

**The beating heart of
Europe's automotive
and advanced
manufacturing sector.**



**City of
Sunderland**

Sunderland is at the beating heart of Europe's automotive and advanced manufacturing industry.



Home to Nissan UK, the award-winning plant is the nation's largest car producer and exporter, with 80% of its vehicles shipped overseas.

When the first Nissan Bluebird rolled off its production line in 1986, it heralded the beginning of a bright new era for the city.

While people once flocked like ants to the riverside yards that made Sunderland the world's largest shipbuilding hub, today their hard work and ingenuity increasingly drives the development of low-carbon technology helping forge a greener future for vehicles the world over.

From trials of the UK's first 5G connected HGV pilot to a world leading Envision AESC Gigafactory and the manufacture of powertrains for electric scooters, buses and marine applications, Sunderland is fast becoming a Centre of Excellence for Low Carbon and Fuel Cell Technologies...

City of Experiences Sunderland

£1 billion EV Hub and gigafactory coming soon

£3 billion investment into automotive since 2011

200,000+ Leaf EVs have already been built

47.5% UK electric vehicles are produced here

350,000 engines are produced in the region annually

20% European battery vehicles are produced in the region

130 countries import cars from Nissan's Sunderland plant

5G CAL Sunderland completed the UK's first autonomous HGV pilot

25,000 people working within the region's automotive sector

Nissan EV36Zero

**Nissan and Envision AESC
are launching a £1 billion
flagship Electric Vehicle (EV)
Hub in Sunderland, creating a
world-first EV manufacturing
ecosystem.**

Centred around the carmaker's record-breaking Sunderland plant, Nissan EV36Zero will supercharge the company's drive to carbon neutrality and establish a new 360-degree solution for zero-emission motoring.

The transformational project has been launched with an initial £1bn investment by Nissan and partners Envision AESC, a global player in world-leading battery technology, and Sunderland City Council.

Envision AESC already operates a 1.9 GWh battery plant in Sunderland, producing lithium-ion batteries for 60,000 vehicles annually. It is now investing £450m in developing a new 109,000 sq.m. Gigafactory on the International Advanced Manufacturing Park (IAMP), creating 750 highly skilled jobs. This will initially have a capacity of 9 GWh, with potential future-phase investment of £1.8bn by Envision AESC generating up to 25 GWh by 2030 with potential on site for up to 35 GWh.

Comprised of three interconnected initiatives, Nissan EV36Zero brings together electric vehicles, battery manufacturing, and renewable energy and battery production, setting a blueprint for the future of the automotive industry.



5G Connected and Automated Logistics

The pioneering 5G Connected and Automated Logistics (5G CAL) pilot recently succeeded in its mission to prove the potential of next generation technology in overcoming barriers for a more efficient future for last mile logistics.

City of Sunderland



Becoming the first in the UK to prove the delivery of zero emission automated logistics, the 5G CAL pilot is now complete and is raring to continue with a proposed series of projects to develop the technology and establish a testbed for connected and automated logistics in the city.

StreetDrone's innovative autonomous and teleoperation technology, built into a Terberg EV truck, was on show on site at Vantec in Sunderland at the pilot's closing event in June. Presented by the project's partners, delegates at the event gained access to insider knowledge of the successes and challenges of the pilot, alongside video footage of trials and an overview of what's next for 5G CAL's proposed expansion.

The consortium comprises of the North East Automotive Alliance (NEAA), Sunderland City Council, Newcastle University, Coventry University, Connected Places Catapult, StreetDrone and Perform Green, and was supported by Nissan, Vantec Europe, Terberg DTS UK and Fergusons Transport.



Saietta invests in Sunderland

Electric powertrain manufacturer Saietta is expanding into Sunderland, on-shoring production from China.



The firm - floated on the London Stock Exchange AIM in July 2021 - had indicated its intention to grow capacity to manufacture around 100,000 electric propulsion motors per year - and its move into Sunderland will fast-track company evolution.

The move accelerates Saietta's expansion plans and supports advancement of e-drive solutions. The move relocates e-motor production from China, a boost for UK Plc that strengthens Sunderland's position as a European manufacturing hub.

Turntide Technologies acquired by Gates and Bezos-backed venture

Turntide Technologies designs, develops and manufactures lithium-ion battery systems for clients such as JCB and Hitachi Rail.

Hyperdrive relocated to Sunderland in 2014 to be at the centre of the emerging electrification cluster. It now employs 50 highly skilled design and engineering staff.

With a standardised design, the company's modular product range provides a flexible and scalable battery energy storage solution.

Research and development is core to the business, which holds patents covering battery pack design, battery management systems and assembly methodology. Through the Advanced Propulsion Centre, it has been working with Nissan and Newcastle University on a high-density battery project.

In 2021, Hyperdrive won the coveted Queen's Award for Innovation. In the same year it was acquired by Turntide Technologies of the USA, along with other leading EV component manufacturers in the region, BorgWarner and Avid.

Turntide Technologies (formerly Hyperdrive) is continuing to invest in the development of technologies that will reduce emissions in the road freight, rail, marine and aerospace sectors.



Hundreds of millions of pounds have been invested into bringing to market over 1 million sq ft of advanced manufacturing and logistics hubs in Sunderland, in recent years.

