

 Content archived on 2024-06-18



# Arctic Tipping Points

## Fact Sheet

### Project Information

#### ATP

Grant agreement ID: 226248

Project closed

#### Start date

1 February 2009

#### End date

31 January 2012

#### Funded under

Specific Programme "Cooperation": Environment  
(including Climate Change)

#### Total cost

€ 6 545 776,09

#### EU contribution

€ 4 998 098,10

#### Coordinated by

UNIVERSITETET I TROMSOE -  
NORGES ARKTISKE  
UNIVERSITET

 Norway

## Objective

The broad interdisciplinary consortia assembled in the Arctic Tipping Points (ATP) project will be managed (WP1) to identify the elements of the Arctic marine ecosystem likely to show abrupt changes in response to climate change, and establish the levels of the corresponding climate drivers inducing the regime shift for these tipping elements. ATP will evaluate the consequences of crossing those tipping points, and the associated risks and opportunities for economic activities dependent on the Arctic marine ecosystem. Historical records of Arctic climate change and projections of future changes in Arctic sea climate and ice systems are compiled

(WP2), and time series of Arctic ecosystem components analysed using novel statistical tools to detect regime shifts and ecological thresholds and tipping points, and evaluate their sensitivity to climatic forcing (WP3). Experimental manipulations and comparative analyses across broad climatic ranges will be used to detect climatic thresholds and tipping points of Arctic organisms and ecosystems, using genome-wide analyses to develop genomic markers of climate-driven stress useful as early-warning indicators of the proximity of tipping points (WP4). A biological-physical coupled 3 D model will be used to generate future trajectories of Arctic ecosystems under projected climate change scenarios and to identify their consequences for the Arctic ecosystem (WP5). The impacts of abrupt changes in the Arctic ecosystems for activities of strategic importance for the European Arctic and the associated impacts on employment and income will be elucidated, and policies and legislative frameworks to adapt and mitigate these impacts will be analysed (WP 6). The effectiveness of possible alternative, post-Kyoto policies and stabilization targets in avoiding climate-driven thresholds in the Arctic ecosystem will be examined, and the results and projections will be conveyed to policy makers, economic sectors and the public in general (WP7).

## Fields of science (EuroSciVoc)

[natural sciences](#) > [earth and related environmental sciences](#) > [atmospheric sciences](#) > [climatology](#) > [climatic zones](#)

[natural sciences](#) > [biological sciences](#) > [ecology](#) > [ecosystems](#)

[social sciences](#) > [economics and business](#) > [business and management](#) > [employment](#)

[natural sciences](#) > [earth and related environmental sciences](#) > [atmospheric sciences](#) > [climatology](#) > [climatic changes](#)



## Keywords

[Arctic marine ecosystems](#)

[Climate change](#)

[EU policy integrated management](#)

[early-warning indicators](#)

[ecological thresholds](#)

[regime shifts](#)

[socio-economic impacts](#)

[time series](#)

## Programme(s)

## Topic(s)

[ENV.2008.1.1.5.2. - Climate change impacts and Thresholds on Arctic Ocean ecosystems](#)

## Call for proposal

FP7-ENV-2008-1

[See other projects for this call](#)

## Funding Scheme

[CP-IP - Large-scale integrating project](#)

## Coordinator



**UNIVERSITETET I TROMSOE - NORGES ARKTISKE UNIVERSITET**

EU contribution

€ 1 620 947,30

Total cost

**No data**

Address

**HANSINE HANSENS VEG 14**

**9019 Tromso**

 **Norway** 

Activity type

**Higher or Secondary Education Establishments**

Links

[Contact the organisation](#)  [Website](#) 

[Participation in EU R&I programmes](#) 

[HORIZON collaboration network](#) 

## Participants (12)



## AGENCIA ESTATAL CONSEJO SUPERIOR DE INVESTIGACIONES CIENTIFICAS

Spain

EU contribution

€ 950 212,49

Address

**CALLE SERRANO 117**

**28006 Madrid**

Region

**Comunidad de Madrid > Comunidad de Madrid > Madrid**

Activity type

**Research Organisations**

Links

[Contact the organisation](#) [Website](#)

[Participation in EU R&I programmes](#)

[HORIZON collaboration network](#)

Total cost

**No data**



## AKVAPLAN NIVA AS

Norway

EU contribution

€ 304 696,80

Address

**HJALMAR JOHANSENG 14**

**9007 Troms**

Activity type

**Research Organisations**

Links

[Contact the organisation](#) [Website](#)

[Participation in EU R&I programmes](#)

[HORIZON collaboration network](#)

