

A PLAN FOR JOBS IN UK MANUFACTURING



Seven 'shovel
ready' projects
to save jobs,
create jobs and
meet our climate
obligations

*A briefing from
Unite the union with
analysis provided by
Acuity Analysis*



February 2021

A PLAN TO SAVE AND CREATE UK GREEN MANUFACTURING JOBS



Our economy is being reshaped at an unprecedented pace – but there are also significant opportunities for UK manufacturing to genuinely build back better.

- The Covid-19 pandemic has exposed long held fears over short-termism, failures to invest in training and skills as well as plant, tooling and technology and the off-shoring of component manufacture, leaving a dangerous lack of resilience in UK supply chains.
- The UK's departure from the single market and customs union demands that we rapidly establish new trading relationships at a global level, while securing investment in UK manufacturing from global corporations and government.
- And perhaps the greatest challenge of them all – the climate crisis – requires comprehensive action without delay if we are to transition our economy in time to meet even the modest targets of the Paris Accord, while protecting jobs and putting workers and our communities at the centre of any planning for a greener economy.

Unite's manufacturing members recognise that there is no time to lose in recasting our economy to meet these triple challenges.

The country is gripped by an economic crisis more intense than anything encountered in living memory, as we battle to protect the health of the nation. Throughout the pandemic our shop stewards and officers have worked hard to produce the goods and products we need while providing the services we rely on, negotiating innovative arrangements to protect jobs and create safe workplaces from short-time working to repurposing our factories to produce everything – from ventilators to PPE in support of our NHS.

But much more has to be done. Our competitors have committed far greater resources and long-term support to their manufacturing industries, working in true partnership with businesses and unions in a way that remains unthinkable to our Westminster government.

Today's advanced manufacturing jobs and our research, design and engineering excellence must sit at the heart of a renewed economy, producing what we need here in the UK while exporting high value product across the globe. We are at the cutting edge of the design and technological developments necessary to green and clean our towns and cities, seas and skies.

Working with Acuity Analysis, Unite has identified seven projects that, with government engagement, will ensure that UK manufacturing continues to play its part in our national story.

- If government focuses immediate-term investment and support on addressing the UK's poor quality housing and on building the battery and component factories needed to support new electric vehicles, tens of thousands of new, sustainable jobs will be created.
- A renewal scheme for the airline industry will retain our world-class engineers, as they construct the next generation of aircraft powered by hydrogen and synthetic fuels.
- Carbon capture from our heavy industries like steel, ceramics and construction material, is not only climate necessary but alone can create 68,000 jobs over the next 25 years.

This is by no means an exhaustive list. To arrive at these seven schemes, we asked ourselves a simple question: where should government invest in order to create jobs quickly and with the greatest social and climate benefit?

We call these 'shovel ready' projects our 'Magnificent Seven'. The opportunities and return on investment that they will give this country now, and for future generations, are tremendous. These projects deserve support from all those who want our economy back on its feet, our depleted tax base assisted to grow, and hope and opportunity for working people. The full economic analysis on which we base our calculations can be read in Acuity Analysis' extensive paper [here](#).

2020 has been an abysmal year for jobs. So many have been lost and many will not be recovered. Workers and communities urgently need a plan for jobs. Unite's manufacturing members have one.

A handwritten signature in blue ink that reads "Steve".

Steve Turner
Assistant general secretary, manufacturing
Unite the union

UNITE MANUFACTURING'S MAGNIFICENT SEVEN 'SHOVEL READY' PROJECTS

Unite has been working with economic experts, Acuity Analysis, to pull together the job creating programmes that could give the best, quickest and greenest return on direct government intervention and investment in the economy.

The green revolution is the bridge to a better future for working people and our communities but to get there, we need to create sustainable secure jobs now and support an industry level transition for core sectors of the economy.

Green technology is changing how we live and work, providing today's workforce with opportunities to upskill and retrain and young people apprenticeships as designers, technicians, mechanics and electricians. New jobs will be created manufacturing the products we need and new sectors will emerge to support national programmes rolling out necessary infrastructure. Large scale battery manufacturing will require cell, cathode and anode manufacturing to support it, employing highly skilled workers in our chemical, extraction, refining and engineering sectors.

By 2040, around 95 per cent of automotive vehicles will be powered by electric vehicle (EV) systems, either battery or hydrogen fuel cell. Similar technologies will power the world's shipping fleets and, alongside Sustainable Aviation Fuels, our skies. Emergency and recovery workers will need training to ensure they are not in danger at roadside accidents or EV breakdowns. The Faraday Institution, suggests almost 700,000 workers will need retraining just to deal with EV mechanical failures. UK homes are so energy inefficient that some 12 million of them need modern boilers, heat pumps, insulation and energy storage capacity.

Around the world, leaders talk about the need to 'build back better'. For working people, that has to mean quality jobs, where skills are nurtured and rewarded, and security brings stability. It should also mean the greener recovery our communities, people and planet deserve.

Our competitor nations are powering on with their recovery programmes, with Germany investing €40 billion in green tech and France €25 billion. In the UK, the government's current low-level ambitions can offer only £4 billion.

Our plan shows that the potential is massive – and real. These projects are 'ready-to-go', but they need strategic investment in technology, production and skills by the UK government to be realised.

1 HOUSING RETROFIT

The UK's housing stock is among the least energy efficient in Europe, so there is much that can be done to clamp down on the 14 per cent of all this country's greenhouse gasses emitted by our 27 million homes.

For every £1 million spent on Unite's retrofit plan, £1.7 million is released into communities and throughout the economy, mostly as wages. As a start, an annual investment of £470 million to 'retrofit' UK homes – that is to remove planet-damaging heating and vastly improve insulation – could create 7,000 jobs every year, for decades. .

