NANOCO GROUP PLC

INTERIM RESULTS PRESENTATION

HALF YEAR ENDED 31 JANUARY 2019

DISCLAIMER

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The financial information referenced in this presentation does not contain sufficient detail to allow a full understanding of Nanoco's results. For more detailed information, the entire text of the preliminary results announcement for the half year ended 31 January 2019, can be found on the Investor Relations section of the Nanoco website (www.nanocogroup.com).

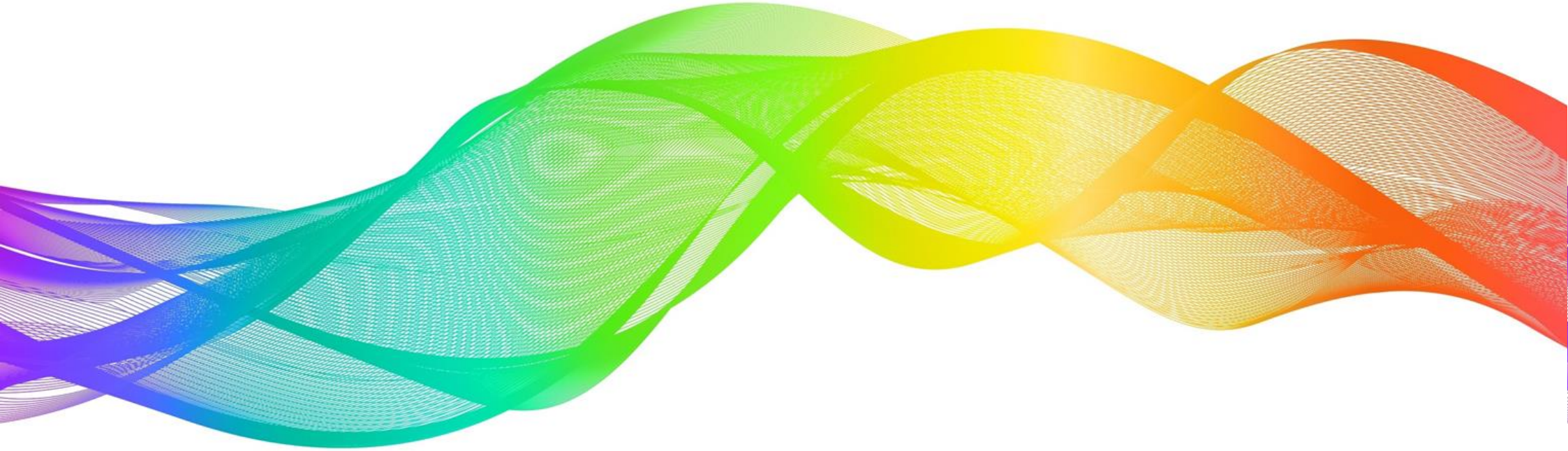
HIGHLIGHTS – SIGNIFICANT PROGRESS

Operational highlights – hit all key milestones

Final milestones completed under original agreements with US Customer	**Major extension agreed** with US Customer until 31 Dec 2019	Runcorn facility **expansion complete**, commissioning and validation commenced	CFQD® Quantum Dots **performance significantly improved**

Financial highlights – significantly improved results

H1 revenue **£3.2m** similar to FY18 total revenue (H1 FY18: £0.2m)	Adjusted EBITDA loss **significantly reduced by 40% to £2.5m** (H1 FY18: £4.2m)	Contracted orders for delivery in H2 FY19 **£3.4m** and future years **£4.8m**	Net cash **£6.2m** Cash flow will be broadly neutral to 31 Dec 2019



ELECTRONICS

COMMERCIAL PROGRESS

Unique

- Proprietary platform technology - design, develop, and scale-up of nano-materials
- Exploiting the performance characteristics of the materials

Resources

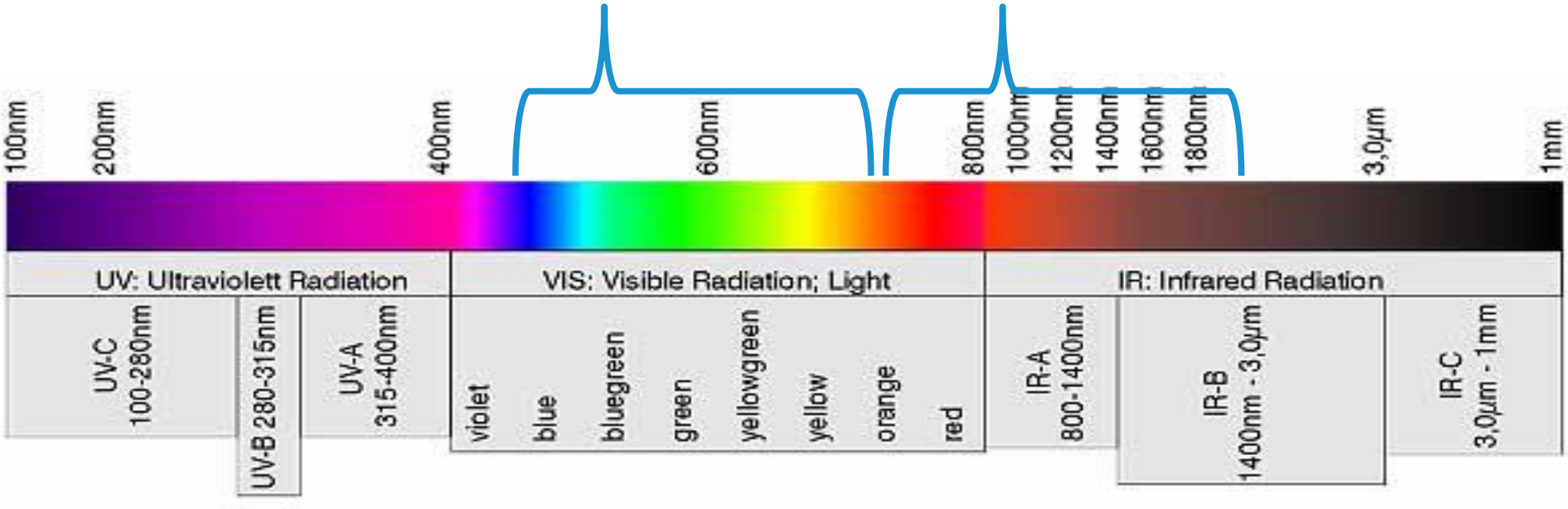
- Major re-allocation of resources to focus on near term revenue opportunities
- Exploiting the wide range of potential applications for the platform technology

R&D

- Increased our R&D focused on enhancing the performance of our CFQD® quantum dots
- Significant improvements in key metrics such as FWHM for commercial applications
- Generating valuable intellectual property (c. 730 patents and patent applications)

NANO MATERIALS FOCUS

Products:	CFQD® quantum dots	IR quantum dots	2D Materials
Industry:	• Display • Lighting • Life sciences	• Drones • Consumer electronics • Automotive	• Catalysis • Display • Sensing



Nanoco tunes the absorption <u>and</u> emission of our quantum dots to match specific applications

DEEP AND STRENGTHENING RELATIONSHIP WITH US STRATEGIC CUSTOMER

Program on track and exploring additional commercial opportunities

UNDERSTANDING THE US CUSTOMER CONTRACTS

FIRST AGREEMENT

Contract 1 (~£8.0m cash)

10 months to December 2018

Delivery of Runcorn facility + three technical milestones

Extension 1 (~£8.0m cash)

12 months to December 2019

Stress testing and optimisation of Runcorn (no contingent milestones)

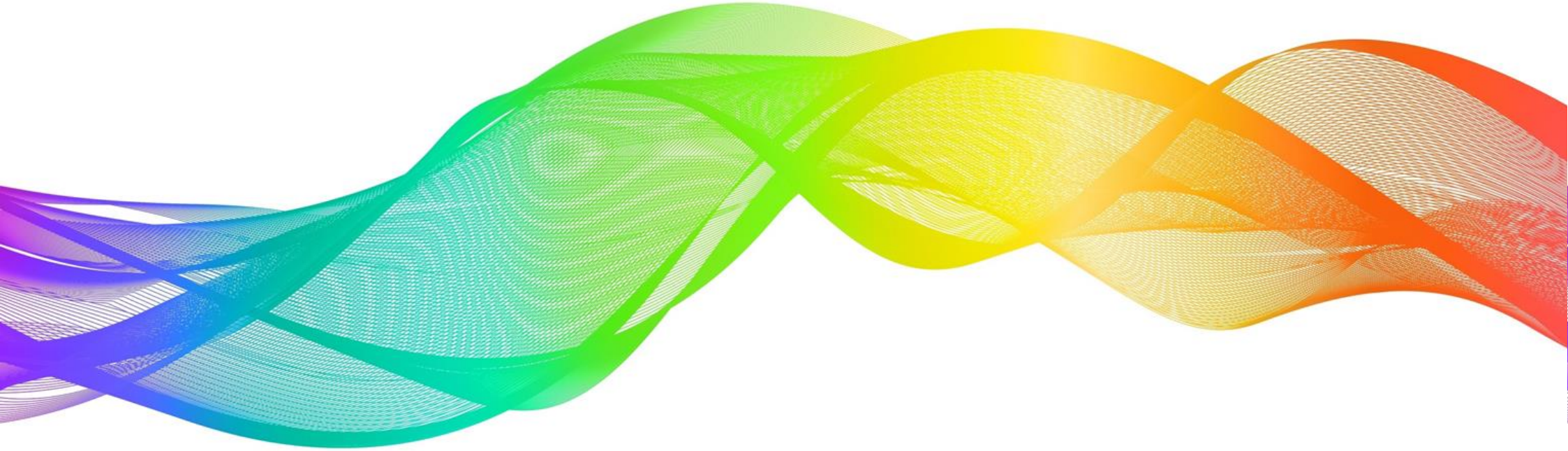
SECOND AGREEMENT

Contract 2 (~£1.1m cash)

8 months to November 2018

R&D services + four technical milestones

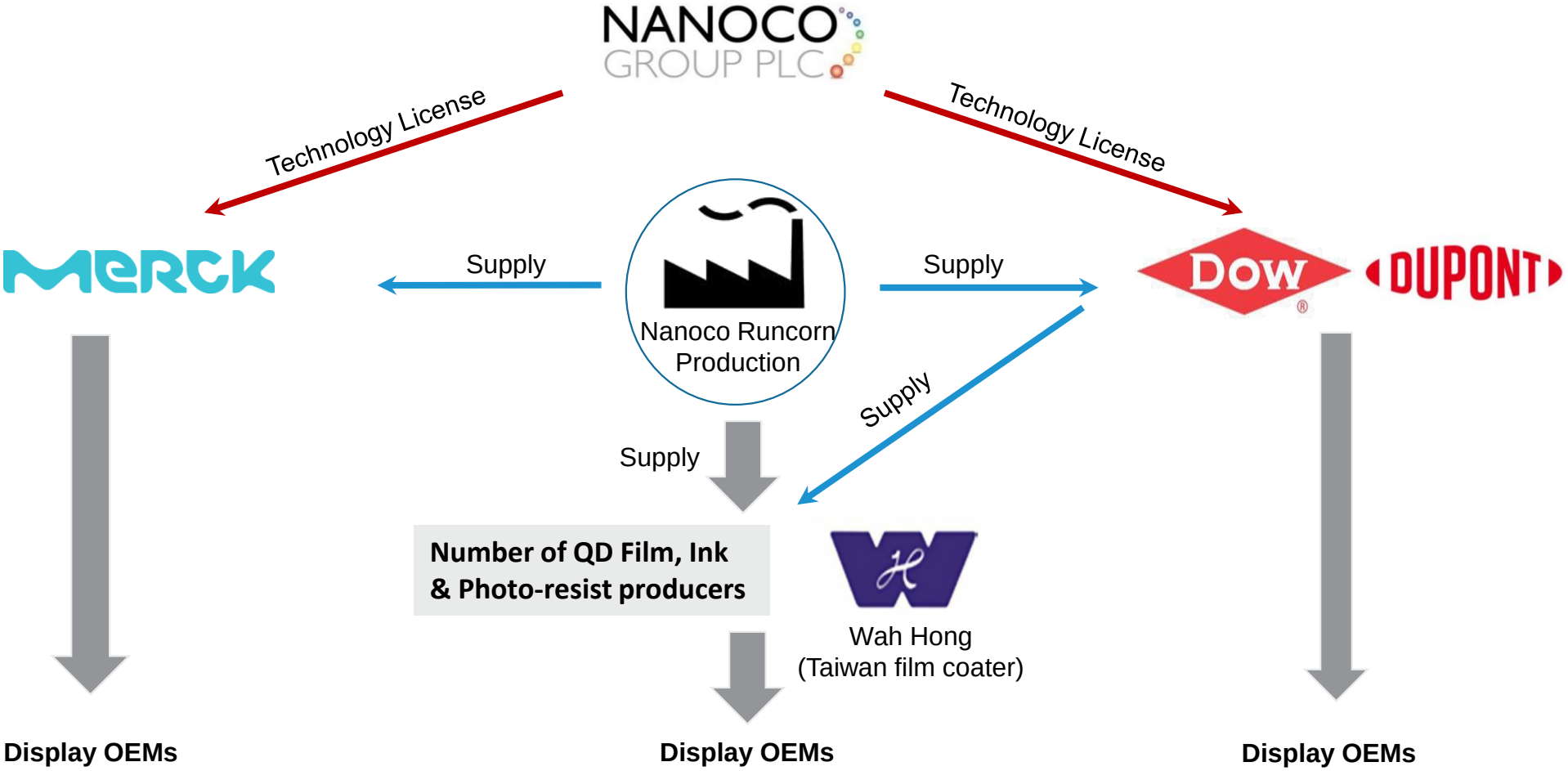
- All scopes of work are delivered under an over-arching Master Services Agreement
- Contract 1 aims to underpin delivery of commercial production quantities of unique nano-materials
- Contract 2 focused on exploring potential of novel next generation nano-materials



DISPLAY

EVOLVING DISPLAY STRATEGY

- Nanoco manufacturing and supplying smaller quantities to market and licensees
- DuPont (formerly Dow) focused on large volume opportunities
- Nanoco working closely with DuPont, Merck and developing potential new partnerships



