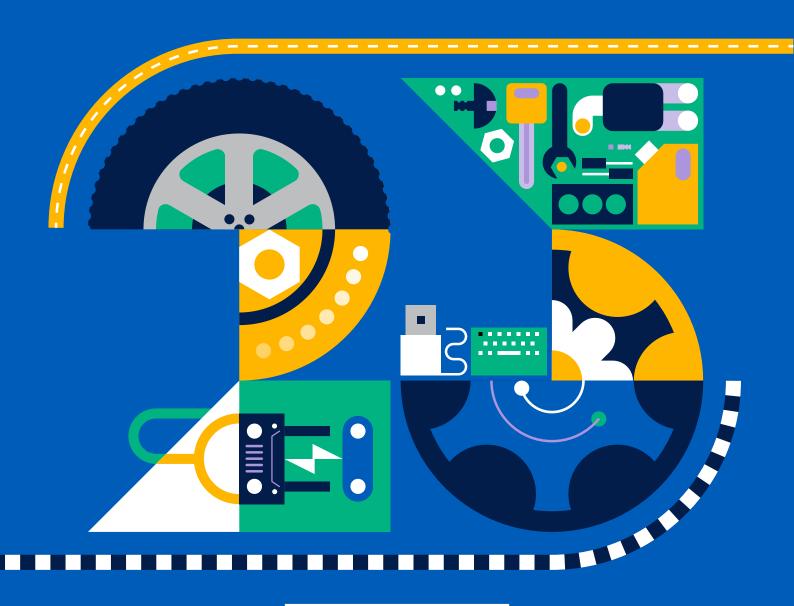


AUTOMOTIVE SUSTAINABILITY REPORT

2023 DATA



Environmental performance

Social performance

Economical performance

CONTENTS

"This year's report is a waymark shedding light on how our industry has transformed over the past 25 years and signposting the road to future success. We look forward to working with the new government and its fresh policy agenda which will be pivotal to the next 25 years of success."

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Mike Hawes Chief Executive

The Society of Motor Manufacturers and Traders (SMMT)

LETTER FROM THE CEO

A quarter of a century ago, the UK automotive industry made clear its commitment to sustainability with the publication of SMMT's first annual sustainability report. As consecutive reports over the following 25 years have shown, the industry has driven sustained success – in social, environmental and business terms – making production more efficient, reducing waste, and sourcing energy from renewables.

The result is a major reduction in the carbon cost of vehicle production and the 25th edition of this report shows a significant milestone has been reached, with direct ${\rm CO_2}$ emissions per vehicle manufactured down by more than half since 1999. It is an achievement that comes through long-term dedication and grit, and against a backdrop of challenges – the financial crash, Brexit, Covid-19 and the major global supply chain disruption that followed.

2023 saw significant declines in ${\rm CO}_2$ emissions, energy and water usage as Britain's factories turned out their highest volumes in five years, exceeding one million vehicles. But last year was also momentous for the huge investments secured in our net zero transition, with almost £24 billion announced to produce a new generation of zero emission vehicles, electric batteries and components in the UK. These position our industry well for the future.

Such growth is the latest chapter in our green transition but it's even more critical amid fierce global competition between rival countries seeking to attract international investment to their own industries. Maintaining a competitive edge is becoming harder but those commitments in 2023 underline the UK automotive industry's global appeal — with a renowned R®D expertise, a highly skilled and flexible workforce, our first-class products and famous brands, and our economic openness.

Industry cannot, however, rest on our laurels, nor can we alone deliver success. Collaboration between our sector and government, with the whole gamut of adjacent industries and stakeholders, is essential. Automotive can be the driving force behind Britain's green growth agenda but we need a suitably ambitious industrial strategy, one that delivers our long-term sustainability goals. This includes clean and affordable energy, strong free trade agreements which provide access to critical raw materials, enhancing our zero emission supply chains, and a skilled up workforce that's fit for a greener future. Implement these measures and a million EVs will be rolling off our production lines every year by 2035, bringing massive environmental, economic and social benefits with them.

This year's report is a waymark, therefore, shedding light on how our industry has transformed over the past 25 years and signposting the road to future success. We look forward to working with the new government and its fresh policy agenda which will be pivotal to the next 25 years of success.

2023 SUSTAINABILITY SUMMARY

SINCE 1999 Total Scope 1\&2 energy down -55% Lost time incidents down -91% **VOC** emissions down -53% Scope 1\&2 energy per vehicle down -33\% Water per vehicle down -42% CO₂ per vehicle down -54% Manufacturing waste **-99**% to landfill down -99% Exhaust emission NO₂ down **-78%** Exhaust emission particulates down -89%

2023: ENVIRONMENTAL Average new car tailpipe CO₂ emissions down **-2.2%** Scope 1\&2 CO₂ emissions down **-5.1%** Scope 1\2 CO₃ per vehicle down -18.2% Overall energy use down -4.8% Energy per vehicle produced down -18.0% Overall water use down -2.1% Water per vehicle produced down -17.7% 46GWh of on-site renewable generation

2023: SOCIAL



813,000 sector dependent jobs



131,447 training days delivered to staff



Lost time incidents down **-14.3%**



New apprentices and trainees up **40.8%**



Proportion of employees that are women rises to **14.3%**

2023: ECONOMIC



21% more new zero emission vans sold



17.8% more new zero emission cars sold



Manufacturing turnover up **19.4%**



Manufacturing GVA up **20.5**%



Engine production up **9.4%**



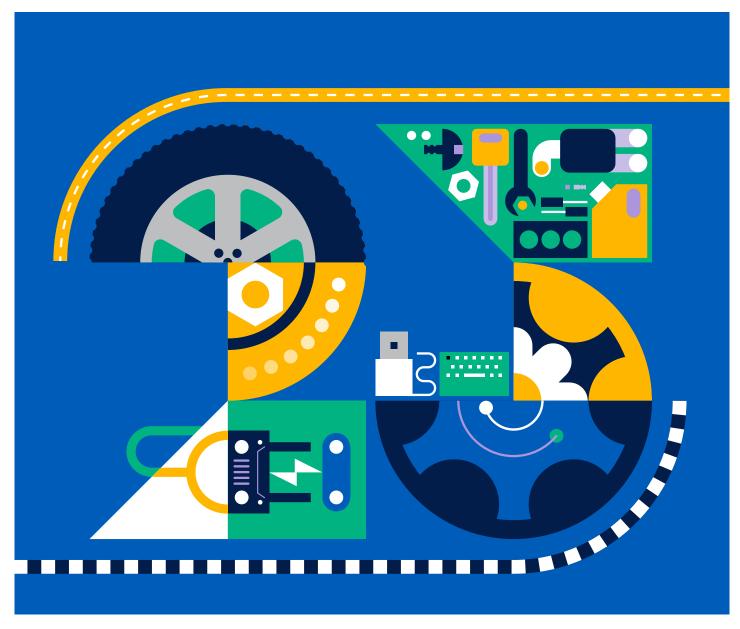
Car & CV production up **17%**



New car \otimes CV registrations up **18.4%**

Introduction

This year marks the 25th anniversary of SMMT's annual sustainability report. In the years since this report began, UK automotive companies specialising in manufacturing, remanufacturing, supply chain, logistics, R®D and aftermarket have demonstrated a clear, ongoing commitment to improve their social, environmental and economic sustainability.

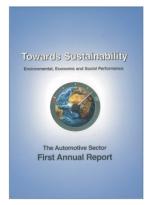


SMMT's first sustainability report was published in 2000, presenting automotive sector data for 1999 and providing a clear industry commitment to make year-on-year and long-term progress across a variety of sustainability metrics. 1 At the time, the key sustainability challenges for the sector were identified as:

- the strength of sterling against the Euro
- the impending introduction of the Climate Change Levy, and
- the UK's adoption of the EU End of Life Vehicle Directive

Subsequent SMMT sustainability reports, published each year, have demonstrated and quantified the ongoing progress of the automotive industry. And while the number and makeup of signatories to our annual report has grown and evolved over the years, companies like BMW, Ford, Nissan, Bentley, Toyota, Unipart and Vauxhall (Stellantis) have provided data each year, every year since the report's inception.

Most signatories to this report are certified to ISO 14001, which provides a framework to design and implement an Environmental Management System (EMS) and continually improve environmental performance. By adhering to this standard, organisations can ensure they are taking proactive measures to minimise their environmental footprint, comply with relevant legal requirements, and achieve their environmental objectives.²













 $https://www.smmt.co.uk/wp-content/uploads/1st-Sustainability-report.pdf \\ https://www.iso.org/standard/60857.html$

25 YEARS OF TRANSFORMATION AND CHANGE

Over the past 25 years the UK has produced 38.6 million vehicles, of which 28.5 million (73.7%) have been exported. During this period, the sustainability progress made by the industry has coincided with a dramatic change in the UK automotive ecosystem. Back in 1999, when our first sustainability report was published, just under 2 million vehicles were produced by a dozen UK-based manufacturers, eight of which exceeded 100,000 units a year. 62% of UK-built vehicles were exported overseas, with the remainder accounting for 28% of domestic registrations.

Today, the UK is home to a breadth of volume, premium and highvalue, small volume specialist manufacturers, with 4 manufacturers producing more than 100,000 vehicles a year. While the number of UKmanufactured vehicles has dropped to half of what it was in 1999, 2023 production exceeded a million units for the first time since 2019, rising by 17.0%. Exports still dominate, accounting for 77.1% of production in 2023.

At the time of SMMT's first sustainability report, all UK vehicles produced and registered were petrol (86%) or diesel (14%). However, this was also the year in which the Toyota Prius, the first massproduced hybrid vehicle, arrived on the global market, firing the starting gun for the vehicle decarbonisation race that continues apace today. And while customer demand has driven much of the sustainability and decarbonisation progress of the industry to date, the regulatory environment has also expanded and transformed in this regard over the last 25 years. In 1999, the EU had only recently introduced regulations to monitor and reduce vehicle CO₂ tailpipe emissions. However, it was not until 2008 that monitoring, along with a 140g/km CO₂ fleet average limit, was made a mandatory requirement. Today, manufacturers have reduced their fleet-wide tailpipe average to below 109g/km CO₂ as a result of investment in cleaner ICE and hybrid technologies and, more recently, the increased focus on zero emission vehicles. More than a million battery electric vehicles (BEVs) have been bought by UK customers. By 2030, the newly introduced Zero Emission Vehicle Mandate requires 80% of all new car and 70% of all new van registrations to be zero emission, with all major political parties committed to ending the sale of all non-zero emission road vehicles in the coming years.

