IQE

Full year results

Diversification delivers growth

Tech hardware & equipment

IQE's diversification strategy enabled it to deliver growth in profits and sales during FY15 despite weakness in the wireless market and associated destocking. Non-wireless sales accounted for 30% of revenues compared with 20% in FY14. The acquisition of exclusive licensing rights for gallium nitride-on-silicon (GaN-on-Si) technology from Translucent and formation of JVs in the UK and Singapore have laid the foundations for new revenue streams, which have already benefited the FY15 results.

Year end	Revenue (£m)	PBT* (£m)	EPS* (p)	DPS (p)	P/E (x)	Yield (%)
12/14	112.0	16.2	2.42	0.0	7.6	N/A
12/15	114.0	17.6	2.60	0.0	7.1	N/A
12/16e	122.0	19.0	2.75	0.0	6.7	N/A
12/17e	127.8	21.9	3.16	0.0	5.6	N/A

Note: *PBT and EPS are normalised, excluding amortisation of acquired intangibles, exceptional items and share-based payments.

Diversification drives growth

Revenues increased by 2% year-on-year to £114.0m (our estimate was £117.5m), as strong growth in photonics applications and the first licence income offset weakness in wireless. Adjusted profit before tax rose by 9% to £17.6m (our estimate was £17.1m), reflecting higher year-on-year revenues, lower underlying finance costs related to lower net debt levels and reduced adjusted sales, general and administrative expenses following a sequence of efficiency programmes.

4G/5G to reinvigorate wireless market

We leave our FY16 revenue and adjusted PTP estimates unchanged and introduce our FY17 estimates. These assume modest growth in wireless revenues, backed by inventory stabilisation, market share gains, compound semiconductor hungry 4G handsets and deployment in new applications such as base stations. We assume that photonics revenues will continue to grow strongly, driven by rising underlying demand from data centre connectivity, consumer applications, industrial processing and fibre to the premises combined with a switch to outsourcing. We assume licence revenues will be lower in FY16 and FY17 because FY15 benefited from upfront fees, while we model only recurring revenues during FY16 and FY17. We note the potential for stronger growth associated with the deployment of infrared sensors in consumer applications, the adoption of GaN-on-Si in power electronics and volume roll-out of concentrated photovoltaic (CPV) technology.

Valuation: Diversification key to re-rating

IQE's rating is undemanding and remains at a substantial discount to its peers. If the business progresses to plan, we should see its revenues continue to diversify, cash conversion improve as the RFMD wafer discount tapers off and the balance sheet strengthen as the final tranche of deferred consideration for Kopin is paid. We believe these factors should be a catalyst for an upward re-rating of the shares.

22 March 2016

Price	**18.5p**
Market cap	**£123m**

Net debt (£m) at 31 December 2015	23.2
Shares in issue	665.6m
Free float	88%
Code	IQE
Primary exchange	AIM
Secondary exchange	N/A

Share price performance

%	1m	3m	12m
Abs	0.0	7.3	(17.8)
Rel (local)	(3.9)	5.4	(8.3)
52-week high/low		26.75p	17.25p

Business description

IQE is the leading supplier of epitaxial compound semiconductor wafers globally. The principal applications include radio frequency semiconductors, vertical cavity lasers, infrared frequency semiconductors, power electronics and CPV solar cells.

Next events

AGM	23 June 2016

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Edison profile page

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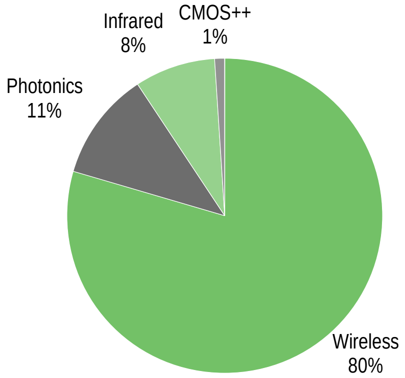
Segmental review

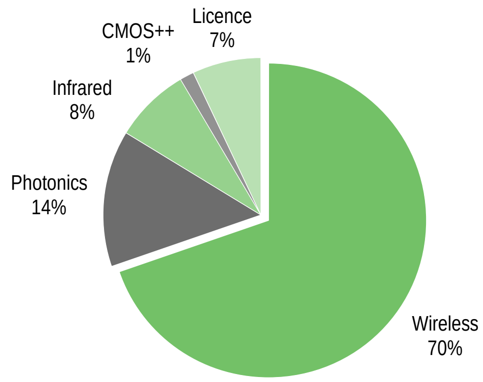
A key aspect of the FY15 results is the increased diversification of revenues. Despite the reduction in wireless revenue, the overall revenue increased by 2%, driven by strong growth in the photonics segment. As a result, non-wireless sales accounted for 30% of revenues compared with 20% in FY14.

