Defence Diversification Revisited

A history of defence diversification in the UK and elsewhere – lessons learned and ways forward.

May 2016
Foreword by Len McCluskey, General Secretary of Unite

Unite the Union represents tens of thousands of workers in the UK Defence industry. Our members work at the cutting edge of technology in highly skilled, high value jobs. Their contribution to the economy of the U.K. is vital and for many communities is essential for their survival.

Defence is a complex industry with a world class supply chain, largely based onshore in the UK due to the security involved in the manufacturing process. The current UK footprint is responsible for globally recognised products and capabilities and presents a link with a proud heritage of manufacturing across the country. Iconic aircraft, ships, submarines and weapons have been produced by the UK across the decades and the country is still producing world class equipment such as the Queen Elizabeth class Carriers, Astute submarines, Typhoon fighter, Hawk trainer and Wildcat helicopters. Radar, sensors and weapons systems are also produced here in the UK and the industry generates billions of pounds in tax and national insurance payments as well as billions in exports.

However, the defence industry has also suffered huge cuts in jobs in recent decades, with tens of thousands of workers being made redundant. There are further challenges facing the industry and Unite is calling for a new Defence Industrial Strategy allied to a broader Manufacturing Strategy to defend those jobs. A critical component could and should be an agency to identify potential job losses far enough in advance for a legally binding programme of diversification to kick in, retaining critical skills and finding new work for existing workers.

The idea of defence diversification is not new to Unite or its predecessor unions. As this document shows, our members have a long history of advancing ideas for new work and spin off technologies. However, as the paper also makes clear, the track record of success in the UK is poor and serious consideration must be given to a system with teeth and money if diversification is to be a reality.

Unite will always fight for the jobs and communities of its members and this paper represents a serious attempt to look at and learn from the lessons of history so that jobs can be protected in the future.
Executive Summary

- The election of Jeremy Corbyn as Leader of the Labour Party brought with it calls for a new Defence Diversification Agency to oversee the redeployment of workers in the defence industry to other sectors.

- Unite and its predecessor unions have a long track record of advancing arguments for diversification, often put forward by our shop stewards and members in defence. However, there is little history of success.

- The failures in the UK have been down to lack of government support; the unwillingness of defence companies to diversify; barriers to entry in new or adjacent markets; or a combination of all three.

- Other nations have explored diversification with more success, notably in the USA. Unite believes lessons can be learnt from their experience and from the contrasting experiences in the UK.

- For diversification to be successful Unite argues that legislation is needed to create a statutory duty on the Ministry of Defence and its suppliers to consider diversification. Without legislation, history tells us that voluntary mechanisms do not work as defence companies are unwilling to take the risk of entering new or adjacent markets.

- There has to be adequate time for this to take place – for example, in the USA there is a five year notice period in respect of military base closure.

- There has to be public investment and financial support for capital investment, retraining and to pay wages while workers transition.

- Consideration has to be given as to how such support can be compatible with competition regulation and state aid provisions.

- It may be possible, if these conditions are met, for diversification to be successful, but it is clearly a long-term project and will do little for the workers currently engaged in projects such as the Successor submarines.

---

1 The replacement submarine programme for the Royal Navy’s Trident missile Vanguard Class submarines.
Introduction

Unite represents hundreds of thousands of highly skilled people working in the defence and allied industries. These jobs are well paid and are critical to local, regional and national economies. The defence industry is a major employer and trainer of apprentices and recruits thousands of graduates that are critical to the future of the UK economy as well as the defence industry.

Unite will fight – without reservation, without equivocation, without hesitation – to defend every last job of our members in the defence industry.

In 2015, Jeremy Corbyn was overwhelmingly elected as Leader of the Labour Party. His manifesto included a commitment to introduce a new Defence Diversification Agency as part of his policy to end the UK’s nuclear deterrent programme. Diversification is now a topic being widely debated both inside and outside the Labour Party, but it is not a new approach for Unite and its predecessor unions.

Our shop stewards and members have a long history of identifying and campaigning for alternative technologies and products to be built in defence factories. This document traces the history of some of those efforts, including some famous examples, such as the Lucas Aerospace workers and Barrow’s “Oceans of Work”, as well as some less well-known attempts to diversify.

Unfortunately, whilst huge amounts of time and effort have been expended by our members to research, write reports and campaign for new work, there is little evidence of success. In most cases the arguments raised by our members fell on deaf ears from government and employers and, as a result, tens of thousands of jobs have been lost in the defence industry over past decades. UK experience has been that there has been a lack of government support or employer enthusiasm for the investments that would be needed to convert factories, retool production lines, retrain workers and pay wages in the meantime. Barriers to entry to new and adjacent markets have also been cited as reasons for not diversifying and competition regulations need to be addressed if state aid is to be allowed.

This document attempts to analyse previous diversification efforts and identify why they were not successful. It also looks at some of the experience in the USA, where there have been more positive outcomes.

If a new Defence Diversification Agency is to have any chance of being a success, it would seem that lessons from the past have to be learnt and a legislative framework, adequate funding and appropriate timescales have to be applied. In addition, years of austerity measures have stripped the civil service of expertise and experience. There is an immediate challenge to populate any DDA with staff of sufficient calibre and credibility to enact diversification.
Background

This paper examines and presents a potted history of defence diversification within the UK and elsewhere. Most successes have occurred in the US, primarily resulting from its 1988 Base Realignment and Closure (BRAC) Act. However, sadly the UK and other nations such as Sweden have seen some major difficulties and failures, primarily due to: a lack of government support; defence businesses not interested in listening to their workforce’s suggestions on the direction of their businesses; and businesses moving into areas that are outside their core resource, competencies and market knowledge base.

Diversification generally comes in two forms: firstly that within a company at a specific site or across a range of sites; and, secondly that where other enterprises move in to save an abandoned or partially abandoned site. Sometimes it may be a combination of both. The process can be driven by commercial forces, where existing enterprises look to identify new markets for products and services they can offer utilising their existing or modified resource base, or through the selloff of business units or assets to others, both looking to optimise returns to shareholders.

Alternatively, it can be driven by government strategy and changes in defence requirements, often developed and determined in consultation with development agencies and relevant stakeholders. A key factor here is to secure investment and jobs to ensure balanced local economies and a sustainable future for local communities, which can be devastated by local plant closures.

Many levels of government have been concerned with this issue for some time, as this extract from North Lanarkshire Council’s report to their Economic Development Committee in 1998 illustrates:

‘The Council have received a sponsorship request for the Arms Conversion Project (ACP)…….The ACP is a local authority network established to help develop relevant and practical responses to the adverse effects on local and national economies resulting from the changes in defence requirement…….The ACP organises seminars and other awareness raising events to highlight the economic impact of defence cuts. It is also discussing the establishment and function of Regional Defence Diversification Agencies with the major political parties. Although North Lanarkshire does not have a readily definable defence industry, there is a strong manufacturing and engineering presence which undoubtedly has links into the West of Scotland defence industry. Consequently, further defence cuts are likely to have a downstream impact on the North Lanarkshire economy. As such, any efforts to stem the flow of jobs out of the defence industry and out of the West of Scotland economy should be supported by the Council. In line with this the Council has representatives on the West of Scotland Defence and Aerospace Network (WoSDAN).’

An understanding of the forces at work and how they can best be managed to optimise potentially devastating closures is best achieved through an examination of relevant case studies both here and abroad. The following sections highlight various approaches and alternatives, along with their pros and cons, so as to suggest potential ways forward which build on these experiences.

---

UK case studies

Lucas Aerospace - 1976

‘Lucas Aerospace in the early 1970s was one of Europe’s largest designers and manufacturers of aircraft systems and equipment. It had over 18,000 workers on its payroll, spread over 15 factories, throughout Britain. Nearly half of its business was related to military matters - in production of combat aircraft and the Sting Ray missile system for NATO. But it also had small interests in medical technologies’.3

Lucas grew via acquisitions and mergers, and with the backing of the then government who wanted a strong and efficient aerospace business able to compete with those of Europe. To accomplish this management intended to rationalise their 15-factory operation into a more assimilated and efficient enterprise, with lay-offs of over 20% of the workforce and some closures. Their goal here, being a greater participation in military markets where profits were very high related to alternatives.4

In 1974, the Lucas Shop Stewards Combine Committee (SSCC) was set up with the objective of proposing an alternative Corporate Plan. A questionnaire was sent to every branch of Lucas Aerospace which resulted in thousands of replies suggesting some 150 alternative technologies.5 Two years of subsequent planning and debate among workers took place in the production of the plan, with it based not only on the questionnaire responses, but detailed analysis of the equipment, machinery and skill sets at all Lucas sites. Its objective was to stop the company’s planned job cuts, arguing that the concentration on military goods and markets, rather than expansion into markets for socially useful goods where it already had some sales, was not the best use of resources and was undesirable.

Workers argued that if the plan was accepted, job losses would not be needed. In addition, the alternative production was themed uppermost around social utility, health care and equipment for the sick, aged and disabled, as touched on below, which it was argued would be far more beneficial to humanity than missiles.6 Equipment ideas included: the ‘Hobcart’ to give mobility to children suffering from Spina Bifida; alternative energy technologies including the development and production of heat pumps, solar / fuel cells and windmill systems; remote control devices for undersea oil rig maintenance and use in firefighting and mining; a combined internal combustion engine / battery powered vehicle; and the development of a rubber-wheeled road-rail vehicle7; Kidney dialysis machines; artificial limb control systems; sight aids for the blind; and improved life-support system for ambulances.

In 1976 the SSCC proposed the alternative Corporate Plan to management. However, the plan did not succeed and was deemed to have failed primarily because:

3 https://libcom.org/history/1976-the-fight-for-useful-work-at-lucas-aerospace
4 Ibid
6 Ibid
7 The Lucas Aerospace workers’ campaign, young fabian pamphlet 46 by David Elliott
1) Lucas’s owners and management did not place a high value on either the plan’s provision of work or its quality. When it was presented to them they shunned it. They resented “their workers telling them what to do” and insisted on the company’s commitment to defence production;

2) Likewise, the Labour Party, now forming the Government, applauded the plan but spent their time avoiding it… It was the British Government, with active Labour Party involvement, which in the first instance had supported Lucas’s move to a competitive military manufacturer for NATO.8

Consequently, the job cuts and rationalisations continued.

