

THALES

Supply Chain Opportunity

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www.thalesgroup.com

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‘if you always do what you’ve always done
then you will always get what you always got’

various

Overview

Introduction to Thales

Introduction to Aerospace Defence Marine and Security Industry Leadership Group

Development of a Strategy for Growth

Supply Chain Pillar

- Opportunity
- Alignment with BIS UK Aerospace Supply Chain Study (July 2016)

'Australian Model'

- Best Practice Example

Recommendations

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Thales Profile

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Collective intelligence for a safer world

Whenever critical decisions need to be made, Thales has a role to play. In all its markets — aerospace, space, ground transportation, defence and security — **Thales solutions help customers to make the right decisions at the right time and act accordingly.**

World-class technology, the combined expertise of **61,000 employees** and operations in **56 countries** have made **Thales a key player in keeping the public safe and secure**, guarding vital infrastructure and protecting the national security interests of countries around the globe.



Employees
61,000
(workforce under management at 31 Dec. 2014)



Global presence
56 countries



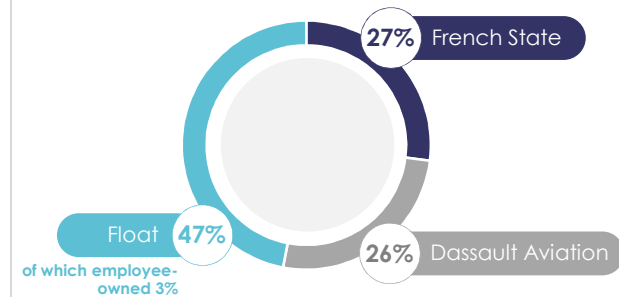
Research and development
2.5 billion euros
(approx. 20% of revenues)

A balanced revenue structure



Revenues in 2014
13 billion euros

Shareholders (at 31 May 2014)



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Thales in the UK

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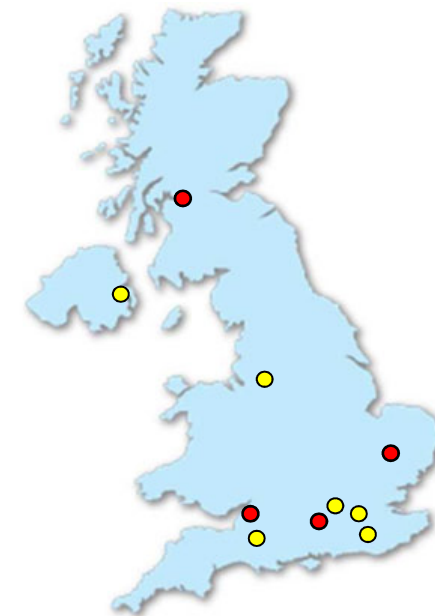
- ◆ 7,000 employees
- ◆ 10 key UK locations (35 sites overall)
- ◆ 4,000 engineers and technicians
 - 90% qualified to degree level or above



- ◆ 2014 sales: £1.2bn
- ◆ Invested more than £3bn in UK since 2000
- ◆ 125th anniversary of Thales UK in 2013



- ◆ Serving five key markets:
 - Aerospace, Defence, Security, Transport, Space



● Optronics / Missile Electronics site

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Optronics and Missile Electronics (OME)

Mission:

- ◆ Design, develop and manufacture advanced electro-optic day and night vision equipment, integrated vehicle solutions and dismounted soldier systems

Locations:

- ◆ Glasgow (approx. 580 employees)
- ◆ Bristol (approx. 35 employees)
- ◆ Bury St Edmunds (approx. 65 employees)
- ◆ Basingstoke (approx. 150 employees)

Products and Capabilities include:

- ◆ Infra-Red Cameras and Laser Rangefinders
- ◆ Airborne Reconnaissance and Threat Warning Systems
- ◆ Integrated Vehicle and Soldier Systems
- ◆ Armoured Vehicle Sighting Systems
- ◆ Submarine Periscopes and Optronic Masts



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Scottish Aerospace Defence Marine and Security Industry Leadership Group

Scottish ADMS (Note 1) :

- More than 825 companies
- Employing well over 38,000 people in Scotland.
- Revenues in excess of £5.5 billion
- Producing a Gross Value Add (GVA) to the economy of £1.76 billion.

ADMS ILG Vision :

- 'To see the industry grow and further strengthen its global reputation for technology and engineering excellence, with ambitious companies and a highly skilled workforce that design, manufacture and test world-class products, and provide services that consistently meet or exceed the needs of customers at home and overseas.'

