



# Northern Ireland Partnering for Growth

**Together Growing the Northern Ireland Aerospace,  
Defence, Security & Space Industry**

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# 10-year Targets:

More than double revenues  
from the aerospace,  
defence, security and  
space industry in Northern  
Ireland to over £2bn a year.

 **£2bn**



**12,000**

Increase direct  
employment from 8,000  
to 12,000 high value jobs.

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# Forewords

## Arlene Foster MLA Economy Minister

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The Northern Ireland Executive has put the economy at the heart of its Programme for Government and it will continue to be our number one priority in the months and years ahead.

I recognise the important contribution that aerospace, defence, security and space makes to the Northern Ireland economy, which in turn contributes to ensuring the UK remains Europe's number one aerospace manufacturer and second only to the US globally.

Northern Ireland has an historical legacy of innovation in aerospace and defence, which dates back more than 100 years, and today we have a highly developed and capable supply chain, which supports all of the world's aerospace programmes. We continue to develop our established capabilities in security and are also well positioned to become a technology hub that can exploit the opportunities with a renewed focus on space.

I welcome the strategic themes and focus contained in this document – Northern Ireland Partnering for Growth – and particularly the emphasis that is being placed on skills development, supply chain excellence, research and development, as well as the extension of global reach.

Northern Ireland Partnering for Growth is fully integrated with the UK's Aerospace Industrial Strategy, which was launched last year. I strongly endorse the stated goals to protect, exploit and position these sectors so that the UK can maintain its number one position in Europe and number two in the world. I have the confidence that Northern Ireland will continue to make a vital contribution to sustaining the UK aerospace's position at the forefront of technology development and I look forward to seeing strong growth in the coming years.

Achieving these goals will require assistance from across government, and I acknowledge the continued support of the UK Government to help rebalance the Northern Ireland economy. We all recognise that companies and their workforces remain the key drivers of economic growth, particularly with the ongoing pressure on consumer and public expenditure. I am working with my Executive and Whitehall ministerial colleagues to ensure that aerospace, defence, security and space continue to play a major role in the delivery of the Programme for Government.

## David Beatty ADS NI Chairman

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ADS is the national trade organisation advancing the UK Aerospace, Defence, Security and Space industry. ADS NI represents 61 Northern Ireland companies in this sector. This industry is vital to the Northern Ireland economy, contributing 20% of our annual exports.

Key characteristics of the sector are the high technology involved and long term nature that can bring benefits to our economy for many years to come. Having said this, it is a rapidly changing market and we recognise the need to build on successes and plan for the future in a partnership alongside government.

ADS NI and its council are committed to the creation and development of Northern Ireland Partnering for Growth.

## Industry Commitment to Northern Ireland Partnering for Growth

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This is a Northern Ireland growth implementation strategy for the aerospace, defence, security and space industry, which has been created by Members of the ADS NI Industry Council on behalf of the industry in Northern Ireland. It builds on the implementation work of the Aerospace Growth Partnership, as set out in the UK Aerospace Industrial Strategy, which was published in March 2013 and the Strategic Vision for the UK Defence Sector, published by the Defence Growth Partnership in December 2013. The ADS NI Industry Council and industry members are committed to implementing the actions set out in these UK wide strategies and growing the aerospace, defence, security and space sectors in Northern Ireland.

### Members of the ADS NI Council are:

**David Beatty (Chairman)**

Thales

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**Paul Madden**

Aero Engine Controls

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**Francis Kelly**

B/E Aerospace

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**Ian Kelly**

BASE Group

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**Michael Hogg**

Bombardier Aerospace

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**Patricia O'Hagan**

Core Systems

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**Michael Maguire**

Datum Design

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**John Rainey**

Denroy Plastics

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**Nigel Hicklin**

Dontaur

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**Mark Huddleston**

European Space Propulsion

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**David Raymond**

Magna Aerospace

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**Sean Phelan**

Maydown Precision Engineering

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**Brendan Austin**

Morson Projects

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**Mark Semple**

Moyola Precision Engineering

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**Prof Mark Price**

Queen's University

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**Maeve Gallagher**

RLC Group

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**Gillian Winters**

SEMTA

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**Moya Johnston**

Survitec

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**Dr Alistair McIlhagger**

University of Ulster

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**Ian Watson**

ADS

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**Leslie Orr**

ADS

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**Robert Hill**

NI Space Office

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# Introduction

**This document provides a brief overview of the aerospace, defence, security and space industry in Northern Ireland and outlines actions to achieve growth over the next 10 years. This high technology sector currently contributes over £1bn a year to the Northern Ireland economy, providing more than 8,000 direct high value jobs and an estimated further 9,600\* indirect jobs.**

