



Interim report | 2017

# IQE plc

## H1 2017 - Interim results

### Strong ramp in sales of VCSEL wafers marks the start of a new wave of growth with a pipeline of new mass market technologies.

*Cardiff, UK. 5 September 2017:* IQE plc (AIM: IQE, "IQE" or the "Group"), the leading global supplier of advanced wafer products and wafer services to the semiconductor industry, announces its unaudited half year results for the six months to 30 June 2017.

£' MILLION (except EPS)	30 June 2017	30 June 2016	Change
<b>REVENUE</b>	<b>70.4</b>	<b>63.0</b>	<b>+12%</b>
WAFERS	69.4	59.5	+17%
LICENSING	1.0	3.5	-71%
<b>ADJUSTED OPERATING PROFIT*</b>	<b>10.6</b>	<b>10.8</b>	<b>-2%</b>
WAFERS	9.6	7.3	+32%
LICENSING	1.0	3.5	-71%
<b>ADJUSTED PROFIT BEFORE TAX*</b>	<b>9.6</b>	<b>10.1</b>	<b>-5%</b>
<b>PROFIT FOR THE PERIOD</b>	<b>7.3</b>	<b>10.0</b>	<b>-27%</b>
<b>ADJUSTED FULLY DILUTED EPS*</b>	<b>1.35p</b>	<b>1.46p</b>	<b>-8%</b>
<b>CASH GENERATED FROM OPERATIONS</b>	<b>11.2</b>	<b>12.4</b>	<b>-10%</b>
<b>CAPITAL INVESTMENT</b>	<b>15.4</b>	<b>7.6</b>	<b>102%</b>
<b>LEVERAGE (NET DEBT + DEFERRED CONSIDERATION)</b>	<b>41.9</b>	<b>35.4</b>	<b>18%</b>

### HIGHLIGHTS

- Wafer sales up 17% against H1 2016, delivering a 32% increase in the related operating and adjusted operating profit.
- Overall revenues up 12% against H1 2016.
- Sales up in all three primary markets with Wireless up 9%, Photonics up 48%, and Infrared up 19% compared with H1 of 2016. Foreign exchange tailwind of c10% following the devaluation of sterling in 2016.
- Continued strong growth in Photonics includes the early phase of a significant ramp in VCSEL wafers for a mass market consumer application, and contributed to record monthly Photonics sales in June 2017.
- License income of £1.0m, compared with £3.5m in H1 2016 (which included upfront amounts). No upfront license income in H1 2017.
- Conversion of adjusted operating profit (£10.6m) into operating cash (£11.2m) of 106% after funding £3.7m investment in working capital, largely in connection with mass market VCSEL ramp (H1 2016: 115% conversion).

- Investment in capex and product development of £15.4m (H1 2016: £7.6m) to support further growth, including the expected mass market adoption of VCSELs. This investment was funded primarily through organic cash generation, and supplemented by debt funding.
- A further capacity expansion plan initiated to meet higher levels of demand which are expected in H2 2018. 5 new tools on order and lease signed on new premises in South Wales which provides a flexible and cost effective route to add up to 100 new tools, which would double IQE's current tool count.
- Breadth and depth of customer engagement across a range of technologies and applications sets the scene for increasing revenue diversity and growth through 2018 and beyond.
- Direct engagement with OEMs has expanded to multiple programmes across a range of materials technologies, validating the strength of IQE's IP portfolio as a key differentiator and strong competitive advantage. These programmes are central to several next generation mass market applications.
- Net debt up £2.4m since year end to £41.9m (December 2016: £39.5m).

*\* The Directors believe that the adjusted measures provide a more useful comparison of business trends and performance. Adjusted measures exclude exceptional items, share based payments and non-cash acquisition accounting charges as detailed in note 5.*

Dr Drew Nelson, IQE Chief Executive, said:

***"The compound semiconductor industry is moving through an inflection point. Many of the key innovations that are taking place in the technology world would not be possible without the advanced properties of compound semiconductor materials. Indeed, compound semiconductors are the fundamental enabler of innovations such as 3D sensing, biometric sensors, electric and autonomous vehicles, high speed wireless and optical communications, and advanced manufacturing.***

***"IQE has developed an unparalleled breath of materials IP, which position it to prosper from the inflection that is taking place in our industry. Our broad portfolio of IP is a powerful competitive advantage which is enabling us to differentiate ourselves in the marketplace. The strength of our IP has enabled us to broaden our direct engagement with OEMs from single points of engagement a few years ago, to multiple programmes enabling a number of next generation mass market technologies.***

***"IQE's outlook has never looked better. The broad range of customer engagements across multiple technologies and multiple end markets, provide a clear path to increase revenue diversity and accelerate growth over the coming months and years ahead. The breadth and depth of customer engagement underpins the Board's confidence in approving the capacity expansion plan, which provides a flexible and cost effective route to significantly scaling up in our business over the next few years"***

The information contained within this announcement is deemed to constitute inside information as stipulated under the Market Abuse Regulations (EU) No. 596/2014. Upon the publication of this announcement, this inside information is now considered to be in the public domain.

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## **Note to Editors**

IQE is the leading global supplier of advanced semiconductor wafers with products that cover a diverse range of applications, supported by an innovative outsourced foundry services portfolio that allows the Group to provide a 'one stop shop' for the wafer needs of the world's leading semiconductor manufacturers.

IQE uses advanced crystal growth technology (epitaxy) to manufacture and supply bespoke semiconductor wafers ('epiwafers') to the major chip manufacturing companies, who then use these wafers to make the chips which form the key components of virtually all high technology systems. IQE is unique in being able to supply wafers using all of the leading crystal growth technology platforms.

IQE's products are found in many leading-edge consumer, communication, computing and industrial applications, including a complete range of wafer products for the wireless industry, such as mobile handsets and wireless infrastructure, Wi-Fi, base stations, GPS, and satellite communications and optical communications.

The Group also manufactures advanced optoelectronic and photonic components such as semiconductor lasers, vertical cavity surface emitting lasers (VCSELs) and optical sensors for a wide range of applications including optical storage, thermal imaging, leading-edge medical products, pico-projection, finger navigation ultra-high brightness LEDs, and high efficiency concentrated photovoltaic (CPV) solar cells.

