



ECRA: Knowledge for climate action

Newsletter Spring 2020

Dear Readers,

Welcome to our first ECRA newsletter in 2020.

ECRA - The European Climate Research Alliance - is a network of research performing organisations, filled with life by climate scientists. We have been active since 2011, and we bring together expertise from many areas in climate research. As Chairs of ECRA, we would like to thank you for reading this newsletter and

invite you to participate in our network.

In this issue we are highlighting the recent activities and publications of the ECRA partners and participants, but also other contributions – for more information please see the table of contents.

Also, we would like to mention our next General Assembly in 2021, which will take place 10-11 March 2021 in Brussels, Belgium.

Kind regards, and see you soon!

Prof. Peter Braesicke, Chair of ECRA
Prof. Len Sheffrey, Co-Chair of ECRA



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ECRA Statement

on the departure of Prof Ferrari from the European Research Council (ERC)

ECRA has released a statement of the departure of Mr Ferrari as the President of the ERCA.

A statement of Mr Ferrari, and a response of the Scientific Council is available.

ECRA is supporting the ERC and its scientific agendas and proceedings.

The links and the statement of ECRA can be found on the [ECRA website](#).

In an open letter, we call upon the EU Presidents and the Heads of States and Governments in Europe to secure funding for the European Research Council in the new, long-term EU budget. Before sending the letter, we have started a petition to gather support:

<https://friendsoftheerc.w.uib.no/>



CP SLC: New Co-Lead!

The ECRA Collaborative Programme of Sea-Level Change and Coastal Impacts (CP SLC) would like to introduce its now Co-Chair:

Dr. Ingo Sasgen

Senior Scientist
Division Geosciences I Glaciology
Alfred Wegener Institute
Germany



Ingo has joined the ECRA community in March 2020 and will be co-chairing the CP SLC together with Gianmaria Sannino from ENEA, Italy.

Ingo is Spokesperson of the Topic Sea-level change and coastal impacts of the Helmholtz cross-institutional Regional Climate Change Initiative (reklim.de).

His research interests are: Ice-mass balance, Polar climate system, Sea-level change, Satellite gravimetry, and Glacial-isostatic adjustment.

His most recent publication is a review article in Nature Climate Change, on the “Contributions of GRACE for understanding climate change” (see below).

Contributions of GRACE to understanding climate change

Tapley, B.D., Watkins, M.M., Flechtner, F., **Sasgen, I.**, *et al.*
Contributions of GRACE to understanding climate change. *Nat. Clim. Chang.* **9**, 358–369 (2019).
<https://doi.org/10.1038/s41558-019-0456-2>

Abstract

Time-resolved satellite gravimetry has revolutionized understanding of mass transport in the Earth system. Since 2002, the Gravity Recovery and Climate Experiment (GRACE) has enabled monitoring of the terrestrial water cycle, ice sheet and glacier mass balance, sea level change and ocean bottom pressure variations, as well as under-

The authors touch on different fields:

Global hydrology,
Ice-mass balance (the research focus of Ingo and his contribution to the paper),
Ocean and sea-level changes,
Climate services.

standing responses to changes in the global climate system. Initially a pioneering experiment of geodesy, the time-variable observations have matured into reliable mass transport products, allowing assessment and forecast of a number of important climate trends, and improvements in service applications such as the United States Drought Monitor. With the successful launch of the GRACE Follow-On mission, a multi-decadal record of mass variability in the Earth system is within reach.

