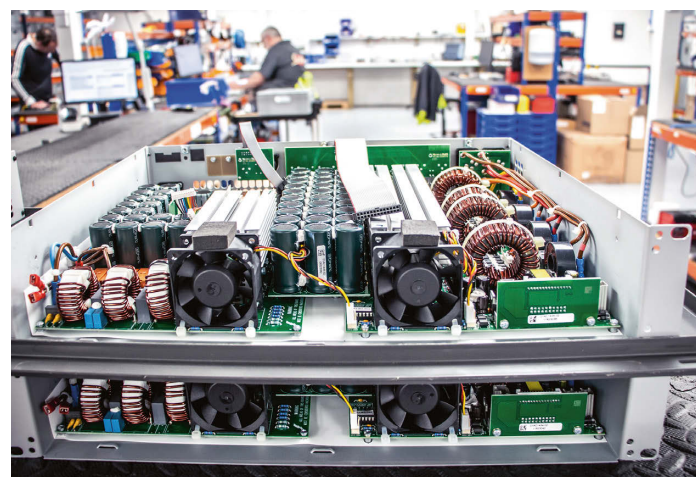




L-R: Nicola Hales, Martin Hildred, Alex Buttigieg, Chris Wright and Kaylie Milton



All production is carried out at Linea's UK facility

Aligning for success

Since modest beginnings in 2003, Linea Research has been quietly scaling to great heights and increased visibility. **Caroline Moss** looks back over the past 20 years and learns what's in store going forward

WHEN LINEA RESEARCH COFOUNDERS AND EX-BSS

Audio staff Davey Smalley, Paul Williams, Ben Ver and Pip Wilson gave up secure employment in pro audio to go it alone, little could they have dreamed that their nascent amplifier company would one day win a King's Award for Enterprise in Innovation and become a key acquisition for the Focusrite Group. Twenty years later, all of this and more has vindicated the founders, two of whom – Smalley and Ver – remain at the helm.

As commercial director and drawing on his experience as sales manager at BSS Audio, Smalley is well-positioned to handle the company's day-to-day operations and efficiencies, while engineering director Ver has been designing electronic systems for over 30 years, including applications for radio communications, robotics, computing and pro audio, with an emphasis on Class-D technology. And former R&D director Paul Williams, who retired in 2022, had built a stalwart reputation as a DSP designer since the late 1980s in many industry roles.

The company's initial aim was to design, develop and market innovative professional audio equipment for OEM clients. Having done the research and developed some critical technology, Linea produced its first product: the X-Pod Class-D amplifier, with an integrated switched-mode power supply, DSP and networked software control. With thousands of units now deployed globally, the X-Pod product line continues to be used by new and existing clients. Meanwhile, Linea has developed its own-brand amplifier, DSP, network and software technology, culminating in its current range of amplifiers and system controllers.

But back in September 2003, heading to London's PLASA Show with a schematic drawing on a piece of paper, Smalley attempted to sell the concept. Within a year, Linea had formed partnerships with a number of UK and European OEMs including Turbosound, headed up by his former boss, Philip Hart. "Philip being the chairman meant that the door was open, but we had to walk through it," explains Smalley. "We had to sell to them on exactly the same basis anyone else did; the product had to be right, we weren't shown any favouritism."



Davey Smalley (left) and Ben Ver (right) accept the King's Award for Enterprise in Innovation

The strong association with significant brands gave Linea and its products the reflected quality assurance it sought. "I remember talking to another potential OEM customer and he said, 'well, I know your stuff is good because otherwise Tannoy and Turbosound wouldn't be using it'."

Early customer demand for a good-quality, cost-effective multichannel processor steered the company's product development, with the LMS loudspeaker processor becoming the first, unbranded product from Linea and still in production today. "We weren't trying to sell under our own name and didn't really do that until 2015," says Smalley, explaining that in its first decade, Linea amassed more than 20 OEMs, some significant and some smaller, from around the world. "We developed loudspeaker amplifier modules with DSP and networking in 19-inch rackmount units, which were for speaker processing as well, and supplied them to Turbosound and maybe 20 OEM customers around the world."

Despite becoming a global manufacturer, Linea maintains strong personal relationships with its customers, distributors and supply chain. This is something the company is keen to maintain, and it's currently strengthening its distribution network for the own-brand products, with new partners including Guangzhou Guidance (mainland China, Hong Kong and Macau), PRO LAB (Middle East), Sons Do Marquês (Portugal), Ampco (Netherlands) and Rock Centrum (Czech Republic and Slovakia).

In 2011, Linea embarked on a project which Smalley describes as "to try and make the best amps in the world". Around this time, Linea also lost two of its biggest OEM customers due to company acquisitions. "We decided to maintain the investment and not reduce our staffing to retain the essence of the company because we really felt that, as far as we could see, our amplifiers were going to be the best product on the market. And once you've done five years of a six-year project, you just have to keep going."

Linea hit the ground running with the launch of the ASC48 system controller in 2014, with processing for four inputs and eight outputs, A/D conversion and the company's latest DSP technology. This was followed by the 44 Series amplifiers in 2016 and the 48 Series a year later. In 2018, the range was extended with 20K versions of Linea's eight-channel amplifier models. In late 2022, Linea announced the beta release of its System Engineer 8 control and telemetry software platform, providing software control over the M and C Series of networked DSP amplifiers and the ASC48 Advanced System Controllers, with a release of version 1 expected later in 2024.

