

Our business model

Xaar's business is focused on inkjet technology, which together with our partners and customers, we have been transforming for over 30 years.

Xaar plc is structured into business units: Xaar Printhead, the largest BU, focuses on printhead technology; our other two business units concentrate on product print systems and digital imaging.

Our printhead business sells our inkjet technology in component form (the printhead, branded Xaar) to OEMs who produce and sell the complete digital printing solution. We also work with User Developer Integrators (UDIs) who are building their own digital system. We work collaboratively with leading fluid manufacturers to fully optimise the fluids beyond a lab setting to ensure optimum print performance in real world applications. We also sell Xaar branded fluids to UDIs (manufactured by our ink partners) which helps to build a long-term relationship with our customers. In addition, we actively partner with hardware and software integrators as well as substrate suppliers to deliver a robust and attractive total solution to our customers.

Our product printing business, EPS, designs and develops complete industrial printing machines which are sold to end users.

Our digital imaging company, FFEI Ltd, manufactures high performance digital imaging solutions – from digital inkjet label presses to digital pathology scanners. Its inkjet products (print engines) use Xaar printheads.

In March 2022 we completed the acquisition of Megnajet, market leader in the design and manufacture of industrial ink management and supply systems for digital inkjet.

We have recently sold our remaining interest in Xaar 3D (which is developing 3D printing machines) to Stratasys.

Our business model

Xaar designs



We have R&D facilities in Cambridge, Hemel Hempstead, Stockholm, and Vermont.

We invest a substantial proportion of our revenue in R&D to remain a world leader in inkjet technology (2021: approximately 10%).

We continually add to our Intellectual Property ('IP') portfolio, and currently we have around 340 patents and patent applications.

Our R&D staff totals 86 which is 21% of the total workforce.

Xaar manufactures



Xaar manufactures its printheads in Huntingdon, UK. Xaar's manufacturing is capital intensive. The Group has invested over £70 million in assets and production facilities in Cambridgeshire, UK since the plant opened in 2007.

EPS, our product printing business, manufactures customised and bespoke printing solutions in Vermont, USA.

FFEI, our digital imaging business, manufactures imaging solutions in Hertfordshire, UK.

Megnajet manufactures ink management and supply systems in Northamptonshire, UK.

Xaar markets



Xaar offers a wide range of industrial inkjet printheads and print systems which are designed and produced to meet the customer-driven requirements for a range of manufacturing applications.

Primary markets include:

- 3D Printing
- Ceramic Tile Decoration
- Coding & Marking
- Decorative Laminates
- Direct-to-Shape
- Functional Fluid Deposition
- Glass Printing
- Graphics
- Primary Labels
- Packaging
- Product Printing.

Xaar sells



Xaar's printhead business sells direct to OEMs and UDIs around the world through its global sales team. Xaar's highly skilled application engineers offer technical support to assist OEMs and UDIs in the successful design, build, commissioning, and ongoing maintenance of printing systems. We export over 95% of our printheads to customers around the world, within Europe, Asia and North America regions.

Xaar company EPS also sells product printing equipment, services and consumables. The majority of sales are to US customers.

FFEI sells via three routes to market: as a full system to one OEM, as a ready to integrate print engine via distribution, and as a Xaar branded print engine for our UDI customers.

Megnajet sells its products directly to customers and via Xaar.

We create value for all our stakeholders

Customers

OEMs, User Developer Integrators and end users are able to innovate in their manufacturing methods and their products as well as benefit from a shorter distribution chain; they can take products to market more quickly, implement more precise and efficient processes, easily produce short batches, improve productivity, reduce waste and deliver more creativity.

Shareholders

A key goal at Xaar is to maximise the long-term growth in value delivered to shareholders via sustained, consistent growth in earnings per share. This is delivered through continued investment in R&D and producing a pipeline of new products which deliver a sustained return on capital employed.

Our employees

Our success depends on the capability and engagement of our people. We want bright and driven people who share our values and passion for developing and manufacturing world leading technology. We are building a culture where our employees are passionate about what they do, and where integrity, innovation, creativity and collaboration are a way of life. We like to build long-term relationships with all our employees by helping them grow and develop – in 2021 we promoted over 70 people – and by making Xaar an interesting place to work as well as a great company to be involved with.

Whilst this year we continued to manage the impact of COVID, we were able to host a number of COVID safe lunches for our employees to encourage collaboration and team building, as well as to help new employees meet the wider team. We also focused on embedding our values more deeply into our culture which has included launching a new values award across the whole Group.

We have also continued with forums where employees have the opportunity to meet and chat with all our Non-Executive Directors along with the Exec Xchange where our employees get to meet members of the senior management team in smaller groups to ask questions and exchange ideas.

Environment

Digital print methods are inherently more environmentally friendly than the analogue techniques we seek to replace. Our research shows that, compared to analogue alternatives, digital has a huge impact in reducing energy consumption (by up to 55%), water consumption (by up to 60%) and CO₂ emissions (by up to 95%), but also in reducing pollution and waste materials. Xaar is committed to reducing its impact on the environment wherever possible. Our actuator technology consumes less energy than competitor alternatives and our industrial printheads can remain in use for many years. In addition, we use a continuous improvement methodology and we have adopted a manufacturing ethos of 'reduce, reuse and recycle'.

Environmental best practice and our investment in sustainable manufacturing and operational efficiencies remain key areas of business focus. Notable outcomes during 2021 include a move to 100% certified renewable energy tariffs at three of our UK facilities – a switch that will make a valuable contribution to our net zero goals. We completed this move for two remaining facilities in January 2022. One key decarbonisation project that has commenced in 2021 is the installation of EV charging infrastructure. Work on moving to solar energy continues, with other factory level energy efficiency improvements ongoing.

In the second half of 2021 we formed an ESG Committee with governance and accountability to the Board. Reporting to the ESG Committee, the Sustainability team, formed with representatives from across the business, has developed a co-ordinated Sustainability Roadmap that will push Xaar towards its 'Net Zero by 2030' goal. The Roadmap has four key pillars – Environmental, People, Innovation and Community; its purpose is to drive our ESG goals beyond the Energy Reduction scope to a Group wide activity. Once approved at Board level, the Roadmap will provide an essential backbone for much of Xaar's future investment and activity.

Digital printing compared to analogue reduces consumption of up to:

95%

CO₂ emissions

55%

Energy consumption

60%

Water consumption

Source: Xaar.