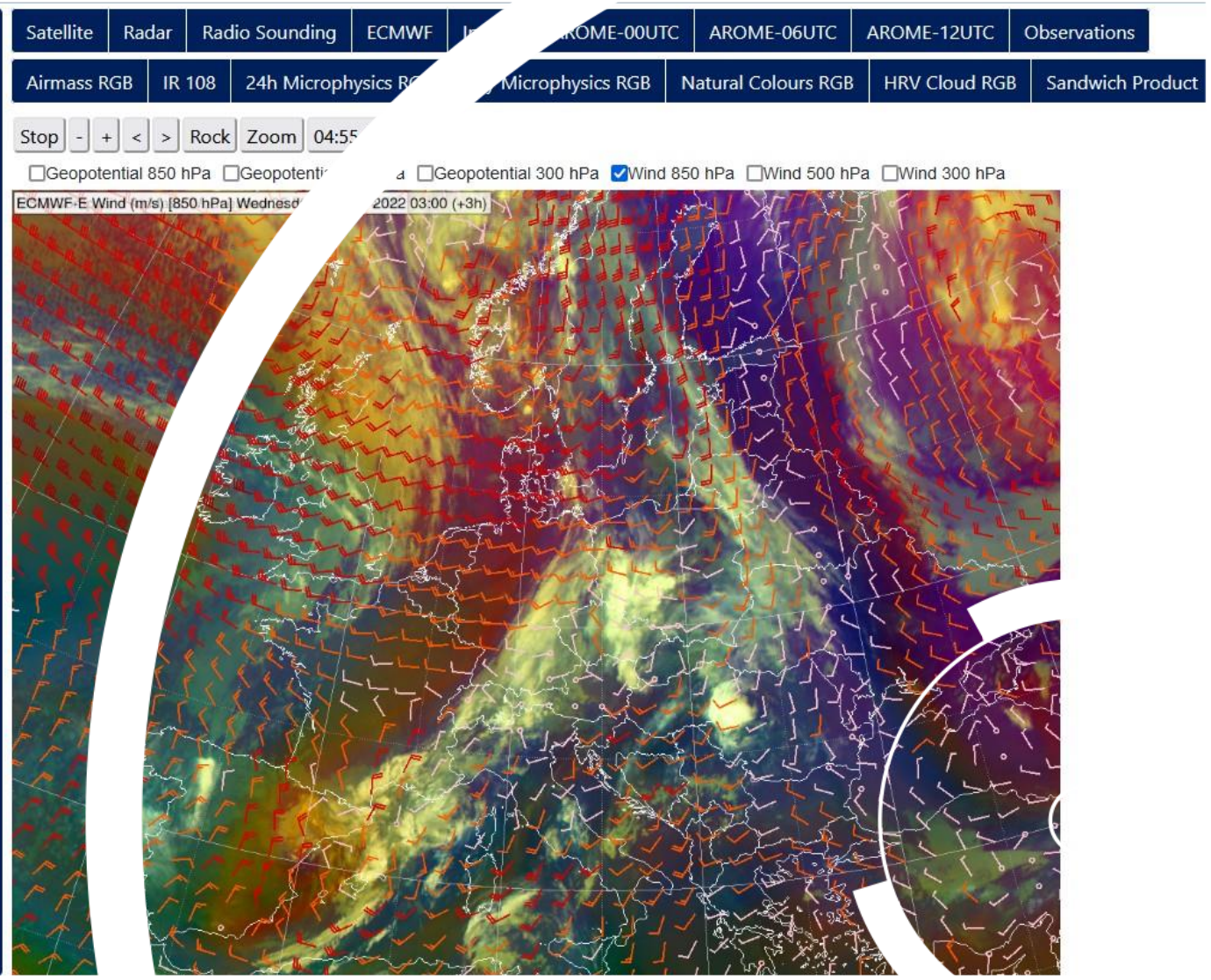
EUMETSAT

Meteorological Simulator for Training



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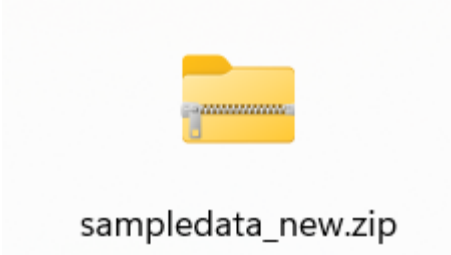
Introduction to SIM

