



# Tunnel construction : methodology and case histories

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**Scope of this lecture is to open a window on construction of tunnels mainly with Drill and blast in an international perspective .**





**Construction of a tunnel is a big Challenge ...not only calculation or design but also experience, good skills and .. good luck . Is a craft activity .**



**Tunnel construction is a multi discipline activity :**

- **Geologist**
- **Geotechnical engineers**
- **Structural engineers**
- **MEP engineers**
- **Surveyors**
- **Safety experts**

The background of the slide is a photograph of a tunnel under construction. The tunnel is dark and narrow, with rough, uneven rock walls. In the distance, a few workers in hard hats and safety vests are visible, along with some construction equipment. The overall atmosphere is industrial and somewhat somber due to the low lighting.

## **AGENDA**

- 1. Tunnel construction methodology**
- 2. Rock mass classification**
- 3. Tunnel monitoring and construction management**
- 4. Safety during construction and operation**
- 5. Case histories**



Strettara , Appenins , 1986  
Piedicastello, Trento , 1998  
S. Martino Ancona, 2001











