

ACCURATE

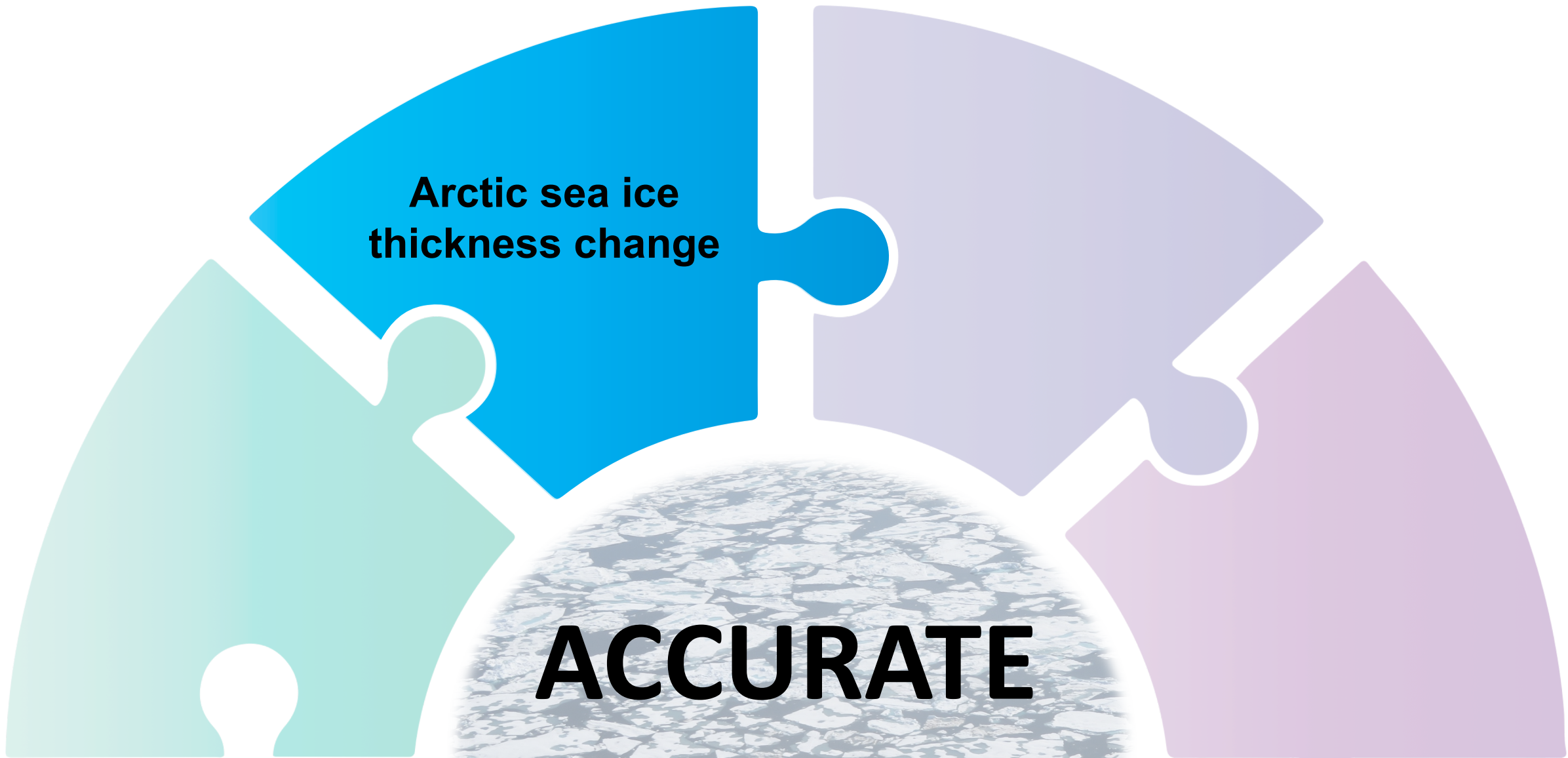
ESA CCI Research Fellowship

Luisa von Albedyll



ESA CCI Research Fellowship

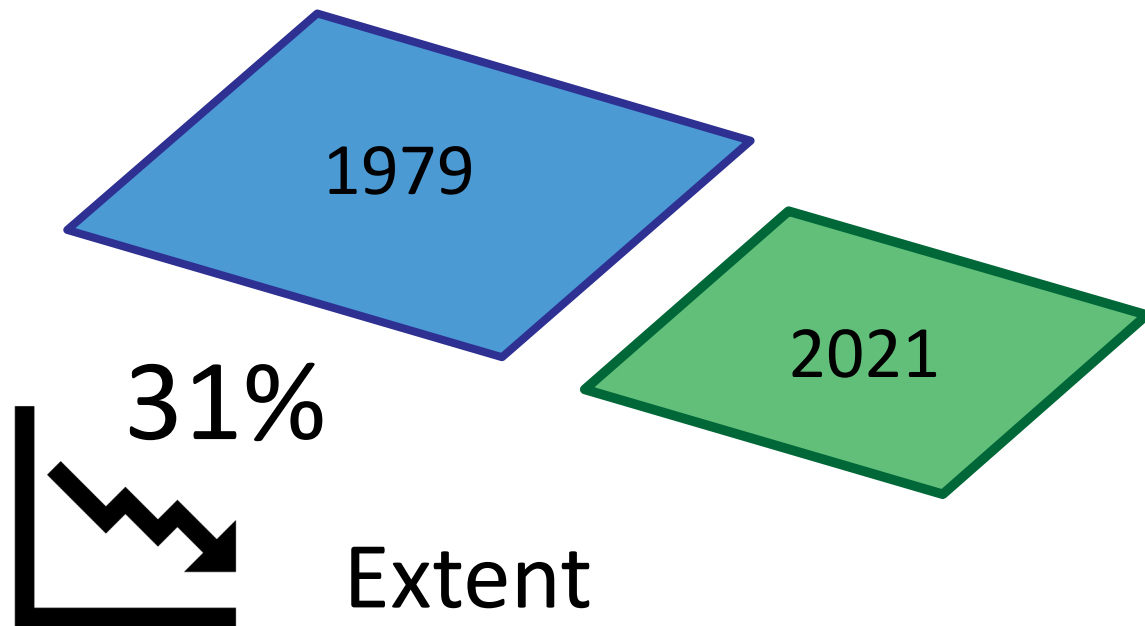
Luisa von Albedyll



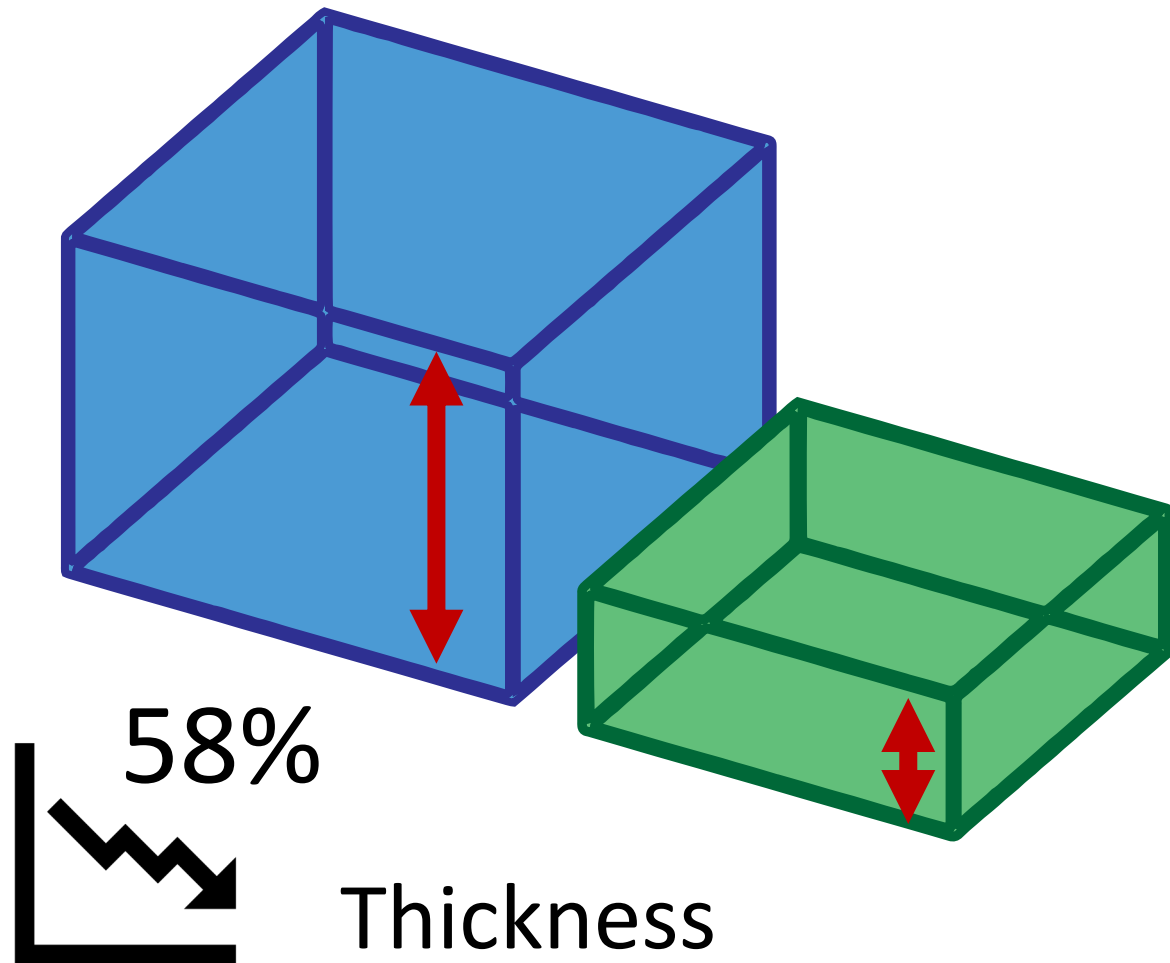
**Arctic sea ice
thickness change**

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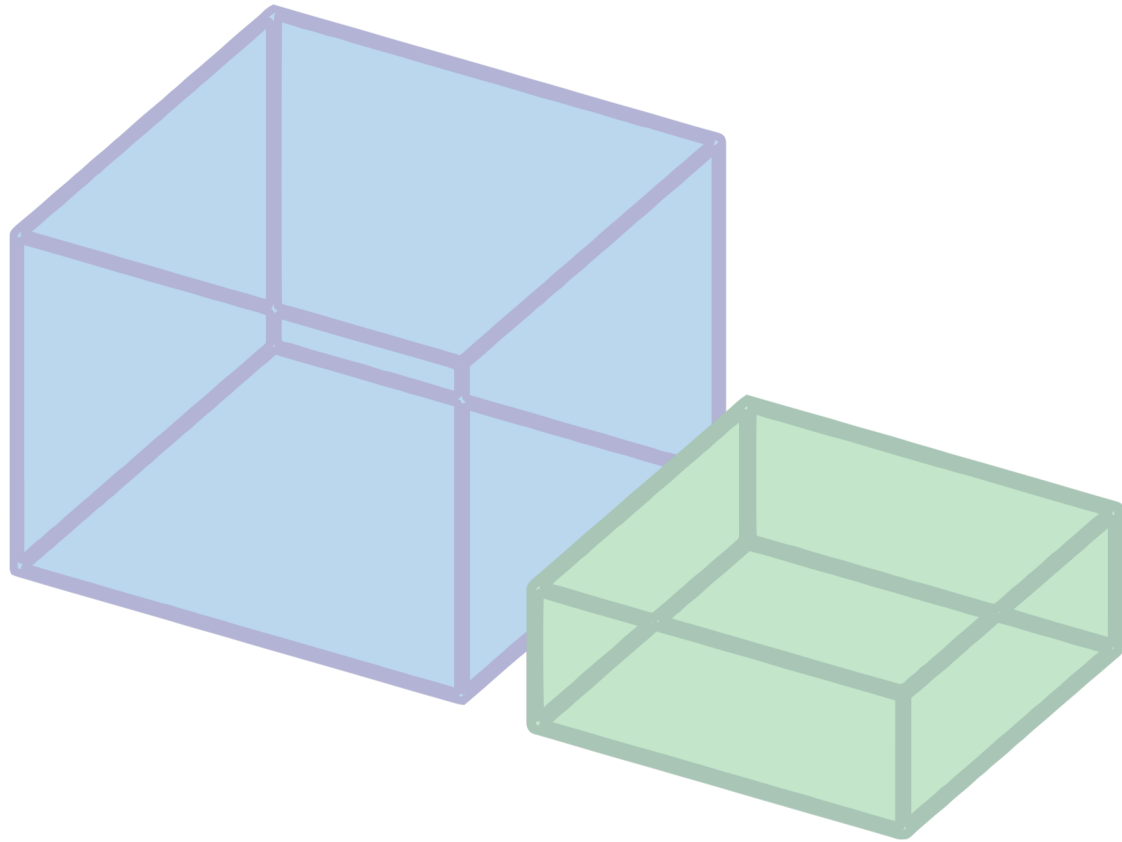
Sea ice thickness decline in the Arctic



