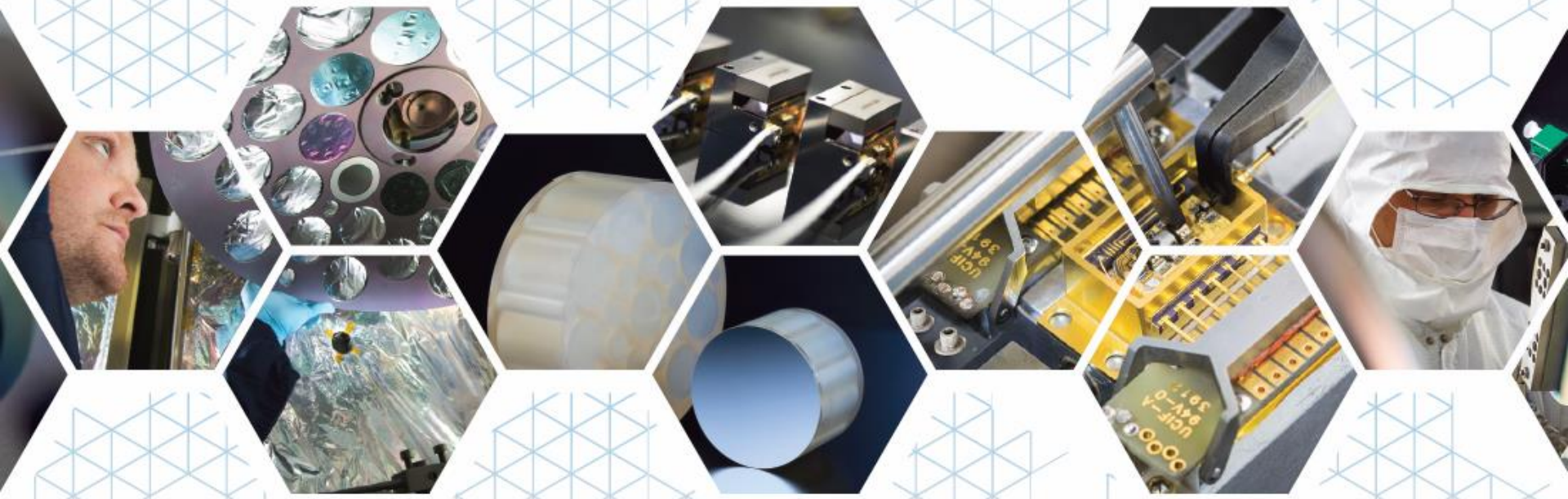

INTERIM RESULTS

HALF YEAR ENDED 31 MARCH 2016

CEO: Mark Webster / **CFO:** Andrew Boteler

Gooch & Housego
ENABLING PHOTONIC TECHNOLOGIES

Highlights

Operational & Financial Highlights

- First half performance as expected
- Full year trading remains in line with expectations
- Robust order book of £39.1 million, a 13.1% increase on the same time last year
- Mixed markets
  - Industrial laser market improved in Q2
  - Strong performance from telecommunications and fibre sensing products
  - Aerospace & Defence markets lower due to programme timings
- Continued investment for the future - £5.6 million invested in Group's facilities & equipment, and £3.5 million in R&D and new products
- Interim dividend increased to 3.3p (2015:3.0p)

"G&H is well positioned to benefit from improving market conditions and has the capacity to respond to increasing demand. Our commitment to diversification has enabled us to navigate a challenging period at the beginning of the year and still be on track to deliver our full year expectations.
We remain committed to our strategy of diversification and moving up the value chain whilst continuing to invest in our continuous improvement programme, which will underpin future performance"
Mark Webster, CEO

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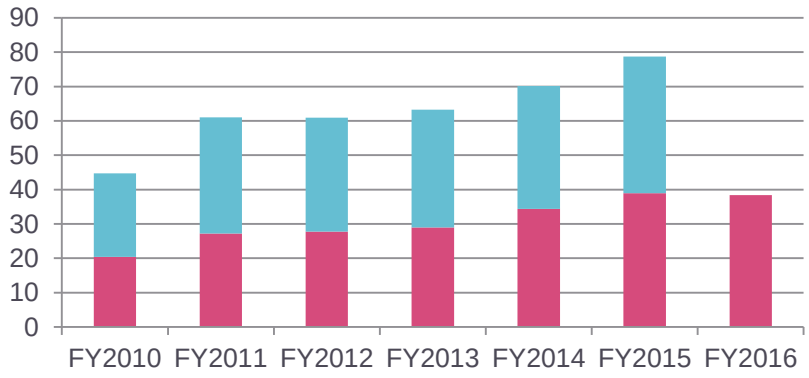
Highlights