Exhibit 1: FY14 revenue split



Source: IQE

Exhibit 2: FY15 revenue split



Source: IQE

Wireless

IQE's wireless revenues declined by 11% y-o-y to £79.5m. Demand was affected by weakness in the smartphone market and associated destocking of inventory by customers

We are forecasting a partial recovery in IQE's wireless revenues during FY16. This assumes that the inventory destocking is almost complete. It also recognises IQE's reported success in taking share from competitors and in securing business related to new products such as base station applications. The Strategy Analytics report published in October 2015 states that it expects GaAs RF device revenue to continue to grow between 2014 and 2018, rising from an estimated $7bn in 2015 to $8bn in 2018. This growth is driven by the adoption of 4G (and eventually of 5G) smartphones, which require higher levels of compound semiconductor, offsetting a gradual switch from compound semiconductor power amplifiers to silicon-on-insulator based chips in lower-end smartphones. Based on the Strategy Analytics report, we assume low single-digit growth in wireless revenues in FY17.

Photonics

IQE's photonics revenues grew by 28% year-on-year to £16.0m. A mix of applications contributed to this growth, particularly data centre connectivity, sensing applications, healthcare, cosmetic treatments, industrial illumination and heating and fibre to the premises (FTTX). Growth is being driven partly by an increase in underlying demand for these products and partly by component vendors transitioning from a vertically integrated business model towards outsourcing wafer supply from IQE.

IQE is currently engaged directly with a number of OEMs (as opposed to the more common chip/component vendor relationship) on projects relating to high-volume end-markets. Such applications include 3D scanning, gesture recognition and biometric sensing. Given the market outlook and strong pipeline, we model continued strong growth in this segment throughout FY16 and FY17. Wafer prices for photonic applications are an order of magnitude higher than for wireless applications, giving a highly beneficial impact on margins.

Infrared

IQE's infrared revenues declined slightly, by 4% year-on-year to £8.9m. IQE maintained its dominant share of the market. Noting that the division has won a number of significant contracts, including one for $3.7m announced in January 2016, our estimates model 7% revenue growth for this segment in both FY16 and FY17. We believe faster growth is achievable in FY17 because of advances in technology enabling IQE to produce the industry's first 150mm indium antimonide wafers. This move to larger diameter wafers improves the economics of production, encouraging the deployment of infrared chips in high-volume applications such as gesture recognition. Historically infrared sensing technology has been confined to price-insensitive applications such as night-vision systems for military personnel.

Solar

Revenues from solar related activity are currently included within photonics revenues as they are not sufficiently high yet to justify being reported separately. Progress in the CPV (concentrated photovoltaic) sector has been slower than originally anticipated because of continued pricing weakness for silicon-based solar modules, which erodes the economic case for CPV. In addition IQE's lead customer, Solar Junction, which was acquired by Saudi government-owned organisation Taqnia in 2014, is probably being affected by cuts in infrastructure spending following an increase in the Saudi budget deficit caused by the low oil price. While CPV still has the potential to grow into a significant market for IQE, the timing of this is uncertain. Solar Junction is making good progress identifying opportunities in the satellite market, where the lower weight offered by CPV systems overrides the higher cost. Our estimates assume minimal contribution from CPV to photonics revenues during the forecast period.

Power

Revenues attributable to the power semiconductor market are not material at present. However IQE's exclusive agreement to license gallium nitride fabrication technology from Translucent, announced in September 2015, puts IQE in a good position to penetrate this market. Translucent's patented cREO (rare earth oxide) technology is a novel technique for manufacturing compound semiconductor on silicon wafers, most importantly gallium nitride-on-silicon (GaN-on-Si), though it is relevant for many compound semiconductor on silicon epitaxies. GaN-on-Si combines the benefits of GaN (ability to operate with high power densities, efficient heat dissipation, blue light emission) with the very significant scale benefits of the silicon chip manufacturing supply chain. Translucent has 74 granted patents with 13 pending, so the agreement not only accelerates IQE's existing development GaN-on-Si programmes, but also secures IP, reducing the risk of IP disputes going forwards.

