

# CASE STUDY: EVOLUTION DENTAL STUDIO

## THE BRIEF

Evolution Dental Studio is a micro-sized cosmetic and implant Dental Laboratory based in Runcorn, Cheshire. They are MHRA, DLA & GDC registered, as well as being DAMAS approved. Since opening in 2008, they provide dental restoration support and manufacturing based on prescriptions received from private dentists across the UK, from single-bonded crowns and implant cases to full arch smile make-overs.

Evolution Dental Studio identifies that dental implant is a growing market, with 6.1% growth expected in 2022 only. Digital dentistry is also rapidly expanding, not only due to the higher accuracy provided for personally tailored treatment plans, but also the demand since COVID for minimal patient contact, reduced risk of cross-infection and predictability. Evolution Dental Studio has started utilizing the latest digital technology to meet this growing demand for high-quality work with outstanding aesthetics. They are an iTero partner laboratory and a Trios ready laboratory, allowing dental practices to send intra-oral scans directly to them for rapid production.

Evolution Dental Studio is planning to upgrade its existing digital workflow equipment and expand its capability to allow additional manufacturing services.

## THE APPROACH

Evolution Dental Studio approached the C&W4.0 team at Liverpool John Moores University (LJMU). They needed support to develop their digital workflow innovation strategies and to identify the requirements of both hardware and software. Through meetings and site visits, C&W 4.0 team used the lean manufacturing tool Value Stream Mapping (VSM) to analyze the steps, materials and time required for every step in the manufacturing process. Together with Evolution Dental Studio, the team identified that taking a single implant manufacturing as an example, the Value Added Time (VAT) and Non-Value Added Time are 20 hours v.s. 7 days using the current process and facilities at Evolution Dental Studio.

A 2nd 3D printer with advanced functions was therefore in need. This would allow Evolution Dental Studio to expand their current services through additive manufacturing, increase their in-house productivity and reduce subcontracting works and turnaround times.

The C&W4.0 team then helped Evolution Dental Studio explore suitable funding options to derisk the digital technology investment and implementation. Made Smarter Grant Funding was identified and the C&W4.0 team worked closely and collaboratively with Made Smarter to support Evolution Dental Studio's funding application.

## THE BENEFITS

With the support from both C&W4.0 and Made Smarter teams, Evolution Dental Studio has successfully secured the funds from Made Smarter Grant Funding. They are in the process of procuring an advanced 3D printer. This will allow Evolution Dental Studio to be able to continue their focus to remain on the high-class patient and customer service.

With the new 3D printer in place, Evolution Dental Studio will be able to bring all their manufacturing in-house to reduce sub-contractor bills, ~£300 per implant. It will also help to reduce turnover times so that Evolution Dental Studio could offer 'same day teeth' service over their competitors. Over the next 3 years, Evolution Dental studio will upskill their existing staff and hire additional staff while they utilise the latest digital technology at their laboratory.

With the support they received, Evolution Dental Studio is in a better position to expand its sales, customer base and profit margins.