



Unite the Union response to Ministry of Defence Consultation Equipment, Support and Technology for UK Defence and Security

This response is submitted by Unite the Union. Unite is the UK's largest trade union with over 1.5 million members across the private and public sectors. The union's members work in a range of industries including manufacturing, financial services, print, energy, construction, transport, local government, education, health and not for profit sectors.

Executive summary

- Unite believes this government should follow the example of the previous government regarding the implementation of a second defence industrial strategy. This will enable all stakeholders to plan a long term vision for the sector.
- Unite believes there is a clear dichotomy between what government perceives as its goals for cutting the defence budget and statements it has made in the green paper about how government intends to support improving exports of defence products, protect national security and sovereignty and invest in advanced manufacturing.
- Government has a short memory - it must acknowledge the fundamental issues with buying off-the-shelf defence products. History, experience and evidence shows that modifications to off-the-shelf products to ensure they are fit for purpose always ends up costing the Ministry of Defence (MoD) more.
- UK sovereignty, capability and national security are predicated on the availability of high quality defence products designed and manufactured in the UK.

- The UK defence sector has the highest proportion of export income of any other manufacturing sector in the UK, adding around £7.2 billion annually to the UK balance of trade.
- It is vital that government continues to invest in tier 1 companies in the defence sector, the supply chain will fail if these companies shift work away from the UK because of the loss of contracts.
- Unite believes this government is determined to create a sea change in the way defence products are procured. Unite has serious concerns that this comes at a time when the UK armed forces are involved in two separate overseas conflicts.
- Government must recognise the importance of the symbiotic link between the defence industry and the civil aerospace sector in the UK. The success of the latter is predicated on the R&D and innovation of the former.
- Unite believes this government's focus on cutting costs – rather than maximising income streams from exports – is short-sighted, naïve, lacks intellectual rigour and returns to short-term policy making and investment which failed manufacturing for decades.
- Unite believes it is advanced manufacturing sectors like the defence industry where growth and future prosperity can be achieved for the UK economy.

1. Introduction

1.1 Unite welcomes the opportunity to respond to this consultation, as there are a number of key issues with the procurement of defence equipment that will become even more relevant if government goes ahead with the proposed changes to the purchase of equipment, support and technology in relation to UK defence and security. Unite believes that it is the conflicting goals of industry and government which present a huge challenge to the processes by which the Ministry of Defence (MoD) in the UK procures its goods and services.

1.2 In the first instance Unite would mention its concern with the inconsistencies, contradictions and conflicting statements in the green paper. An example of this is where government talks about its default position being 'to use open competition in the global market, to buy off-the-shelf where we can and to promote open markets in defence and security capabilities'¹. Government then comments 'there are wider benefits from having competitive and viable technological and industrial sectors in the UK: participation in

¹ Equipment, Support and Technology for UK Defence Security: A Consultation Paper, Executive Summary, page 5.

international programmes and successful exports help build relationships with and capacity in other countries, as well as contributing to UK growth. These sectors can, therefore, help to sustain our security and diplomatic objectives, as well as our economic ones².

1.3 There is clearly a dichotomy to these two statements which cannot be resolved. The UK cannot buy off-the-shelf products then export them to other countries – this is nonsensical, as is the proposal to promote open markets and open competition in the global market for UK defence contracts, the UK defence industry is the most open market in the world. Added to which off-the-shelf products invariably require modifications which can seriously compromise value for money objectives.

1.4 UK sovereignty, capability and security is predicated on the availability and quality of defence products in a period of conflict, this can only be achieved if defence products and services are researched, designed and manufactured in the UK by UK based companies.

1.5 The UK defence sector has the highest proportion of export income of any other manufacturing sector in the UK, Unite questions how this level of income can be sustained if government is intent on awarding contracts abroad. It is also worth noting that if the tier 1 companies reduce their footprint in the UK because of a reduction in contracts, the small and medium sized enterprises in the highly technological and innovative supply chain will also disappear. If this is government's answer to increasing the exportability of defence products and services in the UK then there needs to be a complete review of how government intends achieving its goal for improving trade and exports.

