



This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No 824964

D2.6

Robots and digitalization - Needs for standardisation 2.0 version 1.0

Confidential

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Project acronym DIH ²	Project title A Pan-European Network of Robotics DIHs for Agile Production	Grant agreement No. 824964
Deliverable No. D2.6	Deliverable title Robots and digitalization - Needs for standardisation 2.0	Version 1.0
Type Report	Dissemination level Confidential	Due date M25
Lead beneficiary International Data Spaces Association		WP No. 2
Main author Markos Matsas	Reviewed by Jonathan van der Meer	
Accepted by Project Coordinator Päivi Mikkonen	Accepted by Technical Coordinator Ali Muhammad	
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VTT archive code VTT-R-00321-20	Lead beneficiary archive code	

Abstract

D2.6 : Robots and digitalization - Needs for standardisation 2.0 [25]

It will be an update on the findings of the Working Group and the identified challenges to be addressed by the 2nd round of TTP.

Task 2.3. Industrial Alliance for Standardisation on Agile Production (M1-M48) [Leader: IDSA; Involved: FIWARE, EPROS]

IDSA, will create a Working Group to coordinate the actions related to IAs activities. The WG will be composed by world leading manufacturing companies -some of them participating in the sponsorship program- and main Industrial Platforms related to Agile Production. The WG will be in charge of:

Synchronize and coordinate efforts with industry-lead standardization bodies [IDSA/FIWARE] such as Europe's Multi Stakeholder Platform on ICT Standardisation or EU standardisation organisations like ETSI, CEN and CENELEC.

Foster cross-industries-based standards [IDSA]. Ensuring that the project is taking into consideration all the existing platforms and standardisation processes going on, at European Level, in the Manufacturing domain.

Define the challenges to be addressed by the DIH² Open Calls [WG] and participate in the experiments selections to ensure that selected experiments have standard potential. To this end the IAs will organize a dedicated workshop, with a clear procedure for gathering previous practical inputs, before each open call. The result of the workshop will be included in the Industrial Alliance Report on Robots and digitalization - Needs for standardisation.

Defining the roadmap to address the challenges for standardisation in AP [WG], as one of the major outcome of the workshops to be included in the DIH² standardisation roadmap.

Deliverables: D2.2, D2.6, D2.8

KPIs: 2 Workshops for challenges definition; 1 Roadmap for standardisation on Agile Production

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Notification

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Acknowledgement

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EXECUTIVE SUMMARY

The key goal of this deliverable is to provide an update on the needs for standardisation related to robots and digitalisation for enabling agile production strategies to be implemented in manufacturing environments. Special attention has been given to SMEs, where standardization can be seen as an accelerator for handling their digital transformation.

In the previous version of this deliverable (D2.2 - Robots and digitalization – Needs for standardization 1.0) the work done has enabled us to describe a number of gaps in standardization and potential drawbacks to produce “the material” to cover them. These gaps have been translated into challenges that were used in the first round of the Open Call of DIH². In this second version of the deliverable, an update on the aforementioned gaps has been provided focusing on some specific areas of interest related to agile production. While previously several generic areas were identified and analyzed along the course of the factory lifecycle including Architecture, safety, security, human-robot collaboration, sensing and modularity, this second deliverable version has specifically dealt with areas related to challenges that have been encountered from all experiments during the first round of TTEs focusing more on the lessons learned.

Agile Robotic Enablers, Agile Production Enablers and Robotic-Based Agile Production are dealt with in separate chapters below. In the beginning of the deliverable, we have tried to provide an update on the overview of the available body of standards, then based on the experience of our partners we have described current issues of companies and especially SMEs and eventually we focused on specific problems that are largely encountered by manufacturing companies. This work will be used in the preparation of 2nd round experiments as well as in the development of the project’s standardization roadmap.

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