

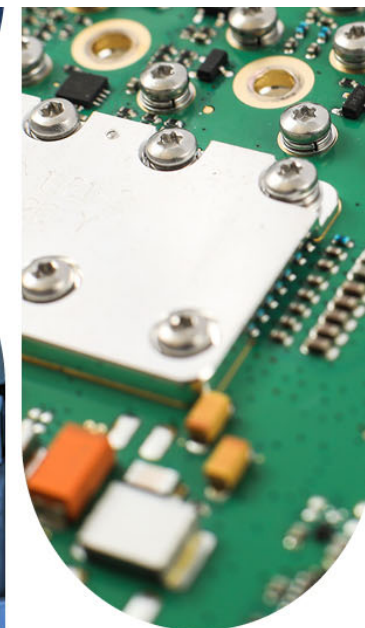


Full Year Results

for Financial Year to 31 May 2021

Richard Gibbs, CEO
Michael Tyerman, CFO

[filtronic.com](https://www.filtronic.com)



1. Executive Overview
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Enabling the future of RF Microwave and mmWave communications

Creating value for our stakeholders
through technology leadership



Executive Overview



Overview

Filtronic plc is a designer and manufacturer of advanced RF communications products serving five core markets:

Telecommunications
Infrastructure (X-Haul)



Aerospace &
Defence



Critical
Communications



Transport &
Private Networks



Space /
*HAPS/LEO



- HAPS: High Altitude Pseudo Satellites
- LEO: Low Earth Orbit Satellites

RF design expertise at microwave frequencies up to 180GHz

Specialist manufacturing of RF Subsystems and mission critical hybrid assemblies

We deliver high-performance solutions based on:

- Flexible UK / USA manufacturing resources allowing OEM's to quickly scale to volume
- Accredited manufacturing facilities with robust security, proven processes and full traceability
- Order fulfilment options which include turn-key design and manufacturing, inventory hub and kitting



Full Year Highlights



Revenue

£15.6m ▼ (-9%)

Adjusted EBITDA*

£1.8m ▲ (+50%)

Adjusted operating profit**

£0.6m ▲ (+50%)

Cash at bank

£2.9m ▲ (+45%)

Net cash (net of all lease obligations
except right of use property lease)

£1.9m ▲ (+375%)

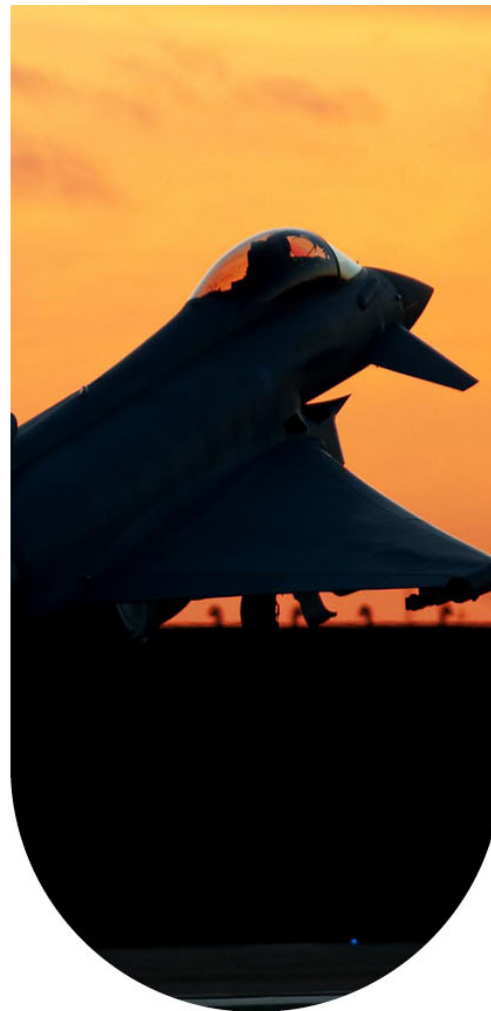
* Adjusted EBITDA is earnings before interest,
taxation, depreciation, amortisation and
exceptional items.

** Adjusted operating profit is operating profit/(loss)
before exceptional items.

- A third year of improved profitability from our core business operations
- Healthy cash position which will be used to drive further organic growth in our served markets
- Maintained 24/7 operation throughout the trading period and continued to deliver products and services in line with customer expectations
- Demonstrated ability to flex and scale the business during a slow trading period in Q1 FY21 followed by recovery in Q3 and Q4
- Served available markets showing signs of recovery and greater confidence in their business forecasts
- Robust orderbook phased for delivery in FY2022 enables us to secure critical semiconductor materials
- Building opportunity pipeline and stronger opening orderbook (+£2.5m v FY20), despite the constraints on business development activities