The UK automotive industry is proud of the progress it has made over the last 25 years, a period in which the sustainability landscape has transformed. The introduction, and subsequent amendment, of the UK Climate Change Act has created a legally binding commitment for UK Government to deliver the Paris Climate Change Goals and achieve net zero by 2050. The automotive industry has long-recognised its critical role in meeting this target, delivering the zero emission vehicles and technologies on which the UK's wider net zero economic progress relies, and also through the decarbonisation of its own manufacturing and supply chain activities. The industry has invested billions in the zero emission vehicle transition and there are now over 100 battery electric car and van models to choose from in the UK – up from zero in 1999 and from just 16 a decade ago – with an average driving range of 236 miles.³ Additionally there are 27 zero emission HGV models and 13 zero emission bus models available in the UK.

While much of the regulatory attention to date has focussed on the decarbonisation of the vehicles themselves, decarbonisation of manufacturing processes has also seen significant improvement over this time. The Climate Change Levy (CCL), a tax added to electricity and fuel bills, was introduced in 2001 shortly after the publication of SMMT's first sustainability report. While the impact and cost of this levy was significant for a relatively energy-intensive automotive industry, the introduction of Climate Change Agreements (CCAs), alongside the CCL, has incentivised and supported manufacturers to reduce their energy use. CCAs are voluntary agreements made between UK industry and the Environment Agency to reduce energy use and carbon dioxide (CO₂) emissions in return for a significant CCL discount.4 SMMT negotiated the automotive industry's CCA with the Environment Agency, and continues to facilitate it on behalf of the sector.⁵

Since 1999, welcome progress has been made by manufacturers in monitoring, measuring and reducing their direct scope 1 emissions (from owned or controlled sources) and indirect scope 2 emissions (from the generation of purchased energy). 6 Since our first report, the average amount of scope 1\&2 energy required to produce a vehicle in the UK has fallen by -14% but, over the same period, the corresponding average scope 1\&2 CO₂ per vehicle has been halved (-54\%) due to the significant investments in lower carbon fuel sources, renewable electricity generation and energy efficiency measures, along with an increasingly decarbonised national grid. While automotive manufacturers seek to continuously build on the good progress made already in addressing scope 1\2 emissions, both government and industry understand the urgent need to also address indirect scope 3 emissions that occur in manufacturing value chains, including both upstream and downstream emissions. The challenges of this for a global automotive industry supply chain are significant, and explored in more detail later in this report. Continued engagement and partnership between industry and Government will be critical to ensure alignment with emerging international regulatory frameworks.

While the decarbonisation agenda dominates many of today's headlines, the automotive sustainability progress of the last 25 years goes far beyond this. For example, vehicles produced in the UK today are manufactured using -23% less water and coated with paint that produces less than half the volume of volatile organic compounds (VOCs) per square metre (-53%). Soon after the publication of our first report in 2000, the EU adopted the End-of Life Vehicle Directive, requiring member states to introduce regulations to ensure end-of-life vehicles were recycled or reused, with targets rising by 2015 to 85% for reuse and recycling and 95% for reuse and energy recovery. The UK adopted this legislation in 2003.

During this period, there has also been demonstrable progress made by UK automotive companies across a variety of social, as well as environmental, sustainability issues, particularly in regard to the safety, wellbeing and diversity of their workforce and customers. For example, lost time incidents today have reduced drastically by -91% since 1999.

- 3 https://www.smmt.co.uk/2024/05/brits-enjoy-best-ever-ev-choice-with-more-than-a-hundredmodels-now-available/
- https://www.gov.uk/guidance/climate-change-agreements--2 https://www.smmt.co.uk/industry-topics/environment/energy-efficiency-regimes/
- https://ghgprotocol.org/calculation-tools-faq https://www.legislation.gov.uk/uksi/2003/2635/contents/made
- https://ec.europa.eu/commission/presscorner/detail/en/ganda 23 4043
- https://www.globalreporting.org/ https://ghgprotocol.org/corporate-standard
- https://sciencebasedtargets.org/resources/files/SBTi-criteria.pdf https://sciencebasedtargets.org/resources/files/SBTi-criteria.pdf https://finance.ec.europa.eu/news/commission-adopts-european-sustainability-reportingstandards-2023-07-31 en

THE GROWING DATA CHALLENGE

While great strides have been made over the last 25 years, the automotive industry recognises that there is still a long way to go to fully embed net zero, circularity and social equity throughout the entire UK automotive industry and global supply chain. In doing so, the industry must continue to operate within a complex web of overlapping and interacting regulatory and market-led frameworks and initiatives.

SMMT's first sustainability report, published 25 years ago, highlighted the 'increasingly complex business environment' in which the automotive industry was seen to be operating at the time. It is a challenge that has clearly only continued to grow in the years since.

Data is key to sustainability. As we look to the near future, the ability of automotive companies to measure their impact, track their progress, compare themselves to others, and reflect this information to customers in an open and digestible way is becoming increasingly critical. In this context, our industry must – as a minimum – ensure that we can continue to demonstrate compliance with an increasingly complex set of domestic and international reporting requirements. These include regulatory requirements, like those contained within the EU's European Sustainability Reporting Standards (ESRS), as well as those contained within more specific pieces of regulation, for example CO_2 footprint requirements contained within the EU Batteries Regulation. There are also a variety of market-led initiatives, like the Global Reporting Initiative (GRI), GHG Protocol Corporate Standard, and the Science Based Targets Initiative (SBTi)¹¹ which, while not mandated, are increasingly demanded by customers and investors.

Current sustainability reporting requirements, largely driven by international regulations and standards, already demand significant investment of time, resource and expertise by companies operating in different sectors and across different markets. At a global level, the International Sustainability Standards Board (ISSB) has been established in recognition of the need to reduce reporting burden and align regulatory requirements. While the need for reliable, transparent sustainability data is beyond question, the work of the ISSB highlights the criticality of ensuring that regulatory and market-led reporting requirements across both domestic and international markets are aligned in such a way as to minimise duplication and maximise efficiency.

At an EU level, the early signs are that this message has also been understood by policymakers and regulators. In July 2023, the EU Commission formally adopted the European Sustainability Reporting Standards (ESRS) covering 'the full range of environmental, social, and governance issues, including climate change, biodiversity and human rights'. ¹² ESRS reporting is now mandatory for all companies subject to the Corporate Sustainability Reporting Directive (CSRD) ¹³. CSRD requirements apply directly to any large or listed company operating in the EU market. For the purposes of this regulation, companies are considered in scope if they exceed two of the following three thresholds – $\ensuremath{\in} 50$ million net turnover, $\ensuremath{\in} 25$ million assets, 250 employees. Non-EU companies, including those based in the UK, will also be in scope if their turnover exceeds $\ensuremath{\in} 150$ million in the EU market.

In many cases, these reporting requirements will be passed on through the supply chain to SMEs, including those based in the UK and supplying to the EU. Many of these SMEs will need support and guidance from both government and their larger supply chain customers – especially OEMs

and Tier 1 suppliers, in order to stay compliant and competitive as they transition and adapt. And while the focus of CSRD is on demonstrating data transparency, the EU's forthcoming Corporate Sustainability Due Diligence Directive (CSDDD) will increase the emphasis on demonstrating measurable reduction in environmental and social impact. So the need for accurate, representative, consistent data is clear.

Importantly, ESRS has been designed to take specific account of ISSB and GRI, minimising the risk of duplicated, misaligned or competing requirements. In addition, the EU's European Financial Reporting Advisory Group (EFRAG) has recently developed sector-agnostic guidance for ESRS implementation, with sector-specific guidance to follow.

At a UK level, the need to develop international reporting standards and globally comparable sustainability information has been recognised by successive governments. The Green Finance Strategy expressed support in principle for implementing ISSB's International Financial Reporting Standards (IFRS) in the UK, with a commitment to assess the suitability of both IFRS S1 14 \otimes IFRS S2 15 once they were published. As the new Government seeks to confirm a regulatory framework for implementing a single set of sustainability reporting standards across the UK, it must carefully consider the benefits of alignment with international regulatory frameworks and methodologies, minimising duplication and regulatory burden.

The increasingly complicated reporting and compliance landscape is very much a cross-sectoral challenge. However, the automotive sector has some unique challenges related to the complex and global nature of its supply chain, significant cross-border trade, the complexity and high value of its products, and the energy intensity of its manufacturing processes. The increasing focus on sustainability data reporting also comes at a time of unprecedented transformation of the industry more broadly, with the rapid transition to zero emission vehicles creating new challenges related to technology development, access to raw materials and evolving global supply chains.

Much of the automotive industry's progress over the last 25 years can be attributed, in part, to the raft of passionate sustainability experts employed within individual companies and throughout the sector. An efficient, aligned set of reporting requirements will reduce unnecessary regulatory burden and maximise resource and time that can otherwise be dedicated to guiding companies towards innovative and impactful sustainability improvements. Therefore, Government, industry and investors must work collaboratively to ensure that any UK regulatory framework for sustainability standards and data reporting is ambitious, achievable, and aligned across different sectors and markets. Such a framework should actively drive the UK's strategic sustainability outcomes and identify areas where further support or guidance is required. These strategic outcomes should be clarified within an overarching Green Automotive Transformation Strategy to supercharge UK automotive to achieve net zero, which enables innovation, attracts investment and secures manufacturing of clean technologies in the UK to deliver economic growth and zero emission mobility.

- 13 https://finance.ec.europa.eu/capital-markets-union-and-financial-markets/company-reportingand-auditing/company-reporting/corporate-sustainability-reporting-en
- 14 https://www.ifrs.org/issued-standards/ifrs-sustainability-standards-navigator/ifrs-s1-general-
- 15 https://www.ifrs.org/issued-standards/ifrs-sustainability-standards-navigator/ifrs-s2-climaterelated-disclosures

MAKING THE NEXT 25 YEARS A SUCCESS

As the automotive industry seeks to continue its progress towards a circular, net zero economy, it must also maintain its global competitiveness, providing thousands of high-value, green jobs, and continuing to contribute significantly to the UK's economy through its turnover, investments and exports. It is a challenge to which the automotive industry is fully committed, and this year's SMMT sustainability report provides an opportunity to assess progress to date, as well as looking ahead to the challenges and opportunities of the next 25 years.

As part of this look-ahead, SMMT recently carried out a materiality assessment to identify the critical sustainability issues for the automotive industry and our stakeholders, both today and in the future. The details of this assessment are explored later in this report. However, the findings highlight a general concern expressed by both industry members and stakeholders alike relating to the significant expansion in the sheer number of issues considered likely to become critical over the next 5-10 years.

The materiality assessment highlights the growing regulatory, investor and customer pressures related to a variety of automotive manufacturing, supply chain and circularity issues, with significant reputational and financial risks for those that are not equipped to make the transition.

However, the materiality assessment also highlights areas of potential growth and investment in our ever-evolving industry. With the right support and strategic approach, the transition to a net zero and circular economy will create new opportunities for a competitive, decarbonised, sustainable automotive sector.