## Northern Ireland Partnering for Growth

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Northern Ireland Partnering for Growth (NIPG) is a partnership between industry and government to grow the aerospace, defence, security and space sector in Northern Ireland. This works in unison with the UK's Aerospace Growth Partnership (AGP), a joint initiative between the UK aerospace industry and UK Government. NIPG seeks to provide regional focus and aligns with the national UK AGP <sup>(2,3)</sup> and the upcoming Defence (DGP) and Security (SGP) strategies. Developing these sectors in Northern Ireland requires a long-term, joined-up strategic approach between industry and government.

Government is represented in NIPG by Invest NI, the Department of Enterprise Trade and Investment and the Department for Employment and Learning. ADS NI represents industry with 61 member companies. Academia is represented by Queen's University, the University of Ulster, the Centre for Secure Information Technology (CSIT) and the Northern Ireland Advanced Composites and Engineering Centre (NIACE).

## Aerospace

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UK aerospace has a 17% global market share, making it the number one aerospace industry in Europe and globally second only to the US. The sector creates annual UK revenues of over £24bn. Northern Ireland contributes around £900m to this total and therefore in scale is one of the top aerospace regions.

Bombardier, B/E Aerospace, Aero Engine Controls, RLC Group, Magellan Aerospace and Survitec all have substantial operations in Northern Ireland that supply many aerospace programmes worldwide. There is also a very strong aerospace supply chain cluster with over 50 companies supplying critical components and services to programmes like the Bombardier CSeries, Airbus A320 and Boeing 737.

## Defence and Security

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Northern Ireland manufactures and supplies the defence sector with a variety of products ranging from missiles to military clothing. Thales, with a major facility in Belfast specialising in short range complex weapons and launcher systems, is the largest company in the defence sector.

Northern Ireland has a very strong reputation for security products. A recent report<sup>(1)</sup> identified 75 companies providing a wide range of public security equipment and services including access control, protective armament, cyber security, covert technologies and security training. Specialist capabilities and key security products were developed and deployed in recent years in Northern Ireland. These unique products and services are now being marketed to public security bodies and police forces across the world.

## Space

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The UK space sector contributes £9.1bn a year to the UK economy and is growing at a rate of almost 7.5% each year. This is a new and exciting sector for Northern Ireland. Invest Northern Ireland recently commissioned a survey of the sector which showed that 13 companies are already doing business directly in the space sector.

At the 2012 Farnborough Airshow, US-owned Aerojet Rocketdyne, together with Thales, announced the launch of the European Space Propulsion company, to be based in Belfast. Designing and manufacturing space thrust rocket motors, this promises to be a nucleus for the growth of a Space Hub in the region.

Queen's University (QUB) and the University of Ulster (UU) are both creating world-class research in the application of space technologies. Many Northern Ireland companies are developing 'downstream' applications from data received from space satellites.

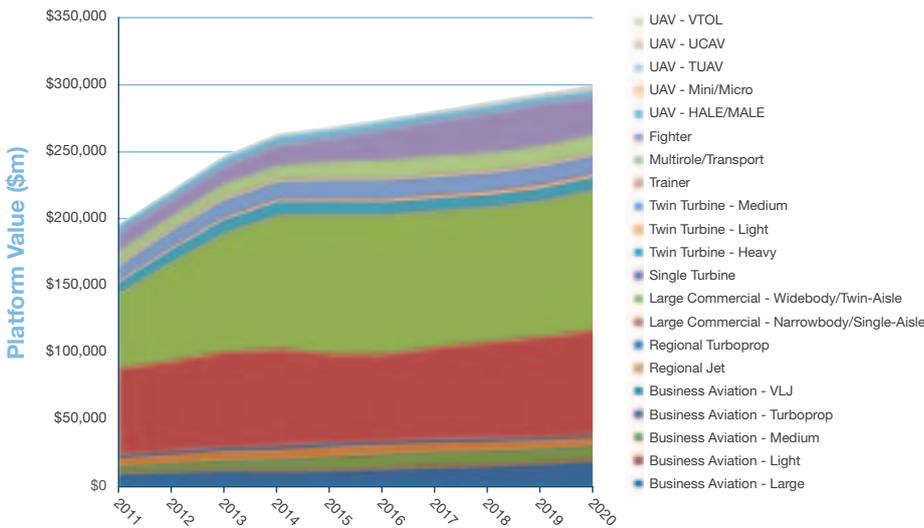
\* Oxford Economics indirect jobs multiplier for the Aerospace Industry

## Market Opportunity

Market research indicates there are huge global market opportunities in the aerospace, defence, security and space sector.

