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Geodynamic and tectonic framework of the Northern Adriatic: a tool to interpret offshore CGPS data

Ministero dello Sviluppo Economico
DGS-UNMIG
CLYPEA INNOVATION NETWORK FOR FUTURE ENERGY
OMC 2019 27-29 March 2019 RAVENNA ITALY
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OFFSHORE MEDITERRANEAN CONFERENCE & EXHIBITION

SAPIENZA
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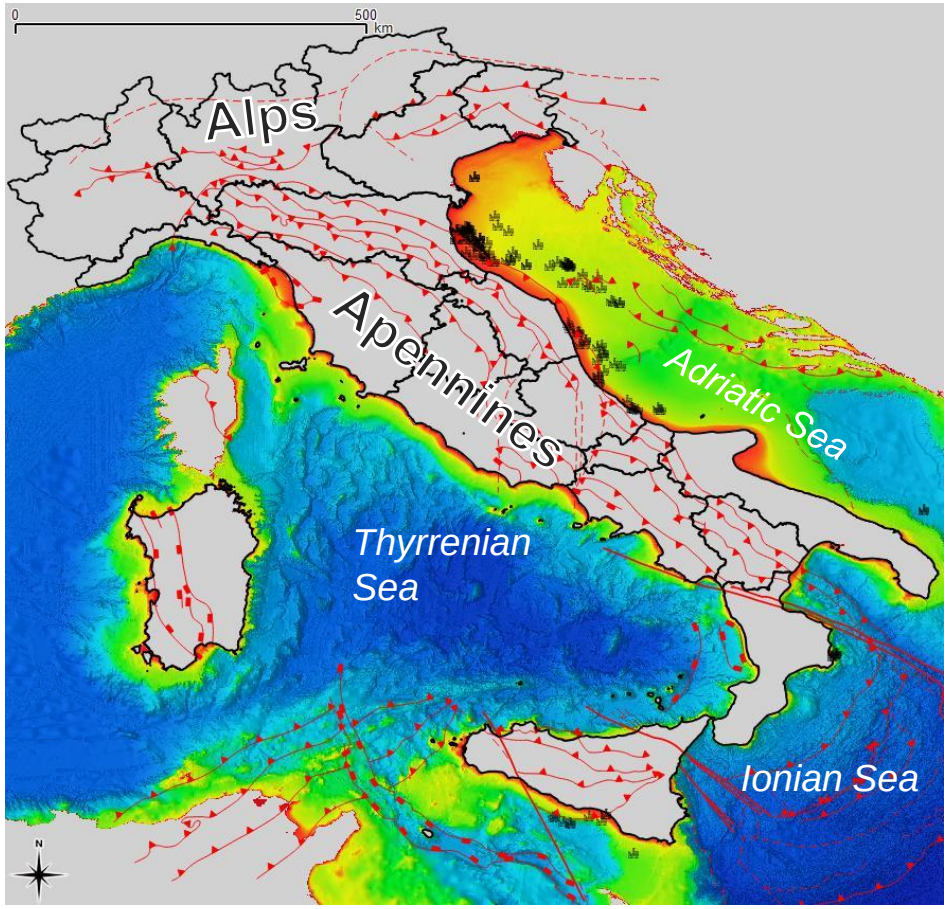
DGS-UNMIG and GeoSapienza Agreement