Sea ice thickness decline in the Arctic



Sea ice thickness decline in the Arctic



Source: Damien Ringeisen <https://arctrain.de/de/huge-melting-ice-cubes/>

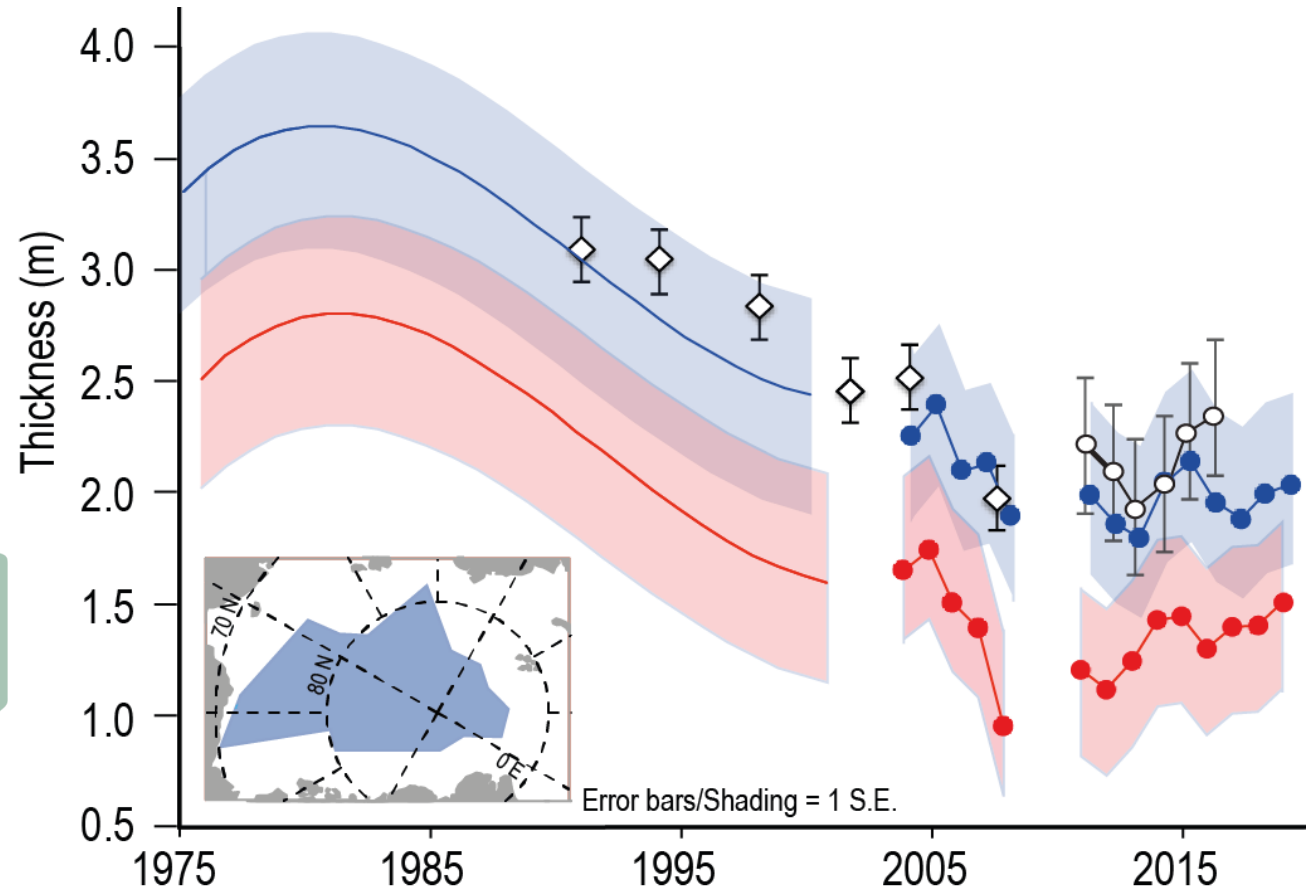
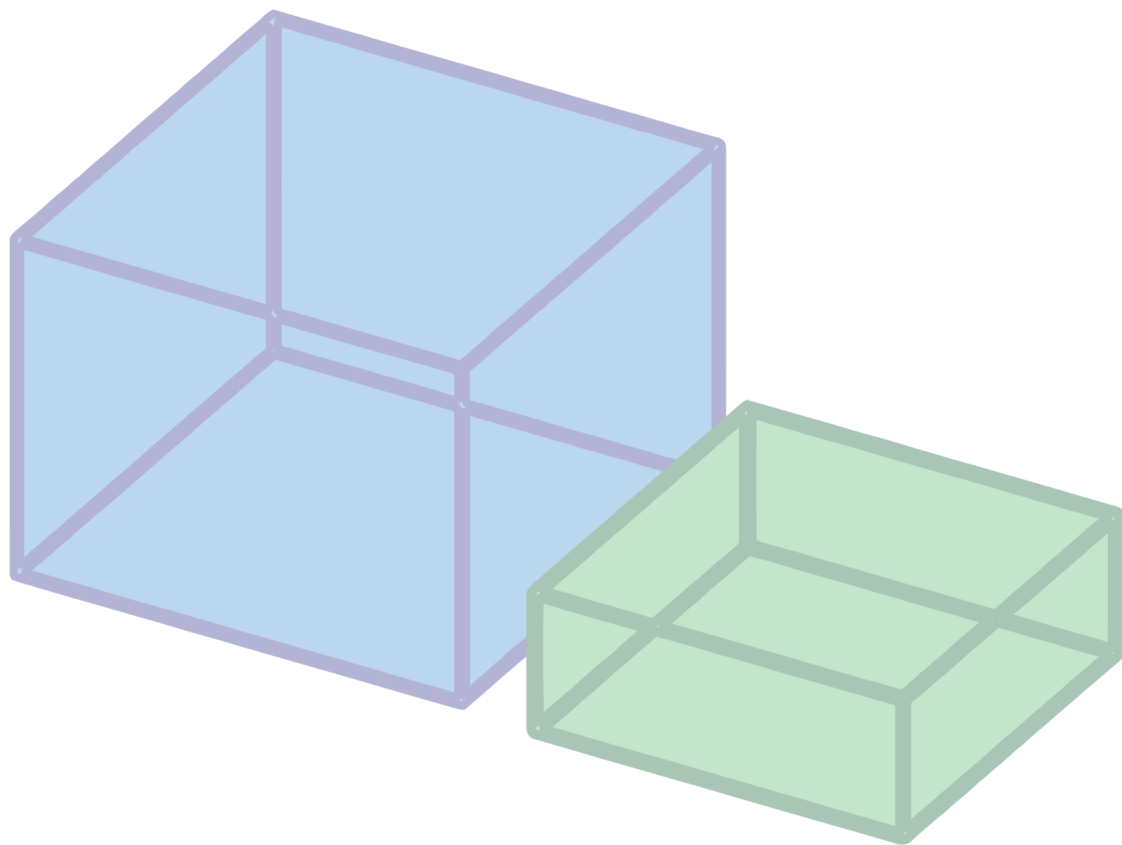


Figure 2.21 in IPCC, 2021

Sea ice thickness decline in the Arctic



Source: Damien Ringeisen <https://arctrain.de/de/huge-melting-ice-cubes/>

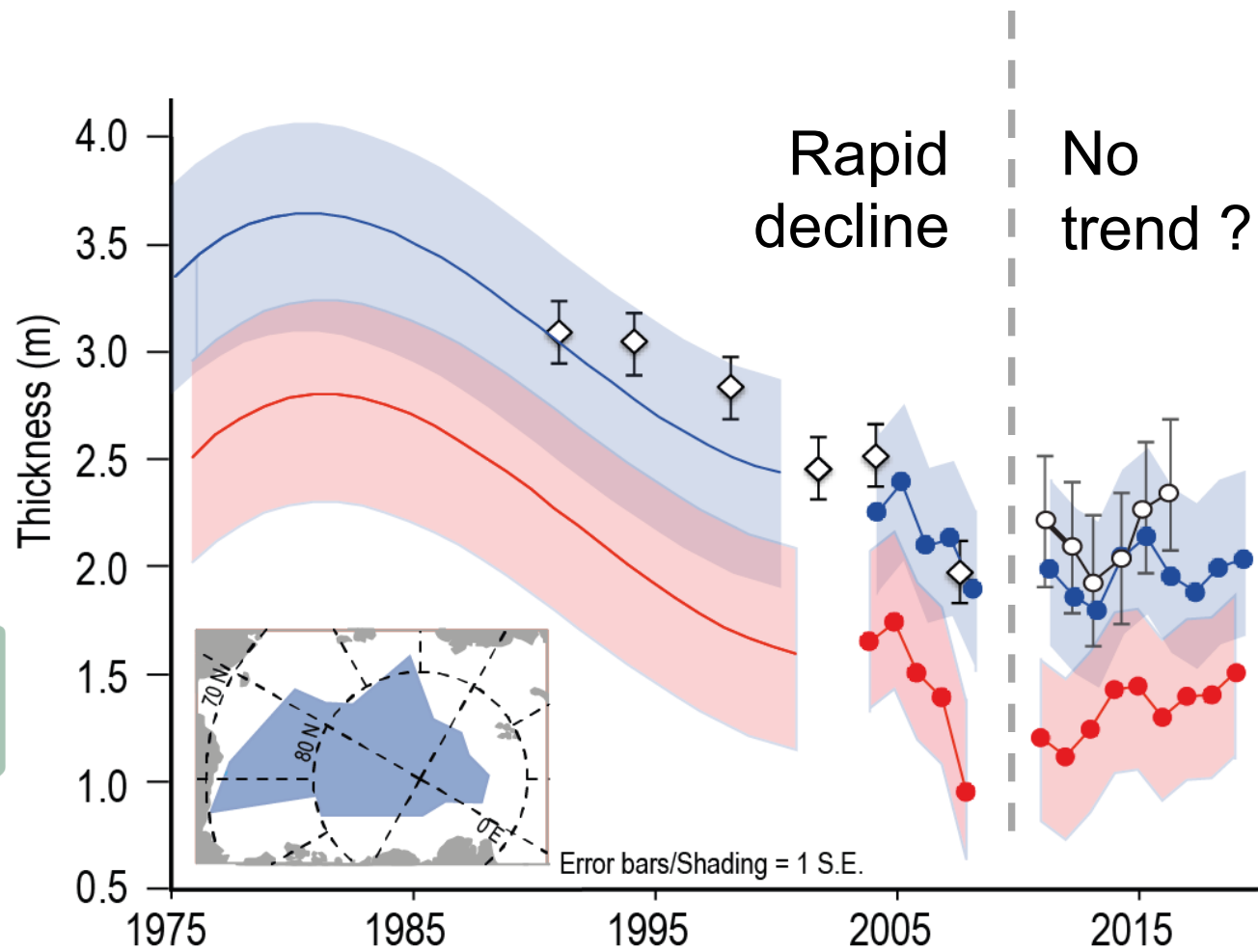
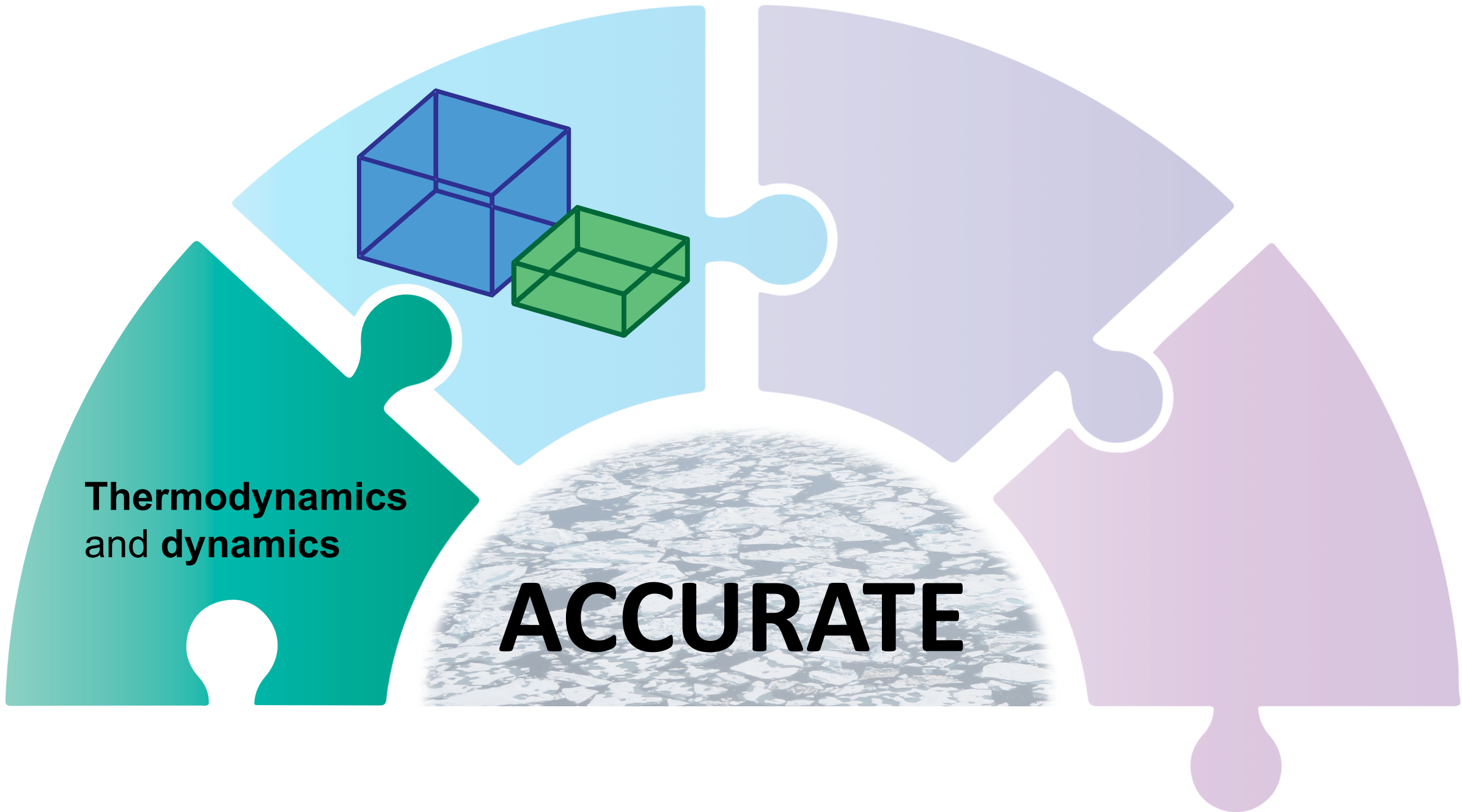