Vickers

• Circa 1920

Prior to 1914 Vickers established a policy of manufacturing everything that went into a warship, from engines to steel and gunnery-control apparatus and, in 1901, even set up a vehicle factory which it was thought would be of great use in future military operations. Around this time they are said to have developed the most advanced research and development (R & D) capacity of any business in Great Britain. During this period their number of managers remained small and they effectively administered wartime expansion but are said to have failed to maintain both profits and growth post WW1.9

Vickers’ post war strategy was one of diversification into peacetime products. Their plants at this time, as outlined below, were producing a wide array of products:

- Barrow – merchant shipbuilding and the production of locomotives, boilers, turbines, reciprocating steam engines and diesel / gas engines;
- Crayford – sporting guns, sewing machines and motor car parts;
- Dartford – furniture, wooden toys and washing machines;
- Erith – manufacturing tools, machine tools, cardboard box-making machinery and gas meters;
- Sheffield – railway material, forgings and stampings; and
- Wolseley – planned the production of mass-produced high class cars.10

It’s also interesting to note that, like Lucas, the Vickers workforce conducted an audit of the skills and resources of the Vickers Yard at Barrow and learned that the resources devoted to the ASW cruiser could be used to make 54 other products. However, whilst they did diversify, few of these initiatives were successful.11

---

8 https://libcom.org/history/1976-the-fight-for-useful-work-at-lucas-aerospace
9 Scale and Scope: The Dynamics of Industrial Capitalism, By Alfred Dupont CHANDLER 2004 https://books.google.co.uk/books?id=ENWMZzhD9RYC&pg=PA342&lpg=PA342&dq=vickers+diversification&source=bl&ots=srzxOIXOl&sig=iqyVnH9Gxs6Flz4EiOD7qgR1M&Bhl=en&sa=X&ved=0ahUKEwisjTP6GriAhWHU0hOAtzWSAEJzAC20-%20onepage&q=vickers%20diversification&f=false
10 Ibid
11 A better future. A TGWU Strategy for Arms Conversion, 1983 P.20
The diversification undertaken was said by Harvard Business Professor Alfred D. Chandler (2004) to **have proven disastrous**, with he and others suggesting it may have resulted from the following issues:

1) They ‘were unable to achieve a high enough level of throughput to compete in what had become high-volume industries’;

2) They ‘only viewed diversification in terms of using existing plants and their workforce’;

3) They ‘never appreciated that successful diversification must be based on organisational capabilities, i.e. product-specific facilities and skills’;

4) They ‘did not have the necessary sales and purchasing organisations for their new lines’;

5) They ‘didn’t invest in R & D for their new lines’;

6) They ‘had few of the managerial or technical skills essential to compete effectively in new product markets’;

7) In relation to the workforce audit at Barrow, it’s suggested that little tangible success was achieved due to a lack of support from government and contractors.

Ultimately, by 1925, this left Vickers ‘passing through the most serious financial crisis in its history’.

---

### Oceans of Work

- In 1987, The Barrow Alternative Employment Committee (BAEC), in their Oceans of Work document, argued for ‘UK marine civil engineering opportunities, rather than nuclear submarine production, for its skilled local workforce’. In the document they outline that their ‘main concern is product identification, employment generation and future potential growth areas’.

- The Schofield 2007 ‘Oceans of Work Arms Conversion Revisited’ paper centred on a review of the 1987 ‘Oceans of Work’ document, as part of the battle by local trade unionists for substitute civil work to the construction of the Trident ballistic missile submarines at the Vickers Shipbuilding and Engineering Ltd.
(VSEL) shipyard in Barrow. It reported that ‘Oceans of Work’ put forward an ambitious programme to utilise the shipbuilding and engineering skills of the workforce, with particular emphasis on offshore renewable energy, including wave and wind power systems. The proposals were rejected by the VSEL management who stressed the continued importance of the company’s military specialism in nuclear submarine manufacture. Employment declined, however, from 12,000 in 1987 to just over 3,000 in 2006.17

An analysis of Vickers at Barrow by Maggie Mort and Graham Spinardi, published by Lancaster University, outlines ‘the Trident programme itself provided virtually no opportunities for technological synergy in Barrow because of its unique defence characteristics - what Mary Kaldor (in her quoted 1981 paper) would call its 'baroqueness' - the sheer size of the production effort, and also the company’s and MoD's preoccupation with secrecy. This is a situation that was predicted by BAEC in its final publication, ‘Oceans of Work’.18

- Barrow, 1990s and beyond

Through ‘the early 1990s VSEL, former owners of the Barrow shipyard proposed 25% of its operations should be generated from diversified activities after examining 61 target markets but, by 1994 it had decided to abandon that strategy and concentrate on core defence work.’19

A 1992 article, ‘The toughest job in town’, identifies (via the then head of VSEL, Noel Davies), the challenges of attracting alternative work, as a section of the article below shows:

‘Three areas of business have been identified - offshore oil and gas rigs, environmental equipment, and power generation plant - and four routes forward: acquisition; partnerships; bidding for work and using current facilities, and research and development’. 'We've done studies in all four,' Mr Davies claims. 'As far as an acquisition is concerned, it must be well-established and must have a significant possibility of enhancing employment prospects in Barrow.' That, he says, 'is the killer'.

‘In order to buy something that could provide jobs in the sort of numbers Barrow needs, VSEL would need to buy the business at the current market price, close it down and transfer it, lock, stock and barrel, to Barrow’.

'Listen,' says Mr Davies, 'cash is not the problem. We could buy a company making widgets in Kidderminster tomorrow, but unless it had substantial growth prospects it doesn't help us in Barrow'.20

---

17 http://www.basicint.org/sites/default/files/oceans_0.pdf
18 http://www.lancaster.ac.uk/fass/centres/css/downloads/MortSpinardi_DefenceandDecline
19 January 2016 briefing by Keep our future afloat campaign (Kofac)
At the Barrow shipyard in the early 2000s, when 3,000 jobs were set to disappear following HMS Albion and HMS Bulwark departures, the Regional Development Agency examined the future of shipbuilding there and the prospects for diversification. An extensive list of 150 possibilities was shortened down to 7 and the consulting firm utilised is said to have concluded that diversification options with job prospects totalling 320 to 510 could be created over a 7 year period, at between 46 and 73 jobs per annum, as shown in the brackets below:

1) A design engineering technical service company (50-100);
2) Supply base of collaboration, modelled on Northern Defence Industries (50);
3) Marine leisure (50);
4) Special purpose ship design and build (100-200);
5) Servicing renewable in Morecambe Bay (40-80);
6) Marine IT software (20); and
7) Design / build of environmental equipment and systems (10).

Market attractiveness and ability to compete were said to be identified as key factors in choosing diversification options and remarkably, it is said that the then shipyard workforce of 2,900 was less than half the current 7,600, and substantially less than the likely 2020 workforce. The same consulting firm, in 2004, is said to have added that, ‘the value of one additional boat (submarine) employing 2,000 to 3,000 people is worth more to Barrow than any combination of diversification possibilities’.\(^{21}\)

In 2007 ‘Oceans of Work Revisited’ cited similar solutions to those offered in 1987. It stated that: ‘cancellation of the nuclear submarine production would inevitably lead to closure of the shipyard with the loss of several thousand jobs and a significant local economic impact’ (chapter 6 p 25), adding ‘closing down specialist manufacturing capacity that has no other utility would save the UK £50bn in procurement cost over the next 30 years and release resources for a conversion programme’ (chapter 6 p 29).\(^{22}\)

In its ‘There is no alternative’ submission to the Nuclear Education Trusts’ (NET) 2012 ‘Trident Alternatives Review and the Future of Barrow’ independent survey and research project\(^{23}\), Kofac (Keep our future afloat campaign) suggested that: ‘there was no realistic alternative form of diversification which would create sufficient replacement jobs at Barrow in sufficient time to prevent large scale redundancies and severe economic shock in the area’. Section 3.21 ‘indicated that £3.3bn was needed to create 6,000 jobs at Nissan over 25 years and section 9.3 of the report cited diversification challenges’.\(^{24}\)

A 2016 briefing by Kofac references a 2013 consultants’ study for the Department of Business Innovation and Skills mentioned Barrow as an example of how economic shocks (‘instances of significant job losses, encompassing the closure or rationalisation of large commercial undertakings due to market forces and/or strategic decision-taking, or shocks resulting from external factors such as natural

\(^{21}\) January 2016 briefing by Keep our future afloat campaign (Kofac)
\(^{22}\) Ibid and http://www.basicint.org/sites/default/files/oceans_0.pdf
\(^{23}\) http://www.nucleareducationtrust.org/images/stories/grant_reports/VOLUME_1.pdf
\(^{24}\) Cited in the January 2016 briefing by Keep our future afloat campaign (Kofac)
disasters and other events\textsuperscript{25}) can cause extensive difficulties which often require generational backing to resolve them.\textsuperscript{26}

Kofac summarise in their January \textit{2016} brief that ‘\textit{there are a lot of international papers on diversification of defence bases and some shipyards but, they say, as Government in 1991 indicated, Barrow has unique geographical circumstances, is reliant on one employer and is delivering a nationally strategic programme that extends across a huge specialist supply chain’}. They indicate that ‘\textit{evidence to date suggests diversification can deliver relatively few jobs and takes a very long time to achieve, indicating that the current absence of Assisted Area incentives for large firms, introduced by the EU in 2014 through to 2020, makes any diversification task in SW Cumbria even more demanding’}. However, they indicate they will work ‘\textit{on the examination of diversification options whilst actively advocating the build of the Astute successor and MUFC submarine capability as the best option for sustaining the tens of thousands of jobs in the UK’s submarine industrial base}\textsuperscript{27}’.

