



Measuring success, empowering innovation

Your Trusted Partner in Test & Measurement Excellence

Throughout its three-decade-long presence in the market, Ibis Instruments has consistently been at the forefront of technology evolution in Telco and IT, as well as in Utilities and Government sectors, implementing the latest Test and Measurement solutions and best practices in the region.

Ibis Instruments, as part of **Ibis Group**, has been established as a solid company and constantly developed since 1996 in **Southeast Europe**, being recognized for its specific expertise and excellent understanding of client needs.

Nowadays we continue to follow technology developments and, in collaboration with our partners, contribute to market expansion by creating and implementing cutting-edge solutions in Test and Measurement field.



Ibis Group numbers



Our Portfolio



Fiber Splicing & Test

The quality of installations, commissioning, monitoring, troubleshooting, and issue resolution in fiber networks requires advanced, automated procedures and tools that we deliver.



CATV, Copper & WiFi certification

We provide field technicians with the measurement equipment they need to identify and resolve issues. This equipment guides them through the entire process with a simple and automated procedure.



Metro, Transport & Core

To ensure optimal QoS in these networks, we equip you with advanced tools for system activation, capacity planning, and proactive identification of emerging network challenges and potential issues.



RF & Microwave

Efficient radio spectrum management is key to prevent interference. We are highly specialized in providing solutions and consulting services in this domain.



Mobile Networks

Mobile networks technologies develop fast, having a strong impact in the society evolution. To ensure network efficiency, proper tools are needed for testing.



General Purpose Equipment

We've developed test and measurement equipment to meet industry needs, offering tools for simulation, testing, and evaluation. Our general-purpose equipment is essential for efficient testing, from basic measurements to analyzing circuit responses.



SERVICES:

- **Repair**
- **Calibration**
- **Consulting**
- **Implementation**
- **Equipment Rental**
- **Professional Services**

Key Markets



Communication Service Providers

We provide telecommunication solutions that help operators implement, maintain, develop, and optimize complex networks, ensuring the highest quality and speed for superior user experience.



Aerospace & Defense

We offer advanced solutions for the Aerospace and Defense sector, focusing on wireless communication, satellites, and navigation, while utilizing our expertise to implement cutting-edge technologies and drive technological progress.



Industry and Science

Advanced technological solutions for industry and science, optimizing production processes, advancing research, and fostering scientific development to improve efficiency, precision, and sustainability across various sectors.



Installers

We provide support to installers in implementing advanced technology, system integration, and ensuring efficient operation, making their processes easier and increasing productivity.



Regulator Authorities

In telco industry, the key resource is the frequency spectrum, with its limitations and regulations. Leveraging advanced technology, we help regulatory bodies improve their work, ensure fair competition for operators, and deliver the best user experience.



Utilities

With innovative solutions for the energy and utilities sectors, we are focusing on optimizing infrastructure, improving efficiency, and ensuring reliable service, while supporting sustainable energy practices.



Government and Enterprise

Our technology and service help enterprises and data centers enhance operational efficiency, optimize infrastructure, improve performance, and ensure scalability and security for future growth.

VIAVI Fiber Test Tools

FTTH	DWDM/CWDM	MPO	Fiber characterization	DAA/RPHY	Fiber essentials	Fiber Monitoring	TPA, Workflow and Dashboards
 <p>Fiber Scopes</p>	 <p>Fiber Scopes</p>	 <p>SideWinder</p>	 <p>Fiber Scopes</p>	 <p>Fiber Scopes</p>	 <p>VFLs</p>	 <p>Centralized Construction Rethink the entire process with Centralized E2E testing</p>	 <p>Job Manager</p>
 <p>PON Power Meter</p>	 <p>Channel Checker</p>	 <p>MPOLx</p>	 <p>CD/PMD Source</p>	 <p>TB4000 w/ xWDM OTDR & Channel Checker</p>	 <p>Power Meters</p>	 <p>Mobile Tech</p>	
 <p>1310/F 1650 550 PON OTDR</p>	 <p>TB2000/4000 w/ xWDM OTDR</p>	 <p>TB4000 / MPO Switch</p>	 <p>ONA 800 / TB8000</p>	 <p>TB5800 Ethernet & PTP Timing</p>	 <p>Fiber Identifiers</p>	 <p>SmartOTU/ONMSi</p>	 <p>Workflow</p>
 <p>Companion</p>	 <p>ONA 800 / OSA</p>	 <p>Cable SLM / Enterprise SLM</p>	 <p>CD/PM/AP module OTDR/IL/ORL Modules</p>  <p>MTAU Switch & Scripts</p>	 <p>TB6000 / TB8000 w/ CD/PMD/OTDR</p>  <p>RF & Video Tools</p>			 <p>StrataSync Cloud-based data and asset management</p>

