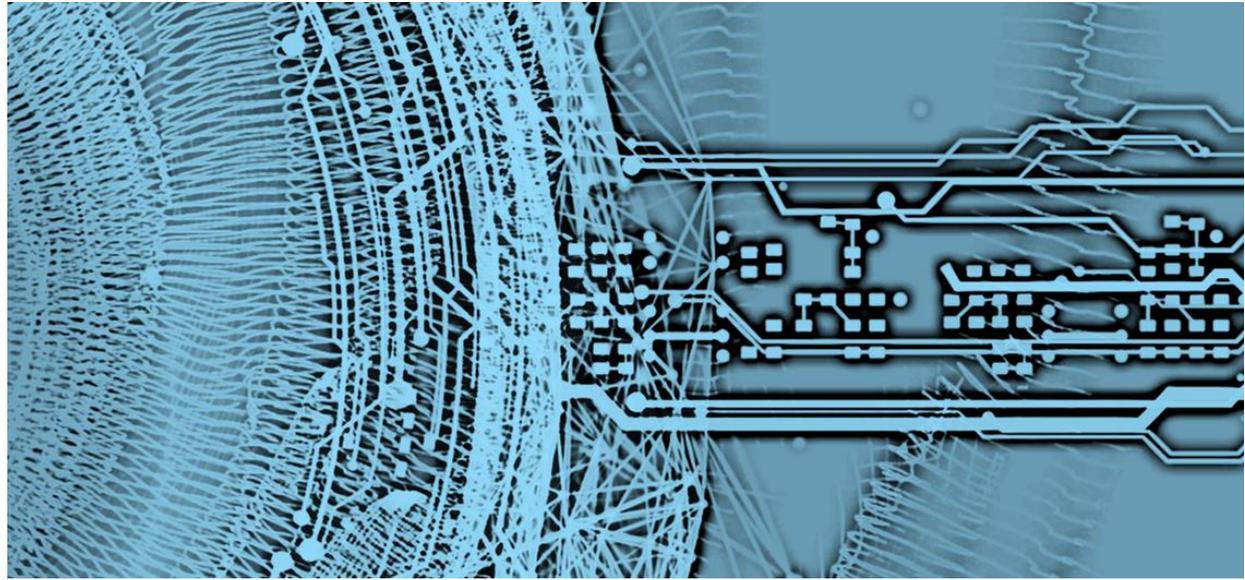


*Engineering smarter solutions together*

# TT Electronics

## Half Year 2019 Results

7 August 2019



## HY 2019 overview

- **Strong growth; 8% organic**

- New customer wins
- Growth with existing customers
- Increased cross-selling opportunities
- Significant customer wins for recurring multi-million pound revenues

- **Business quality enhanced**

- Aerospace, defence and medical up 27% organically; now 45% of revenues
- Operational efficiency improvements from footprint action underway
- Operating margin now 8.1%, up 50bps

**Strong first half and order momentum - further progress in 2019 and beyond**

# Financial review

Mark Hoad, CFO



## HY 2019 financial overview

8%

Organic revenue  
growth

8.1%

Underlying  
operating margins,  
up 50 bps

22%

Increase in EPS

28%

Cash conversion

11.3%

ROIC, LFL 20 bps  
improvement

8%

Increase in the  
dividend to 2.1p

# Group financial performance

## Strong revenue growth and profit improvement

£m (except where stated)	HY 2019	HY 2018	Change	Change constant fx
Revenue	<b>238.2</b>	194.2	23%	20%
Operating profit*	<b>19.2</b>	14.6	32%	27%
Operating profit margin*	<b>8.1%</b>	7.5%	60bps	50bps
Profit before tax*	<b>17.4</b>	14.0	24%	20%
EPS* (pence)	<b>8.8p</b>	6.9p	28%	22%
Exceptionals & one-offs	<b>(12.3)</b>	(6.9)	(78)%	(78)%
Dividend (pence)	<b>2.1p</b>	1.95p	8%	
Cash conversion‡ (%)	<b>28%</b>	105%		
Net debt (FY 2018)	<b>(82.4)</b>	(41.2)		
Leverage <sup>+</sup> (times)	<b>1.2</b>	0.8		
ROIC (%)	<b>11.3%</b>	11.5%^	(20)bps	
ROIC pre IFRS 16 (%)	<b>11.7%</b>	11.5%^	20bps	

- Revenue up 8% organically
- Operating profit up 27%
- Operating margins improved by 50bps
- Effective tax rate 17.2%
- Exceptionals: P&L £12.3m, cash £3.2m
- Increased dividend by 8% to 2.1p
- Cash conversion reflects growth and seasonality
- Net debt includes £19.9m relating to leases (IFRS 16)
- ROIC 11.3%, up 20 bps like-for-like

\* Underlying, before exceptional and one-off costs

‡ See appendix

† Bank covenant - pre-IFRS 16, proforma for acquisitions

^ Full year 2018

# Sensors and Specialist Components



## *Market softening after two years of strong demand*

	<b>HY 2019</b>	<b>HY 2018<sup>^</sup></b>	<b>Change</b>	<b>Change constant fx</b>
Revenue (£m)	<b>64.1</b>	62.4	3%	(2)%
Underlying operating profit (£m)	<b>7.5</b>	8.6	(13)%	(15)%
Underlying operating margin	<b>11.7%</b>	13.8%	(210)bps	(180)bps

- Revenue down 2% organically
  - Softer demand follows very strong financial performance over last two years
  - Inventory de-stocking across the market impacting demand
- Operating profit down 15%
  - Drop through from lower revenues and cost headwinds including Mexican minimum wage
  - Actions to address cost base underway; optimising footprint and fixed labour costs
- Cross-selling win with US defence prime

