



4 June 2019

## Technology Hardware



Source: Refinitiv

## Market data

EPIC/TKR	LWRF.L
Price (p)	7.25
12m High (p)	20.3
12m Low (p)	6.50
Shares (m)	102.0
Mkt Cap (£m)	7.40
EV (£m)	6.90
Free Float*	45%
Market	AIM

\*As defined by AIM Rule 26

## Description

LightwaveRF is a manufacturer of smart home devices that has developed a broad range of connected products. Established in 2008, the company is headquartered in the UK. It sells directly to consumers and through a range of distributors and major retail chains.

## Company information

CEO	Jason Elliott
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Chairman	Barry Gamble

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## LightwaveRF

## 1H'19 results: 120% YoY revenue growth

Lightwave has announced strong results for the six-month period to end-March 2019. Revenue more than doubled, accompanied by an uplift in gross margin, reflecting the evolution of the company's routes to market. The efforts to expand the distribution base and retail presence plus the focus on direct-to-consumer sales are paying dividends. Direct sales doubled during the period, while a number of new distribution agreements have been announced, adding Rexel in the UK and, notably, Tech Data on a Europe-wide basis. New and upgraded product launches continue, including ranges for markets beyond the UK designed to support the growing distribution in new markets.

- ▶ **1H'19 results:** Revenue for the period was £2.50m, up 120% YoY from £1.13m in 1H'18. The 1H'19 outturn is in excess of 90% of the revenue reported for the whole of 2018. Gross profit also more than doubled to £0.95m, representing an increased gross margin of 37.9%, up from 35.3% reported for FY'18. Heavy reinvestment in product and sales and marketing resulted in a pre-tax loss of £1.35m.
- ▶ **Strategy:** Central to the transformation of Lightwave's growth trajectory has been the strategic emphasis on broadening the retail base. Apple sells Lightwave products across Europe, while retail stockists include Screwfix, John Lewis, Currys, AO, B&Q, and many other specialist electrical online and physical retailers.
- ▶ **Distribution channels:** These have been similarly strengthened with a constant flow of new agreements. Recent months have seen the addition of Rexel, a nationwide UK distributor and Tech Data, one of the largest global IT distributors for its pan-European network. The high level of interest reflects both the favourable trends in the smart home market and Lightwave's recognised position as a leading vendor.
- ▶ **Direct-to-consumer focus:** Alongside the third-party agreements, extensive effort and resources have gone into the direct-to-consumer segment, which has the highest gross margin profile. Social media and other online marketing have been a focus in terms of investment, alongside enhancements to customer support.
- ▶ **Risks:** Lightwave will need to remain innovative with respect to competitive trends to maintain strong brand recognition vs. larger players in the market. The product refresh programme remains ambitious as further upgrades to the first-generation products are rolled out; execution will need to be strong.

## Financial summary and valuation

Year-end Dec (£m)	2017	2018	2019E	2020E	2021E
Total income	3.03	2.81	6.40	12.30	14.40
Gross profit	1.08	0.83	2.78	5.97	6.59
Gross margin	35.5%	29.3%	43.5%	48.5%	45.8%
EBIT	-0.80	-2.50	-2.26	0.14	0.65
Pre-tax profit	-0.85	-2.54	-2.27	0.14	0.65
Net profit	-0.85	-2.54	-2.27	0.14	0.65
EPS – basic (p)	-2.39	-3.80	-2.40	0.14	0.64
EPS – diluted (p)	-2.39	-3.80	-2.40	0.14	0.64
EV/revenue (x)	2.3	2.5	1.1	0.6	0.5
EV/EBIT (x)	-8.7	-2.8	-3.1	48.3	10.5

Source: Hardman &amp; Co Research

## Investment summary

The past 12 months have seen Lightwave management deliver strong progress on a clearly articulated strategy. The availability of products has been dramatically enhanced through a raft of new agreements with distributors and retailers. In a relatively crowded smart home market, Lightwave is succeeding in driving awareness of its brand through differentiated social media and online marketing. The “Smarts Family” animated characters have attracted 800,000 digital channel views. Many of the strategic initiatives have yet to make a material contribution. For example, the partnerships signed with Honeywell Resideo Inc. and E.ON/Berkeley Homes are recent initiatives, both with sizeable potential.

