Press Release

SUCCESSFUL COMPLETION OF THE CASSAMOBILE PROJECT

The CassaMobile project aimed to conceive, design build and demonstrated a flexible, modular, small-footprint manufacturing system in a transportable container that can be easily configured for the manufacture of high value and customisable products in any location. The European Commission funded three-year project involved 11 partners from the UK, Belgium, the Netherlands, Portugal, Switzerland and Germany.

The result is an operational demonstration prototype container capable of making a variety of high quality products. The integrated modular system with standard interfaces allows an easy exchange of a number of different manufacturing process modules. There are six module bays in the container and any combination of process modules can be inserted. Modules developed include an Additive Manufacturing (3D Printing) module with built-in inspection, a 5-axis CNC milling module, an automated assembly module, a cleaning module and a sterilisation module. Each module is equipped with its own control equipment and features a self-description, which in combination with the integrated control system allows automatic configuration of the whole assembly system.

The whole container can be controlled centrally through an easy to use human-machine interface, workflow manager and safety controls. The container has been designed to clean room standards enabling the production of even the most demanding products such as medical devices.

The container format allows on-site manufacturing anywhere, enabling the benefits of localised service delivery without duplication of equipment at multiple locations or complex logistics.

Incorporating the Additive Manufacturing module enables the system to “3D print” customised components of virtually any shape in a variety of engineering thermoplastics. In-process inspection improves accuracy, reduces waste and eliminates manual quality control tasks. The CNC milling module enables high quality surfaces and high tolerance features to be achieved. The “pick-and-place” assembly module allows the integration of discrete components into the products such as RFID tags. The cleaning and sterilisation modules ensure high quality products are delivered for use directly from the container. In the future other modules could be easily integrated using the standard interfaces and modular structure.

The successful demonstration of the complete, fully functional container enables manufacturers to respond to rapidly changing market dynamics with high value-added products whilst reducing time-to-market, cost, environmental footprint and set-up time. More demonstration and dissemination activities are planned over the coming months.

Notes for editors

A video is available at **https://youtu.be/PoyVWIaEHaA**

The CassaMobile consortium gathers 11 partners from 6 countries – research institutes, SMEs, companies, universities and is composed of the following organisations:

1. Fraunhofer Institute for Manufacturing Engineering and Automation, Germany
2. AFT Automation & Feinwerktechnik GmbH, Germany
3. University of Stuttgart, Germany
4. Critical Manufacturing, Portugal
5. Materialise, Belgium
6. TNO, the Netherlands
7. Loughborough University, UK
8. SCHUNK, Germany
9. COLANDIS GmbH, Germany
10. Peacocks Medical Group, UK
11. SCIPROM, Switzerland

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