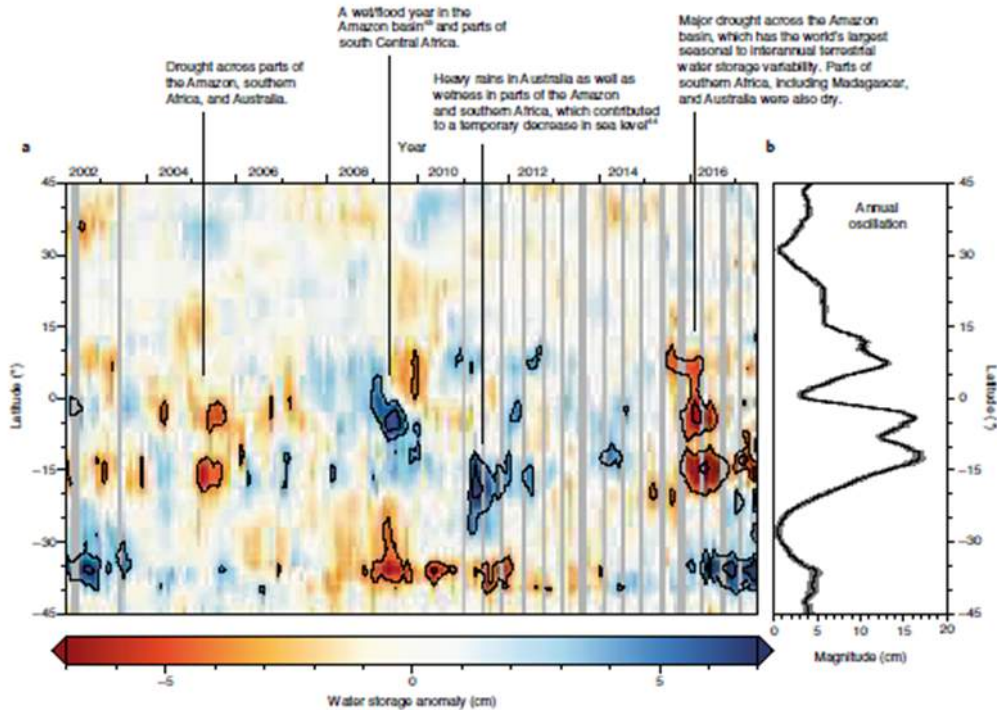


Fig. 3 | GRACE zonal mean of terrestrial water storage anomalies for April 2002 to June 2017. a. The time series of anomalies after subtracting an annual periodic component, offset and linear trend. Contour levels are at ± 4 and ± 8 cm equivalent water height. b. The magnitude of the annual oscillation. Based on CSR RLO5M Mascons[®]. Details on the data shown are presented in 'Data availability'.

Knowledge Hub

The ECRA CP SLC is currently participating in the establishment of a **Knowledge Hub for Sea-Level Change**, under the umbrella of both JPI Climate and JPI Oceans. The inauguration meeting, scheduled in June, has been postponed due to the COVID-19 pandemic.

ECRA is active in the KH as scientific player, aiming to create a wide scientific collaboration of European partners and different scopes.

We will keep you updated on the future activities, e.g. a potential periodical report on Sea-Level Change in the Mediterranean informing on current debates and knowledges.

JPI
OCEANS

JPI Climate

ECRA
European Climate Research Alliance

CP HIE: Special Issue

CP HIE:

Special “Sustainability” Issue on “High Impact Events and Climate Change”

A **special issue** of the Open Access journal “**Sustainability**”, edited by the co-chairs of the ECRA Collaborative Programme on High Impact Events, Martin Drews and Hilppa Gregow, **was recently completed**. This ECRA special issue invited contributions across the four key scientific topics of the Collaborative Programme and aimed to highlight recent advances in climate science (including climate services) and their relation to sustainable and climate resilient development.

The special issue is comprised by 8 papers and will be accompanied by an editorial by the co-chairs (in preparation). Four of the research papers present novel work related to drought, clearly highlighting the critical

challenges for sustainable development posed by drought under different climatic conditions. Varela et al. (2019) presents new projections of **forest fire risk** in the Mediterranean region due to climate change. Tuomenvirta et al. (2019) identifies policy actions for **risk management and climate adaptation** related to weather & climate in Finland. Finally, Sanz-Lazaro (2019) and Cogato et al. (2019) discusses extreme events in the context of their **ecological and agricultural impacts**, respectively.

Access to the papers may be found by following this link:

https://www.mdpi.com/journal/sustainability/special_issues/High_Impact_Events

Spatiotemporal Trends and Attribution of Drought across China from 1901–2100 ([link](#))

Projection of Forest Fire Danger due to Climate Change in the French Mediterranean Region ([link](#))

Identifying Policy Actions Supporting Weather-Related Risk Management and Climate Change Adaptation in Finland ([link](#))

Reduced Carbon Dioxide Sink and Methane Source under Extreme Drought Condition in an Alpine Peatland ([link](#))

Reliability–Resiliency–Vulnerability Approach for Drought Analysis in South Korea Using 28 GCMs ([link](#))

Drought Assessment with the Community Land Model for 1951–2010 in East Asia ([link](#))

A Framework to Advance the Understanding of the Ecological Effects of Extreme Climate Events ([link](#))

Extreme Weather Events in Agriculture: A Systematic Review ([link](#))



an Open Access Journal by MDPI

IMPACT
FACTOR
2.592

High Impact Events and Climate Change

Guest Editors:

Dr. Martin Drews
Systems Analysis, DTU
Management Engineering,
Lyngby, Denmark
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Dr. Hilppa Gregow
Climate Service Centre, Finnish
Meteorological Institute, Helsinki,
Finland
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Deadline for manuscript
submissions:
closed (30 November 2019)

Message from the Guest Editors

Dear Colleagues,

We invite you to submit original research papers to a Special Issue on the topic of “Local Water Security for Health”. This Special Issue will focus on the social, economic, cultural, governance, structural, and environmental dimensions of local water security, their links to each other, and to human health and wellbeing. This Issue seeks to advance the dialogue around water (in)security in small communities around the world, through the explicit recognition of the links between the societal and physical systems, human health, and the tools that enhance our ability to capture these complexities towards building resilient, water-secure, healthy communities. We particularly welcome papers focused on marginalized populations.

Assoc. Prof. Dr. Corinne Schuster-Wallace
Assoc. Prof. Dr. Sarah Dickson-Anderson

Special issue of Climate Bulletin Research Letters covers outcomes from ERA4CS projects

[Climate Bulletin Research Letters](#) is a digital open access journal published by the Finnish Meteorological Institute (FMI). Aim is to provide a platform for researchers to publish smaller pieces of work or results of projects and reach new audiences. Despite their brief nature, the short papers are peer-reviewed and each one gets a DOI for citing.

Research Letters issues include up to 10 short papers that are reviewed by the European Climate Research Alliance (ECRA) steering group members. Issues are published in English twice a year every spring and autumn.

In May 2020 a special edition of Climate Bulletin Research Letters is published.

Special edition includes articles on results of ERA4CS projects. Issue provides insights on sectoral climate services on various topics, such as

- sectoral-based indices for climate services,
- user needs for extreme wind information,
- uncertainties in urban climate impact projections,
- climate services for draught and fire danger estimation, and
- operational risks of sand and dust storms

You can read the earlier issues here:

Climate Bulletin Research Letters

[1/2019, spring issue](#)

[2/2019, autumn issue](#)

European Climate Research Alliance

ECRA General Assembly 2021

10 - 11 March 2021

10 year anniversary of ECRA!! 🎉

You are more than welcome to save the date for our upcoming 10-year anniversary: The next General Assembly will be taking place in Square Brussels, on 10 and 11 March 2021.

The ECRA Executive Committee has started the planning and leans towards

the topic of **Extreme Events** within the context of **climate change**, and how **decision making and risk management** could be tackled.

If you have input or want to sign up for updates, do not hesitate to approach the Secretariat via info@ecra-climate.eu.

Scientific Updates

Re-thinking the future of observing systems in Polar Regions

Climate Models as Guidance for the Design of Observing Systems: the Case of Polar Climate and Sea Ice Prediction

Polar Regions are notoriously observationally data-sparse but, at the same time, are known as hot spots of climate change. Our ability to predict future Arctic and Antarctic environmental changes rests on the existence of reliable observations (in-situ or satellite) to improve process-based climate models and their predictions. But which observations should be prioritized, and where and when should they be taken? A new paper in Current Climate Change Reports by F. Massonnet reviews the emerging notion that climate models can be used to objectively answer these questions. This idea, which has been already extensively applied in the context of Numerical Weather Prediction, is in its infancy for climate applications. Through five concrete examples, the study paves the way for designing observing systems that are at the same time cost-effective and optimized for answering a pre-defined scientific question.

Reference:

Massonnet, François. "Climate Models as Guidance for the Design of Observing Systems: The Case of Polar Climate and Sea Ice Prediction." Current Climate Change Reports, November 13, 2019. doi.org/10.1007/s40641-019-00151-w.

BLUE ACTION

The Blue-Action project also highlighted some publications we would like to bring to your attention.

Bryden, Harry; King, Brian; McCarthy, Gerard D.; McDonagh, Elaine; Moat, Ben; Smeed, David (2020) **Reduction in ocean heat transport at 26°N since 2008 cools the eastern subpolar gyre of the North Atlantic Ocean.**

doi.org/10.1175/JCLI-D-19-0323.1

Vimal Koul, Jan-Erik Tesdal, Manfred Bersch, Hjálmar Hátún, Sebastian Brune, Leonard Borchert, Helmuth Haak, Corinna Schrum & Johanna Baehr (2020)

Unraveling the choice of the north Atlantic subpolar gyre index.

