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 Sunderland Investment

Home to $1.24 billion (£1 billion) EV hub and gigafactory

$3.7 billion (£3 billion) investment into automotive since 2011

250,000+ Leaf EVs have already been built

42% UK electric vehicles are produced here

Nissan is the biggest auto manufacturer in the UK – accounting for 31% of all vehicles in 2022

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 have launched a $1.24 billion (£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 $1.24 billion (£1 billion) 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 $560 million (£450 million) in developing a new 109,000 sq m (1.17 million sq ft). 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 $2.2 billion (£1.8 billion) 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, renewable energy generation and storage setting a blueprint for the future of the automotive industry.

Saietta invests in Sunderland Electric powertrain manufacturing

Saietta is expanding into Sunderland to create it's Global Centre of Excellence for production process definition. The firm floated on the London Stock Exchange AIM in July 2021 and indicated its intention to annually grow it's capacity to manufacture electric propulsion motors.

Its move into Sunderland will fast-track company evolution and accelerate Saietta's expansion plans with it's advancement of e-drive solutions. Saietta have recently confirmed they received an order to supply e-drive units to Ayro Inc, a US based low speed electric vehicle (LSEV) company. The Sunderland facility will supply Saietta's e-drive solutions to Ayro Inc in North America. This is a boost for UK plc that strengthens Sunderland's position as a manufacturing hub for Europe and other countries.

Turntide Technologies acquired by Gates and Bezos-backed venture

Turntide invents and scales transformative technologies that accelerate the electrification of on-and off-highway vehicles.

As a leading supplier of high-performance electrification components, from batteries and inverters to fans, pumps, and EV motors, Turntide has become a trusted partner to leading OEMs in construction, agriculture, trucks, buses, marine, rail, and hypercars. With more than 60 years of experience and 300,000+ vehicles in the field, Turntide's team design, develop and manufacture electrification solutions for the unique needs of various vehicle types.

In Sunderland, Turntide Hyperdrive's modular battery systems are designed and assembled thanks to its more than 70 highly skilled design and engineering staff. In 2021, Hyperdrive (now a Turntide company) won the coveted Queen's Award for Innovation. Turntide is continuing to invest in the development of technologies that will reduce emissions in the road freight, rail, marine and aerospace sectors. In this way, it is helping clients such as JCB, Hitachi Rail and Snorkel on their path to electrification.

Hundreds of millions of pounds have been invested into bringing to market approximately 220,000 sq m (2.37 million sq ft) of advanced manufacturing and logistics hubs in Sunderland, in recent years.

The developments have helped unlock over $1.24 billion (£1 billion) in inward 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.

Lei Zhang, Founder and CEO, Envision

IAMP

A partnership between Sunderland City Council and South Tyneside Council, the $500 million (£400 million) International Advanced Manufacturing Park (IAMP) is at the heart of the North East's automotive industry, a stone's throw from Nissan's Sunderland plant.

Situated within close proximity to major road, rail, sea and air links, IAMP has already proven very successful - home to a number of tier one auto suppliers including, SNOP UK and Faltec with Envision AESC's second UK battery manufacturing facility currently being developed on site.

All 125 acres of Phase One have been built out, with Phase Two (the second and largest phase of IAMP) under development.

Envision AESC manufacturing facility – under construction

Port of Sunderland

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

In recent years, the port has benefited from private investment of over $125 million (£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 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.

Hillthorn Business Park

Hillthorn Business Park will deliver circa 54,070 sq m (582,000 sq ft) of the highest quality industrial buildings in a prime Washington location.

The $994 million (£80 million) development, led by Legal & General, will soon be ready for occupation, with the range of 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.

Sunderland: the UK's Smartest City

Leading the way in digital transformation to shape our connected city of the future.

Sunderland is blazing a trail as the leading hub for 5G enabled, connected, and smart advanced manufacturing facilities. With a strong manufacturing heritage, world-class universities, and innovative digital ecosystem, the city is ideally positioned for technology-led advanced manufacturing.

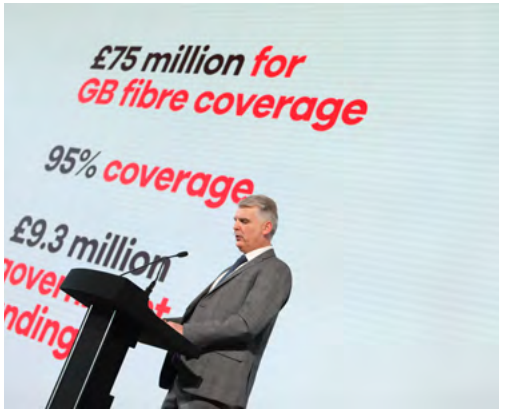
Sunderland is ahead of the game with a number of use cases and smart initiatives, which are bringing to life the real impact their progression represents for residents, businesses and visitors to the city.

