Copies of this document, which comprises listing particulars relating to IQE plc in accordance with the Listing Rules made under section 142 of the Financial Services Act 1986, have been delivered to the Registrar of Companies in England and Wales for registration in accordance with section 149 of that Act.

If you have sold or otherwise transferred all of your Ordinary Shares in the Company, you should immediately forward this document to the purchaser or transferee or the stockbroker, bank or other agent through whom the sale or transfer was effected, for onward transmission to the purchaser or transferee.



# IQE plc

(Incorporated in England and Wales under the Companies Act 1985 with Registered No. 3745726)

Admission to the Official List of the London Stock Exchange

Sponsored by

### **BEESON GREGORY LIMITED**

and

Placing of new Ordinary Shares of a nominal value of 10p each to raise \$60,000,000 and existing Ordinary Shares to raise \$20,000,000

Joint Lead Managers

# LEHMAN BROTHERS INTERNATIONAL (EUROPE)

BEESON GREGORY LIMITED

# Share Capital immediately following Placing

Ordinary Shares of 10p each

Authorised

Issued and Fully Paid

Number 25,000,000

Amount £2,500,000

*Number* 14,646,598

Amount £1,464,659.80

The above statistics are based upon the assumptions set out in the note to the Placing Statistics on page 4.

Application has been made to the London Stock Exchange for all of the Ordinary Shares in the capital of the Company in issue at the date of these Listing Particulars and to be issued pursuant to the Placing to be admitted to the Official List. It is expected that Admission will become effective and dealings in the Ordinary Shares are expected to commence on 19 May 2000. The Existing Ordinary Shares are currently and will remain traded on EASDAQ and application will be made for the Placing Shares to be admitted to trading on EASDAQ.

The Directors, whose names appear on page 3 of this document, accept responsibility for the information contained in this document. To the best of the knowledge and belief of the Directors (who have taken all reasonable care to ensure that such is the case), the information contained in this document is in accordance with the facts and does not omit anything likely to affect the import of such information.

Beeson Gregory, which is regulated by The Securities and Futures Authority Limited, is acting for the Company and no one else in relation to the Placing and Admission and will not be responsible to anyone other than the Company for providing the protections afforded to customers of Beeson Gregory or for providing financial advice in relation to the Placing and Admission or any transaction or arrangement referred to herein.

Lehman Brothers, which is regulated by The Securities and Futures Authority Limited, is acting for the Company and no one else in relation to the Placing and will not be responsible to anyone other than the Company for providing the protections afforded to customers of Lehman Brothers or for providing financial advice in relation to the Placing or any transaction or arrangement referred to herein.

The Ordinary Shares have not been, and will not be, registered under the US Securities Act of 1933, as amended, nor under the securities laws of any state of the US nor under any securities laws of Canada, Australia or Japan nor has a prospectus in relation to the Ordinary Shares been lodged with or registered by the Australian Securities and Investments Commission and, accordingly, subject to certain exceptions, the Ordinary Shares, may not be offered, sold or delivered directly or indirectly in or into the US, Canada, Australia or Japan.



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### DIRECTORS, SECRETARY AND ADVISERS

**Directors** Dr Andrew William Nelson, (aged 45), Chairman and Chief Executive Officer

Thomas Lawrence Hierl, (aged 48), Chief Technical Officer Dr Michael Darak Scott, (aged 42), Sales and Marketing Director

Scott Tucker Massie, (aged 38), Chief Operating Officer

Dr Godfrey Howard Harrison Ainsworth, (aged 45), Non-Executive Director

Glen Bressner, (aged 39), Non-Executive Director

The business address of each of Drs Nelson, Scott and Ainsworth is IQE plc, Pascal Close, Cypress Drive, St Mellons, Cardiff CF3 0EG.

The business address of each of Messrs Bressner, Hierl and Massie is IQE, Inc., 119 Technology Drive, Bethlehem, Pennsylvania 18015, USA.

# **Company Secretary and Registered Office**

of the Company J Leslie Coventry Pascal Close Cypress Drive St Mellons Cardiff CF3 0EG

UK

Tel: +44 (0) 29 20 79 44 22

### Sponsor and financial adviser

Beeson Gregory Limited The Registry Royal Mint Court London EC3N 4LB

UK

### Joint Lead Managers relating to the Placing

Lehman Brothers International (Europe)

One Broadgate London EC2M 7HA UK and

Beeson Gregory Limited The Registry

Royal Mint Court London EC3N 4LB

UK

#### Auditor and reporting accountant

Deloitte & Touche Blenheim House Fitzalan Court Newport Road Cardiff CF24 0TS UK

# Solicitors to the Company relating to English Law

Eversheds Senator House 85 Queen Victoria Street London EC4V 4JL UK

### Counsel to the Company relating to US Law

Pepper Hamilton LLP Suite 400 1235 Westlakes Drive Berwyn Pennsylvania 19312-2401

**USA** 

### Solicitors to the Placing relating to English Law

Titmuss Sainer Dechert 2 Serjeants' Inn London EC4Y 1LT UK

### Counsel to the Placing relating to US Law

Dechert Price & Rhoads 2 Serjeants' Inn London EC4Y 1LT UK

# Principal Bankers to the Company

Barclays Bank plc Ty Glas Avenue Cardiff UK

#### Registrars

IRG plc Bourne House 34 Beckenham Road Beckenham Kent BR3 4TU UK



# PLACING STATISTICS(1)

The Placing Price is to be negotiated between the Joint Lead Managers and the Company following the AGM (see Part A, Placing price on page 40). The Placing Price and the number of the Placing Shares is subject to those negotiations and, following the outcome of those negotiations, the Company will issue supplementary Listing Particulars announcing the Placing Price and number of Placing Shares.

The statistics set out below are based on an assumed Placing Price of \$61 (being the mid price of the Ordinary Shares on EASDAQ at close of business on 14 April 2000, being the latest practicable date prior to publication of this document).

The Placing Price is likely to be different from the assumed Placing Price.

Number of Ordinary Shares in issue immediately prior to the Placing	13,662,991
Number of Subscription Shares being placed on behalf of the Company	983,607
Number of Sale Shares being placed on behalf of Selling Shareholders	327,869
Number of Ordinary Shares in issue immediately following the Placing	14,646,598
Proceeds of the Placing receivable by the Company, net of expenses <sup>(2)</sup>	\$55,500,000
Proceeds of the Placing receivable by the Selling Shareholders, net of expenses <sup>(2)</sup>	\$18,800,000

#### Note

- (1) The Placing Statistics have been calculated on the basis that the Over Allotment Option is not exercised and no other options are exercised prior to Admission;
- (2) Not including stamp duty or SDRT

### EXPECTED TIMETABLE OF PRINCIPAL EVENTS

Annual General Meeting of the Company	12 May 2000
Announcement of Placing Price and number of Placing Shares	Not later than 17 May 2000
Ordinary Shares admitted to the Official List and dealings commence	19 May 2000
Placing Shares admitted to EASDAQ and dealings commence	19 May 2000
Definitive share certificates dispatched and CREST or Euroclear accounts	
credited	22 May 2000



### **DEFINITIONS**

The following terms and expressions have the following meanings when used in these Listing Particulars:

"Act" the Companies Act 1985 of England and Wales, as amended

"Admission" the admission of the Ordinary Shares in issue and to be issued pursuant

to the Placing to the Official List and admission of the Placing Shares to EASDAQ becoming effective, in each case, expected to occur on

19 May 2000

"AGM" or the annual general meeting of the Company to be held at Eversheds,

"Annual General Meeting" Senator House, 85 Queen Victoria Street, London EC4V 4JL on

12 May 2000 at 10.00am and at which, inter alia, the Resolution, will

be proposed

"Articles" the Articles of Association of the Company

"Beeson Gregory" Beeson Gregory Limited

"Board" the Board of Directors of the Company

"Clearstream" Clearstream, S.A., as operator of the Clearstream system or the

Clearstream system, as the context requires, formerly known as

Cedelbank S.A.

"Closing Date" the date of Admission

"Company" or "IQE" IQE plc, a public limited company incorporated in England and Wales,

under company number 3745726 whose registered office is at Pascal

Close, Cypress Drive, St Mellons, Cardiff CF3 0EG

"CREST" the system operated by CRESTCo Limited in accordance with which

listed securities may be held and transferred in uncertificated form

"Directors" the directors of the Company

"EASDAQ" the European Association of Securities Dealers Automated Quotation

or the System operated by EASDAQ N.V./S.A. as the context requires

"EASDAQ Admission" the admission of the Ordinary Shares to trading on EASDAQ on

27 May 1999

"EASDAQ Rules" the rules adopted by the board of directors of EASDAQ for the

implementation of regulations regarding EASDAQ and the conduct

of the EASDAQ market

"EPI" Epitaxial Products International Limited, a company incorporated in

England and Wales under company number 2107558 whose registered office is Pascal Close, Cypress Drive, St Mellons, Cardiff CF3 0EG

"EPI Group" EPIH and its subsidiaries, EPI and EPI Inc

"EPIH Agreement" an agreement dated 3 May 1999 between (1) the Company and (2) the

then shareholders of EPIH further details of which are set out in

paragraph (a) of section 3 of Part E

"EPI Inc" Epitaxial Products, Inc. a company incorporated in the state of

Delaware, US with principal place of business at 119 Technology

Drive, Bethlehem, Pennsylvania, 108015, US



"EPIH" EPI Holdings Limited, a company incorporated in England and Wales

under company number 3170421 whose registered office is Pascal

Close, Cypress Drive, St Mellons, Cardiff CF3 0EG

"Euroclear" Morgan Guaranty Trust Company of New York, Brussels office, as

operator of the Euroclear system, or the Euroclear system, as the

context requires

"Existing Ordinary Shares" the Ordinary Shares in issue immediately prior to the Placing

"Existing Shareholders" the Ordinary Shareholders immediately prior to the Placing

"Group" the Company and its subsidiaries

"IAS" International Accounting Standards

"Joint Lead Managers" Lehman Brothers and Beeson Gregory

"Lehman Brothers" Lehman Brothers International (Europe)

"Locked Shareholders" the Selling Shareholders, Scott Massie and Godfrey Ainsworth

"London Stock Exchange" London Stock Exchange Limited

"Merger" the acquisition by the Company of the entire issued share capital of

both EPIH (pursuant to the EPIH Agreement) and QED (pursuant to

the QED Agreement) on 16 and 20 May 1999 respectively

"NEPA" Mid-Atlantic Venture Funds, formerly NEPA Venture Fund L.P.,

with which Mr Glen Bressner is associated

"Official List" the Official List of the London Stock Exchange

"Option Shares" the Ordinary Shares which may be issued or sold to the Joint Lead

Managers or purchasers or subscribers procured by them pursuant to

the Over Allotment Option

"Ordinary Share" ordinary shares of 10p each nominal value in the capital of the

Company

"Ordinary Shareholders" the persons who are registered as holders of Ordinary Shares from time

to time

"Over Allotment Option" an option, exercisable up to 30 days following the Closing Date, to be

granted by the Company and the Selling Shareholders to the Joint Lead Managers to subscribe for or purchase, or procure purchasers or subscribers for, up to that number of Ordinary Shares equal to twenty per cent. of each of the number of Sale Shares and the Subscription

Shares

"Placing" the proposed conditional placing of the Placing Shares by the Joint

Lead Managers at the Placing Price pursuant to the Placing Agreement

"Placing Agreement" the agreement to be entered into between (1) the Company (2) Beeson

Gregory (3) Lehman Brothers and (4) the Selling Shareholders and (5)

certain Directors relating to the Placing and Admission

"Placing Price" the price per Placing Share to be established in negotiations between

the Company and the Joint Lead Managers as described further on

page 40

"Placing Shares" the Ordinary Shares to be offered via the Placing, comprising the

Subscription Shares, the Sale Shares and the Option Shares (if any)



"participants" in relation to Euroclear or Clearstream, a person who holds an account

in the relevant system

"£", "Pound", "pound", "Sterling" "pence" and "p"

the lawful currency of the UK

"QED" or "IOE US"

IQE, Inc., formerly known as Quantum Epitaxial Designs, Inc., a company incorporated in the Commonwealth of Pennsylvania, US with principal place of business at 119 Technology Drive, Bethlehem, Pennsylvania 18015, US

"QED Agreement" an agreement dated as of 3 May 1999 and amended as of 20 May 1999

among (1) the Company (2) EQ Compounds, Inc., a wholly owned subsidiary of the Company (3) QED and (4) Thomas Hierl further details of which are set out in paragraph (d) of section 3 of Part E

"Resolution" the resolution to increase the Company's share capital, give the

Directors authority to allot Ordinary Shares and disapply pre-

emption rights

"Rule 144A" Rule 144A promulgated by the SEC under the Securities Act

"Sale Shares" the Ordinary Shares to be sold by the Selling Shareholders pursuant to

the Placing Agreement

"SEC" the United States Securities and Exchange Commission

"Securities Act" the United States Securities Act of 1933, as amended

"Selling Shareholders" certain of the Existing Shareholders, being Bankhill Trustees Limited

as trustee of the Andrew Nelson Interest in Possession Settlement and as trustee of the Dr. Scott Interest in Possession Settlement, Thomas

Hierl (and/or his family trusts) and NEPA

"Share Option Schemes" the share option schemes described in section 8 of Part E

"Special Resolution" a resolution passed by such a majority as is required for the passing of

an extraordinary resolution and at a general meeting of members of which not less than 21 days notice, specifying the intention to propose

the resolution as a special resolution, has been duly given

"Subscription Shares" the new Ordinary Shares to be issued by the Company pursuant to the

Placing

"subsidiary" a subsidiary or subsidiary undertaking, in each case as defined by the

"techMARK" an index of certain technology stocks on the Official List

"UK" the United Kingdom of Great Britain and Northern Ireland

"UK GAAP" Generally Accepted Accounting Principles in the UK

"US\$", "\$", "dollar", "US dollars" and "cents" and

the lawful currency of the US

"c"

"US" the United States of America

"US GAAP" Generally Accepted Accounting Principles in the US



#### GLOSSARY OF SPECIALIST TERMS

Ångstrom (Å) measure of thickness being one ten billionth of one metre

bespoke made to order, custom built, tailor-made

CD Compact Disc

CD-ROM Compact Disc – Read Only Memory

compound semiconductor a semiconductor formed from more than one element, typically

comprising a mixture of elements from the Group III and Group V of

the Periodic Table

device a component made by subsequent processing of the epitaxial layer

structure

device structure the term used to describe the particular series of epitaxial layers on a

substrate crystal. They are typically specified by their thickness,

composition, electrical and opto-electronic properties

DVD Digital Versatile Disc

epilayer an abbreviation for epitaxial layer

epitaxial layer(s) the thin film(s) deposited on the surface of a substrate crystal by the

epitaxy process. Typically measuring between 30 Å and tens of micron(s), epitaxial layers essentially replicate the crystal structure of the substrate and are formed by an ordered mixture of the constituent

elements

epitaxy the process of depositing a thin layer of single crystal upon a substrate

such that the deposited layer(s) have essentially the same crystalline

structure as the substrate

epiwafer or epitaxial wafer term used to describe the substrate crystal with epitaxial layers

deposited thereon (see also "wafer")

FET a Field Effect Transistor, a commonly used electronic component

foundry a company or organisation providing a large scale outsourcing

manufacturing service of a particular type of product. Another term

for "independent" and "merchant"

GaAs Gallium Arsenide, one of the most common binary compound

semiconductors

HBT Heterojunction Bipolar Transistor, a commonly used electronic

component in mobile telephone and other high speed systems

HEMT a High Electron Mobility Transistor, a commonly used electronic

component

HD-DVD High Definition – Digital Versatile Disc



independent a business concentrating on only one tier of the manufacturing chain.

Another term for "foundry" and "merchant"

InP Indium Phosphide, another commonly used binary compound

semiconductor

integrated circuit a combination of electronic devices integrated onto a single substrate or

chip

Internet a global data and communications network comprising interconnected

networks using dedicated products

ion implant a technique for embedding foreign atoms into a host crystal to alter its

electronic properties

LEDs Light Emitting Diode(s), currently the most widespread device

application of compound semiconductors

LPE Liquid Phase Epitaxy, one of the mature epitaxial growth techniques

MBE Molecular Beam Epitaxy, an advanced method of producing a diverse

range of semiconductor epitaxial wafers, as described on page 26

merchant a business concentrating on only one tier of the manufacturing chain.

Another term for "foundry" and "independent"

metrology the study of measuring tools (e.g. gauges) and their capabilities

Micron (μm) measure of thickness, one millionth of one metre

MOCVD Metal Organic Chemical Vapour Deposition, another common term to

describe MOVPE

MOVPE Metal Organic Vapour Phase Epitaxy, an advanced method of

producing a diverse range of semiconductor epitaxial wafers, as

described on page 26

Nanometer (nm) measure of thickness, one billionth of one metre

opto-electronic device a device or structure in which light and electricity interact to produce,

detect or manipulate light

opto-electronics the field of application which uses a combination of light and electronics

processing the combination of etching, patterning and metal deposition which is

used to transform an epitaxial layer structure into a device

pure play a business which concentrates its activities in only one tier of the

manufacturing and production chain

reactor the equipment used to produce epitaxial layers on the substrate



semiconductor a material with resistivity which lies somewhere between that of a

conductor and an insulator. By adding small amounts of impurity to the semiconductor, the resistivity of the semiconductor can be changed

by many orders of magnitude

substrate the term used to describe the base wafer used for the epitaxial substrate

crystal growth process. It is typically a disc measuring 2'', 3'', 4'' or 6'' in diameter and  $250-650 \mu m$  thick. It is usually a single crystal, meaning all of the atoms comprising the substrate are in perfect alignment with one

another in an ordered structure

VCSEL Vertical Cavity Surface Emitting Laser, an opto-electronic component

used in optical fibre systems and other applications

VPE Vapour Phase Epitaxy, one of the mature epitaxial growth techniques

wafer term used to describe the substrate crystal in the form of thinly sliced

discs or the substrate disc with one or more epitaxial layers deposited upon it. Typically, wafers are discs 2", 3", 4" or 6" in diameter and

measure between 250 µm and 650 µm in thickness

WAP wireless application protocol



### SUMMARY KEY INFORMATION

This summary highlights information contained elsewhere in these Listing Particulars. This summary is not complete and does not contain all of the information investors should consider before investing in Ordinary Shares of the Company. Investors should read the following summary together with the more detailed information regarding the Group, the Ordinary Shares, the financial information of the Group (and the notes thereto) in Part C of this document and the other information contained in these Listing Particulars.

### **Introduction and Summary**

IQE and its subsidiaries as a group are the largest pure play outsource manufacturer of bespoke epitaxial wafers to the compound semiconductor industry. Compound semiconductors are one of the critical materials enabling the operation of many high technology systems of today. For example, the opto-electronics industry which includes optical fibre communications, optical storage (CD, CD-ROM and DVD), LEDs and semiconductor lasers, is entirely dependent upon compound semiconductor materials for the fundamental operation of the components used. The electronics industry, which has traditionally relied upon silicon, is becoming increasingly dependent on compound semiconductors as the demand for more efficient, higher frequency and more powerful components for wireless, mobile and satellite communication systems increases. The unique properties of compound semiconductors, namely their ability to both efficiently emit and detect light, coupled with the inherent speed of electrons within these materials (which can be up to ten times faster than in silicon), have been key factors in their development. Compound semiconductors have therefore become essential in the communications network and infrastructure for the delivery of rapidly growing Internet services, wireless communications, next generation mobile and satellite telephone systems (and in particular WAP enabled phones for Internet access), fibre optic communications, high brightness LEDs, satellite solar cells, optical storage, medical applications and consumer and automotive electronics.

The Group was formed in May 1999 by the combination of two of the leading independent epitaxial wafer manufacturers, EPI, a UK company specialising in the production of wafers by MOVPE, and QED (now known as IQE, Inc.), a US based company specialising in wafer production by MBE.

# The Group's Strategy

The Group's goal is to maintain and further strengthen its position as the leading pure play global supplier of bespoke epiwafers to the compound semiconductor device manufacturing industry. Key elements of the Group's strategy include:

# FOCUS ON HIGH VOLUME COMMERCIAL MARKETS

The Group intends to focus on high volume and fast growth commercial markets such as wireless communications, next generation mobile and satellite telephone systems (and in particular WAP enabled phones for Internet access), Internet infrastructure systems, fibre optic communications, high brightness LEDs, satellite solar cells, computers, optical storage, medical applications and consumer and automotive electronics.

# MAINTAIN TECHNOLOGICAL LEADERSHIP

Based upon the MOVPE and MBE wafer production experience of the Group's founders and management, many of whom have worked in these fields since their inception, and the technical proficiency of its staff, the Group will continually seek to maintain its technological leadership through the design and development of new technologies and products. The Group is also involved in a number of research and development projects in order to develop new wafer technologies and maintain its technological advantage.



#### STRENGTHEN CUSTOMER RELATIONSHIPS AND ENSURE QUALITY PERFORMANCE

The Group seeks to develop multi-level working relationships during the early stages of the product development cycle with industry leaders in each of the Group's target markets. This strategy allows the Group to become an integral participant in the customers' device manufacturing process and make the Group's expertise a critical step of the design process.

### CONTINUE TO PENETRATE THE IN-HOUSE/VERTICALLY INTEGRATED CAPTIVE MARKET

The Board believes that the Group can significantly increase its market share and broaden its customer base by further penetrating the captive MOVPE and MBE wafer markets by being a cost effective alternative to in-house manufacture of epitaxial wafers.

#### MAINTAIN A PURE PLAY SUPPLIER STATUS

The Group's strategy is to remain a pure play epitaxial wafer foundry rather than vertically integrating into device, chip or component manufacture. The Board considers that customers strongly value the trust and confidence they have in IQE as a pure play supplier. This trust enables these customers to provide the Group with confidential device design information.

#### CONTINUED GROWTH STRATEGY

At the present time, there are two corporate opportunities under negotiation by the Group. The first is the potential acquisition of an MOVPE facility to strengthen the Group's manufacturing position in North America. This would have the twin advantages of being close to major customers and providing a dedicated second source for the Group's MOVPE products currently manufactured in Cardiff, UK. The second is a potential joint venture in the Far East to manufacture and market epiwafers to the East Asian compound semiconductor industry. This joint venture would enable the Group to establish a much stronger presence in key Asian markets and provide access to technology which is currently not fully developed by the Group. However, there is no certainty that these negotiations will be concluded satisfactorily.

#### **Products**

The Group currently supplies a wide range of bespoke compound semiconductor epiwafer products based mainly on GaAs and InP substrates. The principal end-user markets include next generation mobile and satellite telephone systems, Internet infrastructure systems, fibre optic communications, satellite systems, wireless communications, display and illumination technology, computer and consumer products, automotive applications and the medical industry. Each device structure is designed specifically for a given customer and therefore maintaining confidentiality is a key factor in supporting the Group's customer base.

#### Reasons for the Placing

Since the EASDAQ Admission, several factors have combined to increase demand for the Group's products significantly beyond that envisaged at that time. In particular, the following developments have occurred:

- the rapid move in the electronics (wireless communication) industry portion of the market from manufacturing based on 4" wafers to manufacturing based on 6" wafers as a result of major component shortages for mobile telephony networks and handsets;
- the dramatic increase in the rate of deployment of optical networks to support the rapidly increasing use of Internet services for commerce, communications and entertainment; and
- the increasingly rapid penetration of compound semiconductor technology into other market sectors (e.g. conventional lighting source replacement and automotive and medical applications).



The consequence of these factors has been to increase substantially the demand for the Group's products, resulting in accelerated plans by the Group to increase manufacturing capacity by the more rapid acquisition of large manufacturing systems. During 1999 the Group, anticipating the rapid industry move to 6" from 4" wafer manufacturing, placed orders for and took options on up to ten new generation MBE reactors, thereby capturing a significant portion of the reactor manufacturing capacity over the next 12-15 months. The first of these new generation MBE reactors has now been installed and qualified and is in full production. The new large capacity systems are capable of producing up to five 6" wafers or up to nine 4" wafers per process run, making them the most cost effective solution for the production of both 6" and 4" wafers by MBE.

# Admission to the Official List

Following the launch of techMARK within the Official List in November 1999 and its proven popularity as evidenced by a number of techMARK tracker funds being set up and its positive impact on the ratings of companies listed within the techMARK index, the Board has decided that it would be in the interests of the Company and its shareholders as a whole to pursue a dual listing on EASDAQ and the London Stock Exchange. The Board also believes that admission to the Official List will provide Existing Shareholders and potential investors with greater access to and improved liquidity in the Company's shares.

The Board also believes that admission to the Official List will raise the financial research coverage of the Company, providing extra visibility and transparency. This should ultimately result in improved liquidity for the Ordinary Shares. The placing of Ordinary Shares in the US (to qualified institutional buyers, as defined in Rule 144A) will also allow the Company to expand its investor base in the US.

The Company's application for Admission to the Official List is conditional upon completion of the Placing. The Company's Ordinary Shares will be quoted in Sterling on the Official List.

### EASDAQ TRADING HISTORY

The Company's Ordinary Shares trade on EASDAQ in US dollars. The monthly high, low and average prices in US dollars for the Company's Ordinary Shares on EASDAQ from 1 June 1999 to 31 March 2000 are set out below:

Month	High (\$)	Low (\$)	Average (\$)
June 1999	13.10	12.25	12.74
July 1999 August 1999	13.00	12.50	12.73
September 1999	14.15	12.25	13.04
October 1999	16.00	14.25	14.94
November 1999	14.15 39.50	13.90 13.95	13.99
December 1999	49.50	35.50	23.17 39.99
January 2000	49.00	38.00	41.24
February 2000 March 2000	76.00	44.88	56.75
141a1ch 2000	100.00	70.00	83.86

On 14 April 2000, the last reported sale price was \$65.



#### SUMMARY FINANCIAL INFORMATION

The following selected consolidated historical financial data of the Group should be read in conjunction with the Accountants' Report in Part C of these Listing Particulars.

The Merger has been accounted for under merger accounting, whereby the financial information is disclosed as if EPIH and QED had always been part of the Group.

### CONSOLIDATED INCOME STATEMENT (UK GAAP)

£'000	Year ended 31 December		
	1997	1998	1999
Turnover	11,969	15,856	19,043
Gross profit	3,715	5,686	6,485
Operating expenses	3,769	4,516	5,031
Exceptional items	299	_	171
Operating profit/(loss)	(353)	1,170	1,283
Profit/(loss) before tax	(676)	782	693
Profit/(loss) after tax	(854)	552	842
Undiluted profit/(loss) per share	(8.2)p	5.3p	6.3p
Diluted profit/(loss) per share	(7.7)p	5.0p	5.9p
Dividend per share		1.3p	

### CONSOLIDATED BALANCE SHEET (UK GAAP)

£'000	As at 31 December		
	1997	1998	1999
Current assets	3,947	5,113	18,433
Fixed assets	4,968	5,498	11,483
Total assets	8,915	10,611	29,916
Current liabilities	3,472	4,835	4,518
Long-term liabilities	5,426	5,145	4,448
Shareholders' equity	17	631	20,950

#### Notes:

The selected consolidated financial data provided has been prepared in accordance with UK GAAP, which differs in certain material respects from IAS and US GAAP as set out in Part C.

The profit/(loss) per share on an undiluted basis and the profit/(loss) per share on a diluted basis are calculated on the basis set out in Part C.

The financial information consolidates the financial information of the Company and all of its subsidiaries.

The exceptional items in the years ended 31 December 1999 and 31 December 1997 are comprised of costs associated with the acquisition of EPIH and QED by the Company and the EASDAQ Admission and a proposed NASDAQ flotation of QED which was subsequently aborted, respectively.



#### PART A

#### INFORMATION ON THE GROUP

### **Introduction and Summary**

IQE and its subsidiaries as a group are the largest pure play outsource manufacturer of bespoke epitaxial wafers to the compound semiconductor industry. Compound semiconductors are one of the critical materials enabling the operation of many high technology systems of today. For example, the opto-electronics industry which includes optical fibre communications, optical storage (CD, CD-ROM and DVD), LEDs and semiconductor lasers, is entirely dependent upon compound semiconductor materials for the fundamental operation of the components used. The electronics industry, which has traditionally relied upon silicon, is becoming increasingly dependent on compound semiconductors as the demand for more efficient, higher frequency and more powerful components for wireless, mobile and satellite communication systems increases. The unique properties of compound semiconductors, namely their ability to both efficiently emit and detect light, coupled with the inherent speed of electrons within these materials (which can be up to ten times faster than in silicon), have been key factors in their development. Compound semiconductors have therefore become essential in the communications network and infrastructure for the delivery of rapidly growing Internet services, wireless communications, next generation mobile and satellite telephone systems (and in particular WAP enabled phones for Internet access), fibre optic communications, high brightness LED's, satellite solar cells, optical storage, medical applications and consumer and automotive electronics.

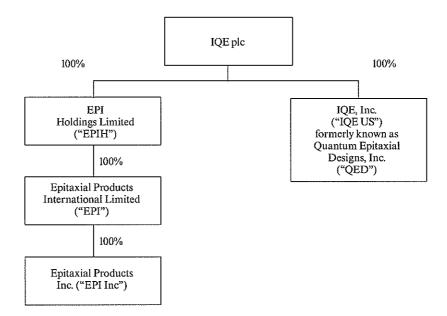
A critical part of the manufacturing process of most compound semiconductor devices is the production of epitaxial wafers, which consist of numerous ultra thin layers of semiconductors deposited onto substrate crystals. The Group uses the two most sophisticated manufacturing technologies in the industry, Metal Organic Vapour Phase Epitaxy (MOVPE) (also known as Metal Organic Chemical Vapour Deposition (MOCVD)) and Molecular Beam Epitaxy (MBE), to produce a wide variety of highly uniform epitaxial wafers in large quantities. As an independent pure play epitaxial wafer foundry, the Directors believe that the Group provides a comprehensive and cost effective alternative to in-house manufacture for the compound semiconductor industry. The Group counts amongst its customers a significant proportion of the thirty largest compound semiconductor device manufacturers worldwide by turnover.

The Directors believe that the growth opportunities open to the Group are being driven by three principal factors; (i) the fast growing demand for opto-electronic components and systems driven by the rapid increase in the need for high speed Internet services, and the need for increasingly powerful and higher frequency electronic systems, most of which use compound semiconductors, (ii) the move by device manufacturers from captive (in-house) epitaxial wafer supply to merchant (outsource) supply, a process which the Directors believe may accelerate as a result of technological advances within the industry particularly the change from 4" to 6" wafer manufacturing technology which will require substantial capital investment, and (iii) the use of MOVPE and MBE as the key manufacturing technologies for the production of new compound semiconductor components, coupled with the displacement of existing technologies for more mature device sectors.

The Group was formed in May 1999 by the combination of two of the leading independent epitaxial wafer manufacturers, EPI, a UK company specialising in the production of wafers by MOVPE, and QED (now known as IQE, Inc.), a US based company specialising in wafer production by MBE.



The following companies comprise the Group:



As a consequence of the Merger, the Group is able to offer the compound semiconductor industry a comprehensive range of epitaxial wafers covering both opto-electronic and electronic applications, utilising the most sophisticated manufacturing technologies in the industry. By virtue of its diverse geographical market coverage, expert manufacturing capabilities and size, and production sites on two continents, the Directors believe the Group is in a pre-eminent position to remain the leading global independent pure play provider of compound semiconductor epitaxial wafers.

#### **Industry Overview**

The rapidly growing demands of industry and consumers for ever more sophisticated, multi functional communications and electronic products has led to major changes in the communications and IT industries over the last few years. In particular, the rapidly increasing use of Internet services has led to great demand for communication systems with much higher levels of performance and functionality than in the past. For example, the world's telecommunication companies are struggling to keep pace with demand for transmission capacity as data communications now represent more than half of all information carried on networks around the globe and Internet related traffic is rapidly increasing. Considerable efforts are being made to provide opto-electronic components and systems which can handle many more channels of information at much higher speeds than was previously thought possible. Likewise, the amount of information which is required to be stored, retrieved, transmitted and switched, both in homes and in industry has grown enormously and new optical storage technologies, such as CD, CD-ROM and DVD, have been developed to cope with demand. Mobile telephony systems including those allowing direct Internet access, satellite communications and power systems, automotive applications, office systems such as laser printing and fax machines and display technology, especially high visibility outdoor screens and motorway signage, are just a few other areas of technology where the operating requirements of the electronic and opto-electronic components have become increasingly sophisticated, requiring a much higher level of performance than was achievable only a short time ago.

Compound semiconductors are critical to the operation of most of these systems and have therefore emerged as key enabling materials in facilitating the dramatic advancements and improvements in the previously mentioned applications. This results from the unique properties of these materials. Unlike silicon, which is a single element semiconductor and therefore has a fixed set of inherent electronic characteristics, compound semiconductors are made from a mixture of elements from the group III and V columns of the Periodic Table.



Examples of compound semiconductors, and the Group III to V elements from which they derive are:

**Group III Semiconductors** Compound Semiconductors (Group III-V)

Al: Aluminium GaAs: Gallium Arsenide Ga: Gallium InP: Indium Phosphide In: Indium GaN: Gallium Nitride InSh: Indium Antimonide

**Group IV Semiconductors** 

Si: Silicon AlGaAs: Aluminium Gallium Arsenide Ge: Germanium InGaAs: Indium Gallium Arsenide

Group V Semiconductors

N: Nitrogen InGaAsP: Indium Gallium Arsenide Phosphide P: Phosphorous AlInGaP: Aluminium Indium Gallium Phosphide

As: Arsenic Sb: Antimony

By combining these elements in a variety of ways to produce the compound semiconductors mentioned above, materials with a diverse range of opto-electronic and electronic properties can be produced. In particular, due to their physical properties, compound semiconductors are extremely efficient at generating light from electricity and converting light back into electricity, compared with existing alternatives, and have therefore been key materials enabling the operation of semiconductor lasers, LEDs and detectors which are at the heart of almost all opto-electronic systems, such as fibre optic communication systems, optical storage systems, display technology and satellite power systems. In the electronic domain, the range of electronic properties created by compound semiconductors, including the ability of electrons to travel much more quickly in these materials than in silicon by a factor of up to ten, has enabled the operation of much higher frequency, lower noise and more power efficient electronic systems. These qualities enabled significant improvements in the mobile telephony, satellite communication and wireless communication industries to take place, contributing to the ongoing communications revolution. In addition, compound semiconductors have been applied to a wide range of other industries. A summary of significant applications which incorporate compound semiconductors (not all of which incorporate the Group's products) are listed below:

### **Automotive (Sensors)**

Computer/Data Storage (Lasers) Brake Lighting

High Speed Computers Indicators DVD Instrumentation CD ROM

Internal Lighting CD Traffic Information Laser Printers **GPS** Bar Code Readers

Proximity Radar Fax Machines Collision Avoidance Speed Controls

### Display/Illumination (LED's)

Laser Pointers

**Engine Controls** Antilock Braking Brushless Motors

Medical (Lasers) Full Colour Displays Laser Surgery Sports Stadia Cosmetic Surgery Traffic Signals Opthalmics Motorway Signage

Dentistry **Information Boards** Photo Dynamic Therapy White Light Sources **Blood Monitoring** 

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#### **Optical Fibre Communications (Lasers)**

- Internet
- Intranet
- High Speed Data Links
- Inter Office Networks
- Undersea Cables
- Optical Repeaters

### (Solar Arrays)

- Satellite TV (DBS)
- Satellite Power Supplies

Direct Broadcast

**Satellite Communications (Solar Cells)** 

- GPS
- VSAT

### **Wireless Communications (Transistors)**

- Cellular Phones (Mobile)
- Pagers
- Navigation Systems
- Base Station Link

The manufacture of compound semiconductor components differs very significantly from that of silicon components. In silicon technology, the functionality of the device or integrated circuit is created by taking the base silicon wafer and building many transistors on the wafer surface, which normally involves many more processing steps than for compound semiconductor technology. In contrast, the functionality of almost all compound semiconductor devices is created by a process called epitaxy. In this process, numerous ultra thin layers of different compositions (mixtures) of group III and group V elements are deposited (or 'grown') upon a substrate crystal. The epitaxy process is one of the most critical in the compound semiconductor manufacturing chain and traditionally has been carried out in-house as part of a company's vertically integrated manufacturing process. However, epitaxy is also one of the most expensive parts of the manufacturing chain, and due to significant developments over the last few years, now requires a high level of expertise which is not readily available in-house. The Board believes that one of the reasons for the rapidly growing demand for the Group's products is that many companies are looking for more cost effective out sourced solutions.

