FOCUS ON ENERGY

Investor day

3 October 2013

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Agenda

- 10am: Opening remarks – Stephen Young
- 10.10am: Meggitt Production System – Amir Allahverdi
- 10.40am: Meggitt Control Systems – Kevin Wright
- 11.10am: Meggitt Sensing Systems – Peter Huber
- 11.40am: Meggitt Equipment Group & Heatric – Dave Johnson
- 12.10pm: Lunch
- 12.50pm: Safety brief and coach to Heatric
- 3.15pm: Depart for Bournemouth station

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Group strategy

- Smart engineering for extreme environments
  - Invest in industries with long life assets
  - Where equipment works in harsh environments
  - Civil aerospace, military and energy focus
- Secure enduring/profitable income streams
  - Create proprietary technology
  - Focus on applications with high certification requirements
  - Establish sole-source positions
  - Win ‘life of programme’ contracts
- Easy to do business with:
  - Focus on customer satisfaction
  - Delivering operational excellence
  - High-performance culture

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Leading technology positions
5 capability-based divisions

Aircraft Braking Systems	Control Systems	Polymers & Composites	Sensing Systems	Equipment Group
» Wheels » Brakes » Brake control	» ***Fluid and pneumatic control*** » Electronic control	» Seals » Fuel bladders » Ice protection	» ***Condition monitoring systems*** » High performance sensors	» Safety systems » Avionics » Combat systems and ECS » Training systems » ***Compact PCHEs*** » Power management

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Group energy businesses

2012 energy revenue breakdown

SBU	Capability	% of SBU revenue	% of Group revenue	4 year CAGR*
Control Systems	Valves	6%	1%	
Sensing Systems	Condition monitoring	27%	4%	
Equipment Group	Heatric	13%	5%	
Total Group			10%	19%

* 2008-2012

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Meggitt operations update

Amir Allahverdi

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Raising the bar on operational excellence
What we set out to achieve

» The Lean/Six Sigma revolution started in many industries years ago

» Aerospace has been slower to adopt but is catching up quickly as customer expectation rises

» Significant short and long-term opportunity for Meggitt

» Our initial focus was on improving quality and delivery

» Cost productivity and inventory reduction will naturally follow

» Evolution of Meggitt Production System – sustainable results at a higher rate

Operations as a competitive advantage ... staying ahead of the game

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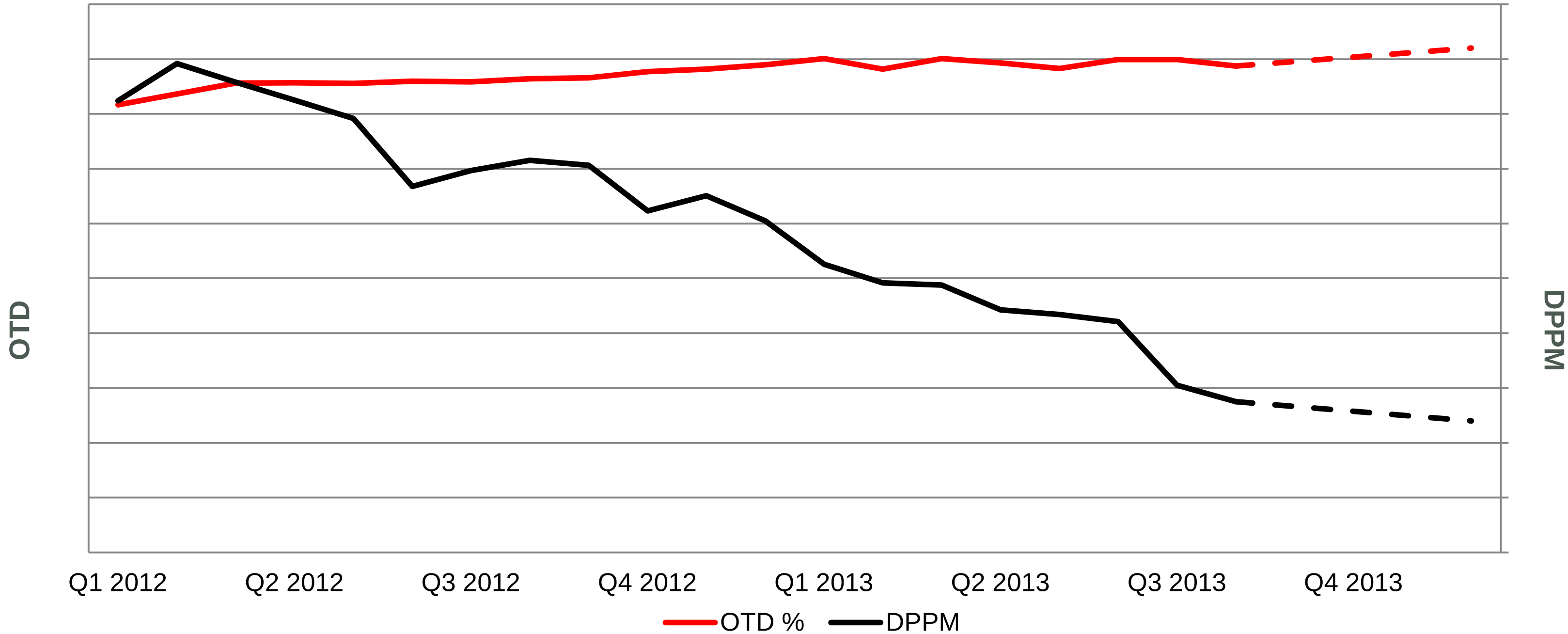
On-time delivery and quality DPPM
Trends and results to date



- Improvement in on-time delivery of 15% to date
- Quality DPPM improvement of >35%
- Encouraging results but it's just the beginning!

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Meggitt Production System (MPS)
What is it?

A systematic approach to progressively improve:

- » **Work systems –** How everyone does their job
- » **People systems –** Organisation development
- » **Improvement systems –** How we improve what we do every day

Simple yet powerful – designed to achieve sustainable results

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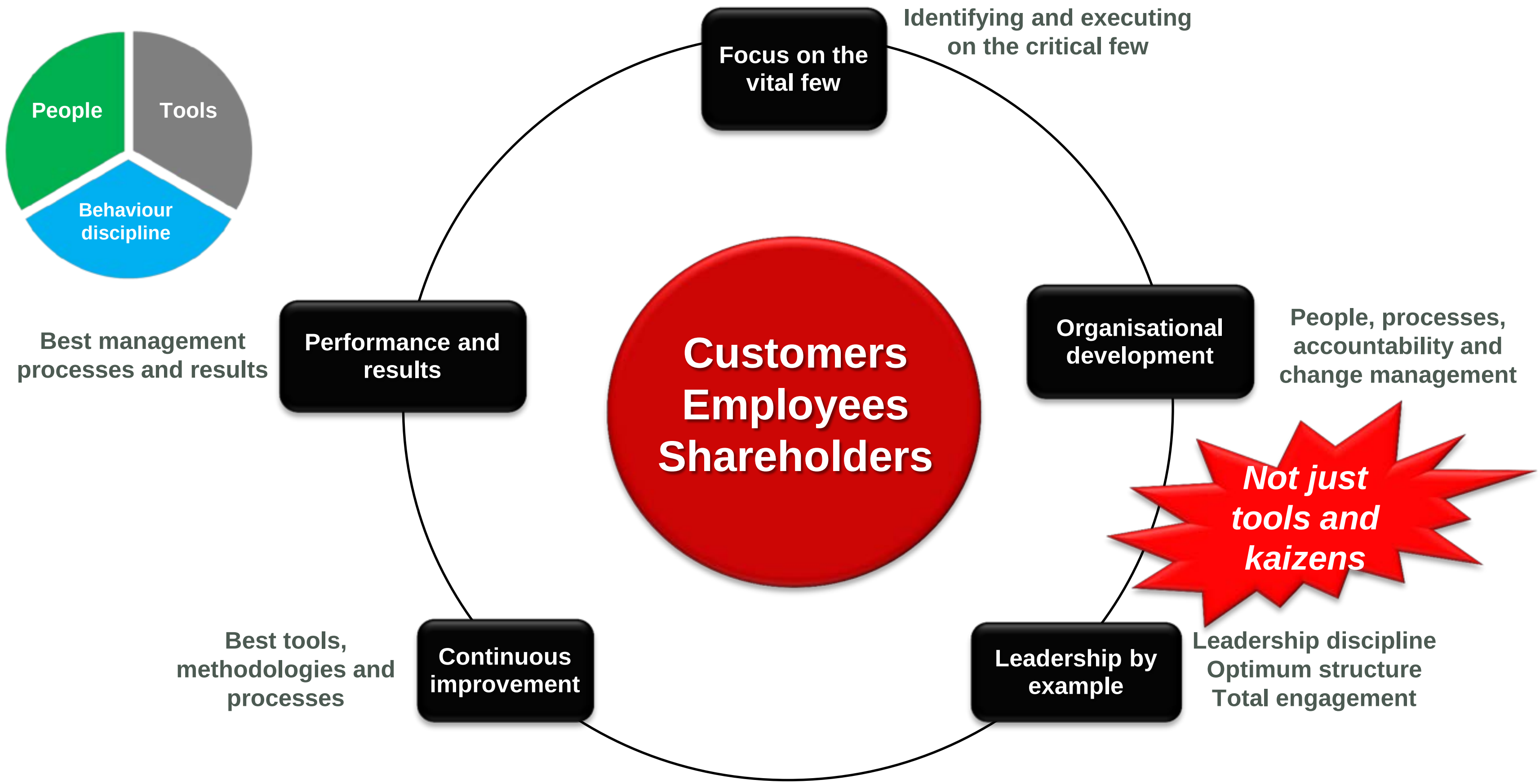
Meggitt Production System
Pillars of success