Fiber Monitoring to Critical Asset Protection

Fiber Monitoring

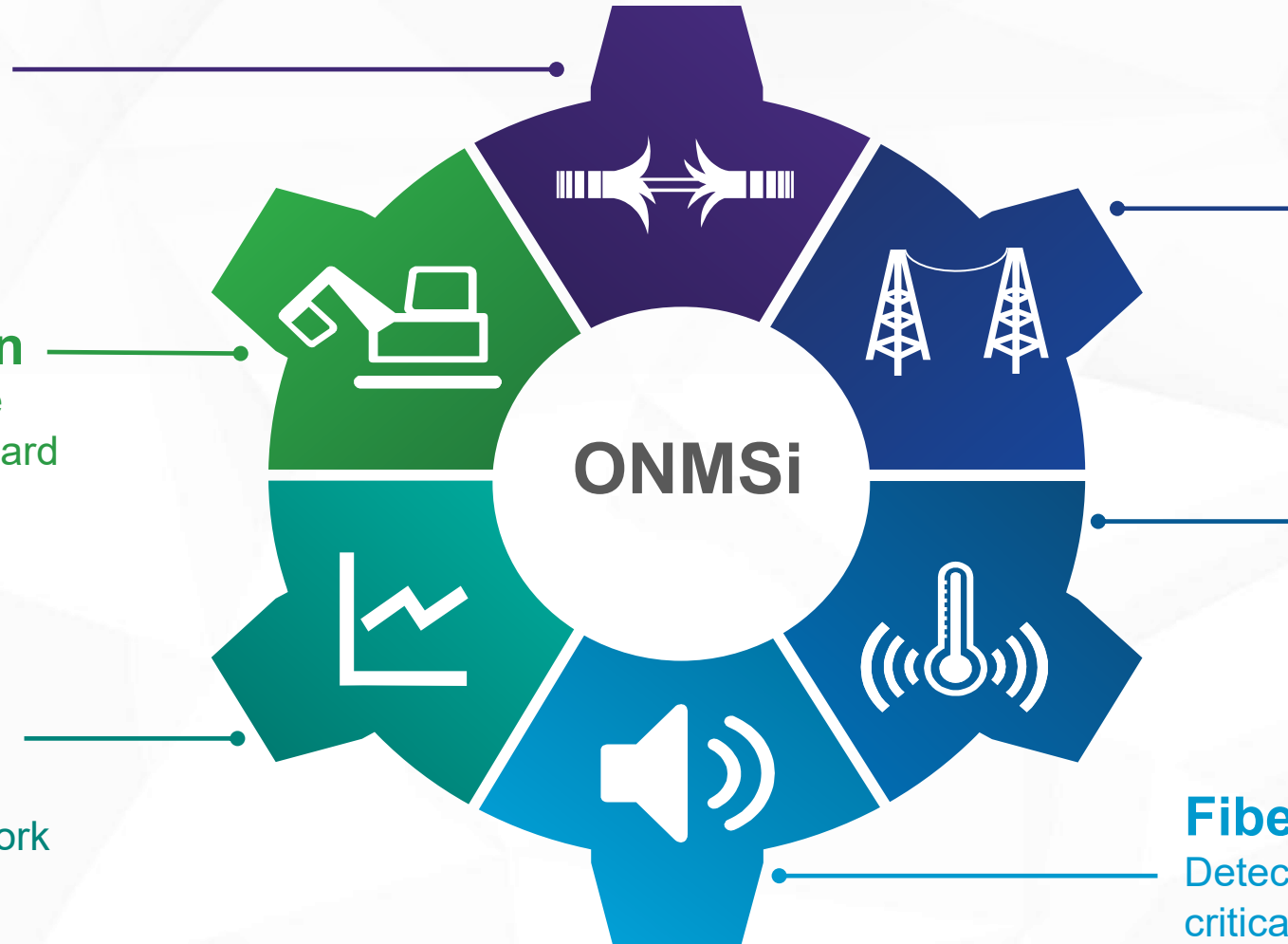
Asset protection detects fiber degradations and breaks faster.