Based upon independent research as reported by Compound Semiconductor Magazine 5(9) November/December 1999, the Directors estimate that the market for compound semiconductor components which incorporate the type of wafers produced by the Group, to be worth \$6.6 billion in 1999 and that it is expected to grow to \$16.6 billion in 2002 at a compound annual growth rate of 36 per cent.

### The Epitaxial Opportunity

The market for compound semiconductor components leads directly to opportunities in the epitaxial wafer market. Based upon independent research as reported by Compound Semiconductor Magazine 5(9) November/December 1999, the Directors estimate that that the world market for epitaxial wafers of the type produced by the Group was worth approximately \$1.65 billion in 1999 and will reach a value of approximately \$4.2 billion by 2002.

The key factors driving this demand for epitaxial wafers are the rapidly expanding markets for communications and IT systems directly in support of the infrastructure for the delivery of Internet services, as well as more efficient and higher functionality consumer and display products. Many of the end products which use compound semiconductors have large available markets, which are currently using less efficient technology (ion implant, LPE or VPE), or are quickly growing markets, where new and updated technology is used by the consumer to replace less technically sophisticated products. This has led to rapidly increasing demand for high quality compound semiconductor epitaxial wafers.

However, whilst the demand for compound semiconductors produced by MOVPE and MBE has grown rapidly, epiwafer manufacturing capacity, with the associated high capital costs, long lead time to acquire and install production equipment and shortage of technically experienced personnel, has been lagging. Some device manufacturers have no in-house (captive) epitaxial research and development or production capacity. Others produce wafers for research and development purposes but do not have any in-house production capacity. Finally, many larger captive suppliers have in-house production capacity but either cannot produce a sufficient volume of epiwafers to meet their demand or desire a second source supplier for strategic reasons. More importantly, there is a shortage of new MOVPE and MBE reactors in the industry to keep pace with the growing demand for compound



semiconductors. The Group has ordered or secured options to acquire or lease up to nine MBE reactors by December 2000, thereby securing a significant portion of the new MBE reactor manufacturing capacity in the industry. The Group also has a long term supply agreement with AIXTRON AG for the supply of ten MOVPE reactors of which three have already been delivered. These contracts are summarised in paragraph 13 of Part E of these Listing Particulars. These reactors may be used to expand the production facilities in Cardiff and in Bethlehem, US. In addition the Group intends to investigate and pursue opportunities to increase manufacturing capacity through joint ventures and, or acquisitions.

The epitaxy process, although a critical part of the overall manufacturing cycle, is a large drain on resources, both financial and technical, for device manufacturing companies with their own epitaxy capabilities. The demands of end user markets for decreasing component prices and ever increasing levels of technical complexity have accelerated the need for cost effective solutions to the overall manufacturing process.

The Board believes that the most cost effective business strategy for users of epitaxial wafers is outsourcing the parts of the manufacturing chain which add the highest cost to the manufacturers' end product, usually because of the disproportionately high level of investment and resources required to keep up with technological changes in that part of the manufacturing chain. In the compound semiconductor industry, the epitaxy process is one of the most costly parts of the manufacturing process and therefore one of the most obvious for outsourcing. Consequently, the use of independent epitaxial wafer manufacturers provides a cost effective strategy for the compound semiconductor industry. The Board believes that the Group is well placed, by having the largest independent epiwafer manufacturing capacity world-wide and consequently the ability to achieve economies of scale to take advantage of the anticipated increase in industry demand. As the move to the use of foundries accelerates, the cost effectiveness of foundries should increase as economies of scale, drive down manufacturing costs. This virtuous circle scenario leads the Board to believe that more companies will adopt the outsource foundry route as their own vertically integrated manufacturing model becomes increasingly less competitive.

The demand for MOVPE and MBE epiwafers from independent epitaxial wafer manufacturers is therefore, in the view of the Board, being driven by a number of factors, namely:

- the general increase in demand for compound semiconductors to support both the deployment of rapidly increasing numbers of communication and IT systems and the development and commercialisation of new systems;
- (ii) the move of device manufacturers away from traditional in-house production of wafers to the use of independent supply;
- (iii) the increasing use of MOVPE and MBE as key epitaxy technologies for new products and the increased displacement of less efficient technologies (ion implant, LPE or VPE); and
- (iv) the industry shift in manufacturing based on 4" wafers to 6" wafers, as a result of major component capacity shortages for mobile telephony networks and handsets.

As a result, the compound semiconductor industry has a growing requirement for bespoke epitaxial wafer foundries which can deliver expert, reliable and cost effective wafer development and supply. This requirement is expected to grow at rates in excess of the overall market due to outsourcing.

### The IQE Solution

The Board believes that the Group is unique in the industry and uses its key strengths to provide an attractive and cost effective epiwafer manufacturing solution for the compound semiconductor industry.

The key strengths of the Group include the following:



Product Range and Technical Capability: With the complementary ranges of EPI's opto-electronic products and QED's electronic products, the Group is able to offer customers a comprehensive range of compound semiconductor epiwafer structures using either MOVPE or MBE manufacturing technologies. Thus a customer need only deal with a single organisation, simplifying administrative, financial and technical issues and creating a 'one stop' epitaxial wafer foundry.

Second Sourcing: For most device manufacturers, second sourcing is required in order to protect their commercial interests and provide a guaranteed source of wafers for their production lines. At the present time, most of the larger device manufacturers are using outside foundries to provide this strategically important second source to their in-house production. The Group has manufacturing sites on two different continents and can provide product second sourcing to customers by MOVPE or MBE. In the future, the Group intends to have both types of production technology located in two separate facilities as some companies are reluctant to rely on a single production site for any given technology. This will thereby provide a more complete second sourcing capability, a capability not currently offered by any independent foundry. This would remove an internal barrier to large companies outsourcing potentially all of their compound semiconductor epiwafer production needs to the Group, providing a highly competitive position for the Group.

In addition, there is currently a very strong move within the electronics sector of the compound semiconductor industry to add 6" wafer processing capability. This will require the adoption of a new generation of epitaxy equipment. Existing captive manufacturers may therefore be forced to reappraise their policy of in-house wafer manufacture when faced with the prospect of adding new, costly large scale production platforms. The Directors believe the Group will benefit from this reappraisal because the Group is the first merchant epitaxy company worldwide to implement this new generation of MBE production platform that is capable of producing both 4" and 6" wafers in a cost effective manner.

Synergistic Benefits: The Group provides a scale of pure play epitaxy operation which is unique in the industry. The Group is currently the largest pure play merchant MOVPE and MBE foundry by reference to turnover. The Group commands a strong position with suppliers, customers and government organisations. As the Group further expands its manufacturing capabilities, the Board expects that the Group will be able to offer its customers the lowest cost of supply for advanced compound semiconductor epiwafer structures in the industry. In addition, by combining its R&D experience across both MOVPE and MBE technologies covering both electronic and opto-electronic device applications, the Group has a range of expertise which can cover most customer requirements. This diversity allows the Group's customers to access a large pool of knowledge at a fraction of the cost they would incur using their own resources and to concentrate their expertise on their own core business of device manufacture. This makes outsourcing to the Group a very attractive option compared to developing an in-house facility.

Sales and Marketing: IQE now has a highly developed and well established marketing and distribution network throughout the world. Prior to the Merger, QED had over 94 per cent. of its business in the US and had developed very strong relationships with customers who comprise most of the major compound semiconductor device and system manufacturers in the US. EPI has benefited significantly from an increased presence in the US market by combining its existing office with the existing QED sales group and QED now has a much higher global profile and presence by virtue of EPI's sales and marketing network, which has provided QED with direct access to most of the major electronic component manufacturers outside the US. The Group consequently has a sales and marketing team with a combination of technical expertise, a global presence with strong links to most major compound semiconductor device manufacturers world-wide and a wide product, technical and capacity range equal to that of any independent epiwafer foundry.



# The Group's Strategy

The Group's goal is to maintain and further strengthen its position as the leading pure play global supplier of bespoke epiwafers to the compound semiconductor device manufacturing industry. Key elements of the Group's strategy include:

### FOCUS ON HIGH VOLUME COMMERCIAL MARKETS

The Group intends to focus on high volume and fast growth commercial markets such as wireless communications, next generation mobile and satellite telephone systems (and in particular WAP enabled phones for Internet access), Internet infrastructure systems, fibre optic communications, high brightness LEDs, satellite solar cells, computers, optical storage, medical applications and consumer and automotive electronics. To meet the compound semiconductor wafer requirements for these large and rapidly growing markets, the Group intends to continue to invest heavily in the latest generation multiwafer MOVPE and MBE production equipment including 6" wafer equipment. In addition, by increasing production capacity and focusing its production on higher volumes, the Directors believe that the Group can rapidly reduce its cost per wafer and use its cost advantage to accelerate the use of its epiwafers in existing and new high volume markets.

### MAINTAIN TECHNOLOGICAL LEADERSHIP

Based upon the MOVPE and MBE wafer production experience of the Group's founders and management, many of whom have worked in these fields since their inception, and the technical proficiency of its staff, the Group will continually seek to maintain its technological leadership through the design and development of new technologies and products. It intends to refine its processes, and continue to expand its epitaxial growth capabilities in order to continue to offer additional bespoke products. The Group also intends to selectively pursue contract research programmes to help fund the development of new technical capabilities and products. In addition, to further increase production efficiencies, reduce unit costs and maintain a technological edge, the Group has been actively involved with suppliers, equipment manufacturers and characterisation equipment suppliers to develop the next generations of epitaxy and metrology equipment. The Group is also involved in a number of research and development projects in order to develop new wafer technologies and maintain its technological advantage.

### STRENGTHEN CUSTOMER RELATIONSHIPS AND ENSURE QUALITY PERFORMANCE

The Group seeks to develop multi-level working relationships during the early stages of the product development cycle with industry leaders in each of the Group's target markets. This strategy allows the Group to become an integral participant in the customers' device manufacturing process and make the Group's expertise a critical step of the design process. In an effort to further strengthen its customer relationships, the Group is committed to satisfying its customers' evolving requirements and expectations. The Group's quality assurance programme includes wafer evaluation using sophisticated non-destructive measurement techniques and the incorporation of customers' quality assurance techniques and specifications to ensure that the Group maintains the consistent delivery of high quality products. Each operating member of the Group has the ISO 9002 certification.

### CONTINUE TO PENETRATE THE CAPTIVE IN-HOUSE/VERTICALLY INTEGRATED MARKET

The Board believes that the Group can significantly increase its market share and broaden its customer base by further penetrating the captive MOVPE and MBE wafer markets by being a cost effective alternative to in-house production of epitaxial wafers. The Board estimates that approximately three quarters of advanced compound semiconductor epitaxial wafers are produced by in-house/vertically integrated manufacturers and the balance by merchant suppliers such as the Group. Due to the significant costs of developing and maintaining a captive production capacity and of upgrading to meet new technological advances, the Board believes that manufacturers utilising compound semiconductor wafers will increasingly rely on outsourcing to merchant suppliers to (i) provide



consistent quality epiwafers at low cost for their device production lines (ii) fulfil variable production requirements and (iii) access technical expertise and experience to aid in the rapid development of new products.

A recent example of this is the need for captive in-house manufacturers to move to much larger and more cost effective epitaxy equipment, as the electronics (wireless communication) industry moves from 4" to 6" wafer manufacturing. Captive suppliers will be faced with either replacing most of their existing, less cost effective epitaxy equipment with the new generation equipment, which is very expensive, or moving to outsource suppliers.

#### MAINTAIN A PURE PLAY SUPPLIER STATUS

The Group's strategy is to remain a pure play epitaxial wafer foundry rather than vertically integrating into device, chip or component manufacture. The Board considers that customers strongly value the trust and confidence they have in IQE as a pure play supplier. This trust enables these customers to provide the Group with confidential device design information. In addition, the Group has worked closely with many of its key suppliers over the past ten years, resulting in the Group obtaining access to the latest developments in reactor technology, raw material supply (substrates, chemicals) and characterisation techniques, enabling the Group to maintain an advantage over its competitors.

#### CONTINUED GROWTH STRATEGY

The Directors intend to pursue further expansion of the Group by organic growth and by acquisitions and joint ventures. At the present time, there are two corporate opportunities under negotiation by the Group. The first is the potential acquisition of an MOVPE facility to strengthen the Group's manufacturing position in North America. This would have the twin advantages of being close to major customers and providing a dedicated second source for the Group's MOVPE products currently manufactured in Cardiff, UK. The second is a potential joint venture in the Far East to manufacture and market epiwafers to the East Asian compound semiconductor industry. This joint venture would enable the Group to establish a much stronger presence in key Asian markets and provide access to technology which is currently not fully developed by the Group. There is no certainty that these negotiations will be concluded satisfactorily. By adopting a coherent strategy of growth and focused product offerings, the Group aims to continue to be the largest pure play foundry for bespoke compound semiconductor epitaxial wafers world-wide.

### **Products**

#### **CURRENT PRODUCTS**

The Group currently supplies a wide range of bespoke compound semiconductor epiwafer products based mainly on GaAs and InP substrates. The principal end user markets include next generation mobile and satellite telephone systems, Internet infrastructure systems, fibre optic communications, satellite systems, wireless communications, display and illumination technology, computer and consumer products, automotive applications and the medical industry. Each device structure is designed specifically for a given customer and therefore maintaining confidentiality is a key factor in supporting the Group's customer base. Essentially, the competitiveness of each customer's end device is a combination of the epilayer design and the wafer processing technology used. The Group's intellectual property and expertise is in the detailed epitaxial processing used to produce high quality and highly uniform epilayer structures with the precise material requirements of the device manufacturer. A high degree of confidentiality is therefore a prerequisite to maintaining customers' confidence and expanding the foundry business. The Group does not sell 'standard' commodity products but does maintain a library of published data and, therefore, public domain structures for use by customers for their design requirements.



### PRODUCTS IN DEVELOPMENT

The Group is currently working towards developing wafer technology for short wavelength (570nm) opto-electronic devices such as LEDs and lasers based on Gallium Nitride, which is rapidly growing in importance since these materials enable production of blue and ultra-violet LEDs, and lasers which are needed for white light sources and next generation HD-DVD. The Group is also developing metamorphic P-HEMTs using antimony based compounds, is completing development on HBTs, based on GaInP, for use in next generation mobile and satellite telephone systems, and has embarked on a programme to develop long wavelength (1.3µm) VCSELs, based on InGaAsN, for future optical fibre communication systems. Several of these programmes are co-funded by the European Commission and involve close collaboration with the main users of such products, providing an integral tie up with the potential customers through their manufacturing cycle.

### Research and Development

The Group selectively pursues contract research programmes co-funded with third parties to help support the development of new technical capabilities and products. These programmes have been selected to complement and enhance the Group's long-term development strategy under conditions that permit the Group to retain the technology it develops. During the years ended 1999, 1998 and 1997, third-party research and development contract gross revenue was £215,000, £188,000 and £700,000, or approximately 1.1 per cent., 1.2 per cent. and 5.8 per cent. respectively, of the Group's total gross revenues.

As part of this strategy, EPI has been awarded two EU funded Brite-Euram programmes and three UK Government Photonic LINK and SPUR programmes. It is also involved in joint programmes with a number of UK universities.

QED had historically been involved in SBIR (Small Business Innovative Research) contracts which provide US government funding for leading-edge technology development. QED retains the right to all technology developed under US SBIR contracts, subject to the federal government's right to the royalty free use of such technology in non-commercial applications and, after four years from the date of development, the federal government's right to license such technology to third parties in connection with a valid federal government programme. Following the Merger, QED became ineligible for SBIR contracts. The Group intends to pursue other US government research and development contracts.

In addition to third-party co-funded research and development, the Group also supports internally funded projects. Such internal research and development projects are aimed primarily at process improvements leading to greater through-put, higher quality products, better manufacturing yield, increased production uptime and new product development.

The Group's internal research and development costs in 1999, 1998 and 1997 were £1,302,000, £1,529,000 and £1,463,000 or approximately 6.8 per cent., 9.6 per cent. and 12.2 per cent. respectively, of the Group's total revenues. All research and development costs are expensed and none are capitalised.

### Sales and Marketing

The Group markets its products world-wide through direct sales and agency and long term trading relationships. Its efforts are directed toward developing strong supply links to high volume manufacturers of compound semiconductor devices across a wide range of products. Unlike wafers produced using the ion implant process which, in many instances, are mass produced on substrates based on industry standards, compound semiconductor epitaxial wafers are manufactured to customers' specific designs and device requirements. The Group supports its customers with technically proficient sales personnel and representatives and a skilled engineering team. Through this strategy, the Group aims to become an integral part of its customers' design and development cycles, with the consequence that its epiwafers become an integral part of the customers' manufacturing process.



The sales cycle for a new customer or application is variable. It can be as short as two months, but may require more than twelve months for initial development of the epitaxial wafer and device designs to be finalised, and longer for the wafer production volumes to become significant. The initial contact is often with a device manufacturer's design and development or production group. Initially, the Group engages in a specification review during which the Group's engineers offer suggestions or modifications regarding the wafer design. If this phase is successful, the customer may place a "qualification order" of wafer samples for performance evaluation. The Group continues to assist the customer to refine the technical specifications of the wafers. After acceptance of the qualification wafers, several iterative lots of wafers are supplied to fully align the characteristics of the Group's wafers to the customer's device fabrication process. During this phase, the customer typically invests resources to create a manufacturing process which will utilise the Group's wafers. Once the customer's process is determined to be stable, production orders are issued. The Group has the ability to shorten this cycle to two to six months when it is engaged as a second source for a customer's established product.

The Group believes that this detailed sales process and high level of ongoing customer interaction, facilitated by the Group's wide ranging technical expertise, are a powerful asset in the development of long-term customer relationships and facilitating preferred supplier status.

#### Customers

The Group's customers encompass the full range of compound semiconductor device and systems manufacturers, covering fibre optic component and systems suppliers, computer manufacturers, mobile communications components and systems providers, electronic systems integrators, display products manufacturers, consumer products manufacturers, defence contractors, space and satellite component and systems manufacturers, providers of advanced medical equipment, research and development laboratories, universities and other research institutes, the US Government and the European Commission. The customer list includes a significant proportion of the thirty largest compound semiconductor device manufacturers worldwide by turnover.

A summary of the Group's customer concentration is set out below:

	Percentage of the Group's total gross revenues		
	31 December	31 December 31 December	
	1997	1998	1999
Largest customer	9%	20%	25%
Total top 5 customers	36%	44%	48%
Total top 10 customers	52%	58%	59%

The Group's sole product is compound semiconductor epiwafers. In 1999, customers in the US accounted for 72 per cent. of the Group's total revenues, customers in the Far East for 14 per cent. and those in Western Europe for 14 per cent. In 1999 customers in the US accounted for 95 per cent. of QED's total revenues and customers in the Far East for 5 per cent. of QED's total revenues. Customers in the US accounted for 47 per cent. of EPI's total revenues in 1999, and customers in the Far East and in Western Europe accounted for 23 per cent. and 30 per cent. respectively.

Both the US Government and the European Commission have been customers as sponsors of research and development programmes.

The Group has historically not entered into long term agreements with its customers. However the Group is currently negotiating long term (more than one year) agreements with certain key customers which would guarantee minimum dedicated capacity levels to these customers.



#### Competitors

The markets for the Group's products are highly competitive and, as end user products become increasingly consumer orientated, there will continue to be significant downward pressures on the final component costs. This will put pressure on foundries to provide cost effective solutions. Since the capital cost of wafer growth and characterisation equipment is very high, economies of scale will only be achieved with large throughput, which is a core element of the Group's strategy.

The Group's main merchant competitors can be split into two categories, namely those pure play foundries with only epitaxy and characterisation facilities, like the Group, and those vertically integrated companies who also have device manufacturing or other capabilities as part of a vertically integrated business structure. With the Group's first mover advantages, the Board believes that most of the independent pure play companies will find it difficult to compete with the scale and scope of the Group's epiwafer foundry service. The largest of these independent epiwafer manufacturers is the French company, Picogiga, who supply MBE produced wafers mainly for the electronics industry. Picogiga's total revenues for 1999, as disclosed in its published accounts, were approximately 36 per cent. of the total revenues for the Group for the same period.

The other category of competitors are those companies who sell epiwafers as part of their product range but who also manufacture devices or other components or systems. These companies include Kopin (US), a display manufacturer which also manufactures HBT epiwafers by MOVPE for use in wireless communications, EMCORE (US), an MOVPE equipment manufacturer which also supplies wafers, devices and components, and several of the large Japanese compound semiconductor device manufacturers which are vertically integrated and have epiwafer manufacturing capabilities, such as Hitachi Cable, Mitsubishi Monsanto, Sumitomo Chemical, Nippon Sanso and Furukawa. The compound semiconductor operations of these companies only represent part of their overall revenue and cannot be separately identified.

Most of the Group's competitors do not have the capability of producing wafers by both MOVPE and MBE in significant volume, all have a more limited product range than the Group. In the case of the vertically integrated suppliers, there are strong disincentives for many customers since the supplier can compete with its own customer downstream.

The main source of competition and opportunity is that of in-house epiwafer manufacture by the potential customers themselves. Outsourcing is prevalent in many mature industries and is now common in the silicon industry and the Board believes that foundry supply is highly likely to be the dominant business model for epiwafer manufacture in the future. This is highlighted by the recent strategic announcement by Motorola that it will move over 50 per cent. of its silicon production to outsource foundries by 2002 from the present level of 7 per cent. The Board believes that the compound semi-conductor industry is likely to follow the same trend.

In view of the Group's market position and its key strengths described above, the Board strongly believes that the Group is well positioned to remain the leading pure play compound semiconductor epiwafer foundry world-wide.

# **Competing Epitaxial Growth Technologies**

There are four different means of producing epitaxial layers of compound semiconductors:

- LPE and VPE are mature technologies used to produce simple structures at low cost such as standard low brightness LEDs;
- MBE and MOVPE are more advanced technologies using multiwafer processes to create larger wafers (up to 6"). These are versatile complex structures used in a rapidly increasing number of applications. MBE is used mainly in advanced electronic and some opto-electronic components. MOVPE is used mainly in advanced opto-electronic components, including high brightness LEDs and some electronic components.



LPE and VPE are now mature techniques for producing epitaxial layers and have several limitations, particularly with respect to producing the thin layers (less than  $0.5\mu m$ ) with abrupt transitions between the various layers which make up today's complex structures. They are therefore confined predominantly to manufacturing standard brightness LEDs and other simple device structures. The two most sophisticated techniques are MOVPE and MBE. Both of these techniques are now dominating production of most of the key devices used in the compound semiconductor industry and are capable of producing extremely high quality and complex epilayer structures. The two processes tend to be used for different device applications. The production of opto-electronic devices such as lasers, LEDs and solar cells is dominated by the MOVPE process, where thicker epilayers are generally required, whereas most thin electronic device structures, such as FETs and HEMTs, are made predominantly by MBE. However, each process has demonstrated the ability to produce high quality epilayers across a wide range of applications. Typically, because of the very different nature and technical demands of the two processes, most epiwafer producers tend to use only one of the technologies in their production, even though their end product range may well be better suited to a mixture of the two processes.

#### METAL ORGANIC VAPOUR PHASE EPITAXY (MOVPE)

The MOVPE process occurs in a reaction chamber held at pressures typically between 200mbar and 1 bar. A mixture of gases containing group III metal organic compounds and group V hydride gases are passed over the compound semiconductor substrates which are located within the reaction chamber on a heated graphite block. The block is held at high temperature (700-900°C) and as the gas mixture passes over the block, the high temperature causes thermal decomposition of the gases into their constituent atomic species, which include the group III and V elements. These atoms deposit on the substrates and rearrange themselves under suitable reaction conditions to form the compound semiconductor epitaxial layer on the substrate surface. By rapidly switching the gas mixture in the reaction chamber, a series of epilayers are deposited to form the full epilayer device structure. Typical growth rates are between 3 and 5 microns per hour, allowing the growth of thick epilayer structures in a relatively short time. Extremely high purity epilayer structures are now produced by the process and because of the wide range of chemicals available for use in the process, MOVPE has become a highly flexible and versatile manufacturing process with a rapid take-up in use over the past three years.

#### MOLECULAR BEAM EPITAXY (MBE)

The MBE process takes place in an ultra-high vacuum where the various group III and V elements are thermally evaporated onto the substrate. Because the substrate is heated during the growth process, there is sufficient kinetic energy for the atoms to arrange themselves in a single crystal structure replicating that of the starting substrate material. The source materials such as gallium, aluminium, indium and arsenic are placed in high purity cubicles which are resistively heated causing them to evaporate. These evaporating source materials create a series of molecular beams which are directed at the substrate. The atoms which land on the substrate crystal arrange themselves to replicate the crystalline structure of the substrate only if the process conditions are optimal. Therefore, achieving such a set of optimal conditions forms the art and science of crystal growth. Very high purity epitaxial layers are produced as a result of this process.

Precise control over the growth process is achieved by placing mechanical, computer operated, shutters between the source material and substrate. Closing the shutter stops the molecular beam from reaching the substrate which results in abrupt transitions between layers of different material compositions. This is an important aspect of MBE compared to other epitaxial techniques because many of the current high performance electronic device designs require thin atomic layers with abrupt transitions.

In both the MOVPE and MBE processes, wafers are rotated during the growth procedure to ensure optimal uniformity of epitaxial thickness. The actual elemental composition and thickness of the various epitaxial layers varies according to the device type and end-user application. The switching sequence of layers in each process is controlled via computer with each customer wafer type having its



own individual specifications. Once a customer's specifications have been entered into the computer, the process is replicated for subsequent orders, allowing unique programmes for each customer's precise specifications.

The key advantages of these advanced crystal growth processes are:

Precise Control: The high level of process control provides the ability to grow very different compositions to atomic layer accuracy and maintain uniformity across the wafer. The ability to produce abrupt transitions between layers of different compound semiconductor materials is essential to produce the electronic results desired by manufacturers of state-of-the-art semiconductors and integrated circuits used in high performance applications. The extremely high purity of semiconductor crystal produced by these processes allows the highly efficient conversion of electrical signals into light and vice versa compared with existing alternatives.

Uniformity of Layers: Both processes are able to produce material uniformity on a wafer which the Board believes offers superior manufacturing efficiencies for compound semiconductor device manufacturers. The Group has invested heavily in state of the art MOVPE and MBE equipment to the extent that it now has the largest outsource manufacturing capacity of complex compound semiconductor epilayers worldwide and can provide uniform products from 2" through 6" diameter (now the largest wafer size currently being adopted by electronic component manufacturers in the compound semiconductor industry). This allows customers to achieve higher yields of finished devices from each wafer than from less uniform epiwafer products.

Monitoring: The design of the newest epitaxy growth systems allows for a number of analytical probes to be used in the production process. As a result, both the chemical and structural properties of the epitaxial layers can be monitored before and during the growth cycle. This provides a highly accurate process and quality control mechanism that can be monitored throughout the growing cycle to improve the accuracy of the epitaxy process.

Manufacturing Flexibility: Both the MOVPE and MBE processes are capable of being swiftly changed between different structures, allowing the rapid shift between varied customer orders with minimal setup time.

# **EPIWAFER CHARACTERISATION**

Once the epilayers have been grown, they are evaluated to ensure compliance with customer specifications by measuring the various electronic, structural and optical properties. The Group has actively developed a series of sophisticated characterisation techniques to measure layer thickness, elemental compositions of each layer within the complete structure, optical properties of key layers, electronic carrier densities and defect levels as a key part of its advanced quality assurance programme. These techniques include high resolution x-ray diffraction, photoluminescence, Capacitance-Voltage profiling, laser surfscan measurements and non-contact resistivity measurements. The Group has actively worked with metrology equipment manufacturers to develop several of the most sophisticated techniques and the Group continues to pioneer advanced automated techniques to assure its customer base of the highest level of confidence in the shipped product.

### Quality Assurance

The Group is committed to a quality culture to satisfy its customers' evolving requirements and expectations. Since many of the Group's customers are leading industry players, this places substantial onus on the Group's quality systems. EPI has been certified to ISO 9002 since 1992, and indeed the Directors believe that EPI was the first epiwafer manufacturing company to be awarded such status. QED obtained ISO 9002 certification in February 2000. In addition, the Group has been subjected to numerous detailed customer quality audits and has come through all without material issues being identified. Several awards have been won by EPI to demonstrate its commitment to quality and training, including Wales Quality Award in 1997 and National Safety Award from the British Safety Council in 1998. EPI is also registered as an Institute of Electrical Engineering (IEE)



and Institute of Mechanical Engineering (I Mech E) Centre for Professional Training in 1999 and EPI was a key participant in the development of National Personal Development Plans for the Semiconductor Industry (UK) in 1998.

The Board believes that customers will demand more consistency in the delivered product and a minimal level of inspection on delivery. The Group coordinates very closely with its customers' quality assurance programmes with the objective of replicating the customers' own methods of qualifying the epiwafers for introduction into their device production lines, in addition to the extensive non-destructive tests carried out by the Group as a matter of routine. All wafer characterisation is generally provided to the customer in the customer's desired format in order that the incoming epiwafer supply appears identical to that which may be supplied in-house.

The Board believes that the Group's sophisticated wafer characterisation systems, coupled with these advanced quality systems, offer a substantial competitive advantage to the customer over other suppliers, including in-house supply. The Group is an active participant in setting worldwide standards for epiwafer characterisation in the compound semiconductor industry and key members of both EPI and QED staff are members of the Epiwafer Characterisation Standards Committees (European and US Groups respectively) of SEMI (Semiconductor Equipment and Materials Institute), the industry-wide body for setting standards within the silicon and compound semiconductor industries.

#### Raw Materials Suppliers and Supply Chain

The Group manufactures its epiwafer products predominantly on GaAs and InP substrates that are supplied by a limited number of suppliers. The Group is heavily dependent on a limited number of suppliers for the provision of its metal organic chemicals, its hydride gas supplies and its supply of gallium, indium and other raw materials. The Group's epiwafer products are also heavily reliant on the purity of its raw material supplies, since a very small level of impurity entering the growth chamber in either MOVPE or MBE can adversely affect the epiwafer quality and characteristics. The Group's strategy for ensuring reliability of supply, quality of raw materials and competitive pricing is to have supply arrangements in place with its key raw material suppliers, whereby generally the Group commits to purchase all of its applicable raw materials from such suppliers, together with well defined purchase specifications, and to work very closely with each of these key suppliers to continually improve the level of service.

This close working relationship establishes a clear understanding of the Group's supply needs to its supplier base and, by providing constant feedback on raw material supply quality, the Group endeavours to ensure that it gains access to the best quality materials available and to improved raw material products in a timely fashion. Key suppliers are only admitted to the Group's approved supplier list if certain stringent requirements on quality, price and delivery are met. Supplier performance feedback is a key part of this process.

Despite these steps, however, there can be no absolute assurance that the stability of supply can be maintained or that the suppliers will continue to provide the requisite level of purity in their raw materials demanded by the epitaxy process.

The same principles apply to the Group's dealings with its suppliers for both reactors and metrology equipment. In particular, the Group has close dealings with its key MOVPE reactor supplier, AIXTRON AG, which also helps market the Group's products under a bilateral strategic agreement. This allows AIXTRON AG to offer their own customers access to the Group's products as a primary source of supply whilst the customer awaits reactor delivery and as a second source thereafter. Through this partnership, a customer can be offered a comprehensive range of services which helps tie the customer into a long-term relationship with the Group.



### Backlog

The Group includes in its product revenue backlog only those customer orders which have been accepted by the Group and for which shipment is generally expected within 12 months. As of 31 December 1999, the Group's backlog was £6.3 million. This compares with a product order backlog of £3.2 million for the Group as of 31 December 1998, an increase of £3.1 million (96 per cent.) year on year.

Recent history suggests that the Group's accessible order book (i.e. wafers due for immediate production) is usually between one and three months production capacity. Order backlog can fluctuate greatly as a result of order and contract call off timing, order cancellations and rescheduled or postponed orders. The Group has experienced, and may continue to experience, cancellation, reduction or rescheduling of customer orders in its backlog. Therefore, the Group's backlog at any given point in time may not necessarily be a good indicator of sales for any future period of time.

### Facilities and Equipment

The Group has production facilities located in both the UK and in the US. The Group's executive offices and MOVPE production capabilities are located in a 40,000 square foot purpose built building at St Mellons, Cardiff, Wales, UK, the freehold of which is owned by EPI, subject to mortgages with 3i plc, Barclays Bank PLC and the Welsh Development Agency. The manufacturing facility occupies approximately 20,000 square feet comprising two clean rooms for wafer handling and characterisation and sixteen reactor rooms, each capable of housing one MOVPE reactor, plus substantial ancillary space for other production support activities. At 31 December 1999, EPI had six reactors in routine production, two of which are dual wafer reactors, two of which are AIXTRON 2000 multiwafer reactors capable of producing 7x2" or 5x3" wafers per run respectively and two of which are AIXTRON 2400 multiwafer reactors capable of producing 15x2" or 8x3" or 5x4" wafers per run. Two further multiwafer reactors, both AIXTRON 2600 reactors capable of producing 5x6" or 9x4" or 15x3" or 35x2" wafers per run were installed and commissioned in the second half of 1999. These are currently being qualified for HBT and VCSEL production.

