



SOCOTEC

YOUR PARTNER FOR INFRASTRUCTURE AND THE ENVIRONMENT

Safety, Efficiency and **Sustainability**



SOCOTEC ITALIA

committed to building your **future**

Our Vision is to help preserve the integrity of infrastructure by making it safe and improving its technical, environmental, and economic performance. We also aim to identify, assess, and manage risks related to quality, health, and

safety throughout the entire life cycle—from construction to dismantling—through maintenance during its use.

850

Contributors

700

**Engineers,
geologists and
specialised technicians**

16

**locations
in the **territory****

Your partner for accurate and proactive monitoring, ensuring safety and performance for your infrastructure.

National Locations

SOCOTEC Italia ensures the safety of your infrastructure with its advanced laboratories. With a presence throughout the country and laboratories authorized by the Ministry of Infrastructure and Transport, SOCOTEC Italia carries out and certifies tests on various building materials, soils, and rocks to build new infrastructure and guarantee the safety of existing ones. Additionally, SOCOTEC Italia has chemical and microbiological laboratories accredited by Accredia and is authorized by the Ministry of Health for asbestos sampling and analysis.



Sectors in which we operate



CONSULTING & SPECIALIST SERVICES

Consulting, Waste Management and Remediation



ENERGY & NATURAL RESOURCES

Oil & Gas, Multiutilities, Energy Infrastructure



INFRASTRUCTURE & TRANSPORT

railways and subways, airports, motorways and roads, ports



CONSTRUCTION & GREAT WORKS

Bridges, tunnels, dams, civil and industrial construction



INDUSTRY & MANUFACTURE

Industrial sector, food companies



SPECIALISED SECTORS

Off-Shore Infrastructure

Romania & Poland

An international network for infrastructure security



Polonia



Romania

Part of a group active in 27 countries, SOCOTEC Italia also operates in Romania and Poland through its subsidiaries SOCOTEC Romania and SOCOTEC Monitoring Poland. We offer advanced solutions for geotechnical, structural, and environmental surveys and monitoring, ensuring safety and reliability in infrastructure projects on an international scale.

SOCOTEC companies *in Italy*

SOCOTEC's platform in Italy offers a wide range of services focused on the safety, reliability, and sustainability of infrastructure and the environment. Our activities include infrastructure inspection and environmental monitoring, with special expertise in geotechnical and structural monitoring. We also provide specialized services in geognostic surveys, geothermal studies, and geotechnical characterizations. Additionally, a

dedicated photonics division develops advanced solutions based on distributed fiber optic sensors.

The companies within our group contribute with commitment and dedication to the success and growth of the SOCOTEC brand, always staying one step ahead of the competition.

● **TECNOLAB**

Guided by experience and innovation, TecnoLab, founded in Ortona in 1993, stands out as a testing laboratory and certified research body in the field of materials testing.

● **TECNOVERIFICHE**

Tecnoverifiche Srl specializes in geoengineering and remediation, and is officially recognized by the Ministry of Infrastructure and Transport. With state-of-the-art technology and a team of experts, the company not only provides data but also offers consulting services to help clients achieve their desired outcomes.

● **EUROGEO**

EUROGEO was founded in 1997 in Paderno Dugnano and counts 40 experts with top skills in geotechnical surveys, monitoring, and in-situ testing throughout the entire life cycle of infrastructure.

● **CARSICO**

It focuses on environmental and geotechnical surveys to characterize potentially contaminated sites. It offers complete solutions for the cleanup and redevelopment of former industrial areas, helping to protect the environment and promote urban sustainability.

● **SESTOSENSOR**

Sestosensor is a company founded in 2009 in Bologna that operates in the photonics sector, developing and producing fiber optic sensors that are increasingly used in many industrial fields.

● **A4e**

It excels in environmental and geotechnical surveys. It uses innovative methods to analyze the environmental impact of infrastructure and industrial projects, developing actions that promote eco-friendly practices and sustainable development projects.

● **SOCOTEC MONITORING ITALY**

SOCOTEC Monitoring Italy Srl offers integrated and customized solutions for monitoring civil works, infrastructure, historic buildings, and monuments, using advanced technologies and Web-GIS systems.



All companies operate under the SOCOTEC brand, a symbol of reliability, safety, and excellent quality in results.