Note 1 : Scottish Enterprise 2013

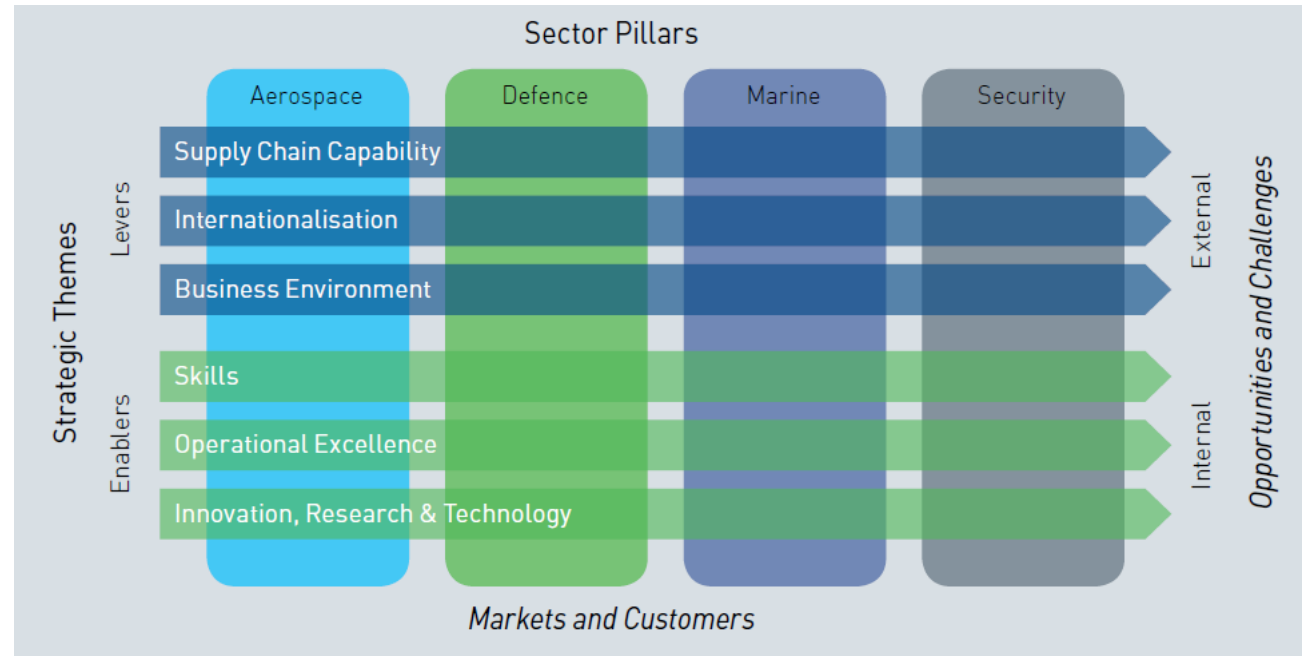
Corporate Communications - March 2015

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ADMS ILG Strategy Published 21st March 2016

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Scottish Success – Prime and Tier 1

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Jobs 'secured' at Rolls-Royce plant in Inchinnan

30 March 2016 Glasgow & West Scotland



Rolls-Royce specialises in turbines for the aerospace and marine industries

BAE Systems to retain Govan and Scotstoun shipyards with £100m investment

21 May 2015 Scotland business



The Govan shipyard will be expanded under the £100m investment plan



Rolls-Royce awarded £79 million contract to support UK Hawk trainer fleet

Monday, 28 March 2016

Rolls-Royce has agreed a new £79 million contract with the UK Ministry of Defence to provide support for the Adour engines which power Hawk jet trainer aircraft, including those flown by the Royal Air Force Aerobatic Team - the Red Arrows.

Thales secures £125m vehicle sighting systems contract

August 5, 2010



Finmeccanica – Selex ES to provide search and rescue Australia



New funding for satellite device could boost Scottish space industry

Published: 20:28 Sunday 14 February 2010

Updated: 13:39 Monday 15 February 2010

AN EDINBURGH-BASED defence electronics firm has won 600,000 (£522,000) in funding to complete the development of a pioneering satellite orientation system that could put Scotland at the cutting edge of space technology.

A small team at the Edinburgh office of Selex Galileo, a multinational division of Italian industrial group Finmeccanica, has developed an advanced gyro device that helps satellites remain oriented in space.

The firm, which has worked with two other UK companies to develop the "disruptive" technology, has won the funding from the UK's Technology Strategy Board, which invests in research to stimulate technological innovation.

BAE wins £15.5m contract to convert planes for use by military

12th Jun 2012 Updated 21.05, 1.08.2012 @DAILYMAILONLINE

SCOTTISH workers have won a £15.5million contract to convert two commercial aircraft for military use.

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BAE SYSTEMS REGIONAL AIRCRAFT WINS ENGINEERING CONTRACTS FOR JET FIREFIGHTING AIRCRAFT AND PROPOSES AIR-TO-AIR REFUELLING VARIANT

Edinburgh, Scotland...Engineers at BAE Systems Regional Aircraft's Prestwick contracts to provide specialist engineering contributions to a systems-built BAe 146/Avro RJ Airtanker (aerial firefighter) programmes underway in North America.

also announced this week that they are proposing an air-to-air refuelling variant for the aircraft for possible military use.

the announcements at the Defence Services Equipment International London.

