

## Ground conditioning schemes

When an underground structure is to be built and the conditions of the ground are far from ideal, there are different approaches that can be followed: designing a robust support to cope with the poor characteristics of the ground, ameliorating the qualities of the ground by means of treatment-reinforcement-improvement, or both.

Different techniques exist to deal with unsatisfactory conditions of the ground, improving their condition related to strength, deformability or impermeability or making possible to build underground structures in the presence of water.

Here below the different ground conditioning schemes are summarized, along with the positive outcome that is reached by their use:

