



HAL
open science

DEFHY3GEO French Regional project Detection and Study of Fracturing by HYdrological, GEOMorphodynamic, geological and geophysical approach

Thomas Junique, Georges Sadaka, Cyrille Fauchard, Raphaël Antoine, Olivier Maquaire, Stéphane Costa, Antoine Tonnoir

► To cite this version:

Thomas Junique, Georges Sadaka, Cyrille Fauchard, Raphaël Antoine, Olivier Maquaire, et al.. DEFHY3GEO French Regional project Detection and Study of Fracturing by HYdrological, GEOMorphodynamic, geological and geophysical approach. Polder2C's Conference, Mar 2024, Anvers, Belgium. hal-04394357

HAL Id: hal-04394357

<https://hal.univ-reims.fr/hal-04394357>

Submitted on 15 Jan 2024

HAL is a multi-disciplinary open access archive for the deposit and dissemination of scientific research documents, whether they are published or not. The documents may come from teaching and research institutions in France or abroad, or from public or private research centers.

L'archive ouverte pluridisciplinaire **HAL**, est destinée au dépôt et à la diffusion de documents scientifiques de niveau recherche, publiés ou non, émanant des établissements d'enseignement et de recherche français ou étrangers, des laboratoires publics ou privés.

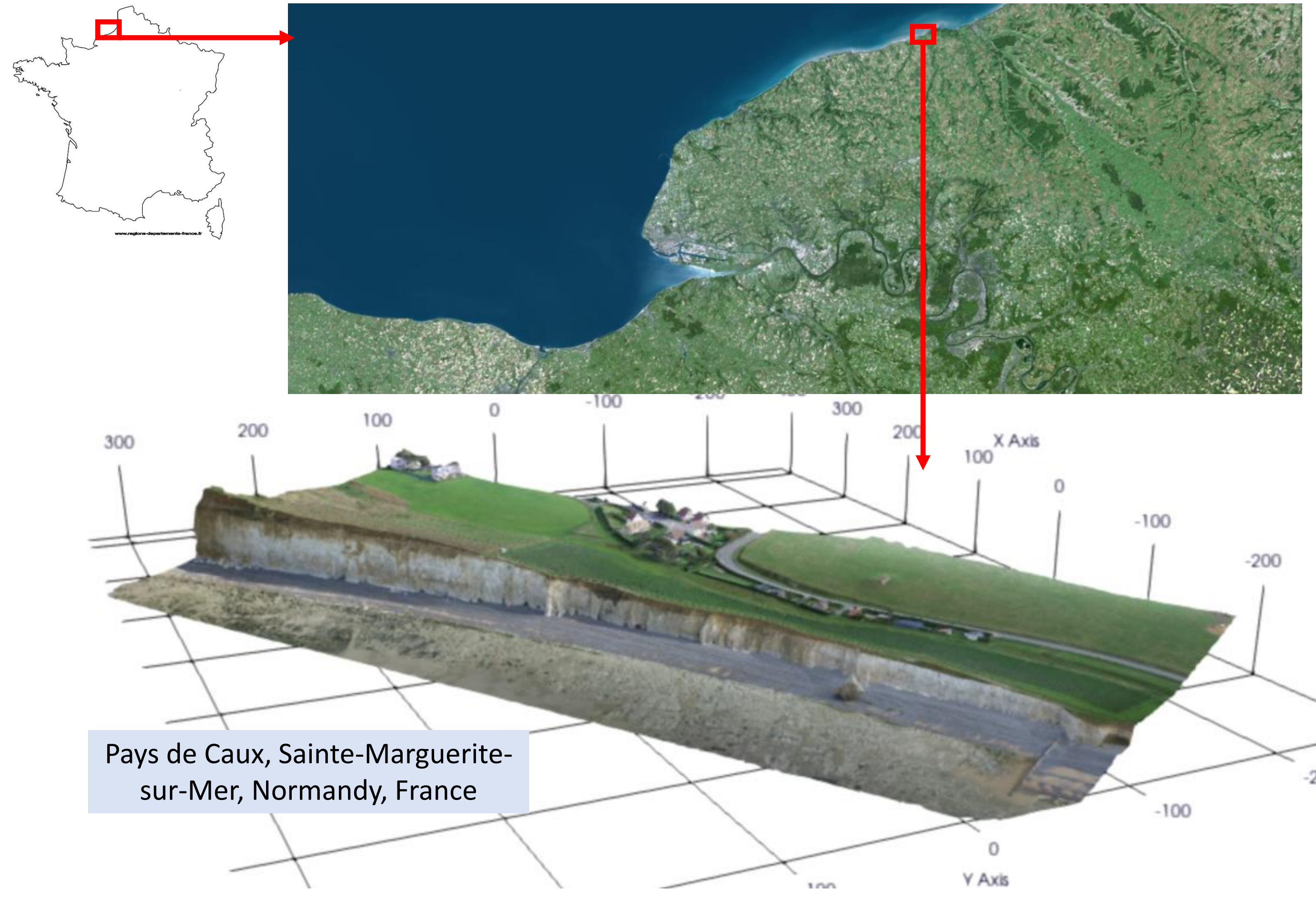
DEFHY3GEO French Regional project

Detection and Study of Fracturing by HYdrological, GEOMorphodynamic, geological and geophysical approach