Quality and Compliance

Our authorised laboratories

	Lainate (MI)	Genova	Ferrara	Ortona (CH)	Avellino	Trento
Building materials	✓	✓	✓*	✓*	✓	
Soils and Rocks			✓	✓	✓	✓
Bituminous conglomerates			✓	✓		
Chemist	✓					
Microbiological	✓					
Asbestos	✓					
Technological			✓			
Metallurgical			✓	✓		

-  Laboratory authorised by ministry of infrastructure
  Accredited laboratory ISO/IEC 17025 by Accredia
  Authorised laboratory by the Ministry of Health

Laboratories for testing and inspection of building materials on structures and existing constructions, according to Circular no. 633/STC referred to in Article 59, paragraph 2, of D.P.R. no. 380/2001.

Business Services

With our experience and expertise, we support companies in achieving the highest standards of quality and safety for infrastructure and the environment.

In the *off-shore* sector

Investigations

- for pipeline and wind farm installation
- geotechnical and offshore drilling
- seismic and magnetometric
- environmental and oceanographic

Control and monitoring

- of the submerged parts of the infrastructure

Positioning

- of the ship and the drilling rig
- underwater acoustics
- boats, pontoons, and tugboats
- of tripods, reefs, and during dredging activities

Mapping and inspection

- of the seabed

For the **environment**

Analysis

- Chemical and microbiological analysis of water
- Chemical analysis of soils, rocks, and sediments
- Chemical analysis of sludge and waste
- Analysis of asbestos and artificial glass fibers
- Microbiological analysis
- Analysis of industrial emissions and air quality

Other services

- **Environmental surveys** (monitoring of physical, chemical and biological agents)
- **Environmental planning and monitoring**
- **Aquifer remediation**

for **Infrastructure**

Test

- Penetrometric tests
- In borehole surveys
- In-situ geotechnical tests

Surveys

- Geoelectric
- In borehole
- in-situ geotechnical investigations
- With ground-penetrating radar (GPR)
- Interferometric
- With laser scanner and total station
- Geo-environmental

Monitoring systems

- Geotechnical, structural, and topographic
- With distributed fiber optic
- With traditional sensors

Other services

- **Continuous core drilling and core destruction drilling**
- **Geothermal and small-diameter wells**
- **Ground consolidation**
- **Installation of instrumentation in boreholes**
- **Seismic surveys** (refraction and reflection)
- **Predictive seismic TSP** (Tunnel Seismic Prediction)
- **Static and dynamic testing**
- **Detection, inspection, and sizing of cavities**
- **Non-destructive testing and inspections**
- **Weld inspections**
- **Assessment of residual war-related risks**

Constant support

Throughout the life cycle of your infrastructure

The services offered cover all phases of an infrastructure’s life cycle, from feasibility and design to construction, operation, and demolition. Thanks to an integrated and interdisciplinary approach, we provide targeted solutions to ensure the safety, reliability, and sustainability of structures over time.

	Maintenance Phase				
	Feasibility	Design	Construction	In operation	Demolition
● Geophysical prospecting	_____	_____	_____	_____	_____
● Geognostic investigations		_____	_____		_____
● Topographical surveys		_____	_____		_____
● Structural monitoring			_____	_____	_____
● Laboratory tests	_____	_____	_____	_____	_____
● On-site and mobile laboratory			_____	_____	_____
● Marine services	_____	_____	_____	_____	_____
● Non-destructive testing			_____	_____	_____
● Environmental Services	_____	_____	_____	_____	_____
● CE Marking	_____	_____	_____		

What are **GreenTrust** and **Trust&Tech**?

These brands reflect SOCOTEC's core values, combining expertise, sustainability, and innovation.



GreenTrust
It represents the commitment to sustainability, providing services and solutions that respect the environment and promote a more responsible future.



Trust&Tech
It embodies technological excellence and innovation, delivering cutting-edge solutions for monitoring, safety, and reliability of infrastructure.

TRUST & TECH BY SOCOTEC

Trust & Tech by SOCOTEC is the technological expertise used by our experts in their daily work, both in the field and supporting our clients. It helps with technical consulting and risk management in Construction, Infrastructure, and Industry sectors, especially during Environmental, Energy, and Digital transformations.

→ As a trusted and independent third party, we provide the most valuable **technical skills** and technologies in our missions.