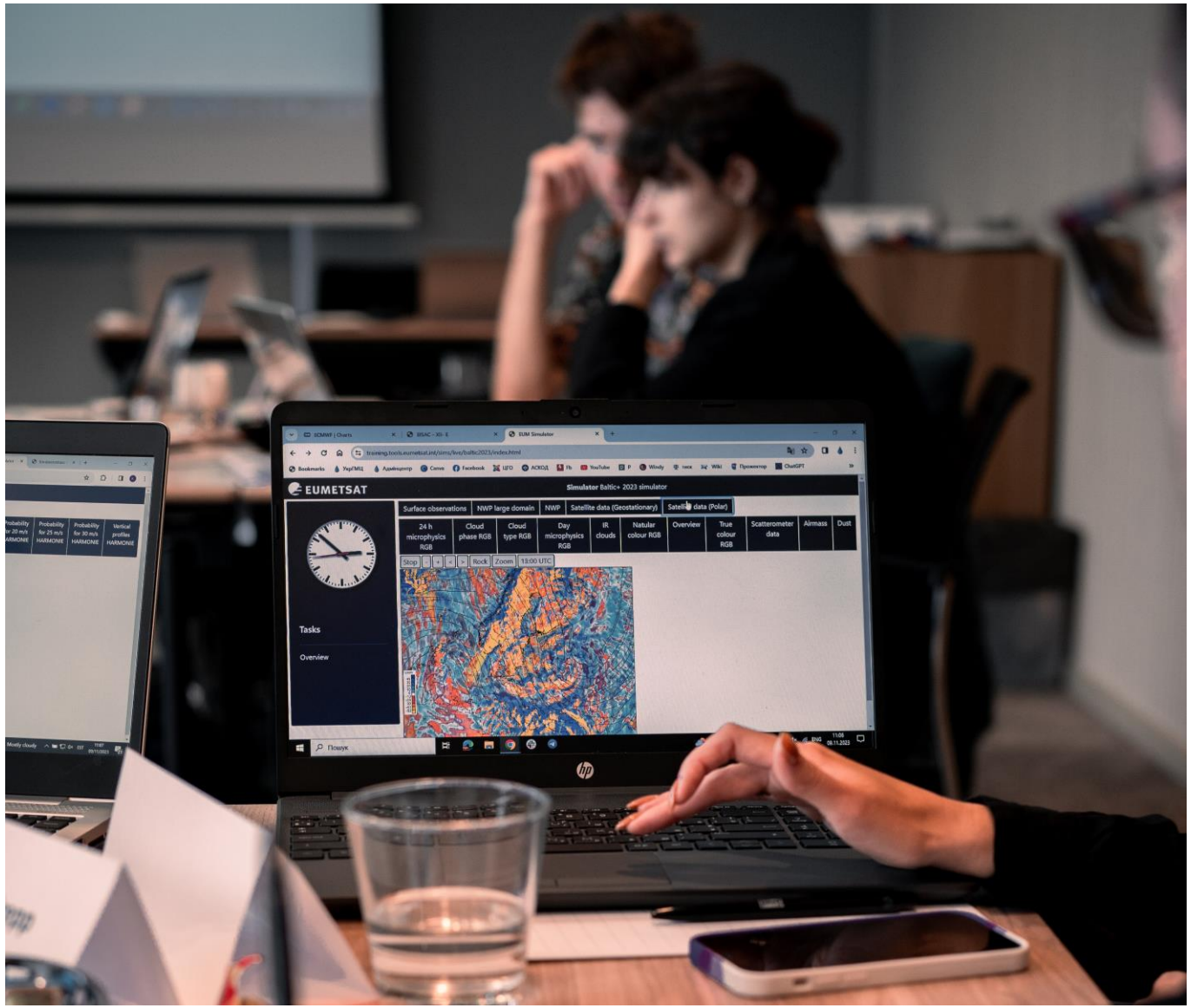
1. What is a simulator? Why using simulator in training?
2. Simulator example – what does a simulator offer to a trainee
3. EUMETSAT SIM Builder
4. How to build a simulator – Try it yourself here in Firenze!

