

**Project Acronym:** STAR  
**Grant Agreement number:** 956573 (H2020-ICT-2020-1 – Research and Innovation Action)  
**Project Full Title:** Safe and Trusted Human Centric Artificial Intelligence in Future Manufacturing Lines  
**Project Coordinator:** Netcompany-Intrasoft



Funded by the Horizon 2020  
Framework Programme of the  
European Union

## DELIVERABLE

### D8.4 – STAR’s Contributions to Clusters and Associations-Initial version

<b>Dissemination level</b>	PU -Public
<b>Type of Document</b>	Report
<b>Contractual date of delivery</b>	30/06/2022
<b>Deliverable Leader</b>	Netcompany-Intrasoft
<b>Status - version, date</b>	Final – v1.0, 15/07/2022
<b>WP / Task responsible</b>	WP8
<b>Keywords:</b>	Dissemination and Communication Activities

*This document is part of a project that has received funding from the European Union’s Horizon 2020 research and innovation programme under grant agreement No 956573. It is the property of the STAR consortium and shall not be distributed or reproduced without the formal approval of the STAR Management Committee. The content of this report reflects only the authors’ view. The European Commission is not responsible for any use that may be made of the information it contains.*

## Executive Summary

In the deliverable at hand, we provide a report on the progress of the STAR’s Contributions to Clusters and Associations during the period M01-M18 presenting the liasons and collaborations established and activities undertaken in this period. The deliverable, is the first of two deliverables within the Task and is closely connected and developed in parallel with the Deliverable D8.2 "Dissemination and Communication Activities-Initial version".

The present deliverable focuses on the collaboration with the other ICT-38 projects funded by the European Commission, the collaboration with AI4EU/AI4Europe and STAR contribution to clusters and associations.

<b>Deliverable Leader:</b>	INTRA-LU
<b>Contributors:</b>	ALL Partners
<b>Reviewers:</b>	THA, UNP
<b>Approved by:</b>	Charalampos Ipektsidis, John Soldatos

<b>Document History</b>			
<b>Version</b>	<b>Date</b>	<b>Contributor(s)</b>	<b>Description</b>
0.1	10/05/2022	INTRA-LU	ToC
0.2	20/06/2022	INTRA-LU	First draft including partners’ inputs
0.3	26/06/2022	INTRA-LU	Completed draft ready for partners’ review
0.4	12/07/2022	Reviewers	Final draft after partners’ review
0.5	14/07/2022	INTRA	Final version incorporating comments from partners
1.0	15/07/2022	INTRA	Final QA’ed to be submitted

# Table of Contents

<b>EXECUTIVE SUMMARY .....</b>	<b>2</b>
<b>TABLE OF CONTENTS.....</b>	<b>4</b>
<b>TABLE OF FIGURES.....</b>	<b>5</b>
<b>LIST OF TABLES.....</b>	<b>6</b>
<b>DEFINITIONS, ACRONYMS AND ABBREVIATIONS .....</b>	<b>7</b>
<b>1 INTRODUCTION.....</b>	<b>8</b>
1.1 PURPOSE AND SCOPE.....	8
1.2 DOCUMENT STRUCTURE .....	8
<b>2 LIAISONS AND COLLABORATIONS.....</b>	<b>9</b>
2.1 COLLABORATION WITH ICT-38-2020 AND OTHER PROJECTS IN DIGITAL MANUFACTURING AND AI .....	9
2.1.1 <i>1st Meeting with other ICT-38-2020 projects .....</i>	<i>10</i>
2.1.2 <i>Thematic workshops with other ICT-38-2020 projects.....</i>	<i>10</i>
2.1.3 <i>Co-organised sessions with ICT-38 projects .....</i>	<i>14</i>
2.1.4 <i>Current activities and Future Plans.....</i>	<i>15</i>
2.2 COLLABORATION WITH AI4EU .....	15
2.2.1 <i>Workshops with AI4EU/AI4Europe .....</i>	<i>16</i>
2.3 COLLABORATION WITH OTHER PROJECTS AND INITIATIVES .....	16
2.3.1 <i>Collaboration with KYKLOS4.0 Innovation Action .....</i>	<i>16</i>
2.4 CONTRIBUTIONS TO FURTHER CLUSTERS AND ASSOCIATIONS.....	17
2.4.1 <i>European Factories of the Future Research Association (EFFRA).....</i>	<i>21</i>
2.4.2 <i>EIT MANUFACTURING Initiative.....</i>	<i>23</i>
2.4.3 <i>A.SPIRE and the Processes4Planet co-programmed Partnership .....</i>	<i>23</i>
2.4.4 <i>Big Data Value Association (BDVA) and its evolution to AI, Data, Robotics Partnership (DAIRO) 24</i>	<i>24</i>
2.4.5 <i>Alliance for Internet of Things Innovation (AIOTI) WG11 Sustainable Manufacturing</i>	<i>26</i>
2.4.6 <i>International Data Spaces Association (IDSA) .....</i>	<i>26</i>
2.4.7 <i>National and Regional Associations and Initiatives .....</i>	<i>27</i>
2.5 LIAISING WITH RELEVANT STANDARDIZATION GROUPS .....	27
2.6 OTHER COLLABORATIONS.....	28
2.6.1 <i>Manufacturing leaders’ business networks .....</i>	<i>28</i>
2.6.2 <i>Exploring further collaborations.....</i>	<i>29</i>
<b>3 CONCLUSION.....</b>	<b>31</b>
<b>REFERENCES .....</b>	<b>32</b>