doi.org/10.1038/s41598-020-57790-5

Mecking, Jennifer; Drijfhout, Sybren; Hirschi, Joel; Blaker, Adam (2019) **Ocean and atmosphere influence on the 2015 European heatwave.**

doi.org/10.1088/1748-9326/ab4d33

Kimmritz, M., F. Counillon, L. H. Smedsrud, I. Bethke, N. Keenlyside, F. Ogawa, and Y. Wang (2019) **Impact of Ocean and Sea Ice Initialisation On Seasonal Prediction Skill in the Arctic.**

doi.org/10.1038/s41598-020-57790-5

Upcoming events

Recent and upcoming events within the ECRA network page 1/2

17 February 2020

call for projects

Aquatic Pollutants Joint Call 2020

The three Joint Programming Initiatives (JPIs) on Water, Oceans and Antimicrobial Resistance (AMR) are pleased to announce a **joint call for research and innovation projects** on risks posed to human health and the environment by pollutants and pathogens present in the water resources.

The new **deadline** is **18 May 2020**.

jpi-oceans.eu/calls/proposals/aquatic-pollutants-joint-transnational-call-2020

~~08 April 2020~~, Brussels

*meeting – **postponed***

JPI Oceans Stakeholder Forum

The Forum will bring together diverse stakeholders to solicit feedback, engagement and discussions on the draft Strategic Research and Innovation Agenda (SRIA) of JPI Oceans.

In light of the growing global concerns over the spread of the COVID-19 virus, JPI Oceans has decided to postpone the Stakeholder Forum planned on 8 April in Brussels.

jpi-oceans.eu/jpi-oceans-stakeholder-forum

~~23 April 2020~~

*meeting – **cancelled***

10-year Assembly of the German Climate Consortium (DKK)

Integratives Wissen für Gesellschaft, Wirtschaft und Umwelt

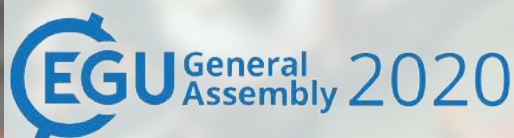
deutsches-klima-konsortium.de/dkk-jt

~~April 2020~~

meeting – status on request

[ECRA-CP-SLC] [JPI Climate]

Meeting of the **Knowledge Hub on Sea Level Rise** and Coastal Impacts



~~03-08 May 2020~~

*meeting – **online***

The EGU General Assembly 2020 will not take place in its physical form but on various channels online. Please find the most up-to-date event preparations on the event page. ECRA will cover the week on [Twitter](#) and report on its activities.

<https://www.egu2020.eu/>

Due to the circumstance of the COVID-19 pandemic, no upcoming events can be advertised with certainty. We recommend to verify whether, and in which frame, events still take place.

Upcoming events

~~25-29 May 2020~~, Liege, Belgium
meeting – **postponed**
52nd Liège Colloquium on Ocean
Dynamics – Towards understanding and
assessing human impacts on coastal
marine environments

labos.ulg.ac.be/gher/home/colloquium/

~~02-06 June 2020~~, Lisbon, PT
2020 United Nations Oceans Conference –
possible **postponed**

<https://oceanconference.un.org/>

June 2020

[**ECRA-CP-HIE**] Workshop on Extreme
Events – status in discussion

~~16-18 June 2020~~, Riga, Latvia
meeting – **postponed**

Third edition of Climateurope Festival
organised by Climateurope

www.climateurope.eu/events-climateurope/festival/Climateurope-festival-2020/

~~02-04 September 28-30 April 2020~~,
Leoben/AT
meeting – **postponed to September**
CCCA (Climate Change Center Austria):

21. Climate Day: „Clash of Cultures?
Klimaforschung trifft Industrie!“

<https://ccca.ac.at/dialogformate/oesterreichischer-klimatag/klimatag-2020>

07-11 September 2020, Bratislava, SK
meeting – status will be communicated
Yearly meeting of the European
Meteorological Society

<https://www.ems2020.eu/>

ECRA activities planned

Recent and upcoming events within the ECRA network page 2/2

09-11 September 2020
meeting – *tentative date*

[**ECRA-CP-SLC**] ECRA workshop on Sea
Level Change – status in discussion

23 October 2020 29 April 2020, Brussels
meeting – **postponed to October**

7th EMB Forum: Big Data in Marine
Science. The increasing flow of data in
marine science demands higher integration
of diverse types of data from different
sources as well as larger and more
complex analyses.