### Civil aerospace

- The civil aerospace market through to 2030 is valued at \$4.14tr with a forecast demand for 56,700 aircraft.
- The graph below shows the market forecast to 2020<sup>(4)</sup>.



### Defence and Security

The global security market is growing and is currently estimated to be worth about £260bn a year. It is estimated that it will reach £337bn by 2015. The challenge is to move towards winning more business in export markets.

### Space

The global space market is forecast to grow to £400bn by 2030. The UK industry aims to capture 10% of this market. There is stronger emphasis and growth in Europe with increased investment by the European Space Agency (ESA).

## Mission and Goal

The shared vision of NIPG is to develop the Northern Ireland aerospace, defence, security and space sector, by more than doubling the revenues to over £2bn in the next 10 years. In this period, the goal is to grow direct employment from 8,000 to 12,000.

With this overall goal, NIPG will work to strengthen, exploit and position the sector in Northern Ireland.

**STRENGTHEN (0–5 years):** Looking at the capabilities we need to have now – identifying what currently exists in Northern Ireland and what actions are needed to make these globally fit for purpose to support the overall strategy.

**EXPLOIT (5-10 years):** Working together to identify programmes and projects to grow the sector in Northern Ireland.

**POSITION (2020 and beyond):** Taking action now to position Northern Ireland to be as competitive as possible to win future and long-term major projects in the sector.

## Strategic Themes and Working Groups

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Northern Ireland Partnering for Growth has six strategic themes, and six working groups have been set up to develop it.

The themes are:

- 1. Skills Development:** To develop the required talent and skills to support the current and future needs of the industry.
- 2. Supply Chain Excellence:** To establish the required supply chain structure and develop the capabilities of Northern Ireland companies through supply chain excellence to increase productivity and competitiveness.
- 3. Research and Development:** To promote research and development, innovating new products, processes and services that will enable Northern Ireland to compete effectively on the world stage.
- 4. Sales and Export Markets:** To grow sales by expanding our routes to other markets with increasing emphasis on growth in emerging markets.
- 5. Defence and Security:** To develop the defence and security cluster by building on strong potential and credentials in these sectors.
- 6. Space Sector:** To develop the Northern Ireland space sector, identifying opportunities for business growth, specifically the opportunities in the European space programme.

For each theme, the working groups defined a strategic goal, key outcomes and next steps towards implementing the strategy. This is the first issue of what is intended to be a practical document which will be updated as the strategy develops.

# 1. Skills Development

**GOAL: To have world-class talent and skills supply to enable growth in the sector.**

## Overview

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- Research from SEMTA NI, the engineering skills body, indicates we need to recruit and train 3500 engineers, scientists and technologists by 2016 to accommodate the projected growth and an ageing workforce (SEMTA NI factsheet 2011).
- Advanced materials and advanced manufacturing have been identified as priority skills areas. The Department for Employment and Learning has established a working group led by Minister Stephen Farry to develop skills in these areas. Youth employment is a key driver.
- There has been good investment in our young people through the MSc Aerospace initiative, additional PhD places and increased undergraduate places in STEM subjects.
- Some areas of skills and training provision are fragmented and bureaucratic. There are multiple initiatives that need to be rationalised. Issues include how funding is disseminated and used for skills and training.

## Key Outcomes:

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- Secure the workforce of tomorrow by promoting engineering as an attractive career choice for young people.
- Create a joined-up sector skills programme that is industry demand led.
- Increase the quality and quantity of apprenticeships and introduce higher level apprenticeships.
- Increase the quality and quantity of graduates coming into the sector.
- Increase the productivity and competitiveness of supply chain companies by investing in graduates.
- Identify and refine the key skills to enable Northern Ireland to move up the value chain.



