

## NON-DESTRUCTIVE ANALYSIS OF CONCRETE STRUCTURES

The Ground Penetrating Radar (GPR) technique enables the non-destructive structural analysis of concrete constructions, buildings, historical monuments, slabs, walls and beams.



**Using the GPR technique, we are able:**

- **to detect shallow and deep targets in concrete structures** (reinforced bars (rebars), pre and post-tension cables, conduits, cracks, voids, structural heterogeneities)
- **to evaluate the integrity of concrete structures** (concrete thickness and carbonation, corrosion of rebars)



### ALADDIN Radar System (IDS)

- High resolution antenna (2 GHz)
- 400 kHz sampling
- Full polar antenna enabling acquisitions in a single pass
- 8 hours autonomy
- Dimensions: 12.4 x 12.4 x 18.5 cm
- Waterproof (IP 65 standard)





**Ability for work at height**

**Our expertise includes:**

- the structural analysis of high buildings and structures thanks to our ability for work at height
- the implementation on all kind of surface (floor, walls, slabs, ceiling)
- the 3D imaging of structures using specialized software



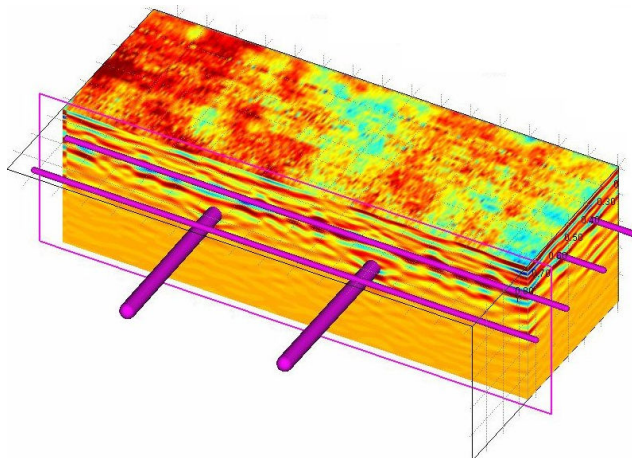
**Handiness of the 2 GHz antenna**



**Acquisition on non-planar surfaces**

**3D interactive interpretation**

Using GRED 3D software (IDS), we are able to reconstitute the three dimensional location of rebars in concrete structures.



**Examples of 3D imaging of rebars after data post-treatment**