The manufacturers of these chips are increasingly seeking to outsource wafer production to specialist foundries such as IQE in order to reduce overall wafer costs and accelerate time to market.

IQE also provides bespoke R&D services to deliver customised materials for specific applications and offers specialist technical staff to manufacture to specification either at its own facilities or on the customer's own sites. The Group is also able to leverage its global purchasing volumes to reduce the cost of raw materials. In this way, IQE's outsourced services, provide compelling benefits in terms of flexibility and predictability of cost, thereby significantly reducing operating risk.

IQE operates a number of manufacturing and R&D facilities across Europe, Asia and the USA. The Group also delivers its products and services through regional sales offices located in major economic centres worldwide.

## **INTERIM RESULTS 2017**

### **1. INDUSTRY BACKGROUND**

Integrated circuits or “chips” are the critical components which lie at the heart of all electronic devices. In the past, these chips have been primarily fabricated using silicon. Silicon is an abundant semiconducting element which has enabled the Silicon chip market to grow to over \$350 billion per annum. However, like every element, silicon has a finite, and therefore limited, set of properties.

There are many other semiconducting elements which have much more advanced properties than silicon. Compound semiconductors refers to the technology of combining these other semiconducting elements to create materials which overcome the inherent performance limitations of silicon. This enables chip companies to produce compound semiconductor chips which achieve functionality that silicon chips just cannot match. Indeed, the wireless communications revolution, fibre optic communication (the internet), and LED lighting would not be possible without compound semiconductors.

### **2. IQE AND THE COMPOUND SEMI SUPPLY CHAIN**

The three key steps in the supply chain are typically viewed as “wafers-chips-devices”. IQE designs and fabricates compound semiconductor wafers. It generates its revenues primarily from selling bespoke wafers to its customers, who in turn fabricate these wafers into compound semiconductor chips such as wireless communication chips, laser devices or advanced sensors. These chips are then incorporated into devices such as smartphones, base stations or other electronic systems and gadgets.

IQE also generates income from licensing IP to Joint Ventures, being related entities which are not controlled by IQE. These joint ventures were established with IQE's partners to provide a bridge between academia and industry. Our university partners are participating in these JV's to provide a cost-effective route to commercialise their new technologies, whereas IQE and its industrial partner are using the JV's to seed future revenues by using their “right of first refusal” over the commercial supply for these new technologies.

IQE differentiates itself from its competitors through technology leadership, economies of scale, and dual site manufacturing for security of supply. This has enabled IQE to develop a strong leadership position, where it is recognised globally as the market leader, with an estimated 55% share of the wireless market and an unparalleled breadth of materials technologies.

IQE has developed a market facing organisational structure, based around its 6 key markets: Wireless, Photonics, Infrared, Solar, Power, and CMOS++.

### **3. RESULTS**

The Group's results are reported after a number of one-off items and non-cash accounting charges. In aggregate, these resulted in a net charge of £2.5m in H1 2017 (H1 2016: £0.2m) consisting of non-cash accounting charges of £2.8m (H1 2016: £1.8m), the release of deferred consideration (H1 2016: £2.1m credit) in the prior year and a related deferred tax credit of £0.3m (H1 2016: £0.6m charge). These items are fully detailed in note 5, in order to assist with an assessment of the Group's underlying business performance. The following commentary on the first half results is based on these adjusted profit measures.

First half revenues increased by 12% to £70.4m (H1 2016: £63.0m). Wafer sales of £69.4m were up 17% against H1 2016. This reflects increased sales in each of its primary markets: Wireless sales were up 9% to £47.3m, Photonics sales up 48% to £15.9m and InfraRed sales up 19% to £5.6m. License income from joint ventures was £1.0m (H1 2016: £3.5m), reflecting that IQE benefitted from significant upfront license fees in H1 2016.

Gross margins on wafer sales increased from 24% to 25%, and gross margin on license income remained at 100%. Overall gross margin of 26% was lower than prior year (H1 2016: 28%), reflecting the mix effect of lower license income in 2017.

Selling, General and Administration expenses (SG&A), increased 3% to £7.5m (H1 2016: £7.3m). Despite the increase in sales, the operating profit of £10.6m was 2% lower than prior year (H1 2016: £10.8m), which benefitted from one-off upfront license income. There was no upfront license income in H1 2017.

Adjusted profit after tax reduced £0.4m to £9.8m (H1 2016: £10.2m), which combined with an increase in the fully diluted share count (due to the increase in share price) resulted in an 8% decrease in adjusted fully diluted EPS from 1.46p to 1.35p. After exceptional charges of £2.5m (H1 2016: £1.7m), the reported profit after tax decreased from £9.8m to £7.3m.

The Group's net debt increased by £2.4m since the prior year end to £41.9m (December 2016: £39.5m). Deferred consideration, which related to previous acquisitions, is nil, having been settled in full during H2 of 2016.

The Group has approximately £115m of accumulated tax losses, which represent a potential reduction in future tax payable of £33m. The tax credit of £0.6m (H1 2016: £0.4m charge) primarily reflects the recognition of additional tax losses consistent with the Groups growth opportunities, partially offset by tax charges in Asia where historical brought forward tax losses have now been utilised. This has resulted in an adjusted effective tax rate of -2.8% which has reduced from 1.8% in H1 2016 (FY 2016: -3.9%) and a reported effective tax rate of -8.4% (H1 2016: 4.2%, FY 2016: -2.1%).

## **4. VISION AND STRATEGY**

### **The evolution of semiconductors**

Compound semiconductors are continuing to play an increasingly important role in the electronics industry as their advanced properties exceed the performance limitations of silicon semiconductors. Through continuing innovation, compound semiconductor technologies are now achieving the cost-performance thresholds that is accelerating their adoption on many fronts. Moreover, as the technology continues through this inflection point of mass adoption, it is approaching a paradigm shift with the emergence of "Compound Semiconductor on Silicon" technology (CS-on-Si).

CS-on-Si combines the superior performance of compound semiconductors with the low cost of traditional silicon technology to create a high performance, low cost hybrid solution. This technology has been under development for more than a decade, through a host of government and industry funded programmes that has engaged blues chips, leading universities and specialist high technology companies alike. IQE has been firmly embedded in these programmes as a materials specialist, and has many patents in this field. This transition is almost upon us, as the supply chain anticipates initial commercialisation of GaN-on-Si for wireless base stations as early as 2018.