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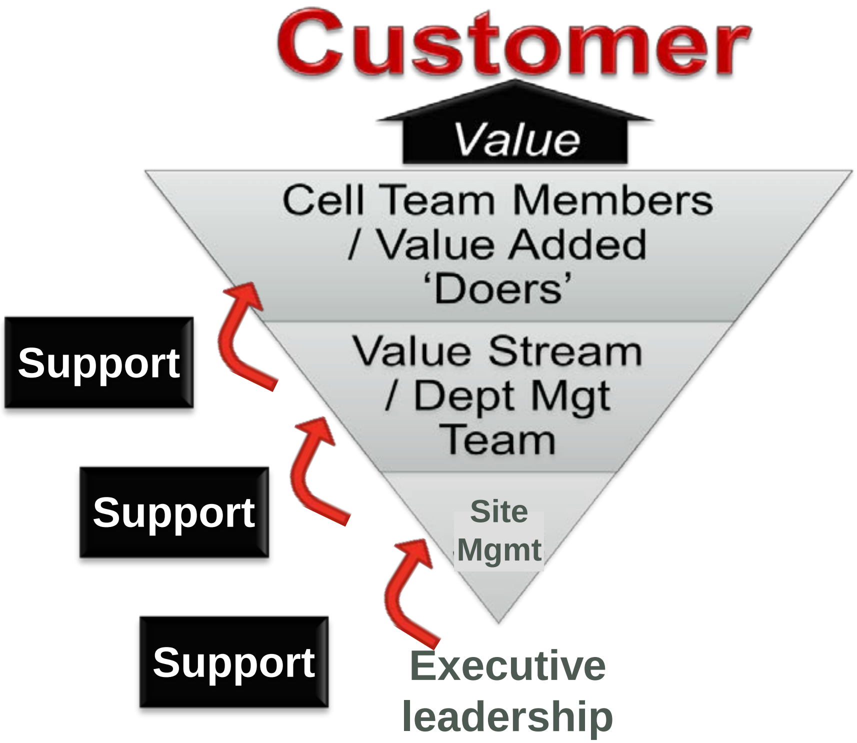
Meggitt Production System
Inverting the pyramid



From command and control to support and engagement

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MPS stages of implementation and excellence
Targetable, scalable and flexible

Set the vision and priorities	*Standardised work systems*	*Sustain performance*	*Exceed peer group performance*	*Strategic support*	*Competitive advantage*
Red Stage	**Yellow Stage**	**Green Stage**	**Bronze Certification**	**Silver Certification**	**Gold Certification**
Define basic structure & targets Quick wins	Build depth, applied tools & standardize Capture early success	Sustainability of processes & results Stabilize the system	Broaden scope to key business processes	Driving execution of and supporting business strategy	Achieving strategic advantage

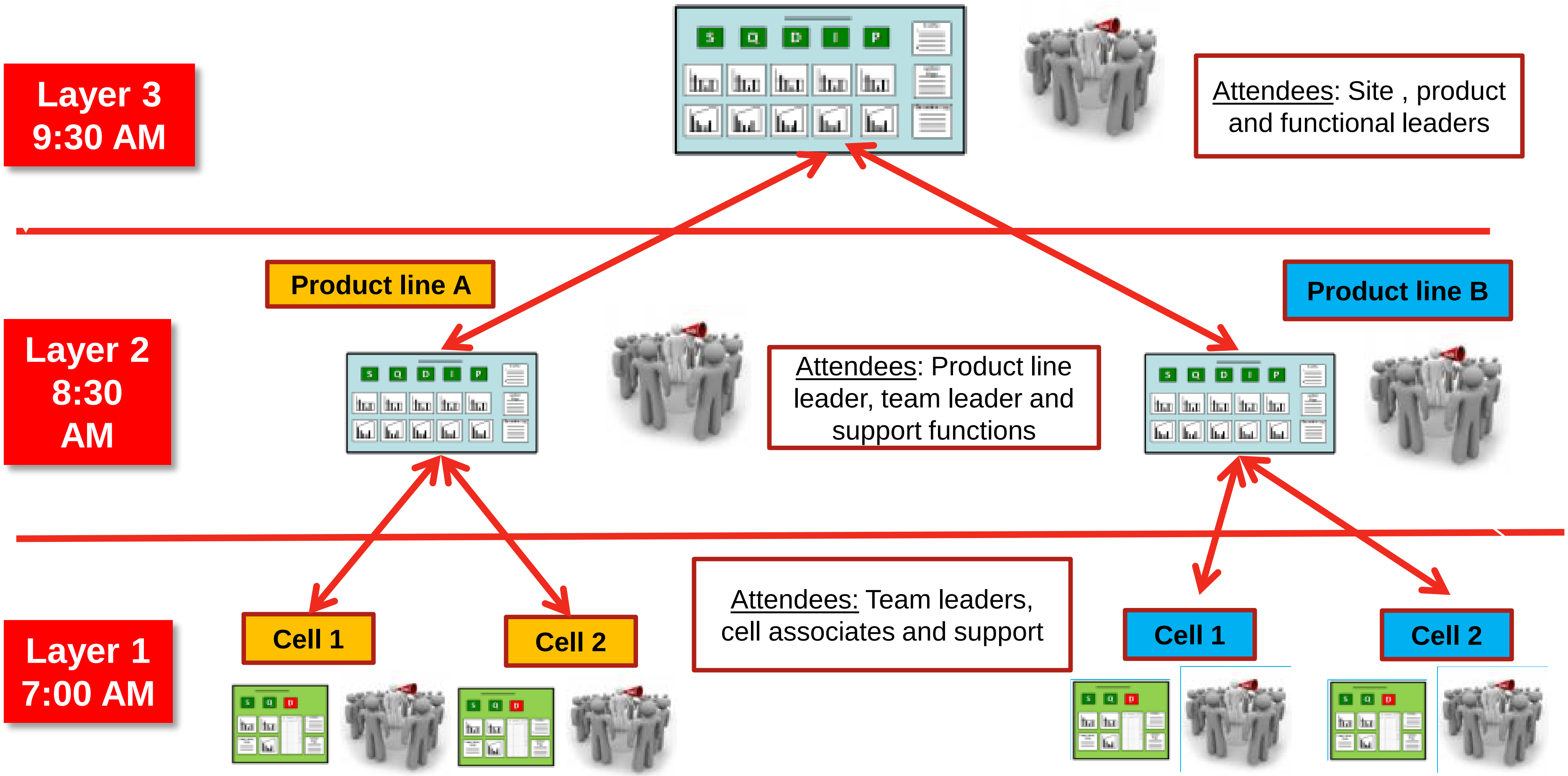
MPS critical mass achieved → Meggitt Business System

9 - 18 months | 18 – 36 months | 36 - 60 months

It's about capability, maturity and sustainability

Foundational tool - Daily Layered Accountability (DLA)

Layers of organization at a typical site



Daily review of the key objectives, priorities and expected results

Focusing on Safety, Quality, Delivery, Inventory and Productivity (SQDIP)

Daily Layered Accountability in action

08:00

1 Cell SQDIP

- To make the month … make the hour/day/week
- Culture of transparency and accountability
- Leaders get the opportunity to coach every day
- Ideas/issues are captured and acted upon daily
- Results = a good day

08:40

2 IMT Meeting

09:00

3 Focused Factory

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DLA – what has it meant to the site
Meggitt Avionics, UK

“Let’s look at what the data is telling us and let’s act rather than sit at a meeting and discuss opinions, in abstract, on what we believe the problem to be with the hope that someone will do something about it.”

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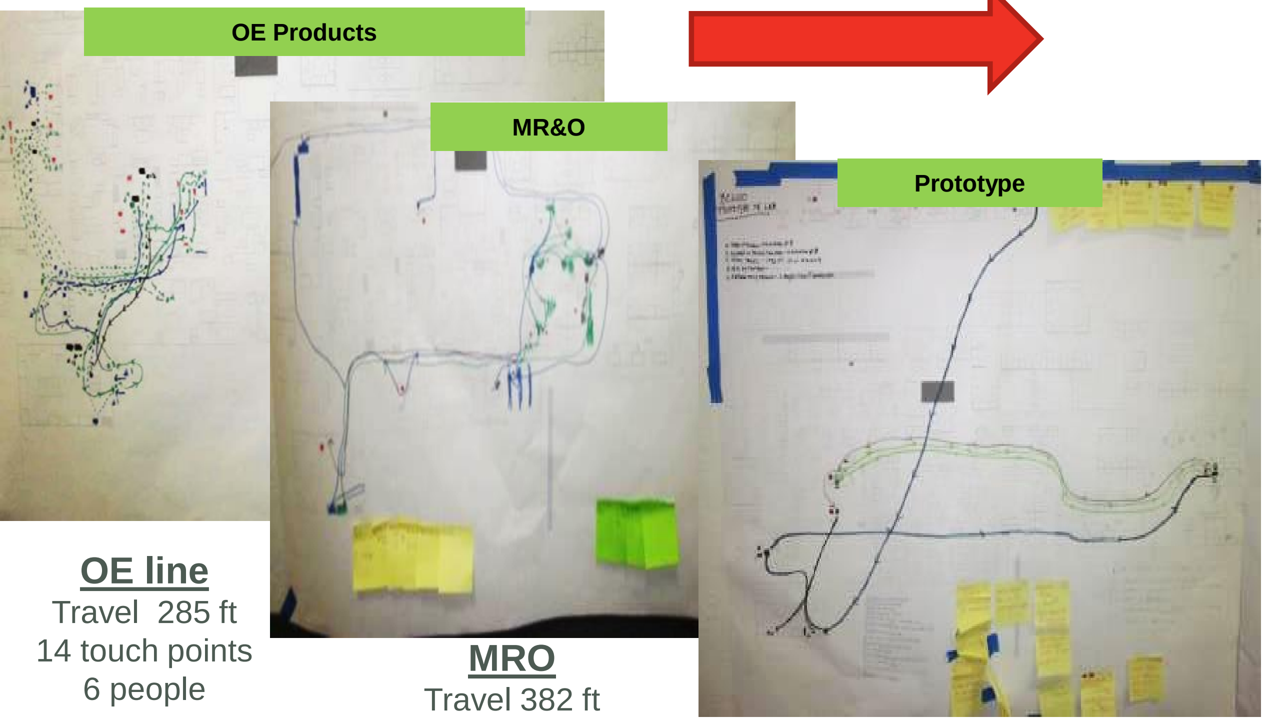
Product flow example - Production Preparedness Process (3P)

- Challenge: poor flow and movement of material – sub-optimal value stream map
- 3P tool determines optimum layout of production and support space at new facility

VSM BEFORE



OE line
Travel 285 ft
14 touch points
6 people

MRO
Travel 382 ft
11 touch points
6 people

Prototype
Travel distance 1326 ft
8 touch points, 8 people

VSM AFTER

- U-shaped cells linked by two-lane highway for maximum flow

Value Stream	Dock-to-Dock Travel Reduction	Number of Touch points Reduction
OE Production	31%	64%
R & O	46%	45%
Prototype	67%	20%

