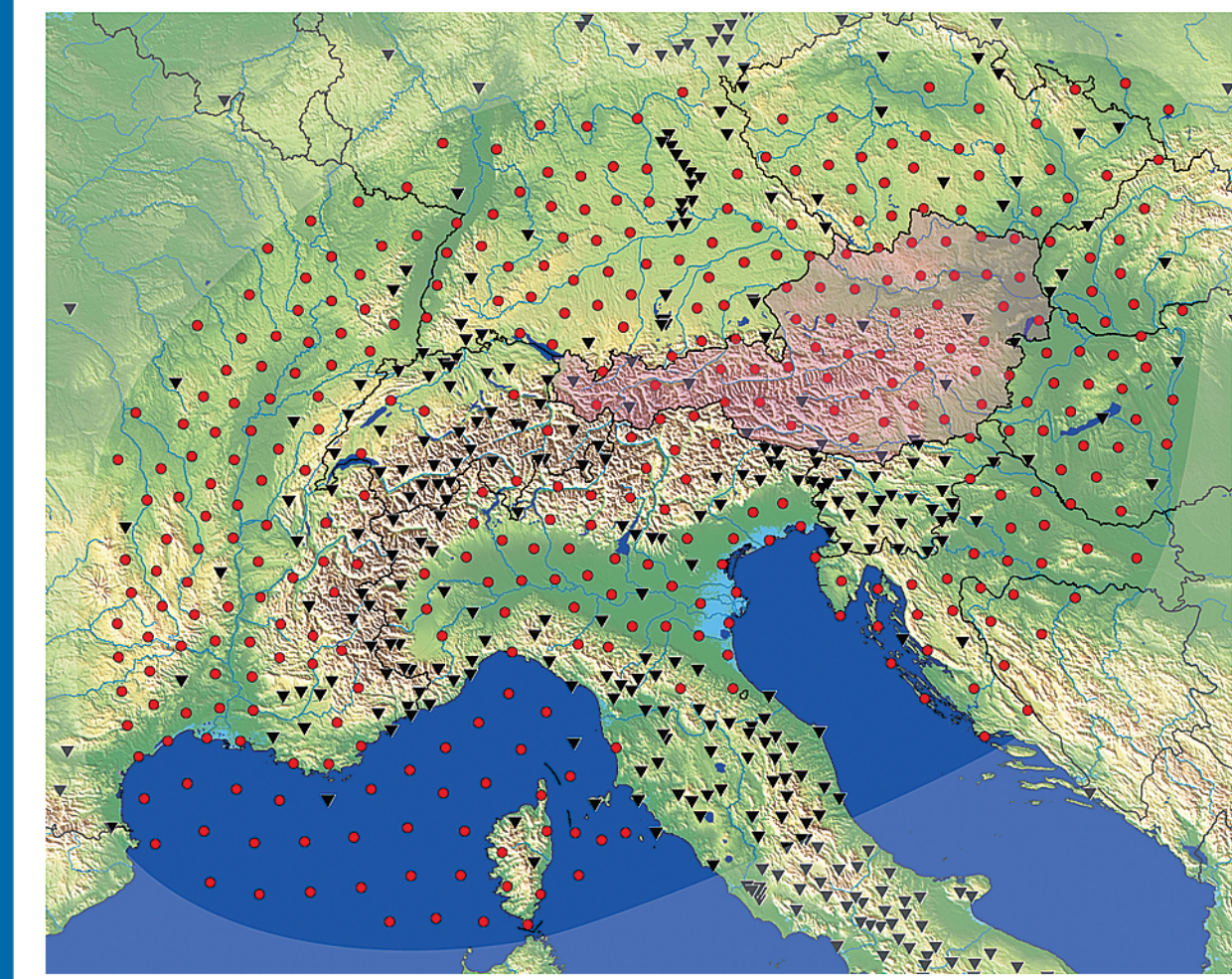


Florian Fuchs | Götz Bokelmann | Irene Bianchi | Maria-Theresia Apoloner | Petr Kolínský | AlpArray Working Group

## AlpArray project

AlpArray Austria is a research project to study the geodynamics of the Eastern Alps and the subsurface of Austria with a large-scale mobile broadband seismological network. AlpArray Austria is part of the AlpArray project – a unique European transnational research initiative in which 64 research institutes from 17 countries join their expertise to advance our knowledge about the structure and evolution of the lithosphere beneath the entire Alpine area.