My goal is a dynamic, innovative and sustainable economy where everyone achieves his or her own full potential. My Department is committed to delivering the high technology skills required to grow these important sectors of our economy.

**Dr Stephen Farry MLA**  
Minister for Employment and Learning

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2012 Apprentice of the Year, Conor Crossey, Bombardier Aerospace.



NI Schools Rocket Challenge – 2013 Winners Longstone School, Dundonald. Presentation by DEL Minister, Dr Stephen Farry, David Beatty, ADS Chairman and Maeve Gallagher, RLC Group.

## Next Steps:

- Conduct a survey to determine skills shortages, current age profile and needs.
- Identify key skills e.g. CAD/CAM, stress engineering, aerodynamics etc.
- Industry and government working together on the Advanced Materials and Advanced Manufacturing workgroup to develop and implement the sector strategy to address appropriate skills balance.
- Review of the Northern Ireland apprenticeship programme.
- Skills gaps – implement CNC Machining up-skilling course.
- Develop university STEM scholarships and industry placements programme.
- Resolve barriers that prevent employers from recruiting apprentices and graduates.
- Engage young people in the sector in a coordinated programme including the Schools Rocket Challenge, STEM Ambassadors, Bombardier Flight Experience, engaging with careers and science and technology teachers.
- Northern Ireland to be the first region to launch a GCSE specifically for the sector. Space, Science and Technology Qualifications and Credit Framework (QCF) Level 2 approved by OFQUAL to be piloted in Northern Ireland.
- Ascertain the demand and appropriate model for an Aerospace Academy.

# 2. Supply Chain Excellence

**GOAL: Achieve much greater access for Northern Ireland companies to primes and OEMs, building long-term supply chain partnerships, winning larger and more comprehensive work packages. Building the capability, productivity and competitiveness of companies.**



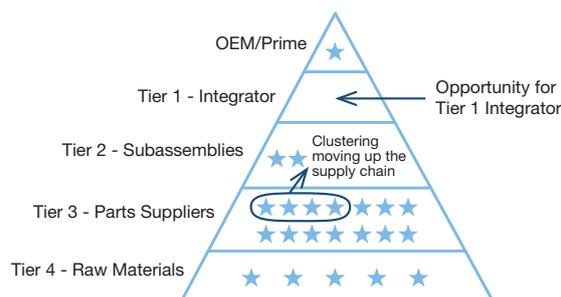
Northern Ireland with its strong manufacturing and R&D base has a unique opportunity to benefit from the long-term growth in aircraft demand. An innovative and integrated business growth strategy now can deliver outstanding results and recognition as an international aerospace hub.

**Neil McManus**  
CEO GKN Aerospace Europe & Special Products Group

## Overview

- Northern Ireland is already in a very favourable position having key primes/OEMs such as Bombardier, Thales, B/E Aerospace and Survitec.
- There is a strong Tier 3 and 4 supply chain base with particular strength in precision engineering. This is a key strategic asset from which to build.
- As illustrated in the diagram below, there is an opportunity in the region for a Tier 1 in the supply chain – large integrator level.
- Development of a Northern Ireland integrator will transform access to major programmes and support the target of increasing Northern Ireland sector revenues to over £2bn per year.
- To move up the supply chain and win larger contracts some companies are starting to collaborate and develop supply chain clusters.
- 14 companies are participating in the Supply Chain Excellence programme SC21 (21st Century Supply Chain). Three companies have achieved Silver Award and six have achieved Bronze Award status.
- There is a large number of small and medium sized (SME) engineering companies working to enter and participate in this high value sector.

## NI Aerospace Supply Chain





Moyola Precision Engineering receives the first NI SC21 Silver Award, presented by the First Minister, The Rt. Hon. Peter Robinson MLA



## Key Outcomes:

- Greater capacity and breadth of capability in the Northern Ireland supply chain.
- Increased access to major long-term aircraft programmes.
- Attraction of inward investment in growth.
- Increase the number of companies benefiting from the SC21 excellence programme and attaining required supply chain accreditations eg. AS9100 Rev C.
- Roadmap towards increasing annual revenues to £2bn over 10 years.