Figure 2.21 in IPCC, 2021

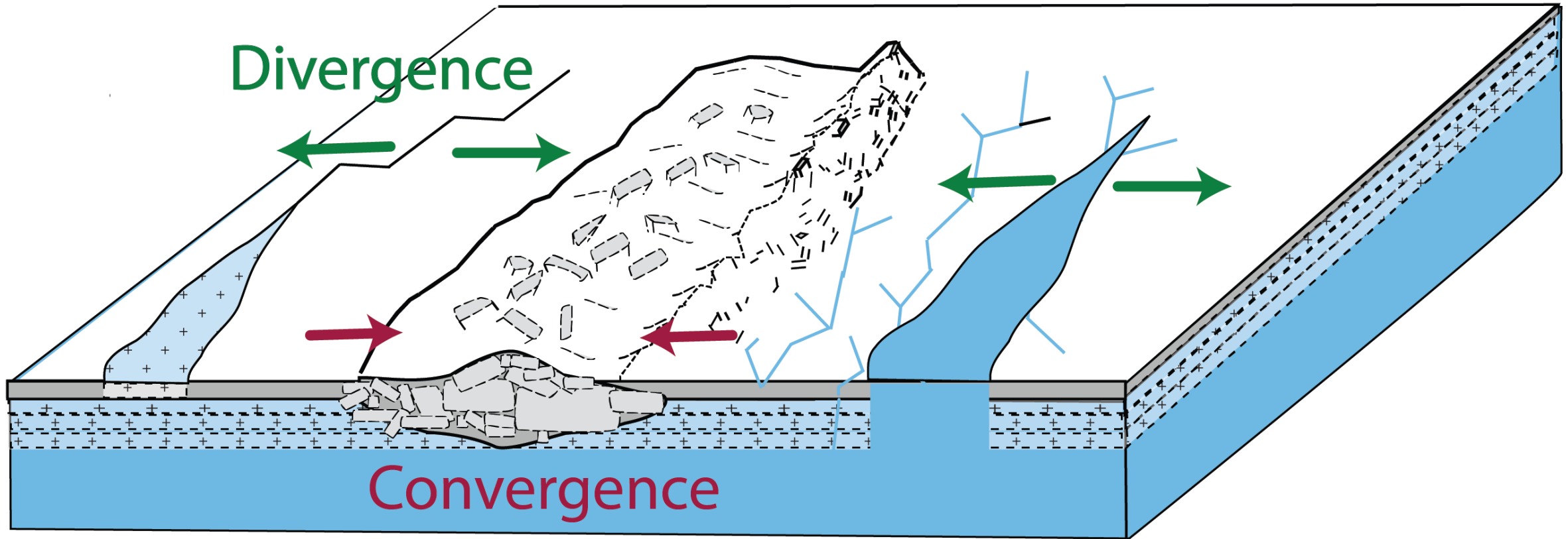
Kwok 2018
Kacimi and Kwok, 2022



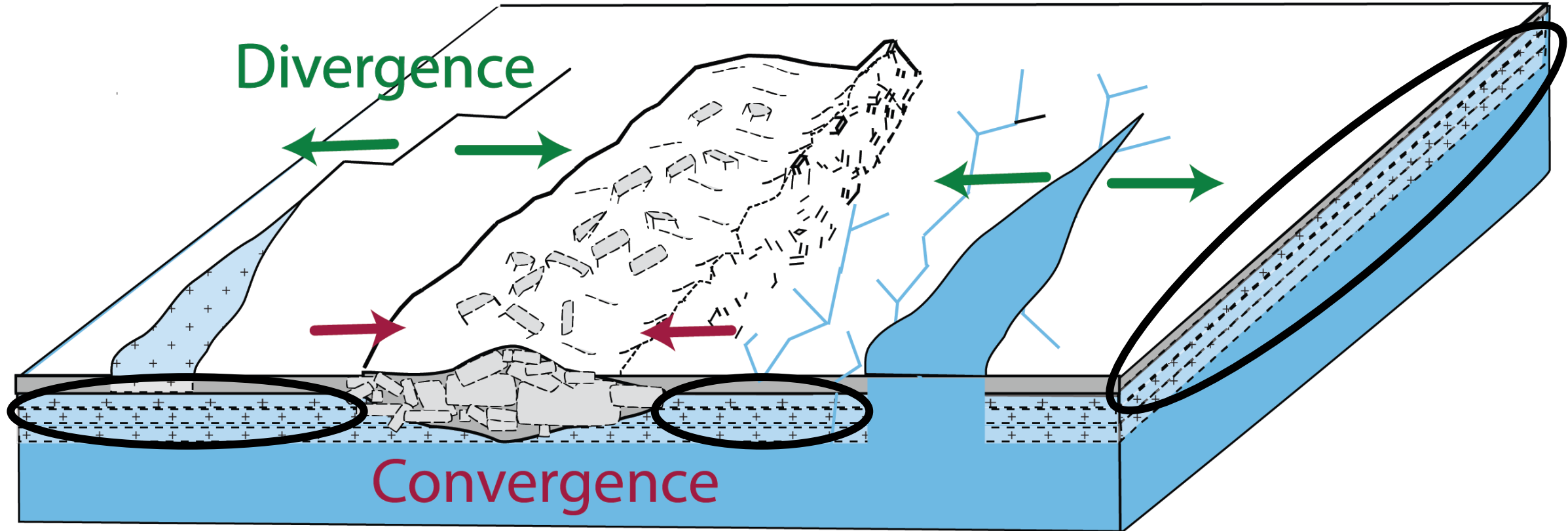
**Thermodynamics
and dynamics**

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Thermodynamic and dynamic thickness change



