

OpenAIRE

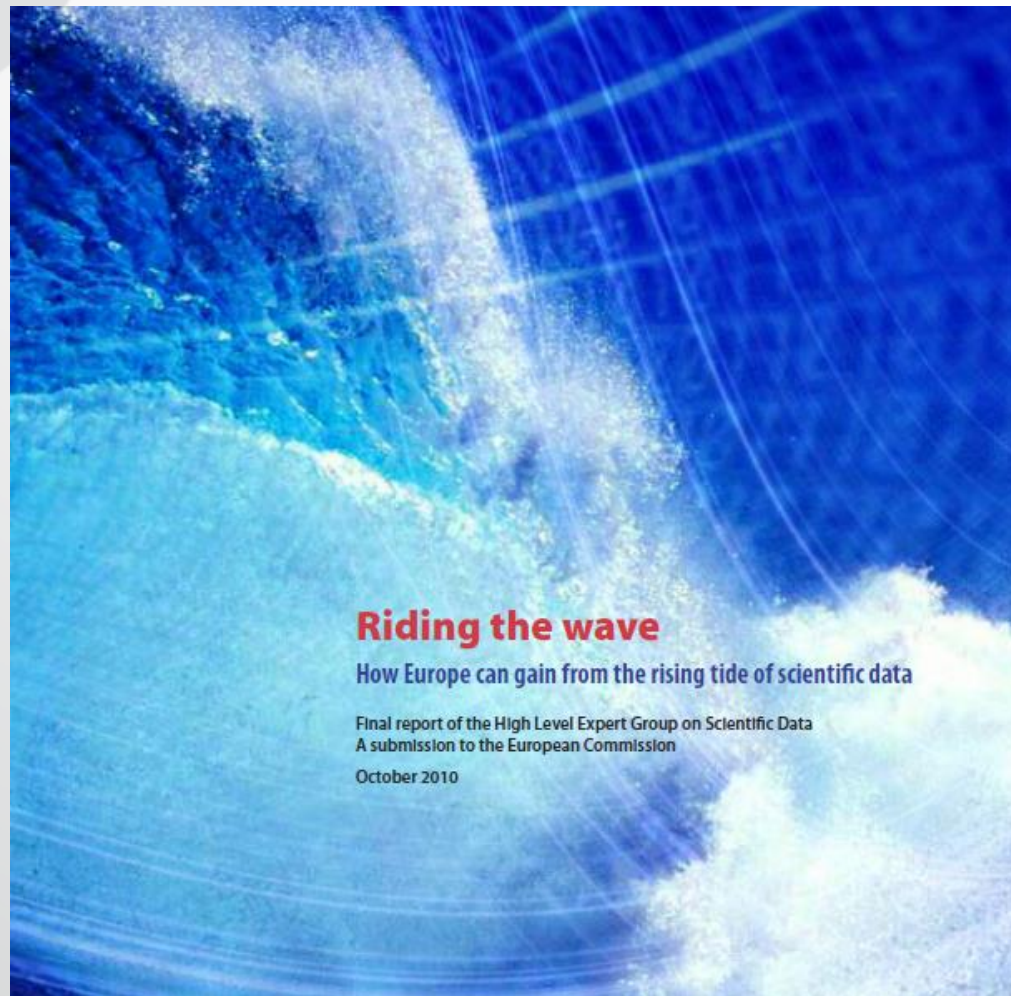
OPEN ACCESS INFRASTRUCTURE

How it works

Najla Rettberg, University of Göttingen Library

Infrastructures support policy

Supporting top-level research at European level for publications and data



- *„Our vision is a scientific e-infrastructure that supports seamless access, use, re-use of data“*
- **Despite national policy differences**
- **Mandates: no one size fits all**
- **Science 2.0**

Riding the Wave Report , High level group on data, 2010

OA to ‘results of publicly
funded research’ 100%

Horizon 2020

**EC’s Communication & Recommendation , July
2012**

What is OpenAIRE

1

PORTAL Services

Access to Research records. Linking publications to datasets, author information and above all, funding information

2

OA SUPPORT

Helpdesk. Engaging people and scientific repositories in almost 27 EU member states and beyond

3

ZENODO

Repository for data and articles that can be stored neither in institutional nor in subject-based/thematic repositories

E-Infrastructure to support Research

30 July 2013

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Pelagic community production and carbon-nutrient stoichiometry under variable ocean acidification in an Arctic fjord

Silyakova, A.; Bellerby, R. G. J.; Schulz, K. G.; Czerny, J.; Tanaka, T.; Nondal, G.; Riebesell, U.; Engel, A.; De Lange, T.; Ludvig, A.