Financial Summary



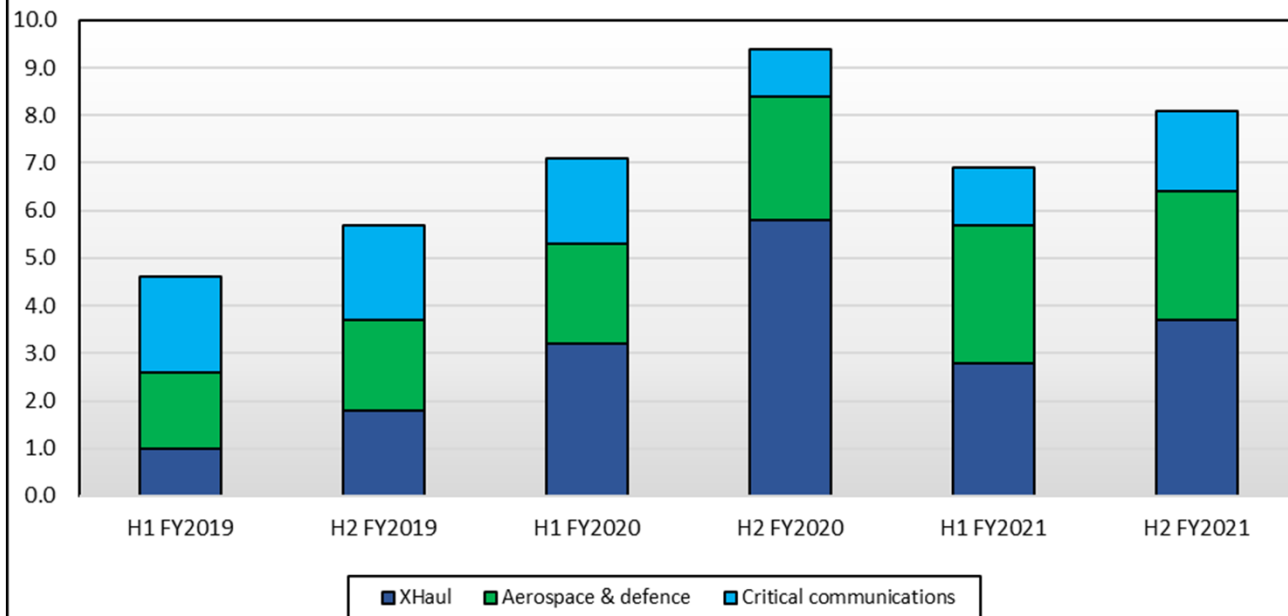
Revenue: 20% Growth in H2 vs H1

Revenue in line with market forecast

Key strategic objective:

Develop customer base outside of top three customers

Revenue By Market By Half (£m)



Group revenue £15.6m (2020: £17.2m)

- Programme delays in H1.
- Lower demand for critical communication products due to diversion of public funds to healthcare in one of our core markets.

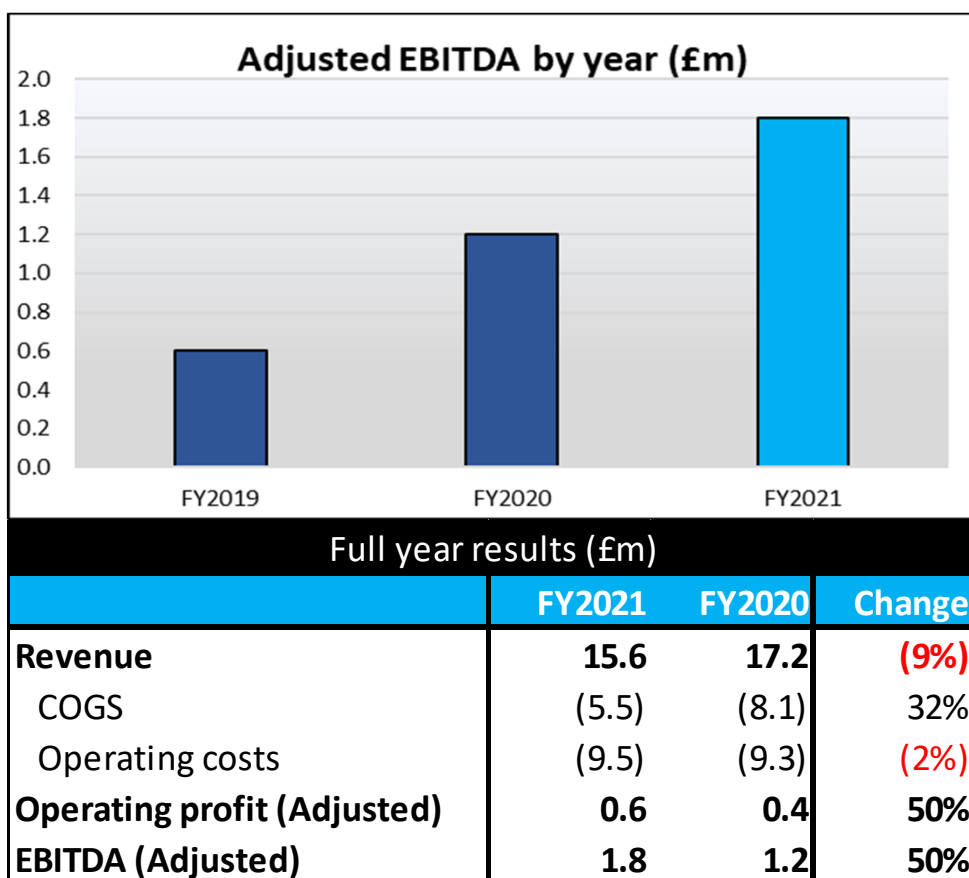
18% growth in H2 (£8.5m) vs H1 (£7.1m)

- Demand recovery in critical communications. Record backlog at the customer with increased order-flow, strengthening customer forecasts and adoption of the TTA.
- **X-Haul:** Decreased 28% YoY but increased by 32% in H2.
- **Defence:** YoY growth of 24%. Consistent product output. Number of smaller contracts.
- **Critical comms:** 7% YoY growth but 41% growth in H2 over H1.