## Table of Figures

FIGURE 1: ICT-38-2020, MAY 7TH 2021. ....	10
FIGURE 2: RECORDINGS OF ICT-38-2020 WORKSHOPS .....	11
FIGURE 3: ICT-38-2020, WORKSHOP ON EXPLAINABLE ARTIFICIAL INTELLIGENCE IN MANUFACTURING, OCTOBER 11TH 2021 .....	12
FIGURE 4: ICT-38-2020, BANNER OF WORKSHOP ON ETHICAL AND LEGAL ISSUES, NOVEMBER 25TH 2021 .....	12
FIGURE 5: ICT-38-2020, WORKSHOP ON ETHICAL AND LEGAL ISSUES, NOVEMBER 25TH 2021 .....	13
FIGURE 6: ICT-38-2020, WORKSHOP ON HUMAN CENTRED MANUFACTURING AND HUMAN ROBOT COLLABORATION, MARCH 11TH 2022.....	14
FIGURE 7: ICT-38-2020, WORKSHOP ON HUMAN CENTRED MANUFACTURING AND HUMAN ROBOT COLLABORATION, MARCH 11TH 2022.....	15
FIGURE 8: PRESENTATION OF THE AI-MAN ICT-38-2020, CLUSTER AT THE EFFRA CONNECTED FACTORIES WORKSHOP OF 18/02/2022 .....	21
FIGURE 9: PRESENTATION OF THE STAR BLOCKCHAIN APPROACH TO DATA PROVENANCE AND TRACEABILITY DATA WEEK - SESSION ON "DATA PROVENANCE AND TRACEABILITY FOR TRUSTED & RELIABLE AI IN MANUFACTURING" 30/05/2022 .....	25

## List of Tables

TABLE 1: CLUSTERS LIASED AND ACTIVITIES UNDERTAKEN .....18

## Definitions, Acronyms and Abbreviations

<b>Acronym/ Abbreviation</b>	<b>Title</b>
<b>AI</b>	Artificial Intelligence
<b>CPS</b>	Cyber Physical System
<b>DIH</b>	Digital Innovation Hub
<b>DoA</b>	Description of Action
<b>EC</b>	European Commission
<b>EU</b>	European Union
<b>H2020</b>	Horizon 2020
<b>SDO</b>	Standards Developing Organisation
<b>VDIH</b>	Virtualized Digital Innovation Hub
<b>WP</b>	Work Package

# 1 Introduction

## 1.1 Purpose and Scope

The deliverable at hand has been prepared in the context of Work Package 8 "Dissemination, Exploitation and Standardization" and is in particular associated with Task 8.2 "Contributions to Clusters and Associations".

Task 8.2 is dedicated to the project’s active presence and participation in activities organized by clusters and associations that are relevant to the project’s outcomes. STAR actively participates in the activities of EU level associations and alliances like EFFRA, BDVA and AIOTI and also liaises with national manufacturing associations and initiatives in the countries of the project partners. Here it shall be stated that WP8 is a horizontal Workpackage within the project work plan and as such is connected to all other activities.

The present deliverable, is the first of two deliverables within the Task and is closely interrelated and developed in parallel with Task 8.1 "Dissemination and Communication Activities", Task 8.3 "Pre-normative Research and Standardization Activities", Task 8.4 "Exploitation and Business Planning", Task 8.5 "Business Modelling and Sustainability Planning" and Task 8.6 "Collaboration with other ICT-38-2020 projects".

This document, produced during the second year of the project, provides the report on the progress of the on-going work. The purpose of this manuscript is to document the STAR contributions to Clusters and Associations as also in the ICT-38 projects during the period from M01 (January 1st, 2021) to M18 (June 30th, 2022) and reports specifically on the tasks undertaken by the partners.

## 1.2 Document Structure

The Sections of the present deliverable are organised in the following manner.

After the introductory Section 1, Section 2 provides a report on the Liaisons and Collaborations with other relevant activities, whereas Section 3 concludes the document.

## 2 Liaisons and Collaborations

In this section of the deliverable, we describe the liaisons and collaborations with the different clusters and associations. An important element in this plays the collaboration with other ICT-38 projects with whom a series of activities have both been implemented and are planned. In detail, all related activities are presented in the following sections.

### 2.1 Collaboration with ICT-38-2020 and other projects in digital manufacturing and AI

The EC deems that state-of-the-art AI technologies need to be integrated with advanced manufacturing technologies and systems in order to exploit their potential in the manufacturing and process industry. AI systems cooperating with humans can improve production planning and execution, and can help to improve the quality of products and processes [1]. To widely deploy these technologies, specific attention has to be given to standardisation, synchronising EU and Member States activities, and to international collaboration [1].

STAR is one of the Research and Innovation Actions (RIA) projects that were funded under this call, and thus is a member of the AI-MAN (ICT-38) Projects Cluster which is supported by EFFRA and the Connected Factories project and aims at exploiting synergies between the projects and increasing their impact. The AI-MAN (ICT-38) Projects Cluster is comprised by STAR and eight more projects. These are alphabetically:

- [AI-PROFICIENT](#) (Artificial Intelligence for improved PROduction effICIency, quality and maintenance – 957391)
- [ASSISTANT](#) (leArning and robuSt deciSIon SupporT systems for agile mANufacTuring environments – 101000165)
- [COALA](#) (COgnitive Assisted agile manufacturing for a Labor force supported by trustworthy Artificial Intelligence – 957296)
- [EU-Japan.AI](#) (Advancing Collaboration and Exchange of Knowledge Between the EU and Japan for AI-Driven Innovation in Manufacturing – 957339)
- [knowlEdge](#) (Towards AI powered manufacturing services, processes, and products in an edge-to-cloud-knowlEdge continuum for humans [in-the-loop] – 957331)
- [STAR](#) (Safe and Trusted Human Centric Artificial Intelligence in Future Manufacturing Lines – 956573)
- [MAS4AI](#) (Multi-Agent Systems for Pervasive Artificial Intelligence for assisting Humans in Modular Production Environments – 957204)
- [TEAMING.AI](#) (Human-AI Teaming Platform for Maintaining and Evolving AI Systems in Manufacturing – 957402)
- [XMANAI](#) (Explainable Manufacturing Artificial Intelligence - 957362)

These projects share common research interests and conduct research in similar topics and therefore collaborate in research, transfer knowledge and share experiences with each other, while at the same time collaborating in jointly disseminating and communicating project results.