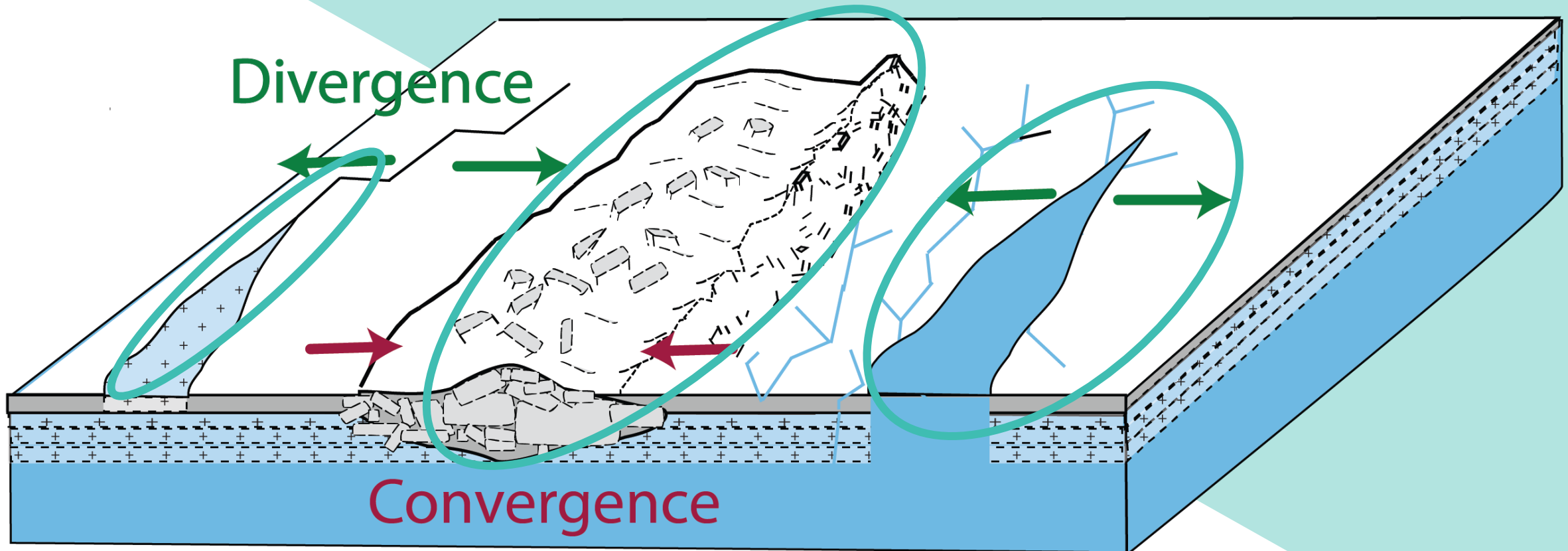
Thermodynamic and dynamic thickness change