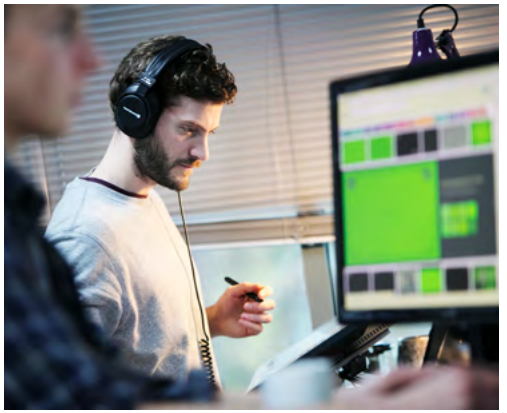
Sunderland City Council awarded a 20-year strategic partnership to BAI Communications (BAI) in September 2021, to design, build and operate next generation digital infrastructure including private 5G small cell networks.

This unique partnership is underpinning a complete transformation of the city, allowing Sunderland to be at the forefront of innovation and achieve true global competitiveness.

Supported by the region's dynamic talent pipeline, and Sunderland's significant investment in digital infrastructure, our Smart City is an ideal location to accelerate the pace of technical delivery whilst also reducing costs.

City of Smart Sunderland





Harnessing the power of 5G

The power of 5G, coupled with the city's unique supporting smart city infrastructure, is stimulating real advancements for both logistics and advanced manufacturing.

By utilising 5G to connect machines and devices, providing faster speeds, lower latency, and greater reliability, operations are enabled to run more efficiently and effectively than ever before. Sunderland's advanced private 5G network is among the most advanced connectivity in the UK, equipping the sector with the networks they need to succeed.

Reap the benefits of IoT sensor networks

Cutting-edge manufacturers can leverage the power of internet of things (IoT) devices, which provide valuable data used to optimise production processes and reduce downtime. Sunderland's Smart City partnership offers bespoke IoT solutions shaped for any business. Businesses can also access LoRaWAN networks to enable businesses to achieve their smart goals.

The city's IoT sensor network is already guiding improvements and understanding of city-wide air quality, traffic and pedestrian flow, road temperatures and rainfall, and with many more use cases already in development, such as legionella monitoring, bin fill level sensors and energy efficiency projects, Sunderland continues to demonstrate our continual appetite to leverage the power of technology to futureproof the city and support our net zero ambitions.

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.

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 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. 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 comprised 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.

Government backs self-driving shuttles roll-out in Sunderland

Self-driving vehicles will help deliver passengers and cargo in and around Sunderland, after two projects based there were awarded a share of $104 million (£84 million) in joint government and industry support for self-driving transport technology.

Sunderland Advanced Mobility Shuttle (SAMS)

The Sunderland Advanced Mobility Shuttle project will trial three self-driving zero emission Aurrigo Auto-Shuttles, which will transport passengers on public roads between Sunderland Interchange, the Sunderland Royal Hospital, and the University of Sunderland City Campus. Whilst safety drivers will always be onboard, the project will develop and demonstrate a cyber secure remote supervision protocol, an important step towards commercial deployment. The project has been awarded $3.7 million (£3 million) by the government, matched by industry to a total $7.5 million (£6 million) and is led by Sunderland City Council in partnership with Aurrigo, Stagecoach, ANGOKA Ltd, Newcastle University, Swansea University, and BAI Communications.

V-CAL sets out to scale and expand the deployment of Connected and Autonomous Logistics (CAL)

Project V-CAL, being led by the North East Automotive Alliance (NEAA), builds on the success of 5GCAL and will run up to 4 zero-emission autonomous HGVs around the Nissan Sunderland site, on private roads where the vehicles will navigate traffic lights, roundabouts, and other road users. This is a major step towards deploying the technology on public roads. The work, in partnership with Vantec, Nissan Motor Manufacturing UK (NMUK), StreetDrone, Nokia, Newcastle University, ANGOKA, and Womble Bond Dickinson (UK) LLP, has been awarded $5 million (£4 million) by government, matched by industry to a total $9.9 million (£8 million). The HGVs will operate without any personnel on board but will be monitored by a remote safety driver as backup.

Connected and Automated Vehicles/Logistics (CAVs/CAL) will provide huge social, industrial and economic benefits across the world and Sunderland is placing itself as a global centre of excellence for Connected Automated Mobility.

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

Speak to a member of our team.

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