AlpArray Austria is coordinated by the Department of Meteorology and Geophysics (IMGW) at the University of Vienna and funded by the Austrian Science Fund (FWF).



The AlpArray network: ● temporary ▲ permanent

## AlpArray Austria facts

➤ **42 temporary broadband** stations operated by **IMGW**

➤ **12 permanent** stations operated by **ZAMG**

➤ **2 new permanent** stations planned by **ZAMG**

40 km average station spacing

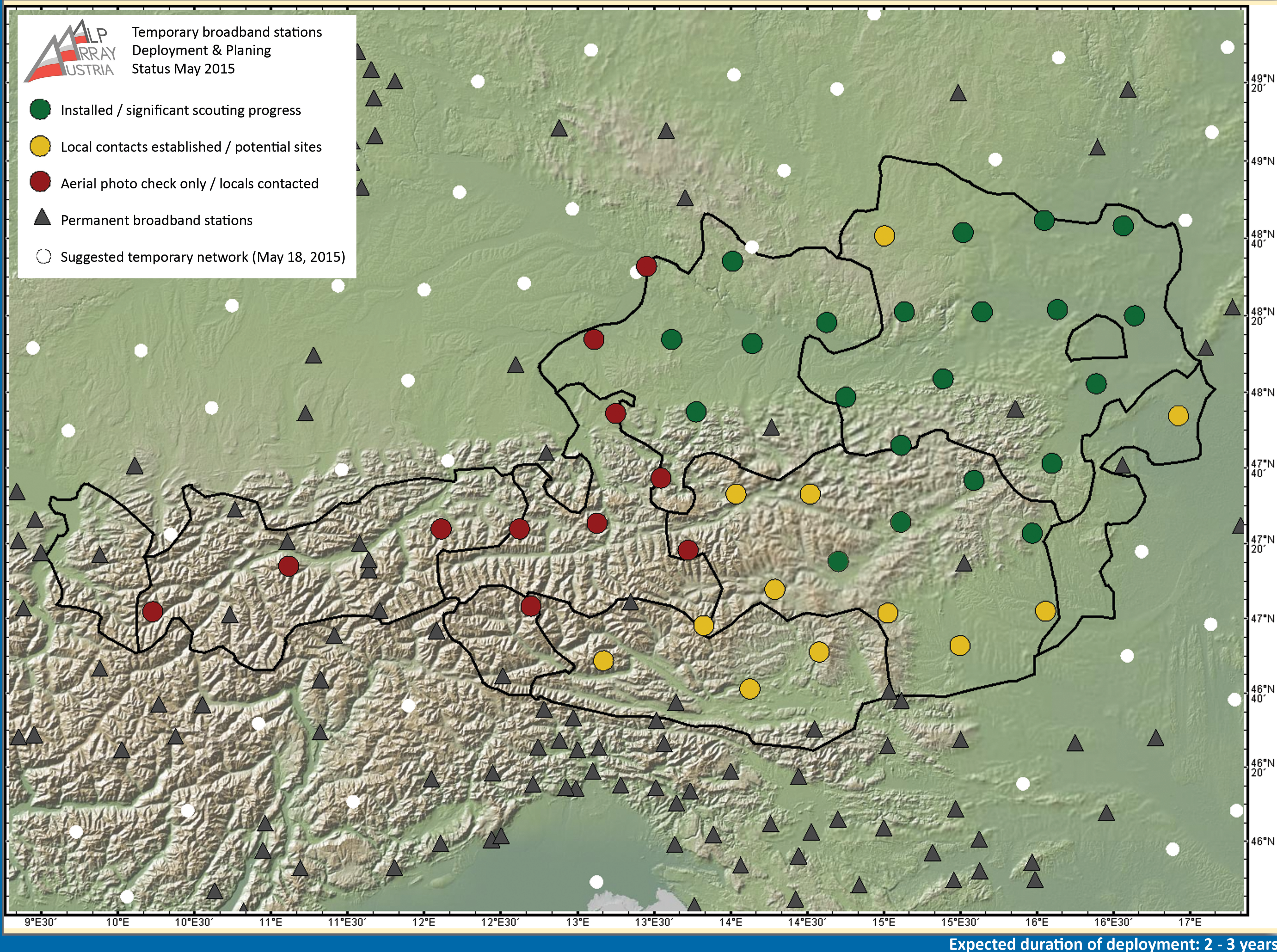
## Scientific goals

AlpArray Austria will shed light on the detailed geological structure and geodynamical evolution of the Eastern Alps and the subsurface of Austria. Utilizing seismic analysis methods such as shear wave splitting, receiver functions and body wave dispersion the AlpArray Austria