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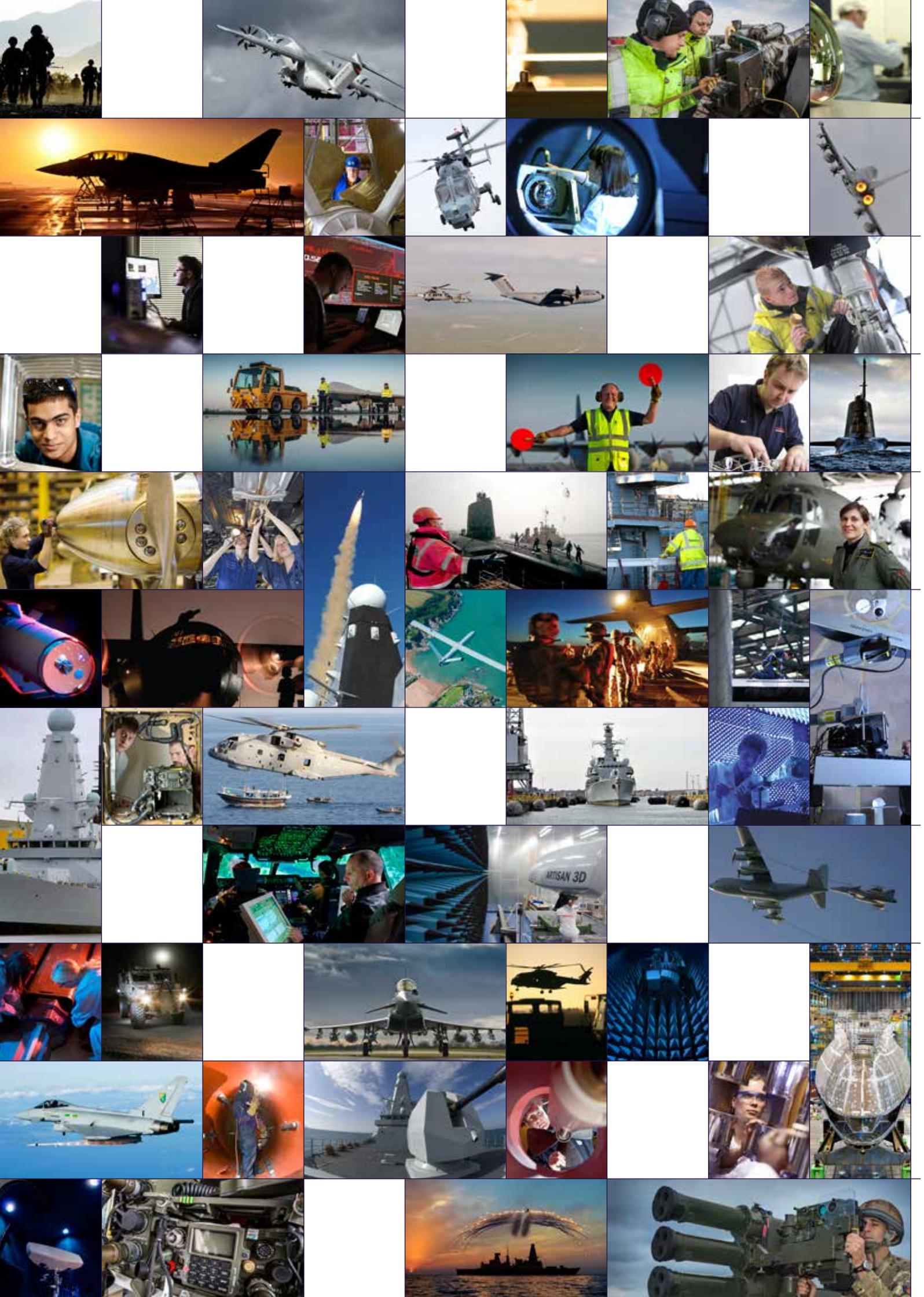
Delivering Growth

Implementing the strategic vision for the UK Defence Sector



Defence Growth Partnership

Government and Industry working together to meet the needs of customers around the globe



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Prime Minister's Foreword



Britain's defence industry plays a vital role in protecting our country and ensuring our Armed Forces have the capabilities they need.

In the First World War, British engineering ingenuity developed the tank that helped end the stalemate in the trenches. In the Second World War, we designed and built technical marvels from the Spitfire to the floating harbours used after D-Day. And this month we named the new aircraft carrier HMS QUEEN ELIZABETH, the largest ship ever built in the UK which will form the core of our potent Carrier Strike capability.

Today in a world that remains as dangerous and unpredictable as ever an innovative defence industry remains central to our national security. And it is important for our prosperity too, employing over 160,000 people including 4,900 apprentices and trainees and generating an annual turnover of £22 billion with exports of over £9.8 billion in 2013. We should be proud that British defence industry is at the cutting edge. But we must not take it for granted.

Last September with industry we set out a vision for the future of the UK defence sector. The Defence Growth Partnership (DGP) recognises that to be successful we must work together. This shared investment in the industry's future is brought to life in the actions set out in this document. A UK Defence Solutions Centre in Farnborough. A Centre for Maritime Intelligent Systems in Portsmouth, investing in the city's maritime future. A trailblazing apprenticeship scheme offering Masters level apprenticeships in Advanced Systems Engineering. More industry expertise in government to work with overseas customers.

This comprehensive and ambitious package is just the beginning for the DGP. We share a long-term vision with industry for a UK defence sector that plays its part in our security, our growth and prosperity.

A handwritten signature in black ink, which reads "David Cameron". The signature is written in a cursive, flowing style.



Joint Foreword



Secretary of State for Business,
Innovation and Skills

The Rt Hon Dr. Vince Cable MP



Secretary of State for Defence

The Rt Hon Philip Hammond MP

“We welcome the Defence Growth Partnership as a bold new approach to improving the UK defence sector’s competitiveness in the international market.”

The DGP recognises the crucial importance of innovation and the nurturing of key skills in the defence sector, of playing to the UK defence industry’s key strengths and the value of international partnership and foreign investment. The DGP will help industry target investment in the equipment, technology and support customers are looking for. The Government is committed to playing a full and active part in helping set the framework for greater investment in the UK defence sector.

The Government supports business. It is also a major customer of the products and services developed by the UK defence industry. In delivering the best capabilities we can afford for our Armed Forces, the Government is committed wherever possible to fulfil the United Kingdom’s defence and security requirements through open competition in the global and domestic market. This policy is at the heart of the 2012 National Security through Technology White Paper, which also recognises that a healthy and competitive defence industry makes a significant contribution to developing

and sustaining key defence capabilities, as well as to export-led growth and a re-balanced economy. The DGP provides the opportunity to maximise the opportunities for British Business and enable them to offer innovative and competitive solutions for our Armed Forces as well as customers around the globe.

Reinforcing defence export success is a key goal for the DGP and for the Government more widely. We are committed to do our utmost to assist UK-based suppliers in obtaining export orders. We are creating opportunities for export potential to be built early into our own equipment and support requirements. And we are increasing opportunities for small- and medium-sized enterprises. Through the DGP we are both determined to promote competitiveness, innovation and a strong international customer focus across the defence sector. And we are equally determined, including through our work together in the Ministerial Working Group on Defence and Security Exports, to continue our strong support for responsible defence exports.



DGP Leadership

Michael Fallon MP, Co-Chair, Minister of State for Business and Energy



The DGP provides a collaborative environment for the collective effort of Industry and Government to focus on making the UK defence industry more competitive; support SMEs and encourage inward investment; and grow the thousands of high-value

jobs supported by defence companies throughout the UK. Investing in innovation and technology is essential to keep us at the forefront of future growth, building on the UK's world class science and academic base. We are committed to inspiring the next generation of engineers, scientists and manufacturers, so that we have the highly skilled workforce necessary to meet the challenges of the future.

Steve Wadey, Industry Co-Chair



Working in partnership, Government and Industry have developed the DGP implementation plan to secure a thriving UK Defence Sector delivering security, growth and prosperity for our nation. Together, we have developed a coherent set of changes to improve the

conditions for future success of the UK Defence Sector, strengthening global competitiveness and bringing substantial economic benefits to the UK. Industry is committed to investing in the skills and industrial capability for the future, demonstrated by the breadth of industrial collaboration and the unprecedented level of support to the DGP.

Philip Dunne MP, Minister of State for Defence Equipment, Support and Technology



The Defence Growth Partnership builds on the National Security Through Technology White Paper, by creating a cooperative environment that allows the UK defence sector to be stronger, more competitive, and more responsive to customer needs at home and abroad. By leveraging the technical expertise where UK

industry already provides battle-winning capability to our Armed Forces and reaching into the highly innovative UK value-chain, including SMEs, we can ensure that the UK is even better placed to compete in the global defence market and remain at the cutting edge of technological innovation. I believe this package will help create the right conditions for the UK to maintain a vibrant, successful and world-class defence sector for decades to come.