In the US, QED leases approximately 30,000 square foot of a purpose built facility in Bethlehem, Pennsylvania, and has options on further space in the same building for further expansion. QED operates five VG Semicon V- 100 MBE systems which are capable of simultaneously producing 12x2" or 5x3" or 3x4" or 1x6" wafers per run. A further larger scale MBE reactor capable of producing 9x4" or 4x6" wafers per run was delivered in the summer of 1999. This has been installed, commissioned and qualified by customers and is now in full production. In addition, QED currently operates two Varian GEN II MBE systems which are capable of producing one 2" or 3" wafer per run. These systems are primarily used for in-house or customer R&D programmes.

Up to two-thirds of the net proceeds from the Placing receivable by the Company is intended to be utilised to increase the manufacturing capacity of the Group over the next two years.

### **Proprietary Information**

The Board believes that the success of the Group's business depends primarily on its proprietary information, intrinsic processes and know how rather than patents, trademarks and copyrights. Since much of the technology for manufacturing epiwafers is in the process itself, any patent regarding the process would be difficult to police and therefore patenting is believed to be an inappropriate means of protection. Nonetheless, the Group intends to protect its technology by patents if appropriate and certain patents are currently being pursued. The Group relies upon trade secret protection for its confidential and proprietary information. All employees have entered into non-compete and confidentiality agreements. The Group routinely enters into confidentiality agreements with all of its major customers.



### **Environmental Regulations**

The Group is subject to certain environmental laws and other obligations in the UK and to federal, state and local laws in the US ("Environmental Laws") concerning the use, storage, handling, generation, treatment, emission, management, release, discharge and disposal and, in certain circumstances, remediation of certain hazardous and non-hazardous materials and wastes ("Hazardous Materials") used and generated in the production and in the research and development of the Group's epiwafer products. In addition, there are regulations concerning employee health and safety. The growing of epiwafers and other operations involve the use of certain Hazardous Materials.

The Group endeavours to achieve compliance with all current regulations. At both the UK and US manufacturing sites, substantial monitoring and hazard response systems have been installed and considerable effort has been devoted to risk assessment and hazard response plans. The Board believes that the Group is in material compliance with all relevant environmental and health and safety legislation. EPI was awarded a National Safety Award by the British Safety Council in 1998. (See Part B – Environmental Regulations and other Governmental Regulations.)

#### **Directors and Senior Management**

#### **DIRECTORS**

Dr Andrew William Nelson, Chairman and Chief Executive Officer

Drew Nelson joined BT Research Laboratories in 1981 and worked on MOVPE for opto-electronic devices for optical fibre communications. He was promoted to Group Head in 1985 and led the technology transfer from BT to British Telecom and DuPont (now Aguent Optoelectronics Ipswich) a leading manufacturer of fibre optic communication devices. In conjunction with Mike Scott, he founded EPI in 1988 and became Managing Director in 1991, subsequently progressing to Chairman/CEO in 1996.

Dr Nelson was educated at Sheffield University and holds a BSc Honours (First Class) in Electronic Engineering and a PhD in Semiconductor Technology.

#### Thomas Lawrence Hierl, Chief Technical Officer

Tom Hierl was a founder of QED and has served as Chief Executive Officer and director of QED since 1988. From 1986 to 1988, Mr Hierl was Manager of Semiconductor Materials for GAIN Electronics, where he established the first domestic source of MBE wafers for the merchant market. He previously was employed by Loral Corporation and Varian Associates.

Mr Hierl has over 20 years of experience in the GaAs semiconductor industry. He earned his BSEE and MEE degrees from Cornell University in 1974 and 1975 respectively.

#### Dr Michael Darak Scott, Sales and Marketing Director

Mike Scott joined GEC Plessey Research (Caswell) in 1982 and led the development group working on MOVPE for InP based materials. In conjunction with Drew Nelson, he founded EPI in 1988 as Technical Director and became Sales and Marketing Director in 1996.

Dr Scott gained a BSc in Chemistry and Physics, followed by a PhD in Semiconductor Technology at University of Wales, Aberystwyth.

#### Scott Tucker Massie, Chief Operating Officer

Scott Massie has been Chief Operating Officer of QED since July 1998. He served as Vice President, Operations since January 1996 and was responsible for manufacturing and contract research. From 1993 to January 1996, Mr Massie was Director of Contract Research and was responsible for obtaining a number of government-funded development programmes. Mr Massie has over eight years experience in the MBE growth and characterisation of semiconductor materials businesses.

Mr Massie holds a BS in Mathematics and a BS and MS in Physics from Virginia Polytechnical Institute and State University. Mr Massie completed his doctoral studies in Physics at Virginia Polytechnical Institute and Virginia State University.



Dr Godfrey Howard Harrison Ainsworth, Non-Executive Director

Godfrey Ainsworth founded Gambit Corporate Finance in 1992, a practice specialising in the provision of corporate finance services.

Dr Ainsworth, a chartered accountant, was employed with Coopers & Lybrand from 1980 to 1985 and was a corporate finance partner with Spicer & Oppenheim until 1989, when he left to take up the position of group finance director of a human resource consulting group. He has held several non-executive directorship appointments, including assignments for 3i plc and the Welsh Development Agency. He has provided advice to EPI since 1988 and was appointed a Director of EPI on 20 June 1997.

Dr Ainsworth is a Fellow of the Institute of Chartered Accountants in England and Wales and has a PhD and BSc degrees from University College, Cardiff.

# Glen Bressner, Non-Executive Director

Glen Bressner is associated with NEPA and has been since shortly after its inception in 1985. Prior thereto, he managed the Boston office for Key Venture Capital Corporation. Mr Bressner sits on the board of directors of Innovative Solutions & Support, Inc., AnyTime Access, Inc., MicroE, Inc., Mesa Systems Guild, Inc. and Midas Vision Systems, Inc.. He holds a BSBA, *cum laude*, from Boston University and an MBA from Babson College. He has been a non-executive director of QED since 15 December 1998.

### SENIOR MANAGEMENT

# James Leslie Coventry, Group Chief Financial Officer and Company Secretary

Leslie Coventry served a five year apprenticeship with a firm of Glasgow-based chartered accountants before moving into commerce/industry in 1968. He has been an Accountant and Company Secretary in a number of well known UK and international companies including British Oxygen (UK), British Shipbuilders (UK), Hydro Aluminium (Norway) and Seagram Distillers (US). He joined EPI in December 1992 as Commercial Manager/Company Secretary with responsibility for all aspects of the Company's financial, reporting and secretarial requirements and was appointed to the board of EPI as Finance Director in January 1998.

Mr Coventry qualified as a Chartered Accountant from the Institute of Chartered Accountants of Scotland in 1967.

# Mr Jack Smith, General Manager (EPI)

Jack Smith has been employed at EPI since November 1999 and has twenty nine years of experience in the manufacturing of integrated circuits using Silicon and GaAs. He has worked in the UK, the US, Switzerland and South Africa. He started as a graduate engineer and progressed by experience through all levels to Director of Operations in companies in the UK, US and Europe. He has worked extensively with various types of semiconductors managing all aspects of integrated circuit processing including research and development, large scale manufacturing and engineering. At the EPI site in Wales he is the General Manager of all operational aspects of producing foundry product.

Mr Smith is a graduate in Material Science/Metallurgy from Strathclyde University.

# Howard R Williams, Operations Director (EPI)

Howard Williams' previous positions include those of estate manager in the health service, SME general management and plant engineer for a flow production car manufacturing company. He joined EPI in 1988 as Facilities Manager and was responsible for the specification, design and project management of the "green field" conversion which led to the creation of the present site. In 1991 he was appointed Operations Manager and in January 1998 he was appointed Operations Director.

Mr Williams' qualifications include BSc, CEng and MIMechE.



### Christopher J Meadows, Human Resources Manager (EPI)

Chris Meadows was employed with British Telecom Research Labs from 1977 until 1986 where he was primarily involved in the development of silicon based processes, later concentrating on LPE growth of III-V materials. He moved to British Telecom and DuPont (now HP Optoelectronics) in 1986 as MOCVD grower for InP based materials before joining EPI as growth technologist when it was founded in 1988. He later became responsible for Quality and Human Resources. He left EPI in March 1993 to work for Zenith Data Systems/Bull Information Systems, initially as Quality Executive, then as Third Party Product Manager, before returning to EPI in March 1995. He is currently responsible for the personnel, training and quality functions.

Mr Meadows is a BA graduate (Open University 1986).

### Dr Steven W Bland, Research Manager (EPI)

Steve Bland joined EPI as Research Manager in October 1992 having previously been employed by Standard Telecommunications Laboratories since 1982, where he worked on the development of GaAs integrated circuits, InP-based opto-electronic integrated circuits, semiconductor optical amplifiers and high speed electroabsorption modulators. He was also involved in the development and optimisation of MOVPE epitaxial growth processes for III-V semiconductors and their application to device structures. His current role at EPI is as Research and Development Manager, involving the coordination and administration of all internal and external research and development activities and the initiation of new external collaborative research contracts.

### Dr Keith Evans, Vice President, Technology (QED)

Keith Evans has served as Vice President, Technology at QED since April 1997 and is responsible for developing new products and services and for improving upon present manufacturing technologies. From 1996 to 1997 Dr Evans was Manager of Crystal Growth and Development for Semiconductor Laser International Corporation. From 1984 to 1996 Dr Evans led a group of scientists at the US Air Force Wright Laboratory's Solid State Electronics Directorate in the advancement of III-V MBE growth kinetics and growth process control for advanced electronic and opto-electronic device applications. Dr Evans is the inventor of the US Air Force-patented MBE growth control technology known as Desorption Mass Spectrometry.

Dr Evans earned a BA in Chemistry from Miami University (Ohio) in 1978 and a PhD in Physical Chemistry from Purdue University in 1984.

#### David Hartzell, Production Manager (QED)

David Hartzell has been employed at QED since June 1990 and has over 12 years' experience in production MBE. Originally hired as a Lab Technician, Mr Hartzell was promoted in 1992 to Manufacturing Manager and in 1996 to Director of Operations. He now serves as Production Manager. In 1990 Mr Hartzell was employed at Solarex, working as a Research Technician on Amorphous Silicon for solar cells. From 1984 to early 1990 he was employed as a Process Analyst for A.T.T., where he worked on production MBE from 1987 to 1990.

Mr Hartzell earned an AS in Electronics in 1984, an AS in Business Management in 1989 and is nearing completion of a BS in Business Administration.

#### David M White, Logistics Manager (EPI)

David White spent his early career with Thorn Lighting, rising to the level of Chief Engineer responsible for high speed volume production plant and processes. He then moved into production and quality management roles within the electronics industry, including Schlumberger and GEC. Following the acquisition of GEC Meters by ABB, Mr White was promoted to the role of Marketing Manager and led the introduction of new products. He joined EPI in March 1998 and holds the position of Logistics Manager.

Mr White has an honours degree in Engineering Science from Cambridge University.



### DIRECTOR AND OFFICER COMPENSATION AND ARRANGEMENTS

The Group paid an aggregate of £374,000 in compensation to its directors and executive officers in 1999 for all services rendered to the Group. In addition the Group accrued £14,000 to provide pensions and retirement or similar benefits for its directors and executive officers.

The Group has obtained customary directors' and officers' insurance against certain liabilities such persons may incur on behalf of the Group.

In recognition of Dr Ainsworth's contribution to the development of the Group, the Board intends to grant options over 7,500 Ordinary Shares to him. The exercise price of these options will be the average of the mid-price of the Ordinary Shares on EASDAQ for the three consecutive dealing days preceding Admission. The options will be exercisable at any time prior to the tenth anniversary of their grant.

#### **EMPLOYEES**

As at 31 December 1999, the Group had 197 employees, including executive directors. Of the Group's employees, 116 were located at the Group's headquarters in Cardiff, UK, and 81 at the Group's offices in Pennsylvania, USA. The Group has not experienced any work stoppages and believes its relations with employees to be good.

The Board actively grants options over Ordinary Shares pursuant to the Share Option Schemes to all full-time staff to promote productivity and loyalty to the Group.

#### **PENSIONS**

EPI operates two pension schemes, namely the EPI Retirement Benefits Plan for all staff and the EPI Directors Retirement Benefit Scheme for Dr Nelson and Dr Scott. Both schemes are administered by Standard Life in Edinburgh. EPI's appointed pension scheme agents and independent financial advisers are Briggs Maunder Associates in Cardiff. Both schemes are money purchase arrangements and the EPI Directors Retirement Benefit Scheme is a small self-administered pension scheme. EPI contributes up to 10 per cent. of salary at the rate of twice the employee contribution.

Since December 1996, QED has maintained a 401(k) profit sharing plan (the "401(k)"). The 401(k), which is structured to be qualified under the US Internal Revenue Code, is available to all employees of QED. An employee may elect to defer, within the limits of deferrable compensation allowed by law, a percentage of his or her salary. Pursuant to certain qualifying conditions, QED may match the employee contribution or a portion thereof. Additionally, the 401(k) permits other discretionary contributions by QED in respect of net income. QED does not currently plan on making a contribution to the 401(k) in respect of 1999 net profit.

Generally, employees are 100 per cent. vested in the amounts contributed to the 401(k) through salary reductions and QED's contributions. Distributions from the 401(k) are permitted at age 59½ subject to provisions related to death, disability and termination of employment.

#### Corporate Governance

The Group will endeavour to comply as far as is practicable with the principles of good governance and code of best practice prepared by the Committee on Corporate Governance, chaired by Sir Ronald Hampel, published in June 1998. Notwithstanding the above, the Group reserves the rights to grant options over Ordinary Shares to non-executive Directors from time to time. The Company is actively seeking to appoint an additional independent non-executive director who would act as Chairman. In addition, the Group is actively seeking a Group Chief Financial Officer.

The Board has considered the guidance published by the Institute of Chartered Accountants in England and Wales concerning the internal control requirements of the Combined Code and has established an ongoing process for identifying, evaluating and managing any significant risks faced by the Group.



The Company will hold at least quarterly board meetings throughout the year at which reports from the Group's operations, together with finance reports, will be considered. The Board is responsible for formulating, reviewing and approving the Group's strategy, budgets, major items of capital expenditure and acquisitions.

The Audit Committee is chaired by Dr Godfrey Ainsworth. It will always be chaired by a non-executive Director. It meets four times a year and is responsible for, amongst other things, ensuring that the financial performance of the Group is properly reported and monitored focusing particularly on compliance with legal requirements, accounting standards, the requirements of the London Stock Exchange and EASDAQ and for meeting the auditors and reviewing the reports from the auditors relating to accounts and internal control systems. It meets once a year with the auditors without executive board members present. The Audit Committee currently comprises Dr Godfrey Ainsworth and Glen Bressner.

The Remuneration Committee is chaired by Glen Bressner. This Committee reviews the performance of executive directors and within agreed terms of reference sets the scale and structure of their remuneration including pension rights, the Group's policy on compensation of executive directors and the basis of their service agreements with due regard to the interests of shareholders. It also determines the allocation of share options to employees. It is a rule of the Remuneration Committee that no Director shall participate in discussions or decisions concerning his own remuneration. The Remuneration Committee currently comprises Glen Bressner and Dr Godfrey Ainsworth.

### **Current Trading and Prospects**

The audited results for the year ended 31 December 1999 are set out in Part C of this document and show operating profit (before exceptional items) of £1,454,000 (1998: £1,170,000) profit after taxation of £842,000 (1998: £552,000) on turnover of £19,043,000 (1998: £15,856,000). Based on the Group's management accounts, the trading in the first three months of the current financial year is substantially in excess of historic performance.

The Board continues to look forward to the rest of 2000 with great confidence.

#### Reasons for the Placing

Since the EASDAQ Admission, several factors have combined to increase demand for the Group's products significantly beyond that envisaged at that time. In particular, the following developments have occurred:

- the rapid move in the electronics (wireless communication) industry portion of the market from manufacturing based on 4" wafers to manufacturing based on 6" wafers as a result of major component shortages for mobile telephony networks and handsets;
- the dramatic increase in the rate of deployment of optical networks to support the rapidly increasing use of Internet services for commerce, communications and entertainment; and
- the increasingly rapid penetration of compound semiconductor technology into other market sectors (e.g. conventional lighting source replacement and automotive and medical applications).

The consequence of these factors has been to increase substantially the demand for the Group's products, resulting in accelerated plans by the Group to increase manufacturing capacity by the more rapid acquisition of large manufacturing systems. During 1999 the Group, anticipating the rapid industry move to 6" from 4" wafer manufacturing, placed orders for and took options on up to ten new generation MBE reactors, thereby capturing a significant portion of the reactor manufacturing capacity over the next 12-15 months. The first of these new generation MBE reactor has now been installed and qualified and is in full production. The new large capacity systems are capable of producing up to five 6" wafers or up to nine 4" wafers per process run, making them the most cost effective solution for the production of both 6" and 4" wafers by MBE.



IQE was the first (and is still the only) merchant epitaxy company to use new generation MBE production equipment. The Group consequently has a commanding lead in this area, having installed, commissioned, qualified and run into production the first of the new generation equipment. The Board estimates that the Group has at least a nine month lead over other merchant vendors and will therefore have not only the capacity, but also the time advantage in establishing the Group as the leading 6" wafer vendor by a considerable margin. The Board also believes that captive manufacturers will be forced to rethink their in-house production policies, as they will have to move to the new production platforms to remain competitive. This could result in the write-off of older generation equipment and a considerable replacement expense if they are to retain all their in-house manufacturing.

Since changes in wafer size have historically taken place only every 5-7 years, the timing represents a unique opportunity for the Group to significantly enhance its position as against in-house manufacturers.

In addition, the Group has plans to accelerate the acquisition of more large capacity MOVPE machines under the long term purchase agreement with AIXTRON AG, which represents a total of ten reactors. To date two AIXTRON 2600 reactors have been commissioned and following qualification will enter full production in the second quarter of this year.

The dramatic increase in component requirements for optical fibre components to support the network infrastructure for Internet services has led the largest in-house manufacturers to outsource their wafer requirements for the first time. This has resulted in a much larger demand for telecom epiwafers from the Group than was previously envisaged.

Finally, as the cost of compound semiconductors is reduced and new applications find their way to the market, particularly the lighting, optical data storage, automotive and medical industries, the demand for compound semiconductor materials is further enhanced. Reported rates of growth for components are between 30 and 40 per cent. per annum and with epitaxy becoming a more valuable part of the production chain as processing costs reduce, the demand for epitaxial wafers is rapidly increasing.

The Group therefore intends to accelerate its growth by installing more capacity and hiring qualified technicians to operate the new equipment at an earlier stage than was originally anticipated and is actively pursuing its strategy of additional growth by acquisition and joint venture activities. The money raised in the Placing will be crucial in helping the Group to achieve its aggressive growth plans.

The money raised in the Placing may also be used in respect of the corporate opportunities under negotiations referred to on page 22 if they are concluded satisfactorily.

Pending use of the net proceeds to the Company they will be invested in short term interest bearing bank accounts. For a summary of the use of proceeds by the Company see page 41.

#### Admission to the Official List

Following the launch of techMARK within the Official List in November 1999 and its proven popularity as evidenced by a number of techMARK tracker funds being set up and its positive impact on the ratings of companies listed within the techMARK index, the Board has decided that it would be in the interests of the Company and its shareholders as a whole to pursue a dual listing on EASDAQ and the London Stock Exchange. The Board also believes that admission to the Official List will provide Existing Shareholders and potential investors with greater access to and improved liquidity in the Company's shares.

The Board also believes that admission to the Official List will raise the financial research coverage of the Company, providing extra visibility and transparency. This should ultimately result in improved liquidity for the Ordinary Shares. The placing of Ordinary Shares in the US (to qualified institutional buyers, as defined in Rule 144A) will also allow the Company to expand its investor base in the US.

The Company's application for Admission to the Official List is conditional upon completion of the Placing. The Company's Ordinary Shares will be quoted in Sterling on the Official List.



#### The Placing

#### GENERAL

The Company intends to issue Subscription Shares to raise \$56,400,000 net of underwriting discounts and commissions equal to \$3,600,000 but before expenses to be paid by the Company estimated to be \$900,000 (before stamp duty and SDRT). These shares are not being offered to Existing Shareholders due to the costs and regulatory burden associated with a pre-emptive offering. In addition Selling Shareholders intend to sell the Sale Shares in the Placing for \$18,800,000 net of underwriting discounts and commissions equal to \$1,200,000.

The Joint Lead Managers, pursuant to a Purchase and Agency Agreement ("the Placing Agreement") to be entered into will, severally but not jointly, agree with the Company and the Selling Shareholders, on the terms and subject to the conditions therein contained, to use their reasonable efforts to procure purchasers for or to subscribe for or purchase, as the case may be, the Subscription Shares and Sale Shares at the Placing Price less any underwriting discounts or commissions. The Company will agree to issue the Subscription Shares and the Selling Shareholders will agree to sell Sale Shares at the Placing Price less any underwriting discounts or commissions.

The Company and the Selling Shareholders will pay to the Joint Lead Managers a selling commission of six per cent. of the Placing Price per Subscription Share and per Sale Share respectively. In addition, the Company will reimburse the Joint Lead Managers in respect of certain of their expenses in connection with the Placing and will indemnify the Joint Lead Managers against certain liabilities in connection with the Placing (including liabilities under US securities laws).

Completion of the Placing will be conditional upon, among other matters:

- (i) admission of all of the Ordinary Shares in issue and to be issued pursuant to the Placing to trading on the Official List and all of the Placing Shares on EASDAQ;
- (ii) the passing of the Resolution at the AGM;
- (iii) there having been no breach of certain representations and warranties, covenants to be set out in the Placing Agreement; and
- (iv) delivery of legal opinions and accountants letters.

The Placing Shares will be offered through private placements utilising exemptions from public offering and registration requirements in Europe and North America.

The sums received from investors will be held in a trust account pending allotment or transfer of the Placing Shares. Sums in respect of excessive or unsuccessful applications will be returned (without interest and at the investors' risk) within 14 days of the Closing Date.

In connection with the issue and sale of the Placing Shares, the Joint Lead Managers may engage in over allotment and stabilising transactions in relation to the Ordinary Shares. Over allotment involves sales in excess of the issue size, which creates a short position for the Joint Lead Managers. Stabilising transactions involve bids to purchase the Ordinary Shares in the open market for the purpose of pegging, fixing or maintaining the price of each Ordinary Share. Such stabilising transactions may cause the price of the Shares to be higher than it would otherwise be in the absence of such transactions. Such activities, if commenced, may be discontinued at any time.

The Company and the Selling Shareholders will grant the Joint Lead Managers the Over Allotment Option, exercisable up to 30 days following the Closing Date to acquire up to that number of Ordinary Shares equal to 20 per cent. of each of the Subscription Shares and the Sale Shares. To the extent that the Over Allotment Option is not exercised in full, it will be satisfied first from shares held by Selling Shareholders and second from Ordinary Shares issued by the Company. It is anticipated by the Directors that a limited number of employees of the Group may wish to participate in the Over Allotment Option and, to the extent that they do, the number of Ordinary Shares which may be sold by the Selling Shareholders pursuant to the Over Allotment Option will be reduced.



#### NATURE OF THE PLACING

#### General

Sales of Ordinary Shares made in the United States will be made by means of Lehman Brothers, Inc. and Beeson Gregory International LLC purchasing Placing Shares and re-selling them to qualified institutional buyers, as defined in Rule 144A.

The Placing Agreement will provide that the Joint Lead Managers will offer and sell the Ordinary Shares (a) in the US only to a limited number of qualified institutional buyers, as defined in Rule 144A, in a private placement that is exempt from the registration requirements of the Securities Act and (b) outside the US, in compliance with Regulation S under the Securities Act.

Each purchaser or subscriber of the Placing Shares other than US qualified institutional buyers, as defined in Rule 144A, will be deemed to have represented as follows:

- (1) the purchaser or subscriber (i) is outside the US, (ii) is not a person that directly, or indirectly through one or more intermediaries, controls, or is controlled by, or is under common control with, the Company or a person acting on behalf of such a person and (iii) is not purchasing or subscribing for the Placing Shares with the intention of distributing such Placing Shares in the US;
- (2) the purchaser or subscriber is aware that the Placing Shares have not been and will not be registered under the Securities Act and are being offered outside the US in reliance on Regulation S under the Securities Act; and
- (3) the purchaser or subscriber acknowledges that the Company, the Joint Lead Managers and those persons that directly, or indirectly through one or more intermediaries, control, or are controlled by, or are under common control with, either of them and others will rely upon the truth and accuracy of the foregoing representations.

The Joint Lead Managers will not offer to sell, any Placing Shares directly or indirectly, in any province or territory of Canada or to, or for the benefit of, any resident of any province or territory of Canada in contravention of the securities laws thereof. Any offer or sale of Placing Shares in Canada will be made only pursuant to an exemption from the requirement to file a prospectus in the province or territory of Canada in which such offer is made. Each will send to any dealer who purchases from it any Placing Shares a notice stating in substance that, by purchasing such Placing Shares, such dealer represents and agrees that it has not offered or sold, and will not offer or sell, directly or indirectly, any of such Placing Shares in any province or territory of Canada or to, or for the benefit of, any resident of any province or territory of Canada in contravention of the securities laws thereof and that any offer of Placing Shares in Canada will only be made pursuant to an exemption from the requirement to file a prospectus in the province or territory of Canada in which such offer is made, and that such dealer will deliver to any other dealer to whom it sells any of such Placing Shares a notice containing substantially the same statement as is contained in this sentence.

#### United Kingdom

These listing particulars have been approved by the London Stock Exchange as Competent Authority for the purposes of and as defined in the Listing Particulars Directive (80/390/EEC) and the Prospectus Directive (89/298/EEC) and a certificate for the purposes of mutual recognition under the terms of those directives has been delivered by the London Stock Exchange to the Commission Bancaire et Financière of Belgium.

The Company has represented, warranted and undertaken to the Joint Lead Managers that the Company has complied and will comply with all applicable provisions of the Financial Services Act 1986 with respect to anything done by it in relation to the Placing Shares in, from or otherwise involving the UK.



#### United States

The Company has been advised by the Joint Lead Managers that (i) the Joint Lead Managers propose to resell Placing Shares in the US solely to qualified institutional buyers, as defined in Rule 144A, in transactions exempt from the registration requirement of the Securities Act pursuant to Rule 144A and (ii) the Joint Lead Managers propose to resell or procure subscribers or purchasers for the Placing Shares outside the US in offshore transactions in reliance on Regulation S under the Securities Act and in accordance with applicable law. In each case, the Placing Price and commissions will be the same. Any offer or sale of Placing Shares in reliance on Rule 144A will be made by broker-dealers who are registered as such under the Exchange Act. Terms used in this paragraph have the meanings given to them by Regulation S and Rule 144A under the Securities Act.

Until the expiration of the 40-day period commencing on the Closing Date, an offer or sale of Placing Shares within the US by a dealer even if not participating in the Placing may violate the registration requirements of the Securities Act if such offer or sale is made otherwise than in accordance with Rule 144A under the Securities Act or pursuant to another exemption from registration under the Securities Act.

#### Belgium

The Placing Shares will not be offered publicly, directly or indirectly, in Belgium at the time of the Placing. Nevertheless, the admission to trading on EASDAQ of the Placing Shares constitutes a public offer in Belgium. These Listing Particulars will be filed with the Belgian Banking and Finance Commission (Commissie voor het Bank-en Financiewezen/Commission bancaire et financière) for recognition (prior to the Placing being completed) in accordance with Article 34bis of the Royal Decree NR 185 of 9 July 1935. The recognition of these Listing Particulars by the Banking and Finance Commission will not imply any judgement as to the appropriateness or the quality of the Placing, the Placing Shares nor of the situation of the Company.

#### Germany

The Placing Shares have not and will not be offered to persons in Germany except to persons who acquire or dispose of securities as part of their profession or as a business either for their own account or for the account of third parties (Section 2, No.1 Securities Sales Prospectus Act "Wertpapierverkaufsprospekt-Gesetz") or otherwise only in circumstances where an exemption from the duty to publish a security sales prospectus under the German Securities Sales Prospectus Act is applicable.

#### Switzerland

The Placing Shares will not be offered publicly, directly or indirectly, to investors in Switzerland. Only a limited circle of professional or institutional investors (not in excess of 20) will be approached on a bilaterial basis in connection with the offering of the Placing Shares.

#### France

The Placing does not and is not intended to constitute an offer to the public ("appel public à l'épargne") under French law. The Listing Particulars are issued in France only to persons who are qualified investors as defined under French law, in particular Article 6 of the Ordinance No 67-833 dated 28 September 1967 (as amended) in conjunction with Article 1 of the Decree No. 98-880 dated 1 October 1998. The prospectus has not been submitted for approval to the French Commission des Opérations de Bourse (COB), nor have any procedures required under French law for the public offering of shares in France been followed. These Listing Particulars may not be used in connection with any offer or sale of securities issued by the Company to the public in France. The qualified investors are informed that they can only act on their own account as specified under the Decree dated 1 October 1998 and that the dissemination to the public, either directly or indirectly, of the securities so acquired is subject to the rules set out in the Articles 6 and 7 of the Ordinance dated 28 September 1967.



#### Denmark

The Placing Shares will not be offered or sold in the Kingdom of Denmark except under circumstances that do not constitute an offer to the public within the meaning of the Danish Securities Trading Act, Section 44, as investments under these Listing Particulars are only offered to a limited number of sophisticated institutional investors. Consequently, these Listing Particulars are not subject to the information requirements provided under the Danish Securities Trading Act and has not been preregistered or approved by any governmental or regulatory agency in Denmark.

#### Sweden

The Placing Shares will be offered to a limited number of potential investors only. The Placing Shares will not be offered to the public in Sweden and are therefore not within the scope of the prospectus regulations in the Swedish Financial Instruments Trading Act. These Listing Particulars have not been submitted for approval by or registration with the Swedish Financial Supervisory Authority.

## Luxembourg

There has not been and there will be no public offer in the Grand Duchy of Luxembourg of the Placing Shares and as a consequence, no application has been submitted to the Commission de Serveillance du Secteur Financier in accordance with Article 3 (2) of the law of December 23, 1998. Therefore, Placing Shares may not be offered, sold or otherwise marketed in the Grand Duchy of Luxembourg in circumstances which constitute a public offer under Luxembourg law. These Listing Particulars will not be used for a public offer in the Grand Duchy of Luxembourg of the Placing Shares and do not constitute a public offer to anyone in the Grand Duchy of Luxembourg to subscribe and purchase Placing Shares.

#### Ireland

The Placing Shares will not be offered directly or indirectly to the public in Ireland. The Placing Shares will only be offered to persons in the context of their trades, professions or occupations within the meaning of Article 2 of Directive 89/298/EEC as adopted by the European Communities (Transferable Securities and Stock Exchange) Regulations, 1992 and whose ordinary business it is to buy or sell shares or debentures whether as principal or agent. These Listing Particulars do not constitute or form part of any offer or invitation to the public or any section of the public in Ireland to sell or any solicitations of any offer from members of the public or any section of the public in Ireland to purchase or subscribe for nor does it constitute a form of application for any Placing Shares. If you are not the intended recipient of these Listing Particulars, you must return it forthwith to the Lead Manager. This document is not an application for shares or a prospectus for the purpose of the Companies Acts, 1963-1999 or the European Communities (Transferable Securities and Stock Exchange) Regulations 1992 or any other law.

#### Finland

These Listing Particulars have not been prepared to comply with the standards and requirements applicable to Finnish Law including the Finnish Securities Market Act (495/26 May 1989, as amended) and it has not been approved by the Financial Supervision Authority. The Placing Shares may not be offered, sold, advertised or otherwise marketed in Finland in circumstances which would constitute a public offering under Finnish Law.

#### Austria

The Placing Shares have not been offered and will not be offered to the general public in Austria but will be offered to a limited group of persons who acquire or dispose of securities as part of their profession or as a business (Sec 3 para 1 no. 11 Austrian Capital Market Act) or otherwise only in circumstances where an exemption from the duty to publish a securities sales prospectus under the Austrian Capital Market Act is applicable.



#### The Netherlands

The Placing Shares may not be offered, sold, transferred, or delivered in The Netherlands or to Dutch residents – neither at their initial distribution nor at any time thereafter, either directly or indirectly – other than to persons or companies who or which trade or invest in securities in the conduct of a business or profession ("Professionals"). The Placing is therefore solely made to Professionals.

#### Norway

These Listing Particulars have not been approved by or registered with the Oslo Stock Exchange under Chapter 5 of the Norwegian Securities Trading Act 1997. The Placing Shares have not been offered and will not be offered to persons in Norway in any way that would constitute an offer to the public other than to persons who invest in securities as part of their professional activity and who are registered with the Oslo Stock Exchange in this capacity, or otherwise only in circumstances where an exemption from the duty to publish a prospectus under the above Act shall be applicable.

#### Italy

The Offering has not been cleared by CONSOB (the Italian Securities Exchange Commission) pursuant to Italian securities legislation and accordingly no Placing Shares may be offered, sold or delivered, nor may copies of the Listing Particulars or of any other document relating to the Placing Shares be distributed in Italy, except: (i) to professional investors ("operatori qualificati"), as defined in Article 31.2 of CONSOB regulation No. 11522 of 1 July 1998; or (ii) in circumstances which are exempted from the rules on solicitation of investments pursuant to Article 100 of Legislative Decree No. 58 of 24 February 1998 and Article 33.1 of CONSOB regulation No. 11971 of 14 May 1999.

Any offer, sale or delivery of the Placing Shares or distribution of copies of these Listing Particulars or any other document relating to the Placing Shares in Italy must be: (i) made by an investment firm, bank or financial intermediary permitted to conduct such activities in Italy in accordance with Legislative Decree No. 385 of 1 September 1993 and Legislative Decree No. 58 of 24 February 1998; and (ii) in compliance with any other applicable laws and regulations.

#### Other Jurisdictions

No action has been taken by the Company that would, or is intended to, permit a public offer of the Placing Shares in any country or jurisdiction where any such action for that purpose is required. Accordingly, the Placing Shares may not be offered or sold, directly or indirectly, and neither these Listing Particulars nor any other Listing Particulars, prospectus, offering memorandum, form of application, advertisement or other document or information may be distributed or published in any country or jurisdiction except under circumstances that will result in compliance with any applicable laws and regulations.

### Non-Resident or Foreign Owners

There are no laws or regulations of the UK or provisions in the Articles that restrict the right of non-resident or foreign owners of any Ordinary Shares to hold or vote in relation to such Ordinary Shares.

#### PLACING PRICE

The Placing Price for the Placing Shares will be determined by negotiations between the Company and the Joint Lead Managers on the basis of the information gathered through a book-building process. Amongst others, the factors which may be considered in determining the Placing Price may include prevailing market and economic conditions, revenues and earnings of the Company, the prevailing market price of the Ordinary Shares on EASDAQ, market valuations of other companies engaged in activities similar to those of the Company, estimates of the business potential and prospects of the Company, the present state of the Company's business, the Company's management, the level of interest shown by potential investors during the book-building process and any other factors deemed relevant.