The automotive industry and government must work together to create a competitive transition to a net zero and circular economy by:

MAKING SUSTAINABILITY A COMPETITIVE ADVANTAGE IN THE UK

Publishing a green automotive transformation strategy that sets out a holistic, joined-up approach and provides a pathway towards the UK automotive industry's ultimate sustainability and circularity goals

A dedicated, government-led strategy should ensure that sustainability and competitiveness go hand-in-hand. Such a strategy should include: a combination of regulatory reform to reduce red tape and speed up investment; global diplomacy to maximise trade opportunities and reduce supply chain risk; and generous incentives and subsidies that de-risk private capital investment. It should also provide a supportive policy and regulatory framework for reuse, remanufacturing and recycling, ensuring that circularity and producer responsibility are viewed as a competitive advantage in the UK.

Introducing a package of fiscal, tax and regulatory support measures that attract new investment and ensure domestic vehicle producers are globally competitive

Accessible, abundant, low cost zero emission energy is a prerequisite to this, combined with the ability of the automotive sector to attract global net zero talent and expertise, retain and upskill its existing workforce, and effectively develop future domestic talent. Manufacturers should be encouraged to invest in decarbonised and more efficient plants, for example by enhancing the Industrial Energy Transformation Fund, ensuring that Climate Change Agreements are broadened to include new technologies like battery manufacturing, and accelerating electricity grid connections and upgrades.

Providing support and guidance to empower a sustainable, transparent UK supply chain

There is a growing regulatory focus on scope 3 emissions and supply chain due diligence. Large OEMs and Tier 1 suppliers will need to work collaboratively with their smaller suppliers to support with sustainability data collection and reporting, maximise transparency across the entire value chain, and ensure regulatory compliance. Regulatory requirements should ensure smaller suppliers are given time and support to upskill their workforce and implement required changes to data processes.

Mobilising a skilled, diverse, empowered UK workforce

The automotive industry must continue to embrace the full potential of the UK's expertise and creativity, from across all parts of society. Diversity, equity and inclusion (DEI) is not only driven by ethical choices, it is fundamental to the UK's competitive transition towards a net zero and circular economy. While the automotive industry has demonstrated clear ambition in this area, there is plenty of progress still to be made. The UK automotive skills of the future should be underpinned by: the creation of an online National Upskilling Platform to allow automotive businesses of all sizes to join the upskilling drive; a reformed Apprenticeship Levy that support existing workers to upskill in priority training areas such as electrification, decarbonisation and digitalisation; and a regular review of skilled visa routes and shortage occupation lists to reflect business needs as technology evolves.

ENABLING THE UK'S SUSTAINABILITY LEADERSHIP ON A GLOBAL STAGE

Developing a UK regulatory ecosystem in partnership with business that is ambitious, deliverable and harmonised with global regulatory requirements and international sustainability objectives

As the UK seeks to become a global sustainability leader, the automotive industry and its supply chain must remain fully integrated within European and global markets, maintaining free and fair trade and removing tariff and customs barriers wherever possible. As a heavily regulated sector, divergence from EU and international regulatory requirements and standards presents a fundamental and hugely costly issue for UK automotive products and processes. A harmonised international approach to regulated requirements and methodologies protects UK automotive competitiveness and supports global efforts to achieve common, joined-up decarbonisation, sustainability and circularity goals.

Ensuring UK sustainability data requirements match the high ambitions of automotive companies operating across global markets

Aligning UK monitoring and reporting requirements with internationally adopted standards will support the efficient and effective use of data to drive sustainability progress, while also ensuring continued access to international markets. A consistent, transparent data ecosystem will help manufacturers, suppliers, policymakers and investors to understand and develop effective and joined-up regulations, practical and transferable methodologies, and targeted support mechanisms and guidance. It will also maximise opportunities for shared learning and skills across different sectors and markets, and empower customer decision-making through consistent messaging and information.

Maintaining and further supporting access to critical raw materials and cross-border trade, building supply chain resilience to attract investment in zero emission and sustainability technologies

Establishing and maintaining free trade agreements and innovative partnerships which support the net zero economy and circularity, including with mineral-rich countries to secure supplies of the critical raw materials on which a sustainable UK industry is increasingly reliant. As the UK automotive sector works towards full circularity and sustainability, we must create the best possible conditions for the sector to source vital materials and components from across global markets, while working in harmony with local communities and demonstrating best practice for environmental, social and economic sustainability.





SUMMARY: 2023 KEY PERFORMANCE INDICATORS (KPIs)

		Unit	1999	% Change 2023 on 1999	2022 (adjusted)	2023	% Change 2023 on 2022
Environ	mental performance						
	Manufacturing, logisitics and aftermarket activities						
AS	Total combined energy use	(GWh)	7013	-55%	3,288	3,128	-4.8%
	of which is on-site renewable generation	(GWh)	N/A	N/A	23.2%	23.0%	-0.1pp
	of which is green tariff	(GWh)	N/A	N/A	45.7	46.1	0.9%
VM	Energy used per vehicle produced	(MWh/unit)	3.9	-33%	3.2	2.6	-18.0%
AS	Total combined water use	(000m3)	6090	-41%	3,694	3,616	-2.1%
VM	Water used per vehicle produced	(m3/unit)	5.3	-42%	3.7	3.1	-17.7%
AS	Total combined CO ₂ equivalents (Scope 1\tilde{2})	(tonnes)	2,182,926	-72%	635,441	603,319	-5.1%
VM AS-r	CO ₂ equivalents per vehicle produced	(tonnes/unit)	1.1	-54%	0.61	0.50	-18.2%
	Volatile Organic Compounds emissions (cars)	(g/m2)	55.0	-53%	25.6	25.6	0.2%
	Proportion of waste to landfill	(%)	N/A	N/A	0.4%	0.7%	0.3рр
	Proportion of waste recycled and reused	(%)	N/A	N/A	89.2%	87.7%	-1.5pp
	Vehicle emissions						
	Average new car CO ₂ emissions	(g/km)	N/A	N/A	111.4	108.9	-2.2%
AR	New zero emission cars sold	(thousand)	N/A	N/A	267.2	314.7	17.8%
	Share of overall market – new zero emission cars	(%)	N/A	N/A	16.56%	16.54%	-0.02pp
	New zero emission vans sold	(thousand)	N/A	N/A	16.7	20.2	20.9%
	Share of overall market – new zero emission vans	(%)	N/A	N/A	5.97%	5.97%	0.00рр
Social performance							
WI	Jobs dependent on the sector		907,000	-13%	800,500	793,000	-0.9%
	Total employees		95,214	-14%	77,559	82,111	5.9%
AS	Lost time incidents per 1000 employees		13.4	-91%	1.39	1.19	-14.3%
	Training days		N/A	N/A	135,454	131,447	-3.0%
	New apprentices ® trainees		N/A	N/A	1145	1613	40.8%
	Share of overall employees – women	(%)	N/A	N/A	13.0%	14.1%	1.1pp
Economic performance							
WI	Automotive manufacturing sector turnover	(£ billion)	N/A	N/A	77.7	86.0	10.7%
	Automotive manufacturing gross value added	(£ billion)	N/A	N/A	16.1	22	36.6%
	Total new cars and CVs produced		1,984,909	-48%	876,614	1,025,474	17.0%
	Total new car and CV registrations		2,429,084	-11%	1,896,202	2,244,509	18.4%
VM/EM	Total engines (re)manufactured		N/A	N/A	1,556,384	1,703,005	9.4%
AS	Signatories' combined turnover	(£ billion)	N/A	N/A	58.2	73.2	25.8%
VM	Total number of vehicles produced		1,570,000	-35%	868,519	1,017,265	17.1%

Key:

WI whole industry data

AR all car and van registrations in the UK

AS all signatories

VM vehicle manufacturers

EM engine manufacturers

AS-r all signatories except those whose business is specifically related to re-manufacturing, reuse and recycling activities

The 2022 data has been adjusted to ensure consistency with the current number of signatories and enable year-on-year comparisons. This reflects slight changes to signatories and methodologies for calculating the data.

Sector turnover and jobs dependent on the sector are compiled from several official sources using expert SMMT analysis.

Figures include manufacturing, distribution, refuelling and repair of vehicles where automotive is the main activity of the firms.

All per vehicle figures also contain resources used during engine and battery production, some of which are destined for export.

Production – the complete vehicles as they leave the production line in a UK facility. Registrations – vehicles registered for road use in the UK for the first time with the DVLA or the DVLA's equivalent organisation in Northern Ireland, Channel Island's or Isle of Man.

Turnover – the money/income that a business generates each year.

Gross value added – the contribution to the economy of an individual producer, industry or sector.

CO₂ – calculated using UK Government GHG Conversion Factors for Company Reporting methodology.

Scope 1: All direct GHG emissions.
Scope 2: Indirect GHG emissions from consumption of purchased electricity, heat or steam.

Green tariff: each unit of electricity purchased is linked to a specific unit of renewable generation (e.g. wind, hydroelectric or solar) purchased by a supplier on behalf of the customer, sending a signal for demand.

This report has 19 signatories, including manufacturers of over 99% of all cars and commercial vehicles produced in the UK, as well as those that supply the automotive industry and those that import vehicles for sale. All data presented is for UK operations only, unless explicitly stated otherwise.

In a revival of the industry's fortunes, UK vehicle production hit 1,025,474 units in 2023, up 17.0% on the previous year. The easing of pandemicrelated challenges and increasing electrified model production combined to drive annual output above one million for the first time since 2019. Eight all-new vehicle models entered production in 2023 while £23.7 billion of private and public investment commitments were made – more than in the previous seven years combined. These commitments continue to drive green economic growth, create jobs nationwide and transition the sector to electrified vehicle manufacturing. UK production of battery electric (BEV), plug-in hybrid (PHEV) and hybrid (HEV) vehicles surged to a record 346,451 units in 2023, up 48.0% from the previous year.

Overall, UK car production rose 16.8% in 2023, its best growth rate since 2010, with the total retail value of all models exceeding £50 billion. While 191,247 cars were built for domestic buyers, 77% of output was shipped overseas, highlighting the contribution of automotive to the UK economy.¹⁶

The welcome ramp-up in the number of vehicles manufactured in the UK in 2023 was accompanied by an equally welcome increase in environmental performance. Despite increased production volumes, the industry as a whole reported using -4.8% less energy and -2.1% less water overall compared to 2022. Furthermore, manufacturing efficiencies related to economies of scale and reduced supply chain disruption meant that the average vehicle was produced using -18.0% less energy and -17.7% less water than in the previous year. In 2023, the UK automotive industry reported a -5.1% reduction in scope 1\2 CO₂ emissions overall and, alongside the greater reported energy efficiencies, an -18.2% reduction in scope 1\2 CO2 emissions per vehicle manufactured.