<sup>^</sup> Re-stated for transfer of Malaysian Magnetics business

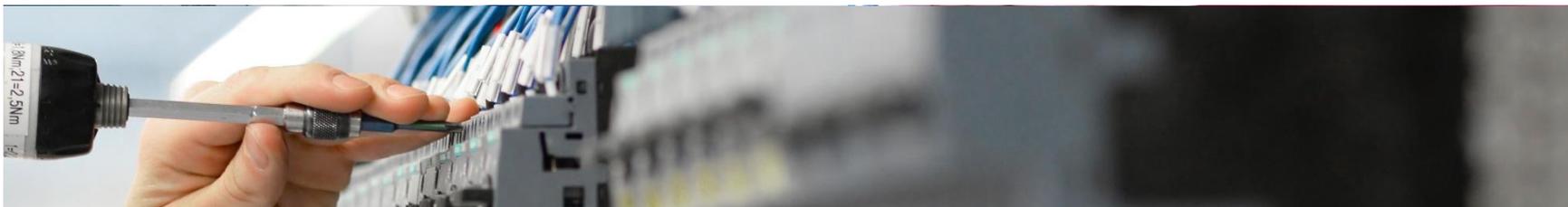


## *Good growth and strong margin progression*

	HY 2019	HY 2018 <sup>^</sup>	Change	Change constant fx
Revenue (£m)	67.6	47.6	42%	40%
Underlying operating profit (£m)	7.2	3.8	89%	80%
Underlying operating margin	10.7%	8.0%	270bps	240bps

<sup>^</sup> Re-stated for transfer of Malaysian Magnetics business

- Organic revenue up 4%
  - Good growth from defence and civil programmes, satellite and space
  - Sales wins in medical market
- Operating profit up 80%
  - Drop through from revenue growth and previous investment in process and efficiency
  - 240bps margin improvement to 10.7%
- Contract win for satellite navigation solutions; Honeywell quality award
- Enhanced synergy plan on track



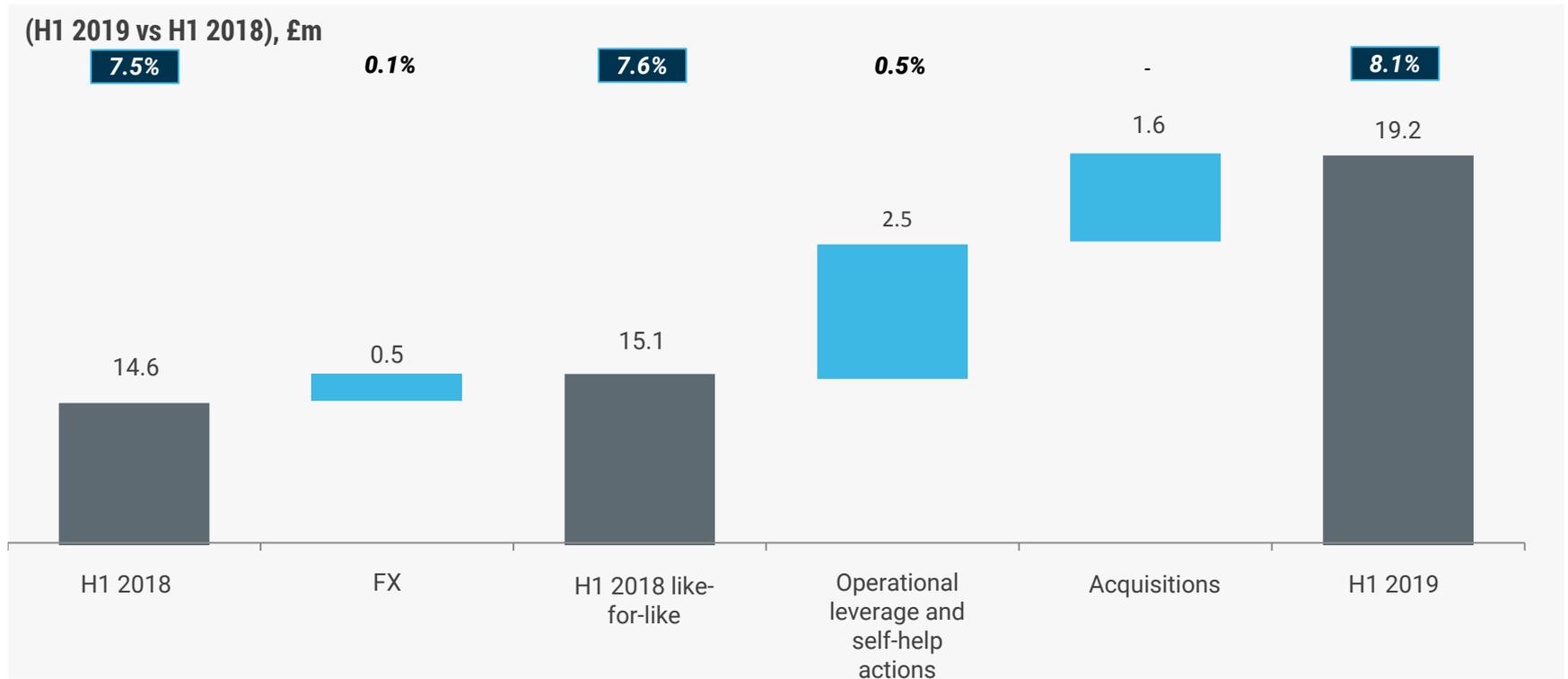
## *Strong growth from higher value-added revenues*

	HY 2019	HY 2018	Change	Change constant fx
Revenue (£m)	<b>106.5</b>	84.2	26%	25%
Underlying operating profit (£m)	<b>8.0</b>	5.9	36%	33%
Underlying operating margin	<b>7.5%</b>	7.0%	50bps	50bps

- Revenue up 17% organically
  - Growth in all regions
  - Record order book; increased 2020 visibility
- Operating profit up 33%
  - Operational leverage and efficiency improvements
  - Increasingly engineering led revenues following investment in engineering teams
- Strong growth with existing medical customers; 4 new customers won

