WP1.2 Geodynamics & Gravity

Objective: to study the low frequency response of surface and sub-surface variable processes (i.e. in the range of 0 to 0.01 Hz. Impact on the infrastructure life time and quality preservation.

In particular the focus is on the role played by subdaily, seasonal and slow varying processes induced by the groundwater cycle and other geodynamic and anthropic-induced ground deformations.

Absolute gravimeter measurements, to evaluate and quantify:

1. Seasonal variations (Absolute Gravimeter)
2. Long term stability (Absolute Gravimeter)
3. Regional Bouguer anomaly (Relative Gravimeter)

GNSS measurements, to evaluate and quantify:

1. Seasonal 3D variations (site specific)
2. Long term 3D deformations (site specific)
3. Regional Strain-rate field (using regional networks)

SAR Interferometry, to evaluate:

1. Regional-local deformation field
2. Time series of deformation field (including GNSS data)