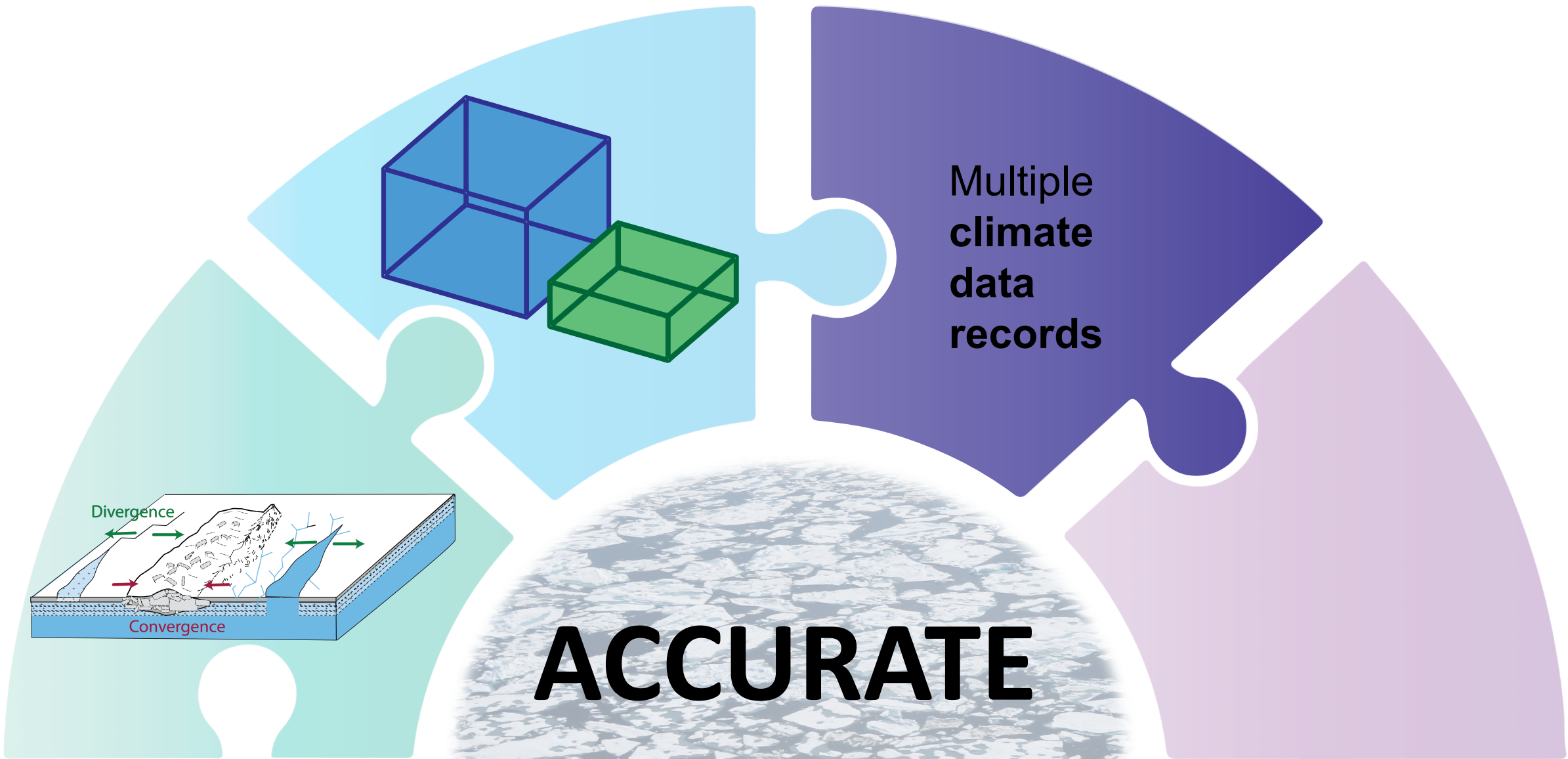
Thermodynamics

Thermodynamic and dynamic thickness change

Dynamics



Thermodynamics



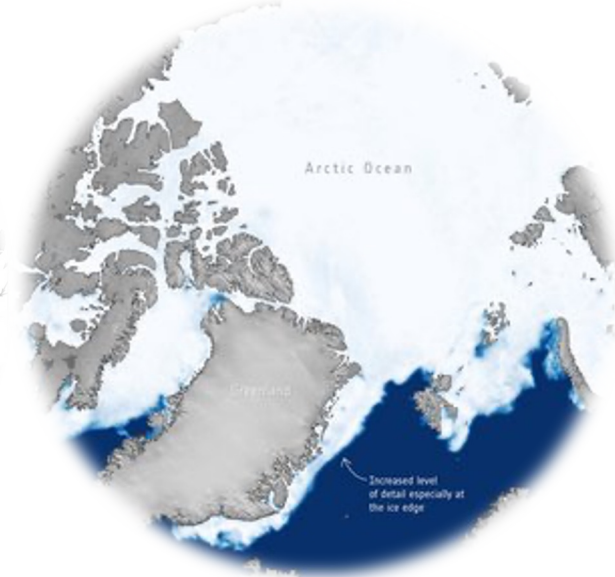
Climate data records of sea ice



Thickness



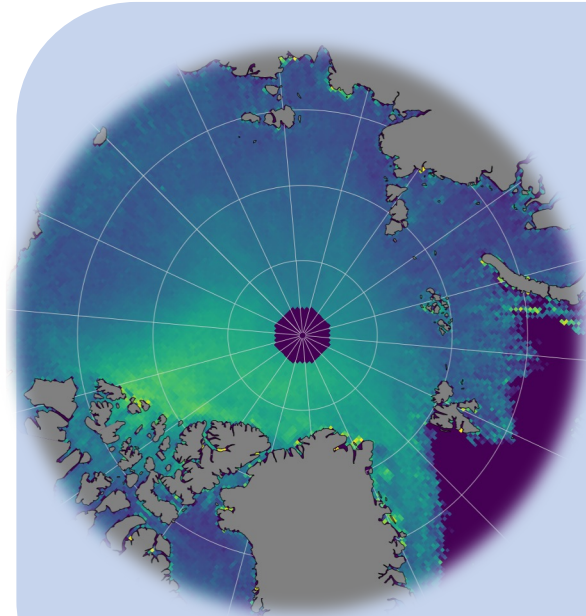
Drift



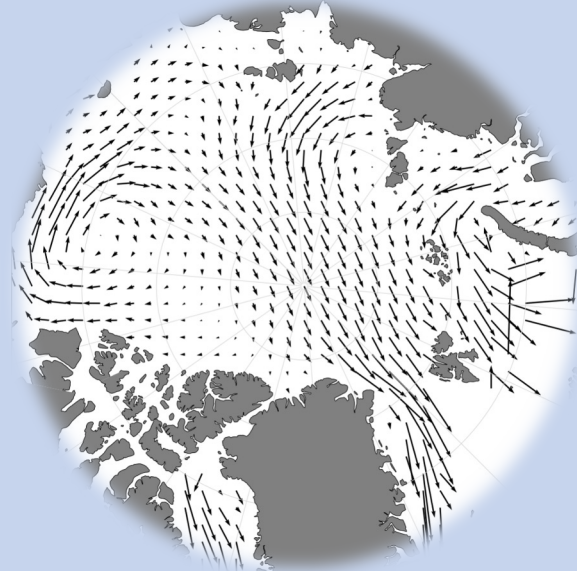
Concentration

ESA Climate Office

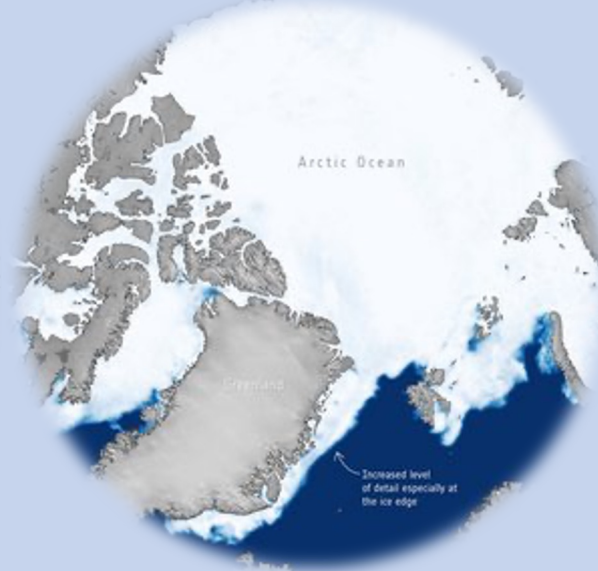
Climate data records of sea ice



Thickness



Drift

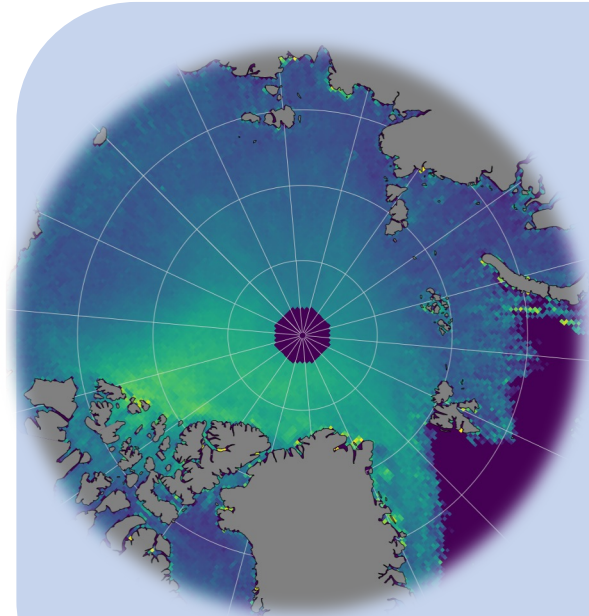