# Group financial performance

*Driving improvement in operating profit*



## Free cash flow and net debt

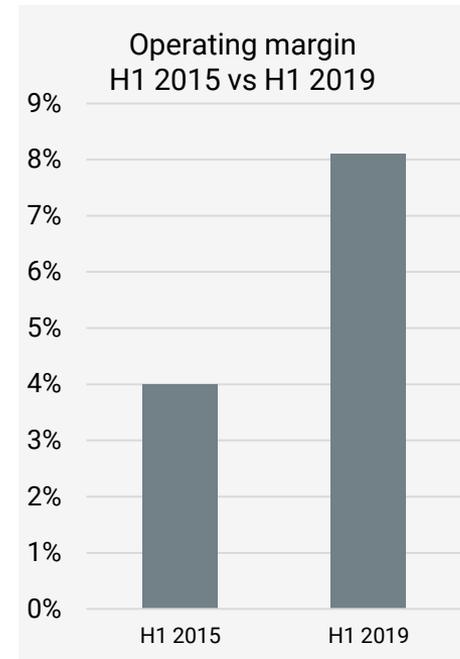
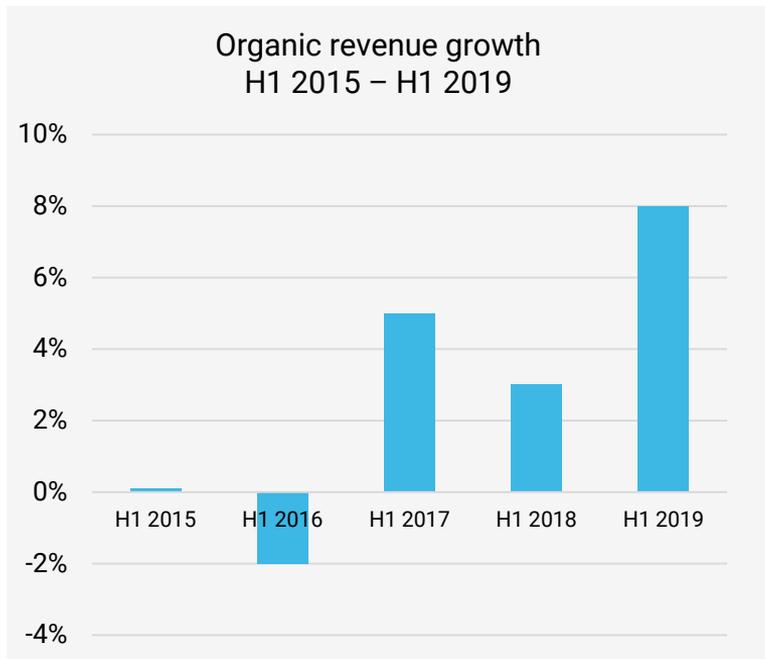
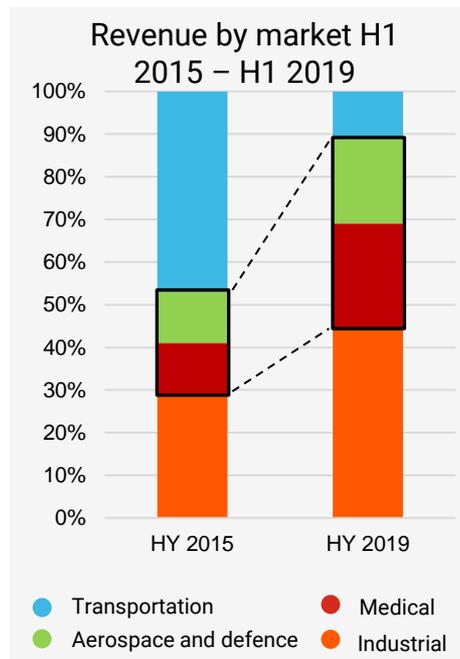
£m	HY 2019	HY 2018
Underlying EBITDA	28.2	21.0
Net capital expenditure & capitalised development	(9.3)	(6.7)
Working capital	(15.1)	(0.5)
Exceptional items	(3.2)	(4.7)
Net interest and tax	(3.4)	(4.0)
Pensions & other	(4.4)	(1.0)
Lease liability repayments	(2.0)	-
<b>Free Cash Flow</b>	<b>(9.2)</b>	<b>4.1</b>
Dividends	(7.4)	(6.6)
Acquisitions & disposals	(2.3)	(78.0)
Other	0.1	(7.7)
<b>Net Cash Flow</b>	<b>(18.8)</b>	<b>(88.0)</b>
<b>Cash Conversion</b>	<b>28%</b>	<b>105%</b>
	<b>H1 2019</b>	<b>YE 2018</b>
<b>Net Debt</b>	<b>(82.4)</b>	<b>(41.2)</b>
<b>Net Debt to EBITDA<sup>†</sup></b>	<b>1.2</b>	<b>0.8</b>

- Working capital outflow reflects strong revenue and order book growth
- Seasonality impact will normalise in H2
- Capex spend increased as planned to support growth, upgrade of Bedlington facility, R&D investment
- Cash conversion of 28% - back to target levels for full year
- Exceptional items include acquisition related footprint consolidation
- Acquisition of Power Partners (£1.2m initial consideration); Precision earnout (£0.9m)
- Net debt includes £19.9m of IFRS16 lease liabilities (2018: nil)

<sup>†</sup> Bank covenant - pre-IFRS 16, proforma for acquisitions

# Our record

*Growing revenue and profit – transforming the quality of the business*



2015 and 2016 total operations including Transportation division; 2017 – 2019 continuing operations