### 2.1.1 1st Meeting with other ICT-38-2020 projects

In the context of the collaboration with other ICT-38-2020 projects, a first meeting took place on Friday, May 07th 2021.

The coordination call aimed to make the participants aware of each project’s objectives, activities and technologies that are being developed and to further expand the potential areas of collaboration.

More than 50 people from the ICT-38 projects, the AI REGIO project and EFFRA joined the workshop. An outcome of this first call was to further strengthen the projects’ collaboration and making the best of AI in manufacturing by designing future collaboration activities



Figure 1: ICT-38-2020, May 7th 2021.

This first call was coordinated by the STAR coordination team (INTRA) and was supported by EFFRA and the ConnectedFactories CSA. The projects representatives explored the potential areas of synergies and imminent activities. Planning of a series of virtual thematic workshops, the potential for technology and skills transfer, opportunities for joint dissemination (publications, conferences) and communication (communication pipeline, mutual social media promotion) activities as well as synergies and linking with other Groups (e.g., DMP Cluster, AI4EU) to maximize the projects’ impact were also discussed. Representatives of EFFRA and AI4EU were also present in this discussion and shared their vision towards the ICT-38 projects’ collaboration with these initiatives.

### 2.1.2 Thematic workshops with other ICT-38-2020 projects

Based on the discussions on the collaboration call three further workshops were organised together with the AI-MAN (ICT-38) project's cluster on October 11th, November 25th 2021 and March 14th. The first was a workshop on Explainable Artificial Intelligence in

Manufacturing, the second one on Ethical and Legal issues and the third one on Human Centred Manufacturing and Human robot collaboration

The recordings of all three workshops are available on YouTube and can be found also in the playlists of the STAR YouTube channel.

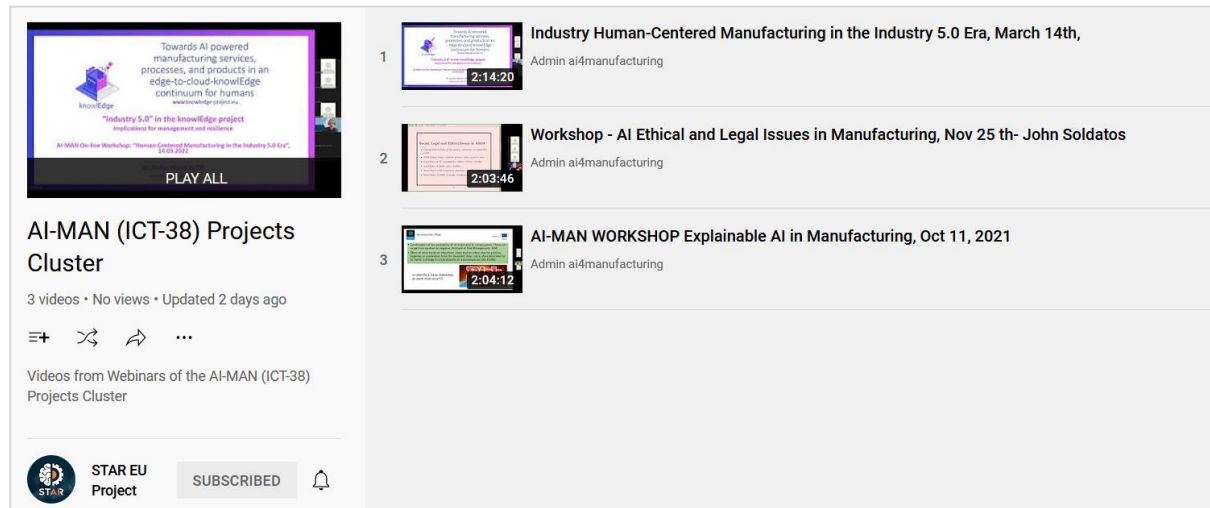


Figure 2: Recordings of ICT-38-2020 Workshops

### 2.1.2.1 Workshop on Explainable Artificial Intelligence in Manufacturing

The first of a series of ICT-38 Projects Cluster (AI-MAN) workshops was organised on October 11th. The workshop had as topic Explainable Artificial Intelligence in Manufacturing and the coordination team of STAR drove the event and INTRA prepared the banner.

The workshop had the following agenda

11:00 - 11:05 Introduction to the Workshop

11:05 - 11:30 "Framework development for responsible AI in manufacturing", Eduardo Vyhmeister, H2020 ASSISTANT Project

11:30 - 11:55 "AI powered manufacturing services, processes, and products in the knowlEdge project", Christian Beecks, H2020 knowlEdge Project

11:55 -12:20 "XMANAI foundations for Explainable AI in Manufacturing", Fenareti Lampathaki, H2020 XMANAI

12:20 - 12:45 "Use Cases of XAI in Manufacturing", John Soldatos, H2020 STAR Project

12:45 - 13:00 Discussion - Questions - Answers



Figure 3: ICT-38-2020, Workshop on Explainable Artificial Intelligence in Manufacturing, October 11th 2021

In total 124 registrations were received.

### 2.1.2.2 Workshop on Ethical and Legal issues

The second workshop of the AI-MAN cluster on Ethical and Legal issues was organised on Thursday, November 25th



Figure 4: ICT-38-2020, Banner of workshop on Ethical and Legal issues, November 25th 2021

The agenda was the following.

