

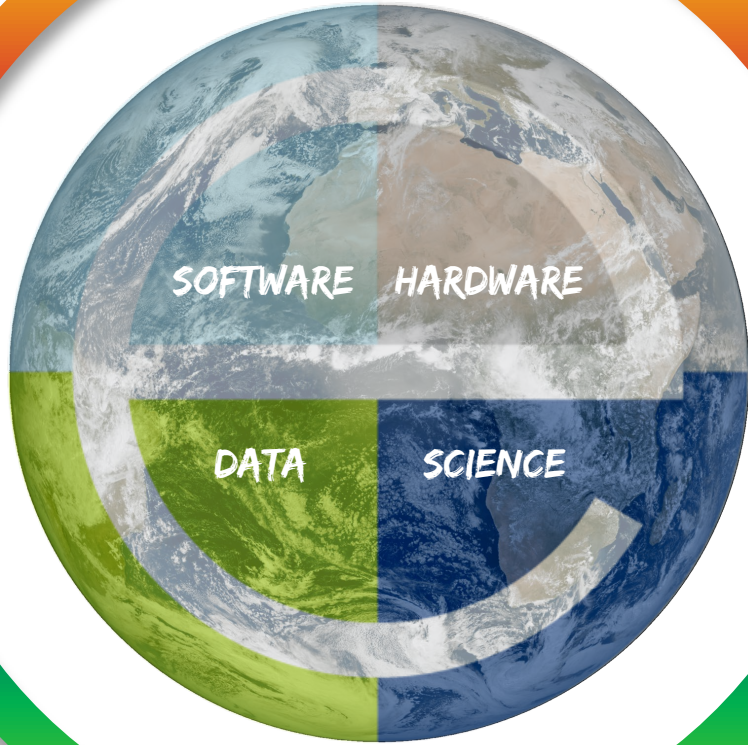
EXCLAIM

THE MULTI-DIMENSIONAL SPACE OF PROJECT COORDINATION

Tamara Bandikova

June 27, 2023 - PASC 2023

Dimensions of project coordination



Project planning

(Roadmaps, timelines, milestones, resources, scheduling, ...)



Communication

(Internal/external com., information flow, conflict management, ...)



Resource management

(Personnel, budget, equipment, data storage, compute hours, ...)



Team building

(Teamwork, team events, networking, further education, ...)



Monitoring and control

(Progress tracking, milestones, deliverables, deadlines, ...)



Risk management

(Identification and mitigations of risks, contingency plans, ...)

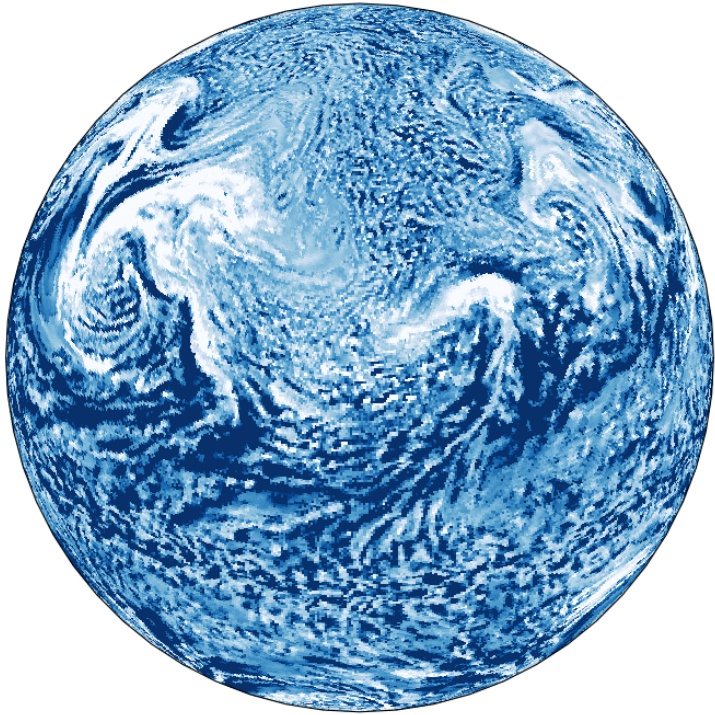


Documentation

(Plans, reports, meeting minutes, publications, contracts, ...)