While much of the reported CO₂ emissions reductions in 2023 were associated with an overall reduction in energy use across the sector, investment in on-site renewable generation has continued to play a critical role in minimising scope 1\(\text{\overline{Q}} \) emissions associated with

manufacturing processes. For the second year in a row, 46GWh of renewable energy electricity was generated at automotive manufacturing and supply chain sites across the country. A further 720GWh was purchased by the industry through green tariffs and, while this source of energy reduced in line with the more general trend of energy reduction, it maintained its share of 23% of overall industry energy use in 2023.

There was little change in the level of volatile organic compounds (VOC) emissions from vehicle manufacturing processes in 2023. This follows a significant increase reported in 2022 which was partially explained by improvements to monitoring methodologies and changes to ownership and operation of some car manufacturing sites. While this requires close ongoing scrutiny, in comes in the context of significant longer-term reduction of -53% since 1999.

Today, less than 1% of material leftover from original equipment manufacturing processes goes to landfill. Zero waste to landfill is the ultimate aim for the automotive industry and many manufacturers have achieved this already. The vast majority (87.2%) of leftover materials from production are reused or recycled, with the remainder going to recovery (including waste to energy) and incineration.

Alongside its commitment to ongoing environmental improvements, the automotive industry continues to invest in its social and economic responsibilities. The strong automotive manufacturing and sales performance in 2023 was matched by a 5.9% increase in the number of people directly employed by signatories to this report, and an incremental increase in the share of women employees to just over 14%. Significant investment across the sector in the employees of the future saw the number of new apprentices and trainees rising by 40.8% compared to the previous year.

While the number of reported training days fell slightly in 2023, this is likely to reflect a broader change in how training is delivered, with a rise in online and modular training that is less easy to capture and report. Future reports may need to consider how this data is reflected.

SMMT MATERIALITY ASSESSMENT - CHALLENGES AND OPPORTUNITIES AHEAD

SMMT's annual sustainability reports are generally retrospective, examining data provided for the previous year. However, this year's 25th anniversary presents an opportunity to take stock of our long-term progress to date, while also highlighting the likely challenges and opportunities faced by the UK automotive industry over the next 25 years. In this context, SMMT carried out a materiality assessment between April and June 2024, in which we identified and presented a variety of environmental, social and economic issues facing the UK automotive industry.

The materiality assessment was completed by 32 organisations, 16 that were considered core automotive industry participants (8 OEMs & SVMs, 8 supply chain, remanufacturing & aftermarket) and 16 that were drawn from a broader industry stakeholder pool (4 NGOs, 3 trade associations, 5 research & academia, 4 other).

Respondents were asked to score a total of 32 material issues on a scale of 1 (least important) to 5 (most important), considering the potential severity, scale, scope, significance and likelihood of each individual material issue. Respondents provided scores based on both their impact today, as well as their expected impact within the next 5-10 years. This provides a vector for how these issues are likely to evolve over time. Average scores for both industry and stakeholders, respectively, were subsequently calculated and recorded.

Our materiality assessment was not created for business auditing purposes and our methodology was designed to be accessible to a broad range of participants covering an equally broad range of experiences and expertise. On this basis, we did not pursue a 'double materiality' approach, as set out in CSRD and ESRS. For this reason, the scores assigned to each of these issues may reflect a combination of both:

- the impact of the automotive industry on each individual environmental, social and economic issue (impact materiality), or
- the impact of each individual environmental, social and economic issue on the automotive industry's profitability and competitiveness (financial materiality)



While some will have more obvious and immediate explanations than others, SMMT will continue to carry out further engagement to understand in more detail the potentially myriad factors behind each of these material issues. In the meantime, initial results have been set out overleaf, with the views of the automotive industry plotted against the views of automotive stakeholders.

Immediately, there is a clear pattern visible when comparing the views of the industry and stakeholders today versus the future. When looking ahead to the next 5-10 years, there is a clear shift of all issues towards the top right of the graph, reflecting a general increase in the perceived complexity, uncertainty and urgency associated with many of these sustainability issues in future. While today, only the issue of zero emission vehicles (ZEVs) and tailpipe CO_2 scores a 4 or above for both industry and stakeholders alike, 12 different issues achieve this threshold in the next 5-10 years, covering a range of environmental, social and economic issues.

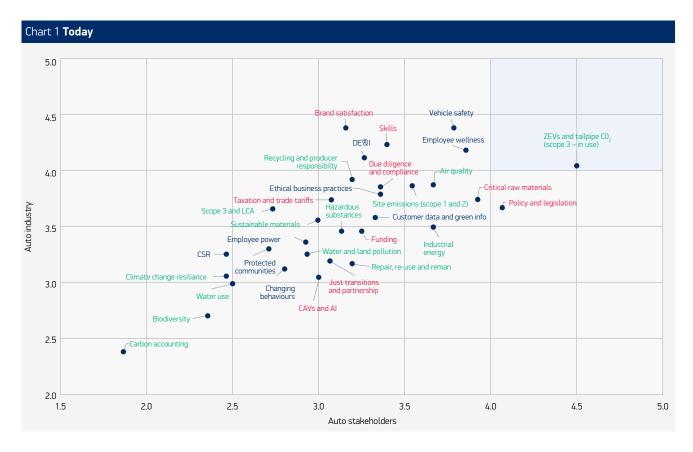
The materiality assessment results reflect a clearly increasing focus on the automotive supply chain over the next few years, reflecting a continuation of a trend that is already growing today. In the next 5-10 years, key supply chain issues such as scope 3 emissions and life cycle assessment, sustainable materials, critical raw materials. due diligence and compliance, and climate change resilience all score highly, reflecting expectations about the increasing scope and granularity of requirements in areas already considered critical today. Circularity is also recognised in this regard, with recycling and producer responsibility, and repair, reuse and remanufacturing scoring particularly highly for both industry and stakeholders alike. This provides a clear indication of the areas in which automotive and supply chain companies will need to expand and improve the scope, transparency and granularity of their reported data in the coming years, which will also need to be reflected in future SMMT sustainability reports.

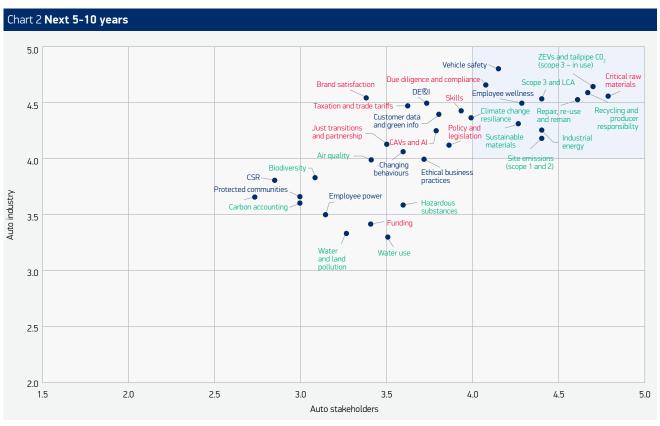
Equally, there are issues that are of perennial importance for the automotive industry. Vehicle safety, brand satisfaction, skills, DE®I and employee wellness remain as critical in the near future as they are today.

And while it is easy to focus on just those issues that score the highest, these scores only provide a relative snapshot. In reality, every issue on this list represents a critical aspect of the automotive industry, and our success is very much dependent on ensuring all of these issues are managed effectively.

SMMT MATERIALITY ASSESSMENT

Environmental Social Economic





ENVIRONMENTAL PERFORMANCE

-18.2% reduction in scope 1\&2 CO₂ and -17.7% reduction in water per vehicle manufactured

46GWh of renewable energy generated at automotive manufacturing and supply chain sites for second consecutive year

17.8% more new zero emission cars and 20.9% more new zero emission vans sold





VEHICLE EMISSIONS AND AIR QUALITY

TAILPIPE CO₂ EMISSIONS AND THE ZERO EMISSION VEHICLE MANDATE

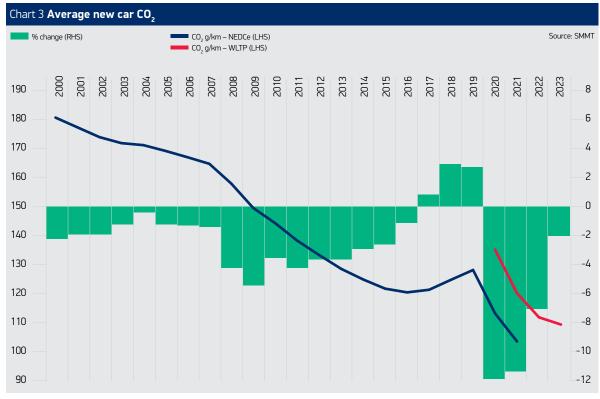
An increasing proportion of zero emission vehicles, combined with continuing investment in hybrid technologies, helped reduce average tailpipe CO_2 emissions from cars by a further -2.2% compared to 2022, continuing a long term trend of reduction over the last 25 years.

The introduction of the Zero Emission Vehicle (ZEV) Mandate for cars and vans at the start of 2024 means that fleet average CO_2 regulation is no longer primarily responsible for driving down emissions of these vehicles in England, Scotland and Wales (with NI likely to follow in 2025). Instead, overall average tailpipe emissions will continue to be reduced significantly by the rapid introduction of zero emission vehicles (ZEVs) to the market, with a requirement that 80% of all new cars and 70% of all new vans by 2030 are ZEVs. Therefore, 2023 is the final year in which cars and vans sold in GB were required to comply with EU-aligned CO_2 emissions regulations, with the ZEV mandate subsequently delivered via the new Vehicle Emissions Trading Scheme (VETS) regulations.

The ZEV mandate requires each manufacturer, as a proportion of their overall new vehicle registrations, to meet rising targets each year for new zero emission car and van registrations. In 2024, this target is 22% for cars

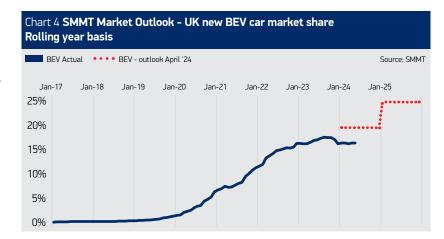
and 10% for vans. With the right regulatory framework, the right flexibilities and the right support mechanisms, the UK automotive industry can deliver a successful and competitive ZEV transition. However, while there has been a rapid increase in the uptake of ZEVs over the last few years, this has given way to a more recent softening in demand from private consumers and businesses. SMMT's updated outlook for 2024 suggests that the overall market may fall short of the 2024 ZEV mandate targets for both cars and vans, and it is still some way below the subsequent 2025 target of 28% for cars and 16% for vans. Many OEMs will rely on allowance trading and flexibilities within the regulation that allow them to manage their non-linear progress over time.

