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DIH² Marketplace specification version 1.0

Confidential

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Abstract

This document describes the elicitations of the requirements and the specifications of the DIH² Marketplace. The main purpose of the DIH² Marketplace is to provide an Open Integration Framework for members and newcomers, to develop and offer new services, enabling dynamic networking and interactions between the users. Any member of the network will be able to enhance existing and develop new services to offer.

The DIH² Marketplace also builds upon existing work that has been conducted in the framework of other EU-funded project, more specifically the L4MS Marketplace. It therefore aims not to substitute existing work, but rather enhance and extend it with new features aimed to address the DIH² project objectives, and at the same time contributing to the development of an overall feature-complete platform which addresses effectively the need for enabling the digitization of manufacturing in Europe.

A structured elicitation, analysis and evaluation methodology was followed in order to derive a comprehensive set of the functions and tools that the DIH² Marketplace should implement, as well as to develop the full catalogue of the user requirements. Previous research has been exploited and expanded with new data which was used to re-analyze or confirm the previously extracted results on the requirements and desired functions and tools. These are then prioritized and planned for implementation in specific DIH² Marketplace releases, so as to first meet the most important stakeholder expectations, demonstrate successfully its added value and make clear the benefits to each stakeholder group.

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Notification

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EXECUTIVE SUMMARY

This document sets the baseline for the DIH² Marketplace, from the system engineering perspective. This baseline includes the marketplace requirements, from functional perspective as well as from non-functional and qualitative perspective. The requirements are prioritized and planned to be implemented following the scope, plan and overall focus of the DIH² project. As the project progresses, this document serves as the guideline and backlog of the priority of additional functionalities which will be implemented, when deemed appropriate from the business perspective. The requirements were collected and elicited in a structured and disciplined approach, to ensure high quality and usefulness in the next steps of the development. Previous work implemented in the EU-funded project L4MS (Grant Agreement No 767642) is exploited, so that the efforts in DIH² are efficiently used to implement new features only. A handful of different techniques were utilized:

- Collaborative techniques: brainstorming, mind-mapping, workshops, interviews
- Legacy systems, system archaeology
- Document analysis, literature research
- Online questionnaire

The analysis concluded on a prioritization of the services that the DIH² Marketplace should offer in the short and long term:

1. Video on how robotics can change the production, catalogue of “Robotic-based Open Standard Enablers for Agile Production” (ROSE-APs), DIH² Network, catalogue of “Intellectual Property - Ethical, Legal and Socio-economic” (IP&ELS) experts
2. Training & webinars, supplier history, ratings & feedback
3. End users to find experts & consultants to take care of whole implementation, show clearly the applications & industries covered, user messaging, use cases and success stories
4. Solution providers to find expert & consultants depending on their experience with systems and their expertise, guidelines & tutorials, factory/process simulation
5. Post-sales (maintenance, spares etc.), automated recommendation of end-users to contact, funding information, demand advertisements, video on Marketplace benefits
6. Price tags on solution providers, industry & Marketplace news

These are further analysed and translated into 6 top-level system functions and new user requirements on extending the previously analysed in the context of L4MS (total user requirements: 95). The list of the planned functions includes:

- User customisation (User & organisation data storage, user dashboard)
- Communication (Messaging, Discussion boards, User support)
- Brokerage (Robotics Repository, Rating & Feedback, Service exchanges' tracking, Active matchmaking, Demand advertising)
- Tools (Investment calculator, File repository, Open calls, IP&ELS Voucher)
- Training (Training platform)
- Content management (View content, Add content)

These functions are planned to be implemented in specific versions of the DIH² Marketplace, extending the existing L4MS Marketplace, following an incremental and iterative development approach.



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