## Next Steps:

- **0-5 years**
  - Engage with OEMs and Tier 1 and 2 integrators to build strategic partnerships and grow capability and capacity in Northern Ireland to support their needs.
  - Work to establish an integrator company in Northern Ireland with the capability and financial strength to access, win, and deliver long-term contracts.
  - Strategically direct innovative support towards building the capability and capacity of Northern Ireland companies already active in aerospace along with encouraging new entrants and collaboration.
  - Establish Northern Ireland as a growing international aerospace hub.
  - Grow supply chain excellence through SC21.
- **5-10 years**
  - Continue to build partnerships at all levels with the major OEMs and their supply chains.
  - Deliver an integrated and globally recognised Northern Ireland aerospace hub brand.
  - Drive growth and continue to attract major inward capital investment.
- **Beyond**
  - Northern Ireland aerospace hub, leading in design, manufacture, technology and R&D. All the major aerospace brands recognising and trading with the hub as a high-quality resource partner.

# 3. Research and Development

**GOAL: To increase research and development enabling growth in the sector through new products, new technologies, new processes and new skills.**

## Overview

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- UK aerospace R&D spend is £1.97bn or 8.2% of revenue.
- In comparison, the Northern Ireland sector R&D spend is £34m or 3.9% of revenue (ADS NI Industry Survey, 2011).
- Most R&D is performed by large companies such as Bombardier and Thales.
- There are excellent R&D support capabilities at the UU, QUB, NIACE and ECIT, across UK universities, EPSRC Innovative Manufacturing Centres, and other research institutes.
- Government and industry working together on long-term R&D investment is crucial. This is a prized sector with competition from many nations. As part of the AGP, the Aerospace Technology Institute (ATI) has achieved a commitment of £2bn of funds for R&D.

## Key Outcomes:

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- A strategic long-term partnership with government, providing a streamlined approach to R&D funding, is crucial for the future economic growth of the sector.
- A greater awareness of key R&D programmes, with companies well appraised of national initiatives like the EPSRC Innovative Manufacturing Centres, ATI and the UK Aerodynamics Centre.
- An established working environment where companies are ready to collaborate on major programmes.
- Better engagement by SMEs in R&D projects.
- Increased R&D investment, and increased number and range of projects with adventure and risk.



R&D plays a critical role in ensuring continued strategic technological developments in industry resulting in their long term competitiveness. This is best achieved by focussing on key R&D collaborative activities and their associated IP. Principal aims must be to increase investment in R&D in collaboration with academia and industry, and to embed novel concepts within industry including the provision of a highly skilled workforce.

**Professor  
Richard Barnett**  
Vice Chancellor,  
University of Ulster

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NIACE – Northern Ireland Advanced Composites & Engineering Centre



Bombardier CSeries Wing Test

## Next Steps:

- Identifying capabilities and technology areas where Northern Ireland has key strengths and can take the lead in global research and development.
- Identifying market gaps, innovation trends and opportunities that the region can lead.
- Leveraging UU, QUB, NIACE, ECIT and CSIT and the national network for the benefit of the industry.
- Identifying sources of R&D funds; EU projects, Collaborative Networks, R&D Tax Credits, Patent Box etc.
- Encouraging Knowledge Transfer Partnership – leveraging university talent.
- Helping SMEs identify R&D needs and assisting to develop funding proposals.
- Larger companies sharing strategic research plans (and future business/supply chain needs/risks with the supply base).
- Positioning Northern Ireland as one of the first regions ready to benefit from the National Aerospace Technology Exploitation Programme (NATEP)<sup>(3)</sup>.

# 4. Sales, Exports and Marketing

**GOAL:** To increase sales and exports by expanding our routes to new and emerging markets. This initiative, supported by a partnership between industry and government, seeks to identify and meet the requirements of existing and new customers.

## Overview

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- The industry and supply chain is driven by 'Global Prime' companies. Northern Ireland has a strong base of Tier 3 and 4 suppliers but needs additional Tier 1 and 2 integrators.
- As a region, we have a strong engineering pedigree but to grow we need to develop our capabilities as an integrator along with sales, marketing and bidding capability, particularly among SME companies.