The GaN market is very attractive for IQE as it represents one of the largest growth opportunities for compound semiconductors. GaN may be used in a number of large end-markets, including LED lighting, next-generation wireless RF and power semiconductors. Translucent's technology is particularly appropriate for the latter two. Market analyst Yole Développement has estimated the GaN power semiconductor device market to be worth around $10m in 2015 (NB: the wafer market will be smaller), but forecasts that this will grow at an estimated 93% CAGR through 2016-20 to reach more than $300m in its baseline scenario. In RF, the technology may be viewed as a potential route to recapture share in the handset diversity switch market, which has transitioned largely to silicon on insulator technology over the past few years. The power switching market is three to four times the size of the current market for wireless power amplifier chips.

Management anticipates that commercial shipments of the first cREO products could start as early as end 2016 with volumes building thereafter. Our model currently treats any contribution from power electronics as upside.

Licence income

Licence income, which totalled £8.0m in FY15, is a new revenue stream for IQE. At present the licence income is generated from two JVs. The one in Singapore is with WIN Semiconductors and Nanyang Technological University. The one in Wales was formed in July 2015 with Cardiff University. The FY15 licence income was a combination of upfront and recurring revenues. For FY16 and FY17 we model recurring revenues only, so revenues from this source are not expected to reach FY15 levels. This additional revenue stream is likely to become more significant in the longer term if IQE's technology is deployed in volume applications such as general-purpose LED lighting and solar power.

Group financials

Earnings

FY15 performance ahead of estimates

Revenues increased by 2% year-on-year to £114.0m, broadly in line with our £117.5m estimate. Strong growth in photonics applications and the first licence income offset weakness in wireless. Adjusted gross margin fell by 0.3pp to 28.4% reflecting a change in product mix. Adjusted profit before tax rose by 9% to £17.6m, ahead of our £17.1m estimate. This reflects higher year-on-year revenues, lower underlying finance costs related to lower net debt levels and reduced adjusted sales, general and administrative expenses. These fell by 3% year-on-year as a result of efficiency programmes carried out in FY14 and early FY15.

Exceptional pre-tax items totalled £1.8m profit. Key elements comprised: £4.8m non-cash gain when equipment with a market of value of £12m was transferred to the JV in Cardiff by way of IQE's contribution; £2.0m share based payments; £1.2m amortisation of acquired intangibles; £0.8m gain on release of deferred consideration associated with the acquisition of the RFMD epitaxy business in 2012 and £0.6m restructuring costs. In FY14 exceptional pre-tax items totalled a £10.9m loss.

No significant changes to estimates

Our profitability model is based on a 50%+ contribution margin from product sales. This is different to gross margin because reported cost of goods includes both fixed and variable costs. The contribution margin varies depending on product mix, so we model it as increasing slightly during the forecast period to reflect higher-margin photonics business.

Exhibit 3: Functional P&L model

Revenue by business segment :	2014	2015	2016e	2017e
Wireless revenues (£k)	89,110	79,482	86,072	86,933
Photonics revenues (£k)	12,485	15,985	20,495	24,594
Infrared revenues (£k)	9,276	8,878	10,439	11,170
CMOS++ revenues (£k)	1,140	1,655	2,037	2,139
Licence revenues (£k)	-	8,024	3,000	3,000
Group revenue (£k)	112,011	114,024	122,043	127,836
Variable costs (£k)	(56,006)	(57,012)	(59,801)	(61,361)
Variable profit (£k)	56,006	57,012	62,242	66,475
Variable margin	*50.0%*	*50.0%*	*51.0%*	*52.0%*
Fixed costs (£k)	(28,997)	(28,011)	(31,073)	(32,006)
Normalised EBITDA (£k)	27,009	29,001	31,169	34,469
EBITDA Margin	*24.1%*	*25.4%*	*25.5%*	*27.0%*
Depreciation and amortisation of internally generated intangibles (£k)	(9,391)	(10,024)	(10,800)	(11,600)
Adjusted EBIT (£k)	17,618	18,977	20,369	22,869

Source: IQE data, Edison Investment Research

We leave our FY16 revenue and adjusted PTP estimates unchanged. We model 7% total revenue growth in FY16 on the back of the recovery in wireless, which we expect to be partly offset by the absence of upfront licence fees that benefited FY15. At the same time, we revise our adjusted diluted EPS from 2.77p to 2.75p to reflect the shares issued in March 2016 as consideration to satisfy the $1.415m licence fee payable for the exclusive licence of Translucent's technology. We present our FY17 estimates for the first time.

