

A photograph showing a group of people in a meeting room. In the foreground, a man is seen from behind, wearing large headphones and looking at a laptop. To his left, a woman is also working on a laptop. In the background, another man is sitting at a table, looking towards the right. The room has wooden walls and a window with blinds. There are water bottles and a glass on the table.

EMBL Lab Day 2021
3rd of September

The what, how and who in the **Bio-IT** project

“Community initiative which aims to build, support, and promote computational biology activity at EMBL”

Why Computational Biology

1. **Integral to experimental design:** support experimental design planning and data processing.
2. **Necessary to scale up:** to process and store big data, to compare data in different context, even from small-scale experiments.
3. **Data (and science) doesn't end at publication:** ensure scientific FAIRness by properly storing your data and processes and making them findable and available.
4. **Data-driven research:** advanced computational techniques applied to biology define a new scientific paradigm.

Why Computational Biology at EMBL

1. EMBL is committed to **Open Science** policies.
2. A **dynamic research context** such as EMBL needs FAIR data and processes to ensure usability.
3. In a **collaborative environment** researchers can easily take advantage of each others' skills: design experiments to spare time and money and achieve better science.
4. Even more because of EMBL's **internationality**: wide network of collaborations and data sources.
5. A specific interest of EMBL scientists is populating and maintaining biological **databases and tools**.

How? Bio-IT

“Community initiative which aims to build, support, and promote computational biology activity at EMBL.”



Training and consulting

- Courses and seminars
- Course materials
- Consulting sessions



Infrastructure and resources

- GitLab
- Coding platforms and tools



Community building and networking

- Clubs
- Grassroots
- Community blog



Knowledge aggregation and dissemination

- EMBL centers / IT services info
- WikiHow's
- Newcomers guide

Bio-IT community

We will present the Bio-IT community through personas.



Personas disclaimer: "all persons fictitious"

In this context, personas are fictional characters used to present different way to interact with the community.



The Observer



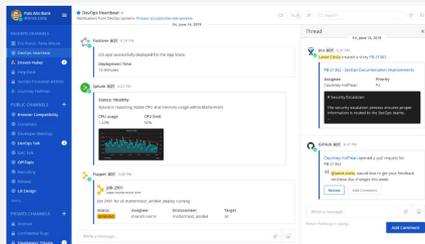
- Mostly applies **wet lab biology** techniques in experiments
- Sometimes **uses computational tools** through their graphical interfaces to make some predictions
- Got **interested in learning** how to query them programmatically and tried writing some code 
- To do so, ended up in Bio-IT website



The Observer

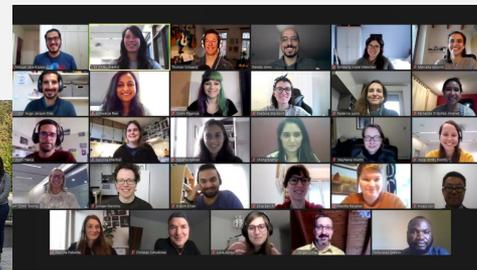
- Consulted the list of Bio-IT **resources** to choose the right platform 