1.6 Unite believes this government is intent on creating a sea change in the way defence procurement in the UK is to operate, resulting in the union having serious concerns because these changes come at a time when the UK armed forces are involved in two separate overseas conflicts where there have been numerous incidences of the armed forces not having the equipment, technology and resources which they desperately need.

2. Defence industry in the UK

2.1 The sector is a successful, vibrant and high level technology engineering, manufacturing and service industry that provide excellent returns to all the stakeholders involved. The sector generates over £35 billion value added revenue³ employs over 300,000 people directly and supports over 220,000 indirectly⁴. The sector is one of the largest exporters in the UK adding around £7.2 billion annually to the UK balance of trade⁵. The defence industry provides high value, highly skilled work and has a strong commitment to the

² Ibid page 6.

³ ADS at www.adsgroup.org.uk

⁴ ibid

⁵ ibid

development of young people within the sector, employing around 2,700 apprentices⁶

2.2 Unite believes that government must understand the fundamental importance of the symbiotic link between the defence industry in the UK, the civil aerospace sector and the wider manufacturing sector as whole. It is through the R&D and innovation that happens in the defence sector that provides for the civil aerospace sector to be such an economic success. The transference of technologically advanced equipment and innovation from the defence industry to the wider manufacturing sector is of critical importance to the UK economy and the UK tax payer.

2.3 Defence products designed and manufactured in the UK are not only commissioned by the MoD but are also commissioned by other nation states and have an impressive and positive transference to other manufacturing sectors. One example of this capability is end to end rotorcraft manufacture, incorporating a world leading design, manufacturing and support supply chain. This product, made by Augusta Westland has shown its capabilities in the defence sector for applications such as transport, combat search and rescue, ground attack and anti submarine warfare. These have successfully transferred to the civil sector with applications including fire fighting, air ambulance, and law enforcement.

2.4 Unite believes the current government's focus on cutting costs – rather than maximising revenue income streams – is short sighted, naïve, lacks intellectual rigour and heralds a return to the short-term – boom/bust - investment strategy which failed the sector in the past. The myriad numbers of tenuous proposals in the green paper are lacking a long term industrial and economic strategy and as a consequence Unite despairs at the implications these measures could have on UK manufacturing, manufacturing jobs, skills, R&D and innovation and the viability of the supply chain in the UK.

2.5 What is clear is that government must recognise that R&D, innovation and the skills, knowledge and experience of the workforce cannot be replicated and as a whole play a vital role in creating substantial income for the UK economy. This role should not be underestimated and a long term vision for the defence sector should be based on a pragmatic and objective acknowledgement of the sector's positive aspects as well as looking for ways of working more efficiently and economically. Unite believes this is where growth and future prosperity can be achieved for the UK economy.

3. Technology

3.1 Over the past three decades the defence industry in the UK has undergone a series of rapid and strategic industrial changes. The most significant being the rapid globalisation of manufacturing industry and the impact this has had on manufacturing processes in the UK. Yet, despite the changes that have occurred the UK defence industry has managed to maintain its position as the world's second largest defence provider and has

⁶ SBAC – UK Aerospace Survey 2008.

produced substantial increases in turnover, employment levels and research and development investment.

3.2 One of the most important factors contained in the success story of the defence sector in the UK is the implementation of technological change and the way workers in the UK react to that level of technological change by up-skilling and re-skilling to ensure they remain at the top of the skills agenda. The big tier 1 companies within the sector are crucial to the R&D and technological innovations needed to facilitate the shifts required by modern day manufacturing production methods. This includes those innovations needed for reductions in CO₂ emissions and other carbon neutral methods of production.

3.3 It is through the defence procurement process that innovation and R&D come to the forefront of design technology in the UK. Unite believes government procurement has a crucial role to play in fostering the embryonic processes required to encourage the sophisticated use of new technology and to ensure that the UK defence sector remains at the cutting edge of technological innovation. This process is vital for the retention and creation of high level technology in the UK.

3.4 An example of this is the technological innovation required for the Joint Strike Fighter jet currently in production at the BAE Systems plant at Salmsbury. The production methods involved means the temperature of the building must be kept constant. To achieve this level the company has produced one of the most technologically advanced temperature controlled production facilities in the world. The temperature controlled environment enables the achievement of a step change in build accuracy required for low observable aircraft. The £30 million investment in this programme is testament to the company's commitment to the innovative and world leading manufacturing production methods located in the UK employing UK workers.

