

# Platform for software discovery: OpenAIRE CONNECT and community gateways

EOSC ask me anything webinar

Alessia Bardi (OpenAIRE Nexus)



with



The EOSC Future, C-SCALE, DICE, EGI-ACE, OpenAIRE-Nexus and Reliance projects are funded by the European Union Horizon Programme calls INFRAEOSC-03-2020 and INFRAEOSC-07-2020.





# Join us on Slido

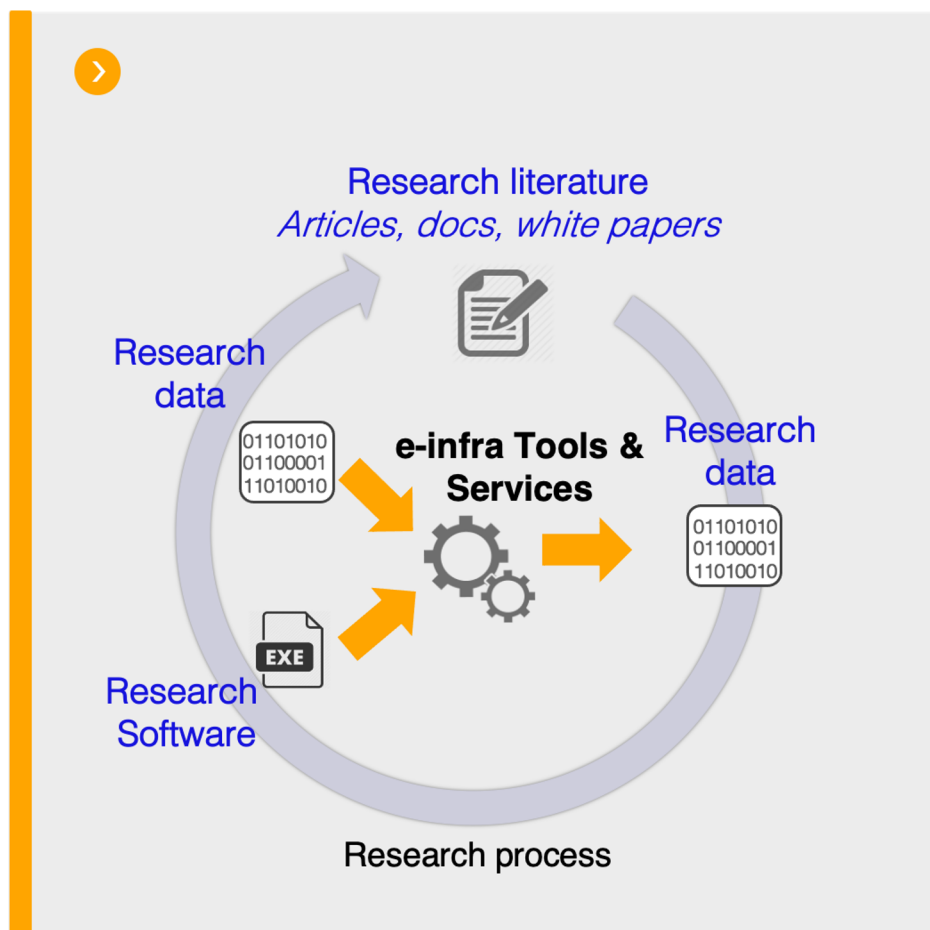
During this webinar we will be collecting questions and feedback via Slido. Join us there via a mobile device to post your own comments or upvote those of others.



Or

Go to **sli.do**  
Enter event code **#682308**  
and password **EOSC-AMA**

# Why a platform for research software discovery



Research software:

- As a **first-class citizen** in scholarly communication and in the research flow
- As a **product** of a research activity
- For **transparency** of research evaluation and reproducibility
- For **omni-comprehensive** reward

# OpenAIRE-CONNECT: Research Community Dashboard



Find resource...

All resour... ▾



My EOSC Marketplace

Home > Resources > Sharing & Discovery > Software > Platform > OpenAIRE Research Community Dashboard

The logo for OpenAIRE CONNECT, featuring a blue circle with a plus sign and the text "OpenAIRE | CONNECT".