Fiber Construction

Network build compliance and assurance with standard & central processes.

Fiber Assets & Analytics

Look at fiber trends and monetize your fiber network infrastructure



Fiber Strain

Identify installation, icing, winds, etc. loads before they impact your fiber network

Fiber Temperature

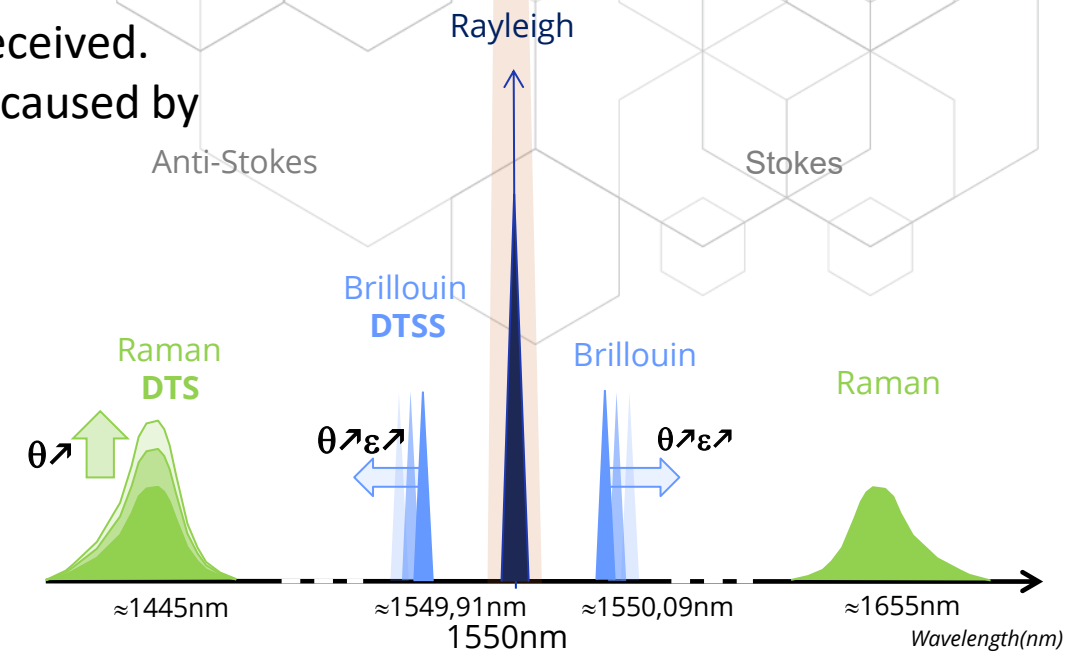
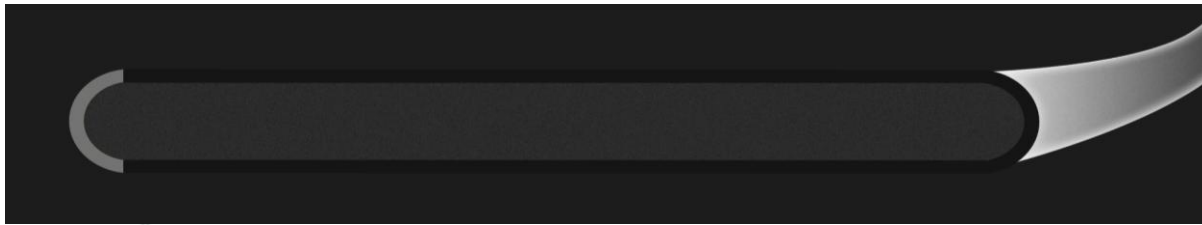
Locate fires, Icing, and environmental events