QD DISPLAY TECHNOLOGY ROADMAP EVOLVING

- Rapid improvements in CFQD® quantum dot quality, performance, yield
- New generation QD enabled displays being developed such as hybrid QD-OLED and QD-micro LED
- New integrators entering the market with QD inks, photo-resists and film

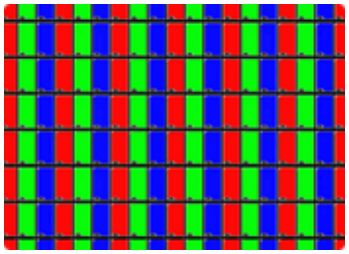
QD Film
- QD film TVs Samsung dominate
- Other OEMs following

QD Colour Conversion
- QD-OLED
- QD-microLED
- Samsung driving technology

QLED
- EL QD
- QD-TADF Hybrid
- Combined with or substitute for OLED

Current technology

1 – 3 years away



3+ years away

Nanoco is heavily involved in all three stages of this quantum dot display evolution

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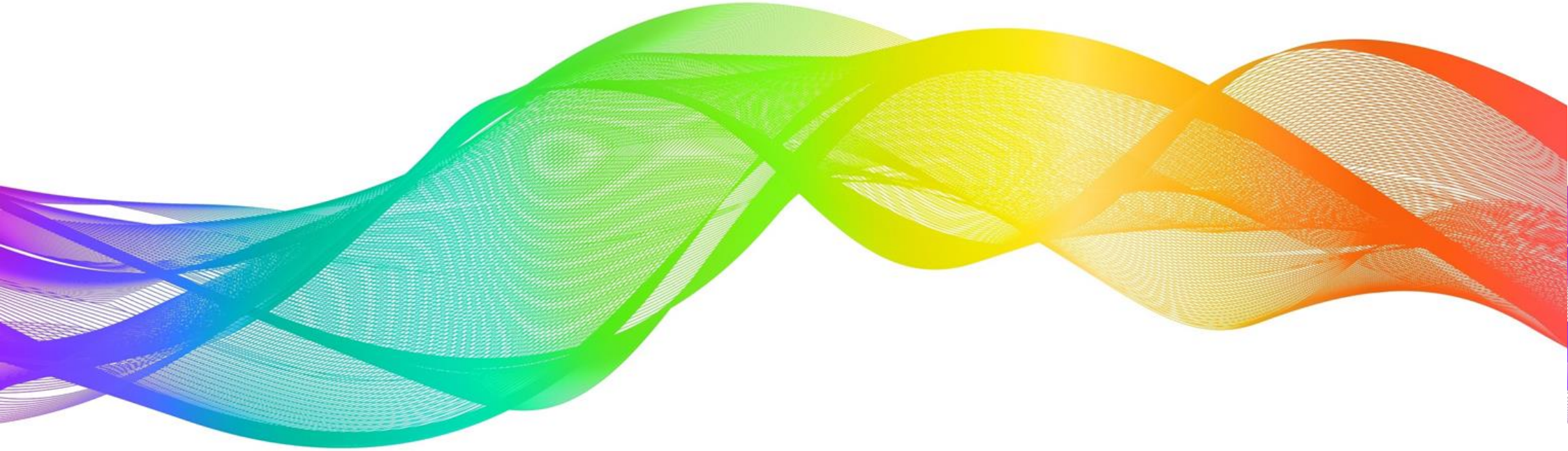


LIGHTING & LIFE SCIENCES

OTHER MARKETS

Horticultural Lighting

- Market forecast growth from $3.8bn in 2017 to $17.0bn in 2027*
- Partly driven by advent of high intensity vertical farming
- QDs deliver precise spectrum light triggering: Flowering, Growth and Reproduction

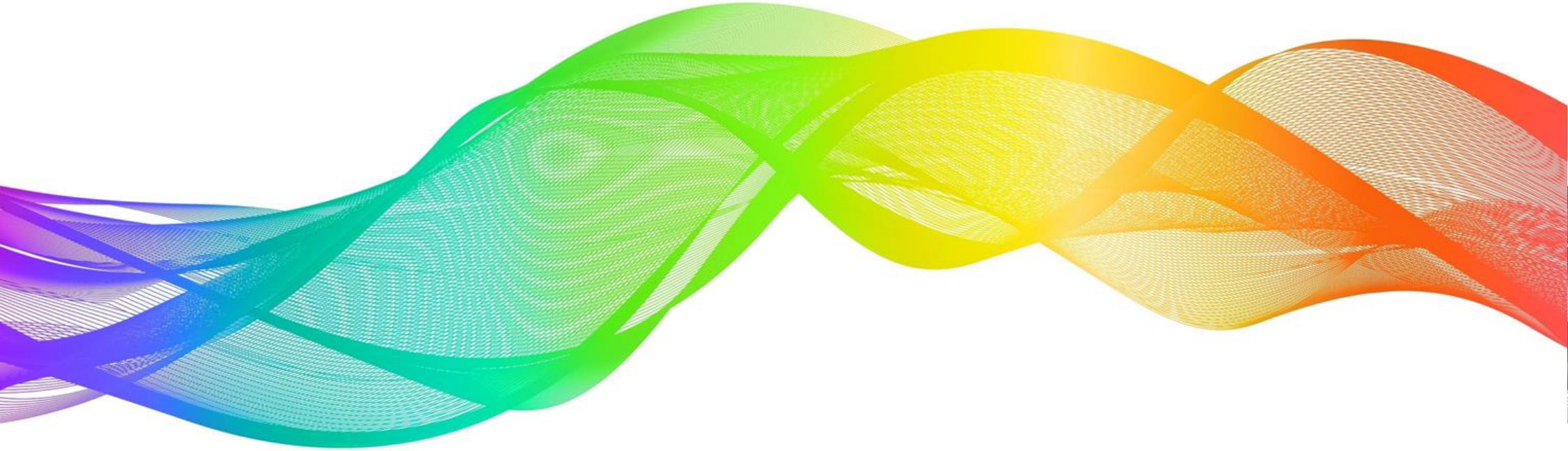
Photo-Dynamic Therapy

- Nanoco customer, ‘CareWear’, launched product to professional sports market
- Medical device exploiting light therapy to reduce bruising

Life Sciences

- Cancer imaging and detection: Greater brightness, photo-stability and multiple colors
- Covance toxicology study confirms CFQD® quantum dots non-toxic
- Charles River Labs partnership on *in-vivo* mouse models for pancreatic cancer

*Source: Yole – Horticultural LED Lighting Technology, Industry, and Market Trends 2017



FINANCIAL REVIEW

FINANCIAL HIGHLIGHTS

Billings & Revenue

- Billings and revenue vastly increased on H1 FY18
- Reflects successful delivery of services and milestones to the US Customer
- Expect continuing healthy billings in H2 FY19 with no contingent revenue

Costs

- Pivoted production team to support US Customer while retaining display capability
- Cost base remains around £2.5m below full year peak of £13.5m in FY16
- Cost base remains closely managed – headcount held flat since July 18