# Strategy and outlook

Richard Tyson, CEO



# Driving organic growth and future margin improvement

## Our strategy...

Positioned in structural growth markets

Create differentiated capabilities

Work with our customers to solve their toughest electronic challenges

## ...delivered through...

Targeted business development

R&D investment

Operational excellence

Value-enhancing acquisitions

Talent development

**More to come – opportunity for the future**

# Why we're winning - our business development approach

## New multi-million pound customer win



## Initial growth phase with a customer primed to ramp up



## Growth with customer in structural growth market



## US aerospace and defence prime

- Identified a number of potentially large customers, securing initial projects
- Proved capabilities and developed relationships
- Contract awarded by L3 Aviation Products to support a substantial electronics manufacturing program for a key military program

## UK aerospace and defence Tier 1

- Won contract in 2017; contributed strongly to growth in H1 2019
- Number of strategic electronic suppliers reduced to just two
- Key electronics platform supporting a major commercial aerospace program
- Contract in initial growth phase – volume ramp up in 2020-2023

## Chinese rail infrastructure

- Working with Chinese rail infrastructure customer since 2010
- Providing complex assembly solutions for rail signalling equipment
- Strong double-digit % growth
- Chinese government has approved \$125bn of rail projects\*

# R&D to fuel future growth – positioned with primes on multiple technology demonstrator programmes

£7.1m (5.4% of revenues) invested in R&D

- Core focus areas:
  - Power solutions for aerospace and medical applications
  - Connectivity for the industrial Internet of Things
  - Specialist sensing capabilities

## Project ENCASE for starter generators on engines

- Co-funded by Innovate UK and aerospace engine OEM
- Selected as leading electromagnetics expert; new technology for next-generation engines



## New power conversion unit

- New prototype launched at Paris Air Show following investment in 2018



(Auto Transformer Rectifier Unit)

## Next-generation platform technology projects

- Technology to remove mechanical switches and create a more pure power supply to
  - Eliminate sparking of current, and
  - Better manage high power



# Self-help actions as a driver of margin enhancement

## The opportunity

2019-2022+

HY 2018  
7.5%



HY 2019  
8.1%



10%+

- **Operational excellence**
  - 2018 focus on South Wales and North Devon facility drove margin improvement
  - Customer recognition awards
- **Footprint rationalisation**
  - Closure of five facilities underway
- **Further self-help opportunities available**

# Adding value through successful acquisitions

## Integration

- All completed on or ahead of plan
- Management discipline
- Process, controls and systems
- Back-office efficiency

## Synergy

- Overhead reduction
- Footprint rationalisation
- Scale in procurement and supply chain

## Enhanced capabilities

- Extending our technology offering
- Investment for growth
- Leveraging wider group capabilities
- Talent

## Growth

- Organic growth
- Cross-selling opportunities
- Improved market access

**Aero Stanrew (2015, £42.2m) – UK, Aerospace & defence**

**Cletronics (2017, \$1.6m) – US, Aerospace & defence**

**Stadium (2018, £59.7m) – UK and Asia, Industrial IoT and medical**

**Precision (2018, \$23.7m) – US, Medical and aerospace & defence**

**Power Partners (2019, \$1.5m) – US, Medical**

Strong **8% organic** revenue growth;  
**ahead of market**

Better **quality business**; 45% of  
revenues in aerospace, defence and  
medical

Another period of **strong profit growth**,  
up 27%; margins 8.1%

Acquisition **integration success**;  
**synergy** and **revenue opportunities**

***Our first half performance and order momentum position us well to make  
further progress in 2019 and beyond.***

# Appendix



### Restructuring costs

- c. £5-6m on footprint changes to deliver synergy plans and operational efficiency

### Capital and development expenditure

- Capex and devex circa £21m (1.4x owned DA)

### Working capital

- Brexit inventory buffer build in H2
- FY modest outflow

### Pensions

- Stadium scheme merger completed
- Triennial valuation underway

### M&A

- Investment in joint venture c. \$4m
- Precision earn-out payment \$1.1m

### Tax

- Effective rate for year 17.2%
- Cash payments broadly in line with P&L charge

### Foreign exchange

- USD 1 cent = circa £160k operating profit impact
- RMB 0.1 = circa £160k operating profit impact

# Appendix: The TT Electronics business

## Revenue (HY19)

- **Sensors and Specialist Components** 27%
- **Power and Connectivity** 28%
- **Global Manufacturing Solutions** 45%



## Underlying operating profit (HY19)

- **Sensors and Specialist Components** 39%
- **Power and Connectivity** 38%
- **Global Manufacturing Solutions** 41%
- **Central costs** (18)%



## Revenue by market (HY19)

- **Industrial** 44%
- **Medical** 25%
- **Aerospace and defence** 20%
- **Transportation** 11%



## Revenue by geography (HY19)

- **UK** 30%
- **North America** 28%
- **Asia and Rest of World** 23%
- **Rest of Europe** 19%



## Appendix: Impact of FX

	Sensors and Specialist Components	Power and Connectivity	Global Manufacturing Solutions	Corporate	Group
<b>Sales (£m)</b>					
HY 2019	64.1	67.6	106.5	-	<b>238.2</b>
HY 2018 at 2019 rates	65.1	48.2	85.4	-	<b>198.7</b>
FX impact	2.7	0.6	1.2	-	<b>4.5</b>
HY 2018 as published*	62.4	47.6	84.2	-	<b>194.2</b>
<b>Operating Profit (£m)</b>					
HY 2019	7.5	7.2	8.0	(3.5)	<b>19.2</b>
HY 2018 at 2019 rates	8.8	4.0	6.0	(3.7)	<b>15.1</b>
FX impact	0.2	0.2	0.1	-	<b>0.5</b>
HY 2018 as published*	8.6	3.8	5.9	(3.7)	<b>14.6</b>