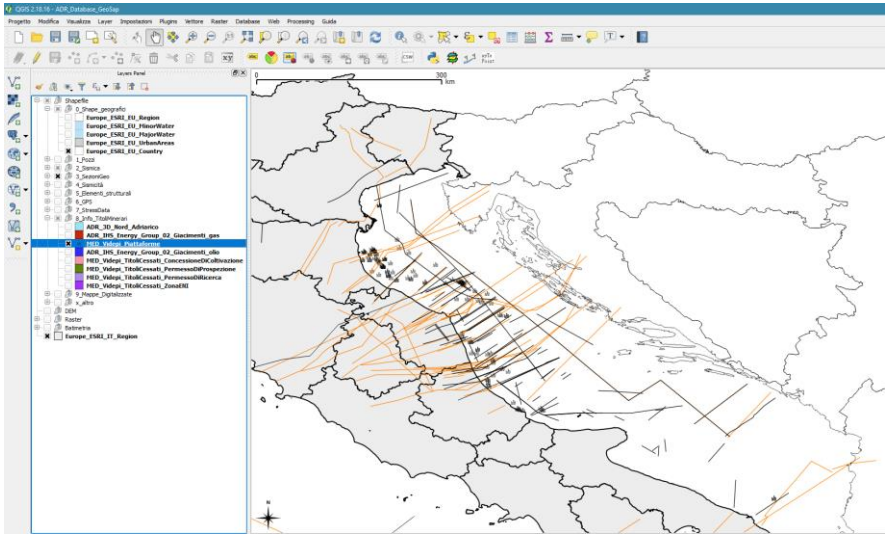
Geodynamics and natural hazards in the Italian offshore

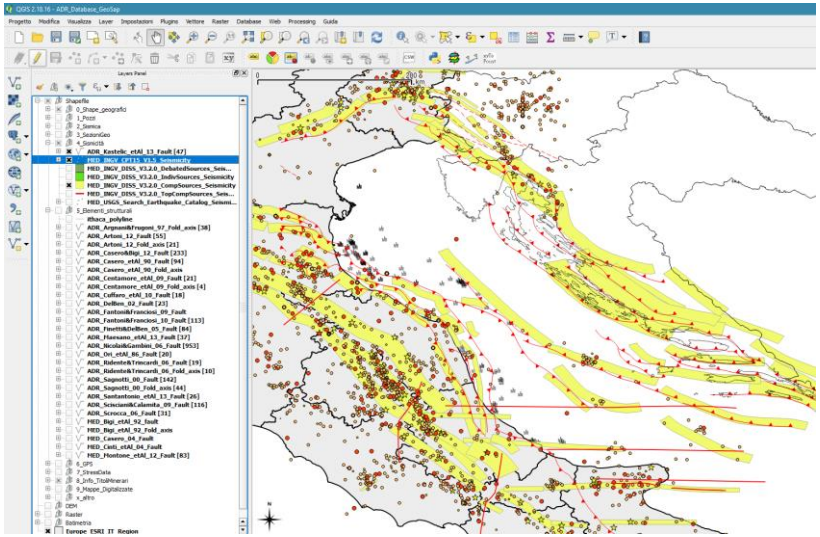


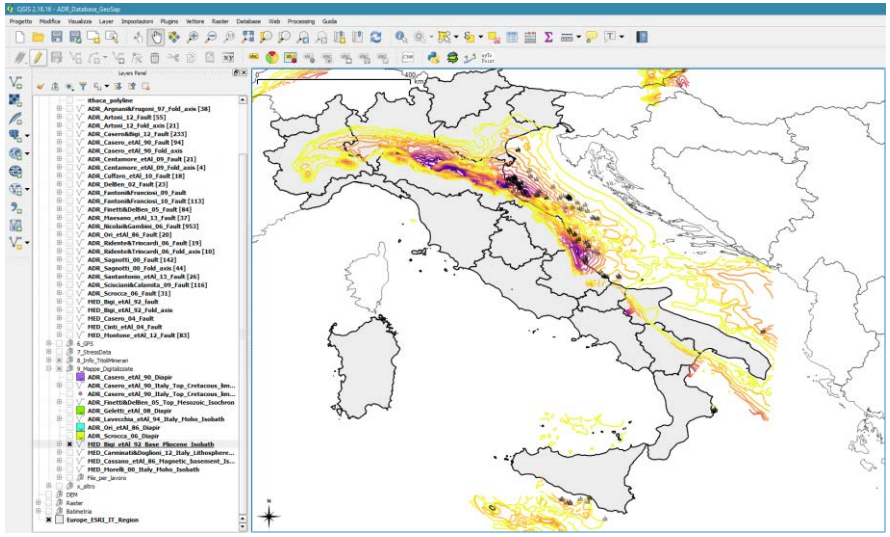
Aims of the project:

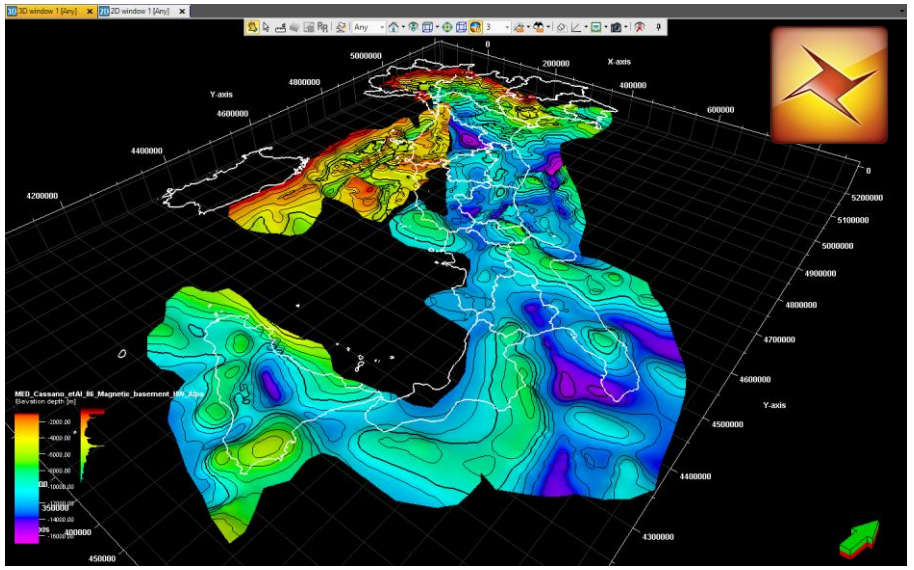
1. Definition of the geodynamic framework and tectonic setting of the Italian offshore;
2. Detailed studies on selected regions to better define the tectonic setting where CGPS stations are located. Define the natural strain rate, the natural subsidence or uplift, and the tectonic horizontal movements;
3. Organization and management of a database in a Geographic information system and in a 3D environment with all public geological and geophysical data.

Database in 2D and in 3D environment









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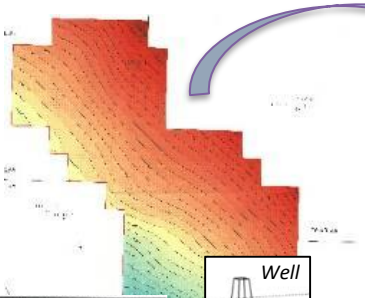
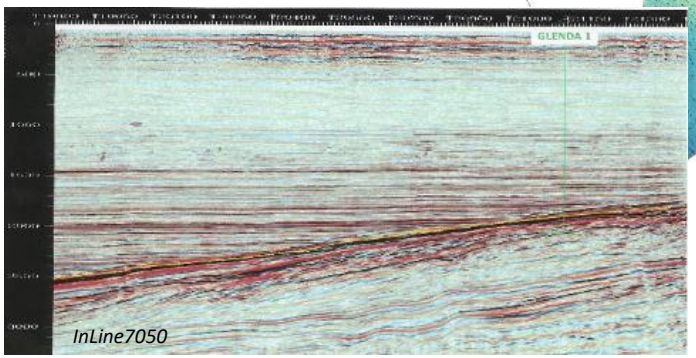
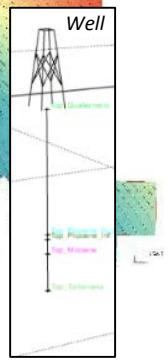
Geodynamic and tectonic framework of the Northern Adriatic

