



CAPITAL MARKETS DAY 2021

Fluid conveyance and thermal management

NOTICES

Cautionary Statement

This document has been prepared solely to provide additional information to enable shareholders to assess the Group's strategy and business objectives and the potential for the strategy and objectives to be fulfilled. It should not be relied upon by any other party or for any other purpose. This document contains certain forward-looking statements. Such statements are made by the Directors in good faith based on the information available to them at the time of their approval of this document and they should be treated with caution due to the inherent uncertainties, including both economic and business risk factors, underlying any such forward-looking information.



Safety





INTRODUCTION

David Squires
Group CEO

TODAY'S KEY OBJECTIVES

Deeper insight into our strategy

Focus on thermal management and fluid conveyance technology

Showcase examples of businesses operating in diverse and attractive end markets

Future proofing growth of the business as we transition to low carbon economy

Delivering and exceeding ROCE target over medium-term

AGENDA



10:30am Introduction

David Squires
Group CEO

10:50am Showcasing Senior Metal Bellows

John Cory
Senior Metal Bellows, CEO

11:20am Showcasing Senior Flexonics Pathway

Carl Armbrister
Senior Flexonics Pathway, Director Of Business Development

11:50am Q&A

All

12:10pm Networking lunch & product viewing

1:00pm Technology developments

Rob Vaughan
Senior Flexonics Crumlin, Managing Director
Ryan Collins
Senior Flexonics Bartlett, Director Of Engineering

2:00pm Financial

Bindi Foyle
Group Finance Director

2:20pm Q&A
Closing remarks

David Squires
Group CEO

PRESENTERS

David Squires
Group CEO



Bindi Foyle
Group Finance Director



John Cory
Senior Metal Bellows
CEO



Carl Armbrister
Senior Flexonics Pathway
Director Of Business
Development



Rob Vaughan
Senior Flexonics Crumlin
Managing Director

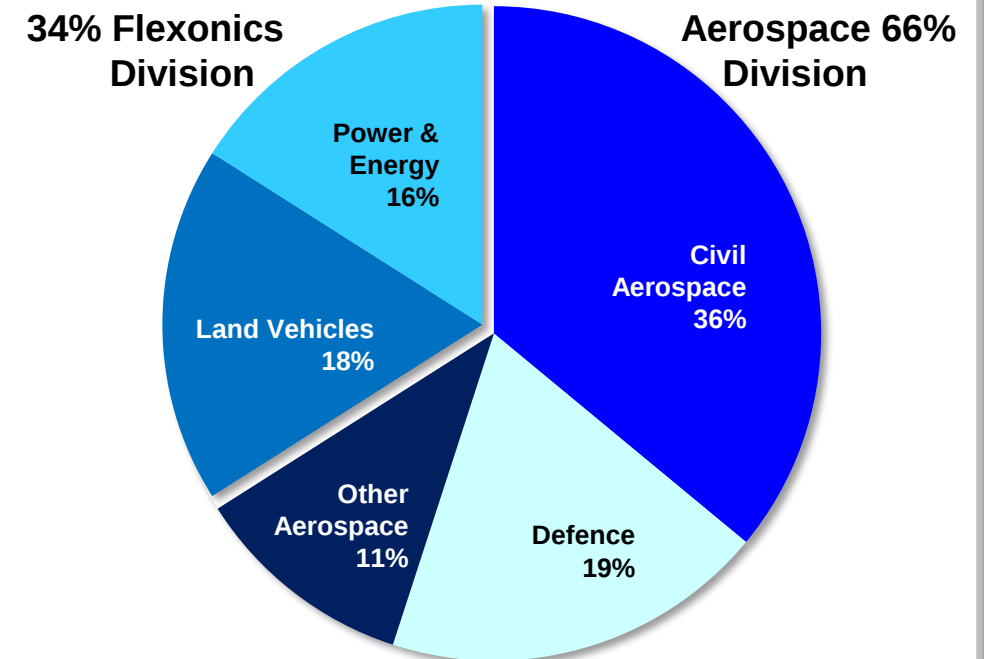
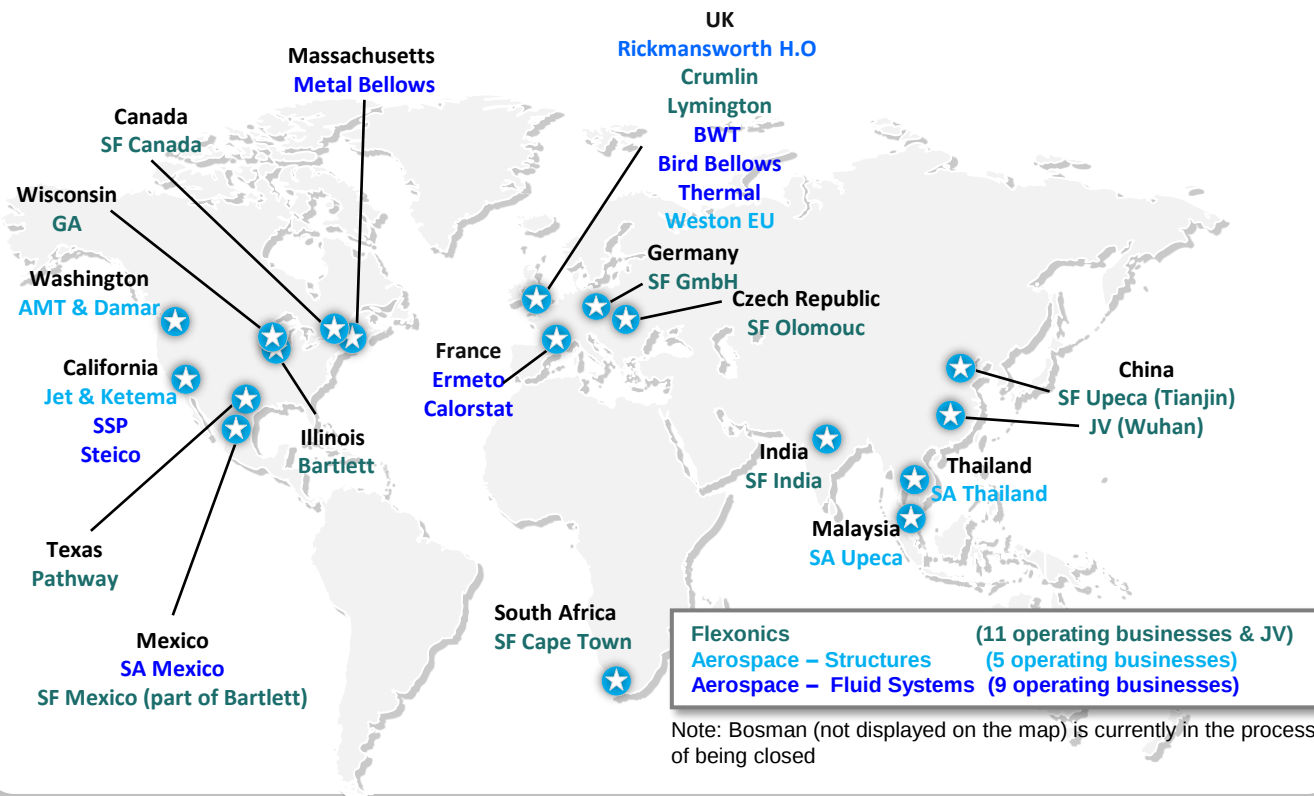


Ryan Collins
Senior Flexonics Bartlett
Director of Engineering

An international, market-leading, engineering solutions provider

Designs and manufactures highly engineered, technology rich components and systems for OEMs in the worldwide aerospace and defence, land vehicle and power & energy markets

26 operating businesses (including one JV) across 12 countries, reporting to two divisions: Aerospace and Flexonics



End markets composition based on H1 2021 revenue.

INVESTMENT CASE: POSITIONED FOR GROWTH

Our purpose to provide safe and innovative products for demanding thermal management and fluid conveyance applications



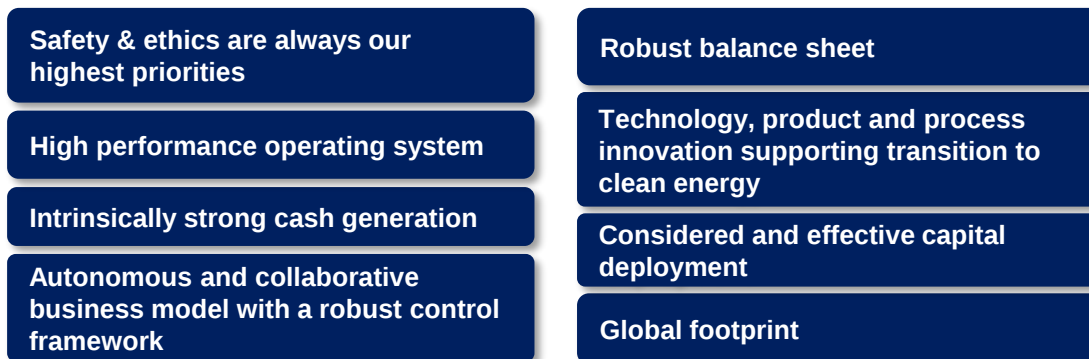
Trusted and collaborative high value-added engineering and manufacturing company delivering sustainable growth

Delivering minimum 13.5% ROCE* over medium-term

STRONG CORE END-MARKETS



OUR DIFFERENTIATORS



ESG LEADERSHIP

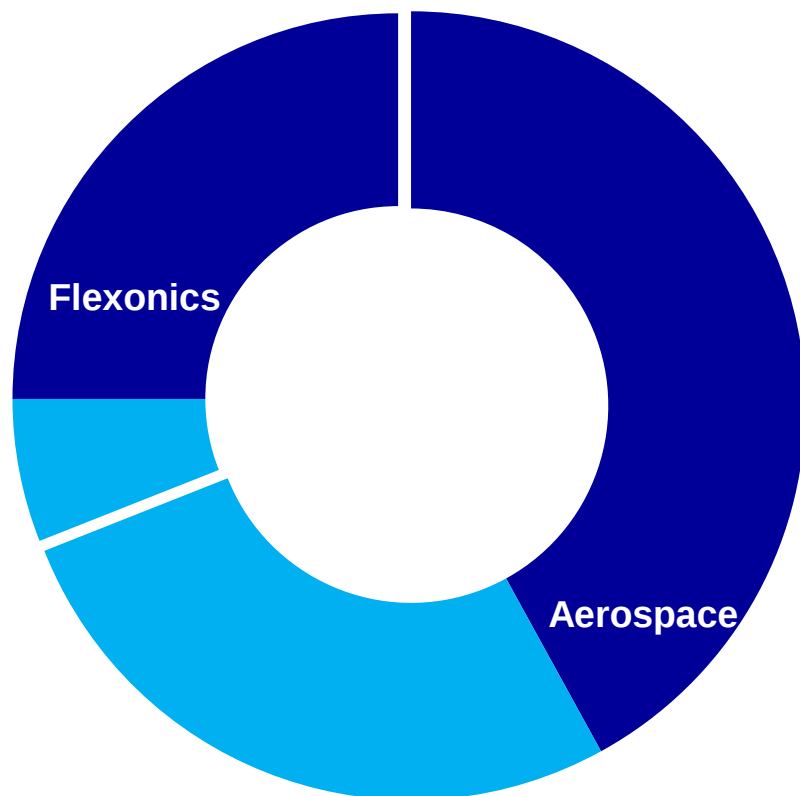
First worldwide in A&D sector to have greenhouse gas reduction targets verified and approved by the Science Based Targets initiative

CDP “Leadership” rating of A- on climate change and supplier engagement

Continuously improving Lost Time Injury Illness Rate; a reduction of 69% from 2015

Early adopters of Hampton Alexander and Parker (2023) Review on gender and ethnic diversity targets

FOCUS ON IP-RICH TECHNOLOGY AND MANUFACTURING



The chart shows H1 2021 revenue, pro forma for the sale of Senior Aerospace Connecticut.

Fluid Conveyance and Thermal Management

Product and System Design & Manufacturing IP

- ✓ This remains the key strategic focus
- ✓ Significant current and future opportunities identified within this technology domain

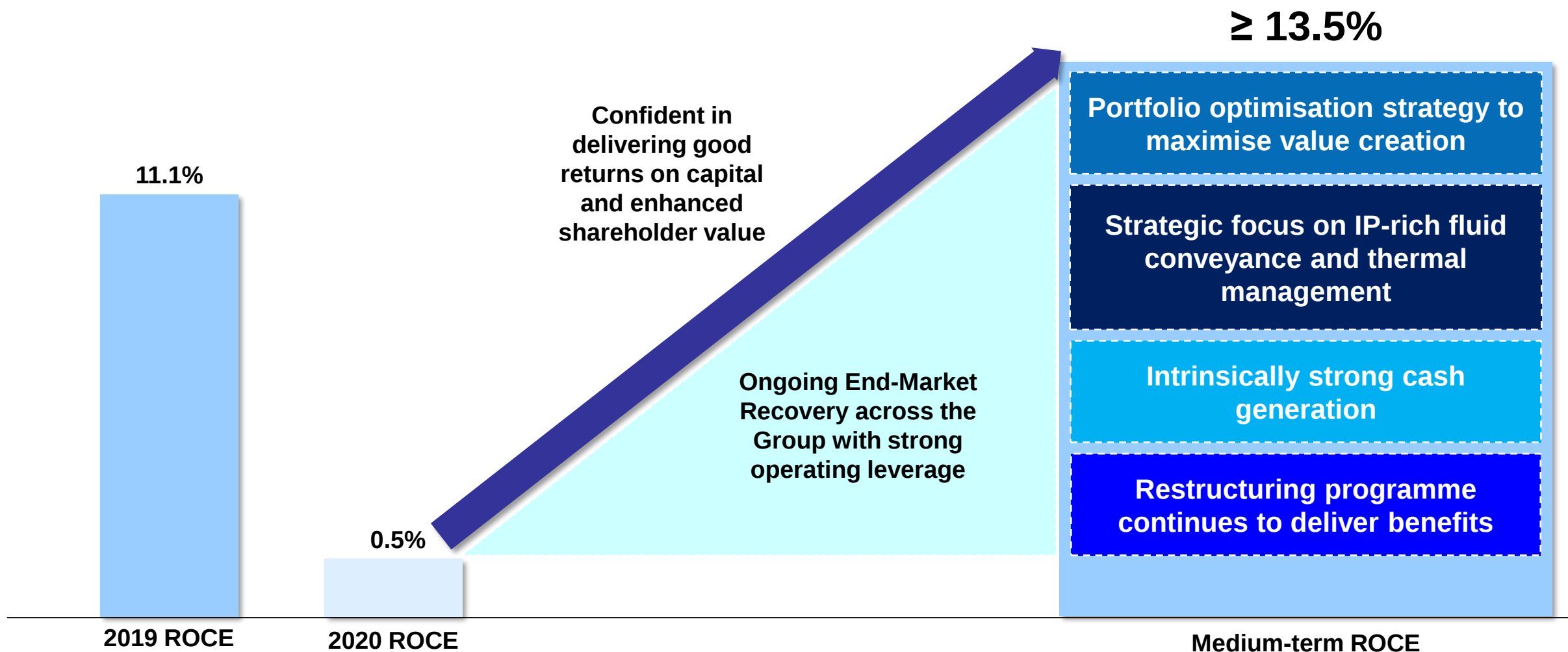
Structures

Complex Machining and Manufacturing Know-How/Process IP

- ✓ Fill our existing capacity
- ✓ Pursue further diversification into Space and Defence
- ✓ Grow market share profitably in Civil Aero as customers look for high performing reliable suppliers

Core capabilities underpin shareholder value growth

MEDIUM-TERM MINIMUM ROCE TARGET



Return on capital employed (ROCE) is the Group's adjusted operating profit divided by the average of the capital employed at the start and end of the period, capital employed being total equity plus net debt.

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SENIOR METAL BELLOWS

John Cory
Senior Metal Bellows, CEO

AGENDA

- Metal Bellows History
- Strategy
- Sales and Products
- Growth Products and Product Development
- Engineering Capabilities and Manufacturing Automation
- Summary

METAL BELLOWS HISTORY

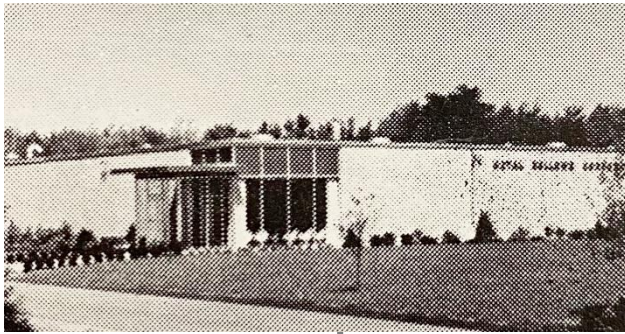
1955

Founded by Ray Shamie
~10,000 sq. ft. facility in
Wellesley, MA.



1974

Facility expanded to
~41,000 sq. ft.



1994

**Acquired by
Senior plc**



2020

Approximately 290 employees
Facility expanded to ~120,000 sq. ft.
10% of 2020 Group revenue



1963

New Facility in
Sharon, MA
~26,000 sq. ft.

1982

Facility
expanded to
~67,500 sq. ft.

1986

Acquired by
Parker Hannifin
Corporation

1998

Integrated Senior plc
MetalFab
acquisition

METAL BELLOWS VISION & STRATEGY STATEMENT



HEALTH AND SAFETY

TOP PRIORITY

To achieve profitable 6% year-on-year revenue growth by finding, capturing, designing and manufacturing complex products for niche production applications which solve problems and add value for OEM customers

METAL BELLOWS STRATEGY

- Maintain, exploit and expand IP across multiple/diverse end-markets by developing new devices and advancing manufacturing
- Develop deep customer insights/relationships and use a value sales approach
- Attract, retain and motivate talent
- Continuously strive for world class performance leveraging the Senior Operating System



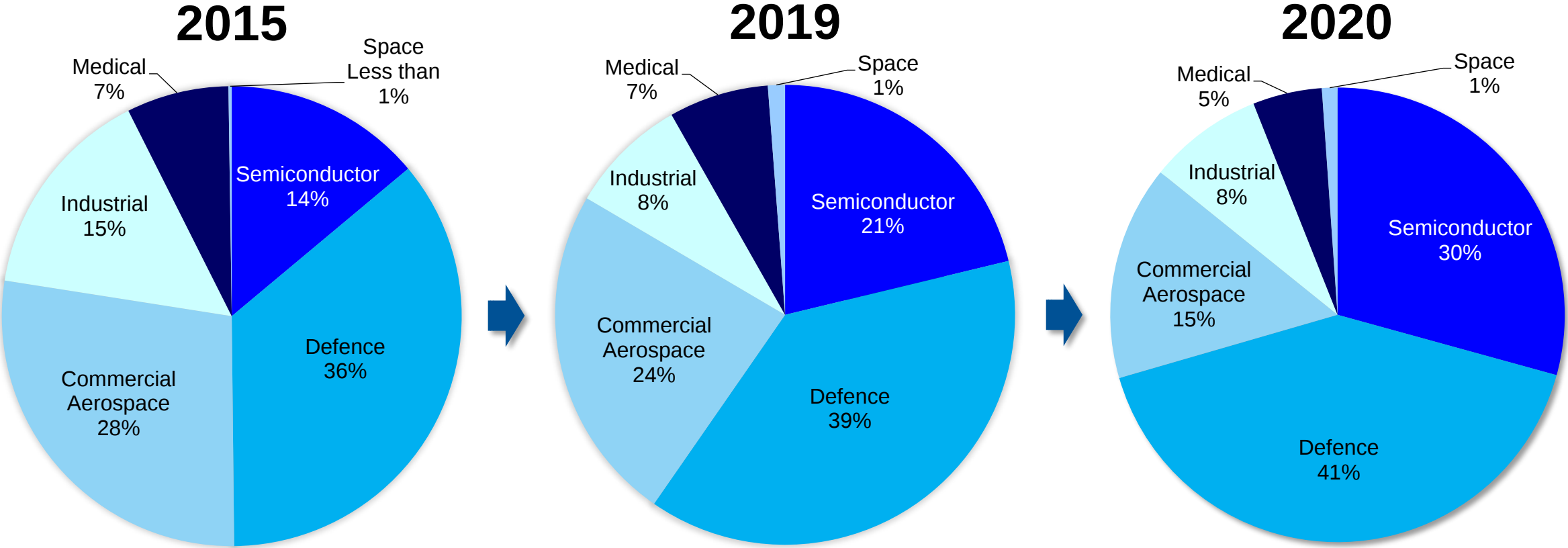
Use Strategy Deployment to delineate and drive key initiatives which support/enable Company Strategy

VALUE SALES APPROACH

- **Industry leader** in the design and fabrication of highly engineered bellows devices and components (not a commodity supplier and not a systems supplier)
- Superior **solutions** which differentiate us from competition and enable our customers to make unique products that bring higher value to their customers and end users
- Unsurpassed **concurrent engineering** capabilities
- Commitment to **exceeding customers' expectations** through solid relationships and world class operational performance