Total cost

**No data**



## SINTEF FISKERI OG HAVBRUK AS

 Norway

EU contribution

**€ 250 000,00**

Address

**Brattørkaia 17B**

**7465 TRONDHEIM** 

Activity type

**Research Organisations**

Links

[Contact the organisation](#)  [Website](#) 

[Participation in EU R&I programmes](#) 

[HORIZON collaboration network](#) 

Total cost

**No data**



## AARHUS UNIVERSITET

 Denmark

EU contribution

**€ 674 966,86**

Address

**NORDRE RINGGADE 1**

**8000 Aarhus C** 

Region

**Danmark > Midtjylland > Østjylland**

Activity type

**Higher or Secondary Education Establishments**

Links

[Contact the organisation](#)  [Website](#) 

[Participation in EU R&I programmes](#) 

[HORIZON collaboration network](#) 

Total cost

**No data**



## INSTYTUT OCEANOLOGII POLSKIEJ AKADEMII NAUK

 Poland

EU contribution

**€ 300 000,00**

Address

**UL. POWSTANCOW WARSZAWY 55**

**81 712 Sopot** 

Region

**Makroregion północny > Pomorskie > Trójmiejski**

Activity type

**Other**

Links

[Contact the organisation](#)  [Website](#) 

[Participation in EU R&I programmes](#) 

[HORIZON collaboration network](#) 

Total cost

**No data**



## THE CHANCELLOR MASTERS AND SCHOLARS OF THE UNIVERSITY OF CAMBRIDGE

 United Kingdom

EU contribution

**€ 99 610,20**

Address

**TRINITY LANE THE OLD SCHOOLS**

**CB2 1TN Cambridge** 

Activity type

**Higher or Secondary Education Establishments**

Links

[Contact the organisation](#)  [Website](#) 

[Participation in EU R&I programmes](#) 

[HORIZON collaboration network](#) 

Total cost

No data

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## UNIVERSITE PIERRE ET MARIE CURIE - PARIS 6

 France

EU contribution

€ 100 000,00

Address

**Place Jussieu 4**

**75252 PARIS** 

Activity type

**Higher or Secondary Education Establishments**

Links

[Contact the organisation](#)  [Website](#) 

[Participation in EU R&I programmes](#) 

[HORIZON collaboration network](#) 

Total cost

**No data**

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## CENTRO DE CIENCIAS DO MAR DO ALGARVE

 Portugal

EU contribution

€ 198 404,85

Address

**UNIVERSIDADE DO ALGARVE**

**8005-139 FARO** 

Region

**Continente > Algarve > Algarve**

Activity type

**Research Organisations**

Links

[Contact the organisation](#) 

[Participation in EU R&I programmes](#) 

[HORIZON collaboration network](#) 

Total cost

No data

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## P.P. SHIRSHOV INSTITUTE OF OCEANOLOGY OF RUSSIAN ACADEMY OF SCIENCES

 Russia

EU contribution

€ 99 360,00

Address

**NAKHIMOVSKY PROSPECT 36**

**117997 MOSKVA** 

Activity type

**Research Organisations**

Links

[Contact the organisation](#)  [Website](#) 

[Participation in EU R&I programmes](#) 

[HORIZON collaboration network](#) 

Total cost

**No data**

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## GRONLANDS NATURINSTITUT

 Greenland

EU contribution

€ 99 900,00

Address

**Kivioq 2**

**3900 Nuuk** 

Activity type

**Research Organisations**

Links

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[Participation in EU R&I programmes](#) 

[HORIZON collaboration network](#) 

Total cost

**No data**





## KUNGL. VETENSKAPSAKADEMIEN KVA

 Sweden

EU contribution

€ 200 000,00

Address

LILLA FRESCATIVAGEN 4A

104 05 Stockholm 

Region

Östra Sverige > Stockholm > Stockholms län

Activity type

**Research Organisations**

Links

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[Participation in EU R&I programmes](#) 

[HORIZON collaboration network](#) 

Total cost

**No data**



## MAX-PLANCK-GESELLSCHAFT ZUR FORDERUNG DER WISSENSCHAFTEN EV

 Germany

EU contribution

€ 99 999,60

Address

HOFGARTENSTRASSE 8

80539 Munchen 

Region

Bayern > Oberbayern > München, Kreisfreie Stadt

Activity type

**Research Organisations**

Links

[Contact the organisation](#)  [Website](#) 

[Participation in EU R&I programmes](#) 

[HORIZON collaboration network](#) 

Total cost

No data

**Last update:** 1 August 2019

**Permalink:** <https://cordis.europa.eu/project/id/226248>

European Union, 2025

