

ELIXIR-SI

Brane Leskošek in skupina BEE, ELIXIR-SI and ULMF
brane.leskosek@mf.uni-lj.si




23. januar 2020

ELIXIR members


ELIXIR Members




ELIXIR Observe



<https://www.elixir-europe.org>




ELIXIR Structure




Five technical platforms for **Compute, Data, Tools, Interoperability and Training**

Complemented by Communities for Marine metagenomics, Plants sciences, Proteomics, Metabolomics, Galaxy, Human Data Communities (Rare diseases, Federated human data, Human copy number variation), Intrinsically Disordered Proteins and Microbial biotechnology



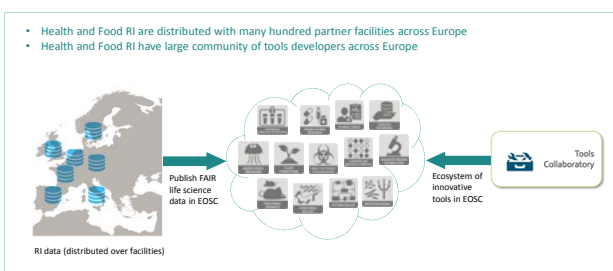

EOSC-Life Consortium

- 13 ESFRI Health and Food Research Infrastructures
- 46 Partners and 17 linked 3rd parties
- Sourcing e-Infrastructure services from EOSC (Cloud, AAI, ...)
- 4 year Project, 24M€

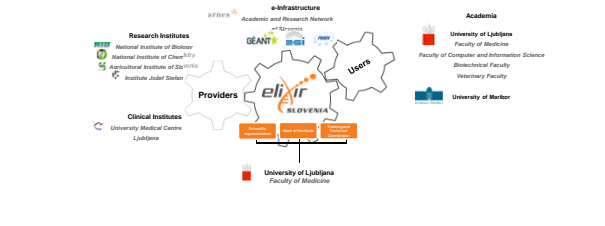



Establish EOSC-Life by publishing data and tools for cloud use

- Health and Food RI are distributed with many hundred partner facilities across Europe
- Health and Food RI have large community of tools developers across Europe

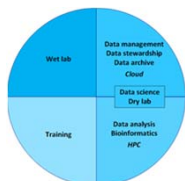



Vozlišče ELIXIR Slovenija

ELIXIR-SI activities

- Data science and Dry lab
 - national genomics infrastructure
 - infrastructure for longterm data management – data archive (based on local EGA)
 - access to high performance computing, cloud...
 - (bioinformatics) data analysis
 - bioinformatics tools and services
 - data integration and interoperability
 - following ELIXIR standards and guidelines, like FAIR (*Findable, Accessible, Interoperable, Reusable*) principles
- Wet lab for data generation
- Training, Education and Capacity building

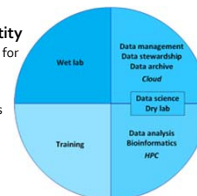


- General focus on medical data and personalised medicine



ELIXIR-SI activities

- ELIXIR-SI eLearning Platform – EeLP
 - <https://elixir.mf.uni-lj.si>
- (web) communication tools
- **BEE – Bioinformatics ELIXIR-SI Entity**
 - helpdesk for members/local community for
 - data management plan(ning)
 - bioinformatics tools and services
 - starting storage and compute resources are already available, especially for training, education, piloting and capacity building
 - elixir@mf.uni-lj.si



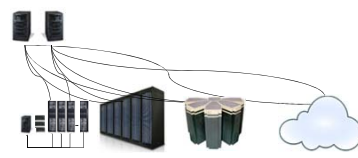
Nadgradnja vozlišča ELIXIR-SI

- 5,3 M EUR, predvsem za opremo
- **upravljanje s podatki (data management)**
 - vključno z generiranjem in analizami podatkov
- **Local EGA**
- **Posameznocelične analize**
 - Konfokalni invertni mikroskop
 - 10x Genomics
 - Nanopore
- **ELIXIR-SILVR (Enota Mb)**
 - Illumina NGS
 - Nanostring, Dolomite Nadia



Povezovanje vozlišča ELIXIR-SI

- Glavni vir so Evropski strukturni in investicijski skladi
- **HPC-RIVR** – 20+M EUR investicija v superračunalniško IKT infrastrukturo prek elnfraktur - v izvajanju
 - ELIXIR-SI bo imel dostop do HPC, zrcaljenja in prostora za varnostne preslikave



grid storage HPC GPGPU cloud



Aktivnosti ELIXIR-SI

- **Training platforma**
 - Task 2 - razvoj novih gradiv za učenje (vključno z e-učenjem)
 - delovna skupina za e-učenje
- **Plant community**
 - NIB sovodi
- **RD community**
 - UL MF sovodi training del
- **Interoperability, Compute, Capacity building**
 - partnerji

1+ Million Genomes declaration

Declaration for delivering cross-border access to genomic database

- 1 million genomes accessible in the EU by 2022
- Linking access to existing and future genomic database across the EU
- Providing a sufficient scale for new clinically impactful associations in research

COUNTRIES AGREED TO COOPERATE IN LINKING GENOMIC DATA ACROSS BORDERS



<https://ec.europa.eu/digital-single-market/en/european-1-million-genomes-initiative>



Aktivni in oddani projekti v katere je vključen ELIXIR-SI

- **European Joint Programme - Rare Disease (EJP-RD)** - "linked 3rd party" ELIXIR, edini partner iz Slovenije
- **Instand-NGS4P** - Integrated and standardized NGS workflows for Personalised therapy (routine diagnostics for common and rare cancers)
- **ELIXIR-CONVERGE** - Connect and align ELIXIR Nodes to deliver sustainable FAIR life-science data management services
- **B1MG - Beyond 1MG** (oddano) - H2020 CSA
- **ARRS CRP**
 - Evropske referenčne mreže - ERN
 - Slovenski genom - SIG

Vprašanja?

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