Industry Commitment

Industry is committed to the implementation plan of the Defence Growth Partnership to ensure the UK's Defence Sector grows in the future by strengthening global competitiveness, maximising UK capabilities and technologies, leveraging the UK's value chain and inspiring the next generation. Working in partnership with Government, the DGP can make a material difference to the sector's investment decisions and the future of the UK as a globally competitive home for the Defence Sector.

Robin Southwell
Chief Executive Officer
Airbus Group UK



Allan E Cook CBE
Chairman
ATKINS



Peter Rogers CBE
Chief Executive Officer
Babcock



trusted to deliver™

Paul Everitt
Chief Executive
ADS



Nigel Whitehead
Group MD Programmes & Support
BAE Systems



Bob Murphy
Chief Executive Officer
Cobham



Alberto de Benedictis
Chief Executive
Finmeccanica UK



Steve Rowbotham
Chief Operating Officer
General Dynamics UK



Uni i i i

Simon Fovargue
Vice President & General Manager
HP Defence UK



Stephen Ball
Chief Executive
Lockheed Martin UK



Stephen Fitz-Gerald
Chief Executive Officer
Marshall Aerospace & Defence Group



Steve Wadey
Managing Director
MBDA UK



MISSILE SYSTEMS

Leo Quinn
Chief Executive Officer
QinetiQ



Richard Daniel
Chief Executive Officer
Raytheon UK



Bob Stoddart
President Customer Business
Defence, Rolls-Royce



Duncan Mackison
Managing Director Defence
Serco Central Government



Victor Chavez
Chief Executive Officer
Thales UK





01

Executive Summary

OUR VISION

*The Defence Growth Partnership
will secure a thriving UK Defence Sector
delivering security, growth and prosperity for our nation.*

Delivering Growth

Strengthening our global competitiveness is at the heart of our economic recovery. The Government is working to support this through a more balanced economy, with increased trade and investment. Investing in skills, academia, research and technologies gives us a strong foundation for future economic success.

Why a Defence Growth Partnership?

The UK's Defence Sector delivers world-class defence products and services, which assure our national security and that of many defence partners around the world. With an annual turnover of £22 billion¹, with exports of over £9.8 billion last year², the Sector also brings significant economic benefit to the UK.

The UK's world-class technology, skills and academic base underpins the Defence Industry's ability to design and manufacture highly-sophisticated products and services, directly employing 162,400 people in high-skill, high-value jobs³.

The global defence market is highly dynamic, with customer needs changing as quickly as the threats and the technology to address them. British companies are facing increased competition from new and existing

rivals. As defence spending in some markets stabilises or decreases and other markets expand and emerge, the UK Defence Industry needs to enhance its competitiveness.

Competitive advantage is vital to the long-term success of the Sector in the global market. The UK Government insists on the best value capabilities we can afford for our own Armed Forces, secured through competition, which is why we need thriving, innovative and highly-efficient suppliers, as described in the 'National Security through Technology' White Paper⁴.

Building on our strengths in Air Capabilities and Intelligent Systems, there is a great opportunity for the UK to secure export-led growth from the forecast global defence spending in these domains, estimated to be £82 billion per annum over the next eight years⁵.

Government and Industry have a shared goal to maintain and grow our position on the international stage. To achieve this shared goal, Government and Industry resources will be aligned to deliver a new way of engaging with the customer and to drive investment in research and development.

1. ADS (2014), UK Defence Sector Overview

2. UKTI DSO (2014), Defence Export Figures 2013 – Released 8 July 2014

3. ADS (2014), UK Defence Sector Overview

4. National Security through Technology: Technology, Equipment and Support for UK Defence and Security, Cm 8278 (2012)

5. Frost and Sullivan (2014), Report to DGP, based on markets open to UK defence exports



The strategic vision for the DGP was set out in ‘Securing Prosperity’⁶. From this strategic vision the DGP has developed the following core objectives to:

- Grow the UK’s global market share, through increased exports
- Foster greater collaboration and innovation across the Sector, bringing products and services to the market that meet customer needs
- Improve competitiveness through the whole value chain.

The DGP has developed an implementation plan to deliver these objectives.

Working Together

Establishing a **UK Defence Solutions Centre (UK DSC)** in Farnborough will create a step change in how the UK Defence Sector works. The UK DSC will be a new independent entity, bringing together the best minds from across Defence in a pre-competitive collaborative space to create innovative and world-beating products and services that meet the needs of customers around the globe, including the MOD. To do this it will develop game-changing strategic capability, technology and skills road maps that will guide future investment decisions and improve the UK’s competitive advantage.

Strengthening **UKTI Defence & Security Organisation (UKTI DSO)** with additional resources from Industry will improve the understanding of customer needs in the short, medium and long-term. We will work together to prioritise the highest value opportunities, leading to the setting up of joint teams overseas in key strategic markets.

Strengthening Industry’s Capabilities

Improving competitiveness of the **Value Chain** through pioneering methods for collaborative working, creating new investment models and maximising access to intellectual capital across the value chain, including Small and Medium sized Enterprises (SMEs) and Academia.

Investing in **Technology** will enhance competitive advantage through a systematic and co-ordinated approach to exploiting emerging technologies. Based on the UK DSC road maps, we will more effectively focus investment in technology to rapidly develop products and services that meet customer needs.

Building **Skills** for the future through a new **Defence Apprenticeship Trailblazer** will attract new graduates to the Industry as well as up-skilling the existing workforce. This Trailblazer will develop a new Masters level standard in Advanced Systems Engineering, a critical skill to deliver competitive advantage.

Launching Growth Opportunities

As a first step we will launch initial growth opportunities that build on our two identified national strengths.

In **Air Capabilities** we are initially prioritising studies on the future of Unmanned Air Systems and Synthetic Operational Training.

In **Intelligent Systems**, in the maritime domain, we will launch a **UK Centre for Maritime Intelligent Systems (CMIS)** based in Portsmouth including an initial programme for a Maritime Autonomous Systems Demonstrator. We will also prioritise initial studies on Airborne and Land Mission Systems.

6. DGP (2013), Securing Prosperity



Driving Forward

Work is already underway to put our implementation plan in place before summer 2015, with Government and Industry aligning resource equivalent to £30 million over the next three years to build momentum.

With Government and Industry jointly committed to delivering these measures, the DGP has a unique opportunity to secure a thriving UK Defence Sector delivering security, growth and prosperity for our nation.

OUR IMPLEMENTATION PLAN

UK Defence Solutions Centre

A new collaborative environment to identify innovative and tailored solutions

UKTI Defence & Security Organisation

Strengthened focus on the needs of customers around the globe

Strengthening Industry's Capability

*Developing the **Value Chain**, investing in **Technology** and building **Skills** for the future*

Launching Growth Opportunities

*Building on our national strengths of **Air Capabilities** and **Intelligent Systems** including launch of a **UK Centre for Maritime Intelligent Systems***

Driving Forward

£30 million commitment to mobilise the DGP over the next three years, operating fully by mid 2015



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Why a Defence Growth Partnership?

A GLOBAL ECONOMIC RACE

- The UK Defence Sector generates over £22 billion in turnover annually, including an average of £6.5 billion per annum in exports
- The UK is facing fiercer competition in defence exports, but is well placed to respond to this challenge
- There is a greater drive for cooperation with allies and defence partners around the world

A Vital Sector

The Government is working hard with Industry across a range of sectors to support a growing and more balanced economy, with increased trade and investment. Investing in skills, academia, research and technologies gives us a strong foundation for future economic success.

In line with this goal, the DGP will secure a truly competitive, sustainable, and globally successful UK Defence Sector that continues to deliver world-class capability to the Armed Forces as well as wider economic benefits to the UK.

The Sector is vital to both national security and the UK economy. It generates annual revenues of over £22 billion⁷, including exports worth £6.5 billion per annum on average over the last decade⁸, whilst directly employing 162,400 staff in the UK and sustaining a further 114,200 jobs through the supply chain⁹.

The UK Defence Sector is renowned for developing world-class capabilities across the full range of defence products and services, and benefits from the excellent reputation of the UK's Armed Forces as a customer, widely acknowledged internationally as demanding high standards of performance, value and reliability.

Many of the large companies that supply the UK's defence needs, however, are also transnational in outlook and therefore have choices about where they invest. We must ensure that the UK continues to provide a unique environment for Industry in the Defence Sector¹⁰.

The economic value of the Defence Sector to the UK depends on maintaining the UK's competitive advantage. As identified in the UK Government's 'National Security through Technology' White Paper, we need a thriving, innovative, efficient and competitive UK Defence Industry, making a significant contribution to developing and sustaining key defence and security capabilities, while delivering export-led growth and contributing to a rebalanced economy¹¹.

The UK Government continues to be a major defence customer and has a wider agenda to support export-led growth. The challenge for the UK Defence Sector is to find new means of delivering innovative solutions that will guarantee success in increasingly competitive global markets.

7. ADS (2014), UK Defence Sector Overview

8. UKTI DSO (2014), UKTI DSO Defence Export Figures 2013

9. ADS (2014), UK Defence Sector Overview

10. NSIT (2012), page 47 para 152

11. NSIT (2012), Page 9 para xii



Changing Customer Needs

As defence spending in some markets stabilise or decrease and other markets expand and emerge, the UK Defence Industry needs to adapt and respond. Current UK exports represent £9.8 billion of the global market opportunity¹², but maintaining this becomes more challenging as international competition builds.

