

NBG

FIBER OPTIC SENSING FOR SMARTER AND GREENER CITIES



An independent company

Established in 1996

- 250+ Employees in 3 countries •
- HQ in Gmünd, Lower Austria •
- A family company •

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We Provide End-to-End Fiber Optic Solutions







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A smart city is sustainable









Reduction of CO2 emissions Reduction of wasted resources

Increased lifetime of assets

Increased quality of life

Onbg Smart Cities – Smart Innovations

Innovation is the key



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Onbg Humanized infrastructure

Optical fiber networks are a city's nervous system

Backbone to last mile data collection



Опвс What Fiber Optic Sensing can do



Reduction of wasted resources

Reduction of CO2 emissions

e Increased lifetime of assets

Increased quality of life

Structural health & infrastructure monitoring

Real-time parking & loading zone data

Security monitoring

Environmental & temperature monitoring

Traffic flow monitoring





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Reduce downtime of critical assets such as power plants

Reduce service intervals

Reduce CO2 emissions through optimized processes in coal-fired plants

O Amplify values and monetise existing assets



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- EU Smart City Council
- ** Wien Energie survey 2020
- *** Industry average (NBG survey)

**** Schneider Electric Study/White Paper 2013 and 2020 and National Academy of Sciences 2015

Onbg A new business horizon

Sensing data from existing networks as new revenue streams





Based on predictions from partner surveys



Existing Revenue stream

Additional revenue potential with sensing

Thank you





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Structural Health Monitoring

Your challenges

- Status evaluation of bridges, streets, parking spaces, tunnels, dams, retaining walls, etc.
- Time consuming and costly regular inspections
- 24/7 Monitoring of acute damages
- Predictive maintenance
- Preventive monitoring to ensure ideal service time.





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Why Fiber Optics in Structural Health Monitoring?

- 24/7 operation independent of weather conditions (fog, rain etc.)
- Monitoring without interruption of object use (closed roads / bridges / tunnels)
- High sensitivity / accuracy
- Structural deterioration can be detected at an early stage
- No blind spots



Applications





Bridges







HIGH TEMPERATURE SENSING



Perimeter Intrusion Detection System





SENSING TECHNOLOGIES



Smart City – Smart Innovations

NBG - YOUR INNOVATION PARTNER FOR SMART CITIES



Our expertise

Exoerience-Industry Sectors-Applications