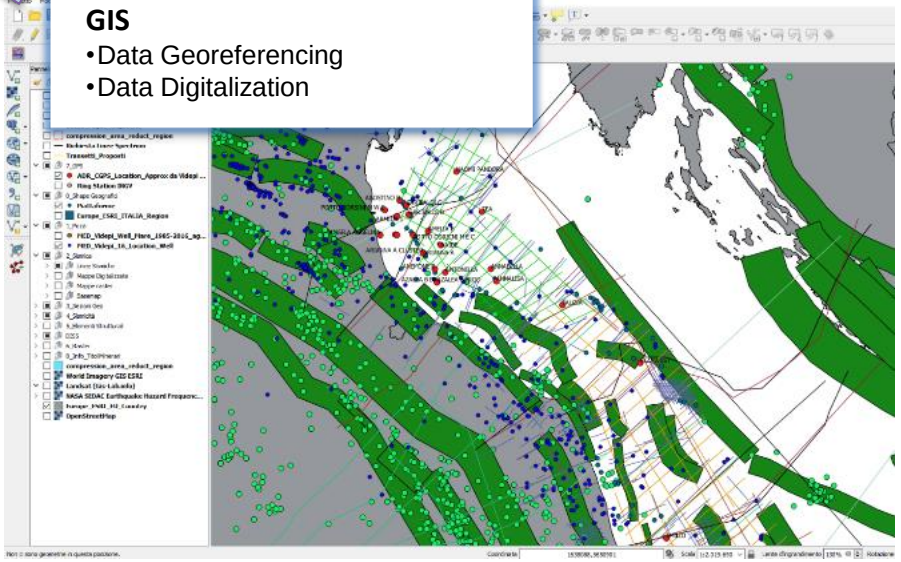
Data:
- Well Data
- Seismic-reflection profiles
- Subsurface geological maps
- Geological profiles