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Meggitt Singapore MRO facility
Visual factory

DLA meeting
- Each function displays their objectives for DLA
- Updates on SQDIP are discussed every morning
- Actions/ideas listed on whiteboards below for high visibility

Highly visual MRO cell
- Designed for most efficient flow of product
- Product enters U-shape cell and back on to the aisle for shipping
- Equipment easily identified and accessed on shadow boards
- Visuals show health of the cell at a glance

Meggitt Production System
Progress to date

- Staffing – 80 in-house people brought on board
- Central MPS programme office with deployment experts - team of 12 in place
- Training - more than 150 PLC/SBU people trained to date
- Certification programmes – pilot training for MPS Yellow Belt completed
- Launches - 15 sites launched in all five SBUs and regions
- Planning to deploy remaining sites by end of 2015

Investing, building momentum, early successes

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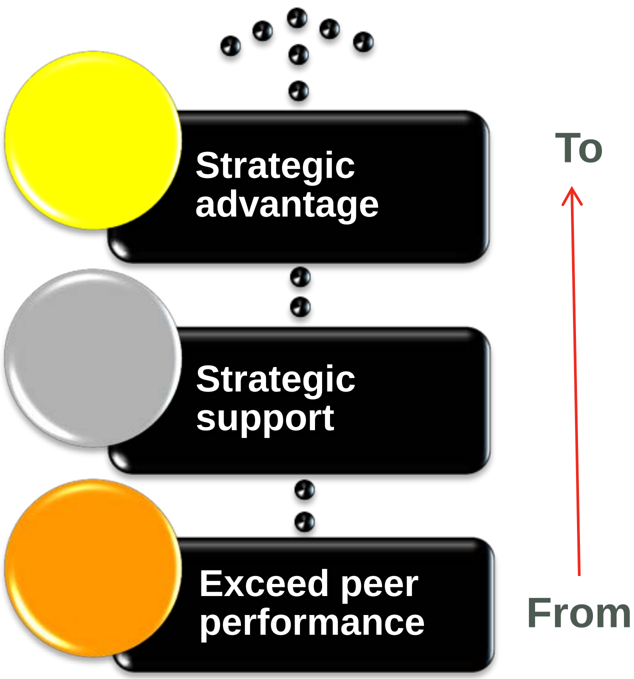
Summary

- Increased employee engagement
- Highly visual processes focused on improving flow
- Daily communication discipline
- Common approach/language across group
- Structured approach to excellence
- Deliver results at higher rate (Q&D, cost, cash)
- Operations becomes a competitive advantage



Smart engineering + flawless execution = accelerated growth

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Meggitt Control Systems
Kevin Wright

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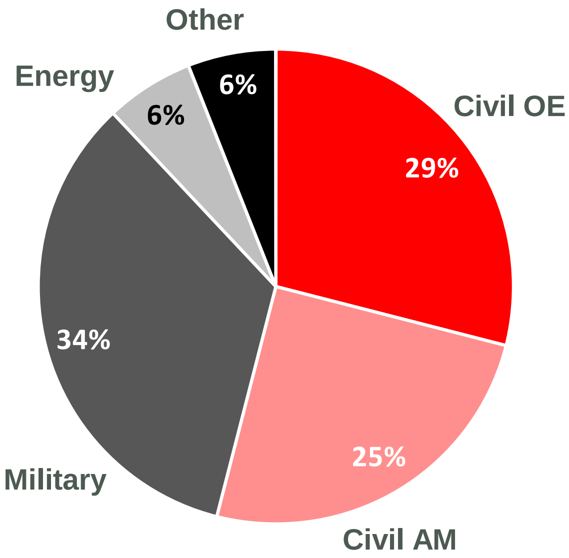
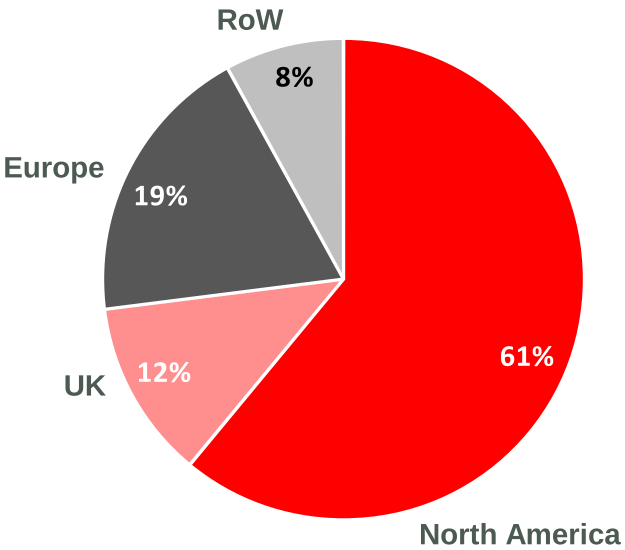
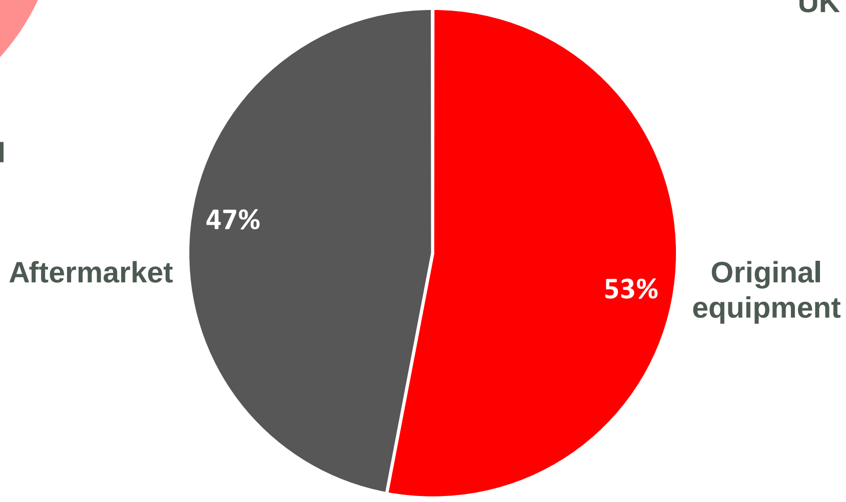
Revenue analysis 2012



Total revenue:
£213m (2012)





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Meggitt Control Systems

Smart engineering for extreme environments

Aerospace Valves

- Harsh environment pneumatic control
- Anti Ice valves
- Bleed Air control
- Turbine Clearance
- Solenoid Valves

Thermal Management

- Engine thermal management
- Plate and fin
- Tube and shell
- Oil coolers
- Fuel heaters

Ducting

- High pressure ducting
- Gimbals
- Bellows
- Flexible hoses

Electromechanical Controls

- Complex motor management
- Fans
- Compressors
- Pumps
- Military ground vehicle systems
- Motor controllers

Ground Fueling

- High accuracy Bulkmeters
- Lightweight nozzles
- Fuel truck systems
- Military and commercial
- Connectors
- Airport fuel control valves

Energy

- ***Low emission fuel controls***
- ***High reliability valves***
- ***Aero derivative gas turbine controls***
- ***Valve families for most engines***

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Our energy business

- Leveraging aerospace capabilities and technologies
- Fuel control
  - Electric actuation
- Air control
  - Pressure balancing technology introduction
- Dramatic reliability and performance improvements
- Reduction in maintenance

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Our energy business
Our market

- The power generation and oil and gas markets with the Industrial Gas Turbine (IGT) as the main product platform
  - Power plants
  - Pipeline compressor stations
- Demand for increased reliability through advanced health monitoring is driving the “All Electric” solution for fuel and pneumatic control on future gas turbines
- Green initiatives continue to drive tighter emission control
- High level of service for rotable products, repairs and service

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Strong organic growth since inception

- Greater than 30% CAGR since 1994
- Market share growth from 0% to 30% in the same timeframe
- Strong organic growth since product line inception in 1994
  - Profile shaped by key product introductions over time
- OEM business generates a margin greater than traditional aerospace business with robust aftermarket multiples.

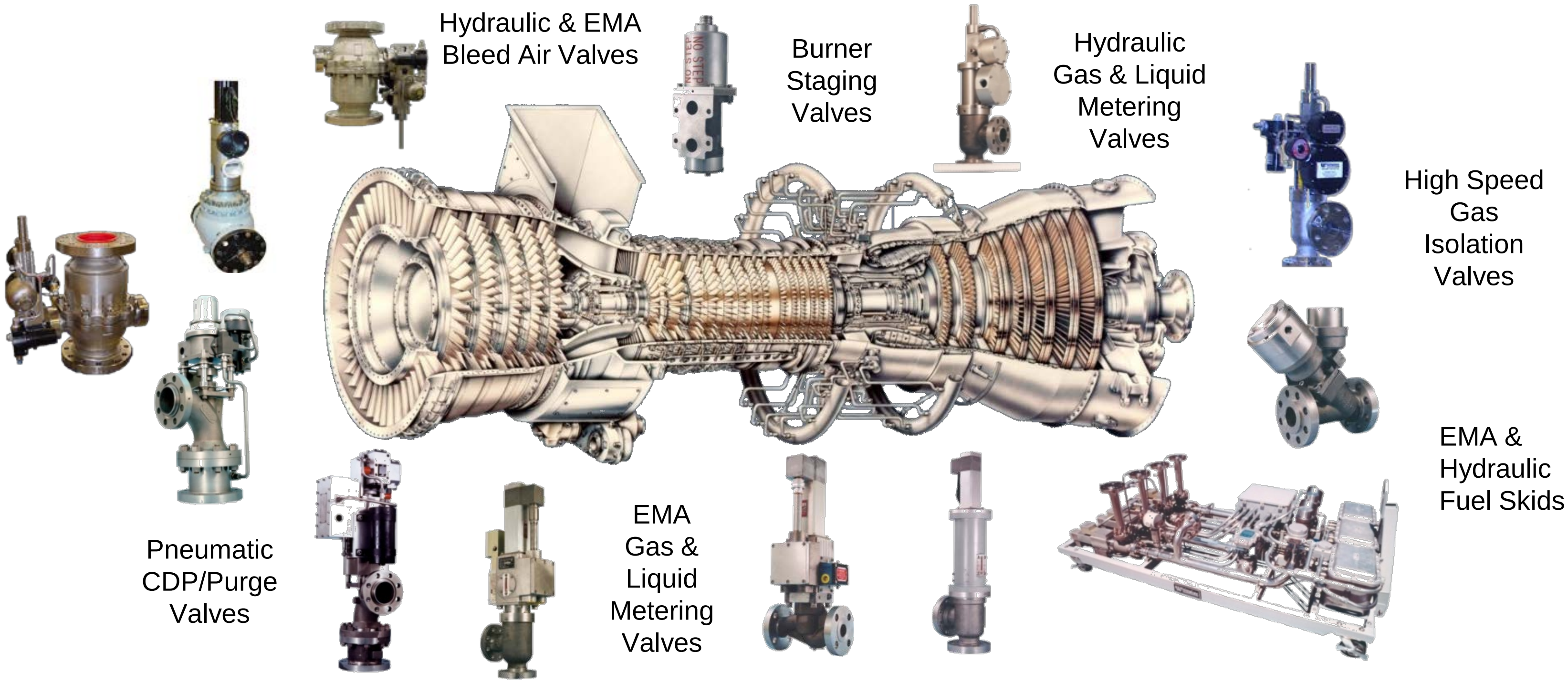
Customers and competition

Key customers include:

Competition includes:

Our industrial controls business
Our products

- » Fuel and pneumatic valves and subsystems for turbine control
- » Products are typically engineered specific to an application - not off the shelf



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World-class lab infrastructure
North Hollywood, California

- >$50 million investment in equipment and facilities
- Built to support aerospace systems design needs
  - Custom controls and monitoring capabilities
- Capacity to duplicate hot engine testing critical to prove performance
- Enables in-house system design and testing




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Market differentiation

- Electric actuation and digital control technology
- Smaller valves with high performance
- Reliability in extreme environment operation
- Vertical integration of technologies

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Investing for future growth
Products and services our customers need

- Increase portfolio to offer next generation “All Electric” solution for gas turbines in 1-60MW range
  - Electric IGV actuator
  - Next gen electric gas metering valve
  - Next generation electric bleed air valve
  - Electric starter
- Continue to maximize our global MRO capabilities to drive short term revenue opportunities
- Rotable pools to support rapid service replacements – minimize customer equipment downtime

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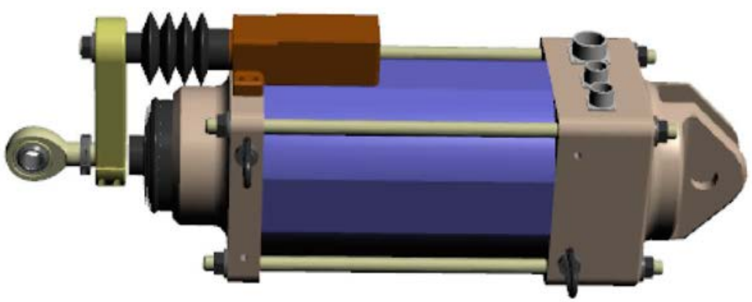
Investing for future growth
Electric IGV actuator

- Meggitt Control Systems in partnership with MEG
- The next generation product for inlet guide vane control replacing costly hydraulic incumbent product.
- Draws on Thomson’s knowledge and pedigree in actuation and ball screw technology married with Control System’s product integration capability and market experience
- Design approach ensures a multiple revenue stream model of OEM production and high margin service, repairs and product support



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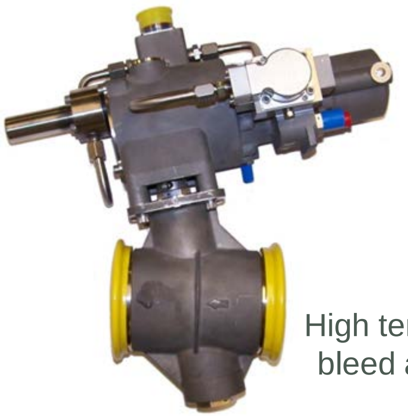
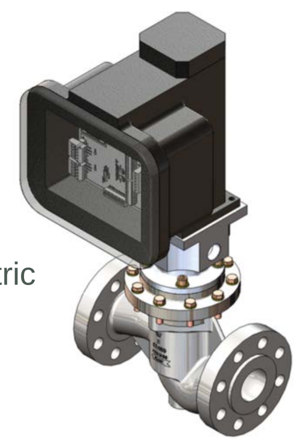
Investing for future growth
Products our customers need



High temperature
bleed air valves

Fuel metering systems

Next generation all-electric
gas metering valves



Newly designed block
scheduling fuel valve

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Summary

Double digit revenue growth, driven by:

- » Scalable product portfolio
- » Focus on reliability and performance
- » Highly engineered products based on proven aerospace IP
- » Innovative all-electric ready
- » Growing market, including adjacencies

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Meggitt Sensing Systems

Peter Huber

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Outline

1 | MSS overview

2 | MSS aerospace new programmes

3 | MSS energy market overview

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1 | MSS - overview

MSS Vision:

To be the world's leading provider of high performance sensing & monitoring solutions

MSS Capabilities

- For over six decades Meggitt Sensing Systems has provided the world's most reliable, high-performance sensing solutions
- We excel at delivering accurate and reliable measurements in the harshest environments
- We combine our sensors with state-of-the-art electronics and innovative software tools to provide a complete picture of machinery health
- Meggitt's differentiator is that it can offer a full in-house 'sensor to answer' solution

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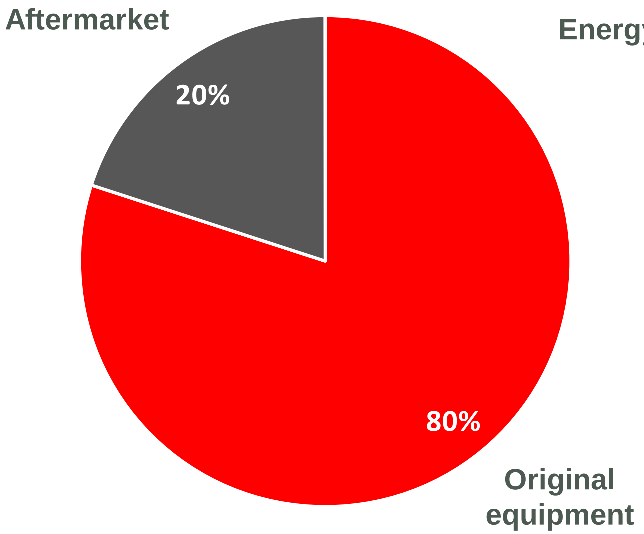
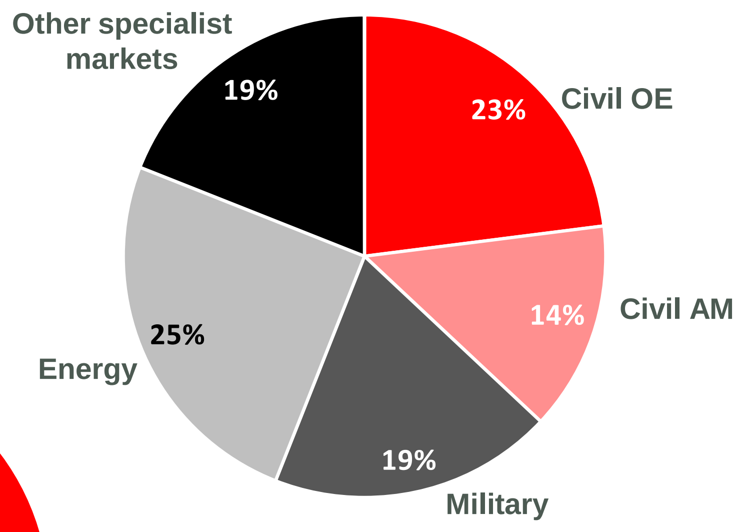
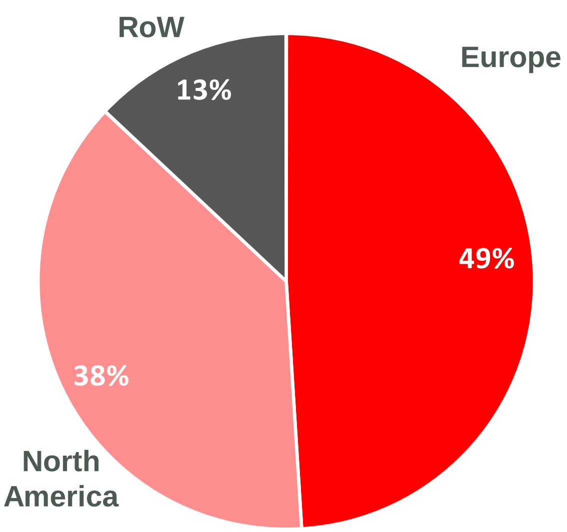
Revenue analysis 2012





Total revenue: £244m (2012)



