



BioDT School & Hackathon

3-7 March 2025

Lecce, Italy





BIODT
biodiversitydigitaltwin

School & Hackaton

March 3rd – March 7th
Officine Cantelmo, Lecce IT

Opening and Introduction



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Welcome to the
BioDT School and Hackathon!



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10 mins

🔥 BioDT - Biodiversity Digital Twin

- 🔥 innovative project that offers **advanced simulation and prediction models** to tackle critical global biodiversity challenges and provide invaluable insights and tools for conservation and restoration efforts.
- 🔥 BioDT facilitates the **development of precise and reliable models**
 - 🔥 by integrating FAIR (Findable, Accessible, Interoperable, and Reusable) data principles with state-of-the-art digital infrastructure, predictive modelling, and AI solutions.

- ❖ BioDT WP7, and in particular the Task 7.3
 - ❖ focuses on the **design and deliver training resources and activities** to increase users' competencies required to effectively use the Digital Twin.
- ❖ This programme is organized and coordinated by the Task 7.3
 - ❖ precious **contribution of all project partners and experts** that will be our trainers for this event providing their expertise and knowledge

🔥 BioDT School and Hackathon Training Team



Gabriela Zuquim, BioDT Scientific coordinator, CSC - IT Center for Science



Desalegn Chala Gelete, Crop wild relatives pDT leader, Natural History Museum, University of Oslo



Dag Endresen, Data Scientist, University of Oslo, Natural History Museum, GBIF Norway



Taimur Khan, Data Scientist, UFZ



Tomas Martinovic, Senior Researcher, IT4Innovations National Supercomputing Center



Jan Dick, Cultural ecosystem services pDT leader, UKCEH



Simon Rolph, Data Scientist, UKCEH



Dmitry Schigel, Data Scientist, GBIF Secretariate

🔥 BioDT School and Hackathon Training Team



Tuomas Rossi, Senior Application Scientist, CSC - IT Center for Science



Julian Lopez Gordillo, Data Specialist, Naturalis Biodiversity Center



Marcella Rydmark, Research Coordinator, Natural History Museum, University of Oslo



Jürgen Groenveld, Pollinators pDT leader, UFZ



Zhiming Zhao, VLIC Technical Manager, LifeWatch ERIC



Spiros Koulouzis, Research Associate, LifeWatch ERIC



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Opening Remarks

Prof. Alberto Basset
Full Professor of Ecology at University of Salento
Director of the LifeWatch ERIC Service Centre



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School Programme



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Day 1 – Monday 3 March

09:30 – 09:45	Welcome
09:45 – 10:00	Overview of the School programme
10:00 – 10:20	Participants' Introductions
10:20 – 11:00	1. Introduction to BioDT and the digital twin tool
11:00 – 11:30	Coffee Break
11:30 – 13:00	2. Presenting the digital twin tool (TwinEco)
13:00 – 14:00	Lunch Break
14:00 – 15:30	3. Conceptual design of digital twin (group exercise)
15:30 – 16:00	Coffee Break
16:00 – 17:00	4. Technical tools and platforms
17:00 – 17:30	Self-evaluation questionnaire

Day 2 – Tuesday 4 March

09:30 – 11:00

1. Turning research/scientific questions: the Cultural Ecosystem Services journey

11:00 – 11:30

Coffee Break

11:30 – 13:00

2. Innovative solutions for digital twin challenges

13:00 – 14:00

Lunch Break

14:00 – 15:30

3. DOI data citation and data papers

15:30 – 16:00

Coffee Break

16:00 – 17:30

4. Use of data APIs and bioRIs

Day 3 – Wednesday 5 March

09:30 – 11:00

1. Introduction to High-Performance Computing - Scaling up biodiversity models from laptops to supercomputers

11:00 – 11:30

Coffee Break

11:30 – 13:00

2. Hands-on LUMI, using LUMI web interface and Jupyter notebooks

13:00 – 14:00

Lunch Break

14:00 – 15:30

3. Introduction to Open Science

15:30 – 16:00

Coffee Break

16:00 – 17:30

4. Tools and practical steps

Day 4 – Thursday 6 March

09:30 – 11:00

1. Introducing LEXIS and LEXIS API

11:00 – 11:30

Coffee Break

11:30 – 13:00

2. GUI development and Building Blocks/reusable parts

13:00 – 14:00

Lunch Break

14:00 – 15:30

3. BioDT pDTs presentation

15:30 – 16:00

Coffee Break

16:00 – 17:30

4. Presenting the Hackathon and the tasks

20:00

Social Dinner

Day 5 – Friday 7 March - Hackathon

09:30 – 12:30

Hackathon

10:30

Working Coffee Break

12:30 – 13:30

Lunch Break

13:30 – 16:30

Hackathon

15:00

Working Coffee Break

16:30 – 17:00

Closing



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Training Platform and School Resource



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Welcome to the BioDT Training Platform

In this platform you will find **training resources and tutorials developed by the BioDT project** in relation to its use cases.

If you are looking for training resources on a specific BioDT use case, service, skill or training format, you can either **browse the list of resources below** or **use the search bar** to look for a keyword or topic and then the filters to refine your search.