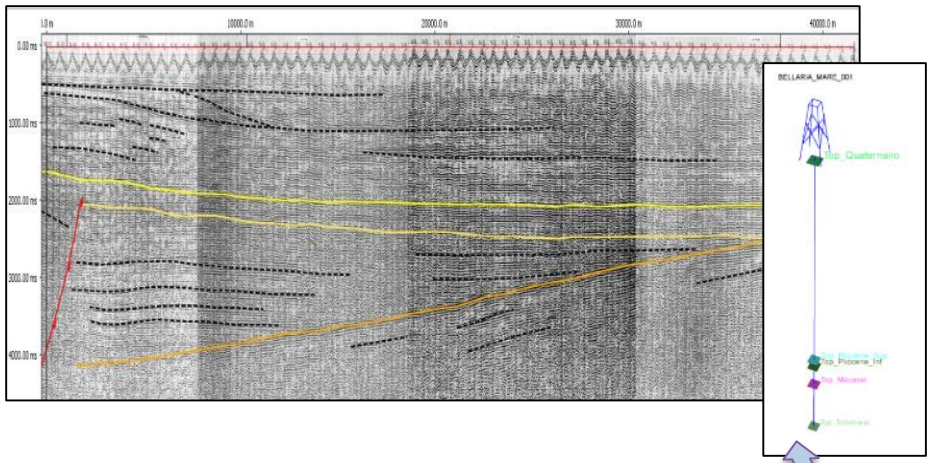




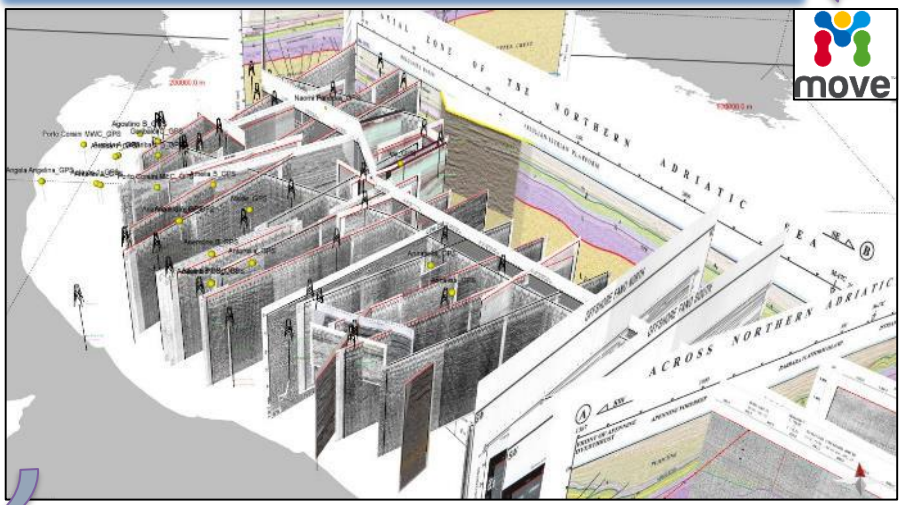
GIS
- Data Georeferencing
- Data Digitalization



- **Well Data analysis and ties(stratigraphy and T/D chart)**
- **Seismic interpretation**
- **Definition of the structural setting of the study area**