The UK is facing fiercer competition in export markets both from established players and new entrants. Countries faced with constrained investment at home are becoming more active in the international market place.

Customers' needs are also changing. Technology is driving new solutions and there is a greater drive for cooperation with UK allies and defence partners around the world, including the US and France¹³. Defence exports help develop, build, and enhance bilateral relationships and defence cooperation. Working with defence partners to build their defence capabilities allows us to contribute to their national and regional security in ways which also help the UK's security interests¹⁴.

Governments are increasingly leveraging major defence acquisitions to support national development and industrial plans. Customers are often seeking tailored or integrated solutions supported by the UK Government with the provision of technology transfer, inward investment and local partnering from the UK. Industry and Government need to strengthen relationships with global customers including in the research, development and support of defence capabilities.

Investing in Competitive Advantage

To address these challenges, Government and Industry are working in partnership to secure a thriving Defence Sector that can compete successfully on the world stage, exceeding customer expectations, with the highest ethical and export control standards, delivering security, growth and prosperity for the UK.

Government and Industry have a shared goal to maintain and grow our position on the international stage. To achieve this shared goal, Government and Industry resources will be aligned to deliver a new way of engaging with customers around the globe and to drive investment in research and development.

“Globally, the defence environment is highly dynamic, driven by a shifting economic and political environment. The DGP is the UK’s response to these global changes, reshaping the way we work to ensure the UK’s Defence Industry succeeds in the future.”

Paul Crawley, DGP Strategy Team Chair



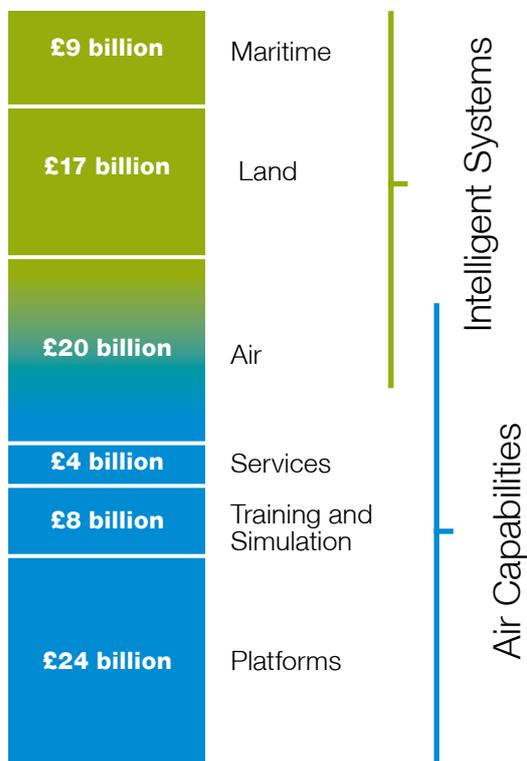
12. UKTI DSO (2014), UKTI DSO Defence Export Figures 2013

13. NSIT Page 39, para 126

14. NSIT Page 51, para 168



FORECAST GLOBAL SPEND



£82 billion per annum¹⁶

Global Opportunities

The UK has strengths in Air Capabilities and Intelligent Systems on which to build future success¹⁵. Market analysis indicates forecast global defence spending in these domains of £82 billion per annum over the next eight years¹⁶. To access these markets, however, we must develop innovative and tailored solutions that meet our customers' needs.

Objectives

The strategic vision for the DGP was set out in 'Securing Prosperity'¹⁷. From this strategic vision the DGP has developed the following core objectives to:

- Grow the UK's global market share through increased exports
- Foster greater collaboration and innovation across the sector, bringing products and services to the market that meet customer needs
- Improve competitiveness through the whole value chain.

These objectives will create a truly competitive, sustainable, and globally successful UK Defence Sector providing affordable leading-edge capability and through-life support for our Armed Forces and international customers, whilst delivering wider economic benefits to the UK.

"I see DGP being a power house for sparking innovation, responding to the next generation of high technology challenges we face in defence, and developing leading-edge technologies, products and services."

Bernard Gray, Chief of Defence Materiel, MOD

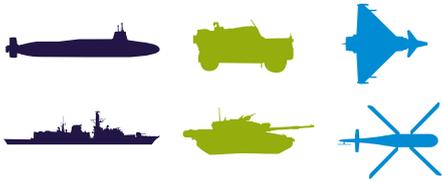


15. Defence Growth Partnership (2013), Securing Prosperity: A Strategic Vision for the UK Defence Sector

16. Frost and Sullivan (2014), Report to DGP, based on markets open to UK defence exports

17. DGP (2013) Securing Prosperity

HMG Investment in Defence
Technology, Equipment & Support



£16.4BN
PER YEAR

Average over next 10 years



162,400

Directly employed
by Defence Sector



114,200

Indirectly employed
by Defence Sector

£22BN
PER YEAR



in Turnover

UK Defence Export Sales

£6.5BN
PER YEAR



Average over last 10 years

More than

4,900



Apprentices and trainees directly employed by the sector



£8.2BN
PER YEAR

Gross value added to the economy



03

Working Together

INDUSTRY AND GOVERNMENT CAN MAXIMISE DEFENCE EXPORTS BY WORKING CLOSELY TOGETHER

- The **UK Defence Solutions Centre (UK DSC)** will be established as a new collaborative working environment to identify innovative and tailored solutions to meet the needs of customers and determine road maps to guide future investment decisions and improve competitiveness
- **UKTI Defence & Security Organisation (UKTI DSO)** will be strengthened to focus on and prioritise the needs of customers around the globe in the short, medium and long-term, working closely with the UK DSC

How we will Work Together

Stronger cooperation is the key to successful growth in the UK Defence Sector: both cooperation within Industry and cooperation with the Government. Only through working together will we achieve the competitive advantage, the innovation and the strong international focus required to succeed in the global market. The DGP will create the structures necessary to deliver this new way of doing business. It will work to bring Government and Industry together at the highest level and seek to broaden and deepen our engagement across the whole sector.

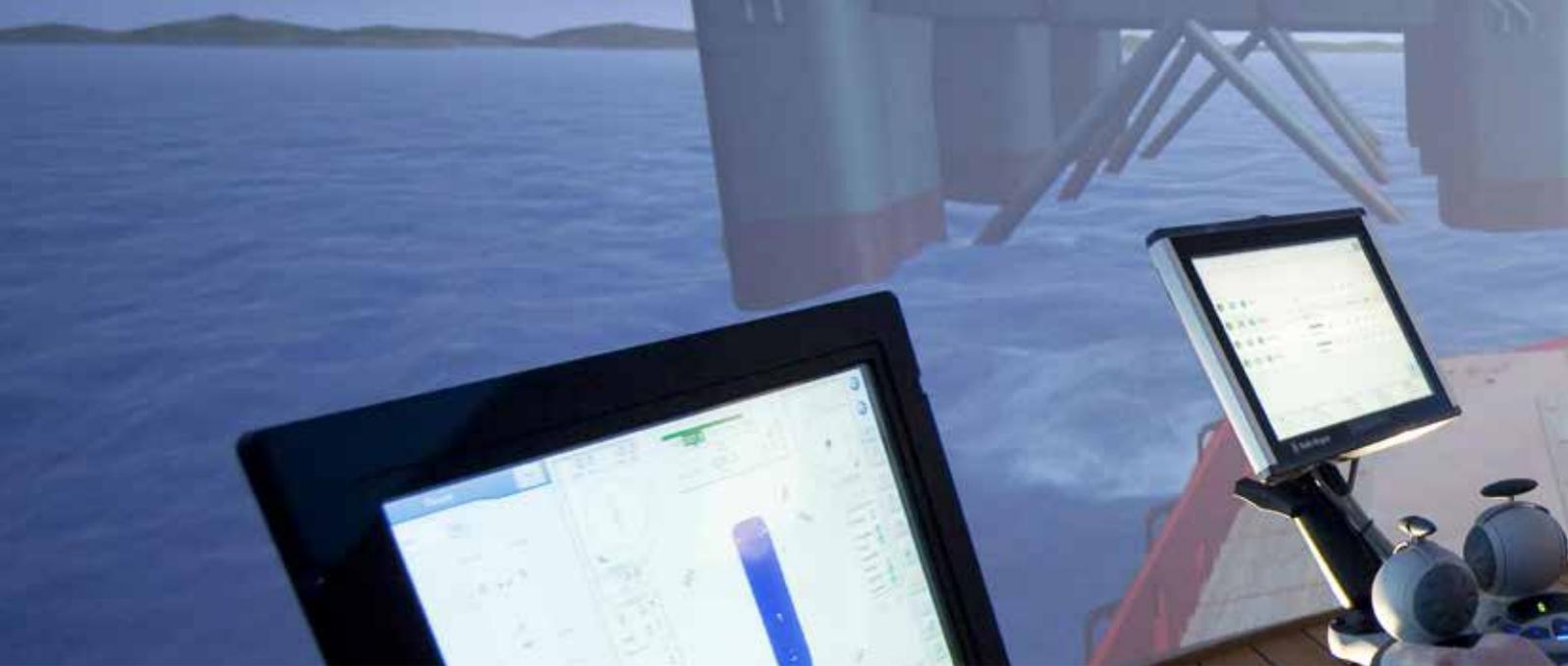
The DGP will deliver through four key elements: the DGP Steering Committee, the UK Defence Solutions Centre (UK DSC), the Customer Advisory Group (CAG) and the UKTI Defence & Security Organisation (UKTI DSO).

