XenomatiX
True solid state lidar

Exact
your exact solution

PAVEMENT INSPECTION

Cost-effective solution based on 6D road scanning



Pave the way to cost-effective road inspection!

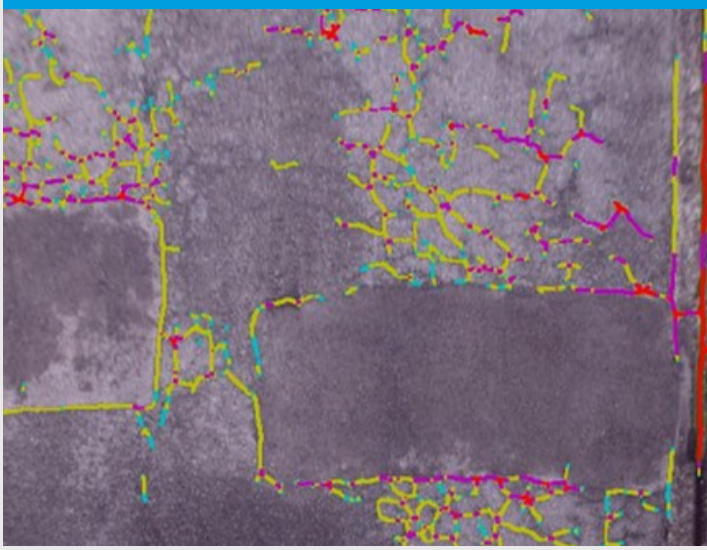
Roads are busier than ever, carrying a mix of vehicles while increased rainfall from climate change adds new challenges. Good maintenance is essential to ensure safety and keep roads accessible for everyone including cyclists, pedestrains and wheelchairs users.
Pavement inspectors, contractors, surveyors, and local managers turn to XenomatiX for applications like:

1. Pavement Condition Monitoring
2. Quality Control for New Roads
3. Road marking checks
4. Bike lane inspections
5. Sidewalk assessments
6. Crack and Pothole Detection

XenomatiX offers a versatile solution suitable for any pavement type and width, helping plan road repairs in a timely manner.

Why Choose XenomatiX?

- Fast and Easy Pavement Inspection
- Detection of Defects Beyond Traditional Methods
- Objective Analysis for Predictive and Curative Maintenance
- Complete Data from a Single System
- Turn-key Solutions with XenoVan and XenoBike
- Competitive Pricing



Edge AI Crack detection includes measurements of density and intensity.

CERTIFIED

AASTHO and ASTM Standards

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6D Road Scanning

XenomatiX pavement inspection is based on 6D Road Scanning using XenoTrack. The XenoTrack road LiDAR adheres to **ASTM and AASHTO standards**, offering robust capabilities for data acquisition, 3D digital twin creation, and **calculations of IRI, rutting, MPD, PCI parameters, cracks and potholes**. Available in two versions, the Single Lane is designed for one-lane detection, while the Dual Lane measures two lanes simultaneously.



Turnkey solutions XenoVan, XenoBike, and more..

Single Lane

Detects only one lane, up to 4m wide



Dual Lane

Detects two road lanes, up to 8m wide



XenoTrack digitally measures the pavement with mm resolutions in driving and lateral direction. It generates the full geometry of the road, showing the different types of damage, and giving insight into the cause and repair required. 6D road auscultation systems and services include 6 data dimensions:

- 3D digital representation of the road surface (XYZ)
- intensity measurements that visualize road markings
- 2D high-definition camera images are recorded simultaneously

All data comes with highly accurate geolocations and can be readily imported on your GIS systems.
Output available in various data formats (CSV, LAS, CRG, PGM, Tracks).

Key Features

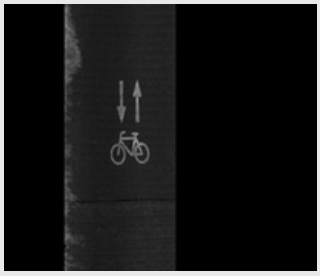
- Automated IRI and Rutting indices
- Automated MPD and PCI* calculations
- AASHTO and ASTM compliant
- Edge AI crack and pothole detection
- Up-to-date as-built 3D model
- Integration with common Geographic Information Systems, local and cloud

*We calculate the most important parameters required for PCI and have full compatibility with the relevant software.









Road Marking Detection

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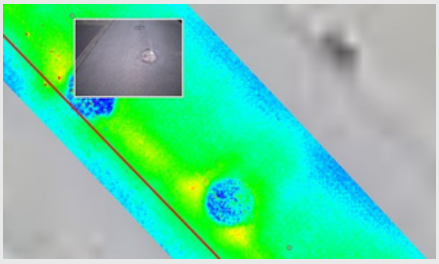
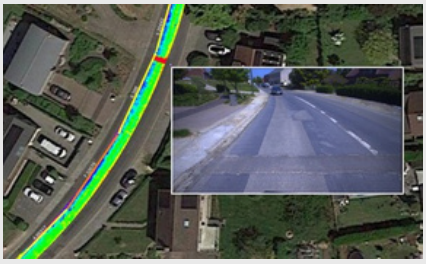
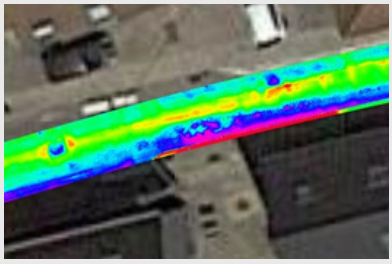
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Easy visualization of road data

XenomatiX offers data formats for integration into any GIS platform and access to a local or cloud-based PMS system. After measuring **crack and pothole density and severity, along with indices like IRI, MPD, rutting depth and other PCI parameters**, the data is geo-tagged and exported in any GIS systems. By color-coding the GIS layer in function of the pavement quality indices. The heightmap locates areas that require attention. The local height of the road surface illustrates the deformation of the road and provides valuable insights into necessary pavement repairs to align with your budget and planning needs.



Customer Quote

''We receive data for every cm² of Leuven's streets. The data is visualized on a GIS system and colour coded. This allowed our team to assess the exact condition of the road surface, prepare budget and priority planning. Additionally to the 3D map, XenomatiX provides the 2D images ...so that no road distress remains unnoticed''

DIRK VANSINA - COUNCILOR, CITY OF LEUVEN

Cost-effective Pavement Inspection Sytem

Unlike traditional laser crack measurement systems commonly used today, the XenoTrack offers an innovative solution that delivers simplicity and comparable accuracy at a fraction of the cost.

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One system only

XenoTrack is designed for vehicle-mounted deployment, allowing for quick and easy installation on any vehicle in just **45 minutes**. Equipped with XenoCam, an RTK system, and road LiDAR, it captures high-precision data at **any speed, day and night.** Since 2020, we have successfully deployed XenoTrack units across more than 20 countries, delivering precise road data and contributing to smarter, more efficient road management. The XenoTrack is **designed for maximum portability**, easily fitting into a small suitcase that can be transported by airplane. This compact design ensures that pavement inspection can be carried out anywhere.



6D Road Scanning Kit: Lidar, GNSS, RTK, Camera, Alignment Set



XenoTrack and its kit fitted in a hand luggage

XenomatiX supports three key pillars: **road comfort, maintenance, and safety**— helping to enhance infrastructure and optimize budget planning.



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PT. EXACT GLOBAL TEKNOLOGI
Indonesia **Authorized Agent**

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