



ELIXIR CZ Annual Conference 2017

ELIXIR Interoperability Platform @ ELIXIR CZ Node

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**FACULTY
OF INFORMATION
TECHNOLOGY
CTU IN PRAGUE**

15th November 2017

Data Stewardship and Data Management

- FAIR Initiative participation in ELIXIR CZ & Globally

<https://www.elixir-europe.org/news/position-paper-fair-data-management>



The screenshot shows the ELIXIR website's news section. At the top is a dark blue navigation bar with the ELIXIR logo and menu items: ABOUT US, SERVICES, PLATFORMS, USE CASES, EVENTS, NEWS (highlighted), and INTRANET. A search bar is on the right. Below the navigation bar, the breadcrumb 'Home » News »' is visible. The main heading is 'ELIXIR publishes position paper on FAIR Data Management in life sciences'. The text below states that ELIXIR has stated how its infrastructure will help researchers make published life-science data FAIR (Findable, Accessible, Interoperable and Reusable). It also mentions the European Open Science Cloud (EOSC) initiative. A section titled 'In supporting the EOSC Declaration' made on 10 July 2017, ELIXIR has published a set of guiding principles on FAIR Data Management:

- Open sharing of research data is a core principle for publicly-funded research and ELIXIR encourages all funders to adopt Open Data mandates.
- Data Management is crucial part of good scientific practice and research excellence.
- Whenever possible, biological research data should be submitted to the recommended community deposition databases.
- All data submitted to Open Data archives must be annotated in accordance with community-defined standards.
- ELIXIR Nodes are the national implementation of a harmonised FAIR Data Management programme for the life sciences.
- FAIR data management requires professional skills and adequate resources.
- Good research data management requires appropriate funding for data infrastructures.

[Read ELIXIR's position paper](#) to see the guiding principles in full.

Foundational Ontologies

- A powerful interoperability tool for life sciences
- Reasoning about data semantics, verification and validation