**BAE Systems**

BAE Systems plc (the British transnational defence, security and aerospace company) was formed in 1999 by the merger of the British companies Marconi Electronic Systems (MES), the defence electronics and naval shipbuilding subsidiary of General Electric Company (GEC), and British Aerospace (BAe), the aircraft, munitions and naval systems producer.\textsuperscript{28}

It is interesting to note that in 1996 GEC Marconi had started to \textit{diversify away from defence dependency through the development of a new thrust reverser} which reduced aircraft noise emissions on landing. It was said at the time that this met the requirements of the then new regulations in Europe and America and orders were being won with users of noisy jets, particularly cargo planes in the US and South America.\textsuperscript{29}

Over the years BAe had developed as a \textit{diversified company} with a \textit{range of aerospace and other defence and civil activities}, including \textit{motor vehicles, construction and property development}. In the 1990s it \textit{abandoned its diversified business model, withdrawing from civil aircraft activities to focus on its core defence business culminating in the acquisition of Marconi Electronics and the creation of BAE Systems}.\textsuperscript{30}

It is worth noting, however, that BAE and its forebears, after many years involvement in the \textit{Airbus} programme, in 2006 were looking to leave \textit{with the sale of their stake to EADS as they focused on the defence sector} and eyed purchases across the Atlantic.\textsuperscript{31}

The trade unions were highly critical of BAE’s decision to sell their stake in Airbus. Ian Waddell, Amicus National Officer for Aerospace and Shipbuilding at the time, pointed out that one of the success factors for Boeing was its use of military technology and R&D in its civil aerospace programme. Technology developed for the military found uses in other areas of the economy. BAE was breaking the potential for this to happen in Airbus. Mr


\textsuperscript{26} January 2016 briefing by Keep our future afloat campaign (Kofac)

\textsuperscript{27} Ibid

\textsuperscript{28} https://en.wikipedia.org/wiki/BAE_Systems

\textsuperscript{29} Arms Conversion (1996) by the T&G P11

\textsuperscript{30} The Political Economy of Aerospace Industries: A Key Driver of Growth and International Competitiveness? (2014) By Keith Hartley

Waddell also criticised the decision on the grounds that both defence and civil aerospace had historically been cyclical industries, but that they rarely suffered downturns at the same time. This meant that defence workers could be switched into civilian production and vice-versa, retaining skills during downswings so that the workforce was immediately available as soon as upswings occurred. Amicus argued that the sale was not in the UK’s national interests and urged the Government to take a “golden share” in Airbus. Since the sale, there have been tens of thousands of redundancies at BAE and the opportunity to redeploy people into Airbus has had to be done through goodwill between the employers. Even then, redeployed workers have had to start as temporary workers at Airbus and start as new employees, losing service related benefits.

BAE Systems used the cash from the sale of their Airbus stake to buy into the USA defence market and to buy cyber technology. This represented an intensification of their defence focus, rather than diversification.

• **Brough**

The Brough Aerodrome in Brough, Yorkshire was originally used by the Blackburn Aeroplane & Motor Company during the First World War as a seaplanes test site. It was also involved in training pilots for the Battle of Britain.\(^{32}\)

By 1949 the company changed its name to Blackburn and General Aircraft Limited and constructed a number of aircraft at Brough such as the Blackburn Beverley transport aeroplane and the Blackburn Buccaneer maritime strike plane.\(^{33}\)

The company became part of Hawker Siddeley Aviation in the 1960s and the site maintained the manufacture of the Buccaneer. It then became part of the then state-owned British Aerospace (BAe) and the site continued to build and maintain military aircraft like Harrier jump jets until the end of production with the airfield closing in the early 1990s.\(^{34}\)

In January 2008, flying restarted at Brough via the take-off of a demonstration version of the Hawk, with an F-35 Lightning II static test airframe arriving there in early 2009.\(^{35}\)

In late 2011, the company publicised that it planned to cease the manufacturing of aircraft at Brough, closing the world’s oldest aircraft factory after almost 100 years of production with the loss of 899 jobs. A "Battle for Brough" campaign was enacted to save the site. Since then, however, a £2.5 billion deal to deliver Typhoons and Hawks to Oman has extended Brough’s work output until 2016 with expectations of further export contracts down the line.\(^{36}\)

Since the 2011 announcement, think-tank Civitas conducted a report into the options to mitigate the loss of skilled workers at Brough and proposed the building

---

\(^{32}\) [https://en.wikipedia.org/wiki/Brough_Aerodrome](https://en.wikipedia.org/wiki/Brough_Aerodrome)

\(^{33}\) Ibid

\(^{34}\) Ibid

\(^{35}\) Ibid

\(^{36}\) Ibid
of civil jets / passenger planes there\(^{37}\). To date this strategy remains just that, there have been no movements in this area.

In 2011, during the campaign against the closure proposals, Unite the Union was approached by an aerospace consultant proposing to build Jetstream 45 aircraft at the Brough site. This aircraft had previously been built by BAe at its Prestwick site, but manufacturing had ended some years previously due to competition in the turboprop market. Jetstream aircraft were still being used by an airline based at the nearby Humberside Airport, Eastern Airways. Coincidentally, the owner of this airline had approached BAE Systems with a proposal to buy new Jetstream 45 aircraft. It appeared that there was a serendipitous situation arising where there was skilled labour, abandoned facilities and a willing customer, all of which could lead to the restarting of production for the Jetstream aircraft at Brough, effectively diversifying a workforce displaced by defence cuts into civilian aircraft manufacturing.

The joint unions at the site formed a small working group to investigate the possibility of restarting Jetstream production. BAE Systems management assisted and concluded that the production jigs were probably salvageable and plans still available, but that there may be problems with some components, notably in engines and propellers. However, the owner of Eastern Airways told the management team that they had sourced potential solutions to these problems and that they were keen to build new aircraft in the UK.

The union team were optimistic that the project could become a reality and began the process of starting a worker co-operative, with a view to around 120 of those being made redundant by BAE Systems investing some of their redundancy payments to buy shares in the new company. Discussions were at an advanced stage with BAE Systems on the commercial rent or gift of property at the Brough site and the assistance of the Local Enterprise Partnership (LEP) was sought.

Unite Manual Convenor at the time, Roy Cartwright, recalls:

“\textit{It seemed like the stars had aligned and we had found a way to redeploy skilled aircraft workers from Hawk into building Jetstream airliners. We had the people, the facilities and the willingness to do this and it certainly seemed like it could work. In the end, the potential customer and investor never followed through and the workforce ebbed away as the redundancy programme reached its conclusion. We couldn’t ask people to sink their redundancy payments into the project without having a firm order and ultimately we were left to wonder what might have been and watch hangars close and skilled fitters walk away from the industry.}”

The Hull Daily Mail reported in November 2014 that a number of big companies could be moving to a Brough business park, sold by defence company BAE Systems for a multi-million-pound amount. They indicate that part of the facility, which makes Hawk fighter training aircraft, was converted to an industrial estate after operations were scaled back two years ago. BAE still operates a 55,000sq ft. factory at the site and will now lease it back from new owner LC Industrial, a collaboration between investors Citivale and Lumina Real Estate Capital. It is said the estate will provide up to 1,000 new jobs when fully engaged.\(^{38}\)

\(^{37}\) http://www.hulldailymail.co.uk/Hope-horizon-BAE-workers-civil-jet-idea-gets/story-15828352-detail/story.html

Mail also reported in May 2015 that an offshore wind firm ‘could move’ to Brough BAE Systems site.\(^{39}\)

An analysis of aerospace industries published in 2014 found that ‘the challenge remains of ensuring BAE Systems operates efficiently and that the profitability of UK defence contracts provides incentives to operate efficiently whilst avoiding generous profits for leading a ‘quiet life’ and relying on less demanding non-competitive contracts’.\(^{40}\) This may have been a driver in the company (in its current and predecessor forms) winding back its diversification strategy over the years, although it is interesting to note that Unite reps report that BAE Systems has now diversified into cyber security.

**Rosyth**

Rosyth Dockyard is an expansive naval shipyard on the Firth of Forth at Rosyth in Fife, Scotland. Originally constructed in 1909 it is presently owned by Babcock Marine. It formerly undertook refurbishing of Royal Navy surface vessels and submarines. Before being privatised in the 1990s it was the Royal Naval Dockyard Rosyth.\(^ {41}\)

A consortium of Babcock International and Thorn EMI was given the management contract for Rosyth dockyard in 1987, with it becoming a government held, contractor run site. In 1993 the Ministry of Defence publicised plans to privatise the site. Babcock International, who had purchased Thorn's share, was the only bidder and after prolonged discussions acquired the site in 1997.\(^ {42}\) The privatisation followed nearly eighty years of involvement in the defence of the UK which traversed two World Wars and the Cold War, during which Rosyth became a vital nuclear submarine maintenance centre.

In 1984 Rosyth was selected as the single location for overhauling the Royal Navy's nuclear submarine fleet, with widespread renovation starting in 1986 to enable its new role. Yet in 1993, the Government switched the refurbishing role to Devonport. Its main role now is as an integration site for the Royal Navy's latest aircraft carriers, the Queen Elizabeth-class, which are being constructed across six UK shipyards, with final assembly at Rosyth.\(^ {43}\)

These Queen Elizabeth class aircraft carrier assemblages are one of the largest engineering tasks currently being carried out in the UK. The Aircraft Carrier Alliance (ACA), which Babcock (a Tier 1 partner to the MOD within the UK's Surface Ship Support Alliance (SSSA)) is a member of, is designing, fabricating and assembling the two largest and most complex warships the Royal Navy has ever seen. Babcock's Rosyth site is in control of the assembly and over 50% of the design of these 65,000 tonne warships.\(^ {44}\) At its height, the project will require an Alliance workforce of around 10,000 collaboratively operating across the UK, with around 2,500 in Rosyth. Unite reps indicate that the core workforce at Rosyth is around 2,200; however, at present (March 2016) the total workforce on site is 6,000.