\*restated for change to reporting segments

## Appendix: Change to reporting segments

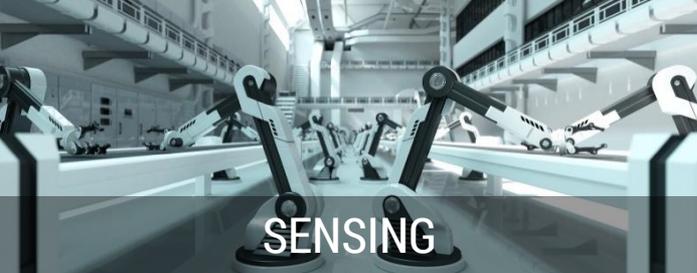
Six months ended 30 June 2018 (£m)	Sensors and		Global		Group
	Specialist Components	Power and Connectivity	Manufacturing Solutions	Corporate	
Revenue	62.4	47.6	84.2	-	<b>194.2</b>
Underlying operating profit	8.6	3.8	5.9	(3.7)	<b>14.6</b>
Margin	13.8%	8.0%	7.0%	-	<b>7.5%</b>
<b>Year ended 31 December 2018 (£m)</b>					
Revenue	132.2	115.5	181.8	-	<b>429.5</b>
Underlying operating profit	18.5	11.2	11.3	(7.6)	<b>33.4</b>
Margin	14.0%	9.7%	6.2%	-	<b>7.8%</b>

## Appendix: Cash conversion

<b>Cash Conversion (£m)</b>	<b>HY 2019</b>	<b>HY 2018</b>
Underlying EBITDA (continuing operations)	<b>28.2</b>	21.0
Net capital expenditure	<b>(7.4)</b>	(5.1)
Capitalised development expenditure	<b>(1.9)</b>	(1.6)
Working capital	<b>(15.1)</b>	(0.5)
Other	<b>1.6</b>	1.5
<b>Underlying Operating Cash Flow</b>	<b>5.4</b>	<b>15.3</b>
Underlying operating profit - continuing operations	<b>19.2</b>	14.6
<b><i>Cash conversion – continuing operations</i></b>	<b>28%</b>	<b>105%</b>

## Appendix: IFRS 16

- New accounting standard for leases effective 1 January 2019
- Requires operating leases to be recognised as finance leases on the balance sheet
- No restatement of comparatives
- No net cash flow or bank covenant impact – bank covenants continue to be calculated according to the prior standard
- Summary accounting impacts (full year effect):
  - £18 million increase to reported assets and £21 million increase to net debt as at 1 January 2019
  - £5 million operating lease expense replaced with £4 million depreciation charge
  - £1 million increase to operating profit and interest; PBT impact de-minimus
  - £5 million movement from cash flow from operating activities to cash flow from financing activities



SENSING



POWER



CONNECTIVITY



MANUFACTURING

## OUR PURPOSE

To solve our customers' toughest electronics challenges by engineering smarter solutions together.

We design and manufacture electronics that **sense**, manage **power** and **connect** to other things.

Our products are:

- Mission-critical
- Highly-engineered
- IP rich proprietary technology

Our solutions operate in **harsh environments** in structural growth markets where there are **"electronics everywhere"**.

## TT touch points across our world

We help solve our customers' toughest electronic challenges



Supporting growth of the aviation sector by increasing flight safety and environmental efficiency.



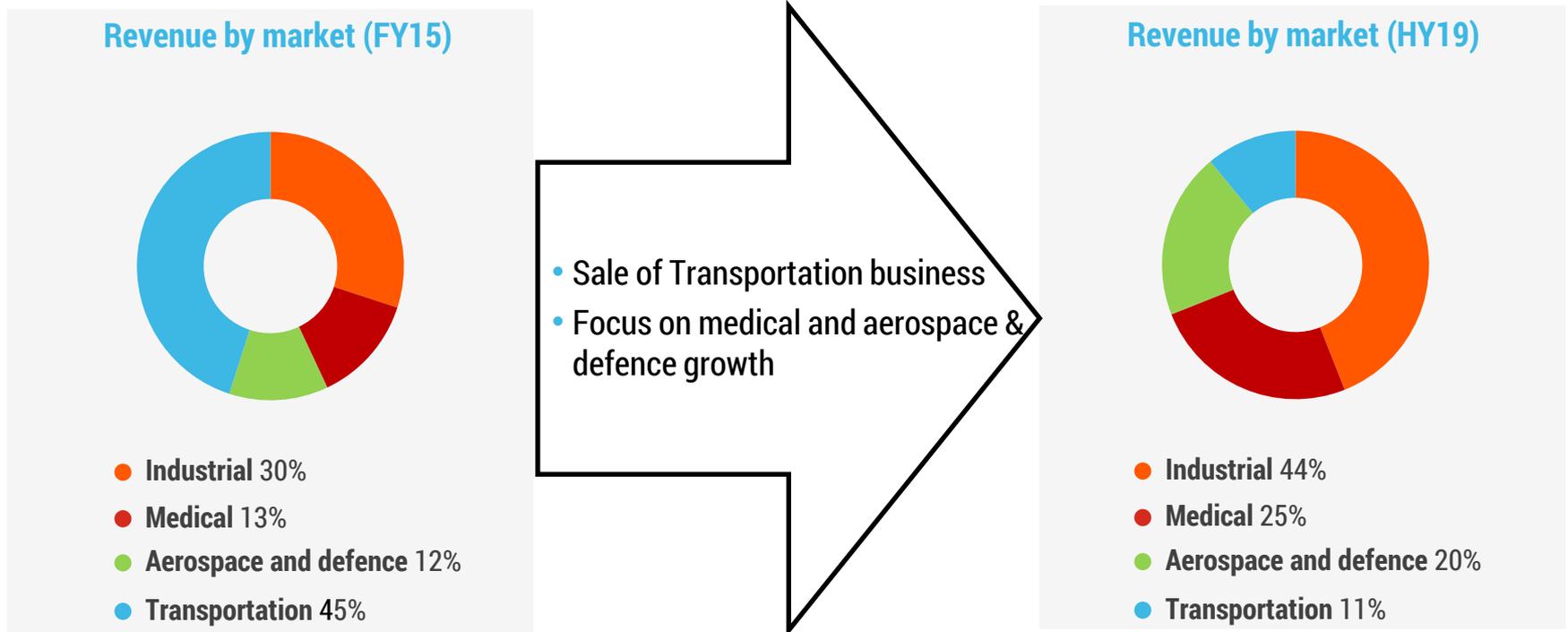
Bringing tomorrow's medical technologies to life, for advanced disease detection and treatment.