EXCLAIM

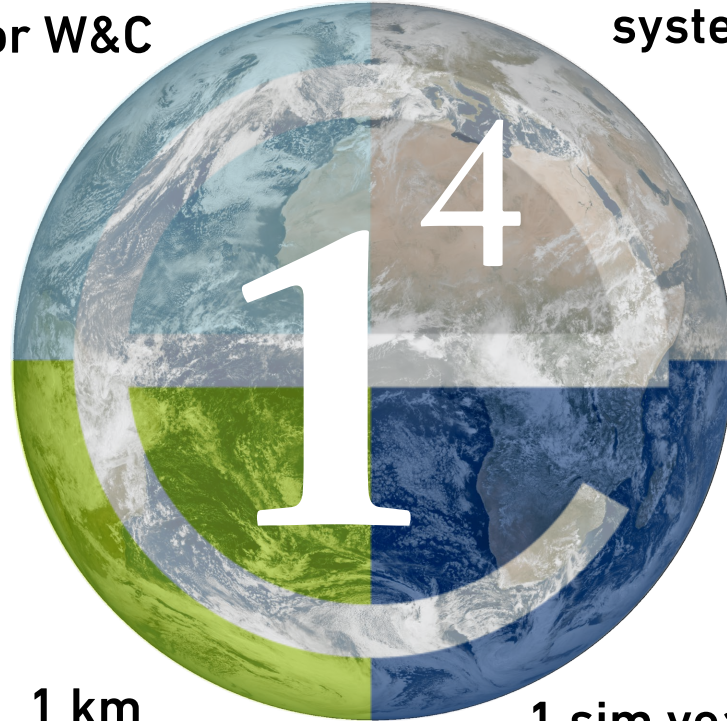
Extreme-scale computing and data platform
for cloud-resolving weather and climate modeling



Low level clouds - 40 km

1 platform
for W&C

1 integrated modeling
system



1 km
resolution

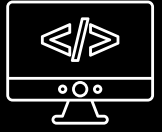
1 sim year/day
performance



Low level clouds - 5 km

EXCLAIM

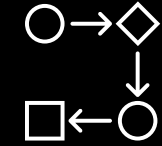
Extreme-scale computing and data platform
for cloud-resolving weather and climate modeling



Software framework



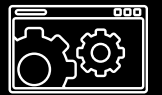
Hardware infrastructure



Data workflow/data science



Climate simulations



User platform

ICON



GridTools



1km



1SYPD



Zürich, Jul 2021



Adelboden, CH, Dec 2022



NW Germany, Jul 2021



Greece, Aug 2021



Are we ready for coping with extremes in weather and climate ?!



Spain, Apr 2023



Florida, Sep 2022



Italy, May 2023



Marmolata, IT, Jul 2022

Learn more about EXCLAIM

Mauro Bianco
Director of software

Anurag Dipankar
Director of science

Learn more about EXCLAIM

Today: 19:30 - 21:30

Christoph Müller et al:

Simulating Aquaplanet Using ICON with a GT4Py DSL Dynamical Core

Till Ehrenguber et al:

GT4Py: A Python Framework for the Development of High-Performance Weather and Climate Applications



Tomorrow: 12:30 - 13:00

Anurag Dipankar:

Global Storm Resolving Simulations in a Python Framework - Progress and Challenges

