TARMAC
A CRH COMPANY

CEVO

CEVO asphalts | Engineered Solutions

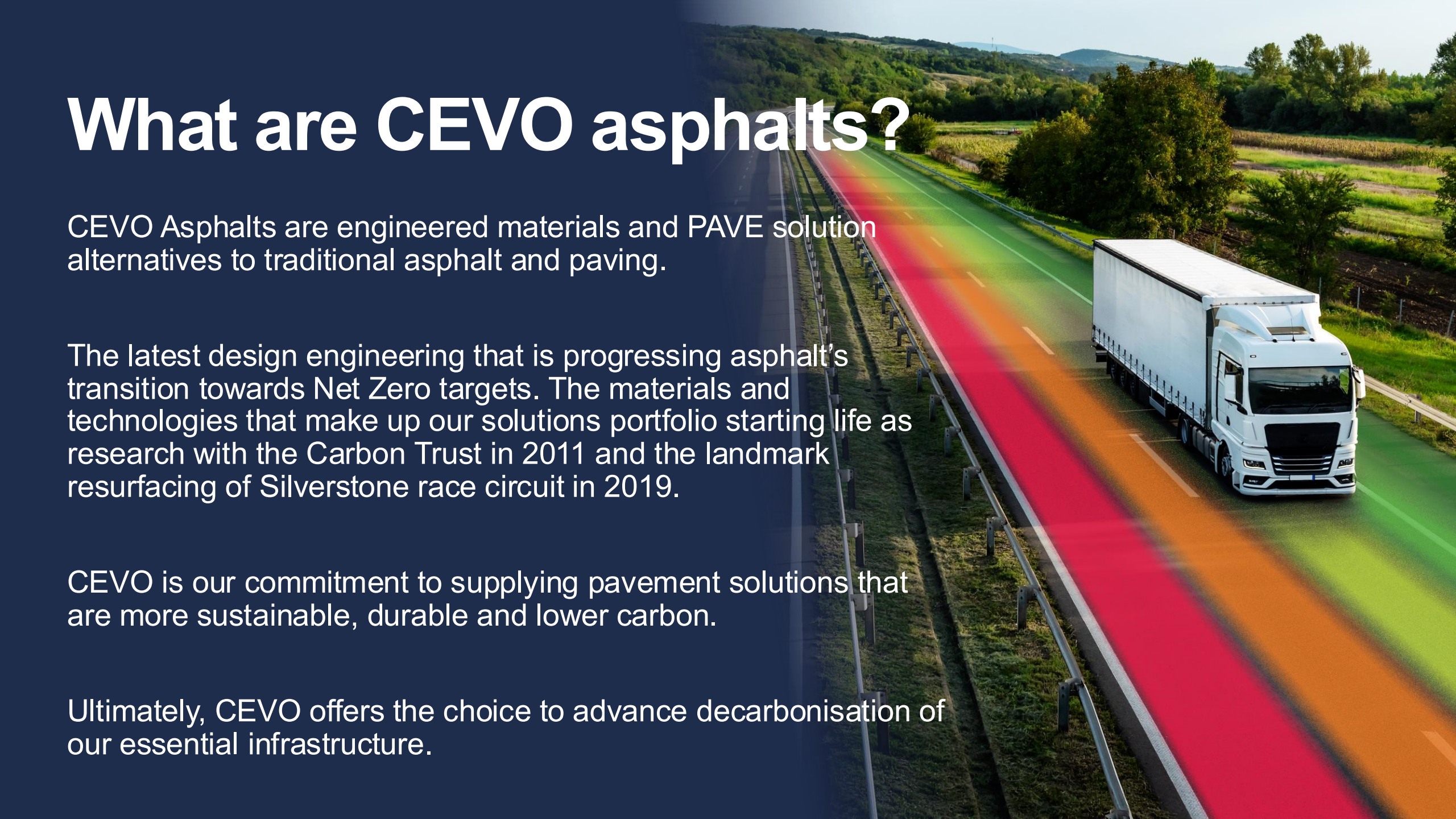
What are CEVO asphalts?

CEVO Asphalts are engineered materials and PAVE solution alternatives to traditional asphalt and paving.