The **Steering Committee** of the DGP will include representatives from Government and Industry, including SME representation. This committee will be responsible for setting the strategic direction of the DGP and agreeing the broad parameters of support from Government and Industry.

The **UK DSC** will be a new independent entity, bringing together the best minds from across defence in a pre-competitive collaborative space to create innovative and world-beating products and services. To do this it will develop and assess game-changing strategic capability, technology and skills road maps that will deliver the UK's required competitive advantage. The DGP Steering Committee will oversee the new UK DSC to ensure alignment.

The **Customer Advisory Group** will provide an open interface with all customers to understand their future needs and requirements. To respect policy and regulatory requirements, including open competition, MOD engagement with the UK DSC will take place through the CAG.

A strengthened **UKTI DSO** will be the primary means of consolidating Government-Industry cooperation on the promotion of UK defence exports. A UKTI DSO Industry Liaison Board will be established to ensure Industry and Government work more closely together. Industry will play a key role in UKTI DSO through closer involvement in the defence exports prioritisation process, in market analyses and by providing resources overseas to better understand customer needs.



UK Defence Solutions Centre

Collaborating on Strategic Planning

Currently, individual defence companies carry out strategic capability and technology planning in isolation. Creating the UK Defence Solutions Centre (UK DSC), based in Farnborough, will enable the UK Defence Sector to develop a coherent and holistic approach to investing in the products and services needed globally. As an independent organisation jointly resourced by Government and Industry, the UK DSC will be accessible to all UK companies and be open to engagement with all customers around the globe.

The UK DSC will have a stronger focus on identifying innovative and tailored defence capabilities specifically for international customers, building on the UK's reputation for delivering to high standards of performance and reliability. This requires new approaches to investing in research and development.

The UK DSC will operate in an independent manner, consisting of a physically co-located 'hub' based in Farnborough, with a permanent central core and experts drawn from Industry.

Global Focus

The UK DSC will act as a centralised coordinating, collaborative and strategic planning function for Industry, providing a coherent view of future requirements. It will focus on the pre-competitive phase, looking out across a 15-year horizon to understand customers' long-term requirements, and use this to help shape future products and services, leveraging the UK's world-class defence capability, technology and skills.

To meet the challenges of a changing economic and acquisition environment, new business models will be developed to secure the investment needed to pull research and development through to market.

A strong link with the customer is required, so the UK DSC will work closely with UKTI DSO and be further informed through a Customer Advisory Group, inviting customers from around the globe, including UK MOD, to explore future needs and requirements. The UK DSC will facilitate engagement with customers who are keen to explore defence relationships with the UK Defence Sector.

"The DGP is set to change the way the UK focusses on innovative solutions to meet defence needs globally. Fundamental to this will be the UK DSC. It will be a vital capability for success in the ambitious aims of the DGP."

Graham Chisnall, Deputy Chief Executive, ADS





The UK DSC will also spearhead a range of activities designed to stimulate engagement with the entire UK value chain to maximise the potential of the existing research and development and manufacturing support across the UK, potentially drawing on virtual or physical elements in the UK industrial infrastructure to leverage expertise and capability. It will also address cross-cutting actions and common enablers needed to improve competitive advantage and maximise export success.

Developing Road Maps

An important part of capability planning will be the development of capability and technology road maps founded on customer needs and focused on the UK's significant strengths in the Air Capabilities and Intelligent Systems domains.

Based on enhanced market intelligence from UKTI DSO, road maps will be created that take short-term and long-term opportunities and provide a route to develop coherent and complete solutions covering capability, technology, services, skills and regulation development, potentially broadening capability offerings, and helping realise export opportunities. From these, business cases for investment in specific growth opportunities will be developed.

NEXT STEPS

End 2014

- Develop detailed operating model for UK DSC
- Create charter defining behaviours and commitments for participation in the UK DSC
- Develop transition plan to migrate current DGP project activities to UK DSC including transition management
- Develop descriptions of key UK DSC roles and start selection process
- Define and agree legal, commercial and financial frameworks for creation of jointly owned and shared plans and strategies

Mid 2015

- Fully operational UK DSC with focus on interaction with UKTI DSO and priority activities e.g. strategic road maps supporting initially identified market-led opportunities, and enablers exploiting current systems.

“The success of DGP depends on finding the right construct for companies to work together, with Government support, to deliver export-led growth.”

Susanna Mason, Director General Commercial, MOD





UKTI Defence & Security Organisation

Leading Role

Industry must adopt a stronger focus on designing and developing defence capabilities specifically for customers around the globe. This requires better understanding of customers' long-term needs and a more collaborative approach to developing capabilities.

To do this, Government and Industry will build on the significant activity already underway to sustainably grow the UK's defence exports. To maximise the potential economic benefits from this, a central priority is to strengthen the role and capabilities of UKTI's Defence & Security Organisation (UKTI DSO), as the leader of Government defence export efforts.

Wider Perspective

Particular attention will be given to increasing the depth and quality of market intelligence to improve understanding of customer needs, and developing greater collaboration between UKTI DSO and Industry in identifying opportunities for the UK to develop new solutions.

A strengthened UKTI DSO will enhance the UK's ability to identify and prioritise investment in UK capability to grow defence exports and will consist of three elements:

- Enhanced market intelligence
- Industry involvement in prioritisation of opportunities
- Additional Industry resource in strategic markets.

Improved Insight

Greater coordination, cooperation and information sharing will enhance the quality of short, medium and long-term market intelligence, and therefore increase the probability of export success for UK Industry.

It will deliver a step change in the quality of information held by Government and Industry by bringing together Industry analysis and market intelligence gathered by UKTI DSO. It will also provide better information to the MOD to allow for the alignment of international customer requirements and UK MOD needs at an early stage in the development cycle.

"Strengthening our collective understanding of customers' needs, and jointly prioritising our efforts toward meeting those needs, will bring significant benefits to the UK's customers and enable us to sustain a world-class value chain capable of delivering cutting edge technology and services."

Peter Rogers CBE, DGP International Business Team Chair



Working through a new UKTI DSO Industry Liaison Board, a joint market analysis team will be established to gain improved insight on both current customer needs and long-term strategic trends.

Prioritised

Building on the enhanced market intelligence and existing prioritisation activity, Government and Industry will work through the UKTI DSO Industry Liaison Board to prioritise the highest value opportunities for UK defence exports, be these in established or growing markets. We will develop engagement strategies to maximise the UK's understanding of, and ability to meet, customer needs.

Stronger

This prioritisation will include determining those customers and markets that would benefit from additional Industry resource working more closely with Government and leading to the setting up of joint teams overseas in key strategic markets.

Placing additional Industry resources overseas will help UKTI DSO develop strategies for priority markets, and maintain its overview of current and future opportunities for the UK Defence Sector. This will better enable UK Industry to meet multiple customer needs over time.

NEXT STEPS

End 2014

- Launch UKTI DSO Industry Liaison Board
- Finalise operational design of joint Industry and Government Market Analysis Team
- Develop transition plan and appoint a strengthened UKTI DSO transition manager
- UKTI DSO Industry Liaison Board to agree those strategic markets where initial business cases for additional Industry resource should be created
- Develop performance baseline for measurement of strengthened UKTI DSO's future performance

Mid 2015

- Strengthened Market Analysis Team in place
- Business cases for first Strategic Market Teams agreed by the UKTI DSO Industry Liaison Board and teams launched
- Interaction with fully operational UK DSC

"The UK has a world class Defence Industry. The Defence Growth Partnership will take Industry and Government co-operation to a new level in order to sustain this. The UKTI Defence & Security Organisation is proud to be playing a leading role in enhancing the UK's already strong position in Defence export markets."

Richard Paniguan CBE, Head, UKTI Defence & Security Organisation





04

Strengthening Industry's Capabilities

INVESTING IN THE UK'S DEFENCE INDUSTRY TO ENHANCE COMPETITIVENESS

- Harness the power of the value chain to deliver growth in the Defence Sector
- Focus investment in technology and its faster application in defence
- Invest in the skills we need, creating a new Defence Apprenticeship Trailblazer and inspiring the next generation of engineers

Building on our Strengths

The UK Defence Sector's strength is a result of prolonged and continuous investment in skills, technology, science and innovation, which is harnessed by companies large and small across the UK. This investment underpins the UK's competitive advantage and current success in the international market. But maintaining our competitiveness in a changing market requires continuing investment in research and development and in skills.