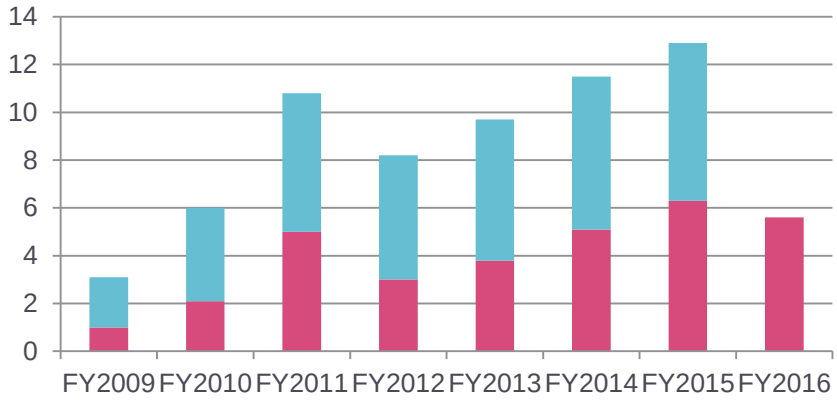
Results at a glance

Half Year Ended 31 March	HY 2016	HY 2015	Change
Revenue	**£38.4m**	**£38.9m**	(1.3%)
Adjusted profit before tax	**£5.6m**	**£6.3m**	(11.1%)
Adjusted basic earnings per share	**17.0p**	**19.3p**	(11.9%)
Interim dividend per share (pence)	**3.3p**	**3.0p**	10.0%
Net cash	**£12.3m**	**£11.9m**	3.4%

Revenue £'m



Adjusted PBT £'m



"The increase in our interim dividend by 10% reflects our confidence in the business going forward and is underpinned by our strong balance sheet" Andrew Boteler, CFO

H1 H2

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Financial Overview

Income Statement

Half Year Ended 31 March	2016 £'000	2015 £'000
Revenue	**38,361**	**38,945**
Gross profit	**13,109**	**15,560**
Operating expenses	**(7,516)**	**(9,093)**
Adjusted operating profit	**5,593**	**6,467**
Adjusted operating profit %	**14.6%**	**16.6%**
Acquired intangible assets amortisation and exceptional items	**(2,033)**	**(1,219)**
Operating profit	**3,560**	**5,248**
Net finance costs	**(33)**	**(148)**
Profit before tax	**3,527**	**5,100**
Tax expense	**(913)**	**(1,363)**
Profit for the period	**2,614**	**3,737**
Basic earnings per share	**10.8p**	**15.6p**
Adjusted profit before tax	**5,560**	**6,319**
Adjusted basic earnings per share	**17.0p**	**19.3p**

Key points:

- Group revenue marginally down on the record HY2015 comparative
- Excluding the impact of foreign exchange, revenue fell by 5%
- The order book at 31 March 2016 was £39.1 million (HY2015: £34.6 million), a 13.1% increase. The Company has booked £41.1 million in orders since the start of the financial year
- Adjusted profit before tax fell by £759k. Margins were impacted by product mix and investment in improved infrastructure
- G&H invested £3.5 million in R&D. This represents 9% of revenue and is 8% higher than HY2015 (2015: £3.2m)
- Net finance costs reduced by 78% as a result of the company's continued strong cash generation and re-financing its debt
- Effective tax rate was 25.9% (2015: 26.7%)

