

# How the South Wales Industrial Cluster helped create the South Wales Zero2050 project

## How the South Wales Industrial Cluster helped create the South Wales Zero2050 project with National Grid and what they are doing to help decarbonise the region.

The South Wales Industrial Cluster (SWIC) mission is to develop a world leading, truly sustainable industrial cluster befitting the societal needs by the year 2050. SWIC was developed out of two other projects, the first being RICE, which had the purpose of helping Welsh industries reduce carbon dioxide emissions and drive a stronger green economy and the second being FLEXIS, which is a research operation designed to develop an energy systems research capability in Wales.

The reason why it's important that the SWIC leads the way in decarbonisation, is that along with the Humberside Cluster, it's one of the largest emitters of CO<sub>2</sub> in the UK. That's understandable when you look at the range of industries in the region, with oil refining, paper, nickel, insulation, chemicals, LNG import, coin production, general manufacturing, steel and cement all produced in South Wales.

That's why in May 2018 SWIC got in touch with National Grid to help conceive an early vision of the South Wales Zero2050 programme to help support both the decarbonisation of the area and the economic growth.

### Working together for the benefit of all in South Wales.

'Zero2050: South Wales' includes diverse stakeholder groups (utilities, industry, academia, SME, consultants, Government, regional experts etc.) to design a pathway to address decarbonisation of the South Wales region. So, communication between all the parties involved, as well as communicating effectively to the people and businesses of South Wales is key to success.

Another key to success is promoting the benefits of decarbonisation regarding the future of the environment and the economy. Most of the industries in the region make commodity products that face harsh international competition. These industries have very tight margins and can't therefore afford to decarbonise.

There is no real market yet for low carbon products, consumers are asking questions but the market has not yet developed. It is therefore a very tough ask on multinational companies to front the cost of decarbonisation if they don't have to in other global locations.

Decarbonising in a way to maintain a manufacturing base in the UK is the real challenge. The technologies exist but who will pay and how is the main challenge. The Department for Business, Energy and Industrial Strategy (BEIS) has initiated a series of expert work groups to work through the business models and the economics of how this could work and at the same time maintain and grow manufacturing in the UK.



After all, the easiest way for a country to decarbonise is shut its industry. This of course does not help global decarbonisation as it will simply result in companies offshoring to other countries that have less strict CO2 emission targets. The objective should therefore be to develop a strategy that maintains and grows UK based industry in a way that is fit for the Net Zero world.

### **The strength of SWIC and how it is helping industries on the road to decarbonisation.**

This is where the strength of The South Wales Industrial Cluster lies. They are working with industries to promote a low carbon vision for South Wales and demonstrate that it is key to multinational companies staying in the area. They're also helping industries understand that they can't simply, on their own, decide how to decarbonise and showcasing to them that progressing the vision into a plan will then attract further companies and initiate clean growth for the region.

In a short space of time the SWIC has attracted over £3.5M of funding into Wales and as well as helping companies understand the road map to "Net Zero" it also helps them understand the funding available to them. Part of the attraction of the SWIC to businesses is the clarity it has given to the ways it can help through the following 10 points:

1. Help individual industries develop their Net Zero plans
2. Develop a regional vision to maintain the presence of multinational industries within South Wales by developing the least cost infrastructure required to decarbonise each industry.
3. Attract new industry that can help us decarbonise and encourage clean growth
4. Ensure not all BEIS funding heads to other regions
5. Help support and fill the gap between Industry and academia for mutual benefit
6. Help provide match funding for innovation in Wales
7. Support the gap between innovation opportunity and written bid. Many sites are small with little knowledge of the UK support available for innovation
8. Share and Learn between industries to enable short term benefits
9. Support UK and Welsh Gov with their Net Zero targets and also therefore ensure sustainable jobs for future generations.
10. Work with skills associations to help develop the skills industry will need to decarbonise

One of the programmes that SWIC is participating in is the Industrial Decarbonisation Research and Innovation Centre (IDRIC). The aim of IDRIC is to accelerate challenge-led research and transformative innovation that empowers UK's research excellence and connects the research and innovation landscape. IDRIC will lead the world in realising the opportunities for industrial decarbonisation by integrating best use of research and innovation investments, significant advocacy, knowledge sharing, networking and translation activity.

The first phase of this programme is for SWIC to identify the best options for cost-effective decarbonisation of industry in South Wales. The projects will look at the infrastructure required for the development of the hydrogen economy, for large scale CO2 capture, usage and storage (CCUS) and transport as well as onsite strategic opportunities specific to each industry.

Not only will the projects make a vital contribution to the UK's journey to Net Zero 2050, they have the potential to strengthen the economic resilience of Welsh industry and communities by ensuring operations in the region are sustainable for the long term.

Phase 2 will pull in the energy infrastructure providers National Grid, Wales and West Utilities and Western Power Distribution along with other key stakeholders. Phase 2 will focus on developing the decarbonisation options within each industrial sites' boundary plus also the development of the national infrastructure required. Phase 2 will liaise with the City Deals and also the councils for the cities present in the cluster area. Agriculture, public sector and transport will also be key stakeholders for phase 2 to ensure that an overall roadmap is developed that can deliver least cost.

This is just one of the many projects that SWIC are involved in, others include developing options and solutions to support regional hydrogen deployment to facilitate "Net Zero" carbon by 2050.

**For more information on SWIC and the projects it is involved in and for information on how your business can become a part of the programme please click here.**

[www.zero2050.co.uk](http://www.zero2050.co.uk)