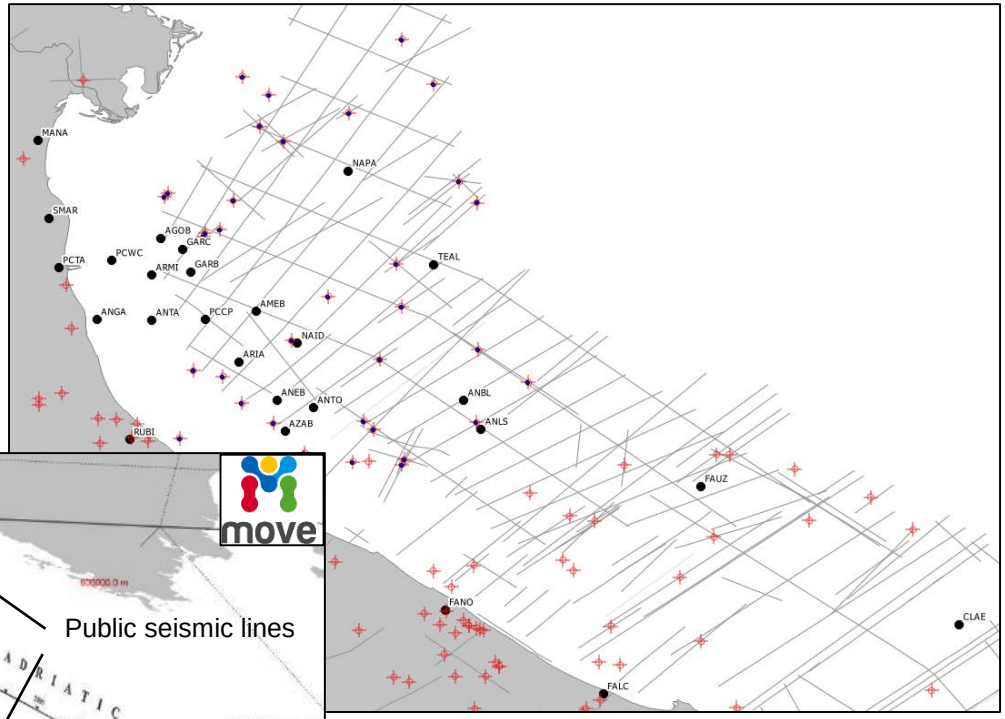


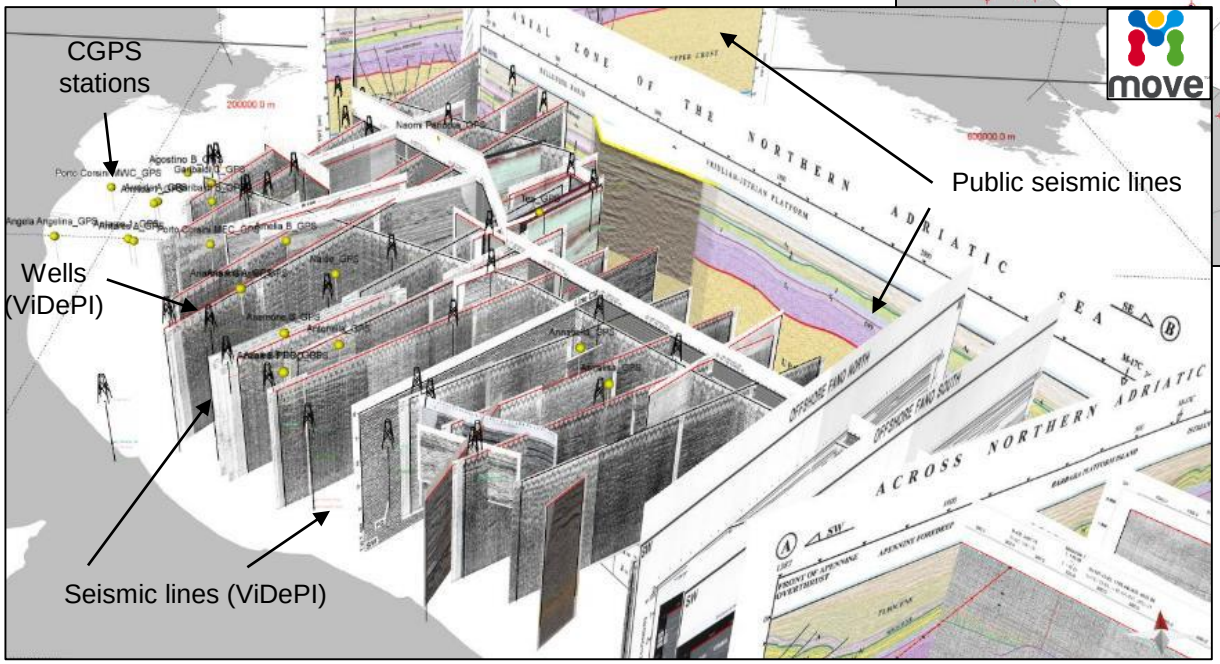
3-D:
- Data import in a 3-D environment (MOVE software)
- Isochrone maps modeling



DATA

- 88 seismic-reflection profiles
- 35 wells (13 of which with velocity data)
- Several structural maps in time domain
- CGPS stations (source ENI SpA)