14:00 - 14:05 Introduction to the Workshop

14:05 - 14:20 "Comparing the EU and Japanese Legal and Ethical Approaches to AI for Manufacturing", Dr Andrew A. Adams, Centre for Business Information Ethics, Meiji University, Tokyo, Japan, H2020 EU-Japan.AI

14:20 - 14:35 "Human Where? A New Scale Defining Human Involvement in Technology Communities from an Ethical Standpoint", Marc Anderson and Karen Fort, H2020 PROFICIENT Project

14:35 -14:50 "Artificial lawyer – collecting and using data for certain legal issues related to manufacturing" Dr. Raphael Thomas Prabucki, H2020 MAS4AI Project

14:50 - 15:05 "AI in Manufacturing, that Works. The Symbiosis of Functionals & Non-Functionals as Main Success Factor", Arthur van der Wees, H2020 STAR Project

15:05 - 15:20 "Developing a human centric architecture for AI in manufacturing - experiences, insights, challenges", Jan-Hendrik Passoth and Benedict Lang, H2020 ASSISTANT Project

15:20 - 15:35 "AI EU Act, Legal Issues, and Implications on COALA Project", Celine Castets-Renard, H2020 COALA Project

15:35 - 16:00 Discussion - Questions – Answers



*Figure 5: ICT-38-2020, Workshop on Ethical and Legal issues, November 25th 2021*

In total there were 96 registrations.

### 2.1.2.3 Workshop on Human Centred Manufacturing and Human robot collaboration

The third workshop of the AI-MAN cluster up to now focused on Human Centred Manufacturing and Human robot collaboration and took place on Monday, March 11th 2022 with the following agenda.

12:00 - 12:05 Introduction to the Workshop

12:05 - 12:25 "Industry 5.0 in the knowlEdge project: implications for management and resilience", Stefan Walter, VTT, H2020 knowlEdge Project

12:25 - 12:45 "Worker in the loop - Enabling Human-Robot Collaborative Assembly", Christos Gkournelos, Laboratory for Manufacturing Systems and Automation (LMS), H2020 ASSISTANT Project

12:45 -13:05 "Dynamic Knowledge Graph Approach to Human-AI Teaming", Bernhard Moser, Software Competence Center Hagenberg (SCCH), H2020 Teaming.AI Project

13:05 - 13:25 "Towards industry 5.0: use-cases in human-machine collaboration and human digital twins", Elias Montini, SUPSI and Jože Rožanec, Qlector, H2020 STAR Project

13:25 - 13:40 Discussion - Questions – Answers

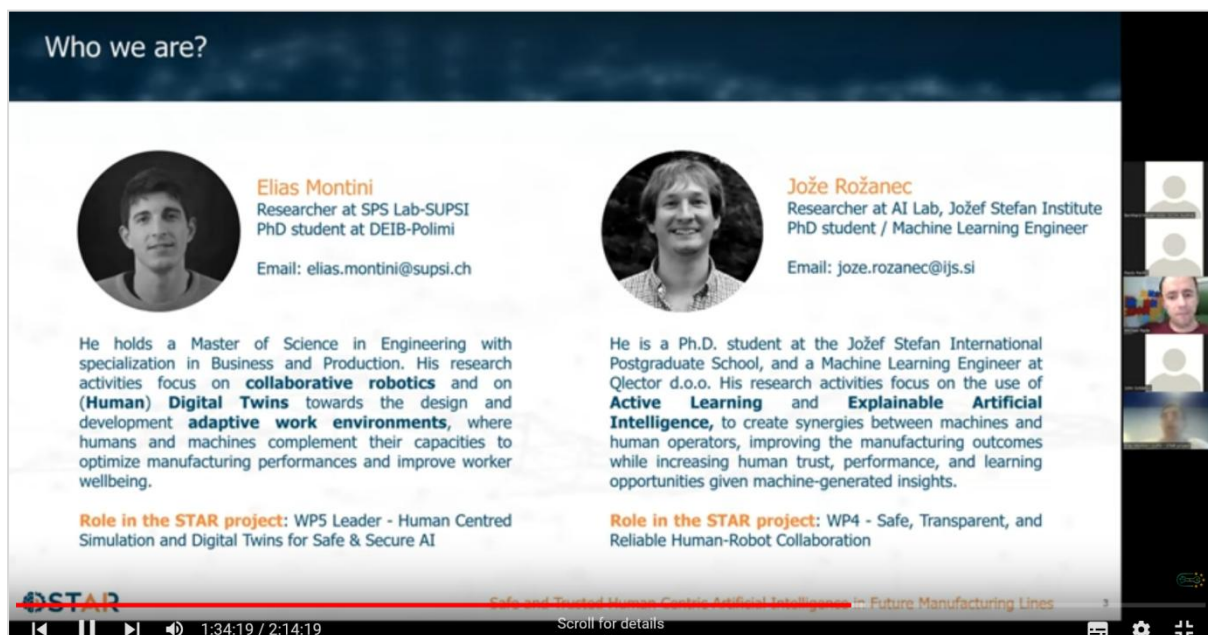


Figure 6: ICT-38-2020, Workshop on Human Centred Manufacturing and Human robot collaboration, March 11th 2022

In total 59 registrations were received.

### 2.1.3 Co-organised sessions with ICT-38 projects

STAR, in cooperation with other ICT-38 projects (namely, COALA, XAMANAI, Teaming AI) co-organised also a session on "AI for Manufacturing: Opportunities and Challenges" during the Data Week Conference organised by the BDVA/DAIRO on 25-27/05/2021.



Figure 7: ICT-38-2020, Workshop on Human Centred Manufacturing and Human robot collaboration, March 11th 2022

The session was entitled "AI for Manufacturing: Opportunities and Challenges" and the objective was to elaborate on business opportunities and R&I challenges for the full take up of AI technologies in Manufacturing. Four relevant aspects were analysed in detail: explainable AI (XMANAI), trustworthy and secure AI (STAR), Human-AI interaction (TEAMING.AI) and AI-based digital assistants and training systems (COALA). During this session, the discussion concentrated on the two topics represented by Explainable AI (STAR and XMANAI) and Human-AI Interaction (COALA and TEAMING.AI) while the other topics (AI Security and Trustworthy AI) were debated later inside the SMI group of BDVA/DAIRO thanks to the involvement of additional ICT-38 projects.