### **Vision and strategy**

Our vision is to be the leading global provider of advanced semiconductor materials – the global “go to” compound semiconductor materials specialist in the electronics industry.

To realise this vision requires the ability to deliver “enabling technology”, which meets the price points needed for adoption, and which can be delivered reliably, on-time, every-time with the ability to scale rapidly. IQE has positioned itself well for this challenge, having built the broadest portfolio of materials IP in the industry, and developed a unique platform for a secure low cost supply. Moreover, IQE believes it has developed a reputation to match – for excellence and reliability.

As part of the Group's strategy, IQE announced in July 2017 that, as part of its expansion plans, it has agreed a lease of a new premises in South Wales. The lease is with the Cardiff City Region, which has a goal of supporting the development of the Compound Semiconductor Cluster in South Wales. This lease provides the infrastructure needed for IQE's expansion in a highly cost effective manner. The lease is for 11 years, and provides IQE with an option to extend the lease or purchase the freehold. In parallel, the Group has placed orders for new MOCVD equipment.

## **5. MARKETS**

The Group has established six business units along market lines, to address its primary and emerging markets, the emerging markets of Solar and Power control are not yet significant enough to be separated in our segmental reporting.

### **Wireless**

“Wireless” refers to a broad range of applications from mobile devices such as smartphones, tablets, routers, and WiFi through to large system applications such as base stations and radar. It is IQE's largest market today, and accounted for 68% of wafer sales in the first half of 2017 (H1 2016: 73%). This has been the main growth driver in IQE's business over the last decade.

The smartphone revolution was triggered by the launch of the iPhone in 2007. The consumer “feeding frenzy” that followed delivered double digit growth in the market for wireless materials including power amplifiers (PAs), driven by both the increase in the volume of handsets sold and an increasing chip content in each handset. Through this period of strong growth IQE built its global leadership position in wireless, and now enjoys an estimated 55% global market share. However, the market has been more subdued over the past few years reflecting a lull in mobile phone handset innovation, and technology/fabrication trends resulting in smaller die size has resulted in the materials market remaining relatively flat over that period. However, the much speculated revival in handset innovation, and the advent of 5G, provide clear routes to the return of double digit growth in this segment.

At present, growth in IQE's wireless division is being driven by high voltage applications such radars and base stations. Although this has historically represented only a modest part of IQE's wireless sales (C.10-15%), it is a high growth area delivering double digit growth. In these applications, compound semiconductor technology (GaN-on-SiC) is replacing incumbent silicon technology (LDMOS) which is unable to meet the rising performance required for today's high speed communication systems. Moreover, working closely with its chip customers, IQE has developed GaN-on-Si technology which delivers the high performance of compound semiconductors but at a dramatically lower cost of manufacture, and hence offers the potential to disrupt this market and deliver strong growth for IQE in the near term.

A further dimension to IQE's wireless business is the market for wireless filters. This is a very large market, which is already more than double the size of the existing wireless PA market, and growing rapidly. Currently, a range of filters are made using poly-crystal aluminium nitride material. However, IQE has developed and internally demonstrated a single-crystal aluminium nitride material which offers superior performance characteristics. Further development is required before this technology can be commercialised, but initial results reflect substantial promise, and the potential to commercialise over a 2-3 year time frame.

## **Photonics**

Photonics refers to semiconductor applications which emit or detect light – essentially lasers and sensors. It accounted for 23% of the Group's wafer sales in the first half of 2017 (H1 2016: 18%). It is the fastest growing segment within IQE, and delivered a growth rate of 48% in the first half following several years of strong double digit growth.

The critical materials technologies in this market are VCSEL (Vertical Cavity Surface Emitting Lasers) and InP (Indium Phosphide). After several years of development, the advances in these technologies and the improvement in manufacturing processes means that these technologies are now hitting the performance and cost points necessary for mass market adoption.

The application space for VCSEL is very broad and spans mass-market consumer applications, fibre optic communication, and industrial and health applications. Specific uses include 3D sensing, LIDAR, gesture recognition, laser autofocus, proximity sensing, fibre optics for data centres, industrial heating, machine control and biometrics to name but a few.

IQE is the technology and market leader in VCSEL materials, working with leading chip companies and OEMs directly. Indeed, IQE's IP is a strong differentiator which provides a powerful competitive advantage in the VCSEL marketplace, and which has enabled IQE to secure multiple multi-year contracts for mass market applications.

Over the past few years, IQE has enjoyed strong double-digit growth in its VCSEL business, much of which has been customer funded development spanning a broad base of customers and applications. In its recent trading update, IQE announced the start of a ramp in a mass market consumer application using VCSELs. This application, which relates to a sensing technology, helped deliver record sales for IQE in June, and offers the potential for a dramatic acceleration in VCSEL sales growth over the next few years.

InP is the technology that is critical to fibre optics in telecommunications. The main growth drivers here are "Fibre to the Premises" (FTTx), data centre infrastructure and mobile base station backhaul. The continued exponential growth in data traffic is driving the roll out of fibre "to the last mile" across the planet, the need for greatly increased data storage capacity with rapid access to data and 4G/LTE backhaul Fibre Optic links.

A key technology in InP fibre optics is Distributed Feedback Lasers ("DFB"s). In contrast to our other technologies, there is an intermediary step in the supply chain which sits between the epitaxial wafer production and the chip fabrication. In particular, a "grating" is added to the epitaxial wafer, followed by further epitaxial films on top of the grating. Historically, IQE has only provided the base epitaxial wafers with third parties undertaking the additional steps. However, IQE has developed a cost effective, highly flexible grating technology which solves some of the key challenges currently facing this sector. This technology has passed internal testing and is being qualified by customers. We believe that this is a disruptive technology which could allow for rapid growth and market share gains for IQE in this segment in the near term.

In overview, we believe that our photonics business is at the start of a long term and exciting high growth curve. Our growth ambitions are underpinned by an impressive pipeline of programmes with blue chip customers for high volume applications, and IP which provides IQE with powerful competitive advantages.

## **Infrared**

We are the market leader in the supply of indium antimonide (InSb) and gallium antimonide (GaSb) materials used in high resolution infrared systems, with an estimated market share of approximately 80%. This segment accounted for approximately 8% of the Group's wafer sales in the first half of 2017 (H1 2016: 8%).