- ▶ Resideo is a company that was spun out of Honeywell with a smart home focus. Operating on the same RF frequency, the product offerings of the two companies are highly complementary. Resideo has a market capitalisation of \$2.4bn. The two companies have agreed to share their proprietary radio protocols to both integrate their respective technologies and to jointly develop new technologies. This will include Lightwave hosting the Honeywell protocol on its RF hub and platform, in turn allowing interoperability between Honeywell smart home products and with Lightwave products.
- ▶ In March, Lightwave announced a supply agreement with E.ON, the international utility company, and Berkeley Group, the housebuilder. The supply agreement is part of a collaboration between E.ON and housebuilder Berkeley at a development of new homes in London. Lightwave's smart hub, light switches and power sockets form part of an upgrade package that will be offered to homebuyers accompanied by device-level energy monitoring through E.ON's Future Energy Home dashboard. More initiatives of this type are likely.
- ▶ In our detailed initiation report, *Switch to Smart*, dated 13 March 2019, we also highlighted a training initiative that Lightwave is in the process of preparing with NICEIC, the electrical standards body, to launch a formal smart home accreditation programme for electrical contractors.

These are all initiatives that will contribute to future revenue growth against a backdrop of intensifying adoption by consumers of smart home technologies.

LightwaveRF – 1H'19 results			
(£m)	1H'19	1H'18	Change
Revenue	2.50	1.13	121%
Gross profit	0.95	0.46	107%
Gross margin	37.9%	40.6%	-270bps
Operating loss	-1.33	-0.87	53%
Net loss	-1.35	-0.87	55%
Loss per share (p)	1.85	1.73	6.9%

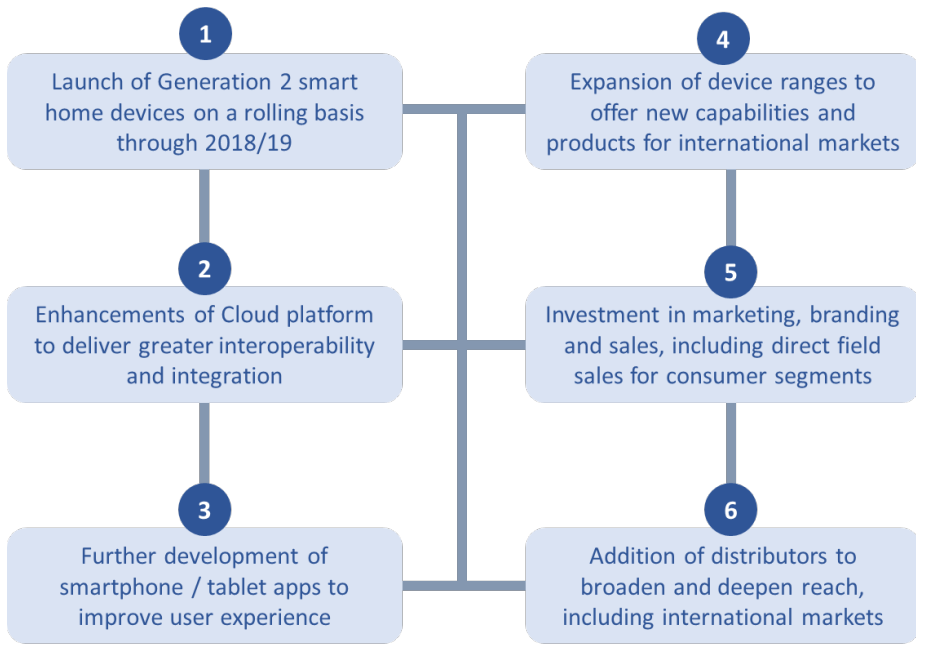
Source: Company data, Hardman & Co Research

### 1H'19 results in more detail

- ▶ Lightwave ended March 2019 with a cash balance of £0.76m. This excluded £0.5m of the total fundraising of £2.25m as the proceeds were received after the end of the 1H period. Total loans and borrowings at 31 March 2019 were £0.70m, of which £0.30m is a loan against an expected tax credit.