## OpenAIRE Research Community Dashboard

Build an Open Research Gateway for your community: turn Open Science into practice

Organisation: **OpenAIRE**

☆☆☆☆☆ (0.0 / 5) 0 reviews ☐ Add to comparison ☐ Add to favourites

→ [Webpage](#) → [Helpdesk](#) → [Helpdesk e-mail](#) [Ask a question about this resource?](#)

[ABOUT](#) [DETAILS](#) [REVIEWS \(0\)](#)

[Access the resource](#)  
OPEN ACCESS



Request a thematic portal for your research community (aka “Community Gateway”) to discover research software and links to publications, data, projects, etc.

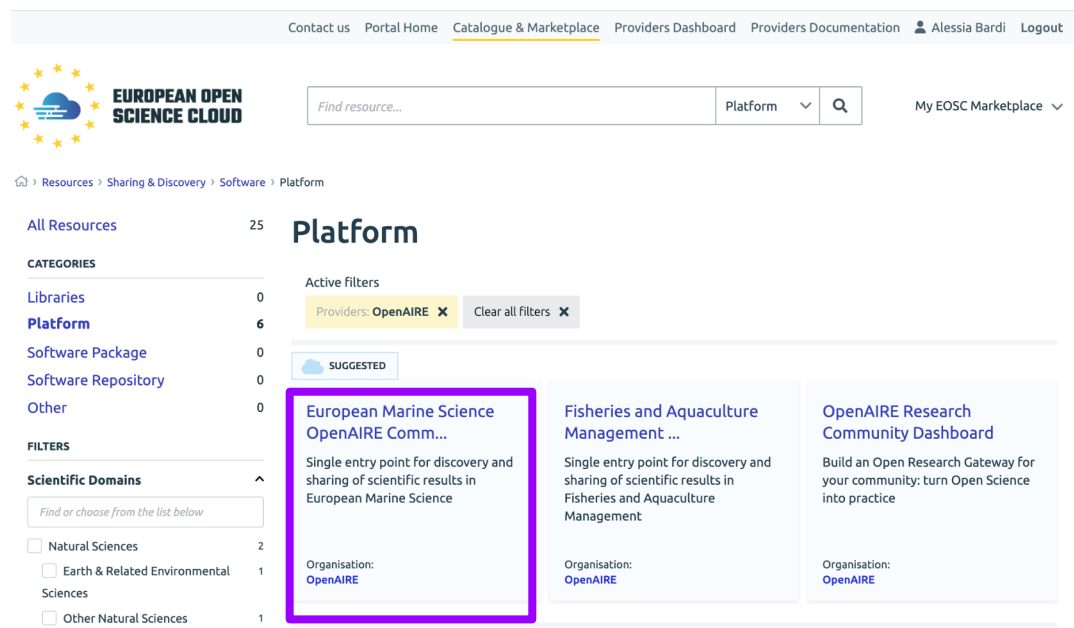


with





# Find the OpenAIRE gateway for your community



European Open Science Cloud

Find resource...

Platform

My EOSC Marketplace

Resources > Sharing & Discovery > Software > Platform

All Resources 25

CATEGORIES

- Libraries 0
- Platform 6**
- Software Package 0
- Software Repository 0
- Other 0

