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**How to choose the best technology for laying an underground pipeline**

**ABSTRACT**

For a long time, pipes have been laid underground almost exclusively constructing open trenches. Therefore, the design choices concerned only excavation tools and the excavation support systems preliminary to the pipe installation.

The growing attention to environmental issues developed over the years and the ever-increasing need to intervene in urban areas have created the prerequisites for the development of the NO-DIG installation technologies.

Such technologies have then been progressively implemented, allowing the management of a considerable range of topics, both as regards to the diameters of pipes to be laid and to the lengths of individual sections, as well as pipes direction and geology of the soils to be crossed.

Nowadays, it is possible to lay pipes even in areas where open trenches would not be an option.

With the increase of NO-DIG technologies, the range of possibilities for designers has broadened and it is necessary to be able to choose, among the different NO-DIG technologies, the most suitable one for any specific project. All aspects shall be taken into consideration: technical feasibility, economic sustainability, accessibility and availability of spaces, etc.

We are here presenting a Case History where, basing on the decision to use a NO-DIG technology to cross a river, once facing the problems arising in the adoption of the first technological choice (HDD) the adoption of another technology (Direct Pipe) has been successfully implemented, achieving all planned objectives.