---

42. Ibid
43. Ibid
Scottish Enterprise Fife is presently working with private sector organisations in partnership to examine the future development of Rosyth. It is exploring ways to grow the ferry services to new European and domestic ports. It is also keen to help create new business infrastructure in and around the area, which it understands should bring economic benefits to the greater Fife region.45

The dockyard has previously been in the position where work has dried up with Babcock management bidding for alternative work refitting railway carriages. The then 250-strong workforce in the rail division, which soared to 500 at the height of major contracts on the refurbishing of Underground carriages46, rapidly adjusted to their new work role. One report has said ‘they are a skilled group of workers so it would not faze them if they had to look for alternatives. And there are no shortage of products - of all scales – which, it was said prior to the referendum, will be required in an independent Scotland, especially one investing in the renewables revolution and the second wave of gas and oil’.47

In January 2013 Babcock announced (now successfully complete - October 2015) that it would manufacture and supply over 70 subsea structures as part of the major Quad 204 offshore redevelopment project, 130 km west of Shetland, via a £30m plus agreement with BP. To deliver this contract the company outlined that it had put forward a single site solution, with all work to be undertaken at its Rosyth facility, where the structures were fabricated, then equipped with pipework, valves and controls, and fully tested before shipment. The quantity and scale of the structures, the company said, required a carefully and tightly planned facility, which Babcock said it developed, drawing on its proven project management and fabrication expertise.48

In January 2013 the Courier reported the news of Babcock’s contract to build subsea equipment signals, quoting Scottish Liberal Democrat Leader Willie Rennie; ‘there is life after work is completed on the MoD’s aircraft carriers’. ‘The contract, which secures 100 jobs, was a credit to the company and its workforce’. “Their track record on the construction of Heathrow’s Terminal Five and the outstanding performance on building the biggest ever Royal Navy ships — the new super aircraft carriers — will have helped to secure this contract’. “It will signal to other companies, both local and international, that Babcock Rosyth is a good place to do business”.49

Then local MP, Thomas Docherty, said: “This is a hugely significant contract for Rosyth dockyard and the work of Mike Pettigrew and his team at Babcock is a major factor in why this contract has come to West Fife”. The then Dunfermline and West Fife Labour MP, at the time a member of the Commons Defence Select Committee, added: “I was at the dockyard last week and it is clear that, while contracts like this are important, the defence work carried out at the dockyard underpins their order book. I firmly believe that the construction of the international container terminal is the next important step in diversifying the range of work at the dockyard”.50

In March 2014 Babcock announced that it had successfully completed a contract to undertake a substantial refit on Bibby Offshore’s dive support vessel (DSV), Polaris, at its Rosyth dockyard. The project was Bibby’s largest ever refit package and

45 https://en.wikipedia.org/wiki/Rosyth
48 https://www.babcockinternational.com/media-centre/babcock-awarded-subsea-structures-contract-for-bp
50 Ibid
underlines Babcock’s move to expand its role in the maintenance and refitting of complex oil and gas support ships51, which Unite reps report has now seen Babcock Rosyth complete work packages on four other vessels from this sector.

The Herald Scotland reported in July 2015 that ‘Fife Council has signalled its backing for one of Scotland’s largest urban regeneration schemes which it is estimated would support up to 3,500 new jobs’. ‘Councillors on the executive committee have decided to support in principal the Rosyth Waterfront development in Fife which would cover 120 acres and include five zones in the shadow of the Forth bridges’. The council described it as a ‘major milestone in the progress of the £500 million project which will incorporate a business and employment park, the Rosyth Gateway commercial zone, a supermarket, leisure centre, restaurants, large stores, shops, cafes, bars, galleries, housing and waterfront gardens’.52

Development firm Scarborough Muir Group Ltd said the proposals, will “capitalise on the potential of the area after the designation of the Forth Bridge as a UNESCO World Heritage Site” and “complement the waterfront’s role as a European gateway for trade, commerce, and tourism”. The plan for the site, first revealed in November 2014, would be progressed in partnership with site owners SMG - a partnership between J.W. Muir Group based in Fife and developer Scarborough Group International. SMG outlined how the plans would “help to deliver the Fife Economic Partnership 10 year Economic Strategy and the 9,000 jobs needed to get the economy back to pre-2008 levels”53.

In June 2015 the Courier reported that Archie Bethel, CEO of yard owner Babcock, said at the site’s centenary celebrations that: ‘the next 100 years looks bright for the site’. Conscious of the important role that the dockyard has to play in Rosyth and across Fife, Mr Bethel told The Courier the company would remain an integral part of Scotland’s engineering landscape for years to come. “We are very much a part of the community,” he said. “For generations people from the same family have worked here so we are aware of our importance and that helps to make us strong. “We’ve got a deep-rooted relationship with the community and, in the long-term, that’s what counts. “We start this century with a big workload. The carriers will come back here throughout their lifetimes (50 years) and we’re also very busy in the North Sea, for the oil and gas sector and offshore renewables. One thing this place is not short of is interesting projects.”54

Unite reps say that the success of this site and its diversification activities is driven by the company, workforce and unions’ knowledge that alternative work streams must constantly be identified to retain and grow the site. The site’s workforce culture of continuous improvement, and the Babcock Group viewing itself as a support service provider, rather than solely a defence contractor, has allowed it to be dynamic and successful.

This case study seems to demonstrate that defence diversification can work where government defence contracts are being fulfilled whilst diversification activities are run alongside such core works.

52 http://www.heraldscotland.com/news/13421553.Fife_council_indicates_support_for___500m_Rosyth_waterfront_proposal/
53 Ibid
Rolls-Royce

Rolls-Royce Limited was founded in 1906\textsuperscript{55} as a luxury car-manufacturer. Its involvement in aerospace had an unpromising start, however, as Charles Rolls’ attempts to convince Sir Henry Royce to \textit{diversify} into aircraft engine manufacture had been initially unsuccessful. However, the growth of aviation made such a move tantalizing and R-R produced its first aero motor, the Eagle in 1914 going on to produce half the engines used in the First World War by the Allies.\textsuperscript{56}

The split of the Rolls-Royce car and aero engines operations happened in 1971 when aero engines production was nationalised after it incurred financial difficulties developing a new engine. Several years later, Rolls-Royce Motors was hived off into a separate business. The aerospace company was privatised in 1987 and has \textit{developed} into Rolls-Royce Holdings plc producing power systems. Key to its operation is Civil aerospace producing nine large aircraft engines and eight small aircraft engines, it also produces an array of helicopter engines\textsuperscript{57} which are used both in civil and military applications. Its gas turbine engines are also used in other industries.

Historically the strategy of the company was to develop gas turbine engines and then apply it in three markets: commercial aerospace; marine; and power generation. Thereby maximising return on development costs currently £1.2bn PA

In recent years the company has also sold its research businesses in fuel cells and tidal power to let others continue the development of the technology along with its interest in the V2500 civil engine and RTM322 helicopter engine.

It is now a top provider to the marine market designing ships, on-board systems for navy and merchant vessels and supplies propulsion equipment. R-R also offers equipment, systems and engineering expertise to the civil nuclear industry.\textsuperscript{58}

Rolls-Royce is already engaged in HMG’s process for the potential development of a market for Small Modular Reactors (SMRs) in the UK.

SMRs provide an opportunity to strengthen and build UK nuclear capability and will help position the UK as a global leader in innovative technologies. Rolls-Royce has many of the key capabilities required for a successful SMR programme with its experience in naval pressurised water reactor (PWR) design, manufacturing, procurement and operational support, and, together with partners across UK industry can assemble the necessary capabilities and resources to develop, construct and operate SMRs in the UK. It should be noted that any Rolls-Royce involvement in the SMR market is because of the skills and supply chain already being in place.

Entry to market would rely entirely on the right investment conditions, such as HMG financial assistance and appropriately supported by a strong governmental policy framework. Any SMR programme will also require assistance from HMG in identifying and developing export markets. Again, for any SMR development to be viable, it is imperative that existing skills and the supply chain in submarine production are maintained and developed further. A UK SMR programme could significantly assist the supply chain across both defence and civil applications through creating a sustainable market on which to build capability.

\textsuperscript{55} https://en.wikipedia.org/wiki/Rolls-Royce_Limited
\textsuperscript{56} http://www.managementtoday.co.uk/go/rollsroyce
\textsuperscript{57} Ibid
\textsuperscript{58} Ibid
Factors said to have contributed to the company's problems over the years have included:

1) In 1971, having been chosen as the only engine provider for the Lockheed L-1011 (TriStar), Rolls-Royce committed deeply to the RB211 engine, however, its development was hindered by substantial technical difficulties, and in early 1971 Rolls-Royce went into administrative receivership, with Edward Heath's Conservative government nationalising it as Rolls-Royce Limited. The automotive division was hived off from the aircraft engine division in 1973, as Rolls-Royce Motors, and sold to Vickers. This indicates they may have overspent and overrun on development, which in turn was compounded by the company overstating its assets, thus disguising its financial difficulties until it was too late to seek effective assistance. Interestingly, accounting regulations were subsequently changed to forbid the capitalisation of research expenditure,\(^{59}\ & ^{60}\)

2) In relation to its Energy Gas Turbine and Compressor business sale to Siemens in 2014 for a £785 million cash consideration (for which Rolls-Royce has also received a further £200 million for a 25 year licensing agreement, granting Siemens access to relevant Rolls-Royce aero-derivative technology for use in the 4 to 85 megawatt power output gas turbine range\(^{61}\)), John Rishton, Rolls-Royce’s then CEO, said that: “This agreement will give the Energy business greater opportunities as part of a much larger energy company and allows Rolls-Royce to concentrate on the areas of business where we can add most value.”\(^{62}\) This could perhaps be interpreted as them, as they have diversified over the years, having lost focus on their core business of propulsion motors.

3) Reports in December 2015 suggested its structure is too complex / top heavy (unwieldy decision making and hierarchical) and is to be axed, along with the removal of a top layer of management in a ‘sweeping management shake-up’.\(^{63}\) Rolls-Royce has diversified production over the years and now has two divisions (however, in line with the above, they are said to be going in the shake-up with the five unit heads reporting directly to the CE) being:
   - Aerospace, which is comprised of Civil Aerospace (aero engines for civil and corporate jets) and Defence Aerospace (defence aero engines) and is the world’s second largest maker of aircraft engines; and
   - Land & Sea, which comprises Power Systems (including the world-renowned MTU range of reciprocating engines), Marine (equipment installed on over

---

25,000 vessels) and Nuclear (with a growing civil nuclear business and 55 years of experience in nuclear submarine propulsion)\textsuperscript{64}; and

4) In recent times, ‘the company has seen series of profit warnings reported to be rooted in poor performances in its defence operations, its marine engines, and latterly a slowdown in the lucrative aftersales service business on civil aero-engines.’\textsuperscript{65} Despite this, Chief Executive Warren East has recently indicated his strong support for the engine maker’s present diversification strategy. Some shareholders have quizzed R-R’s strategy of diversifying away from its primary aerospace business into marine and other power systems. They have called on the group to focus on its core civil aerospace division, with it being criticised for moving back from the thriving market for single-aisle passenger aircraft to concentrate on the lower volume / higher margin widebody segment. However, in response, Mr East suggested that if anything, the marine business, which is suffering from the slump in the offshore oil and gas industry, might need greater investment as “it has been underinvested in.”\textsuperscript{66}

In their November 2015 update on the review of operations, R-R indicate that clear areas for business improvement include addressing: a) their complex business model with high embedded costs; and b) a reduction in confidence in their business model in the face of changing market conditions in several businesses. They indicate they plan to address these by: 1) simplifying the way they work; 2) injecting pace into their decision-making and responsiveness; and 3) improving their operational gearing and operational effectiveness.\textsuperscript{67} December 2015 company announcements indicate these plans have now been set in train.\textsuperscript{68}

In summary, it may be suggested that these diversification related problems can be seen as a consequence of structural complexity, a top-heavy, slow to respond management structure, potential questions around focus and R & D funding. But it is clear that the company only sustains diversification away from military equipment production where there is a clear profit.

**Hamble**

The site at Kings Avenue, Hamble, Southampton, began activities when Sydney Lodge was sold to British Marine Aircraft Limited in 1936, which had a licence to construct the big four-engine American commercial flying boats – the Sikorsky S-42A. However, within a year, difficulties obtaining parts from the US saw no aircraft built and losses mount up, resulting in the appointment to its board of the renowned aircraft designer H.P. Folland, with the company subsequently changing its name to Folland Aircraft Company Limited. With a few other local companies in this growing industry, it soon obtained varied contracts on flying boats.\textsuperscript{69}


\textsuperscript{65} [http://www.ft.com/cms/s/0/41a4756a-a1a2-11e5-bc70-7ff6d4fd203a.html#axzz3uOKvLlb2](http://www.ft.com/cms/s/0/41a4756a-a1a2-11e5-bc70-7ff6d4fd203a.html#axzz3uOKvLlb2)

\textsuperscript{66} [http://www.ft.com/cms/s/0/593abaaa-3603-11e5-b05b-b01debdb57852.html#axzz3uOKvLlb2](http://www.ft.com/cms/s/0/593abaaa-3603-11e5-b05b-b01debdb57852.html#axzz3uOKvLlb2)


\textsuperscript{69} GE’s 75\textsuperscript{th} Anniversary of The Hamble Site, 2011 document.
Workshops at Hamble were kept busy with sub-contract work during the re-armament programme, up to and during WW2 with over 35,000 components manufactured for the likes of the Spitfire and the Hornet, and in 1942, they won contracts to adapt two Spitfires to floatplane standard for use in protected tropical waters.70

Following the end of the war, with the removal of the Essential Works Orders, the company had an abrupt gap in orders and, in an attempt to fill this, it announced it would extend its activities to a much wider horizon and diversify into non aircraft manufacture, including into the Folland divan bed, tool boxes, refrigerators, pony light weight electric trucks, AIROH type pre-fabricated aluminium house and motor cycle parts. It wasn’t long, however, until aircraft manufacture started again with sub-contract work making components for the Bristol Brabazon (flying controls), de Havilland Dove (wings, etc) and Vickers Viking.71

Years of diversity saw R&D work on rockets and launchers and Folland were also contracted by the then Ministry of Supply to develop a light weight automatic ejector seat. Additionally, Folland, in a joint venture project with the British Aluminium Company, produced two small pleasure boats, the Terrapin and the Troll.72

In the autumn of 1959 Folland Aircraft experienced difficulties, challenged by the increasing financial resources needed for ongoing aircraft development on the Gnat and the launch of the two seater variant. A rationalisation of the British aircraft industry at the time saw the Folland taken over by the Hawker Siddeley Group and in July 1963 a restructuring saw the site become part of the Hawker-Blackburn Division of Hawker Siddeley Aviation Limited producing the 748 Wing, Trident wing and tail plane. Research was also carried out on a hovercraft idea, the Folland GERM.73

The Gnat came to be best known when the T1 aircraft was used, ultimately, by the Red Arrows until 1979. However, prior to this, in 1977, the Hamble site changed ownership when Hawker Siddeley Aviation amalgamated with the British Aircraft Corporation (BAC) to become British Aerospace, with Hamble becoming part of the Military Aircraft Division with a 1,800 strong workforce. At this time they worked on significant structural parts (and some missile parts) for the Hawk, Harrier and Tornado on the military side and the Airbus A300 and A310 civil programmes.74

Work was ongoing at Hamble on British Aerospace products such as the Hawk, Harrier, Jetstream and Airbus until 1989 when British Aerospace Enterprises was formed and a new company set up there named Aerostructures Hamble Limited (which in 1995 joined the EIS Precision Engineering Group, subsequently in 1998 becoming part of TI Group who in 2000 merged with Smiths Industries to become Smiths Group then Smiths Aerospace). In 1992 British Aerospace sold Aerostructures Hamble Limited, with the site restructured under the Hamble Group, who in collaboration with European partners designed and subsequently built the Eurofighter Supersonic 1000Ltr Fuel Tank in addition to working on Airbus sections. In 1997 Hamble won a suite of work for Boeing Commercial Aircraft and in 1998 their Airbus portfolio of work grew to manufacture the A340-500/600 wing trailing edge components.75

70 GE’s 75th Anniversary of The Hamble Site, 2011 document.
71 Ibid.
72 Ibid
73 Ibid
74 Ibid
75 Ibid
In the 2000s Smiths Aerospace at Hamble was a prominent aerospace company that had vital positions in the supply chains of all important civil and military aircraft and engine manufacturers and were leaders in electronic systems, actuation and precision components. New undertakings were also made into the automotive business with the use of cutting-edge composites for body parts, e.g. for Mercedes Benz SLR McLaren.\(^{76}\)

In 2007, Smiths Group sold Smiths Aerospace to General Electric Company (GE) and in 2008 Hamble won its largest contract up until then to design and manufacture the Airbus A350XWB Trailing Edge Details, a part of it expanding its expertise so as to service a broader customer base, in addition to growing markets in structural fairings, in the process creating the next generation of structures for civil and military applications.\(^{77}\)

It can be seen from this history that the Hamble site has attempted to diversify but, in recent years has returned to a situation where military work forms a large part of production.

**Other UK case studies**

In 1996, Unite predecessor union the T&G published a booklet on Arms Conversion which, in addition to citing some examples outlined above, included two arms conversion case studies. Backgrounds and updates on these are presented as follows:

- **Barr & Stroud**

  The former ground-breaking Scottish company Barr & Stroud Limited was an optical engineering firm, initially formed in Glasgow in 1913, and played a prominent role in the advancement of modern optics, via their rangefinders for the British Armed Forces in the 20th century. The civilian arm of the company made medical equipment, such as photo coagulators and electronic filters. In 1919 they began producing their first binoculars which were used by the British Navy. The company functioned autonomously until 1977 when they were taken over by the Pilkington Group. In 1992 operations shifted to a site in Linthouse and in 2000 it converted to a subsidiary of the French company, Thales Group. In 2001 Barr & Stroud Ltd became Thales Optronics Ltd, with the Barr and Stroud brand name then being purchased by Eastleigh-based Optical Distribution Services Ltd who in 2008 re-registered as Barr and Stroud Ltd. This original named new entity has developed a range of telescopes and binoculars, however, their binoculars are said to be currently made in China, being distributed via Optical Vision Ltd.\(^{78}\)

  In September 2013, Thales UK, the engineering and technology company celebrated its 125th year of business in Glasgow by opening a new Apprentice Training Centre at its Linthouse Road facility. Around 700 of Thales UK’s 7,500 workforce are based in Glasgow site, which designs and makes high-tech electro-optic night vision systems and kit for the UK and other defence forces globally. Glasgow is also the base to a group of transport specialists that work

---

\(^{76}\) GE’s 75\(^{th}\) Anniversary of The Hamble Site, 2011 document.

\(^{77}\) Ibid

\(^{78}\) https://en.wikipedia.org/wiki/Barr_and_Stroud
on communications and safety apparatus. Approximately 30% of workers at the Glasgow site are scientists and engineers.\textsuperscript{79}

This case study suggests that whilst the company was able to diversify out of defence into a range of products such as binoculars and even, as stated in the 1996 T&G document, a night vision system for Jaguar cars, the binoculars are reported to be now produced in China, with the core remaining business here appearing to be very much defence based.