Second Consecutive year of Adjusted EBITDA growth

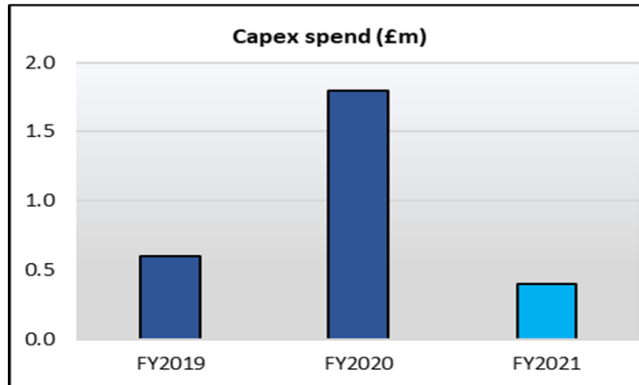
Adjusted EBITDA finished ahead of market forecast



- **Stronger sales mix** due to less sales to the telecoms market where margins are less attractive. COGS 32% lower on 9% revenue reduction.
- Machine optimisation from substantial capex investment in prior year enabled **yield and process efficiency improvement** which delivered manufacturing cost savings.
- **Operating gearing** improves profitability as revenues increase as cost base can support higher revenues.
- Overhead costs increased by 2% to 9.5m from **controlled spend** due to the pandemic but consequential savings of the pandemic (travel, trade exhibitions, furlough and PPP).
- **Adjusted EBITDA** grew by 50% to £1.8m.

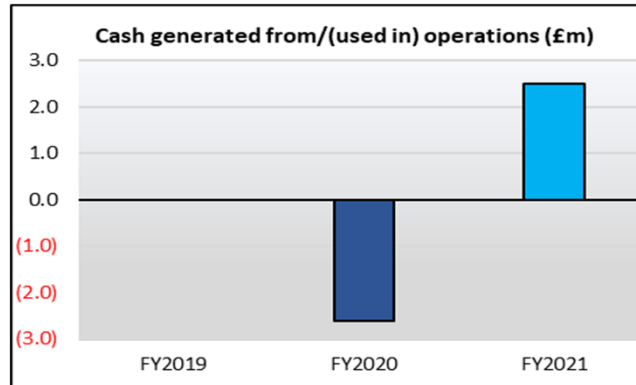


Balance Sheet Highlights



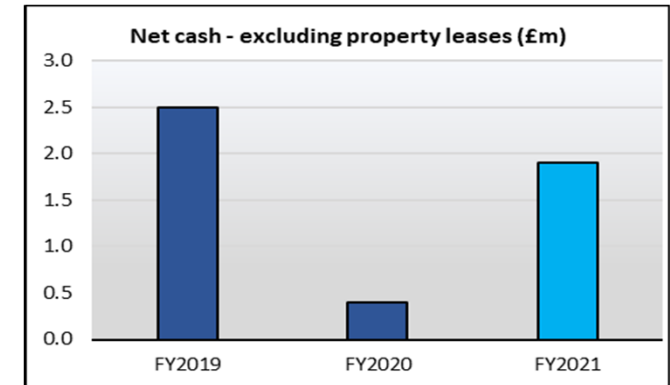
Reduced capital expenditure needs

- £0.4m capex represents a significant YoY reduction.
- Lower spend reflects significant expansion undertaken in FY2020.
- Capacity in place to deliver organic growth. Future capex spend will be aligned to incremental revenue opportunities and technology capability.



Strong cash generation

- £2.5m cash generation from operations.
- Solid EBITDA coupled with an unwind of working capital drove strong cash generation.
- Plan to de-risk material availability risk from the global electronic component shortage and reduced shipping capacity out of Asia by holding more inventory in FY2022.

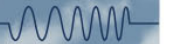
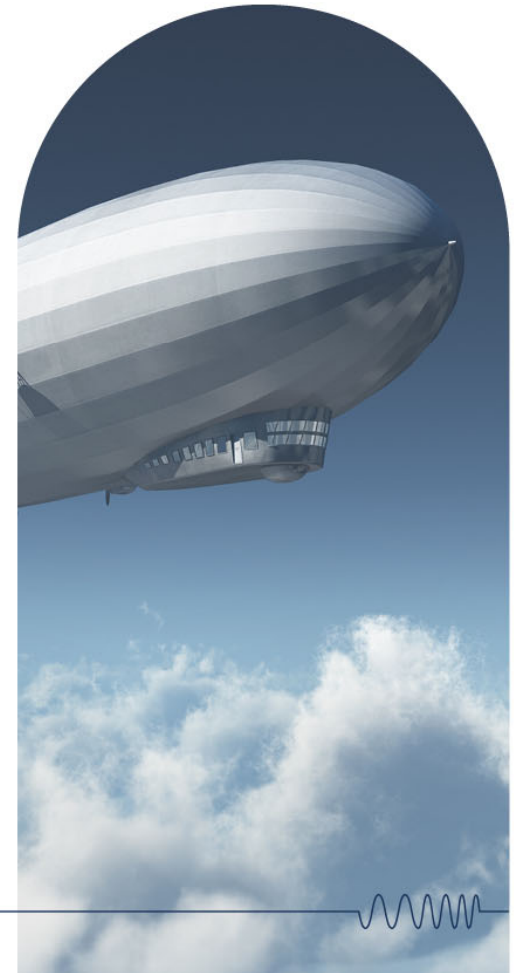


