D1.4 Adaptation Architecture – Executive Summary

This deliverable describes the first version of the Factory2Fit architecture, which will be updated in M25 (second iteration). The document overall presents a three-step process leading to the definition of the architecture, namely a technology exploration phase, a bottom-up and finally a top-down process. The first step, technology exploration covers a State-of-the-Art (SotA) analysis with respect to adaptation in manufacturing, a reference to relevant EU and nationally funded projects in order to identify critical aspects that should be taken into account towards formulating the Factory2Fit architecture, and how our work expands on these aspects. In the second step, partners leading the main technical activities of the Factory2Fit project have identified relevant technologies within their expertise and formulated first versions of components and modules based on the requirements delivered with D1.2 "*Industrial requirements*". Based on this process, a first version of the Factory2Fit architecture has been defined. In the third step, a top-down process has generated a number of UML sequence diagrams taking input from the use cases work in progress in Task 1.4, and aiming to link modules to the applications and platform services offered by the Factory2Fit solutions. In the forthcoming work within the Factory2fit project, the architecture presented in this document will be used as a reference architecture, while the Factory2Fit solutions to be implemented will be designed to be integrated to the actual factory systems of the project partners.

The contents of this report are intended for providing an initial guide towards the development of the modules, carried out in the individual Tasks of Work Packages 2, 3 and 4, as well as solidifying links between these modules and kick-start discussion on the required interfaces to be considered by the partners involved in the integration of the system (Task 5.1). In no way however are the contents of this document intended to be considered as "final", since the formal definition of the adaptation concepts and use cases (D1.4, due M12) as well as the individual Task activities might bring to the surface new set of requirements or cause several components to internally or externally change their functionality. Therefore, an updated version of this deliverable is due M25, where more information on the different architectural views (information, deployment, functionality) will be reported, depending also on the three different industrial environments, and how the various Factory2Fit solutions will be integrated within them.