Value Chain

The UK defence value chain is an ecosystem that, when harnessed effectively, will be the source of future growth and competitive advantage, leveraging the entrepreneurship, innovation and problem-solving capabilities that underpin the UK's position in the international market. Focusing the value chain on defence growth objectives and identifying synergies with adjacent industrial and technological fields will be a key accelerator for growth, both through the prime contractor companies and through direct access to market.

We will work across the whole value chain to maximise the opportunities for companies large and small to collaborate, to access existing support mechanisms and to fulfil their export potential.

Technology

Building on the world-class science and academic base in the UK, the DGP will support the UK Defence Industry with long-term planning and collaboration. We will identify emerging technologies, focus investment more effectively, and rapidly pull research and development through to deliver new products and services that meet customer needs.

Skills

A highly skilled, educated and flexible workforce is the powerhouse of UK defence companies. Better skills will provide the means to keep us at the forefront of future growth. We are committed to investing in up-skilling the existing workforce and inspiring the next generation of engineers, scientists and manufacturers.



Value Chain

National Asset

The UK's defence value chain comprises all suppliers of equipment, support and technology for defence. It includes the enabling functions of Government - ranging from test facilities to regulators - and the UK's strong academic and science base in universities, research bodies and technical institutes.

This is a profoundly capable resource but, by its nature, a disparate one. The DGP will harness the power of the value chain in a more coordinated way to enhance responsiveness, agility and competitiveness in meeting customer needs.

In addition to leveraging the existing value chain, we must maximise the synergies with other sectors and attract new companies into defence, particularly SMEs who can bring fresh thinking into the Sector but might otherwise struggle with market access.

In striving for this more coordinated approach, the DGP will focus on those enablers most likely to strengthen the collaboration, investment in and growth of our value chain. Enabling businesses, scientists, engineers, academics

VIEW FROM AN SME

"From an SME's perspective, the DGP offers a focused opportunity to help grow UK export markets under the umbrella of a Government and Industry endorsed strategy. It's all about forming 'Best of Breed' teams for the timely address of new and exciting high growth areas, such as Maritime Mission Systems. I suspect SMEs will particularly value the sector-wide market analysis and business development that is so often hard to do well as singleton organisations."



Dr Yoge Patel,
Chief Executive Officer,
Blue Bear Systems Research Ltd.

"Engagement from a broad base of participants is crucial to ensure that the DGP strategic vision becomes a reality and that all stakeholders understand its importance to the UK."

Bob Stoddart, DGP Engagement Team Chair





and regulators to work more coherently on problems and opportunities prioritised by the DGP.

Supporting Collaboration

Greater collaboration in the defence value chain will be supported by developing commercial and financial operating frameworks that create a basis from which companies can work together on developing the products and services that meet customer needs. The UK DSC will also work to ensure there is a coherent regulatory framework so that companies small or large, defence or civil focused, can bring their expertise to bear. It will support the creation of cooperative groups to improve market access and our capability and capacity to deliver more competitive export offerings.

Enhancing Competitiveness

Across the UK a network of support and infrastructure already exists to help UK business to improve competitiveness and bring new products and services to market. The DGP will help UK defence companies exploit these assets more effectively, for example by drawing on the support of the Manufacturing Advisory Service or accessing the UK Catapult Network¹⁸ the UK's world-leading technology and innovation centres to help businesses transform ideas into new defence products and services.

Many customers seek industrial participation as part of defence trade, through technology transfer, inward investment and local partnering from the UK. The DGP will work with the value chain, utilising the combined knowledge, experience and assets of Industry and Government to improve our approach to meeting these customer needs, increasing our competitive advantage.

NEXT STEPS

End 2014

- Define regulatory, commercial and financial frameworks working with the UK DSC
- Work with the value chain to create new initiatives to improve collaboration and increase capacity in strategically important capabilities

Mid 2015

- Bring together and align Industry and Government to improve the UK's management of international industrial participation
- Develop a business case to launch a pilot to improve access for SMEs in the export market (for example in cooperative groups)

“By working together the Defence Growth Partnership will unlock the assets of the UK value chain, building on our already world-class engineering and support solutions in the air, at sea and on land.”

Steve Fitz-Gerald, DGP Value Chain Competitiveness Team Chair



18. <https://www.catapult.org.uk/>



Technology

Investment in Technology

The UK’s strong science and technology base gives us a competitive advantage, but to capitalise on this and continue to generate leading-edge capabilities we must continue to invest. The UK, like the rest of Europe, has seen a decline in defence research and development spending over the past decade^{19,20,21}, yet the Armed Forces at home and in partner nations face increasingly complex threats.

Identifying technologies at a formative stage, supporting their development to meet customer needs and then driving them to market as quickly as possible, are key to exploiting the new technologies that are being developed all the time. By collaborating we can do this more effectively. It takes the collective and inclusive effort of university research departments, SMEs and the laboratories of major firms, both within the Defence Sector and beyond, to identify, develop and integrate these novel technologies.

Technology Road Maps

The exploitation of emerging technologies needs to be systematic and coordinated. The UK DSC will use

the enhanced market intelligence provided by UKTI DSO to assess the current and future strategic market demand in technology and capability, which will drive the development of road maps.

Technology will be a central part of the road maps, which will focus on how technology translates into market-winning products and services and identifying the enablers needed to succeed. Based on the road maps we will more effectively focus investment in technology.

Increased Agility

The exploitation of technology and innovation to create new UK defence products, services and manufacturing methods is key to enabling future UK competitive advantage. The UK defence value chain needs to increase its agility in pulling through new technologies into capabilities that meet customer needs, faster than our competitors. The UK DSC will support collaboration between academia and Industry to ensure research and development has a clear route to market.

“I’ve had the opportunity to work with a wide range of people, to understand the Engineering business and apply these skills to produce high-technology products.”

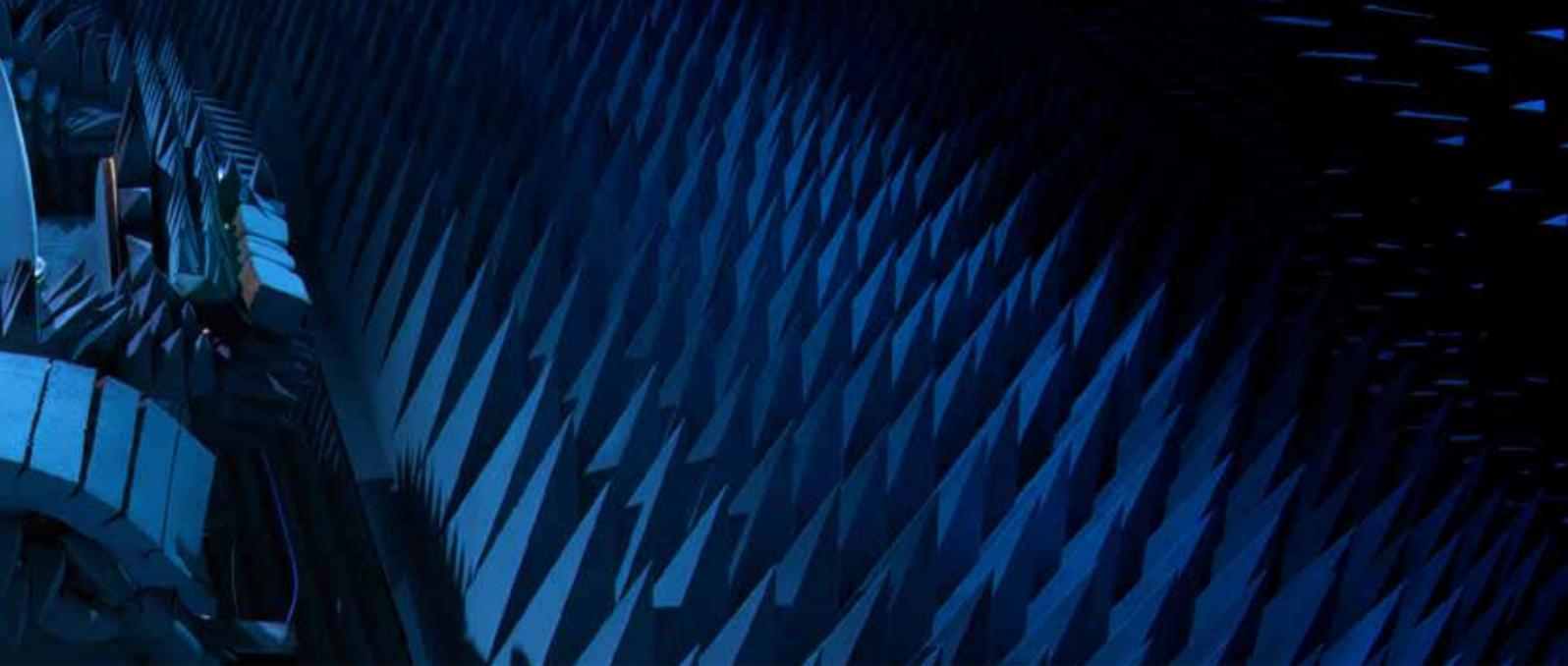
Emmanuel Smith, Advanced Engineering Apprentice, Rolls-Royce



19. Research and Development in UK Businesses, 2012 – Datasets (ONS)

20. “Towards A More Competitive and Efficient Defence and Security Sector” COM (2013) 542

21. Defence Statistics & Defence Economics (2005 - 2013), UK Defence Statistics Factsheet, from years 2005 through to 2013



Investment in research and development is essential to the long term success of the UK Defence Sector. Through a systematic and coordinated approach we will improve the effectiveness of investment in research and development. We will maximise synergies and reduce duplication, and we will seek new investment models to allow researchers and entrepreneurs both in SMEs and in universities to exploit their ideas rapidly whilst protecting their own intellectual property.