To start :

- Before starting, please team up with one or two colleagues if you so wish… and then:
- Download and unzip the test dataset at Conference Website (Tuesday 1400-1500 CET)



What is a simulator?



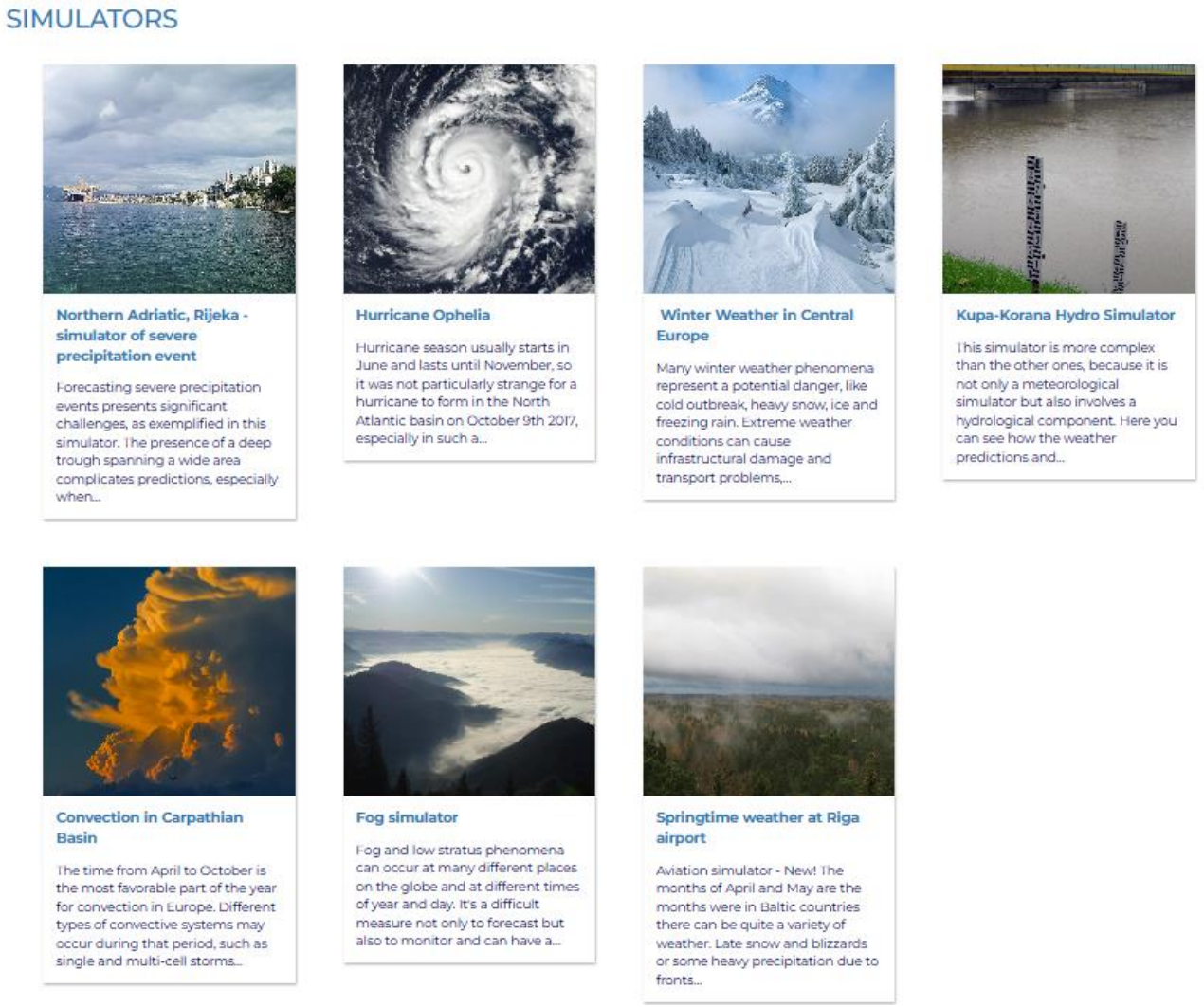
A meteorological simulator presents a weather situation, that meteorologist investigates by using the given meteorological data, preparing forecasts while the time goes on and more data comes in.

