



BUSINESS PLAN **2025–2026**

VERSION 4 JULY 2025



FOREWORD

As The Solent Cluster moves from its start-up phase, this business plan sets out the next step on our ambitious journey to become a world-leading low carbon hub.

Over the past two years, we've come to understand the potential of The Solent Cluster to effecting real transformational change in sustainable energy production and consumption, and the incredible opportunity this could bring to local communities, the region and the UK.

The Solent Cluster will continue to focus on the innovation and pioneering capability of the region to drive forward our ambitions and exploit the technical expertise and infrastructure assets we have locally to move towards low carbon fuel solutions, while making a major contribution to the UK's long-term energy security.

The UK's Modern Industrial Strategy and the Clean Energy Industries Sector Plan mark a pivotal moment for the Solent region. With a national commitment to double clean energy investment and accelerate grid infrastructure, the Solent is uniquely positioned to lead the charge – leveraging our maritime strengths, advanced manufacturing capabilities, and deep industrial heritage. These plans – at least on the face of it – provide the long-term certainty and direction needed to unlock private capital, scale up hydrogen and CCUS-enabled technologies, and deliver high-quality green jobs across our coastal communities. As one of the UK's most strategically located industrial clusters, The Solent Cluster stands ready to translate national ambition into regional delivery – driving decarbonisation, boosting exports, and ensuring the Solent plays a central role in powering Britain's clean energy future.

The Solent Local Industrial Decarbonisation Plan has shown the scale of the challenge our area has before us if we are to see meaningful reductions in emissions. Annual Scope 1 emissions within the region currently exceed

5 million tonnes of CO₂ and, under a business-as-usual scenario, only a 2% reduction in emissions is forecast by 2050. In the absence of new decarbonisation initiatives, the Solent region could be poised to remain a high-emitting industrial cluster. Decarbonisation of this industry in the Solent region is therefore essential to meet UK Government Net Zero and Industrial Decarbonisation targets, and represents a significant opportunity to drive local economic growth and employment opportunities.

This year, our focus remains firmly on advancing opportunities to bring deep decarbonisation projects to life, as outlined in our Transitioning Pathways report. In this spirit, we warmly welcome the shortlisting of the Fawley Green Hydrogen Project in Hydrogen Allocation Round 2. We look forward to collaborating with key stakeholders to drive meaningful engagement with local communities, strengthen supply chain resilience, and foster skills development.

Recognising the vital role of maritime and aviation in the region's decarbonisation journey, we will also continue working closely with partners to progress initiatives in these sectors, building on the opportunities identified.

At the end of 2024, we launched our paid Partnership model, ensuring The Solent Cluster can continue championing industrial decarbonisation. We extend our sincere appreciation to those who have already joined us as Partners. For organisations engaged in energy production, transportation, storage, and maintenance, or high emitters seeking to transition to lower-carbon processes, we invite you to be part of this journey towards a cleaner, more sustainable industrial economy.

Anne-Marie Mountifield
Chair, The Solent Cluster

The Solent Cluster is an industry-led body for the promotion of a lower carbon economy across the South of England and wider UK. Anchored in The Solent, the central south coast of England is one of the UK's most important industrial clusters, with nationally significant infrastructure assets that make it uniquely positioned to help transition the South of England towards a lower carbon economy.

An industrial decarbonisation cluster that brings together businesses, industries, academia and local government in a particular region to collectively reduce carbon emissions and transition towards more sustainable practices. These clusters typically incorporate innovative technologies and cooperative strategies that help industries lower their carbon footprints. By doing so, they aim to support the transition to lower carbon industry form zones known for high carbon emissions into lower carbon or net-zero-emission zones.

Key elements often include:

- Carbon Capture, Utilisation, and Storage (CCUS): Capturing CO₂ emissions from industrial processes and either using it in other industries or storing it underground to prevent it from entering the atmosphere.
- Hydrogen production: Utilising hydrogen as an alternative fuel in industrial processes.
- Energy efficiency measures: Implementing advanced technologies and systems to reduce energy consumption.
- Renewable energy integration: Using renewable energy sources to power industrial operations and make fuels.

The creation of these clusters not only helps in reducing emissions but also promotes innovation, and economic growth, and can create new job opportunities in green technologies. Industrial decarbonisation clusters are essential in the global effort to tackle climate change and move towards a sustainable future.