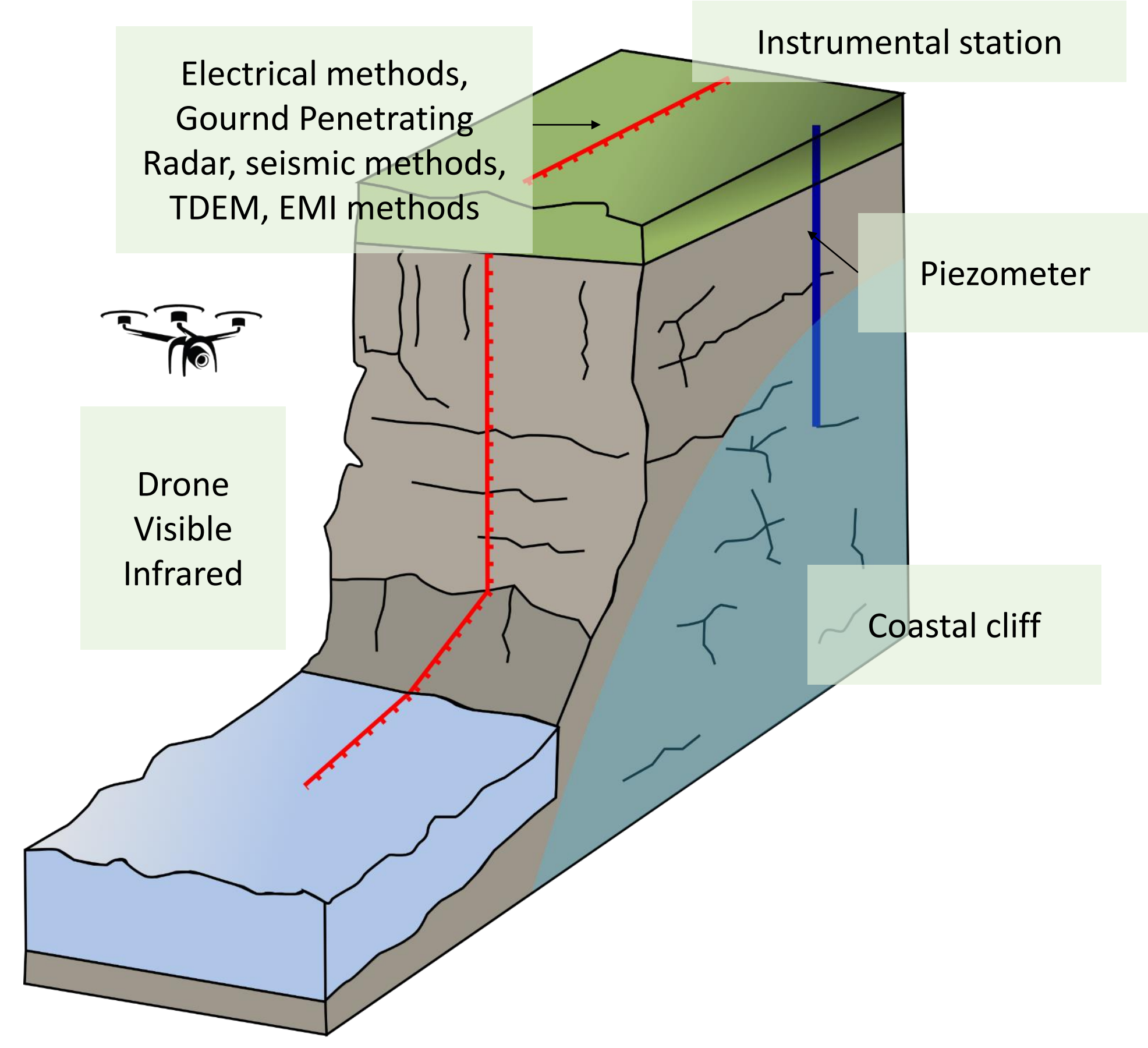


Thomas Junique, Georges Sadaka, Cyrille Fauchard, Raphaël Antoine, *ENDSUM Research Team, Cerema, France*
Olivier Maquaire, Stéphane Costa, *IDEES, UMR 6266, Caen University*
Antoine Tonnoir, *Laboratoire de Mathématiques, INSA of Rouen Normandy*