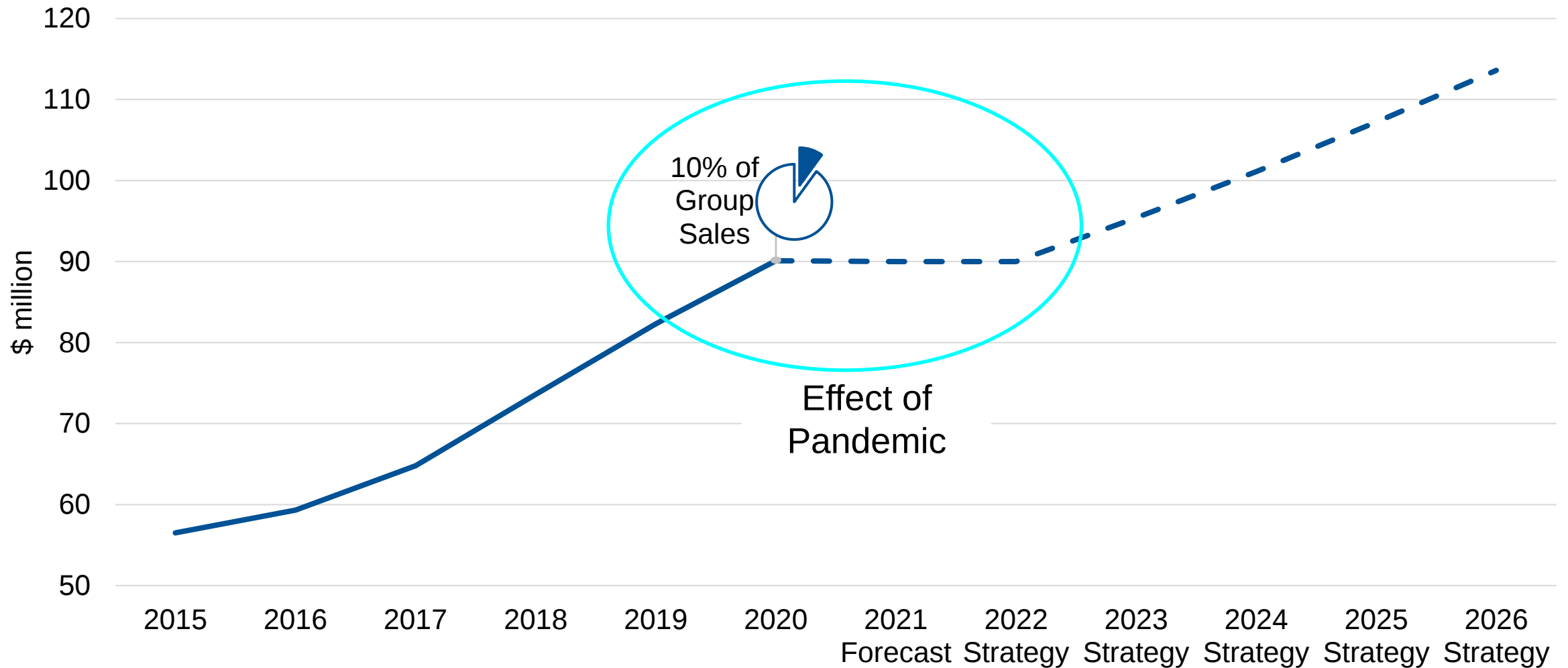


ATTRACTIVE END MARKETS

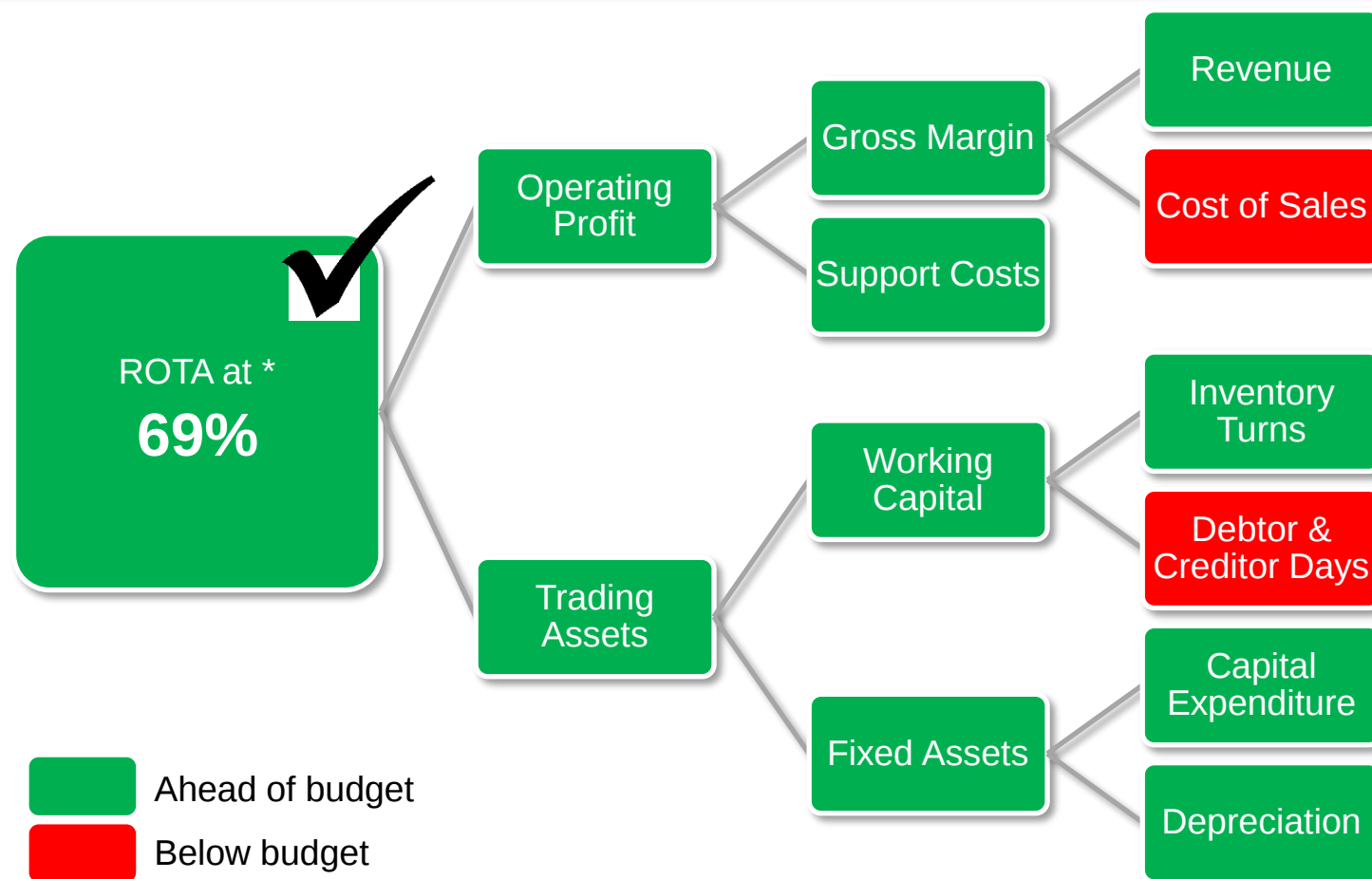


Market diversity supports sustainable growth

ANNUAL SALES HISTORY & STRATEGY



RETURN ON TRADING ASSETS



* H1 2021 figure.

Metal Bellows delivering well above group ROTA target

BELLOWS TECHNOLOGY A KEY DIFFERENTIATOR

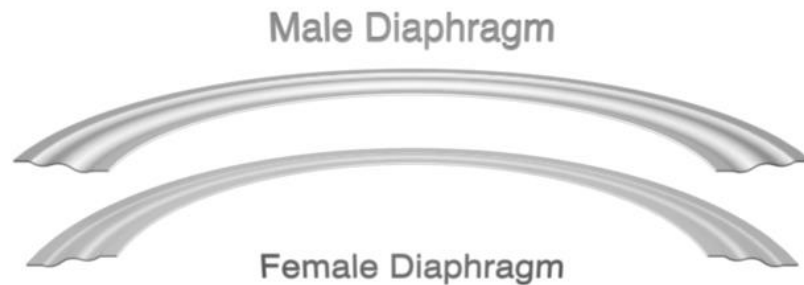
Materials:

Stainless Steel
High Nickel Alloys
Titanium

Diameter Range:

0.12 to 36 inches
(3.2 to 914 mm)

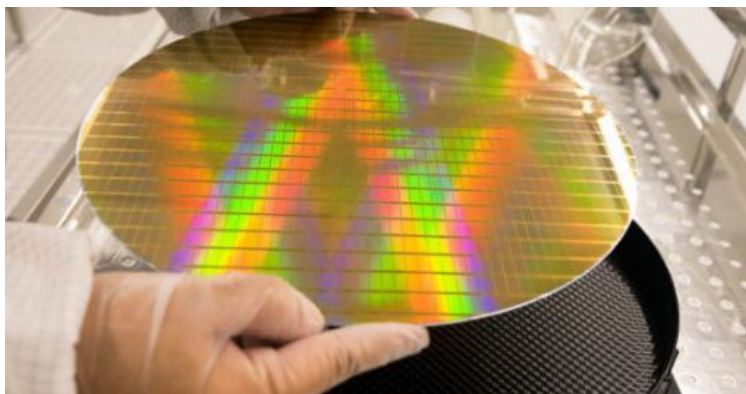
Zero leakage through a range
of motion in extreme
operating conditions



MULTIPLE AEROSPACE APPLICATIONS



SEMICONDUCTOR EQUIPMENT: A GROWING MARKET



Pneumatic Actuators



Compact Wafer Lift Sealed Actuator

- Pneumatically Driven
- Optical Fibre Position Sensing



Wafer Lift Sealed Actuator

- Pneumatically Driven
- Programmable Position Sensing



Chamber Door Sealed Actuator

- Pneumatically Driven
- Optical Fibre Position Sensing



Precision Dynamic Seal

- Electric Actuator Driven

OTHER DIVERSE MARKETS INCLUDE MEDICAL, INDUSTRIAL & SPACE



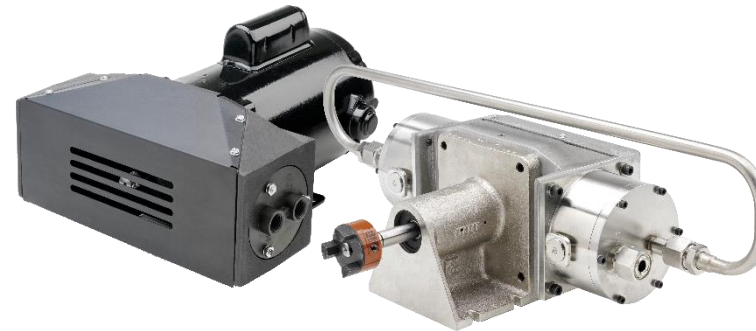
Coolant Reservoirs



Gas Lift Valve Seals



Implantable Pump
Reservoirs



Compressors and
Vacuum Pumps

AEROSPACE GROWTH PRODUCTS



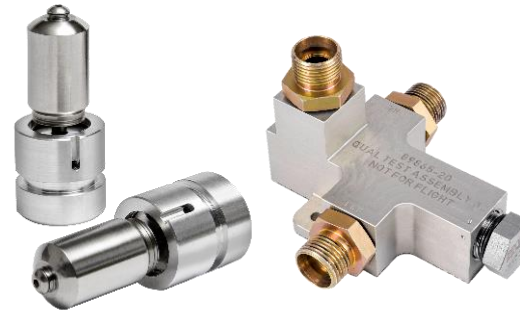
Hydraulic
Accumulators



Dynamic Engine
Seals



Thermal
Compensators



Thermal
Valves



SEMICONDUCTOR EQUIPMENT GROWTH PRODUCTS



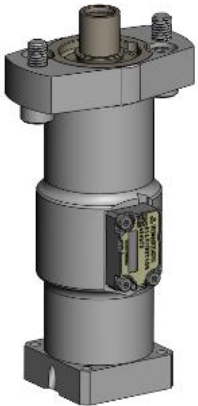
**Next Generation
Wafer Lift
Sealed Actuators**

- Pneumatically Driven
- Programmable Position Sensing



Ring Lifter

- Pneumatically Driven
- Programmable Position Sensing



**Next Generation
Precision
Dynamic Seal**

- Electric Actuator Driven



**Sealed Plunger
Assembly**

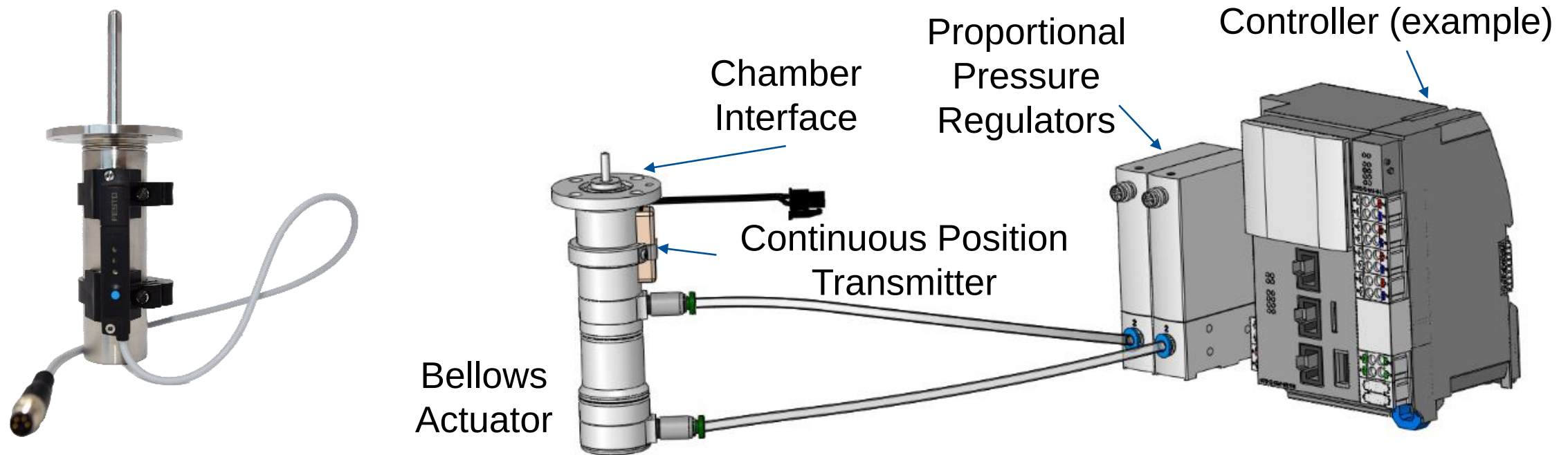
- Pneumatically Driven
- Optical Fibre Position Sensing



SEMICONDUCTOR PRODUCT DEVELOPMENT: SERVO-PNEUMATIC ACTUATORS

Key Performance Advantages

- Elimination of friction
- Single design capable of multiple speeds
- Cost advantage over motor driven solutions



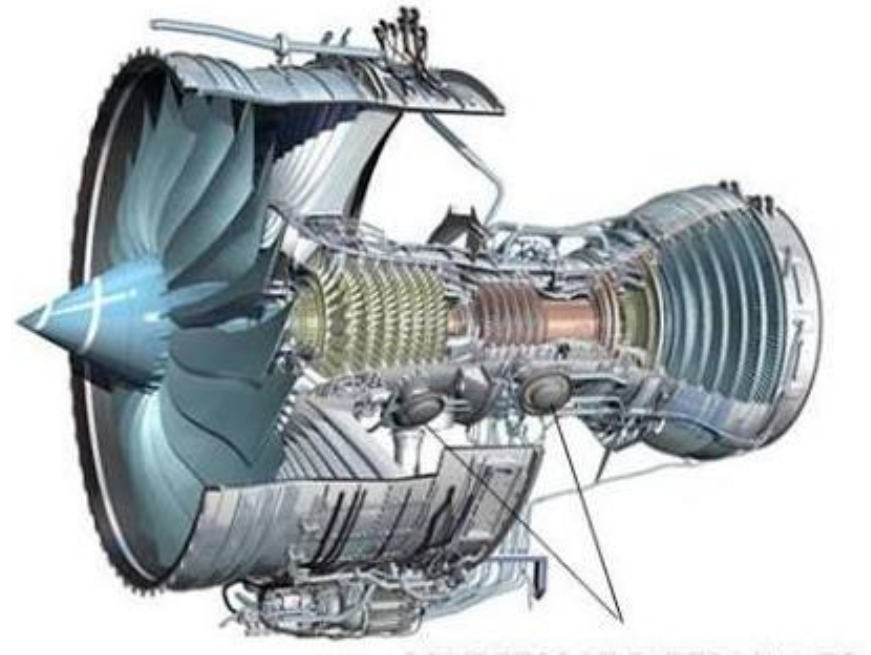
ENGINE VALVE PRODUCT DEVELOPMENT: MAINTENANCE FREE BLEED VALVES

Key Performance Advantages

- Temperature Exceeding 1200°F
- High & Low Pressure
- Extreme Vibration
- Minimises Friction