The Solent has a range of industrial assets that are strategically important for the UK for trade, energy security and manufacturing supply chains. ExxonMobil's Fawley Petrochemical complex on Southampton Water is the largest of its kind in the UK. The complex is connected by pipelines to major UK transport hubs including Heathrow and Gatwick Airports and provides a potential opportunity to supply Sustainable Aviation Fuel and support decarbonisation of air travel. The region is a global trading gateway with major ports at Southampton (the UK's largest export port, and Europe's primary cruise port) and Portsmouth (with more Ro-Ro destinations to mainland Europe than any other UK port). By combining these strategic assets with a diverse industrial base (with significant clustering of advanced manufacturing) and the potential for offshore carbon storage, The Solent Cluster has the ingredients to play a significant role in transitioning the UK to a lower carbon economy and helping the Government meet its Net Zero commitments.

The Government has set targets for the UK to reduce its greenhouse gas emissions to Net Zero by 2050 and has identified six industrial clusters that present a significant opportunity to play a leading role in meeting this target. A cluster model has many benefits to support a lower carbon economy. It provides the basis for the development of a network and a vehicle through which to convene diverse actors from across industry, the public sector, academia, research, education and beyond.

The Solent Cluster is the only collaboration of its kind in the South of England and is backed by organisations with the technical expertise and global track record of delivering cost effective low carbon solutions for industry. Together we will establish the area as a hub of expertise and innovation. This hub has the potential to enable the development of new hydrogen and lower carbon energy facilities, capable of creating sustainable fuels for marine, aviation and transport. Additionally, these facilities could produce lower carbon power or fuels to heat homes, businesses and public buildings in our region and beyond.

In February, we finish our year long Solent Local Industrial Decarbonisation Plan (LIDP) project, funded by Innovate UK and local industry. The culmination of this work is a forward-looking roadmap setting out how industrial decarbonisation of the Solent region may be achieved.

Annual Scope 1 emissions within the Solent currently exceed 5 MtCO₂e and, under a business-as-usual scenario, only a 2% reduction in emissions is forecast by 2050. In the absence of new decarbonisation initiatives, the Solent region could be poised to remain a high-emitting industrial cluster. Decarbonisation of industry in the Solent region is therefore essential to meet UK Government Net Zero and Industrial Decarbonisation targets and represents a once in a generation opportunity, to drive local economic growth and employment opportunities. The Solent Cluster has been established to provide a forum to connect activity in pursuit of a lower carbon economy.

Modelling of decarbonisation opportunities suggests that deep decarbonisation of industry can be achieved in the Solent region, with potential industrial emission reductions of over 99% by 2050. This could see total abatement of over 90 million tonnes of CO₂, compared to a baseline scenario. Achieving deep decarbonisation will require deployment of multiple technologies and major infrastructure, including electricity network upgrading (to support electrification), low carbon hydrogen production and carbon capture. The role of carbon capture is particularly critical, with major industries such as petrochemical production and energy from waste facilities lacking alternative opportunities to reduce emissions. This infrastructure could unlock further opportunities for new energy transition projects, such as the production of sustainable aviation fuels and renewable methanol, for use at airports including Heathrow and Gatwick alongside Portsmouth and Southampton ports.

Delivery of these infrastructure and decarbonisation projects will offer significant benefits to the Solent region and the wider UK, through emissions reductions, local investment, economic growth and the creation of high-quality green jobs. However, realisation of these projects will also require significant action and The Solent Cluster exists to convene industry and other actors to realise this transition.

Alongside our vision to decarbonise the central south coast of England, we aim to support the development of a skills pipeline that enables our young people and residents to take up these new employment opportunities in the industries of the future.

Accordingly we have set a strategic priority to **support the development of a world-class talent base** and reskilling in new, low carbon industries. We commit to working closely with local schools, Further and Higher Education, as well as the Local Authorities to ensure that the linkages between education and industry are strong and meaningful and deliver the skills the sector needs to grow.



OUR VISION

Our vision is for the Solent to become a **leading centre for low carbon investment** that will **grow the regional economy, protect skilled jobs**, and **create new employment opportunities** in the cleaner energy technologies and industries of tomorrow.

OUR STRATEGIC PRIORITIES

- Support the delivery of **credible lower carbon projects**.
- Support the Solent and wider South of England to become a **leading area for low carbon investment**.
- Create new jobs** and **secure existing jobs** for the benefit of our communities.
- Support the development of a **world-class talent base** and reskilling in new, low carbon industries.
- Raise the level of **economic output**.
- Help the UK remain **competitive, energy secure**, and deliver on national energy priorities.
- Make a **major contribution** in the UK's move to a lower carbon economy.
- Provide a platform to showcase the Solent's low carbon **innovation and collaboration**.

OUR BOARD

The Solent Cluster has an industry-led Board that seeks to promote the delivery of programmes and initiatives that will establish the south as a globally leading area for low carbon investment, creating new employment opportunities, and enhanced research and innovation capability in the cleaner energy technologies and industries of the future.