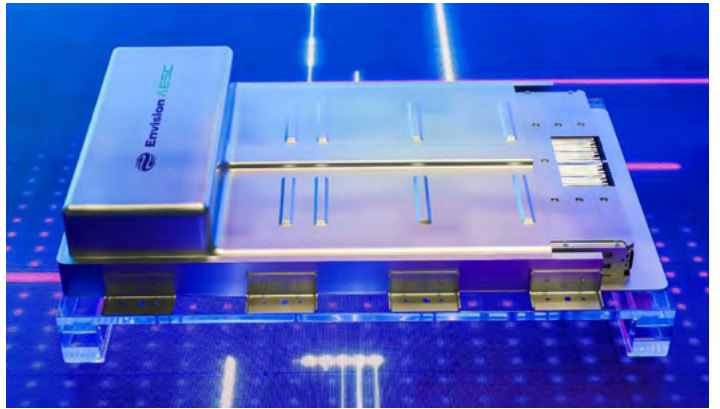
The developments have helped unlock over £1 billion in private investment from Nissan, Envision AESC, Legal & General, SNOP UK and Faltec, with new projects in the pipeline set to stimulate further inward investment over the coming years.



IAMP

A joint partnership between Sunderland City Council and South Tyneside Council, the £400 million International Advanced Manufacturing Park (IAMP) is at the heart of the North East's automotive industry, a stone's throw from Nissan UK.

Situated within an hour's drive from major road, rail, sea and air links, IAMP has proven such a hit - already home to tier one auto suppliers with Envision AESC's second UK battery manufacturing facility currently being developed on site - that all 125 acres of Phase One have been snapped up, with Phase Two (the second and largest phase of IAMP) under development.



Hillthorn Business Park

**Hillthorn Business Park
will deliver circa
582,000 sq ft of the
highest quality industrial
buildings in a prime
Washington location.**

The £80 million development, led by Legal & General, will be ready for occupation from November 2022, with the ten proposed buildings expected to create over 1,600 new jobs upon completion.

Hillthorn complements the International Advanced Manufacturing Park (IAMP) and Turbine Business Park, which is also the chosen location of a range of advanced manufacturing businesses. Collectively, the sites position Sunderland at the heart of advanced manufacturing in the UK.



Port of Sunderland

**The municipally owned
Port of Sunderland is
undergoing an industrial
renaissance.**

Over the past two years, the port has benefited from private investment of over £100 million from businesses involved in the low carbon and fuel cell industries.

This includes a world-first end-of-life tyre recycling plant spearheaded by Norwegian Government backed Wastefront AS, a company helping manufacture low carbon aviation fuel and Quantafuel, a plastic recycling plant breaking waste plastics down chemically to produce oil used in the production of virgin-grade recycled plastic.

Quantafuel has confirmed its plans to expand into the UK with processing plants that create high value products from low value plastic waste. Subject to planning approval, Quantafuel Sunderland Limited will be up and running in 2024 - the first plant in the North East of England.

The port's growing success in securing world class cleantech occupiers is linked to the availability of land with Enterprise Zone benefits, including Enhanced Capital Allowances. Large-scale capital investment has helped to unlock the massive potential of these sites. The next phase of development at the port will focus on 'Trinity - Rail, Road & Sea Enterprise Zone', which is a 4.5 ha fully multimodal site, enjoying rail and quay access. It offers a tremendous scope for other occupiers engaged in environmental technologies.



Best placed to capitalise on green economy

A landmark report into the economic benefits of the UK's net zero agenda has ranked Sunderland as one of the best positioned cities to capitalise on decarbonisation.



Research from the Social Market Foundation released last year brought to life new analysis of the local level risks and opportunities associated with decarbonisation and the UK's efforts to reach net zero by 2050.

In the ranking of all UK local authorities, Sunderland came second, and was hailed for its high proportion of workers employed in roles well positioned for transition, with over one in ten people in the city boasting the transferable skills required to help the UK achieve net zero.

The 'Zeroing In' report also revealed Sunderland benefits from a high proportion of low and medium skills, whereby nearly one in five (37.5%) of the working age population have the relevant skill level for green jobs, of which 1.7 million are expected to be created across the UK by 2030.



UK Smart City of the Year

Sunderland claimed top spot in a UK-wide competition that celebrates digital transformation, organised by the global initiative 'Digital Leaders', in 2020.

The award for Smart City of the Year recognises places that have prioritised digital transformation for the wider benefit, providing an array of services and creating opportunities for communities and businesses.

Gaining recognition on a national scale as the UK's fastest growing smart city illustrates the advanced smart agenda and digital achievements from across Sunderland over the past year, including:

- Significant investment securing plans for ubiquitous connectivity to all Sunderland premises
- Expansion of the National Assistive Technologies testbed, delivering solutions into 2500+ properties to enable vulnerable people to live safely at home, reducing social care intervention
- Securing a world first 'Smart City' Partnership with world leader in shared communications infrastructure, BAI Communications.
- Upgrades to vital digital infrastructure connecting the city through the continuing rollout of free ultrafast public Wi-Fi with download speeds surpassing the first 5G cities
- Transport solution for traffic mapping to inform future traffic flow and allow real-time traffic management



Plugged in to a global network

The North East Automotive Alliance (NEAA) is an industry-led automotive cluster, established to support the economic sustainable growth and competitiveness of the automotive sector in the North East of England.

The largest automotive cluster in the UK and among the fastest growing in Europe, the NEAA boasts over 300 cluster members with the simple aim of 'building upon the region's significant automotive capability and firmly establishing the North East as a true global automotive and electrification powerhouse.'



The city is also home - on behalf of the North East - to one of the UK Government's Driving the Electric Revolution Industrialisation Centres.

The Centres are the brainchild of UK Research and Innovation (UKRI), aiming to make the UK globally recognised as the centre of excellence in power electronics, machines and drives (PEMD) manufacturing processes.

The project provides a UK network of open access facilities, growing world class design, manufacturing, test and validation capabilities; and work with industrial partners to develop UK supply chains, accelerating delivery of PEMD solutions to global markets.



**Interested in
driving the
industry forward
from a globally
renowned base?**

**Speak to a member of
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