Cash

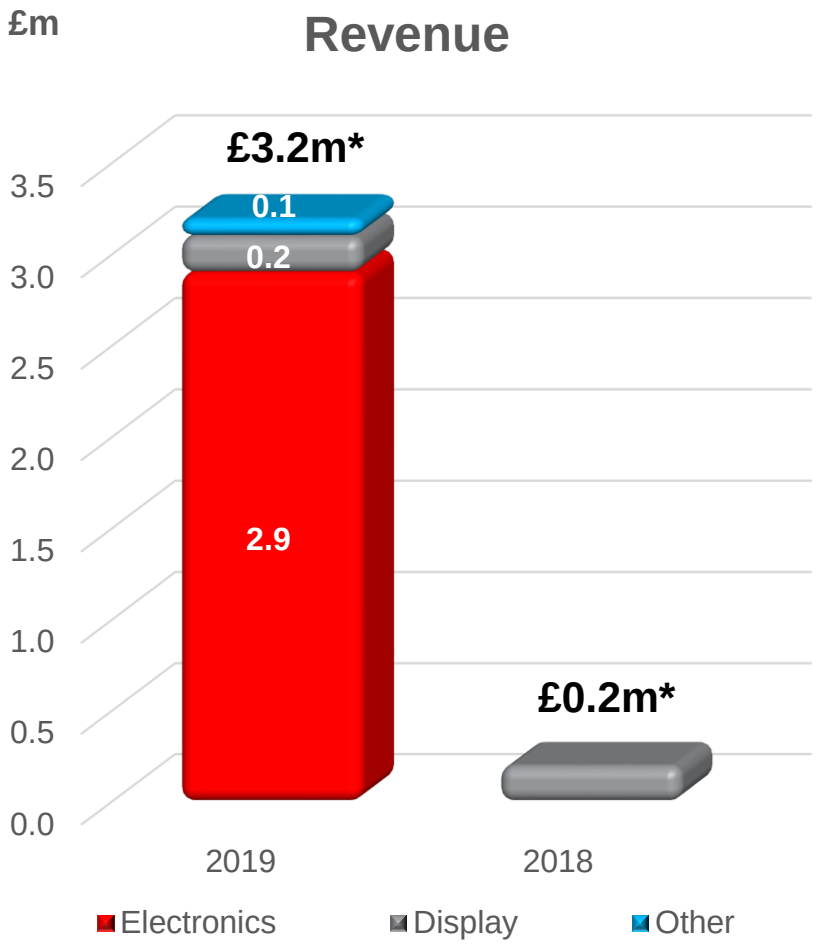
- Conservation of cash resources continues as a key management focus
- Cash flow in the period to December 2019 expected to be broadly neutral
- Capital spend will reduce following completion of Runcorn expansion

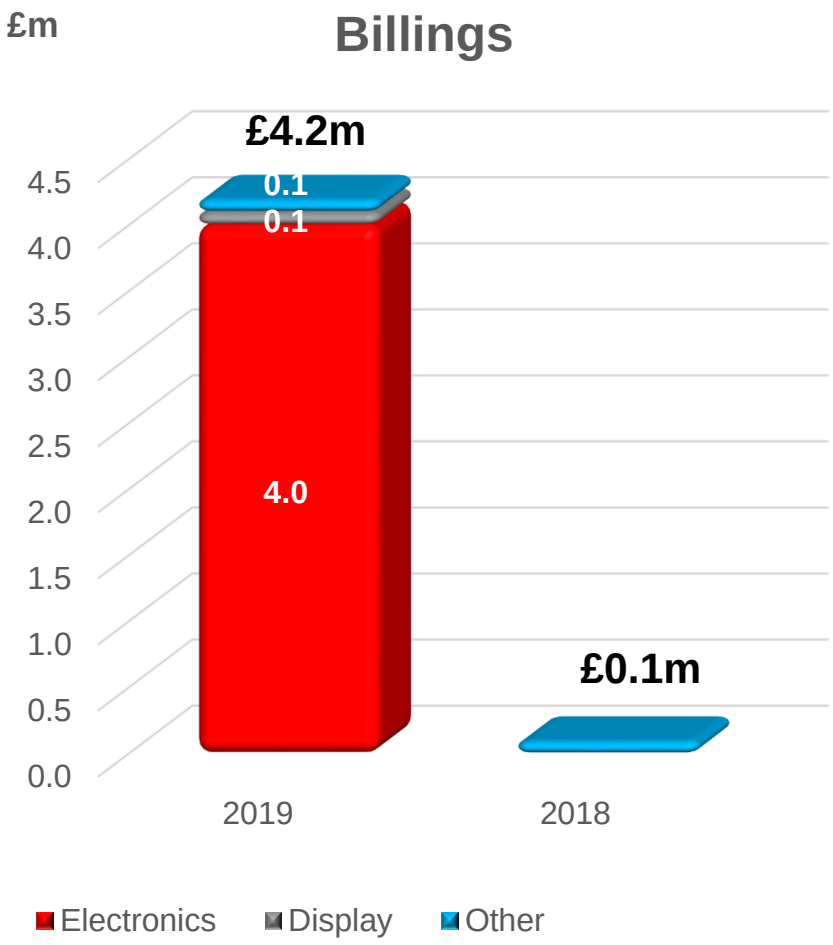
INCOME STATEMENT

	H1 19 £m	H1 18 £m	Change £m
Revenue and other income	**3.2**	0.2	+3.0
Cost of sales	**(0.5)**	(0.1)	(0.4)
Gross profit	**2.7**	0.1	+2.6
R&D investment	**(1.6)**	(1.9)	+0.3
Other administrative expenses	**(3.7)**	(2.5)	(1.2)
Loss Before Interest, Depreciation & Amortisation	**(2.6)**	(4.3)	+1.7
Depreciation & Amortisation	**(0.5)**	(0.5)	-
Operating loss	**(3.1)**	(4.8)	+1.7
Tax and financing costs	**0.6**	0.6	-
Loss after tax	**(2.5)**	(4.2)	+1.7

- Revenue growth from service income generated in the electronics market sector (90% of H1 revenue)
- Costs reflect increased payroll costs compared to H1 PY (flat on H2 PY) and expanded facility costs
- Expect growth in depreciation in H2 FY19 (~£0.5m annualised) as Runcorn facility comes on line