[\(show affiliations\)](#)

Net community production (NCP) and carbon to nutrient uptake ratios were studied during a large-scale mesocosm experiment on ocean acidification in Kongsfjorden, western Svalbard, during June–July 2010. Nutrient depleted fjord water with natural plankton assemblages, enclosed in nine mesocosms of 50m³ in volume, was exposed to pCO₂ levels ranging initially from 185 to 1420 μatm. NCP estimations are the cumulative change in dissolved inorganic carbon concentrations after accounting for gas exchange and total alkalinity variations. Stoichiometric coupling between inorganic carbon and nutrient net uptake is shown as a ratio of NCP to a cumulative change in inorganic nutrients. Phytoplankton growth was stimulated by nutrient addition half way through the experiment and three distinct peaks in chlorophyll a concentration were observed during the experiment. Accordingly, the experiment was divided in three phases. Cumulative NCP was similar in all mesocosms over the duration of the experiment. However, in phases I and II, NCP was higher and in phase III lower at elevated pCO₂. Due to relatively low inorganic nutrient concentration in phase I, C:N and C:P uptake ratios were calculated only for the period after nutrient addition (phase II and phase III). For the total post-nutrient period (phase II+phase III) ratios were close to Redfield, however they were lower in phase II and higher in phase III. Variability of NCP, C:N and C:P uptake ratios in different phases reflects the effect of increasing CO₂ on phytoplankton community composition and succession. The phytoplankton community was composed predominantly of haptophytes in phase I, prasinophytes, dinoflagellates, and cryptophytes in phase II, and haptophytes, rasinophytes, dinoflagellates and chlorophytes in phase III (Schulz et al., 2013). Increasing ambient inorganic carbon concentrations have also been shown to promote primary production and carbon assimilation. For this study, it is clear that the pelagic ecosystem response to increasing CO₂ is more complex than that represented in previous work, e.g. Bellerby et al. (2008). Carbon and nutrient uptake representation in models should, where possible, be more focused on individual plankton functional types as applying a single stoichiometry to a biogeochemical model with regard to the effect of increasing pCO₂ may not always be optimal. The phase variability in NCP and stoichiometry may be better understood if CO₂ sensitivities of the plankton's functional type biogeochemical uptake kinetics and trophic interactions are better constrained.

Existing approvals

EURO-BASIN, North Atlantic Marine Ecosystem Research

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SOCIAL MEDIA
ATTENTION

THE MANUSCRIPT
and DATA,
FREE & NOW

Publication date:

30 July 2013

DOI:

10.5194/bg-10-4847-2013

Report number(s):

OpenAIRE-EPOCA-2013-001 OpenAIRE-EURO-BASIN-2013-010 OpenAIRE-MEECE-2013-004

Keyword(s):

[Ocean acidification](#) [carbon-nutrient stoichiometry](#)

Published in:

Biogeosciences (Online): 10 (2013) pp. 4847–4859

Grants:

EPOCA - European Project on Ocean CO₂ Acidification (211384)
EURO-BASIN - European Basin-scale Analysis of Ocean Acidification (EURO-BASIN)

EURO-BASIN - Marine Ecosystem Evolution in a Changing Environment (212085)

Collections:

[Communities](#) > EURO-BASIN, North Atlantic Marine Ecosystem Research
[Communities](#) > European Commission Funded Research (OpenAIRE)
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Ivo Grigorov (on 03 September 2013)

Preview

1 / 13



Deposit the final manuscript or publisher's PDF in a repository, either institutional or disciplinary.