Concentration

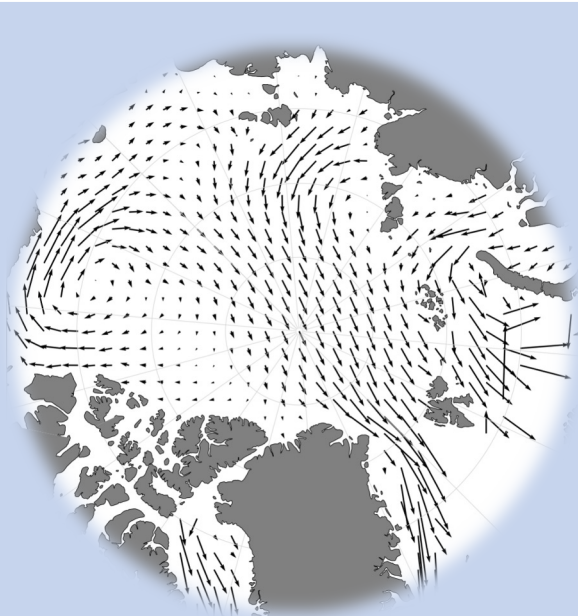


Drift-aware thickness

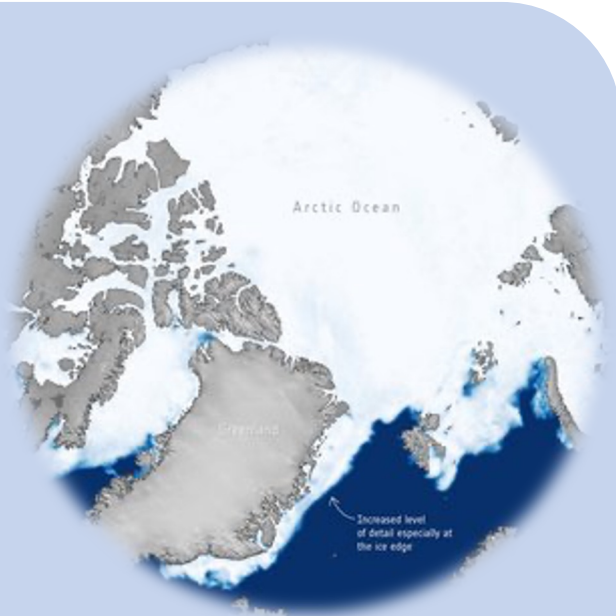
Climate data records of sea ice



Thickness



Drift



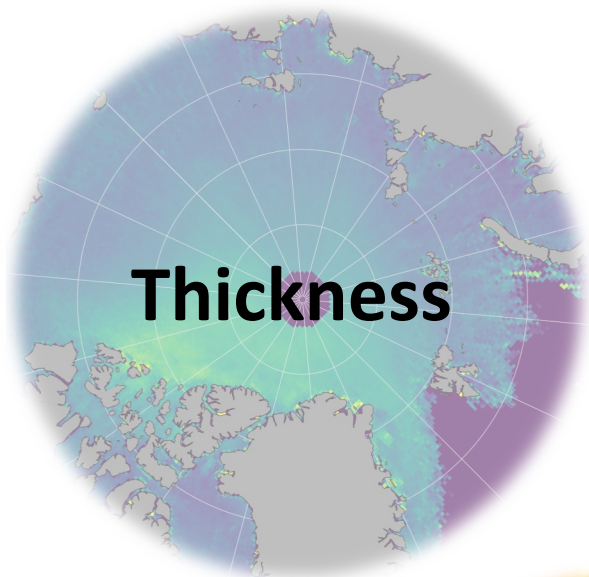
Concentration



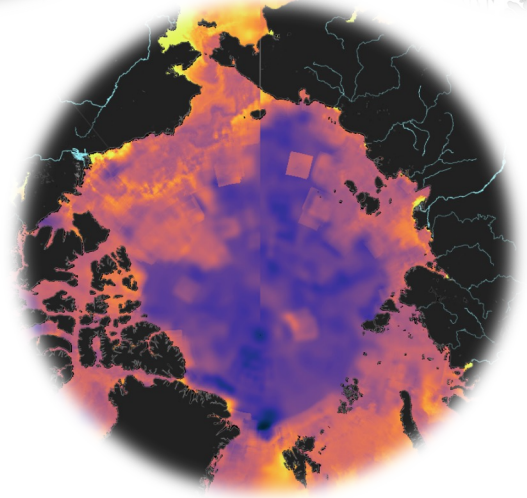
**Poster by
Robert Ricker**

Drift-aware thickness

Climate data records of sea ice



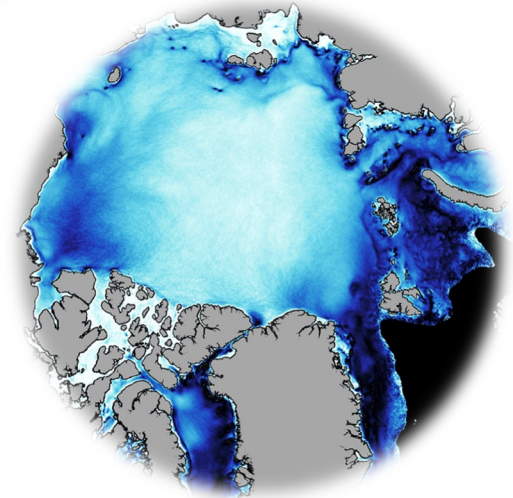
E.U. Copernicus Marine Service Information