Why using simulators in training?

- Gives an opportunity for meteorologists to:
  - work with a real data for a real case,
  - to prepare forecasts and
  - verify them.
- More engaging learning experience than just by viewing a case study presentation.
- For the meteorological trainers and assessors, the simulators offer a way to:
  - assess the participants' competencies,
  - to help the participants practice in a safe environment the correct procedures during high impact weather events.
- An important part of simulation is to offer an authentic working environment, where the data flows in nearly the same way it does in an operational environment.

Existing SIM resources

https://eumetrain.org/simulators



Existing SIM resources

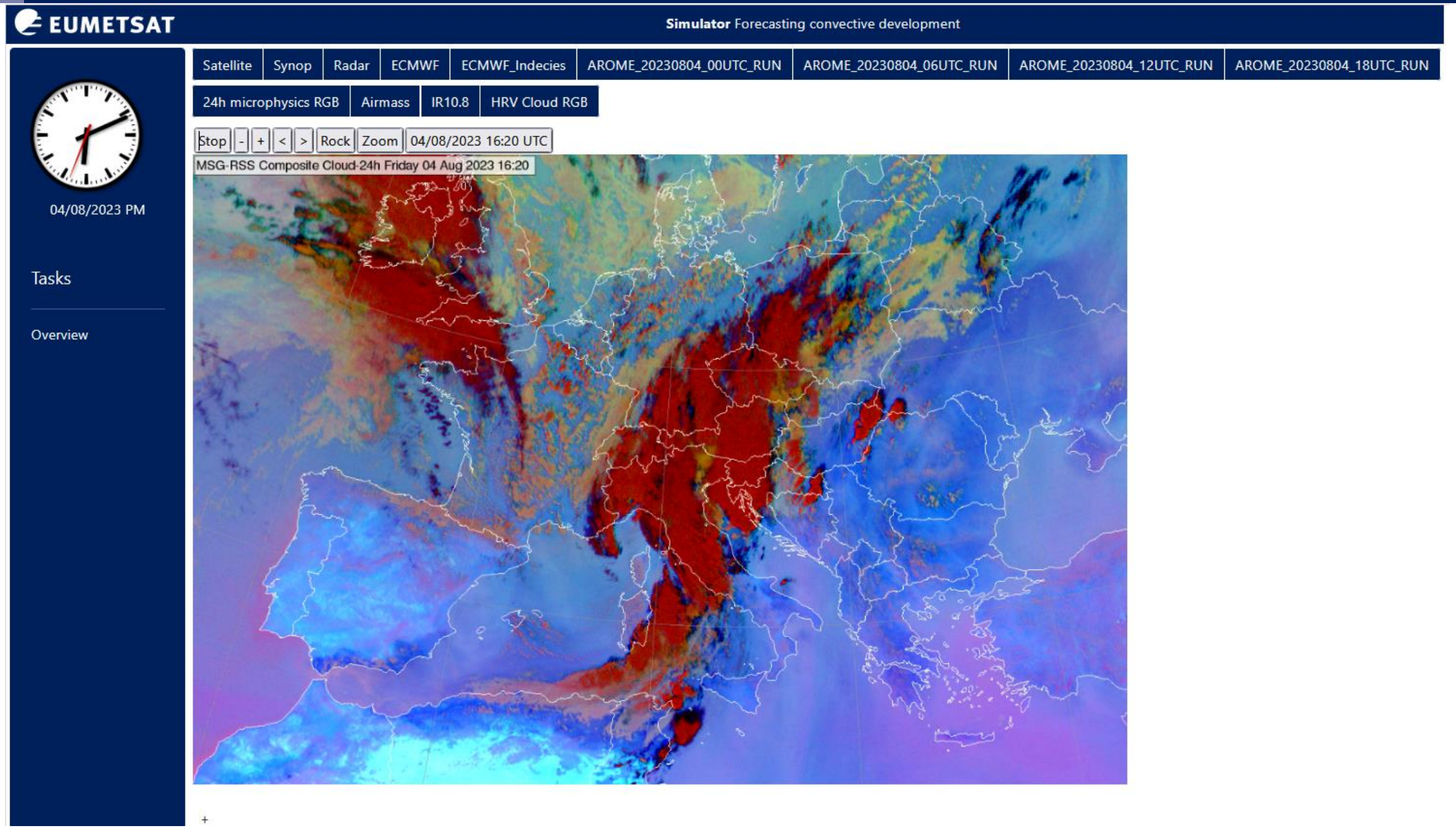
https://training.tools.eumetsat.int/sims/index.htm

