

**SABITA Study Tour 2024 – E&E Congress, Budapest
Feedback to RPF – 29 November 2024**



Purpose of Study Tour

- Study tour for its industry members with invites to officials from the public sector.
- Netherlands (1st leg), the E&E Congress in Budapest organised jointly by the European Asphalt Pavement Association (EAPA) and Eurobitume (European Association for Bitumen), then back to the Netherlands (2nd leg). Focus on SMA, Open Graded mixes and issues regarding *sustainability* in road provision.
- Currently there is quite a bit of SMA activity and SABITA (industry) recognises the need to update its manual on asphalt design and construction and develop and launch a standalone SMA manual for the industry.

Purpose of Study Tour

CAPSA Resolutions to CAPSA 2027, viz.:

- *SABITA to update its best practice guideline documents relating to asphalt mix design (including e.g., EME, SMA and Porous Asphalt), targeting performance related parameters and consistent application of test standards.*
- *SABITA to lead a review of pavement resilience information and provide guidance towards the compilation of a best practice guideline on pavement resilience.*

Study Tour Delegates 2024



19th – 21st June – E&E Congress Budapest 2024



- 750 delegates, from more than 50 different countries.
- Most delegates from the EU countries with significant delegations from Japan, Australia, South Africa, Malaysia
- Organised jointly EAPA and Eurobitume
- First in person Congress in 8 years since the 2016 event in Prague.

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Three keynote addresses - all focusing on sustainability



Philippe Moseley 
European Commission's Directorate-General for Internal Market,
Industry, Entrepreneurship and SMEs



Elisabet Stadler 
Head of Group Environment, Peab AB



Peter T. Grass 
President, Asphalt Institute, Asphalt Institute Foundation

- European Commission's Policy Officer, Philippe Moseley.
- Elisabet Stadler (PeaB), representing the asphalt sector.
- Pete Grass (AiF), representing the bitumen sector. 23 years as president, retiring 1 January 2025.

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Philippe Moseley (EC Policy Officer) – EU Policies Supporting the Green and Digital Transitions of Construction

- The transition pathway for construction published - EU and member states' vision for the green and digital transition
- Construction Product Regulation has been revised with clear timelines for proposed implementation.
- The timelines include for harmonised standards and the provisions for Digital Product Passports which highlight the product environmental indicator (carbon footprint) and comprehensive product information.
- **EXAMPLE:** NO HMA in the Netherlands from 2025, only WMA / CMA

(SA /Sabita well positioned with Manuals and Best practise already in place to progress towards this).

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Philippe Moseley (EC Policy Officer) – EU Policies Supporting the Green and Digital Transitions of Construction

- High-level policy contexts related to the green and digital transitions, Circular Economy Action Plan, the European Green deal. Shift from a linear to a circular economy with the increased emphasis on sustainability and competitiveness.
- **Note that by 2028 – digital product passport, by 2031 mandatory declaration of LCA (life cycle assessment) indicators.**
- ***New business models and opportunities were mentioned several times.***

Construction Products Regulation: timeline of new provisions

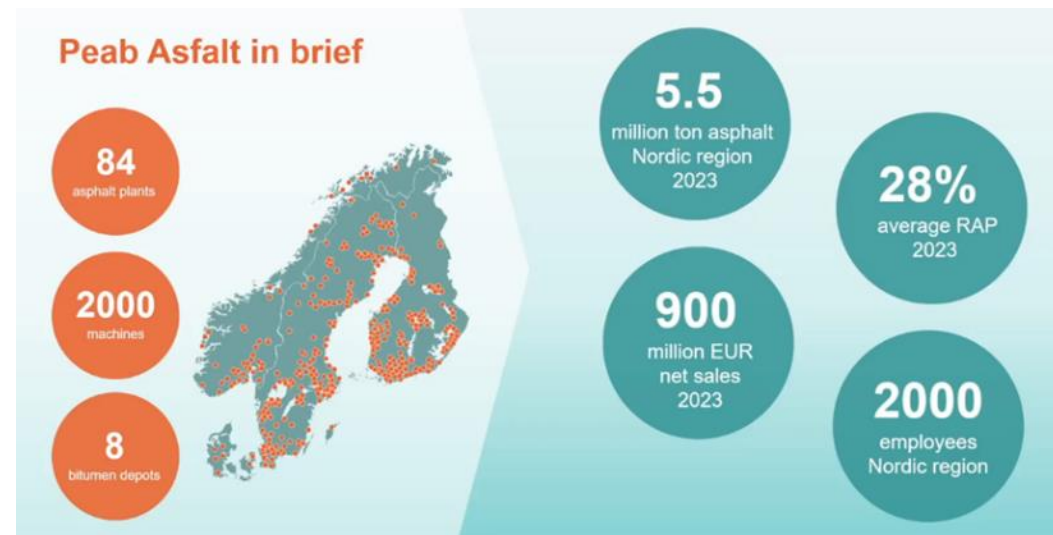


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Elisabet Stadler (Peab AB – Group Head of Climate and Environment) Sustainable Transformation of the Asphalt Industry (NB: Very much private sector driven!!)

- Elisabeth Stadler's keynote focused on the journey taken by Peab AB in leading the sustainable transformation of the asphalt industry in Sweden and the Nordic Region.



