



NEW TECH SYSTEM GENERATION



# WHO WE ARE

## NTSG · THE NEW SECURITY MEASURE

A **research centre** dedicated to the study, design and realisation of **innovative measurement** and **engineering systems** using **technologies, advanced materials** and **processes developed** in pioneering fields such as Formula 1, aerospace, America's Cup.

**2015**

**The 'NTSG · New Tech Generation System' project was born in Rome from an idea of Eng. Paolo Persi del Marmo.**

**The patent 'OF' is born.**

A 2D and 3D deformation measurement system for structures having a form, material and generic dimensions, based on fibre optic technology, with the aim of determining and monitoring the stresses in the structure and detecting parameters such as compression, stretching, bending, loading, twisting, vibration, pressure, displacement, corrosion, inclination, temperature and current levels.

**2018**

**NTSG's RESEARCH and DEVELOPMENT team files new patent 'OF PIPE'**

A system for identifying and measuring the losses of a conduit (water, sewage, oil, gas), based on optical fiber sensing technology, with the aim of identifying the presence, position , dimension of a leak present in the duct.



# OUR SERVICES

- **Design of the optimal configuration of fibre optic sensors;**
- **Installation** of the monitoring system ('OF' System)
- **Calibration** and **testing** of the system;
- **Data analysis** and **management** by customisable proprietary software, with **big-data platform** for information storage;
- **Maintenance** of the equipment and the **software implemented** for the customer.

# GOALS

**creation and implementation of unique and specific monitoring systems** tailored to meet customer needs and the structure to be monitored, **to ensure the safety of the goods involved and the people who use them.**

- **Real-time and high-speed acquisition and control systems;**
- Systems for the **protection of structures and people;**
- Instruments capable of **testing** the characteristics of **new materials** and **new forms;**
- **Tools for validating specific structures;**
- **Control systems** for **deterioration** and **ageing of structures;**
- **Fibre optic data generation and data transfer systems.**





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# REFERENCE MARKETS





# REFERENCE MARKETS

NTSG operates on **national** and **international markets**, offering the «OF» monitoring system derivative products, thanks to the **experience gained over eight years of activity**.

In addition, NTSG is always active in **studying** and **researching innovative solutions** to meet the needs of **multiple customers**, with **experimental applications** in the **Formula One**, **Marine** and **Composite Materials sectors**.



# REFERENCE MARKETS

- **INFRASTRUCTURE**  
(bridges, tunnels, viaducts, dams, light tower, underwater);
- **BUILDINGS**  
(schools, hospitals, sports facilities, heritage, shopping malls, etc.);
- **PIPELINE**  
(oil, gas, waterworks, sewerage);
- **RAILWAYS**  
(stations, wagons, railways);
- **ENERGY**  
(aeolian wings, power transformer, electric networks).





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