Sales are currently concentrated in defence related applications, but through our engagement in programmes in consumer, medical and industrial imaging, we expect this segment to increasingly transition into new high volume markets over the coming years.

## **Power**

"Power" relates to the use of semiconductors in Power Switching and LED lighting applications. IQE is developing materials solutions to address some of the key technological challenges faced in these markets. The size and scale of these markets are many times larger than IQE's existing markets, so these represent truly transformational opportunities for IQE.

Power switching devices are used where electricity is switched between AC and DC, or where voltage is switched. This happens throughout electricity generation and distribution, and in virtually all applications that are powered from the grid, from transformers in industrial machinery and electric vehicles, through to power supplies for your laptop. The market for power switching chips is estimated to be worth at least \$12 billion, which is approximately 4x the size of the existing wireless power amplifier chip market. Again, a truly transformational opportunity.

At present, these power switching chips are made using silicon, which has performance limitations. Accordingly, the industry is investing heavily in a step change in technology to overcome this inefficiency and deliver a high performing

lower cost solution. That step change is the adoption of a hybrid compound semiconductor on silicon technology called GaN on Si. IQE is at the forefront of the materials development.

We are all becoming accustomed with LED technology as it gathers momentum in a range of lighting applications from automotive lighting to office lighting and residential lighting. The prevalent materials technology in this industry is currently “gallium nitride on sapphire”, but it is widely accepted that GaN on Si will become an important technology in this space. This provides a major opportunity for IQE to leverage its development of GaN on Si for Power into this adjacent market.

### **Advanced Solar**

Solar panels are largely made from silicon, which is inherently inefficient in converting sunlight into electricity, typically achieving efficiencies of only 15-20%. In contrast, compound semiconductors are significantly more efficient, and today deliver efficiencies of over 44%. Furthermore, there is a technology roadmap to increase this efficiency to over 50%. With its supply chain partners, IQE has developed technology leadership and is working to qualify this into production.

There are two key markets for this Compound Semiconductor solar technology: “space” (satellite power supplies) and “terrestrial” (renewable energy). The adoption of this technology in terrestrial in the short term is limited by the historic low oil price and over-supply within the silicon panel market, but this remains a major market opportunity as these issues unwind. Therefore, our primary focus is on penetrating the space market, where this technology is already embedded. As technology leader we have a clear strategy to penetrate the market and win market share.

### **CMOS++**

The ever-increasing demand for higher speed and improved performance from today’s electronic devices is ushering in a new era of semiconductor materials that combine the scale and low (per chip) cost base of the silicon industry with the power and performance of compound semiconductors.

IQE is at the forefront of developing this technology, and is working with a range of partners from global industry giants, universities and governments to dynamic start-ups. As a result, we have developed an enviable portfolio of technologies and patents which position us well to increasingly participate in the continuing evolution of the semiconductor industry.

## **6. CORPORATE GOVERNANCE**

Following the AGM on 13<sup>th</sup> June 2017, Professor Simon Gibson OBE retired from the Board. The Board would like to take this opportunity to thank Simon for his significant commitment and the contribution that Simon provided over the past 15 years.

## **7. CURRENT TRADING AND OUTLOOK**

The Group has continued to make good strategic, operational and financial progress in 2017, and has a clear vision and roadmap for the continuing growth of the business. The first half progressed well, and ended strongly with the start of a major new product ramp. In light of the benefit of a strong pipeline and increasing revenue diversification the Board remains confident that the Group is on track to deliver full year earnings in line with the recently upgraded expectations.

Dr Drew Nelson, CEO

<b>CONSOLIDATED INCOME STATEMENT</b>  <b>(All figures £'000s)</b>	<b>Note</b>	<b>6 months to</b>	<b>6 months to</b>	<b>12 months to</b>
		<b>30 Jun 2017</b>	<b>30 Jun 2016</b>	<b>31 Dec 2016</b>
<b>Revenue</b>		<b>70,370</b>	<b>63,010</b>	<b>132,707</b>
Cost of sales		(53,665)	(45,766)	(97,979)
<b>Gross profit</b>		<b>16,705</b>	<b>17,244</b>	<b>34,728</b>
Other income		-	2,163	2,340
Selling, general and administrative expenses		(8,920)	(8,270)	(16,356)
(Loss)/profit on disposal of property, plant and equipment		(4)	137	(47)
<b>Operating profit</b>		<b>7,781</b>	<b>11,274</b>	<b>20,665</b>
Net finance costs		(1,025)	(802)	(1,633)
<b>Adjusted profit before tax</b>		<b>9,561</b>	<b>10,061</b>	<b>20,630</b>
Adjustments	5	(2,805)	411	(1,598)
<b>Profit before tax</b>		<b>6,756</b>	<b>10,472</b>	<b>19,032</b>
Income tax credit/(charge)		566	(444)	408
<b>Profit for the period</b>		<b>7,322</b>	<b>10,028</b>	<b>19,440</b>
Profit attributable to:				
Equity shareholders		7,297	9,936	19,276
Non-controlling interests		25	92	164
		<b>7,322</b>	<b>10,028</b>	<b>19,440</b>
Basic earnings per share	6	1.07p	1.49p	2.87p
Diluted earnings per share	6	1.00p	1.43p	2.71p

Adjusted basic and diluted earnings per share is presented in Note 6.

<b>CONSOLIDATED STATEMENT OF COMPREHENSIVE INCOME</b>  <b>(All figures £'000s)</b>		<b>6 months to</b>	<b>6 months to</b>	<b>12 months to</b>
		<b>30 Jun 2017</b>	<b>30 Jun 2016</b>	<b>31 Dec 2016</b>
Profit for the period		7,322	10,028	19,440
Currency translation differences on foreign currency net investments*		(7,521)	12,713	24,347
<b>Total comprehensive income for the period</b>		<b>(199)</b>	<b>22,741</b>	<b>43,787</b>

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Total comprehensive income attributable to:

Equity shareholders	(236)	22,333	43,063
Non-controlling interests	37	408	724
	<b>(199)</b>	<b>22,741</b>	<b>43,787</b>

\* This may be subsequently reclassified to the income statement when it becomes realised.