REVENUE AND BILLINGS IN H1 FY19



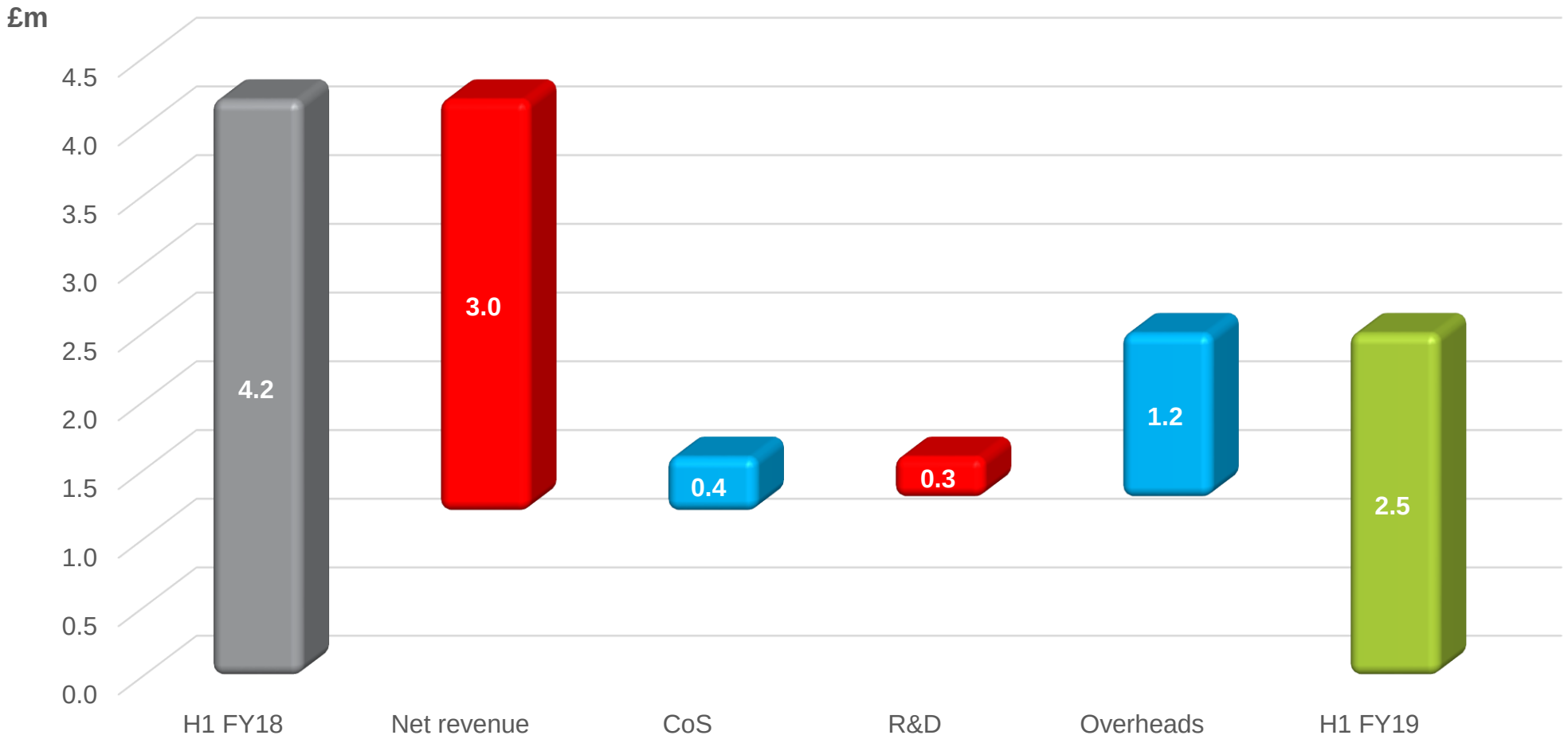


*** excludes grants disclosed as other operating income**

- Revenue of £3.2m vs H1 FY18 £0.2m
- Electronics key market sector

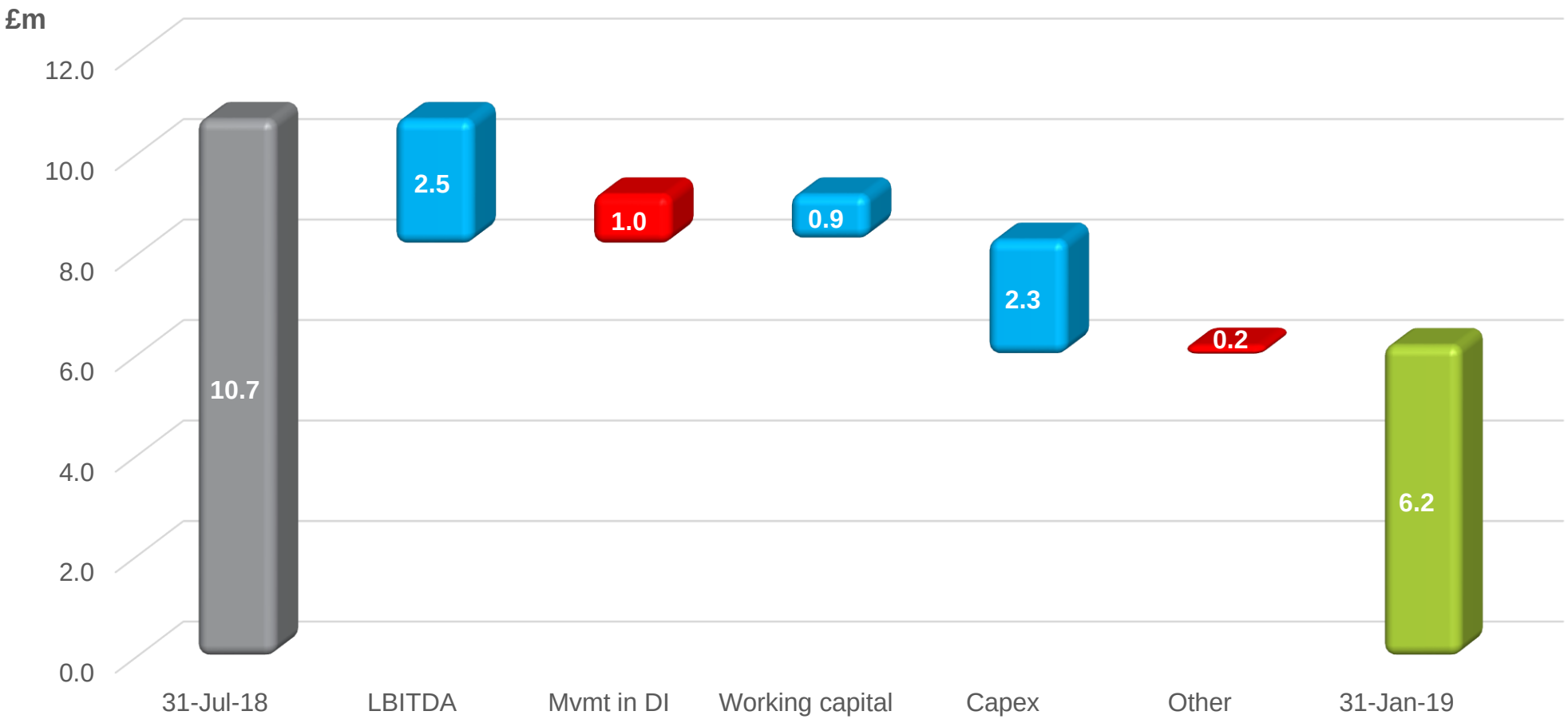
- Billings of £4.2m vs H1 FY18 £0.1m
- Order book (deferred income) grew £1.0m

MOVEMENT IN NET LOSS IN H1 FY19



- Revenue growth drops strongly to the bottom line reflecting attractive GM% on services
- Cost base grew to service US Customer – annualised costs still £2.5m below FY16 peak of £13.4m

MOVEMENT IN CASH H1-19



- Cash flow to December 2019 expected to be broadly neutral
- Cash inflows from US Customer contract extensions and R&D tax credits
- Completion of Runcorn sees capex reduce in H2 FY19 to c.£1.5m and c.£1.0m p.a thereafter

