



Sustainable Asphalt solutions :

The impact of recycled materials
on CO2 reductions

Agenda

1. Julien Cajot - Location
2. Sustainability report – why
3. Details of the sustainability report
4. EPD for the 5 most important recipes
5. Impact of the amount of RC

1. Julien Cajot - Luxemburg

Circular road construction from the heart of Europe



1. Julien Cajot - Luxemburg



2. Sustainability report - why

01

CLEAR POLICY DIRECTION

–55% greenhouse-gas emissions by 2030 (vs. 2005) and climate neutrality by 2050.

02

INDUSTRY AS AN ACTIVE PARTNER

A national industrial decarbonisation roadmap aligns efficiency, electrification, low-carbon energy vectors and CO₂ capture.

03

CIRCULARITY AS A DECARBONISATION LEVER

Reclaimed asphalt replaces virgin resources while preserving technical performance and reducing production-stage impacts.

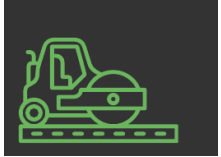
04

MEASUREMENT DRIVES IMPLEMENTATION

Life-cycle assessment, EPDs and CO₂ per tonne create transparent, comparable decision criteria.



3. Details of the sustainability report



ASPHALT MIX PRODUCTION IN 2024

220 090

METRIC
TONNES
PRODUCED

CARBON FOOTPRINT

In 2024, our carbon footprint amounted to 19,327 tCO₂e.

Where the impact is greatest: our direct activities, which account for 61% of our carbon footprint, followed by our indirect emissions excluding electricity (36%) and our electricity consumption (3%).

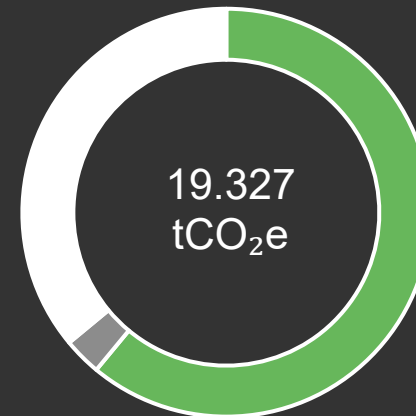
Our ambition is to measure, understand and reduce.

Our carbon footprint

Scope 1 – direct emissions 61%

Scope 2 – electricity emissions 3%

Scope 3 – other direct emissions 36%



Scope 1

11.747 tCO₂e

Scope 2

596 tCO₂e

Scope 3

6.984 tCO₂e

3. Details of the sustainability report

SOURCES OF OUR CARBON IMPACT

 **56%**
ENERGY

Our energy consumption amounts to 34,285 MWh, 97% of which comes from fossil sources.

 **22%**
INPUT MATERIALS

By increasing the proportion of recycled materials in our mix designs, we significantly reduce the carbon impact associated with virgin raw materials.

 **11%**
FREIGHT

To address freight-related emissions, we are taking action through smarter logistics: consolidating journeys, planning deliveries in advance and optimising storage.

 **8%**
TRAVEL

To reduce travel-related emissions, we strongly encourage car-sharing and team departures.

3. Details of the sustainability report

CIRCULAR ECONOMY

1

Raw materials

Virgin aggregates	65%	143.059 to
Reclaimed asphalt	29%	63.826 to
Bitumen	4%	8.804 to
Other: fillers, additives, etc.	2%	4.401 to

Our production chain is based on a balance between virgin resources and recycled materials (step 1). In 2024, 29% of our inputs consisted of reclaimed asphalt, which is rigorously controlled to limit the presence of tar and polycyclic aromatic hydrocarbons (PAHs).

By the end of 2024 24% of the material accepted for recycling was essentially left over – meaning it was not processed.