#### TRADING ON THE OFFICIAL LIST AND EASDAO

Application (i) will be made to the London Stock Exchange for all of the Ordinary Shares in the capital of the Company in issue and to be issued pursuant to the Placing to be admitted to the Official List, and (ii) will be made to EASDAQ for admission of the Placing Shares to trading on EASDAQ.

The Ordinary Shares of the Group will trade under the symbol "IQEP" both on the Official List and on EASDAQ. The Ordinary Shares will be quoted in pounds on the Official List and in US dollars on EASDAQ.

Pursuant to the EASDAQ Rules, all price sensitive information in respect of the Company shall continue to be made available to investors in Europe through the EASDAQ Publication Means (as defined in the EASDAQ Rules).

The Company's Ordinary Shares trade on EASDAQ in US dollars. The monthly high, low and average prices in US dollars for the Group's Ordinary Shares on EASDAQ from 1 June 1999 to 31 March 2000 are set out below:

Month	High(\$)	Low (\$)	Average (\$)
June 1999	13.10	12.25	12.74
July 1999	13.00	12.50	12.73
August 1999	14.15	12.25	13.04
September 1999	16.00	14.25	14.94
October 1999	14.15	13.90	13.99
November 1999	39.50	13.95	23.17
December 1999	49.50	35.50	39.99
January 2000	49.00	38.00	41.24
February 2000	76.00	44.88	56.75
March 2000	100.0	70.00	83.86

On 14 April 2000, the last reported sale price on such date was \$65.

## NET PROCEEDS AND COSTS OF THE PLACING

The net proceeds receivable by the Company from the issue of the Subscription Shares in the Placing are estimated to be US\$56,400,000 net of all underwriting commissions and discounts equal to \$3,600,000 but before expenses payable by the Company estimated to be \$900,000 before stamp duty and SDRT.

The net proceeds receivable by the Selling Shareholders from the sale of the Sale Shares are estimated to be US\$18,800,000 net of all underwriting commissions and discounts equal to \$1,200,000.

#### Use of Proceeds

Approximately two-thirds (\$37 million) of the net proceeds of the Placing will be used primarily to finance and install new production equipment. The balance (\$19 million) will be used for working capital requirements and may also be used to help funding requirements for joint ventures and acquisitions.

#### Lock Up

Each of the Locked Shareholders will agree prior to Admission, that until the date which falls 6 months after the date of Admission he/it will not without the prior written consent of the Joint Lead Managers, transfer or otherwise dispose of, either directly or indirectly, any Ordinary Shares held by him/it on Admission or publicly announce an intention to do any of the foregoing. The Company will agree in the Placing Agreement that for one year following the date of the Placing Agreement, without the consent of the Joint Lead Managers, it will not sell, contract to sell, grant any option to purchase or issue any Ordinary Shares or any instrument or securities convertible into or exchangeable for, or otherwise dispose of any Ordinary Shares except pursuant to the Share Option Schemes or in connection with a share dividend.



#### **Annual General Meeting**

The Annual General Meeting of the Company will be held at Eversheds, Senator House, 85 Queen Victoria Street, London EC4V 4JL at 10.00 am on 12 May 2000. At this meeting and in addition to the ordinary business to be dealt with, a resolution will be proposed as special business at the AGM, which will be conditional upon the Placing being completed satisfactorily, in order to:

- (1) increase the authorised share capital of the Company;
- (2) authorise the Directors to allot the Subscription Shares and Ordinary Shares pursuant to the Over Allotment Option and otherwise pursuant to section 80 of the Act up to an aggregate nominal amount equal to the authorised but unissued share capital of the Company immediately following the Placing or one-third of the issued share capital of the Company immediately following the Placing whichever is the lower; and
- (3) to disapply the pre-emption provisions contained in section 89(1) of the Act in respect of the allotment and issue of equity securities in connection with the Placing and otherwise up to an amount equal to 5 per cent. of the issued share capital of the Company immediately following the Placing.

## Payment, Clearing and Settlement Agencies

Introduction

As at the date of these Listing Particulars, the Existing Ordinary Shares may be held either in certificated form, or in Euroclear or Clearstream in electronic form,

Following Admission, the Ordinary Shares may be held either in certificated form, or in electronic form, either through CREST or through Euroclear or Clearstream. Further details on CREST and Euroclear/Clearstream are set out below.

Transactions executed on EASDAQ may only be settled in electronic form in Euroclear or Clearstream. Transactions executed on the Official List may be settled either in electronic form in CREST or through the residual system involving share certificates and share transfer forms.

The Placing Shares will be issued by the Company or transferred by the relevant Selling Shareholder at the option of each subscriber therefor or purchaser thereof under the Placing ("Placee"):

- (i) to that Placee or its nominee(s), by delivery of one or more share certificates together with, in the case of a transfer of existing Ordinary Shares, a duly signed stock transfer form, to be held in certificated form; or
- (ii) to that Placee's or its nominee(s)'s CREST participant; or
- (iii) to that Placee's or its nominee(s)'s Euroclear or Clearstream participant.

It should be noted by potential Placees, as well as by all holders of Existing Ordinary Shares, that, for trading as well as settlement purposes, the Ordinary Shares will effectively constitute two separate lines of stock. Details of how transfers of Ordinary Shares may be made between CREST and Euroclear/Clearstream are set out below.

#### CREST

CREST is a paperless settlement procedure enabling securities to be evidenced otherwise than by certificate and transferred otherwise than by written instrument. CREST was introduced in July 1996. The Articles, which were adopted prior to the EASDAQ Admission, provide for the Ordinary Shares to be settled through CREST and the Company has made the Ordinary Shares eligible for settlement in CREST by means of a resolution of the Board dated 17 April 2000 as contemplated by the Uncertificated Securities Regulations 1995. The Directors will apply for the Ordinary Shares to be admitted to CREST with effect from Admission and CREST is expected to agree to such admission.



Accordingly, settlement of transactions in the Ordinary Shares following Admission may take place within the CREST system if the relevant shareholders so wish. CREST is a voluntary system and holders of Ordinary Shares who wish to receive and retain share certificates will be able to do so.

Each Placee who elects to hold Ordinary Shares in CREST must hold such shares through a CREST participant account. Initially, Placing Shares elected to be held in CREST will be issued to the Joint Lead Managers as CREST participants. Shares held through a CREST participant may be transferred within CREST to another person with the same or a different CREST participant or directly to any CREST participant.

For stamp duty considerations of transferring Ordinary Shares into, out of or within CREST, please refer to the section on Taxation on pages 104 to 105.

#### EUROCLEAR/CLEARSTREAM

The Euroclear and Clearstream operators provide Euroclear and Clearstream participants with, among other things, safekeeping, administration, clearance and settlement, securities' lending and borrowing and related services. Euroclear and Clearstream participants are investment banks, securities brokers and dealers, banks, central banks, supranationals, custodians, investment managers, corporations, trust companies and certain other organisations and include the Joint Lead Managers. In addition, shareholder notices (such as dates of shareholder meetings and annual reports) issued by the Company will be distributed to shareholders through Euroclear and Clearstream.

Non-participants of Euroclear and Clearstream may hold and transfer book-entry interests in securities through accounts with a direct participant of Euroclear and Clearstream or any other securities intermediary that holds a book-entry interest in the securities through one or more securities intermediaries standing between such other securities intermediary and the Euroclear and Clearstream operators.

Although the Euroclear and Clearstream operators have agreed to the procedures provided below in order to facilitate transfers of securities among participants of Euroclear and Clearstream and between Euroclear and Clearstream participants and participants of other intermediaries, they are under no obligation to perform or continue to perform such procedures and such procedures may be modified or discontinued at any time.

#### Initial distribution

Investors electing to acquire securities through an account with the Euroclear and Clearstream operators or another securities intermediary must follow the settlement procedures of such an intermediary with respect to the settlement of new issues of securities. Securities to be acquired against payment through an account with the Euroclear and Clearstream operators will be credited to the securities clearance accounts of the respective Euroclear and Clearstream participants in the securities processing cycle for the business day following the settlement date for value as of the settlement date, if against payment.

#### Secondary market

Investors electing to acquire, hold or transfer securities through an account with the Euroclear and Clearstream operators or another securities intermediary must follow the settlement procedures of such an intermediary with respect to the settlement of secondary market transactions in securities.

Investors who are participants of Euroclear or Clearstream may acquire, hold or transfer interests in the securities by book-entry to accounts with the Euroclear or Clearstream operators. Investors who are not participants of Euroclear or Clearstream may acquire, hold or transfer interests in the securities by book-entry to accounts with a securities intermediary who holds a book-entry interest in the securities through accounts with Euroclear or Clearstream.



Each Placee who elects to hold Ordinary Shares in Euroclear or Clearstream must hold such shares through a Euroclear or Clearstream participant account. Initially, Placing Shares elected to be held in Euroclear or Clearstream will be issued to the Joint Lead Managers as Euroclear or Clearstream participants.

Shares held through a Euroclear or Clearstream participant may be transferred within Euroclear or Clearstream to another person with the same or a different Euroclear or Clearstream participant or even directly to a Euroclear or Clearstream participant.

For stamp duty considerations of transferring Ordinary Shares into, out of or within Euroclear or Clearstream, please refer to the section on Taxation on pages 104 to 105.

#### Transfers between CREST and Euroclear/Clearstream

At the date of this document, shares deposited with Euroclear or Clearstream may only be transferred to CREST and shares deposited with CREST may only be transferred to Euroclear or Clearstream in certificated form.

However, shares deposited with CREST for the account of Euroclear may be transferred in electronic form either (i) between different CREST participants, using the CREST system or (ii) between individuals within the Euroclear account, using the Euroclear or Clearstream system.

For stamp duty considerations of transferring Ordinary Shares between the Euroclear, Clearstream and CREST systems, please refer to the section on Taxation on pages 104 to 105.



#### PART B

## RISK FACTORS OF THE GROUP

An investment in the Ordinary Shares involves certain risks. Prior to making any investment decision, prospective purchasers of Ordinary Shares should consider carefully all of the information set forth in these Listing Particulars and, in particular, the risks described below.

## LIMITED OPERATING HISTORY AS AN INTEGRATED GROUP

Although the Company's main operating subsidiaries, EPI and QED, have both been trading since 1989, the Group was only formed by the Merger in May 1999. Although the Board believes that the integration of the two businesses has been proceeding without material interruption, any failure of the Company to manage the integration of its operating subsidiaries effectively could have a material adverse effect on the Group's business, financial condition and results of operations. See Part A "Information on the Group – Introduction and Summary."

## FACTORS AFFECTING OPERATING RESULTS: POTENTIAL FLUCTUATIONS IN RESULTS

Fluctuations in the Group's operating results have resulted in the past and may result in the future from the timing, quantity and pricing of orders, scheduled and unscheduled maintenance, variations in manufacturing yields, product mix, timing and scale of tax payments, currency exchange rates and other factors, many of which are beyond the Group's control. See "Summary Financial Information" and Part C "Financial Information relating to the Group and Part D "Management Discussion and Analysis of Financial Condition and Results of Operations".

Factors which could cause the Group's operating results to fluctuate which relate to its internal operations include:

- the need for continual, rapid new product introductions;
- changes in the Group's product mix;
- the Group's inability to adjust its fixed costs in the face of any declines in sales;
- the availability of production capacity and fluctuations in the manufacturing yields at the Group's facilities;
- the timing and duration of routine shut down of reactors for cleaning and maintenance; and
- any unplanned shut down of the Group's production equipment.

Factors which could cause the Group's operating results to fluctuate which are influenced by its suppliers and customers include:

- the timing of significant product orders, order cancellations and reschedulings;
- the availability of production capacity and fluctuations in the manufacturing yields at third parties' facilities which manufacture devices incorporating the Group's products; and
- the cost of raw materials and manufacturing equipment from suppliers.

Factors which could cause the Company's operating results to fluctuate which are industry risks include:

- intense competitive pricing pressures; and
- emergence of new and competing technologies.



Typically, customers require a short lead time for the delivery of epitaxial wafers as they themselves react to their customer demands, making it difficult for the Group to accurately predict the precise demand for epiwafers in any given period of time. In addition, some of the Group's customers keep a sizeable inventory and may periodically reduce, postpone or cancel orders given their own supply and demand situation. These factors may be more pronounced since the Group has generally not entered into long-term contracts with its customers. See Part A "Information on the Group – Customers". A significant proportion of the Group's costs, however, are fixed. Therefore, the factors affecting revenues referred to above could cause fluctuations in the Group's operating results. In addition, the timing of increases in some fixed expenses is based in large part on the Group's forecast future revenues. If such revenues do not meet the Group's expectations, the Group may be unable to quickly adjust expenses to appropriate levels for actual revenues, which could have a material adverse effect on the Group's business, financial condition and results of operations.

## SUBSTANTIAL CAPITAL EXPENDITURES: CONTINUING CAPITAL REQUIREMENTS

To meet the anticipated market demand for MOVPE and MBE wafers, the Group plans to purchase additional multi-wafer MOVPE and MBE systems and related equipment in 2000 and beyond. See "Part D – Management Discussion and Analysis of Financial Condition and Results of Operations" and Part A "Information on the Group – Facilities and Equipment" and "The Group Strategy." This equipment acquisition and the related increase in staffing will increase fixed costs and may adversely affect the Group's short term operating results prior to the realisation of anticipated future benefits of such increased capacity. If the anticipated market demand for the Group's MOVPE and MBE products does not occur, or if the revenues do not increase sufficiently to cover the additional costs of expansion, the Group's business, financial condition and results of operations may be materially adversely affected.

Investments in new technology or sales growth, whether organically or through acquisition, beyond currently planned capacity would require further expenditure. If this arises the Group may issue additional capital in connection with such expansion. There can be no assurance that additional capital will be available at the appropriate time on acceptable terms, if at all. If additional equity securities are issued, dilution of the Company's then existing shareholders may result.

#### PRODUCTION SYSTEM COMPLEXITY

The design and operation of MOVPE and MBE systems is extremely complex and requires highly trained and experienced technicians and engineers to operate and maintain them in good working order. The introduction or redesign of production systems by the equipment suppliers has historically resulted in unanticipated problems associated with new and unproven designs. Although equipment suppliers have continually improved their product introductions, and the Group plans to balance its equipment purchasing in future between new technology and new designs in order to continue to improve production throughout, there can be no assurance that delays will not occur due to equipment design problems. Such delays may substantially affect the Group's operations and subsequent delays in the delivery of wafers to customers may have a material adverse impact on the Group's business, financial condition and results of operations.

The Group's manufacturing processes are highly complex, require advanced and costly equipment and are continuously being modified in an effort to improve yields and product performance. Impurities or other difficulties in the manufacturing process can lower yields. The Group's manufacturing efficiency will be an important factor in its future profitability, and there is no assurance that the Group will be able to maintain manufacturing efficiency to the same extent as the Group's competitors.

In addition, as is common in the semiconductor industry, the Group has from time to time experienced difficulty in commencing production at new facilities or on new equipment, in effecting transitions to new manufacturing processes. As a consequence, the Group has suffered delays in product deliveries or reduced yields. The Group may experience manufacturing problems in achieving acceptable yields or experience product delivery delays in the future as a result of, among other things, capacity constraints, construction delays, upgrading or expanding existing facilities or changing the Group's technologies, any of which could result in a loss of future revenues. The Group's operating results



could also be materially adversely affected by the increase in fixed costs and operating expenses related to increases in production capacity if revenues do not increase proportionately. See Part A "Information on the Group – Facilities and Equipment."

## SUBSTANTIAL RELIANCE ON KEY CUSTOMERS

The Group's customer base has been and continues to be highly concentrated. For the years ended 31 December 1997, 1998 and 1999, the five largest customers accounted for approximately 36 per cent., 44 per cent. and 48 per cent. respectively of the Group's total revenues and the ten largest customers accounted for approximately 52 per cent., 58 per cent. and 59 per cent. respectively of the Group's total revenues in each such period. Generally, the Group does not have long term or other non-cancellable commitments from customers to purchase its products, although based upon historical results and the long term relationships with customers, the Board believes a substantial proportion of its revenues will continue to be derived from sales to the Group's largest customers. There can be no assurance that the Group's current customers will continue to place orders with the Group or that the Group will be able to obtain or complete new orders from new customers. The loss of any one or more significant customers could have a material adverse effect on the Group's business, financial condition and results of operations. See Part A "Information on the Group - Customers."

## COMPETITION

The market for the Group's products is highly competitive and has been characterised by rapid and significant technological advances. In connection with the production of the Group's epitaxial wafers by MOVPE and MBE for the compound semiconductor device market, the Group competes with both merchant suppliers (some of whom are also device manufacturers) and the in-house capabilities of device manufacturers. Many of these competitors have substantially greater financial, research and development, manufacturing and technical resources than the Group. There can be no assurance that the Group's competitors will not succeed in developing technologies or operating methodologies that are more effective or less costly than the Group's. Device manufacturers may themselves invest in manufacturing capacity, which may reduce the orders placed with the Group. To remain competitive, the Group will continue to invest in leading edge production systems and technologies, research and development, sales and marketing and state of the art manufacturing methodologies. There can be no assurance, however, that the Group will be successful in such efforts. See Part A "Information on the Group – Competition".

The Board believes that the primary competitive factors in the market in which the Group competes are, and will continue to be, price, quality, product range, confidentiality, reliability, technical capability and support, customer service and reliability of delivery and the ability to combine these to provide a comprehensive one-stop epiwafer service. There can be no assurance that other competitors will not be able to provide a more competitive service or that customers will not choose a different business model with which to meet their epiwafer needs. See Part A "Information on the Group – the IQE Group Solution", "Group Strategy" and "Competition."

## ADOPTION OF TECHNOLOGY

MOVPE and MBE are two of several competing technologies used to produce compound semiconductor epiwafers. The Group believes that the use of and availability of both technologies to it gives it performance advantages over other competitors but there can be no assurance that other technologies will not develop further and diminish the performance or cost advantages of MOVPE and MBE or that end product manufacturers will continue to require the performance levels currently obtainable only by using wafers produced using the MOVPE or MBE technologies. See Part A "Information on the Group – Group Strategy" "Products" and "Industry Overview."

## DEPENDENCE ON A LIMITED NUMBER OF EQUIPMENT MANUFACTURERS

There are few manufacturers of MOVPE and MBE wafer manufacturing systems. The increased demand for MOVPE and MBE systems could increase future costs of such systems and cause delays in increasing capacity to meet customer demand. Based on the Group's experience, the time from the



ordering of a new system until installation, testing and qualification are complete can be as long as one year. There can be no assurance that this order lead time will not increase in the future or that system vendors will deliver in a timely manner. Although the Group has tried to mitigate against some of the effects of these factors by entering into long term supplier arrangements with its equipment suppliers, the existence of these factors could have a material adverse effect on the Group's business, financial condition and results of operations. See Part A "Information on the Group – Raw Material Suppliers and Supply Chain."

## DEPENDENCE ON OUTSOURCING BY MAJOR PRODUCERS

Market research indicates a trend towards outsourcing of capacity by large compound semi conductor component manufacturers. If the outsourcing trend does not continue or is interupted in any way, this could have a material adverse effect on the Group's business model.

#### LENGTH OF QUALIFICATION PERIOD

Prior to placing production orders for epiwafers with the Group, customers first qualify the Group's wafer products by making devices and testing the electrical optical and reliability performance of these devices. The qualification process may involve several cycles of qualification. Consequently, the qualification period is highly variable depending on the device being manufactured by the customer and its application, on the number of cycles demanded by the customer and on any changes the customer may require during the qualification period. There can be no assurance therefore on the length of the qualification period, nor can there be any assurance that the qualification will be successful, nor can there be any assurance that once qualified, the Group will receive any production orders for wafers. Any of the aforementioned issues arising out of qualification could have a material adverse effect on the Group's business.

#### DEPENDENCE ON KEY MATERIALS

The Group manufactures its epiwafer products on GaAs and InP substrates which are supplied by a limited number of suppliers. In addition, the Group is heavily dependent on a limited number of suppliers for the provision of its metal organic chemicals, hydride gas and gallium, indium and other raw materials.

The Group's epiwafer products are also heavily reliant on the purity of its raw material supplies, since a very small level of impurities entering the growth chamber in either of the MOVPE or MBE processes can adversely affect the epiwafer quality and characteristics.

Although the Group has a number of supply agreements in place with its raw material suppliers, together with well defined purchase specifications, and works very closely with each of its key suppliers, there can be no assurance that the stability of supply can be maintained, nor that the supplies will continue to meet the requisite level of purity in their raw materials demanded by the process. Any disruptions to supply could materially adversely affect the Group's ability to continue routine production with a potentially material adverse affect on the Group's revenues. See Part A "Information on the Group – Raw Material Suppliers and Supply Chain"

In connection with some of these supply agreements, the Group has agreed to acquire certain raw materials exclusively from one supplier at a fixed price provided such supplier can meet such requirements. If other less expensive sources of supply emerge, the Group may be at a competitive disadvantage to some customers and, as a consequence, operations may be materially adversely affected.

## DEPENDENCE ON KEY PERSONNEL

The Group's continued success depends to a significant degree on the continued service of its founders, Dr Andrew Nelson (Executive Chairman and Chief Executive Officer), Mr Thomas Hierl (Chief Technical Officer), Mr Scott Massie (Chief Operating Officer) and Dr Michael Scott (Sales and Marketing Director), as well as certain of its senior managers and technical personnel. The loss of service of one or more of these key employees could materially and adversely affect the business of the Group and its future prospects. The Group relies on employing highly qualified technical personnel who



are in short supply. The Group's ability to recruit, motivate and retain highly qualified technical personnel will be important to help grow the Group's revenues. There can be no assurance that the Group will be able to attract, motivate and retain such personnel, given the high degree of competition for such expertise in the marketplace. Although the Group relies on contractual non-compete agreements with its employees, if such agreements were breached or found to be unenforceable, the Group's prospects could be materially adversely affected. See Part A "Information on the Group – Directors and Senior Management."

## MANAGEMENT OF GROWTH AND EXPANSION

The Group has experienced substantial growth and expanded operations during the past five years. This growth has placed significant and increasing demands on the Group's management, operational, technical and financial resources. The Group expects both organic growth and growth by acquisitions to occur. Both of the MOVPE and MBE production processes are leading edge technologies and as such the continued growth of the Group may continue to challenge its senior management, as well as its technical and manufacturing personnel. The Group's ability to support any growth of its business will be substantially dependent upon, among other things, continued development of financial and management controls and information technology systems, increased marketing activities, increased project management activity, timely availability of country specific versions of its products and the hiring and training of new personnel. There can be no assurance that the Group will be able to manage its recent or any future expansion successfully and any inability to do so could have a material adverse effect on the Group. See Part A "Information on the Group – Group Strategy."

There can be no assurance that the Group will be successful in expanding its organisation, or find suitable acquisition candidates or manage effectively an increased level of operations or the integration of acquired businesses.

## CENTRALISATION OF MANUFACTURING FACILITIES

The Group manufactures all of its MOVPE products at its facility in St Mellons, Cardiff, UK, and all of its MBE products at its facility in Bethlehem, Pennsylvania, US. Due to the centralisation of its manufacturing equipment for each of the processes, the Group is susceptible to business interruptions resulting from power outages, natural disasters, equipment failure, work stoppages and other localised conditions. The Company may not have adequate disaster recovery plans in the event of such business interruptions. Prolonged business interruption could have a material adverse effect on the Group's business, financial condition and results of operations. See Part A "Information on the Group – the IQE Group Solution" and "Facilities and Equipment."

## Environmental Regulations and Other Governmental Regulations.

The Group is subject to certain Environmental Laws and other obligations concerning the use, storage, handling, generation, treatment, emission, management, release, discharge and disposal and, in certain circumstances, remediation of certain Hazardous Materials used in the production and research and development of the Group's products. In addition, there are further regulations concerning remediation and employee health and safety which affect the Group.

There can be no absolute assurance that the Group's extensive control systems will be successful in preventing the release of these materials or other adverse environmental conditions. Any such release or other failure to comply with current or future environmental regulations could result in the imposition of significant fines on the Group, the suspension of production or to a lesser extent a cessation of operations. Moreover, certain Environmental Laws hold current and former owners and/or operators of land or businesses liable for their own and previous owner's or occupant's releases of Hazardous Materials, subject to certain defences. Because of the prior use of the US facility for the production of steel, the US facility has the potential to be affected by such releases and accordingly the Group may be affected by such liability provisions of such Environmental Laws. With regard to the US facility, the Group is indemnified by the landlord for losses arising from environmental impacts caused



by prior occupants. However, there can be no assurance that no environmental conditions which require remedial activities exist on the portion of the property utilized by the Group, or whether such remedial activities, if required, would materially impact the Group's operations.

Accordingly, the nature of the Group's ongoing operations exposes it to the risk of liabilities or claims with respect to environmental matters, including those relating to on- and off-site disposal and releases of hazardous materials and there can be no assurance that material costs will not be incurred in connection with these liabilities or claims.

Based on the Group's experience, the Board believes that the future cost of compliance with existing environmental and health and safety laws and regulations (and liability for known environmental conditions) will not have a material adverse effect on the Group's business, financial condition or results of operations. However, the Board cannot predict:

- what environmental or health and safety legislation or regulations will be enacted in the future;
- how existing or future laws or regulations will be enforced, administered or interpreted; or
- the amount of future expenditures which may be required to comply with these environmental or health and safety laws or regulations or to respond to future cleanup matters or other environmental claims. See Part A "Information on the Group Environmental Regulations."

## LIMITED PROTECTION OF PROPRIETARY TECHNOLOGY: RISKS OF INFRINGEMENT

The Group seeks to protect its technology, proprietary rights and other written materials principally under trade secret and copyright laws, which afford only limited protection. The Group does not have any patents on its proprietary technology, although it routinely enters into non-disclosure, non-compete and confidentiality agreements with employees, contractors, consultants and customers. Despite the Group's efforts to protect its proprietary rights, unauthorised parties may attempt to utilise aspects of its technology or to obtain and use information which the Group regards as proprietary. There can be no assurance that the Group's means of protecting its proprietary rights will be adequate or that the Group's competitors will not independently develop similar technology. In addition, the laws of some countries do not protect the Group's proprietary rights to as great an extent as the laws of either the UK or the US. See Part A "Information on the Group – Proprietary Information."

Vigorous protection and pursuit of intellectual property rights or positions characterise the semiconductor industry. This vigour and pursuit have resulted in significant and often protracted and expensive litigation. From time to time the Group has been and in the future may be notified of claims that it may be infringing third party patents or other intellectual property rights. In response to these claims or otherwise, the Group may seek licenses to use patents, software or other intellectual property rights. However, the Group cannot be certain that it will obtain these licenses or that the terms of any offered licenses will be acceptable to it. Any acquisition or license could require expenditure of substantial time and other resources. The Group's failure to obtain a license from a third party for technology which it uses could cause us to incur substantial liabilities and to suspend the manufacture or shipment of products or its use of processes requiring the technology. In addition, any litigation asserted against the Group could result in significant expense to the Group adversely affecting sales of the challenged product or technology and diverting the efforts of its technical and management personnel, whether or not the litigation is determined in its favour. In the event of an adverse outcome in any litigation, the Group may be required to:

- pay substantial damages and incur significant attorney's fees;
- cease the manufacture, use, sale or importation of infringing products;
- expend significant resources to develop or acquire non-infringing technology;
- discontinue the use of some processes; and/or



obtain licenses to intellectual property covering the infringing technology.

## **CURRENCY FLUCTUATIONS**

The Group sells its products in many parts of the world and, as a result, the Group's business is affected by fluctuations in currency exchange rates. The Group generates a significant percentage of its revenues, and a lower percentage of its operating expenses, in currencies other than pounds sterling, particularly the US dollar. The Group's operating profitability could be materially adversely affected by large fluctuations in the rate of exchange between pounds sterling and such other currencies. The Group engages in foreign exchange hedging activities when it deems it necessary to hedge against fluctuations in the exchange rates of the principal foreign currencies in which its receivables are denominated (in particular, the US dollar), but there can be no assurance that such hedging activities will continue or will limit the impact of movements in exchange rates upon the Group's results of operations. See Part D "Management Discussion and Analysis of Financial Conditions and Results of Operations."

## INTERNATIONAL OPERATIONS

The Group cannot be certain to what extent its future operations and earnings may be adversely affected by the risks related to or any other problems arising from operating in international markets. It has significant operations in the US and the UK and generates approximately 95 per cent of its revenue from outside the UK. Risks inherent in doing business on an international level include:

- unexpected changes in the laws and policies of the US and the UK and of the countries in which the Group manufactures and sells its products;
- economic and political instability;
- trade restrictions; and
- foreign currency fluctuations.

## INFLUENCE OF PRINCIPAL SHAREHOLDERS

Upon completion of the Placing, certain Directors (and their related trusts), senior management and employees of the Group and NEPA will own, directly or indirectly, more than 50 per cent. of the then issued Ordinary Shares. See Part D "General Information – Directors and others interest in the Company." In addition, certain of the Group's employees will be entitled to subscribe for Ordinary Shares pursuant to the Share Option Schemes. See Part D "General Information – Share Option Schemes." As a result, if these shareholders were to act in concert they would be in a position to control the outcome of matters submitted for shareholder consideration, including the appointment of the Company's board of directors and the approval of significant change-in-control transactions. In addition, this control may have the effect of making certain transactions more difficult without the support of the Directors and may have the effect of delaying or preventing a takeover bid or other change in control of the Company.

## TRADING MARKET FOR THE ORDINARY SHARES

The market price of the Ordinary Shares may be subject to wide fluctuations in response to many factors, including variations in the operating results of the Group, variations in industry growth rates, actual or anticipated announcements of technical innovations or new products or product enhancements by the Group or its competitors, general economic conditions in the semiconductor industry, divergence in financial results from analysts' expectations, changes in earnings estimates by stock market analysts and other events and factors. In addition, international stock markets have from time to time experienced extreme price and volume fluctuations, which have affected the market prices of securities, particularly those of high technology and emerging growth companies, and which often have been unrelated to the operating performance of the specific companies. These broad market fluctuations, as well as general economic and political conditions, could adversely affect the market price of the Ordinary Shares. See "EASDAQ Trading History".



## Adverse Effect of Future Sales of Ordinary Shares

Sales, or the possibility of sales, of substantial numbers of Ordinary Shares in the public market following the Placing could have an adverse effect on the market trading prices of the Ordinary Shares. See Part D "General Information – Directors and other Interests in the Company."

In addition, Ordinary Shares are reserved for issue pursuant to the Share Option Schemes. If some or all of these unissued Ordinary Shares are issued, it could have a material adverse effect on the market price of the Ordinary Shares. See Part D "General Information – Share Capital" and "Share Option Schemes."



#### PART C

## ACCOUNTANTS' REPORT ON THE GROUP

Deloitte & Touche Blenheim House Fitzalan Court Newport Road Cardiff CF24 OTS

Deloitte & Touche

The Directors IQE plc Cypress Drive St Mellons Cardiff CF3 0EG

The Directors
Lehman Brothers International (Europe)
One Broadgate
London EC2M 7HA

and

The Directors
Beeson Gregory Limited
The Registry
Royal Mint Court
London EC3N 4LB
as Joint Lead Managers

18 April 2000

Dear Sirs

IQE PLC ("THE COMPANY" OR "IQE") AND ITS SUBSIDIARIES (TOGETHER "THE GROUP")

We report on the financial information set out below. This financial information has been prepared for inclusion in the Listing Particulars of the Company dated 18 April 2000.

## BASIS OF PREPARATION

The financial information set out on pages 53 to 79 is based on the audited financial statements of those companies which comprise the Group at the date of the Listing Particulars, namely EPI Holdings Limited ("EPIH"), Epitaxial Products International Limited ("EPI"), Epitaxial Products, Inc. ("EPI Inc") and IQE, Inc. (formerly Quantum Expitaxial Designs, Inc. - "QED") for the two years ended 31 December 1998 and on the audited consolidated financial statements of the Group for the year ended 31 December 1999. It has been prepared on the basis set out in note 1 on page 58 after making such adjustments as we considered necessary.

IQE was incorporated on 1 April 1999 and acquired the entire issued share capital of EPIH on 16 May 1999. On 3 May 1999 IQE and EQ Compounds, Inc. (a US Company and wholly owned subsidiary of IQE formed for the purpose of effecting the merger) entered into an agreement with QED resulting in a



merger between EQ Compounds, Inc. and QED. On completion of the merger QED became a 100 per cent. subsidiary of IQE and EQ Compounds, Inc. expired. Prior to the acquisitions, IQE had not traded. There are no audited financial statements for IQE for the two years ended 31 December 1998.

#### RESPONSIBILITY

Such financial statements are the responsibility of the directors of the relevant companies who approved their issue.

The directors of the Company are responsible for the contents of the Listing Particulars dated 18 April 2000 within which this report is included.

It is our responsibility to compile the financial information set out in our report from the financial statements, to form an opinion on the financial information and to report our opinion to you.

#### BASIS OF OPINION

We conducted our work in accordance with the Statements of Investment Circular Reporting Standards issued by the Auditing Practices Board. Our work included an assessment of evidence relevant to the amounts and disclosures in the financial information. The evidence included that previously obtained by us relating to the audit of EPIH in the UK and its subsidiary in the US and that recorded by the auditors who audited the financial statements underlying the financial information of the other companies prior to our appointment as auditors or which only became a part of the Group during the three year period noted above. It also included an assessment of significant estimates and judgements made by those responsible for the preparation of the financial statements underlying the financial information and whether the accounting policies are appropriate to the entity's circumstances, consistently applied and adequately disclosed.

We planned and performed our work so as to obtain all the information and explanations which we considered necessary in order to provide us with sufficient evidence to give reasonable assurance that the financial information is free from material misstatement whether caused by fraud or other irregularity or error.

#### **OPINION**

In our opinion, the financial information set out below gives, for the purposes of the Listing Particulars dated 18 April 2000, a true and fair view of the state of affairs of the Group as at the dates stated and of its profits and losses, cash flows and recognised gains and losses for the periods then ended.



## CONSOLIDATED PROFIT AND LOSS ACCOUNT

		Year ended 31 December		
	Notes	1997 £'000	1998 £'000	1999 £'000
Turnover: continuing operations Cost of sales	2	11,969 (8,254)	15,856 (10,170)	19,043 (12,558)
Gross profit		3,715	5,686	6,485
Administration and distribution costs: Exceptional items Research and development Other administration and distribution costs	3	(299) (1,463) (2,308)	(1,529) (3,032)	(171) (1,302) (3,803)
Other operating in some		(4,070)	<u>(4,561)</u>	(5,276)
Other operating income		2	45	74
Operating profit/(loss): continuing operations Interest receivable Interest payable	4	(353)	1,170 17	1,283 327
	3,7	(342)	(405)	(917)
Profit/(loss) on ordinary activities before taxation Tax on profit/(loss) on ordinary activities	8	(676) (178)	782 (230)	693 149
(Loss)/profit on ordinary activities after taxation Dividends	9	(854)	552 (140)	842
Profit/(loss) retained for the financial year	19	(854)	412	842
Undiluted profit/(loss) per Ordinary Share Diluted profit/(loss) per Ordinary Share	10 10	(8.2)p (7.7)p	5.3p 5.0p	6.3p 5.9p

For the years ended 31 December 1997 and 1998, and the period to 19 May 1999 QED had elected to be treated as an "S" Corporation and as such the tax charge for these periods does not reflect any charge on the profits of this company (see note 8), but does include deferred tax charges/credits in respect of this company.

