

# Mini-Symposium: ELIXIR as a Network of Services

Date: Tue 06 Jun 2023, 16:00-17:30 IST

room capacity: zoom link:

Zoom ID: 893 5982 4603 pwd: AH2023

**Chair:** Peter Maccallum (ELIXIR Hub)

Speakers: Ludek Matyska (CZ), Dominik Bucik (CZ), Carole Goble (UK), Jordi Rambla (ES),

Bérénice Batut (DE)

#### Abstract:

ELIXIR delivers its capabilities in the form of ELIXIR Services, the individual functions provided by ELIXIR Nodes to support life science research. As the infrastructure develops and matures, these Services have become more complex; single-function Services are aggregated to provide complex solutions, single-Node services are shared between multiple Nodes to provide resilience, scalability and capacity. In this mini-Symposium we will investigate the ELIXIR Services which have led this transformation, and discuss what it means for the future delivery of a Europe-wide, or international, shared capability to support our users.

Kev themes will be

- Experiences with the development and delivery of fundamental ELIXIR Services
- Handling dependencies between Services
- Developing partnership approaches to distributed ELIXIR Services
- How to maintain a collective identity through collaboration

### Joint Slide deck

Time (IST)	Subject
16:00-16:15	Title: The life history of ELIXIR AAI Speaker: Ludek Matyska (ELIXIR CZ), Dominik Bucik (ELIXIR CZ) Link to <u>slides</u>
16:15-16:30	Title: Federating Services - the FEGA Speaker: Jordi Rambla (ELIXIR ES) Link to <u>slides</u>
16:30-16:45	Title: Developing Galaxy as part of an international Network





	Speaker: Bérénice Batut (DE)
	Link to <u>slides</u>
16:45-17:00	Title: The life history of TeSS
	Speaker: Carole Goble (ELIXIR UK)
	Link to <u>slides</u>
17:00-17:30	Title: Developing ELIXIR as a Network of Services (Discussion)
	Moderator: Peter Maccallum
	Link to <u>slides</u>

## Notes (collectively taken)

#### The life history of ELIXIR AAI

Ludek Matyska (ELIXIR CZ), Dominik Bucik (ELIXIR CZ)

- Seamless way allowing to work without barriers a truly international environment
- AAI "history"
  - All the way to 2022 migration into the LifeScience AAI
- Unique ID accepted by all ELIXIR services
- AAI → LS Login (ELIXIR specific and life sciences at large)
- Future
  - Trust building
  - Governmental certification
  - Link to GA4GH standards, using eID integration (ID wallet)
- Sustainability
  - Mid-term decided
  - Need more discussion about the involvement and role of other LS RIs

#### Federating Services - the FEGA

Jordi Rambla (ELIXIR ES)

- EGA started at EMBL-EBI in 2008
- CRG joined in 2012
  - BSC is supporting supplying the infrastructure to run EGA
- 51 Petabyte of data stored (17 petabytes per copy: 2 copies at EBI, one at CRG)
- Federated EGA started around 2015
  - "mini-EGA" / "EGA in a box"
- Some Nodes accepting data globally others more nationally
  - Joining path, website, documentation, SOP has been developed
- Lessons learned
  - Heterogeneity is everywhere
    - E.g. factor in for "learning along the way"
  - Need to expect back and forth
  - Milestones and deadlines need to be agreed upon

#### **Developing Galaxy as part of an international Network**





#### Bérénice Batut (DE)

- GALA 2003 the starting of Galaxy
  - GALA a database for genomics sequence alignments and annotations
- 2006 the look starts to be what it looks like today
  - Tools code data
- 2007 workflow manage was introduced
- .
- 2010+ the modern Galaxy era
  - E.g. repositories behind Galaxy e.g. GitHub
- Growth in Galaxy local/national communities
- Growing focus on training aspects
- 2020 + far from being just Galaxy in PenState
  - Growing number of servers using Galaxy
- Galaxy Community Conferences → global scale annually
- Not just life sciences any more
- One centralised website
  - With sub web-pages
  - A central place
  - Easy to find and easier to maintain
  - Showcasing of and for funders
- A lot of Communication
  - GitHub notifications, pull requests
  - Matrix as a discussion channel
  - Mailing lists
  - Shared calendars
- Galaxy outreach, training and support!
- Recognising contributions
  - A contributors "hall of fame" linking authors, contributors, ...
- Challenges working across time-zones
- Accountability (especially across cultures and in a virtual setting)
- Need to focus on Community sustainability!

#### → sustainability - bigger growing teams across the globe

- No fully funded Galaxy staff (100%)

#### The life history of TeSS

Carole Goble (ELIXIR UK)

- TeSS ELIXIR's training portal
  - All material remains on originated website
- An aggregator to organise and curate
  - Collections, workflows, ...
  - Workflows learning pathways
- One-stop-shop
  - Training and trainees





An ELIXIR training showcase

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- Dress, pan-training, staging.taxila → adopted in other context's/areas/by partners
- Very limited and funded work ½ time developer and ½ time community manager
- ELIXIR was born as an ELIXIR effort
  - 2013 ELIXIR UK Node training focused Node
- Hard to get into grants "donated Node support"
- → aiming to rely on the "Life History development and delivery of TeSS Service"
  - Drawing on
    - Governance
    - Technology
    - Resources
    - Community & Training
  - TeSS's life history
    - 2013-2016: Getting started phase 1
    - 2016-2019: growing: phase 2
    - 2020-present: production

#### $\rightarrow$ a multi-Node service

- Working under open development
  - Involves all necessary tools/approaches required in an open development project
- Multi Node development
  - Resources core skills access vs. finances → how to, if necessary shift services?
- → how to manage this/situation

#### 1-9-90 model

- 1 developer
- 9 actual contributors
- 90 users

#### TeSS

- Yes/positive
  - TrP support
  - Important to ELIXIR (and outside)
  - Committed core Nodes
- No/negative
  - Node support for Node Coordinators
    - (yes Node Coordinators/Training Coordinators support and backup but they are lacking support nationally)
  - Training
  - Node-first viewpoint
- → how to work on "collective pan-Node core" → explicit community leadership





# **Developing ELIXIR as a Network of Services (Discussion)**

Peter - moderator