Simulators

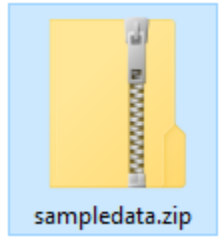
Below you can view or download a number of simulators. A brief description is provided for each simulator. If you choose to view the simulator it will run directly in a new window in your browser. Alternatively, you can download the simulator as a zipped file. Once unzipped on your computer the simulator is viewable in your browser.

Run the Sim	Download Sim
• Baltic+ 2025 SIM A simulation over Poland and adjacent areas. Nighttime convection case (MTG data).	Download
• IMTR Simulator Series - Morocco case A simulation over Morocco and adjacent areas. A dust case event.	Download
• IMTR Simulator Series - Gulf of Guinea case A simulation over Gulf of Guinea focusin on convection.	Download
• IMTR Simulator Series - Sudan case A simulation over Sudan introducing a Dust case challenge.	Download
• IMTR Simulator Series - Lesotho case A simulation about a cold season case in southern parts of Africa.	Download
• IMTR Simulator Series - TC Chineso A simulation over South-west Indian Ocean focusing on Tropical Cyclone forecasting.	Download
• Aviation Sim A simulation over east Sudan concentrating on aviation hazards.	Download
• Kuwait Sim A simulation in Kuwait concentrating on fog.	Download
• Lake Victoria Sim A simulation in the Lake Victoria area concentrating on aviation hazards associated with severe convection.	Download
• West Africa Sim A simulation in West Africa concentrating on aviation hazards associated with severe convection.	Download
• Latvia Sim A simulation in the Baltic as a deep depression passes over the area.	Download
• Baltic 2018 Sim A simulation over the Baltic States convection in cold airmass.	Download
• Baltic+ 2019 SIM Heavy Rain case in Baltic States August 2017	Download
• Baltic+ 2022 SIM Spring Low Cloud Forecasting challenge over Baltic States 2022	
• Baltic+ 2023 SIM Winter strong wind case over the Baltic Sea	Download
• Baltic+ 2024 Simulator Convective summer storm passing the Baltic region.	Download
• Nomek 2015 Sim A simulation over Denmark/Southern Sweden as a deep depression passes over the area.	Download
• Nomek 2016 Sim	Download