3.5 Unite believes it is vital that government recognise the existing important partnership between UK industry, academia and government. This tri-partite approach originally enshrined as part of the Defence Industrial Strategy provided for a stable, effective and pragmatic approach to R&D and academic and industry joint working which has facilitated a number of highly lucrative export products, especially in the Space sector.

3.6 Government has made it clear that this process is to be reviewed and it is vital that government recognises the important role the DIS played in ensuring the critical aerospace technologies required to ensure both UK competitiveness in the future global markets and assisting industry to meet the ambitious environmental performance targets of the aviation industry are met.

3.7 These targets could not have been achieved without the technological research and development provided by the defence industry. The symbiotic link between the two sectors; defence and civil aerospace is profound and for the UK to maintain its formidable position regarding technological prominence

in 'power and lift' the awarding of government contracts to the defence sector is crucial.

3.8 Unite also believes that one of the major objectives of the defence sector is to identify the technologies and capabilities that must be embedded within the UK supply chain to ensure its long term competitiveness and to contribute to the sustainability of the defence sector in the UK. To ensure the UK retains its ranking of number two in the world in an increasingly globalised market the sector will need to be at the forefront of innovative technologies and processes. To ensure this happens government will have to acknowledge its investment role in the process and ensure that the sector does not end up becoming one of the ghosts of UK manufacturing.

4. Investment and procurement

4.1 Unite believes the Defence Industrial Strategy and the Defence Technology Strategy (DTS) were both appropriate ways for the UK defence industry and the workers within the industry to enjoy a strategic long term vision for the future of the sector. This agreement put paid to the previous years of boom/bust industrial procurement strategy which created serious capability issues for the armed forces and meant a loss of jobs, skills and investment in R&D for the sector. The strategy was also formulated with the intention of ensuring that the UK armed forces are provided with the equipment they require on time and at the best value for money.

4.2 The DIS achieved an enviable goal in ensuring that there was a secure procurement strategy for the industry with stability and job security for the workers in the industry, providing the equipment and services the armed forces need. The procurement process also facilitated a more open, transparent and rigorous purchasing system.

4.3 Unite welcomed the introduction of this system as it replaced an outdated system of competitive contracting which was open to corruption and blatant discrimination. The DIS gave the defence industry in the UK a more stable and considered opportunity to be awarded MoD contracts. Under the terms of the DIS companies and trade unions agreed a system of re-structuring and mergers which has ensured the industry is now leaner, works more effectively and there is less duplication of work. DIS was fully dependent on all the stakeholders working together on agreed common aims and goals. The agreement was a first for the UK defence industry and Unite believes the agreement has proved to be a very successful strategic approach to contracting.

4.4 Unite agrees that a realistic look at the procurement process from the contracting side is overdue, especially in relation to the real problems around the delays in the MoD awarding contracts, which has cost the UK tax payer billions. There has to be an acknowledgment that these delays are what have brought about the high level of cost of the defence budget in the UK in a way which is not helpful to the industry and throws a smoke screen around the economic importance of the industry to the UK tax payer. The large tier 1 companies have consistently offered to sit down with the MoD to discuss

controlling costs and more productive ways of working but the MoD have declined this offer.

4.5 Government has clearly indicated in the green paper that it is looking for a shift towards purchasing more defence related products off-the-shelf. While this in itself looks like a sensible financial decision the long term economic reality of buying off-the-shelf could not be farther from the truth and invariably this is due to the costs of the modifications needed to ensure the off-the-shelf products are fit for purpose. An example of this is the MoD purchasing of the Chinook Mk3 helicopters, commissioned by the Conservative government of the time.

4.6 The eight Chinooks were bought from Boeing in the 1990's and the MoD chose not to purchase the software codes needed to fly the machines as it was seen as being more cost effective to buy off-the-shelf then install separate software from another supplier. The MoD was warned by Boeing that software integration in a machine as complex as a Chinook helicopter would be a major challenge. As a consequence of this decision the costs have been immense, financially and, more importantly, on the impact that the loss of this capability has had in the field of conflict.

