ELIXIR

Life science community update for the 7th Federated Identity Management for Research Collaborations 23.-24.4.2014 at ESA, Frascati ITALY

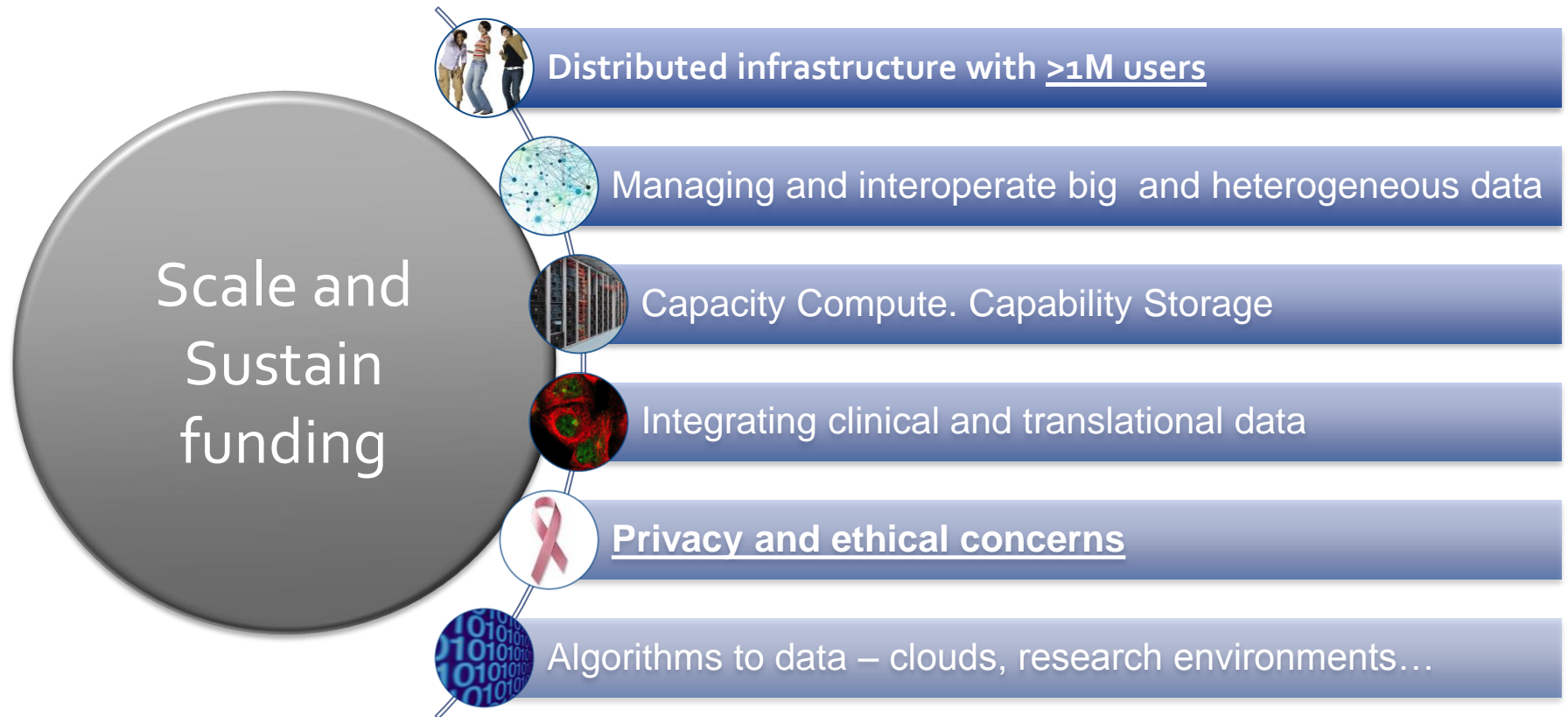Tommi Nyrönen and Mikael Linden, CSC

European Life Sciences Infrastructure for Biological Information
www.elixir-europe.org

Example of research requiring AAI - Matching the treatment to the cancer

- One in 10 women in the EU-27 will develop breast cancer before the age of 80.

- If we can identify patterns of genes that are active in different tumours, we can diagnose and treat cancers earlier.

