academic e-infrastructures at Estonia

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EENet

Estonian Education and Research Network - EENet

- The mission of **EENet** is to provide high-quality **e-infrastructure** for Estonia's **research, educational** and **cultural** communities
- Its services include a permanent Internet connection as well as webhosting, e-mail, eduroam, HPC resources, VPS, DNS, consultations in the event of security problems etc
- EENet is structural unit of the Information Technology Foundation for Education
  - >1000 service contracts (>250 cultural orgs)
  - 22 people
  - located in Tartu

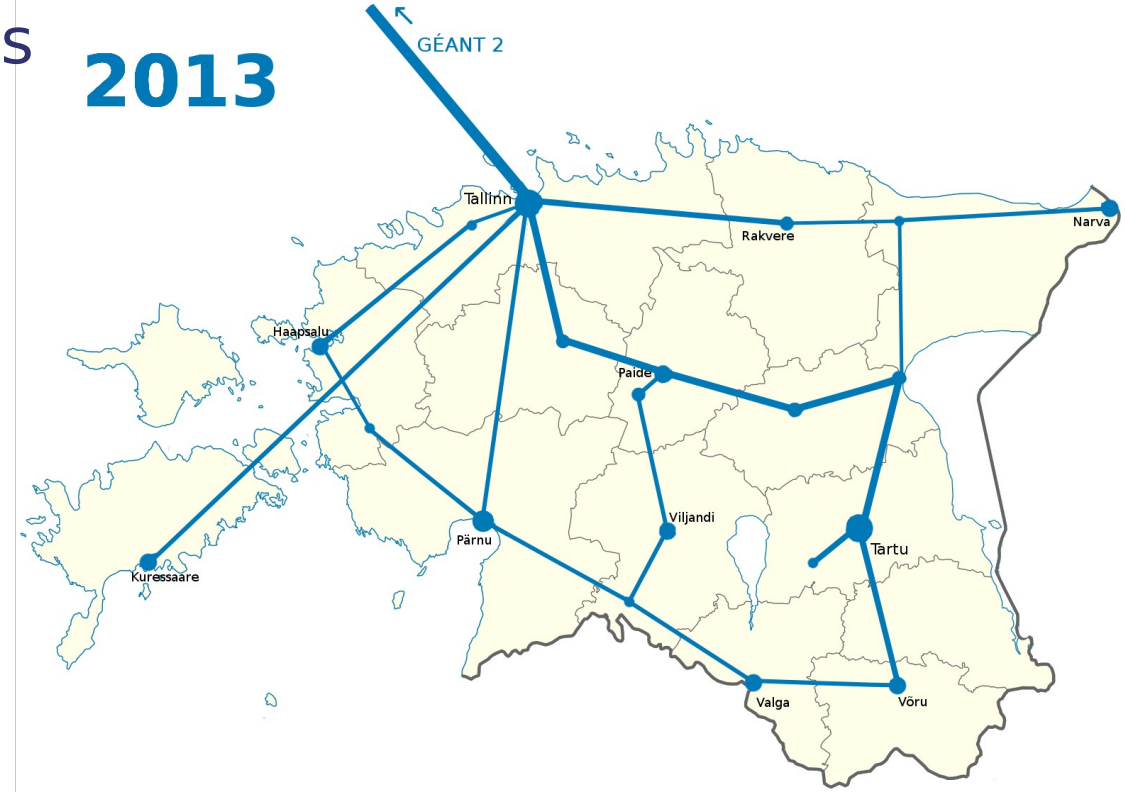
EENet

Connecting international infrastructures

- International collaboration platforms
  - GÈANT
  - EGI
  - eduGAIN, Kalmar2
  - eduroam

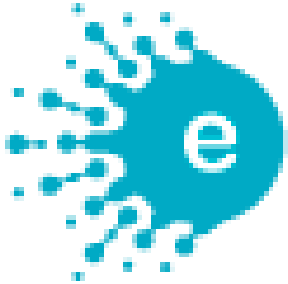
Academic network

- 10 Gbps optical rings inside country
- 10 Gbps GÉANT and Funet connections
- 228 connected organizations



HPC infrastructure

- Computing and storage resources for scientists
  - University of Tartu
  - Tallinn Technical University
  - National institute of chemical physics and biophysics
  - EENet
- Connected to EGI.eu
- www.etais.ee