Overall, battery electric vehicles (BEVs) accounted for one in six new cars registered in 2023, with the majority taken by business and fleet buyers who benefit from compelling tax incentives. In contrast, one in 11 private buyers chose a BEV. The UK ended the Plug-in Car Grant in June 2022, but is now the only market with mandated minimum targets for new ZEV registrations for cars and vans. With mainstream consumer demand flat, the industry is calling on government to support private buyers by halving VAT on new BEVs for three years. This temporary cut would give private consumers access to fiscal support at a level similar to that enjoyed by business buyers.



For vans, ensuring BEV demand matches supply presents a major challenge. Immediate action to reduce existing barriers to uptake is crucial, therefore, with the single biggest obstacle being the insufficient number of vansuitable public chargers – requiring significant infrastructure investment in every UK region. At the same time, a long-term commitment to the Plug-in Van Grant will be necessary to make the switch accessible and equitable for operators across all sectors and parts of the country.

Looking ahead, the UK automotive industry is committed to playing its role in delivering the UK Government's decarbonisation ambition and achieving net zero by 2050. However, we need to see greater support for consumers and businesses in making the transition across all vehicle types, and greater and more strategic investment in charging infrastructure. While the ZEV Mandate has provided regulatory certainty for cars and vans up to 2030, we still do not know what non-zero emission technologies can be sold between 2030 (80% ZEV target) and 2035 (100% ZEV target). We also urgently need clarity on the decarbonisation pathway for heavy goods vehicles¹⁷, buses¹⁸ and coaches





¹⁷ https://www.smmt.co.uk/wp-content/uploads/The-Road-Ahead-delivering-a-more-rapid-zero-emission-HGV-transition.pdf

CASE STUDY: TOYOTA

HYDROGEN FUEL CELL HILUX

Toyota Motor Manufacturing UK, in collaboration with highly skilled UK-based technical engineering partners Ricardo, ETL, D2H and Thatcham Research, have established a project to adopt second generation Toyota fuel cell components (as used in the latest Toyota Mirai) for the transformation of a Hilux into a fuel cell electric vehicle. The consortium successfully applied for APC (Advanced Propulsion Centre) funding in 2021. While TMUK led the project, a team from Toyota Motor Europe (TME) R&D provided expert technical support to enable the UK-based teams to build its own expertise and self-sufficiency to develop next generation hydrogen drivetrain capabilities.

In order to support the development of the Hilux and further promote and build confidence in the hydrogen sector, TMUK in collaboration with colleagues from Toyota (GB), built the "Beyond Centre" on site at the Burnaston plant. This centre includes an electrolyser, hydrogen storage and refueller and explains Toyota's journey towards carbon neutrality. This centre has welcomed thousands of people through its doors since its inauguration in January 2023, allowing stakeholders from various sectors including government through to industry to learn about hydrogen, its generation and use.

Prototype vehicles were produced at the TMUK site in Burnaston throughout 2023. Following successful initial testing results, the next step is to gather feedback from potential customers allowing for real-world evaluation of the performance and capabilities of the vehicle. These activities build on over 20 years of experience during which Toyota has developed a multi-path approach to carbon neutrality by offering a diverse vehicle line-up including a variety of electrified technologies, Hybrid Electric, Plug-in Hybrid Electric, Battery Electric and Fuel Cell Electric.



¹⁸ https://www.smmt.co.uk/wp-content/uploads/Next-stop-Net-Zero-the-route-to-a-decarbonised-UK-bus-market.pdf

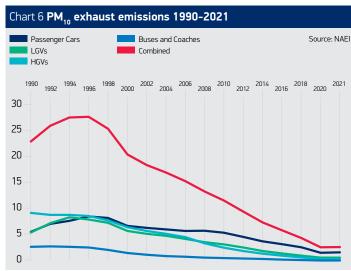
AIR QUALITY

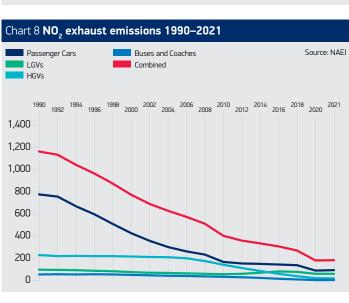
While this sustainability report generally reflects 2023 data collected directly from the industry, air quality data is provided by the National Atmospheric Emissions Inventory (NAEI), with 2021 being the most recently published dataset. NAEI provides the latest available published air quality data, based on continuously updated modelling methodologies. ¹⁹ 2021 data still reflects an industry, and broader economy, recovering in the aftermath of the Covid-19 pandemic.

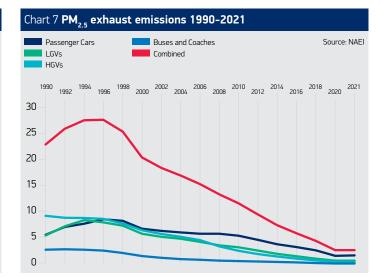
According to NAEI data, air pollution from road transport in the UK has reduced significantly since the 1970s as a result of changes to fuels and improvements in vehicle technology. The introduction of progressive emissions standards in new vehicles has led to a -78% reduction in NO $_{\rm 2}$ exhaust emissions, and an -89% reduction in PM10 and PM2.5 exhaust emissions, since 1999. Road transport now accounts for just 10% of all PM2.5 emissions.

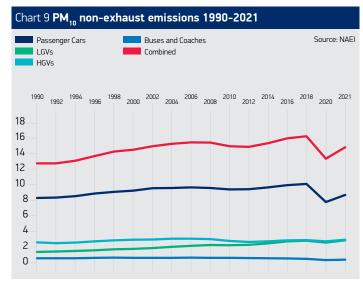
Significant air quality improvements have been achieved through the introduction of newer, cleaner, more efficient vehicles over time. Where areas of local air quality concern remain, support for fleet renewal is the quickest way to further reduce emissions from road transport.











VEHICLE MANUFACTURING

SCOPE 182 ENERGY 8 CO, EMISSIONS

Between 2000 and 2014, the amount of scope 1 \otimes 2 energy required to manufacture each vehicle in the UK reduced as a result of improved efficiencies in production processes. During the same period, there was a corresponding, correlated reduction in the volume of CO_2 generated per vehicle. Shortly after 2014, the amount of scope 1 \otimes 2 energy per vehicle started to increase with the transition towards new vehicle technologies and more intensive manufacturing processes. More recently, this rise has been exacerbated by supply chain disruption and resulting inefficiencies related to major market externalities like Covid-19 and the war in Ukraine. However, while there has been a demonstrable rise in scope 1 \otimes 2 energy used per vehicle since 2016, the correlation with scope 1 \otimes 2 \otimes 2 \otimes 4 emissions has been broken. Requiring more energy, manufacturers have managed to maintain and, more recently, reduce scope 1 \otimes 2 \otimes 2 \otimes 4 emissions per vehicle through a combination of increased on-site renewable generation and changes to fuel sources.

In 2023, as UK vehicle production continued its post-pandemic recovery, scope 1\installed 2 energy per vehicle reduced by -18% compared to 2022, with corresponding scope 1\installed 2 CO₂ per vehicle down by -18.2%.

Renewable energy generation and supply remain a critical part of automotive manufacturers' journeys towards net zero. In 2023, vehicle manufacturers and their suppliers generated 46GWh of renewable energy generation, matching the output reported in 2022.

CASE STUDY: JLR

RENEWABLE ENERGY STORAGE FROM USED CAR BATTERIES

JLR has partnered with Wykes Engineering Ltd, a leader in the renewable energy sector, to develop one of the largest energy storage systems in the UK to harness solar and wind power using second-life Jaguar I-PACE batteries. A single Wykes Engineering Battery Energy Storage System (BESS) utilises 30 second-life I-PACE batteries, and can store up to 2.5MWh of energy at full capacity. The batteries supplied were taken from prototype and engineering test vehicles, and JLR aims to supply enough batteries to store a total of 7.5MWh of energy – enough to power 750 homes for a day.

Each BESS, which is linked to an advanced inverter to maximise efficiency and manage energy, is capable of supplying power directly to the National Grid during peak hours as well as drawing power out of the grid during off-peak hours to store for future use. Battery storage systems like this are critical to decarbonising the Grid, as they can deal with rapid peaks in demand, and maximise solar and wind energy capture during sunny or windy conditions for use when needed. With no need for additional manufacturing steps or the removal of battery modules, the batteries are simply removed from the Jaguar I-PACE and slotted into racks in the containers on-site. JLR's batteries are engineered to the highest standards and can therefore be deployed in low-energy situations once their health falls below the stringent requirements of an electric vehicle, which typically leaves a 70-80% residual capacity.





CASE STUDY: BENTLEY

10TH ANNIVERSARY OF SOLAR POWER

Bentley Motors' has increased the number of on-site solar panels at its carbon neutral 'dream factory' in Crewe. The announcement of this work in 2023 coincided with the 10th anniversary of the first solar panels at the Pyms Lane site, where all Bentley models are built. Today, 36,418 solar panels cover an area of 60,911m², equivalent to nine football pitches or 311 tennis courts. The additional state-of-theart panels are highly efficient and produce nearly 60 per cent more

power per panel than the original units, which date back to 2013. They will add another two megawatts of energy generation to the Bentley site, bringing a total of 10MW of generation capacity. The combined systems will produce up to 75 per cent of Bentley's daytime electricity demands on average, equivalent to the energy needed to power more than 2,370 homes per year. All electricity used to manufacture Bentley cars is solar, or certified green.



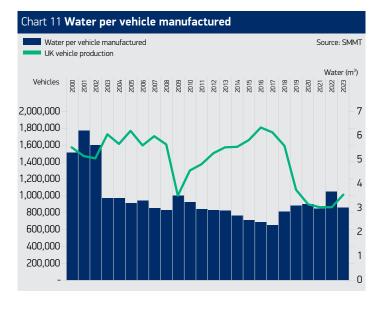
SCIENCE BASED TARGETS

In 2023, several signatories updated their commitments to Science Based Targets.²⁰ These targets are set in line with what the latest climate science deems necessary to meet the goals of the Paris Agreement agreed at COP21 - limiting global warming to wellbelow 2°C above pre-industrial levels and pursuing efforts to limit it to 1.5°C. Automotive manufacturers have two near-term target temperature alignments, first for scope 1 and 2 emissions and, second, for scope 3 category 11 emissions covering the use of sold products (i.e. their vehicles and components).