Healthy cash position

- £1.9m net cash when excluding IFRS16 property leases.
- Cash in bank of £2.9m (2020: £2.0m) provides a strong position to develop the business and invest in top line growth.
- Strengthening of the balance sheet and resilience through pandemic.
- Undrawn invoice discounting debt facilities available - £3.0m Barclays and \$4.0m Wells Fargo.



Operational Summary



Operational Highlights



- £1.3m contract to develop and supply battlefield radio communications equipment through a new channel to market
- Our “best-in-class” Tower Top Amplifier supplied to the market leading Original Equipment Manufacturer in critical communications saw its first significant revenue recognition in Q4 of the financial year
- Expanding our sales reach by agreeing terms with a selection of agents and distributors in Europe, Asia and the USA
- Rebranding of the company and the communications message based on comprehensive Voice of Customer work
- Securing continuity of supply for critical semiconductor inventory allowed manufacturing to continue at pace throughout the year
- Detailed Strategic Planning Exercise to develop technology roadmaps and identify future growth opportunities
- Winner of the Queen’s Award for Enterprise in International Trade 2021



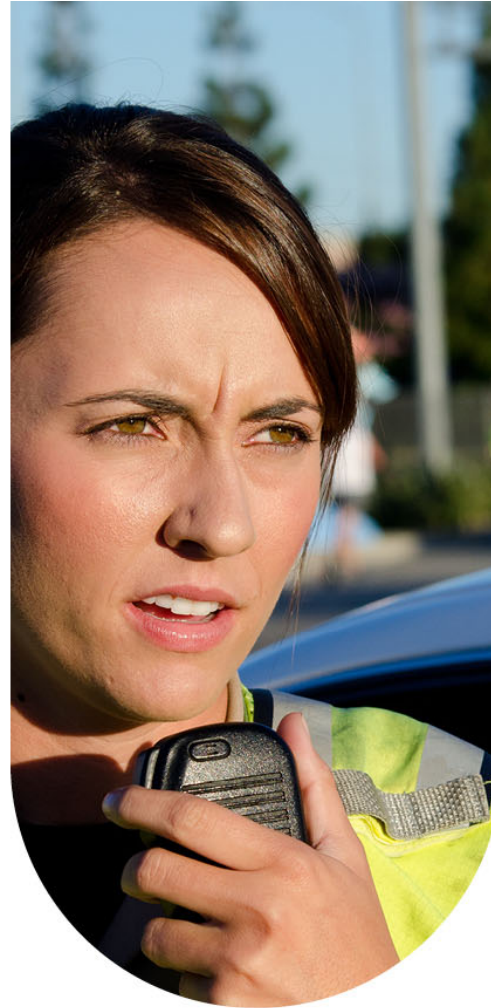
Building Momentum



- UK Government interest in sovereign Telecom Infrastructure, the OneWeb satellite constellation and the UK Space industry, continues to build momentum and opportunity
- US Critical Comms market reacting to McCain Bill requirement to remove Chinese vendors from Gov contracts
- Filtronic qualified as a supplier and approved to bid on future DSTL Routes to Market Framework opportunities
- Expanded sales channels in Europe, Asia and USA is starting to drive an increased level of FRI / RFQ engagement
- Progress with early stage defence NRE programs provides confidence that these will progress beyond concept design
- Long term development program for test equipment OEM reaching final prototype and customer demo stage
- Engagement in HAPS market brings our E-band IP to the attention of LEO telecom constellations players
- Growing level of market acceptance for TTA products - specified in significant state upgrade programs
- Initial delivery of battlefield radio communications equipment is driving interest in follow on demand
- UK track to train trials are in progress with Filtronic specified on two regional evaluation programs



Strategy & Growth



Market Dynamics



	Telecommunications Infrastructure (X-Haul)	Aerospace and Defence	Critical Communications	Private Telecom Networks	Space Telecoms HAPS/LEO
Primary Application	E-band mmWave backhaul transceivers for 5G telecom infrastructure	RF / microwave hybrid TRM modules for airborne ASEA radar systems	Subsystems for LMR secure public safety / first responder communications networks	Private Telecom links, Low Latency Trading Networks, Track to Train Networks, Telecom Test Equipment	Up-link / Down-link - mmWave high frequency transmission systems for HAPS / LEO
Market Growth Rate	5G Backhaul growth: 12.6% p/a CY2020-28*	£16.5bn increase in UK Defence Spending CY2020-24*	LMR market growth: 9% p/a CY2021-25*		40 active HAPS programmes 60,000 LEO satellites by 2029** OneWeb + FAANG investment
Market Drivers	Global 5G telecoms rollout Release of E-band licences High density urban networks Installed fibre backhaul	Outsourced RF design capability Sovereign OSAT hybrid facility UK Defence Strategy / Exports	Reliability of P25 LMR solutions Upgrade + MRO installed base Introduction of LTE solutions Integration LTE + LMR solutions	Zero / Low latency transmission Ubiquitous data access Bespoke performance options Telecom – 5G test equipment	Ubiquitous data access Economic network coverage Future operating revenues
Filtronic USP	Partnership with market leader Quality /reputation / brand Proven IP / Performance History of high volume delivery	Partnership with market leaders Accredited UK RF hybrid facility Strong RF design / DFM support Manufacturing processes	Partnership with market leader Quality /reputation / brand US manufacturing facility	Proven IP /wide dynamic range Volume manufacturing Quality /reputation / brand Performance – power / latency	Tx / Rx Power SSPA performance Quality / reliability Telecoms reputation Volume manufacturing

