

this value is at least about 1 in large projects. In the analysed case, the ratio was 0.19 in the reality being in the lower range while it would be at 1.0 being a more adequate value for this project.

Assuming a typical average value of 10 M€ per km., the total cost of the tunnel would be about 40 M€. The ratio of the cost of geotechnical investigations in the project budget is around 1.1% on average. If DCD technique is used, this cost would be approximately the 2% of the total cost which is an assumable value.

If the uncertainty that is avoided when using the DCD technique is quantified, it is verified that the extra cost that the use of the DCD technique entails, € 402,500, avoids a risk equivalent to € 10,096,040.

This is, for each 1 € spent in geotechnical research investment avoid the uncertainty estimated in 11.95 €, which is not excessive according with USNCTT, (1984).

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