



Brief Company Description

Croom Precision Medical (CPM) have over 35 years of experience in designing and manufacturing precision components for the medical and aerospace industries. It hosts a wide selection of subtractive and additive technologies as well as finishing, cleaning, and inspection methods to meet customer needs.

Working with 72%+ of our customer base for over 20 years, we continue to build long lasting partnerships with the medical industry leading companies and provide high quality Class I, II & III Orthopaedic Implants and Instruments at a competitive cost.



Croom Precision Medical Video

Current Digitalisation Profile

Over the last 13 years, CPM has invested in the adoption of **Additive Manufacturing (AM)** technologies and digital manufacturing focused workflow. **Connected machines, machine data extraction, and machine sensorisation** efforts for monitoring had been implemented during the last 5 years, with further developments and research projects underway. CPM leverages the wide variety of high class researchers and engineers in the Irish and EU research ecosystem to accelerate its own

developments and growth. Development and implementation of automation for repetitive tasks through the use of robotic/automated systems is also a key focus of CPM’s digitisation roadmap with robotics being used across multiple value streams for increased quality and reduced lead times and costs.

Digital Best Practices and Learnings

Some of the most important lessons learned during CPM’s digitisation journey has been to **understand where the most impactful areas are to target/invest in**. When embracing new technology or applying a new data extraction or sensorisation scheme, the long-term trajectory of its implementation needs to be forecast. This is of particular importance for data extraction, in which there is usually a very wide range of data that can be extracted and analysed, however, **understanding which streams are critical indicators of a process is key** to a successful digital twin or process database. Moreover, it has also seen the power of embracing new technologies at an early stage, such as AM, in increasing its market share and overall service offering to customers.

Implementation and Costings

Within traditional manufacturing processes, the digitalization strategy is focused on the extraction of **machine-generated data** and the **use of sensors** for increased process insights. This has allowed CPM to increase processes efficiencies whilst learning more about the process trends. This has seen the generation of powerful datasets and dashboards for data visualisation. The adoption of AM within CPM’s business structure was taken on to tackle new markets for CPM and grow their business. Within this, there has been much research and new skill generation required across the entire process flow.

Both major adoptions have been gradually implemented, using the R&D team at CPM to help build the required knowledge and skills to be transferred into production. The cost of such activities has been supported by funders such as [Enterprise Ireland](#) and the [European Commission](#) along with other funding bodies through research and development grants. However, CPM has invested heavily in technology and **people required** to support such activities.

Impact and Outcomes

The impact of this overall digitization strategy has seen CPMs process **efficiencies, revenue and profitability grow significantly** over the last number of years, with major growth being driven by this direction of development. CPM has become a global supplier of AM produced medical devices with knowledge transfer from R&D to production allowed for fast new product development.

Why become a member of IDEAM

We aim to enhance our competitiveness through the digitalization of our manufacturing processes. By joining IDEAM, we have unlocked new and invaluable opportunities for CPM concerning funding opportunities, international collaborations, R&D projects, networking, and support for our digitalisation efforts. We are delighted to be part of the IDEAM Cluster community and their team!

Get Involved!

Dr. Jamie Meehan, Cluster Manager, Educational and Outreach Programme, IDEAM Cluster.

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