Copernicus Climate Change Service



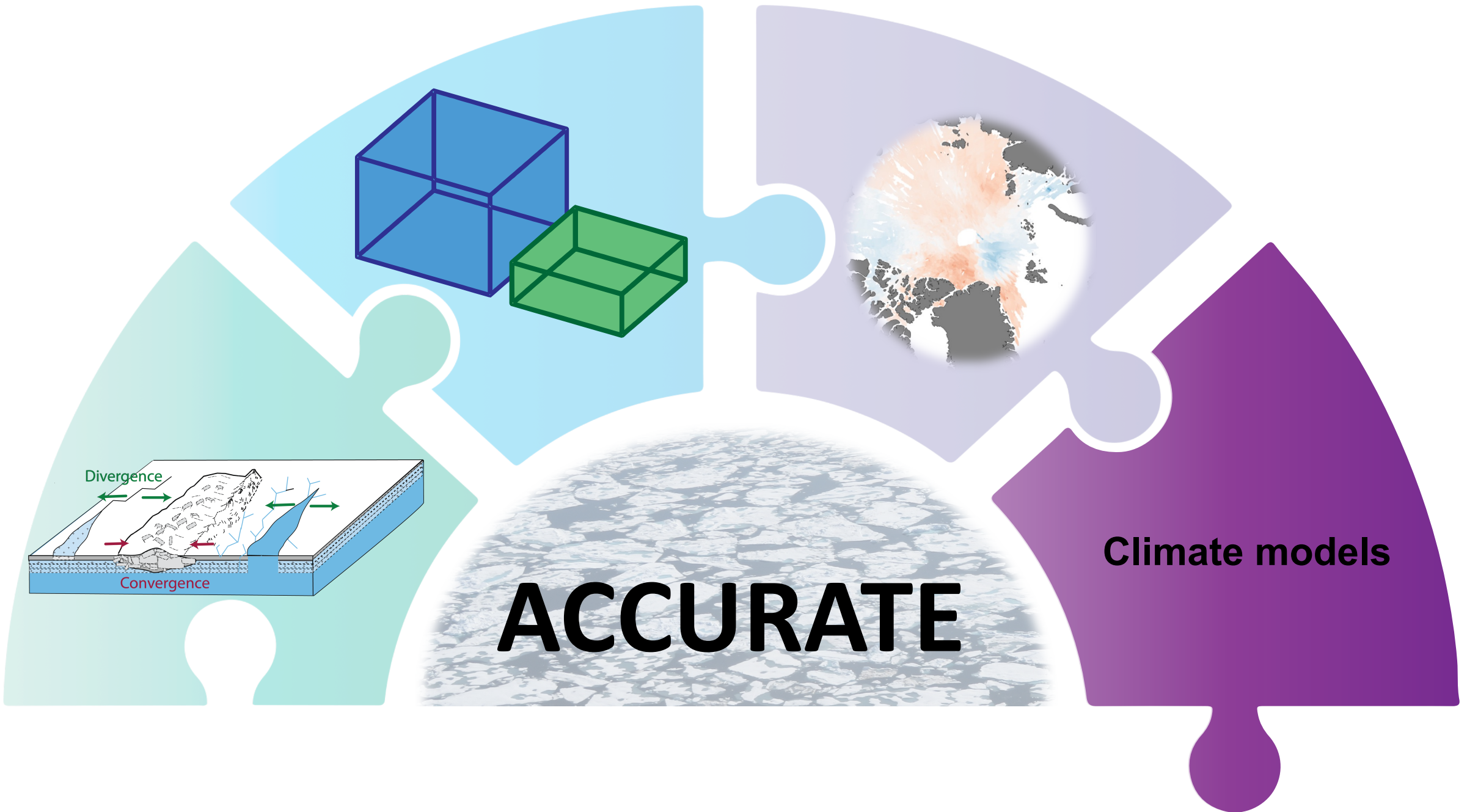
Willmes et al. 2023, TC



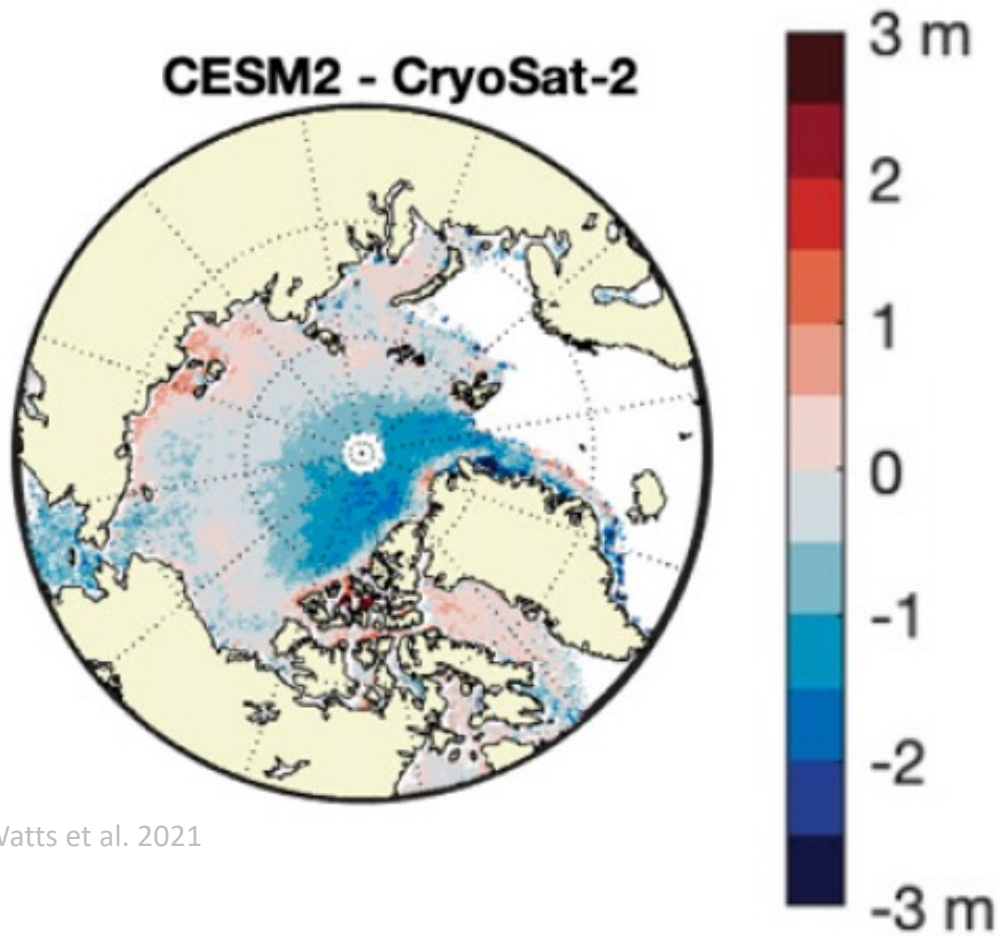
Surface temperature

Ice type

Leads

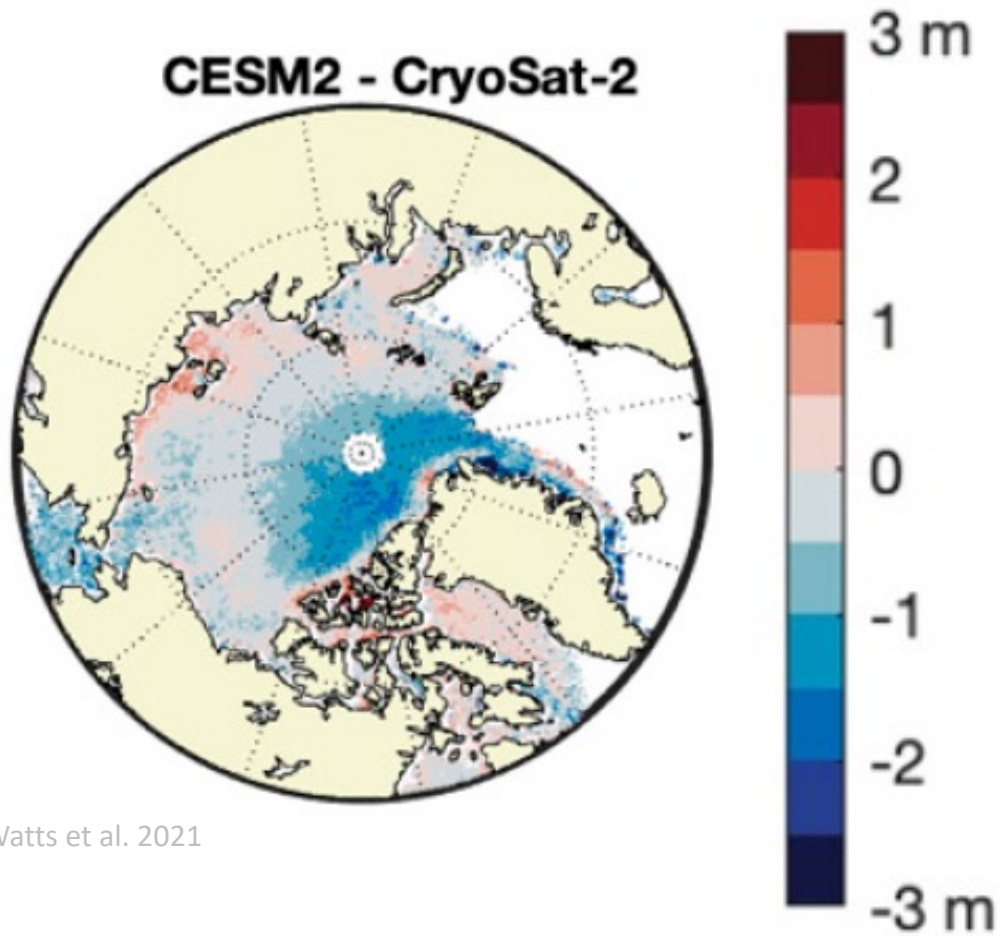


Sea ice mass budgets in a CMIP6 model

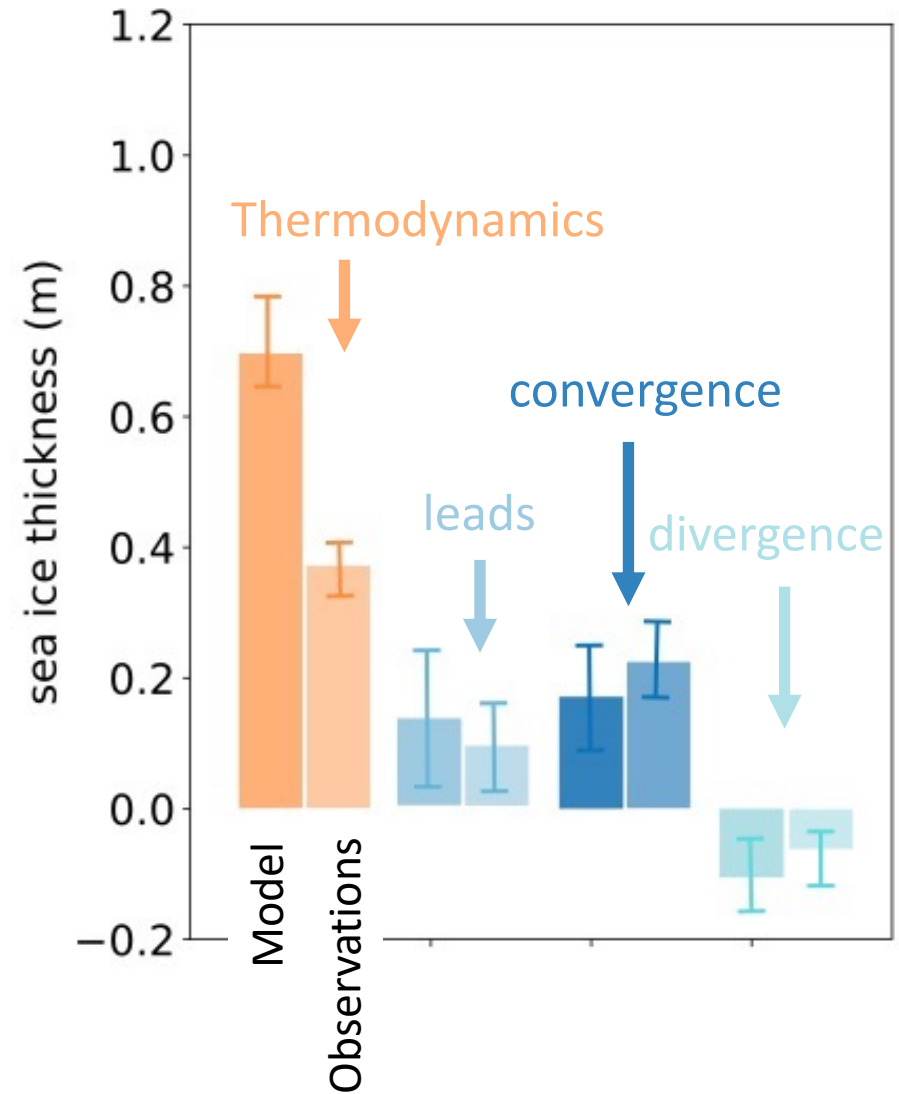


Watts et al. 2021

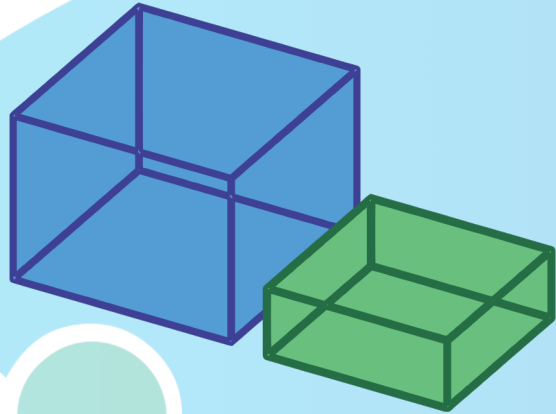