Bleed Valve Patented



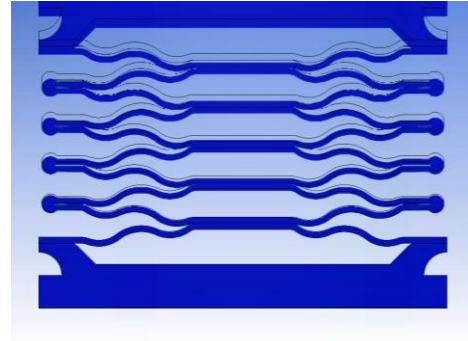
Bleed Valves

CORE ENGINEERING CAPABILITIES

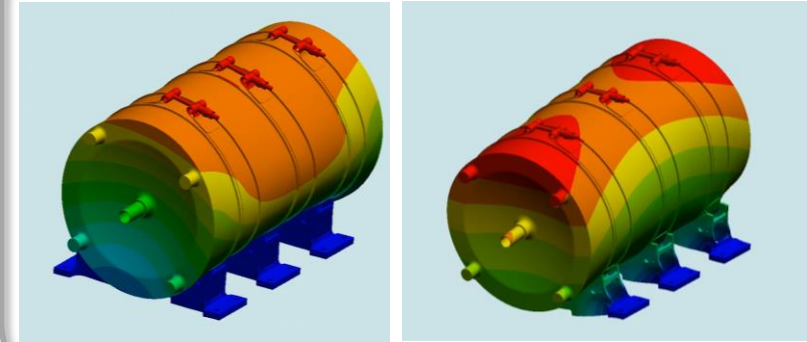
Rule based automated design



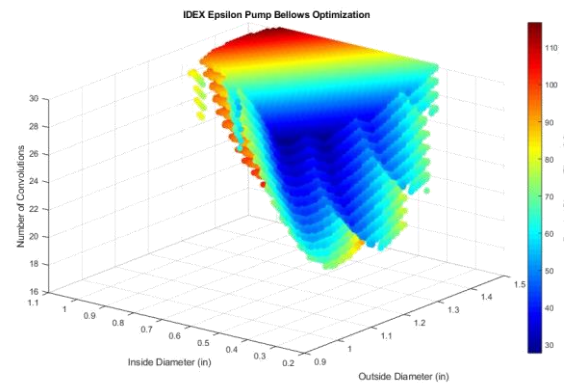
Bellows finite element analysis



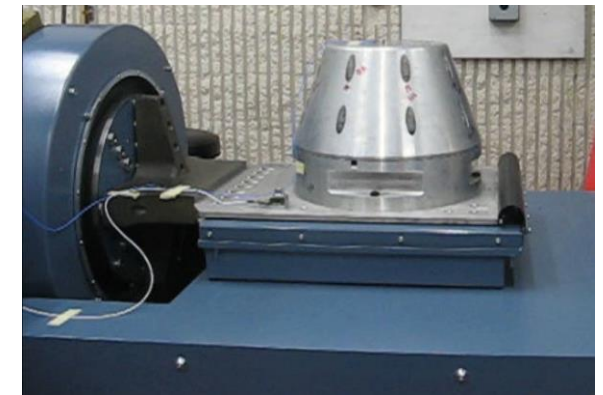
Vibration analysis



Pressure analysis



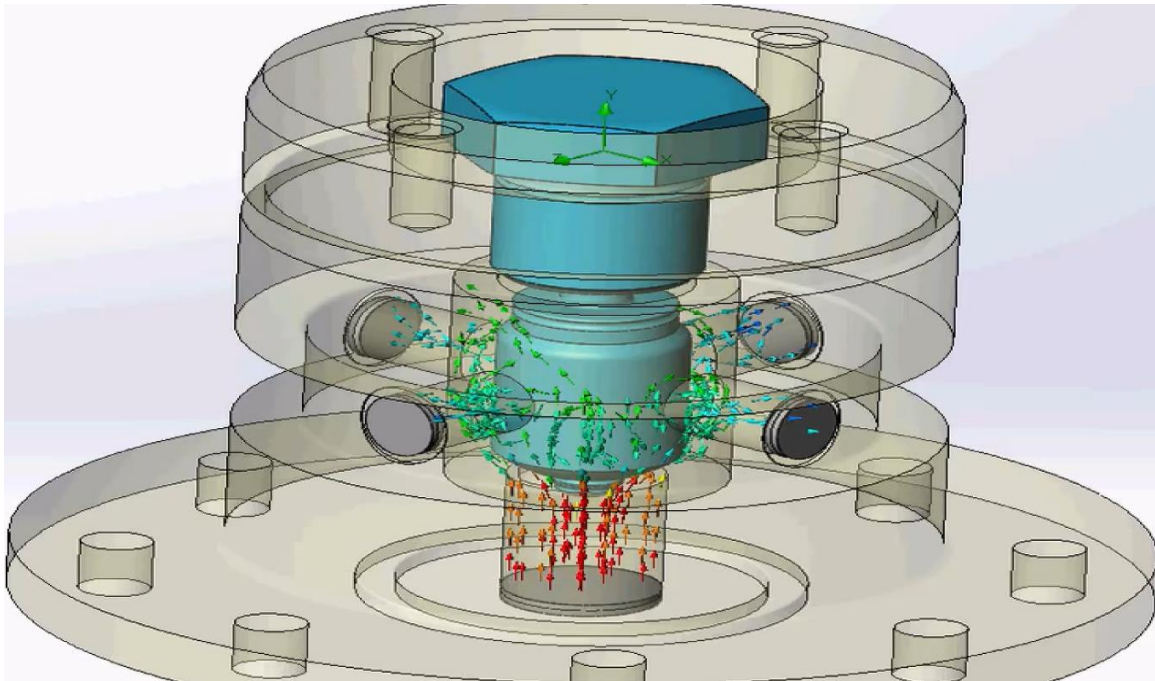
Bellows optimisation



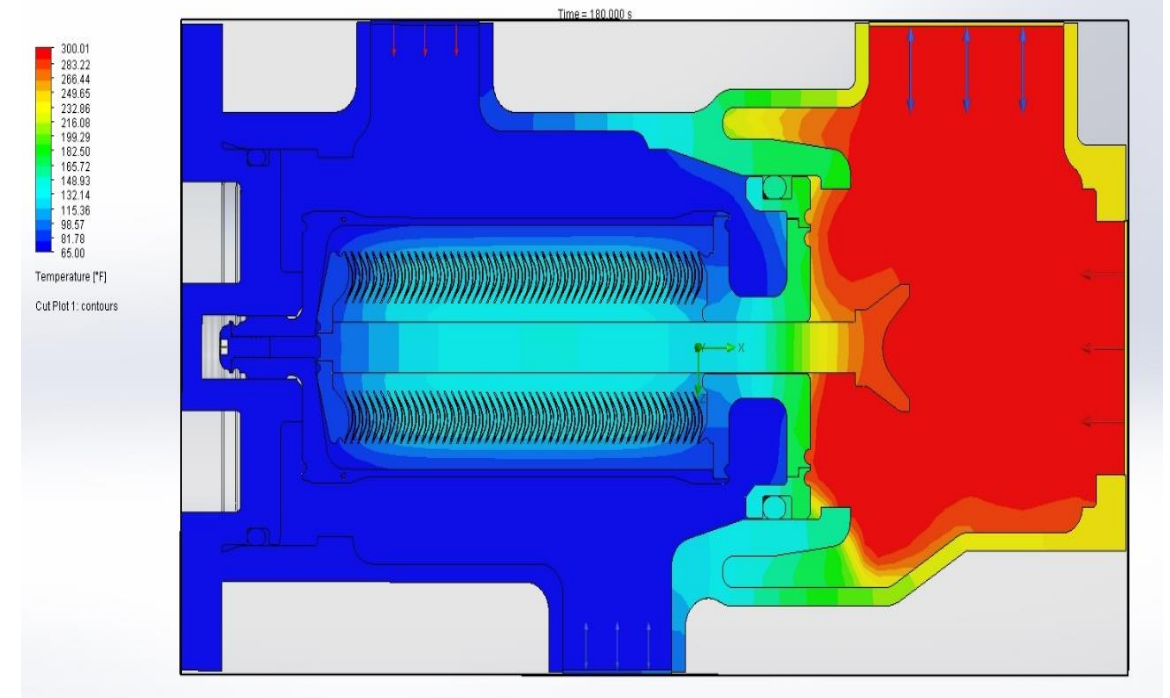
Vibration testing

CORE ENGINEERING CAPABILITIES

Computational fluid dynamics



Thermal analysis

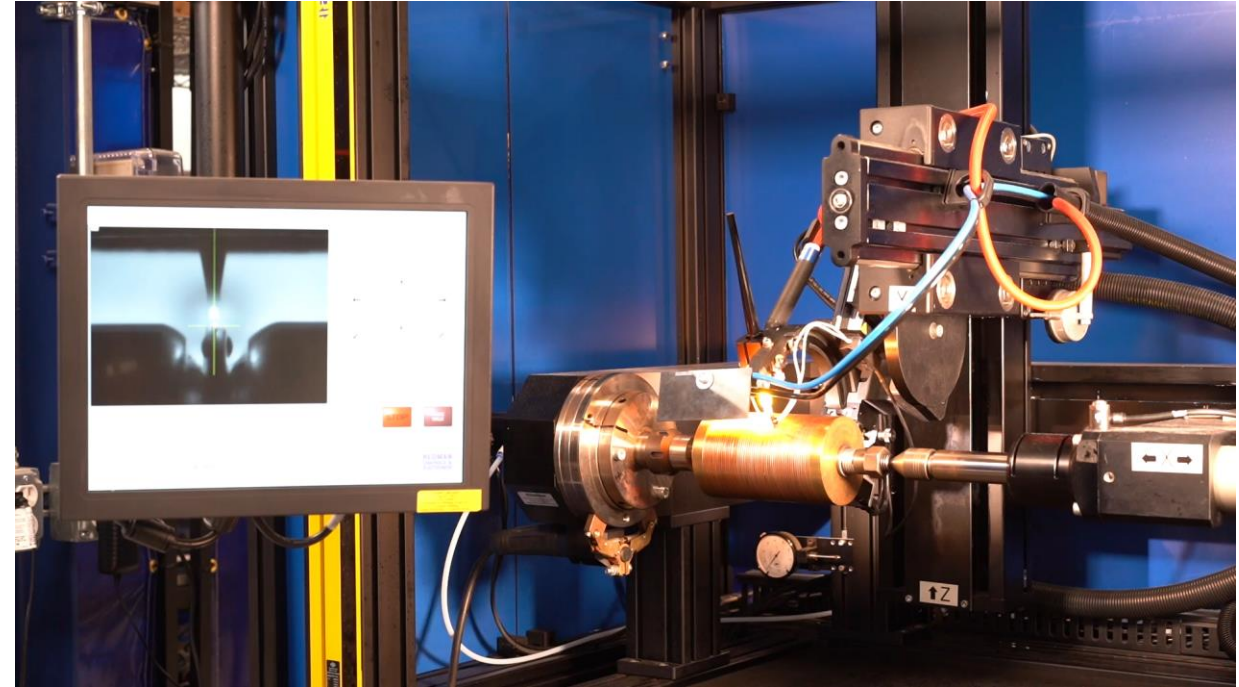


MANUFACTURING AUTOMATION

Automated Inner Diameter
Bellows Welding



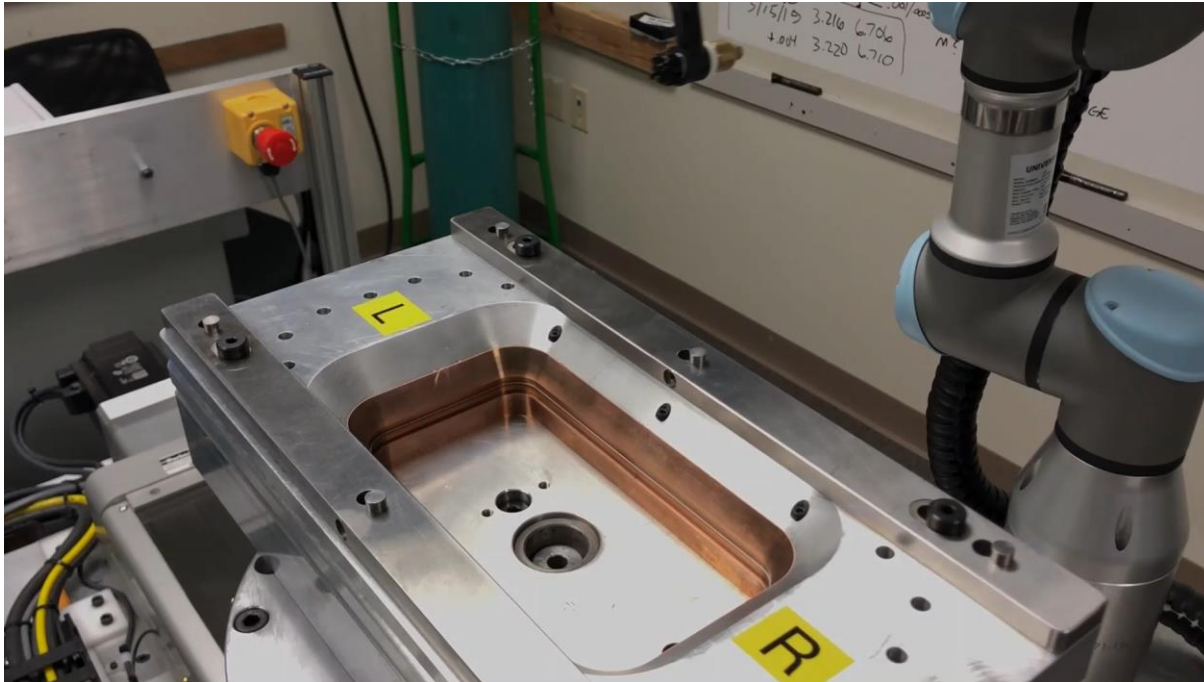
Automated Outer Diameter
Bellows Welding



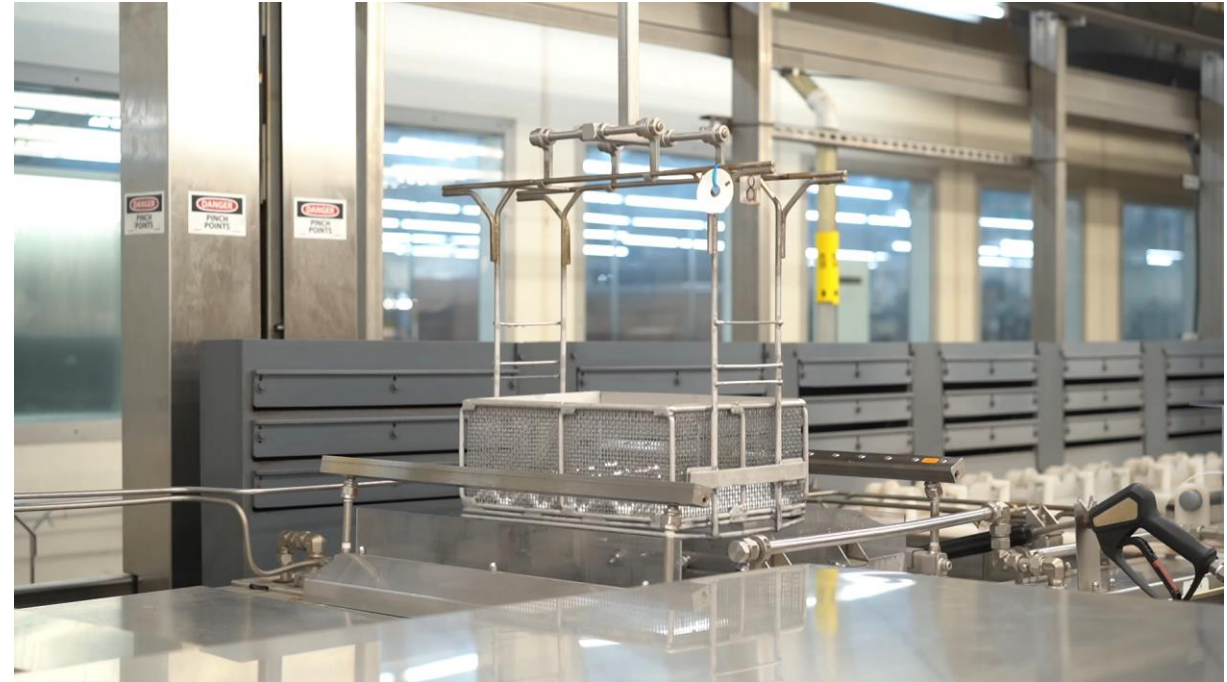
Mitigates potential skills shortage risk

MANUFACTURING AUTOMATION

Non-Round Bellows Welding



Automated Cleaning



Mitigates potential skills shortage risk

SUMMARY – SENIOR METAL BELLOWS



AGENDA

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Bindi Foyle
Group Finance Director

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Closing remarks

David Squires
Group CEO



SENIOR FLEXONICS PATHWAY

Carl Armbrister
Senior Flexonics Pathway,
Director Of Business Development

AGENDA

- Pathway History
- Product Introduction
- Sales
- Differentiators and Applications
- Growth Areas
- Summary

PATHWAY HISTORY

1999

Senior acquires **Pathway Bellows**
and merges with Expansion Joint Division
to form



2020

Approximately 170 employees
Facilities 200,000 sq. ft. (Texas and Maine)
5% of 2020 Group revenue



1980

Senior Flexonics Expansion Joints
opens facility in
New Braunfels, Texas

2004

Expansion of Texas
Site, closure of
Tennessee Location

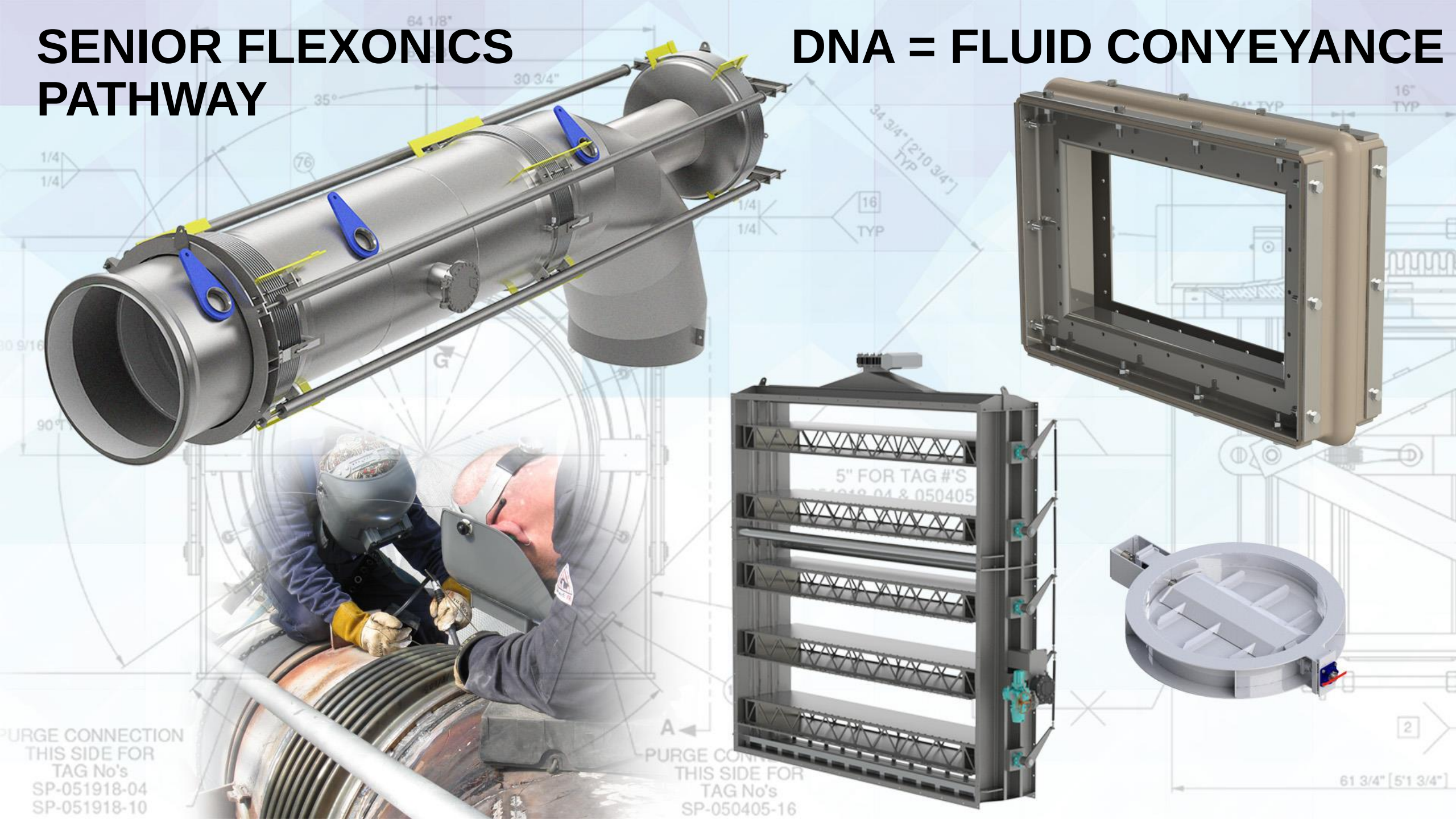
2011

Acquisition of WalcoMetroflex
(Lewiston, Maine)



SENIOR FLEXONICS PATHWAY

DNA = FLUID CONYEYANCE



WE MAKE EXPANSION JOINTS

What are they? What do they do?

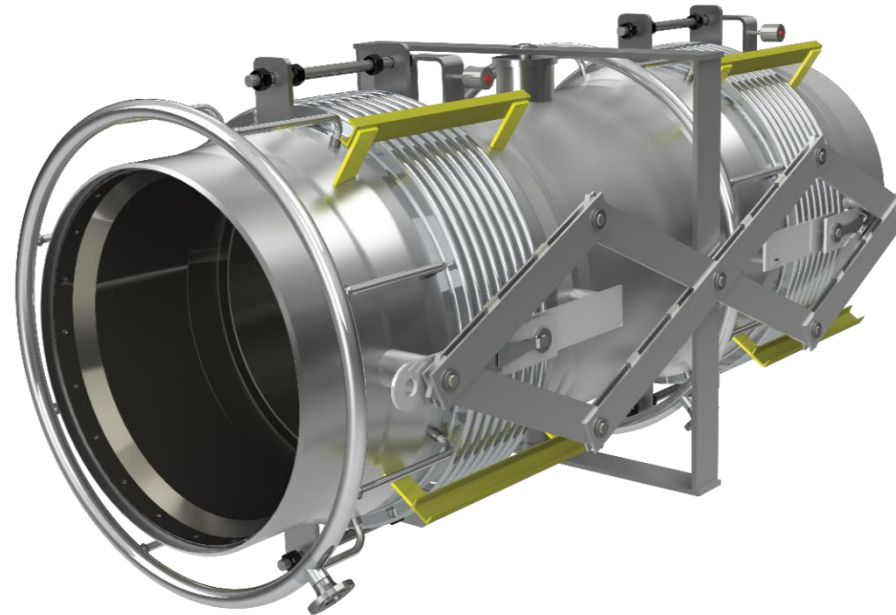
Bellows Element:

- Thin Walled (0.015" - 0.075")
- High Alloy
- Convoluted Sheet tube



Expansion Joint:

- Bellows element
- End connections
- Hardware and accessories



Function: Expansion Joints mitigate/ absorb thermal growth

(100 Feet of Pipe can grow almost 17" at 1400° F, and can shrink 2.27" at -150 ° F)

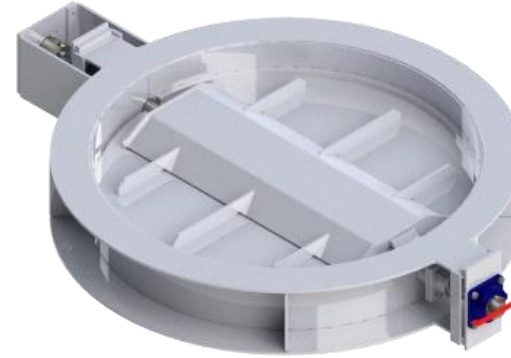
WE MAKE DAMPERS

What are they? What do they do?

- Can offer almost 100% Isolation
- 0-50 psig depending on size
- -100 to 2000°F
- Horizontal or vertical



Flex-Seat
Guillotine Damper



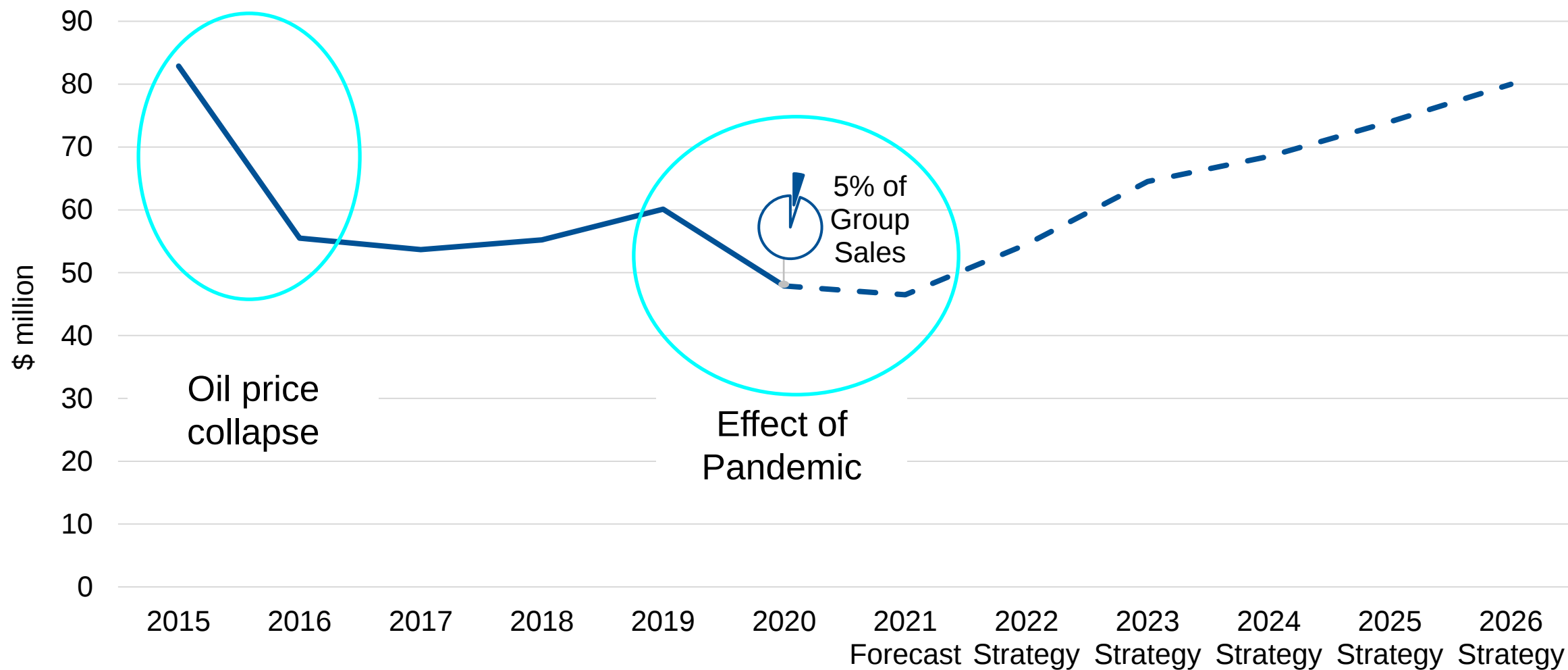
Butterfly Damper



Tandem Louver
Damper

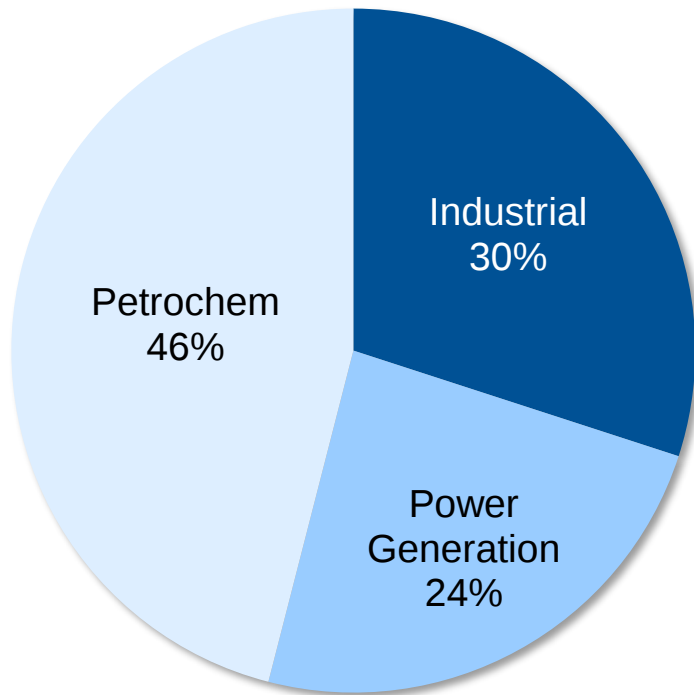
Function: a movable metal plate in a flue or chimney, used to regulate the draft and control the rate of combustion