Application of cross-cutting Technologies

Increasingly, customers see that capability often resides more in the integrated systems, software and sensors than in the platform itself. But equally, customers expect platforms to be in service longer, with capability being enhanced incrementally in a cost-effective way through technology insertion.

Cross-cutting technologies are at the core of producing market-winning solutions in the Air Capabilities and Intelligent Systems domains. Initial analysis shows, for example, that capabilities generated by Complex Intelligence, Surveillance and Reconnaissance (C-ISR) technologies are a key cross-cutting technology essential for the operations of defence and security forces around the world. Recognising this, exploiting C-ISR

technologies will be a core part of the UK DSC road maps developed.

NEXT STEPS

End 2014

- Develop Complex Intelligence, Surveillance and Reconnaissance (C-ISR) as part of road maps
- Develop business cases, across Industry and Government, for the advancement of C-ISR
- Rapidly identify routes to market for novel technologies in Air Capabilities and Intelligent Systems through the UK DSC

Mid 2015

- Demonstrate potential solutions that enhance and accelerate C-ISR capability
- Create commercially attractive technology exploitation strategies
- Develop links with the Aerospace Growth Partnership to maximise the benefit of a coherent approach to shared technology challenges and business models

“The key to sustaining the UK’s world-class defence sector rests on our continued ability to create leading-edge technologies here in the UK that give our export customers the capabilities that they seek.”

Sir Brian Burridge, DGP Technology and Enterprise Team Chair





Skills

Creating a Sustainable Skills Base

The UK Defence Sector depends on a highly-skilled, educated and flexible workforce capable of innovating, designing, developing and supporting technically complex systems and advanced manufacturing processes.

But the Sector, like many others, faces the challenge that whilst there were nearly 2.5 million students studying for a Higher Education (HE) qualification or for HE credit at UK higher-education institutions in 2011/12, only 6.5% were studying engineering and technology²². Greater coordination is required in order to ensure that the UK avoids a major skills gap in these areas over the next 10 years.

With skills shortages being a cross-sector issue, the DGP is working with other sectors, for example with the Aerospace Growth Partnership, and supporting initiatives like The 5% Club²³, to respond to this challenge. The Defence Sector is taking steps to up-skill the existing workforce and inspire the next generation of scientists and engineers to consider a career in the Sector.

Apprenticeships play an important role in developing the skills needed in the UK. Already more than 4,900 apprentices and trainees are directly employed by the Sector²⁴.

Within the UK DSC, the DGP will champion a regular process of national defence skills planning over the short, medium and long-term to ensure the right skills are in place to meet UK and export requirements.

A DGP survey of the current and future skill needs of the Sector found there was an all-pervading need for high-quality System Engineers across the Defence Sector as a critical skill to deliver competitive advantage, recognising the ever-increasing complexity of defence systems and the need for interoperability.

Defence Apprenticeship Trailblazer

To start to address the shortfall in System Engineers, the DGP is creating a new Defence Apprenticeship Trailblazer. It will initially focus on developing the new standard for a Level 7 Apprenticeship (equivalent to a Master's degree) in advanced systems engineering.

“The DGP is an exciting opportunity for Industry and Government, working together, to develop innovative and tailored solutions for customers globally that will drive investment, collaboration and enhance the competitiveness of the UK defence industry.”

Huw Walters, DGP Lead for BIS, Head of Aerospace, Marine and Defence



22. Higher Education Statistics Agency (HESA) (2013), Higher Education Statistics for the UK 2011/2012
23. www.5percentclub.or.uk

24. ADS (2014), UK Defence Sector Overview



WHAT ARE TRAILBLAZERS?

The Apprenticeship Trailblazers are part of a wider government programme of reform to the skills system in England.

Trailblazers are groups of large and small employers leading the way in developing new world-class Apprenticeship standards and the assessment approaches that sit alongside them. Once agreed, the standards developed by the Trailblazers become the Apprenticeship standard for that occupation.

More than 400 employers in 37 sectors are already working together to design new Apprenticeship standards, the first of which were published in March 2014

The Future of Apprenticeships in England, Guidance for Trailblazers. Version 2, March 2014

Through the DGP, and supported by governing and academic organisations, large and small employers will be put in the driving seat to lead the development of this new standard and ensure it delivers the skills employers need.

The Trailblazer will be targeted at attracting new engineers into advanced systems engineering as well as up-skilling existing engineers. The DGP has already secured commitment from over 20 organisations to provide more than 100 participants in the first year.

NEXT STEPS

End 2014

- Launch the development of the Advanced Systems Engineering Apprenticeship Trailblazer in September 2014

Mid 2015

- Promote the expected first tranche launch of the scheme in September 2015
- Create Business Cases to develop skills and related activities as a key enabler through the UK DSC

“Ensuring the UK’s workforce is equipped with the right skills is essential to delivering sustainable growth and prosperity. With an ever changing horizon, we need to keep track of the future demand for skills on a regular basis and to take steps to meet these needs.”

Allan E Cook CBE, DGP Skills Team Chair





05

Launching Growth Opportunities

WE WILL LEVERAGE OPPORTUNITIES FOR GROWTH BY WORKING TOGETHER TO INVEST IN MARKET-DRIVEN SOLUTIONS

- Increase the effectiveness of investment in research and development
- Bring new products and services to the market that may otherwise not have been possible
- Foster the development of collaborative projects between industrial partners and with customers

Enduring Approach

The UK DSC and UKTI DSO, once operating at full capacity, will provide a clear and coherent approach to identifying and pursuing opportunities for growth.

Enhanced market intelligence from the strengthened DSO will help identify the market opportunities that will inform the UK DSC priority areas on which to focus action.

The UK DSC, using technology and capability road maps created for these market opportunities and focused on the UK's significant strengths in the Air Capabilities and Intelligent Systems domains, will seek to identify short-term and long-term opportunities to provide the customer with coherent and complete solutions. The understanding of the requirement may be refined through the Customer Advisory Group (CAG).

For those opportunities to be pursued, business cases will be developed by the UK DSC, in conjunction with Industry. These business cases will range from adaptation or enhancement of existing capabilities to meet a short-term opportunity, to longer-term interventions that position for a future opportunity. They will focus on products and services, as well as addressing enabling activities such as skills requirements and regulatory

issues. The business case will include confirmation of those companies that might wish to participate in the offering, open to all, and will also identify funding routes to support the activity, especially if it is early stage research or technology development.

Approved business cases will be subject to standard procurement practices to take forward the specific initiatives.

Initial Focus

Ahead of the implementation of the UK DSC and to test the DGP's collaborative approach, we have identified initial growth opportunities to enhance competitive advantage in the areas of our national strengths in Air Capabilities and Intelligent Systems, underpinned by the technology and enterprise base of the UK.

Within the Air Capabilities domain there are two main areas of focus: unmanned air systems and synthetic operational training.

Within the Intelligent Systems domain there are three main areas of focus: airborne, maritime and land mission systems.



Air Capabilities

Securing our Future

The Air Capabilities domain exploits the UK's high value-added capabilities in fixed and rotary wing aircraft platforms, complex weapons and associated sensors and avionics, supported by world-leading capabilities in training, support and upgrade services.

The overall global military aircraft market remains a significant part of forecast global defence spending, worth an estimated £56 billion per annum over the next eight years²⁵, including fixed-wing, rotary-wing, and services and training. However, competition is increasing, as are the demands of customers for advanced capabilities in the systems they buy.

The UK is well positioned to compete in the global Air Capabilities market, with a strong portfolio of products and services that are already operational with a proven track record. Coupled with the advances made in the UK in the delivery of in-service support, such as through contracting for availability, the UK offering to the market is strong. Opportunities also arise in the future next generation aircraft, for example in the area of autonomous systems.

To ensure we remain competitive the DGP has identified areas that the UK Defence value chain should address to continue to offer highly capable and value for money solutions.

Unmanned Air Systems

Over the last 10 years Unmanned Air Systems (UAS) have become an established capability with Armed Forces across the globe. They are now regarded as a critical component of defence and are beginning to make an impact across other sectors of the economy as well.

The UAS sector is still growing rapidly and over the next decade has the potential to be one of the most significant and dynamic growth areas in global aerospace.

Through our extensive experience in highly integrated complex aviation projects, the UK is ideally positioned to be at the forefront of developments for the next generation of UAS.

In order to benefit from this growth market, Industry will continue to invest in critical technologies and facilities to allow future systems to be developed that meet customers'

"My aviation engineering apprenticeship with Serco has been a wonderful opportunity to develop the skills I need for a future in the defence industry"

Daniel Rutter, Apprentice, Serco RNAS Yeovilton



25. Frost and Sullivan (2014), Report to DGP, based on markets open to UK defence exports



needs. The DGP will ensure that Industry exploits the synergies found with the rapidly evolving civil sector.