Avro RJ regional jetliners were built by BAE Systems Regional Aircraft from 1985 to 2003. Today the Prestwick team are

user bomb

3 December 2012 Edinburgh, Fife & East Scotland

Raytheon UK has secured a new £25m contract to supply more laser-guided bombs to the Ministry of Defence.



Winning of Airbus contracts lifts spirits at Prestwick

8 Jul 2008

The Paveway II carried by Tornados in Afghanistan, as Typhoon and Lightning

The MoD said it about 450 jobs plants - 300 in Fife

The Fife plant

Facebook Twitter Google+ LinkedIn Pinterest YouTube

Scotland's advanced aerospace capability and 750 jobs have been safeguarded with two major contract wins for Spirit AeroSystems at Prestwick.

The former BAE Systems plant, sold to Canadian-owned Spirit two years ago, has strengthened its existing relationship with Airbus by landing work on current and new aircraft over the next seven to nine years. Prestwick's continuing work on the A320 will be worth £1.7bn (£900m) to 2015, and it will grab a high-value share of a \$2bn (£1bn) contract to build the wings for the new-generation A350 XWB (Xtra Wide-Body) which will last until 2017.

Spirit Europe has signed a contract with Airbus to design and produce a major composite wing structure for the A350, with the wing leading edge structure designed and assembled primarily in Ayrshire.

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Scottish Supply Chain Opportunity? (example of un-named Scottish Tier 1)

Percentage of Committed spend in the last 12 months

Spend in Scotland	24%
Spend out of Scotland	76%

Commodity/Family Name	Potential Total Spend in a 12 month period (KEUR)	Spend not in Scotland	Spend in Scotland
Optronics	£18,000 - £40,000	94%	6%
Mechanical Parts	£4,000 - £6,000	33%	67%
PCBA & Housing Integration	£4,000 - £25,000	51%	49%
Mechanical Assembly & Integration	£5,000 - £26,000	92%	8%
Mechanical Commodities	£700 - £1,000	65%	35%

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Current Thinking and Approach

Can't fix everything...

Questionnaire / Structured Interview (Supply Chain and Op Ex)

> Designed to explore:

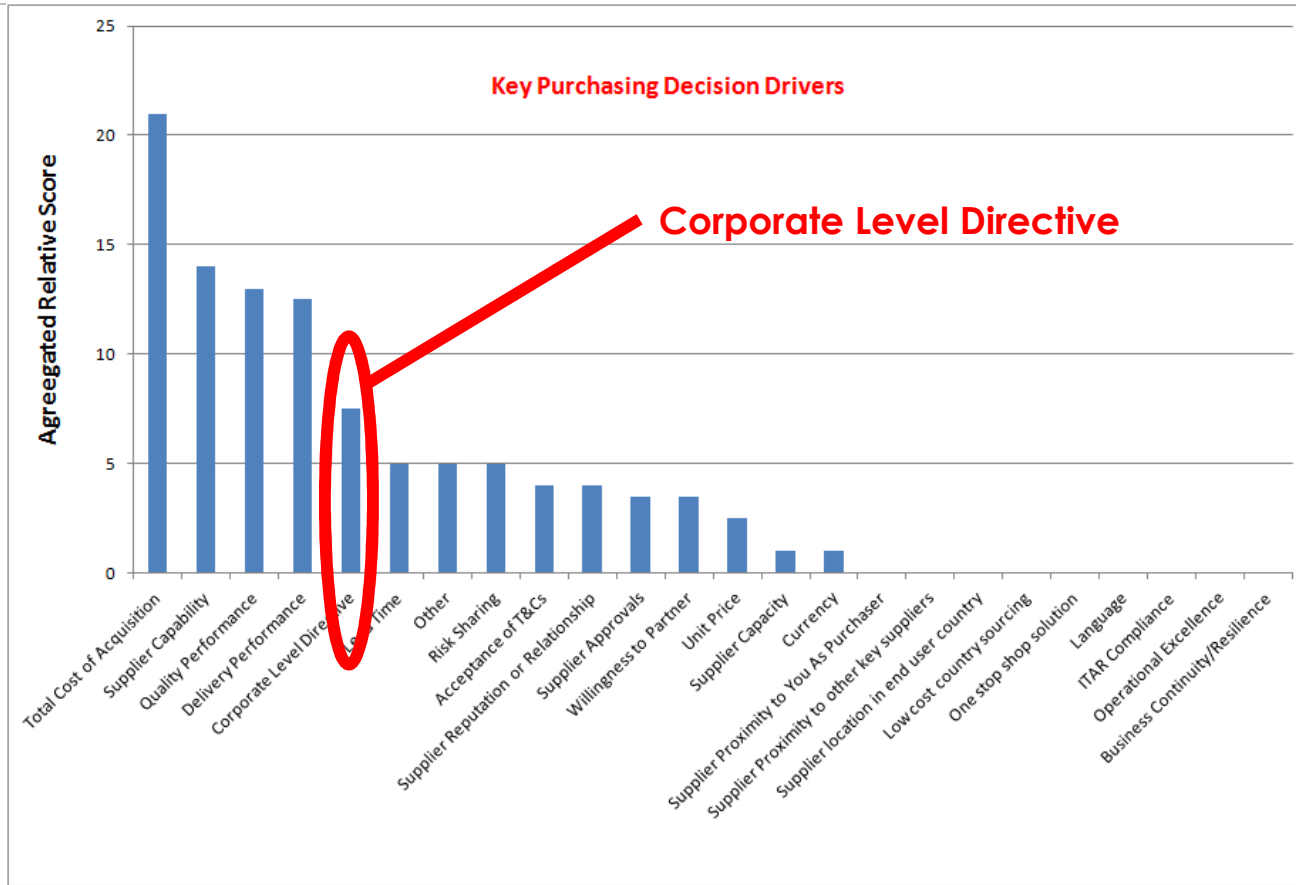
- Sourcing decision making,
- Scotland (& UK) vs Rest of the World
- Engagement Timings
- Scottish Supply Chain Performance vs Rest of the World
- Commodity Spend and Opportunity vs Rest of the World
- Operational Excellence Awareness and Maturity
- Potential Operational Excellence improvement benefit (by commodity)

