Understanding Arctic's Connections to Weather and Climate Across the Northern Hemisphere

APPLICATE.eu
Advanced prediction in polar regions and beyond

APPLICATE's objectives:

✳ Develop advanced predictive capacity for weather and climate in the Arctic and beyond

✳ Determine the impact of Arctic climate change on mid-latitude weather and climate

✳ Exchange knowledge with stakeholders and provide training of early career scientists

Highlights of the APPLICATE project include:

✳ Development of process-oriented and user-relevant metrics and diagnostics.

✳ Development of a coupled atmosphere-sea ice-ocean single-column model.

✳ Contribution to the development of the Polar Amplification Model Intercomparison Project (PAMIP).

✳ Evaluation of the importance of assimilating sea ice concentration and sea ice thickness for Arctic seasonal prediction.

✳ Investigation of the impact of atmospheric observations on medium range forecasts in polar and lower latitude regions.

✳ Finalization of baseline forecast experiments (Stream 1) on which the impact of APPLICATE developments will be tested (Stream 2).

✳ Establishment of a data management system and post processing environment now available at applicate.met.no

✳ Production and dissemination of the ECMWF-YOPP Analysis and Forecast Dataset.

✳ Engagement with stakeholders through a user-group, a user blog, case-studies and participation to dedicated events.

✳ Organisation of a training school and interactive webinars with APECS.

✳ Determination of the present limits of predictability in the Arctic from daily to subseasonal time scales.

Stakeholders case-studies learn more on applicate.eu

What is APPLICATE?

✳ A four-year project, started November 2016, funded by the EU's Horizon 2020 Research and Innovation programme with a budget of € 8M.

✳ A consortium of 16 expert organisations from nine different countries.

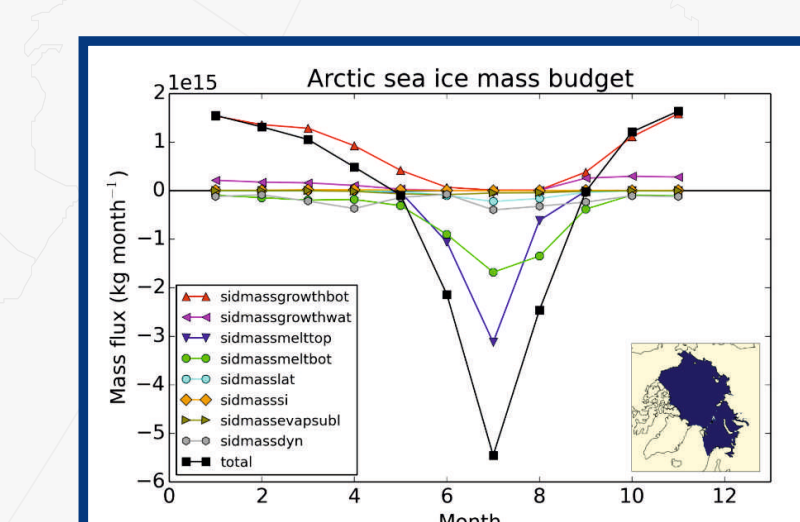## We encourage stakeholder feedback!

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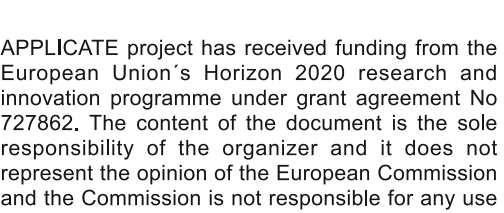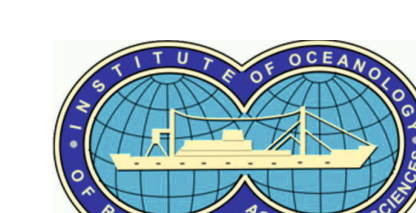
DATA
www.applicate.met.no

PUBLICATIONS
www.applicate.eu/publications

Our Polar Prediction Matters blog at:
blogs.helmholtz.de/polarpredictionmatters/

Improved knowledge of the sea ice volume/mass budget in climate models helps to better understand the spread in climate simulations and the drivers of Arctic sea ice decline.

SIMIP: A Sea-Ice Model inter-comparison Project of the mass budget of Arctic sea ice and snow in CMIP6 models.

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