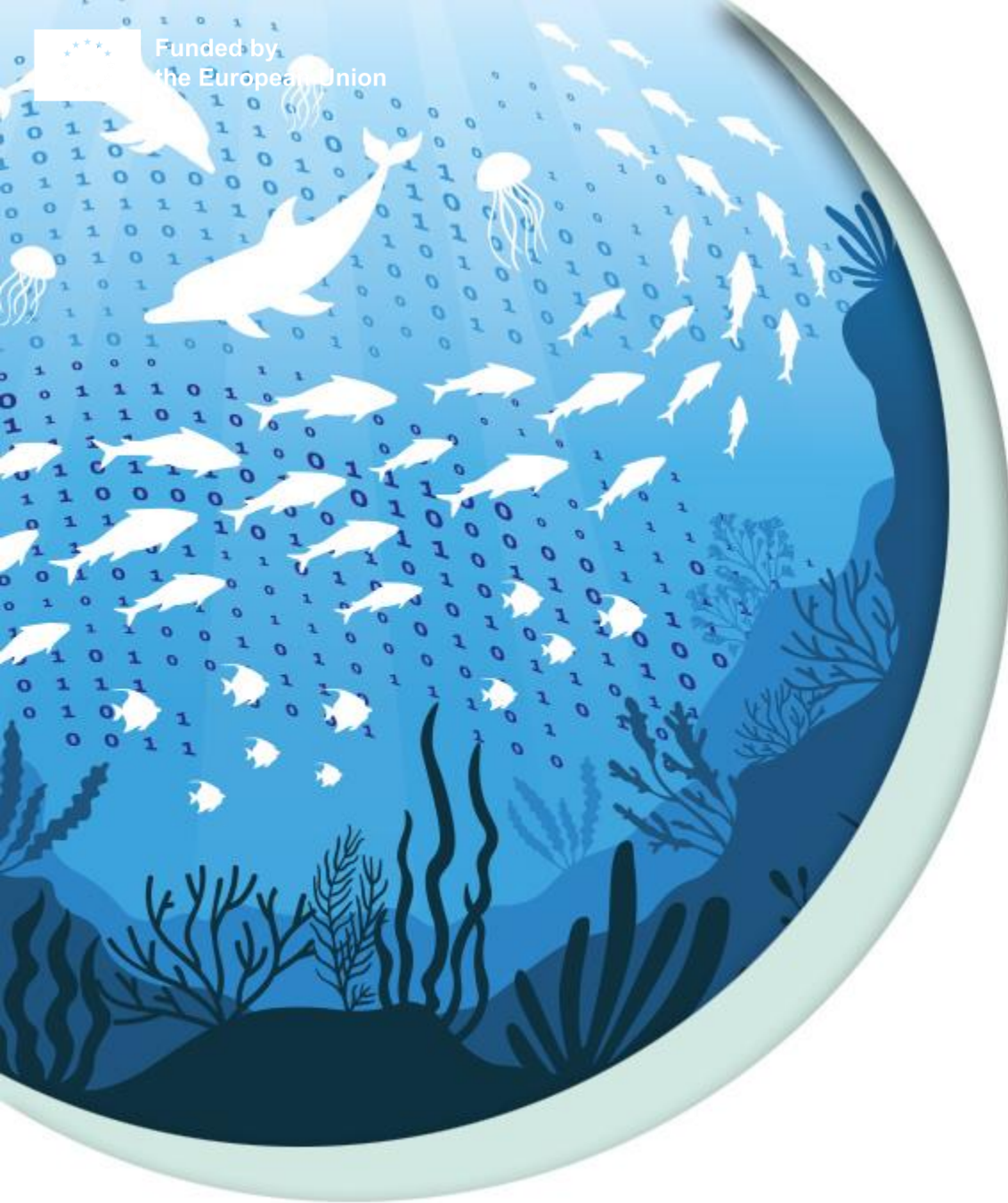




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# DTO-BioFlow

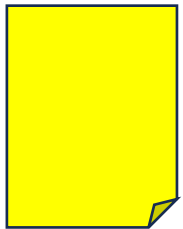
Integration of biodiversity monitoring  
data into the Digital Twin Ocean

DTO-BioFlow data training  
workshop:

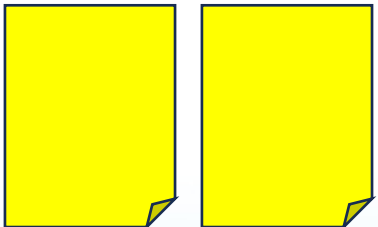
Hands-on session

# Hands-on session

- ≡ Use the software of your choice
- ≡ Always work on a copy
- ≡ Put a sticky note on your laptop in case of:



Question, help needed



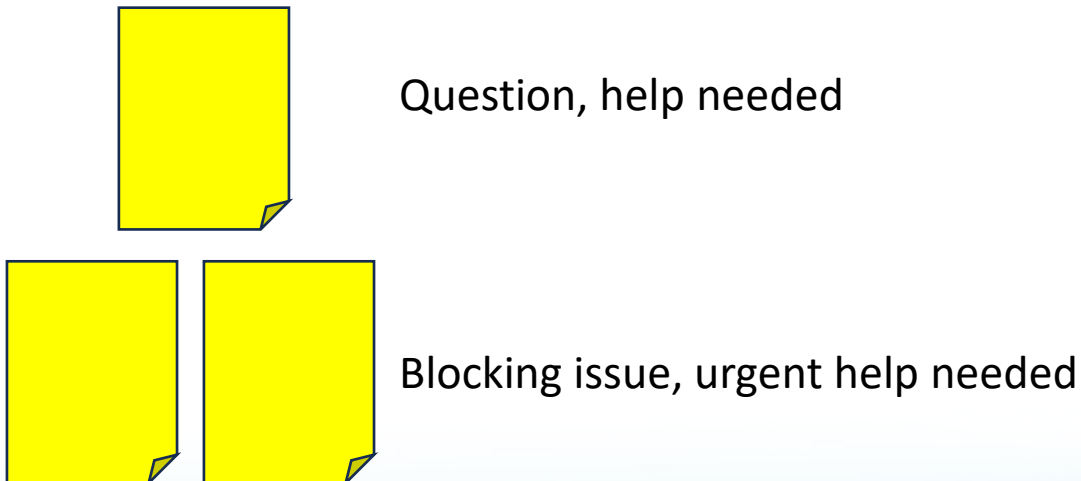
Blocking issue, urgent help needed

## ≡ Main resources:

- ≡ Data training presentations:  
<https://oceantraining.eu/moodle/course/view.php?id=179>
- ≡ OTGA course: Contributing datasets to EMODnet Biology:  
<https://classroom.oceanteacher.org/course/view.php?id=958>
- ≡ OBIS manual:  
<https://manual.obis.org/>

# Hands-on session

- ≡ Use the software of your choice
- ≡ Always work on a copy
- ≡ Put a sticky note on your laptop in case of:



- ≡ Overview of standardization steps:
  - ≡ 1) Transform to tidy structure
  - ≡ 2) Transform to Darwin Core
    - ≡ Map = translate column headers to DwC terms
      - ≡ Map all columns except measurements or facts
    - ≡ Enhance = adding additional columns
      - ≡ Add required/highly recommended fields
      - ≡ Add any relevant information
    - ≡ Standardize values
    - ≡ Separate tables
    - ≡ Restructure eMOF table
    - ≡ Standardize measurements or facts types, units and values
  - ≡ 3) Create data package: Darwin Core Archive





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Integration of biodiversity monitoring  
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THANKS!