ANNUAL SALES HISTORY & STRATEGY

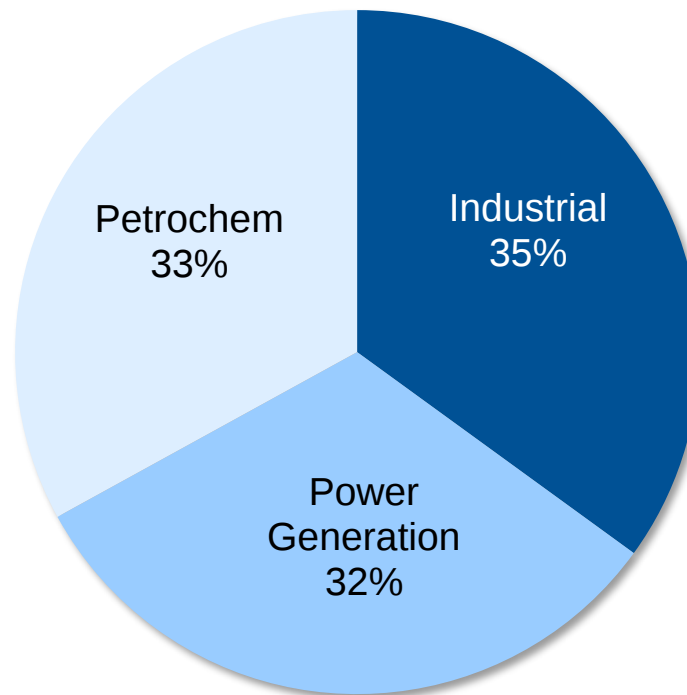


OUR MARKETS

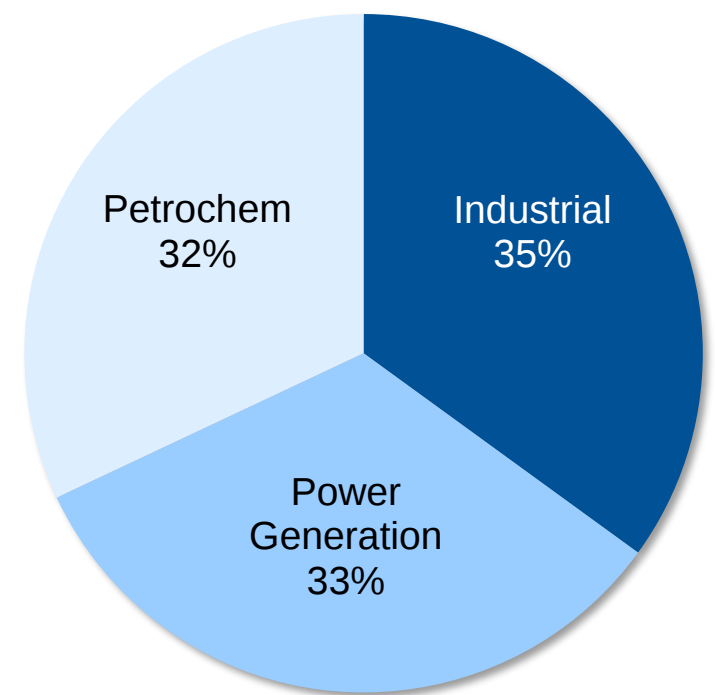
2015



2019

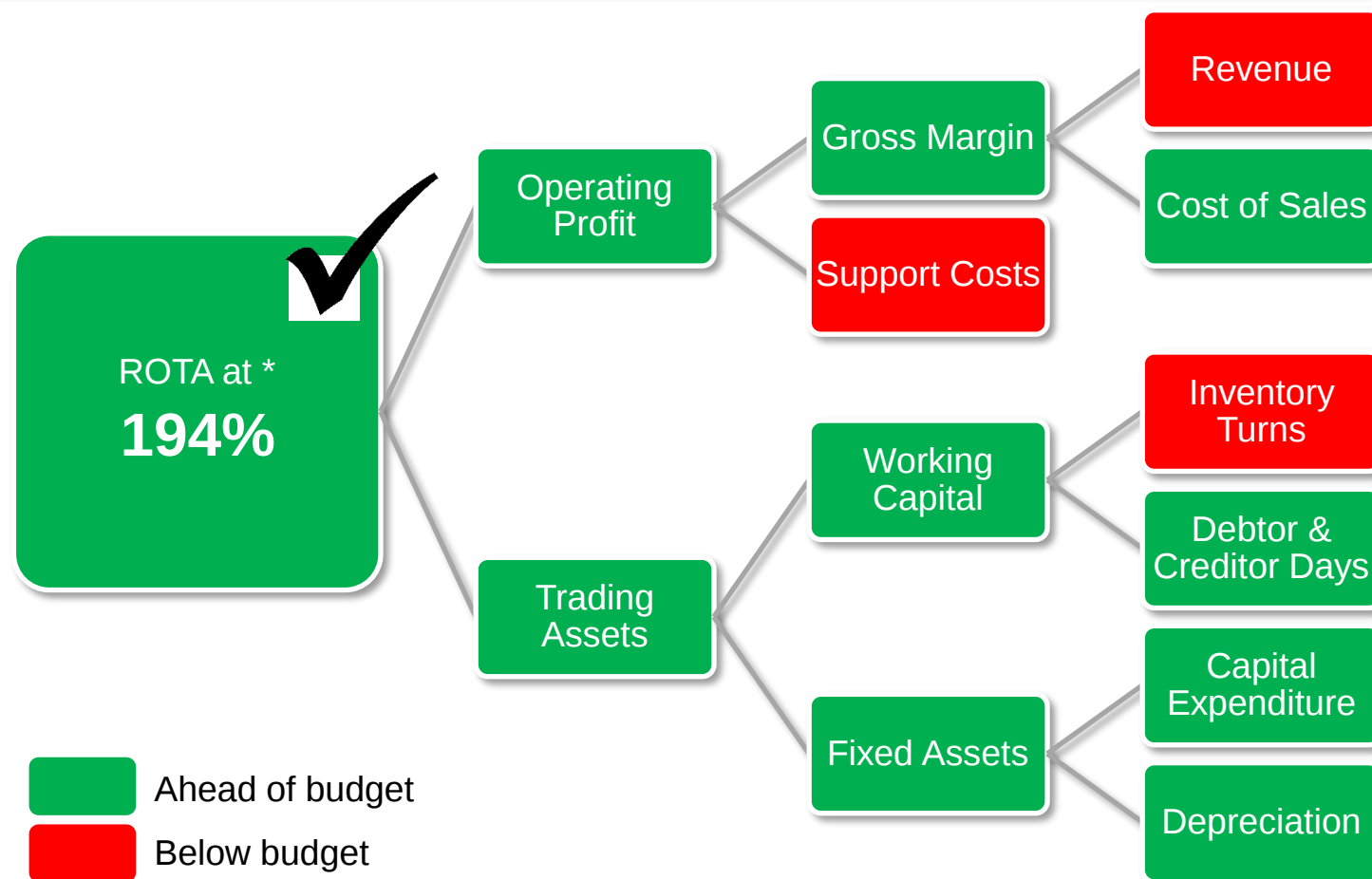


2020



Balanced diversification across end markets and customers

RETURN ON TRADING ASSETS



* H1 2021 figure.

Pathway delivering well above group ROTA target

PATHWAY'S DIFFERENTIATED TECHNOLOGY



Refining

Petrochemical

Chemical

Industrial

Power Generation

Nuclear
Natural Gas
Steam Recovery
Naval Power &
Exhaust Systems
Coal-fired

Applications

DNA = Fluid Conveyance

Product and Services

**Metallic
Bellows**

**Metallic
Expansion
Joints**

**Metallic
Hoses**

**Fabric
Expansion
Joints**

**Adjacent
Piping**

**Dampers
and
Diverters
Valves**

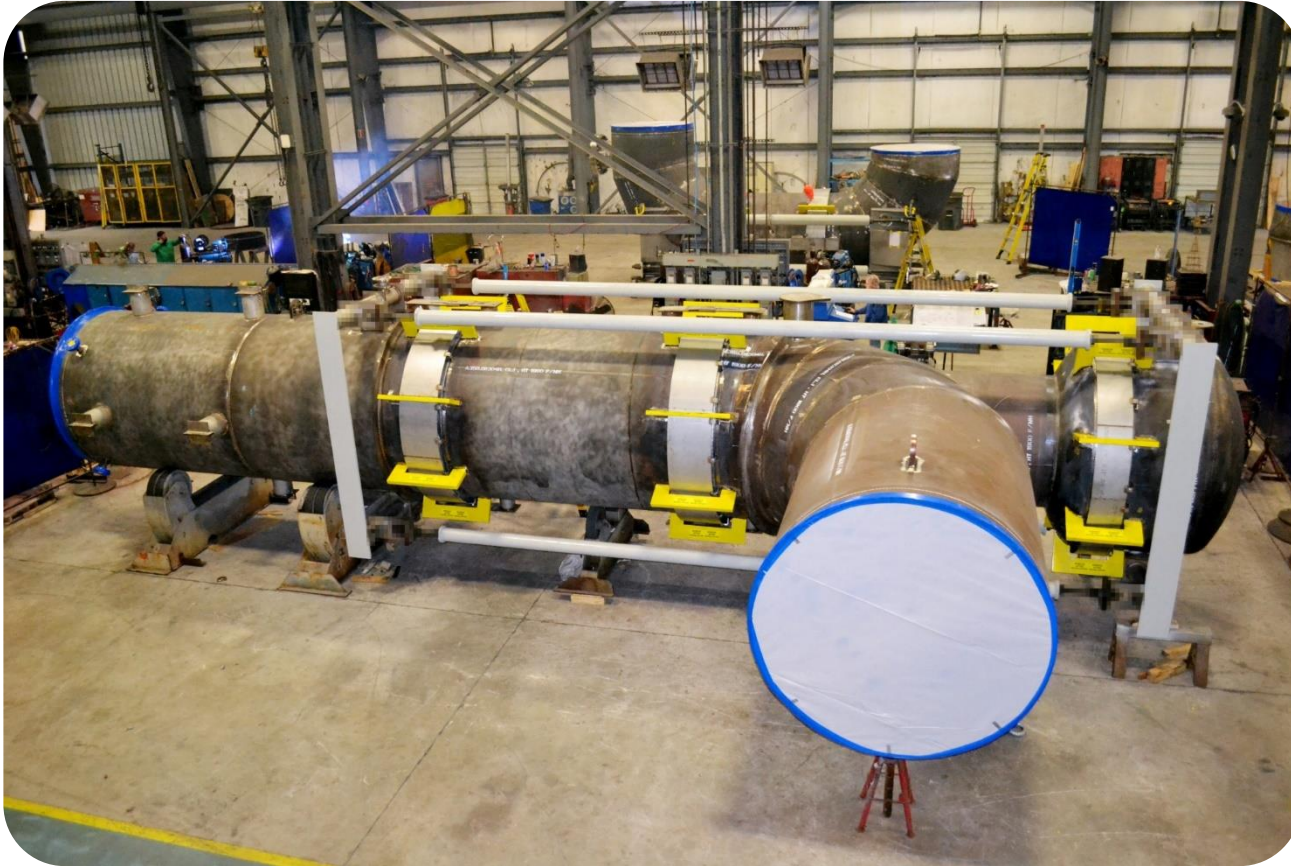
**In-field
Repairs**

**In-Field
Installation**

**Engineering
Services**



SHEER SCALE SETS US APART



Bellows Forming from 2" (5cm) to 202" (5.1m) diameter

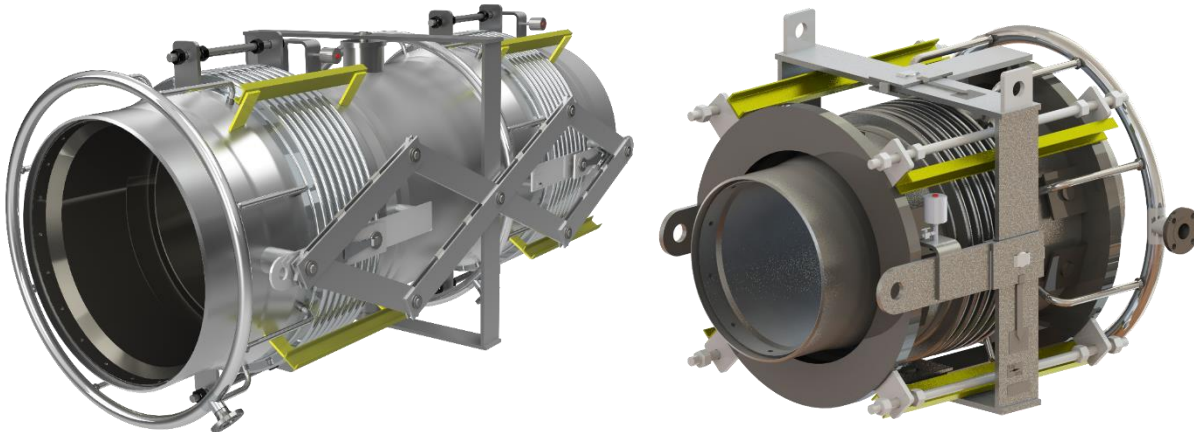


Damper size ranges from 12" (30cm) <40' (12m)

PETROCHEMICAL APPLICATION

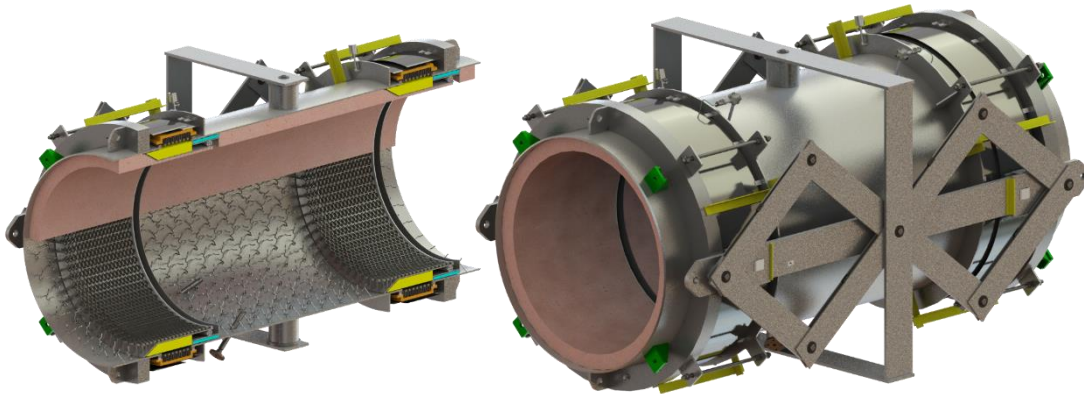
Propane Dehydrogenation (PDH) | Catofin

- PDH is a petrochemical process in the production of propylene from propane which is the second most important starting product in the petrochemical industry after ethylene. PDH **converts propane into propene and by-product hydrogen.**
- Expansion Joint Intense Application
- 120 to 160 assemblies per plant
- We have more operational hours in this field than all other manufacturers combined
- 1200+ Units Operating in <15 Plants

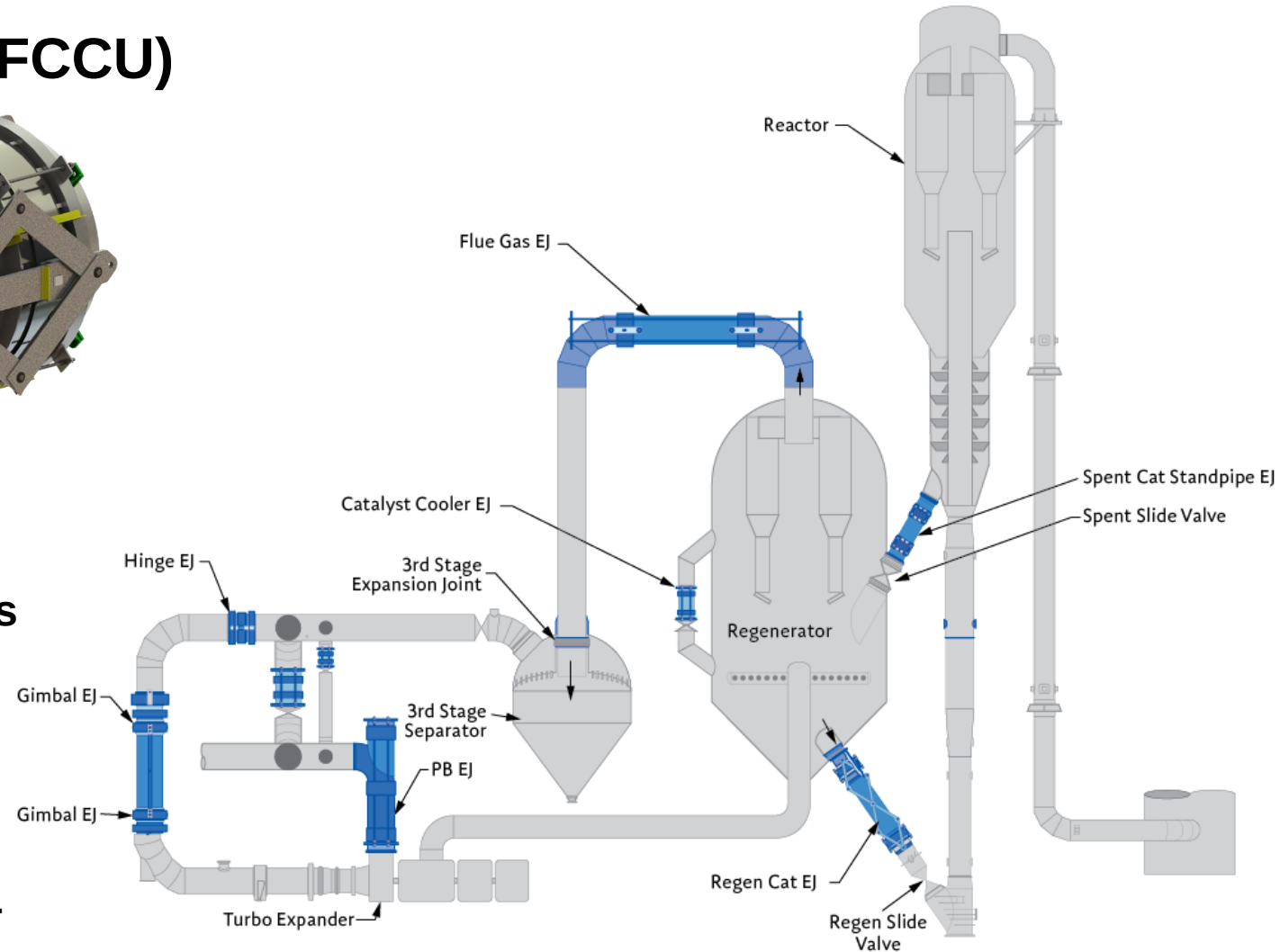


REFINING APPLICATION

Fluidised Catalytic Cracking Unit (FCCU)

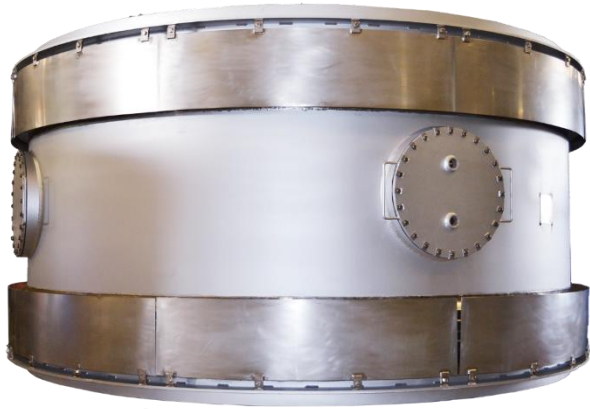


- Fluid catalytic cracking (FCC) is one of the **most important conversion processes used in petroleum refineries**.
- It converts the high-boiling point, high-molecular weight hydrocarbon fractions of petroleum crude oils into more valuable gasoline, olefinic gases, and other products.



POWER GENERATION APPLICATIONS

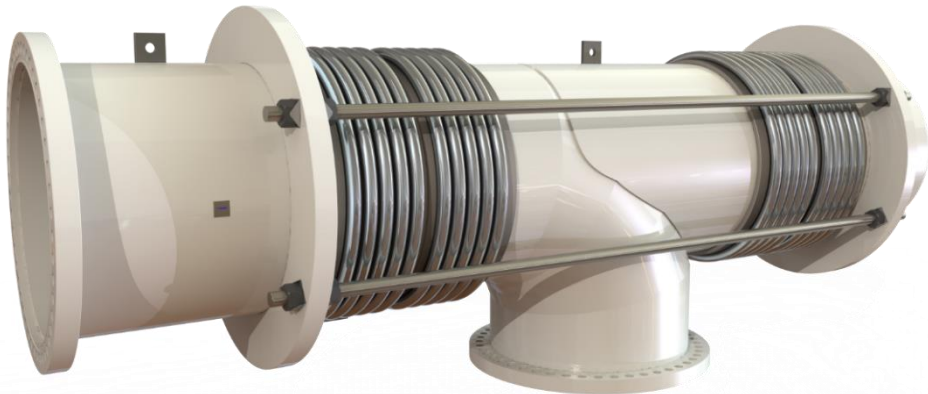
Nuclear



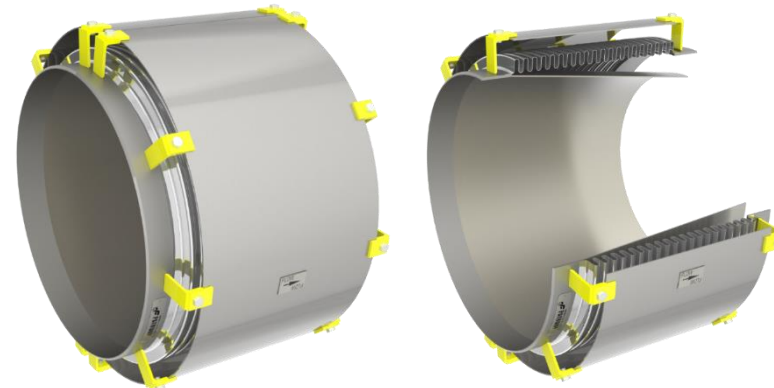
Natural Gas



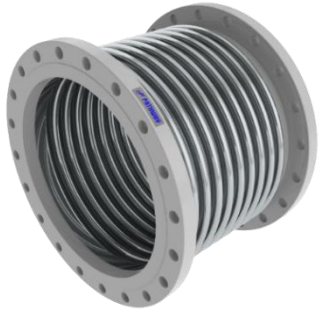
Coal Fired



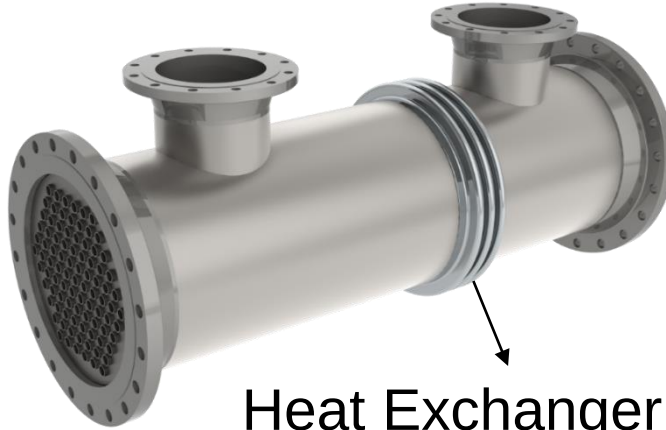
Marine Exhaust Expansion Joint



INDUSTRIAL APPLICATIONS & HARDWARE



Single
Expansion Joint



Heat Exchanger



Universal
Expansion Joint



Hoses



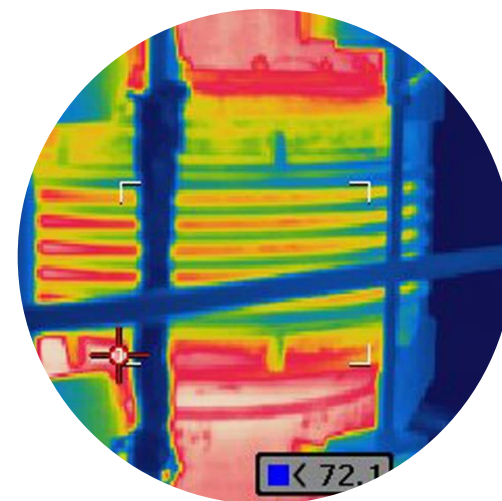
Guillotine

- Building Materials
- Mining
- Shipbuilding
- Wastewater
- Pulp & Paper
- Cement

ON-SITE REPAIRS AND REPLACEMENT INSTALLATIONS

Aftermarket sales and service

- Pathway service its customers with product replacement and spares
- Our team performs both off-line and hot on-line repairs and retrofits.
- We also provide installations, supervision, inspections and other services for all of our product groups.
- Our specialised team can perform “Clamshell” repairs of bellows elements in the most severe field environments. This repair can often be done online, helping a facility avoid a costly shutdown.