working group at IMGW will, together with the international partners, focus on seismic anisotropy in the upper mantle, the location of interfaces and tomography, to answer outstanding questions on slab geometry and subduction polarity under the Eastern Alps.

While the primary scope of AlpArray Austria is fundamental research the unique dataset will also improve our knowledge about near-surface geologic structures and help to assess the seismic hazard in Austria.

## AlpArray Austria seismic network

Status of deployment End of May 2015 (expected completion by end of 2015)



## Instrumentation

The temporary network will be equipped with

**27 instruments from IMGW**

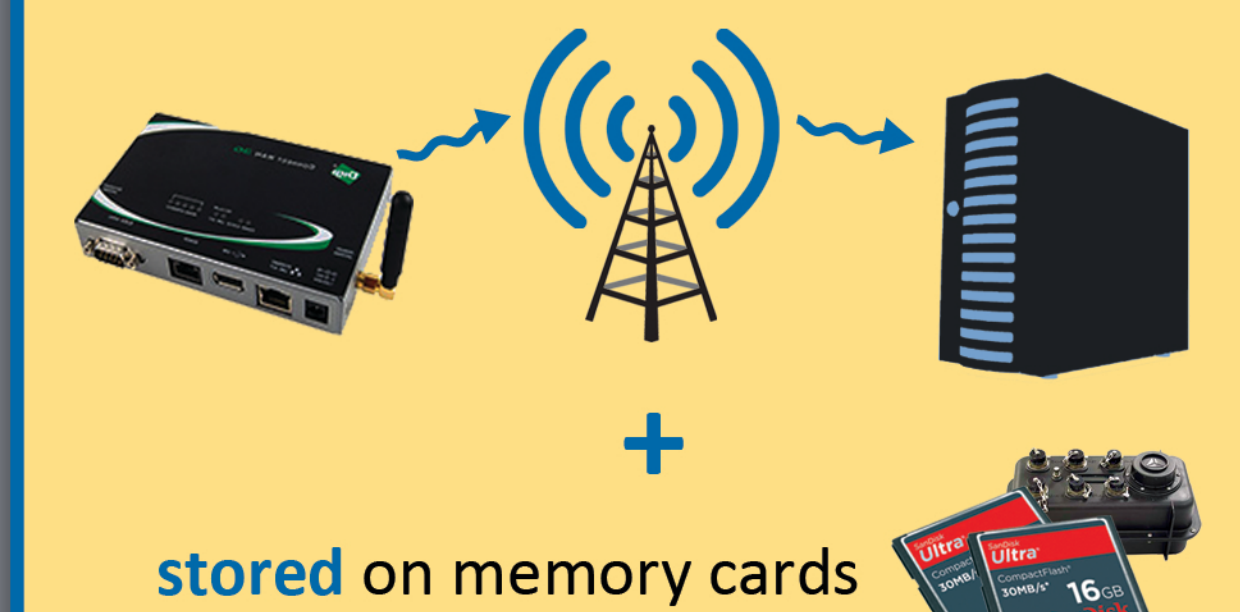
**Reftek 130** + **Reftek 151**  
data logger + 60s sensor