See note 30 for a split of the above consolidated profit and loss account between EPIH, QED and IQE.

## STATEMENT OF TOTAL RECOGNISED GAINS AND LOSSES

	Year ended 31 December			
	1997	1998	1999	
	£'000	£'000	£'000	
Profit/(loss) retained for the financial year	(854)	412	842	
Currency translation differences	41	1	96	
Total recognised gains and losses relating to period	(813)	413	938	



## RECONCILIATION OF MOVEMENTS IN SHAREHOLDERS' FUNDS

	Year ended 31 December		
	1997	1998	1999
	£'000	£'000	£'000
Total recognised gains and losses	(813)	413	938
New shares issued		201	20,440
Cost of shares issued	*****		(1,214)
Adjustment in respect of further share capital issued by subsidiary			155
Total movements during the year	(813)	614	20,319
Shareholders' funds at 1 January	830	17	631
Shareholders' funds at 31 December	17	631	20,950

The total of shareholders' funds relates to equity interests.

## CONSOLIDATED BALANCE SHEET

<del></del>		As at 31 December		
		1997	1998	1999
Note	'S	£'000	£'000	£'000
Fixed assets				
Tangible fixed assets 1	1	4,968	5,498	11,483
Current assets				
Stocks 1:	2	1,309	1,591	2,573
Debtors 1	3	2,013	2,759	7,743
Cash at bank		625	763	8,117
		3,947	5,113	18,433
Creditors: amounts falling due within one year	4	(3,472)	(4,835)	(4,518)
Net current assets		475	278	13,915
Total assets less current liabilities		5,443	5,776	25,398
Creditors: amounts falling due after more than one year				
Convertible loans 1	5	(1,273)	(1,265)	_
Other creditors 1		(3,691)	(3,403)	(4,024)
Provisions for liabilities and charges 1	7	(419)	(467)	(331)
Deferred income	_	(43)	(10)	(93)
Net assets	_	17	631	20,950
Capital and reserves		• .		
Called up share capital 1	8	1,040	1,040	1,359
Share premium 1	9			18,907
Profit and loss account 1		27	439	1,281
Merger reserve 1		(961)	(760)	(605)
Other reserves 1	9 _	(89)	(88)	8
Total equity shareholders' funds	=	17	631	20,950

See note 30 for a split of the above between the EPIH, QED and IQE.



## CONSOLIDATED CASH FLOW STATEMENT

	Year ended 31 December			ember
		1997	1998	1999
	Notes	£'000	£'000	£'000
Net cash inflow/(outflow) from operating activities	24	1,490	3,558	(2,740)
Returns on investments and servicing of finance Interest paid Interest received		(354) 19	(336)	(917) 327
Net cash outflow from returns on investments		(335)	(336)	(590)
Capital expenditure and financial investment Payment to acquire tangible fixed assets Proceeds from sale of tangible fixed assets		(1,450)	(1,988)	(9,416) 2,127
Net cash outflow from capital and financial investment		(1,450)	(1,988)	(7,289)
Equity Dividend Paid Tax paid		(174)	(140) (123)	(282)
Net cash (outflow)/inflow before financing		(469)	971	(10,901)
Issue of ordinary share capital New loans received Repayment of loans Capital element of finance lease payments	25 25 25	2,195 (703)	184 3,807 (4,642)	19,381 2,908 (3,587) (25)
Net cash inflow/(outflow) from financing	•	1,492	(651)	18,677
Increase in cash	25, 26	1,023	320	7,776



#### NOTES TO THE FINANCIAL INFORMATION

#### 1. Accounting Policies

The financial information is prepared in accordance with applicable accounting standards under UK GAAP. The particular accounting policies adopted are described below.

#### Accounting convention

The financial information is prepared under the historical cost convention and in accordance with applicable accounting standards, which have been applied on a consistent basis during the period under review.

#### Turnover

Turnover represents amount invoiced, exclusive of value added taxation.

#### Tangible fixed assets

Tangible fixed assets are stated at cost less accumulated depreciation.

Depreciation has been calculated so as to write down the cost of assets to their residual values over the following estimated useful economic lives.

Short leasehold improvements - 5-27 years
Plant and machinery - 5-7 years
Fixtures and fittings - 4-5 years
Motor vehicles - 4 years
Freehold land and buildings - 25 years

No depreciation is provided on assets in the course of construction.

#### Basis of consolidation

The financial information consolidates the financial information of the Company and all of its subsidiaries.

The acquisition of EPIH and QED by the Company, a new holding company established for that purpose, on 16 May 1999 and 20 May 1999 respectively has been accounted for under merger accounting, whereby the financial information is disclosed as if the companies had always been part of the Group.

#### Goodwill

On the acquisition of a business, fair values are attributed to the Group's share of the net tangible assets acquired. Where the cost of acquisition exceeds the values attributable to such net assets, the difference is treated as purchased goodwill and is written off directly to reserves in the year of acquisition. Following the issue of Financial Reporting Standard 10, goodwill arising in accounting periods ending in or after 23 December 1998 must be classified as an asset on the balance sheet and amortised over its useful life. No such goodwill arose in either 1998 or 1999.

#### Stocks

Stocks are stated at the lower of cost and net realisable value.

#### Research and development

Research and development expenditure is fully written off when incurred.

#### Foreign currencies

Transactions in foreign currencies during the period are recorded in sterling at the rates of exchange ruling at the date of the transaction. Monetary assets and liabilities in foreign currencies are translated into sterling at the rates ruling at the balance sheet date. All exchange differences are taken to the profit and loss account.



The balance sheets of QED are translated into sterling at the closing rates of exchange for each year whilst the profit and loss accounts are translated into sterling at the average rates of exchange for the period. The resulting translation differences are taken direct to reserves.

#### Pension costs

The Group operates defined contribution pension schemes. Contributions are charged in the profit and loss account as they become payable in accordance with the rules of the schemes.

#### **Deferred taxation**

Deferred taxation is provided on timing differences, arising from the different treatment of items for accounting and taxation purposes, which are expected to reverse in the future without replacement, calculated at the rates at which it is expected that tax will arise.

#### Government grants

Government grants receivable in connection with expenditure on tangible fixed assets are accounted for as deferred income which is credited to the profit and loss account by instalments over the expected useful economic life of the related assets on a basis consistent with the depreciation policy.

Revenue grants for the reimbursement of costs incurred are deducted from the costs to which they related, in the period in which the costs are incurred.

#### Leases

Assets held under finance leases and hire purchase contracts are capitalised at their fair value on the inception of the leases and depreciated over the shorter of the period of the lease and the estimated useful economic lives of the assets. The finance charges are allocated over the period of the lease in proportion to the capital amount outstanding and are charged to the profit and loss account.

Rentals are charged to profit and loss in equal annual amounts over the lease term.

#### 2. Segmental Analysis

Analysis of class of business for turnover and for profit on ordinary activities before taxation have not been given as, in the opinion of the directors, the disclosure of this information would be seriously prejudicial to the interests of the group (Schedule 4, Part III, Section 55(5) Companies Act 1985 and Statement of Standard Accounting Practice Number 25).

#### 3. Exceptional Item

Included in administration and distribution costs are amounts totalling £298,546 in the year ended 31 December 1997 relating to the proposed NASDAQ flotation of QED which was subsequently aborted.

Included in administration and distribution costs are amounts totalling £171,138 in the year ended 31 December 1999 in respect of costs associated with the acquisition of EPIH and QED by the Company and the subsequent EASDAQ flotation. Included in interest payable in the year ended 31 December 1999 are amounts totalling £328,050 in respect of the early settlement of certain loans arising out of the acquisition of EPIH and QED by the Company and the subsequent EASDAQ flotation.



## Operating profit/(loss)

This is stated after charging/(crediting):

	Year ended 31 December		
	1997	1998	1999
	£'000	£'000	£'000
Depreciation of tangible fixed assets:			
owned assets	1,465	1,437	1,479
- leased assets		´ <del>_</del>	30
Auditors' remuneration			
– audit services	23	31	45
non-audit services	6	81	346
Operating lease rentals:			•
– plant and machinery	68	64	71
- other	202	195	133
Exchange gains	(2)	(45)	(74)
	11		
<b>Employee Information</b>			
	Year	ended 31 Dece	ember
	1007	****	***

## 5.

zimproj eo kinorimition			
	Year ended 31 December		
	1997	1998	1999
	£'000	£'000	£'000
Wages and salaries	3,302	3,927	5,104
Social security costs	526	653	813
Pension contributions	111	140	175
	3,939	4,720	6,092
	Yea	r ended 31 Ded	cember
	1997	1998	1999
	£'000	£'000	£'000
Average monthly number of persons employed by the Group			
during the period	136	155	197



#### 6. Directors' Remuneration

	Year ended 31 December		
	1997	1998	1999
	£'000	£'000	£'000
Dr Andrew Nelson			
Salary	70	72	79
Bonus	8	6	_
Benefits in kind	6	9	8
Pension	7	7	7
Dr Michael Scott			
Salary	66	67	73
Bonus	8	6	
Benefits in kind	5	9	12
Pension	6	7	7
Thomas Hierl			
Salary	93	116	115
Bonus	_		_
Benefits in kind	3	3	3
Pension	_		
Scott Massie			
Salary	60	63	81
Bonus	_	_	
Benefits in kind	3	3	3
Pension	_	***************************************	
	335	368	388

## At 31 December 1999 the following directors' share options were in existence:

				Number of			
				options 31			
	1 January			December	Exercise	Date from	Expiry
Director	1999	Granted	Exercised	1999	price	which exercisable	Date
S. Massie	13,444	_	_	13,444	\$0.507	2.3.96 to 2.3.99	2.3.05
S. Massie	20,166		(13,444)	6,722	\$0.72	1.1.97 to 1.1.00	1.1.06
S. Massie	33,610			33,610	\$1.75	24.10.98 to 24.10.01	24.10.07
S. Massie	67,220	***************************************		67,220	\$1.75	14.12.98 to 14.12.02	14.12.08
S. Massie		25,000	_	25,000	\$14.05	5.11.02	5.11.09

The above options are granted under a share option scheme adopted on 26 May 1999. The market value of the above options exercised during the year, on the date they were excercised (23 November 1999), was \$31 per share, resulting in a total gain of \$407,084.

## 7. Interest Payable

	Y	Year ended 31 December		
	1997	1998	1999	
	£'000	£'000	£'000	
Bank loans and overdrafts	342	405	917	



## 8. Tax on profit/(loss) on Ordinary Activities

	Year ended 31 December			
	1997	1998	1999	
	£'000	£'000	£'000	
UK corporation and deferred tax at 31.5%/31%/30%	107	239	258	
US deferred tax	71	(9)	(407)	
	178	230	(149)	
			P	

Prior to 19 May 1999, QED had been a corporation subject to taxation under Subchapter S of the Internal Revenue Code of 1986, as amended (an "S Corporation"). As a result, the net income of QED had been taxed, for federal and state income tax purposes directly to its shareholders rather than to QED. Accordingly, QED made distributions to its shareholders to cover the estimated income tax liabilities attributable on their proportional share of its taxable income. These distributions amounted to nil in 1997 to 1999.

QED terminated its S Corporation status on 19 May 1999, the date immediately prior to the date of its acquisition by the Company (the "Termination Date"). As a result of the termination of its S Corporation status, QED recorded a net deferred income tax liability and corresponding income tax expense (the "Deferred Tax Liability") of £407,210, effective upon the Termination Date. For the purposes of Part C, the Deferred Tax Liability that would have been recognised by QED for 1997 and 1998 had it not been an S Corporation has been provided for in the financial information.

The tax credit for the year ended 31 December 1999 arises from the release of the Deferred Tax Liability, which is no longer required.

#### 9. Dividends

	1997	1998	1999
	£'000	£'000	£'000
Dividends paid:			
EPIH – (4.67p per £1 Ordinary Shares)	***************************************	140	

The above dividends represent dividends paid by EPIH prior to its acquisition by the Company. These are included in the 1998 profit and loss account under the merger accounting provisions as explained in note 1 to the accounts.



## 10. Earnings per Ordinary Share

Basic earnings per share is calculated by dividing the earnings attributable to ordinary shareholders by the weighted average number of ordinary shares during the year. Diluted earnings per share is calculated by adjusting the weighted average number of ordinary shares in issue on the assumption of conversion of all dilutive potential ordinary shares.

	1997 £'000	1998 £'000	1999 £'000
Basic and diluted earnings attributable to ordinary shareholders	(854)	552	842
	No.	No.	No.
Weighted average number of ordinary shares Diluted share options	10,403,109 636,908	10,403,109 738,271	13,271,722 1,074,838
Adjusted weighted average number of ordinary shares	11,040,017	11,141,380	14,346,060
Earnings per share	(8.2p)	5.3p	6.3p
Diluted earnings per share	(7.7p)	5.0p	5.9p



12.

## 11. Tangible Fixed Assets

	Freehold	Short	F* 0	D1 . 0	Assets in the	
	land and	leasehold improvements	Fixtures & Fittings	Plant & machinery	course of construction	Total
	34444	£'000	£'000	£'000	£'000	£'000
Cost:						
At 1 January 1997	_	563	493	11,217	_	12,273
Additions Exchange difference		46 12	88 7	1,308 164	<u></u>	1,442
•						183
At 31 December 199 Additions	7 –	621	588	12,689	1.020	13,898
Exchange difference		15 (2)	230 (1)	717 (36)	1,029	1,991 (39)
At 31 December 199 Additions	8 — 2,358	634 133	817 587	13,370	1,029	15,850
Disposals	2,336	(21)	367	4,608 (2,127)	1,854	9,540 (2,148)
Transfers	220	(220)	11	2,339	(2,350)	(2,140)
Exchange difference		10	7	146		163
At 31 December 199	9 2,578	536	1,422	18,336	533	23,405
Depreciation						
At 1 January 1997		129	293	6,989		7,411
Charge for year		62	73	1,330	_	1,465
Exchange difference		1	2	51		54
At 31 December 199	7	192	368	8,370		8,930
Charge for year		65	78	1,294		1,437
Exchange difference	_	(1)	*********	(14)	—	(15)
At 31 December 199	8 —	256	446	9,650		10,352
Charge for year	55	73	170	1,211		1,509
Disposals	_	(21)	_		_	(21)
Transfers	87	(87)	5 5	(5)	_	
Exchange difference		3		74		82
At 31 December 199	9 142	=======================================	626	10,930		11,922
Net book value: At 31 December 199	7	420	220	4.210		4.060
	***************************************	429	<u>220</u>	4,319		4,968
At 31 December 199		378	371	3,720	1,029	5,498
At 31 December 1999	9 2,436	312		7,406	533	11,483
Stocks						
					31 December	
				1997	1998	1999
<b>15</b>				£'000	£'000	£'000
Raw materials Finished goods				1,220 89	1,384 207	2,239
ranished goods						334
				1,309	1,591	2,573



## 13. Debtors

10.	Dentois			
			31 December	
		1997	1998	1999
		£'000	£'000	£'000
	Trade debtors	1,852	2,283	3,045
	Other debtors and prepayments Corporation tax	161	476	4,565
	Corporation tax			133
		2,013	2,759	7,743
			THE TOTAL STREET	
14.	Creditors: amounts falling due within one year			
	•		31 December	
		1997	1998	1999
		£'000	£'000	£'000
	Bank loans and overdrafts	1,148	743	
	Other loans Trade creditors	300	_	504
	Corporation tax	1,277	2,657	3,115
	Other creditors including taxation and social security costs	106 63	162	111
	Accruals and deferred income	578	162 1,111	111 770
	Amounts due under hire purchase and finance leases	<i>576</i>	1,111	18
	•	2.470	4.00.5	
		3,472	4,835	4,518
15.	Chaditana amanuta f-111			
15.	Creditors: amounts falling due after more than one year			
		1007	31 December	****
		1997 £'000	1998 £'000	1999
	Bank loans			£'000
	Other loans	1,413 2,278	1,944 1,459	2 042
	Convertible loans	1,273	1,265	3,943
	Amounts due under hire purchase and finance leases			81
		4,964	1.669	
		4,904	4,668	4,024
16.	Borrowings			
200	20110 Hings	100-		
		1997	1998	1999
	Bank loans are repayable as follows:	£'000	£'000	£'000
	Within one year	542	221	
	Between one and two years	502	321 222	
	Between two and five years	911	667	
	Over five years		1,055	
		1,955	2,265	
		1,933	<u> </u>	
	Other loans and hire purchase are repayable as follows:			
	Within one year	300	<del>-</del>	522
	Between one and two years Between two and five years	438	1,506	472
	Over five years	2,113	1,218	1,657
	o .o. n.o jouro	1,000		1,895
		3,851	2,724	4,546

The bank loan was repaid in full during 1999.



Other loans comprise of a loan from 3i of £1,425,000, a loan from the WDA of £1,482,000 and a loan from Copelco of £1,540,000.

Interest is charged on the 3i loan at a rate equal to the bank rate and a margin of 2.5% per annum. The loan is repayable by 15 annual instalments of £95,000 commencing 28 February 2000, with a 6 monthly instalment on 31 August 2000. The loan is secured by a fixed and floating charge over the assets of the Company.

Interest is charged on the WDA loan at a maximum rate of 8.5% per annum. The loan is secured on the Company's property. The loan is repayable by 32 instalments, quarterly in arrears, commencing 10 October 2001.

Interest is charged on the Copelco loan at 10.86% per annum. The loan is secured on equipment. The loan is repayable by monthly instalments of \$63,924 per month with a final instalment in January 2003 of \$767,076.

Amounts due under hire purchase and finance leases are secured on the related assets.

## 17. Provisions for Liabilities and Charges

#### **Deferred** taxation

		Charged/		Charged/		Charged/	
	(	(credited)	(	(credited)	(	(credited)	
	At	to profit	At	to profit	At	to profit	At
	1 January	and loss	31 Dec.	and loss	31 Dec.	and loss	31 Dec.
	1997	account	1997	account	1998	account	1999
	£'000	£'000	£'000	£'000	£'000	£'000	£'000
UK deferred tax	21	(21)		60	60	271	331
Overseas deferred tax	336	83	419	(12)	407	(407)	
	357	62	419	48	467	(136)	331

The amounts of deferred taxation provided and unprovided in the accounts are as follows:

	Provided 31 December			Unprovided 31 December		
	1997	1998	1999	1997	1998	1999
	£'000	£'000	£'000	£'000	£'000	£'000
Capital allowances in excess of depreciation	419	467	331	_	_	_
• =						·····



## 18. Share Capital

	31 December			
	1997	1998	1999	
	£'000	£'000	£'000	
Authorised				
Ordinary shares of 10p each	1,550	1,550	1,900	
	No.	No.	No.	
Ordinary shares of 10p each	15,500,000	15,500,000	19,000,000	
	£'000	£'000	£'000	
Allotted, called up and fully paid	2 000	2 000	£ 000	
Ordinary shares of 10p each	1,040	1,040	1,359	
Ordinary shares of 10p each	No.	No.	No.	
Ordinary shares of Top each	10,403,109	10,403,109	13,595,517	

10,389,645 shares were issued during 1999 to acquire 100 per cent. of the ordinary share capital of Quantum Epitaxial Designs, Inc. and EPI Holdings Limited. The share capital of both companies was acquired at par, through a share-for-share exchange.

In the remainder of 1999, a further 3,205,872 shares were issued for cash at a total premium of £20,120,989.

Under the Company's share option scheme adopted on 26 May 1999, employees held options at 31 December 1999 for 1,074, 838 unissued ordinary shares as follows:

No. of shares	Option price/ share	Option period ending	No. of shares	Option price/ share	Option period ending	Total
17,221	\$0.153	21/05/2002	2,016	\$1,750	13/06/2008	
47,054	\$0.507	01/03/2005	1,008	\$1.750	28/06/2008	
6,722	\$0.720	31/12/2005	6,722	\$1.750	31/07/2008	
222,982	£0.100	31/12/2006	1,344	\$1.750	22/09/2008	
7,444	\$1.750	02/02/2007	672	\$1.750	03/10/2008	
10,083	\$1.750	13/04/2007	1,008	\$1.750	15/10/2008	
90,218	\$1.750	17/05/2007	67,220	\$1.750	13/12/2008	
33,610	\$1.750	23/10/2007	86,015	£0.100	31/12/2008	
69,544	£0.100	31/12/2007	6,722	\$2.470	24/01/2009	
10,083	\$1.750	03/04/2008	6,722	\$2.470	31/01/2009	
1,008	\$1.750	19/04/2008	60,153	\$2.470	14/03/2009	
8,821	\$1.750	25/05/2008	16,802	\$8.180	06/05/2009	
1,344	\$1.750	06/06/2008	292,300	\$14.050	05/11/2009	
526,134			548,704			1,074,838

During 1999 820,830 (1998 – 142,800; 1997 – 205,632) options were granted, 414,594 (1998 – nil; 1997 – nil) options were exercised and 69,669 (1998 – 41,437; 1997 – nil) options were cancelled.



#### 19. Movement on Reserves

	Share premium £'000	Merger reserve £'000	Foreign exchange translation £'000	Profit and loss account £'000
At 1 January 1997	_	(961)	(130)	881
Foreign exchange translation difference	_	_	41	
Loss for the year				(854)
At 31 December 1997		(961)	(89)	27
Foreign exchange translation difference		_	1	
Profit for the year	******	_	***************************************	412
Adjustment in respect of further share capital issued by QED		201	<u> </u>	
At 31 December 1998	_	(760)	(88)	439
Foreign exchange translation				
difference	***************************************		96	
Profit for the year			_	842
Shares issued	20,121		_	_
Cost of shares issued	(1,214)		*******	_
Adjustment in respect of further share capital issued by subsidiary		155		
At 31 December 1999	18,907	(605)	8	1,281
•			C	

## 20. Obligations Under Operating Leases

Annual commitments under non-cancellable operating leases are as follows:

	Land and buildings As at 31 December			Other As at 31 December		
	1997	1998	1999	1997	1998	1999
	£'000	£'000	£'000	£'000	£'000	£'000
Operating leases which expire:						
Within one year	_	<del></del>	_	8	27	15
In two to five years			***************************************	54	15	597
In over five years	196	184	178			
	196	184	178	62	42	612

## 21. Contingent Liabilities

The Group has no contingent liabilities requiring disclosure under the provisions of Financial Reporting Standard 12.

## 22. Subsequent Events

There have been no material events subsequent to 31 December 1999 within the Group requiring disclosure under the provisions of Statement of Standard Accounting Practice Number 17.



## 23. EPIH Adjustment

No group accounts for EPIH have previously been prepared as the group qualifies under S249 of the Act as a small group for which group accounts are not required.

The statutory financial statements of EPIH for the year ended 31 December 1996 show an investment in EPI of £5,995,001 being acquired, funded by loans of £5,965,000. During 1998, these loans were subsequently settled at a discount of £4,165,000. The financial data in these Listing Particulars has been adjusted to reflect this as being the fair value and the cost of investment and corresponding loans at 31 December 1996 adjusted accordingly to £1,830,001 and £1,800,000 respectively. The fair value of the assets of EPI at the date of acquisition was £1,545,655.

Not withstanding the above the £4,165,000 discount on settlement of the loans is a realised distributable profit. At 31 December 1999, the distributable profits of EPIH stood at £3,924,750.

# 24. Reconciliation of Operating Profit/(Loss) to Net Cash Inflow/(Outflow) from Operating Activities

	Year	ended 31 Dec	ember
	1997 £'000	1998 £'000	1999 £'000
Operating profit/(loss) Release of deferred issue costs Depreciation and provision for diminution in value	(353) 23	1,170 60	1,283
of fixed assets Increase in debtors Increase in stocks Increase in creditors Government grants release Government grants received Other non-cash items	1,465 (53) (70) 542 (64)	1,437 (719) (286) 1,929 (33)	1,509 (4,851) (982) 66 (29) 112 152
Net cash inflow/(outflow) from operating activities	1,490	3,558	(2,740)

## 25. Reconciliation of Net Cash Flow to Movement in Net Debt

	Yea	r ended 31 Dec	ember
_	1997 £'000	1998 £'000	1999 £'000
Increase in cash in the period Loan repayments Loans received Capital element of finance lease payments	1,023 703 (2,195)	320 4,642 (3,807)	7,776 3,587 (2,908) 25
Change in net debt resulting from cash plans Inception of new finance leases	(469)	1,155	8,480 (124)
Net movement for period Net debt at 1 January Exchange differences	(469) (5,309) (92)	1,155 (5,870) 67	8,356 (4,648) (137)
Net debt at 31 December	(5,870)	(4,648)	3,571



#### 26. Analysis of Changes in Net Debt

	(	Change in		Change in	(	Change in	
	1996 £'000	the year £'000	1997 £'000	the year £'000	1998 £'000	the year £'000	1999 £'000
Cash Bank overdraft	427 (1,389)	198 783	625 (606)	138 184	763 (422)	7,354 422	8,117
- D 14 1 - 1411	(962)	981	19	322	341	7,776	8,117
Debt due within one year	(588)	(276)	(864)	543	(321)	(183)	(504)
Debt due after one year Finance leases	(3,759)	(1,266)	(5,025)	357	(4,668) —	725 (99)	(3,943) (99)
	(5,309)	(561)	(5,870)	1,222	(4,648)	8,219	3,571

#### 27. Financial Instruments

Group cash flows are affected by international currency fluctuations, primarily in respect of the US dollar. A significant amount of the group's purchases of raw materials are sourced in North America and are settled in US dollars. To a lesser extent, purchases of raw materials are also sourced in the Far East and settled in Japanese yen.

However, the Group has consistently achieved significant dollar and yen inflows from sales to customers in North America and the Far East, and on this basis the Board considers that these provide a natural hedge to the extent that they cover a significant proportion of the Group's currency requirements. Any shortfall over a rolling period of up to twelve months is consistently monitored and the risk is fixed through forward currency contracts with the Group's bankers. Other currencies are also monitored and imbalances may be fixed as the need arises. It is not the policy of the Board to speculate in currency fluctuations.

The Board is also mindful of risks associated with changes in interests rates and, where possible, these have been fixed in order to minimise risk. The Board does not speculate on future changes in bank interest rates.

The Group does not trade in financial instruments.

Forward currency contracts are entered into with the Group's bankers in order to fix exchange rate risks associated with currency shortfalls over a rolling twelve month period in respect of dollar and yen inflows (and to a lesser extent other currencies). At 31 October 1999, the Group had entered into eight forward exchange contracts totalling US\$2,000,000 which are exerciseable at exchange rates in the range \$1.5957/£-\$1.6048/£ during the period January to August 2000. There were no material gains or losses brought forward or carried forward at 31 December 1999. Gains and losses recognised in the year are disclosed in note 4. The currency profile of the Group's trade debtors and trade creditors at 31 December 1999 is as follows:

	Trade	Trade
	debtors	creditors
	£'000	£'000
Sterling	293	804
US\$	2,598	2,005
Yen	56	262
Other	98	44
Total	3,045	3,115
Yen Other	56 98	262 44



The interest rate profile of the group's financial assets and liabilities at 31 December 1999 is as follows:

	Assets Floating	Liabilities Floating	Liabilities Fixed	
	rate £'000	rate £'000	rate £'000	Total £'000
Sterling US\$ Yen	7,060 993 64	1,425	1,582 1,539	3,007 1,539 —
Comprising:	<u>8,117</u>	1,425	3,121	<u>4,546</u>
Cash at bank	8,117		-	
Other loans Hire Purchase		1,425	3,022 99	4,447 99
Total	8,117	1,425	3,121	4,546

For the fixed rate liabilities the weighted average interest rate is 9.73% and the weighted average period for which interest rates are fixed is 6.2 years.

Further details of the financial liabilities at 31 December 1999 are shown in notes 14, 15 and 16.

There is no significant difference between the book value and the fair value of the group's financial assets and liabilities.

## 28. Additional Information on Subsidiary Undertakings

Name	Class of Capital	Portion of shares held	Activity	Country of Incorporation
IQE Incorporated (formerly Quantum Epitaxial Designs, Inc.)	Common stock of \$0.001	100%	Manufacture of advanced semi- conductor material	USA
EPI Holdings Limited	£1 ordinary shares	100%	Dormant	England & Wales
Epitaxial Products International Limited	Ip ordinary shares	100%	Manufacture of advanced semi- conductor material	England & Wales
Epitaxial Products, Inc.	Common shares without par value	100%	Manufacture of advanced semi-conductor material	USA



### 29. Merger

The entire share capital of EPIH and QED was acquired by the Company, a new holding company established for that purpose, on 16 May 1999 and 20 May 1999 respectively. These transactions met the criteria set out in Schedule 4A:10 Companies Act 1985 and Financial Reporting Standard Number 6 for merger accounting and have therefore been accounted for on this basis. The following disclosures are required under Schedule 4A Companies Act and Financial Reporting Standard Number 6.

(i) Analysis of pre and post merger profit and loss account for the year ended 31 December 1999:

	Pre Mei	Pre Merger	
	EPIH	QED	IQE
	£'000	£'000	£'000
Turnover	3,556	3,426	12,061
Operating profit	323	251	709
Exceptional costs	***************************************		328
Profit/(loss) before tax	237	(111)	567
Taxation charge/(credit)	115	(471)	207
Profit after tax	122	360	360

- (ii) An analysis of the profit and loss accounts for each party to the merger for the year ended 31 December 1998 can be found in note 30.
- (iii) Book value of net assets on merger:

	EPIH	QED
	£'000	£'000
Net assets	452	661

#### (iv) Consideration

The consideration given for the acquisition of EPIH was the issue of 5,997,180 10p ordinary shares in the Company. The directors are of the opinion that the fair value of the consideration given was £23,989,000.

The consideration given for the acquisition of QED was the issue of 4,392,465 10p ordinary shares in the Company. The directors are of the opinion that the fair value of the consideration given was £13,177,395.



#### 30. EPIH/QED/IQE

The consolidated financial data can be split between EPIH (and its subsidiaries), QED and IQE as follows:

#### **EPIH**

# Income Statement (UK GAAP)

	Year 1997	ember	
Turnovica	£'000	1998 £'000	1999 £'000
Turnover Gross profit Operating expenses Exceptional operating expenses Operating profit Profit before tax Profit after tax	6,601 2,257 1,997 — 260 279 172	8,340 3,291 2,603 — 688 674 435	8,988 2,985 2,588 132 265 71 (78)
Balance Sheet (UK GAAP)			(, 5)
	A	s at 31 Decemb	per
Champatana	1997 £'000	1998 £'000	1999 £'000
Current assets Fixed assets Total assets Current liabilities Long-term liabilities Shareholders' equity	2,286 1,094 3,380 1,103 2,243 34	3,110 2,181 5,291 2,947 2,014 330	4,077 5,798 9,875 2,193 7,438 244

The individual accounts for EPIH and its subsidiaries were audited for the three years to 31 December 1999 and received unqualified audit opinions.

#### **QED**

#### Income Statement (UK GAAP)

Income Statement (UK GAAP)				
·	Year	Year ended 31 December		
	1997	1998	1999	
	£'000	£'000	£'000	
Turnover	5,368	7,516	10,055	
Gross profit	1,458	2,395	3,500	
Operating expenses	1,772	1,913	2,409	
Exceptional operating expense	299	1,213	138	
Operating profit/(loss)	(613)	482	953	
Exceptional interest expense		702	328	
Profit/(loss) before tax	(955)	108	=	
Profit/(loss) after tax	(1,026)	117	(96)	
D. I. Charles and the second s	(1,020)	117	324	
Balance Sheet (UK GAAP)				
	A:	s at 31 Decem	ber	
	1997	1998	1999	
	£'000	£'000	£'000	
Current assets	1,661	2,003	7,586	
Fixed assets	3,874	3,317	5,685	
Total assets	5,535	5,320	13,271	
Current liabilities	2,369	1,888	2,298	
Long-term liabilities	3,183	3,131	10,186	
Shareholders' equity	(17)	301	787	
	(11)	201	107	



QED's accounts were audited for the three years to 31 December 1999 and received unqualified audit opinions. In 1997 and 1998, there was an emphasis of matter paragraph included in the auditors' report relating to the company's funding requirements.

IQE Income Statement (UK GAAP)

Income Statement (UK GAAP)			
, ,	$Y\epsilon$	ear ended 31 Dec	ember
	1997	1998	1999
	£'000	£'000	£'000
Turnover	<del></del>	_	******
Gross profit		_	<del></del>
Operating expenses			34
Exceptional operating expense/(credit)	_		(99)
Operating profit/(loss)		<del></del>	65
Profit/(loss) before tax		<del></del>	718
Profit/(loss) after tax		***************************************	596
Balance Sheet (UK GAAP)			
Damino Sator (G11 G13ma)		As at 31 Decem	ber
	1997	1998	1999
	£'000	£'000	£'000
Current assets	_	_	19,946
Fixed assets			
Total assets			19,946
Current liabilities	<del></del>	<del></del>	27
Long-term liabilities			
Shareholders' equity			19,919

The percentage geographical split of the Group's turnover for the three years to 31 December 1999 was as follows:

	Year ended 31 December		
	1997	1998	1999
USA	75%	64%	72%
Far East	13%	23%	14%
Western Europe	12%	13%	14%

IQE plc was incorporated on 1 April 1999. IQE plc's accounts were audited for the period ended 31 December 1999 and received an unqualified audit opinion.



#### 31. Related Party Transactions

Payments were made to Gambit Corporate Finance by the Group of £352,415 (including £9,000 in respect of services provided by a non-executive director, £75,000 in respect of advice in connection with the Merger of EPIH and QED and £250,000 in respect of advice on the EASDAQ flotation) in 1999, £63,750 in 1998 (£13,750 in respect of services provided by a non-executive director and £50,000 in respect of advice in connection with the Shell Settlement) and £7,750 in 1997 in respect of services provided by a non-executive director). Dr Godfrey Ainsworth, who is a non-executive director of the Company and EPI, is a partner in Gambit Corporate Finance.

Payments were made to SCT Wales Limited by the Group of £7,500 in 1998 and £4,375 in 1997 in respect of services as a non-executive director and services provided by SCT Wales Limited (a company specialising in training services). Mr M E Sanders, who was a non-executive director of EPI until 28 February 1999, is a director of SCT Wales Limited.

# 32. Summary of Significant Differences between UK GAAP and IAS

The Group's financial information has been prepared in accordance with UK GAAP which differ in certain respects from IAS. The principal differences are outlined below.