NUCLEAR ENERGY CASE STUDY: PLANT LIFE EXTENSION

- **Low-Carbon Nuclear Energy Technology**

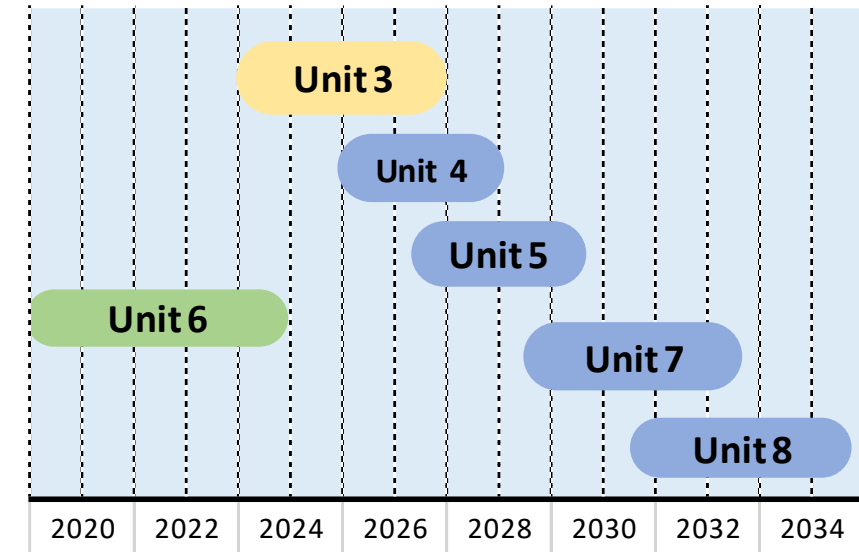
- **Plant Life Extensions**

- Bruce Power embarks on Multi-Year Major Component Replacement (MCR)
 - Senior Flexonics Pathway working in close collaboration with Bruce Power
 - MCR planned for US Based Nuclear Power Operators

- **Engineering Service**

- In high demand
 - Pathway leads on design concept for unit 3 Bulkhead and Calabdia seals

BRUCE POWER: MCR PROJECT TIMELINE



Stream
Generation
Bellows
Containment
seal

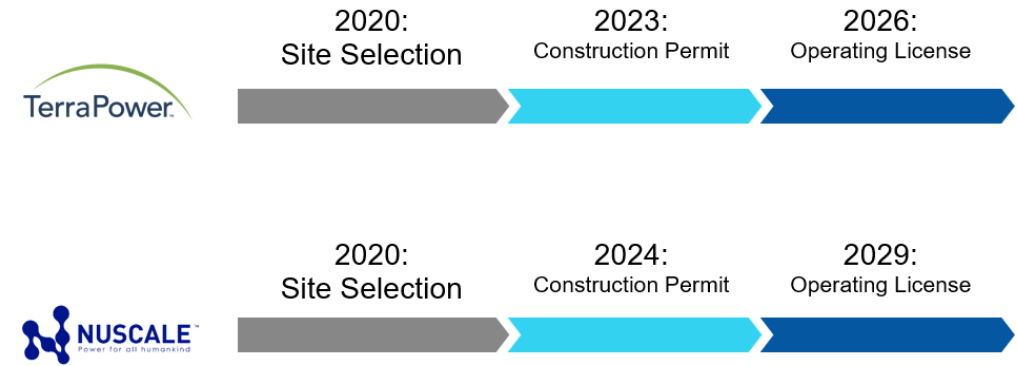


Primary
Heat
transfer
Bellows

NUCLEAR ENERGY CASE STUDY: SMALL MODULAR REACTOR

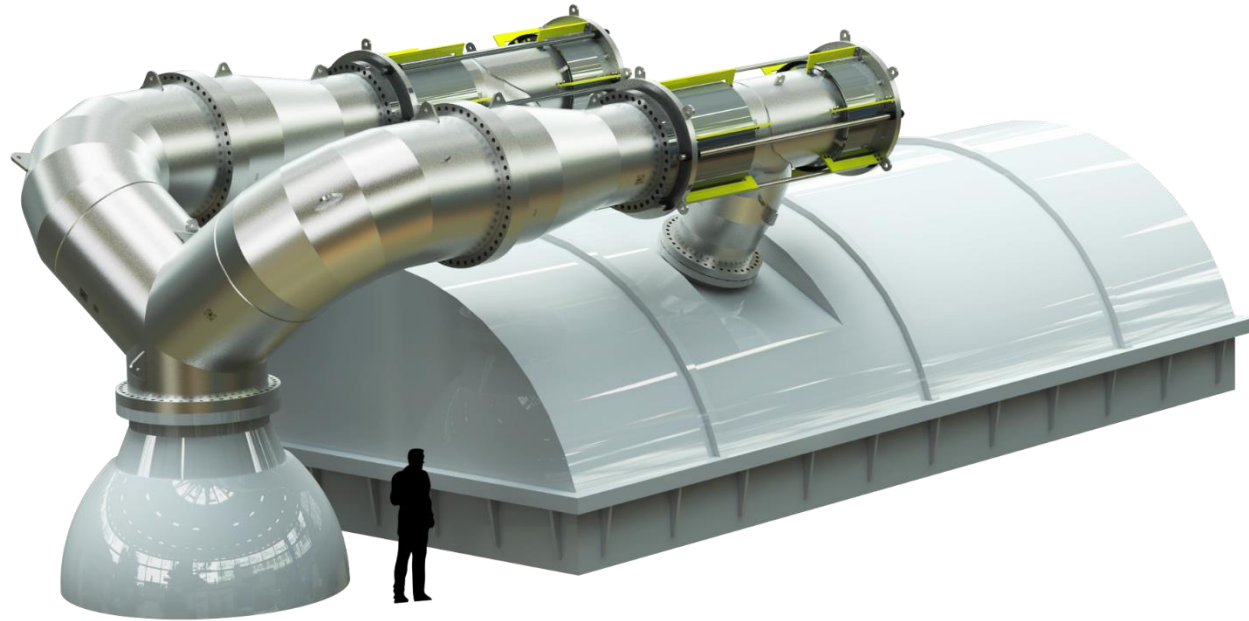
- **Low-Carbon Nuclear Energy Technology**
 - **Nuclear – Small Modular Reactor (SMR)**
 - Land based SMR plants in planning and development
 - Mobile based SMR technology in development
 - Pathway supporting engineering and/or fabrication with all active OEMs.
- **Funding Support has come from**
 - U.S. Department of Energy (DoE)
 - U.S. Department of Defense (DoD)
 - Private & Public Power Companies

Planned SMR New Builds in the US



- **Pathway – Involved from the onset supporting SMR Technology development**
 - Supporting engineering specifications for Mobile SMR piping systems for one OEM
 - Awarded contract to fabricate expansion joints for a land based SMR.

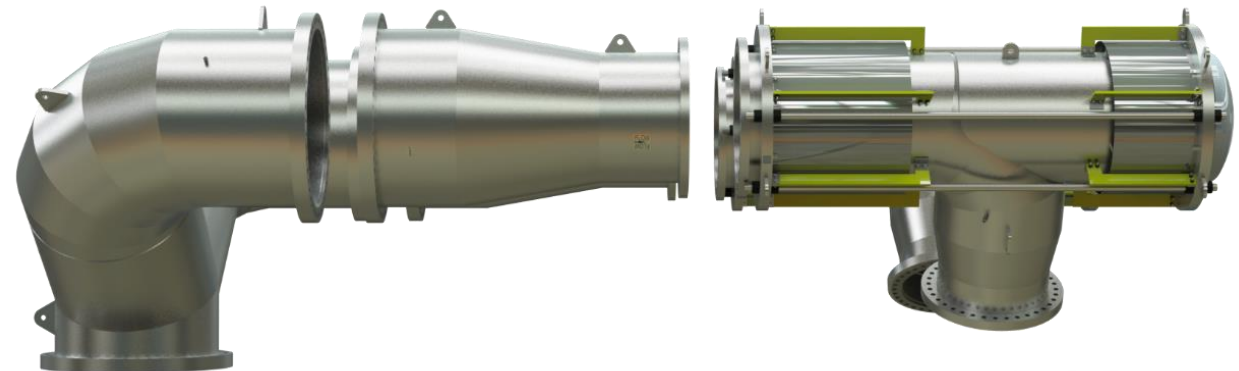
- **Broaden product offering**
 - Adjacent piping
 - Collaboration within Senior to improve market reach and penetration
 - Space
- **Low-Carbon Energy Technology**
 - Nuclear – Small modular reactor (SMR)
 - Plant Life Extensions
- **Engineering Service**
 - In high demand



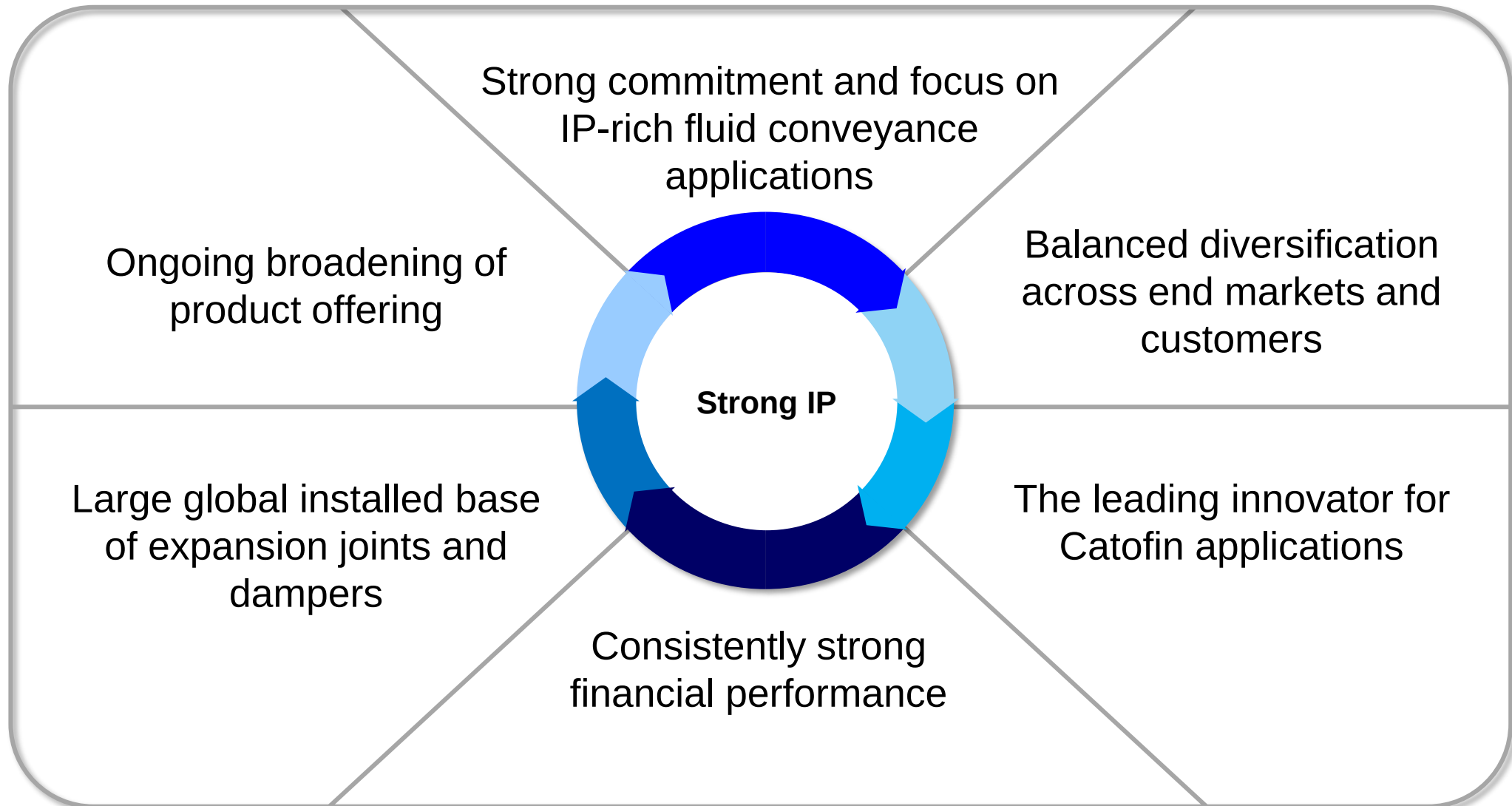
Wye Piping

Reducer

Crossover Expansion Joint



SUMMARY – SENIOR FLEXONICS PATHWAY





Expect Big Things from SF Pathway

AGENDA

10:30am **Introduction**

David Squires
Group CEO

10:50am **Showcasing Senior Metal Bellows**

John Cory
Senior Metal Bellows, CEO

11:20am **Showcasing Senior Flexonics Pathway**

Carl Armbrister
Senior Flexonics Pathway, Director Of Business Development

 **11:50am** **Q&A**

All

12:10pm **Networking lunch & product viewing**

1:00pm **Technology developments**

Rob Vaughan
Senior Flexonics Crumlin, Managing Director
Ryan Collins
Senior Flexonics Bartlett, Director Of Engineering

2:00pm **Financial**

Bindi Foyle
Group Finance Director

2:20pm **Q&A**
Closing remarks

David Squires
Group CEO



QUESTION & ANSWER

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Group CEO



TECHNOLOGY DEVELOPMENTS

Rob Vaughan

Senior Flexonics Crumlin, Managing Director

Ryan Collins

Senior Flexonics Bartlett, Director Of Engineering

KEY TECHNOLOGY CATEGORIES

Three key market Segments

Land Vehicle

Aerospace

Power and Energy

Impacting two key technology trends

Electrification

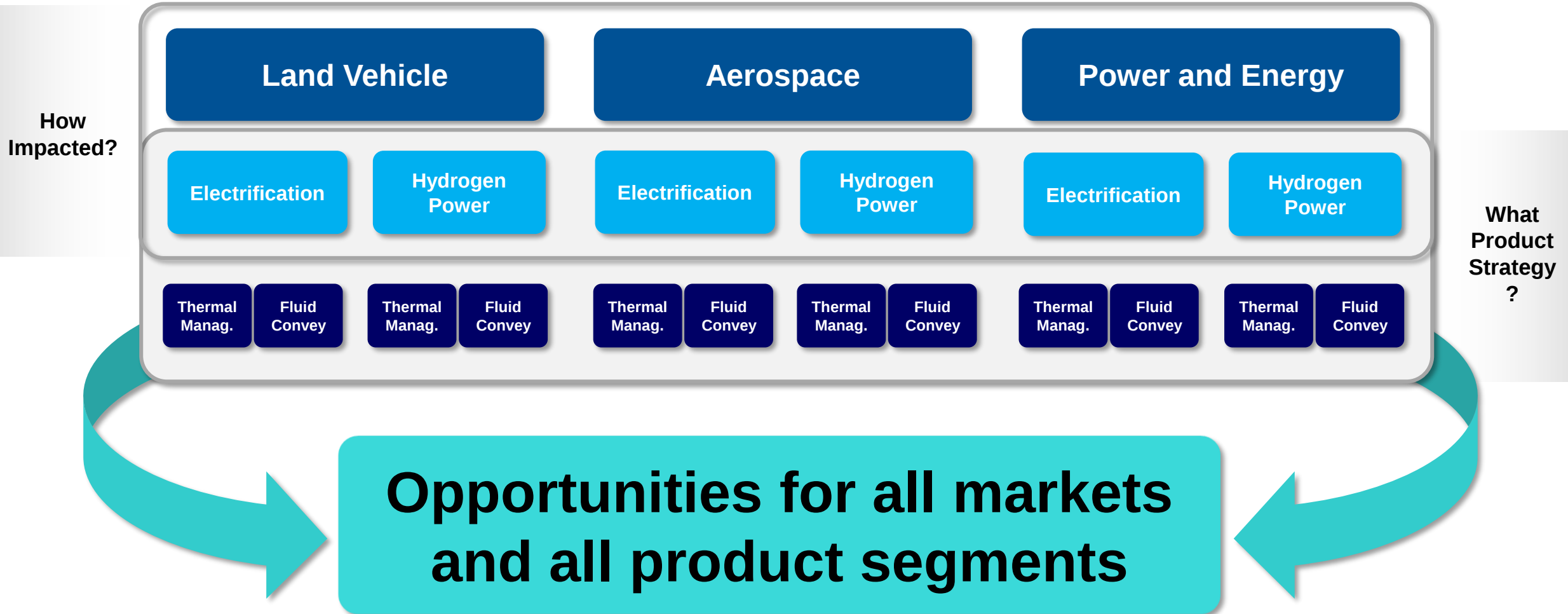
Hydrogen Power

Driven by two key product segments

Thermal Management

Fluid Conveyance

OPPORTUNITIES

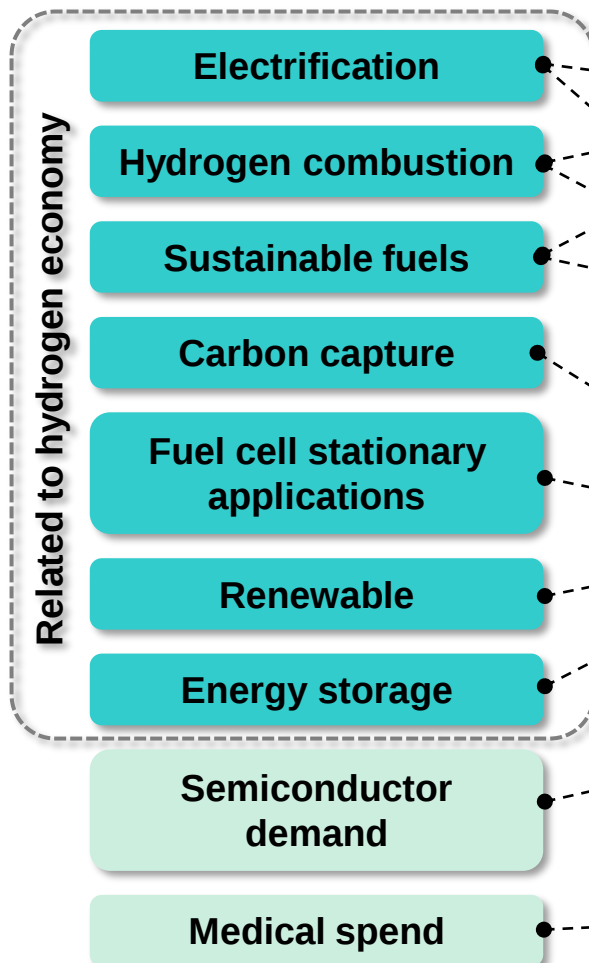


IMPACT BROUGHT BY ADOPTION OF LOW CARBON TECHNOLOGIES

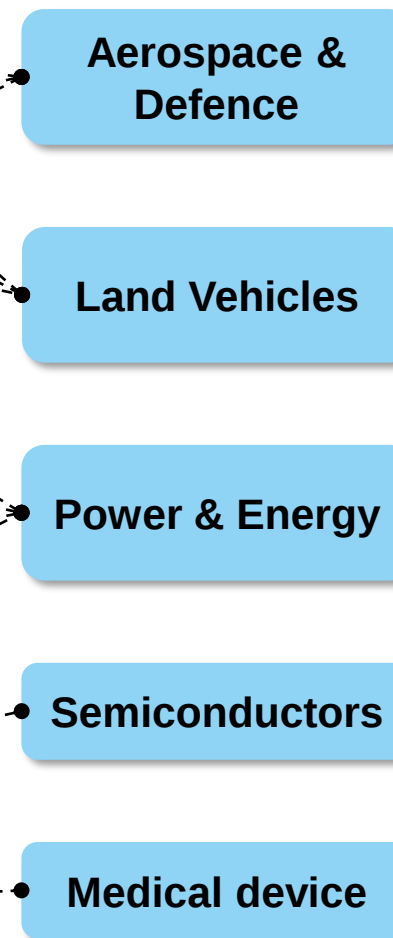
Six megatrends identified by UN for next 5-10 years



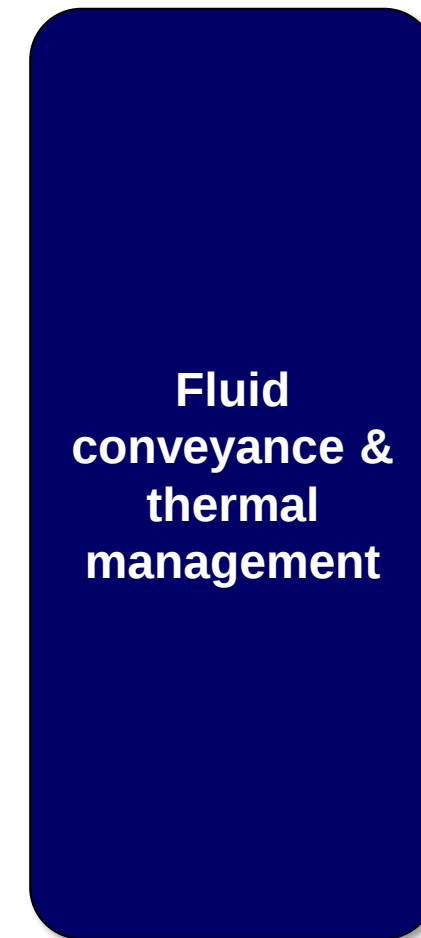
Technological implications



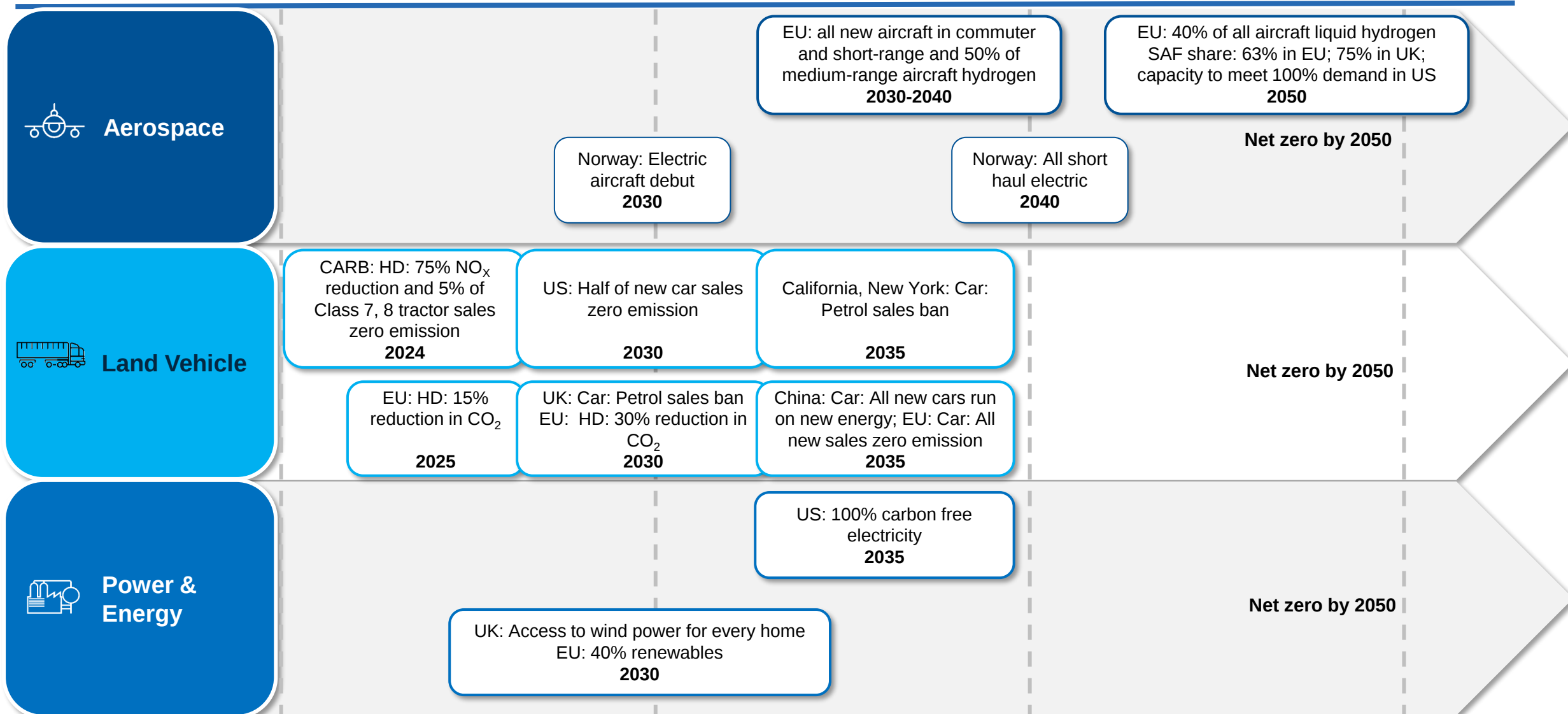
Overlap with Senior's end-markets



Relation to our technology themes?