FILTERS

Scientific Domains

Find or choose from the list below

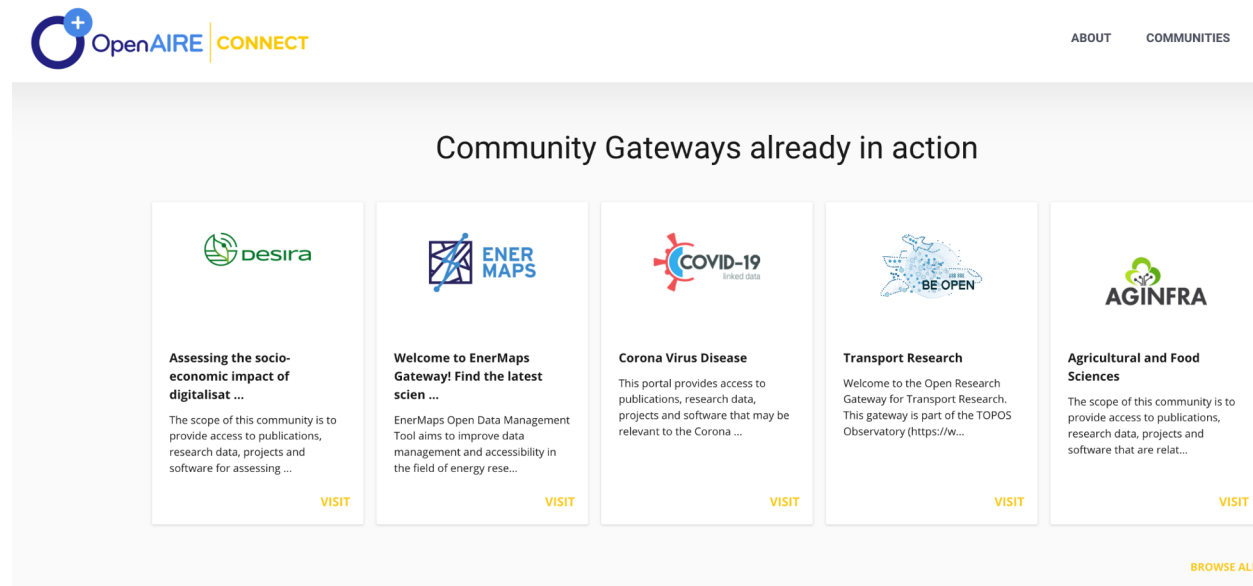
- ☐ Natural Sciences 2
- ☐ Earth & Related Environmental Sciences 1
- ☐ Other Natural Sciences 1

Active filters

Providers: OpenAIRE X Clear all filters X

SUGGESTED


- European Marine Science OpenAIRE Comm...**  
Single entry point for discovery and sharing of scientific results in European Marine Science  
Organisation: OpenAIRE
- Fisheries and Aquaculture Management ...  
Single entry point for discovery and sharing of scientific results in Fisheries and Aquaculture Management  
Organisation: OpenAIRE
- OpenAIRE Research Community Dashboard  
Build an Open Research Gateway for your community: turn Open Science into practice  
Organisation: OpenAIRE



OpenAIRE CONNECT

ABOUT COMMUNITIES


## Community Gateways already in action



**Assessing the socio-economic impact of digitalisat ...**

The scope of this community is to provide access to publications, research data, projects and software for assessing ...


VISIT



**Welcome to EnerMaps Gateway! Find the latest scien ...**

EnerMaps Open Data Management Tool aims to improve data management and accessibility in the field of energy rese...


VISIT



**Corona Virus Disease**

This portal provides access to publications, research data, projects and software that may be relevant to the Corona ...


VISIT



**Transport Research**

Welcome to the Open Research Gateway for Transport Research. This gateway is part of the TOPOS Observatory (https://w...

VISIT



**Agricultural and Food Sciences**

The scope of this community is to provide access to publications, research data, projects and software that are relat...

VISIT

BROWSE ALL



with



# Finding software in Marine Research

Advanced search in specific fields, also in combination (AND/OR)

## European Marine Science

Research outcomes

Search by title, author, abstract, DOI, orcid...

SEARCH

Advanced Search

SUMMARY

PUBLICATIONS  
137,377

RESEARCH DATA  
13,175

SOFTWARE  
996

OTHER RESEARCH  
11,557

This community was initially defined to include a very broad range of topics, with the intention to generate a number of more focused and sustainable dashboards for research communities and initiatives. As outlined in the logo of this community, we intend to setup a community dashboard for EuroMarine (a consortium of 56 research and academic organisations) and monitoring dashboards for marine research initiatives, including infrastructures (e.g. EMBRC & EMSO), advisory boards (e.g. Marine Boards & ICES), and transnational funding bodies (e.g. JPI-Oceans and Tara Foundation).

Curated by: [Stephane PESANT](#), [Davide Di Cioccio](#)

Created: 01-Mar-2018   Members: 45

Projects: [663](#)   Content Providers: [9](#) [?](#)

Linked to [47](#) Zenodo Communities [?](#)

Subjects

[marine](#), [ocean](#), [fish](#), [aqua](#), [sea](#)

<https://mes.openaire.eu>

Advanced search in **Research outcomes** [Quick search](#)

FIELD TO SEARCH

TERM

All fields

Type keywords...