Stronger balance sheet

Net debt was cut by £8.1m year-on-year to £23.2m at end FY15, reducing gearing from 30% to 22%. Adjusted cash inflow from operations increased by £3.0m to £22.6m, benefiting from a reduction in the ongoing wafer discounts (£4.8m FY15 vs £8.0m FY14) given to Qorvo (the merged RFMD/TriQuint entity) as deferred consideration for the RFMD epitaxy business. Deferred consideration reduced to £17.1m from £20.6m at end FY15. The reduction in net debt, wafer discounts and deferred consideration is important, as these factors have probably had a negative impact on the share price (see below).

This wafer discount is tapering off as expected and will come to an end during FY16, at which stage IQE's cash flows will benefit fully from revenues generated from RFMD/Qorvo. Following a long period of investment, capex, capitalised development costs and investment in other intangible fixed assets (£10.0m) were substantially lower than depreciation and amortisation (£11.2m).

Our estimates show net debt increasing by £2.3m to £25.5m at end FY16. The primary element explaining the net cash outflow is payment of the final tranches of deferred consideration: an estimated £5.5m wafer discounts deducted from the operating cash flow and an estimated £10.7m for the Kopin acquisition. A further £1.0m consideration, which is for the exclusive licence to Translucent's technology, is financed through the issue of new shares. After FY16 the balance sheet is no longer encumbered by this deferred consideration, while cash conversion will improve as the wafer discounts are discontinued. Capex, capitalised development costs and investment in other intangible fixed assets continue to be substantially lower than D&A, so we estimate that the cash generated from operations will be able to reduce net debt levels to only £3.1m at end FY17.

Valuation

Peer multiples

Exhibit 4: Multiples of listed peers

Company	Market cap	Current EV/S	Next EV/S	Current P/E	Next P/E
IQE PLC	£130m	1.3x	1.2x	7.1x	6.2x
Epitaxy					
Visual Photonics Epitaxy Co Ltd	£286m	4.3x	3.9x	18.9x	17.8x
IntelliEPI Inc	£102m	5.5x	4.8x	34.5x	25.2x
Land Mark Optoelectronics Corp	£875m	14.3x	10.6x	30.9x	22.9x
SOITEC	£110m	1.2x	1.0x	N/A	N/A
Compound semiconductor foundry					
Win Semiconductors Corp	£763m	2.6x	2.4x	11.5x	10.8x
Wireless					
ANADIGICS Inc	£53m	1.0x	-	N/A	N/A
Broadcom Ltd	£39,727m	4.5x	3.7x	14.0x	11.8x
Qorvo Inc	£4,651m	2.4x	2.2x	11.5x	10.6x
Skyworks Solutions Inc	£9,820m	3.9x	3.4x	12.9x	11.0x
Opto-electronics					
II-VI Inc	£863m	1.6x	1.5x	17.9x	16.7x
EMCORE Corp	£91m	0.2x	0.2x	23.0x	15.4x

Source: Bloomberg, Edison Investment Research. Note: Prices at 16 March 2016.

Although the share price has rallied from a low of 17.25p in mid-December, IQE's rating remains undemanding on a fundamental basis and relative to its peers. We believe that a number of factors contribute to this, including uncertainty over both the prospects for the wireless business and the timing and rate at which revenues in new non-wireless fields will grow. The company's net debt and deferred consideration liability and the suppressing effect on cash flows of the RFMD wafer discounts probably have an impact as well.

With regards to concerns about dependence on the wireless market, the FY15 results show the dependence on the wireless market is reducing, with a 28% year-on-year growth in photonics related revenues and the introduction of a new revenue stream from licensing income leading to wireless revenues dropping to 70% of the total. If IQE's business develops to plan, we should see revenues continue to diversify over FY16 and also gain greater visibility into the timing and potential of revenues from new applications such as power electronics. With regards to balance sheet concerns, net debt reduced substantially during FY15 and though we model a small increase in debt during FY16 as all outstanding deferred consideration is cleared, by the end of FY17 our estimates show net debt reducing to only £3.1m.