## Key Outcomes:

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- The provision of better market intelligence, and a mechanism to ensure that it can be shared among Northern Ireland companies.
- Support in understanding the importance of emerging markets and how to identify business opportunities.
- Identify a structure to help develop sales and export skills by sharing best practice. Larger companies providing mentoring support to smaller companies.
- Coordinated approach to target key sector events, air shows and missions for Northern Ireland companies. (See chart on the right which shows key trade events to be targeted.)
- Encourage significant sectoral trade support from Invest NI.
- Provision of market research to companies to better understand the supply chain tiers and grow awareness of major programmes.
- Target key OEM programmes such as the Boeing 777X as well as strategically important Tier 1 and 2 companies for inward (preferred)/outward trade missions.
- Attract new direct investment through a coordinated strategy of approaching OEMs or Tier 1 sector suppliers thus providing a catalyst for development of integrators within the sector.
- Leverage the close proximity to an OEM by identifying long and fragile supply chains and encouraging direct investment in Northern Ireland.



In Northern Ireland we have the innovation and proven engineering capability to create and deliver world-class aerospace products. We need to continue to develop our export markets, to grow our market presence and thus strengthen our economy.

**Michael Ryan CBE**  
VP & GM Bombardier  
Aerospace, Belfast

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Events/Trade Mission	Sector	Date
DSEI - Defence and Security Equipment International	Defence, Security	September 2015, Every two years
Farnborough Airshow	Aerospace, Space, Defence, Security	July 2014, Every two years
Paris Airshow	Aerospace, Space, Defence, Security	June 2015, Every two years
Dubai Airshow	Aerospace	November 2015, Every two years
Singapore Airshow	Aerospace, Defence, Security	February 2014, Every two years
Security & Policing - Farnborough	Security	March, Annually
Latin America Aero & Defence International, LAAD Brazil	Aerospace, Defence, Security	April 2015, Every two years
Public Security Events (PSE), ADS UKTI Trade Missions	Aerospace, Space, Defence, Security	Ongoing

## Next Steps:

- Formation, support and funding of a working group charged with developing and successfully implementing a strategic plan to grow the sales of the Northern Ireland aerospace, defence, security and space industry.
- Identification of target companies as potentials for direct investment opportunities within Northern Ireland e.g. Boeing, Airbus, GKN, Spirit AeroSystems, Embraer, Goodrich and Aircelle. Target countries include China, Russia and Japan.
- Develop a coordinated strategy for inward/outward missions.
- Establish a delivery vehicle for the provision of better market intelligence and improved access to export support advice. Ensure companies leverage Invest NI trade support advisors in country and ADS international offices.
- Help companies prepare before missions, air shows and other sales events.
- Leverage key marketing events coming to Northern Ireland.
- Create a network of companies to share market information helping each other to strengthen and develop our routes to market.
- Help develop skills in bid management and RFQ responses.

# 5. Defence and Security

**GOAL: Develop and grow the Northern Ireland defence and security sector cluster.**

## Overview

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- The Northern Ireland security sector is made up of SMEs – a recent Invest NI survey<sup>(1)</sup> identified 72 companies.
- Northern Ireland has a heritage in the sector with key products and services developed through “the troubles”.
- The security sector is very broad and diverse with companies drawn from construction, textiles, ICT, plastics etc.
- There is a lack of a large OEM or prime in the security sector.
- UU and QUB have specific areas of strength in security. The Centre for Secure Information Technology (CSIT) is a key asset.
- There are few companies in the defence sector, however, Thales and Cooneen are key primes.
- Many of the SME security companies depend on the home market and there is a need to grow exports.

## Key Outcomes:

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- Establishment of a defence and security special interest group.
- Promotion of the Northern Ireland defence and security brand raising the profile of Northern Ireland companies.
- Leverage the capabilities of the universities and the CSIT.
- Raised awareness of markets and business opportunities for the defence and security sector.



Northern Ireland has a strong heritage in the security and defence sector. We have developed world-class products and expertise and are well positioned to be a leading provider in the international arena.

**Sir Ronnie Flanagan**  
Former HM Chief  
Inspector of Constabulary

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Biometric access control from Core Systems



The Thales Lightweight Multi-role Missile (LMM) fitted to Wildcat Helicopter



Clothing and body armour from Cooneen Defence

## Next Steps:

- Share information on market environments, customer requirements and regulations on the import and export of defence and security products and systems.
- Increase participation in trade exhibitions and joint overseas and inwards missions to raise the profile of the Northern Ireland defence and security brand and promote our capabilities internationally.
- Identify business and market opportunities in the domestic and export markets, as well as the key factors required to succeed in these markets.
- Leverage the capabilities of the universities and the CSIT to strengthen our core competencies and technologies which will give our companies the winning edge in the competitive markets in which we operate.
- Develop best practice in defence and security research, design and manufacturing such as SC21 and LEAN to enable us to provide our customers with the most cost effective products, services and best value for money.