The board has an independent chair and will look to recruit an independent deputy chair, up to five business directors from the low carbon economy, one Higher Education director, one skills director from the local Further Education colleges, one local authority director, and one executive director.

Whilst The Solent Cluster was established in 2022, it was incorporated as a company limited by guarantee in June 2023.



ANNE-MARIE MOUNTFIELD

Chair
The Solent Cluster

Anne-Marie is the Chair of The Solent Cluster and she currently has a portfolio of non-executive roles operating at the very highest level in both government and Industry with business leaders and representative bodies; this includes chairing Maritime UK Solent. She is also a national council member on Maritime UK, which is responsible for bringing together the UK's shipping, ports, services, engineering and leisure marine industries to drive growth by promoting the sector, influencing government and fostering collaboration.

On a broader basis she is also a non-executive board director with VIVID homes and acts as Chair of the charitable arm VIVID Plus which provides additional investment and direct support to help VIVID customers prosper, with an ambition to invest over £21 million over the next 4 years to support vital community groups and organisations.

A Fellow of the Institute of Directors in 2020, Anne-Marie was awarded Chartered Director of the Year for London and the Southeast.



STUART BAKER

Executive Director
The Solent Cluster

Stu is the Executive Director of The Solent Cluster – the South's only low carbon cluster, and is passionate about the Solent and it's maritime and low carbon economies.



RALF RASHBROOK

Solent Cluster Venture Manager
ExxonMobil

Ralf was instrumental in establishing The Solent Cluster and sits as a Non-Executive Director of its Board. Now with over 25 years' experience gained in the energy sector worldwide, Ralf began his career at Fawley in 1997. Ralf currently leads the ExxonMobil Low Carbon Solutions team working on projects in the Solent.

A Fellow of the Institution of Chemical Engineers (IChemE), Ralf is active in promoting the discipline through the Institution, including working to accredit University Courses and helping individuals with non-accredited degrees become Chartered Chemical Engineers.



PROFESSOR LINDSAY-MARIE ARMSTRONG

Academic Cluster Lead, Industrial Decarbonisation Research & Innovation Centre (IDRIC) Deputy Director – Sustainability & Resilience Institute
University of Southampton

Lindsay-Marie Armstrong is Professor of Decarbonisation within Engineering and Physical Sciences at the University of Southampton and Deputy Director of the Sustainability and Resilience Institute. She is the Academic Cluster Lead for The Solent Cluster as part of the EPSRC-funded £20m Industrial Decarbonisation Research and Innovation Centre (IDRIC).



MARCUS HUNT

Business Development Director
SGN

Marcus is SGN's Business Development Director with over 20 years' experience in both regulated and non-regulated utility businesses both in the UK and US. Prior to joining SGN, Marcus spent 5 years with KPMG's Infrastructure Advisory Group, advising clients on a range of commercial strategy, transaction and regulatory issues. At SGN, Marcus has responsibility for SGN's decarbonisation activities including hydrogen and biomethane.

Marcus is a board member of MUA, SGN's last mile infrastructure joint venture and FYLD, a start up in the digital SaaS market.



JACK LEWIS

Co-founder
Ada Mode and Windscope

Jack is co-founder of two Solent-based SMEs (small and medium-sized enterprises), Ada Mode and Windscope, organisations committed to accelerating the route to net-zero through the development of cutting-edge digital technology.

Jack is a Chartered Mechanical Engineer with a background in power station management, digital innovation and plant optimisation. Jack managed the UK's first commercial scale biogas plant and has led large-scale digital innovation and optimisation projects within the UK's civil nuclear and offshore wind sectors, recently developing Sellafield's AI strategy.



RICHARD SARGENT

Senior Regulatory Manager
RWE

Richard is Senior Regulatory Manager in the UK Hydrogen team at RWE. He is responsible for reviewing and assessing UK government policy and regulation across the full hydrogen value chain and advising the business on how this landscape supports or constrains RWE's project and business development activities. Richard provides the lead interface on hydrogen between RWE and the UK government – both at the political and official level – and wider industry, operating in various fora to support and influence UK hydrogen policy. In addition, Richard is integrated into RWE's wider hydrogen team which operates across other core markets, namely Germany, the Netherlands and the EU.



IAN COOK

Head of Hydrogen Business Development
SSE plc

Ian is a global energy business leader who is currently the Head of Hydrogen Business Development for SSE plc. He is focused on developing new hydrogen production opportunities in his present role. Before this, Ian led the SSE Power Business development team working on CCS, hydrogen and LDES projects. Prior to that, he worked for SSE Distributed Energy developing heat and electricity networks, and EV and battery projects.