* Ref: Research & Markets (Mar 2020)

* Ref: Defence News (Jan 2021)


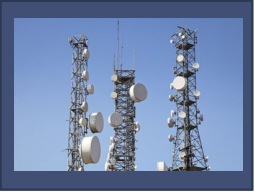
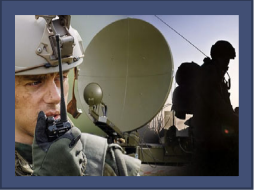

* Ref: Research and Markets (Mar 2021)

* Ref: Northern Sky's Research (July 2020)

** Ref: AGI.com 2020







Strategy & Growth – Markets / Applications

Vertical Market & Application	Progress in 1 st year	Target mid term	Target long term
 <p>Aerospace</p>	<ul style="list-style-type: none"> • TRM + filter development contracts for MKII upgrade. • TRM + filter research and for next gen radar - Tempest • Consolidate business model for hybrid manufacturing 	<ul style="list-style-type: none"> • Tx Rx Module + filter prototype for MKII upgrade. • TRM + filter research and for next gen radar - Tempest • Portfolio of OEM customers for CMS and OSAT services 	<ul style="list-style-type: none"> • Qualification of prototypes for MKII radar upgrade. • TRM + filter development for next gen radar - Tempest • Turnkey OSAT* offering for UK Defence OEMs
 <p>Terrestrial 5G Telecom Infrastructure</p>	<ul style="list-style-type: none"> • Promote superior Morpheus power performance to tier 1's • Secure funding for mmWave development program • Start mmic design for W-band in accordance with roadmap 	<ul style="list-style-type: none"> • Develop E-band active SiP/ active diplexer solution • Develop Track to Train solution based on UK trials • Move test equipment development to production 	<ul style="list-style-type: none"> • Prototype W-Band transceiver and active diplexer for lead customer. • Develop D-band project plan in conjunction with lead customer(s)
 <p>UK Defence & Critical Comms</p>	<ul style="list-style-type: none"> • Achieve full security accreditation for Leeds site • Filtering process for UK DSTL SME programmes • Complete battlefield comms project design and initial build 	<ul style="list-style-type: none"> • Support development of emerging 900MHz product • Win TTA orders with Tier 1 LMR providers in US/ Europe • Establish flexible 3rd party filter design relationship 	<ul style="list-style-type: none"> • Win follow-on DSTL comms development program
 <p>Space – HAPS / LEO</p>	<ul style="list-style-type: none"> • Look for fast turn OSAT business opportunities that can provide space heritage • Promote IP developed as part of initial HAP's engagements to LEO constellation OEMs 	<ul style="list-style-type: none"> • Align Filtronic with OneWeb for development of gen 2 • Development of 10w PA for volume manufacturing • Play active role in HAPS Alliance to promote E-band 	<ul style="list-style-type: none"> • Establish strong relationship with Space Catapult to develop NETPark site as manufacturing & test hub

* OSAT = outsourced assembly & test



Strategy & Growth – Operations / Capability

Business Function	Progress in 1 st year	Target near term	Target long term
 <p>Sales & Marketing</p>	<ul style="list-style-type: none"> • Complete the roster of sales reps in North America • Develop direct sales network in Europe / Israel • Relaunch the Filtronic brand and build online presence 	<ul style="list-style-type: none"> • Expand UK defence sales and business development team • Build CRM tool capability and develop sales methodology • Engage in selected technical associations + industry groups 	<ul style="list-style-type: none"> • Bring Channel Management skills into the company • Develop technical proposal/ grant application writing team
 <p>Engineering</p>	<ul style="list-style-type: none"> • Build stronger programme management organisation so we can scale design programs • Strengthen inhouse SIP design and engineering capability • Build OEM engineering links 	<ul style="list-style-type: none"> • Build alignment with key UK universities specialising in RF subsystem design • Engage engineering staff in technical associations + industry groups 	<ul style="list-style-type: none"> • Graduate development programme
 <p>Operations & Facilities</p>	<ul style="list-style-type: none"> • Maximise efficiencies from hybrid manufacturing line • Build accredited UK defence “box-build” capability. • Consolidate USA Critical Comms build / test facility 	<ul style="list-style-type: none"> • Manufacturing process for low cost plastic encapsulation. • Develop assembly process for Compound Semi materials. • Improve prototype development Eng. capability 	<ul style="list-style-type: none"> • Space level cleanroom manufacturing facilities • Expansion of in house qualification + DPA capability
 <p>People & Processes</p>	<ul style="list-style-type: none"> • Improve materials planning and inventory management systems for turnkey OSAT* • Launch Filtronic Leadership Academy – Management Development Training 	<ul style="list-style-type: none"> • Gain Cyber Security gold accreditation • Develop ESCC level assembly process flows ESCC9000. 	<ul style="list-style-type: none"> • Gain Cyber Security ISO27001 accreditation