Improving factory efficiency and automation for a more productive world.

We provide solutions for the drive towards “**electronics everywhere**” across our markets

## Focusing on markets with structural growth drivers



Materially reduced automotive exposure to c.4% total sales

## Geographic balance with increased exposure to growing Asian markets

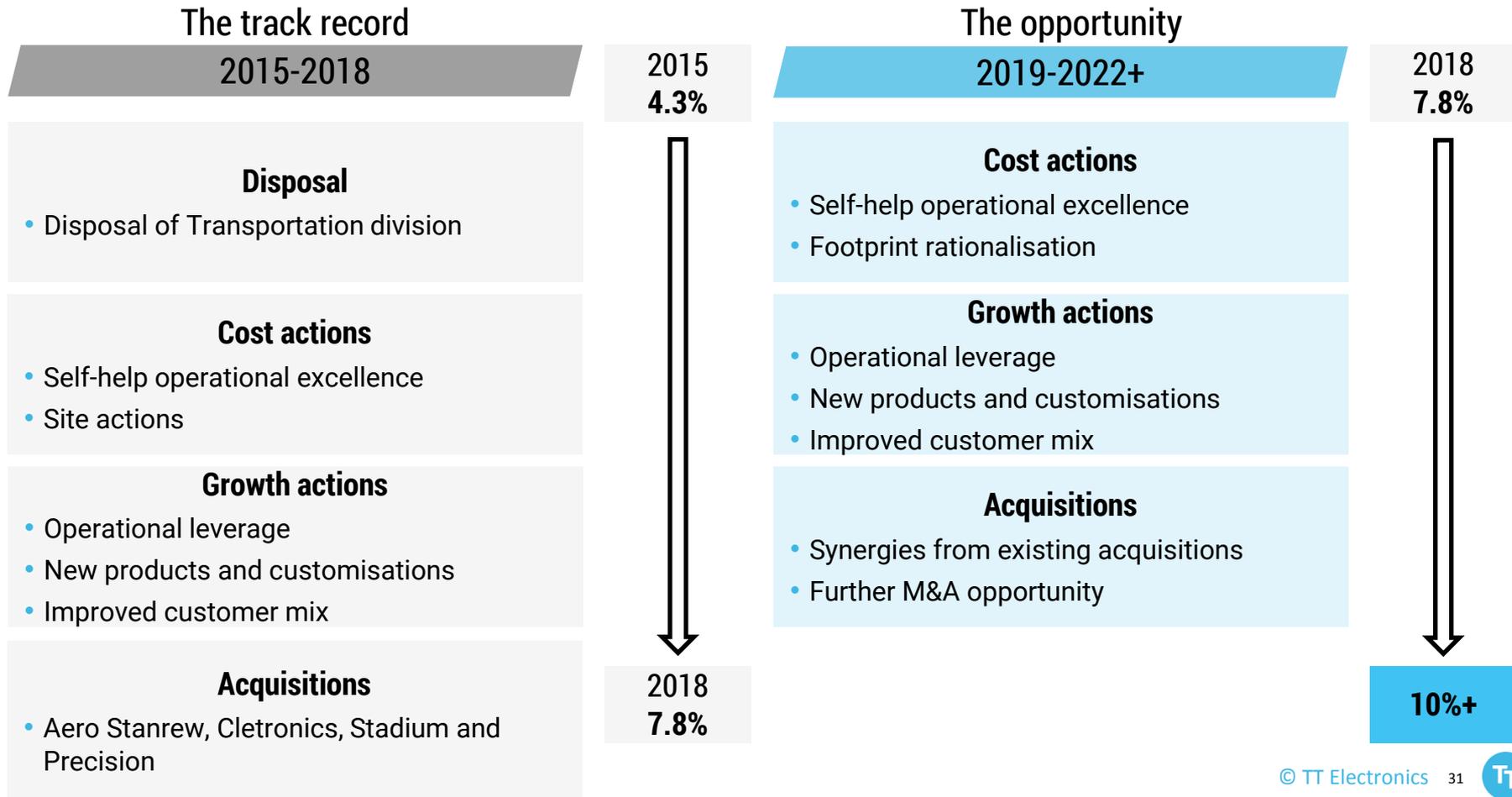


Asia now c.£100m of annualised revenue

## Significant financial transformation over 3 years

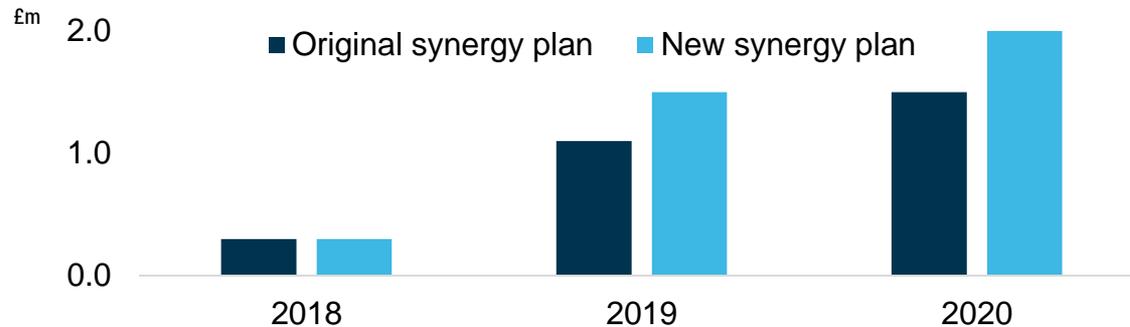
	2015	2018	
Organic revenue growth	(3)%	<b>6%</b>	<ul style="list-style-type: none"><li>• Good growth</li></ul>
Operating profit	£21.7m	<b>£33.4m</b>	<ul style="list-style-type: none"><li>• Improved profitability</li></ul>
Underlying operating profit margin	4.3%	<b>7.8%</b>	<ul style="list-style-type: none"><li>• Margin strongly ahead</li></ul>
ROIC	9.0%	<b>11.5%</b>	<ul style="list-style-type: none"><li>• Value-creative return on invested capital</li></ul>
Leverage	1.3x	<b>0.9x</b>	<ul style="list-style-type: none"><li>• Stronger balance sheet with higher investment capacity</li></ul>

