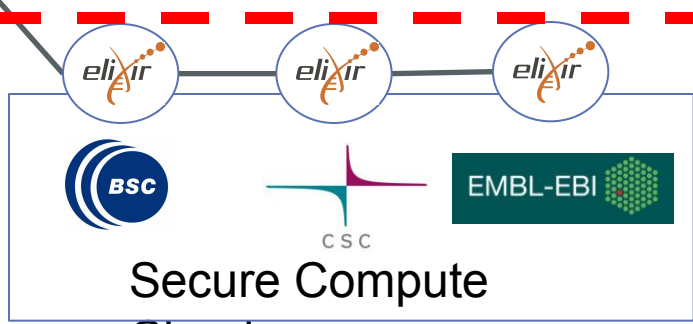
Bringing users to data

Managing Access



- Data Owner
- Data Access Agreement
- Data Access Committee
- Data Request

Authorization Management Tools (EGA and CSC REMS)





Thank you