The recording of this webinar is available in the STAR YouTube Channel.

### 2.1.4 Current activities and Future Plans

The collaboration with the other ICT-38 projects is ongoing and the next activity is planned for mid-July. This will be in the form of a workshop with the topic "Interoperability of AI Systems in Manufacturing". The workshop will aim at presenting the project’s approach to interoperability addressing different aspects (technical, semantic etc.) and at different levels (e.g., data, AI/ML Models, AI components, AI & Humans interoperability).

## 2.2 Collaboration with AI4EU

As part of Task 7.5 "Integration and Continuous Collaboration with AI4EU" Continuous collaboration and joint dissemination activities were planned to be organised with the AI4EU project. The two projects/communities started to collaborate in fine-tuning the integration, but also in community and ecosystem building activities. STAR project partners joined the activities of AI4EU and participated in AI4EU workshops.

The AI4EU platform features started to be disclosed, clarifying the picture for the realisation of the link with the STAR project.

During this period a document was sent to STAR partners with the aim to:

- elucidate the AI4EU platform components and their features
- start an inquiry on the integration wishes of the star project ( the available tools, the link with the STAR marketplace, ...)

### 2.2.1 Workshops with AI4EU/AI4Europe

On 11th November 2021, AI4Media organised a workshop on the "[European AI-on-demand platform](#)". The aim of this platform is to bring together the AI community while promoting European values and to facilitate technology transfer from research to business. As a follow-up project of AI4EU, AI4Media is collaborating closely with the AI4EU platform by integrating the project’s outputs such as modules, services, and algorithms into it as well as by organizing AI4EU Web Cafés for community building. The workshop started with a general introduction to the platform, highlighting the involved organizations and projects as well as its different parts such as the AI Catalogue and the Web Cafés. The second part focused on [AI4EU Experiments](#), an open-source platform for the development, training, sharing, and deployment of AI models which constitutes the technical part of the AI-on-Demand platform.

A further internal workshop was co-organised by STAR and the ICT-38 projects in collaboration with AI4EU/AI4Europe in order to discuss the collaboration activities. This workshop took place online on May 17th 2022. Representatives from all projects participated in the meeting with specific questions and a brief discussion of AI assets produced by the different projects. This meeting clarified further the difference between the AI Catalogue and the AI Experiments. As a result of this workshop at the end of the meeting, it became clear which assets should be integrated into the catalogue and which are more suitable as experiments.

As a result of the 2nd workshop with AI4Europe, a set of action points were prepared that included among others the compilation of a list of assets that ICT-38 projects could contribute to the AI catalogue and to the AI experiments. Furthermore, an important action point is the initiation of the work on the actual integration of these assets to AI4EU in the following periods.

## 2.3 Collaboration with other projects and initiatives

STAR pursues to establish close links with other H2020 projects and initiatives in digital manufacturing and AI. As mentioned also in the Communication plan one of the examples of such collaboration is a collaboration with KYKLOS4.0, supported by the STAR partner GFT.

### 2.3.1 Collaboration with KYKLOS4.0 Innovation Action

At the present time and as identified in the Europe 2020 strategy, manufacturing enterprises face key challenges related to safety, sustainability and inclusive growth.

The incorporation of new ICT at various levels (workers, machines and other resources on the shopfloor, and business processes along the whole supply chain) and the application of AI-based technologies will help optimizing the production and the technological level in production lines. These technologies could lead to significantly improve safety within industrial plants and to optimize AI systems to acquire knowledge in order to take timely and safe decisions in dynamic and unpredictable environments.

GFT as a partner of STAR but also of the KYKLOS4.0 Innovation Action (a project financed under H2020-DT-2019 in which GFT plays an important role in terms of both technology provider and exploitation on the market) can set a common framework.

Both STAR and KYKLOS 4.0 aim at providing an Ecosystem which creates and supports the configurations, methodologies, production techniques, decisions and actions at all different levels and stages of the equipment manufacturing value chain so as to achieve multiple goals: increased energy efficiency, decrease of raw material through to the second use of parts or material perfectionate on-demand manufacturing, meet the Industry 4.0 objectives of operational excellence and safety in production lines and, overall, serving in creating digital skilled enterprises.

Projects like STAR, KYKLOS4.0, as well as other EU financed projects in Industry, assume a main role in driving the transition of companies towards a more effective use of AI technologies, Data and ICT. Both projects can contribute to this general aim by demonstrating, in a realistic, measurable, and replicable way the transformative effects and impacts of innovative technologies within the Manufacturing Framework.

Other projects that are considered for collaboration with STAR are [DIMOFAC](#) and [COLLABS](#), in which some of the partners are actively involved.

## 2.4 Contributions to further Clusters and Associations

STAR aspires to have an active presence in the activities organised by clusters, associations, Working Groups and initiatives relevant to the project. STAR aims to establish strong relationships in the field of Manufacturing and in the ICT domains under the challenge of “AI for Manufacturing” and therefore actively scans the ecosystem.

STAR as a multi-disciplinary and inter-disciplinary project produces results in the intersection of BigData, Artificial Intelligence (AI), Digital Manufacturing Platforms and Use Cases, Industrial Internet of Things (IIoT) and Industrial Security. Therefore the project’s results are relevant to different clusters and associations in Europe (e.g., DAIRO for AI & BigData, AIOTI for IIoT and EFFRA for Manufacturing) that focus on the above areas.