# Drivers of margin enhancement



## Stadium acquisition performing well

- Business performance ahead of expectations; 10.0% margin
- Integration complete
- Synergy a year ahead and site rationalisation underway



- Investing for growth with exciting opportunity pipeline

# Appendix: Market growth driving demand for our solutions

Structural growth drivers leading to increasing sales for our sensing, power management and connectivity capabilities

	% revenues as at HY19	Example end application	Key macro trend
 Industrial	44%	<ul style="list-style-type: none"><li>Automation and control</li><li>Energy and smart devices</li><li>Infrastructure</li></ul>	<ul style="list-style-type: none"><li>Robotics and industrial automation</li><li>More efficient energy usage</li><li>Connectivity</li></ul>
 Medical	25%	<ul style="list-style-type: none"><li>Advanced surgical devices</li><li>Imaging and direct patient care</li><li>Laboratory automation and diagnostics</li></ul>	<ul style="list-style-type: none"><li>Population growth and ageing</li><li>Innovation in diagnostics and direct patient care</li><li>Medical device connectivity</li></ul>
 Aerospace and Defence	20%	<ul style="list-style-type: none"><li>Commercial and military aircraft</li><li>Space and satellite</li><li>Defence systems and vehicles</li></ul>	<ul style="list-style-type: none"><li>Growing passenger numbers</li><li>Electrification of aircraft to reduce size, weight and power consumption</li><li>Increased defence spending</li></ul>
 Transportation	11%	<ul style="list-style-type: none"><li>Electric and hybrid electric vehicles</li><li>Rail infrastructure and equipment</li></ul>	<ul style="list-style-type: none"><li>High-speed rail infrastructure</li><li>Global asset and logistics tracking</li><li>Shift away from fossil fuels</li></ul>

# Appendix: What we do by division

Potential across all our divisions



**Sensors and Specialist Components**



**Power and Connectivity**



**Global Manufacturing Solutions**

Capability



Sensing



Power

Offering

Components and higher level assemblies

Nature of sell

Direct through OEM and through broadline and specialist distributors

Market focus



75% industrial

Financials (HY 2019)

Revenue: £64.1m  
OP: £7.5m  
Margin: 11.7%

Margin potential

Margin enhancement through operational excellence; improved gross margin on new products launched



Power



Connectivity

Components, higher level assemblies and products

Engineering solution sell; some power products through distribution



54% aerospace, defence and medical

Revenue: £67.6m  
OP: £7.2m  
Margin: 10.7%

Margin enhancement through moving up the value chain; operational excellence



Manufacturing

Engineering services and manufacturing solutions for products

Strategic manufacturing partnership



58% aerospace, defence and medical

Revenue: £106.5m  
OP: £8.0m  
Margin: 7.5%

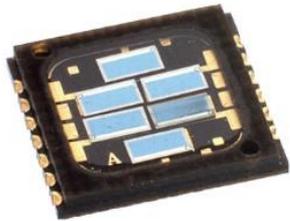
Margin enhancement by increasing percentage of value-added engineering services; operational excellence



Market: Industrial



Application: Robotic arm in automated production



TT product: Sensor – optoelectronic encoder

## Appendix: Aligning R&D to structural growth markets

---

- c.6% CAGR in automation and control to 2023
- Over 20 years experience in industrial automation; over 10 million units shipped
- High resolution sensor optimises robot performance
- Next platform development underway; 2019 launch schedule

## Appendix: Scalable platform approach for revenue growth across multiple markets

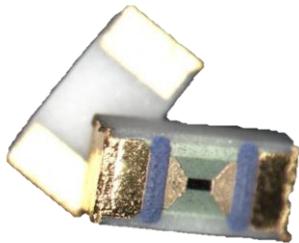
---



**Market: Industrial**



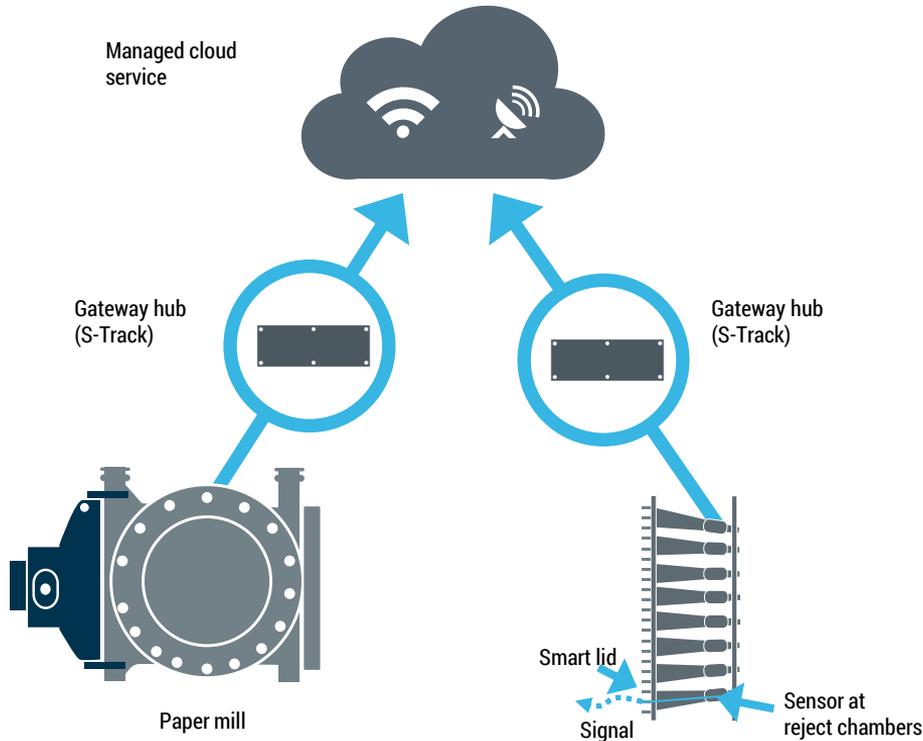
**Application: Detonators for demolition and mining**