Dimensions of project coordination



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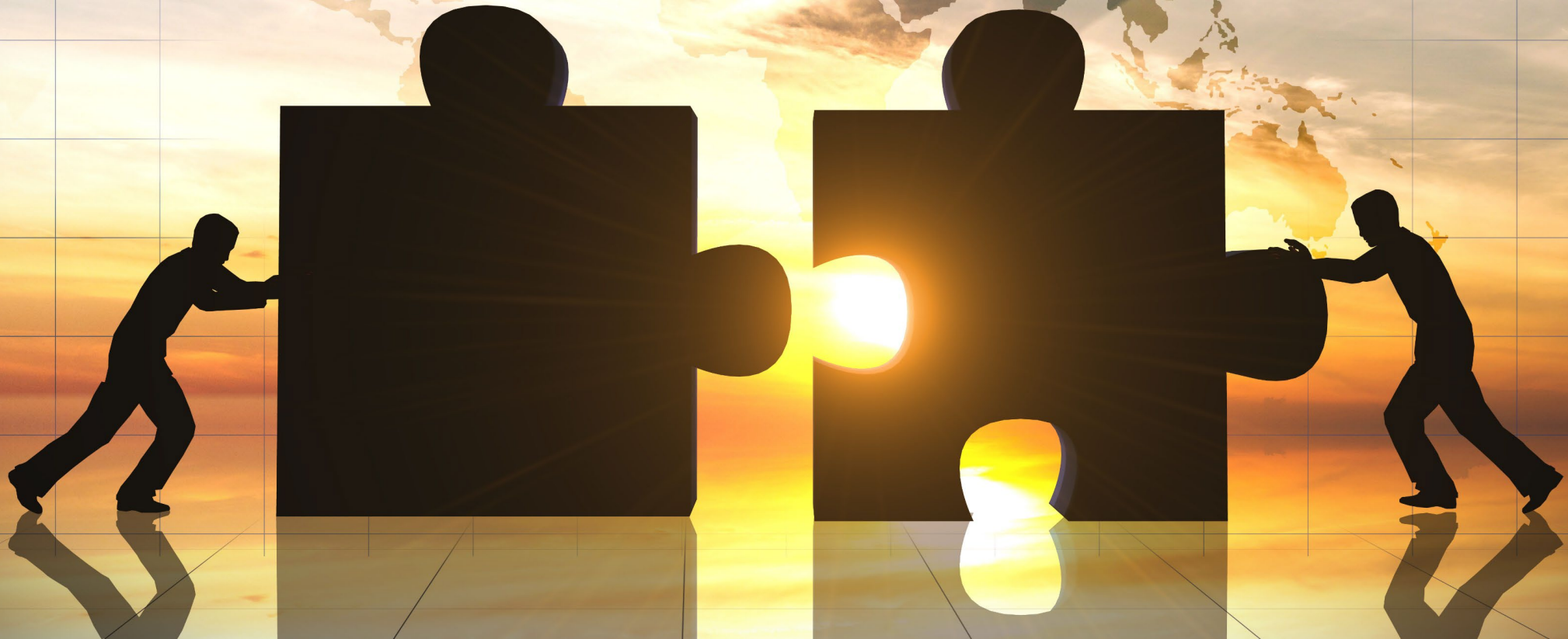
(Identification and mitigations of risks, contingency plans, ...)



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**Behind every successful project
is a dedicated team**



Diversity!