We believe that execution on these factors should justify a re-rating in the shares. Our analysis of peer multiples suggests that a low- to mid-teens FY16e P/E would be appropriate, suggesting that a 35-40p share price would not be out of the question in the longer term.

Exit multiples

For another approach to valuation we consider the price paid in calendar Q116 by semiconductor laser specialist II-VI for IQE's smaller competitor EpiWorks. The transaction, including the deferred element, valued EpiWorks at 3.5x calendar 2015 revenues.

Exhibit 5: Financial summary

	£000s	2014	2015	2016e	2017e
Year end 31 December		IFRS	IFRS	IFRS	IFRS
PROFIT & LOSS					
Revenue		112,011	114,024	122,043	127,836
Cost of Sales (inc D&A + SBP)		(80,459)	(81,585)	(89,092)	(92,042)
Gross Profit		31,552	32,439	32,952	35,794
EBITDA		27,009	29,001	31,169	34,469
Depreciation and Amortisation		(9,391)	(10,024)	(10,800)	(11,600)
Operating Profit (before amort. and except.)		17,618	18,977	20,369	22,869
Acquired Intangible Amortisation		(1,101)	(1,208)	(1,208)	(1,208)
Exceptionals		(7,892)	5,398	0	0
Share based payments		(1,458)	(2,001)	(2,001)	(2,001)
Operating Profit		7,167	21,166	17,160	19,660
Underlying interest		(1,429)	(1,403)	(1,343)	(1,007)
Exceptionals		(495)	(387)	0	0
Profit Before Tax (norm)		16,189	17,574	19,027	21,862
Profit Before Tax (FRS 3)		5,243	19,376	15,818	18,653
Tax		(3,247)	773	500	500
Profit After Tax (norm)		16,701	18,066	19,027	21,862
Profit After Tax (FRS 3)		1,996	20,149	16,318	19,153
Average Number of Shares Outstanding (m)		650.8	662.6	669.7	671.0
EPS - normalised fully diluted (p)		2.42	2.60	2.75	3.16
EPS - (IFRS) (p)		0.3	3.0	2.4	2.9
Dividend per share (p)		0.0	0.0	0.0	0.0
Gross Margin (%)		28.2	28.4	27.0	28.0
EBITDA Margin (%)		24.1	25.4	25.5	27.0
Operating Margin (before GW and except.) (%)		15.7	16.6	16.7	17.9
BALANCE SHEET					
Fixed Assets		160,999	174,207	171,699	168,391
Intangible Assets		82,079	86,843	87,135	87,027
Tangible Assets		66,588	65,154	62,354	59,154
Other		12,332	22,210	22,210	22,210
Current Assets		48,323	48,909	48,328	75,690
Stocks		18,276	21,215	22,000	23,900
Debtors		24,463	23,050	24,000	27,000
Cash		5,584	4,644	2,328	24,790
Other		0	0	0	0
Current Liabilities		(46,667)	(48,050)	(42,857)	(45,757)
Creditors		(31,947)	(44,809)	(39,616)	(42,516)
Short term borrowings		(14,720)	(3,241)	(3,241)	(3,241)
Long Term Liabilities		(41,480)	(28,032)	(28,032)	(28,032)
Long term borrowings		(22,115)	(24,626)	(24,626)	(24,626)
Other long term liabilities		(19,365)	(3,406)	(3,406)	(3,406)
Net Assets		121,175	147,034	149,138	170,292
CASH FLOW					
Operating Cash Flow		14,861	20,971	18,741	32,469
Net Interest		(1,428)	(1,403)	(1,343)	(1,007)
Tax		1,258	(459)	500	500
Capex		(9,426)	(10,002)	(9,500)	(9,500)
Acquisitions/disposals		0	0	(11,691)	0
Financing		278	544	977	0
Dividends		0	0	0	0
Net Cash Flow		5,543	9,651	(2,316)	22,462
Opening net debt/(cash)		34,351	31,251	23,223	25,539
HP finance leases initiated		0	0	0	0
Other		(2,443)	(1,623)	0	0
Closing net debt/(cash)		31,251	23,223	25,539	3,077

Source: IQE accounts, Edison Investment Research