	As At	As At	As At
CONSOLIDATED BALANCE SHEET	30 Jun 2017	30 Jun 2016	31 Dec 2016
(All figures £'000s)	Unaudited	Unaudited	Audited
<b>Non-current assets :</b>			
Intangible assets	105,903	95,990	103,972
Property, plant and equipment	81,968	73,331	85,001
Deferred tax asset	18,155	15,745	18,181
Financial Assets	8,000	8,000	8,000
<b>Total non-current assets</b>	<b>214,026</b>	<b>193,066</b>	<b>215,154</b>
<b>Current assets :</b>			
Inventories	30,358	23,767	28,498
Trade and other receivables	31,683	25,838	30,868
Cash and cash equivalents	8 5,465	4,311	4,957
<b>Total current assets</b>	<b>67,506</b>	<b>53,916</b>	<b>64,323</b>
<b>Total assets</b>	<b>281,532</b>	<b>246,982</b>	<b>279,477</b>
<b>Current liabilities :</b>			
Borrowings	8 (5,778)	(3,344)	(7,652)
Trade and other payables	(34,030)	(33,083)	(36,939)
Provisions for other liabilities and charges	9 (1,544)	(1,351)	(1,421)
<b>Total current liabilities</b>	<b>(41,352)</b>	<b>(37,778)</b>	<b>(46,012)</b>
<b>Non-current liabilities :</b>			
Borrowings	8 (41,549)	(34,553)	(36,854)
Provisions for other liabilities and charges	9 (1,455)	(2,778)	(2,167)
<b>Total non-current liabilities</b>	<b>(43,004)</b>	<b>(37,331)</b>	<b>(39,021)</b>
<b>Total liabilities</b>	<b>(84,356)</b>	<b>(75,109)</b>	<b>(85,033)</b>
<b>Net assets</b>	<b>197,176</b>	<b>171,873</b>	<b>194,444</b>
<b>Equity attributable to shareholders :</b>			
Share capital	10 6,830	6,723	6,755
Share premium	52,735	50,609	51,081
Retained earnings	96,773	80,136	89,476
Other reserves	37,644	31,564	43,975
	<b>193,982</b>	<b>169,032</b>	<b>191,287</b>
Non-controlling Interest	3,194	2,841	3,157

<b>Total equity</b>	<b>197,176</b>	<b>171,873</b>	<b>194,444</b>
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**CONSOLIDATED STATEMENT OF CHANGES IN EQUITY**

Unaudited (All figures £'000s)	Share capital	Share premium	Retained earnings	Exchange rate reserve	Other reserves	Non-controlling interests	Total equity
<b>Balance as at 1 January 2017</b>	<b>6,755</b>	<b>51,081</b>	<b>89,476</b>	<b>31,712</b>	<b>12,263</b>	<b>3,157</b>	<b>194,444</b>
Profit for the period	-	-	7,297	-	-	25	7,322
Foreign exchange	-	-	-	(7,533)	-	12	(7,521)
<b>Total comprehensive income</b>	<b>-</b>	<b>-</b>	<b>7,297</b>	<b>(7,533)</b>	<b>-</b>	<b>37</b>	<b>(199)</b>
Issues of ordinary shares including employee share schemes	75	1,654	-	-	1,202	-	2,931
<b>Total transactions with owners</b>	<b>75</b>	<b>1,654</b>	<b>-</b>	<b>-</b>	<b>1,202</b>	<b>-</b>	<b>2,931</b>
<b>Balance as at 30 June 2017</b>	<b>6,830</b>	<b>52,735</b>	<b>96,773</b>	<b>24,179</b>	<b>13,465</b>	<b>3,194</b>	<b>197,176</b>

Unaudited (All figures £'000s)	Share capital	Share premium	Retained earnings	Exchange rate reserve	Other reserves	Non-controlling interests	Total equity
<b>Balance as at 1 January 2016</b>	<b>6,655</b>	<b>49,600</b>	<b>70,200</b>	<b>7,925</b>	<b>10,221</b>	<b>2,433</b>	<b>147,034</b>
Profit for the period	-	-	9,936	-	-	92	10,028
Foreign exchange	-	-	-	12,397	-	316	12,713
<b>Total comprehensive income/(expense)</b>	<b>-</b>	<b>-</b>	<b>9,936</b>	<b>12,397</b>	<b>-</b>	<b>408</b>	<b>22,741</b>
Issues of ordinary shares including employee share schemes	68	1,009	-	-	1,021	-	2,098
<b>Total transactions with owners</b>	<b>68</b>	<b>1,009</b>	<b>-</b>	<b>-</b>	<b>1,021</b>	<b>-</b>	<b>2,098</b>
<b>Balance as at 30 June 2016</b>	<b>6,723</b>	<b>50,609</b>	<b>80,136</b>	<b>20,322</b>	<b>11,242</b>	<b>2,841</b>	<b>171,873</b>

Audited (All figures £'000s)	Share capital	Share premium	Retained earnings	Exchange rate reserve	Other reserves	Non-controlling interests	Total equity
<b>Balance at 1 January 2016</b>	<b>6,655</b>	<b>49,600</b>	<b>70,200</b>	<b>7,925</b>	<b>10,221</b>	<b>2,433</b>	<b>147,034</b>

Profit for the year	-	-	19,276	-	-	164	19,440
Foreign exchange	-	-	-	23,787	-	560	24,347
<b>Total comprehensive income</b>	<b>-</b>	<b>-</b>	<b>19,276</b>	<b>23,787</b>	<b>-</b>	<b>724</b>	<b>43,787</b>
Issues of ordinary shares including employee share schemes	100	1,481	-	-	2,042	-	3,623
<b>Total transactions with owners</b>	<b>100</b>	<b>1,481</b>	<b>-</b>	<b>-</b>	<b>2,042</b>	<b>-</b>	<b>3,623</b>
<b>Balance at 31 December 2016</b>	<b>6,755</b>	<b>51,081</b>	<b>89,476</b>	<b>31,712</b>	<b>12,263</b>	<b>3,157</b>	<b>194,444</b>

