FAIR Training in ELIXIR Europe

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www.elixir-europe.org

ELIXIR the European Research Infrastructure for biological data

- EMBL (June 2013)
- UK (Sept 2013)
- Sweden (Sept 2013)
- Switzerland (Oct 2013)
- Czech Republic (Nov 2013)
- Estonia (Dec 2013)
- Norway (Jan 2014)
- Netherlands (Feb 2014)
- Denmark (Mar 2014)
- Israel (May 2014)
- Portugal (July 2014)
- Finland (Sept 2014)
- France (Oct 2015 as Provisional Member)
- Belgium (Nov 2015)
- Italy (Jan 2016)
- Slovenia (Feb 2016)
- Luxembourg (July 2016)
- Ireland (July 2016)
- Germany (Aug 2016)
- Hungary (Jan 2017)
- Spain (Oct 2017)
- Greece (Sept 2018)
- Cyprus

ELIXIR the European Research Infrastructure for biological data

- **Data**

  Sustain core data resources

- **Tools**

  Services & connectors to drive access and exploitation

- **Compute**

  Access, Exchange & Compute on sensitive data

- **Interoperability**

  Integration and interoperability of data and services.

- **Training**

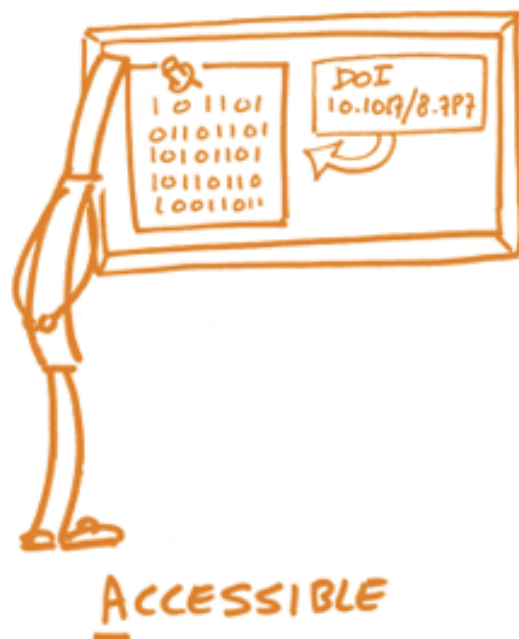 *Professional skills for managing and exploiting data*

ELIXIR Training Platform

- coordinates training activities

- trains life- science researchers

- and helps scientists and developers to find the training they need.

FAIR Data Principles

How does ELIXIR training platform support researchers in learning about FAIR Data Stewardship and how to implement it?

"How to make training FAIR" workshop,

ELIXIR All Hands, Berlin 2018

- Task Force 1: "Training about FAIR Data Stewardship" (Fotis Psomopoulos, Matesz Kuzak)

- Task Force 2: "Making Training Resources FAIR" (Bérénice Batut, Melissa Burke)

availability and **findability** of training events and materials about FAIR Data Stewardship in ELIXIR's **training portal TeSS**

Training about FAIR Data Stewardship (TF1)

- FAIR related skills are not life- science specific (e.g. understanding "data licenses" or "internet protocols")

- TeSS does not use any ontology or controlled vocabulary representing FAIR relevant skills for its search

- neither training materials are annotated with ontologies, **because they do not exist yet.**

We need to make training resources FAIR first!

Started at Biohackathon, Paris 2018

- Evaluation of the FAIRness of existing training materials
- Evaluation of FAIR principles in the context of training
  - Can we take FAIR principles (and metrics) as they are?
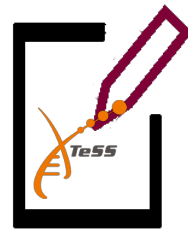 - Do we need to adapt the principles for Training?

10 recommendations to make your training materials FAIRer

Use descriptive/relevant keywords, use controlled vocabularies if they exist

Use unique identifier, include version and release via a public repository

Make it findable in a specialized registry, e.g., TeSS

Findable

10 recommendations to make your training materials FAIRer

Host it in a public repository

Or make the use rules public in your metadata (e.g., membership or subscription)

Accessible

Interoperable

Include references to other data, materials, software, any other digital objects → try to use those that are FAIR as well

Target trainees by defining: prerequisites and learning outcomes so they can build their own learning path
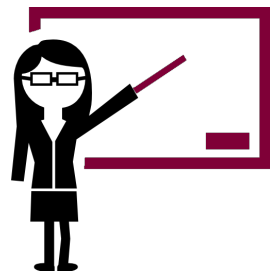
10 recommendations to make your training materials FAIRer

Reusable

Make sure people know what the use/reuse rules are → license, contact point, contribution rules

Target trainers so they know how to use your materials → audience, background, guidelines

Make sure people know how to credit/cite your work

Bioschemas

provides a way to add **semantic markup** to web pages so that they are **indexable by search engines** and other services.

- Course

- Course Instance

- Training Material

Implementing in lesson and workshop templates.

terms4fairskills.github.io

terms4FAIRskills

Building a terminology for the skills necessary to make data FAIR and to keep it FAIR.

What's next?

- Finalize terms

- Start annotating training resources

- Make sure the search supports the terms