Through the DGP, an initial six month study will explore key drivers for UAS developments including the relationship between Manned and Unmanned Assets, Integration of UAS into general air space, the role of Intelligent Systems in decision making and Information Security and Assurance. The study will result in business cases for the possible launch of technology programmes, demonstrators and focused activity on priority markets.

Synthetic Operational Training

Dedicated platform operators are becoming an integrated part of the digital battlespace and, as such, require effective complex simulated battle-environment training.

The UK has a strong reputation in military flying training and for developing innovative joint force training solutions.

There is an increasing requirement for commercially-provided training solutions and networked synthetic training solutions to offset the cost of live training and to manage the burden associated with the growing complexity of operations. Synthetic operational training, involving multiple participants, offers the only practical and cost-effective

solution, blending live, synthetic and constructive training.

The DGP's initial emphasis will be on the highly-dynamic, inter-platform synthetic operational training market. We will also explore opportunities in cross-sector academic training and international defence training of air and ground crew.

NEXT STEPS

End 2014

- Create and deploy Industry-led teams to conduct six months studies to address Unmanned Air Systems and Synthetic Operational Training
- Deliver business cases for UAS Technology Demonstrator Programmes for key capability areas
- Deliver business cases for Synthetic Operational Training proposition
- Further develop Training Proposition for International Defence Training
- Ensure integration of Air Capability and Intelligent Systems (air) activities
- Contribute to common enablers activities through the UK DSC

Mid 2015

- Development of strategic route maps for Air Capabilities through the UK DSC

“The DGP is an essential element in ensuring the UK remains a leading player in the global air sector. Working in partnership within the strengthened UKTI DSO and UK DSC will ensure we maximise the potential of our existing systems and services and create a position of strength for the UK.”

Nigel Whitehead, DGP Air Capabilities Team Chair





Intelligent Systems

Market Shaping

Intelligent Systems are platform-agnostic, complex electronic and software-based systems that deliver operational advantage to personnel within increasingly complex environments.

The UK's strength in this domain is based on world-class skills in electronics, computing and software; capabilities that depend on the best use of emerging technologies in both defence and civil sectors whilst responding to new challenges including cyber warfare.

Airborne Mission Systems

UK Industry has world-class capabilities and technologies in the provision of integrated Airborne Mission Solutions, delivering vital intelligence for decision making and the near real-time management of events.

The DGP will facilitate Industry working with customers to help define requirements and solutions, utilising a synthetic environment to provide architectural design and modelling. Key drivers for the Airborne Mission Solutions proposition will be explored during an initial six month study.

Maritime Mission Systems

The UK has the opportunity to lead the world in next generation Maritime Mission Systems (MMS) capability, delivering a broad range of solutions such as maritime security with mine counter measures and long duration intelligence gathering, as well as civil applications in the oil and gas sector and environmental monitoring. Leveraging our considerable existing expertise, we will invest to shape a potential market estimated at £9 billion per annum over the next eight years²⁶.

A key area of capability will be delivered through modular open systems with certified, networked, maritime autonomous (MUxV) system solutions.

The first steps towards this will be achieved through joint investment in creating a UK Centre for Maritime Intelligent Systems (CMIS) in Portsmouth to build on the strong maritime experience and skilled workforce in the area. The UK CMIS will set up an initial synthetic environment and conduct initial de-risking and "proof of concept" activities as part of a MUxV Demonstrator Programme.

"I've had many fantastic opportunities whilst an Apprentice at Cobham, including working with more senior colleagues on advanced defence projects, and taking part in engineering competitions, which was great fun."

Edward Tillard, Advanced Engineering Apprentice, Cobham Mission Equipment Team Lead, Apprentice Team of the Year, Brathay Apprentice Challenge 2012



26. Frost and Sullivan (2014), report to DGP, based on markets open to UK defence exports



Industry has committed to create a “start-up” project team at the Portsdown Technology Park, supported by the Solent Local Enterprise Partnership (LEP) and the University of Southampton. The MOD has committed to support this project by aligning over £1 million in research and development funding in 2014/15, along with specialist advice. The Solent LEP is also funding a £1 million technology call for SMEs. This represents a total investment of over £4 million by Industry and Government.

Land Mission Systems

The UK has the opportunity to build on the excellent reputation of its Land forces and the capability of its industrial base to provide world-class solutions for export in the Land Mission Systems (LMS) market, estimated at £17 billion per annum over the next eight years²⁷.

An initial clear export need exists in the field of Counter-Improvised Explosive Devices (C-IED). This provides the UK with the opportunity to use the considerable UK capability in this area and generate a UK C-IED export offer, as the first part of a portfolio of scalable Land Security solutions.

The Land Mission Systems proposition will be developed during an initial six month study that considers; the

need for a UK Centre for Land Intelligent Systems to coordinate the development, de-risking and showcasing of exportable UK Land Security Solutions, the definition of a UK C-IED export offer, and a proposal for enhancements to the Land Open Systems Architecture for export.

NEXT STEPS

End 2014

- Create and deploy an Industry-led Maritime Mission Systems project team which will manage the “start-up” phase of the UK CMIS
- Manage the MUxV Demonstrator Technology Call for SMEs, supported by the Solent LEP
- Conduct six month Land Mission Systems and Airborne Mission Solutions studies

Mid 2015

- Deliver initial MUxV de-risking and “Proof of Concept” demonstration activities
- Deliver business cases for the full UK CMIS and MUxV Demonstrator Programme
- Deliver definition of Land Mission Systems UK C-IED export offer
- Deliver business case for LISC utilising and expanding on existing UK assets

“Intelligent Systems have the potential to deliver a paradigm shift in operational capability for our global customers and we are launching DGP projects to shape new markets, positioning the UK to lead on a global scale.”

Victor Chavez, DGP Intelligent Systems Team Chair



27. Frost and Sullivan (2014), Report to DGP, based on markets open to UK defence exports



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06

Driving Forward

IMPLEMENTATION PLAN

- Rapidly establish the UK DSC and a strengthened UKTI DSO
- Strengthen Industry's capability
- Launch growth opportunities

Working Together

Stronger cooperation is the key to successful growth in the UK Defence Sector: cooperation within Industry, cooperation with the Government, and cooperation with customers. Only through working together will we achieve the competitive advantage, the innovation and the strong international focus required to succeed in the global market. The DGP will create the structures necessary to deliver this new way of doing business. It will work to bring Government and Industry together at the highest level and seek to broaden and deepen our engagement across the whole sector.

Building on our strengths in Air Capabilities and Intelligent Systems, there is a great opportunity for the UK to secure export-led growth from the forecast global defence spending in these domains, estimated to be £82 billion per annum over the next eight years²⁸.

Engagement

As a Government-Industry partnership, the DGP is an opportunity for companies at all levels of the UK industrial value chain to help build on our strengths and deliver enhanced growth and prosperity for the UK. Through a series of workshops, questionnaires and regional roadshows, the DGP has made contact with over 500 companies, universities and trade associations

to identify how the UK can continue to modernise and reshape the way we work to ensure the UK's Defence Industry succeeds in the future.

Looking forward, we will engage with the entire value chain to ensure that the resources, skills and capabilities of the UK value chain can be accessed to maximise competitive advantage; and we will invite customers from around the globe, through a Customer Advisory Group, to explore future needs and requirements.

A Long Term Initiative

The DGP is a partnership between Government and the UK Defence Industry, spanning the short, medium, and long term, to secure a thriving UK Defence Sector delivering security, growth and prosperity for our nation.

To achieve the DGP objectives we have followed a phased programme since the DGP launch in 2012, which will lead to an enduring long term change. We completed the analysis phase of the DGP last year with the publication of our strategic vision at DSEI, 'Securing Prosperity'²⁹, in which we set out our vision for the UK Defence Sector. Since then we have built on this strategic vision in a development phase, consulting broadly to develop and agree an implementation plan.

