



TRAINING SCHOOLS

1 MECHANISTIC MODELLING OF MICROBIAL CULTIVATION

In this 4-day training school, held from March 31 to April 3, attendees explored and learned the intricacies of mechanistic modelling for microbial cultures. The course covered the principles of describing microbial cultivations using biological reaction rate models, including the selection of an initial model structure and the determination of model parameter values using example datasets. Through case studies and hands-on exercises, participants gained a deeper understanding of these concepts and improved their ability to predict and optimize microbial cultivation processes.



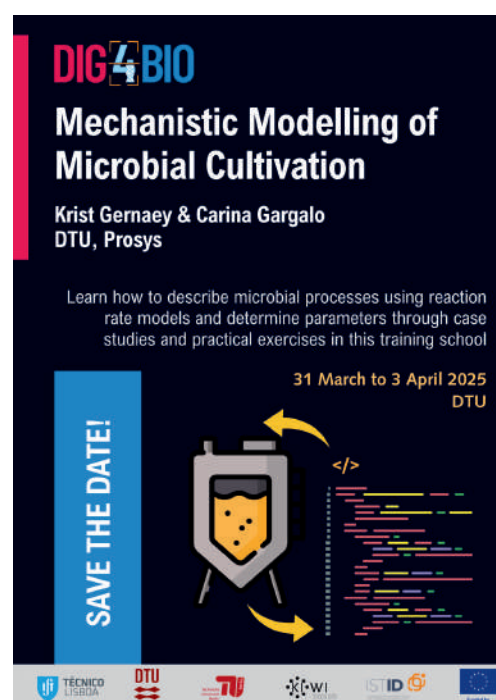
28 participants



Day 1: Mechanistic Modelling
Day 2: Substrate Inhibition and Mixed Cultures
Day 3: Sensitivity & Uncertainty Analyses
Day 4: Case Studies



Krist Gernaey (DTU KT, PROSYS)
Carina L. Gargalo (DTU KT, PROSYS)
Alina Malanca (DTU KT, PROSYS)
Fiammetta Cacavalle (DTU KT, PROSYS)
Nicolas Cruz (TUB - Kiwi BioLab)
Elham Ramin (DTU KT, PROSYS)
Mads Stevnsborg (DTU KT, AT-Cere)
Mariana Albino (DTU KT, PROSYS)
Francisca Braga (DTU KT, PROSYS)
Michaël Pierrelée (DTU Sustain)
Pedram Ramin (DTU KT, PROSYS)
Adem Aouichaoui (DTU Energy)



DIG4BIO
Mechanistic Modelling of Microbial Cultivation
Krist Gernaey & Carina Gargalo
DTU, Prosys

Learn how to describe microbial processes using reaction rate models and determine parameters through case studies and practical exercises in this training school

31 March to 3 April 2025
DTU

SAVE THE DATE!

Logos at the bottom: TÉCNICO LISBOA, DTU, TUB, Kiwi, IST-ID, and the European Union flag.



Participants at the first Training School on mechanistic modelling of microbial cultivation.

2 EUROPEAN POLITICAL CONTEXT

This Training School, held on 20-21 February, brought together Research Managers and Administrators (RMAs) from across Europe for 2-days of focused learning and exchange. Participants explored the evolving EU policy landscape, future funding opportunities and strategies to enhance institutional engagement with EU programmes. The agenda included best practices for establishing a presence in Brussels, in-depth sessions on FP10 and key policy areas such as biomanufacturing and digital manufacturing, as well as practical exercises on strategic communication and networking within the EU framework.



25 participants



Day 1: EU Policy Engagement and Communication
Day 2: Policy Landscape in Biomanufacturing



Sofia Martins, IST-ID
Marta Candeias, IST-ID
Ana Espada, IST-ID
Simon Elben Hertig, DTU
Cornelia Schmidt, TU Berlin



WORKSHOPS

Data Management Workshop

This 1-day virtual workshop, held on March 17, offered participants a comprehensive understanding of data management principles and best practices. Attendees learned strategies for effective data collection, storage, and integrity maintenance, along with tools and techniques for organized data retrieval and backup. Through case studies and group activities, participants gained hands-on experience in implementing data management systems tailored to their areas of expertise.



18 participants



Fiammetta Cacavalle & Carina L. Gargalo (DTU KT)



virtual

Research Data Management and Open Science Workshop

This 1-day virtual workshop, held on March 18, introduced tools to support the reproducibility and transfer of data, emphasizing the FAIR principles (findable, accessible, interoperable, and reusable) for data and processes. It also covered the use of semantic process modelling.



12 participants



Fiammetta Cacavalle & Carina L. Gargalo (DTU KT)



virtual

Introduction to ELNs and LIMs

In this online workshop, held in March 19, the attendees learned about the importance of Electronic Lab Notebooks (ELNs) in creating a paperless experimental environment and the use of Laboratory Information Management Systems (LIMs) in modern laboratories. The workshop provided an outlook on digitised laboratories.



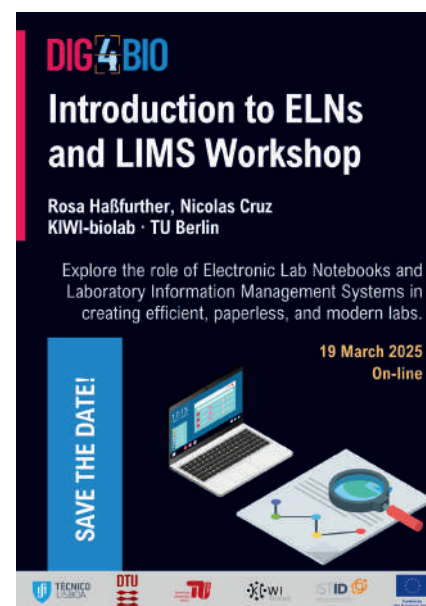
13 participants



Nicolas Cruz & Rosa Haßfurth (TUB – KIWI BioLab)



virtual

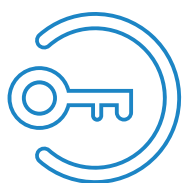


WHAT ARE THE FAIR PRINCIPLES?

The FAIR Principles are a set of guidelines for improving the discoverability, accessibility, interoperability and reusability of digital assets, particularly in the context of scientific data management and preservation. The FAIR Principles are a key component of Horizon Europe.



FINDABLE: Data and metadata should be easily discoverable by both humans and machines. This is accomplished by assigning globally unique and persistent identifiers, and providing rich metadata that is indexed in searchable repositories.



ACCESSIBLE: Once found, data should be easy to access, possibly under specific conditions. This involves ensuring that once data can be retrieved using open, standardized protocols, with metadata remaining available even if the actual data are restricted or no longer accessible.



INTEROPERABLE: Data should be able to integrate with other data and systems. This is achieved through the use of standardized formats, controlled vocabularies, and formal knowledge representations that enable data to "speak the same language" across disciplines.



REUSABLE: Data should be well described, well documented, licensed for reuse, and accompanied by detailed provenance information so that others can confidently use, validate, and build upon it in new and diverse research contexts.