Harvested via OAI-PMH

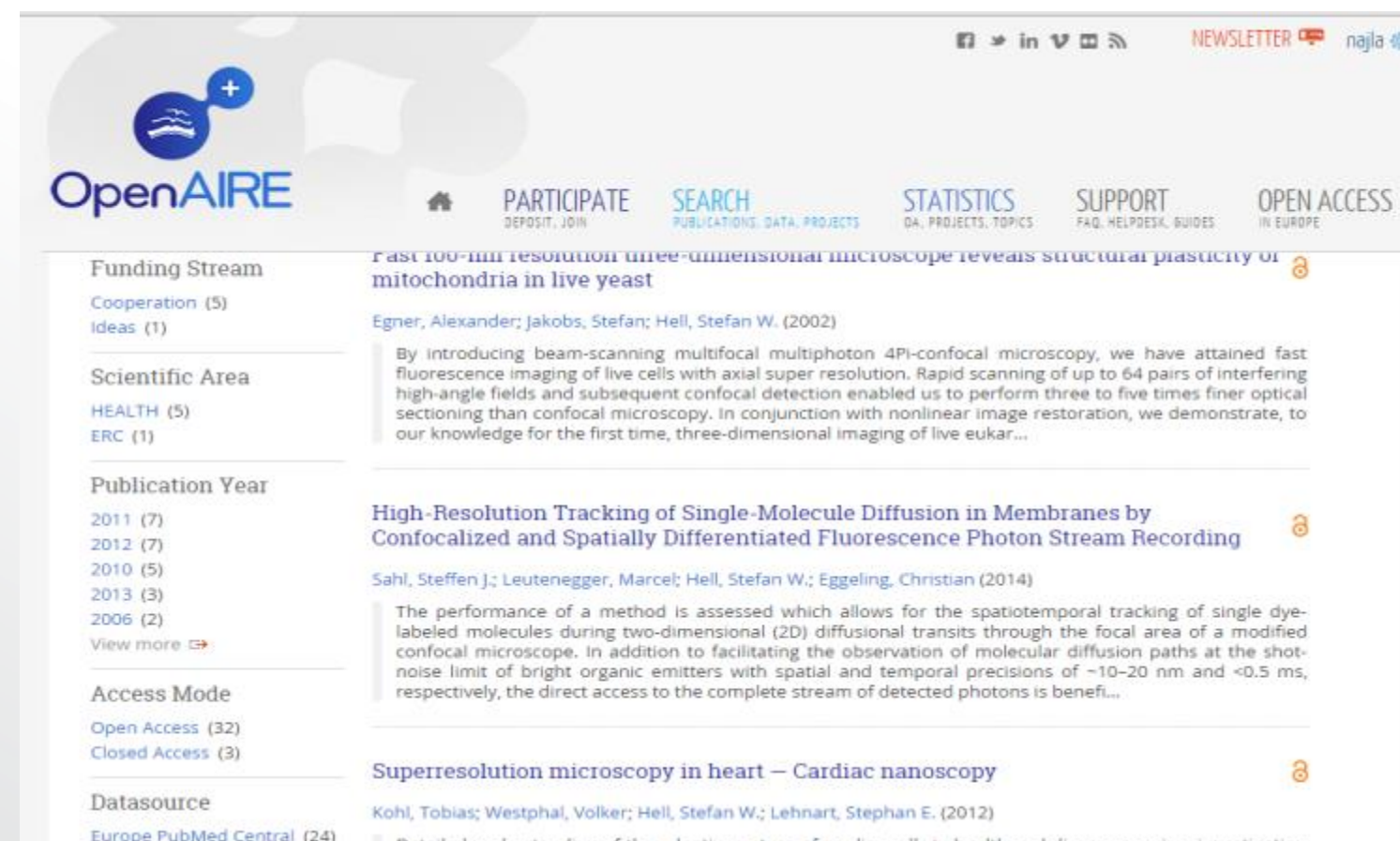
Project Coordinators

Tools to ease some workflows

- Dissemination of research output
- Reporting to the EC
- **STATISTICS!**

Are you a
**Research
Coordinator
or Project
Manager?**

Report open access publications.
Monitor, disseminate research
results.

The screenshot shows the OpenAIRE website interface. At the top, there is a navigation bar with the OpenAIRE logo and several menu items: PARTICIPATE (DEPOSIT, JOIN), SEARCH (PUBLICATIONS, DATA, PROJECTS), STATISTICS (OA, PROJECTS, TOPICS), SUPPORT (FAQ, HELPDESK, GUIDES), and OPEN ACCESS (IN EUROPE). There are also social media icons and a newsletter sign-up link.