Challenges for life-science data services

Scale and Sustain funding

Distributed infrastructure with **>1M users**

Managing and interoperate big and heterogeneous data

Capacity Compute. Capability Storage

Integrating clinical and translational data

Privacy and ethical concerns

Algorithms to data – clouds, research environments…

A distributed infrastructure to scale with the challenges

- ELIXIR infrastructure for Europe's life science research sector was legally formed 12/2013

- ELIXIR Nodes build local bioinformatics capacity throughout Europe

- ELIXIR Nodes build on national strengths and priorities
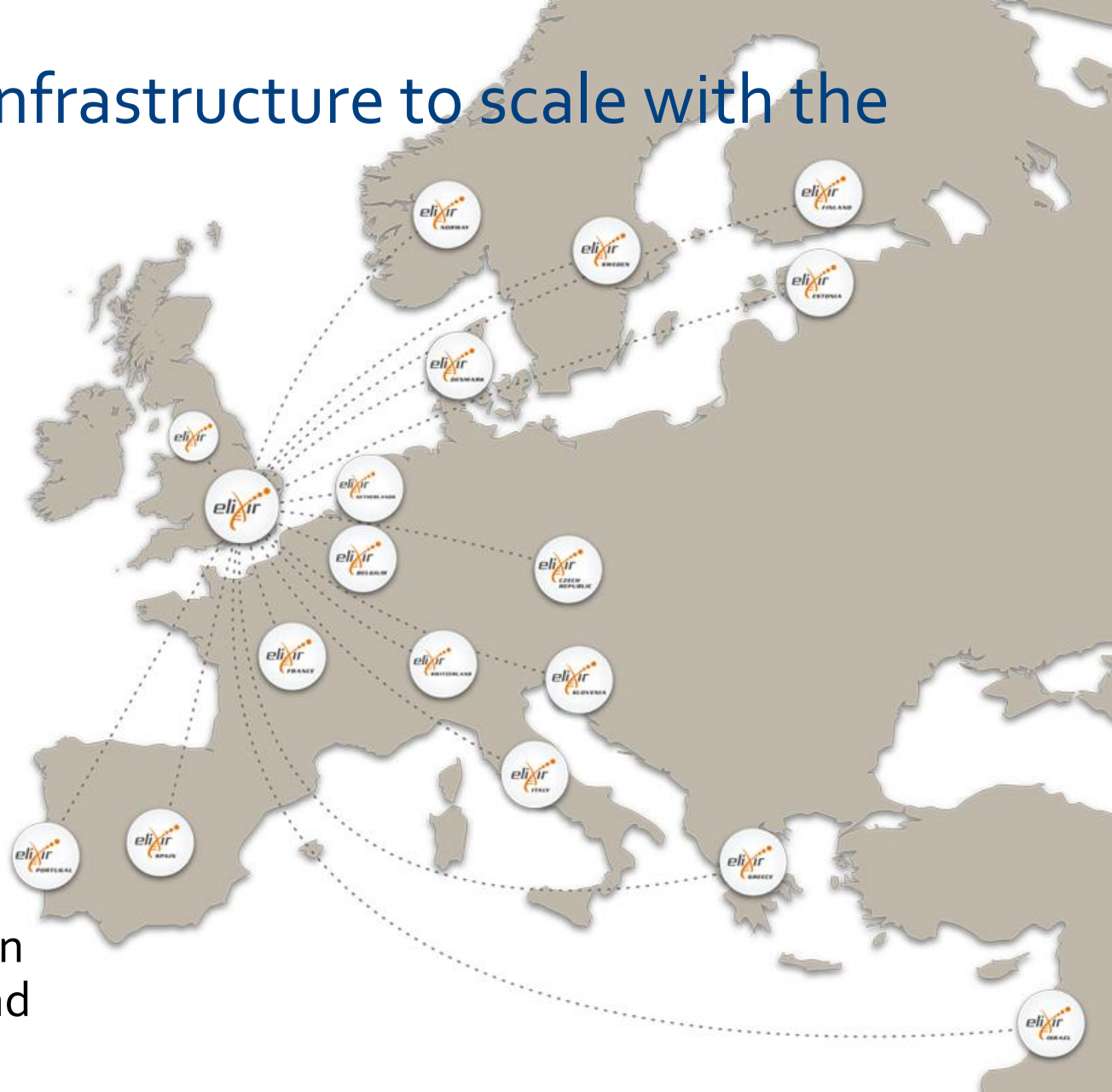
ELIXIR Programme 2014-2018 accepted April 2014
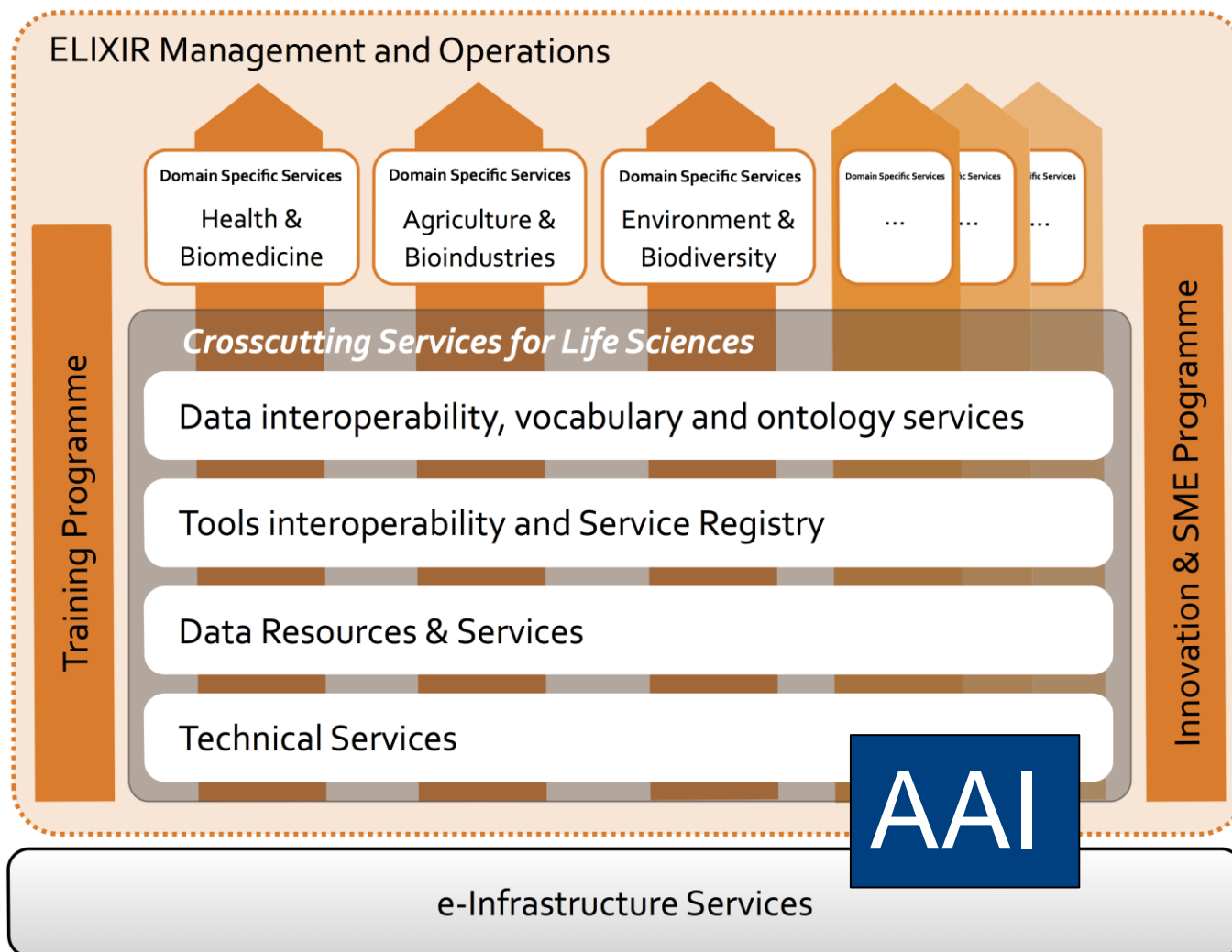
Technical coordination
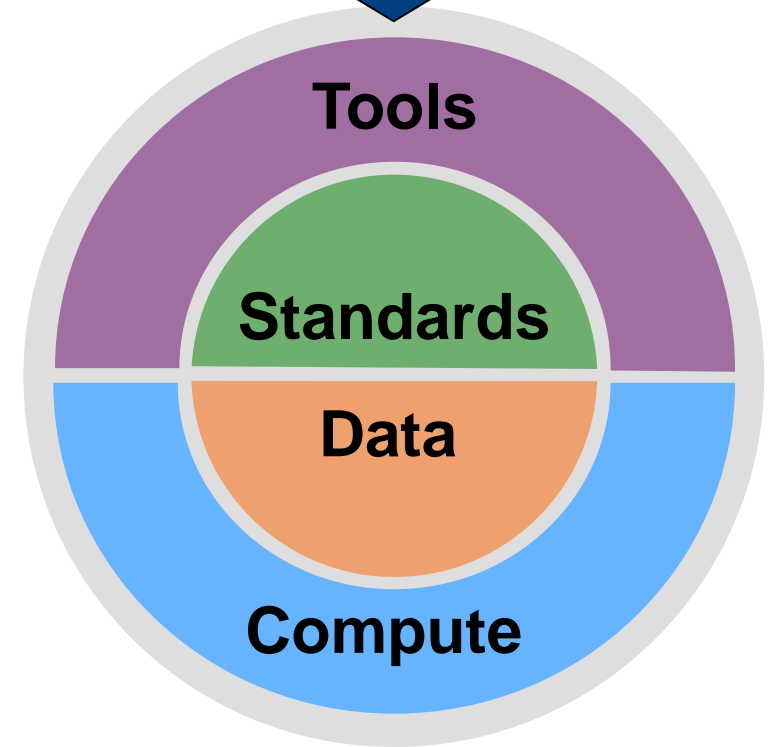
- Nodes
- Task forces