#### (a) Consolidated statement of cash flows

The consolidated cash flow statements above have been prepared in accordance with UK GAAP and present substantially the same information as that required under IAS. However, there are certain differences in the classification of items within the cashflow statement and with regard to the definition of cash equivalents between UK GAAP and IAS.

Cash flows from (i) operating activities; (ii) returns on investments and servicing of finance; (iii) taxation; (iv) capital expenditure and financial investment; (v) acquisitions and disposals; (vi) equity dividends paid; (vii) management of liquid resources; and (viii) financing are presented under UK GAAP. However, IAS only require presentation of cash flows from three activities: operating, investing and financing.

The following table summarises the statement of cash flow for the Group as if they had been presented in accordance with IAS:

	Year ended 31 December		
	1997	1998	1999
Net and ' O ( O ) O	£'000	£'000	£'000
Net cash inflow/(outflow) from operating activities	962	3,099	(3,939)
Net cash outflow from investing activities	(1,431)	(1,988)	(6,962)
Net cash inflow/(outflow) from financing activities	1,492	(791)	18,677
Net increase/(decrease) in cash and cash equivalents	1,023	320	7,776
Cash and cash equivalents at the beginning of the period	(962)	19	341
Exchange differences	(42)	2	
Cash and cash equivalents at the end of the period	19	341	8,117



#### (b) Goodwill

Goodwill of £284,000 arose on the acquisition of EPI by EPIH on 27 March 1996. Under UK GAAP this goodwill has been written off directly to reserves in the Group financial information.

Under IAS 22 any goodwill arising on acquisition should be recognised as an asset and amortised by the recognising as an expense over its useful life. IAS 22 states that the amortisation period should not exceed five years unless a longer period, not exceeding twenty years from the date of acquisition, can be justified.

The following table summarises the retained profit and total net assets of the Group as if they had been presented under IAS with goodwill being amortised over 5 years.

	Year ended 31 December		
	1997	1998	1999
	£'000	£'000	£'000
Retained profit/(loss) for period per UK GAAP	(854)	412	842
Less: goodwill amortisation for period	(57)	(57)	(57)
Retained profit/(loss) for period per IAS	(911)	355	785
		ided 31 Decen	
	1997	1998	1999
	1997 £'000	1998 £'000	1999 £'000
Total equity shareholders' funds per UK GAAP	1997	1998	1999
· ·	1997 £'000	1998 £'000	1999 £'000
Total equity shareholders' funds per UK GAAP Add: goodwill capitalised at cost Less: accumulated goodwill amortisation	1997 £'000 17	1998 £'000 631	1999 £'000 20,950



## 33. Reconciliation between UK GAAP and US GAAP

#### **Basis of preparation**

Under UK GAAP the acquisition of EPIH and QED by the Company meets the criteria required for it to be accounted for under the merger accounting provisions, whereby the financial information is disclosed as if EPIH and QED had always been part of the Group. No goodwill arises under merger accounting.

The acquisition of EPIH and QED by IQE in May 1999 did not meet the requirements of Accounting Principles Board ("APB") 16 for accounting transactions as a pooling of interests. Accordingly the consolidated financial statements of IQE under US GAAP would only recognise the results of the EPI Group and QED from the dates of their acquisition.

However, for the purposes of these listing particulars, in order to illustrate the impact of the differences in UK and US GAAP on the underlying results of the companies now making up the Group, the tables below present the results of the EPI Group and QED under US GAAP as if merger accounting had been permitted for each of the two years ended 31 December 1998 and for the period to 15 May 1999 and on the basis of purchase accounting for the period from 16 May 1999 to 31 December 1999.

On 16 May 1999, the Company, having not traded since its incorporation on 1 April 1999, acquired the entire share capital of EPIH. On 20 May 1999 the Company acquired the entire share capital of QED. The reconciliation between UK GAAP and US GAAP set out below includes the financial information for both EPIH and QED for the entire period under review and for the Company since its incorporation. The financial information for 1999 has been split between the periods pre and post the acquisition of EPIH and QED by the Company.

# (a) PROFIT AND LOSS ACCOUNT (as if merger accounting had been permitted)

Profit/(loss) after tax under UK GAAP Goodwill amortisation (see note 1) Imputed interest on loan (see note 1) Profit on early settlement of loan (see note 1) Interest capitalisation (see note 2) Reversal of interest capitalisation (see note 2)	Year 6 31 Dec 1997 £'000 (854) (435) (372)	ended ember 1998 £'000 552 (425) (330) 3,043	Period 15 May 31 1999 £'000 482 (181) — 81	
on disposal of assets Share option adjustment (see note 3) Taxation adjustment (see note 4) Retained profit/(loss) under US GAAP	83 (1,578)	(12)	(239) (535) (392)	(194) (837) (165) (3,080)



#### (b) BALANCE SHEET (as if merger accounting had been permitted)

				At 31
	At 31 Dec	cember A	t 15 May .	December
	1997	1998	1999	1999
	£'000	£'000	£'000	£'000
Total equity shareholders' funds under UK GAAP	17	631	1,113	20,950
Goodwill capitalised (see note 1)	1,713	1,713	1,713	37,765
Accumulated goodwill amortisation (see note 1)	(761)	(1,196)	(1,377)	(3,734)
Adjustment in respect of fair value of loan and				
related imputed interest (see note 1)	(2,713)	(3,043)		
Profit on early settlement of loan (see note 1)	<del></del>	3,043	_	
Interest capitalisation (see note 2)			81	194
Reversal of interest capitalisation (see note 2)				
on disposal of assets			_	(194)
Taxation adjustments (see note 4)	419	407	(24)	
Total equity shareholders' funds under US GAAP	(1,325)	1,555	1,506	54,981

#### **NOTES**

#### (i) Acquisition Accounting Assumptions

In the opinion of the directors of the Company the fair value of the assets of EPIH and QED acquired on their respective acquisition dates was £451,000 and £661,000 respectively. In the opinion of the directors of the Company the fair value of the consideration given for the acquisition of EPIH was £23,989,000 and for the acquisition of QED was £13,177,000. As a consequence, under US GAAP acquisition accounting, goodwill of £23,537,000 would arise on the Company's acquisition of EPIH and £12,515,000 on the acquisition of QED. In the opinion of the directors of the Company the estimated useful life of both amounts of goodwill is 10 years, and the goodwill arising would therefore be amortised over this period.

EPIH acquired the entire share capital of EPI on 27 March 1996. The consideration for this was £5,995,001 represented by a loan due to the vendor of £5,965,000 and share capital of £30,001. During 1998 these loans were settled at a discount of £4,165,000, which was recognised as a profit in the statutory accounts of EPIH for the year ended 31 December 1998. Under UK GAAP the financial information in the Listing Particulars has been adjusted to reflect the fair value of the purchase consideration to be £1,880,001 and to eliminate the £4,165,000 profit in EPIH in 1998. US GAAP does not permit a similar adjustment.

The directors are of the opinion that the fair value of the assets of EPI at the date of acquisition was £1,545,655. Under the then applicable UK GAAP rules the resulting goodwill of £284,346 was written off directly to reserves in 1996.

Under US GAAP the fair value of the purchase consideration would be based on the present value of the £5,995,000 loan. An assumed market rate of interest of 10 per cent. was used to determine the present value of such consideration as the loan was interest free. This interest rate was based on prevailing market rates at such time, as adjusted for the Company's financial outlook.

#### (ii) Interest Capitalisation

Under UK GAAP the Company has opted not to capitalise interest as part of the cost of fixed assets.

Under US GAAP interest is capitalised as part of the cost of the asset during the period required to construct the asset. Interest is capitalised irrespective of whether the cost of the asset is funded by specifically identified borrowing.



#### (iii) Share Options

Under both UK GAAP and US GAAP, where the fair value of shares granted under option at the date of granting exceeds the exercise price of these options, the difference is charged to the profit and loss account, allocated over the vesting period of those options.

On 31 March 1999 EPIH granted share options with an exercise price of 10p. Under UK GAAP the directors of the Company determined that the fair value of such shares did not exceed the exercise price, and therefore did not record a charge to the profit and loss account. The fair value determination was based on the best available evidence at such time and that the proposed merger with QED and subsequent flotation of IQE were in doubt.

Under US GAAP, the fair value of such shares was determined to be £4.05 per share. This determination was impacted by the successful merger between EPI and QED and the flotation of the merged IQE. The resulting excess of the fair value over the exercise price was charged to the profit and loss account over the relevant vesting periods of those options.

#### (iv) Taxation

No taxation adjustments arise in respect of the accounting adjustments made for the amortisation of goodwill and the fair value of shares granted under option.

A deferred tax liability arises in respect of the interest capitalisation adjustment in the period ended 15 May 1999. Interest capitalised as part of a fixed capital asset or project is deductible for UK corporation tax purposes in the period in which it is incurred. The deferred tax liability reverses in the period ended 31 December 1999, on the disposal of the assets concerned.

The Deferred Tax Liability referred to in note 8 to Part C was released in the period for the purposes of UK GAAP. This release has been apportioned pre and post merger by reference to profit before tax as calculated for the purposes of UK GAAP.

For the purposes of US GAAP, a deferred liability is recognised which represents the deferred income tax liability for book versus tax basis differences arising on 19 May 1999 as a result of the termination of QED's S-corporation status. This charge has been apportioned by reference to profit before tax as calculated for the purposes of US GAAP.

Yours faithfully

**DELOITTE & TOUCHE** 



#### PART D

# MANAGEMENT DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS

The following discussion of the financial condition and results of operations of the Group is based on, and should be read in conjunction with, the extracts from the consolidated financial statements of the Group and the notes thereto for the financial years ended 31 December 1999, 1998 and 1997.

The Group's consolidated financial statements included elsewhere in these Listing Particulars have been prepared in accordance with UK law and UK GAAP, together with a reconciliation to IAS and US GAAP of net income and shareholders' equity.

The following discussion contains forward-looking statements which involve risks and uncertainties. The Group's actual results could differ significantly from those discussed here. Factors that could cause or contribute to such differences include, but are not limited to, those discussed below and those discussed under "Risk Factors" and Part A, "Information on the Group", as well as elsewhere in these Listing Particulars.

#### **OVERVIEW**

The Group was formed on 20 May 1999 as a result of the combination of EPIH based in Cardiff, Wales and QED based in Bethlehem, Pennsylvania, US, each of which manufactures and sells compound semiconductor materials.

Prior to the Merger, the two companies had operated separately for 11 years. EPI was formed in 1988 as a joint venture between its founding directors (Dr Nelson and Dr Scott) and Shell Ventures UK Limited and commenced trading in 1989. During its early years, the company was in a development phase and incurred losses between 1989 and 1993 which, by the end of 1993, had amounted in total to £4,266,000 post tax. These losses were attributed to significant start-up operating expenses whilst customers and consequent revenue streams were built up during the development stage. The company moved into profit in the latter half of 1994 and has traded profitably in each of the subsequent years as a result of significantly increasing revenues, recording a pre tax profit in 1998 of £674,000.

QED was also formed in 1988 and commenced trading in the following year. The company operated profitably in each of the years from 1990 until 1995, recording a pre tax profit in 1995 of £659,000, and, by the end of that year, cumulative profit had amounted to £1,382,000 post tax. The company incurred a pre tax loss in 1996 of £63,000 as a result of start up costs in respect of the introduction of additional reactors and a further pre tax loss of £955,000 was recorded in 1997 when the major customer on whom the company had become heavily dependent deferred a number of orders, forcing the company to fill the resulting spare capacity with low price orders. The company also incurred exceptional professional fees in 1996 and 1997 of £76,000 and £299,000 respectively as a result of preparation for a proposed flotation on NASDAQ which was withdrawn as a result of unfavourable stock market conditions. The company made £108,000 pre-tax profit in 1998.

Currently the Group has a total of 18 reactors of varying ages at its sites in Cardiff and Bethlehem. EPI has 9 production reactors and uses a process known as MOVPE to manufacture epitaxial wafers which are predominantly sold to opto-electronics industry customers located in Europe, the Far East and US. QED has 9 reactors and uses a process known as MBE to manufacture epitaxial wafers which are predominantly sold to the electronics industry, with the majority of its customers being located in the US. By the nature of its business, approximately 95 per cent. of the Group's turnover is derived from the sale of epitaxial wafers with the remaining 5 per cent. emanating from Group services and research and development projects in conjunction with the European Commission, the UK Department of Trade and Industry and various US Federal Government bodies. Customer orders for epitaxial wafers are generally for periods of up to 6 months and, as a result, the Group's turnover and income are not seasonal.



# UNAUDITED RESULTS OF OPERATIONS RESULTS OF OPERATIONS

#### (a) 1999 compared with 1998

**Turnover.** Turnover increased 20 per cent. to £19,043,000 in 1999 compared with £15,856,000 in 1998, despite an 5 per cent. reduction in average selling price per wafer. The increase was despite the Company having a similar production capacity compared with 1998 and is attributed to improvements in yield, which increased to 58 per cent. in 1999 from 56 per cent. in 1998, and throughput, which increased to 29,845 wafers in 1999 compared with 23,557 wafers in 1998.

Gross Profit. Gross profit increased 14 per cent. to £6,485,000 in 1999 from £5,686,000 in 1998, due to a combination of increased volume and improved production yield, as described above. A reduction of 3 per cent. in the average manufacturing cost per wafer was achieved. Gross profit is calculated after charging all costs of manufacture including depreciation.

Administrative and Distribution Expenses. Administrative and distribution expenses increased 25 per cent. to £3,803,000 in 1999 compared with £3,032,000 in 1998 as a result of increased advertising, payroll, sales commissions and travel costs associated with increased marketing activities, but remained stable at 20 per cent. of turnover in 1999 compared with 19 per cent. of turnover in 1998.

Operating Income/(Loss). Operating income increased to £1,283,000 (including £171,000 exceptional costs relating to the Merger and EASDAQ Admission) in 1999 compared with £1,170,000 in 1998, due to increased volume and improved production yield. There were no exceptional costs incurred in 1998.

Financial Expenses, Net. Net financial expenses were £590,000 in 1999 compared with £388,000 in 1998, an increase of 52 per cent. These expenses included an exceptional cost of £328,050 in respect of the early settlement of certain bank loans arising out of the acquisition of EPIH and QED by the Company and the subsequent EASDAQ flotation.

Pre Tax Profit/(Loss). Pre tax profit decreased to £693,000 in 1999, compared with £782,000 in 1998, after exceptional costs of £499,000 were charged to the 1999 pre tax profit. Pre tax profit increased to £1,192,000 excluding the exceptional charge in 1999 compared with £782,000 in 1998. No exceptional costs were incurred in 1998, although EPIH paid a dividend of £140,000 in 1998.

#### (b) 1998 compared with 1997

**Turnover.** Turnover increased 32 per cent. to £15,856,000 in 1998 compared with £11,969,000 in 1997 despite an 11 per cent. reduction in average selling price per wafer. The increase is attributable to the Group having significantly widened its customer base in its 2 largest markets, namely the Far East and US.

Gross Profit. Gross profit increased 53 per cent. to £5,686,000 in 1998 compared with £3,715,000 in 1997 due to a combination of increased volume and improved production yield which generated a 19 per cent. reduction in average manufacture cost per wafer. Gross profit is calculated after charging all costs of manufacture, including research and development expenditure in respect of new products and project driven research and development.

Administrative and Distribution Expenses. Administrative and distribution expenses increased 31 per cent. to £3,032,000 in 1998 compared with £2,308,000 in 1997 as a result of increased advertising, payroll, sales commissions and travel costs associated with increased marketing activities, but reduced to 19 per cent. of turnover compared with 19 per cent. of turnover in 1997.

Operating Income/(Loss). Operating income increased to £1,170,000 in 1998 compared with an operating loss of £353,000 in 1997 due to a combination of significantly increased volume and improved production yield. In 1997 £299,000 of exceptional professional costs were incurred in relation to a proposed initial public offering by QED.

Financial Expenses, Net. Net financial expenses increased 20 per cent. to £388,000 in 1998 compared with £323,000 in 1997 due to increased borrowings to finance capital expenditure.

Pre Tax Profit/(Loss). Pre tax profit increased to £782,000 in 1998 compared with a pre tax loss of £676,000 in 1997. EPIH paid a dividend of £140,000 in 1998.



#### (c) 1997 compared with 1996

Turnover. The Group increased turnover 13 per cent. in 1997 to £11,969,000 compared with £10,589,000 in 1996. However, as noted above, the Group had become heavily dependent upon one major customer in the US which abruptly took a decision to defer a number of orders during 1997 because of an overstock situation. This resulted in the Group filling spare capacity at QED with orders for lower priced products. This in turn was a major factor in a 22 per cent. reduction in average selling price per wafer. See Part A "Information on the Group – Customers."

Gross Profit. Gross profit increased by 8 per cent. to £3,715,000 in 1997 compared with £3,432,000 in 1996 because of improved production yield due to a concentration of high volume/low price orders.

Administrative and Distribution Expenses. Administrative and distribution expenses increased 13 per cent. to £2,308,000 in 1997 compared with £2,039,000 in 1996, primarily as a result of increased advertising, payroll, sales commissions and travel costs associated with increased marketing activities. As noted above, the Group also incurred exceptional professional fees of £299,000 in 1997, compared with £76,000 in 1996.

Operating Income/(Loss). The Group incurred an operating loss of £353,000 in 1997 compared with an operating profit of £306,000 in 1996 due to a combination of sales price erosion, higher operating costs and exceptional professional costs.

Financial Expenses, Net. Financial expenses (net) increased 139 per cent. to £323,000 compared with £135,000 in 1996 due to increased borrowings to finance capital expenditure.

Pre Tax Profit/(Loss). For the above reasons, the Group incurred a pre tax loss of £676,000 in 1997 compared with a pre tax profit of £171,000 in 1996.

#### LIQUIDITY AND CAPITAL RESOURCES

The Group's primary sources of funding have been cash from operations and facilities from banks and other lenders and at 31 December 1999 the financing and long term debt arrangements described below had been put in place. Cash and cash equivalents at the same date were £8,117,000 compared with £763,000 at 31 December 1998 and £625,000 at 31 December 1997.

	Facility/Debt £'000	Owing 31 December 1999 £'000	Interest Rate %	Maturity Date
EPI Mortgage with 3i plc Mortgage with Welsh Development Agence	1,425	1,425	Base + 2.50 <sup>(1)</sup>	February 2013
	y 1,500	1,482	8.50	July 2009
QED Overdraft facility with Progress Bank Note payable to Copelco Capital	1,179		8.75	May 2000
	1,818	1,540	10.86	January 2003

#### (1) Base rate of 3i Group plc

Most of the Group's key customers are well-established companies and as a result the Group has not experienced any material bad debts.



#### PART E

#### GENERAL INFORMATION

#### 1. THE COMPANY

The Company was incorporated and registered in England and Wales under the Act on 1 April 1999 as a public company limited by shares with the name Filbuk 566 Plc and registered number 3745726.

The Company's name was changed to IQE plc on 26 April 1999.

The principal legislation under which the Company operates is the Act and the regulations made thereunder.

On 27 May 1999 the Ordinary Share capital of the Company was admitted to trading on EASDAQ.

#### 2. Share Capital

The present authorised and fully paid up issued share capital of the Company is as follows:

Authorised Ordinary Shares of 10p		Issued Ordinary Shares of 10p	
No	£	No	£
19,000,000	1,900,000	13,662,991	1,366,299

At the date of these Listing Particulars, the Company has options over 991,953 Ordinary Shares outstanding pursuant to the Share Option Schemes.

#### 3. CHANGES IN THE COMPANY'S SHARE CAPITAL

#### (a) The Company

The Company was incorporated on 1 April 1999 with an authorised share capital of £50,000 divided into 50,000 ordinary shares of £1 each, of which two ordinary shares were issued unpaid to the subscribers.

On 13 April 1999 the two subscriber shares were transferred to Bankhill Trustees Limited, one on trust for the Andrew Nelson Interest in Possession Settlement and one for the Dr. Scott Interest in Possession Settlement.

By a Special Resolution passed on 13 April 1999, each of the ordinary shares of £1, both issued and unissued in the Company, was divided into ten ordinary shares of 10p each, and the authorised share capital was increased to £1,550,000 by the creation of a further 15,000,000 Ordinary Shares.

On 3 May 1999, the Company entered into the EPIH Agreement with the shareholders of EPIH whereby, the Company agreed to acquire the entire issued share capital of EPIH in exchange for the issue by the Company of in aggregate 5,997,180 Ordinary Shares credited as fully paid, to the shareholders of EPIH (being Bankhill Trustees Limited as trustees for the Andrew Nelson Interest in Possession Settlement and the Dr Scott Interest in Possession Settlement) and the payment up of the 2 subscriber shares (later converted into 20 Ordinary Shares), such issue and payment up being in proportion to the holdings of such shareholders' ordinary shares in EPIH. A further 382,799 Ordinary Shares were reserved for the participants of the EPIH employee share option scheme. The agreement was completed on 16 May 1999.

On 3 May 1999, the Company and EQ Compounds, Inc. (a US company and wholly owned subsidiary of the Company formed for the purpose of effecting the merger) entered into the QED Agreement with QED and Thomas Hierl whereby EQ Compounds, Inc. agreed to merge with QED in exchange for the issue by the Company to the stockholders of QED of an aggregate 4,392,459 Ordinary Shares, credited as fully paid, such issue being in proportion to their holdings of common stock in QED. A further 767,511 Ordinary Shares were reserved for the participants of the QED employee share option



schemes and a further 60,025 Ordinary Shares were reserved for Progress Bank as the holder of warrants in QED. This agreement was amended and completed on 20 May 1999. On completion of the merger, QED became a 100 per cent. subsidiary of the Company and EQ Compounds, Inc. ceased to exist.

In connection with the acquisition of EPIH and the merger with QED, the Company entered into an agreement (the "Escrow Agreement") dated 20 May 1999, with amongst others, the former shareholders of EPIH and certain shareholders of QED to secure the potential liabilities of Dr Nelson, Dr Scott and Mr. Hierl under warranties and indemnities given to the Company pursuant to the EPIH Agreement and the QED Agreement. Under the Escrow Agreement, the Company has been granted a charge over 1,160,000 Ordinary Shares (the "EPIH Escrow Shares") to secure the liabilities of Dr Nelson and Dr Scott and a charge over 949,091 Ordinary Shares (the "QED Escrow Shares") to secure their indemnification obligations under the EPIH Agreement and the QED Agreement respectively. If the Company has a valid claim under the EPIH Agreement or the QED Agreement and liability for such claim is either admitted by the person(s) against whom it is made, or judgement is awarded in favour of the Company, then the Company is entitled to require a sale of such number of EPIH Escrow Shares or QED Escrow Shares (as the case may be) which have an aggregate value equal (or as near thereto as possible) to the value of the claim. The proceeds from such sale will be paid to the Company by way of damages for the claim. This is the only remedy available to the Company under the EPIH Agreement and the QED Agreement for breach of warranties and indemnities.

By an ordinary resolution passed on 26 May 1999, the authorised share capital of the Company was increased to £1,900,000 by the creation of a further 3,500,000 Ordinary Shares.

The following issues of Ordinary Shares have been made since 24 May 1999 in connection with the exercise of Share Option Schemes:

Date	Issued
03.09.99	249,991
21.09.99	37,304
12.10.99	15,817
02.11.99	27,054
10.12.99	7,414
16.12.99	7,898
05.01.00	6,172
05.01.00	55,762
17.01.00	5,890
	413,302

At the AGM to be held on 12 May 2000, the Resolution will be proposed to increase the authorised share capital to £2,500,000 by the creation of a further 6,000,000 Ordinary Shares. Further, the Resolution will authorise the Directors to issue the Ordinary Shares pursuant to the Placing and thereafter Ordinary Shares equal to the lower of (i) the authorised but unissued share capital of the Company immediately following the Placing and (ii) the aggregate of one third of the issued share capital of the Company following the Placing and the nominal value of Ordinary Shares reserved for issue under the Share Option Schemes, of which a number of Ordinary Shares equal to five per cent. of the issued share capital immediately following the Placing and the Ordinary Shares to be issued in respect of the Placing may be issued without regards to rights of pre-emption under section 89 of the Act, such authorities to expire on the earlier of 15 months after the date of the Resolution and the holding of the next annual general meeting of the Company.

#### (b) EPIH

EPIH was incorporated on 11 March 1996 with an authorised share capital of £100,000 divided into 100,000 ordinary shares of £1.00 each of which one ordinary share was issued to the subscriber.

On 24 May 1996 the subscriber share was transferred to Shell Ventures UK Limited ("Shell Ventures").



By a resolution passed on 24 May 1996 the subscriber share was reclassified as one non-voting subscriber share of £1.00 and was transferred to the joint names of Andrew Nelson and Mike Scott.

By further resolutions passed on 24 May 1996 and ratified on 22 March 1999 the authorised share capital was increased to £101,000 by the creation of 1,000 "A" ordinary shares of £1.00 each and one ordinary share of £1.00 was reclassified as one redeemable deferred share of £1.00 ("the Golden Share").

On 24 May 1996 30,000 ordinary shares of £1.00 each were allotted and issued at par to Bankhill Trustees Limited (15,000 on trust for A Nelson and 15,000 on trust for M Scott) and the one Golden Share was allotted and issued for cash at par to Shell Ventures.

Also on 24 May 1996, EPIH issued to Shell Ventures £5,000,000 secured loan stock 1996/2006, £1,000 unsecured convertible loan stock 2005 and £964,000 unsecured loan stock 2003/2006. By virtue of the conditions governing the £1,000 unsecured convertible loan stock 2003 Shell Ventures had the right to convert the stock into 1,000 fully paid "A" ordinary shares of £1.00 in the capital of EPIH and by virtue of the rights attaching to the Golden Share in the Articles of Association of EPIH then in force, Shell Ventures had enhanced voting rights whenever certain relevant resolutions of the company were proposed to be passed.

On 29 October 1998, all the loan stock referred to above was redeemed by EPIH entering into three Deeds of Settlement with Shell Ventures and paying to Shell Ventures the aggregate sum of £1,500,000.

On 2 November 1998, EPIH repurchased the Golden Share for a price of £1.00 out of its distributable profits in accordance with an agreement made between EPIH and Shell Ventures and approved by a written Special Resolution of EPIH passed on 2 November 1998.

On 31 March 1999 EPIH repurchased the one non-voting subscriber share of £1.00 for a price of £1.00 out of its distributable profits in accordance with an agreement made between EPIH and A Nelson and M Scott and approved by a written Special Resolution of EPIH passed on 31 March 1999.

By a resolution passed on 31 March 1999, each of the ordinary shares of £1.00 in the capital of EPIH, both issued and unissued were divided into 100 ordinary shares of 1p each. The Directors of EPIH were authorised to issue 191,489 shares of 1p each.

By a resolution passed on 28 April 1999, each of the authorised but unissued 1,000 "A" Ordinary Shares of £1.00 each, the Golden Share and the one non-voting subscriber share of £1.00 were re-classified as ordinary shares of £1.00 each and then each such share was divided into 100 ordinary shares of 1p each.

#### (c) EPI

EPI was incorporated on 9 March 1987 with an authorised share capital of £1,000 divided into 1,000 ordinary shares of £1.00 each of which two ordinary shares were issued to the subscribers and were transferred one to A Nelson and one to M Scott on 10 March 1987.

By a resolution passed on 1 June 1988 the authorised share capital was increased to £1,000,000 by the creation of 249,000 ordinary shares of £1.00 each and 750,000 10 per cent. cumulative redeemable convertible preferences shares ("preference shares") of £1.00 each. On the same date 14,999 ordinary shares were issued to A Nelson, 14,999 ordinary shares of £1.00 each were issued to M Scott, 5,000 ordinary shares were issued to L Davidson and 210,000 ordinary shares of £1.00 each and 750,000 preference shares were issued to Shell Ventures.

On 30 June 1989 5,000 ordinary shares were transferred by L Davidson to Shell Ventures.

On 18 March 1991 Dr Nelson and Dr Scott transferred each of their holdings of 15,000 ordinary shares to Bankhill Trustees Limited for the Andrew Nelson Interest in Possession Settlement and the Dr Scott Interest in Possession Settlement respectively.



By a resolution passed on 27 March 1996 the authorised share capital of EPI was further increased to £6,000,000 by the creation of 5,000,000 ordinary shares of £1.00 each all of which were issued on the same date to EPIH.

By Special Resolution passed on 18 April 1996 and the sanction of an order of the High Court of Justice dated 15 May 1996 the capital of EPI was reduced to £1,600,000 divided into 750,000 preference shares and 850,000 ordinary shares of £1.00 each of which Shell Ventures owned all the preference shares and 215,000 ordinary shares of £1.00 each, 15,000 ordinary shares of £1.00 each were held by Bankhill Trustees Limited on trust for each of the Andrew Nelson Interest in Possession Settlement and the Dr Scott Interest In Possession Settlement, and EPIH owned 600,000 ordinary shares of £1.00 each.

On 24 May 1996 the 750,000 preference shares were reclassified as ordinary shares, Shell Ventures transferred 965,000 ordinary shares to EPIH in return for the issue of loan stock by EPIH (as referred to above in paragraph (b)) and the issue of £1,000,000 secured loan stock 2004/2006 by EPI and Bankhill Trustees Limited exchanged their ordinary shares in EPI for ordinary shares in EPIH.

On 29 October 1998 the £1,000,000 secured loan stock 2004/2006 was redeemed by EPI entering into a Deed of Settlement with Shell Ventures and paying to Shell Ventures the sum of £1,000,000.

#### (d) QED

Upon incorporation, QED was authorised to issue 100,000 shares of common stock, par value \$0.01 per share ("Common Stock") for a total authorised capital of \$1,000. On 23 December 1988, the incorporator of QED subscribed for 1 share of Common Stock for a cash price of \$.01 and transferred her right, title and interest in such subscription to Thomas L. Hierl.

On 17 July 1989, QED authorised the issue of an additional 13,981.1 shares of Common Stock to Mr. Hierl for \$65,000 in cash such that Mr. Hierl then held a total of 13,982.1 shares of Common Stock.

On 30 August 1989, in connection with a financing transaction with NEPA QED filed an amendment to its articles of incorporation (the "First Amendment"). Among other things, the First Amendment: (a) increased its authorised capital stock to 1,150,000 shares, par value \$0.01 per share with total authorised capital of \$11,500; (b) created a new class of shares, the Class A Preferred Stock and (c) classified 1,000,000 of the total authorised shares as Common Stock and 150,000 shares as Class A Preferred. The board of directors also authorised that each share of Common Stock issued and outstanding immediately prior to the effectiveness of the First Amendment be reclassified as 10 shares of Common Stock. This reclassification resulted in Mr. Hierl holding 139,821 shares of Common Stock. In addition, pursuant to a Note and Warrant Purchase Agreement on 30 August 1989, the Company issued to James C M Hwang ("Mr. Hwang") 15,529 shares of Common Stock for an aggregate purchase price of \$7,219.43. Additionally pursuant to such agreement, the following instruments were issued:

- \$143,180 Subordinated Note issued in NEPA's favour (the "NEPA Non-Convertible Note");
- Convertible \$81,820 Subordinated Note issued in NEPA's favour (the "NEPA Convertible Note");
- Warrant to purchase up to 13,571 shares of Common Stock issued in NEPA's favour (the "NEPA Warrant", and collectively with the NEPA Non-Convertible Note and the NEPA Convertible Note, the "NEPA Securities"):
- \$31,820 Subordinated Note issued in Mr. Hwang's favour (the "Hwang Non-Convertible Note");
- Convertible \$18,180 Subordinated Note issued in Mr. Hwang's favour (the "Hwang Convertible Note"); and
- Warrant to purchase up to 3,018 shares of Common Stock issued in Mr. Hwang's favour (the "Hwang Warrant", and collectively with the Hwang Non-Convertible Note and the Hwang Convertible Note, the "Hwang Securities").



NEPA's and Mr. Hwang's total investment under the Note and Warrant Purchase Agreement for the NEPA Securities and the Hwang Securities was \$225,000 and \$50,000, respectively. The NEPA and Hwang Non-Convertible Notes have been paid off. The NEPA and Hwang Convertible Notes were converted into 1,172,030 and 260,420 shares, respectively of Common Stock and the NEPA Warrant was exercised for 135,710 shares of Common Stock immediately prior to QED's merger with EQ Compounds, Inc.

On 19 August 1994, Mr. Hwang exercised the Hwang Warrant for an aggregate exercise price of \$1,753.76. On the basis of the exercise of the Hwang Warrant, QED issued to Mr. Hwang an additional 3,018 shares of Common Stock such that Mr. Hwang's total holding in QED was 18,547 shares of Common Stock.

On 30 December 1994, QED issued 166.67 shares of Common Stock to Georgia Negran. This issuance of Common Stock was pursuant to QED's 1991 Non-Qualified Stock Option Plan.

On 11 June 1996, QED filed another amendment to its articles of incorporation (the "Second Amendment"). The Second Amendment: (a) increased its authorised capital stock to 10,150,000 shares with a total authorised capital of \$11,500; (b) classified 10,000,000 shares as Common Stock (but with a reduced par value of \$0.001); and (c) classified 150,000 shares as Preferred Class A, par value \$0.01 per share. The board of directors also authorised that each share of Common Stock issued and outstanding immediately prior to the effectiveness of the Second Amendment be split on a 10-for-1 basis. This 10-for-1 stock split resulted in total issued and outstanding capital stock of QED as follows: (a) Mr. Hierl holding 1,398,210 shares of Common Stock; (b) Mr. Hwang holding 185,470 shares of Common Stock; and (c) Ms Negran holding 1,666.7 shares of Common Stock.

On 21 February 1997, in connection with the financing transaction with AMP Incorporated, QED filed another amendment to its articles of incorporation (the "Third Amendment"). The Third Amendment: (a) increased QED's authorised capital stock to 30,420,000 shares with a total authorised capital of \$79,200; (b) classified 25,000,000 shares as Common Stock, par value \$0.001 per share; (c) classified 5,420,000 shares as preferred stock, par value \$0.01 per share ("Preferred Stock"); (d) designated 150,000 shares of the Preferred Stock as Class A Preferred; (e) designated 270,000 shares of the Preferred Stock as Class B Preferred Stock, ("Class B Preferred"); and (f) empowered the board of directors, by resolution, to establish and issue one or more additional series of Preferred Stock with such voting rights, designations, preferences, qualifications, privileges, limitations, options, conversion rights, redemption rights and other special rights as determined by the board of directors. No shares of Class B Preferred were ever issued.

Since 21 February 1997, QED has not issued any additional capital stock other than 25,000, 50,000 and 10,000 shares of Common Stock to Scott Massie, Greg Olsen and Richard Elia respectively in each case following the exercise of options held by them. Mr. Hierl, however, has transferred some of his Common Stock to 8 different trusts, 6 of which Stephen Loizeaux serves as the trustee and two of which Mr. Hierl serves as the trustee.