CONSOLIDATED CASH FLOW STATEMENT	6 months to	6 months to	12 months to
	30 Jun 2017	30 Jun 2016	31 Dec 2016
(All figures £'000s)	Unaudited	Unaudited	Audited
<b>Cash flows from operating activities :</b>			
Adjusted cash inflow from operations	11,877	13,010	24,281
Cash impact of adjustments	5	(682)	(605) (1,818)
<b>Cash inflow from operations</b>	<b>7</b>	<b>11,195</b>	<b>12,405 22,463</b>
Net interest paid		(1,043)	(723) (1,489)
Income tax paid		(946)	(684) (839)
<b>Net cash generated from operating activities</b>	<b>9,206</b>	<b>10,998</b>	<b>20,135</b>
<b>Cash flows from investing activities :</b>			
Acquisition deferred consideration for Kopin Wireless	-	(10,650)	(11,250)
Investment in intangible fixed assets	(9,604)	(3,539)	(8,104)
Purchase of property, plant and equipment	(5,763)	(4,065)	(10,956)
<b>Net cash used in investing activities</b>	<b>(15,367)</b>	<b>(18,254)</b>	<b>(30,310)</b>
<b>Cash flows from financing activities :</b>			
Issues of ordinary share capital	989	74	578
Repayment of borrowings	(9,395)	(1,765)	(3,341)
Increase in borrowings	15,239	8,269	12,623
<b>Net cash generated from financing activities</b>	<b>6,833</b>	<b>6,578</b>	<b>9,860</b>
	<b>672</b>	<b>(678)</b>	<b>(315)</b>
Cash and cash equivalents at the beginning of the period	4,957	4,644	4,644
Exchange (losses)/gains on cash and cash equivalents	(164)	345	628
<b>Cash and cash equivalents at the end of the period</b>	<b>8</b>	<b>5,465</b>	<b>4,311 4,957</b>

## **1 BASIS OF PREPARATION**

These interim results have been prepared under the historical cost convention and in accordance with International Financial Reporting Standards ("IFRS") and interpretations in issue at 30 June 2017.

The interim results were approved by the Board of Directors and the Audit Committee on 30 August 2017. The interim results do not constitute statutory accounts within the meaning of section 434 of the Companies Act 2006 and have not been audited. Comparative figures in the interim results for the year ended 31 December 2016 have been taken from the published audited statutory financial statements. All other periods presented are unaudited. Statutory accounts for the year ended 31 December 2016 were approved by the Board of Directors on 21 March 2017 and were delivered to the Registrar of Companies. The report of the auditors on those accounts was unqualified, did not contain an emphasis of matter paragraph and did not contain any statement under section 498 of the Companies Act 2006.

IQE plc is a public limited company incorporated in the United Kingdom under the Companies Act 2006. The Company is domiciled in the United Kingdom and is quoted on the Alternative Investment Market (AIM).

As permitted these interim results for the half-year ended 30 June 2017 have been prepared in accordance with UK AIM rules and IAS 34, 'Interim financial reporting' as adopted by the European Union. These interim financial results should be read in conjunction with the annual financial statements for the year ended 31 December 2016, which have been prepared in accordance with IFRSs as adopted by the European Union. The accounting policies applied are consistent with those of the annual financial statements for the year ended 31 December 2016, as described in those annual financial statements.

The financial information contained in these interim results has been reviewed by the Company's auditor in accordance with ISRE 2410 however this does not constitute an audit.

Having considered the Group's forecasts the Directors have formed a judgment that there is a reasonable expectation that the Group has adequate resources to continue in operational existence for the foreseeable future. For this reason the Directors continue to adopt the going concern basis in preparing the condensed consolidated financial information.

## **2 ACCOUNTING POLICIES**

The accounting policies adopted are consistent with those of the annual financial statements for the year ended 31 December 2016, as described in those financial statements on pages 78 to 82.

### **Recent accounting developments**

In preparing the condensed consolidated half-yearly financial information the Group has adopted the following Standards, amendments and interpretations which are effective for 2017 and will be adopted for the year ended 31 December 2017:

- Amendment to IFRS 12 "Disclosure of interests in other entities" clarifying scope.
- IAS Amendments to IAS 7, "Statement of cash flows" on disclosure initiative.
- Amendments to IAS 12, 'Income taxes' on Recognition of deferred tax assets for unrealised losses.

The adoption of these standards and amendments has not had a material impact on the interim financial information.

The following new standards and amendments to standards and interpretations have been issued but are not yet endorsed for annual periods beginning after 1 January 2017 (noted below), and have not been adopted in preparing the condensed consolidated half-yearly financial information.

- Annual improvements 2014-2016 cycle
- Amendment to IFRS 2, 'Share based payments' to clarify the classification and measurement of certain share based payment transactions
- IFRS 15 'Revenue from contracts with customers'
- IFRS 9 'Financial instruments'
- IFRS 16 'Leases'
- IFRS 17 'Insurance contracts'
- Amendment to IAS 28 'Investments in associates and joint ventures' to clarify certain fair value measurements
- Amendment to IAS 40 'Investment property' to clarify transfers or property, to, or from, investment property

## **Financial Instruments**

The carrying value of cash, trade and other receivables, other equity instruments, trade and other payables and borrowings also represent their estimated fair values. There are no material differences between carrying value and fair value at 30 June 2017.

Additional disclosure of the basis of measurement and policies in respect of financial instruments are described on pages 102 to 105 of our 2016 Annual Report and remain unchanged at 30 June 2017.

## **Estimates**

The preparation of interim financial statements requires management to make judgements, estimates and assumptions that affect the application of accounting policies and the reported amounts of assets and liabilities, income and expense. Actual results may differ from these estimates.

In preparing these condensed interim financial statements, the significant judgements made by management in applying the group's accounting policies and the key sources of estimation uncertainty were the same as those that applied to the consolidated financial statements for the year ended 31 December 2016.

## **Impairment**

No Impairment charges have been recognised in the period to 30 June 2017.

## **3 PRINCIPAL RISKS AND UNCERTAINTIES**

The principal risks and uncertainties impacting the Group are described on pages 28 to 31 of our 2016 Annual Report and remain unchanged at 30 June 2017.

They include: competition, technological change, financial liquidity, natural disasters, retention of key employees, business interruption - supply chain, customer concentration and legislative compliance.