**TT product: Power management - signal conditioning**

- Launched a major new platform for signal conditioning in 2015 following 2 years of development
- New technology delivering
  - Extreme precision
  - Leading moisture resilience
- Technology for aerospace and defence applied to industrial applications

## Appendix: Industrial connectivity in action



### Example: Paper mill

#### What

- Developing a connectivity solution for preventative maintenance in a paper mill
- Ability to monitor filtration cylinders for blockages

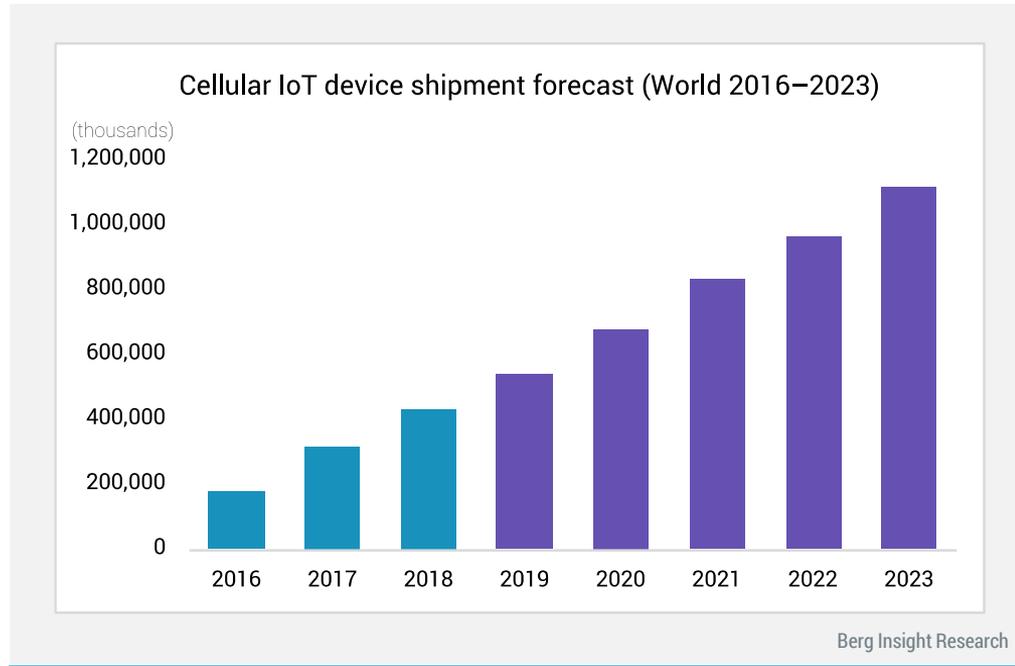
#### How

- Custom connectivity device can be linked to pressure sensor from Sensors division

#### Value to customer

- Reduced downtime
- Improved yields
- Optimised preventative maintenance

## Appendix: Positive market fundamentals in industrial IoT



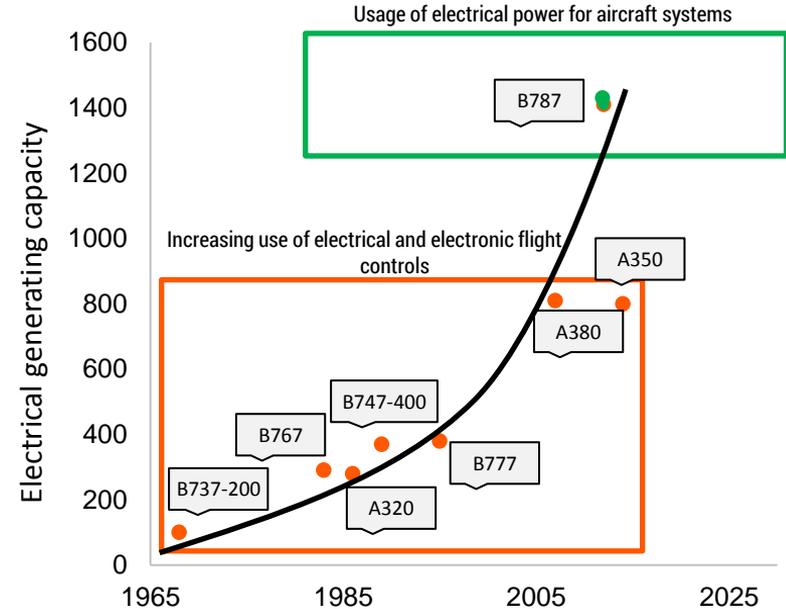
- Large, established market; adoption underway and accelerating
- Exponential growth; appetite to monitor and manage data to improve efficiency



## Appendix: Electrification of aircraft means growing demand

- Hydraulics and pneumatics replaced with electrical systems
- Electrification increasing exponentially
- 1% weight decrease results in c.10% increase in profits
- Aviation electronics expected to grow at c.7% CAGR to 2022

### Step change in electronic generating capacity in successive platforms



Source: TT Electronics and Roland Berger