Company	Near term - Target Status	Near term – Target Classification	Near term - Target Year	Net-Zero by 2050
Aston Martin Lagonda	Committed			Committed
BMW Group	Targets Set	1.5°C / Well-below 2°C	2030	Committed
Ford Motor Company	Targets Set	1.5°C / Well-below 2°C	2035	Committed
Jaguar Land Rover Automotive	Targets Set	1.5°C / Well-below 2°C	2030	Committed
McLaren Racing	Targets Set	1.5℃	2030	Targets Set
Mercedes-Benz AG	Targets Set	1.5°C / Well-below 2°C	2030	
Michelin	Targets Set	1.5°C / Well-below 2°C	2030	Committed
Nissan Motor Co	Targets Set	1.5°C / Well-below 2°C	2030	Committed
PACCAR (Leyland Trucks)	Targets Set	1.5°C / Well-below 2°C	2030	
PSA Automobiles SA	Targets Approved	2°C	2034	
Robert Bosch GmbH	Targets Set	1.5℃	2030	
Scania CV	Targets Set	1.5℃	2025	Committed
Toyota Motor Corporation	Targets Set	1.5°C / Well-below 2°C	2035 / 2030	
Unipart Group	Targets Set	1.5℃	2030	Targets Set
Volkswagen AG (inc. Bentley)	Targets Set	1.5°C / Well-below 2°C	2030 / 2025	
Volvo Car Group	Targets Set	1.5°C / Well-below 2°C	2030	Committed

WATER

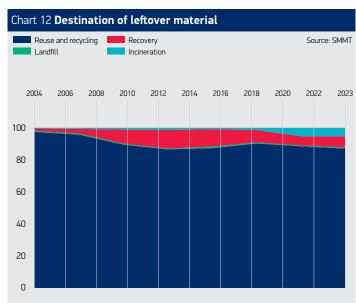
The longer-term trend for water use in vehicle manufacturing shows a direct correlation between vehicle production volumes and water use. More vehicles being produced tends to require more water. However, in 2023, the automotive industry managed a -2.1% reduction in overall water use, despite a 17% increase in the number of vehicles produced. This greater production volume also led to a -17.7% decrease in the volume of water used per vehicle. This reflects greater efficiencies of scale and less disruption to manufacturing processes and supply chain, both of which were a particular issue in 2022, and reflected in the previous year's figures.



WASTE AND RESOURCE

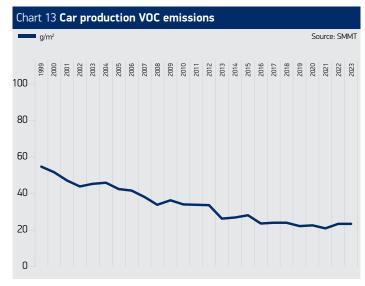
Today, less than 1% of material leftover from original equipment manufacturing processes goes to landfill. Zero waste to landfill is the ultimate aim for the automotive industry and many manufacturers have achieved this already. The vast majority (87.7%) of leftover materials from production is reused or recycled, with recovery (including waste to energy) and incineration also playing a much smaller role.

Data is not presented here for how the vehicles themselves are eventually dealt with at end of life, and the relative contributions of remanufacturing, repurposing, second life and recycling in that process. However, this process is covered by strict targets within the ELV Directive, which requires automotive manufacturers to meet 95% recovery and 85% recycling targets by average weight of each ELV.



VOLATILE ORGANIC COMPOUNDS (VOCS)

Vehicle manufacturers have invested heavily in the most efficient paint shops, enabling them to comply and go beyond the strict legal requirement of limiting VOC emissions. In 2023, VOC emissions in car manufacturing processes remained broadly steady compared to the previous year. However, the longer-term trend is one of a steady decrease in VOC emissions over time, with today's car manufacturers reporting less than half the VOC emissions compared to our first report 25 years ago.



CASE STUDY: TOYOTA

HABITAT CREATION AND BIODIVERSITY

Toyota has embraced biodiversity at its Burnaston and Deeside manufacturing sites, as well as its HQ at Burgh Heath. All three locations have integrated nature into the very fabric of their sites, through the introduction of wildflower meadows, ponds, mini-woodlands and butterfly banks. All of this work has been supported through partnerships with the respective wildlife trusts for Derbyshire, North Wales and Surrey whilst Royal Botanic Gardens Kew have provided expert botanical advice and training.



The Burnaston site is a global leader for biodiversity amongst TOYOTA manufacturing sites, with the maturity expected from decades of working with nature. Established balancing lakes provide a Wildlife-Trust-recognised Site of Biological Importance. The lake connects with a network of green corridors that include hedgerows and meadows planted between the factory buildings and woodland containing 150-year old trees. Over 400 species have been recorded, including 25 species of butterfly, 19 species of bumblebee and 11 species of bat.



The Deeside factory faces the challenge of being located in the middle of an industrial site built upon a reclaimed sand bank. However, it has still managed to create a valuable wildflower area centred around a large pond adjacent to the factory, allowing staff to interact with nature during their break, use a purpose-built bird hide and take lunch at the picnic tables. In a few short years Deeside's wildlife pond has experienced a 400% increase in species, many previously unseen.



Burgh Heath is one of only 12 sites nationally to achieve a Biodiversity Benchmark certification, awarded by Surrey Wildlife Trust. Its rich habitat and the installation of 11 roosting boxes has led to a 180% increase in bat activity.

Encouraging and enhancing wildlife onto site is part of TOYOTA's normal business. Biodiversity activity can have many wider benefits, such as supporting mental health and community engagement.

CASE STUDY: BENTLEY

'NET ZERO PLASTIC TO NATURE' ACCREDITATION

In 2023, Bentley Motors was awarded 'Net Zero Plastic to Nature' status for a second consecutive year. The internationally-recognised accreditation, from the climate company, South Pole, followed a rigorous waste stewardship appraisal of the company's campus and local operations. Bentley was the first car manufacturer to receive the ground-breaking certification in 2022, but South Pole's latest endorsement reflects the firm's ongoing efforts to support ambitious environmental commitments, across its manufacturing operations to the end-consumer.

South Pole's first in-depth appraisal in 2021 resulted in a widespread re-assessment of Bentley's plastics footprint on the environment. The assessment covered operational macro-plastic parts packaging used in logistics and manufacturing, and the disposal of plastic protection downstream at global retailers. It also assessed micro-plastic emissions from tyre abrasion as part of the logistics and product lifecycle. Bentley has significantly increased the level of waste management and traceability for its plastic waste, with 97 per cent of plastic waste processed in 2022. All inbound logistics packaging is now processed, including zero waste-

to-landfill and export minimisation. Bentley subsequently invested in certified units supporting 'Second Life Thailand', a plastic waste collection project focussing on ocean-bound and land plastic recovery, recycling and reuse. The amount of funding towards mitigation matched the full volume of non-processed plastic waste found in 2022.

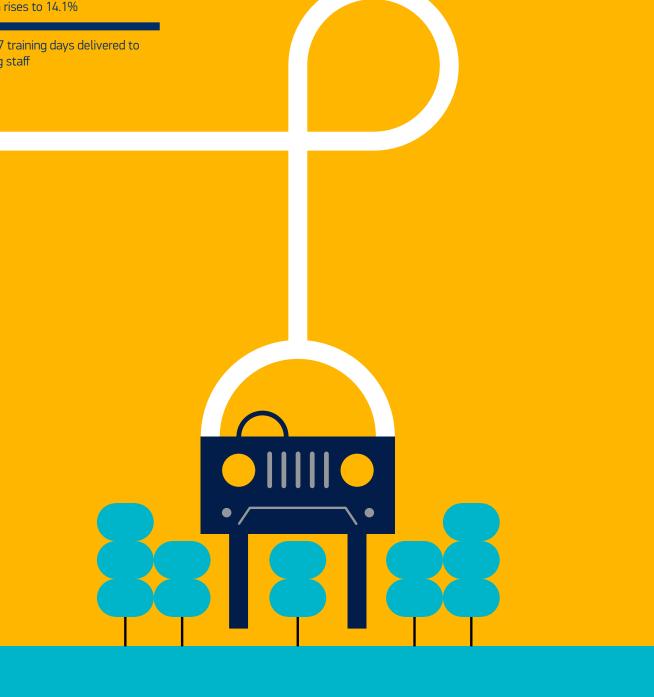


SOCIAL PERFORMANCE

1,613 new apprentices ® trainees – up 40.8%

Proportion of employees that are women rises to 14.1%

131,447 training days delivered to existing staff



The automotive industry continues to recognise the criticality of a skilled, diverse workforce in delivering the technologies and innovations that will underpin the UK's net zero future. Almost 200,000 people work in automotive manufacturing, with many of those jobs outside London and the South East. Auto workers typically earn 13% more than the national average, which might be considerably higher compared with in-region earnings. Some 813,000 UK jobs were dependent on the automotive sector in 2023.

DIVERSITY, EQUITY AND INCLUSION

In 2023, 82,111 people were employed by signatories to this report, representing a rise of 5.9% compared to the previous year and reflecting the continuing recovery of the automotive sector following the Covid-19 pandemic. The proportion of industry employees that are women also rose incrementally to just over 14%. While this is positive and continuous progress, it demonstrates the size of the ongoing challenge and the importance of ongoing efforts to ensure a diverse, representative and skilled workforce. In this context, the Automotive Council, through its Diversity Equity and Inclusion Charter, has committed to increasing the proportion of women in the workforce to 30% by 2030. The Charter has 27 signatories that have pledged to:

- Create a respectful and inclusive company culture for all colleagues
- Embed DE®I policies into company values and ensure they are reflected in all communications
- Improve recruitment practices and targeting to remove bias, encourage diversity of applicants and increase the diversity of talent pipelines at every level
- Create a flexible working environment for all, with a focus on delivery
- Support career opportunities and progression for every employee, through training, talent management, mentoring and sponsorship programmes
- Appoint a board-level DE®I champion to lead change from the top and implement line manager training
- Engage and collaborate with our suppliers and the wider automotive sector to champion diversity, equity and inclusion and share best practice
- Collect DE®I data, and report and publish our progress annually to the Automotive Council

In March 2024, SMMT celebrated its 3rd International Women's Day event on the theme 'Inspire Inclusion'. The event brought together around 40 members and stakeholders to discuss the challenges faced by women in the automotive sector.

As part of SMMT's programme at this year's Commercial Vehicle Show, SMMT hosted the Women in Commercial Vehicles dinner sponsored by Oaklin. This event allowed women at various stages of their career to share their experiences and also consider how we might introduce more women to the sector.



CASE STUDY: ASTON MARTIN

INCLUSION NETWORK AND VALUES TRAINING

Aston Martin has committed to a workplace and culture where its people feel connected to Aston Martin's purpose, that they have a voice, are listened to and will receive equal treatment to develop and reach their full potential. Aston Martin's Inclusion Network, I AM Inclusion, meets monthly to support employees and seeks to break potential stigma across the organisation by talking about issues that affect its employees. Five dedicated strands within the network focus on different areas of equity, diversity, and inclusion. The strands are I AM Gender, I AM Pride, I AM Ability, I AM Embraced, I AM Well.

The Inclusion Network has spearheaded numerous initiatives to promote LGBTQ+ inclusion and continued to raise awareness of LGBTQ+ issues, providing colleagues with practical advice. They continue to work closely with Racing Pride, an innovative movement to promote LGBTQ+ within the motorsport industry and among its technological and commercial partners. Racing Pride supported the annual induction of Aston Martin's new Early Careers starters, attended their Open Day at Gaydon, and provided a toolkit on Allyship. In addition, as part of International Women's Day, Aston Martin and Aston Martin Aramco Formula One® Team joined forces to host a prominent engagement event which included a series of panel discussions to an audience of young female students and workshops.