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Financial Overview

Cash Flow

Half Year Ended 31 March	2016 £'000	2015 £'000
Cash flow from operating activities	**2,446**	**5,079**
Cash flow from investing activities		
Purchase of property, plant and equipment & intangibles	(6,293)	(1,427)
Sale of property plant and equipment	-	631
Interest received	20	11
	(6,273)	**(785)**
Cash flow from financing activities		
Movement in borrowings	(29)	(3,563)
Proceeds from issuance of share capital	-	98
Interest paid	(50)	(178)
Dividends paid to ordinary shareholders	(1,254)	(1,101)
	(1,333)	**(4,744)**
Net increase in cash and cash equivalents	**(5,160)**	**(450)**
Exchange gains	414	596
Cash and cash equivalents	**17,810**	**17,240**

Key points:

- Net cash increased by 3.4% to £12.3 million compared to last year (2015: £11.9m)
- Net cash flows from operations generated £2.4 million, compared with £5.1 million in 2015. 2016 operating cash flows include a net cash outflow of £0.9 million relating to the relocation of the Palo Alto facility
- £5.6 million investment in facilities & equipment relating to the new Fremont facility, expanding our Torquay site and the initial phases of the Cleveland facility modernisation
- Interim dividend increased 10% to 3.3p (2015: 3.0p)

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Financial Overview

Balance Sheet

As at 31 March		2016 £'000	2015 £'000
Non-current assets	Tangible assets	29,645	24,031
	Intangible assets	21,074	21,312
	Other	2,382	2,797
		53,101	**48,140**
Current assets	Inventories	16,269	16,304
	Trade & other receivables	16,332	16,091
	Cash & cash equivalents	17,810	17,240
		50,411	**49,635**
Current liabilities	Trade & other creditors	(11,675)	(13,591)
	Borrowings	(10)	(5,349)
	Other	(692)	(485)
		(12,377)	**(19,425)**
Non current liabilities	Borrowings	(5,482)	-
	Other	(3,169)	(2,478)
		(8,651)	**(2,478)**
Net assets		**82,484**	**75,872**

Key points:

- Strong balance sheet maintained
- £5.6 million invested in property, plant & equipment
- £0.6 million invested in capitalised R&D assets
- Following the completion of the Fremont site move, inventories at this facility have fallen by $1.7 million since the year end following the utilisation of the strategic inventory build
- The unwinding of the Fremont strategic inventory, together with the impact of exchange rates and working capital investment at our Torquay facility, has resulted in a net inventory increase of £0.3 million since the year end

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Market analysis

Results by segment

	Industrial	Aerospace & Defence	Life Sciences	Scientific Research	Corporate	Group
Revenue						
2016	**£24.8m**	**£8.1m**	**£3.9m**	**£1.6m**	**-**	**£38.4m**
2015	£22.3m	£10.3m	£4.3m	£2.0m	-	**£38.9m**
Change	£2.5m	(£2.2m)	(£0.4m)	(£0.4m)	-	**(£0.5m)**
%	*11.2%*	*(21.4%)*	*(9.3%)*	*(20.0%)*	-	***(1.3%)***
Adjusted operating profit						
2016	**£4.8m**	**£0.5m**	**£0.5m**	**£0.2m**	**(£1.1m)**	**£4.9m**
2015	£5.0m	£1.1m	£0.6m	£0.4m	(£1.5m)	**£5.7m**
Change	(£0.2m)	(£0.6m)	(£0.1m)	(£0.2m)	£0.4m	**(£0.8m)**
%	*(4.0%)*	*(54.5%)*	*(16.7%)*	*(50.0%)*	*26.7%*	***(14.0%)***

- Industrials- Increases in fibre optic sensing and telecommunications more than offset any first half weakness in Industrial lasers
- Aerospace & Defence- a function of order and programme timing
- Life Sciences- lower demand requirements from two major customers

'Our aim is to build critical mass in A&D and Life Sciences in order to fully leverage our capabilities and protect against the fluctuation associated with ordering patterns and key customer performance, as per the Industrial sector'

Mark Webster CEO

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Technology, Products & Markets

Markets & Applications

Industrial

Revenue	
2016	**£24.8m**
2015	£22.3m
Change	£2.5m
%	*11.2%*

Adjusted operating profit

2016	**£4.8m**
2015	£5.0m
Change	(£0.2m)
%	*(4.0%)*

Markets

Microelectronics & light manufacturing

- Weak demand for microelectronic components from China in Q1
- Demand picked up in Q2 and order book predicts improved performance for second half

Fibre optic sensing

- G&H leads the way with Fibre Q products

Telecommunications

- Strong demand for high reliability undersea fibre couplers driven by non- traditional companies laying their own networks.