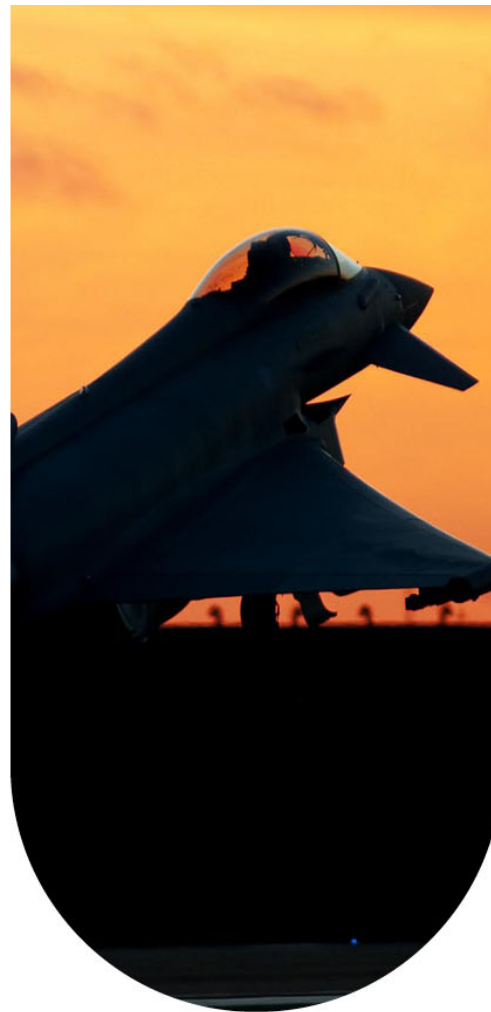


Key Investments in FY2022

Business Activity	Key Investments
Sales and marketing	<ul style="list-style-type: none">• Development of direct sales channels with senior hire• Expansion of rep network in the USA and Europe• Further development of the CRM system
Engineering (R&D)	<ul style="list-style-type: none">• W-band technology (exploring grant funding channels to part-fund)• Increase engineering capacity to serve a building opportunity pipeline, development of the technology roadmap and execution of customer developments• Q-band Power Amplifier (PA) design to penetrate space markets
Operations and business processes	<ul style="list-style-type: none">• Process development of semiconductor packaging and OSAT manufacture to match technologies deployed in next generation products.• Expand our cyber security credentials to win more defence contracts• Development of core business systems to support scalability• Upskill our leaders and management with the 'Filtronic Leadership Academy' to support them driving business performance improvement
Balance sheet	<ul style="list-style-type: none">• Build the inventory position to mitigate the risk of the global electronic component shortage and shipping delays in Asia



Summary



- Filtronic is changing
 - Strategic plan focused on markets where we can differentiate, add value and command sustainable margins
 - Updating the brand based on a clear understanding of our values and customer's expectations
 - Strengthening the sales function to widen the aperture on new business development
 - Active roadmap for developing our facilities, our people and our business process
 - Multi-year plan to build engineering capability and IP portfolio
 - Proactive engagement with investors and capital markets
- Served available markets showing signs of recovery and confidence in their future forecasts
- Cash and resources are in place to manage through the current semiconductor supply chain issues
- We have good alignment with UK Government priorities – defence, sovereign supply chain and space and in the USA with McCain Bill and "Made in America"
- Optimistic trading outlook for the current financial year



Appendices



Income statement – continuing operations

	2021	2020
	£000	£000
Revenue from goods and services	14,375	16,954
Revenue from non-recurring engineering (NRE)	1,181	227
Revenue	15,556	17,181
Material costs of goods sold	5,462	8,079
Staff costs	6,318	6,536
Depreciation, amortisation and impairment	1,195	784
Other operating income	(345)	(5)
Other expenses	2,284	1,975
Total operating costs	9,452	9,290
Operating profit	642	(188)
Exceptional items	(64)	569
Adjusted operating profit	578	381
Depreciation, amortisation and impairment	1,195	784
Adjusted EBITDA	1,773	1,165



Balance sheet

	May-21	May-20
	£m	£m
Goodwill and intangible assets	1.7	1.9
Right of use assets	2.3	2.7
Property, plant and equipment	1.0	1.1
Deferred tax	1.2	1.9
Non-current assets	6.2	7.6
Inventory	2.2	2.9
Trade and other receivables	3.3	4.9
Cash and cash equivalents	2.9	2.0
Current Assets	8.4	9.8
Trade creditors and other payables	2.4	3.5
Provisions	0.4	1.1
Deferred income	0.3	0.6
Financial liabilities	0.1	0.3
Lease liabilities	2.0	2.5
Total liabilities	5.2	8.0
Net assets	9.4	9.4