Fiber Acoustics

Detect intrusions & interference on critical infrastructure with Distributed Acoustic Sensing (DAS)

Distributed Fiber Optic Sensing: A different use of fiber

- Pulses of light are sent over the fiber, backscattered light is received.
- The backscatter is interrogated for changes in characteristics caused by external factors.



Rayleigh OTDR

→ Fiber Monitoring - Loss, Reflections & Failures

Raman OTDR

→ Distributed Temperature Sensing (DTS)

Brillouin OTDR

→ Distributed Temperature & Strain Sensing (DTSS)

Coherent Rayleigh OTDR

→ Distributed Vibration/Acoustic Sensing (DVS/DAS)

DTS - Applications and Hardware

Buildings & Infrastructure
(roads, railways, industry
facilities)

Fire Detection

Pipelines (oil, gas (LPG), water...)

Leak Detection

Electrical utilities (power cables)

Hot Spots | Depth of Cover | RTTR/Ampacity | Smart Grid



Pipeline Condition
Monitoring



Pipeline Heat
Trace Monitoring



Industrial Process
Monitoring



Structural Health
Monitoring



Power Cable
Monitoring



Rail & Road
Monitoring



FTH-DTS



OneAdvisor 800 DTS

DTSS - Applications and Hardware

Buildings & Infrastructure
(roads, rails, bridges, dams,
dikes)

Fire Detection | Structural Health Monitoring | Seismic areas | Landslides
Monitoring | Crack/deformation detection

Pipelines (oil, gas (LPG), water...)
Electrical utilities (power cables)

Leak Detection | Pipeline Integrity Management
Hot Spots | Depth of Cover | RTTR/Ampacity | Smart Grid Asset Health
Monitoring | Overstressed line identification/Icing

Telecoms/MSOs (fiber cables)

Asset Health Monitoring | Overstressed fiber identification/Fiber aging
Installation loads/quality



Pipeline Condition
Monitoring



Pipeline Heat
Trace Monitoring



Industrial Process
Monitoring



Structural Health
Monitoring



Power Cable
Monitoring



Geo-Technics and
Seismic



Rail & Road
Monitoring



FTH-DTSS



OneAdvisor 1000 DTSS

Aerial Cables Health Monitoring

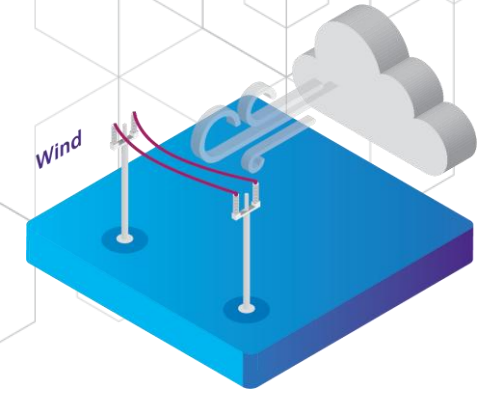
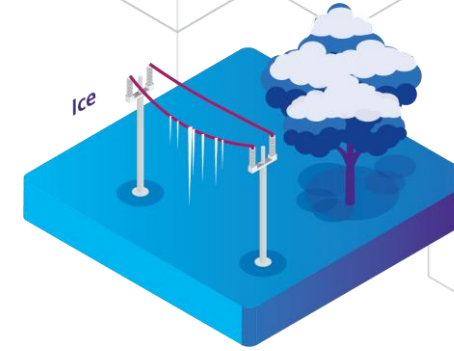
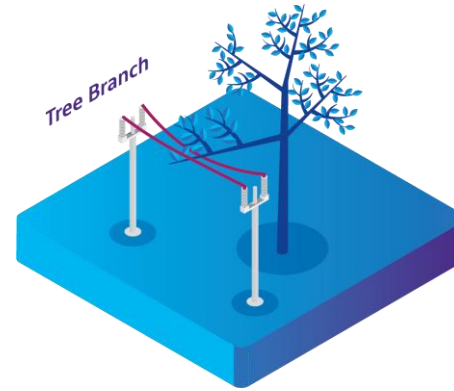
OPGW / ADSS cables