Eesti Teadusarvutuste Infrastruktuur

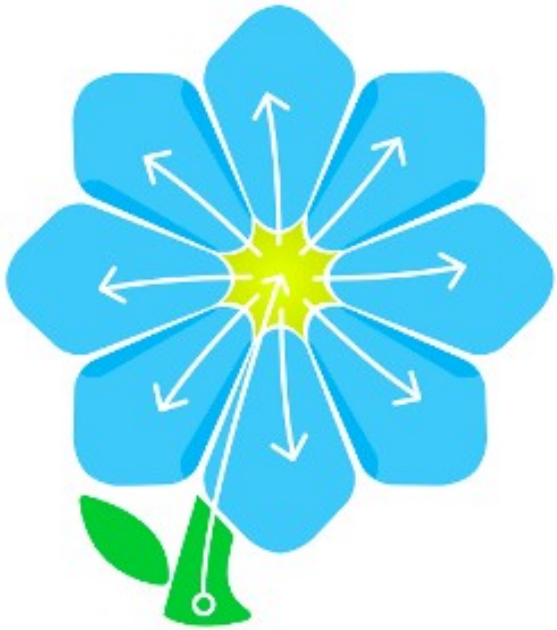
EENet

Federated AAI - TAAT

- Estonian Academic Authentication and Authorization Infrastructure - TAAT
  - Hub&spoke federation
  - integrated with national e-ID
  - SSO and less accounts

- **Federated AAI is good!**

- taat.edu.ee

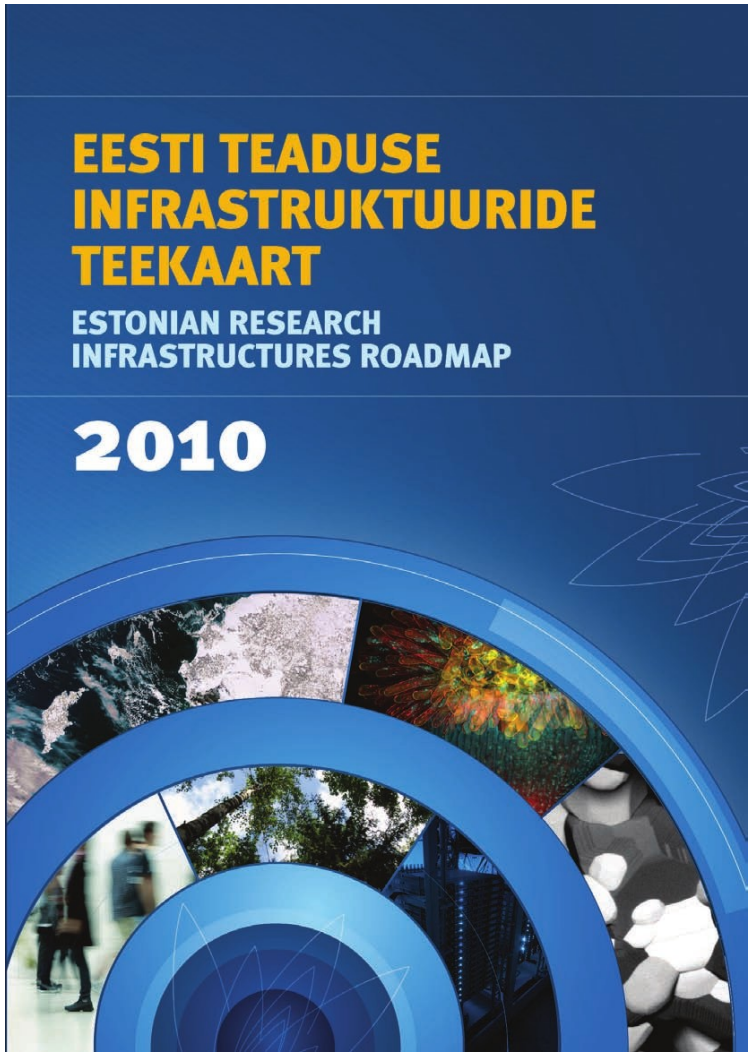


Estonian Research Infrastructures Roadmap

20 objects

- The Optical Backbone of Estonian research and education network
- The Estoninan Scientific Computing infrastructure (ETAIS)
- The Center of Estonian Language Resources
- The Natural History Archives
- The Estonian e-repository and conservation of collections

www.etag.ee/wp-content/uploads/2012/05/Teekaart.pdf



Issues to deal with

- Sustainability
  - project based funding model
- Interoperability
  - open standards
  - international collaboration
- Optimizing resources
  - Globally vs Locally
- Different groups need different resources
  - IAAS vs PAAS vs SAAS

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Community dilemmas

- Need of:
  - High-quality low-cost services
  - High security easy to use
  - Bleeding edge technology on production level

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Thank you

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