The main content area displays a list of publications. On the left, there are filter sections:

- Funding Stream:** Cooperation (5), Ideas (1)
- Scientific Area:** HEALTH (5), ERC (1)
- Publication Year:** 2011 (7), 2012 (7), 2010 (5), 2013 (3), 2006 (2), View more
- Access Mode:** Open Access (32), Closed Access (3)
- Datasource:** Europe PubMed Central (24)

The main list of publications includes:

- Fast 100-nm resolution three-dimensional microscope reveals structural plasticity of mitochondria in live yeast** (Egner, Alexander; Jakobs, Stefan; Hell, Stefan W. (2002))
- High-Resolution Tracking of Single-Molecule Diffusion in Membranes by Confocalized and Spatially Differentiated Fluorescence Photon Stream Recording** (Sahl, Steffen J.; Leutenegger, Marcel; Hell, Stefan W.; Eggeling, Christian (2014))
- Superresolution microscopy in heart – Cardiac nanoscopy** (Kohl, Tobias; Westphal, Volker; Hell, Stefan W.; Lehnart, Stephan E. (2012))







EURO-BASIN

SC39

TITLE	European Union Basin-scale Analysis, Synthesis and Integration (EURO-BASIN)
FUNDER	FP7
FUNDING STREAM	SP1
SCIENTIFIC AREA	ENV
CALL	FP7-ENV-2010
CONTRACT (GA) NUMBER	264933
START DATE	31/12/2010
END DATE	30/12/2014
SPECIAL CLAUSE 39	yes
ORGANIZATIONS	UNI RESEARCH AS, UHAM, DTU, METU, SAHFOS, CLS, Swansea University, IRD, IEO, NMFRI, DEFRA, UNIVERSITYOF NORDLAND, PML, CNRS, University of Strathclyde, UEA, AU, HAVFORSKNINGSINSTITUTTET, UPMC, NERC, INSTITUT FRANCAIS DE RECHERCHE POUR L'EXPLOITATION DE LA MER, UNIVERSITAET BREMEN, AZTI-Tecnalia, HAFRANNSOKNASTOFNUNIN
MORE INFORMATION	Detailed project information (CORDIS)

App Box

-  [Publication details](#)
-  [Dynamically incorporate publications in your site \(HTML\)](#)
-  [View EC progress report \(HTML\)](#)
-  [Download EC progress report \(CSV\)](#)

[Link Research Results](#)

[Deposit Publications](#)

Publications

Data

Statistics

[view all 79](#)

Ecological modelling in a sea of variable stoichiometry: Dysfunctionality and the legacy of Redfield and Monod

8

Flynn, Kevin J. (2010)
Projects: EURO-BASIN (264933)