REGULATORY DEADLINES AND GOVERNMENT COMMITMENTS



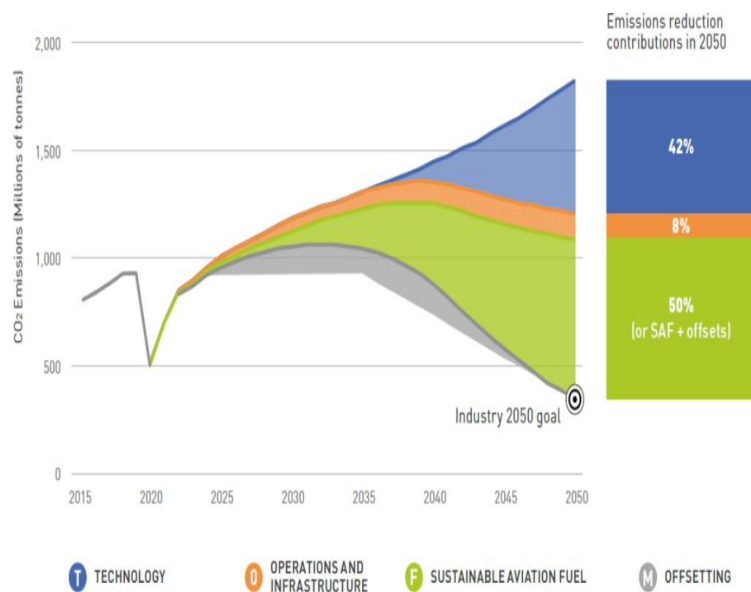


AEROSPACE NET ZERO CHALLENGE

The Challenge

2x Traffic increase forecast, but Emissions need to decrease by 50%

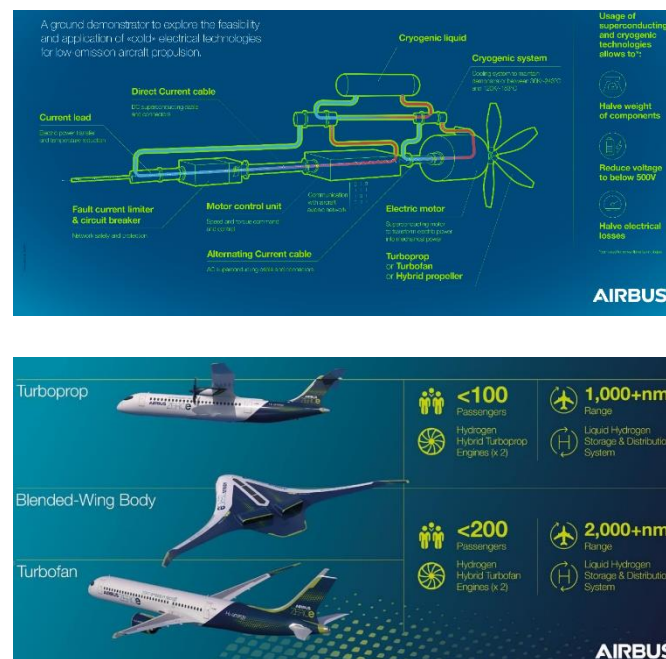
Global Air Transport CO2 Emissions



The Solution

A blended approach using multiple technologies:
SAFs / Hybrid Electric / Battery electric / H2 Fuel Cell / H2 Combustion

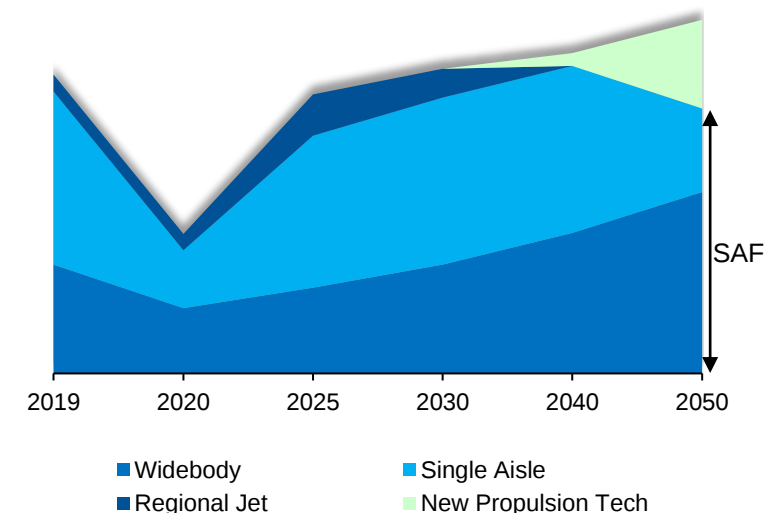
The Airbus approach



The Impact

Growth through a combination of existing & new Fluid Conveyance & Thermal Management technologies

Hypothetical scenario analysis of market trends' impact on Senior revenue*



*Sales extrapolation assumes steady platform content. Market information based on company internal estimates; Forecast International and McKinsey, Clean Sky 2 Joint Undertakings and Fuel Cells and Hydrogen 2 Joint Undertakings, "Hydrogen-powered aviation".



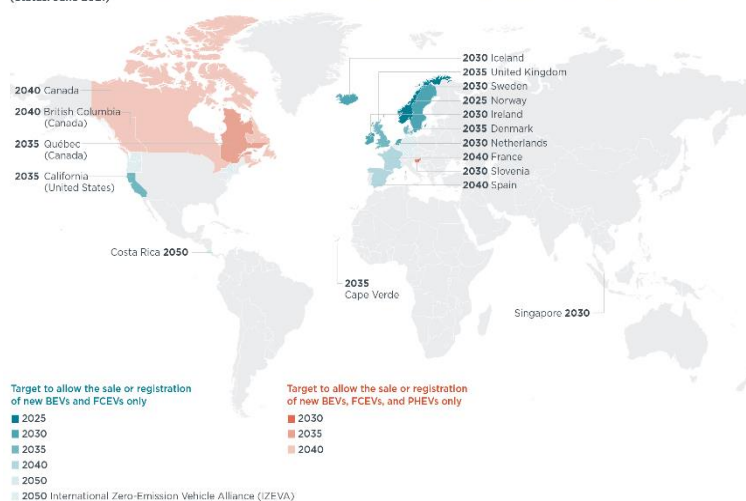
LAND VEHICLE NET ZERO CHALLENGE

The Challenge

Legislative changes driving the decarbonization of transport:
15 Countries & 31 Cities have plans to phase out sales of ICE vehicles

Government takes historic step towards net-zero with end of sale of new petrol and diesel cars by 2030

Governments with official targets to 100% phase out sales or registrations of new internal combustion engine cars by a certain date* (Status: June 2021)

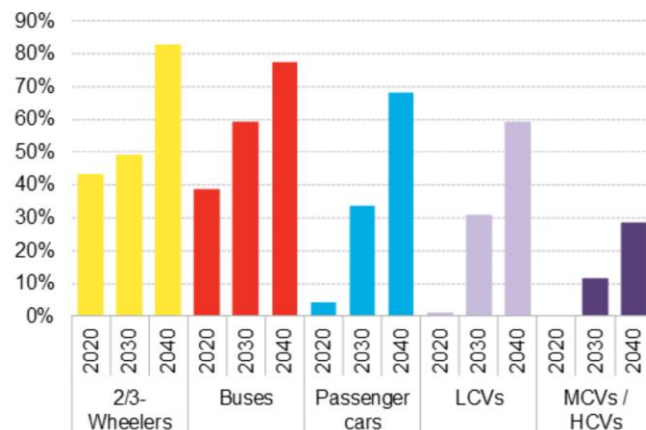


The Solution

A combination of powertrain technologies to match end applications:
ICE / Hybrid / NEVs

Rapid uptake of EVs in urban application, but a heavy reliance on ICE for MD/HD Commercial Vehicles

EV share of global new vehicle sales by segment - Economic Transition Scenario

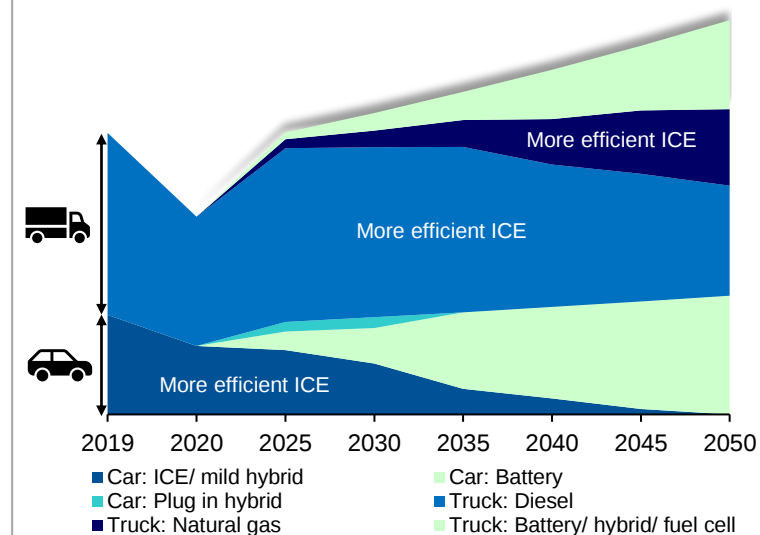


Source: BNEF. Note: LCVs = light commercial vehicles. M/HCVs = medium/heavy commercial vehicles.

The Impact

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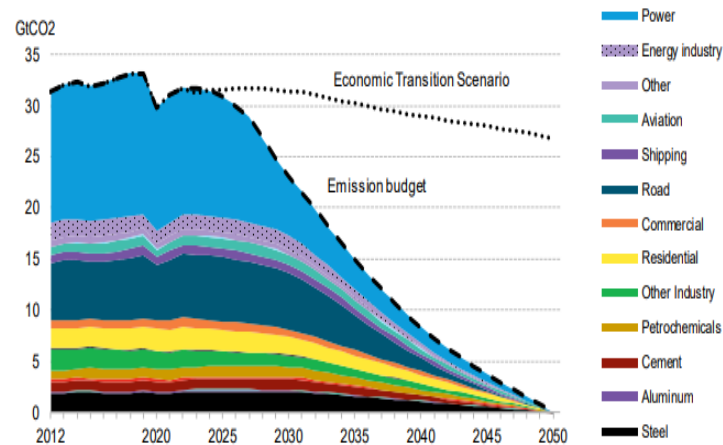
POWER & ENERGY NET ZERO CHALLENGE

The Challenge

To meet the Paris Agreement and achieve net-zero emissions in 2050

Global energy-related emissions need to drop 30% below 2019 levels by 2030, and 75% by 2040, to reach net-zero in 2050.

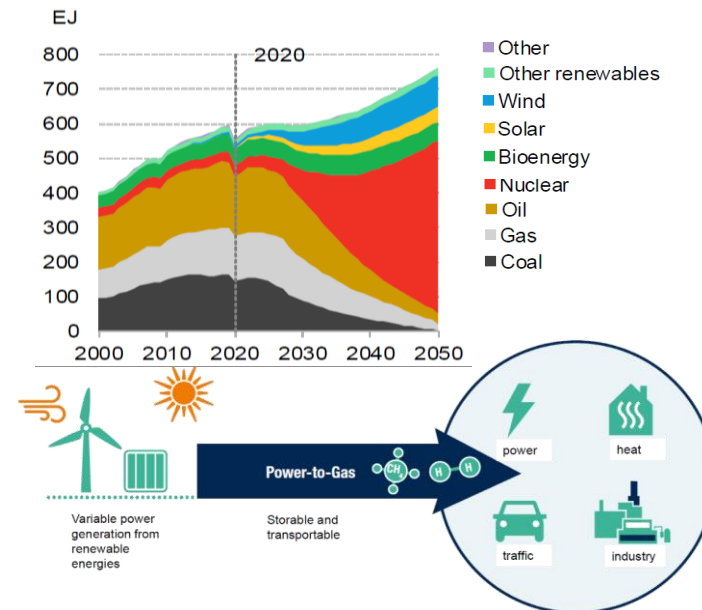
Figure 2: Total carbon budget for the energy sector



The Solution

Significant growth in Solar, Wind & Hydrogen to offset fossil fuel use.
Hydrogen plays a significant role in storing energy from renewable sources.

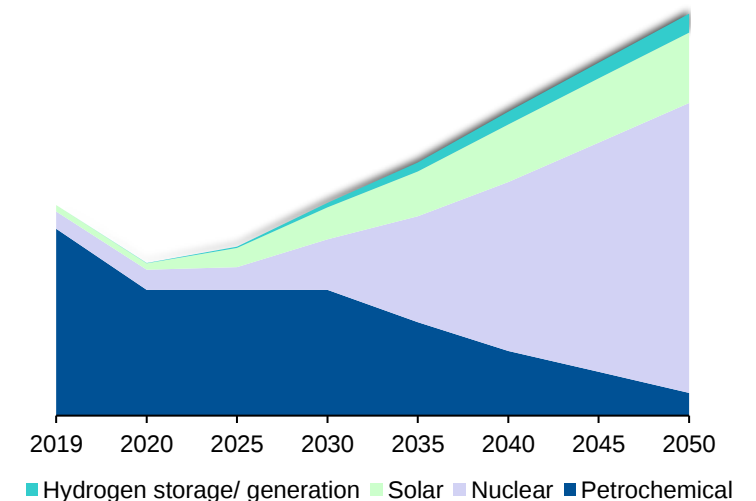
Total primary energy supply – scenario with clean electricity and deployment of small, modular nuclear



The Impact

Growth through a combination of existing & new Fluid Conveyance & Thermal Management technologies

Hypothetical scenario analysis of market trends' impact on Senior revenue*

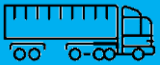


SUMMARY



Aerospace

- Small electric aircraft will enter service in this decade
- Hydrogen technologies will be used mainly on regional routes by 2035
- SAF will likely be the most widely adopted solution



Land Vehicle

- Legislation is driving the shift towards electrification of passenger cars
- By 2030 around half of our passenger car revenue may come from EV/HEVs
- MD/HD Trucks will still rely on ICE, with urban areas driving the switch to EV



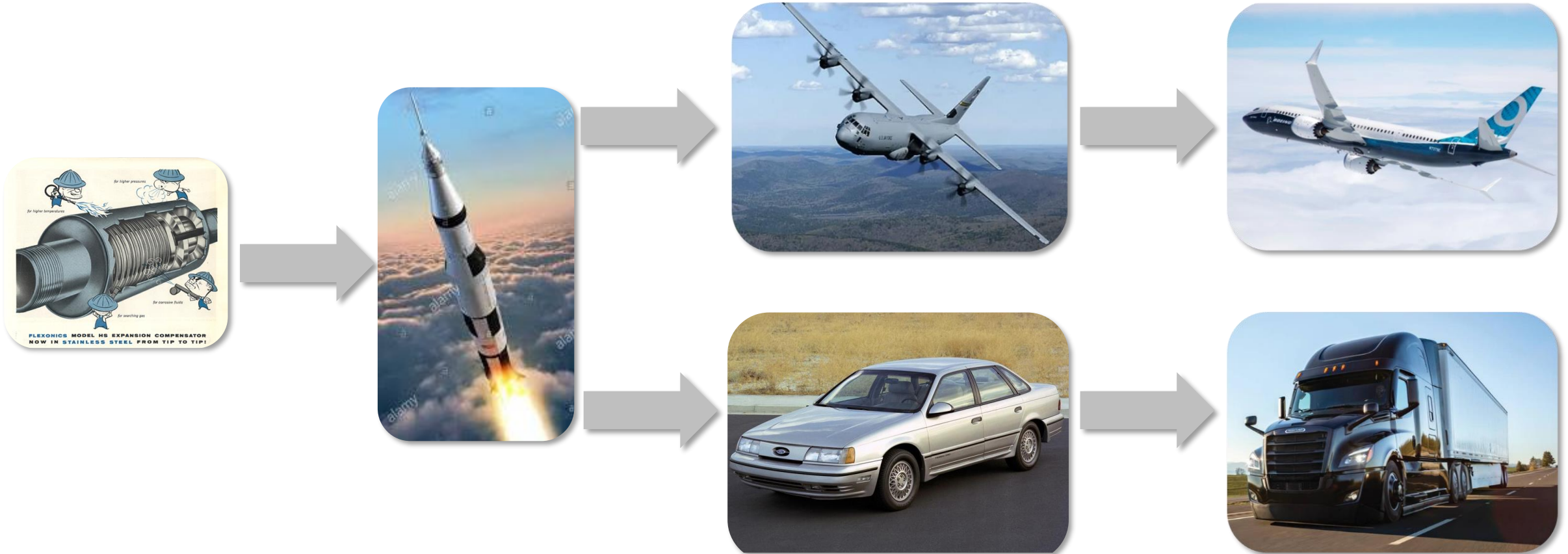
Power & Energy

- Oil & Gas use will likely peak in the next decade
- Significant growth in Solar, Wind & Hydrogen to offset fossil fuel use
- Green hydrogen production will promote the use of renewable energy

The Net Zero targets across our key sectors present both challenges & opportunities. However, our IP-rich product portfolio & technical expertise will deliver significant shareholder value over the medium term.

PRODUCT STRATEGY

Create innovative products aligned with latest technology trends



PRODUCT STRATEGY

Create innovative products aligned with latest technology trends



Land Vehicle



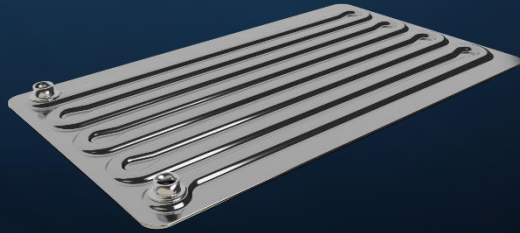
Aerospace



Power and Energy

PRODUCT SEGMENTS

New product development efforts focused in four key areas



Chill Plates



Heat Exchangers

Thermal Management



Tubing



Expansion Joints

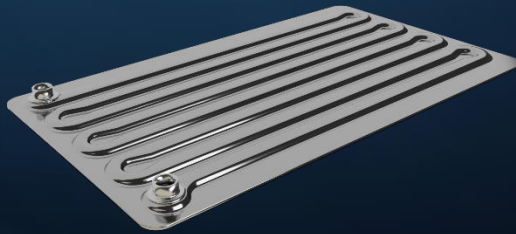
Fluid Conveyance



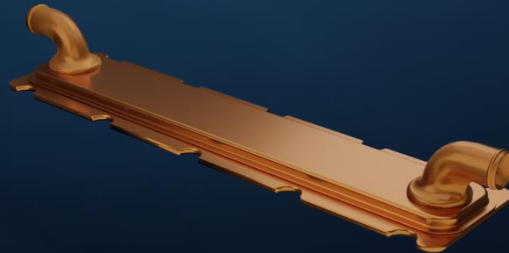
PRODUCT DEVELOPMENT – LAND VEHICLES

Electric Vehicles will use a combination of new & existing technologies for Senior. These new technologies are pushing us to explore the use of new materials & methods of manufacture.

Thermal Management



Battery Cooling



Electronics Cooling

Product Upgrades Include:
Aluminium and Copper Alloys
Composite Tubing
Internally Insulated Bellows
Omega Fin Heat Sink

Fluid Conveyance



Battery Fluid Handling
Electric Motor Plumbing
Hydrogen Fuel Delivery



Hydrogen System Compensation
Hydrogen Combustion ICE Flex

Process Upgrades Include:
Sheet Hydro/Air Forming
Aluminium Extrusions
Aluminium Brazing
Laser Welding



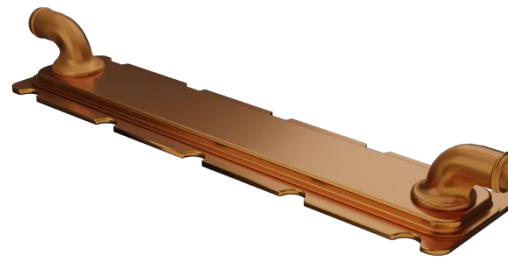
CASE STUDY: EV INVERTER HEAT SINKS

Scenario

- Sales lead inquired about Senior's ability to manufacture small form factor copper heat sink.
- Application is for Tier 1 EV power inverter, with global applications.
- Underdeveloped supply base with a mix of large HX manufacturers and consumer electronics manufacturers.

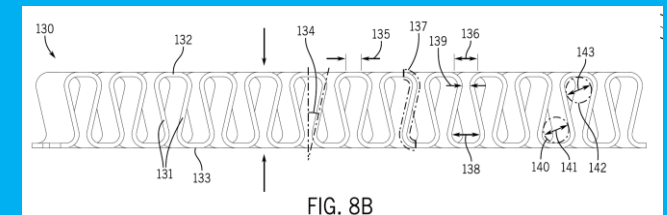
Capability Matching

- ✓ Senior has developed heat transfer expertise through EGR Cooler and other product lines.
- ✓ Copper expertise developed over many decades for instrumentation products.
- ✓ Global footprint in place to provide local manufacturing support.
- ✓ Innovative manufacturing techniques available from bellows product lines.