2D and 3D view of the data collected

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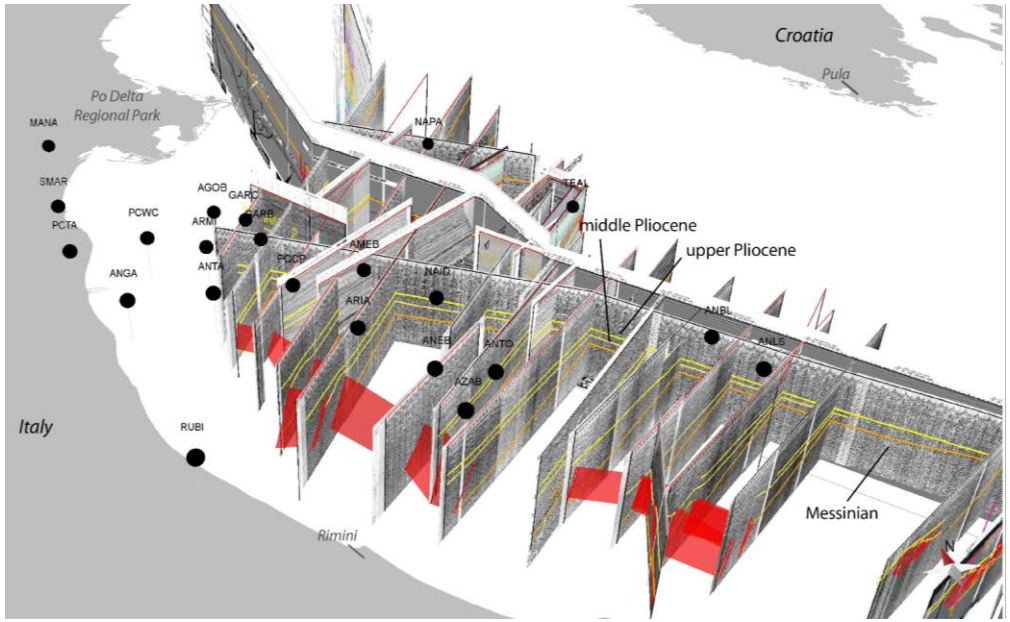
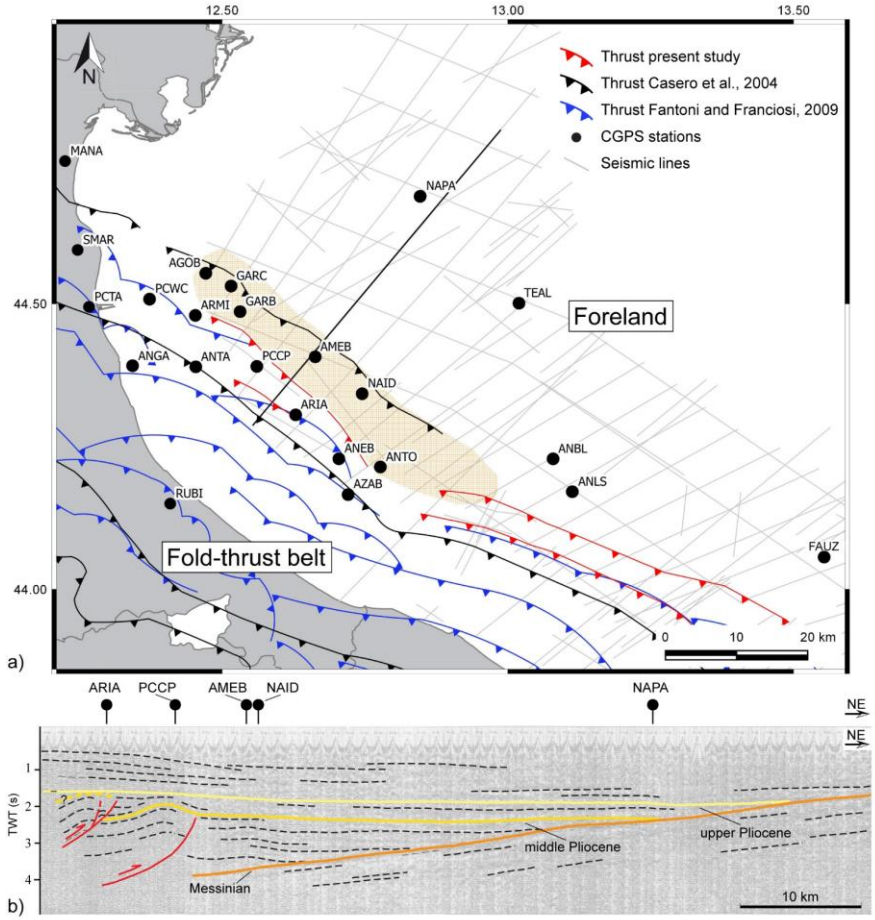
RESULTS:

- Reconstruction of the structural framework of the northern Adriatic domain





OUTLOOK:

- Analysis of CGPS data in the proposed structural framework (in collaboration with INGV)
- Definition of the strain rate, the natural subsidence and the tectonic horizontal movements (in collaboration with INGV)

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Technical session

From 11.oo To 11,30 of 28th March, 2019

Stand DGS UNMIG Hall 7 n°1

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