Technologies Supporting our **Experts**



Fibre Optic and Traditional Sensors

Fiber optic sensors offer highly sensitive and reliable monitoring of critical infrastructure.



Drones and laser scanners

To perform accurate inspections even in hard-to-reach areas, SOCOTEC uses drones equipped with high-precision laser scanners.



Digital Platforms and Data Analysis in Real-Time

Our digital platforms provide advanced tools to analyze and visualize collected data in an intuitive and detailed way.

GPR technology (georadar)

Ground Penetrating Radar

GPR (Ground Penetrating Radar) technology is a non-destructive geophysical method used to explore underground areas using high-frequency electromagnetic waves.

STREAM D & Drone GPR

The GPR STREAM D by SOCOTEC Italia is a powerful array designed to be fast and minimize impact on your infrastructure. With its 34 V-shaped antennas, the system provides high detail and excellent penetration. The processed and normalized data allow precise assessment of concrete degradation, and corrosion of reinforcements and prestressed cables.



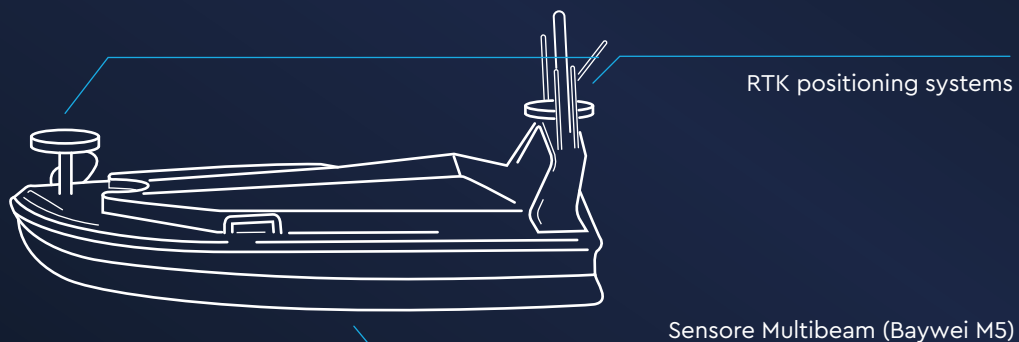
Using GPR mounted on an aerial drone offers a safe and efficient alternative to traditional ground-based georadar methods. This allows surveys in difficult topographic areas and harsh weather conditions over uneven terrain, glaciers, rocks, water, and structures—delivering high-quality results without risking the safety of field personnel.



Echo sounder technology

Marine Drone

The hydrographic drone is a device used to inspect the underwater parts of infrastructure, thanks to its ability to scan sea and riverbeds using multibeam systems. The hydrographic drone is a useful tool for managing, monitoring, and performing detailed analysis of the seabed and river channels, helping improve the planning and management of water infrastructure.



Terrestrial interferometer

The Terrestrial Interferometer is a tool used to inspect and monitor infrastructure, excavation fronts, and landslide areas. Thanks to its high precision and ability to detect even small movements, SOCOTEC Italy uses the terrestrial interferometer for testing bridges and viaducts. It is an essential tool for constant infrastructure monitoring, ensuring operator safety and preventing possible damage.



SMARTFOX®

Optical fibre sensor interrogator

SMARTFOX® is a self-contained device that does not require external PCs or extra backup power. It can read FBG fiber optic sensors and traditional electronic sensors using the latest "static" spectrum analysis technology. With no moving mechanical parts, it offers faster reading speeds, vibration stability, and the best long-term reliability. The system is used for monitoring and control in any sector.



Drone thermography

Among its many applications:

- Thermographic surveys for residential or industrial buildings, allowing the detection of thermal anomalies and structural problems;
- Detailed inspections of photovoltaic fields, wind turbines, and high-voltage towers, easily reaching otherwise inaccessible obstacles;
- Monitoring the energy efficiency of buildings, helping identify potential improvements for more sustainable consumption;
- Structural and environmental control, offering an aerial view to assess the condition of bridges, roads, and hard-to-reach areas;
- Applications in agriculture, such as managing crops by monitoring their condition and optimizing farming practices.