- ▶ Reflecting the ongoing investment in the launch of new and upgraded products, research and development expenditure in the period was £1m, of which £0.79m was capitalised as required under IAS38.
- ▶ Administrative expenses increased to £2.48m (1H'18: £1.57m). Headcount has been the primary driver of the opex increase and, in turn, expansion of the R&D and sales and marketing efforts. Management continues to scale up marketing expenditure, acknowledging that there is much to do to build Lightwave brand recognition. This category of opex will be the driver of the incremental administrative expenses in each of 2019 and 2020.
- ▶ Given a relatively conservative stance on our 2019 revenue estimate, together with the incremental marketing expenditure planned for the current year, we continue to expect that the company will achieve EBIT breakeven on a full-year basis in 2020E.

**LightwaveRF - key strategic initiatives**



Source: Hardman & Co Research

**Marketing remains a key focus**

Marketing initiatives are among the management team’s highest priorities, with a particular focus on digital marketing to directly address as wide a consumer audience as possible. A high-end animation company has been engaged to produce graphics for this initiative, which centres on an animated family known as The Smarts. The schematic below captures screenshots from a 90-second animated movie that shows the role that Lightwave lighting technologies play in enhancing this digital family’s lives and routines. Lightwave intends to build on these initial videos with further “adventures” that showcase additional technological capabilities of the newer products. This innovative approach to direct-to-consumer marketing exemplifies the substantial marketing experience of the new CEO.

Lightwave – digital marketing initiative screenshots



Source: YouTube, Hardman & Co Research, Company data

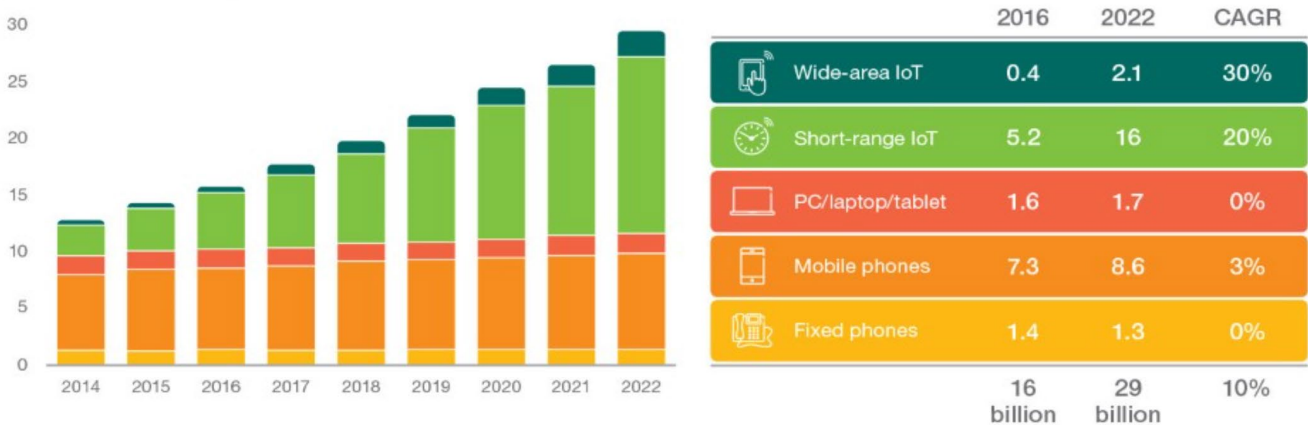
IoT/smart home market growing strongly

Consumer interest in smart home technologies has never been greater, yet penetration remains in its relative infancy. Ease of use and instant access to content offered by Amazon Alexa/Echo, Google Home and Apple HomeKit are having a dramatic impact on consumer appetite for smart devices. Market forecasts expect substantial growth.