Strain

- Installation loads / quality
- Objects on cables
- Ice loads
- Wind loads
- Ground & towers/piles movements
- Seasonal thermal loads

Temperature

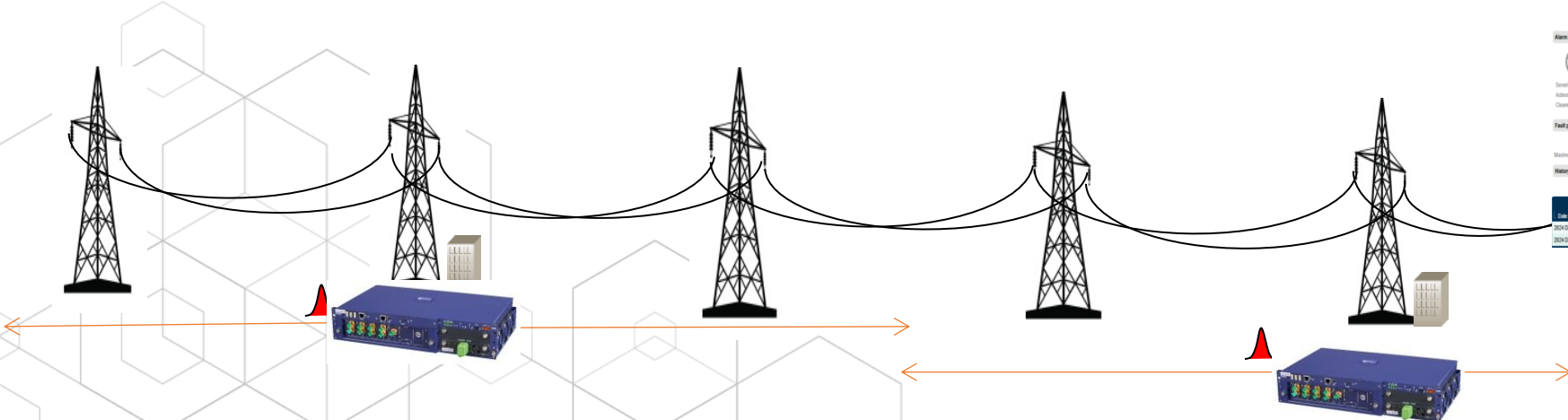
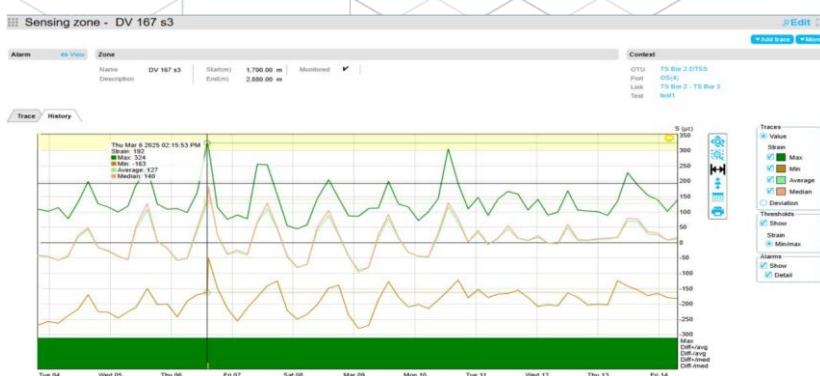
- Hot Spots (e.g. OPGW near HV)



