



University of Antwerp
| Faculty of Applied
Engineering

Materinex
18 juni 2024

Pitch sessie Materialen voor Bouw & Constructie

Prof. Wim Van den bergh

Sustainable Pavements and Asphalt Research

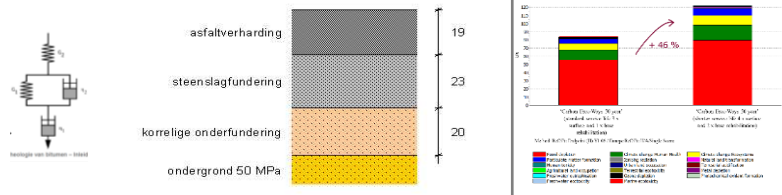


Sustainable Climate Resilient and Smart road structures Asphalt Technology

Basic, Strategic-basic and Applied research

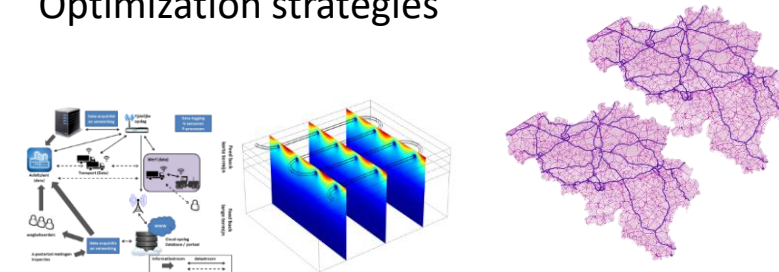
Sustainable Asphalt Pavement & Materials

- Ageing and healing mechanisms
- Recycling and regeneration technologies
- Surface characteristics
- Structural design and environmental impact
- Innovative materials



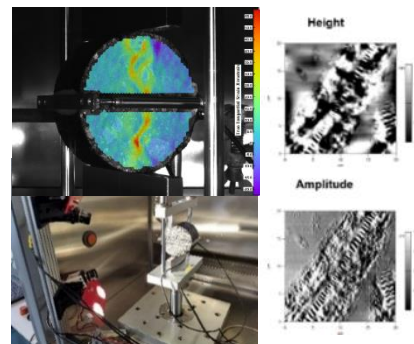
Smart road technologies and management:

- Road IT and FBG
- Asphalt Solar Collector
- Data analysis & management
- Optimization strategies



Experimental Material Research

Asphalt Laboratory
Advanced Rheological Binder Laboratory
Microstructure Laboratory
VOC test lab



Test tracks



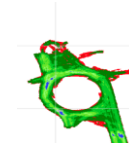
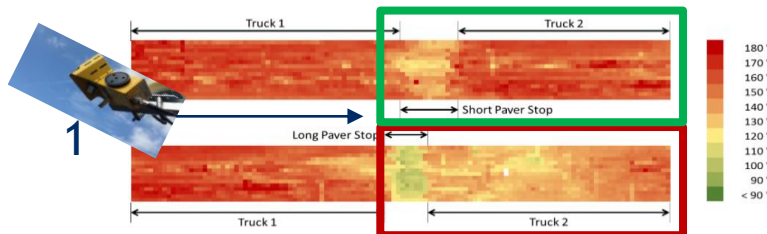
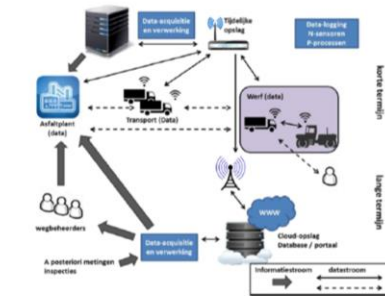
NETWORK
Suppliers
Contractors
Agencies
Pavements
managers

Offering collaboration and seeking for

- *Experience: B2B contracts /sector projects/national/global projects Fundamentals – applied research ; problem solving – demonstration cases*
- Digitization and Digitalization of infrastructure/pavement industry
 - COOCK+: DIMinfra : new digital technologies for pavements (QA)
 - AI (pavement management, decision strategies, macro-flow streams)
 - Dynamic BIM

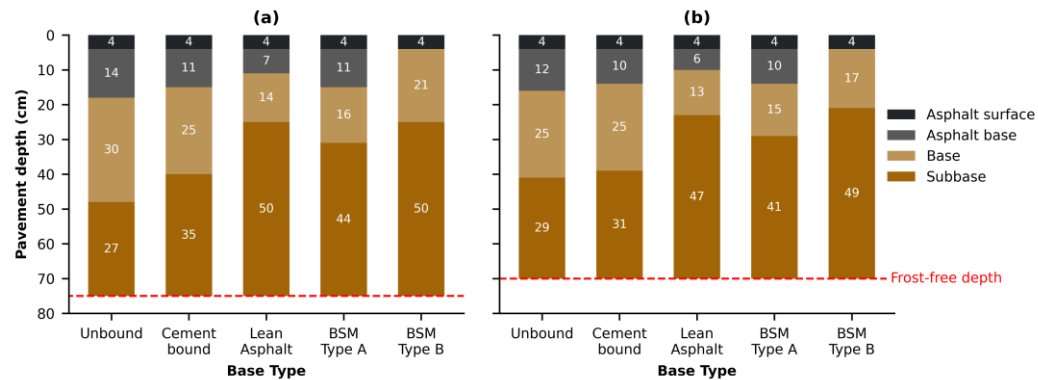


COOCK+
Digitaal Informatie
Management in de
Infrastructuursector
UNIVERSITEIT ANTWERPEN & HOGESCHOOL PXL



Offering collaboration and seeking for

- New materials to increase sustainability of asphalt materials and road structures.
 - Polymers, waste flows, biomaterials – biobinders (rejuvenators?)
 - Base, subbase and soil treatments
 - New materials technologies (looking 30 years ahead!; phase changing materials?)
 - Microsurfacing rehabilitation - Fast rehabilitation



Offering collaboration and seeking for

- Other industries connected with pavements to learn from each other: tires, vehicles, health and safety, energy, data, railroads, climate change
- new functions of the road



Ref: Future roads – Design and Management of roads

Contact

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Sustainable Pavements and Asphalt Research SuPAR

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<https://www.uantwerpen.be/en/research-groups/supar/>



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