Skills



Gender

Cultural background



Career level

Personality

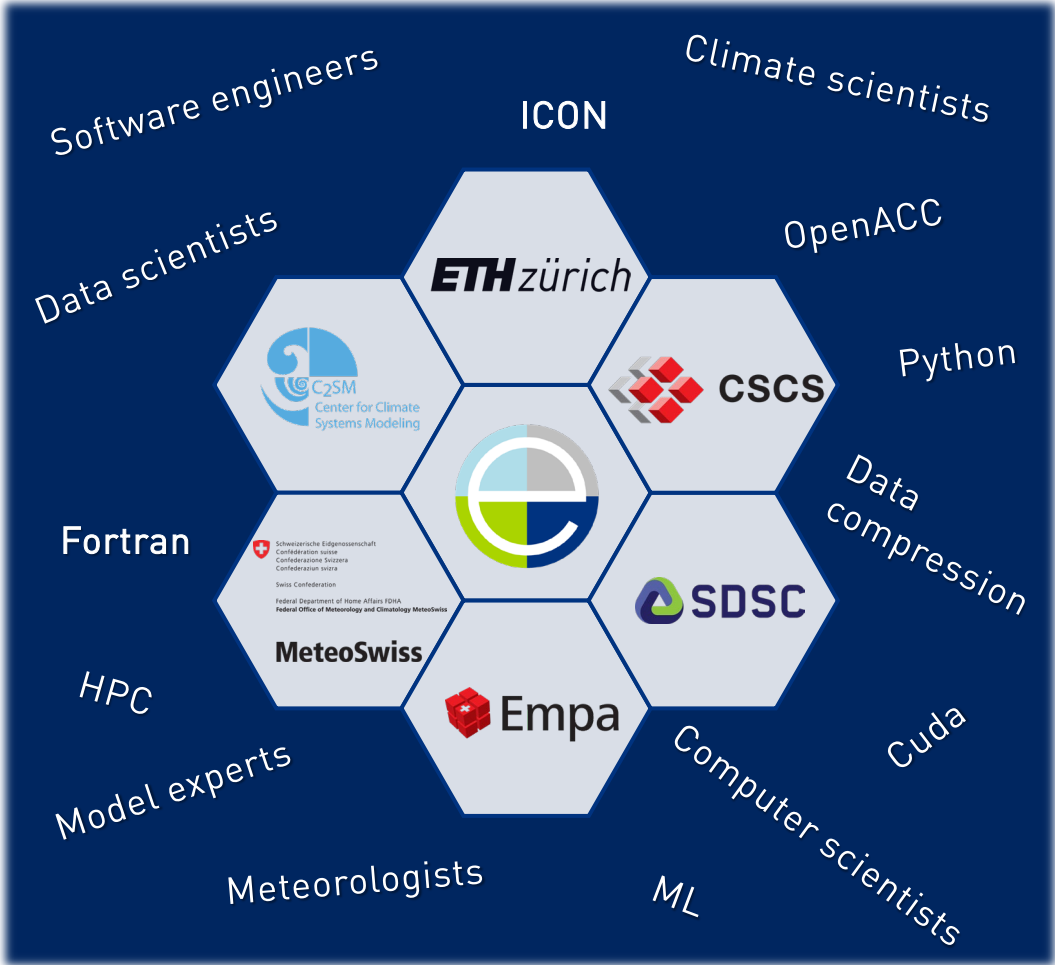


Work experience

Talents



Diversity!



Diversity!



Diversity!



Skills



Gender



Cultural background



Career level



Personality



Work experience



Talents



Diversity!



Skills



Gender



Cultural background



Career level



Personality



Work experience



Talents

Women in EXCLAIM = 20%!

Diversity!



Skills



Gender

Cultural background



Career level

Personality



Work experience

Talents



EXCLAIM SOLA Stafette team =
14 runners from 11 different countries!

Diversity!



Skills



Gender



Cultural background



Career level



Work experience



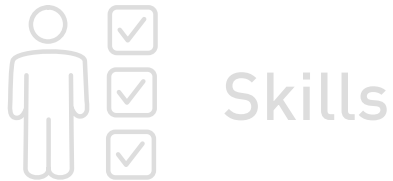
Personality



Talents

- Accurate
- Challenging
- Collaborative
- Competitive
- Detail-oriented
- Diplomatic
- Dynamic
- Extroverted
- Fast-pace
- Independent
- Inspirational
- Logical
- Optimistic
- Peaceful
- Perceptive
- Persuasive
- Questioning
- Reliable
- Results-oriented
- Strong
- Supportive
- Thoughtful

Diversity!

