ELIXIR Beacon Network
ELIXIR All Hands 2019

Juha Törnroos
17.6.2019

www.elixir-europe.org
The background

- ELIXIR Beacon is GA4GH driver project and in ELIXIR we started new 3-years implementation project in the beginning of 2019

- One of the main objectives of that project is build ELIXIR Beacon Network and establish a basis to operate that as a service

- Last summer we published the first draft of Beacon Network specification and now we have first implementation ready
Why ELIXIR Beacon Network

- We want to ease data discoverability in Europe and in ELIXIR Core Data Resources

- Provide seamless integration into existing services (e.g. handover to EGA) and leverage ELIXIR Infrastructure services, like ELIXIR AAI

- We are working on two parallel tracks:
  - Increasing the size by expanding the Network with European Beacons
  - Improving quality by bringing data from EGA to the Network
Network design

- The Network architecture is divided into three separate components: Registry, Aggregator and Beacon(s)

- The design supports different network topologies: open and closed networks, hierarchical networks, peer-to-peer network etc
The specification

- Beacon Network design document and OpenAPI specification
- The implemented endpoints:
- Also full support for three access tiers with ELIXIR AAI (open, registered and controlled)
The implementation

- Live in https://beacon-ui-beacon.rahtiapp.fi
Demo time
Operating as a service

- The long-term goal is to operate ELIXIR Beacon Network as a service

- For this we need to do:
  - Document processes (e.g. how to join to the Network)
  - Define metadata requirements for individual Beacons (e.g. metadata in info endpoints)
  - Define security requirements
  - Establish monitoring and helpdesk operations
  - Implement KPIs (defined in previous IS)
  - Estimate operational costs

- Timeline for [http://beacon-network.elixir-europe.org](http://beacon-network.elixir-europe.org)?