- **Research Infrastructures**

EMBRC, INSTRUCT, Eurobioimagining, Infrafrontier, ERINHA, EUOpenScreen, EATRIS, BBMRI, ECRINm, LifeWatch, …

- **e-infrastructures**

EUDAT, PRACE, GEANT, EGI, JISC, …

- **BioMedBridges**

Suggestion: federated AAI as a core technical component in ELIXIR

Tools

Standards

Data

Compute

Next steps

- Providing REMS as a service from ELIXIR Finland
  - Managing access rights to bioinformatics datasets in collaboration with IDFs and eduGAIN
  - Cross-domain impact: REMS is going to be used by FI-CLARIN & FI-CESSDA
- Increasing uptake of federated AAI technologies in life science community
  - e-INFRA 7-2014 proposal coordinated by TERENA (Licia Florio)
  - Create training materials based on experience from NordicDB – EGA – REMS collaboration
    - "Samlifying a data service provider"
    - "Relying on trusted attribute provider to organise authorisation with third part data access committees" etc.
  - Increased uptake of federated AAI. More DACs to REMS
  - Starting point: https://remsdemo.csc.fi/

List of ELIXIR AAI activities

- The Finnish ELIXIR node 2012-
  - Original ELIXIR authentication pilot -4/2013
  - REMS tool development and operations
  - REMS and EGA integration to IDF/SAML

  Funder Academy of Finland and Ministry of education and culture of Finland

- GN3plus Enabling Users pilot 2013-
  - Endorsed by ELIXIR and FIM4R to represent life science community
  - REMS and EGA export to eduGAIN
  - LoA considerations

  Funder EC and Academy of Finland and Minedu

- ELIXIR AAI task force 2014-
  - Designing AAI for ELIXIR ESFRI

  Funder ?? Commission Academy of Finland and Minedu

- EINFRA-7-2014 (proposal) 2015-
  - Rolling out federated AAI to the ELIXIR community

GN3plus Enabling Users Pilot status

- EGA SP registered to Haka (the Finnish IDF)

  - Finnish researchers can log in to EGA

- EGA SP exported to eduGAIN

  - EGA SP visible also to non-Finnish IDFs

- EGA committing to GÉANT data protection Code of Conduct

  - To encourage European IdPs to release attributes

- EGA studying the Level of Assurance floor for European IDFs/IdPs

  - Deciding which IdPs meet EGA's security needs

  - Hopefully some day we (ELIXIR) need not to do this but it will be offered by eduGAIN (common LoA framework)

ELIXIR AAI – An early blueprint for discussion

External AAI

eduGAIN (IDFs)

ELIXIR AAI

ELIXIR IdP for IdP-less researchers

ELIXIR Web to non-web gateway

ELIXIR community management (groups, VO)

ELIXIR authorisation (REMS)

Biomed data services with access control

EGA

Biobank data service

THANK YOU