4.7 The cost in 2001 was £259 million and because of the software issues the helicopters were 'mothballed' until 2004. With the onset of the Iraq war and with a Labour government in power it was recognised that something had to be done about the helicopters, as a consequence 14 years after the initial commission they are now in service but the cost to the Treasury and the UK tax payer is unprecedented. Unite believes this type of over run should never happen again but is concerned that the MoD and government have short memories.

4.8 There has been an explicit cross party acknowledgement that there must be a more balanced economy in the UK. The last recession showed that the UK cannot exist on a service based economy alone. Government must consider this when making decisions about its role as a procurer of defence products produced in the UK, and the continued of government investment required to 'pump prime' growth and technological advancement. There are also much wider issues which government must review in relation to defence spending. The holistic nature of manufacturing in the UK cannot be underestimated and this includes its impact on the economy and the balance of trade.

5. Skills and training

5.1 The defence industry in the UK has a tradition of high level skills requirement with over 30% of employees educated to degree level and more than 11% involved in research and development. Unite believes the success of the defence industry in the UK is largely to do with the highly skilled workforce which has been developed over a number of years. However, there are serious skills shortages in the sector which need to be addressed.

5.2 New technology can take around fifteen years to develop from scientific theory to final product application and the knowledge, experience and skills of the workforce have an important role in ensuring the products and services within the sector are achieved. If there is a failure to develop world class technology this will have a serious impact on the future of the defence sector and ultimately the wider manufacturing sector in the UK.

5.3 Unite believes the future needs of the industry are weighted towards higher level skills to meet the new levels of technological change. The future success of the defence sector will be dependent on the continuing development of a highly educated, highly skilled and experienced workforce. The future of the sector is also dependent on the recruitment of apprentices to fill the skills shortages inherent in a sector with an aging workforce. John Hayes MP, Minister for Further Education, Skills and Lifelong Learning said 'this government understands that practical and technological education in fields like engineering is critically important to our economy'⁷.

5.4 Unite believes this is a noble sentiment but wonders if the Minister and others in the Cabinet understand the virtuous circle involved in manufacturing, that if there are no companies in the UK undertaking manufacturing work then the skills, experience and knowledge of workers in sectors like defence will be lost forever. The work will go abroad and will never return to the UK. It is all very well that government has pledged to invest in an extra 75,000 apprenticeship places a year, but if companies are forced to move their manufacturing operations abroad because of decision made by this government, there will not be any jobs for the apprentices when they are time served.

5.5 Another of the crucial elements government must consider in its decision making process is the success of UK defence manufacturing and the collaborative work undertaken by industry and academia. This work is vital in ensuring that the UK retains its technological advantage and continues with the R&D necessary to ensure intellectual property remains in the UK. There are a number of successful science to business collaborations aligned to the aerospace and defence sectors, such as, the Roll-Royce University Technology Centres, the Advanced Manufacturing Research Centre and the Centre for Fluid Mechanics Simulation. These provide excellent vehicles for collaborative research between different sectors and yield associated technology transfer benefits to other manufacturing sectors.

6. National security and sovereignty

6.1 Government makes it clear in the green paper that they see defence equipment, support and technology as a key element of ensuring the maintenance of national security capabilities. The two strands in this capability are operational advantage and freedom of action. Government makes it clear that 'obtaining and maintaining any operational advantage inevitably requires investment, often long-term in nature'⁸ in this statement

⁷ Waging the skills war, Engineering Apprentice, page 26.

⁸ Equipment, Support and Technology for UK Defence and Security, page 15.

Unite believes government is clearly being either disingenuous or downright perverse. All stakeholders in the defence industry have made it clear that government investment is one of the key strands which makes the defence sector in the UK second in the world, and one of the leading exporters in the UK.

6.2 Unite believes government is currently making decisions about defence expenditure wholly based on cutting public sector expenditure rather than employing a more pragmatic approach and recognising the wider economic importance of the sector and focussing on reducing waste and bad project management. A way of achieving this is to work with the big tier 1 companies to achieve a leaner, more focussed and more strategic approach to the contracting process.