The smart home devices fall within the short-range segment of the connected devices aspect of the Internet of Things (IoT). Ericsson’s estimates, set out in the chart below, anticipate that short-range IoT devices will represent the largest growth driver of overall connected device growth between 2016 and 2022.

Connective device growth estimates

Connected devices (billions)



Source: Ericsson

## P&L estimates

Lightwave – income statement								
Year-end Sep (£m)	2014	2015	2016	2017	2018	2019E	2020E	2021E
<b>Revenue</b>	<b>3.04</b>	<b>2.10</b>	<b>1.44</b>	<b>3.03</b>	<b>2.81</b>	<b>6.40</b>	<b>12.30</b>	<b>14.40</b>
<i>growth YoY</i>	-	-31%	-31%	110%	-7%	127%	92%	17%
Cost of sales	-2.01	-1.43	-0.97	-1.95	-1.99	-3.62	-6.33	-7.81
<i>growth YoY</i>	-	-29%	-32%	101%	2%	82%	75%	23%
<b>Gross profit</b>	<b>1.03</b>	<b>0.67</b>	<b>0.47</b>	<b>1.08</b>	<b>0.83</b>	<b>2.78</b>	<b>5.97</b>	<b>6.59</b>
<i>growth YoY</i>	-	-35%	-30%	130%	-23%	237%	114%	11%
<b>Gross margin</b>	<b>34%</b>	<b>32%</b>	<b>33%</b>	<b>36%</b>	<b>29%</b>	<b>43%</b>	<b>49%</b>	<b>46%</b>
Other Income (R&D credits)	-	-	0.21	0.25	0.41	0.30	-	-
Administrative expenses	-1.28	-1.07	-1.49	-2.12	-3.74	-5.34	-5.82	-5.94
<i>growth YoY</i>	-	-17%	39%	42%	76%	43%	9%	2%
<b>EBIT profit/loss</b>	<b>-0.25</b>	<b>-0.40</b>	<b>-0.81</b>	<b>-0.80</b>	<b>-2.50</b>	<b>-2.26</b>	<b>0.14</b>	<b>0.65</b>
<i>growth YoY</i>	-	59%	102%	-2%	214%	-10%	-106%	359%
<b>EBIT margin</b>	<b>-8%</b>	<b>-19%</b>	<b>-56%</b>	<b>-26%</b>	<b>-89%</b>	<b>-35%</b>	<b>1%</b>	<b>5%</b>
Finance expense	-0.05	-0.02	-0.03	-0.05	-0.05	-0.01	-	-
<b>Pre-tax profit/loss</b>	<b>-0.30</b>	<b>-0.42</b>	<b>-0.84</b>	<b>-0.85</b>	<b>-2.54</b>	<b>-2.27</b>	<b>0.14</b>	<b>0.65</b>
<i>growth YoY</i>	-	40%	101%	0%	201%	-11%	-106%	359%
<b>Pre-tax margin</b>	<b>-10%</b>	<b>-20%</b>	<b>-58%</b>	<b>-28%</b>	<b>-90%</b>	<b>-35%</b>	<b>1%</b>	<b>5%</b>
Taxation	0.15	0.19	0.0	0.0	0.0	0.0	0.0	0.0
<b>Net profit/loss attributable to equity shareholders of parent</b>	<b>-0.14</b>	<b>-0.23</b>	<b>-0.84</b>	<b>-0.85</b>	<b>-2.54</b>	<b>-2.27</b>	<b>0.14</b>	<b>0.65</b>
<b>Profit/loss per share – basic (p)</b>	<b>-1.20</b>	<b>-1.73</b>	<b>-4.37</b>	<b>-2.39</b>	<b>-3.80</b>	<b>-2.40</b>	<b>0.14</b>	<b>0.64</b>
<b>Profit/loss per share – dil. (p)</b>	<b>-1.20</b>	<b>-1.73</b>	<b>-4.37</b>	<b>-2.39</b>	<b>-3.80</b>	<b>-2.40</b>	<b>0.14</b>	<b>0.64</b>