Another major development came about in 2019 when, having outgrown its original premises, Linea acquired 1,400m² of R&D space in Letchworth Garden City, 25 miles north of London, where it develops and manufactures its product in the two-unit centre. "We create everything in-house: PCB designs, physical hardware, firmware and software," explains Smalley. "We make all the prototypes and our own test equipment as opposed to subcontracting and using off-the-shelf components. Using the standard offerings is quicker and cheaper but is unlikely to yield best-in-class product."

Shortly after the move, Linea appointed a sales and marketing manager who was new to the role, but not the industry. Martin Hildred had worked – and occasionally continues to work – as a front of house engineer for bands that have included Cinematic Orchestra, Basement Jaxx, Erasure and Doves.

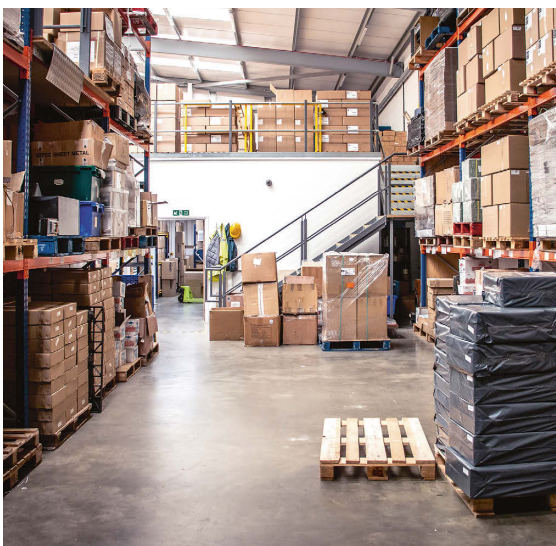
“We’ve gone from a small to a mid-sized company striving to be a large one, and really it’s about brand identity; part of my job is to make people aware of Linea Research,” he says. His live event experience is proving invaluable in the new role: “On tour you’re trying to replicate the same thing over and over again but here, no days are the same. But, if you can’t produce the show within the set timeline, then you’ve failed, so I’ve used that mentality to adapt to my position here where there’s an element of needing to get things done; making sure an order’s out the door for a specific event, giving a customer some technical support, or making important marketing announcements on time. Also, I’m coming from a user’s perspective; I didn’t come into this role from a manufacturing, R&D or engineering background. I was a fresh pair of eyes for the company, and the fact that I still do gigs means I get to see what’s being used in the field, how it’s being used and what people think, still mixing in those circles to be able to understand where our next products are going to be coming from.”

A recent coup for Linea was the provision of over 250 amplifiers across various stages of the Glastonbury festival. This is where Hildred, attending as its representative, could use his experience to the full, interfacing with the many engineers onsite using Linea technology. “I’m there as technical support for our amplifiers and our own brand as well as being there to say hello to the engineers, to integrate them with the sound company and make them feel comfortable,” he says.

Other notable recent projects include an installation of more than 70 C Series amps at a multiscreen Dolby Atmos cinema in Tokyo, while Taiwanese distributor SSBC International has integrated M Series amps into a museum in Taichung. Then, late last year, Linea announced a partnership with UK-based manufacturer PMC, renowned for its reference loudspeakers, which was seeking a multichannel amp to match with some of its products.



Moving into the new premises in 2019; L-R: Alex Conway, Lee Basham and Davey Smalley



Linea’s 1,400m² facility 25 miles north of London

Eventful as the past five years have been for Linea, the last two have reached a crescendo. In 2022, the company was acquired by the Focusright Group, already a loyal customer of Linea’s amplifier modules for its Martin Audio brand. While this enables greater integration of loudspeaker and amplifier technology, the partnership also supports Linea in the continued development of its own products and sales through third-party distribution and to OEM loudspeaker customers. Then, in 2023, Linea Research was presented with a King’s Award for Enterprise in Innovation, recognising the company’s contributions to the field of audio technology.

These recent achievements are impressive: the presentation of a rarely awarded business accolade. Co-founders who’ve sold their company yet remain committed to running the business and designing new technology rather than bowing out. Close ties with customers and suppliers. Staff that have experience on different sides of the fence. All combine to explain the success of a company that, until recently, had worked away in the background, providing reliable technology to third parties. Another major element at play is a simple physics equation.

“Ultimately, you are restricted by heat,” Smalley muses. “The focus must always be on the ratio of power that reaches your loudspeaker. Hopefully, 90% of the power drawn will go to your loudspeaker; if you can reduce heat waste to 8% and get 92% efficiency, then that makes a big difference. On every thermal spec comparison, our amplifiers waste less heat than other manufacturers’, and are therefore more efficient. Our focus, as ever, is producing the best amplifier and DSP technology we possibly can and we’re happy to say we’re at the forefront of amplifier technology. We are masters of the technology involved in Class-D amplifiers, the power supplies that go with them, digital networking and software control.”

With 20 years under his belt running one of the most successful pro audio manufacturing operations in the UK, Smalley is fully justified in making that statement. Bring on the next 20.

www.linea-research.co.uk