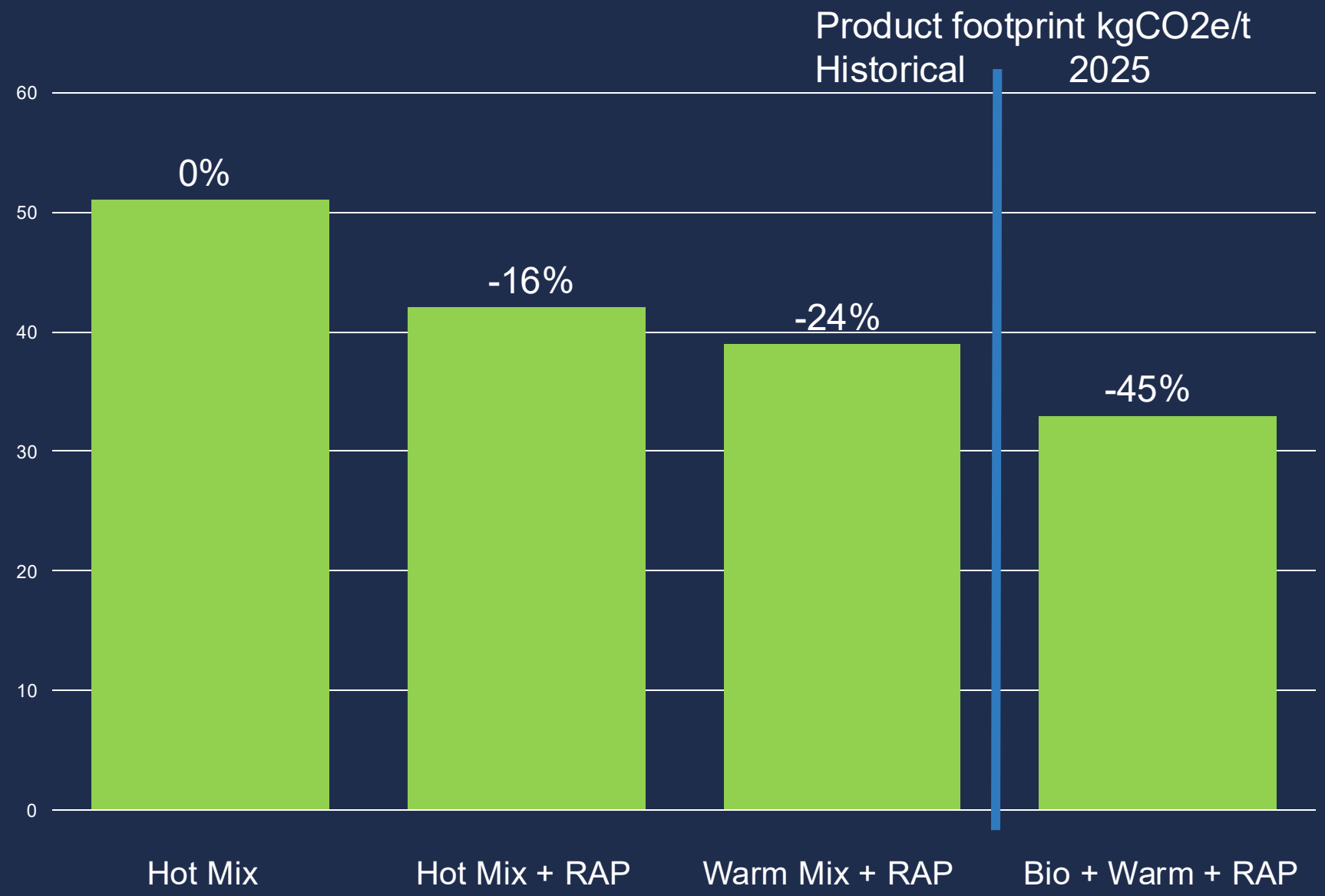
The latest design engineering that is progressing asphalt's transition towards Net Zero targets. The materials and technologies that make up our solutions portfolio starting life as research with the Carbon Trust in 2011 and the landmark resurfacing of Silverstone race circuit in 2019.

CEVO is our commitment to supplying pavement solutions that are more sustainable, durable and lower carbon.

Ultimately, CEVO offers the choice to advance decarbonisation of our essential infrastructure.