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MSS Sites

11 Manufacturing Centres

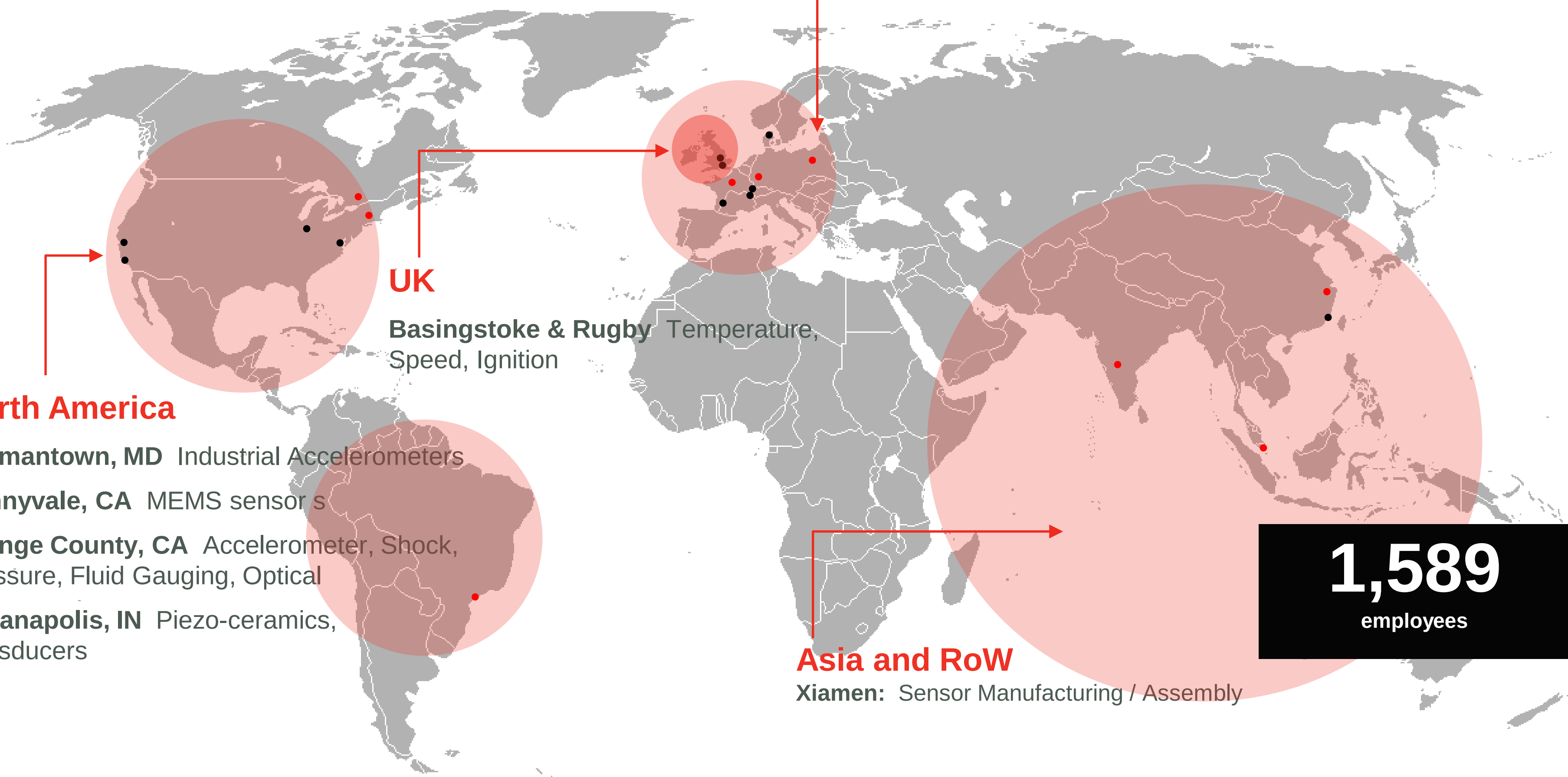
Mainland Europe

Fribourg, Switzerland Condition Monitoring

Angouleme, France Ignition Systems

Archamps France Position & Inertial

Kvistgård, Denmark Piezo-ceramics



UK

Basingstoke & Rugby Temperature, Speed, Ignition

North America

Germantown, MD Industrial Accelerometers

Sunnyvale, CA MEMS sensor s

Orange County, CA Accelerometer, Shock, Pressure, Fluid Gauging, Optical

Indianapolis, IN Piezo-ceramics, transducers

Asia and RoW

Xiamen: Sensor Manufacturing / Assembly

1,589
employees

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2 MSS – aerospace new programmes

MSS Vision:

To be the world's leading provider of high performance sensing & monitoring solutions

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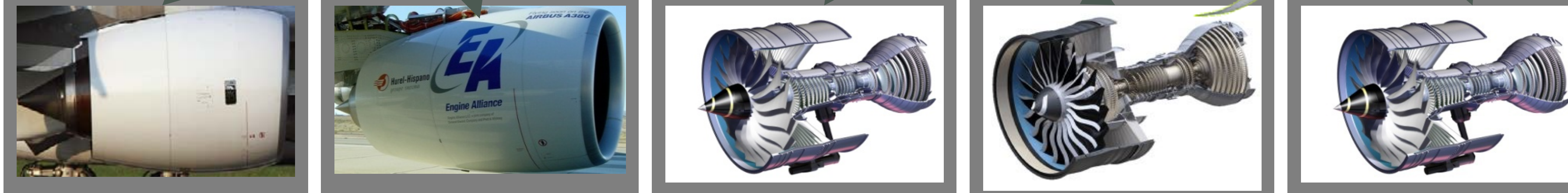
Engine Health Monitoring applications

From sensor to answer



Trent 900	GP7200	Trent 1000	GEnx	Trent XWB
Rolls-Royce	GE and PW	Rolls-Royce	General Electric	Rolls-Royce
Fan D: 2.95m (116'')	Fan D: 2.95m (116'')	Fan D: 2.84m (112'')	Fan D: 2.82m (111'')	Fan D: 2.84m (112'')
Thrust :70 -76'500 lbs	Thrust :70 -81'500 lbs	Trust :53 -75'000 lbs	Thrust :53 -72'000 lbs	Trust :53 -75'000 lbs

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Engine sensing

Some recent programme wins

Rolls-Royce

- Trent 900 (A380)
- Trent 1000 (B787)
- Trent XWB (A350)
- BR725 (G650)

Pratt & Whitney

- PurePower 1100 (A320neo)
- PurePower 1200 (Mitsubishi MRJ)
- PurePower 1500 (Bomardier C-Series)

Snecma

- Leap 1A (A320neo)
- Leap 1B (B737MAX)
- Leap 1C (Comac C919)
- Silvercrest (Cessna Longitude)

- Strong positions on the growth programmes of the future

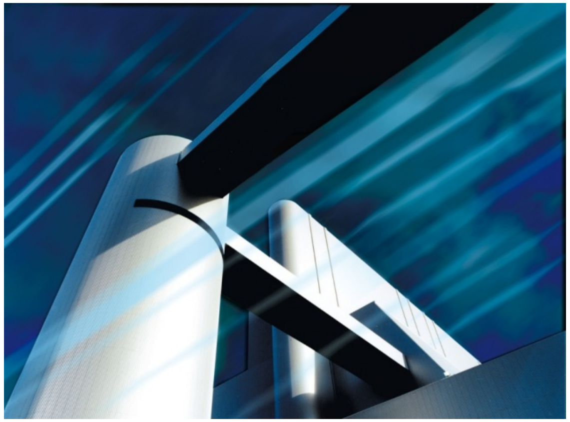
3 | Energy market



MSS Vision:

To be the world's leading provider of high performance sensing & monitoring solutions

Segment strategy
Energy



- » Expanding our business in oil & gas segments with new product launches and sales campaigns
- » Building service capabilities in key markets
- » Establishing a US sales and service hub
- » Acquiring/partnering with 'solution based' companies within the energy sectors
- » Improving product lead times and customers service levels

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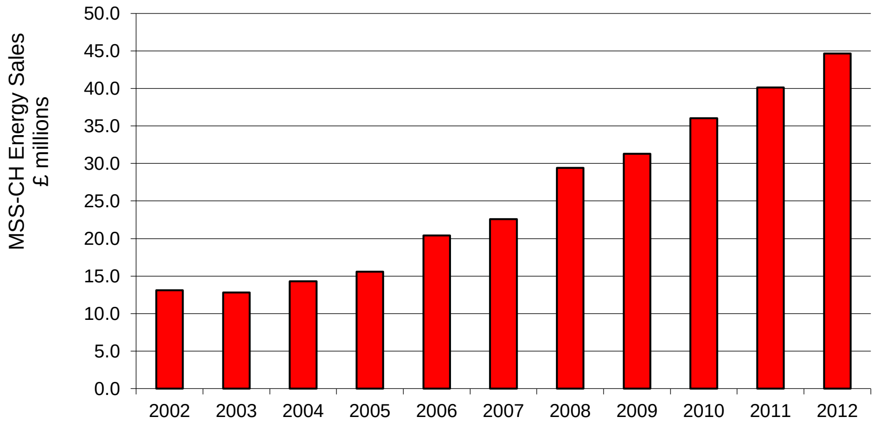
Energy condition monitoring market

Strong growth opportunity



The opportunity:

» Condition Monitoring market is >$1bn with CAGR 7-8% driven by new gas reserves and emerging markets

» MSS is clear #1 in A & D segment but only #2 in much larger energy segment

» Market is increasingly demanding fuller solutions

» Distributed monitoring architectures will increase the reach of on-line monitoring

» MSS has achieved CAGR of 15% in the energy market over last decade

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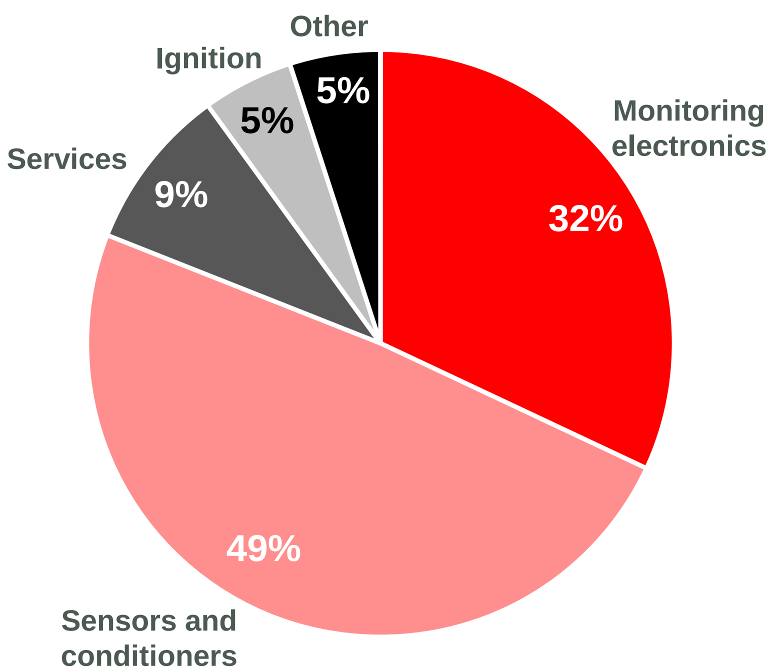
Energy condition monitoring market
MSS's largest segment

External sales = £62 million (2012)



MSS energy v MSS aerospace:

» Systems based v component based
» End user driven v OE driven
» Project model v programme model
» Large/diverse v small/niche
» Low barriers to entry v high barriers
» Localized decisions v global decisions
» Lead Time v OTD/DPPM
» Modest aftermarket v strong aftermarket