STAR and the STAR consortium partners have liaised and maintained close contact and collaborations with several related communities. A list of Clusters / Associations / Initiatives / Communities is presented in the table below. In addition, some further details are provided for selected Clusters / Associations / Initiatives.

Table 1: Clusters liased and activities undertaken

Name of Cluster/Association/Initiative/Community relevant to STAR	Type (Cluster/Association/Initiative/Community/Other)	Coverage	URL	Contributing partners	Relevant to STAR working groups/task forces within these initiatives (where relevant)	Relevant activities STAR partners participated/plan to participate	Other means of dissemination (newsletters, white papers, publications, etc.)
<b>EUROPEAN / INTERNATIONAL</b>							
EFFRA		European	<a href="https://www.effra.eu/">https://www.effra.eu/</a>	<b>GFT, INTRA, PCL</b>	- Zero Defect Manufacturing Cluster - Predictive Maintenance Cluster - Digital Manufacturing Platforms (DMP) Cluster	STAR participates in Connected Factories events (e.g. 18/02/2022 and 13/06/2022)	STAR is included in the EFFRA Innovation Portal. Twitter account integrated into the project page
SPIRE-06 Cluster in the cognitive process industry				<b>GFT</b>			
European Technology Platform Manufuture		European	<a href="http://www.manufuture.org/">http://www.manufuture.org/</a>	<b>PCL</b>	- Zero Defect Manufacturing		
AI4EU	Project, Community	European	<a href="https://www.ai4eu.eu/ai4eu-platform">https://www.ai4eu.eu/ai4eu-platform</a>	<b>THALES, INTRA</b>		STAR work together on AI4EU/AI4Europe on establishing a link and on how STAR can contribute to the AI catalogue and to the AI experiments	Publishing in the monthly newsletter and the website
BDVA/DAIRO	Association		<a href="http://www.bdva.org/">http://www.bdva.org/</a>	<b>INTRA, GFT</b>	SMI group Smart Manufacturing	Participation in dataweek events	Publishing in the newsletter
AIOTI			<a href="https://aioti.eu/">https://aioti.eu/</a>	<b>UNP, ALEGAL</b>	WG11 Smart Manufacturing		
International Data Spaces Association (IDSA)			<a href="https://internationaldataspaces.org/">https://internationaldataspaces.org/</a>				
EU Robotics alliance				<b>R2M</b>		Organisation of workshops as part of the RoboticsWeek	
Code-n innovators’ community			<a href="https://www.code-n.org/">https://www.code-n.org/</a>	<b>GFT community, so have direct link</b>			
CEN TC319	Standardisation Committee	International	<a href="https://standards.cen.eu/dyn/www/?p=204:110:0:::FS&amp;PROJECT:66070&amp;cs=1D4A690A78F6E574DD06FB169">https://standards.cen.eu/dyn/www/?p=204:110:0:::FS&amp;PROJECT:66070&amp;cs=1D4A690A78F6E574DD06FB169</a>	<b>RuG</b>	Maintenance - Maintenance within Asset Management & Maintenance Engineering	Participation in CEN meetings and contribution to "Digitalisation in	

			<a href="#">EA931911</a>			Maintenance Engineering” as part of the new standard on Maintenance Engineering Requirements (role of AI included)	
EEN Switzerland	Network	International	<a href="https://www.swisseen.ch/en/">https://www.swisseen.ch/en/</a>	<b>SUPSI</b>		Selected events / workshops	
<b>NATIONAL</b>							
Plattform Industrie 4.0	Plattform	Germany	<a href="https://www.plattform-i40.de/PI40/Navigation/EN/Home/home.html">https://www.plattform-i40.de/PI40/Navigation/EN/Home/home.html</a>	<b>DFKI</b>	THALES working group	Interior Meeting, Hanover exhibition	DFKI will use its SmartFactoryKL facilities for demonstration of STAR’s results to other participants and stakeholders
ENGINEERING & TOOLING CLUSTER		Portugal	<a href="https://www.toolingportugal.com/">https://www.toolingportugal.com/</a>	<b>IBER</b>			IBER will participate at the "Innovation Workshop", second edition 2022, which will be in October
Portuguese Competitive Pole for Production Technologies (PRODUTECH)		Portugal	<a href="http://www.produtech.org/about-us">http://www.produtech.org/about-us</a>	<b>UNP</b>	IBER has been admitted as members of this cluster recently.		Activities will be planned for the next period since IBER is now member of the cluster
Portuguese ICT & Electronics Cluster		Portugal	<a href="http://www.tice.pt">www.tice.pt</a>	<b>UNP</b>			
IoTItaly network for IoT diffusion in Italy		Italy	<a href="http://www.iotitaly.net/">http://www.iotitaly.net/</a>	<b>R2M</b>		Selected events / workshops	
General Secretariat of Research & Technology (GSRT)		Greece	<a href="http://www.gsrt.gr/central.aspx?sId=11914281108913231488743&amp;JScript=1">http://www.gsrt.gr/central.aspx?sId=11914281108913231488743&amp;JScript=1</a>	<b>UPRC</b>			
Association of industrialists of Attica and Piraeus		Greece	<a href="http://www.svap.gr/">http://www.svap.gr/</a>	<b>UPRC</b>			
Technical Chamber of Greece (TEE-TCG)		Greece	<a href="http://portal.tee.gr/portal/page/portal/TEE/TCG">http://portal.tee.gr/portal/page/portal/TEE/TCG</a>	<b>UPRC</b>			
ICD (regional industrial cluster)		Regional (NL)	<a href="https://www.icdrachten.nl/en/">https://www.icdrachten.nl/en/</a>	<b>PCL</b>	- Smart Factories	Depending on opportunities – expected more during / after integration / demonstration	Presentation and Posters of Philips pilot and project results
ISO TC 307	Standardisation,	International	<a href="https://www.iso.org/commit">https://www.iso.org/commit</a>	<b>UBITECH</b>	Blockchain and Distributed	Participation in ISO	Presentation of STAR