Result

- Innovative design developed and patent awarded for "Omega Fin".
- Product performance exceeded competitors by significant margin.
- While development led in US, initial launch locations planned for EU and China.

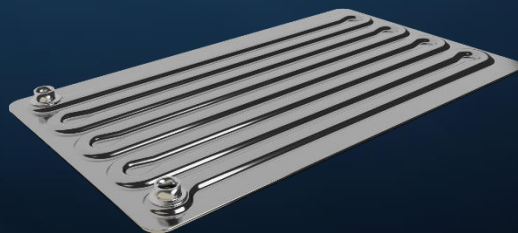




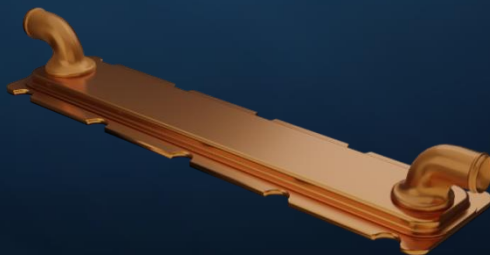
PRODUCT DEVELOPMENT – AEROSPACE

Aerospace market to see significant investment in green technologies along with more efficient jet engines. Efficiency push to lead to more product cycle turns and opportunities.

Thermal Management



Battery Cooling



Electronics Cooling

Product Innovations include:

- Aluminium bellows
- Insulated bellows
- System design / optimization
- Additive Integration

Fluid Conveyance



- New Engine Plumbing
- Battery Fluid Handling
- Electric Motor Plumbing
- Hydrogen Fuel Delivery



- Advanced De-icing Systems
- Next Generation Bleed Air
- Hydrogen System Compensation
- Hydrogen Combustion ICE Flex

New Processes include:

- Hot Stamping
- Additive Manufacturing
- Flexible Robotic Welding
- Next Gen Machine Connectivity



CASE STUDY: AEROSPACE HYDROGEN EXPERIMENTAL POWERTRAIN

Scenario

- Aerospace OEM is developing demonstrator units for hydrogen powertrain.
- Both battery and fuel cell technologies utilised in cryogenic environment.
- Suppliers sought who have both suited technology and aerospace industry experience to participate in development.

Capability Matching

- ✓ Senior Aerospace has long standing relationship with OEM.
- ✓ Senior Flexonics has developed both fuel cell and battery technologies for Land Vehicle and Power/Energy markets.
- ✓ Cryogenic products in service for 30+ years in medical MRI liquid helium systems.



Result

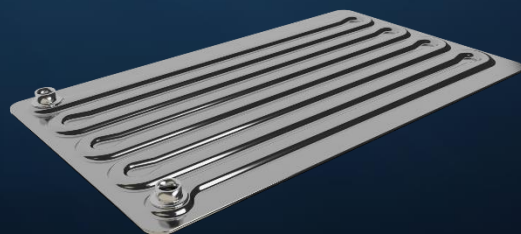
- Senior Flexonics and Senior Aerospace jointly developed proposal.
- Design and project details are on-going.
- This experience has opened up more future opportunities for Senior in the growing hydrogen economy.
- Flight demonstrator targeted for 2025.



PRODUCT DEVELOPMENT – POWER & ENERGY

Power and Energy market to see significant disruption due to CO2 regulations, with the key new technology solutions relating to energy storage through batteries and hydrogen.

Thermal Management



Battery Cooling
Electronics Cooling



SOFC Recuperator
PEM Electrolyzer Chiller

Product Upgrades Include:
Aluminium and Copper Alloys
Air to Air Heat Exchangers
Internally Insulated Bellows
Omega Fin Heat Sink

Fluid Conveyance



Hydrogen Fuel Plates
Electrolyzer Tubing
Battery System Piping



Dielectric SOFC Bellows
Electrolyzer Compensator

New Processes include:
Sheet Hydro/Air Forming
Aluminium Extrusions
Aluminium Brazing
Laser Welding



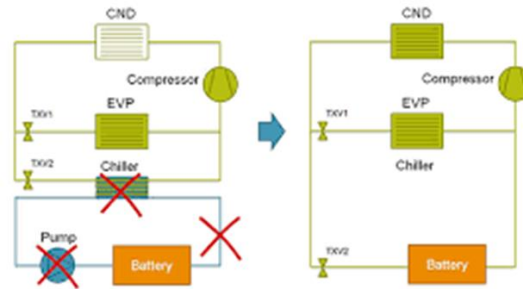
CASE STUDY: POWER & ENERGY BATTERY PACK DESIGN

Scenario

- Industrial battery pack manufacturer is growing at >30% per annum
- Large format battery packs targeted for development which require liquid cooling
- Customer has no experience or systems for thermal management, seeks support from industry

Capability Matching

- ✓ Senior Flexonics had networking relationships with customer, identified the opportunity
- ✓ Senior has developed system level understanding of battery packs through Land Vehicle programs
- ✓ Awareness and familiarity with system simulation software through OEM relationships



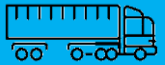
Result

- Proposal developed for both cooling plate component and system level design service.
- Funding was awarded, portion of monies utilised to purchase system simulation software.
- In addition to a promising project and development partner, now new capabilities exist and can be marketed to other customers.

SUMMARY



Aerospace



Land Vehicle



Power & Energy

- Consistent technical trends through all key markets
- Synergistic product strategies to exploit these opportunities
- A proven track record of adaptation and expansion

Our IP-rich product portfolio & technical expertise will deliver significant shareholder value over the medium term

AGENDA

10:30am **Introduction**

David Squires
Group CEO

10:50am **Showcasing Senior Metal Bellows**

John Cory
Senior Metal Bellows, CEO

11:20am **Showcasing Senior Flexonics Pathway**

Carl Armbrister
Senior Flexonics Pathway, Director Of Business Development

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All

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Ryan Collins
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Bindi Foyle
Group Finance Director

2:20pm **Q&A**
Closing remarks

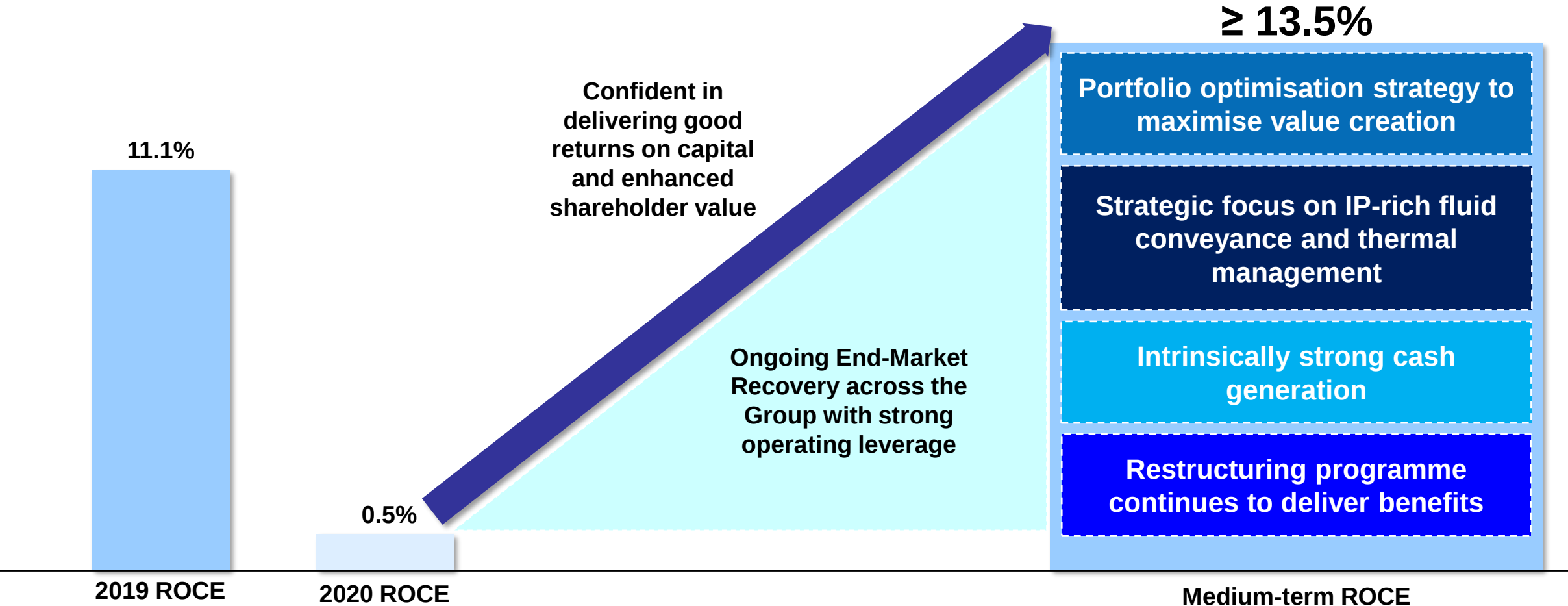
David Squires
Group CEO



FINANCIAL

Bindi Foyle
Group Finance Director

GROUP MEDIUM-TERM OUTLOOK

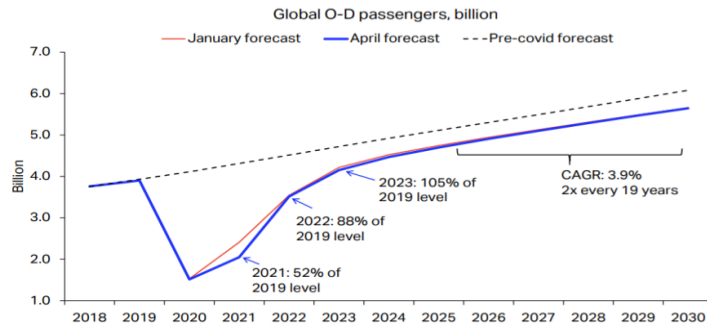


Senior is Confident of Delivering Minimum 13.5% ROCE Over Medium-term

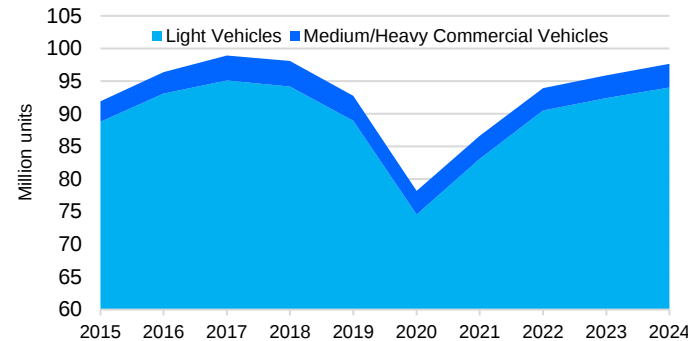
STRONG OPERATING LEVERAGE

Ongoing End-Market Recovery across the Group with strong operating leverage

World Passengers Flows Long-run Outlook

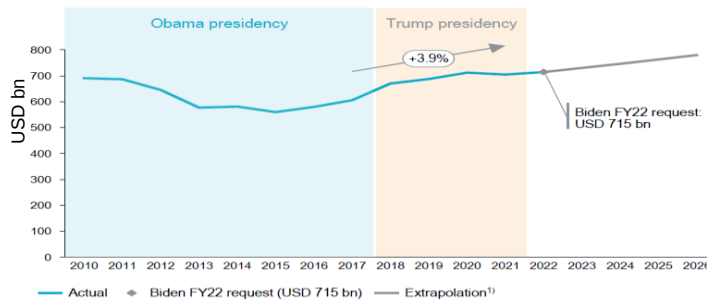


World Vehicles Production Forecast

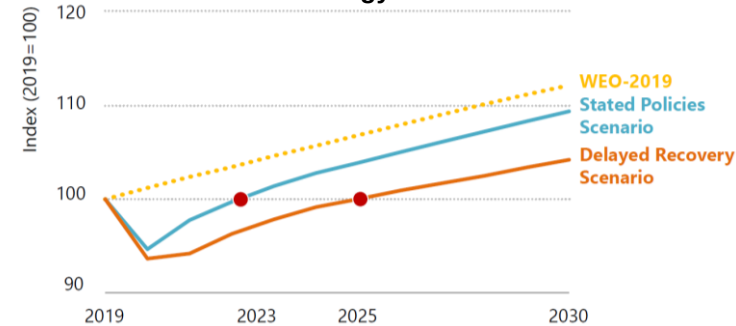


US Defence Spending

Nominal DoD budget, FY 2010-25F [USD bn]

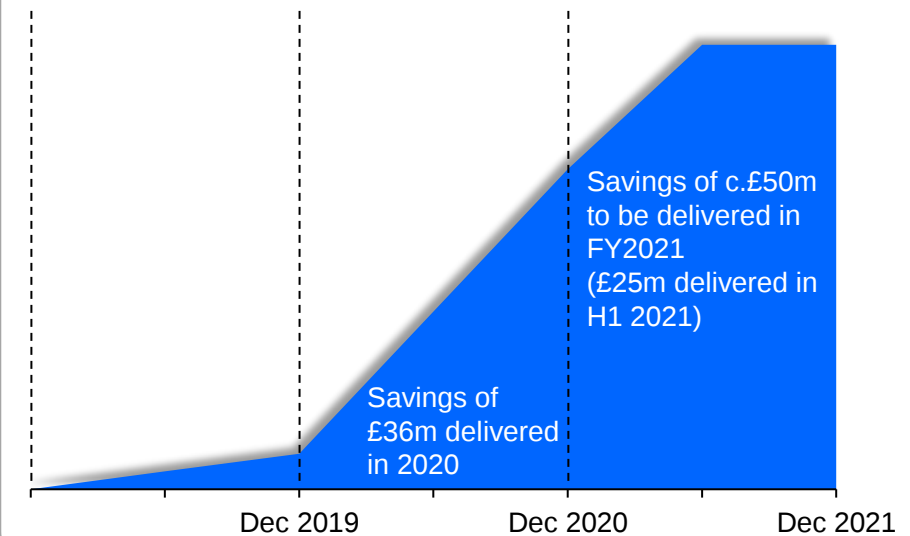


World Energy Demand



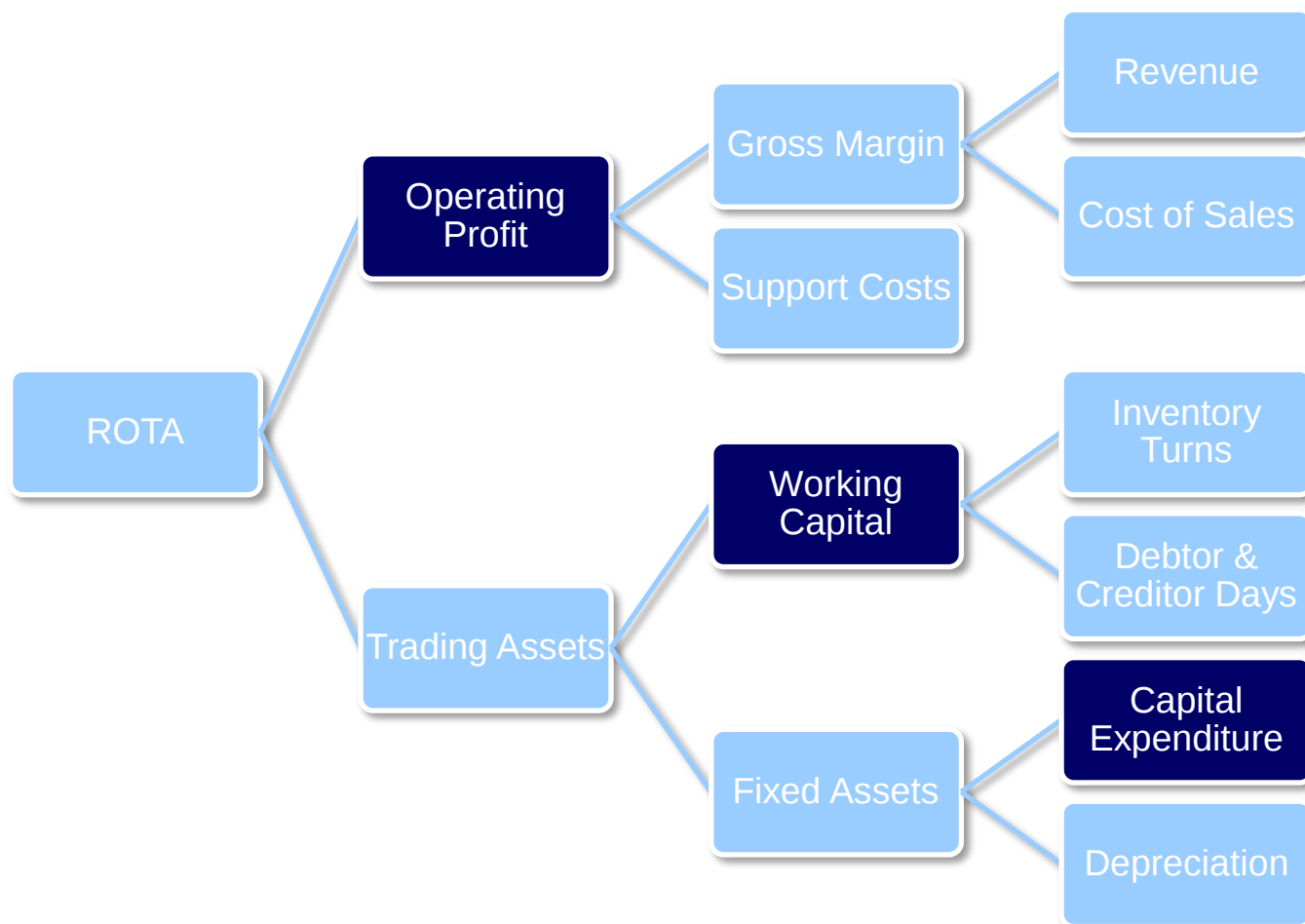
With the **benefits from our restructuring programme** and available capacity, near-term operating leverage ranges from 25% to 35% across the Group's operating business

Savings benefits



As volumes recover, we will see strong pick up in EBITDA and operating profit

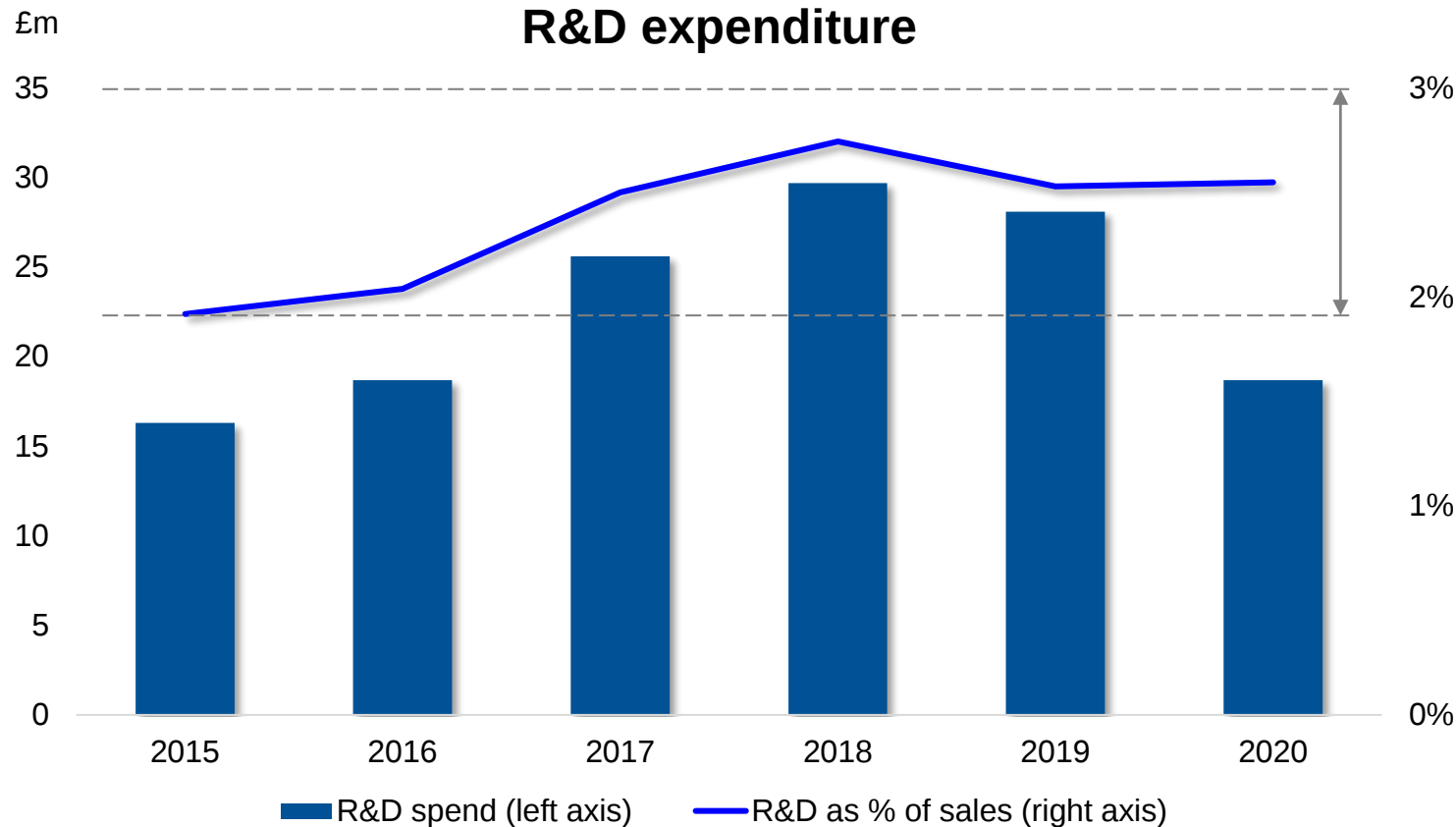
INTRINSICALLY STRONG CASH GENERATION



Continued cash generation through:

- ⇒ Growth in operating profit
- ⇒ Medium-term capital expenditure expected to be lower than depreciation
- ⇒ Relentless and effective focus on working capital management

SUPPORTING INVESTMENT IN R&D



Strategic focus on IP-rich fluid conveyance and thermal management requires Senior to continue to invest 2-3% of sales into R&D expenditure

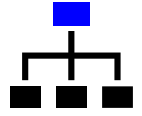
Well placed for evolving technology trends in our end markets

PORTFOLIO OPTIMISATION

- ⇒ We continue our prune to grow strategy: divesting, closing or combining non-core or performance-challenged assets
- ⇒ Confident that Aerostructures core market will recover, driving business performance improvement which provides strategic optionality over the medium-term
- ⇒ Expanding Senior's high quality fluid conveyance and thermal management businesses remains an ongoing priority

We will continue to actively manage the portfolio to create long-term shareholder value