SIMULATOR example EUM Simulator

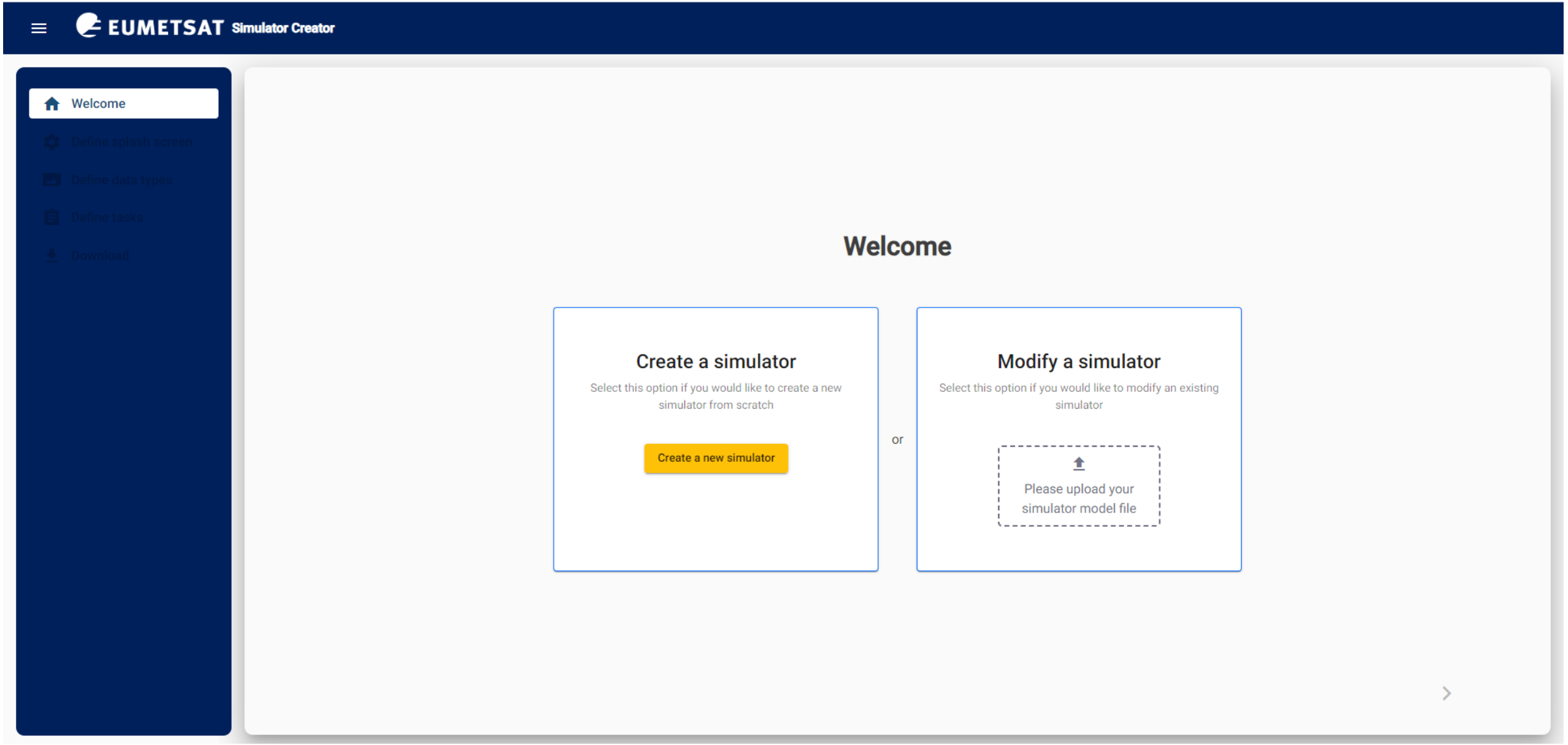


Let´s test building a SIM together!



1. Use the test dataset you downloaded in the beginning
2. Open SIM builder: https://sims.trainhub.eumetsat.int/welcome
3. Following the instructions, we walk through the building process of a SIM together.
4. The sample case deals with a weather situation over Central Europe on 25 May 2022.

EUMETSAT SIM Builder



To Remember:

- SIM builder is openly available
- No login needed
- Lightweight solution - you will not need to upload and download images when working on Simulator Creator
- We are happy to help you 1:1, when needed.