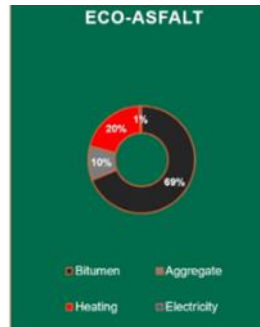
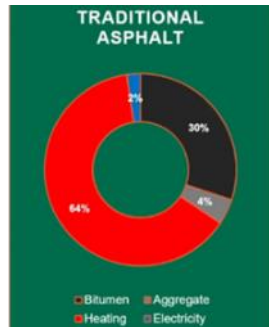
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Elisabet Stadler (Peab AB – Group Head of Climate and Environment) Sustainable Transformation of the Asphalt Industry

80% of the emissions associated with the whole life cycle of asphalt are generated before it leaves the plant the asphalt ***focus of Peab AB was to look at developing solutions before the material leaves the plant.***

The strong message was that **Peab saw this as a business opportunity.**



The focus was on the heating and burning processes and replacing fossil fuel with renewable fuels such as wood pallets, biogas etc. By 2015, 2 plants were converted, the term ecoasphalt was born.

2020 all the stationary asphalt plants in Sweden had been converted.

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Peter Grass (Asphalt Institute Foundation President) – Analysing the Petroleum Asphalt Binder Supply Chain in a Net-Zero World

AiF established 10 years ago to look at the future of bitumen and to contract strategic research to advance the members' product. Two Strategic Asphalt Research Symposia have been held – in 2017 and in Atlanta in 2022. Typically attended by 130 stakeholders across the industry and by invitation only.

AI was founded 105 years ago, Grass been president for 23 years, retiring 1 Jan 2025.

US Sustainability Initiatives – the drivers



- Keen policy interest at all levels – Federal/State
- Major funding increases to EPA, FHWA, GSA and others
- Buy Clean procurement initiatives at Federal and State level
- Long-term “Net Zero” carbon goals – various (public/private)

- Requirements (near term) to produce an asphalt binder (bitumen) environmental product declaration (EPD) to bid on projects in that jurisdiction
- Follow on implications are uncertain

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AI Foundation Sustainability RFP



Analyzing the Petroleum Asphalt Binder Supply-Chain in a Net Zero World

- Comprehend, analyze, and project various scenarios in terms of policy, agency adoption, and market changes consider external net-zero carbon goals.
- Do asphalt binders as construction materials have a future in a reduced fossil fuel environment?
- What is the speed of that change?
- Explore opportunities to reflect upstream supply-chain carbon reduction improvements on the carbon intensity of asphalt binder production.
- Positioning asphalt binder supply-chain in a holistic net-zero system

Consultants have been appointed

The study will consider three different scenarios:

- Consistent 2,5°C temperature rise by the end of the century. (UNEP)
- Pledges for decarbonisation in place and temperature rise at 2°C to get to Net Zero in 2060.
- Pledges in place with 1,5°C temperature rise with Net Zero in 2050 but with rapid adoption of hydrogen fuel.

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Recommendations from Opening Session

- ***Sabita to ensure that the Sustainability Subcommittee is kept abreast of the developments and legislation occurring in the EU*** as background information to the plans being developed as part of the Sustainability Charter.
- ***Peab AB's success as a contractor in driving the decarbonisation must be noted*** with the critical emphasis on the focus of its activities and the fact that this was a business opportunity. There are clear lessons for the South African industry in the collaboration that is necessary to get this working.
- The ***outcomes of the research conducted under the auspices of the Asphalt Institute on the potential future of the binder supply chain in a world undergoing energy transition will be critical reading*** for us here in South Africa and Sabita to ensure that report is accessed when available and discussed at the appropriate Sabita FP.

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Conference Proceedings – 1157 pages, “13” topics, 103 papers

1. Asphalt mixture performance and testing - **27 papers**
2. Binder performance and testing – **31 papers**
3. Digitalisation & Asphalt 4.0 – 3 papers
4. Environment – 2 papers
5. Future Roads & Mobility – 3 papers
6. Health & Safety – 4 papers
7. Maintenance & Rehabilitation – 4 papers
9. Production & Construction Equipment – 1 paper
10. Resilience – 2 papers
11. Sustainability – **20 papers**
13. Warm and Cold Technologies – 6 papers

13 sections but asphalt mix design and testing, binder performance and testing still dominate with sustainability growing.

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11 Plenary Sessions

Binders

- **Session 1 – Binder Performance**
- **Session 10 – Binder Modification**
- **Session 11 – Advanced Binder Testing**

Asphalt

- **Session 2 – Low Temperature Asphalt**
- **Session 3 – High Performance Asphalt Mixes**
- **Session 8 – Asphalt Mixture Modification**
- **Session 13 – Advanced Asphalt Mixture Testing and Evaluation**

Sustainability

- **Session 7 – Towards Carbon Neutral Pavements**
- **Session 9 – Resilience**
- **Session 12 – Sustainability Assessments**

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Workshop 1

Exchange of Experiences on Sustainability Challenges with National Road Authorities and the Asphalt and Bitumen Industries

Workshop 2

Open Doors: The world of Standardisation

Workshop 3

An opportunity to shape how the industry can better encourage women in our sector!

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REFLECTIONS ON STUDY TOUR - 2024



- Study tour - well supported by members
- Excellent feedback regarding value of the tour
- Facilitation and organisation role of Dr Seirgei Miller from University of Twente – would not have been possible without his contribution and support
- Critical part of the Sabita Technology Development strategy
- Imperative that Sabita maintains the international linkages and is aware of the changing landscape globally.



A lot of food for thought for relating to digitalization of aspects of future CAPSA conferences!! High costs are always a consideration, but the instant availability of information, and retention afterwards must be considered!!

