# **Fugro Monitoring Services**



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#### **Geotechnical Monitoring**

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#### Fugro

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Fugro Loadtest is part of one of the World's largest integrated supplier of geoscience, survey and geotechnical related services

### **Monitoring Services**

Fugro's Geotechnical and Structural Monitoring Services has extensive experience around the World in all manner of large and prestigious civil engineering projects including new buildings, bridges, dams and subway development. Our inhouse resources and expertise mean that we can provide all the services that your project requires.

#### Instrumentation and Monitoring

We can offer a wide variety of complimentary techniques using instrumentation, geophysics and ground investigation to provide all your monitoring requirements for any project of any size anywhere in the World. Correctly designed instrumentation will:

- Reduce risk as part of a construction process through the observational method
- Manage risk of all organisations and the need for public transparency
- Reduce cost through design optimisation

We have World-wide experience in the design and installation of structural, geotechnical, environmental and hydrological monitoring systems, from the simplest single sensor installation through to complex and powerful automated remote systems. We are a World leader in the provision of such systems including structural health monitoring systems for long span bridges.

Fugro is the World's largest integrated geotechnical and survey company. We provide services to clients around the World, in the fields of oil and gas, mining and construction.

Global Outreach: with a world-wide client base and experience in different environments, Fugro Monitoring Services has global resources and local expertise to work in any part of the world.











#### **Structural Monitoring**

Our structural monitoring team has worked on numerous major projects around the World and in specialist areas including:

- Onshore and Offshore Windfarms
- MetMasts
- Tunnels
- Bridges
- Structures and Deep excavations;

Our service provides valuable information to the contractor, consultant or client during the life-time of the project. Our "observational method" can minimise the impact of unforeseen events and reduce associated costs and delays.

This can only be achieved by the correct installation and performance of an instrumentation system coupled with excellent consultancy services. We, with our wealth of expertise and resources in all these service areas, are ideally equipped to work with you to deliver your project, irrespective of its size or complexity.

#### **Geotechnical Monitoring**

Our geotechnical monitoring team has an extensive portfolio of experience working in:

- Embankments and Slopes
- Deep Excavations
- Hydrological Monitoring
- Pile Instrumentation and Testing
- Geophysics

In addition, our geotechnical team has combined its expertise with the structural team to work on major civil engineering projects including:

- Railways and Highways
- Nuclear and Power Generation
- Buildings
- Subways



#### **Environmental Monitoring**

Fugro Monitoring Services provides environmental monitoring for our range of clients in various sectors.

These include:

- Weather Stations
- Ground Gas Monitoring
- Water Quality
- Noise and Vibration



Monitoring of environmental parameters is paramount to further our understanding of an activity to minimise the effects on the environment, either during the construction phase or during the life of an asset. The data gathered is best evaluated by our skilled and experienced consultants.

You can count on the knowledge and experience gathered from a variety of applications from around the world.

### **Data Management and Web Services**

We use our in-house developed software called GeODin. This suite of packages is used by our consultants and clients to provide access to the information gathered on their projects.

With Web GIS, users do not need to purchase and install additional GIS software in order to access and work with maps and databases. Also, users do not need to become experts in sophisticated GIS application, since the functionality is made available through an integrated viewer with a simple, user-friendly interface.

## **Data Acquisition - Automation**

Fugro Monitoring Services provides data acquisition systems for projects suitable for the duration of the project whether this is days, months or years. We work with market leading products and combine these with your specification to provide the best solution and highest reliability to meet the requirements. We emply sampling times to suit the parameters being measured so that the sensors provide accurate relevant data. We also provide remote maintenance as part of our packages that provide assurance that the system is working as required. Our systems also provide text message and/or email alerts when trigger levels are exceeded.

