## Climate change and thawing permafrost Environmental and socioeconomic impacts and adaptation and mitigation strategies H2020-BG-2017







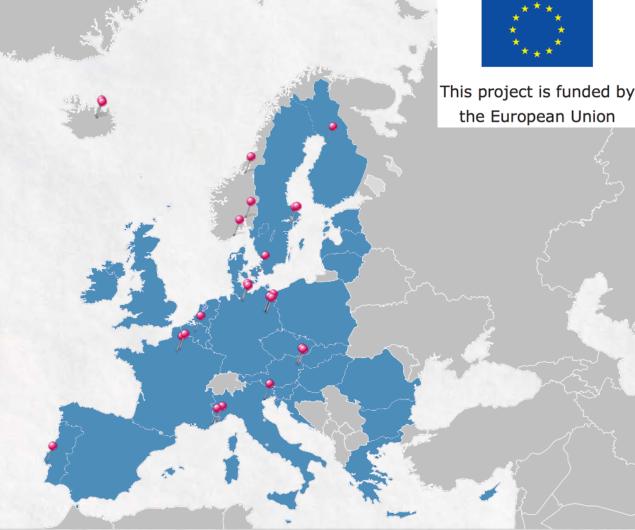


Physical science activity
Terrestial, Subsea and
Coastal Permafrost &
Coastal Waters

Social science activity
Health and Pollution
Coastal Infrastructure
Natural resources,
economy and coastal
community planning

Integration activity
Modelling
Adaptation and
Mitigation

Ethics CBPR Indigenous advisory board







The main goal of Nunataryuk is to determine the impacts of thawing permafrost on the global climate and on humans in the Arctic and to develop targeted and co-designed adaptation and mitigation strategies.

- Assess the <u>vulnerability</u> of coastal and subsea permafrost systems
- Determine the contribution of greenhouse gases relased from organic matter along Arctic coasts
- Determine the impact of permafrost thaw on the health of Arcic coastal communities
- Assess <u>risks</u> to local infrastructure, as well as the state of local societies, economies and cultures



The Nunataryuk focal areas and the Nunataryuk sites (blue dots)

Nunataryuk "land-to-sea" in Inuvialuktun, the traditional language spoken by the Inuvialuit in the western Canadian Arctic.





## WP 5 - Health and Pollution

## D5.1 Map on the state of human health in the Arctic coastal communities

- Abass K, et al. Temporal trends of contaminants in Arctic human populations. Environmental Science Pollution Research (2018) 25:28834-28850.
- Waits A, et al. Human infectious diseases and the changing climate in the Arctic. Environment International 121 (2018) 703-713.
- Waits A et al., Review and meta-analysis of infectious diseases in wild-life animals and fish, in process.
- D5.2 Risk assessment of pollutants found in permafrost
- D5.3 Modelling of antrax
- D5.4 Mental health aspects, good quality of life
- D5.5 Risks of permafrost thaw for human health







Main focus of the articles (n= 72) divided by country published 1970-2017, n= 43 articles (Waits et al. 2018) n= 29 from a previous study (Hedlund et al. 2014). "Other" represent articles that include more than 1 country.

PubMed, ScienceDirect, Scopus, and PLOS One (no date restrictions were used)
The largest Russian domestic database, the Scientific Electronic Library "eLibrary.ru"

Waits et al. Environment International 121 (2018) 703-713.; Hedlund et al. Global Health Action 2014;7:24161