OPGW cable



ONMSi can monitor Temperature and Strain Variation



Alert	Information	Context
Severity: Minor	ID: 12 Creation: 2024-Dec-24 02:48:48 Last update: 2024-Dec-24 02:48:48 Origin: DV 402-02-02 Description: Multiple causes Probable cause: Threshold crossed Chained: No Specific problem: Strain Duration (DD HH:MM:SS): 00:05:50:24	Device: DTSS OTU: TS Bus 2-DTSS Link: TS Bus 2 - TS Bus 3 Test: Test Sensing zone: DV 402-02-02

Profile	Minimum	Maximum	Diff (average: 7 µε)	Diff (median: 23 µε)
36,300.00m	35 µε	35 µε	[25.625.75 in 36,600.00 m]	41 µε [25,900.30 in 36,600.00 m]

Date	Alert event	Severity	Ack	Clear	User	Description/Comment	Sensing bases	Alerts not acknowledged	Receipt	Dismiss	Detail
2024-Dec-24 02:48:48	Minor	✓				Back to normal	On	Successfully sent	0	0	0
2024-Dec-24 02:48:48	Minor						On		0	0	0

Optical Network Monitoring Solution (ONMSi)

Fiber Visibility: Build, Activate with Performance and Condition Monitoring

Hardware



FTH-9K (OTDR)



LFM

FTH-5K (OTDR)



FTH-DTSS



FTH-DAS

Fiber Test Heads [FTH]



Software Suite Lifecycle Applications

Build



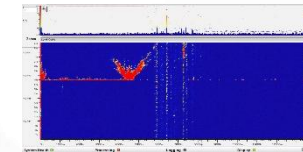
Easy Remote Field Testing
using smartphone mobile app
with automated process and
real-time results sync

Monitoring & Diagnose



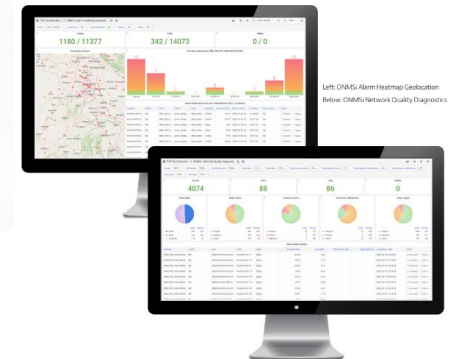
GIS of Inventory
of landmarks and optical routes
including monitoring and failures
identification and localization

Prevent & Protect



Alarm Management Software
Provides a simplified and visual
interaction with the data and the
events detected

Fiber Dashboarding

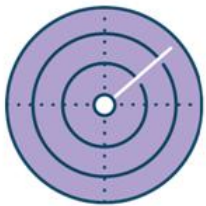


Drive Operational Excellence
Build progress, inventory
management, KPIs tracking and
reporting, trends, for predictive
maintenance

Comprehensive AI&ML, Analysis and Insights

DAS - Applications and Hardware

Security services/Government	Real-time Perimeter Monitoring Border Security
Infrastructure (roads, rails...)	Intelligent Transport (Smart Cities)
Pipelines (oil, gas (LPG), water...)	Leak Detection Pipeline Integrity Management Hot Tapping PIG Tracking
Electrical utilities (power cables and equipment health)	Asset Protection/Third-party interference detection Electrical arcing Electrical substation & three-phase switch Monitoring
Telecoms/MSOs (fiber cables)	Asset Protection/Third-party interference detection
Industry (equipment health)	Operations and fatigue monitoring (fans, conveyor belts...) Perimeter Security