- Uses the **chat** for consulting

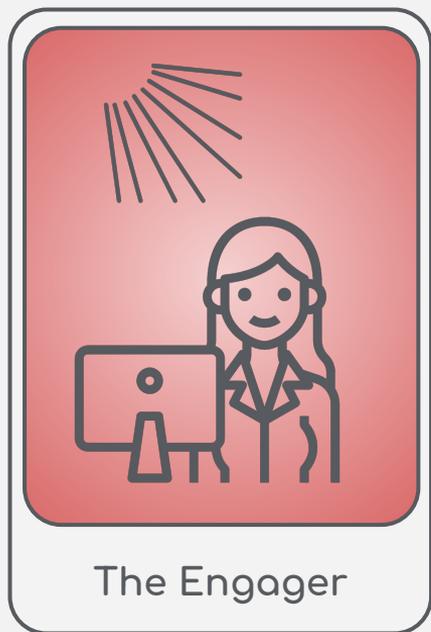


@ Bio-IT
@ Bio-IT announce
@ Coding Club
@ Python
@ R_and_statistics

- Attends external and **internal courses**



The Engager



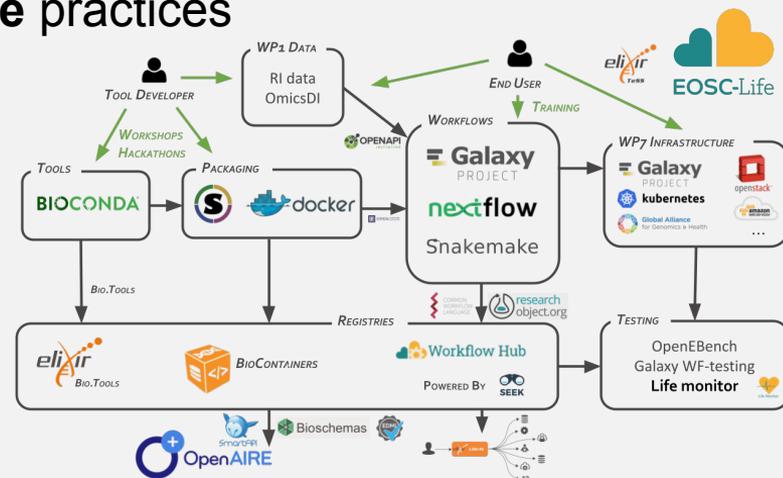
- Strong **computational skills**
- Developer of computational **tools** for biological data analysis
- Promotes **open science** practices



EMBL GitLab



EMBL Galaxy



The Engager

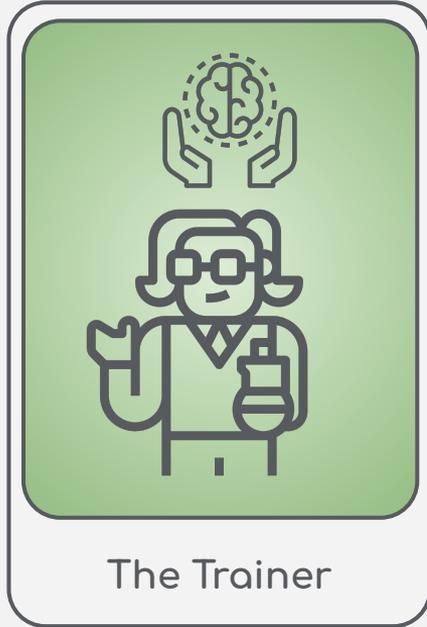
- Chairs and presents in **clubs**



- Shares coding stories and resources in **chat channels**
- Proposes and leads themed seminars
- Joins hackathons
- Sometimes joins courses as trainer



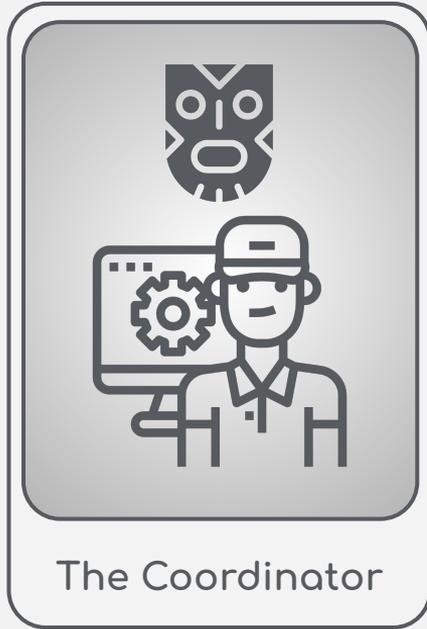
The Trainer



- Leads a **research group**
 - Has wide experience in computational biology
 - Uses computational tools from **command line** for exploratory analysis
 - Has little time to join Bio-IT activities, but keeps updated
 - Is listed in the **Grassroots consulting** table
 - Follows and interacts with the **Twitter** profile **@EMBL_BioIT**
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- Trainer in external and internal **courses**



The Coordinator



- Enjoys coding and testing new tools and resources
- Maintains **Bio-IT resources**, admin of **GitLab**



- Maintains Bio-IT **website**
- **Chair** of meetings and clubs, **organiser**
- Available for **consulting** via chat or in the Bio-IT drop-in
- Organises **small groups sessions** for discussion

