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# Ocean absorbing 89% of climate warming according to an international team of scientists led by Mercator Ocean International

A new study shows that 89% of the excess heat built up in the Earth system from 1960-2020 has been absorbed by the Ocean. An international team of 70 researchers from 15 countries led by Mercator Ocean International's Karina von Schuckmann revealed their results today in a paper published in the journal *Earth System Science Data*.

Planetary warming over multiple decades driven by human influences such as CO<sub>2</sub> emissions has led to an imbalance in the Earth's Energy budget, where the Earth is accumulating heat in the climate system warming the Ocean, land, atmosphere and melting the ice. Over the last 15 years, this accumulated heat has risen by nearly 50% compared to the amount accumulated over the last 50 years. The vast majority of the heat is accumulated in the Ocean, provoking sea-level rise, changes in circulation patterns and weather patterns, and adverse effects on marine ecosystems. The study shows that the remainder of the heat goes into the land (6%), ice (4%), and the atmosphere (1%). This international group of scientists calls the Earth's Energy Imbalance one of the most fundamental global climate indicators that can be used by scientists, the public, and policy makers to measure the impact of our collective efforts to bring climate change under control. They urge for this indicator to be included in the Paris Agreement's Global Stocktake exercise to measure global progress against climate targets.

*To read the paper, please click on the following link:*

**[Heat stored in the Earth system 1960–2020: where does the energy go?](#)**

## About Mercator Ocean International

Mercator Ocean International (MOi) is a non-profit organisation, in the process of becoming an intergovernmental organisation, committed to building a science based Digital Ocean for supporting the conservation and the sustainable use of our oceans and seas.

MOi delivers an operational digital description of marine environments worldwide and helps organisations implement community and institutional programmes, projects and initiatives. Mercator Ocean continuously builds interactions between scientists, policymakers, public and institutional decision-makers and the civil society.

At the One Ocean Summit organised by France in Brest in February 2022, six European states (France, Italy, Norway, Portugal, Spain, and the UK) showed commitment to developing European oceanographic excellence by transforming MOi into an intergovernmental body by 2025 through the "Brest Declaration".

Led by Director-General Pierre Bahurel, MOi is based in Toulouse, France and has over 100 employees.