Chalk cliffs of Sainte-Marguerite-sur-Mer



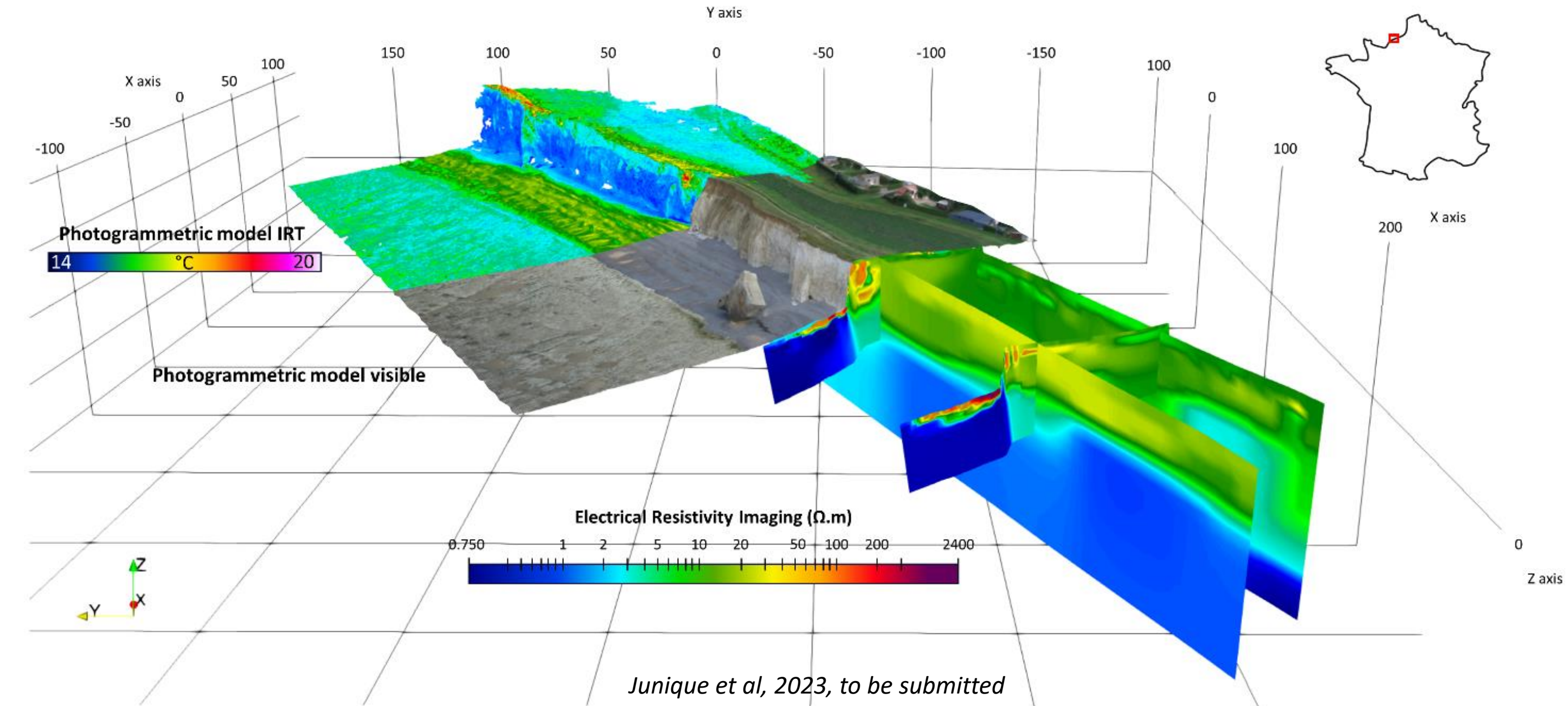
Cracks in chalk cliffs => accelerated erosion
Aim of the project = Monitoring/studying the cliffs with various approaches and techniques