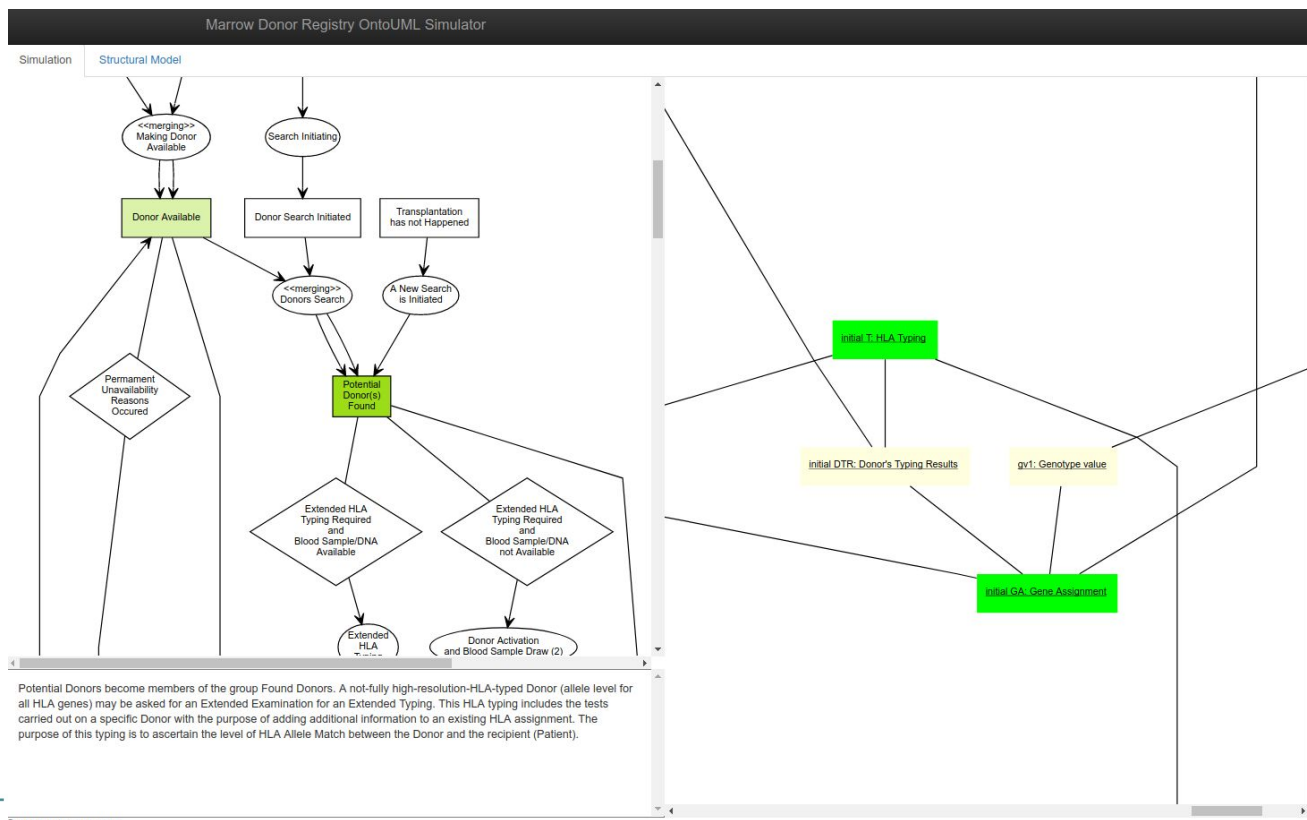
<https://ontouml.org/>

The screenshot shows the OntoUML community portal. At the top, there is a navigation menu with links for HOME, UFO, ONTOUML, REPOSITORY, PUBLICATIONS, and COMMUNITY. Below the menu, there is a grid of member profiles, including Lello Di Caro, Giancarlo Guizzardi, Robert Fergl, Ivan Djent, Tigran Prince Sales, and Miroslav Voznica. The central part of the page features a large graphic with the OntoUML logo and the text 'COMMUNITY PORTAL'. To the right, there is a large diagram of an ontology model, showing various classes and relationships.

Foundational Ontologies


Flashtalk:

Pergl R., Houdová L., Fetter M
Ontological Analysis of Marrow Donor Registry



Software Tools Supporting Interoperability

<https://dmp.fairdata.solutions/>



DATA STEWARDSHIP WIZARD v0.9.3, KM: 2017-08-21
Data Management Plans for FAIR Open Science

Login | Register






About Design of experiment Data design and planning Data Capture/Measurement Data processing and curation Data integration
Data interpretation Information and insight

Questionnaire generated from the precompiled JSON of [Data Stewardship Knowledge Model](#). This is a proof-of-concept work not intended for serious use, yet.

Please register to receive updates. The functionality coming soon:

- Linking with [the book](#)
- Generating reports

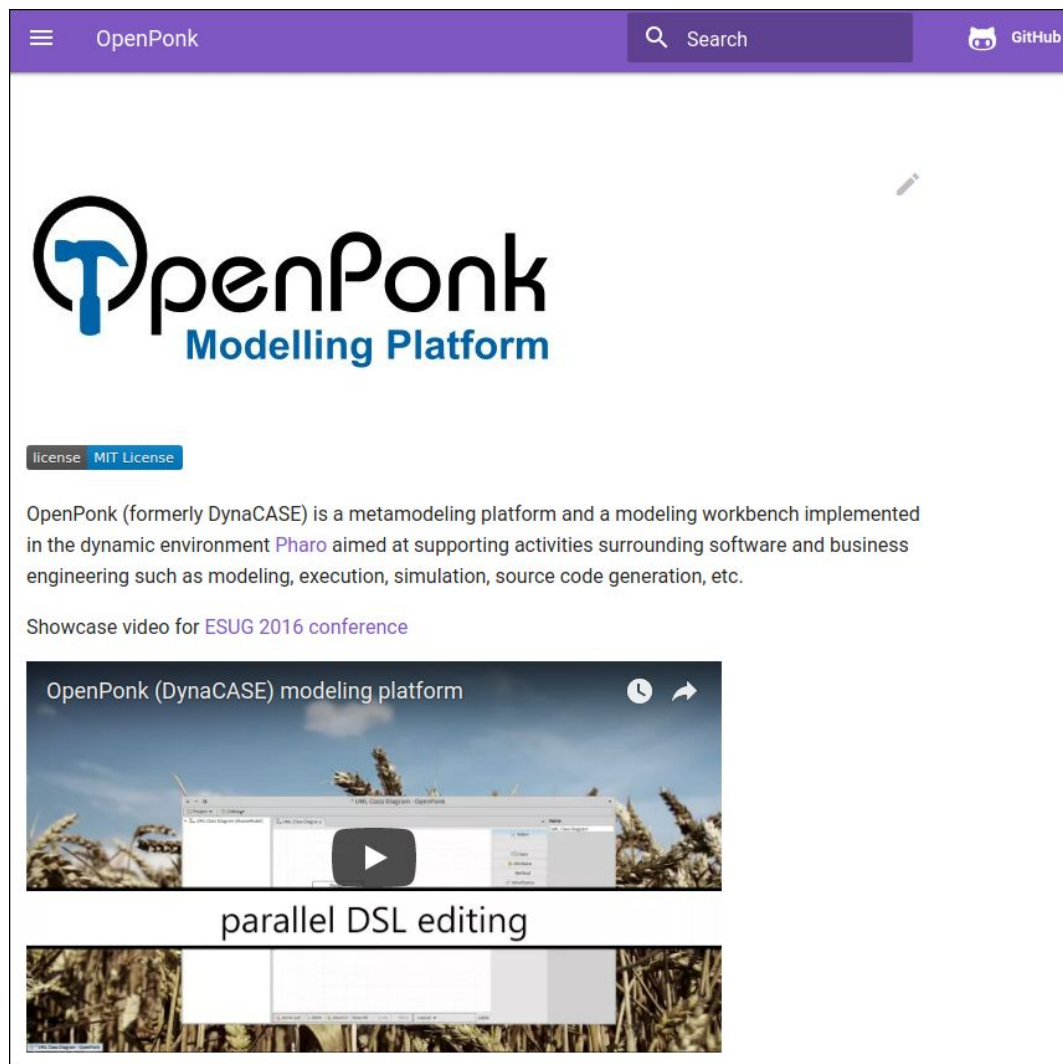
Privacy notice: Your personal and all other data are considered private and will not be shared with any third parties. Statistical information based on your data may be shared and published.