- Royal Ordnance

Royal Ordnance plc was created in 1985 as a public entity, holding the bulk of the then outstanding UK government owned Royal Ordnance Factories that produced explosives, ammunition, small arms including Lee–Enfield rifles, guns and military vehicles like tanks, owning 16 factories and employing around 19,000 people.\textsuperscript{80}

The company was purchased by British Aerospace (BAe), now BAE Systems, in 1987. The Royal Ordnance name was kept for around 20 more years and sites kept their names as Royal Ordnance / RO Defence sites. The Royal Ordnance name was retired in 2004 and having operated as Land Systems, the division is today branded as BAE Systems Global Combat Systems Munitions.\textsuperscript{81}

As stated in the 1996 T&G document, Royal Ordnance at Chorley was capable of diversifying into other products like vehicle airbag initiators and land cleansing systems. However, in his 2003 book on the British economy, Royce Turner noted that whilst such Royal Ordnance plants endeavoured to diversify, none had significantly lessened their dependence on military markets with thousands of jobs being lost in the process.\textsuperscript{82}

Turner also identifies a number of companies’ diversification efforts. These include: Dowty, which he says shed its defence units and enhanced civilian sales; Smiths Industries which is reported to have extended its medical division in relation to its defence / aerospace division; and Short Brothers, founded 1908 in London, which he says expanded its civil aerospace work for the Canadian firm Bombardier (who purchased Shorts in 1989), which he then goes on to say makes more money from recreational gear than defence.\textsuperscript{83} With Bombardier in the UKs’ website stating, that they are the world’s leading manufacturer of both planes and trains, with vast offering of products includes trains, rail equipment and control solutions for all market segments, as well as category-defining business jets and commercial aircraft.\textsuperscript{84}

Skills & Jobs Retention Group - Talent Retention Solution

Following the Strategic Defence & Security Review (SDSR) of 2010, huge cuts were identified in the Armed Forces. The Royal Navy lost 5,000 personnel, the Army lost 7,000 and the RAF was reduced by 5,000. Additionally, a number of platforms were scrapped

\textsuperscript{80} https://en.wikipedia.org/wiki/Royal_Ordnance
\textsuperscript{81} Ibid
\textsuperscript{82} The British Economy in Transition: From the Old to the New? (2003) By Royce Turner P116
\textsuperscript{83} Ibid
\textsuperscript{84} http://uk.bombardier.com/en/about-us/bombardier-in-country.html
including HMS Ark Royal, the Joint Force Harrier and the Nimrod MRA4 aircraft.\textsuperscript{85} It was anticipated that the loss of these jobs and the impact on defence manufacturers could mean thousands of potential redundancies. In response, the then Secretary of State for Business, Innovation and Skills, Vince Cable, created the Skills and Jobs Retention Group (SJRG). Cable said:

"The Government recognises the important contribution that the defence sector makes to the wider economy through high value jobs, intellectual property rights, export revenues and as a key sponsor of apprenticeships and training".

"I want to ensure that wherever possible we retain the talented individuals leaving the defence industry within the UK’s advanced manufacturing sector which is why I am today announcing an industry led group to look at how we can help redeploy skilled engineers affected by the SDSR.\textsuperscript{86}

The IMechE reported at the time:

The Skills and Jobs Retention Group aims to explore how skilled workers from the defence sector can be reemployed in other sectors such as civil aerospace, automotive, energy and marine. It will also provide a forum for companies across UK manufacturing and engineering to make the most of the skills that may become available.

The group will consist of a small team of industry figures and will be chaired by Allan Cook, chairman of Semta, sector skills council for science, engineering and manufacturing technologies.\textsuperscript{87}

The SJRG developed an action plan and created a web based database of potential redeployees, the Talent Retention Solution (https://talentretention.biz/). Over time, this has developed into a recruitment portal where employers can advertise positions and displaced employees, apprentices and graduates can search for work in the advanced manufacturing and engineering sector.

The Talent Retention Solution website explains its mission:

The Talent Retention Solution (TRS) puts skilled individuals looking for work, and companies searching for new employees, in direct contact with each other. The TRS is a UK wide scheme which aims to retain skills in the Advanced Manufacturing and Engineering Sector, including Aerospace, Automotive, Civil Engineering, Defence, Energy, Marine, Manufacturing, Nuclear, Power Generation and Renewable industries. TRS uses a web-based programme called ‘CWeb’ which has been developed to actively support redeployment and recruitment across these sectors.

TRS is an industry led initiative. It provides specific, easy to use recruitment services to companies who have active vacancies or who are perhaps just wishing to keep an eye on the available talent by using the search and alert service. For individuals who are in the job market, either through redundancy or another route, the on-line CWeb system provides a user-friendly way of marketing themselves directly to prospective employers.

\textsuperscript{85} Strategic Defence & Security Review (SDSR) of 2010
\textsuperscript{86} http://www.hrmagazine.co.uk/article-details/business-secretary-creates-group-to-ensure-retention-of-skilled-staff-in-the-defence-sector
Unite has held a seat on the Talent Retention Solution from the outset, held by Ian Waddell, National Officer for Aerospace & Shipbuilding, and recently took another seat, held by Lee Purslow, Deputy Chief Negotiator at Rolls-Royce. The scheme was started with government funding for the first two years, but is now entirely reliant on sponsorship from major companies, including BAE Systems, Rolls-Royce, Siemens, EDF Energy, Airbus, Shell, the ECITB and the Glass Academy. BIS still provide administrative and organisational support.

Lee Purslow said:

“TRS is an evolution of a model we developed in the East Midlands, which we called pan-business redeployment. The idea is simple - when one engineering firm is in a downturn, often others have skill shortages. We wanted to move people from potential job losses into secure employment, and we fully supported these efforts at local level. TRS takes this to a national stage.”

However, the scheme could be further enhanced and improved, Mr Purslow believes:

“At local level, we had one-to-one support built in for displaced individuals. People often found themselves at risk of redundancy after many years of employment and they had lost the skills needed to create CVs, fill in application forms and get through interviews. This support gave them a platform for success. TRS does not have the funding to do this. If it did, it could be a powerful tool for helping move defence workers into other areas of advanced manufacturing where there are still skills shortages.”

Unite’s National Industrial Sector Committee for Aerospace & Shipbuilding has supported the TRS, but has argued for its remit to be expanded and funded so that one-to-one support can be given to displaced individuals. In its “Defending Defence Workers” document, published in 2013, the NISC also called for a change in employment law to allow temporary secondments from one employer to another.

**Labour’s former Defence Diversification Agency**

In 1999 a Defence Diversification Agency was formed (within the MoD as a subgroup of the Defence Evaluation and Research Agency - DERA) by the then Labour Government, with it later being sold (privatised) to QinetiQ in June 2001, and is said to have focused on technology transfer, not defence conversion, for firms into other sectors. 88

The following from the Select Committee on Defence - Ninth Report (June, 2000), seems to support the above view on its focus:

27. The privatisation of DERA will have important ramifications for the Defence Diversification Agency. It began operating at the start of 1999 with an operating budget of £2 million a year. It is charged with providing industry with knowledge of what military technology is available in DERA, encouraging access to DERA’s laboratories, stimulating the transfer of the MoD’s intellectual property and creating partnerships with companies for its co-development 89

As the following, from the DTI’s 2003 Innovation Report, also seems to:

---

88 January 2016 briefing by Keep our future afloat campaign (Kofac)
89 [http://www.publications.parliament.uk/pa/cm199900/cmselect/cmdfence/462/46205.htm](http://www.publications.parliament.uk/pa/cm199900/cmselect/cmdfence/462/46205.htm)
The Defence Diversification Agency (DDA), part of the MoD, was set up in 1999 to promote cross-fertilisation of technology between defence and industry. The DDA provides companies with access to the UK’s world-leading defence science and technology (S&T) base, a major repository of technical knowledge and expertise that can help them innovate and grow. Additionally, the DDA brings innovative technology developed within civil industry to the attention of the MoD. Four years on, this Government initiative can point to an impressive track record.

The DDA has established a highly effective network of experienced technology transfer professionals throughout the UK, operating at regional level. They stimulate the demand for technology by helping businesses identify growth opportunities that can be fulfilled through access to knowledge, resource and facilities from within the defence S&T base.\(^{90}\)

The following 2001 EDM on the subject is noteworthy:

**Early day motion 421  DEFENCE DIVERSIFICATION AGENCY**
**Session: 2000-01  Date tabled: 12.03.2001  Primary sponsor: Cable, Vincent**

*That this House notes that the Government has issued a consultative document on the future of the Defence Diversification Agency; is disappointed that all the options envisage the Defence Diversification Agency staying within the defence sector; urges the Government to use this opportunity to relocate the Defence Diversification Agency within the Department of Trade and Industry where it could be fully involved in the development of manufacturing strategy and could best work co-operatively with the regional development agencies to promote the reorientation of the economy from military to civil production and the transfer of technology from military to civil industry; and further urges the Government to set up a Defence Diversification Council without delay.*\(^{91}\)

On its website [QinetiQ describes its history as follows:](https://www.qinetiq.com/about-us/our-history/Pages/default.aspx)

QinetiQ was formed in July 2001, when the Ministry of Defence (MOD) split its Defence Evaluation and Research Agency (DERA) in two. The smaller portion of DERA, was rebranded Dstl (Defence Science & Technology Laboratory) and remains part of the MOD. The larger part of DERA, including most of the non-nuclear testing and evaluation establishments, was renamed QinetiQ and prepared for privatisation. QinetiQ became a public private partnership in 2002 with the purchase of a stake by US-based private equity company the Carlyle Group.