Electrical tomography

Assessment of residual war risk using non-conventional methods

Geophysical methods, such as electrical tomography (3D ERT), allow detailed, non-invasive underground assessments, reducing the need for traditional surveys and offering cost and time benefits. This method helps detect metals only in areas of interest and identify structures not visible with conventional approaches. Measuring the soil's resistivity and electric charge makes it easier to locate possible unexploded ordnance.



Link alla pagina dedicata

**Assessment of residual war risk on the Autostrada dei Laghi A8*

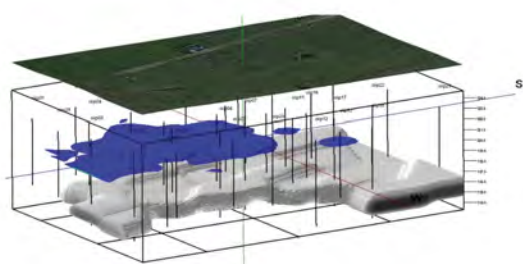
High-resolution surveys and targeted aquifer remediation

SOCOTEC Italia uses advanced technologies for environmental characterization and groundwater remediation. Using OIHPT and MIHPT probes combined with Geoprobe® direct push techniques, SOCOTEC Italia performs high-resolution surveys without invasive digging, mapping contamination and hydrogeological parameters in real time.

Targeted injection of reagents allows pollutants to be neutralized directly in the aquifer, optimizing cleanup efforts.



Geoprobe 6712DT® is equipment for sampling different environmental matrices.



The data obtained allow our specialists to create accurate 2D and 3D underground visualizations showing plume characteristics, preferred migration paths, lithology, estimated hydraulic conductivity, and much more.

3D underground modeling:

■ Pollutants (LNAPL) ■ Aquifer base

➡ ***A fast, accurate, and sustainable approach, supported by 2D and 3D models for strategic and effective site management.***

DDS

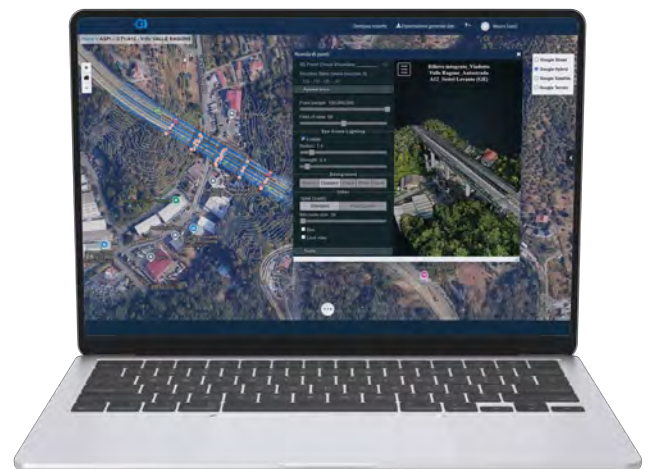
DATA DISSEMINATION SYSTEM

Innovation in the service of safety

Centralized and Accessible Monitoring

The DDS (Data Dissemination System) is a WebGIS platform that simplifies the management and interpretation of monitoring data. It is designed to ensure accuracy and speed.

The DDS offers a complete solution for projects of any complexity.



Main Features

Intuitive interface:

Easy navigation from any device, with no extra installation needed.

Advanced visualization:

Data shown in interactive 2D/3D models, charts, and easy-to-understand maps.

Full customization:

Configurable to project needs, including specific sensors and plug-ins.

Guaranteed security:

Systems hosted by certified providers with cybersecurity and disaster recovery.

Advantages:

- Real-time access to monitoring data from anywhere.
- Automatic email or SMS notifications for configurable thresholds.
- Reduced analysis time thanks to centralized management and built-in caching.

↳ *With DDS, SOCOTEC Italia turns data into strategic actions, making monitoring more efficient and responsive.*

Advanced Technologies Serving Monitoring

SOCOTEC's WebGIS platform is a powerful and versatile system designed to manage and analyze large amounts of data with ease. It

integrates cutting-edge technologies, offering a tailored solution for every monitoring need.

EXCELLENT TECHNOLOGICAL TOOLS

High-precision sensors:

Accurate detection of geotechnical, structural, and environmental data.

Automated stations:

Continuous data collection with configurable validation.

Interactive maps:

Detailed analysis and intuitive graphic visualizations for quick decisions.

TAILORED FEATURES

Profiled access:

User customization and permission levels.