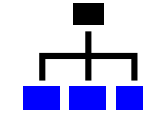
ROCE TO ROTA



Senior Group

$$\text{Target ROCE} = \frac{\text{Adjusted operating profit}}{\text{Average Capital Employed}}$$

$$\text{Target ROCE} \geq 13.5\% \text{ over medium-term}$$



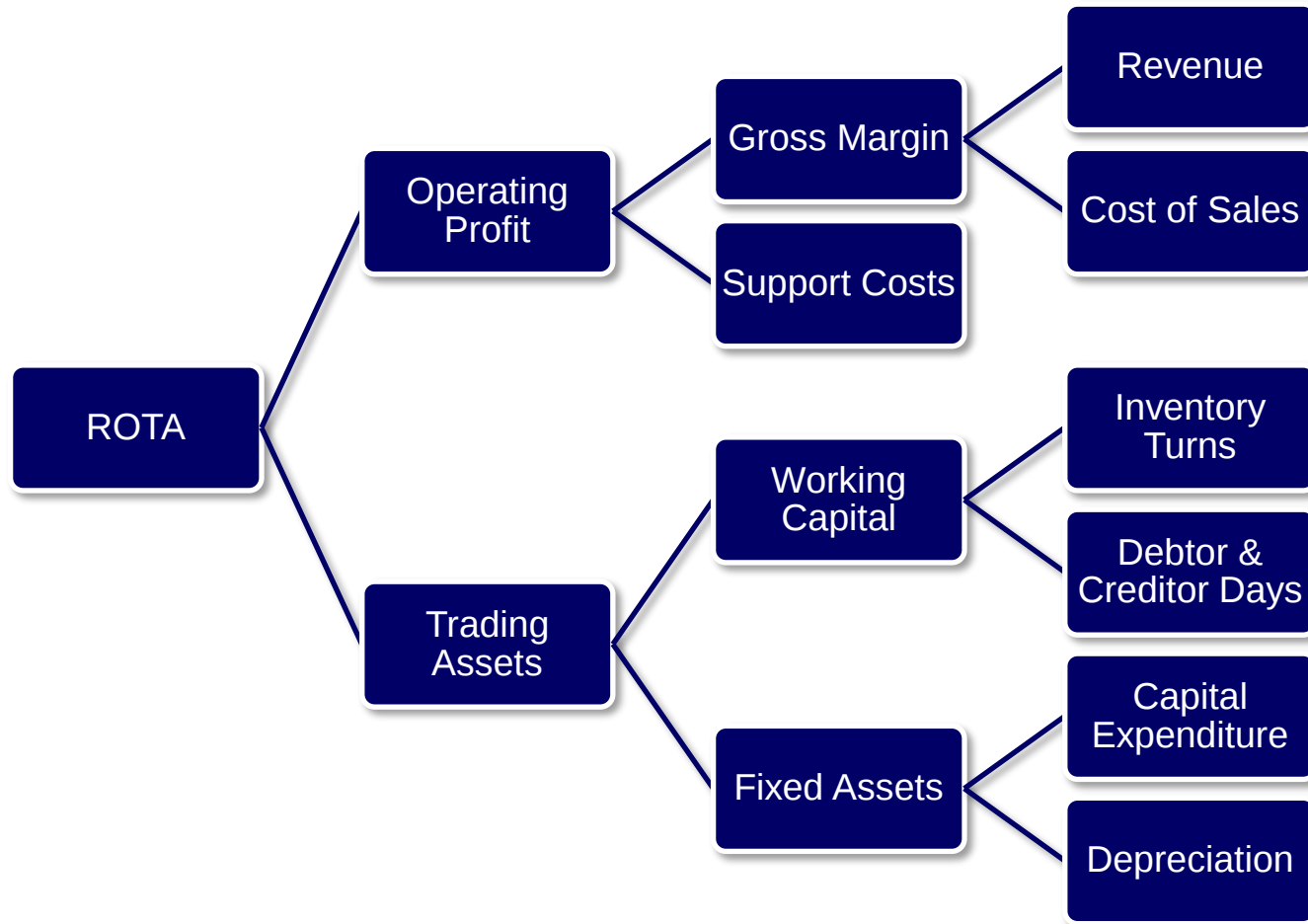
Operating Businesses

$$\text{Target ROTA} = \frac{\text{Adjusted operating profit}}{\text{Average Attributable Trading Assets}}$$

$$\text{Target ROTA} = \begin{aligned} &>35\% \text{ Fluid Conveyance \& Thermal Management – Aerospace} \\ &>30\% \text{ Fluid Conveyance \& Thermal Management – Flexonics} \\ &>20\% \text{ Structures} \end{aligned}$$

Return on capital employed (ROCE) is the Group's adjusted operating profit divided by the average of the capital employed at the start and end of the period, capital employed being total equity plus net debt.
Return on trading assets (ROTA) is adjusted operating profit divided by average attributable trading assets.

DISCIPLINED VALUE CREATION FRAMEWORK



All investment decisions are assessed in terms of:

- Strategic value to the Group
- ROTA %
- Return on Revenue Margin
- Cash Payback timeline
- Internal Rate of Return
- Net Present Value

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David Squires
Group CEO



QUESTION & ANSWER CLOSING REMARKS

David Squires
Group CEO



QUESTION & ANSWER

TODAY'S KEY MESSAGES

Deeper insight into our strategy

Focus on thermal management and fluid conveyance technology

Showcase examples of businesses operating in diverse and attractive end markets

Future proofing growth of the business as we transition to low carbon economy

Delivering and exceeding ROCE target over medium-term



APPENDICES

SENIOR PLC LEADERSHIP TEAM

Ian King

Chairman



David Squires

Group CEO



Bindi Foyle

Group Finance Director



Mike Sheppard

CEO

Flexonics Division



Launie Fleming

CEO

Aerospace Division



Martin Barnes

Director of Business Dev,
and Strategy



Andrew Bodenham

Group Company
Secretary



Jane Johnston

Group HR Director



Michelle Yorke

Director of Risk and
Compliance



Gulshen Patel

Director of Investor
Relations and Corporate
Communications



Mark Roden

Director of HSE &
Sustainability



PRESENTERS



John Cory

Senior Metal Bellows
CEO

John Cory joined Senior Metal Bellows in 1997 as a Project Engineer and shortly thereafter he was promoted to Manufacturing Engineering Manager. In 2001 John was promoted to Director of Engineering, a position he held for over a decade before being promoted to his current position as CEO in 2012.

Prior to joining Senior, John held Engineering positions at both Moog Inc. and Pratt and Whitney. John has both a Bachelor's and Master's degree in Aerospace Engineering from Penn State University.



Carl Armbrister

Senior Flexonics
Pathway
Director Of Business
Development

Carl Armbrister took up his current role as Director of Business Development for Senior Flexonics Pathway on 5th October of last year. He previously served as the CFO for Senior Aerospace businesses in the Pacific Northwest for a period of five years.

Carl first Joined Senior in 1998 as the CFO of Senior Flexonics Pathway, a role he served in for 17 years. He holds a Bachelor of Science in Accounting and an MBA in Finance from Alabama A&M University.



Rob Vaughan

Senior Flexonics
Crumlin
Managing Director

Rob joined Senior in June 2015 as the Business Unit Director for Thermal Management products. He is now the Managing Director of Senior Flexonics Crumlin, a Sales & Engineering centre of excellence for Thermal Management & Fluid Conveyance products.

Rob brings over 15 years of experience in Business Development & Technical roles, having undertaken numerous senior management positions within Tata Steel. Rob is a Bachelor of Medical Science, studying Biomedical Materials at the University of Birmingham.



Ryan Collins

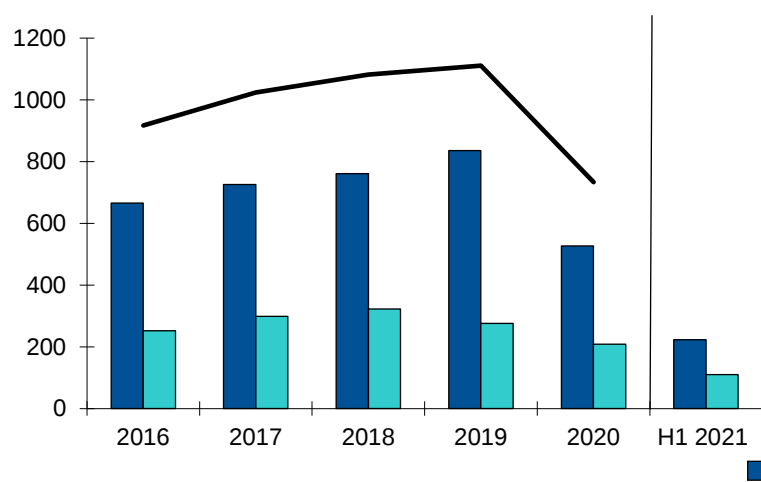
Senior Flexonics
Bartlett
Director of Engineering

Ryan joined Senior in 2004 as a University intern working at the Bartlett facility in the USA prior to graduating with a Mechanical Engineering degree from Bradley University. Since that time he has held a variety of engineering and management roles and also earned his Master's in Engineering Management from Northwestern University.

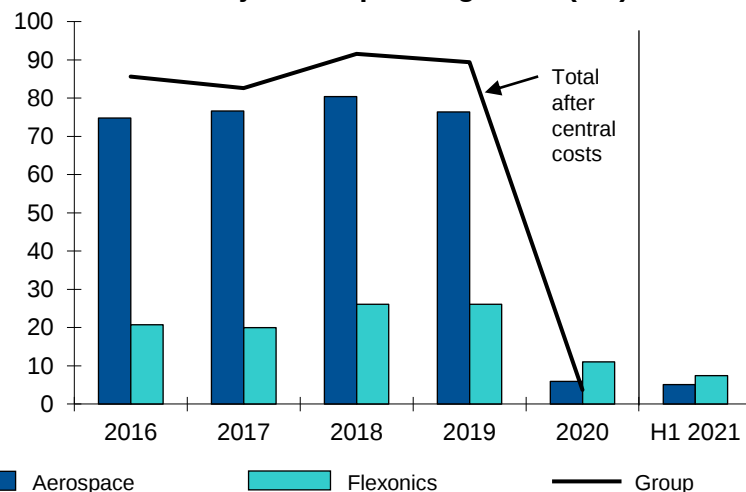
Currently serving as Director of Engineering as well as Business Unit Director for Specialty Products for Senior Flexonics Bartlett; Ryan's primary focus is development of products for emerging technologies for all markets as well as business development and operational performance of Senior's Specialty Products group.

GROUP EVOLUTION

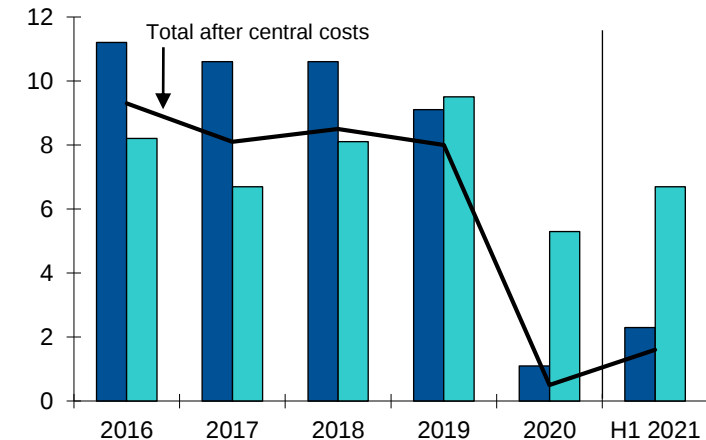
Revenue (£m)



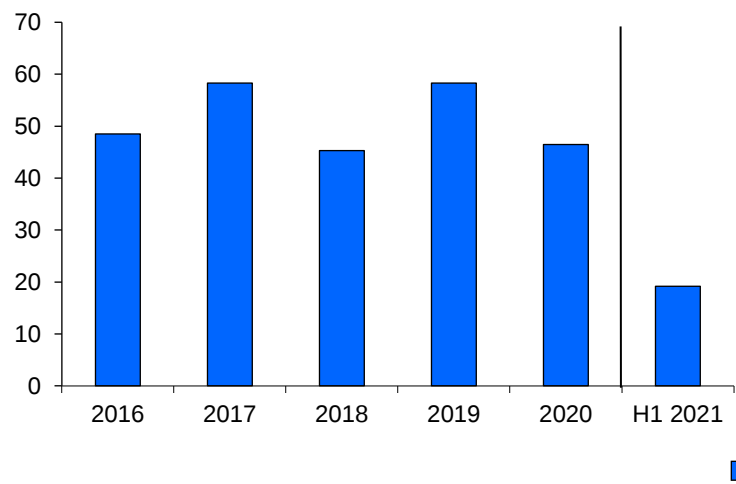
Adjusted Operating Profit (£m)



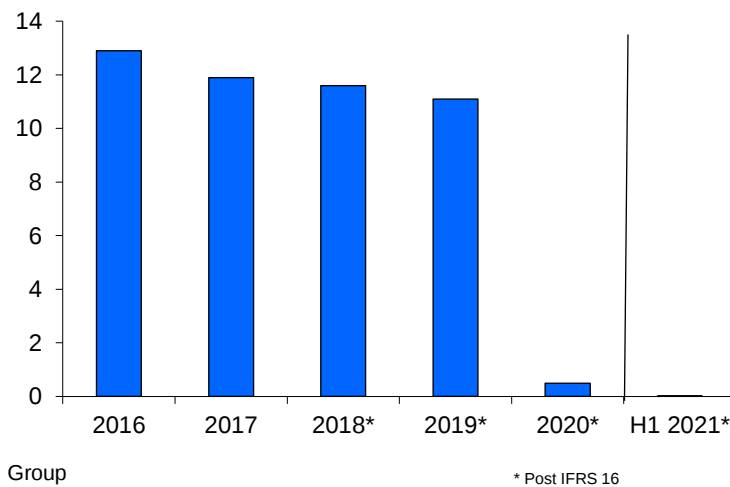
Adjusted Operating Margin (%)



Free Cash Flow (£m)

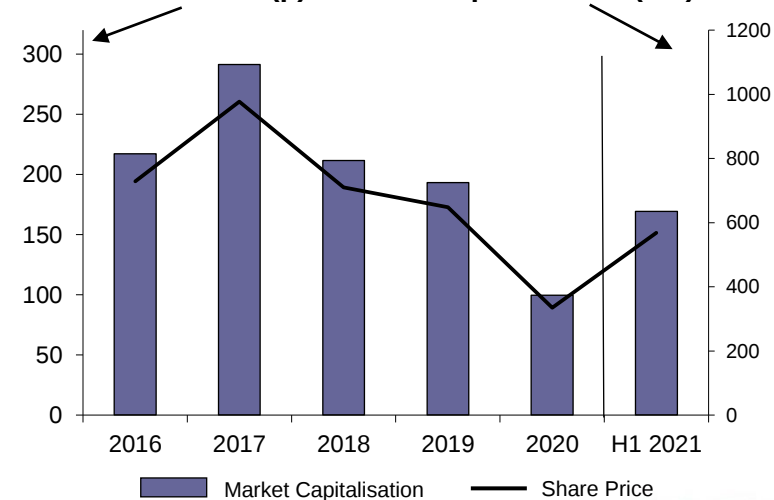


Return on Capital Employed (%)



* Post IFRS 16

Share Price (p) / Market Capitalisation (£m)



LANDSCAPE FOR METAL BELLOWS

Metal Bellows

Sectors/ sub-sectors served Commercial Aerospace, Defence, Industrial, Medical, Semiconductor, Space

Addressable market size p.a. (estimated) \$500M

Key capabilities Bellows assemblies, accumulators, reservoirs, compressors/vacuum pumps, sensors, seals, thermal valves/actuators, compensators, couplings, pneumatic actuators

Key competitors Competitors ranging from \$10M to \$18B

Core competencies

- Bellows device design and analysis
- Rapid prototyping
- Bellows welding and stamping
- Bellows tooling design and fabrication
- Development and qualification testing

Enhancers/differentiators

- Engineering analysis and design capabilities
- Rapid prototypes
- Market diversification
- Vertical integration
- Quality Management Systems
- EH&S program
- Concurrent engineering
- Nadcap certifications
- Dedicated field sales



LANDSCAPE FOR PATHWAY

Pathway

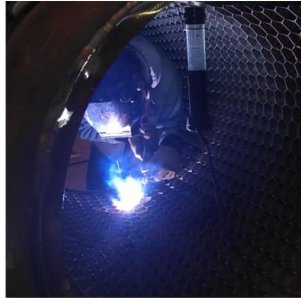
Sectors/ sub-sectors served	Industrial, Petrochemical, Power Gen
Addressable market size p.a. (estimated)	Petrochemical: \$100M Power Gen: \$ 75M Industrial: \$100M
Key capabilities	Design and fabrication of custom pressure vessels, valves, field inspection, refurbishment and other services.
Key competitors	Competitors ranging from \$15M to \$70M

Core competencies

- Welding, thin section and numerous material types
- Broad and complete in house fabrication capabilities
- In house Fabrication capacity, enables expedites
- Engineering and legacy design capabilities
- Field service

Enhancers/differentiators

- Legacy design, installations, and brand
- Nuclear/Military Component Certification
- Expedite capabilities
- Service after the sale
- Fabrication facilities and capacity
- Stable and prudent financial management.



ACQUISITION FRAMEWORK

More Likely

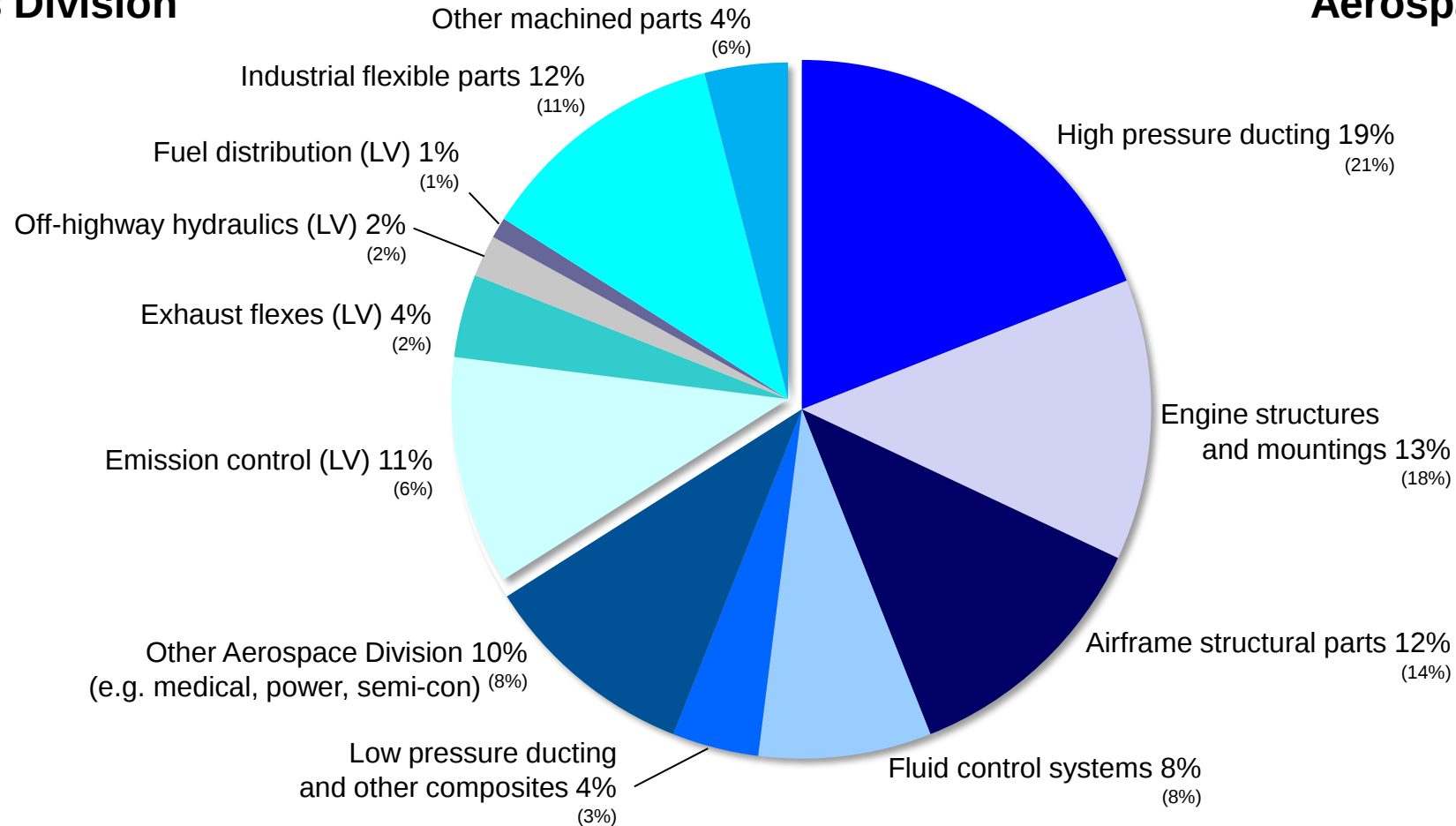
Less Likely

Market	Aerospace & Defence		Semi-conductor Equipment		Volume Automotive
	Power & Energy (clean energy)			Medical	
	Land Vehicles (electrification)				
Product	Fluid Conveyance Products			Structures / Machining	
	Thermal Management Products				
Nature	Own design / IP products			Commodity Build to Print	
	& higher level sub-systems			Highly engineered Build to Print	
Geography	North America	UK	Europe		Africa
	Asia		South America		Australasia
Ownership	Owner managed		Trade	Private Equity	
Revenue	\$50 to \$100m		\$30 to \$50m		less than \$30m
	\$100m+				

OUR PRODUCTS

34% Flexionics Division
(28%)

Aerospace Division 66%
(72%)



End markets composition based on H1 2021 revenue. % in brackets are H1 2020 comparatives. Revenues of both years are stated pro forma for disposal of Senior Aerospace Connecticut. LV = Land vehicles

ENVIRONMENTAL, SOCIAL & GOVERNANCE

E

- ⇒ **First worldwide in our sector** to have emission reduction targets approved by the Science Based Targets initiative (for **Scope 1, 2 and 3**)
 - Scope 3 - **actively engaging with >300 key suppliers** with respect to their targets and commitment
- ⇒ Commenced work on **scenario analysis** as part of the TCFD recommendations
 - Expect to finalise the scenario analysis in **Q3 2021**



S

- ⇒ **Excellent participation and engagement** for our first group-wide Global Employee Opinion Survey
 - Very positive, valuable, and constructive feedback
 - Helps **implement specific continuous improvement plans**
- ⇒ Intend to run this **global survey annually**



G

- ⇒ Updated the Senior Group Code of Conduct in July 2021
 - Coincides with the launch of **2021 Code of Conduct training course**
 - A personal hard copy to every employee
- ⇒ Participation in the 30% Club which adopted the Parker Review recommendation
 - **2023 targets on gender and ethnic diversity already met**



For more downloadable information please visit <https://www.seniorplc.com/esg.aspx>