	Working Group		<a href="https://6266604.html">ee/6266604.html</a>		Ledgers for Secure Data Sharing in Manufacturing Environments	meetings	Blockchain-related activities
NLAIC	Artificial Intelligence Alliance	Netherlands	<a href="https://nlaic.com/">https://nlaic.com/</a>	<b>RuG</b>	A. Building blocks: - Human Centric AI - Research and Innovation B. Table linking Application groups and possible projects - Predictive maintenance - Autonomous systems - Education	Regular NLAIC workshops and meetings	
Drachten Innovation Cluster	Industry 4.0 - oriented cluster	Netherlands	<a href="https://www.icdrachten.nl">https://www.icdrachten.nl</a>	<b>RuG</b>	The Drachten Innovation Cluster is a group of high-tech companies in the North of Netherlands strongly employed I4.0 technologies (3D printing, remote sensing, big data, robotics, visual intelligence) and increasingly adopting AI	Participation in quarterly meetings and raising awareness about STAR outcomes	
Smart Industry Hub North	Regional industries network	Netherlands	<a href="https://smartindustry.nl/hubs/noord">https://smartindustry.nl/hubs/noord</a>	<b>RuG</b>	The Smart Industry North was set up to offer support services to all companies in the regions of Groningen, Friesland, and Drenthe in their transitioning to Industry 4.0.	Engagement with the hub to raise awareness about STAR outcomes	
AFIL - Lombardy Intelligent Factory Association	Association	Italy	<a href="https://www.afil.it/">https://www.afil.it/</a>	<b>SUPSI</b>		Selected events / workshops	

### 2.4.1 European Factories of the Future Research Association (EFFRA)

EFFRA is a non-for-profit, industry-driven association promoting the development of new and innovative production technologies. It is the official representative of the private side in the 'Factories of the Future' public-private partnership.

As the STAR project is part of the Factories of the Future PPP, it has been included on the [EFFRA Innovation Portal](#) and integrated its Twitter account on the project page to gain more visibility. STAR keeps sharing important and interesting news using our account in the Innovation Portal.

As part of the activities, STAR represented the AI-MAN Cluster (ICT-38-2020) in the ConnectedFactories online event on 18 February 2022



*Figure 8: Presentation of the AI-MAN ICT-38-2020, Cluster at the EFFRA Connected Factories Workshop of 18/02/2022*

Inside EFFRA and its Innovation portal, some projects’ clusters are close to Innovative AI Applications. Namely, the ZDM cluster and the PdM (Predictive Maintenance) cluster.

*Zero Defect Manufacturing Cluster (<https://zdmanufuture.org>)*

The 4ZDM cluster is composed of completed and running projects at FP7 or H2020, as well as the new projects under Horizon Europe.

These project teams have come together to identify technical cross-cutting issues such as: intelligent, autonomous, and self-adaptive systems for process monitoring, control and quality management; system approaches for monitoring and data processing of dimensional fluctuations; efficient simulation tools and methods to predict machining system behaviour.

As well as defining the current state-of-the-art in ZDM, the 4ZDM cluster has also enabled us to carry out a bibliographic review and highlight the most promising future research topics that will show the way towards the achieving the ZDM paradigm.

Running projects of the cluster are:

- Dat4Zero Data Reliability and Digitally-enhanced Quality Management for Zero Defect Manufacturing in Smart Factories and Ecosystems.
- OPTIMAI Optimizing Manufacturing Processes through Artificial Intelligence and Virtualization.
- i4Q Industrial Data Services for Quality Control in Smart Manufacturing.
- PENELOPE Closed-loop digital pipeline for a flexible and modular manufacturing of large components
- InterQ Interlinked Process, Product and Data Quality framework for Zero-Defects Manufacturing.

The interaction of the STAR project with the 4ZDM cluster, will benefit the exchanges with the 4ZDM community, sharing the vision and the priorities of the participants. STAR will pursue a collaboration with the ZDM cluster aiming at identifying additional industrial cases where to test and experiment with its AI based solutions, especially those concerned with security.

*Predictive Maintenance Cluster (<http://foresee-cluster.eu>)*

The ForeSee cluster (European cluster for Sustainable Predictive Maintenance Solutions in the Factories of the Future) aims to develop sustainable predictive maintenance solutions for the factory of the future. The cluster consists of six European projects, which are funded under the EU H2020 FoF-9 call – Novel design and predictive maintenance technologies for an increased operating life of production systems.

- PROPHECY is a platform for rapid deployment of self-configuring and optimised predictive maintenance services. (project completed)
- PROGRAMS is a prognosis based reliability analysis method for maintenance scheduling. (project completed)
- Z-BRE4K is a novel predictive maintenance platform for zero-unexpected-breakdowns. (project completed)
- PRECOM is a predictive cognitive maintenance decision-support system to improve preventive maintenance. (project completed)
- SERENA is a versatile plug-and-play platform that enables remote predictive maintenance. (project completed)
- UPTIME is a versatile and interoperable unified predictive maintenance platform for the manufacturing industry. (project completed)

Currently, the ForeSee cluster website features another set of five ongoing projects

- COALA aims to develop a trustworthy, human-centred, voice-enabled Digital Intelligent Assistant for the manufacturing industry. (ICT-38 project)
- RECLAIM intends to demonstrate strategies and technologies that enable the re-use of industrial equipment in old, renewed and new factories alike.
- MAS4AI aims at developing and testing a distributed and interoperable AI architecture based on multi-agents technology. (ICT-38 project)

- LEVEL-UP aims to develop a scalable platform covering the overall lifecycle, to diagnose and predict the operation of physical assets.
- The openZDM project aims to integrate NDI techniques into CPPSs through an open platform for continuous quality assessment and control.