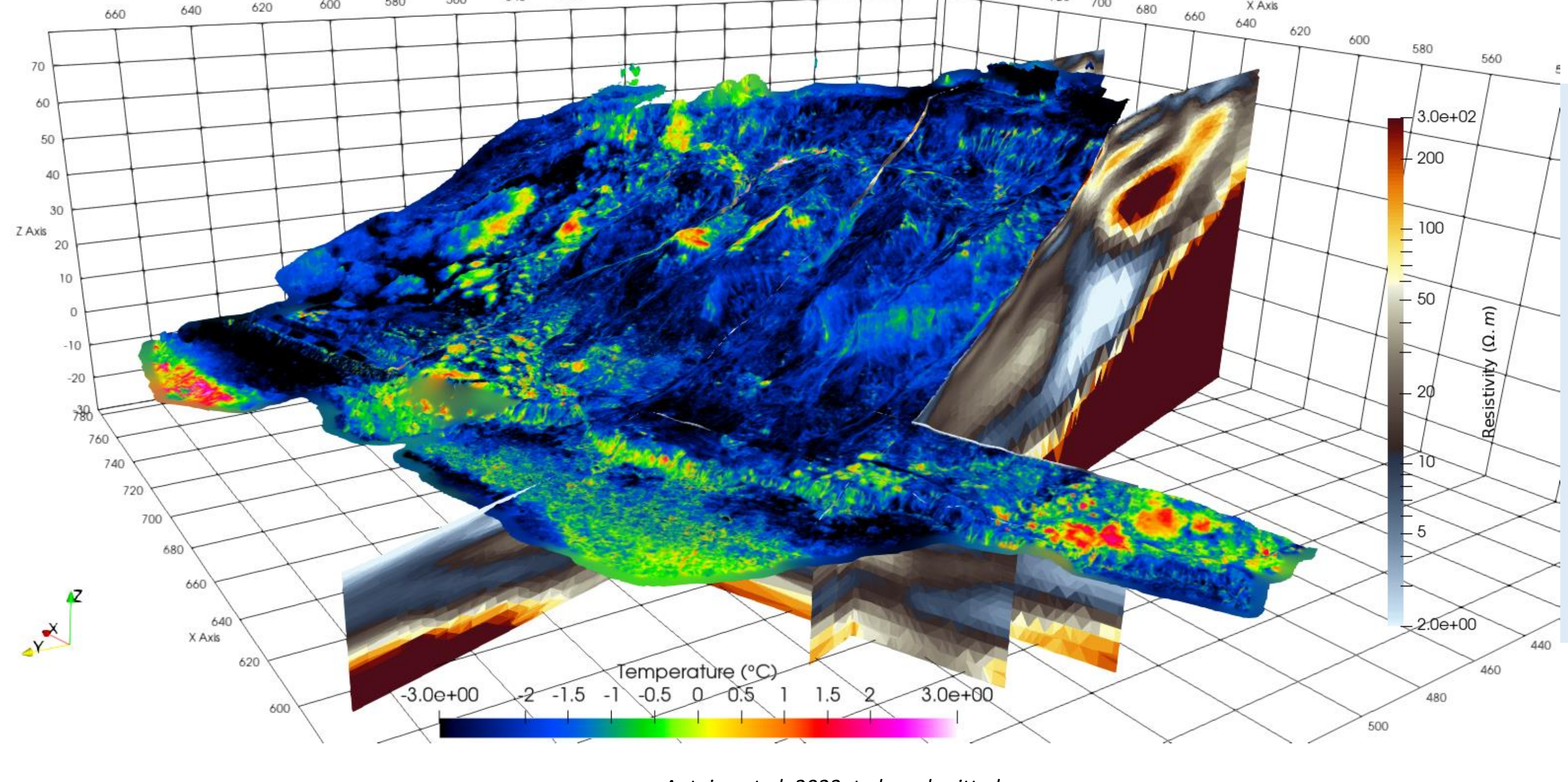
In situ measurements



Some current results



New combined results in 3D: IRT and ERT



Perspectives

Full 3D inversion of ERT
Correlation with seismic, EMI and TDEM data
Hydrodynamic modelisation of cracked cliffs
Study of potential salt wedge, accelerating erosion