FINANCIAL SUMMARY

Guidance

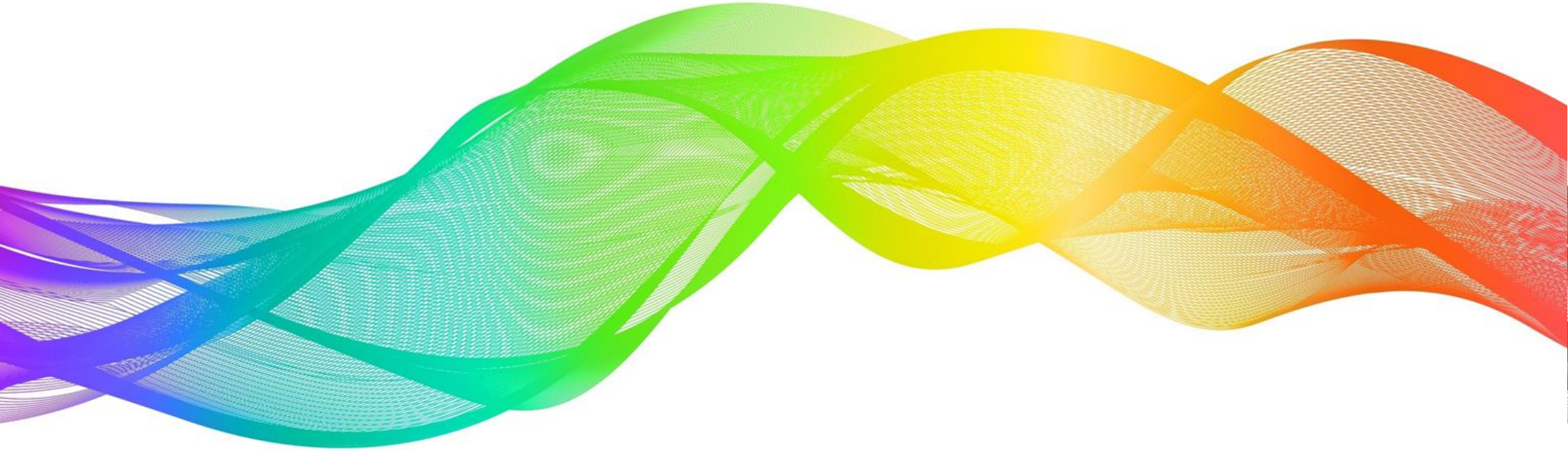
- Contracted orders fully underpin the Board's expectations for the full year

Improved visibility

- Improved visibility over a lengthening time frame

Cash

- Cash flow broadly neutral through to December 2019



SUMMARY

SUMMARY


The Leader in Nano-Materials Technology
Platform Technology Addressing Diverse, Large, and Rapidly Growing Market Opportunities
Volume Production
Large and Defensible Intellectual Property Portfolio (~730 Patents)
Strong Customer Traction
Highly Experienced Management and Technical Team
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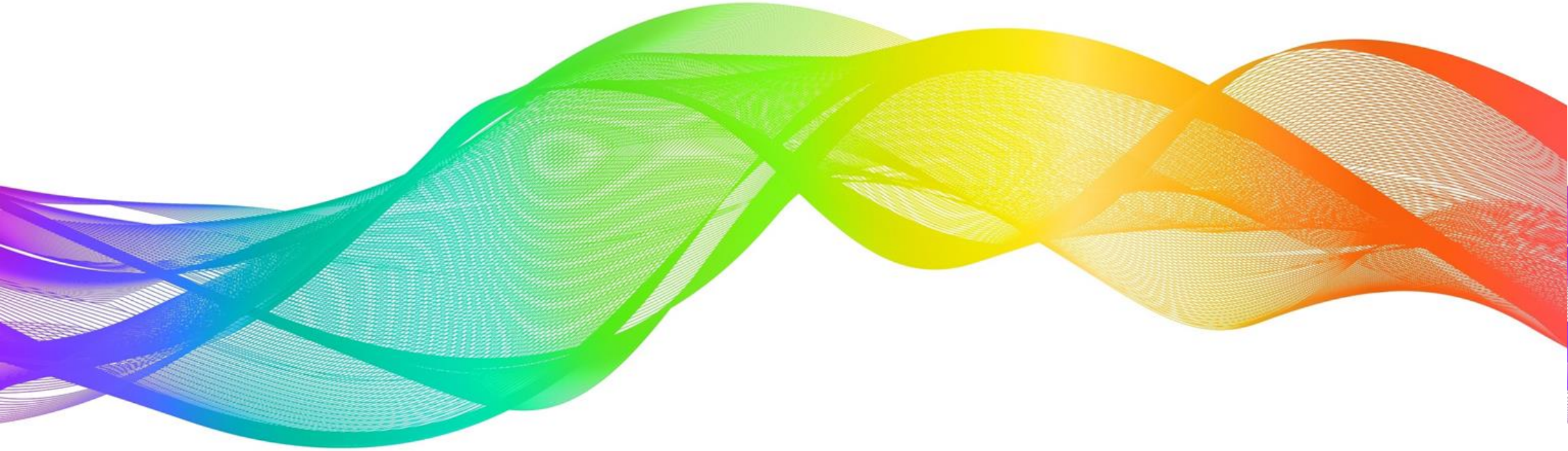
Q&A



ABOUT NANOCO

NANOCO OVERVIEW

Nano-materials pioneer
Platform technology
IP Leader c. 730 patents and patent applications

94 Employees
38 PhDs
11 Nationalities

Global footprint
HQ / R&D Manchester, UK
Manufacturing Runcorn, UK
FTSE: NANO.L

4 Major industries served
3 Major licensee
1 Major Supply Agreement

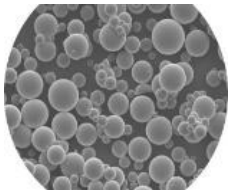
CORE ATTRIBUTES

INNOVATION

- Volume production
- Cadmium free QD pioneer
- Infrared quantum dots
- Next generation 2D materials
- c. 730 patents and applications

Materials

Process



Surface chemistry

Devices

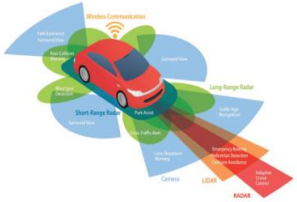
PARTNERSHIP

- Licensees
- Customers
- Technology
- Universities

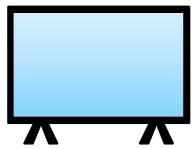
DUPONT · Dow · MERCK · USA CORP · Kyulux · plessey · MANCHESTER 1824 The University of Manchester · UCL

LARGE MARKETS

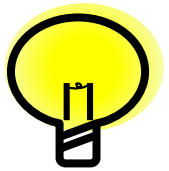
- Platform technology
- Large and growing markets