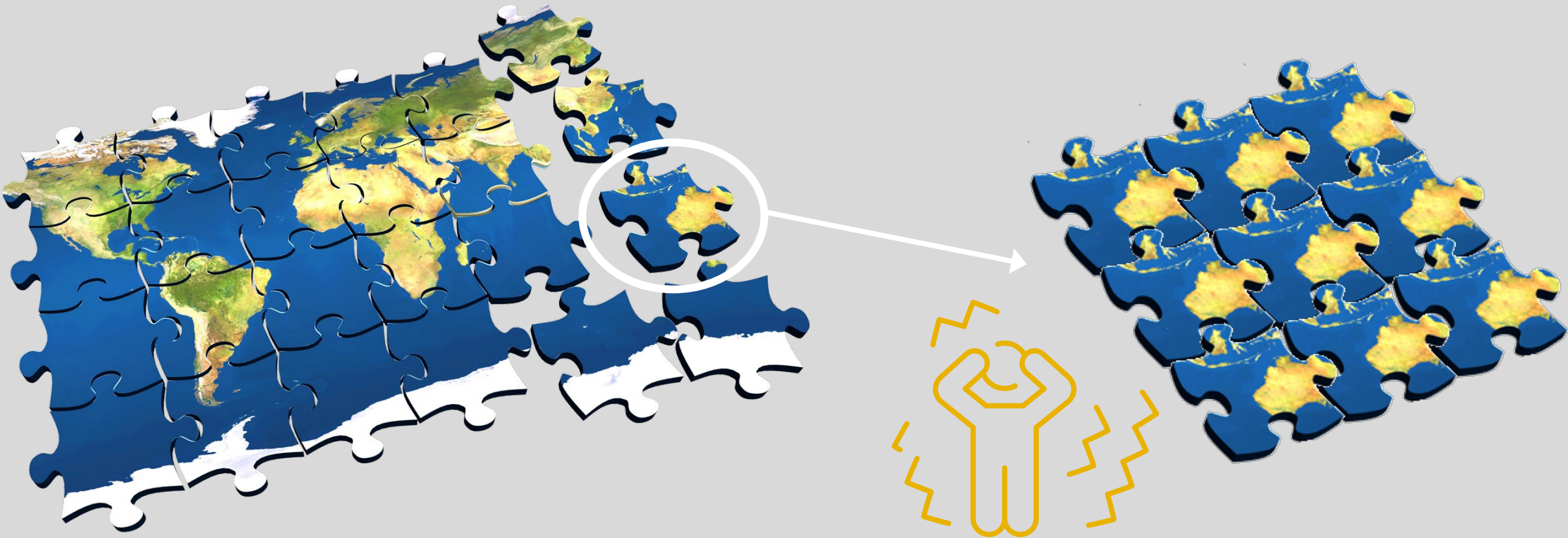


Do you know the hidden talents of your teammates?!



Diversity!

Is it really that important?



YES!!!

Coming together is the beginning.

Keeping together is progress.

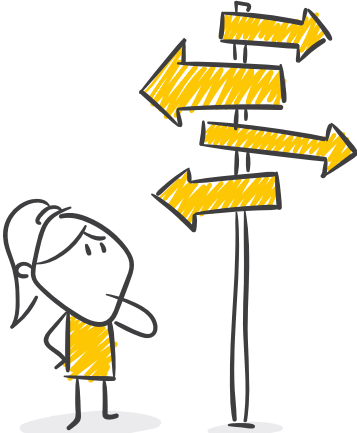
Working together is success.



Coming together is the beginning



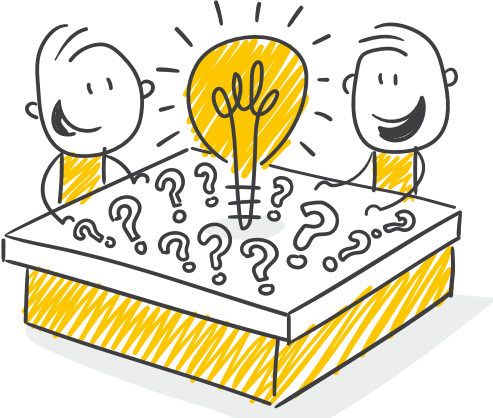
Hello and welcome!