Aston Martin also continues to integrate diversity and inclusion training into its day to day operations. During 2023, inclusion training was part of 110 Aston Martin Values training sessions. These two-hour sessions were based on Aston Martin's core values of Unity, Openness, Trust, Ownership and Courage and included many conversations around how employees live, work and interact with each other, with a strong focus on all areas of inclusion.



CASE STUDY: STELLANTIS UK

ARMED FORCES EMPLOYER RECOGNITION SCHEME AWARD



Stellantis UK is the proud recipient of a Gold Award under the Defence Employer Recognition Scheme for services supporting the Armed Forces. The initiative is dedicated towards organisations that pledge, demonstrate and advocate support to defence and the armed forces community.

The award followed Stellantis UK signing the Armed Forces Covenant in 2021, pledging further support and dedication towards those who have served the country. Stellantis is a member of Mission Automotive, the Armed Forces Engagement initiative delivered by Mission Motorsport (The Forces' Motorsport Charity in partnership with The Royal Foundation of the Prince and Princess of Wales, the SMMT and supported by the Ministry of Defence).

Since signing the Covenant, Stellantis UK has launched a series of initiatives and services directed towards supporting the armed forces community, such as free training for service leavers, veterans and family members from the Stellantis Performance Training Academy. Stellantis UK has also dedicated time to welcoming servicemen and women into the company, with representatives attending career fairs, a new employee HR policy dedicated to Reserve Employees, and launching a Stellantis Armed Forces Network to support veterans and service leavers with their transition into civilian life.

APPRENTICESHIPS AND TRAINING

In 2023, there was a 40.8% rise in the number of apprentices and trainees taken on within the industry, further building on the 45.3% post-Covid rebound of 2022.

For existing employees, a combined 131,447 training days were provided, a slight reduction on the previous year. However, there is a growing view that this is no longer an optimal metric for assessing the level of training in light of the increasing use of online, more modular, self-directed training being offered, which is more difficult to capture as a metric.

CASE STUDY: JLR

SCHOOLS PARTNERSHIP PROGRAMME FOR STUDENTS FROM DIVERSE LOCAL COMMUNITIES

JLR has launched an all-new Schools Partnership Programme to help 40,000 students from diverse backgrounds build electrifying future careers in areas such as electrical and software engineering, digital and data roles and automated technologies. The programme is focused on improving opportunities for groups underrepresented in the industry including young females, pupils from challenging socio-economic backgrounds and those with English as a second language, creating a pipeline of talent to build JLR's next generation of modern luxury vehicles.

In collaboration with The Careers and Enterprise Company, JLR identified 40 secondary schools that reflected the company's diversity and inclusion aspirations. The schools are located close to JLR sites in Coventry \otimes Warwickshire, Birmingham, the Black Country, Solihull and Liverpool as well as local University Technical Colleges.



CASE STUDY: NISSAN

ACADEMY LAUNCHED IN SUNDERLAND

A skills partnership between Nissan and Sunderland College that bridges the gap between education and the world of work was launched in June 2023. The Nissan Academy, which will be based at the College's City Campus, will see students study for a specialised engineering qualification alongside their GCSEs. Supported by the College and a team of experts from Nissan, pupils will be able to hone the technical skills needed for a career in advanced manufacturing and engineering. Upon successful completion of the programme, they will be guaranteed an apprenticeship assessment with Nissan. Academy students will split their time between the College's technical City Campus and the Nissan plant where they will benefit from access to industry experts, state-of-the-art equipment and facilities, as well as unique projects and experiences.

Students will study for a Level 2 qualification in Engineering, the equivalent of a GCSE. The new partnership will build on Nissan's established and successful commitment to school engagement through the Nissan Skills Foundation. Over the last eight years, the Foundation has seen 85,000 young people aged 9-18 attend one of their unique STEM activities.

In a separate project, pupils across the UK have been given a digital learning boost thanks to the donation of 3,000 recycled computers from Nissan's UK entities. The initiative, a partnership between



Nissan and STEM Learning UK, a not-for-profit organisation, will provide computers to young people in schools that experience digital poverty, helping them gain vital technical skills for their future careers. The computers were available after an equipment upgrade at Nissan's five sites across the UK. More will also be donated in the coming months.

CASE STUDY: BENTLEY

RECORD NUMBER OF TRAINEE POSITIONS

This year, Bentley Motors will welcome 169 roles, a record number of trainee opportunities.. Career prospects across the company for Graduates and Industrial Placements were made available on the company careers portal, with Apprentice applications opening in February 2024. Nearly a quarter of the positions were focused on Bentley's R®D department as the luxury brand continues to look for the industry's brightest talents to support its Beyond100 strategy, seeking sustainable luxury mobility leadership. Of the 169 2024 roles, 38 are for three or four-year Apprenticeship positions, 31

are two-year Graduate roles, and 100 are for 12-month Industrial Placements. Additional departments include Manufacturing, Sales and Marketing, Finance and Human Resources.

In parallel to the vacancies opening, Bentley has welcomed its 117-strong 2023 cohort to join the 4,000 colleague workforce in Crewe, including a record high 48%/52% female/male gender split of the new starters.



CASE STUDY: ASTON MARTIN

COMMUNITY ENGAGEMENT

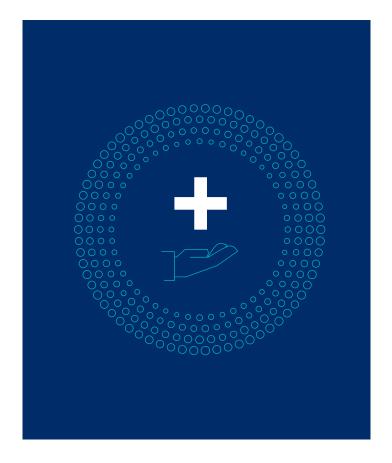
Inspiring young people about the exciting possibilities offered by a career in manufacturing and promoting Science, Technology, Engineering and Mathematics (STEM) is an important part of making sure that Aston Martin can access talent that is the bedrock of its future success. In 2023, it increased its STEM activity, more than doubling the number of visits to schools, colleges and universities, which increased from 20 in 2022 to 54. The company has long-standing partnerships and extensive engagement with local schools and colleges around its major facilities and this year's engagements included careers events at WMG Academy, Warwick University, De Montfort University, Myton and Kineton secondary schools, and the Houses of Parliament. The company's apprentices and other employees helped educate students about automotive manufacturing and engineering, as well as supporting mock interviews with Year 10/11 students in Cowbridge comprehensive. They conducted interviews based on the CVs and personal statements submitted by students and provided constructive feedback, as well as industry insight to help students decide on their next steps after completing their GCSEs. Furthermore, Aston Martin organised a DT Derby with Whitchurch School, which involved Aston Martin's apprentices helping design and engineer remote-control cars with GCSE students to race around a created track, with the winning team getting a visit around the factory.

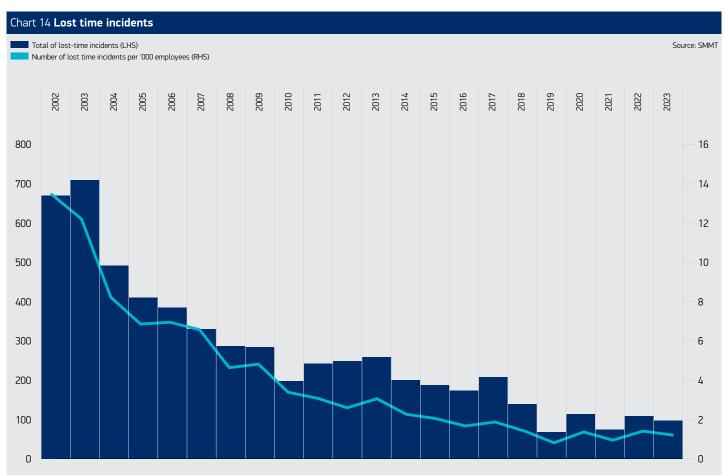
In addition to school engagements, in 2023, Aston Martin hosted two open days at its Gaydon and St Athan sites to welcome employees and their families, alongside local community representatives to see first-hand its company's products, design and manufacturing facilities. The biennial Gaydon open day event marked the 20-year anniversary since the establishment of the Aston Martin headquarters at Gaydon, with around 10,000 people visiting during the weekend to enjoy a variety of activities for this unique, 'behind the scenes' experience.



HEALTH AND SAFETY

Health and safety continues to be a priority for the industry and all manufacturers strive for zero lost time incidents. Over the longer term, there has been a significant -91% reduction in the rate of lost time incidents per employee since 1999. Following a reported increase in the rate of these incidents in 2022, potentially due to interruptions to normal processes and work patterns as a result of Covid-19 related supply chain disruption, it is a welcome sign that this trajectory has been immediately reversed in 2023, falling by -14.3% compared to the previous year.





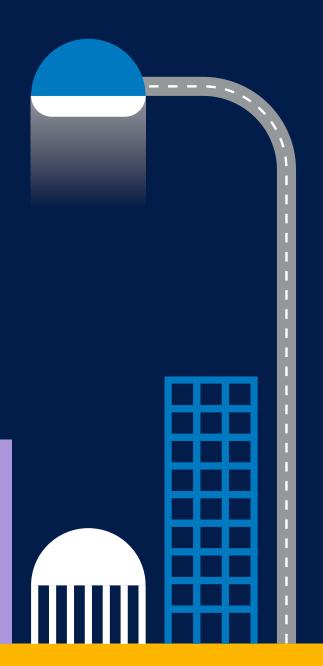
ECONOMIC PERFORMANCE

£93 billion turnover – up 19.4%

£22 billion GVA - up 20.5%.

Vehicle production up 17%

Vehicle registrations up 18.4%



The automotive industry is a vital part of the UK economy. In 2023, automotive-related manufacturing contributed £93 billion turnover (up 10.7% on 2022) and £22 billion value added (up 20.5% on 2022) to the UK economy. The automotive sector also supports jobs in other key sectors, including advertising, chemicals, finance, logistics and steel.

The sector received a boost at the very end of 2023 with the deferral of tougher rules of origin for batteries and EVs traded between the UK and EU. The move will help safeguard the competitiveness of the sector in the UK and Europe, providing valuable time to ramp up local production of batteries and associated components.