Metrology

Applications

- Fibre lasers
- Solid state lasers
- Other laser sources
- Semi-conductor equipment
- Inspection equipment

- Perimeter sensing
- Laser scanners
- Wind turbines

- Undersea amplifiers
- Specialist networks
- 40G & 100G Modulation systems

- Laser interferometers

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Technology, Products & Markets

Markets & Applications

Aerospace & Defence

Revenue	
2016	**£8.1m**
2015	£10.3m
Change	(£2.2m)
%	*(21.4%)*

Adjusted operating profit

2016	**£0.5m**
2015	£1.1m
Change	(£0.6m)
%	*(54.5%)*

Markets	Applications
Target designation & range finding • SWIR capability now available	• Aircraft platforms • Missile systems • Land based military platforms
Navigation systems	• Ring laser gyroscopes • Fibre gyroscopes
Space Photonics • First commercial contract for satellite to satellite communication establishing a strong space group in Torquay	• Telco satellites • GPS satellites • Research satellites • Space navigation
Countermeasures	• Infra-red countermeasures • RF countermeasures

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Technology, Products & Markets

Markets & Applications

Life sciences

Revenue	
2016	**£3.9m**
2015	£4.3m
Change	(£0.4m)
%	*(9.3%)*

Adjusted operating profit

2016	**£0.5m**
2015	£0.6m
Change	(£0.1m)
%	*(16.7%)*

Markets

Optical Coherence Tomography

- Developing a number of other diagnostic capabilities beyond our dominant position in ophthalmology

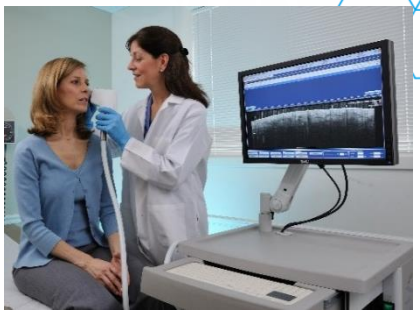
Laser Surgery

Microscopy

Applications

Optical Coherence Tomography

- Ophthalmic imaging
- Cardiovascular
- Oesophageal imaging



Laser Surgery

- Prostate surgery
- Ophthalmic surgery
- Cosmetic surgery
- Tattoo removal

Microscopy

- Confocal microscopes

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Technology, Products & Markets

Markets & Applications

Scientific research

Revenue	
2016	**£1.6m**
2015	£2.0m
Change	(£0.4m)
%	*(20.0%)*

Adjusted operating profit

2016	**£0.2m**
2015	£0.4m
Change	(£0.2m)
%	*(50.0%)*

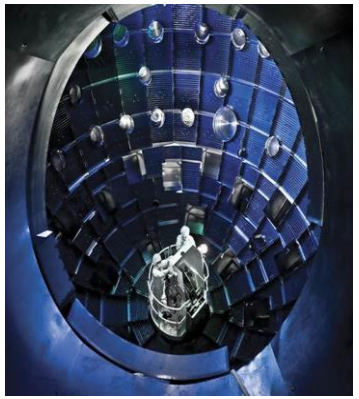
Markets

Applications

Inertial Confinement Fusion

- Maintain our position as custodians of this technology

- National Ignition Facility
- Laser Mega Joule



Scientific Instrumentation

- Upgrading technology

- Research institutes
- Universities

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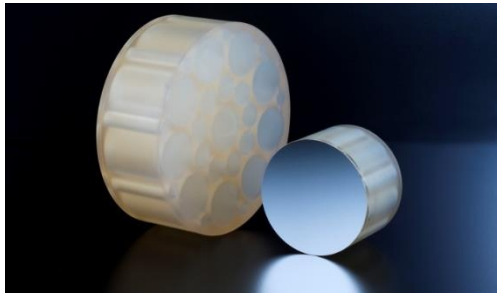
Our Strategy