Third Party
Intrusion/Security



Geo-Technics and
Seismic



Rail & Road
Monitoring



Industrial Process
Monitoring



Structural Health
Monitoring



Power Cable
Monitoring



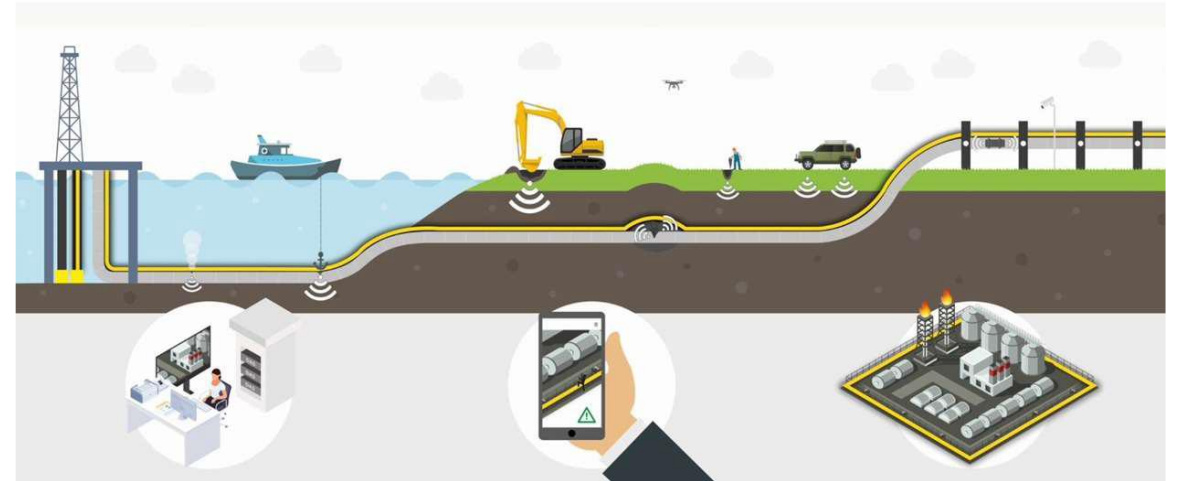
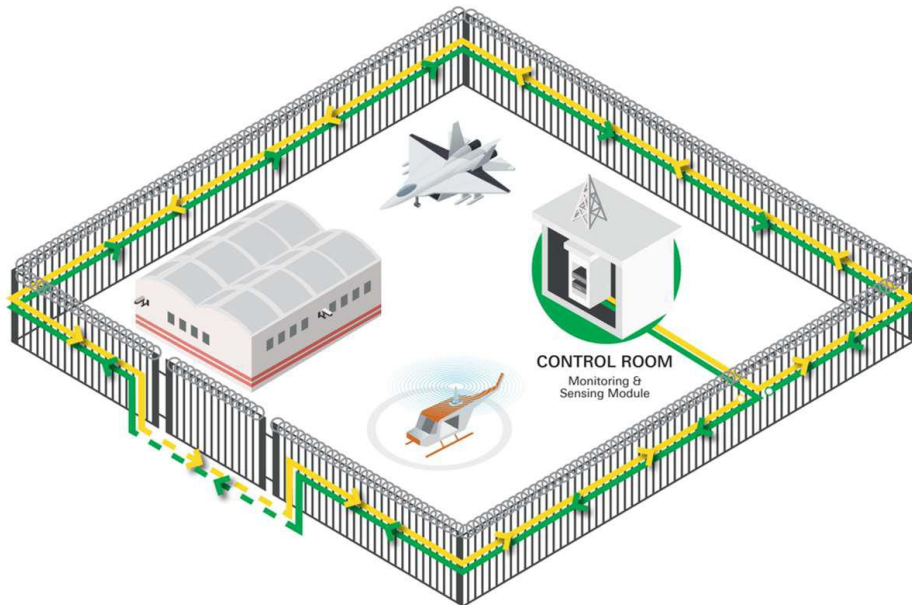
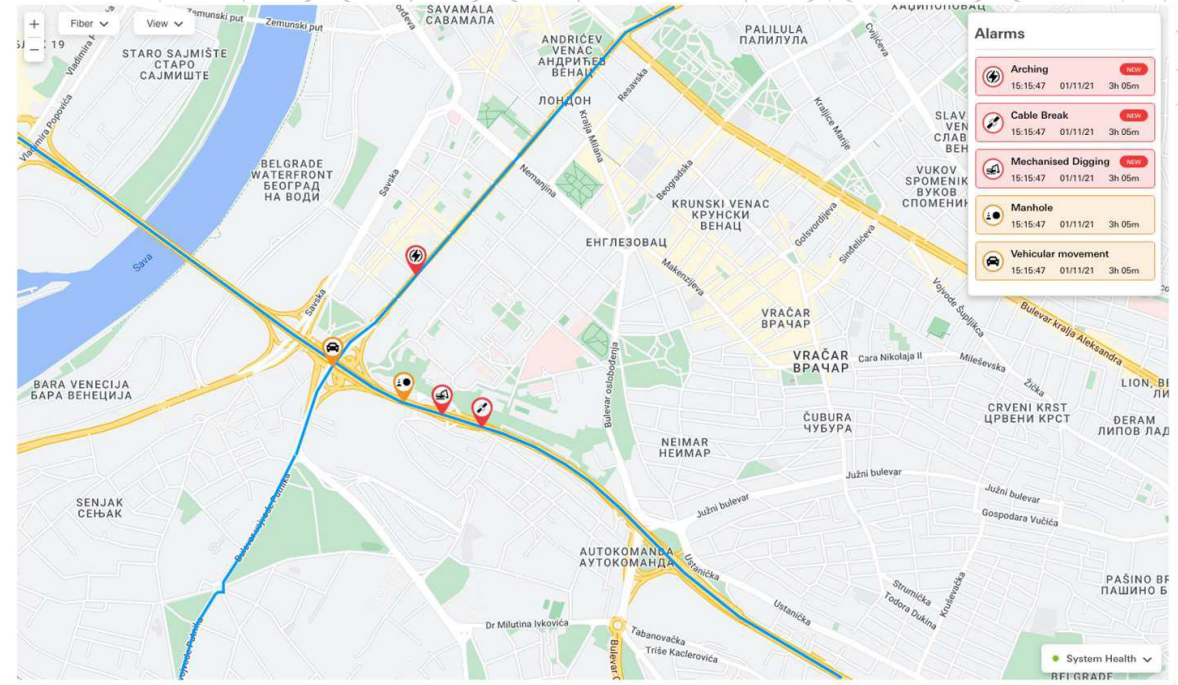
Pipeline Condition
Monitoring