<https://www.marineboard.eu/7th-marine-board-forum>



Milieux & Diversité
Réseau thématique de recherche
en Région Centre Val de Loire



24-28 May **2021**, Tours, FR
**Extreme events, water and
environments:** This international
conference, hosted by Réseau MiDi,
is open to the academic world and
socio-economic partners concerned
by the variability of the water cycle
and adaptation to extreme events.
ECRA will be involved and plans to
host a session and reception.
Hosted by Réseau MiDi
<https://rtrmidi.univ-tours.fr/accueil/>

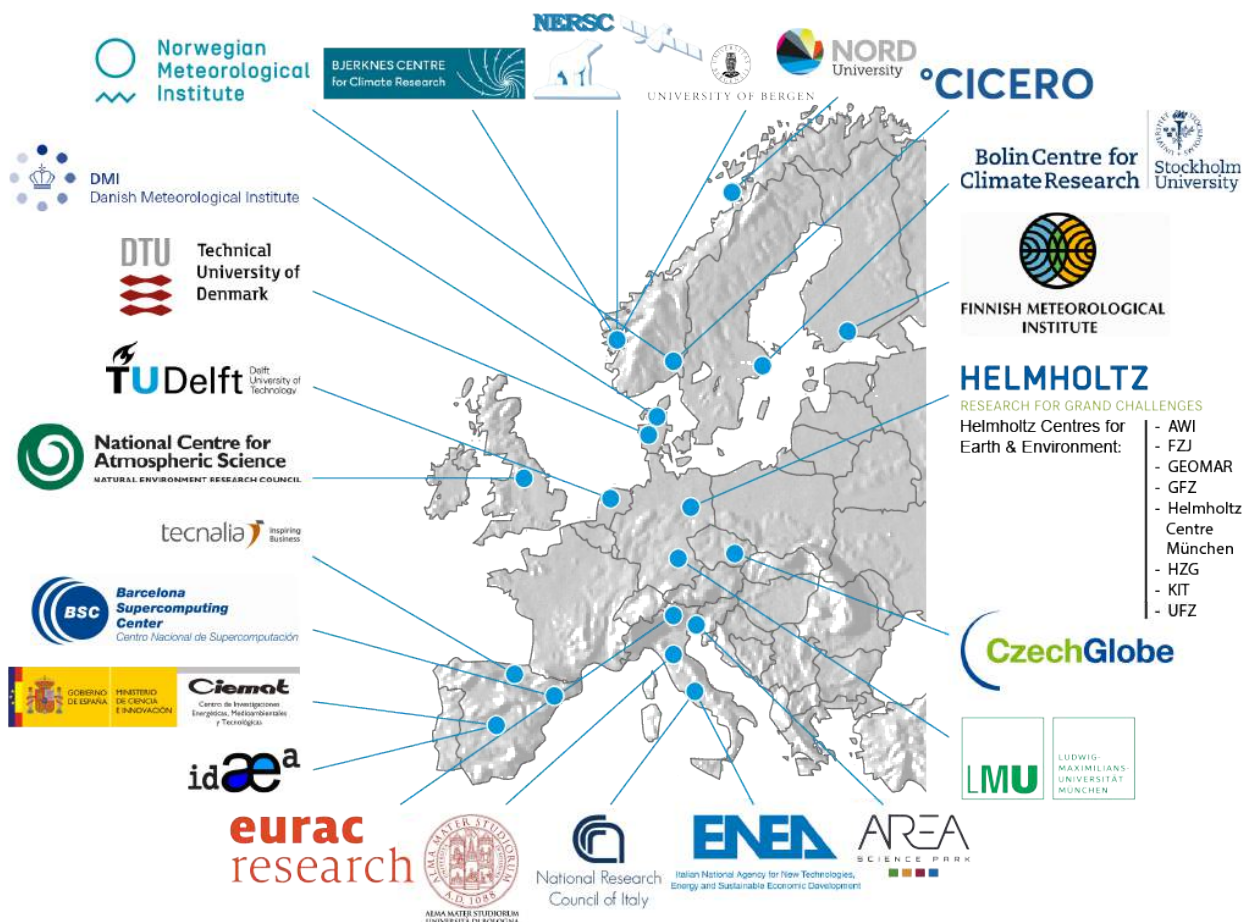
New Member in ECRA



NORD University

Global challenges demand new insight, innovative solutions and local legitimacy. Nord University is a young university with strong regional ties and a global perspective. We are committed to delivering relevant educational programmes and research, with a focus on blue and green growth, innovation and entrepreneurship, and welfare, health and education. Nord University has 11,000 students and 1,300 employees at nine study locations in central and northern Norway.

