

A group of people are sitting around a table in a meeting room, working on laptops. One person in the foreground is wearing large headphones. The room has wooden walls and a window in the background.

EMBL Bio-IT - COBLET
12th of October 2022

Community building and training in the EMBL **Bio-IT** project

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

European Molecular Biology Laboratory

Some of the challenges:

- 6 sites across 5 countries
- Big data producer and provider
- Highly collaborative
- Rapid personnel turnover



Barcelona →

At EMBL Barcelona we study how tissues and organs develop and function in health and disease



Grenoble →

EMBL's site in France is specialised in Structural Biology research, instrumentation development and services



Hamburg →

EMBL Hamburg carries out research in structural and infection biology and provides related services



Heidelberg →

EMBL's headquarters and host to five research units and scientific core facilities



Hinxton →

EMBL-EBI provides open data resources that enable discovery, and performs research in Computational Biology



Rome →

EMBL's site in Italy is a centre for research in Epigenetics and Neurobiology

Why Computational Biology at EMBL

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-driven research** together with EMBL's **internationality:** advanced computational techniques applied to biology define a new scientific paradigm.
4. **Collaborative environment:** researchers can easily take advantage of each others' skills: design experiments to spare time and money and achieve better science.

What and 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
- Community blog
- Grassroots effort



Knowledge aggregation and dissemination

- Bio-IT website
- Newcomers guide
- EMBL centers / IT services info

Bio-IT community

Defining personas helped us understand the Bio-IT community and its needs.



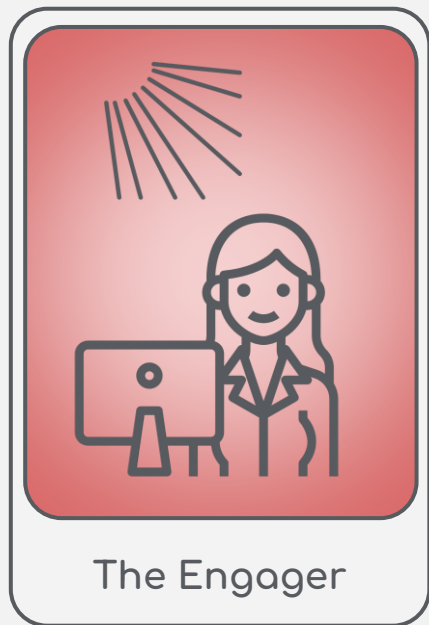
Personas disclaimer: "all persons fictitious"

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

- The Observer - typical learner, most represented persona
- The Engager - active participant, shares acquired knowledge
- The Trainer - experienced, major contributor to project
- The Coordinator - bringing the community together



The Engager



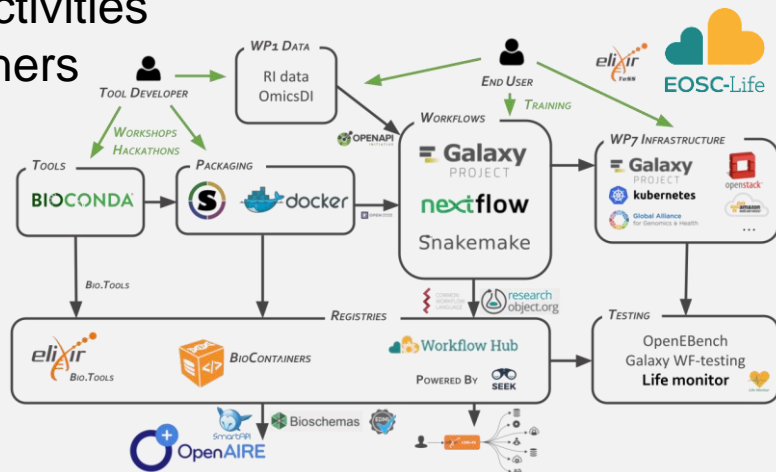
- Strong **computational skills**
- Developer of computational **tools** for biological data analysis
- Promotes **open science** practices
- **Participates** in multiple activities
- **Shares expertise** with others



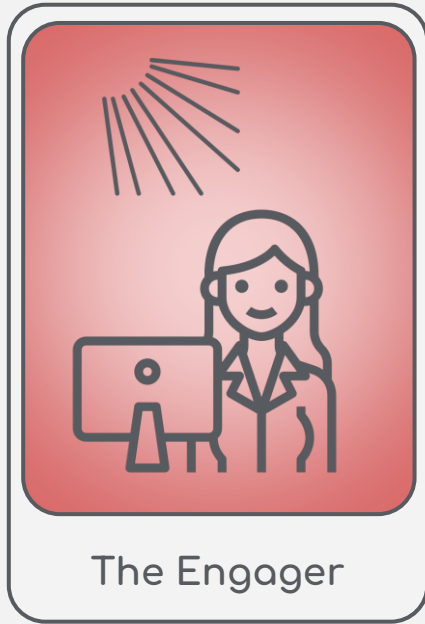
EMBL GitLab



EMBL Galaxy



The Engager



Needs & Wants:

- A voice in the community
- Wants a space to discuss ideas and share knowledge
- Likes to promote different technologies and approaches
- Values scientific rigor and reproducibility
- Aspires to practice good quality and open science

Bio-IT community & resources

- Networking events
 - EMBL Python User Group (EPUG)
 - EMBL R Group (emblr)
 - Topic specific community meetings
 - (...)

- Platforms

- bio-it.embl.de
- git.embl.de
- chat.embl.org
 - ~Bio-IT
 - ~Bio-IT-announce
 - @BIT - Bio-IT bot
- (...)

The collage features several key elements:

- EMBL Bio-IT Website:** The top right shows the EMBL Bio-IT homepage with navigation tabs for BIO-IT, TRAINING, COMMUNITY, EMBL CENTRES, and TASKFORCE. A sidebar highlights the BIO-IT BLOG.
- GitLab Projects:** A screenshot of the GitLab interface showing a list of projects, including 'grp-bio-it / EPUG' and 'grp-bio-it / ai4ia'.
- Slack Chat:** A screenshot of the Slack interface for the #Bio-IT channel, showing unread messages and favorite channels.
- Code Editor:** A snippet of code from a text editor, showing a table of contents structure with sections like 'Table of Contents', 'Pressing the current highlight', and 'Editor Modes'.
- LimeSurvey:** A logo for LimeSurvey, described as 'The Online Survey Tool - Free & Open Source'.
- Community Meetings:** Two photographs showing groups of people in a meeting room, engaged in discussion and working on laptops.

Take home

Structure	A community needs structure and opportunities for growth
Personas	Help identify community dynamics, needs and values
Sharing	Mutual help, growth and shared goals
Volunteer	Gain teaching experience or help shaping the next course or event
Infrastructure	Supports specific activities and approaches
Dynamic	Ever changing. Reassess identity and measure growth regularly.

Questions