# 6. Space

**GOAL: Develop a special interest group of companies working in the space sector. Identify opportunities for business growth.**

## Overview

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- The UK space sector contributes £9.1bn a year to the UK economy with an average growth rate of almost 7.5%.
- The UK Space Agency is investing £1.2bn in major space projects.
- 13 Northern Ireland companies are already doing business and generating revenue in the space sector.
- Aerojet Rocketdyne and Thales announced the launch of European Space Propulsion, Northern Ireland's first space prime product supplier, based at Thales in Belfast.
- QUB and UU are both creating world-class research in the application of space technologies.
- There are many Northern Ireland companies using downstream space technologies.
- All companies report business in the space sector will accelerate dramatically in the next three years - by a factor of two or three.

## Key Outcomes:

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- Establishment of a Northern Ireland space special interest group.
- Northern Ireland space sector achieving higher levels of sales per capita than the rest of the UK.
- Be a key player in relevant high profile space initiatives.
- Agreements and partnerships in place with relevant sector players and bodies.
- Have recognised talent of motivated competent young people involved in science and engineering.
- Establish Centre of Excellence for Space Propulsion Systems



Northern Ireland possesses the high precision engineering expertise, research competence and innovative thinking that is necessary to meet the demands of tomorrow's European and International Space Programmes and their application. Clearly identifying the opportunities where we can use these skills is the key to growth.

**Dr Michael McKay**  
Senior Advisor in  
Human Spaceflight &  
Operations, European  
Space Agency

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Satellites provide the downstream data for many new applications

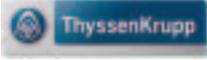
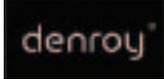


2013 NI Schools Rocket Final at RLC Langford Lodge, Crumlin

## Next Steps:

- Work together with appropriate industry and academia to establish key areas.
- Identify key areas of competency and match these to opportunities (UK and ESA support).
- Map downstream capabilities and opportunities and agree areas of maximum potential.
- Identify key areas and strategy, to include SMART objectives and timeline for implementation of the sector growth plan.
- Work with industry and educators to establish effective ways of encouraging STEM engagement. Celebrate success to clearly demonstrate opportunities that space can provide.
- Create 'access to space' events and workshops for relevant stakeholders.
- Grow skills for the space sector and expand the NI Youth Rocket Challenge Programme. Space, Science and Technology Qualifications and Credit Framework (QCF) Level 2 approved by OFQUAL to be piloted in Northern Ireland.
- Grow the Northern Ireland Space Hub.

# ADS NI Member Companies

- |   |   |  |   |
|---|---|--|---|
| 1.     | 2.     | 3.     | 1. <a href="http://abbicoil.co.uk">abbicoil.co.uk</a>                                   |
| 4.     | 5.     | 6.      | 2. <a href="http://aeroenginecontrols.com">aeroenginecontrols.com</a>                   |
| 7.     | 8.     | 9.     | 3. <a href="http://amfni.com">amfni.com</a>   |
| 10.   | 11.   | 12.   | 4. <a href="http://thyssenkruppaerospace.com">thyssenkruppaerospace.com</a>             |
| 13.  | 14.  | 15.  | 5. <a href="http://basegroup.co.uk">basegroup.co.uk</a>                                 |
| 16.  | 17.  | 18.  | 6. <a href="http://beaerospace.com">beaerospace.com</a>                                 |
| 19.  | 20.  | 21.  | 7. <a href="http://bombardier.com">bombardier.com</a>                                   |
| 22.  | 23.  | 24.  | 8. <a href="http://clintyregen.wilsonresources.net">clintyregen.wilsonresources.net</a> |
| 25.  | 26.  | 27.   | 9. <a href="http://crossenengineering.co.uk">crossenengineering.co.uk</a>               |
| 28.  | 29.  | 30.  | 10. <a href="http://datum-design.com">datum-design.com</a>                              |
|   |   |  | 11. <a href="http://denroy.com">denroy.com</a>  |
|   |   |  | 12. <a href="http://dhl-dgf.com">dhl-dgf.com</a>  |
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