This programme more than pays for itself, generating an additional £800 million a year in national output and wages, to be spent by workers in local communities and across the UK economy.

- Manufacturing the products and services necessary to support a retrofit programme will generate an economic boost valued in the billions, with jobs manufacturing insulation, boilers and heat pumps alongside energy generation and storage equipment.

2 CARBON CAPTURE USE AND STORAGE (CCUS)

Without CCUS, the cost of the UK meeting global climate change targets leaps by 138 per cent. Experts agree that CCUS action is 'urgently necessary' for the UK to meet its 2050 net zero target. Using our old abundant North Sea assets for this would lessen the environmental impact of decommissioning them.

At least 10,000 new jobs would be created by the end of the decade, with another 10,000 anticipated by the creation of a centralised transport and storage industry in the North Sea. With proper government support, a total of 68,000 jobs could be created in the UK by 2050, providing a boost to our country's output of almost £3 billion, including a significant chunk paid out as workers' wages.



3

AUTOMOTIVE AND GREEN SHIPPING

We have world class research, design and manufacturing capability in this country, but it desperately needs investment to deliver on the transition to greener road vehicles and shipping.

We need urgent progress too on the roll out of national infrastructure to provide both overnight and rapid charging facilities for vehicles and on-shore port-based capacity to support shipping.

There are 2,735 companies in the automotive supply-chain alone, mostly small and resource limited. Like those supporting shipbuilding, they need confidence and support to invest in repurposing their capacity to produce the components and infrastructure needed to transition away from combustion engines to cleaner electric – both battery and hydrogen fuel cell. In heavy oil-using global shipping, the repurposing of developed nuclear technologies from our defence sector could play a role in future.

* A new automotive renewal scheme would provide a real and necessary boost to the sector, employment and environment. However, such a scheme must include strict provisions on UK content qualifications – shamefully, only ten to 15 per cent of cars bought under the last scheme were actually built in the UK.



4

GIGAFACTORIES

Gigafactories are needed to manufacture the batteries that power EVs. They also support good, skilled jobs. The Faraday Institution believes that 'the absence of any gigafactories ... [in the UK will mean] ... direct automotive employment would be 105,000 less in 2040.'

Building seven new gigafactories would create between 43,280 and 76,600 new jobs by 2040, in addition to some 10,000 during construction. For the UK's chemical, mining and refining sectors, the potential from pivoting to green tech manufacture of cells, cathodes and anodes for UK battery manufacturing is also substantial, creating up to 12,096 jobs.



5

AIRCRAFT REPLACEMENT SCHEME

Aerospace workers are crying out for their skills to be put to use as order books collapse following the lockdown of air travel. As demand returns we need to ensure we are working hard to green a sector that represents six per cent of our CO2 emissions.

A programme to replace older aircraft with newer, quieter, cleaner models – less CO2, more fuel efficient – would not just help us achieve climate change targets, it would generate new aircraft orders, protecting companies and jobs across all UK regions and breathing new life into UK aerospace manufacturing.

In addition, investing in and supporting UK manufacturers to be at the heart of developments such as Jet Zero, Sustainable Alternative Fuels (SAF) and progress in hydrogen fuel cell technology will secure thousands of skilled jobs for generations to come.



6

RENEWABLE ENERGY – OFFSHORE WIND (OSW)

Without government commitments to ensure OSW developments procure blades, turbines and other equipment from UK manufacturers, the potential for direct investment, skills and jobs in UK firms transitioning to OSW will be delayed or missed altogether.

Manufacturing the equipment, turbines, motors, blades and associated on-shore capacity will create many thousands of additional skilled jobs across our regions and nations.

- The number of wind turbines serving the UK needs to double by 2024. Picking up the pace on this now would create 6,700 construction and installation jobs, with another 6,900 in operation and maintenance by 2024. By 2030, 27,000 jobs could be created in the industry, rising to over 80,000 by 2054.
- Beyond OSW, thousands of additional jobs can be created with a balanced 'green' energy policy in the construction and operation of new hydro, nuclear (SMR), solar and hydrogen power generation..





BROADBAND

Switching from copper to full-fibre high speed broadband will require £30 billion of investment by 2025. With people working, socialising and shopping more online, we need infrastructure that delivers.



The rollout of fibre broadband to every home in the UK would create 59,000 jobs throughout the construction sector and provide almost £60 billion in additional wealth, including wages. Manufacturing the cable required here in the UK, alongside associated switching equipment and digital control tech would support and protect thousands more.

MAKE THE PUBLIC PURSE THE DRIVER FOR CHANGE

When the government spends our money, it spends big: some £297 billion in 2020. For years, Unite has been campaigning for this money to be better spent, supporting jobs and communities here in the UK and with the common good as a driving philosophy.

Taxpayers' money should be used to stimulate the economy, level up our regions and support a manufacturing resurgence across our nations. Bulk public purchasing overseas at comparatively cheap prices does not save money if local employment, environmental and social policy objectives are undermined.

Unite wants to see as much government spending on procurement as possible sourced here in the UK, not through companies utilising tax havens or manufacturing overseas. Just as we want to see support for jobs, skills and communities we also recognise that we cannot off-shore our environmental responsibilities or carbon footprint.

UK procurement ensures fair labour practices, support for domestic jobs and job creation, supports government policy objectives in relation to the environment, skills and levelling up our regions and provides us with the opportunity to ensure good jobs are unionised jobs.

A renewed cost/benefit analysis based on 'overall costs' (rather than the lowest price), should be the driving force when awarding any contracts to the private sector using public money.



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