2

Recycled materials

Total processed and converted into asphalt	76%	63.826 to
Total processed and stored	24%	19.955 to
Waste generated	0.1%	200 to

4. EPD for the 5 most important recipes

ASPHALT MIXES ASSESSED

Recycled-material content and intended application

SMA 11 P Arweiler: conventional asphalt mixture

Surface course for high-traffic areas

EB 16 L P: polymer-modified bitumen asphalt mixture

Technical binder course

EB 11 R2 40%: conventional asphalt mixture

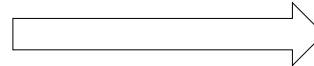
Surface course for heavy traffic

EB 16 L 50%: lightweight standard asphalt mixture

Binder course, intermediate pavement layer

EB 32 B 60%: coarse-graded asphalt mixture

Base course, road structure



Recycled-material content

0%

0%

40%

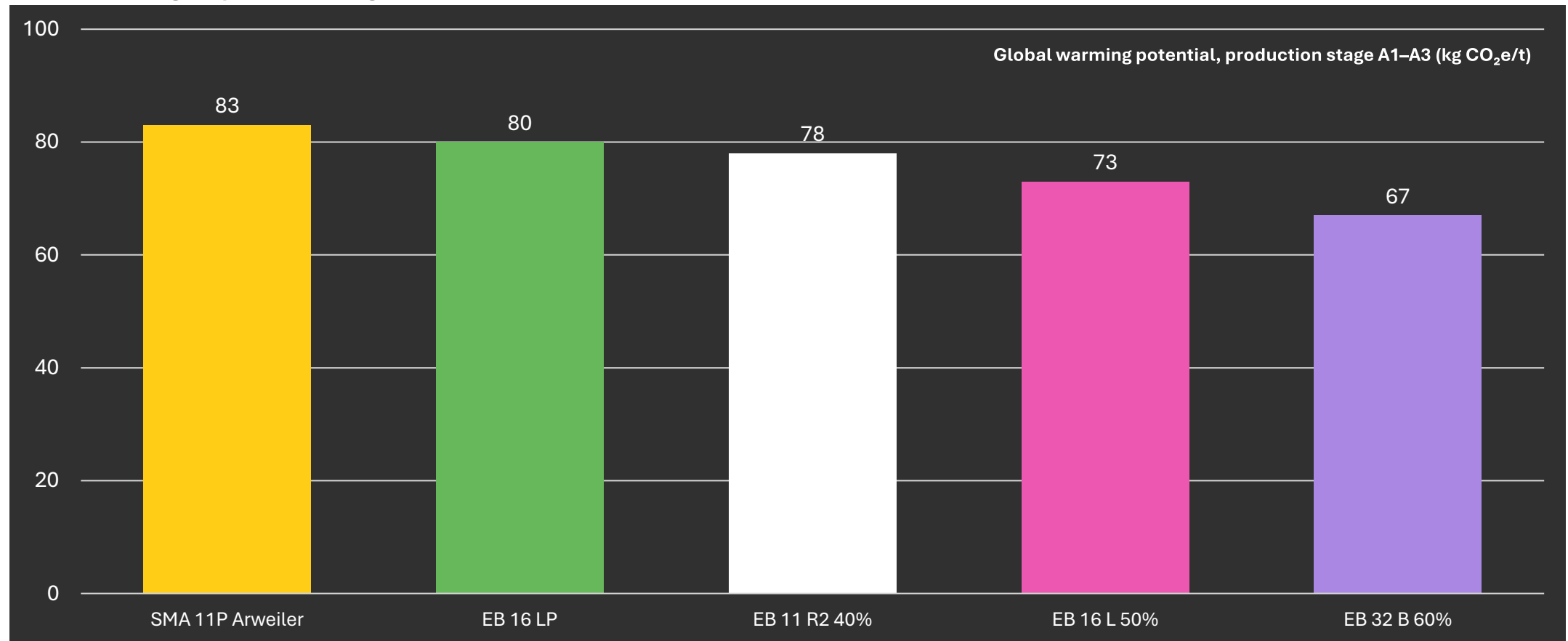
50%

60%

4. EPD for the 5 most important recipes

GREENHOUSE-GAS EMISSIONS

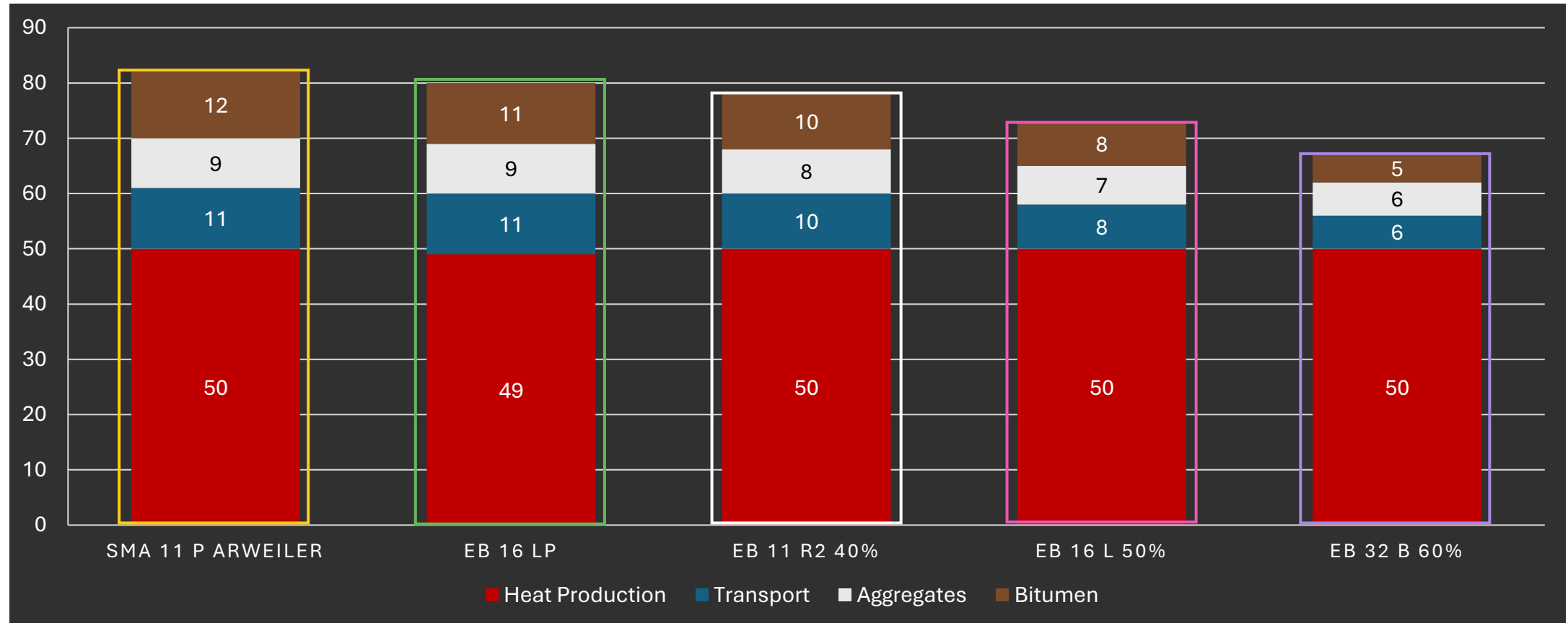
GWP-total during the production stage A1–A3



4. EPD for the 5 most important recipes

GREENHOUSE-GAS EMISSIONS

GWP-total during the production stage A1-A3



4. EPD for the 5 most important recipes

A CLOSER LOOK AT OUR RESULTS

The five life cycle assessments (LCAs) carried out enabled us to compare the environmental footprint of several asphalt-mix formulations according to their recycled-material content. The results clearly show that increasing the proportion of recycled materials reduces greenhouse-gas emissions and.

Lower CO₂ emissions through recycled materials

Conclusion:

Higher recycled content directly translates into lower carbon emissions, achieving up to an 18% reduction compared with conventional asphalt mixtures produced solely from virgin materials.

Key driver:

The reduction is mainly driven by decreased consumption of virgin aggregates and bitumen and the associated transport emissions for their supply to the asphalt plant.