FTH-DAS

DAS threat detection for:

- People & vehicle movement
- Fence climbing & cutting
- Tunnelling and excavation (manual and mechanized)
- Man-hole Interaction & cable tampering
- Cable & joint faults
- Cable bend/stretching and arching/flashover
- Leak Detection
- Ground Deformation



Distributed Acoustic Sensing

Security & Surveillance – TPI (3rd party intrusion)

The image displays two web browser windows. The left window, titled 'Fotech Fibre Portal', shows an aerial satellite view of 'Crowe Farm' with a 'VI.AVI' logo and a 'System Health' section. A VLC media player window is overlaid on the bottom right of this view, showing a ground-level camera feed of a gravel path and a lake, labeled 'Athens Detmo Site'. The right window, titled 'Helios Web Interface: Live Fibre', shows a data visualization interface. It features a vertical axis on the left with a scale from 0 to 200, and a horizontal axis at the bottom with a scale from 2700m to 3000m. A large blue rectangular area represents the data for the 'White Fence -> Lake' zone. The interface includes an 'Admin' sidebar with 'Data Logging' settings (Status: Not Logging, Raw: /dev/sdb1, Acoustic: /dev/sdb1, Phase: Default Drive, Directory: July_23_2020, Filename: Explosion_1, Format: FDS) and 'Helios Controls' (Running, Laser On). A 'System Health' summary at the bottom shows: CPU Temperature: 44°C, GPU Temperature: 56°C, System Drive: 21%, Signal: OK, Load: 0.01%, Backlog: 0.0 s, Write speed: 0.0 MB/s, Backlog: 0.0 MB, Dropped shots: 0%, Dropped alarms: 0%. The status bar at the bottom indicates 'Mean backscatter: 5574.41 (17%)', 'Last FDEL start: 2020-07-23 13:38:58', and 'Updated: 18:11:51 CDT'. A warning message '!!! DEV !!!' is visible in the bottom left of the Helios interface.



Thank you!