If you need to learn more about the BioDT project and the use cases, check the **BioDT Portal**.

If you would like to be part of the discussions around the BioDT project and interact with its actors, join the **BioDT Community**.



BioDT School and Hackathon



Biodiversity in Focus: exploring the BioDT Pollinator prototype Digital Twin



Biodiversity Dynamics - Guideline on preparing data for simulations with the Grassmind Model

BioDT Training Platform

<https://training.lifewatch.eu/international-projects/resources/?category=23>

BioDT School and Hackathon



Introduction

-  [Information Booklet](#)
-  [Slack channel for communication and collaboration](#)
-  [Zoom link for remote participation](#)

Day 1

Trainers:



Gabriela Zuquim, BioDT Scientific coordinator, CSC - IT Center for Science



Desalegn Chala Gelete, Crop wild relatives pDT leader, Natural History Museum, University of Oslo

🔥 BioDT School and Hackathon Training Resource
<https://training.lifewatch.eu:9001/course/view.php?id=130>



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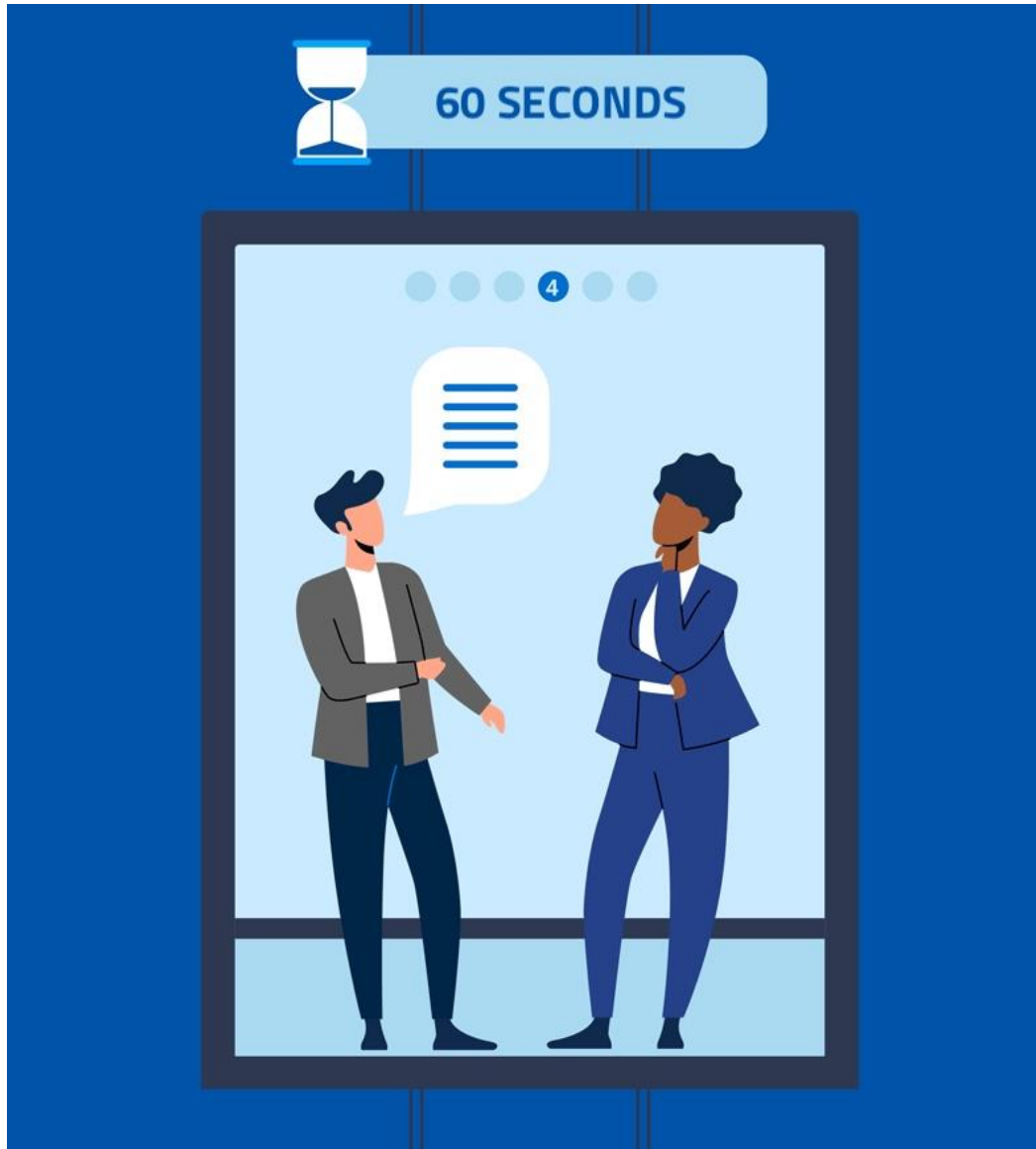
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Introduce Yourself



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- 🔥 Present yourself...
- 🔥 Your job...
- 🔥 Your experience...
- 🔥 Your expectations for this School..
- 🔥 Tell us something (funny, strange, peculiar) about yourself...



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