Orientation



Getting to know each other



First ideas

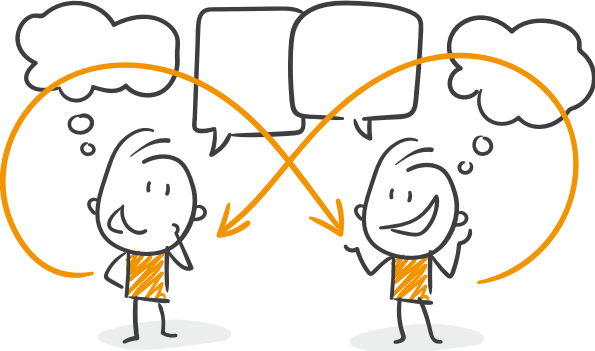
Keeping together is progress



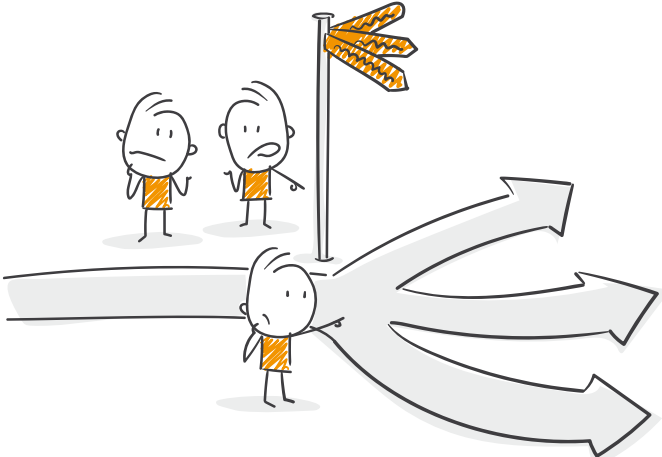
Culture shock



Disagreements

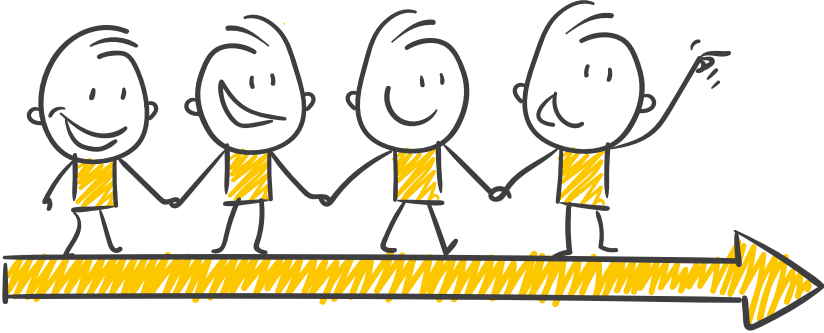


Learning to communicate



Learning to work together

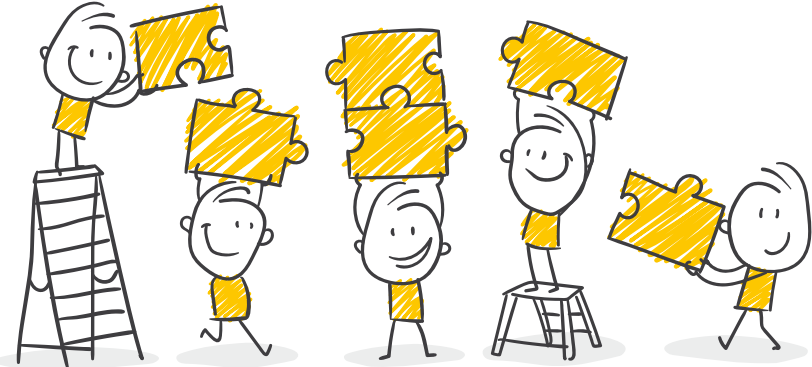
Working together is success



Focus & Alignment



Commitment & Collaboration



Performance & Co-creation



Team spirit



WE ARE LIVING IN A CHANGING WORLD!

EXCLAIM and the world around us



Project idea
sketch submitted

Aug 2019



EXCLAIM
kick-off

Apr 2021



Russian invasion of Ukraine
Energy crisis

Feb 2022

2019

2020

2021

2023

2024

-->

Feb 2020

Covid-19 pandemic
outbreak



July 2021

Switzerland now a non-associated
third country in Horizon Europe



Impact of the Covid-19 pandemic on the project

Remote work



Hiring



Hardware delay



Future of work

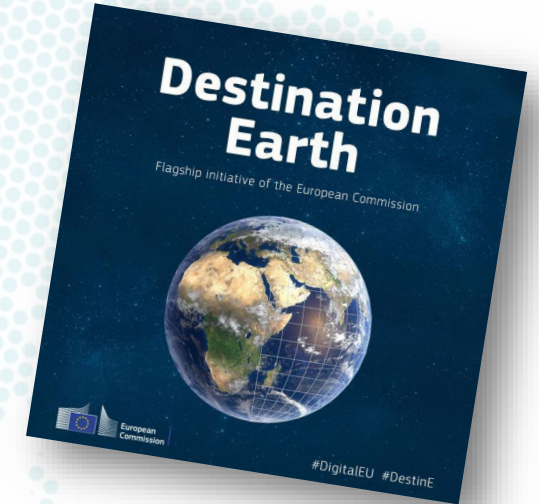


CH - a non-associated third country in Horizon EU



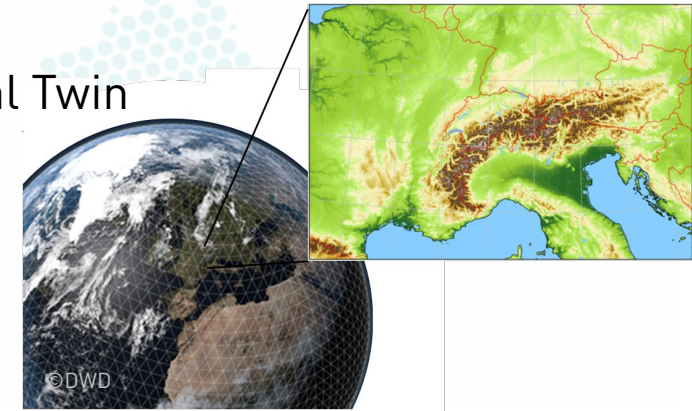
No third party funding from the Horizon Europe program