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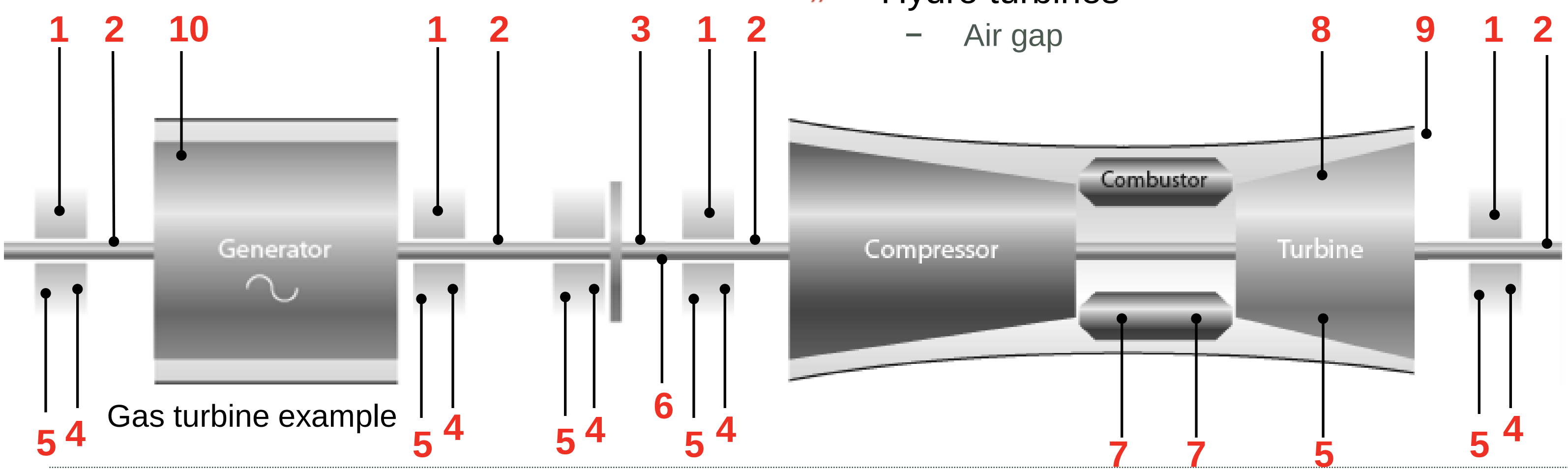
MSS Energy pedigree
We know this business

- Integrated systems monitor thousands of machines
  - steam turbines, hydro turbines, gas turbines, wind turbines, pumps, motors, compressors and fans
- Customers include:
  - power utilities, oil & gas companies, engineering procurement companies, manufacturers (OEMs)
- Installations include the world's largest and most critical turbines
  - world's largest steam turbine (1800 MW), world's most powerful gas turbine (530 MW), the world's three largest hydro power plant installations
- Our energy business is run to reflect the specific needs of this market:
  - dedicated sales & service channels, dedicated operating cells, dedicated engineering and dedicated processes

Complete measurement capabilities

- All rotating machines
  - Absolute vibration **1**
  - Relative shaft vibration (x,y) **2**
  - Absolute shaft vibration **1, 2**
  - Shaft position, displacement **3**
  - Displacement (valves, gates, cylinders)
  - Static (oil) pressure **4**
  - Temperature **5**
  - Speed **6**
  - **Generator partial discharge 10**
- Gas turbines
  - Dynamic (combustor) pressure **7**
  - Blade health **8**
  - Emissions **9**
- Steam turbines
  - Shaft eccentricity (x,y)
  - Absolute expansion
  - Differential expansion
  - Casing expansion
- Hydro turbines
  - Air gap



Gas turbine example

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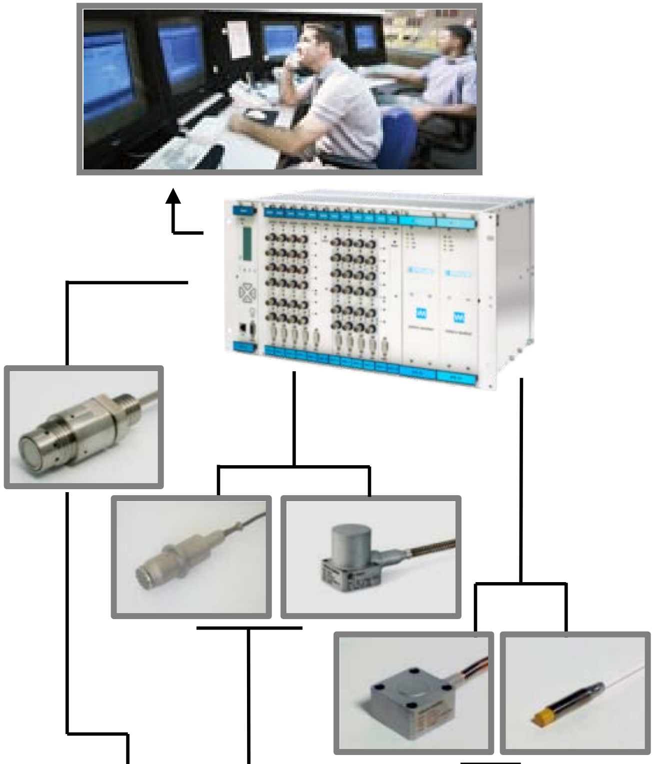
Energy

Complete sensor to answer solutions



Total condition monitoring

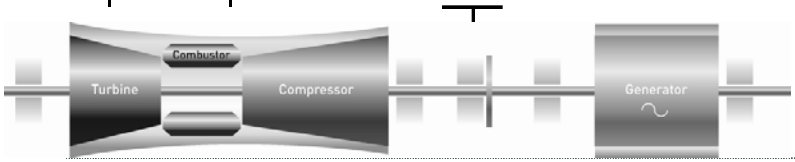
- » Critical machinery
- » Balance-of-plant assets

VM600

- » Protection, condition and performance monitoring

Sensors

- » Microwave
- » Dynamic pressure
- » Piezoelectric accelerometers
- » Piezoelectric accelerometers
- » Proximity probes



Plant asset management
Reduces the risk of failures and downtimes, enables maintenance to be planned, increases global plant effectiveness

Turbine health management
Safety, return on assets and environment impact

Blade tip clearance
Efficiency optimization

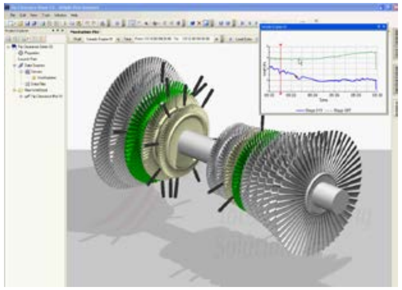
Structural damage
Combustion humming, outer segments

Bearing
Defect detection

Turbomachinery operation
Safety, maintenance optimization, lower spare parts inventory, improved efficiency, reduced emissions

New product launches in 2014

Complete sensor to answer solutions



- A new monitoring platform that is more scalable, more modular and can be deployed directly within turbine packages and offer:
  - Savings on wiring effort
  - Reduced cost and complexity of installation
  - Ability to operate in harsh and hazardous environments

- A new and improved version of our VibroSight® condition monitoring software platform that will:
  - Offers new diagnostic, analysis and decision support features
  - Be more intuitive and higher performing
- New range of handheld vibration meters
- Digital sensing products

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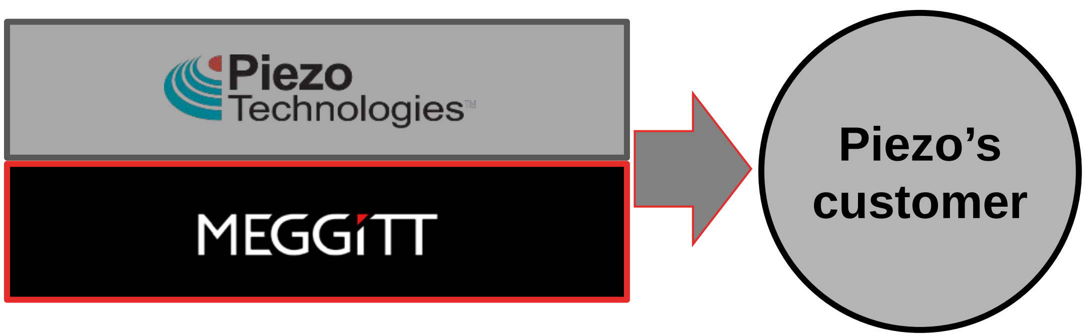
Piezo Technologies LLC

- Integrated piezoceramic platforms
- 45 years of ultrasonic experience
- 20+ materials formulations



- Extreme environment engineering
- Sensing expertise
- Worldwide engineering resources
- Financial scale

- Creates new revenue streams and expanded offering
- Moves up the value chain
- Reinforces sustainable competitive advantage
- Expands market reach in key oil and gas and medical markets
- Offers customers access to global sales & support channels

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Summary

- Expect to grow our energy business double digit year on year over the coming 10 years by:
  - Bringing new products to market
  - Expanding into oil and gas
  - Expanding our sales channels
- Expect to grow our aerospace business on the back of the platforms we have won.