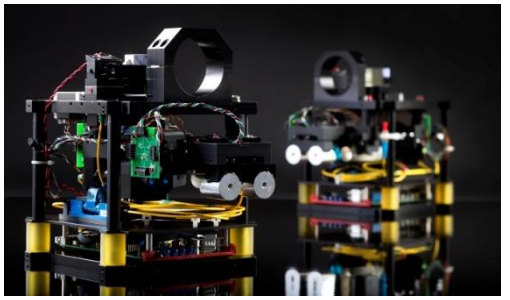
Remains consistent

Diversify

Exploit high-growth opportunities for photonics technology across multiple sectors to provide balance and reduce cyclicality

- **Aim to establish critical mass in Aerospace & Defence and Life Sciences**
- **Exploit near/ medium term opportunities in:**
- **Fibre and ultrafast lasers**
- **High precision inspection equipment**
- **Remote sensing**
- **SWIR**
- **Satellite communications**
- **UAV navigation and communication**
- **Laser surgery**
- **OCT Diagnostics**





Move up the value chain

- Generate growth by adding value
- Leverage excellence in components to become a solutions provider
- Transitioning from component supplier to critical partner

Optics + electronics + software + mechanics = *added value*

Vertically integrate where valuable

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Performance Improvement Plan - Progress

- **Operational excellence** – Globally focused teams representing the key manufacturing disciplines are now established and will deliver performance benefits in 2016 and beyond. Introduction of company wide lean manufacturing principles and training is well under way

- **Investment in facilities** –
  - Upgrade and extension of Torquay facility has enabled us to respond effectively to the 2.5 times increase in demand for high reliability fibre components for undersea communications
  - Fremont move is now completed, with room for expansion
  - Cleveland site upgrade commenced

- **Business Development** – A&D executives recruited in 2015 have made significant contribution to current business and development of R&D projects, most notably SWIR. The same process has started in 2016 for Life Sciences, with the recruitment of an experienced Life Science executive in the USA

- **Targeted R&D approach** - Fewer better resourced projects, selected on basis of highest return on investment are now run by a global R&D group. Delivered a record 13 new products to Photonics West in February 2016

- Strengthened **System Technology Group** to 31 electronic, software and mechanical engineers and scientists. Established a significant Space Communications group with a number of funded projects

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Summary & Outlook

- Full year trading remains in line with expectations
- G&H's commitment to diversification has enabled us to navigate a challenging period in Q1 and still remain on track to deliver our full year expectations
- Industrial laser market has improved in Q2 and telecommunications and fibre sensing has performed strongly throughout.
- Order book is robust and has strengthened since the end of the half year
- Investment in property, plant and equipment to drive continued organic growth
- R&D investment is creating a strong pipeline of new products for launch in 2016 and beyond. A record 13 products launched at Photonics West.
- Initiatives to embed a culture of continuous improvement are expected to deliver progressive margin improvement and help reduce working capital in the coming years
- Well positioned to make strategic acquisitions as and when the right opportunities become available
- A strong balance sheet and net cash. A solid foundation for future acquisitions