ADD RULE

SEARCH

Filters

European Marine Science X Software

Access Mode (4)

- ☐ Open Source (833)
- ☐ Open Access (82)
- ☐ Restricted (71)
- ☐ Embargo (1)

Result Types (4) [Clear](#)

- ☐ Publications
- ☐ Research data
- ☒ Software
- ☐ Other research products

Year range

e.g. 1800

 - 

e.g. 2032

[?](#)

THIS YEAR | LAST 5 YEARS | LAST 10 YEARS

Funder (3)

- ☐ European Commission (624)
- ☐ Fundação para a Ciência e a... (2)
- ☐ National Science Foundation (2)

Type (2)

- ☐ Software (996)
- ☐ Other ORP type (5)

Language (1)

- ☐ English (136)

Community (12)

- ☐ European Marine Science (996)

The following results are related to [European Marine Science](#). Are you interested to view more results? Visit [OpenAIRE - Explore](#).

Results per page: 10 Sort by: Date (most recent) [Download Results](#)

996 RESEARCH OUTCOMES, PAGE 1 OF 100 [1](#) [2](#) [3](#) [4](#) [5](#) [>](#)

Software · 2021

[AIBECS.jl: A tool for exploring global marine biogeochemical cycles](#)

[OPEN ACCESS](#) [ENGLISH](#)

Authors: [Pasquier, Benoit](#), [Primeau, François W.](#), [John, Seth G.](#)

Persistent Identifiers

DOI: [10.5281/zenodo.2864051](#), [10.5281/zenodo.5787531](#)

Publisher: Zenodo

AIBECS v0.11.2 Diff since v0.11.1 Merged pull requests: CompatHelper: bump compat for Bijectors to 0.10, (keep existing compat) (@github-actions[bot])

[+ Add to ORCID](#)

Software · 2021

[F1Method.jl: A julia package to autodifferentiate through a steady-state solver](#)

[OPEN ACCESS](#) [ENGLISH](#)

Authors: [Pasquier, Benoit](#)

Persistent Identifiers

DOI: [10.5281/zenodo.5768602](#), [10.5281/zenodo.2667835](#), [10.5281/zenodo.5765792](#), [10.5281/zenodo.5219767](#)

Publisher: Zenodo

F1Method v0.5.1 Diff since v0.5.0 Closed issues: Change from DiffEqBase to SciMLBase (#13) Merged pull requests: Fix #13 (#14) (@bricchem)

[+ Add to ORCID](#)

Software · 2021

[COMSOL simulations of the dissolution of calcium carbonate sea shells in seawater](#)

[OPEN ACCESS](#)

Authors: [Sulpis, Olivier](#), [Agrawal, Priyanka](#), [Wolthers, Mariette](#), [Munhoven, Guy](#), [Walker, Matthew](#), [Middelburg, Jack J.](#)

Faceted search to filter the result list



with



# Example

Alice is a researcher, preparing for an expedition to get some ice core samples. She would like to know if there is already some software to plan the sampling or to analyse the data.

She goes to the EOSC Marketplace and finds the European Marine Science Gateway. She accesses the service and looks for software about “ice core”

The screenshot displays the 'Advanced search in Research outcomes' interface. The search term 'ice core' is entered in the 'TERM' field, with 'All fields' selected for 'FIELD TO SEARCH'. A 'SEARCH' button is visible. Below the search bar, the 'Filters' section shows 'European Marine Science' and 'Software' selected. The 'Access Mode' is set to 'Open Access (1)'. The 'Result Types' section shows 'Software' selected. The 'Year range' is set to 'e.g. 1800 - e.g. 2032'. The search results show '1 RESEARCH OUTCOMES, PAGE 1 OF 1'. The first result is 'optimalcores: An R software project to analyse optimal ice core locations in a climate model simulation', which is 'OPEN ACCESS' and published by 'Zenodo'.