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MEG and Heatric

David Johnson

MEGGITT

Organisation

David Johnson **President**			
DEFENCE SYSTEMS	SAFETY SYSTEMS	POWER SYSTEMS	SPECIALITY COMPONENTS
DEFENCE SYSTEMS US DEFENCE SYSTEMS UK TRAINING SYSTEMS US TRAINING SYSTEMS - CANADA	SAFETY SYSTEMS – SIMI VALLEY	OECO ARTUS SECURAPLANE	AVIONICS HEATRIC PIHER THOMSON SUNBANK
Electronic Cooling Ammuniton Handling Flying Targets Boat Targets Virtual Ranges Live Fire Ranges	Fire Detection Fire Suppression Restraints	Motors Generators Power Converters Batteries	Printed Circuit Heat Exchangers Standby Flight Displays Rotory Sensors Ball Screws Connectors

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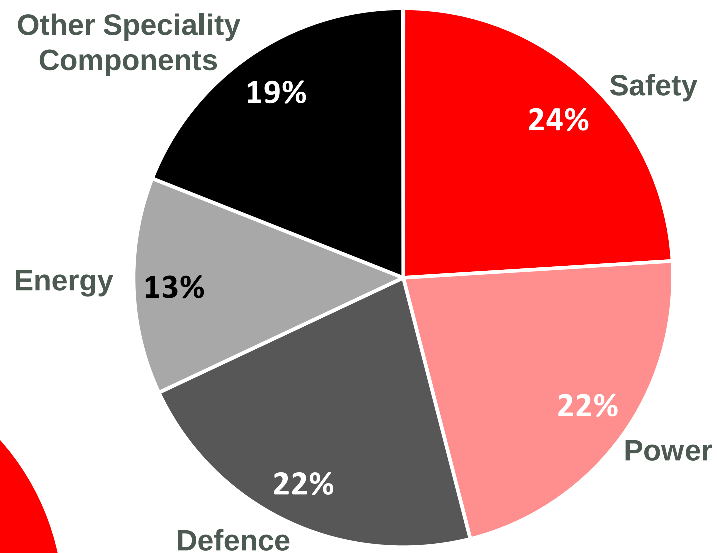
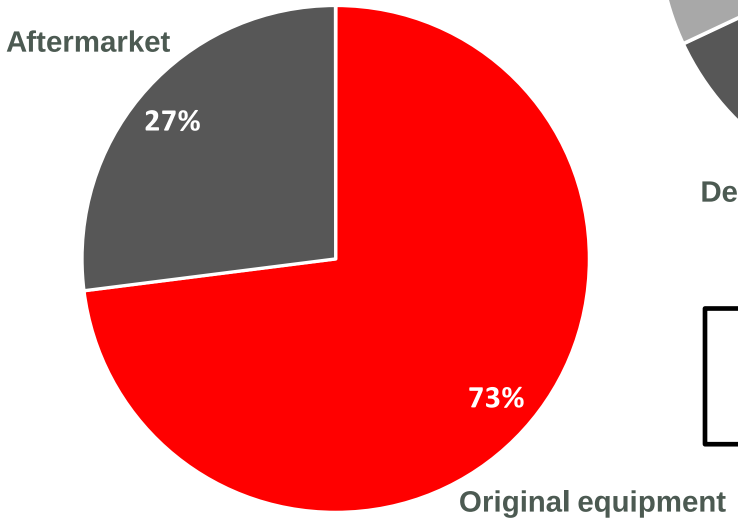
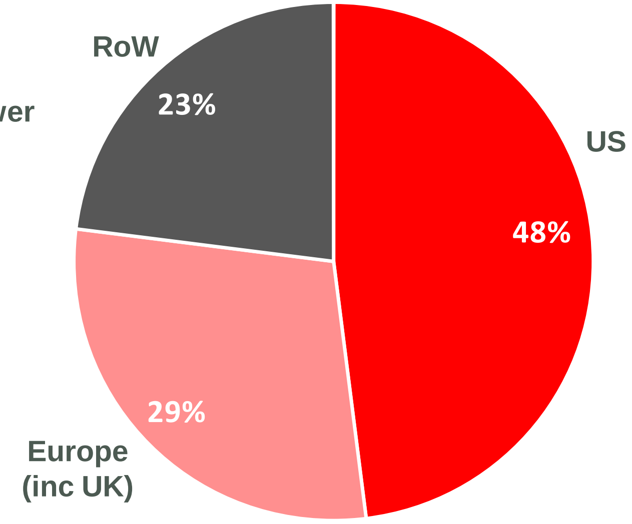
Revenue analysis 2012





Total revenue: £652m (2012)



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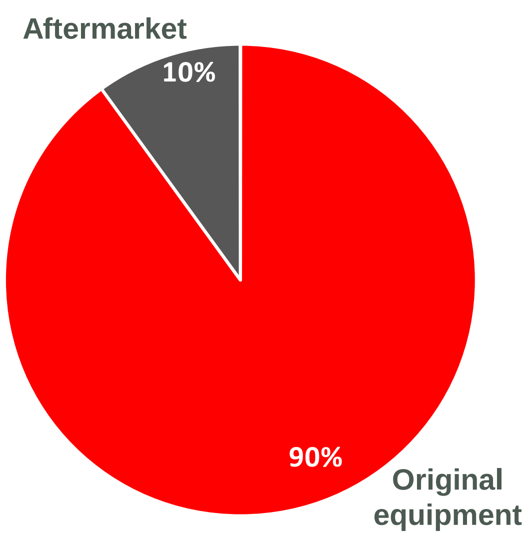
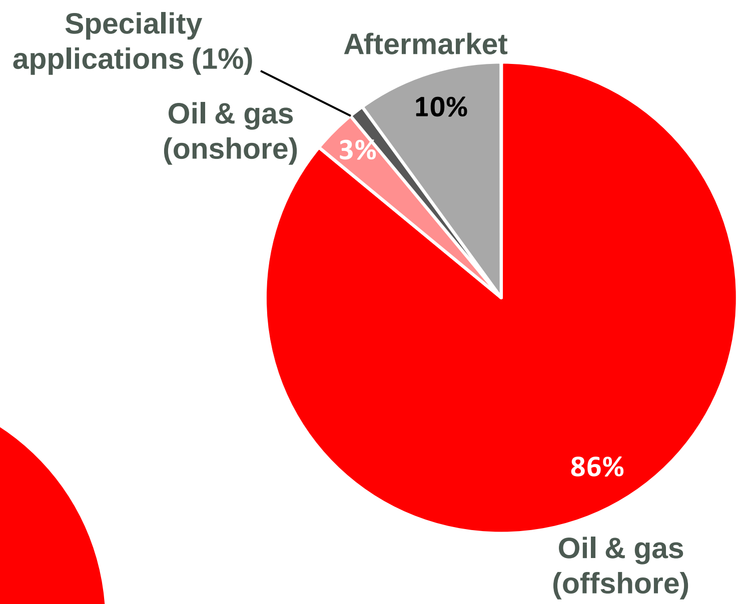
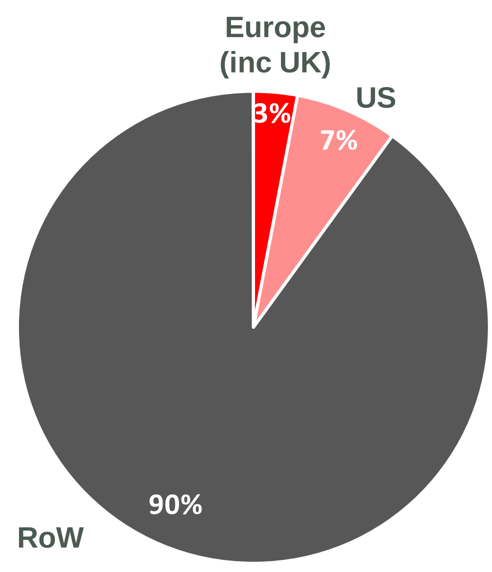
Heatric
Overview

- **Key Facts**
  - » £80M pa T/O and 250 Employees
  - » 65 Engineers,13 apprentices
  - » Manufacturing in UK, sales offices in Houston, Rio de Janeiro, Singapore.
- **Top 5 Customers**
  - » Petrobras
  - » Shell
  - » Chevron
  - » SBM
  - » Statoil
- **Typical Platforms**
  - » Shell Prelude FLNG
  - » Petrobras PreSalt FPSO
  - » Al Shaheen Offshore GPU
  - » Woodside North Rankine Offshore GP
  - » Chevron Wheatstone
  - » Petrobras P58/P62

Heatric revenue analysis 2012
Overview







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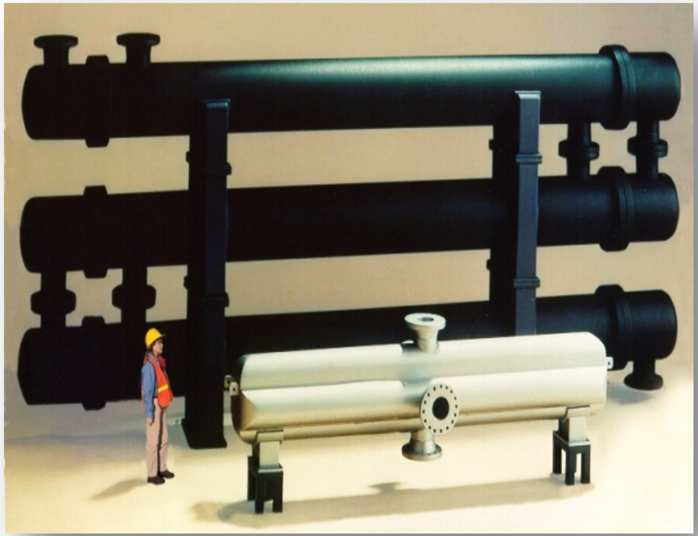
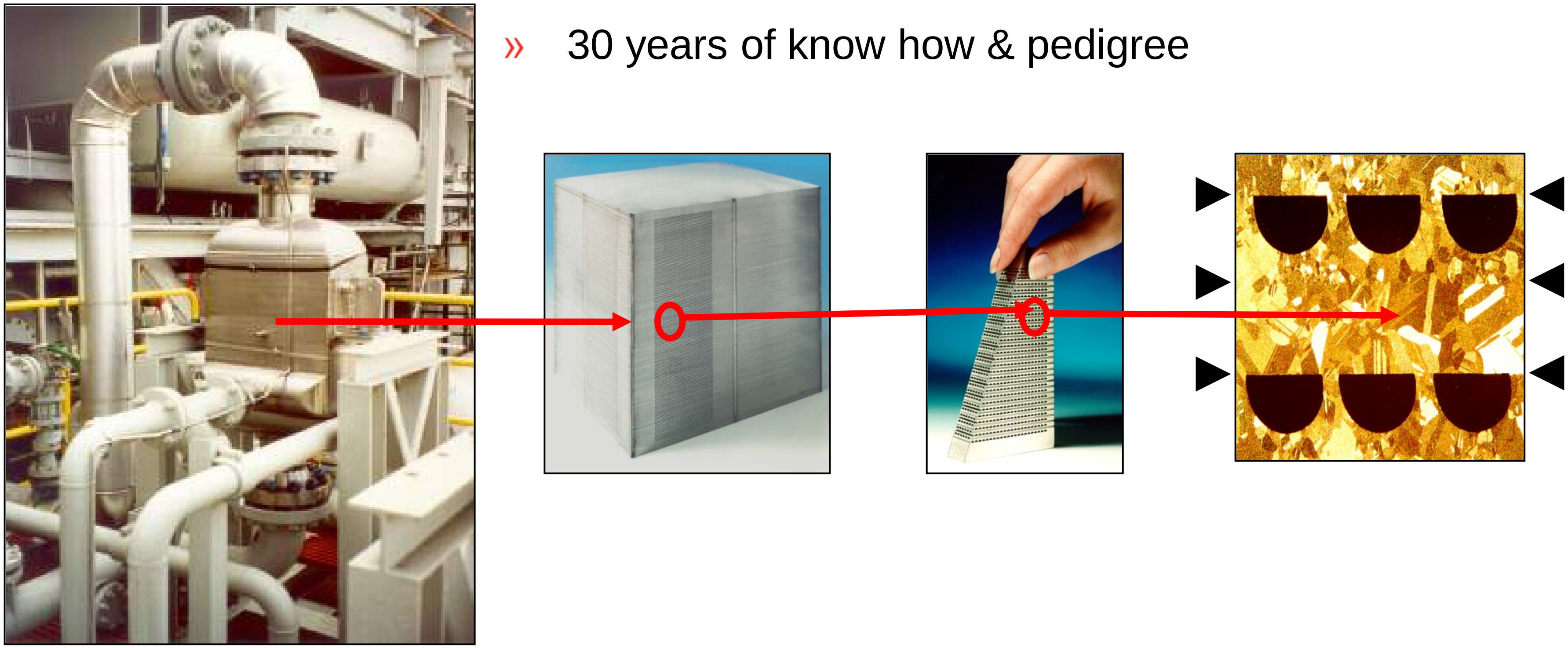
Heatric
Printed circuit heat exchanger technology