Smart notifications:

Configurable automatic alerts via SMS or email.

Simplified management:

Intuitive tools for analysis and custom reports.

A Solution for Every Need

Thanks to the integration of advanced sensors, digital tools, and continuous support, SOCOTEC Italia ensures precise and timely monitoring for every type of infrastructure.

BUILDING TRUST FOR A SAFER AND SUSTAINABLE WORLD

INTEGRATED SOLUTIONS FOR MONITORING AND CONTROL.

Onshore and Offshore Wind Farms

The wind energy sector is one of the main resources for the global energy transition. Ensuring the safety, stability, and efficiency of wind farms is essential to maximize energy output and extend the lifespan of the structures. SOCOTEC Italia offers advanced monitoring

solutions that cover all phases of the wind farms' life cycle, from design to operational management, helping reduce risks and optimize performance.



Preliminary surveys for design planning

Geognostic surveys and geophysical explorations:

Accurate assessment of soil and seabed characteristics to ensure safe and optimized design.

Topographic surveys:

Detailed planning of the wind farm layout.

Environmental analyses:

Study of the impact on flora, fauna, and surrounding ecosystems, both on land and at sea.



Monitoring during construction

Material quality control:

- **Non-Destructive Testing** of welds (Visual Testing, Penetrant Testing, Magnetic Testing, and Ultrasonic Testing).
- Material quality control during foundation construction.

Inspections and checks:

Inspections and checks during the installation of wind turbine blades.

Steel quality control:

Used in wind turbine components



Surveys during the commissioning phase

Foundation verification and testing:

Dynamic tests to assess strength and stability

Structural analysis and reinforcement measures:

Targeted tests to identify issues and improve durability.

Preventive maintenance plans:

Surveys and plans to prevent problems and extend the life of structures.



Visual and drone tests and inspections

Visual and drone inspections:

Identification of wear and detailed checks of blades, including hard-to-reach areas.

Endoscopic examinations:

Analysis of the internal areas of the blades to check structural condition.

Laser scanner technologies:

Precise measurements for detailed dimensional assessments.

Specific services for wind energy

The Heart of Monitoring Services



SOCOTEC Italia offers tailored solutions for every component of the wind farm:

Wind turbines:

Monitoring deformations and vibrations to ensure stability.

Foundations:

Continuous assessment of structural strength using advanced sensors.

Wind blades:

Analysis with fiber optic sensors to monitor vibrations, ice formation, and prevent damage from centrifugal forces.

Environmental impact:

Monitoring noise, birdlife, and marine flora to reduce ecosystem impact.



A Green Trust service is a service whose output relates to the 6 environmental objectives of the European Taxonomy derived from the Green Deal.

What are the 6 environmental objectives of the European Taxonomy?



Climate change mitigation



Climate change adaptation



Circular economy



Sustainable water use



Minimization of environmental impact



Biodiversity protection

GREEN TRUST *by* SOCOTEC:

- It concerns reducing environmental impact and optimizing energy use for buildings, plants, equipment, and structures.
- It includes actions that meet EU standards or whose environmental impact has been assessed by CSR experts from international certification and inspection organizations (Filiance in France, TIC Council internationally).
- This service is provided by a SOCOTEC expert, a trusted third party, who delivers a complete and independent audit report on the condition of your plants, buildings, and equipment regarding regulations, standards requirements, building-related risks, and targeted performance.

➔ Solutions supporting your energy and environmental transitions and the sustainability of infrastructure.

SAFETY, QUALITY, AND SUSTAINABILITY FOR INFRASTRUCTURE

Railway projects

HS/HC Terzo valico dei Giovi

HS/HC Napoli – Bari

HS/HC Verona – Padova

Brennero Base Tunnel

SOCOTEC Italia is the ideal partner to ensure the quality and safety of your railway infrastructure, with a constant commitment to environmental sustainability. With our onsite laboratories, we operate on the main Italian railway lines, providing quality control services for the materials used in construction. Additionally, SOCOTEC Italia carries out structural and environmental monitoring of the works, ensuring

maximum safety of the infrastructure and protection of the surrounding environment. We have conducted geotechnical and geophysical surveys before design to identify critical issues and prevent any problems during construction, aiming to minimize the environmental impact of the works.



