Foundation monitoring within the 'Central Point' skyscraper

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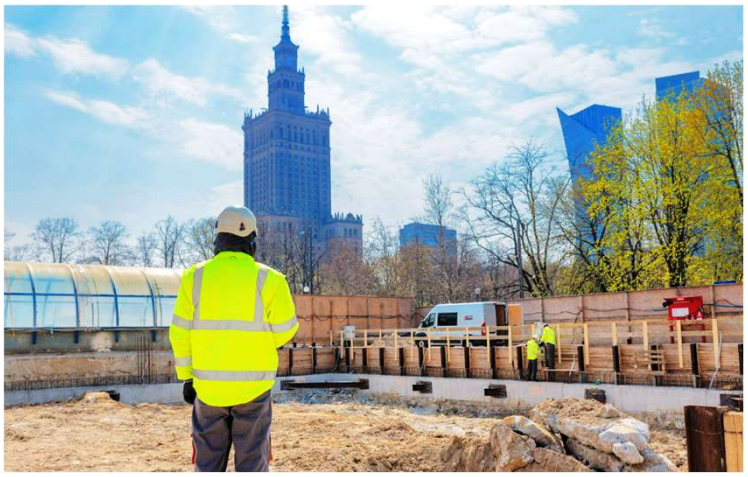
EpsilonRebar: *Case Study*

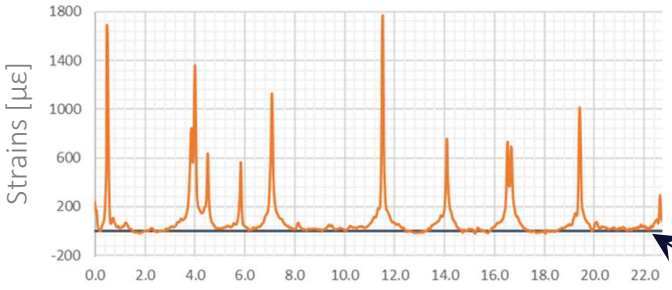
Nowadays, spectacular skyscrapers are built in the centres of large cities. This project refers to a structure located in the centre of Warsaw. Due to the proximity of the surrounding infrastructure, it is very important to monitor the interaction of the foundations with the ground during the entire construction (raising the subsequent floors). That is why EpsilonRebars were chosen to control Strains and cracks both in deep barrette piles as well as the foundation slab.



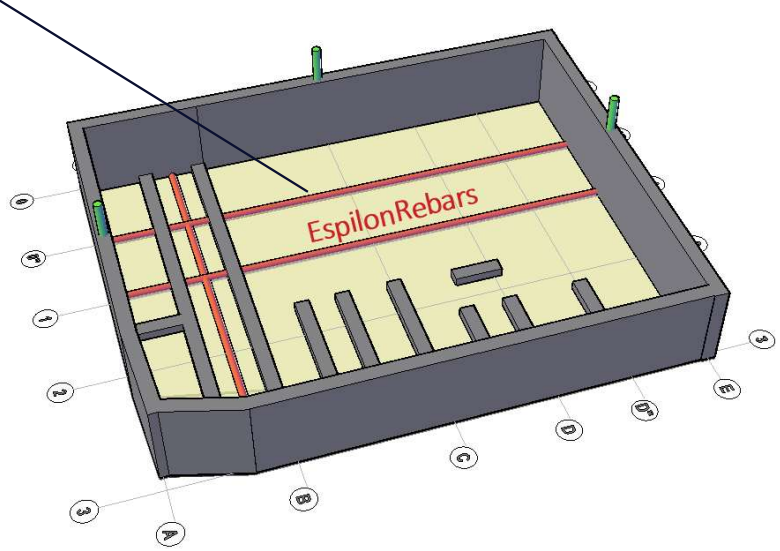
Benefits of application

- Strain measurements both in **barette piles** as well as the **foundation slab**
- Detection of **all the cracks** and localised events inside the concrete
- Full knowledge on foundation deformation state **during all construction stages**
- Information on events invisible to the naked eye and unreachable by other techniques

Example results



EpsilonRebars were used to measure strains and detect cracks during selected construction stages. Seven sensors were installed in both the lower and upper part of the foundation slab, while ten sensors were placed along the barrette piles to a depth of 22 m. Obtained results allowed for analysis of force transfer along deep piles as well as to detect all cracks in concrete foundation slab.



37 600 measurement points

376 m of sensing path

17 x EpsilonRebar

during **construction**

project **partner:** STRABAG