Through Scottish Enterprise / SMAS

> 12 Tier 1 / OEMs identified, 8 completed, remainder planned

Interim Findings – Supply Chain Decision Making

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UK Aerospace Supply Chain Study

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https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/536903/bis-16-310-aerospace-supply-chain-study.pdf

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Supply Chain Spend

BIS asked a group of prime contractors with significant operations in the UK to complete a survey which captured their quantitative procurement spend both within the UK and globally



Quotes from BIS Report

“many interviewees had a relatively poor view of UK suppliers’ ability to meet all of their needs in an increasingly global and competitive supply chain”

“According to the interviewees, official supplier accreditation is an essential pre-requisite for suppliers of many products that they wish to source”

“Funding is not widely available for gaining the appropriate certification”

“By the prime contractors’ own admission, gaining approved status is a challenging, costly and time-consuming process, not only for achieving initial approval, but also for the regular audits that are required thereafter”

“By reducing the number of suppliers, supply chain management is heavily simplified”

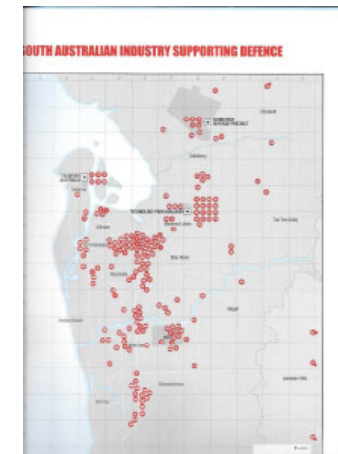
So what can we do?

Best Practice?

- Commonwealth of Australian Government promotion of Defence Supply Chain
- Team Defence Australia – www.defence.gov.au/casg/TDA
- Fund Global Supply Chain resources in Primes and Tier 1s
- Missions and Material to Support Australian Supply Chain Growth



CAPABILITIES INDEX			
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Supply Chain - Challenges and Recommendations

CHALLENGES & ISSUES

CO-ORDINATION: Establish and maintain a forward looking view of Tier 1&2 company requirements mapped against supply chain capabilities

CONTENT: There must be improvements in whole life cost awareness and recognition of Operational Excellence criteria. Centralised procurement policies must be addressed to reduce erosion of local content in supply chains

EARLY ENGAGEMENT: Industry must recognise that supply chains are formed early in product lifecycles and act accordingly

RECOMMENDATIONS

Work closely with OEM and Tier 1 suppliers to identify capabilities required in the supply chain to meet future demand. Use this to foster targeted growth and to identify areas for active development where investment in local capabilities could address unsatisfied need.

Promote the advantage of localisation through the understanding of through life costs. Promote the benefits across the supply chain of operational excellence and its impact on Schedule, Cost and Quality. Support the promotion of local suppliers into Tier 1 and OEM's procurement decision making groups through targeted engagement.

Recognise that supply chains are created and fixed very early in product development lifecycles.

Actively work across the supply chains to ensure links between OEMs and R&Ts are fostered, long term relationships are being formed and local R&T is aligned and harnessed as a route to creating competitive advantage.

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