No collaboration on Destination Earth digital twins



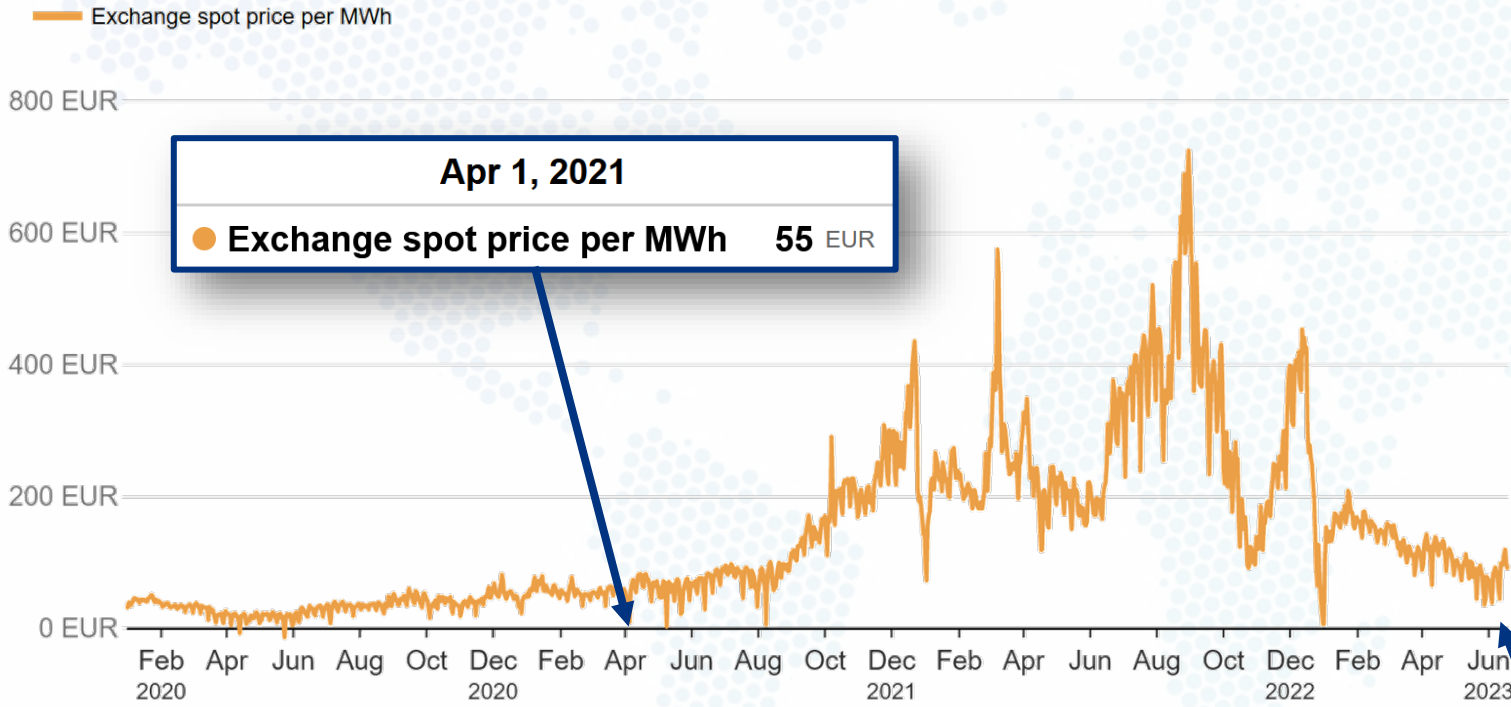
New project: GLORI
Global-to-Regional-ICON Digital Twin

2022-2026 (DE, CH, IT)



Energy prices and climate simulations

Electricity Price Spot Market "Day Ahead" Base Switzerland



Power costs for high-resolution climate simulations



Source: <https://www.energiesdashboard.admin.ch/preise/strom>

Jun 18, 2023	
● Exchange spot price per MWh	92 EUR



We are EXCLAIM!



**Thank you
for your attention!**



<https://exclaim.ethz.ch>