*In 2003, QinetiQ signed a 25-year long term partnering agreement (LTPA) under which we provide the UK MOD with innovative and realistic test and evaluation of military and civil platforms, systems, weapons and components on land, at sea and in the air. In February 2006, QinetiQ was successfully floated on the London Stock Exchange and the Carlyle Group sold its stake in the company.*\(^{92}\)

---


\(^{92}\) [https://www.qinetiq.com/about-us/our-history/Pages/default.aspx](https://www.qinetiq.com/about-us/our-history/Pages/default.aspx)
International Case studies

Swedish Defence Industry

A booklet on Arms Conversion produced by Unite predecessor union the TGWU in 1983, outlined how Sweden, as a non-aligned country, felt it necessary to maintain strong conventional defence capabilities, producing most of its own weaponry, in the knowledge of the potentially damaging effects this may have on its economy and on individual companies if such a policy wasn’t followed. It outlines how Sweden deliberately tried to prevent arms contractors monopolising a production facility. Companies were said to be prevented from devoting more than 20% of their production to armaments and grants were given to foster diversification. Companies had to demonstrate that they had a plan for conversion before any military contract was awarded. Care was also taken to ensure that defence production was spread geographically so individual communities didn’t become reliant on military production. ⁹³

Recent contact with Swedish trade union colleagues suggests that the picture today looks quite different to that of 1983. They indicate that there is no government policy that demands diversification and suggest that the Swedish defence industry is pretty specialized, saying, although the by far biggest company, SAAB, also produces non-defence products and systems.

In line with this recent contact, it is also worth noting reports that ‘Swedish defence companies attempted to diversify, although important defence supply companies such as Saab and Bofors have not been able to move far from their core businesses of aircraft construction and ordnance, respectively’. ⁹⁴

United States

Background

The end of the Cold War resulted in sweeping cutbacks in the numbers of British and US troops resulting in the shutting of bases in Europe, and the US. Defence manufacturing sector being abruptly wound back, with disruptions on both sides of the Atlantic threatening major harm to the sustainability of certain local communities, with job losses and the loss of expenditures within them. As a result, substantial packages of arms conversion, in Europe and the US, have been implemented since, with levels of success lower in Europe than in the US. The range of reasons given for this are touched on below. ⁹⁵

In the US, Congress and the influence of local advocates within it, produced legislation such as the Base Realignment and Closure Act of 1988 (BRAC) which necessitates 5 years notice of any closure to be approved by an autonomous commission, with the National Government ensuring early measures are implemented to guarantee local employment levels are sustained and requires long-term, focused and totally resourced intervention at Federal level. This has not really been seen on this side of the Atlantic, as conversion processes have tended to be less focussed. Implementation of the 1988 Act is via the Office of Economic Adjustment (OEA), within the Department of Defence, which

has a division for base closure and realignment, and another, Defence Industry Adjustment, whose job is to remedy the effects of lower defence orders on communities and to assist with the creation of local employment.\textsuperscript{96}

The OEA assists communities cultivate and implement base recycling and economic adjustment plans, minimising uncertainty following military installation shutdowns or realignment. State and local governments directly impacted by base closures or realignment are provided with technical and financial assistance by the OEA. \textsuperscript{97} Additionally, the OEA coordinates the Economic Adjustment Committee. The committee meets to help coordinate the resources of 22 key federal agencies for communities adversely affected by BRAC actions. The Committee allows OEA to leverage available federal resources for impacted communities.\textsuperscript{98}

A 2004 General Accountability Office study found that ‘unemployment rates of 62 BRAC-affected communities over a seven-month period compared favourably with the national average’. They reported ‘that during this time frame nearly 43 of the communities studied had unemployment rates equal to or lower than the U.S. average and close to 30 communities had income growth rates higher than the national average’. ‘The 2005 BRAC commission recommended 25 major base closures, 24 realignments, and the closure of hundreds of smaller bases and reserve centres, creating opportunities for private and public civilian reuse’. \textsuperscript{99}

The following case studies outline examples of the OEA’s work.

**St Louis Region**

The OEA’s St. Louis Region project was implemented to ‘assist the St. Louis, MO-IL Region in planning community adjustments and economic diversification to reduce economic dependence on Defence expenditures and mitigate the impacts arising from the Department of Defence’s proposed budgets’.\textsuperscript{100}

Analysis by Denny Coleman (St. Louis County Economic Council) notes that St. Louis’ defence-driven economy in 1990 saw 1 in 7 jobs tied to the defence industry, injecting $4.4 billion in total wages, with the aerospace manufacturer McDonnell Douglas being the largest US defence contractor and the largest employer in region, employing 42,000, whilst utilising 720 major defence contractors.\textsuperscript{101} These contractors, with around 117,000 workers, took total defence-related employment in the region (primarily producing aircraft) to nearly 160,000, however, by 1997 defence-related employment fell to around 100,000 with the loss, through defence downsizing in the St. Louis region, of 59,000 jobs.

With defence cuts on the very near horizon, the **St. Louis Defence Adjustment programme** was created in 1990. Here the OEA provided a coordinated and comprehensive regional response to the downsizing.\textsuperscript{102}

Coleman outlines how the programme was made up of three critical strategies, with their various elements, as follows:

\begin{itemize}
  \item \textsuperscript{96} \url{http://www.stuc.org.uk/files/Congress%202015/DefenceDiversificationReport2014%20v2.pdf}
  \item \textsuperscript{97} \url{http://www.oea.gov/programs/brac/about}
  \item \textsuperscript{98} \url{http://www.oea.gov/how-we-do-it/base-realignment-and-closure/brac-technical-assistance}
  \item \textsuperscript{99} \url{http://www.oea.gov/programs/brac/about}
  \item \textsuperscript{100} \url{http://www.oea.gov/project/st-louis-region}
  \item \textsuperscript{101} Denny Coleman, March 2012 \url{http://www.iedcevents.org/Downloads/Conferences/Federal_12/Coleman.pdf}
  \item \textsuperscript{102} \url{http://www.stuc.org.uk/files/Congress%202015/DefenceDiversificationReport2014%20v2.pdf}
\end{itemize}
1) Partnerships and workforce

Public private partnership through a Department of Labour Business Diversification Pilot project, and conferences, seminars and training;
Retain workers via the Cornerstone partnership (regional training MET centre) and the McDonnell Douglas Worker Retraining Centre.

2) Exports and small business

Increase focus on export base via the World Trade Centre in St. Louis;
Nurture small business growth through St. Louis Enterprise Centres and Centre for Emerging Technologies;
A Regional Revolving Loan Fund and a Business Development Fund to assist with business development in the area.

3) Diversification

Diversifying regional industry and business base – Critical Technologies Partnership; focusing on advanced manufacturing (Missouri Enterprise), biotechnology and life sciences - Biobelt, and the environment – plant sciences.¹⁰³

As at November 1994, 75% of laid off workers were re-employed, with 93% working in the greater St. Louis region. 66% of those workers earned as much or more than they did previously, including 10% that operated their own businesses.¹⁰⁴ With these being mainly skilled manufacturing workers, their pay would have been comparatively high. Probably greater than those in base servicing and maintenance.¹⁰⁵

To quote the New York Times from 1998: “As one of the first regions to confront weapons cutbacks and develop plans for dealing with them, the St. Louis area is emerging as a national laboratory for the post-cold war economy. St. Louis responded quickly with government and private sector efforts to help laid off workers and further the diversification of the region’s economy.”¹⁰⁶

Grissom Air Force Base (AFB)

The former Grissom Air Force Base, being an active Air Force installation from 1954 to 1994 (now a joint civil airport - the Grissom Aeroplex, and military base - Grissom Air Reserve Base), is in north-central Indiana, in Miami and Cass Counties. It is approximately 65 miles north of Indianapolis and 115 miles southeast of Chicago, Illinois and is located about one mile from the town of Bunker Hill (2010 population approximately 800). Additionally, it is around six miles southwest of the city of Peru (approximate population 11,400), and about 14 miles north of Kokomo (approximate population 45,500).¹⁰⁷

The BRAC 1991 round saw the announcement of the realignment of Grissom AFB, with hundreds of civilian jobs (the table below outlines communities where they worked) being lost when it finally closed 5 years later.

¹⁰⁴ Ibid
¹⁰⁶ New York Times (August 8, 1991)
Community planning began following the announcement and a Grissom Community Redevelopment Authority was set up to manage the realignment and conversion processes with a focus on easing the impact of the realignment both financially and psychologically. It consisted of 32 members from the counties around the AFB and under state law, the Grissom Redevelopment Authority (GRA) was formed and recognised the Department of Defence as the local redevelopment authority. Its voluntary board of seven directed the GRA’s work, which involved the conception and advancement of the Grissom-Aeroplex and business park. Partnerships with other neighbouring economic development authorities and state and federal agencies, in addition to utilities providers and developers, was vital, as was funding from Economic Development Administration for expanding the GRA’s marketing efforts, property reclamation and development.109

The 850 plus acre Grissom-Aeroplex, with existing buildings under control of Miami County Economic Development Authority, and with its 12,500 foot runway, has Enterprise Zone / Foreign Trade Zone / Tax Incremental Financial District status. Thus it provides a range of unique incentives to attract business including:

- Low cost to no cost land and facilities based on the project;
- EZ Zone Investment Deduction;
- 70% elimination of all real and personal property taxes for a period of 10 years (flat 70% each year of 10 year period);
- No sales tax on all utilities for 5 years -7% savings; and
- A reduction in the Corporate AGI Tax Rate for 5 years -from 8.5% to 5% - 3.5% savings110

Such incentives see its 40 plus businesses, employing around 1,300 people, far in excess of the former AFB’s civilian workforce. Businesses include: One Source Automation and Technologies, who make robotic systems; Alliance Group Technologies who design and make printed circuit boards; and UAP Richter, an agriculture distributor. The complex also houses a state correctional facility, nursing home, medical facilities, hotel, restaurants and retailers.111

Efforts continue. As the Kokomo Tribune reported in March 2015, officials were pushing for an economic renaissance at the Air Force Reserve base and business park:

‘Representatives of a newly formed group called the Grissom Regional Defence Alliance travelled to Washington, D.C., with a simple message for elected officials and other government bigwigs: Grissom is primed, pumped and ready to grow’.