Asphalt – the journey so far



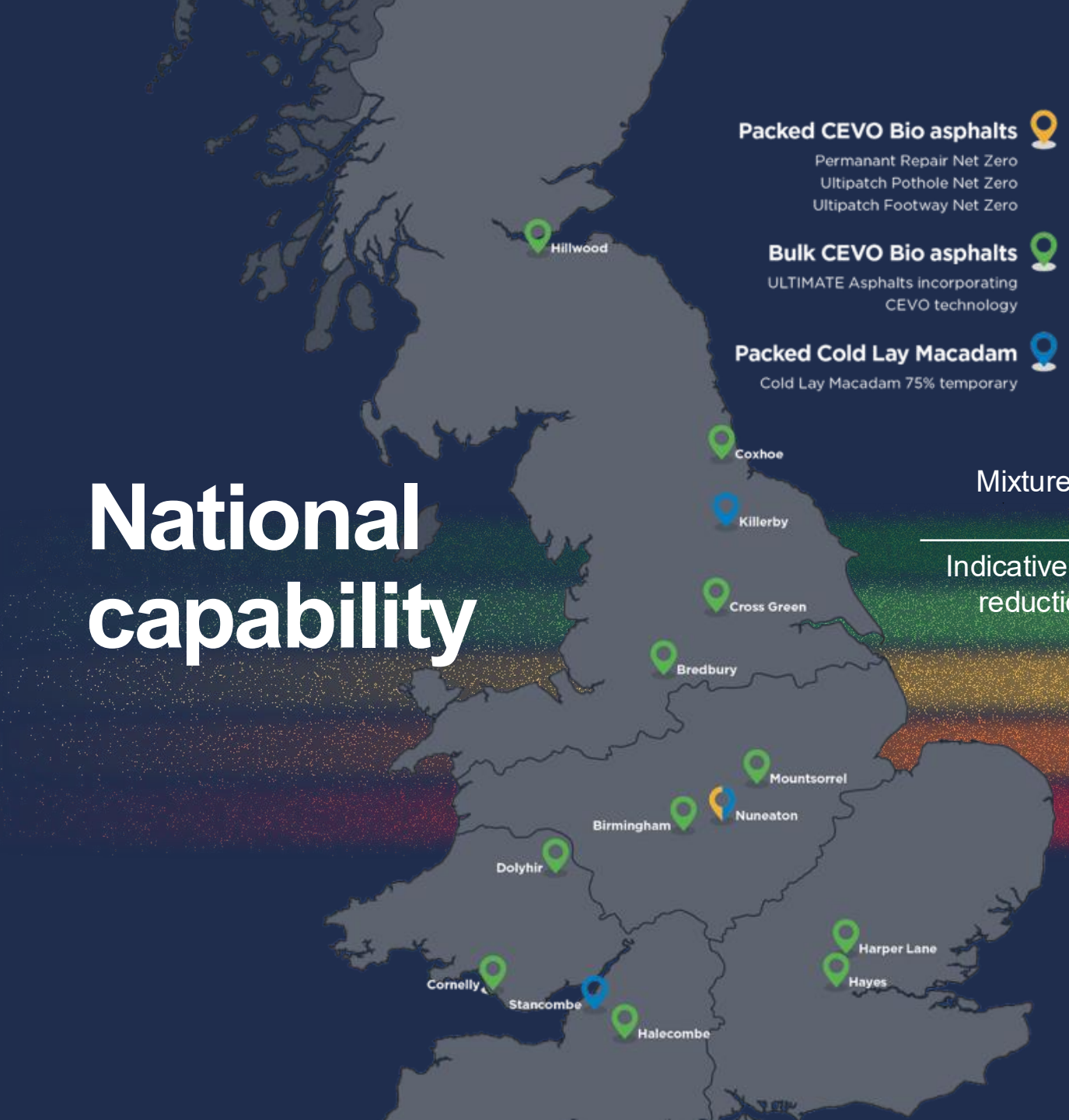
Bio bitumen

CEVO asphalts will generally use the latest bio-binders. Renewable, plant-based alternatives to traditional petroleum asphalt binders.

Derived from natural sources like by-products from trees and the paper industry, they reduce reliance on fossil fuels and lower carbon emissions during production.

The use in asphalt can also **enhance recyclability** and **performance,** supporting more sustainable, climate-friendly road construction practices and **circularity**.

National capability



Network of supply plants

Launch capability examples:

Hillwood | Washwood Heath | Hayes
Mountsorrel | Halecombe | Ipswich

Mixture type	AC 20 dense bin 40/60	AC 20 dense bin 100/150	SMA 10 surf 40/60	SMA 10 surf 70/100
Indicative carbon reduction %	CEVO 40	CEVO 30	CEVO 20	CEVO 40

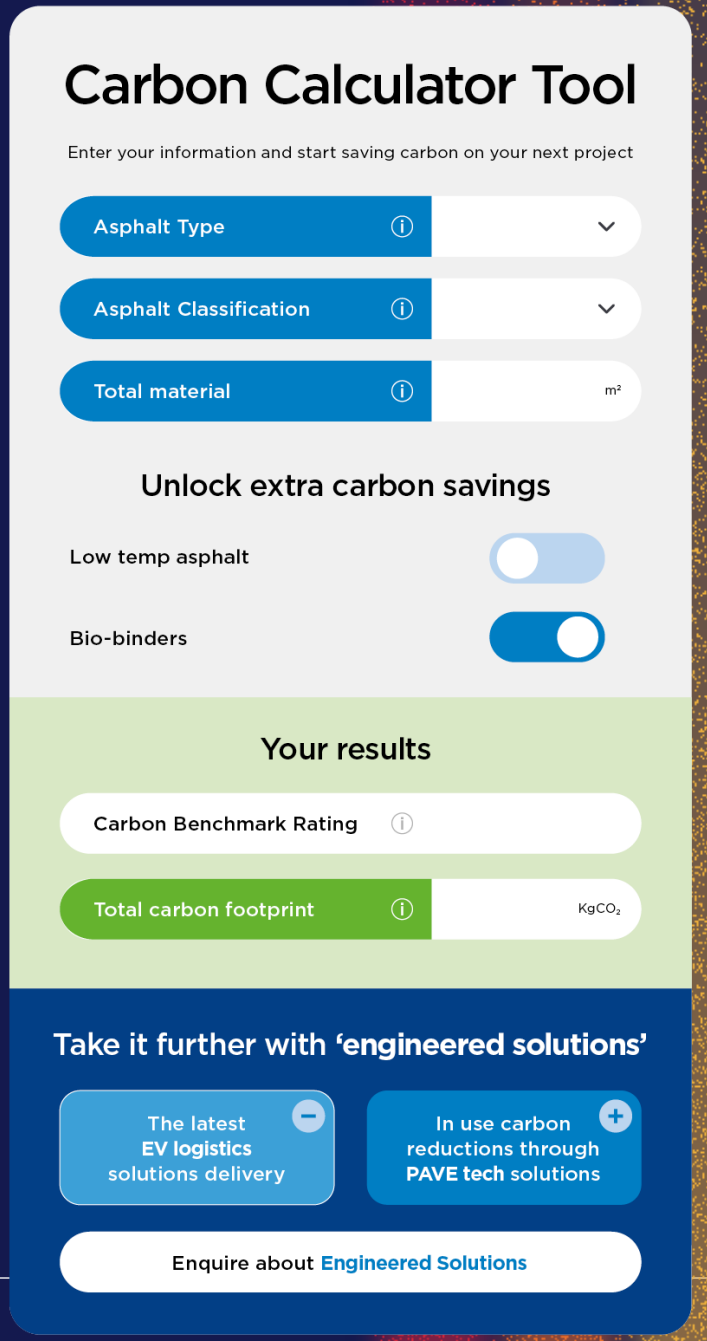
NB. Cornelly is slightly lower carbon savings

CO_2 saving varies by plant due to RAP content, mixture type and asphalt plant efficiency.

The softer the final mix requirement, the more bio can be added, achieving higher carbon savings.

CEVO Asphalt Calculator

Tool to allow customers the freedom to calculate carbon savings and access indicative carbon footprints



Net Zero Road

ART OF THE POSSIBLE

Roads of the future

At Tarmac, we invented the modern road surface – we like to think we have been reinventing it ever since.

Today, as we advance **Net Zero solutions** we are determined to **deliver our customer's ambitions** and our own commitments.

The art of the possible – Stockton and Hartlepool
October ' 23

Three local roads in the North-East of England have become what we believe are the UK's lowest carbon road resurfacing schemes. By combining material and plant technology, carbon emissions were reduced by 80% compared to conventional approaches.