# Example

Software . 2021

## optimalcores: An R software project to analyse optimal ice core locations in a climate model simulation

Münch, Thomas;

[OPEN ACCESS](#)

Published: 06 Jul 2021  
Publisher: Zenodo

SUMMARY

RELATED RESEARCH  
2

**Abstract**

optimalcores is an R software project to analyse the temperature and isotope time series in an isotope-enabled climate model simulation; specifically, the ECHAM5/MPI-OM-wiso past1000 climate model run can be analysed, but also any other suited model run. The software is especially intended to determine optimal spatial sampling configurations for Antarctic ice cores which maximize the correlation with a target site temperature time series.

Version 1.0.0 of the software is released along with the publication Münch, Werner and Laepple: How precipitation intermittency sets an optimal sampling distance for temperature reconstructions from Antarctic ice cores, Clim. Past, 17, 1587–1605, 2021.

**Persistent Identifiers**

**DOI:** [10.5281/zenodo.5075438](https://doi.org/10.5281/zenodo.5075438), [10.5281/zenodo.5075439](https://doi.org/10.5281/zenodo.5075439)

**Communities**

Communities with gateway

[Digital Humanities and Cu...](#)

Other Communities

[European Marine Science](#)

**Funded by**

[EC| SPACE](#)

**Download from** [View all 2 versions](#)

<https://dx.doi.org/10.5281/zenodo.5075438>  
Software . 2021  
Providers: Datacite

<https://dx.doi.org/10.5281/zenodo.5075439>  
Software . 2021  
Providers: Datacite

Access the source code at the  
hosting source

Software . 2021

## optimalcores: An R software project to analyse optimal ice core locations in a climate model simulation

Münch, Thomas;

[OPEN ACCESS](#)

Published: 06 Jul 2021  
Publisher: Zenodo

SUMMARY

RELATED RESEARCH  
2

**Filter by relation:**

**2 RESEARCH OUTCOMES, PAGE 1 OF 1**

2021 . Harvested . IsSupplementTo  
[How precipitation intermittency sets an optimal sampling distance for temperature reconstructions from Antarctic ice cores](#)

2020 . Harvested . IsSupplementedBy  
[Antarctic time series of temperature, precipitation, and stable isotopes in precipitation from the ECHAM5/MPI-OM-wiso past1000 climate model simulation](#)

Links to other research products:  
article and dataset

# Research in context

## Funding project

Project: 2017-2024 - On going  
**SPACE**  
Space-time structure of climate change

[OPEN ACCESS MANDATE FOR PUBLICATIONS](#) [EUROPEAN COMMISSION](#)

Further: **European Commission** Project code: 776020 Call for proposal: ERC-2016-STG  
Funder codes: 82020 (ERC) | ERC-STG Overall Budget: 1,499,000 EUR Funder Contribution: 1,499,000 EUR  
Status: On going

Start Date: 01 Sep 2017 End Date: 29 Feb 2024  
Detailed project information (ECORDING) →

Open Access mandate  
Research Data: No

**SUMMARY** PUBLICATIONS 39 RESEARCH DATA 10 SOFTWARE 1 OTHER RESEARCH 1 DATA 0 STATISTICS 1

DESCRIPTION  
I will determine and use the space-time structure of climate change from years to millennia to test climate models. Subsequently improve the understanding of climate variability and provide a stronger basis for the quantitative use of paleoclimate records. The instrumental record is only a fragment of our climate record. Two recent advances allow a deeper use of the paleo-record: 1) increased availability and number of paleoclimate records, 2) major advances in the understanding of climate proxies. In a recent PHAS paper, we showed that consistent estimates of regional temperature variability across instruments and proxies can now be obtained by inverting the gins. [Read more](#)

Partners  
EBC

Research Data: No

## Software

Software: 2021  
**optimalcores**: An R software project to analyse optimal ice core locations in a climate model simulation

Munch, Thomas  
[OPEN ACCESS](#)

Published: 06 Jul 2021  
Publisher: Zenodo

**SUMMARY** RELATED RESEARCH 2

Abstract  
optimalcores is an R software project to analyse the temperature and isotope time series in an isotope-enabled climate model simulation; specifically, the ECHAM5/MP-OM-wiso past1000 climate model run can be analysed, but also any other suited model run. The software is especially intended to determine optimal spatial sampling configurations for Antarctic ice cores which maximize the correlation with a target site temperature time series.

