



ITALY & MONTENEGRO: BUILDING TOGETHER

21-22 Settembre 2016

**GEODATA Engineering SPA
(Turin)**

**ANGELO VILLA
Tunnel Resident Engineer
for BAR BOLJARE HIGHWAY**

UNDERGROUND SOLUTIONS

We plan, study, design, and supervise the implementation of sustainable underground solutions to the satisfaction of our clients and end-users

3200 projects involving
3750 km of tunnels
on **5** continents
over the last **30** years





GD Engineering	BRANCHES
Italy Turin	Argentina
Italy Rome	Canada
Italy Milan	Chile
	Colombia
	Ecuador
	Greece
	India
	Kurdistan
	Malaysia
	Peru
	Portugal
	Russia
	Singapore
	Turkey

GD holding companies
 GD Engineering Italy 100 %
 SINO Geodata (Beijing) 95 %
 HIDROGEODATA Ltda 95 %
 Geodata Ingénierie Algérie S.a.r.l. 95 %
 GEODATA Austria GmbH 100 %
 GEODATA Tunel d.o.o. Croatia %
 Geodata do Brasil Ltda 97 %
 Geodata India Private Ltd 100 %
 Geodata Engineering Pty Ltd Australia 100 %
 Ingeconsult Ltda Ecuador 80%
 GEODATA USA Inc. 100 %
 GEODATA Colombia Ltda 70%

MONTENEGRO BAR BOLJARE HIGHWAY

Role : ENGINEER AS PER
FIDIC
JOINT VENTURE BETWEEN

- INGEROP (France)
- GEODATA (Italy)

EMPLOYER :
MONTENEGRINAN MINISTRY
FOR TRANSPORT AND
MARITIME AFFAIRS

GEODATA IS RESPONSIBLE
FOR :

- TUNNEL
- GEOTHECNICS
- H & S



MONTENEGRO

BAR BOLJARE HIGHWAY section
Smokovac- Uvac – Matesevo

Length : 40+800

Two lanes highway

Value : 830 million euros

Contractor : CRBC China road and
bridge Corporation

FIDIC yellow book :
lump sum contract

32 tunnel total length 36 km

Longer tunnel:

Vjeternik over 3 km

Longer bridge:

Moracica 900 m h 167 m



MONTENEGRO BAR BOLJARE HIGHWAY section Smokovac- Uvac - Matesevo



How to realize Civil works in Montenegro

To design engineering structures in Montenegro
you need a license for DESIGN

To supervise a civil work you need license for
DESIGN and CONSTRUCTION

To execute works you need license for
CONSTRUCTION

License is relased to an Engineer

The company get the license of the EMPLOYED
engineer

Fragmentatuion : these are the licences we need to follow the highway :

- 1. Structures**
- 2. Roads**
- 3. Tunnel**
- 4. Bridges**
- 5. Hidrology**
- 6. Geotechnics**
- 7. Environment**
- 8. Geology**
- 9. H & S**
- 10. Survey (geodetic)**
- 11. Electrical HV**
- 12. Electrical LV**
- 13. Machine Plants, Devices and Instal**
- 14. Horizontal and Vert Signalization**
- 15. Landscaping**
- 16. Fire Protection**

The same fragmentation is reflected on
work supervision :
Every one have is own field

Main document is Site diary (Gradevinski
dnevnik):

This document is open when the building
permit is issued

Have the purpose that in Italy we assign
to

- GIORNALE DEI LAVORI
- REGISTRO DI CONTABILITA'

Ruling language is montenegrin .. Of
course

Montenegro is a wonderful place, safe and with a good level of engineering skills.

Local construction companies have a good level, related to dimension of the country.

Technical standards come from former Yugoslavian standards (JUS) and are on reviewing



Thank you