Infrastructure Monitoring

Rome Subway

SOCOTEC Italia manages complete geotechnical, structural, and topographic monitoring by providing design, installation, centralization, automation, and Data Management & Dissemination System for tunnels and stations on Rome Metro Line C, also monitoring the historic monuments along the line.



Offshore investigations

Taranto Windfarm

It is the first wind farm in the Mediterranean, located in the outer bay of Mar Grande in Taranto and along the breakwater of the port. For this project, SOCOTEC Italia carried out geotechnical, geophysical, biocenotic, and geomorphological characterization of the outer bay of the Port of Taranto to provide crucial information essential for the detailed design of the wind farm.



SOCOTEC Monitoring Italy Srl was born from the evolution of IMG Srl, a company founded in Rome in 2004, with extensive experience and a solid reputation in geotechnical and structural monitoring. With a team of over 50 experts, including geologists and senior engineers, SOCOTEC Monitoring Italy Srl offers integrated and customized solutions for monitoring civil works, infrastructure, historic buildings, and monuments. The company uses advanced technologies and internally developed Web-GIS systems that automate the processing and dissemination of monitoring data, ensuring accuracy and timeliness.

Trento Project

For the Urban Railway Ring Road of Trento, SOCOTEC Italia provides a complete service including monitoring, material testing, subsidence and vibration detection, and soil surveys with geotechnical sensors. Additionally, it implements an advanced data management and remote control system to promptly address any issues, ensuring comprehensive project monitoring.



Genova SAN GIORGIO Bridge

SOCOTEC Italia played a key role in building the new Genoa bridge, providing essential services that ensured the quality and safety of the structure. Our experts conducted laboratory tests to check the quality of construction materials and supplies and monitored the construction process, working around the clock, 24/7. SOCOTEC carried out geognostic and geotechnical surveys, geophysical surveys using advanced ground-penetrating radar technology, foundation pile testing, and dynamic monitoring of concrete piles. We also supplied and installed sensors for real-time monitoring of concrete temperature, as well as performed static and dynamic testing of the new bridge. SOCOTEC Italia proved to be the key to the success of this major project and earned great trust from clients thanks to the timely and high-quality service provided.





ITER Project

ITER is an international project to build an experimental nuclear fusion reactor capable of sustaining fusion for long periods. For some of the buildings involved in the project, SOCOTEC Italia carried out geophysical surveys, geognostic investigations, penetrometric tests, and soil and rock studies.



Storstrøm bridge

SOCOTEC Italia carried out offshore bathymetric surveys over 18 km² aimed at locating UXO (Unexploded Ordnance) in the Orehoved area (Denmark) and the new bridge footprint area. The mission's purpose was to obtain bathymetric data to support the detailed design of the Storstrøm infrastructure.

Services provided: Multibeam, UXO Survey.



Tunnels assessment

The plan for characterizing Italian highway tunnels includes using non-destructive surveys with advanced ground-penetrating radar, combined with direct verification of the collected information. The goal is to accurately map the lining thickness and identify any voids or anomalies in the structure. We are committed to ensuring the highest safety of the tunnels and minimizing the environmental impact of our activities through non-invasive and sustainable techniques.

Cassiopea Project

SOCOTEC Italia offers preliminary survey services for the Cassiopea project, which involves offshore gas extraction off the coast of Sicily. The project is based on a low-visual-impact, emission-free underwater development. The gas will be transported through a 60 km submarine pipeline to a treatment plant near the Gela refinery. Additionally, SOCOTEC Italia provides geophysical and environmental monitoring services for the project.



SOCOTEC GROUP



27 COUNTRIES

Germany
Saudi Arabia
Austria
Belgium
Colombia
Ivory Coast
Spain
United States
United Arab Emirates
France
Ireland
Italy
Japan

Lebanon
Luxemburg
Madagascar
Morocco
Mauritius Island
monaco
The Netherlands
Philippines
Poland
United Kingdom
Singapore
Thailand
Vietnam
Romania

7 PLATFORMS



190 SITES IN FRANCE

including 29 technical training centers and 17 school worksites for Nuclear Training

14 000
PEOPLE

6 500
ENGINEERS

250 000
CLIENTS

€1.6Bn
TURNOVER

250
EXTERNAL
RECOGNITIONS

CONTACT US

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**BUILDING TRUST FOR A SAFER
AND SUSTAINABLE WORLD**