111 https://www.highbeam.com/doc/1G1-151100995.html
'First, Grissom Air Reserve Base is prepared to take on more military personnel. Second, Grissom Aeroplex, the business park located beside the base, is poised to attract major companies in the defence and aerospace industries'.

'Now, it’s just a matter of making that happen'.

'That’s the goal of the Grissom Regional Defence Alliance, which formed earlier this month as a subcommittee of the Miami County Economic Development Authority'.

'The alliance has started an aggressive push to increase the military presence and defence industry at the base and business park that could transform the area into an even bigger powerhouse in the local economy of north central Indiana'.

Other examples of the OEA’s work:

The 1983 TGWU booklet on ‘Arms Conversion’ also cited three examples of the OEA’s work:

1) Benecia, California
   The closure of the arsenal and depot here saw the loss of 2,318 jobs, which was a major blow to this 6,450 person community. The prompt initiation of industrial development saw the creation of 3,000 new local jobs.

2) Sidney, Nebraska
   The army depot closure, with it being the largest employer in the region, affected 20% of families. The redevelopment of the site for industry saw it become a magnet for manufacturing, resulting in a greater number of jobs being created than were originally lost.

3) Neosko, Missouri
   The closure of the air force plant saw a loss of 1,200 jobs. However, within a year, all lost jobs were replaced and eventually job numbers more than doubled.113

In preparing this paper, Unite sought the views of our sister unions, the United Steel Workers (USW) and the International Association of Machinists and Aerospace Workers (IAMAW). In both cases, the representatives we spoke to who had dealt with the impact of the BRAC legislation drew a distinction between the effectiveness of the programme in dealing with military base closures, compared to defence conversion in private sector firms.

Bruce Olsson is Assistant Legislative and Political Director of the International Association of Machinists and Aerospace Workers (IAM). He became involved with the IAM while working at the Pratt and Whitney Aircraft (jet engine manufacturer) division of United Technologies in East Hartford, Connecticut. It was during his time as a representative in Connecticut in the early 1990s that he originally worked with other unions and allies on defence conversion issues. He said:

112 http://www.kokomotribune.com/news/grissom-taking-off/article_f482069e-cf1a-11e4-8d95-c725b1a7b06e.html
113 A better future, A TGWU Strategy for Arms Conversion (1983) P21
Connecticut was the most defence dependent State, and New England was the most dependent region.

At the end of the Cold War, there was big displacement of people as spending cuts on defence kicked in. A coalition of unions came together to try and stop job losses and find alternative work for displaced workers.

This was not particularly successful due to Bush politics – he said that “the market would take care of it”. However, in practice this didn’t work and the market did not help the process.

Part of the problem was that there was a completely different management attitude in private sector defence companies. This worked against the process of defence conversion. Major defence companies were not interested in defence conversion. If they needed a different technology they would go out and buy a company that possessed it. Non-defence work is not cushioned by the requirement for national security that protects key technologies.

There was interest in supporting defence conversion in Congress until 1994 when the Republicans took over and support effectively ended. The OEA is helpful but is not enough on its own to drive major investment and job conversion.

Internal migration is the major vehicle for people to deal with job loss. This has a consequent effect on local economies, house prices and other key economic indicators. Unfortunately, there are no real success stories for defence conversion.

Base Closures are different as they are highly political, even though the intent of BRAC was to make closures non-political. A coalition of workers, managers, politicians and the local community is easier to form. There has therefore been more success in this regard.”

In the early 1990s Bruce was involved in a Defence Conversion Task Force in the region. It was estimated that the New England Region was losing $6bn per year due to defence cuts. However, Bruce said,

“It was very difficult to generate new jobs. The IAMAW tried a different tactic of looking at High Performance Workplaces, but broader problems in manufacturing overtook this. Globalisation is a big issue to take into account. There is huge pressure on manufacturing in developed economies from Eastern Europe and Asia. This makes job creation in non-military fields very difficult.

It is not easy to switch away from defence manufacturing. For example in shipbuilding the unions were instrumental in trying to argue for commercial shipbuilding to take place, but discovered that switching from high quality military ships to commercial shipbuilding is completely different. The quality needed and the timescales available are fundamentally different, with lower standards applying to commercial shipbuilding. This is a very difficult change for military workers to make.

One other fact to mention is the negative impact on second and third tier suppliers in the defence industrial base when a prime defence contractor suffers a cut. While there is often a lot of focus on the primes, many of the jobs are in the supply chain and the smaller
companies may not have the financial resources to weather a significant down turn in their business. When the second and third tier supplier goes down there is often no similar contractor to fill the gap if it becomes necessary to restart a program. This situation has been exasperated by the rise of globalization and the offshoring of much of the industrial base.

In summary, the US Government has never put in the financial support necessary for defence conversion and the overall experience is that defence conversion is very difficult to achieve.”

Based on this experience, it would appear that the conversion of publicly owned military bases to non-military uses has seen more success in the USA than the process of converting production in private sector manufacturers in the defence industry.

United Steelworkers (USW) also identified the important effects of globalisation and the impacts on indirect, as well as direct, jobs in defence manufacturing. They too make the distinction between base closures and other forms of transition making the point that there is no one model. Roxanne Brown, Assistant Legislative Director, said: “Whilst OEA and BRAC can provide useful lessons, they are not a panacea.” Rather, thought needs to be given to different types of programmes. Quality of jobs and the involvement of workers and their representatives in relevant agencies are seen as critical.

Conclusions

Unite and its predecessor unions have a long and proud history of identifying and advancing arguments for diversification out of defence related production. Unfortunately, there are few examples of positive responses to these efforts from either employers or government. Where diversification efforts have been successful, such as at Rosyth, they have not fully replaced lost workload and do not necessarily offer long term security of employment.

Previous attempts to set up a Defence Diversification Agency have not been given adequate funding, political backing or time to make substantial impact in this area. The last incarnation of the DDA disappeared into the private sector and does not appear to be functional in any way.

However, given adequate preparation and financial resources, the detrimental consequences for workers and communities as a result of defence facility / factory wind downs or closures can be mitigated as has been demonstrated by initiatives in the US, although there are some important caveats to this experience. In light of the less effective responses in the UK and Europe, it would seem particularly important that commitment to such action at governmental level is embedded in law. In addition, diversification requires employers’ support and active engagement with the workforce. Substantial funding and investment would need to accompany any such legislation if diversification were to be successful in the UK. The long lead times needed to generate alternative employment would need to be factored in to any decisions made to change or cancel current or anticipated MoD procurement contracts. There is a lack of clear evidence of success in conversion of private sector defence manufacturing into non-military production both here

---

and abroad and most success appears to have happened in cases where state owned assets have been switched from defence use into non-defence uses.

Investigations of the effectiveness of consequential programmes to avert unemployment and ensure a swift transition to civilian uses show that such programmes can be effective. The key success factors appear to be:

- adequate advance planning, with input from all key stakeholders;
- sufficient resources; and
- the strength of political direction at both national and local level.

Where these have been fully applied, conversion away from military use or defence employment has resulted in long-term net benefits to local economies with minimal transitional unemployment.¹¹⁵

Unite represents hundreds of thousands of highly skilled people working in the defence and allied industries. These jobs are well paid and are critical to local, regional and national economies. Recognising this, the aerospace and shipbuilding industrial conference has adopted policy calling for any diversification to involve the creation of ‘like for like’ jobs. It would not be sufficient to create an equivalent number of new jobs for different workers in the same locality because this would not solve the problem of unemployment for displaced defence workers.

An important consideration to be taken into account is that where diversification is proposed, this needs to involve new technologies and or markets otherwise those workers diversifying into existing technologies and markets will simply be robbing other workers of their livelihoods.

The defence industry is a major employer and trainer of apprentices and recruits thousands of graduates that are critical to the future of the UK economy as well as the defence industry. The protection of the talent pipeline must form a key part of any diversification agenda.

Unite believes that the creation of a Defence Diversification Agency is an objective worth pursuing, but that this could not work in isolation. It would have to be accompanied by detailed plans outlining legislation, funding and investment, in order for it to be credible for all key stakeholders including existing defence workers in the UK.

A critical consideration would be winning the support of defence industry employers for the initiative.

Recommendations

1. Unite will engage positively in the debate about the role a Defence Diversification Agency could have. However, this must be on the basis that the agency creates like for like replacement jobs for existing workers in the industry.

2. Consideration must be given to legislation to underpin the role of a Defence Diversification Agency. History tells us that a voluntary mechanism will not work in the UK. The DDA would need to have statutory powers to intervene in situations where job losses may occur in the defence industry and would have to have access to funding in order to be able to offer grants, loans and other incentives for capital investment, retraining of workers and to cover the cost of wages while structural adjustments take place. Research and development support should be offered with new technologies and markets prioritised to avoid job substitution.

3. A clear long-term strategy for defence procurement should be drawn up, based on an assessment of the UK’s defence needs and sovereign capability requirements. This, in turn, should lead to long-term procurement objectives and clear signals to industry about the technologies that need to be maintained and those that will disappear. This should form a Defence Industrial Strategy so that possible diversification opportunities can be identified early and with enough time for the DDA to do its job. The Defence Industrial Strategy should also be aligned to a broader Manufacturing Strategy so that investment takes place in technologies with a market advantage.

4. Efforts must be made to work with defence employers to get their buy-in for such an approach. Without employer support, the lesson of our experience is that diversification will likely founder.

5. The remit of the Talent Retention Solution should be examined and expanded to assist in defence diversification, including changes to employment law to allow secondments; and funding identified to provide one-to-one support for displaced workers.

6. The creation of a Defence Diversification Agency will take time, especially as it may require a change of government to be implemented. There are immediate challenges and decisions to be made which will pre-date the creation of the Agency, including the critical decision on ordering Successor submarines. Unite will always campaign to protect jobs and communities. We will fight – without reservation, without equivocation, without hesitation – to defend every last job of our members in the defence industry.
For further information and to join Unite please go to:

www.unitetheunion.org

https://www.facebook.com/unitetheunion1

@unitetheunion