Sea ice mass budgets in a CMIP6 model



Watts et al. 2021



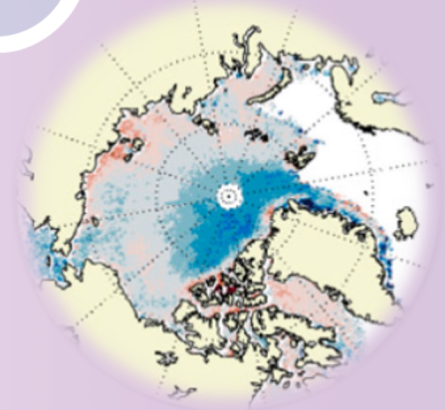
to **Arctic sea ice thickness change**



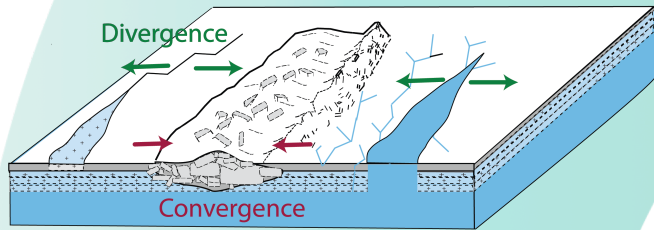
using multiple **climate data records**



and **climate models**



Unraveling the **thermodynamic** and **dynamic** contributions



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