On 17 June 1998, in connection with the loan facility with Progress Bank, QED issued Progress Capital, Inc. (an affiliate of Progress Bank) 3 warrants (in addition to the loan agreement) exercisable for 10 years to purchase a total of 30,000 shares Common Stock at \$3.00 per share. In connection with the merger of EQ Compounds Inc. into QED these warrants were converted into warrants to purchase 40,333 Ordinary Shares at \$3.00 per Ordinary Share. Following the EASDAQ Admission, Progress Capital exercised these warrants in whole.

On 29 April 1999, in connection with the renegotiation and extension of the loan facility from \$1,500,000 to \$1,900,000 with Progress Bank, QED issued Progress Capital, Inc. one warrant exercisable for 10 years to purchase \$160,000 worth of Common Stock at \$3.00 per share (i.e. 53,333 shares). In connection with the merger of EQ Compounds Inc. into QED and the EASDAQ Admission, this warrant was converted into a warrant to purchase 19,692 Ordinary Shares at \$8.125 per Ordinary Share. Progress Capital has exercised these warrants in whole.



On 20 May 1999, as a result of the merger of EQ Compounds Inc. and QED, the articles of incorporation and bylaws of QED were amended and restated such that the provisions of the amended and restated articles and bylaws of QED would be identical to the articles of incorporation and bylaws of EQ Compounds, Inc.

On 8 February 2000, the amended and restated articles of incorporation of QED were amended to change QED's name to "IQE, Inc."

#### 4. DIRECTORS' AND OTHER INTERESTS IN THE COMPANY

(a) The interests (all of which, unless otherwise stated, are or will be beneficial) of (a) any person who owns 3 per cent. or more of the outstanding Ordinary Shares and (b) the Directors and their immediate families and connected persons of the Directors for the purposes of Section 346 of the Act in the issued share capital of the Company which have been notified by each Director to the Company pursuant to Sections 324 or 328 of the Act and which are required to be entered in the Register of Directors' Interests maintained pursuant to Section 325 of the Act, (or, in the case of interests of connected persons of the Directors, who would have been required to be so notified if such connected persons were directors) at the date of these Listing Particulars and as those interests may be immediately following the Placing may be as follows:

	Prior to t	he Placing	After the	? Placing
	Ordinary	Percentage	Ordinary	Percentage
	Shares	of issued	Shares	of issued
	beneficially	share	beneficially	share
Name	held	capital	held	capital
Dr Andrew Nelson (shares held on trust				
by Bankhill Trustees Limited for the				
Andrew Nelson Interest in Possession				
Settlement)	2,736,958	20.0	2,634,813	18.0
Dr Michael Scott (shares held on trust				
by Bankhill Trustees Limited for the Dr				
Scott interest in Possession Settlement)	2,736,958	20.0	2,634,813	18.0
Thomas Hierl	1,731,950	12.7	1,667,312	11.4
NEPA (Glen Bressner)	1,579,306	11.6	1,520,365	10.4
Scott Massie	10,862		10,862	
Dr Godfrey Ainsworth	541		541	
All Directors and Senior Managers				
as a group	8,796,575	64.4	8,468,706	57.8

The above statistics relating to the share capital of the Company after the Placing are based upon the assumptions given in relation to the Placing Statistics on page 4.

Scott Massie also has an interest in 100,830 options over Ordinary Shares.

- (i) Save as disclosed in this section 4, none of the Directors, and no person connected with them for the purposes of Section 346 of the Act, has any interest (beneficial or non-beneficial) in any issued Ordinary Shares.
- (ii) The interests of those Directors who, following the Placing are expected to represent 3 per cent. or more of the issued Ordinary Shares are as set out above in this paragraph (a) of section 4.
- (iii) Save as disclosed in paragraphs (a) and (a)(ii) of this section 4, the Directors are not aware of any person who is, or, immediately following the Placing will be interested, directly or indirectly, in 3 per cent. or more of the issued share capital of the Company or who, directly or indirectly, jointly or severally, excercises or could exercise control over the Company.



- (b) Save as disclosed in paragraph (a) of this section 4 none of the Directors, their immediate families and persons connected with them within the meaning of Section 346 of the Act, has any interest in the share capital of the Company.
- (c) Save for the persons disclosed in paragraph (a) of this section 4, none of the Directors are aware of any interest (within the meaning of Part VI of the Act of any person who, directly or indirectly, jointly and severally, exercise or could exercise control over the Company.
- (d) Save as disclosed in paragraph (a) of this section 4 and save for the following shareholders, none of the Directors are aware of any interest within the meaning of Part VI of the Act which represents 3 per cent. or more of the currently issued share capital of the Company or of any person who, directly or indirectly, jointly and severally, exercise or could exercise control over the Company:

		Percentage
	Number of	of Issued
	Ordinary	share
Shareholder	Shares	capital
National City Nominees Limited	4,254,616	31.1

Note that National City Nominees Limited is a nominee company representing all of the Ordinary Shares held in the EASDAQ system.

- (e) No Director has or has had any interest in any transaction which is or was unusual in its nature, or was or is significant to the business of the Group and was effected by the Group during the current or immediately preceding financial year, or which was effected by the Group during any earlier financial year and remains in any respect outstanding or unperformed except as follows:
  - (i) Dr Godfrey Ainsworth is a partner in Gambit Corporate Finance which received payments for services provided to the Group amounting to £352,415 during 1999. Such payments included £9,000 in respect of services provided by a non-executive director, £75,000 in respect of advice regarding the Merger and £250,000 in respect of advice regarding the EASDAQ Admission. The Company has a contract with Gambit Corporate Finance for the provision of services for 2000. As at the date of these Listing Particulars in respect of services provided in 2000, the Company has paid fees of £5,970 to Gambit Corporate Finance.
  - (ii) Directors' service agreements are described more fully in paragraph (b) of section 9 of this Part E.
- (f) No loans or guarantees have been granted or provided to or for the benefit of the Directors by any member of the Group.
- 5. MATERIAL PROVISIONS OF THE MEMORANDUM AND ARTICLES OF ASSOCIATION

#### 5.1 Memorandum

The principal purpose of the Company (as set out in clause 3.1(a) of its Memorandum of Association) is to act as a holding company and to invest in other companies and businesses. The objects of the Company are set out in full in Clause 3.1(a) of the Memorandum of Association which is available for inspection as specified under section 17 of this Part E - "Documents Available for Inspection".

#### 5.2 Articles

The following describes the rights of Ordinary Shareholders as incorporated in the Articles. It is a description of significant rights and does not purport to be complete or exhaustive.



#### (a) Voting Rights

Subject to any rights of disenfranchisement which the Company may exercise following (i) failure of a shareholder to comply with a notice under Section 212 of the Act, (ii) failure of a shareholder to comply with a notice requiring him to state he is the beneficial owner of a share or (iii) failure of a shareholder to disclose a significant shareholding in the capital of the Company, and subject to any special rights or restrictions as to voting attached to any share, on a show of hands, every shareholder personally present or, being a corporation, present by representative, shall have one vote and on a poll every shareholder who is present in person, or by proxy, shall have one vote for every share of which he is the holder.

#### (b) Dividends, Other Distributions and Rights

The Company anticipates that, following the completion of the Placing, earnings will be retained for development of the Company's business and will not be distributed for the foreseeable future. The declaration and payment by the Company of any future dividends and the amount thereof will depend upon the Company's results of operations, financial condition, cash requirements, future prospects, profits available for distribution and other factors deemed to be relevant at the time. If dividends are declared out of distributable profits, subject to the terms on which any of such shares may be issued, holders of Ordinary Shares will be entitled to a gross dividend of the same amount for each share held.

#### (c) Time Limits for Lapsing of Dividend Rights

Dividends that are unclaimed for 12 years after they become due for repayment shall be deemed liable to be forfeited and revert to the Company. If dividend warrants are left uncashed for a period of at least six months on two consecutive occasions or have been returned undelivered or left uncashed for a period of at least six months and thereafter reasonable enquiries have failed to establish a new address for delivery, no further dividend warrants shall be despatched until the shareholder notifies the Company of the correct address.

#### (d) Distribution of assets on a winding-up

Subject to any special rights for the time being attached to any class of shares, on a return of assets on liquidation or otherwise the surplus assets remaining after payment of the Company's liabilities shall be distributed in proportion to the amounts paid up or deemed to be paid up on the shares of the Company then in issue.

#### (e) Changes in Capital

- Subject to the Act and every other statute for the time being in force concerning companies and affecting the Company ("the Statutes") and without prejudice to any special rights previously conferred on the holders of any existing shares or class of shares, any shares in the capital of the Company for the time being may be allotted with such special rights, privileges or restrictions as the Company may by resolution (before the allotment of such shares) from time to time determine. Subject to the Statutes and any other rights conferred on the holders of any other shares, the Company may issue redeemable shares. Subject to the Statutes and the Articles, the power of the Company to allot and issue shares shall be exercised by the Board at such time, for such consideration and upon other terms as the Board may determine.
- (ii) The Company may from time to time by resolution increase its share capital, consolidate all or any of its share capital into shares of larger amount and, subject to the Statutes, sub-divide all or any of its share capital into shares of a smaller nominal amount, cancel any shares which, at the date of the passing of the relevant resolution, have not been taken or agreed to be taken by any person and diminish the amount of its share capital by the nominal amount of the shares so cancelled. Whenever, as a result of a consolidation of shares, any members would become entitled to a fraction of a share, the Board may deal with the fractions as it thinks fit.



- (iii) Subject to the Statutes and the rights attaching to any shares, the Company may from time to time by Special Resolution reduce its share capital, any capital redemption reserve and any share premium account or other distributable reserve in any manner.
- (iv) Subject to the provisions of the Statutes, the Company may from time to time purchase its own shares (including any redeemable shares) but no contract for such a purchase shall be entered into unless the purchase has previously been sanctioned by an extraordinary resolution passed at a separate meeting of the holders of any class of securities issued by the Company which are listed and convertible into shares which are of the same class as those proposed to be purchased.

#### (f) Variation of rights and class meetings

Whenever the share capital is divided into different classes of shares, all or any of the rights attached to any class (unless otherwise provided by the terms of issue of the shares of that class) may be modified, varied, extended, abrogated or surrendered either in such manner (if any) as may be provided by such rights or (in the absence of any such provision) with the written consent of the holders of at least three fourths in nominal value of the issued shares of that class or with the sanction of an extraordinary resolution passed at a separate general meeting of the holders of such shares. To every separate general meeting of the holders of a particular class of shares the provisions of the Articles relating to general meetings shall (mutatis mutandis) apply except that:

- (i) no member shall be entitled to receive notice of such meeting or to attend it unless he is a holder of shares of the class in question and no vote shall be given except in respect of a share of that class;
- (ii) the necessary quorum shall be two persons at least present in person and holding or representing by proxy at least one third in nominal amount of the issued shares of the class in question (and at an adjourned meeting shall be one person holding shares of that class or his proxy); and
- (iii) any holder of shares of the class in question who is present in person or by proxy and entitled to vote may demand a poll and on a poll every holder of shares of the class in question who is present in person or by proxy shall have one vote for every share of that class held by him.

The rights or privileges attaching to any class of securities shall not, subject to the terms on which such securities may be issued, be deemed to be varied or abrogated by the creation or issue of new shares ranking *pari passu* with or subsequent to shares already issued.

#### (g) Transferability

- (i) All transfers of shares may be effected by transfer in writing in any usual or common form or in any other form acceptable to the Directors or by any other method which is authorised by statute and the EASDAQ Rules and approved or adopted by the Directors. Any such instrument of transfer shall be signed by or on behalf of the transferor and (except in the case of fully paid shares) by or on behalf of the transferee. The transferor shall remain the holder of the shares concerned until the name of the transferee is entered in the register of members in respect thereof.
- (ii) The Directors may in their absolute discretion, and without assigning any reason therefor, refuse to register any transfer of a share:
  - (a) if the share is not fully paid and the Company has a lien on it; or
  - (b) (except in the circumstances specified in the Articles) if:



- (1) a notice has been duly served in respect of that share pursuant to Section 212(1) of the Act or any other statutory provision concerning the disclosure of interests in voting shares; and
- (2) the share or shares which were the subject of that notice represent in aggregate at least 0.25 per cent. of that class of share; and
- (3) the notice has not been complied with within the period stipulated in the notice (which must not be less than 14 days); or
- (c) which is in favour of more than four persons jointly; or
- (d) which is not listed or otherwise dealt in on a recognised investment exchange and is not fully paid up.
- (iii) The Directors may also decline to recognise a transfer of shares unless it is in respect of only one class of share and is deposited at the place where the register of members of the Company is kept for the time being (or at such other place as the directors may from time to time determine) accompanied (save in the case of a transfer by a recognised clearing house or a nominee of a recognised clearing house or of a recognised investment exchange, unless and to the extent that certificates must by law have been issued in respect of the shares in question) by the relevant share certificate(s) and in any case such other evidence as the directors may reasonably require to show the right of the transfer to make the transfer.
- (iv) Instruments of transfer shall include, in relation to uncertificated shares, instructions and/or notifications made in accordance with the relevant system concerned relating to the transfer of such shares. Such provisions shall apply to the extent that the same are consistent with the EASDAQ Rules.

#### (h) Directors

- (i) Subject to the provisions of the Articles, the Directors shall not be less than four nor more than 15 in number. At least two Directors shall be Independent directors.
- (ii) Save as provided in the Articles, a Director shall not vote as a Director in respect of any contract, transaction or arrangement or proposed contract, transaction or arrangement or any other proposal whatsoever in which he has any interest which (together with any interest of any person connected with him) is to his knowledge a material interest (otherwise than by virtue of an interest in shares or debentures or other securities of or otherwise in or through the Company), and if he shall do so his vote shall not be counted, nor in relation thereto shall he be counted in the quorum present at the meeting.
- (iii) A Director shall (in the absence of some other material interest than is indicated below) be entitled to vote (and be counted in the quorum) in respect of any resolution relating to any of the following matters namely:
  - (a) the giving of any security, guarantee or indemnity in respect of money lent or obligations incurred by him or by any other person at the request of or for the benefit of the Company or any of its subsidiary undertakings or its parent company (if any) or any other subsidiary undertaking of any such parent company; or
  - (b) the giving of any security, guarantee or indemnity in respect of a debt or obligation of the Company or any of its subsidiary undertakings for which the Director himself has assumed responsibility in whole or in part under a guarantee or indemnity or by the giving of security; or



- (c) an offer of shares or debentures or other securities of or by the Company or any of its subsidiary undertakings or its parent company (if any) or any other subsidiary undertaking of any such parent company for subscription or purchase in which offer he is or is to be or may be entitled to participate as a holder of securities or in the underwriting or subunderwriting of which he is to participate; or
- (d) any other company in which he or any person connected with him is interested, directly or indirectly, and whether as an officer or shareholder or otherwise howsoever, provided that he and any persons connected with him are not to his knowledge the holder (otherwise than as a nominee for the Company or any of its subsidiary undertakings or its parent company (if any) or any other subsidiary undertaking of any such parent company) of or beneficially interested in 1 per cent. or more of any class of the equity share capital of such company (or of any third company through which his interest is derived) or of the voting rights available to members of the relevant company (any such interest being deemed for this purpose to be a material interest in all circumstances); or
- (e) an arrangement for the benefit of the employees of the Company or any of its subsidiary undertakings which does not award him any privilege or benefit not generally awarded to the employees to whom such arrangement relates; or
- (f) the purchase and/or maintenance of any insurance policy for the benefit of Directors or for the benefit of persons including Directors.
- (iv) Fees may be paid out of the funds of the Company to Directors who are not managing or executive Directors at such rates as the Directors may from time to time determine provided that such fees do not in the aggregate exceed the sum of £150,000 per annum (exclusive of value added tax if applicable) or such other figure as the Company may by resolution from time to time determine. Any such fee shall be distinct from any salary, remuneration or other amounts payable to a Director pursuant to any other provision of the Articles or any contract or arrangement between the Company and the relevant individual.
- (v) Any Director who devotes special attention to the business of the Company, or otherwise performs services which in the opinion of the Directors are outside the scope of the ordinary duties of a Director, may be paid such additional remuneration as the Directors or any committee authorised by the Directors may determine.
- (vi) A Director may hold any other office or place of profit under the Company (other than the office of auditor) or any undertaking in which the Company is interested, may be a party to or be in any way interested whether directly or indirectly in any contract, arrangement, transaction or proposal to which the Company is a party or in which the Company is in any way interested, subject to the nature and extent of his interest being disclosed by him in accordance with the Statutes and the EASDAQ Rules.
- (vii) There is no age limit for Directors and sub-sections (1) to (6) of section 293 of the Act do not apply to the Company.
- (viii) At each annual general meeting one third of the Directors, or if their number is not a multiple of three, then the number nearest to but not exceeding one third, shall retire from office and shall be eligible for re-election. The Directors to retire by rotation shall be those who became or were re-elected Directors on the same day and shall, unless they agree otherwise, be determined by lot provided that each Director shall be required to retire from office (and if he so desires offer himself for re-election) at least once in every three year period. Any Director appointed by the Board shall hold office only until the next annual general meeting, shall be eligible for election, but shall not be



taken into account in determining the Directors to retire by rotation at that meeting. Any Director holding any executive office or employment under the Company shall not be exempt from retirement from rotation.

- (ix) The Directors may appoint one or more of their number to be the holder of any executive office on such terms, and for such period, as they may (subject to the provisions of the Statutes) determine and, without prejudice to the terms of any service contract entered into any particular case, may at any time revoke such appointment.
- (x) A Director shall not be required to hold qualification shares.
- (xi) The quorum necessary for the transaction of business of the Directors may be fixed by the Directors and unless so fixed at any other number shall be two.
- (xii) The Board may provide benefits, whether by payment of gratuities or pensions or by insurance or otherwise to or for employees and ex-employees of the Company or its subsidiary undertakings (which term includes any director who may hold or have held office with the Company or with its subsidiary undertakings) and any dependant (including spouse or ex-spouse) of any employee or ex-employee.

#### (i) Borrowing Powers

Subject to the provisions of the Articles, the Directors may exercise all the powers of the Company to borrow or raise money and to mortgage or charge its undertaking, property, assets and uncalled capital or any part thereof, and to issue debentures and other securities, whether outright or as collateral security for any debt, liability or obligation of the Company or its holding company (if any) or any subsidiary of the Company or its holding company or of any third party. The Board shall restrict the borrowings of the Company and exercise all voting and other rights or powers of control exercisable by the Company in relation to its subsidiaries (if any) so as to secure (as regards subsidiaries so far as by such exercise they can secure) that the aggregate amount for the time being remaining undischarged of all moneys borrowed by the Group (which expression in the relevant Articles means and includes the Company and all its subsidiaries for the time being) and for the time being owing to persons outside the Group shall not without the previous sanction of a resolution of the Company exceed an amount equal to three times the Adjusted Capital and Reserves as defined in the Articles.

#### (j) Untraced Shareholders

The Company shall be entitled to sell in such manner and for such price as the Directors think fit, any share held by a member or any share to which a person is entitled by transmission on death or bankruptcy, or other operation of law, if and provided that for a period of 12 years no cheque or warrant for amounts payable in respect of the shares sent and payable in a manner authorised by the Articles has been cashed and no communication in respect of the shares has been received by the Company from the member or person concerned and during that period at least three cash dividends in respect of the shares have become payable and no dividend in respect of the shares has been claimed and the Company has, after the expiration of that period, by advertisement in both a daily national newspaper and a newspaper circulated in the area in which the last known address of the member is located and by notice to EASDAQ or a recognised investment exchange (as the case may be) if shares of the class concerned are listed or dealt in on such exchange, giving notice of its intention to sell such shares, and the Company has not, during the further period of three months after the date of advertisement (or the last date if published on different dates) and prior to the sale of the shares, received any communication from the member or person concerned. The Company shall be indebted to the former member or other person entitled to the share for an



amount equal to the net proceeds of the sale, but no trust shall be created and no interest shall be payable in respect of the proceeds of sale. The Company may employ the net proceeds of sale in the business of the Company.

#### (k) Indemnity

Every Director or other officer of the Company shall be entitled to be indemnified out of the assets of the Company against all losses or liabilities which he may sustain or incur in or about the execution or discharge of the duties as an officer or otherwise in relation thereto, including any liability incurred by him in defending any proceedings whether civil or criminal in which judgment is given in his favour or in which he is acquitted or on which the charge is found not proven or in connection with any application under section 77 of the Act in which relief is granted to him by the Court from liability for negligence, default, breach of duty or breach of trust in relation to the affairs of the Company and no Director or other officer shall be liable for any loss, damage or misfortune which may happen to be incurred by the Company in the execution or discharge of the duties of his office in relation thereto. But this provision shall only have effect insofar as it is not avoided by section 310 of the Act. The Directors shall have power to purchase and maintain insurance for the benefit of any persons who are or were Directors, officers, employees or auditors of the Company or of any other company which is its holding company or in which the Company or such holding company or any of the predecessors of the Company or of such holding company has any interest whether direct or indirect or which is in any way allied to or associated with the Company or of any subsidiary undertaking of the Company or of any such other company, or who are or were at any time trustees of any pension fund in which employees of the Company or of any of such other company or subsidiary undertaking are interested, including (without prejudice to the generality of the foregoing) insurance against any liability incurred by such persons in respect of any act or omission in the actual or purported execution and/or discharge of their duties and/or the exercise of their powers and/or otherwise in relation to their duties, powers or offices in relation to the Company or any such other company, subsidiary undertakings or pension funds.

#### 6. Pre-emption and Subscription Rights

At the AGM to be held on 12 May 2000, the Resolution will be proposed to increase the authorised share capital to £2,500,000 by the creation of a further 6,000,000 Ordinary Shares. Further, the Resolution will authorise the Directors to issue the Ordinary Shares pursuant to the Placing and thereafter Ordinary Shares equal to the lower of (i) the authorised but unissued share capital of the Company immediately following the Placing and (ii) the aggregate of one third of the issued share capital of the Company following the Placing and the nominal value of Ordinary Shares reserved for issue under the Share Option Schemes, of which a number of Ordinary Shares equal to five per cent. of the issued share capital immediately following the Placing and the Ordinary Shares to be issued in respect of the Placing may be issued without regards to rights of pre-emption under section 89 of the Act, such authorities to expire on the earlier of 15 months after the date of the Resolution and the holding of the next annual general meeting of the Company. The Directors consider that this disapplication of pre-emption rights will provide the Company with the necessary flexibility to pursue its commercial aims.

Any further authorities for the Directors to allot Ordinary Shares for cash without having regard to preemption rights will be subject to the passing of a Special Resolution of the Company. In the absence of any such authority, the Directors will be obliged to offer any new shares to be issued (except for those to be issued otherwise than for cash or pursuant to employee share schemes) to existing shareholders on a pro rata basis.

Section 89(1) of the Act confers on shareholders rights of pre-emption in respect of the allotment of equity securities which are, or are to be, paid up in cash other than by way of allotment to employees under an employee share scheme. There are no pre-emption rights as regards the transfer of fully paid Ordinary Shares from members once they have been issued.



#### 7. FORM OF THE ORDINARY SHARES AND TRANSFERABILITY

All of the existing issued Ordinary Shares are credited as fully paid and all the Placing Shares to be issued pursuant to the Placing must be fully paid on subscription. Upon commencement of trading in the Placing Shares on EASDAQ and the London Stock Exchange, all of the Ordinary Shares will be freely transferable, subject to compliance with any restrictions set out in the Articles (see section 5 of this Part E). For further information on rights attaching to the Ordinary Shares, see section 5 of this Part E.

For further information on transfer arrangements see Placing, Clearing and Settlement Agencies in Part A of this document.

Book-entry is mandatory for settlements of all financial instruments traded on EASDAQ. Physical certificates cannot be used for settlements of market transactions. Physical deliveries are permitted on request by a shareholder, who must bear the costs of delivery of the physical certificates.

#### 8. SHARE OPTION SCHEMES

# (a) The EPI Holdings Limited unapproved Employee Share Option Scheme (the "EPIH Scheme") The EPIH Scheme was approved on 31 March 1999. It contains similar provisions to the IQE plc Share Option Scheme (see below). Options were granted pursuant to the EPIH Scheme over 191,489 ordinary shares of 1p each in EPIH. The Directors have agreed that no further options will be granted

ordinary shares of 1p each in EPIH. The Directors have agreed that no further options will be granted under the EPIH Scheme (or any other employee share scheme relating to shares in EPIH).

In connection with the EASDAQ Admission, arrangements were made to enable optionholders in the EPIH Scheme to acquire Ordinary Shares on the exercise of options in place of EPIH ordinary shares.

#### (b) QED Stock Option Plans

1996 Stock Option Plan. QED adopted the Quantum Epitaxial Designs, Inc. 1996 Stock Option Plan (as amended, the "QED 1996 Plan"). Selected employees, consultants and independent contractors of QED, its parent, subsidiaries or any successors thereto are eligible participants under the QED 1996 Plan. Pursuant to the QED 1996 Plan non-employee directors may not receive any award until 6 months after termination of registration under §12 of the Securities Exchange Act, if so registered. However, automatic awards of 1,000 shares pursuant to a non-qualified stock option under the QED 1996 Plan, can be made to non-employee directors upon the effective date of registration of QED shares. The board of directors of QED administers the QED 1996 Plan and may appoint a committee of at least 2 persons to administer the QED 1996 Plan on its behalf. Options terminate after 10 years from the date of the award if not exercised. If an optionholder commits any disloyalty, felony, disclosure of confidential information or breach of duty or agreement with QED, the optionholder forfeits any shares pursuant to an unexercised option.

The stock subject to the QED 1996 Plan was 345,000 shares of Common Stock and may be awarded as either non-qualified stock options ("NQSOs") or incentive stock options ("ISOs"). The price per share payable upon the exercise of an NQSO must be at least \$0.01 per share. The price per share under an ISO to an employee must generally be at least the fair market value of the stock on the date of the award. However, the price per share under an ISO to an employee who owned 10 per cent. or more of the voting power at the time of the award must be at least 110 per cent. of fair market value of the stock on the date of the award. The term of the option(s) is generally 10 years from the award of the option(s), or 10 years after adoption of the QED 1996 Plan. However, the term is reduced to five years from the option award date, or 5 years after the adoption of the QED 1996 Plan, for an ISO of an employee owning stock with 10 per cent. or more of the voting power of QED. An option award with respect to a particular employee will not be treated as an ISO if the aggregate amount of all ISOs exercisable within a calendar year exceeds a yearly limitation set according to the provisions of the Internal Revenue Code of 1986, as amended. Any options in excess of such limits would be treated as NQSOs. In addition, options awarded to participants who are not employees are NQSOs. Fair market value is determined at the discretion of the board of directors if shares are not publicly traded, or the mean of the bid and



asked prices on that date according to The Wall Street Journal report or per NASDAQ if publicly traded. No stockholder rights attach until the exercise of options and issuance of shares. Options are non-assignable and non-transferable inter vivos, but may pass by will or the laws of descent and distribution.

Subject to forfeiture provisions in the event of termination for cause, as defined in the QED 1996 Stock Plan, if an optionholder's employment with the company is terminated for any other reason other than death or disability, then the employee's options terminate three months after the optionholder's employment is terminated. If an optionholder dies or becomes disabled while employed by the company, any unexercised option terminates one year after the date of his death or disability. An option may be exercised by a disabled optionholder or an optionholder whose employment is terminated, or by the executors or administrators of a deceased optionholder or any person who acquires the option directly from an optionholder by bequest or inheritance, to the extent the option could have been exercised on the date of such disability, termination or death.

In the event of any stock dividend, stock split, recapitalisation, or other similar change affecting Common Stock, appropriate proportional adjustments must be made in the number of shares reserved for issuance under the QED 1996 Plan, the number of shares subject to outstanding options and the option prices thereof, subject to required action by the shareholders of the company, if any. The QED 1996 Plan also provides for the exercisability of options, and provides discretion to take whatever other actions it deems necessary or desirable with respect to all outstanding options upon the occurrence of a "Change of Control," as such term is defined in the QED 1996 Stock Plan, and a provision for the cancellation of options and a cash payment to the holders of such cancelled options upon the occurrence of certain of the events constituting a Change of Control.

In July 1997, QED granted ISO's to acquire 153,000 shares of Common Stock at a per share exercise price of \$1.75, 1,000 of which were cancelled and returned to the pool for further grant. In January 1998, QED granted ISO's to acquire 25,000 shares of Common Stock at a per share exercise price of \$1.75. In May 1998, QED granted ISO's to acquire 16,250 shares of Common Stock at a per share exercise price of \$1.75. In August 1998, QED granted ISO's to acquire 15,000 shares of QED Common Stock at a per share exercise price of \$1.75. In December 1998, QED granted ISO's to acquire 50,000 shares of Common Stock at a per share exercise price of \$1.75. In March 1999, QED granted ISO's to acquire 86,750 shares of Common Stock at a per share exercise price of \$2.47. All of the ISO's granted under the QED 1996 Plan vest rateably and annually over four years.

In April 1999, employee resignations resulted in the forfeiture of 13,250 ISO's granted under the QED 1996 Plan. These forfeited options were returned to the available pool of options to be granted under the QED 1996 Plan. On 7 May, 1999, QED reallocated these forfeited options among other employees at a per share exercise price of \$8.18.

After giving effect to the merger contemplated by the QED Agreement, the options outstanding under the QED 1996 Plan were converted into the right to purchase 463,822 Ordinary Shares. In addition, the per share exercise price for these options was reduced by a factor of approximately 0.74. The Board of QED does not intend to grant additional options under the QED 1996 Plan.

Employee Non-Qualified Stock Option Plan. QED adopted the Quantum Epitaxial Designs, Inc. Employee Non-Qualified Stock Option Plan (as Amended and Restated, effective 3 October, 1996, the "QED 1991 Plan"). The QED 1991 Plan permitted all employees of QED, including employee directors, and employees of subsidiaries or parent companies of QED, to participate with the discretion of the board of directors. All options granted under the QED 1991 Plan are NQSO's. The QED 1991 Plan is administered by a committee of the board of directors. Outstanding options cannot be returned and then awarded in the future under the QED 1991 Plan. The option price must be at least \$0.01 per share. Awards must be granted within 10 years of the adoption of the QED 1991 Plan. Options must be exercised under the QED 1991 Plan within 10 years of the award date.



Subject to certain exceptions, an optionholder must exercise his or her options under the plan, if at all, within 3 months of termination of employment from QED. Termination of employment for "cause," as determined by the board of directors for reasons such as disloyalty, fraud, conviction for a felony, or wrongful disclosure, causes an employee to forfeit any rights under the QED 1991 Plan. The rights under the QED 1991 Plan are non-assignable and non-transferable inter vivos. QED agreed to reserve sufficient shares for the exercise of options awarded under the plan. An employee must execute a Stock Restriction and Purchase Agreement upon exercising options under the QED 1991 Plan. The agreement states that an optionholder may exercise up to 20 per cent. of his or her award on the first anniversary of the grant of the award. After this time period, the optionholder may exercise 1/48th of the award monthly.

After giving effect to the merger contemplated by the QED Agreement, the options outstanding under the QED 1991 Plan were converted into the right to purchase 303,689 Ordinary Shares. In addition, the per share exercise price for these options was reduced by a factor of approximately 0.74. The Board of QED does not intend to grant options under the QED 1991 Plan.

#### (c) The IQE plc Share Option Scheme ("the Scheme")

The Scheme was adopted on 26 May 1999. The main features of the Scheme (which is not approved by the UK Inland Revenue) are summarised below.

#### (i) Eligibility

All full time employees (including executive directors) of the Company or any of its subsidiaries, required to devote substantially the whole of their working time to their duties, are eligible to be nominated for participation in the Scheme. To be eligible an executive director must work at least 25 hours per week and an employee must work at least 20 hours per week. An option may not be granted to a qualifying employee within 3 years preceding his normal retirement date. The benefits under the Scheme are not pensionable. There is a limit on the aggregate value of options which may be granted to an individual in any ten year period of four times their salary.

#### (ii) Grant of options

Options may be granted during the 42 day period following the day on which the Company announces its results for the immediately preceding financial year or half year. Options may be granted outside these periods in exceptional circumstances.

On the grant of an option, the Board may impose objective conditions of exercise. Such conditions may relate to the achievement of targets by the Company or any member of the Group and/or may relate to the performance of a personal task by individuals.

#### (iii) Exercise price

The exercise price of an option shall be not less than the greater of the nominal value of a share and (except in the case of options granted under the EPIH Scheme (see above) which are surrendered in exchange for new options granted under the Scheme) the market value of an Ordinary Share. Market value will be as determined in accordance with Section 272 to 274 of the Taxation of Chargeable Gains Act 1992 or, the average of the mid-price for a share on EASDAQ for the three consecutive dealing days preceding the date of grant.

#### (iv) Exercise of options

Subject to satisfaction of the performance conditions, options will normally be exercisable only after the third anniversary and before the tenth anniversary of their date of grant.

Options will, however, be exercisable early (without regard to performance conditions) in certain specified circumstances including (1) the option holder's death (2) if the option holder ceases to be employed by reason of injury, disability, redundancy or retirement (3) the sale of the business or the subsidiary company by which he is employed (4) for any other reason at the discretion of the Board. Options will also be exercisable within limited periods on a take-over, winding-up or the



sanctioning by the court of a scheme of arrangement of the Company. Alternatively, following a take-over, options may, with the agreement of the acquiring company, be rolled over to become equivalent options over the acquiring company's shares.

If an option holder ceases employment other than in the specified circumstances, his options will lapse.

#### (v) Variation of share capital

On a variation of the Company's share capital, the exercise price and/or the number of Ordinary Shares the subject of an option may be adjusted.

#### (vi) Amendments

Certain amendments to the Scheme which are to the advantage of eligible employees or optionholders are subject to the prior approval of the Company in general meeting. The Board may amend the Scheme to take account of a change in legislation or to obtain favourable tax, exchange control or regulatory treatment or to benefit the administration of the Scheme.

No amendments can be made which would abrogate or adversely affect the subsisting rights of a participant unless it is made with the written consent of participants who have the right to acquire 75 per cent. of the shares under subsisting options granted under the Scheme or by a resolution passed by 75 per cent. of participants present at a meeting.

#### (vii) Scheme Limits

Save for the grant of any options prior to the EASDAQ Admission and which options shall be ignored in any limits set out below, no option shall be granted by the Company if immediately following the grant of such option, the aggregate nominal value of the Ordinary Shares issued or then capable of being issued pursuant to options granted under the Scheme within the immediately preceding:

- (a) 10 years, and those issued or then capable of being issued pursuant to options granted or rights obtained in such ten year period under any Other Relevant Scheme would exceed 5 per cent. of the nominal value of the Ordinary Shares at that time in issue;
- (b) 10 years, and those issued or then capable of being issued pursuant to options granted or rights obtained in such ten year period under any other share option or profit sharing scheme approved by the Company in general meeting would exceed 10 per cent. of the nominal value of the Ordinary Shares at that time in issue;
- (c) 3 years, and those issued or then capable of being issued pursuant to options granted or rights obtained in such three year period under any Other Relevant Scheme would exceed 3 per cent. of the nominal value of the Ordinary Shares at that time in issue; and
- (d) 5 years, and those issued or then capable of being issued pursuant to options granted or rights obtained in such five year period under any other share option or profit sharing scheme approved by the Company in general meeting would exceed 5 per cent. of the nominal value of the Ordinary Shares at that time in issue.