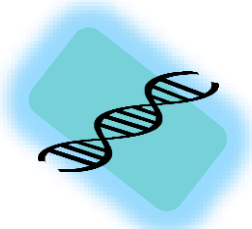
Nano-Materials



Display

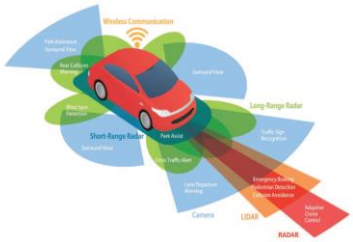
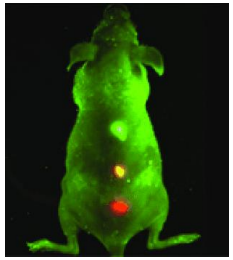


Lighting



Life sciences

LARGE & GROWING ADDRESSABLE MARKETS

	Electronics	Display	Lighting	Biomedical
				
Application	Infrared Sensing	LCD backlighting	Horticulture Lighting	Biological imaging In-vivo & in-vitro diagnostic
Technology	Infrared Quantum Dots	CFQD® quantum dots CFQD® quantum dots resin	CFQD® quantum dots film	Water soluble CFQD® QD's Functionalized CFQD® QD's
Business Model / Timing	Manufacture and sell materials	License & materials sales	License & material sales	Partner licence with upfront fees / longer term
Addressable Market	~$8Bn for both Human-machine sensors and autonomous vehicles	$7.5B in 2022[1]	~$8.5Bn in 2022[2]	QDs in healthcare ~c.$1B in 2022[1]
Opportunity Timing	H1 FY2020	H2 FY2019	H2 FY2020	H1 FY2022

(1) Market&Markets – Quantum Dots Market by Product, Application, Material & Geography – Forecast & Analysis (2013 – 2022), Markets&Markets 2012
(2) Yole – Horticultural LED Lighting Technology, Industry, and Market Trends 2017

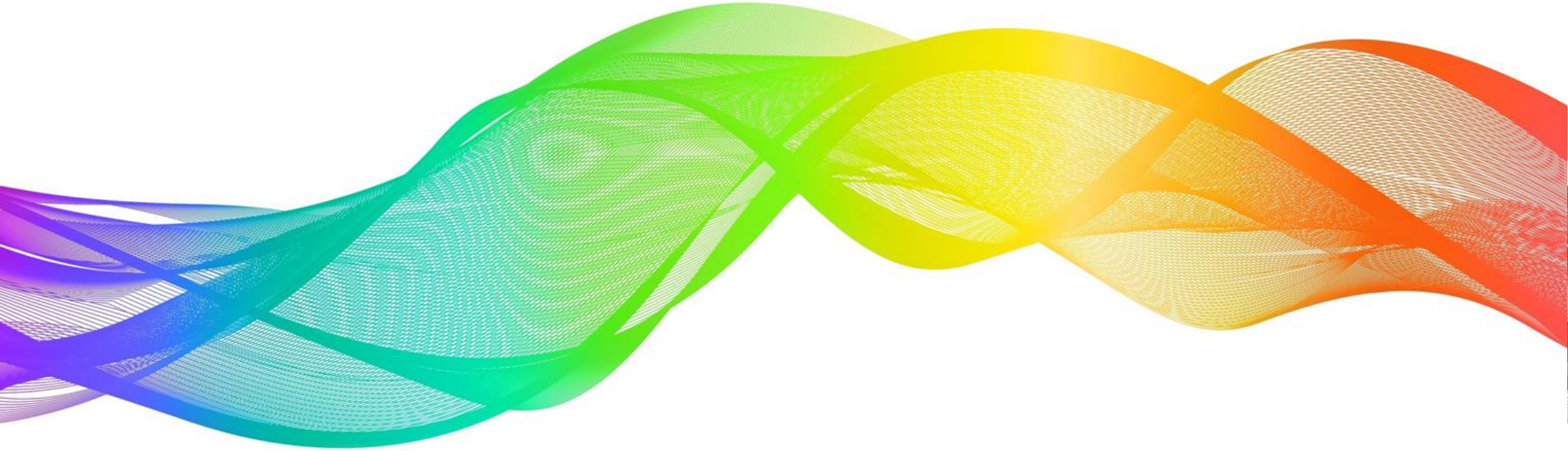
LEADERSHIP TEAM

Dr Christopher Richards Non-Executive Chairman	• CEO, Non-Executive chairman, Arysta LifeSciences • 20 years of increasing management roles at Syngenta • Executive chairman of Plant Health Care • NED of Origin Enterprises plc
Dr Michael Edelman CEO	• Led spin-out of Nanoco from University of Manchester • GE/Bayer JV, founded www.yet2.com Europe, commercial director Colloids Ltd, Brunner Mond, ICI
Dr Nigel Pickett Co-founder & CTO	• Inventor of Nanoco's key patented scale-up technology • Leading expert on semi-conducting nano-crystals • Japanese Government, St. Andrews University, Georgia Tech
Brian Tenner CFO / COO	• Experienced Quoted Company CFO with strong operational and transformation experience • Previously Board Member and CFO of British Nuclear Group Ltd, Scapa Group plc, Renold Plc, NCC Group PLC • NED and Chair of Audit Committee at AIM listed Velocity Composites plc
Dr Alison Fielding Non-Executive (Remuneration chair)	• IP Group • NED of Getech Group plc • Astra Zeneca, followed McKinsey & Co, then co-founded Techtran Group Limited which was acquired by IP Group in 2005 and subsequently held the role of director and COO at IP Group • Board member and advisor of several early stage and quoted IP Group backed technology companies
Chris Batterham Non-Executive (Audit chair)	• 20 years of Non-Executive experience in high growth technology companies including • Blue Prism, SDL, Betfair and Iomart • Previously CFO of Unipalm, first Internet IPO

SHAREHOLDER ANALYSIS (AS AT 31 JANUARY 2019)

Name	Shareholding	Percentage
Lombard Odier	61,859,360	21.62%
Hargreaves Lansdown Asset Management	24,249,739	8.48%
M&G Investment Management	20,498,689	7.17%
Baillie Gifford & Co	15,531,589	5.43%
Miton Asset Management	15,036,025	5.26%
Dr Nigel Pickett (CTO)	11,112,347	3.88%
Interactive Investor	10,297,504	3.60%
Dr Michael Edelman (CEO)	3,124,350	1.09%
Total of shareholdings above	**161,709,603**	**56.53%**

Note: The total number of voting rights in the Company is 285,934,927



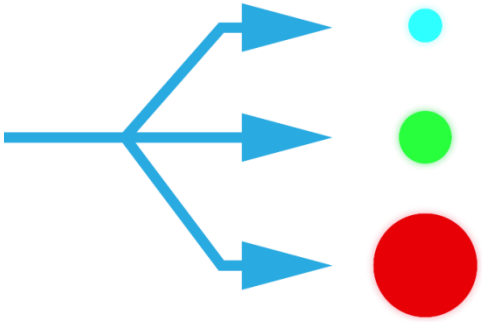
APPENDICES

WHAT IS A QUANTUM DOT?