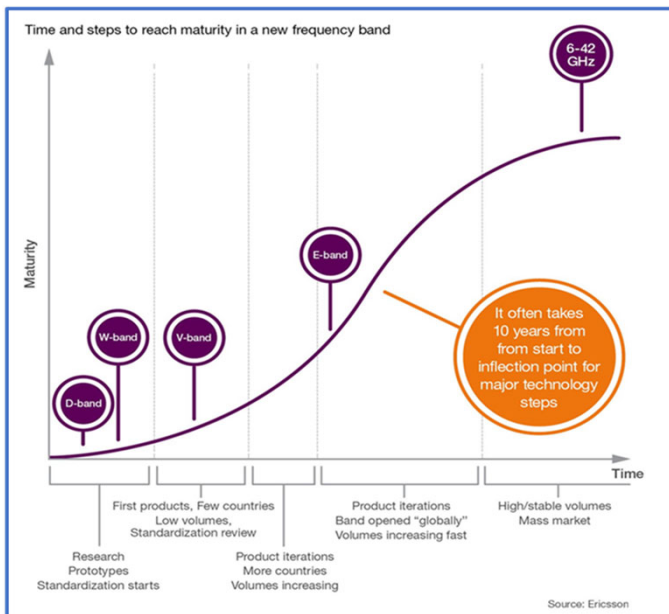
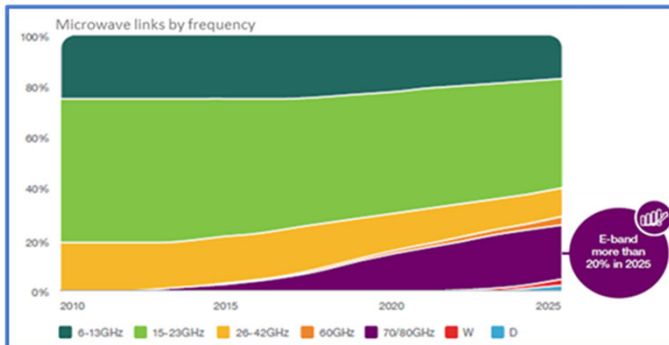


Cash flow statement

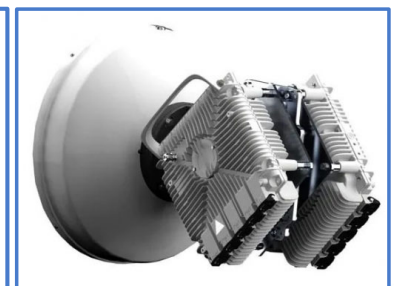
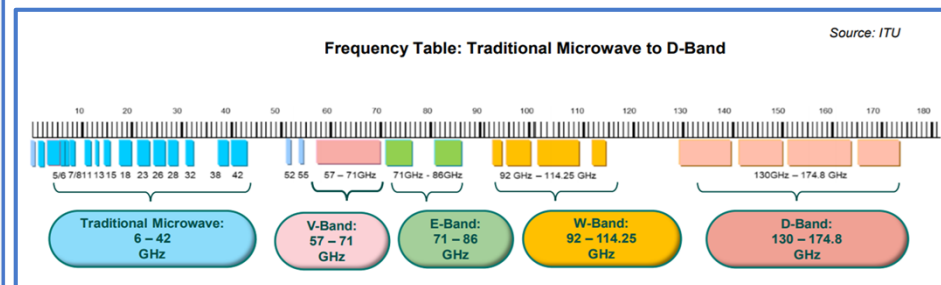
	May-21	May-20
	£m	£m
Net cash generated from/(used in) operating activities	2.5	(2.6)
Net cash (used in)/generated from investing activities	(0.4)	2.4
Net cash used in financing activities	(1.0)	(0.4)
Movement in cash and cash equivalents	1.1	(0.6)
Currency exchange movement	(0.2)	0.0
Opening cash and cash equivalents	2.0	2.6
Closing cash and cash equivalents	2.9	2.0



Telecommunication Infrastructure



- There will be unrelenting demand for 5G performance over the next 5 years and high frequency E-band microwave backhaul will be a key enabler for network deployment
- Significant parts of the world are expected to grant new E-band licence in the next 3 years
- Future networks will integrate HAPS and LEO satellites with terrestrial networks with E-band as a logical frequency for this convergence
- Legacy licenced frequencies are limited and capacity constrained with many overlapping demands. The FCC has approved a number of trials at W and D –band
- Adjacent markets for high performance E-band transceivers include:
 - 5G Test equipment
 - Track to train telecommunication
 - HAPS (high altitude pseudo satellites)
 - Proprietary wireless point to point networks
 - Private low latency networks – security / banking (HFT)



Cutting-edge radar being developed for Typhoon


£317M contract to develop world-beating ECRS Mk2 radar

Over **600** highly-skilled jobs secured across UK including Edinburgh, Lancashire and Dunfermline

Ensures UK remains at forefront of radar technology development, essential for Tempest – Britain's next generation combat air system

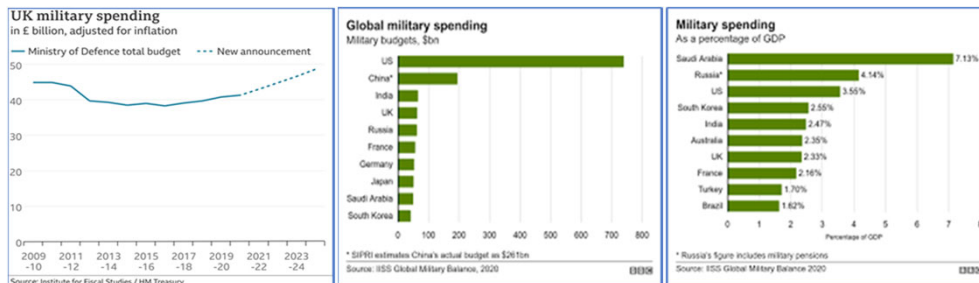
Technology would allow Typhoon to locate, identify and suppress enemy air defences