**15 instruments from DIAS**  
(Dublin Institute for Advanced Studies)

**Taurus** + **Trillium 120**  
data logger + 120s sensor

## Data acquisition

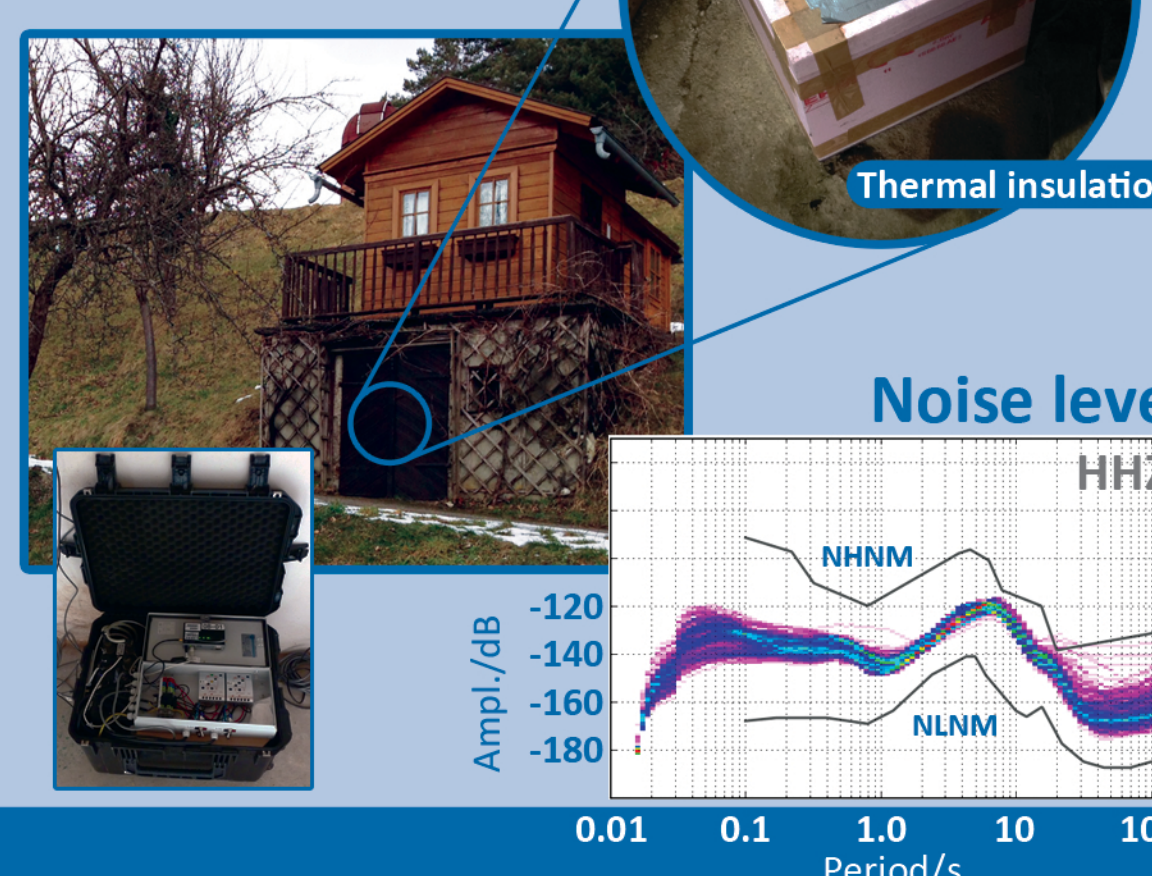
Live data transmitted via **cellular network**



data will be distributed through **ORFEUS / EIDA**

## Installation

Typical installation inside  
**basements, unused  
huts or wine cellars**



Sample events  
recorded at this station

## Abbreviations

**DIAS** = Dublin Institute for Advanced Studies | Geophysics Section | Dublin, Ireland

**IMGW** = Department of Meteorology & Geophysics | University of Vienna | Vienna, Austria

**ZAMG** = Zentralanstalt für Meteorologie & Geodynamik | Federal Ministry of Science, Research and Economy | Vienna, Austria