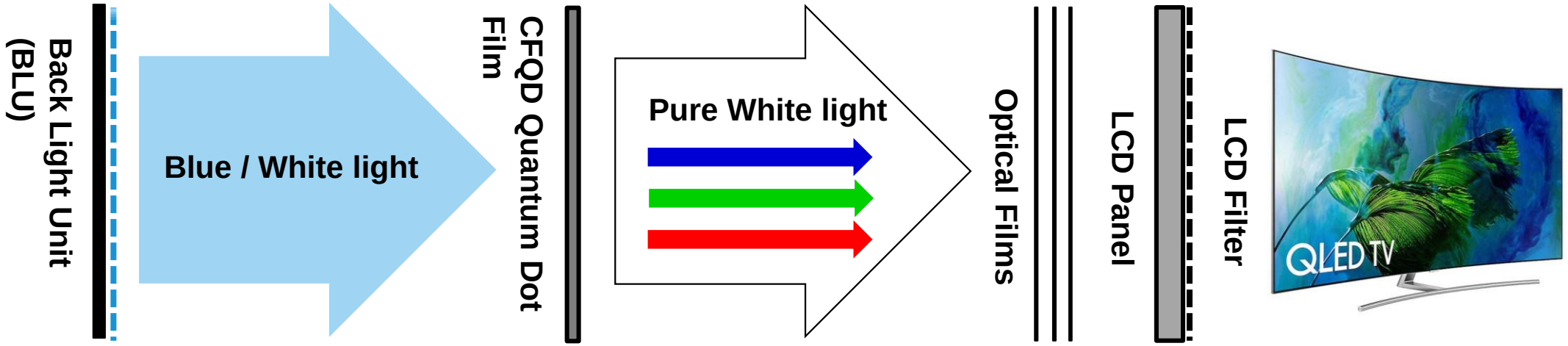
- Tiny particles of a fluorescent semiconductor material
- 1 to 10 nanometers in diameter
- Size of the quantum dot determines the spectrum of light emitted
- Smaller = blue; larger = red
- Quantum dots can also be tuned to light beyond visible light into the Infra-red or ultra-violet parts of the spectrum

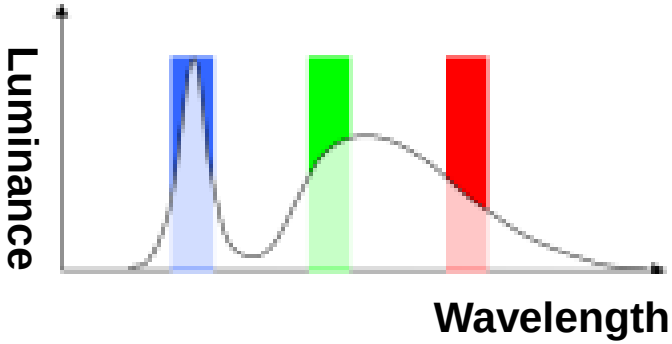
ADVANTAGES TO THE PHYSICAL PROPERTIES OF QUANTUM DOTS

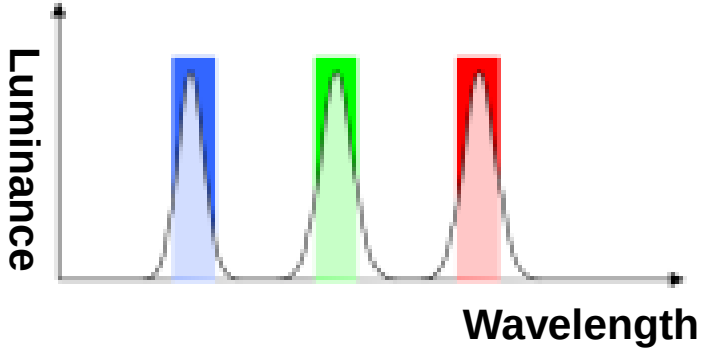
- More energy efficient than conventional phosphors
- Emit light in precisely-controlled wavelengths
- Nanosecond lifetime enables increased modulation
- Improved color gamut for displays
- QD technology can reduce manufacturing cost and complexity



BREAKDOWN OF A QD LCD DISPLAY







Emits light – much more blue than green and red

Light energises the quantum dots in the film

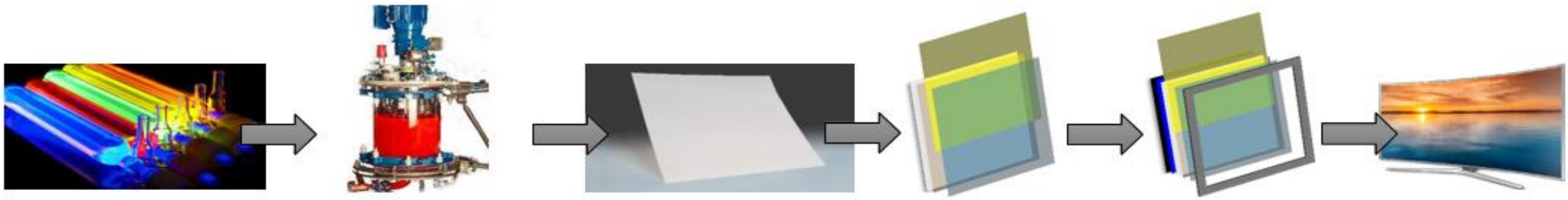
Quantum dots emit precise green and red colours

LCD panel creates the image through polarised shuttering of pixels

Each pixel / shutter is paired with a coloured filter to remove all but the red, green or blue light. Filters may be replaced by QDs in the future.

Source: Edison Investment Research

BENEFITS OF CFQD® QUANTUM DOT



QD manufacture | Resin | Film | Film stack | Panel | Display

Better Colour Gamut

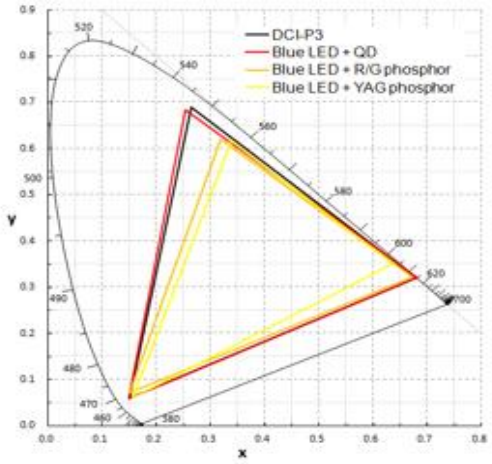
- Much improved colour saturation
- Improved colour enhancement over LCD → similar to OLED

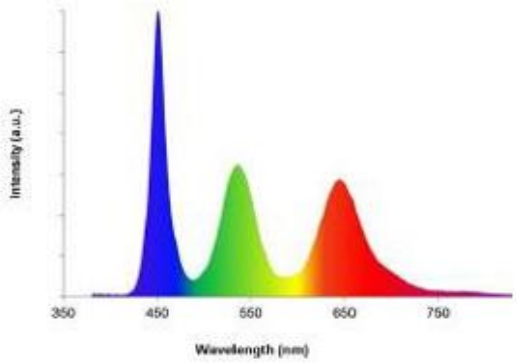
Energy Efficient

- Narrow bandwidth = more light extraction through colour filters
- Enables use of blue LED instead of less efficient white LED

Minimal Process

- Uses existing LCD manufacturing infrastructure
- Uses existing LCD supply chain





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