Technical contacts	Data stewardship action team	Links
Robert Pergl Marek Suchánek	    	ELIXIR Europe ELIXIR Nodes

Crafted with [GHC](#) & [Haste](#), powered by [Scotty](#)

Software Tools Supporting Interoperability

<http://openponk.org>



OpenPonk

Search

GitHub

OpenPonk Modelling Platform

license MIT License

OpenPonk (formerly DynaCASE) is a metamodeling platform and a modeling workbench implemented in the dynamic environment [Pharo](#) aimed at supporting activities surrounding software and business engineering such as modeling, execution, simulation, source code generation, etc.

Showcase video for [ESUG 2016 conference](#)

OpenPonk (DynaCASE) modeling platform

parallel DSL editing

Further info

<https://www.elixir-czech.cz/platforms/interoperability>

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Interoperability)

Interoperability

ELIXIR CZ Interoperability team engages in the following topics:

- Data Stewardship and Data Management
- Foundational ontologies
- Software tools supporting interoperability

Data Stewardship and Data Management

ELIXIR CZ together with ELIXIR NL develop and maintain the [Data Stewardship Planning Portal](#), a portal to support discovering, broadening and deepening knowledge of data stewardship and its various topics, to help prepare valuable data management plans and to find help of community and experts.

Foundational Ontologies

We apply foundational ontologies, namely the [Unified Foundational Ontology](#) to support interoperability in its various aspects: data interoperability, tools interoperability, as well as documents and organizational interoperability.

Software Tools Supporting Interoperability

We develop the [OpenPonk](#) conceptual modelling platform, a platform for creating conceptual models, their validations, transformations and simulations.

DSP: Vision and Knowledge Model

- What do I need to know in order to create a good Data Stewardship Plan?
- How to make my data FAIR?
- Make it simple but still exhaustive (not for users!)
 - Smart behaviour
 - Interactive branches
 - Options, examples, advices, experts
- Extensible, evolvable and FAIR knowledge model
 - Core with generic questions and knowledge
 - Localizations for specific fields, geopolitics, ...



DSP: Wizard

- Current “client” for browsing the knowledge model
- Haskell-based web application
- Interactive guiding through the questions
- Register & login functionality
- Save & load answers - manage multiple plans

<https://dmp.fairdata.solutions>



DSP: Future work

- Implementation Study under the Training Platform (Jan 2018, 18 months)
 - Functionality development
 - Content development
 - Trainings
- Theses @ FIT CTU - exploring various approaches
- Currently developing:
 - distributed modular architecture
 - simple-to-use knowledge model editor
- Future (depends on the community needs):
 - certifications, publishing plans, etc.



DSP: Integrations

- Linking and integration with other ELIXIR or 3rd party services and resources
- The Book: Data Stewardship for Open Science: Implementing FAIR Principles (Barend Mons)
- Open Science Framework (WIP)
- Other ELIXIR projects (future):
 - ELIXIR eLearning platform (ELIXIR-SI)
 - Virtual Coffee Room (ELIXIR-ES)
 - ...

DSP is Yours!

- Play around with Data Stewardship Wizard
- Create your plan base on your (or imaginary) case
- Please give us feedback!

- Robert Pergl: robert.pergl@fit.cvut.cz
- Marek Suchánek: marek.suchanek@fit.cvut.cz
- <https://github.com/DataStewardshipPortal>
- <https://dmp.fairdata.solutions>



MINISTERSTVO ŠKOLSTVÍ,
MLÁDEŽE A TĚLOVÝCHOVY

This work was supported by ELIXIR CZ research infrastructure project (MEYS Grant No: LM2015047) including access to computing and storage facilities.