Version 1.0.0 of the software is released along with the publication Munch, Werner and Laepple: How precipitation intermittency sets an optimal sampling distance for temperature reconstructions from Antarctic ice cores. Clim. Past, 17, 1587-1605, 2021.

Persistent identifiers  
DOI: 10.5281/zenodo.5075438 [CIT](#), 10.5281/zenodo.5075439 [CIT](#)

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Other Communities  
[European Marine Science](#)

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Software: 2021  
Providers: Datacite  
<https://dx.doi.org/10.5281/zen...>  
Software: 2021  
Providers: Datacite  
<https://dx.doi.org/10.5281/zen...>

## Article

Publication: Article Other literature type: Preprint: 2021  
**How precipitation intermittency sets an optimal sampling distance for temperature reconstructions from Antarctic ice cores**

Thomas Munch, Martin Werner, Thomas Laepple  
[OPEN ACCESS](#)

Published: 29 Jul 2021  
Country: Germany

**SUMMARY** RELATED RESEARCH 2

Abstract  
Many paleoclimate proxies share one challenging property: they are not only driven by the climate variable of interest, e.g. temperature, but they are also influenced by secondary effects which cause, among other things, increased variability. Frequently, correct noise. Noise in individual proxy records can be reduced by averaging the records, but the effectiveness of this approach depends on the correlation of the noise between the records and therefore on the spatial scales of the noise-generating processes. Here, we review and apply this concept in the context of Antarctic ice-core isotope records to determine which core locations are best suited to reconstruct local-to-regional-scale temperatures. Using data from a past-reconstruction climate model simulation equipped with stable isotope diagnostics we investigate first that even for a local temperature reconstruction the optimal sampling strategy is to combine a local ice core with a more distant one. 500-1000 km away. A similarly large distance between cores is also optimal for reconstructions that average more than two isotope records. We show that these findings result from the interplay of the two spatial scales of the correlation structures associated with the temperature field and with the noise generated by precipitation intermittency. Our study helps to maximize the quality of existing Antarctic ice cores and to optimally plan future drilling campaigns. It also broadens our knowledge of the processes that shape the climate record and their typical correlation scales. Finally, many

Persistent identifiers  
DOI: 10.5194/gp-17-1587-2021 [CIT](#), 10.5194/gp-17-1587-2021 [CIT](#)

Subjects  
[Free text keywords](#): Paleontology, Stratigraphy, Global and Planetary Change, Environmental pollution, 10172-753, Environmental processes, 10170-171, Environmental sciences, 02-383, Optimal sampling, Interdecadal

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Electronic Publication Information Center  
Article: 2021  
Provider: Electronic Publication Information Center  
[Climate of the Past \(CIP\)](#)  
Other literature type: 2021  
Provider: Expertise Publications

## Data

Research Data: Dataset: 2021  
**Antarctic time series of temperature, precipitation, and stable isotopes in precipitation from the ECHAM5/MP-OM-wiso past1000 climate model simulation**

Munch, Thomas, Werner, Martin  
[OPEN ACCESS](#) [PREPRINT](#)

Published: 29 Aug 2020  
Publisher: Zenodo

**SUMMARY** RELATED RESEARCH 2

Abstract  
This data set contains time series of two-metre air temperature (tas), surface temperature (ts), total precipitation (tp), oxygen-18 isotope composition in precipitation (pdp), and deuterium isotope composition in precipitation (dpd) from the past-reconstruction 1000-year CE simulation of the fully coupled ECHAM5/MP-OM-wiso atmosphere-ocean general circulation model equipped with stable isotope diagnostics (Gjert et al., 2018; Werner et al., 2020), used in the publication of Munch et al. (2021). The data here are provided for the Antarctic region, i.e., all model grid cells south of 60° S. The model's atmosphere component was run with a T11 spectral resolution (3.75° x 3.75°) and with 15 vertical levels, resulting in a total of n = 764 model grid cells covered by the data set. Furthermore, the all-time series of the continent of Antarctica have been set to NA values, so that the effectively available number of model grid cells is n\_eff = 640. Time series are provided at the original monthly resolution of the model output and an annual resolution obtained from the monthly resolution data. At annual resolution, the temperature and isotopic composition data are available as normal time averages and as precipitation-weighted time averages. In addition to the time series, the spatial field of time-invariant means is supplied, also as normal and precipitation-weighted time averages. Data are available as netcdf files and as R data files. In addition, processing code (python and R scripts) and