For the purposes of this paragraph, 'Other Relevant Scheme' means any other employees' share scheme (within the meaning of Section 743 of the Act) approved by the Company enabling directors or employees of any company in the Group or trustees on their behalf to acquire Ordinary Shares other than savings-related share option schemes or profit sharing schemes approved by the UK Inland Revenue pursuant to Schedule 9 to the Income and Corporations Taxes Act 1988 or any other share option schemes of the Company which are linked to contractual savings schemes.



#### (viii) Expiry of Scheme

The Scheme will expire on the tenth anniversary of its approval by the Company or such earlier time as determined by a resolution of the board or an Ordinary Resolution of the Company in general meeting.

(iv) National Insurance

Following recent changes in legislation which are effective from 6 April 1999 and recent announcements by the Inland Revenue, a secondary class one national insurance charge will become payable by the Company following exercise of options granted under the IQE plc Share Option Scheme. On the basis of current legislation, the liability of the Company will be calculated at a rate of 12.2 per cent. of the difference between the option exercise price and the market value of the Ordinary Shares issued to the relevant option holders following exercise.

#### 9. DIRECTORS' SERVICE AGREEMENTS

- (a) Each of the executive Directors entered into a service agreement with the Company on 26 May 1999 terminable by either party on 12 months' notice and in the case of Messrs Hierl and Massie terminable forthwith by IQE subject to a severance pay of twelve months salary. Pursuant to such agreement each of the executive Directors will in addition be entitled to a performance related bonus, payments into his personal pension scheme, life assurance, private medical and dental insurance and a company car. Each of the agreements contains post termination restrictive covenants which place limitations on solicitation of customers and employees of the Group and on acting in competition with the business of the Group. The salaries of the Directors for the current financial year are as set out below.
  - (i) Dr Andrew Nelson: £79,000;
  - (ii) Thomas Hierl: £115,000;
  - (iii) Dr Michael Scott: £73,000;
  - (iv) Scott Massie: £81,000.
- (b) Each of the non-executive Directors or the companies providing their services entered into agreements commencing in 1999 for the provision of their services as non-executive Directors on the terms set out below.

#### (i) Godfrey Ainsworth

A letter of appointment appointed Godfrey Ainsworth as a non-executive director of the Company from 22 April 1999 for a period of one year (extended by letter agreement between the parties dated 17 April 2000 for a further period of one year from 22 April 2000), although the Board (acting unanimously) may require Dr Ainsworth's resignation forthwith. Dr Ainsworth is required to give one month's notice of an intention to resign. Pursuant to the letter of appointment Dr Ainsworth is required to spend a minimum of 10 days per annum performing his duties for a fee of £9,000 per annum, reviewed each 1 January. Dr Ainsworth is required to be a member of the Remuneration and Audit Committees of the Board. The Agreement terminates automatically for the usual grounds relating to Dr Ainsworth's status.

#### (ii) Glen Bressner

A letter of appointment appointed Glen Bressner as a non-executive director of the Company from 30 April 1999 for a period of one year (extended by letter agreement between the parties dated 17 April 2000 for a further period of one year from 22 April 2000), although the Board (acting unanimously) may require Mr Bressner's resignation forthwith. Mr Bressner is required to give one month's notice of an intention to resign. Pursuant to the letter of appointment Mr Bressner is required to spend a minimum of 10 days per annum performing his duties. He does not receive a fee at this point in time. Mr Bressner is required to be a member of the Remuneration and Audit Committees of the Board. The Agreement terminates automatically for the usual grounds relating to Mr Bressner's status.



- (c) The aggregate remuneration including salaries, fees, pension contributions, bonus payments and benefits in kind of the Directors during the year ended 31 December 1999 amounted to £388,000. It is estimated that the aggregate amount of the remuneration to be paid and benefits in kind to be granted to the Directors for the current financial year under the arrangements in force at the date of this document will not exceed £425,000.
- (d) Set out below are the details of the directorships other than that of the Company and its subsidiaries held over the previous 5 years by each of the Directors.

Director	Current Directorships	Past Directorships
Dr Andrew Nelson	Cardiff Partnership Fund Limited	None
Thomas Hierl	None	
Dr Michael Scott	None	None
Scott Massie		None
***************************************	None	None
Dr Godfrey Ainsworth	Sidney Clode Finance Ltd	Development Associates Group

Alum-a-Lift Inc.

Gambit Corporate Finance Ltd
Archway Supplies plc
Butetown Artists Ltd

Ltd
Development Associates Limited
Executive Profiling Services Ltd
Price Brothers & Co (Penarth)

Ltd

Peter's Food Service Ltd Hills Transport (Cardiff) Ltd Sandwich Supplies Ltd Maturetimes Limited

ndwich Supplies Ltd Maturetimes Limited
RAMEL Limited
Sandco Ltd
Oball Ltd

Qball Ltd Eurocaps Ltd

Glen Bressner Midas Vision Systems Inc.

New College (Cardiff) Ltd
Pocono Springs Inc.

Midas Vision Systems Inc. Pocono Springs Inc. Micro E Inc. ARC Land Inc.

Innovative Solution & Support

Inc. Mobere Medical Inc.
Anytime Access, Inc. Magna Van Systems Inc.

Mesa Systems Guild Inc.
MAVF Management Company

Magna van Systems Inc.

Sprockets.com, Inc.

Inc. ParaProtect Inc.

(f) No Director has:

(i) any unspent convictions:

- (ii) a bankruptcy order made against him or entered into any individual voluntary arrangements;
- (iii) been a director of a company which has been placed in receivership compulsory liquidation, creditors voluntary liquidation, administration, company voluntary arrangements or any composition or arrangement with its creditors generally or any class of the creditors whilst he was a director of that company with an executive function at the time of or within twelve months preceding such events;
- (iv) been a partner of a partnership which has been placed in compulsory liquidation, administration or partnership voluntary arrangements whilst he was a partner of that partnership or within twelve months preceding such events;
- (v) any assets which were the subject of a receivership or was a partner of a partnership at the time of or within the twelve months preceding such event whose assets were the subject of receivership; or
- (vi) been publicly criticised by any statutory or regulatory authority;



#### except as follows:

Mr Bressner was a director of Pocono Springs Inc., a company in which NEPA invested. Mr Bressner was appointed to the board of Pocono Springs Inc. by NEPA to supervise their investment. This company filed a petition in bankruptcy pursuant to Chapter 11 of the US Bankruptcy Code. The Company has now emerged from the same.

Dr Ainsworth was a non-executive director of Sandco Limited, a company in which 3i plc invested. Dr Ainsworth was appointed to the board as part of an attempt to turn around the company's fortunes. This company is now in receivership, with a deficiency understood to be approximately £2 million.

(g) The Directors consider that the promoters of the Company are or may have been the Selling Shareholders who at the date of this document are the holders of the number of Ordinary Shares set out against their names in paragraph (a) of section 4 of this Part E. No payment or other benefit has been paid or given or is to be paid or given in connection with the promotion of the Company within two years immediately prior to the date of these Listing Particulars.

#### 10. Subsidiary Undertakings

The Company has the following subsidiaries, all of which are wholly owned:

Name of Company	Date and Place of incorporation	Registered Office	Issued Share Capital
IQE, Inc.	23 December 1988	119 Technology	100 common
,	Pennsylvania	Drive	stock of no
		Bethlehem	fixed par
		Pennsylvania 18015	value
		USA	
EPI Holdings Limited	11 March 1996	Pascal Close	3,000,000
<u>-</u>	England and Wales	Cypress Drive	ordinary
	_	St Mellons	shares of 1p
		Cardiff CF3 0EG	each
Epitaxial Products International	9 March 1987	Pascal Close	159,540
Limited	England and Wales	Cypress Drive	ordinary
		St Mellons	shares of £1
		Cardiff CF3 0EG	each
Epitaxial Products Inc.	9 February 1992	Building B	1,000
-	Delaware	Hilltop Centre	ordinary
		136 Harvey Road	shares of no
		Londonderry	fixed par
		New Hampshire	value
		NH03053 USA	



### 11. PRINCIPAL ESTABLISHMENTS

The details of the principal establishments of the Group, are set out below:

Address  Pascal Close Cypress Drive St Mellons Cardiff CF3 0EG	Tenure Freehold	<i>Area</i> 40,000 sq.ft	Annual rent £N/A	Term of lease N/A
119 Technology Drive Bethlehem Pennsylvania 18015 USA	Leasehold	30,000 sq.ft.	\$290,000	14 April 2005

#### 12. TAXATION

The following is a summary of certain UK and Belgian tax consequences of ownership and disposal of the Ordinary Shares. This summary is based on current UK and Belgian Law and practice and is for general information only and does not discuss any tax legislation which may be pending, unless explicitly mentioned. It does not purport to be a complete analysis of all potential tax effects relevant to a decision to invest in the Ordinary Shares and prospective investors are urged to consult their tax advisers regarding the applicable tax consequences for acquiring, holding and disposing of the Ordinary Shares based upon their particular circumstances. The discussion below is based upon laws and relevant interpretations thereof in effect at the date of these Listing Particulars, all of which are subject to change, possibly with retroactive effect. The following does not address any other tax laws than those of the UK and Belgium. Prospective investors who are in any doubt as to their tax position or who are not residents of the UK or Belgium should seek independent advice with respect to taxation consequences of acquiring, holding and disposing of Ordinary Shares.

#### United Kingdom Taxation

The following information is intended only as a general guide to current UK tax legislation as at April 2000 and to what is understood to be the current practice of the UK Inland Revenue, which may change, as it applies to persons resident or ordinarily resident in the UK for tax purposes who are beneficial holders of Ordinary Shares as investments and not as trading stock and may not apply to certain classes of persons. Any person who is in any doubt as to his tax position is strongly recommended to consult his tax adviser immediately.

## (a) Taxation of Dividends on Ordinary Shares

Under current UK taxation legislation, no tax will be withheld at source from dividend payments by the Company.

For individual beneficial owners of Ordinary Shares resident in the UK, a tax credit is available equal to 10 per cent. of the gross dividend (one ninth of the dividend), which may be set off against their tax liability on their total income. An individual who is liable to the higher (currently 40 per cent.) rate of income tax will be liable to tax at 32.5 per cent. on the total of the dividend and the tax credit, and the tax credit will satisfy that liability as to 10 per cent., leaving a further 22.5 per cent. (equal to one quarter of the cash dividend received) to pay. Basic, lower rate tax payers will not be liable to additional income tax on dividends received. Non taxpayers are not able to reclaim any part of the tax credit. Charities, certain heritage bodies and scientific research organisations may be eligible for compensation payable out of funds to be provided by the Exchequer for a five year transitional period with effect from 6 April 1999.



A UK resident corporate beneficial owner of Ordinary Shares will not normally be liable to corporation tax on any dividend received from the Company unless it is a dealer in securities or a financial institution for whom different considerations may apply. The dividend and the associated tax credit constitute franked investment income. Companies and pension funds are not able to recover any part of the tax credit accompanying dividends.

An owner of Ordinary Shares who is resident in a country other than the UK is liable to UK tax on dividends received but will not be entitled to any payment from the Inland Revenue in respect of the tax credit on dividends on the Ordinary Shares. For example, a Belgian resident is taxable on UK dividends, but is already deemed to have paid this tax liability. This is because of the UK tax credit attaching to the dividend. A Belgian tax resident is therefore not liable to pay any further UK tax. Furthermore, a Belgian tax resident is not entitled to any repayment of the tax credit, unless the Belgian tax resident is a corporate shareholder holding not less than 10 per cent. of the share capital of the UK company, in which case there would be a repayment of a small proportion of the tax credit (equivalent to 0.28 per cent. of the net dividend). Corporate beneficial owners of Ordinary Shares benefiting from special treaty provisions relating to corporate investors holding not less than 10 per cent. of the voting power in the Company, are entitled to a very small part repayment of tax credit.

- (b) UK Stamp Duty and Stamp Duty Reserve Tax ("SDRT")
  - (i) Transfers of Ordinary Shares out of the Clearstream and Euroclear Systems

    Where no sale is involved, and Ordinary Shares are transferred by Euroclear and Clearstream or its nominee to the beneficial owners of the Ordinary Shares it should not be necessary to pay any stamp duty or SDRT. By contrast, such a transfer directly to a purchaser for consideration may give rise to a liability to ad valorem stamp duty or SDRT calculated by reference to the amount or value of the consideration.
  - (ii) Transfers of Ordinary Shares within the Clearstream and Euroclear Systems

    No ad valorem stamp duty or SDRT should be payable on transfers within the Clearstream and Euroclear Systems.
  - (iii) Transfers of Ordinary Shares within and out of the CREST System

    SDRT at a rate of 0.5 per cent. of the amount or value of the consideration is payable for the account of the purchaser, on transfers within and out of the CREST system. No ad valorem stamp duty will be payable because there is no written instrument effecting the transfer.
  - (iv) Transfers of Ordinary Shares into the Clearstream and Euroclear Systems

    UK ad valorem stamp duty and SDRT is generally payable by the holder of Ordinary Shares at the rate of 1.5 per cent. (rounded up to the nearest £5) of the amount of the value of the consideration (or in some circumstances the value of the Ordinary Shares) on a transfer of Ordinary Shares:
    - (a) to, or to a nominee for, a person whose business is or includes the provision of clearance services; or
    - (b) to, or to a nominee for, a person whose business is or includes issuing depository receipts.

As explained further below, the liability to SDRT will be cancelled or the SDRT repaid if the instrument of transfer is duly stamped within sixty days of the date of the transfer.



# (v) Transfer of Ordinary Shares in Registered Form

UK stamp duty is generally payable on instruments conveying or transferring shares or securities on sale and SDRT is imposed on agreements for the transfer of certain shares and securities. In the case of stamp duty the charge is normally at the rate of 0.5 per cent. (rounded up to the nearest £5) of the amount or value of the consideration given for the transfer and in the case of SDRT is 0.5 per cent. of such amount or value.

Where a charge to SDRT arises on an unconditional agreement to transfer shares or securities and before the expiry of a period of six years beginning with the date of that agreement, an instrument of transfer is duly stamped, any liability to SDRT will be cancelled or SDRT repaid.

A transfer of Ordinary Shares for no consideration whatsoever should not give rise to payment of *ad valorem* stamp duty or SDRT, and it should not be necessary to pay the fixed duty of £5 thereon.

#### (c) Capital Gains Tax

UK resident individual beneficial owners of Ordinary Shares will be liable to capital gains tax on any chargeable gain realised on the disposal of the Ordinary Shares whilst they are resident or ordinarily resident for tax purposes in the UK, subject to any allowances, reliefs or exemptions which may be available to them. UK resident corporate beneficial owners of Ordinary Shares are liable to corporation tax on chargeable gains realised on disposal of their holding of Ordinary Shares, subject to certain reliefs and exemptions.

#### (d) Inheritance Tax

Ordinary Shares are assets situated in the UK for the purposes of UK inheritance tax. A gift of such assets by, or the death of, an individual holder of such assets may give rise to a liability to UK inheritance tax, subject to certain reliefs and exemptions, even if the holder is not domiciled in the UK or deemed to be so domiciled. No UK inheritance tax is payable when the total estate is less than £231,000 for 1999/2000 and £234,000 for 2000/2001. For inheritance tax purposes, a transfer of assets at less than full market value may be treated as a gift and there are particular rules which apply to gifts where the donor reserves or retains some benefit. There are also special rules, which apply to close companies and trustees of settlements holding shares, which bring them within the charge to inheritance tax.

#### Belgian Tax Considerations

The Company explicitly renounces to the advantage of the reduced withholding tax rate of 15 per cent. provided for in Article 269, section 3 of the Belgian Income Tax Code 1992.

#### (a) Withholding taxes

#### 1. Individual shareholders

- (a) Dividends distributed to individual shareholders subject to the individual income tax are subject to a 25 per cent. withholding tax in case the dividends are distributed through a Belgian paying agent. This withholding tax is a final tax.
- (b) Dividends distributed to individual shareholders subject to the individual income tax are not subject to a withholding tax in case the dividends are not distributed through a Belgian paying agent. In this case, the individual shareholder should mention the amount of the dividend received in his annual individual income tax return. The dividend income will then be subject to a separate tax at a rate of 25 per cent. increased with the municipal surcharge.



#### 2. Corporate shareholders

According to Article 106, § 1 RD/ITC 1992, dividend income distributed by a foreign company to a Belgian resident company is exempt from withholding tax.

3. Shareholders subject to the Legal Entity Tax
Similar to Belgian individual residents, a withholding tax of 25 per cent. is due.

#### (b) Income tax

#### 1. Individual shareholders

For dividends distributed to individual shareholders subject to the individual income tax which have not been subject to a withholding tax, the individual shareholder should mention the amount of the dividends received in his annual individual income tax return. The dividend income will then be subject to a separate tax at a rate of 25 per cent. increased with the municipal surcharge.

#### 2. Corporate shareholders

The tax regime of the received dividend distributions will depend upon whether or not and, if so, to what extent the dividends received deduction applies; if said deduction is applicable, only 5 per cent. of the dividends received from the Company will be taxed at the normal corporate tax rate of 40.17 per cent.; otherwise, the dividends will be fully taxable.

The dividend received deduction will apply if the Belgian corporate shareholder owns, at the time of attribution of the dividend, a participation of at least 5 per cent. or with an acquisition value of at least BEF 50 million in the Company; these conditions do not apply to certain types of companies such as insurance and investment companies.

3. Shareholders subject to the Legal Entity Tax

The above mentioned withholding tax constitutes a final tax. No further Legal Entity Tax is due.

#### (c) Capital Gains Taxation

#### 1. Individual shareholders

Individual shareholders holding the Ordinary Shares as a private investment are not subject to capital gains taxation on the disposal of shares in a foreign company. However, capital gains may become taxable at a rate of 33 per cent., increased with a 3 per cent. crisis surcharge and the municipal surcharge, in case the capital gains are considered as speculative income, i.e., income resulting from operations or speculations exceeding the normal administration of private investments. If the individual shareholder has invested the Ordinary Shares in his business activity, capital gains on the disposal of the shares become taxable at a separate rate of 16.5 per cent. (increased with a 3 per cent. crisis surcharge and the municipal surcharge in case the shares are invested in the business for more than 5 years. If less, the progressive individual income tax rates apply.

#### 2. Corporate shareholders

Capital gains on the Ordinary Shares are tax exempt if the dividends qualify for the "dividends received deduction". The participation conditions, as set out above, do not apply for the capital gains exemption.

3. Shareholders subject to the Legal Entity Tax Capital gains on the Ordinary Shares are tax exempt.

#### (d) Stock Exchange Tax

A tax of 0.35 per cent. with a maximum of BEF 10,000 per transaction is levied upon the delivery following the subscription of Ordinary Shares through Belgian professional intermediaries. The rate applicable for each sale and purchase in the secondary market through the intervention of a



Belgian professional intermediary is 0.17 per cent. with a maximum of BEF 10,000 per transaction. An exemption of the Stock Exchange Tax applies to dealings between professional intermediaries and to dealings by professional intermediaries or non-residents acting on their own account.

#### (e) Tax on report transactions

Report transactions concluded or executed in Belgium are subject to a stamp tax at the rate of 0.085 per cent. in the hands of both contracting parties, in case a professional intermediary intervenes. A report transaction is an agreement whereby a person sells public securities and simultaneously agrees to purchase at a later date similar securities from the purchaser (or vice versa).

The above is only a guide to the general tax position as at the date of these Listing Particulars, is based on current legislation and, in the case of the UK, Inland Revenue practice. If any person is in any doubt as to his tax position or is subject to tax in a jurisdiction other than the UK or Belgium, he should consult his own professional adviser.

#### 13. MATERIAL CONTRACTS

# (1) Material Contracts Outside the Ordinary Course of Business

The following contracts (not being contracts entered into in the ordinary course of business) have been entered into by members of the Group either within the three years immediately preceding the date of this document or are contracts, which contain provisions under which a member of the Group has an obligation or entitlement which is material to the Group as at the date of this document and are or may be material:

#### (a) The Shell Transactions

EPI was previously a subsidiary of Shell Ventures. Shell Ventures acquired 210,000 ordinary shares of £1.00 each and 750,000 10 per cent. cumulative redeemable convertible preference shares of £1.00 each in the capital of EPI on 1 June 1988. On 30 June 1989, Shell Ventures acquired a further 5,000 ordinary shares to take their shareholding in EPI to 215,000 ordinary shares. The remaining 30,000 ordinary shares were held by Dr Nelson and Dr Scott and transferred to Bankhill Trustees (as trustees for the Andrew Nelson and Dr Scott Interest in Possession Settlements) on 18 March 1991.

On 27 March 1996, EPIH subscribed for 5,000,000 new ordinary shares of £1.00 each in the capital of EPI. The £5,000,000 required to pay for these shares was provided by a loan from Shell Ventures to EPIH. On 18 April 1996, 4,400,000 of the 5,000,000 ordinary shares were the subject of a reduction in share capital, leaving EPIH owning 600,000 ordinary shares.

EPI ceased to be a subsidiary of Shell Ventures on 24 May 1996 when a capital restructuring and management buy-out took place. Under the restructuring, Shell Ventures 750,000 10 per cent. cumulative redeemable convertible preference shares were reclassified as ordinary shares to take its total to 965,000 ordinary shares. These shares were then transferred to EPIH, to give EPIH a £1,565,000 shareholding in EPI.

In return for the transfer of their ordinary shares in EPI, Bankhill Trustees Limited (as trustees for the Andrew Nelson and Dr Scott Interest in Possession Settlements) were issued with 30,000 ordinary shares of £1.00 each (£15,000 for each settlement) in the capital of EPIH on 24 May 1996 and the one subscriber share already in issue was reclassified as a non-voting subscriber share and transferred into the joint names of Andrew Nelson and Mike Scott.



On 24 May 1996 and in return for the transfer of shares in EPI to EPIH, Shell Ventures were issued with £5,000,000 Secured Loan Stock 1996/2006, £1,000 Unsecured Convertible Loan Stock 2005 and £964,000 Unsecured Loan Stock 2004/2006 in EPI. These were all redeemed on 29 October 1998.

Also on 24 May 1996, Shell Ventures acquired the Golden Share of £1.00. This they held until a capital restructuring took place on 2 November 1998 when the Golden Share was repurchased by EPIH.

EPIH is a party to various agreements with Shell Ventures dated 29 October 1998 pursuant to which the three loan notes were redeemed.

#### (b) The Merger

Details of the Merger are given in paragraph (a) of section 3 of this Part E.

(c) Agreements/contracts relating to the EASDAQ Admission

#### Underwriting Agreement

Pursuant to an Underwriting Agreement (the "May 1999 Underwriting Agreement") dated 27 May 1999 between Beeson Gregory (1) the Company (2) and Dr Andrew Nelson, Dr Michael Scott, Bankhill Trustees Limited as trustee of the Andrew Nelson Interest in Possession Settlement, Bankhill Trustees Limited as trustee of the Dr. Scott Interest in Possession Settlement, Thomas Hierl, Scott Massie, NEPA, James Hwang and Gregory Olsen (together, the "May 1999 Selling Shareholders") (3), the Company agreed to issue 2,800,000 Ordinary Shares in the Company and the May 1999 Selling Shareholders agreed, severally but not jointly, to sell 200,000 ordinary shares of the Company (the "May 1999 Underwritten Shares") to Beeson Gregory, Aros Securities Bank and KBC Securities NV (together, the May 1999 Managers) and each of the May 1999 Managers agreed, severally but not jointly, to subscribe for or purchase the May 1999 Underwritten Shares in the proportions set out therein with a view to offering the same to institutional shareholders pursuant to a public offering in Belgium and private placements in certain other countries.

In addition the May 1999 Selling Shareholders granted Beeson Gregory an option (the "May 1999 Over-allotment Option") to purchase up to 200,000 Ordinary Shares (the "May 1999 Option Shares") from the May 1999 Selling Shareholders in the numbers set out in the May 1999 Underwriting Agreement (if any), solely for the purpose of covering over-allotments, such option to be exercised at the absolute discretion of Beeson Gregory.

The offer price of both the May 1999 Underwritten Shares and the May 1999 Option Shares (together the "May 1999 Shares", and each one a "May 1999 Share") was US \$12.50 per Share (the "May 1999 Offer Price"). The Company and the May 1999 Selling Shareholders agreed to pay to the May 1999 Managers a selling commission of 3.6 per cent of the May 1999 Offer Price per May 1999 Share and a combined underwriting commission of 2.4 per cent of the May 1999 Offer Price per May 1999 Share. The May 1999 Selling Shareholders also agreed to pay to Beeson Gregory equivalent commissions in respect of the May 1999 Option Shares to the extent that the May 1999 Over-allotment Option was exercised.

In addition, the May 1999 Underwriting Agreement contained certain warranties given by the Company, certain warranties given by the May 1999 Selling Shareholders, and an indemnity given by the Company and the May 1999 Selling Shareholders other than NEPA, James Hwang and Gregory Olsen in favour of each of the May 1999 Managers.



(2) Contracts regarding the purchase of reactors in the Ordinary Course of Business

The Group has entered into three separate contracts to purchase reactors. The total consideration payable under these contracts is approximately \$40 million. The Group may, however, cancel approximately one-third of the reactors ordered.

Summary details regarding the terms of these three contracts are set out below:

#### (a) Riber contract

Pursuant to a purchase order dated 25 October 1999 between the Company and Riber Inc., the Company has agreed to purchase three MBE 6000 reactors with a right of first refusal over a fourth.

The total sum payable for the initial three reactors will be 40 per cent. prior to the delivery of each reactor, 45 per cent. payable 30 days after shipment, 10 per cent. payable 30 days after mechanical acceptance and 5 per cent. payable 30 days after material acceptance.

The Company was required to pay a deposit which will be applied to the purchase prices of each reactor, part of which amount is non-refundable.

The Company shall have the right to refuse delivery of all but one of the reactors, at a penalty.

Riber agreed to deliver the first reactor by 30 April 2000, the second reactor by 30 July 2000 and the third reactor by 30 September 2000. The Company may reschedule the second and third reactor delivery, as long as delivery is taken by 31 December 2001. Such rescheduled delivery dates must be selected from Riber's available delivery slots. The Company's right of first refusal over a fourth reactor relates to the last available delivery slot in 2000 only.

If the first reactor does not meet Material Acceptance, then the Company is entitled to cancel delivery of the second and third reactors, and all down payments in respect of the same will be refunded, provided that the reactor has been operated in accordance with instruments from Riber.

#### (b) VG Semicon contract

Pursuant to a purchase order dated 13 October 1999 between the Company and VG Semicon, the Company has agreed to purchase three V-150 reactors with a right of first refusal over a fourth.

The total sum payable for the initial three reactors is 3 per cent. payable prior to the delivery of each reactor, 47 per cent. payable 30 days after shipment, 16 per cent. payable 30 days after mechanical acceptance and 6 per cent. payable 30 days after material acceptance.

The Company was required to pay a deposit which will be applied to the purchase prices of each reactor, all of which is non-refundable.

The Company shall have the right to refuse delivery of all but one of the reactors, at a penalty.

VG Semicon agrees to deliver the first reactor by 31 March 2000, the second reactor by 30 June 2000 and the third reactor by 30 September 2000. The Company may reschedule the second and third reactors delivery, as long as delivery is taken by 31 December 2001, if VG Semicon is able to fill all 2000 production slots, otherwise delivery must be taken by 31 December 2000. Such rescheuled delivery dates must be selected from VG Semicon's available delivery slots. The Company's right of first refusal over a fourth reactor relates to the last available delivery slot in 2000 only.

If the reliability of the components in the reactors fails to meet mutually agreed target, then the Company may at its sole discretion require VG Semicon to provide components from another supplier. Such decision must be made available by the Company by 31 March 2000.



#### (c) AIXTRON AG Supply Agreement

Pursuant to an agreement dated 24 February 1999 between EPI and AIXTRON AG, AIXTRON AG has agreed to supply EPI with ten MOVPE reactors over a five year period.

EPI will pay the list price for such reactors, with AIXTRON AG entitled to increase the list price by no more than 5 per cent. per annum. A discount is applicable depending upon in what year the order is given. An additional discount is available if any order by EPI is accelerated such that a reactor is delivered in the year prior to the scheduled delivery. A penalty is charged if any order by EPI is delayed such that a reactor is delivered in the year subsequent to the scheduled delivery.

Payment is to be made 40 per cent. with the initial order, 40 per cent. on successful completion of works testing, 10 per cent. on successful completion of installation tests and 10 per cent. upon acceptance by EPI after final process test.

If AIXTRON AG fail to deliver within 2 months of scheduled date of delivery, then EPI shall receive a further discount on the list price for each month or part thereof of delay from such date of delivery.

If EPI fails to order any agreed piece of equipment in any year, then the discount from the list price set out in the agreement in respect of all previously supplied equipment shall be reduced for each piece of equipment not purchased. If the order is subsequently made, such sums will be refunded.

AIXTRON AG warrants the reactors to be free of defects for 12 months after final acceptance.

#### 14. WORKING CAPITAL

The Company is of the opinion that the working capital available to the Group, including the net proceeds of the Placing is sufficient for its present requirements, that is 12 months from the date of this document.

#### 15. LITIGATION

No member of the Group is engaged in, nor has pending or threatened by or against it, any legal or arbitration proceedings which may have or have had a significant effect on the financial position of the Group.

#### 16. General

- (a) There has been no significant change in the financial or trading position of the Group since 31 December 1999 being the date of the latest audited financial statement.
- (b) The costs and expenses of, and incidental to, Admission payable by the Company are estimated to amount to approximately \$4,500,000 (exclusive of VAT, stamp duty and SDRT) of which \$3,600,000 are payable to the Joint Lead Managers. These include the cost of the application for Admission, accountancy fees, the Company's and the Joint Lead Manager's legal fees, the costs of printing this document, the fees and expenses of the Registrar and the fees payable to the Joint Lead Managers.
- (c) Deloitte & Touche, Chartered Accountants, have given and not withdrawn their written consent to the inclusion in this document of their reports set out in Part C of this document and references to such reports and their name in the form and context in which they are included have authorised those parts of this document for the purposes of section 152(1)(e) of the Financial Services Act.



- (d) Beeson Gregory is regulated by The Securities and Futures Authority Limited and is also a member of the London Stock Exchange. Beeson Gregory is, registered in England and Wales with number 2316630 and its registered office is at The Registry, Royal Mint Court, London EC3N 4LB.
- (e) Lehman Brothers is regulated by The Securities and Futures Authority Limited and is also a member of the London Stock Exchange. Lehman Brothers is registered in England and Wales with number 2538254 and its registered office is at One Broadgate, London EC2M 7HA.
- (f) No Ordinary Shares are being marketed or are available to the public, in whole or in part, in connection with the application for Admission.
- (g) The Company's Ordinary Shares were admitted to trading on EASDAQ on 27 May 1999.
- (h) The Ordinary Shares are in registered form and are capable of being held in uncertificated form.
- (i) The financial information set out in this document relating to the Group does not constitute statutory accounts of the Group within the meaning of section 240 of the Act. The auditors of the Company are Deloitte & Touche, Chartered Accountants and Registered Auditors of Blenheim House, Fitzalan Court, Newport Road, Cardiff CF24 0TS. Deloitte & Touche have reported on the Company's accounts since its incorporation for the period ended 31 December 1999 within the meaning of section 235 of the Act. Each such report was unqualified within the meaning of section 262(1) of the Act and did not contain a statement under sections 237(2) or (3) of the Act. Statutory accounts of the Company for the period ended 31 December 1999 have or will be delivered to the Registrar of Companies in England and Wales pursuant to section 242 of the Act. With the exception of such statutory accounts, no information relating to the Group in this document has been audited by Deloitte & Touche.
- (j) Annual and quarterly reports of the Group are published on the Group's and EASDAQ's website, as well as being made available through Euroclear.
- (k) Payment for the Placing Shares must be made in full on application

# 17. DOCUMENTS AVAILABLE FOR INSPECTION

Copies of the following documents may be inspected at the offices of Eversheds, Senator House, 85 Queen Victoria Street, London, EC4V 4JL during usual business hours on any weekday (Saturdays and public holidays excepted) for a period from the date of this document until the date falling 14 days from the date of this document.

- (a) the Memorandum and Articles of Association of the Company;
- (b) the audited accounts of the Group for the three financial years ended 31 December 1999;
- (c) the Accountants Report set out in part C;
- (d) the service agreements referred to in section 9 of this Part E;
- (e) the material contracts referred to in section 13 (1) of this Part E;
- (f) the rules of the EPI Holdings Limited Unapproved Employee Share Option Scheme, the QED Stock Option Plan and the IQE plc Share Option Scheme;
- (g) the consents referred to in section 16 above;
- (h) a statement of the adjustments made by Deloitte & Touche referred to on page 53 above; and
- (i) a copy of this document.



#### 18. AVAILABILITY OF LISTING PARTICULARS

Copies of this document will be available free of charge to the public at the registered office of the Company, Lehman Brothers at One Broadgate, London EC2M 7HA and Beeson Gregory at The Registry, Royal Mint Court, London EC3N 4LB during normal business hours on any weekday (Saturdays and public holidays excepted) from the date of this document until 14 days from the time and date on which Admission takes place, which is expected to be on 19 May 2000.

#### 19. PLACING AGREEMENT

Prior to the Closing Date the Company, the Selling Shareholders and certain Directors will enter into a purchase and agency agreement with Beeson Gregory, Lehman Brothers, Beeson Gregory International LLP and Lehman Brothers Inc (together "the Initial Purchasers") pursuant to which the Initial Purchasers, severally and not jointly, will agree to subscribe or purchase or procure the subscription or purchase of the Placing Shares other than the Option Shares. In addition the Company and the Selling Shareholders will grant to the Initial Purchasers options to purchase or subscribe or to procure persons to purchase or subscribe all or any portion of the Option Shares. the Initial Purchasers will receiving underwriting commissions and discounts on the Placing Shares equal to 6 per cent. of the Placing Price. The Company, the Selling Shareholders and certain Directors will give certain warranties and Indemnities to the Initial Purchasers and will provide certain covenants and undertakings, including that the Company will pay the costs relating to the Placing and any stamp, value added or transfer taxes payable in relation to the Placing and the Selling Shareholders will pay any stamp duty and stamp duty reserve tax arising in connection with the transfer of the Placing Shares sold by them to any Initial Purchaser or any purchaser procured by any Initial Purchaser and with any sale or transfer by any of the Initial Purchasers of such Placing Shares. In addition, the lock up arrangements referred to on page 41 of this document will apply.

Dated 18 April 2000