6.3 Sovereignty has always been a key issue for the UK defence industry and more importantly any UK government. Unite has consistently stated that UK sovereignty is predicated on the provision of excellent defence goods and services produced in the UK by UK based workers to ensure the UK armed forces have the goods and services they need. This cannot be achieved by buying products off-the-shelf from other nation states, then leaving them mothballed for decades because they are not fit for purpose as has happened in the past..

6.4 Government has indicated its pursuit of partnering agreements with other countries, notably those in the EU and in particular France. Unfortunately there has been no discussion or recognition about the protectionist strategies employed by other nation states. Unite has commented in previous submissions about the problems UK companies have experienced in being able to access procurement contracts for work in other EU countries.

6.5 An example of where collaboration was clearly one sided was the proposal by the UK government of the time that there should be a joint collaboration with France on the design of three aircraft carriers, two for the UK government and 1 for the French government. The proposal also investigated the possibility of sharing the manufacturing processes. While the French offered a costing for the manufacture of parts of the aircraft carriers destined for the UK, when the UK government approached the French about contracts for UK companies to manufacture parts of the aircraft carrier destined for France – mirroring the same work content as for French companies – the French government said the French aircraft carrier would be built using French companies only.

6.6 This exemplifies the problems the UK has with EU procurement. There is no 'level playing field' in Europe for procurement contracts and this will impact on defence products and services made for the UK market. The Wood review⁹ outlined in great detail the problems UK companies have encountered with procuring in Europe and also gave examples of where EU countries have blatantly flouted EU laws on procurement. It is this level of

⁹ See <http://www.ogc.gov.uk/documents/woodreview.pdf>

protectionism which has caused Unite to question the reality of government policy on defence procurement partnering and who this actually benefits.

6.7 The Space industry in the UK is the world leader in satellite technology. UK based companies manufacture sophisticated communications satellites and are developing the next generation of satellite navigation systems. Government seems to be under the impression that 'Space is an area where the UK has capability but also relies considerably on its allies'¹⁰. This statement shows how out of touch government is with what is happening with satellite technology.

6.8 The UK is home to the world's largest global satellite communications provider, Inmarsat. The company's newest generation satellite system – the Inmarsat-4 series – currently covers 85% of the world's landmass. These satellites are predominantly built in the Astrium factories in Stevenage and Portsmouth by UK based workers.

6.9 The UK has a unique capability around Space research and technology, as a consequence government must recognise that to ensure UK sovereignty and national security that government investment in satellite technology is vital. Any decisions to try to purchase off-the-shelf will mean a reliance on the USA. Previous government investment in Galileo was predicated on the uses the research could have for the defence industry, this is an excellent example of why government must continue to invest in UK companies, especially SMEs who are heavily involved in R&D and innovation for niche markets.

Unite recommendations

- Unite believes government must produce a defence industrial strategy before implementing further cuts to the defence budget.
- Unite believes government must revise its proposal to buy off-the-shelf defence products, evidence shows that off-the-shelf procurement ends up costing more in the long term due to the modifications required.
- Government must recognise the crucial role the defence sector plays in relation to the technological advancements achieved in the civil aerospace sector.
- Government must recognise the export potential of defence sector products is limitless, however cutting government investment in the sector will not only harm the industry but will also impact exponentially on export income for the Treasury.
- Unite believes that one of the key issues regarding cost over runs for the defence sector is the profligate waste produced by the MoD procurement and decision making process. These processes must be

¹⁰ OpCit, page 25.

reviewed and changed, with the success of the industry at the heart of any changes.

- Government must acknowledge the importance of the Space industry for the creation of technologically innovative, cutting edge research and development and the value added for the wider UK economy.
- Government must continue to invest in key capabilities such as broadband via satellite because the UK has a comparative advantage and is the foremost supplier of satellite equipment in the world.
- To achieve its commitment to the Lisbon Treaty it is vital government invests in excellent education and training policies to ensure the UK has a highly educated and highly skilled workforce for the future of the UK economy.
- Government must reinforce the statements it has been making about supporting advanced manufacturing in the UK by not making further cuts to the defence sector budget and by creating investment opportunities that will help the manufacturing sector in the UK to flourish.

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