- Compact: Smaller & lighter than equivalent shell & tube.
- High Integrity: For duties at pressure (excess of 600 bar) and temperature combinations (Cryogenic to 900°C) that others struggle to meet.

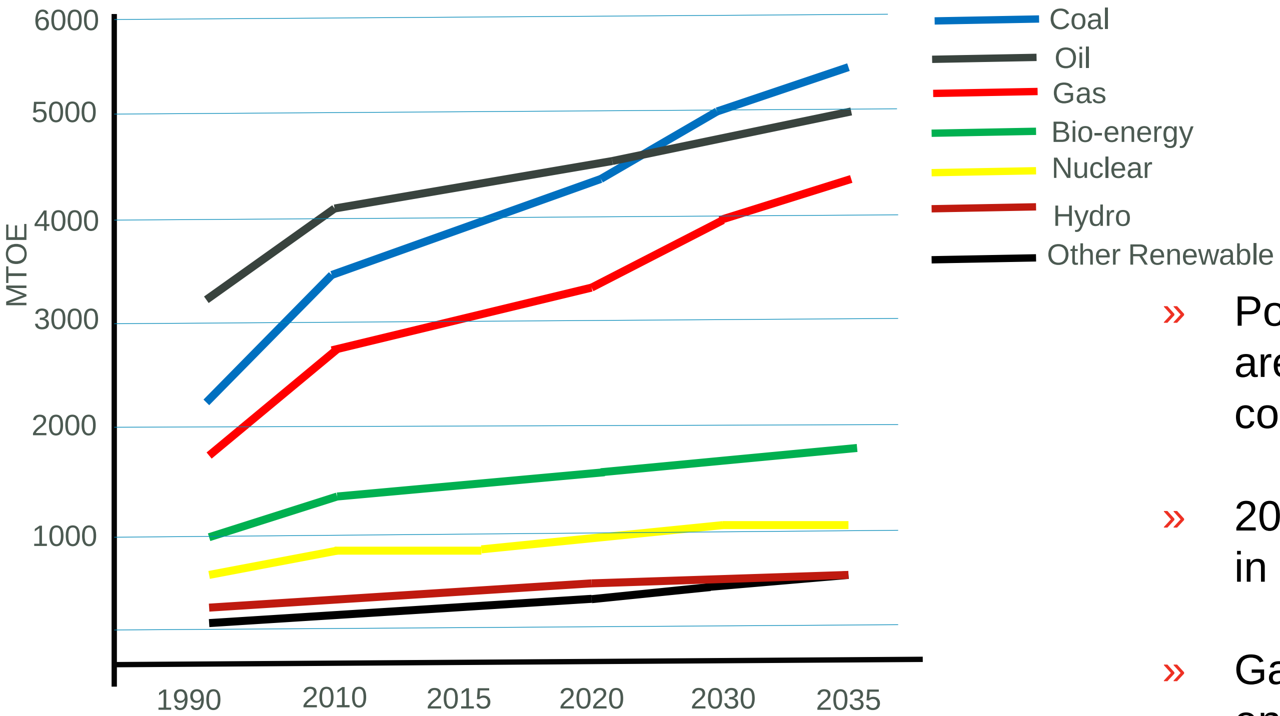
Diffusion bonding
Our core competence

» A joining process giving rise to parent metal strength
» Difficult to do
» 30 years of know how & pedigree



Key market drivers

Outlook for gas is very good



Source: International Energy Agency Special Report

Energy infrastructure investment of over $34 Trillion

- Population and income growth are driving production and consumption of energy.
- 2010 – 35 - 37% overall increase in energy demand.
- Gas continues to grow, driven by environmental policy and safety
- Gas output share will increase.

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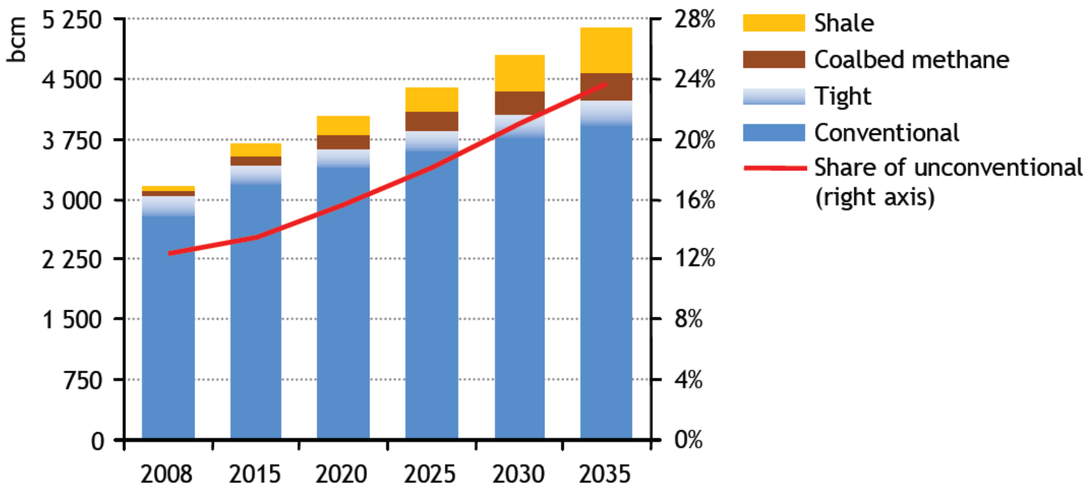
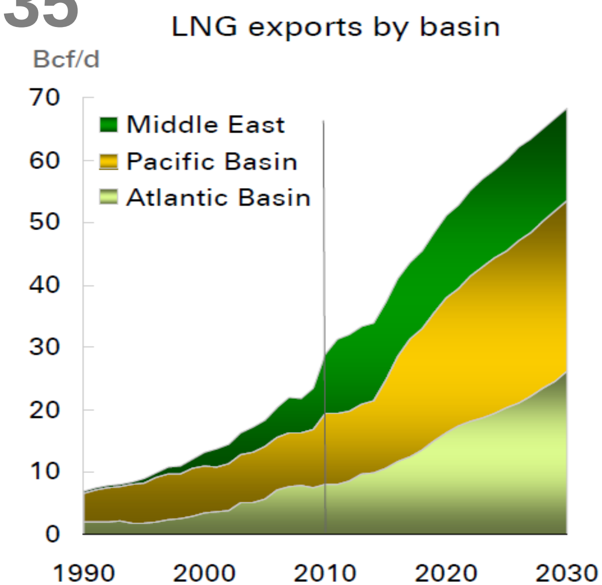
Key market drivers

Strong gas growth through 2035



Source: BP Energy Outlook



Source: International Energy Agency Special Report

- $8 Trillion in gas infrastructure investment
- >50% increase in total gas consumed
- Gas share of total energy consumption – 21%- 25%
- Unconventional sources of gas rise
- LNG trade grows twice as fast as global gas production
- $720 Billion in LNG infrastructure investment
- $86 Billion investment in new LNG carriers

Liquefied Natural Gas (LNG), our sweet spot will grow significantly in importance

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New markets

- Crude oil processing
- Next generation power systems
- Waste Heat Recovery
- Thermal Electric Energy Storage.

- Solar Power
- Air Separation
- Chemical Industry PCHE prospects

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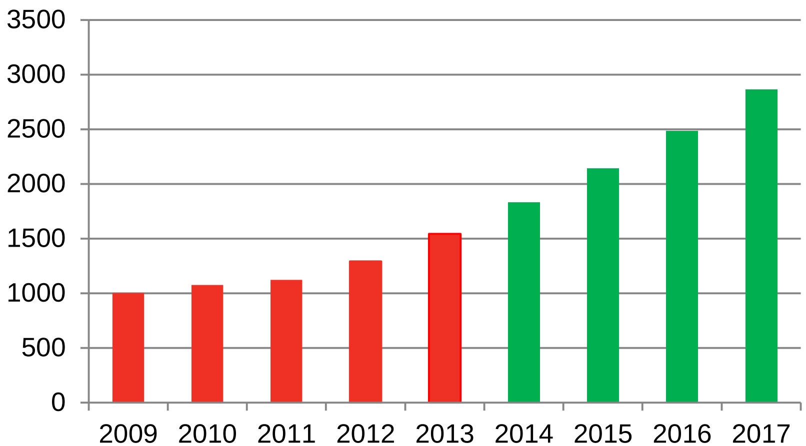
Growth prospects

Installed base 2009-2017



- Aftermarket - 10% of revenue and growing

Project Pipeline

- Visible pipeline of >50 projects, valued at in excess of £600m, covering:
  - Oil and gas
  - FLNG
  - Waste heat recovery
  - Power generation

Summary

- Growth of energy demand and increase in energy cost remain the drivers for the business.
- Core market set to grow as gas processing and LNG expand with both conventional and unconventional gas.
- Adjacent applications such as oil processing now emerging.
- Significant growth potential in new markets:
  - Power generation
  - Energy capture
  - Air separation

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FOCUS ON ENERGY

Thank you

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