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## [INADEC: Impacts of the North Atlantic Decadal variability on European Climate: mechanisms and predictability](#)

### Description

During the last century, the North Atlantic sea surface temperature exhibited super imposed long-term warming trend and multidecadal fluctuations. This multidecadal variability is referred to as the Atlantic Multidecadal Variability (AMV). The AMV has been pointed as the source of marked climate anomalies and associated human impacts over many areas of the globe. This includes droughts in Africa and North America, decline in sea-ice, changes of tropical cyclone activity in the Atlantic, as well as temperature and precipitation impacts over Europe. Decadal climate forecast systems are able to capture the historical evolution of the AMV. This is encouraging for the prospect of getting skillful decadal predictions over continents through the impacts of the AMV. However, to date decadal prediction systems show only limited prediction skill over Europe in terms of temperature and precipitation. A possible explanation for this paradoxical missing skill is that current decadal forecast systems are missing key mechanisms to correctly simulate the AMV-Europe teleconnections and their associated predictability. The main goal of INADEC is to better estimate and understand the teleconnections between the AMV and European climate in order to precisely determine their predictability.

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