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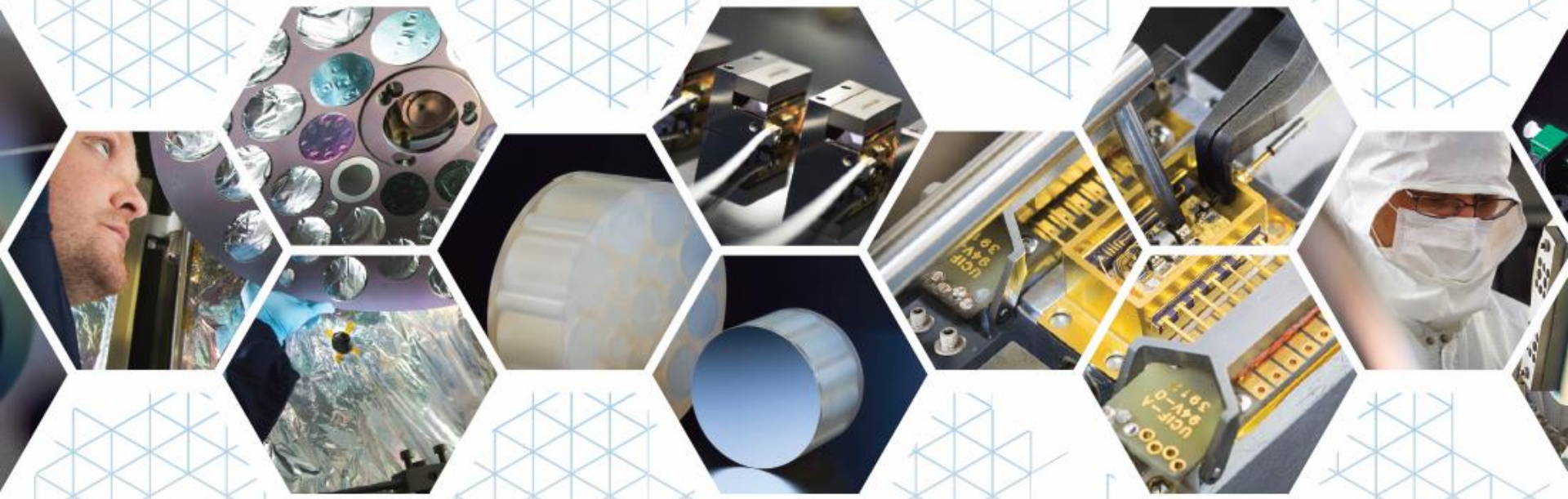

Appendices

Gooch & Housego
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About us

Gooch & Housego is a photonics technology business headquartered in Ilminster, Somerset, UK with operations in the USA and Europe.

A world leader in its field, the company researches, designs, engineers and manufactures advanced photonic systems, components and instrumentation for applications in the aerospace & defence, industrial, life sciences and scientific research sectors.

World leading design, development and manufacturing expertise is offered across a broad range of complementary technologies: acousto-optics, crystal optics, electro-optics, fibre optics and precision optics.

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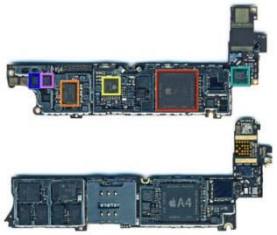
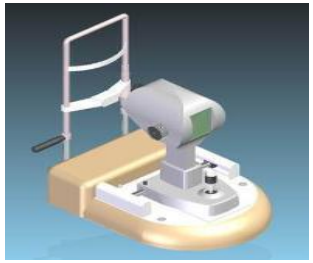
G&H photonics – part of our everyday lives

You probably use G&H photonics every time you use the internet or make a transatlantic phone call

Your smartphone or tablet was manufactured and tested using G&H photonic components: -

- Lasers containing G&H acousto- and electro-optics are used in virtually every step in the manufacturing process
- Lithography systems containing G&H precision optics and acousto-optics are used in semiconductor and PCB manufacture
- Wafers, masks and boards are inspected with laser scanners incorporating G&H acousto-optics
- Displays are measured using G&H instruments





When you travel on holiday or business the airliner you are flying in will be guided by a ring laser gyroscope that probably incorporates G&H optical components

When you use a sat nav in your car you are relying on GPS satellites that incorporate G&H lasers and fibre-optic components

When you have your eyes tested you will be examined with instruments made possible by G&H fibre-optic modules and precision optical components

If you have laser surgery it is likely that G&H photonics are an integral part of the surgical system

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New Products & Capabilities introduced in 2016

Key: New products introduced in FY2016	Technology	Precision Optics	Acousto/Electro Optics	Fibre Optics	Systems & Instrumentation
Markets					
Aerospace & Defence				3	
Industrial		1	4	1	1
Life Sciences			1	3	
Scientific Research					

"G&H sees continued investment in R&D for all areas of our business as fundamental to the organic growth of the company. In 2016 we have had 14 new product releases so far." Murray Reed - CTO

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SWIR – Case Study

- Target designation
- Laser Range Finding
- Fast-Jet HUD Displays
- Helicopter HUD Displays
- Hand-held Equipment
- Surveillance
- Threat detection
- Imaging

HELICOPTER HUDs / FLIGHT AID

UAV SYSTEMS / DRONES

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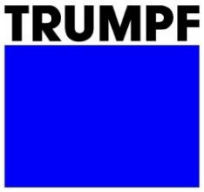
Key Customers