28. Frost and Sullivan (2014), Report to DGP, based on markets open to UK defence exports

29. DGP (2013) Securing Prosperity



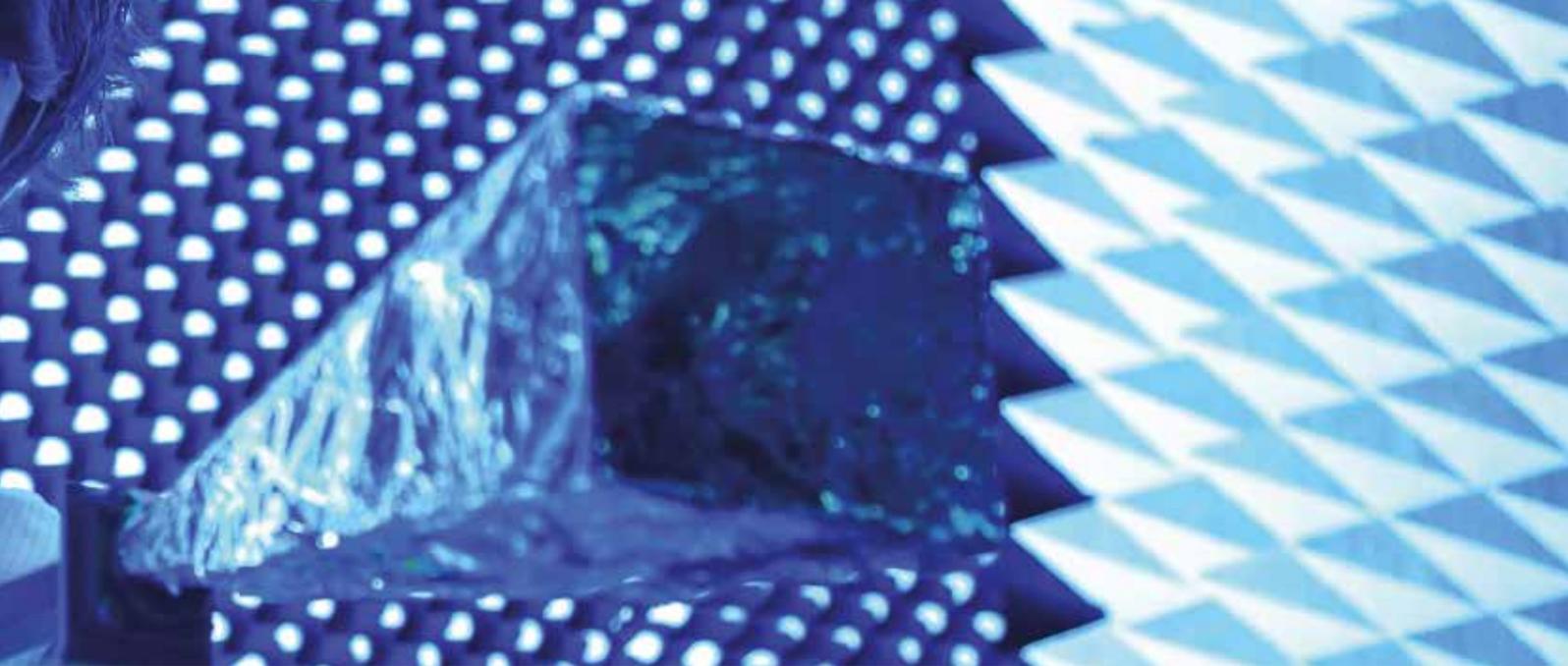
Implementation Plan

Work is already underway to put our implementation plan in place before summer 2015, with Government and Industry aligning resource equivalent to £30 million over the next three years to build momentum.

As a first step towards sustained growth, the implementation plan will see the rapid establishment of an enduring capability that will position the UK Defence

Sector for opportunities in the short, medium, and long term. This will comprise a UK DSC, providing a new collaborative environment to identify innovative and tailored solutions and a strengthened UKTI DSO, giving greater focus on the needs of customers around the globe. In addition a UK Centre for Maritime Intelligent Systems will be established in Portsmouth, building on the strong maritime experience and skilled workforce in the area.

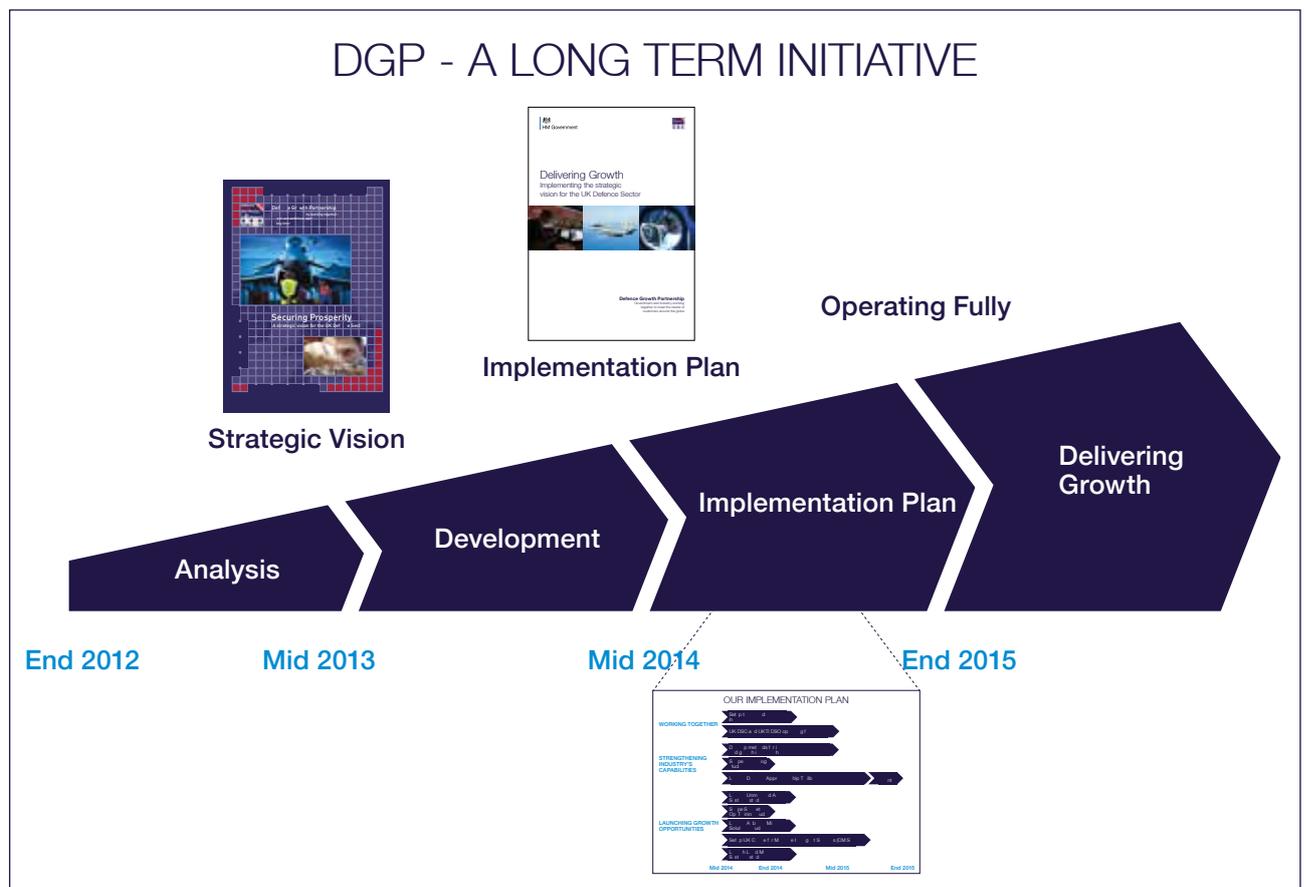




Delivering Growth

The DGP will launch longer term roadmaps, initiating ambitious projects to drive sustained growth in market shaping areas, as well as strengthening Industry's capability through focus on value chain, technology, and skills through the launching of a Defence Apprenticeship Trail blazer initiative.

With Government and Industry jointly committed to delivering these measures, the DGP has a unique opportunity to secure a thriving UK Defence Sector delivering security, growth and prosperity for our nation.



The RAF Voyager air tanker can offload 110 tonnes of fuel twice as fast as an F1 pit-stop pump to three aircraft at the same time

Every 2 seconds an aircraft takes off or lands whose wing design was tested in QinetiQ's 5m wind tunnel

The UK has more Defence SMEs than France, Germany, Spain, Italy and Norway combined

Marshall has run an apprentice programme continuously for the last 94 years

British industry will build 15 percent of each of the 3,000 planned Lockheed Martin Joint Strike Fighters

Over 50% of the recruits for MBDA's national award winning Engineering Apprenticeship are female

Taranis Unmanned Combat Air Vehicle demonstrator is the result of one-and-a-half-million man hours of work by the UK's leading scientists, aerodynamicists and systems engineers from 250 UK companies

Thales has provided over 100,000 hours of Unmanned Air Surveillance to UK operations

HP supports 300,000 UK Defence users from office to battlespace on land and sea

Babcock delivers 1.5 million days of military training per year

BAE Systems' Hawk aircraft have been sold to 18 air forces around the world

Selex has produced 400,000 Personal Role Radio systems in the UK, exporting to 30 countries worldwide

Cobham has delivered 1 million military aircraft fuel tanks

Raytheon's Sentinel surveillance aircraft has been continuously deployed on operations since 2009

The Rolls-Royce LiftFan engine on the F-35B Lightning II could raise 10 elephants to the top of the Eiffel Tower in just 6 seconds!

Serco has supported UK's Ballistic Missile Early Warning System continuously for 50 years

In 2013, Agusta Westland's Sea King helicopters never missed an incident, recovering almost 700 people around the UK

General Dynamics' Foxhound armoured vehicle - designed, developed, delivered in under 18 months

The DGP supports The 5% Club - Investing in a generation

Acknowledgements

The DGP would like to thank all Government departments, companies, organisations and individuals for their contributions.

To find out more about the
Defence Growth Partnership go to:
www.defencegrowthpartnership.co.uk

