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Horizontal
Directional
Drilling

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hard and hardest
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examples of job
sites

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HDD DRILLING IN HARD AND HARDEST ROCK IN EUROPE -
EXAMPLES OF JOB SITES

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ABSTRACT:

For almost two decades, rock drilling is possible using the HDD technology. In the first 10 years, this was only possible with mud motors and in rock formations of low to middle compressive strength. For drilling through hard rock, new HDD technologies were required and this became possible just in recent years by means of the twin-tube technology, combined rock breaking equipment, new types and configurations of tools, new and advanced bit elements and inlets, optimized machine performance and improved drilling fluids.

The hardest rocks in Europe exist in Scandinavia, the central Alps and some other outcrop regions of magmatic and metamorphic rocks. Exactly in these areas, which used to be "no-go areas" for HDD technology, many challenging and sophisticated rock drilling jobs were carried out in recent years. Some of them will be presented at this NoDig Conference. The featured jobsites were in Finland (ultra-hard rock), in central Switzerland (Berner Oberland), in the Hohen Tauern of Austria, in the German Ore Mountains (Erzgebirge) and in some basaltic massifs. As these projects were executed in mountains and high mountain regions, they were challenging not only regarding the tough ground but also in terms of the overall jobsite conditions.