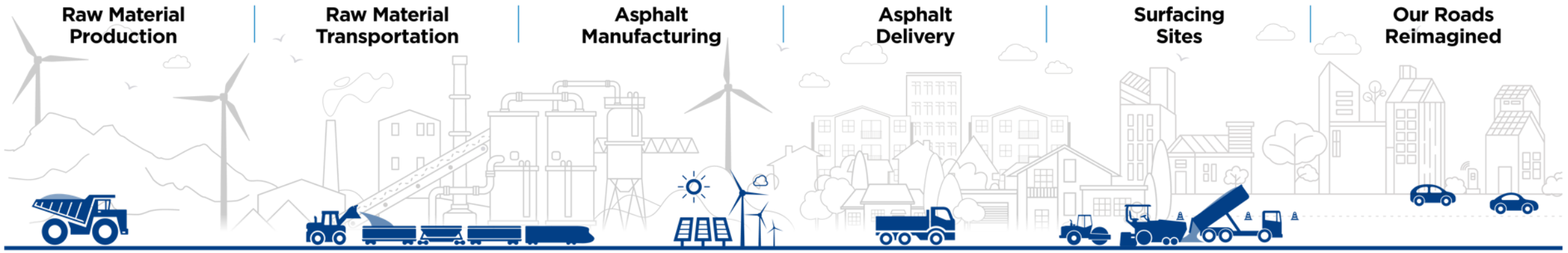
A64 – National Highways roadmap targets Durability, carbon, smoothness
October '24

The works, the first of its kind on the strategic network – were delivered on a 1.5 mile section of the A64 eastbound carriageway at junction 44 near Bramham in North Yorkshire.

Over a seven day period we combined an extensive range of innovative low carbon materials, techniques and plant equipment to deliver the significant carbon savings.

73%

Roads of the future | Ambition - Net Zero Road 2.0



Raw Material Production	Raw Material Transportation	Asphalt Manufacturing	Asphalt Delivery	Surfacing Sites	Our Roads Reimagined
Aggregate Production 100% renewable electricity	Aggregates by Rail	Asphalt Production 100% renewable energy	Asphalt Road HVO Blends	Surfacing Fleet HVO Blends	Industrialised Construction
Use of HVO in Mobile Plant	Bitumen transported with HVO Fuel	Gas Transition Multi-fuel burner to HVO	AI Distribution Intelligence	ePaver	Low CO_2
Bio-Bitumen Scope 3 footprint	RAP & Filler reused at Asphalt Plant	Use of HVO in Mobile Plant		eBond coat sprayer	Material Science
Use of HVO for RAP Processing		Minimised drying energy through use of low moisture aggregates		Longer life roads through echelon paving minimising joints	Digital Technology
ACLA Low Carbon Aggregates		Use of Bio Bitumens, Long-life Bitumens and Bio WMA		PAVE low rolling resistance technologies (smoother roads)	Circular Economy
		Optimised RAP Content up to 40%			Water Management

The evolution of asphalt solutions

We patented the modern road surface in 1902 and have been reinventing it ever since.

Today, the challenges of increased road users, increasing vehicle weights and the dynamics of more frequent extreme weather conditions demand that we innovate.

The evolution of our CEVO, engineered asphalt solutions, offers customers the transparency of choice to deliver lower carbon outcomes to road surfacing and maintenance.

CEVO: Engineering lower carbon roads

Innovations in pavement design and production processes designed to improve energy efficiency, to reduce carbon and to deliver performance longevity.

Materials capability	Solutions	PAVE capability
Recycled asphalt planings	BULK bio asphalts	Smooth Ride/planing
Warm-mix technologies	Packed 75% reduced carbon or	Echelon Paving
Bio-binder asphalt	Net Zero solutions*	Automation
Shell Agesafe/bio		
Acla – Carbon neutral aggregates	* Both BBA approved	

In addition, we can also offer HVO and low carbon fuels at manufacture, EV delivery and EV charging.

These sustainable approaches not only lower environmental impact but also enhance performance, whilst supporting cleaner, more cost-effective infrastructure development.


WE STAND TOGETHER TO
REINVENT
THE WAY
OUR WORLD
IS BUILT