#### 4. SEGMENTAL INFORMATION

	6 Months to 30 June 2017 Unaudited	6 Months to 30 June 2016 Unaudited	12 Months to 31 Dec 2016 Audited
	£'000	£'000	£'000
<b>Revenue</b>			
Wireless	<b>47,257</b>	43,228	91,291
Photonics	<b>15,867</b>	10,705	22,792
Infra Red	<b>5,594</b>	4,689	10,560
CMOS++	<b>702</b>	871	1,406
<b>Total Segment Revenue</b>	<b>69,420</b>	<b>59,493</b>	<b>126,049</b>
License income from sales to joint ventures	<b>950</b>	3,517	6,658
<b>Total Revenue</b>	<b>70,370</b>	<b>63,010</b>	<b>132,707</b>
 <b>Adjusted operating profit</b>			
Wireless	<b>7,298</b>	6,741	13,040
Photonics	<b>6,451</b>	4,549	9,254
Infra Red	<b>1,360</b>	1,034	2,651
CMOS++	<b>(977)</b>	(1,368)	(1,576)
<b>Segment adjusted operating profit</b>	<b>14,132</b>	<b>10,956</b>	23,369
Central corporate costs	<b>(4,531)</b>	(3,691)	(7,908)
Profit from license income from sales to joint ventures	<b>950</b>	3,517	6,658
<b>Adjusted operating profit</b>	<b>10,551</b>	<b>10,782</b>	<b>22,119</b>
Non-cash accounting charges	<b>(2,805)</b>	(1,752)	(3,560)
Net reduction in contingent deferred consideration	<b>-</b>	2,163	2,340
Restructuring and reorganisation	<b>-</b>	-	(378)
Finance costs	<b>(990)</b>	(721)	(1,489)
<b>Profit before tax</b>	<b>6,756</b>	<b>10,472</b>	<b>19,032</b>

The segmental disclosure for the 6 months to 30 June 2016 and the 12 months to 31 December 2016 has been restated to separately disclose central costs following reorganisation of the Group's functions. Central corporate costs include all head office and other corporate related support functions.

## 5 ADJUSTED PROFIT MEASURES

The group's results are reported after a number of imputed non-cash charges and non-recurring items. Therefore, we have provided additional information to aid an understanding of the group's performance.

Adjustments to profit (All figures £'000s)	6 months to 30 Jun 2017 Unaudited	6 months to 30 Jun 2016 Unaudited	12 months to 31 Dec 2016 Audited
Non-cash accounting charges	(2,805)	(1,752)	(3,560)
Gain on release of contingent deferred consideration	-	2,163	2,340
Restructuring and reorganisation	-	-	(378)
<b>Total before tax</b>	<b>(2,805)</b>	<b>411</b>	<b>(1,598)</b>
Deferred tax on adjustments	301	(629)	(402)
<b>Total after tax</b>	<b>(2,504)</b>	<b>(218)</b>	<b>(2,000)</b>

The non-cash accounting charges of £2.8m (H1 2016: £1.8m, FY16: £3.6m) reflect a charge for share based payments of £2.0m (H1 2016: £1.0m, FY16: £2.0m), the amortisation of acquired intangibles £0.7m (H1 2016: £0.7m, FY16: £1.4m) and the unwind of the discounting of long term balances of £0.1m (H1 2016: £0.1m, FY16: £0.2m).

The adjustments above are classified £1.3m (H1 2016: £0.7m, FY16: £1.7m) within gross margin, £1.4m (H1 2016: £1.0m, FY16: £1.7m) within selling, general and administrative expenses and £0.1m (H1 2016: £0.1m, FY16: £0.2m) in net finance costs.

The Group generated a non-cash profit of £nil (H1 2016: £2.2m, FY16: £2.3m) arising from a reduction in the estimated remaining deferred consideration (settled via trade discount) in respect of a previous acquisition. The non-cash profit arising in prior periods has been classified within other income and expenses in the consolidated income statement. The deferred consideration was settled in full in FY16.

The restructuring and reorganisation costs in the prior period (H1 2016: £nil, FY16: £0.4m) reflect some one-off redundancy and asset write downs associated with the restructuring of the groups manufacturing operations.

The deferred tax credit of £0.3m (H1 2016: £0.6m credit, FY16: £0.4m credit) reflects the deferred tax impact associated with the adjustments to profit.

The cash flow impact of adjustments in the first half of 2017 of £681,000 relates to lease rental payments associated with a previously provided onerous lease.

Certain items noted above are accounting estimates based on judgements, accordingly, the actual amounts may differ from these estimates.

## 5 ADJUSTED PROFIT MEASURES (Continued)

(All figures £'000s)	6 months to 30 Jun 2017 Unaudited	6 months to 30 Jun 2016 Unaudited	12 months to 31 Dec 2016 Audited
Adjusted gross margin	18,047	17,925	36,415
Reported gross margin	16,705	17,244	34,728
Adjusted sales, general and administrative expenses	(7,492)	(7,280)	(14,249)
Reported sales, general and administrative expenses	(8,920)	(8,270)	(16,356)
Adjusted operating profit	10,551	10,782	22,119
Reported operating profit	7,781	11,274	20,665
Adjusted profit before tax	9,561	10,061	20,630
Reported profit before tax	6,756	10,472	19,032
Adjusted profit after tax	9,826	10,246	21,440
Reported profit after tax	7,322	10,028	19,440

**Earnings before interest, tax, depreciation and amortisation (EBITDA) have been calculated as follows:**

(All figures £'000s)	6 months to 30 Jun 2017 Unaudited	6 months to 30 Jun 2016 Unaudited	12 months to 31 Dec 2016 Audited
<b>Profit attributable to equity shareholders</b>	<b>7,297</b>	<b>9,936</b>	<b>19,276</b>
Minority interest	25	92	164
Tax	(566)	444	(408)
Finance costs	1,025	802	1,633
Depreciation of tangible fixed assets	3,092	3,120	5,561
Amortisation of intangible fixed assets	2,714	2,444	5,377
Share based payments*	2,034	1,021	2,042
Profit and Loss on disposal*	4	(137)	47
Release of contingent deferred consideration*	-	(2,163)	(2,340)
Restructuring and re-organisation*	-	-	378
<b>EBITDA</b>	<b>15,625</b>	<b>15,559</b>	<b>31,730</b>

\*Exceptional items impacting EBITDA include the following items: share based payments, profit and loss on disposal, impairment of assets, provision for onerous lease, wireless business unit re-organisation costs and the release of contingent deferred consideration.