CASE STUDY: STELLANTIS

MARINE LOGISTICS SERVICE FOR ELLESMERE PORT

Stellantis has launched a new maritime logistics service, in partnership with Suardíaz and Peel Ports, in order to supply parts to its Ellesmere Port manufacturing plant, reducing carbon emissions in line with its Dare Forward 2030 Strategic Plan. The Ellesmere Port plant completed its full transformation to manufacture its compact electric van (Vauxhall/Opel Combo Electric, Peugeot e-Partner and Citroën e-Berlingo) in September 2023, becoming the UK's only all-electric manufacturing facility. A number of sheet metal parts and components required for production will be supplied from partner companies that are based near the Vigo plant in Spain – the other Stellantis plant that manufactures these electric light commercial vehicles.

In order to improve the supply chain flows to Ellesmere Port, a new end-to-end logistical service has been established. This includes a new twice weekly shipping service from Vigo Port to Queen Elizabeth II Eastham docks, Merseyside. The new 891 nautical miles maritime route will take an estimated 14,700 lorry journeys off the roads of the UK and continental Europe annually saving around 17.5 million kilometres (c.11 million miles) of road travel.

Each ship will be able to take up to 95 lorries whose cargo will comprise around 47 different part lines of sheet metal parts and components that will be used in the assembly of the all-electric compact vans. The packaging used to transport the parts is then taken back to Vigo Port on the return leg in order to be reused for subsequent trips. The journey time from Vigo Port to Queen Elizabeth II Eastham docks is around 50 hours – a comparable time to the current road journey. However, compared to road transport, the direct maritime route has 30% lower CO_2 emissions over the course of a full year as well as 37% less energy consumption.

Suardíaz will manage the end-to-end logistical service from one plant to another. Peel Ports will provide a 9.4-acre site at the Queen Elizabeth II Eastham dock to enable this new maritime route.

Peel Ports and Suardíaz have invested a combined £10million in recommissioning a berth at the Queen Elizabeth II Eastham dock and installing the infrastructure needed to support the processing of the Roll-on Roll-off (RoRo) ships and their cargo.

The dock is conveniently located two miles from the Stellantis Ellesmere Port plant with direct access to the River Mersey and the Manchester Ship Canal.



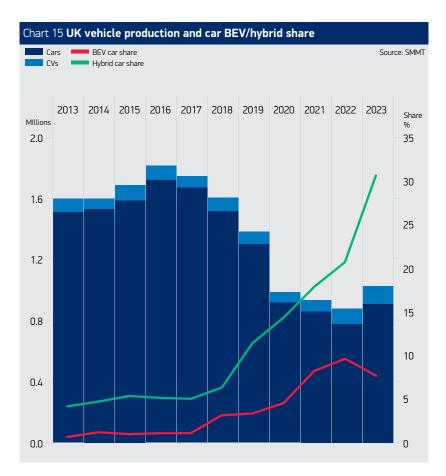
PRODUCTION AND EXPORTS

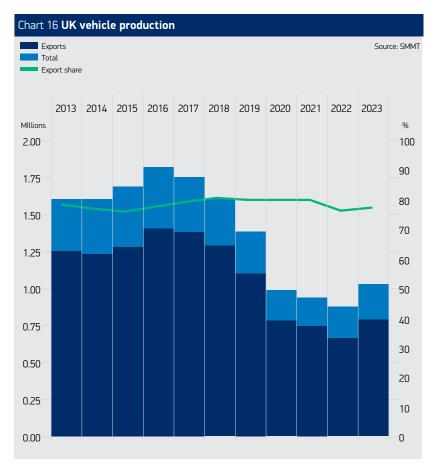
UK vehicle production hit 1,025,474 units in 2023, up 17.0% on the previous year. The easing of Covid-19 pandemic-related challenges and increasing electrified model production combined to drive annual output above one million for the first time since 2019. Eight all-new vehicle models entered production in 2023 while £23.7 billion of private and public investment commitments were made – more than in the previous seven years combined. These commitments continue to drive green economic growth, create jobs nationwide and transition the sector to electrified vehicle manufacturing. UK production of battery electric (BEV), plug-in hybrid (PHEV) and hybrid (HEV) vehicles surged to a record 346,451 units in 2023, up 48.0% from the previous year.

Overall, UK car production rose 16.8% in 2023, its best growth rate since 2010, with the total retail value of all models exceeding £50 billion. In the same period, UK commercial vehicle (CV) production increased by 18.5%, with 120,357 vans, trucks, taxis, buses and coaches leaving factory lines.

While 191,247 cars were built for domestic buyers, 713,870 units (79% of units manufactured in the UK) were shipped overseas, highlighting the contribution of automotive to the UK economy. Year on year, car exports rose 17.6% compared with a 13.7% rise in output for the British market. And for CV manufacturing, exports were also responsible for the bulk of growth over the year, with global demand for British-built commercial vehicles rising more than a quarter (25.8%) to 76,953 units. Almost two thirds (63.9%) of CV production was for overseas markets, up from 60.2% in another 13-year high.

The EU remained by far the sector's largest global market. 60.3% of car exports were destined for the EU, with shipments up almost a quarter (23.2%) to 430,411 units. The US was the next biggest destination with a 10.3% share of exports (73,571 units), followed by China with 7.2% (51,202 units), despite shipments to both slipping by -9.1% and -2.7% respectively. Turkey, conversely, saw exports surge 223.8% to 27,346 units, making it the UK's fourth biggest global market ahead of Japan, Australia, South Korea, Canada, UAE and Switzerland. For CVs, the EU was responsible for 94.2% of all exports as 72,461 units were shipped to the bloc in 2023. A further 1,085 and 1,016 units were shipped to Australia and the US, respectively.





REGISTRATIONS

In 2023, the UK new car market recorded its best year since the pandemic with just over 1.9 million new cars reaching the road – an increase of 17.9% on the previous year. Growth was driven entirely by fleet investment as the previous year's supply constraints faded and helped fulfil pent-up demand. Fleet deliveries rebounded by 38.7% year on year, raising the value of new car sales by more than £10 billion to around £70 billion, with 288,991 additional vehicles reaching the road. However, private consumer demand remained stable at 817,673 units after a strong recovery in 2022, with cost of living pressures and high interest rates constraining growth.

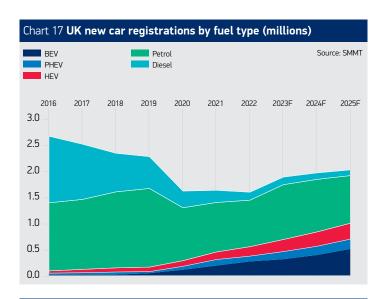
As the industry transitions away from fossil fuels, drivers continued to invest heavily in low and zero emission cars – which meant average new car $\rm CO_2$ fell by -2.2% to 108.9 g/km.

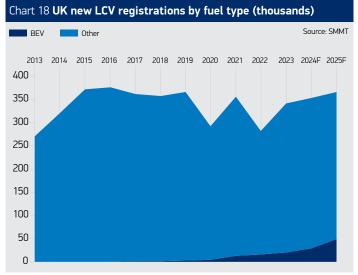
Battery electric vehicle (BEV) uptake reached a record volume – up by almost 50,000 units with 314,687 new registrations – the second largest market in Europe. Indeed, 2023 saw more BEVs reach the road than in 2020 and 2021 combined. BEV share, however, plateaued at 16.5%. Hybrid electric vehicles (HEVs) also recorded robust growth, up 27.1% to reach a 12.6% market share. Plug-in hybrids (PHEVs) also enjoyed a strong year, with a 39.3% increase in registrations to account for 7.4% of the market.

UK demand for new light commercial vehicles (LCVs) grew by 21.0% to reach 341,455 units in 2023, with a record number of zero emission vans joining Britain's roads.

Uptake of new battery electric vans hit record volumes in the year as volumes matched the overall market's growth of 21.0%. 20,253 units were registered in 2023 –across 28 different models– representing 5.9% of the market. More than 58,000 battery electric vans have joined UK roads, helping make the UK the third largest LCV BEV market in Europe by volume.

Heavy commercial vehicle (HCV) registrations rose by 13.5% in 2023 to 46,227 units, marking a third consecutive year of growth and just over 2,000 units short of the pre-Covid 2019 market. 0.5% of the HCV market were ZEVs in 2023. The bus and coach market posted its first growth in several years in 2023, up 44.6% to 4,932 units. The UK is a global leader in zero emission buses and has for many years developed both ultra-low and zero emission bus technologies for the UK market and for export.²¹





²¹ https://www.smmt.co.uk/reports/next-stop-net-zero-the-route-to-a-decarbonised-uk-bus-market/



The Society of Motor Manufacturers and Traders (SMMT) is one of the largest and most influential trade associations, representing the automotive industry in the UK.

The automotive industry is a vital part of the UK economy, integral to growth, the delivery of net zero and the UK as a global trade hub. It contributes £93 billion turnover and £22 billion value added to the UK economy, and invests around £4 billion each year in R \otimes D. With 198,000 people employed directly in manufacturing and some 813,000 across the wider automotive industry. Many of these automotive manufacturing jobs are outside London and the South-East, with wages that are around 13% higher than the UK average. The sector accounts for 12% of total UK exports of goods with more than 140 countries importing UK produced vehicles, generating £115 billion of trade in total automotive imports and exports.

The UK manufactures almost every type of vehicle, from cars, to vans, taxis, trucks, buses and coaches, as well as specialist and off-highway vehicles, supported by more than 2,500 component providers and some of the world's most skilled engineers. In addition, the sector has vibrant aftermarket and remanufacturing industries. The automotive industry also supports jobs in other key sectors – including advertising, chemicals, finance, logistics and steel.

SIGNATORIES

Signatories to this report	UK Brands		
Alexander Dennis	Alexander Dennis		
Aston Martin Lagonda	Aston Martin, Lagonda		
Autocraft	Autocraft		
Bentley Motors	Bentley		
BMW Group UK, including Rolls- Royce Motor Cars	BMW, MINI, Rolls-Royce		
Robert Bosch	Bosch		
Caterpillar	Caterpillar, Perkins		
Ford Motor Company	Ford		
GSM Automotive			
JLR	Jaguar, Range Rover, Defender, Discovery		
Leyland Trucks	DAF Trucks		
McLaren Automotive	McLaren		
Nissan Motor Manufacturing UK Nissan Technical Centre	Nissan		
Scania UK	Scania		
Stellantis	Abarth, Alfa Romeo, Citroën, DS, Fiat, Fiat Professional, Jeep, Maserati, Peugeot, Vauxhall		
Toyota (GB) plc Toyota Motor Manufacturing (UK) Toyota Logistics Services	Lexus, Toyota		
Unipart	Unipart Logistics		
Volkswagen Group (UK)	Audi, Cupra, SEAT, ŠKODA, Volkswagen Passenger Cars, Volkswagen Commercial Vehicles		
Volvo Car UK	Volvo		

REFERENCES AND ONLINE CONTENT

References and detailed data on the automotive industry performance can be found at:

www.smmt.co.uk/sustainability

The webpage also contains links to signatories' sustainability websites.

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