



BLUE ACTION

Blue-Action Blue-Action: Arctic Impact on Weather and Climate

SCOPE

Faced with a changing climate, businesses, policymakers, and local communities need to access reliable weather and climate information to safeguard human health, wellbeing, economic growth, and environmental sustainability. However, important changes in climate variability and extreme weather events are difficult to pinpoint and account for in existing modelling and forecasting tools. Moreover, many changes in the global climate are linked to the Arctic, where climate change is occurring rapidly, making weather and climate prediction a considerable challenge.

In response, the EU Horizon 2020 Blue-Action project has brought together 120 experts from over 60 organisations to evaluate the impact of Arctic warming on the Northern Hemisphere and to develop new techniques to improve forecast accuracy at sub-seasonal to decadal scales.

Blue-Action aims to improve the safety and wellbeing of people in Arctic and across the Northern Hemisphere, to reduce the risks associated with Arctic operations and resource exploitation, and to support evidence-based decision-making by policymakers worldwide.

RESULTS AND EXPECTED IMPACTS

- Improved capacity to predict the weather and climate of the Northern Hemisphere, and to forecast extreme weather phenomena
- Improved capacity to respond and adapt to the impact of climatic change on the environment and human activities in the Arctic, both in the short and longer term
- Improved capacity of climate models to represent Arctic warming and its impact on regional and global atmospheric and oceanic circulation
- Improved uptake of measurements from satellites by making use of new Earth observation assets
- Optimisation of observation systems for various modelling applications
- As part of the H2020 Arctic cluster, contribute to a robust and reliable forecasting framework that can help meteorological and climate services to deliver better predictions, including at sub-seasonal and seasonal time scales
- Improved servicing of climate information to economic sectors that rely on improved forecasting capacity (e.g. shipping, mining)
- Active contributions to the Year of Polar Prediction (YOPP) and IPCC scientific assessments, and to the Copernicus Climate Change (C3S) services



- Improved professional skills and competences for those working and being trained to work within this subject area
- New climate-related innovation meeting the needs of European and global markets which enhance the competitiveness and growth of businesses
- Improved innovation capacity and integration of new knowledge across the academic, policy, business, and third sectors

Project details	
Budget	8 103 125 (7 500 000 EU Contribution)
Duration	1/12/2016 – 28/2/2021 (51 months)
Call	BG-10-2016
Type of Action	RIA
Website	www.blue-action.eu
Social media	@BG10Blueaction

Project Partners	Country	Project Partners	Country
Danmarks Meteorologiske Institut (Coordinator)	DK	Marine Scotland Science	UK
Arctic Centre of the University of Lapland	FI	National Center for Atmospheric Research (*)	US
Fondazione Centro Euro-Mediterraneo sui Cambiamenti Climatici	IT	Nansen Environmental and Remote Sensing Center	NO
Centre National de la Recherche Scientifique	FR	Royal Netherlands Institute for Sea Research	NL
Department of Atmospheric Sciences at Yonsei University /Climate Theory Lab	KR	Netherlands eScience Center	NL
DNV GL Norway	NO	Natural Environment Research Council, National Oceanography Centre	UK
Danish Pelagic Producers Organisation	DK	Pelagic Freezer-trawler Association	NL
Technical University of Denmark	DK	Rukakeskus Oy	FI
Foresight Intelligence GbR	DE	Scottish Association for Marine Science	UK



GEOMAR Helmholtz Centre for Ocean Research Kiel	DE	SAMS Research Services Ltd	UK
Faroe Marine Research Institute	FO	Universitaet Hamburg	DE
Institute of Atmospheric Physics of the Chinese Academy of Sciences (*)	CN	University of Bergen	NO
A.M. Obukhov Institute of Atmospheric Physics of Russian Academy of Sciences (*)	RU	Uni Research	NO
Institute For Advanced Sustainability Studies e.V.	DE	University of Southampton	UK
Institute of World Economy and International Relations (*)	RU	University of Washington - Applied Physics Laboratory (*)	US
Konsortium für die Deutsche Meeresforschung	DE	The University of Reading	UK
MEOPAR Incorporated (*)	CA	Woods Hole Oceanographic	US
MERCATOR OCEAN	FR	World Ocean Council	UK
Max Planck Gesellschaft zur Foerderung der Wissenschaften e.V.	DE	Fundacion Privada Instituto de Salud Global Barcelona	ES
Marine Research Institute	IS	Climate-KIC ApS	DK

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