## 6 EARNINGS PER SHARE

	6 months to 30 Jun 2017	6 months to 30 Jun 2016	12 months to 31 Dec 2016
	Unaudited	Unaudited	Audited
<b>Results in £'000s:</b>			
Profit attributable to ordinary shareholders	7,297	9,936	19,276
Adjustments to profit after tax (note 5)	2,504	218	2,000
Adjusted profit attributable to ordinary shareholders	9,801	10,154	21,276
<b>Number of shares:</b>			
Weighted average number of ordinary shares	676,378,550	666,683,779	671,532,674
Dilutive share options	49,256,183	27,885,351	38,548,084
Adjusted weighted average number of ordinary shares	725,634,733	694,569,130	710,080,758
Adjusted basic earnings per share	1.45p	1.52p	3.17p
Basic earnings per share	1.07p	1.49p	2.87p
Adjusted diluted earnings per share	1.35p	1.46p	3.00p
Diluted earnings per share	1.00p	1.43p	2.71p

Basic earnings per share is calculated by dividing the profit attributable to ordinary shareholders by the weighted average number of ordinary shares during the period.

Diluted earnings per share is calculated by dividing the profit attributable to ordinary shareholders by the weighted average number of shares and 'in the money' share options in issue. Share options are classified as 'in the money' if their exercise price is lower than the average share price for the period. As required by IAS 33, this calculation assumes that the proceeds receivable from the exercise of 'in the money' options would be used to purchase shares in the open market in order to reduce the number of new shares that would need to be issued.

## 7 CASH GENERATED FROM OPERATIONS

(All figures £'000s)	6 months to 30 Jun 2017	6 months to 30 Jun 2016	12 months to 31 Dec 2016
	Unaudited	Unaudited	Audited
<b>Profit before tax</b>	<b>6,756</b>	<b>10,472</b>	<b>19,032</b>
Finance costs	1,025	802	1,633
Depreciation of property, plant and equipment	3,092	3,120	5,561
Amortisation of intangible assets	2,714	2,444	5,377
Loss/(profit) on disposal of fixed assets	4	(137)	47
Gain on release of contingent deferred consideration	-	(2,163)	(2,340)
Contingent deferred consideration (settled through contractual discounts)	-	(2,528)	(3,959)
Share based payments	2,034	1,021	2,042
<b>Cash inflow from operations before changes in working capital</b>	<b>15,625</b>	<b>13,031</b>	<b>27,393</b>
Increase in inventories	(2,698)	(1,546)	(4,206)
(Increase)/decrease in trade and other receivables	(2,966)	774	1,437
Increase/(decrease) in trade and other payables	1,234	146	(2,161)
<b>Cash inflow from operations</b>	<b>11,195</b>	<b>12,405</b>	<b>22,463</b>

## 8 ANALYSIS OF NET DEBT

(All figures £'000s)	As At 30 Jun 2017	As At 30 Jun 2016	As At 31 Dec 2016
	Unaudited	Unaudited	Audited
Bank borrowings due after one year	(41,549)	(34,553)	(36,854)
Bank borrowings due within one year	(5,778)	(3,344)	(7,652)
Finance leases due after one year	-	-	-
Finance leases due within one year	-	-	-
Total borrowings	(47,327)	(37,897)	(44,506)
Cash and cash equivalents	5,465	4,311	4,957
<b>Net debt</b>	<b>(41,862)</b>	<b>(33,586)</b>	<b>(39,549)</b>

## 9 PROVISIONS FOR OTHER LIABILITIES AND CHARGES

(All figures £'000s)	As at 30 Jun 2017	As at 30 Jun 2016	As at 31 Dec 2016
	Unaudited	Unaudited	Audited

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<b>As at 1 January</b>	<b>3,588</b>	<b>4,038</b>	<b>4,038</b>
Charged to the income statement	140	53	104
Utilised during the period	(682)	(605)	(1,283)
Foreign exchange	(47)	643	729
<b>As at 30 June / 31 December</b>	<b>2,999</b>	<b>4,129</b>	<b>3,588</b>

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As part of the re-organisation and rationalisation of the Group's facilities the Group ceased its manufacturing activities in Singapore and established the Compound Semiconductor Development Centre. The provision above represents the onerous lease obligation in respect of the Singapore property. This is expected to be utilised over the next two years. The provision has been discounted using a risk free rate of 2.5%.

## 10 SHARE CAPITAL

Number of shares	As At	As at	As at
	30 Jun 2017	30 Jun 2016	31 Dec 2016
<b>As at 1 January</b>	<b>675,506,061</b>	<b>665,533,170</b>	<b>655,533,170</b>
Employee share schemes	7,516,861	1,667,010	4,831,424
Shares issued to settle Translucent deferred consideration	-	5,141,467	5,141,467
<b>As at 30 June / 31 December</b>	<b>683,022,922</b>	<b>672,341,647</b>	<b>675,506,061</b>

In the period to the 30 June 2017 7,516,861 (H1 2016: 1,677,010, FY16: 4,831,424) ordinary shares were issued to satisfy employee share schemes.

(All figures £'000s)	As At	As at	As at
	30 Jun 2017	30 Jun 2016	31 Dec 2016
<b>As at 1 January</b>	<b>6,755</b>	<b>6,655</b>	<b>6,655</b>
Employee share schemes	75	17	48
Shares issued to settle Translucent consideration	-	51	52
<b>As at 30 June / 31 December</b>	<b>6,830</b>	<b>6,723</b>	<b>6,755</b>

## 11 RELATED PARTY TRANSACTIONS

The Group recognised revenue of £1.0m (H1 2016: £0.8m, FY16: £1.7m) and made purchases of £6.4m (H1 2016: £4.2m, FY16: £7.2m) from its joint venture in Singapore, the Compound Semiconductor Development Centre Private Limited.

The Group also recognised revenue of £nil (H1 2016: £2.8m, FY16: £4.9m), made purchases of £3.3m (H1 2016: £2.0m, FY16: £4.0m) and recharged other costs of £1.4m (H1 2016: £0.2m, FY16: £0.4m) with its joint venture in the UK the Compound Semiconductor Centre Limited.