Linking to Data
CRIS Info

Funders

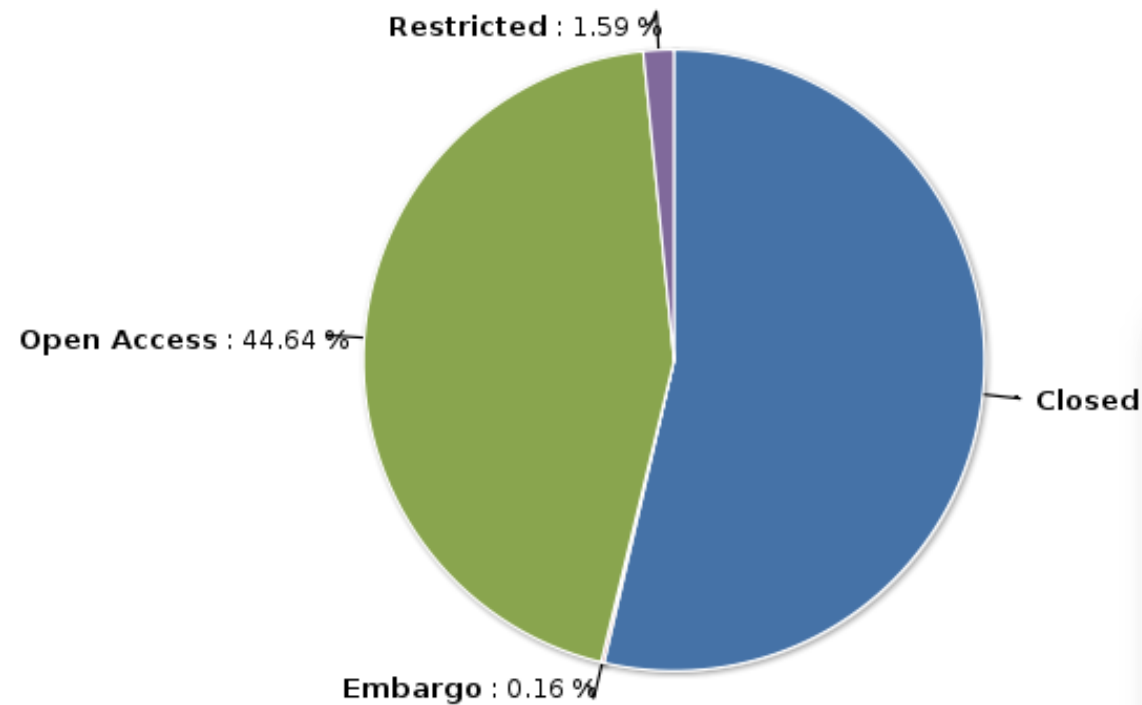
...Measuring Impact



- **Return on Investment**
 - The money invested can be measured with output
- **Tracking what they fund**
 - How is this output used?
- **Strengths in research areas**
 - What is used and how often?
- **Support for policies**

Monitoring OA policy – beyond EC

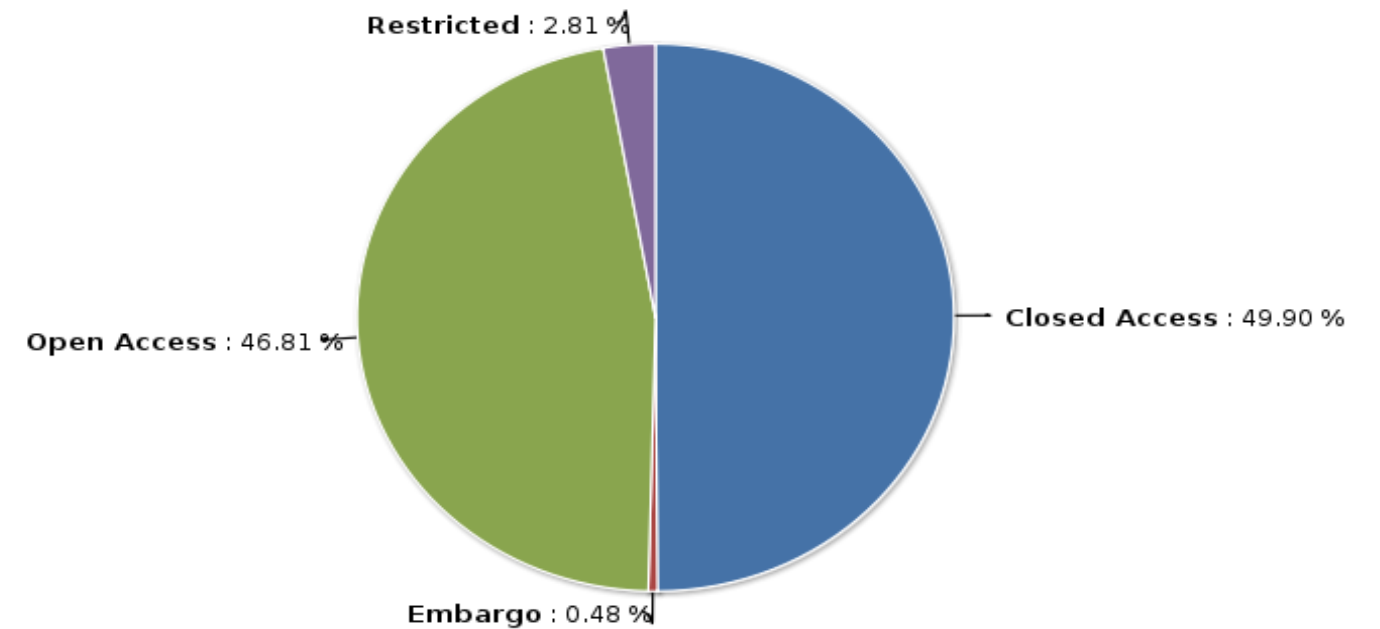
FP7 publications breakdown by access mode



FP7

66K pubs – 7.5K projects

Publications of FP7 projects with SC39 breakdown per access mode



SC39: FP7 OA Pilot

8.5K pubs – 725 projects

Open Data Pilot

- **Data Management Plan (DMP)**
- **DMP questions: what data, what standards, what data will be exploited, what data will be made open, curation**
- **Opting out (commercial exploitation, protection of personal data, security issues, etc.)**
- **So far (of 3000+ proposals): 24% opt out, 27% opt in**

Got Data?

REPOSITORY?

Publisher?

Got funding?

www.openaire_eu
@openaire_eu

GET IN TOUCH

**... and together we
can make this work.**