Planned to equip **RAF's Typhoon** aircraft from mid-2020s



Ministry of Defence

- The UK is an acknowledged provider of best-in-class ASEA radar technology with deployment in sovereign aircraft platforms and significant export sales
- The UK government has increased defence spending budgets by £1.6b over four years in the November 2020 Defence Spending Review
- The MoD has announced funding to develop the next generation ECRS radar system for upgrade of the current UK Typhoon fleet
- The UK is committed to Tempest a next generation fast jet platform that will incorporate leading edge electronic warfare (EW) solutions
- Filtronic are a well established provider of RF subsystems to the UK defence industry with multi-year contracts for existing radar platforms
 - Qualified hybrid manufacturing lines .. £1.5m invested in FY2020
 - Defence accredited facilities with proven systems and processes
 - Long running OSAT contracts for current EW platforms
 - Capacity to support additional hybrid assembly aerospace programs
 - Significant RF subsystem design expertise at high frequencies required for next generations EW solutions
 - Development contracts for received for both MK2 upgrade and Team Tempest concept development



Critical Communications / Defence

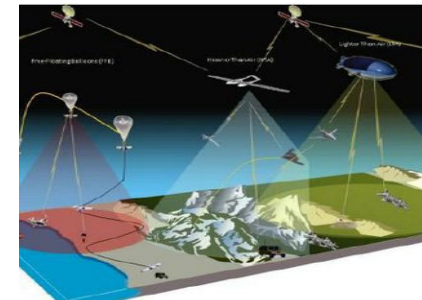
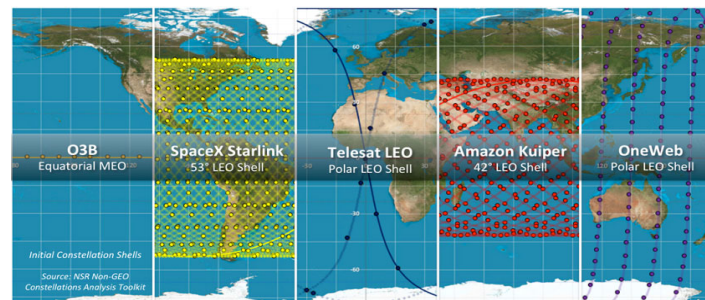


- Twenty years serving the LMR P25 / TETRA Public Safety communication market with filter, combiners, amplifiers and subsystem solutions across a wide (VHF – 900MHz) frequency spectrum has established Filtronic as a trusted supplier of critical communications equipment
- Demand for P25 products in first responder networks will continue as LMR and LTE solutions merge, upgrade and expand to cover a wider variety of services
- Filtronic critical communication products are assembled and tested in North America which reduces lead-time and positions us favourably in a market currently served by a number of Chinese competitors
- Filtronic launched a range of Tower Top Amplifiers (TTA's) in response to a unmet market demand and these are now being successfully deployed in critical communication networks across the Americas
- Filtronic have an opportunity to deploy experienced RF design capability developed on critical communication solutions for the UK Defence market and in January 2021 were awarded a contract to develop and supply battlefield radio communications equipment initially valued at £1.3m



Space – HAPS / LEO

- A number of technology companies and industry consortiums have shown interest in the opportunities associated with the convergence of satellite and terrestrial telecom networks and the deployment of LEO satellite constellations providing ubiquitous network coverage
- The UK purchased a share in OneWeb in 2020 and they are committed to completing the current network of xxx LEO satellites in the next 18 months. Work will begin in parallel on design of a second generation network
- There are currently over 40 HAPS programs under consideration with applications ranging from disaster recovery networks, boarder security monitoring and full telecoms networks for remote areas
- Front Haul Ku-band (12-18GHz) + Back Haul Ka-band (26.5-40GHz) has been deployed in early HAPS / LEO systems but the limitations of these frequencies are well understood. E-band offers 10x bandwidth in a licenced telecom band
- Filtronic has proven IP incorporating high power SSPA's with superior performance compared to traditional TWTA's
- Filtronic are active members of the HAPS Alliance with a good reputation in the HAPS / LEO community



Voice of Customer / Branding



- Detailed VoC (Voice of Customer) exercise completed in November / December 2020. This has driven a comprehensive reshaping of the way we present the Filtronic brand
- Recasting the company Vision, Mission and Purpose statements together with a more considered analysis of company values
- Rebranding exercise to define a new logo, brand guideline/bible and house style that is more current and relevant
- Transition of the Filtronic website to a platform that will allow more interactive content, traceability and full data analytics
- Structured program of promotional activity designed to raise the profile of Filtronic in strategic markets
- Direct and in direct sales channels in the USA, Europe and Asia through a mix of agents and distributors designed to expand our sales reach
- Investor Relations partner to provide independent commentary and analysis and a communication channel to a wider investors community



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