Source: Hardman & Co Research, Company data

## Balance sheet estimates

Lightwave – balance sheet								
@ 30 Sep (£m)	2014	2015	2016	2017	2018	2019E	2020E	2021E
<b>ASSETS</b>								
<b>Non-current assets</b>								
Intangible assets	0.00	0.40	0.82	1.21	2.07	3.13	3.98	4.66
Property, plant and equipment	0.06	0.04	0.02	0.03	0.05	0.12	0.19	0.27
	<b>0.06</b>	<b>0.44</b>	<b>0.84</b>	<b>1.24</b>	<b>2.12</b>	<b>3.25</b>	<b>4.17</b>	<b>4.92</b>
<b>Current assets</b>								
Inventories	0.00	0.00	0.10	0.39	0.99	1.04	1.09	1.15
Trade and other receivables	0.34	0.64	0.32	0.47	0.68	0.73	0.84	0.97
Cash and cash equivalents	0.22	1.04	0.00	0.22	0.47	0.09	0.23	1.36
Corporate tax recoverable	0.15	0.12	0.19	0.25	0.41	0.00	0.00	0.00
	<b>0.72</b>	<b>1.80</b>	<b>0.61</b>	<b>1.33</b>	<b>2.55</b>	<b>1.87</b>	<b>2.16</b>	<b>3.48</b>
<b>Total assets</b>	<b>0.78</b>	<b>2.24</b>	<b>1.45</b>	<b>2.56</b>	<b>4.67</b>	<b>5.11</b>	<b>6.33</b>	<b>8.41</b>
<b>EQUITY &amp; LIABILITIES</b>								
<b>Shareholders' equity</b>								
Issued share capital	0.61	0.94	1.03	1.94	3.58	5.01	5.33	5.33
Share premium	2.82	4.03	4.15	5.46	8.73	9.87	10.55	11.84
Reverse acquisition reserve	-0.10	-0.10	-0.10	-0.10	-0.10	-0.10	-0.10	-0.10
Share-based payment reserve	0.00	0.02	0.05	0.07	0.09	0.11	0.13	0.15
Profit and loss reserve	-4.23	-4.46	-5.30	-6.15	-8.69	-10.96	-10.82	-10.16
<b>Total shareholders' equity</b>	<b>-0.90</b>	<b>0.43</b>	<b>-0.17</b>	<b>1.22</b>	<b>3.60</b>	<b>3.93</b>	<b>5.09</b>	<b>7.06</b>
<b>Current liabilities</b>								
Trade and other payables	0.49	0.80	0.63	0.75	0.62	0.77	0.86	1.01
Loans and borrowings	0.57	0.62	0.79	0.59	0.42	0.38	0.34	0.30
<b>Total current liabilities</b>	<b>1.07</b>	<b>1.43</b>	<b>1.42</b>	<b>1.34</b>	<b>1.04</b>	<b>1.15</b>	<b>1.20</b>	<b>1.31</b>
<b>Non-current liabilities</b>								
Loans and borrowings	0.62	0.38	0.21	0.00	0.00	0.00	0.00	0.00
<b>Total non-current liabilities</b>	<b>0.62</b>	<b>0.38</b>	<b>0.21</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>
<b>Total equity &amp; liabilities</b>	<b>0.78</b>	<b>2.24</b>	<b>1.45</b>	<b>2.56</b>	<b>4.67</b>	<b>5.11</b>	<b>6.33</b>	<b>8.41</b>

