

SubCoast

A collaborative project aimed at developing a GMES-service for monitoring and forecasting subsidence hazards in coastal areas around Europe

WITH SEA LEVELS RISING, MORE ACCURATE SUBSIDENCE ESTIMATES NEEDED FOR COASTAL LOWLANDS

Whilst amongst the most economically productive areas worldwide densely populated and home to important harbours and industries, the geographic position and geological setting also makes coastal lowlands particularly vulnerable to flooding. In short, they sink and this process, known as subsidence takes place at a rate comparable to that of anticipated sea level rise. Natural compaction of soft soil deposits, settlement of infrastructure and subsidence due to fluid extraction all contribute to this development and inflict huge financial costs.

The objective of SubCoast will be to develop a GMES-service for monitoring the extent and impact of subsidence in coastal lowlands, and demonstrate its capability in a variety of settings around Europe. The service will be designed to appropriately determine the effects of subsidence on current and future floodrisk in coastal lowlands. SubCoast will monitor the integrity of coastal bar-

rier systems and infrastructure, and assess the impact of subsidence due to natural or man-made causes such as groundwater pumping and oil/gas production on land use and hydrology.

For a number of selected areas SubCoast will bring satellite-derived subsidence estimates together with ground based geodetic measurements, geological data, geotechnical data and sea level measurements into a coherent framework. A distributed data and information system will be set up facilitating the accessibility and operability of Earth Observation-data, in-situ data (including geoscientific data) and model results for the selected areas. This system will facilitate the integration of tools and services allowing end-users to query, view and access products and data.



CHRIS BREMMER
IS PROJECT COORDINATOR

QUESTIONS & ANSWERS

What do you want to achieve with this project?

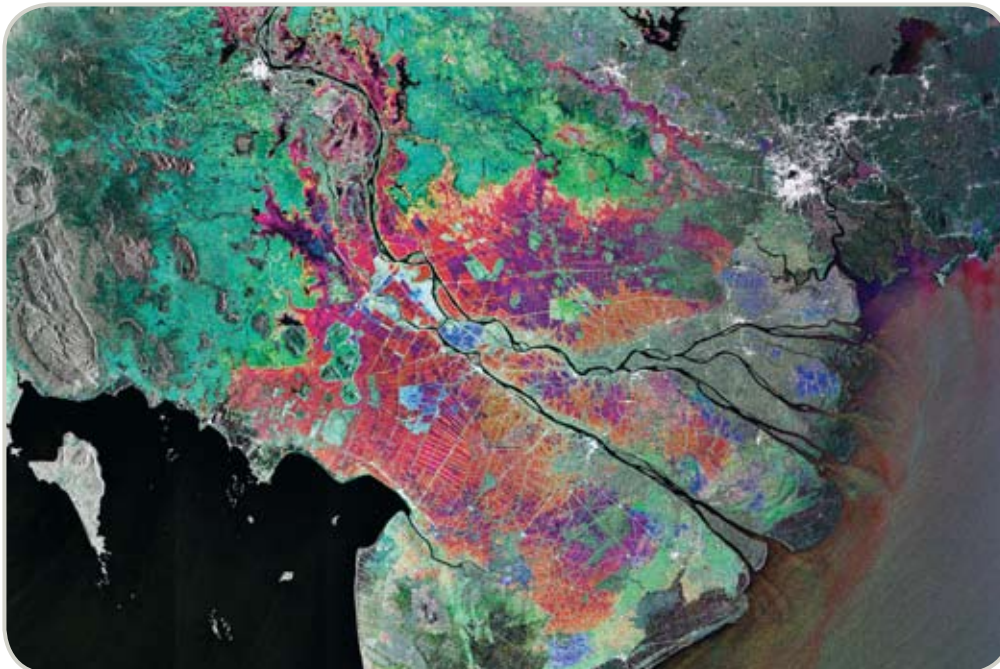
SubCoast's goal is to set up a sustainable GMES-service which brings the necessary data on subsidence hazards in coastal lowland areas to industrial stakeholders, government and citizens in order to contribute to a secure and sustainable future.

Why is this project important for Europe?

Coastal lowlands are among the economic most viable and at the same time most affected by climate change. Subsidence seriously aggravates this. By delivering data and information on subsidence, SubCoast will support Europe to properly adapt to the consequences of climate change.

How does your work benefit European citizens?

In light of climate change, Europe needs to adapt in a timely and effective way. SubCoast will deliver data and information which will help doing so, thus contributing to a safe and sustainable Europe for its citizens.



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LIST OF PARTNERS

- Natural Environment Research Council, United Kingdom
- Fugro NPA LTD, United Kingdom
- Hansje Brinker, Netherlands
- Tele-Rilevamento Europa, Italy
- Delft University of Technology, Netherlands
- The Geological Survey of Denmark and Greenland, Denmark
- Panstwowy Instytut Geologiczny, Poland
- Lietuvos Geologijos Tarnyba, Lithuania
- Consorci Institut de Geomàtica, Spain
- Stichting Deltares, Netherlands
- Alma Mater Studiorum – Universita di Bologna, Italy

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Netherlands Organisation for Applied Scientific Research – TNO, Netherlands

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PROJECT INFORMATION

A collaborative project aimed at developing a GMES-service for monitoring and forecasting subsidence hazards in costal areas around Europe (SubCoast)
Contract no: 242332
Duration: 36 months
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Estimated total cost: € 4.084.013,20