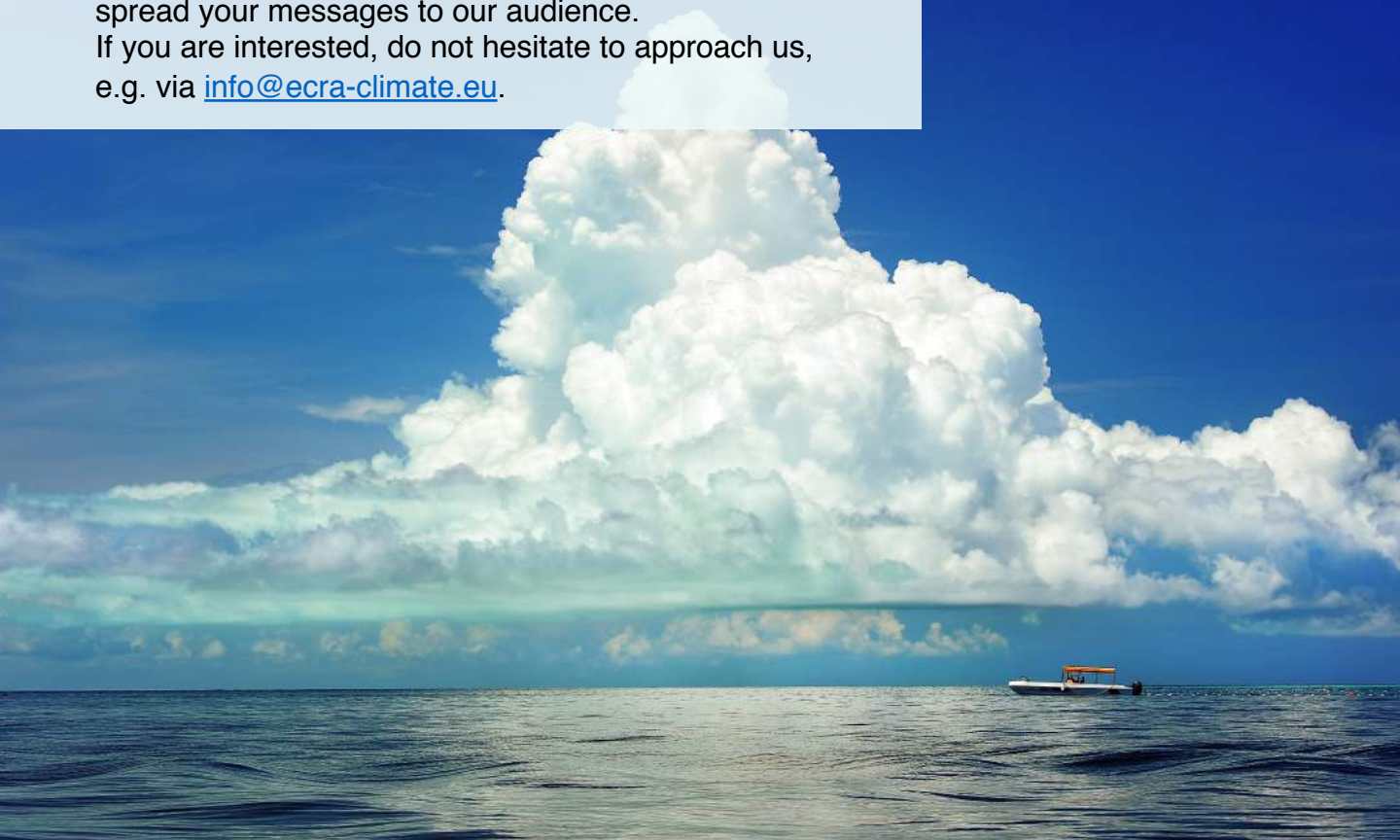
In addition to the recent entry of the new CP-SLC co-lead (Ingo Sasgen, see [page 3](#)), we warmly welcome Nord University as participant in the ECRA family.



Next Newsletter

In the next newsletter, we would be happy to include your content, as also in the last versions. We are happy to help spread your messages to our audience.

If you are interested, do not hesitate to approach us, e.g. via info@ecra-climate.eu.



For any questions...

European Climate Research Alliance

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Contributions of GRACE to understanding climate change. Nat. Clim. Chang. 9,

358–369 (2019). <https://doi.org/10.1038/s41558-019-0456-2>

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