Source: Hardman & Co Research, Company data

## Cashflow estimates

Lightwave - cashflow								
Year-end Sep (£m)	2014	2015	2016	2017	2018	2019E	2020E	2021E
<b>Cashflow from operating activities</b>								
Loss for the year	-0.14	-0.23	-0.84	-0.85	-2.54	-2.27	0.14	0.65
<b>Adjusted for:</b>								
Depreciation and amortisation	0.01	0.02	0.12	0.32	0.65	0.81	1.09	1.36
Finance expense	0.05	0.02	0.03	0.05	0.05	-0.01	0.00	0.00
Share-based payments	0.00	0.02	0.03	0.02	0.02	0.02	0.02	0.02
Other income	-0.15	-0.19	-0.21	-0.25	-0.41	-0.30	0.00	0.00
Foreign exchange loss/profit on convertible loan	0.00	0.00	0.09	-0.01	0.01	0.01	0.00	0.00
Increase in inventories	0.40	0.00	-0.10	-0.29	-0.60	-0.05	-0.05	-0.05
Increase in trade and other receivables	0.01	-0.27	0.32	-0.15	-0.19	-0.05	-0.11	-0.13
Increase in trade and other payables	0.20	0.33	-0.17	0.12	-0.12	0.15	0.09	0.15
	<b>0.36</b>	<b>-0.29</b>	<b>-0.73</b>	<b>-1.02</b>	<b>-3.15</b>	<b>-1.69</b>	<b>1.19</b>	<b>2.01</b>
Research and development tax credits received	0.00	0.23	0.14	0.19	0.25	0.30	0.00	0.00
Finance costs paid	-0.05	-0.02	-0.03	-0.05	-0.05	-0.01	0.00	0.00
<b>Operating cashflow</b>	<b>0.31</b>	<b>-0.09</b>	<b>-0.63</b>	<b>-0.89</b>	<b>-2.95</b>	<b>-1.40</b>	<b>1.19</b>	<b>2.01</b>
<b>Cashflow from investing activities</b>								
Purchase of property, plant and equipment	-0.06	0.00	0.00	-0.03	-0.06	-0.07	-0.07	-0.08
Development expenditure	0.00	-0.40	-0.51	-0.69	-1.47	-1.18	-0.94	-0.75
	<b>-0.06</b>	<b>-0.40</b>	<b>-0.52</b>	<b>-0.72</b>	<b>-1.53</b>	<b>-1.24</b>	<b>-1.01</b>	<b>-0.83</b>
<b>Cashflow from financing activities</b>								
Proceeds from issue of shares	0.39	1.55	0.22	2.36	5.25	2.80	0.00	0.00
Costs associated with issue of shares	0.00	0.00	-0.01	-0.14	-0.34	-0.20	0.00	0.00
Invoice discounting repaid	0.00	0.00	0.05	-0.05	-0.01	0.00	0.00	0.00
Repayment of convertible loan note	0.00	0.00	-0.02	-0.07	-0.05	-0.04	-0.04	-0.04
Repayment of other loans	-0.32	-0.23	-0.14	-0.28	-0.12	-0.30	0.00	0.00
	<b>0.06</b>	<b>1.31</b>	<b>0.10</b>	<b>1.83</b>	<b>4.73</b>	<b>2.26</b>	<b>-0.04</b>	<b>-0.04</b>
<b>Net increase in cash and cash equivalents</b>	<b>0.31</b>	<b>0.82</b>	<b>-1.04</b>	<b>0.22</b>	<b>0.25</b>	<b>-0.38</b>	<b>0.14</b>	<b>1.14</b>
Cash and cash equivalents at start of year	-0.09	0.22	1.04	0.00	0.22	0.47	0.09	0.23
<b>Cash and cash equivalents at year-end</b>	<b>0.22</b>	<b>1.04</b>	<b>0.00</b>	<b>0.22</b>	<b>0.47</b>	<b>0.09</b>	<b>0.23</b>	<b>1.36</b>

Source: Hardman & Co Research, Company data

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The full detail is on page 26 of the full directive, which can be accessed here: <http://ec.europa.eu/finance/docs/level-2-measures/mifid-delegated-regulation-2016-2031.pdf>

In addition, it should be noted that MiFID II's main aim is to ensure transparency in the relationship between fund managers and brokers/suppliers, and eliminate what is termed 'inducement', whereby free research is provided to fund managers to encourage them to deal with the broker. Hardman & Co is not inducing the reader of our research to trade through us, since we do not deal in any security or legal entity.