Before joining SSE, Ian worked for eight years for engineering and technology provider NOV, and lived in the USA and Norway delivering projects across the globe. He is a Chartered Chemical Engineer, holding an MEng from The University of Edinburgh and an MBA from Imperial College London.



HELEN ODHAMS

Principal & CEO
Brockenhurst College

Helen is the Principal and CEO at Brockenhurst College. She has worked in education all her professional career and is a firm believer in the value of a quality post-16 education and the opportunities, experiences, and reward this creates for students. Helen brings a wealth of experience and knowledge to her role with expertise spanning crucial areas of quality improvement and development, curriculum strategy and planning as well as wider learning and external partnerships.

Additionally, her roles in the governance of the South Coast Institute of Technology and participation in the Waterside Steering Group underline her commitment to the development of knowledge, skills and opportunities for students, which support the future development and growth of the local and regional economy and communities.

THE SOLENT CLUSTER PARTNERSHIP

The Solent Cluster is an inclusive partnership organisation open to all who operate within or have a strong industrial or research connection to the area.

The Solent Cluster is the only industrial cluster organisation in the south of England and is recognised by Government and internationally as one of the UK's leading industrial cluster organisations. We have forged strong relationships across the business and research base, academia and the public sector, as well as with central government and industrial clusters across the UK and internationally.

We offer an unrivalled opportunity to be part of a vibrant community, innovating the energy solutions of tomorrow, and support the continued evolution of the economy to a lower carbon future.

We host bi-monthly networking meetings providing an opportunity to convene the sector and have working groups on Hydrogen, CCUS, Renewables, and Maritime Decarbonisation.

To see our member or to find out more about how you can join The Solent Cluster, scan this QR code.



A VISION FOR THE FUTURE DELIVERING OUR VISION

Delivering The Solent Cluster's vision for the Solent to become a leading centre for low carbon investment that will **grow the regional economy, protect skilled jobs, and create new employment opportunities** in the cleaner energy technologies and industries of tomorrow, will take a collaborative and concerted effort from all.

The table on page 14 sets out the activities that we will progress in 2025/26.

THE SOLENT CLUSTER POTENTIAL THROUGH COLLABORATION

Opportunity to decarbonise
the south at scale.



Together we can:

- Attract low carbon investments
- Support UK energy security
- Protect existing employment and create new jobs
- Foster new technology, research and innovation
- Create a lower carbon economy
- Contribute to the UK's Net Zero targets
- Develop the lower carbon skills the sector needs
- Create a network of lower carbon opportunity

THE SOLENT CLUSTER

ACTIVITIES 2025/26

ACTIVITY	OUTPUT	TIMESCALE
Local Industrial Decarbonisation Plan (LIDP)	<ul style="list-style-type: none"> - Make available to members a range of reports from The Solent Cluster Local Industrial Decarbonisation Plan (LIDP). - Identify alternative hosts to progress recommendations of the LIDP project (including Maritime UK Solent, businesses, Local Government). 	Spring 2025
Events and networking	<ul style="list-style-type: none"> - Host regular networking events for the industrial low carbon sector of the area annually. - Provide a range of speakers to broaden knowledge of lower carbon technologies and opportunities. 	Ongoing
International collaboration	<ul style="list-style-type: none"> - Maintain membership of the World Economic Forum Transitioning Industrial Clusters Network. 	Ongoing
UK collaboration	<ul style="list-style-type: none"> - Consider opportunities to work with UK industrial clusters. 	Ongoing
Dissemination	<ul style="list-style-type: none"> - Make available reports from the World Economic Forum Transitioning Industrial Clusters Network on our website. 	Ongoing
Regional Energy Strategic Planner	<ul style="list-style-type: none"> - Make available reports from the World Economic Forum Transitioning Industrial Clusters Network on our website. 	Ongoing
Lobbying and Influence	<ul style="list-style-type: none"> - Convene local MPs to provide an update on the work of The Solent Cluster. 	Summer 2025
Corporate activity	<ul style="list-style-type: none"> - Transition the corporate and operational setting of The Solent Cluster to a new host. - Publish an Annual Report. 	Spring 2025
Enquiries desk	<ul style="list-style-type: none"> - Maintain an enquiries point for industrial decarbonisation enquiries to re-direct as appropriate. 	Ongoing
Maritime decarbonisation	<ul style="list-style-type: none"> - Work with Maritime UK Solent to support the establishment of the Solent as a global centre of excellence for Maritime Decarbonisation. 	Ongoing
Support the promotion of the HAR2 Hynamics Fawley Green Hydrogen Project	<ul style="list-style-type: none"> - Work with Hynamics to support the identification and development of supply chains, off-takers and education. 	Ongoing





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