Persistent identifiers  
DOI: 10.5281/zenodo.4801704 [CIT](#), 10.5281/zenodo.4801704 [CIT](#)

Subjects  
[Free text keywords](#): climate model, general circulation model, temperature, stable isotopes, ECHAM5, ECHAM5-MP-OM-wiso, past1000

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<https://dx.doi.org/10.5281/zen...>  
Dataset: 2021  
Provider: Datacite  
<https://dx.doi.org/10.5281/zen...>  
Dataset: 2021  
Provider: Datacite



with

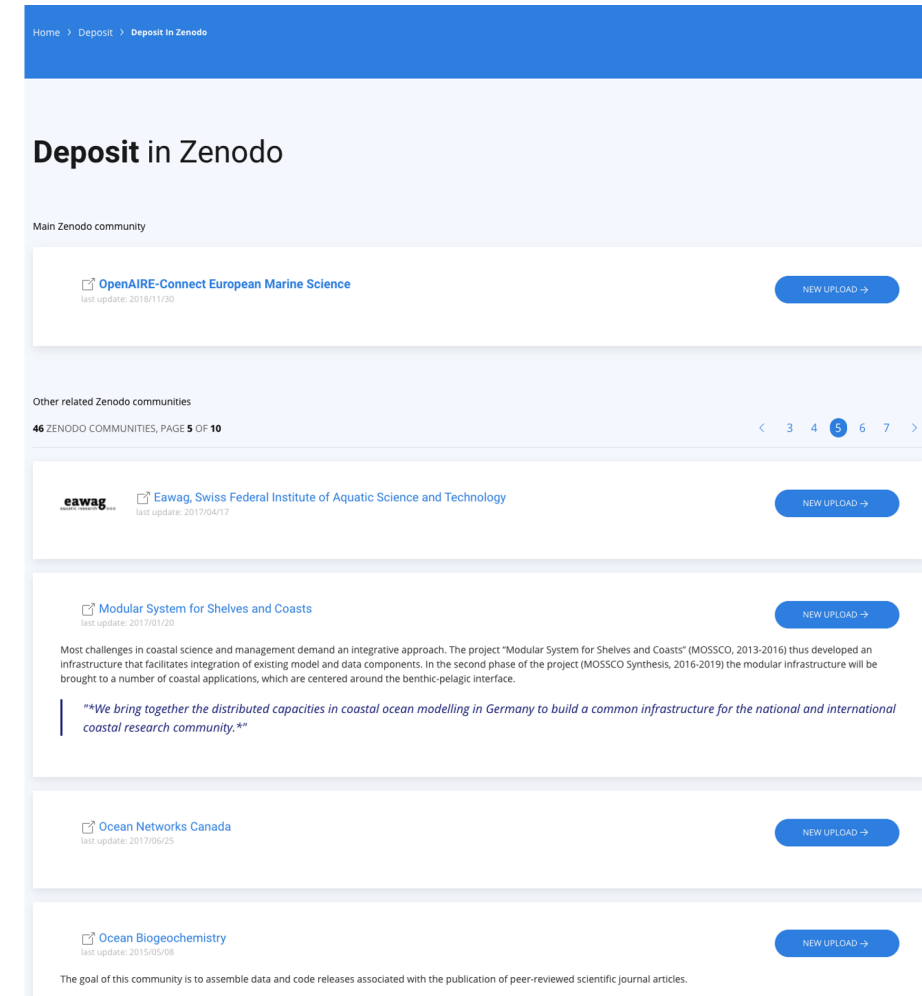


# After the expedition

In the end, Alice could not re-use the software for her purposes, but she got inspired and developed something new.

She does want other to be able to find her software.

From the European Marine Science Gateway she finds out which are the Zenodo communities used by her research community, publish her code there, making it available in the gateway automatically



# Thank you

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with



The EOSC Future, C-SCALE, DICE, EGI-ACE, OpenAIRE-Nexus and Reliance projects are funded by the European Union Horizon Programme calls INFRAEOSC-03-2020 and INFRAEOSC-07-2020.