STAR will seek to liaise with the ForeSee cluster for mutual exchange of outcomes and sharing of vision and priorities.

### 2.4.2 EIT MANUFACTURING Initiative

EIT Manufacturing is one of the eight Knowledge Innovation Communities within the European Institute of Innovation & Technology (EIT) and has the aim to connect the leading manufacturing actors in Europe.

EIT Manufacturing’s vision is that the global manufacturing innovation will be soon led by Europe. EIT Manufacturing’s approach is designed to immediately and forcefully address specific economic and societal challenges, leveraging opportunities to maximise the impact for a successful European manufacturing.

#### *EIT MANUFACTURING Flagships*

EIT Manufacturing, together with its partners, has identified four focus areas —its flagships — to help solve the most pressing challenges for a greener and more competitive European manufacturing and society.

These are

- Flexible production systems for competitive manufacturing
- Low environmental footprint systems & circular economy for Green manufacturing
- Digital & collaborative solutions for innovative manufacturing ecosystems
- Human-machine co-working for socially sustainable manufacturing

These flagships involve several programmes that cover a complete range of activities, training and up-skilling, and novel business models. The 2021-2022 EIT MANUFACTURING Innovation Activities will be monitored for synergies.

### 2.4.3 A.SPIRE and the Processes4Planet co-programmed Partnership

A.SPIRE is the **European Association** which is committed to manage and implement the SPIRE Public-Private Partnership and now the [Processes4Planet co-programmed Partnership](#). It represents **innovative process industries**, 20% of the total European manufacturing sector in employment and turnover, and more than **170 industrial and research process stakeholders** from over a dozen countries spread throughout Europe. A.SPIRE brings together cement, ceramics, chemicals, engineering, minerals and ores, non-ferrous metals, pulp and paper, refining, steel and water sectors, several being world-leading sectors operating from Europe. The mission of A.SPIRE is to ensure the development of enabling technologies and best practices along all the stages of large scale existing value chain productions that will contribute to a resource efficient process industry [4].

The following six projects have been funded in SPIRE-06.

- CAPRI (<https://www.capri-project.com/> Cognitive Automation Platform for European PProcess Industry digital transformation).
- COGNITWIN (<https://www.sintef.no/projectweb/cognitwin/> Cognitive Plants through Proactive Self-Learning Hybrid Digital Twins).
- COGNIPLANT (<https://www.cogniplant-h2020.eu/> Cognitive Platform to Enhance 360° Performance and Sustainability of the European Process Industry).
- FACTLOG (<https://www.factlog.eu/> Energy-aware Factory Analytics for Process Industries).
- HyperCOG (<https://www.hypercog.eu/> Hyperconnected Architecture for High Cognitive Production Plants).
- INEVITABLE (<http://inevitable-project.eu/> Optimization and performance improving in metal industry by digital technologies).

STAR aims at extending its AI security technologies to the process industry and identifying common scenarios and industrial cases for additional experimentations.

Furthermore, we are also looking at the Processes4Planet, the successor to the Horizon 2020 [SPIRE Partnership](#), that will aim to achieve three general objectives:

- 1 **Developing and deploying climate neutral solutions:** P4Planet aims to contribute to the climate neutrality of the overall European economy by bringing technological and non-technological innovations to readiness for subsequent deployment.
- 2 **Closing the energy and feedstock loops:** process industries will develop and deploy sustainable circular business models through technological and non-technological innovations, cross-sectoral collaboration and engagement with the local ecosystem. This will help them evolve towards resource circularity and improved resource efficiency. P4Planet aims to achieve near-zero landfilling and near-zero (waste) water discharge in 2050.
- 3 **Achieving global leadership in climate-neutral and circular solutions, accelerating innovation and unlocking public and private investment:** innovation is needed to make climate-neutral and circular solutions more attractive. The competitive position of the European process industries will benefit from global leadership in these economically attractive solutions, as well as from a strengthened integration in the economic fabric of European regions and the Member States.

#### 2.4.4 Big Data Value Association (BDVA) and its evolution to AI, Data, Robotics Partnership (DAIRO)

The Big Data Value Association (BDVA), is an industry-led organization representing large businesses, small and medium-sized enterprises (SMEs), and research organizations in Europe. It represents the private part in the contractual Public Private Partnership (PPP) on Big Data Value with the European Commission, which represents the public side. The overall goals, main technical and non-technical priorities, and a research and innovation roadmap for the BDV PPP is represented by the Strategic Research and Innovation Agenda (SRIA) defined over the last years and published by the BDVA.

BDV PPP is also aligned with the Digital Single Market (DSM) Strategy, promoted by the European Commission, especially in the specific pillar about “Developing the European Data Economy”.

STAR partners Netcompany-Intrasoft and GFT are both members of the BDVA and actively participate in its activities.

The Working Group on Smart Manufacturing Industry (SMI) is analysing the digital transformation of the Manufacturing domain that, the increasing adoption of Big Data, is producing. In a structured approach, the SMI group is analysing the Smart Manufacturing Industry along three main dimensions (also referenced as Grand Scenarios) where Big Data applications have their focus in a B2B model. GFT participates in the BDVA SMI Working Group and can represent STAR in the WG activities.

STAR’s vision and objectives were presented in the BDVA workshop on Data platforms, spaces, standards and trustworthiness of Industrial AI in March 2021 and there STAR illustrated how our cutting-edge AI research boosts a transparent, ethical, and trusted approach to Human AI collaboration towards maximum effectiveness and acceptance. The workshop was organised in the context of the BDVA/DAIRO Activity Group meeting (AG43) /BDV PPP Technical Committee (TC #7) / BDV PPP “project meet-up”.

Additionally STAR was also presented in the Data Week - session on "Data Provenance and Traceability for Trusted & Reliable AI in Manufacturing" 30th of May 2022.

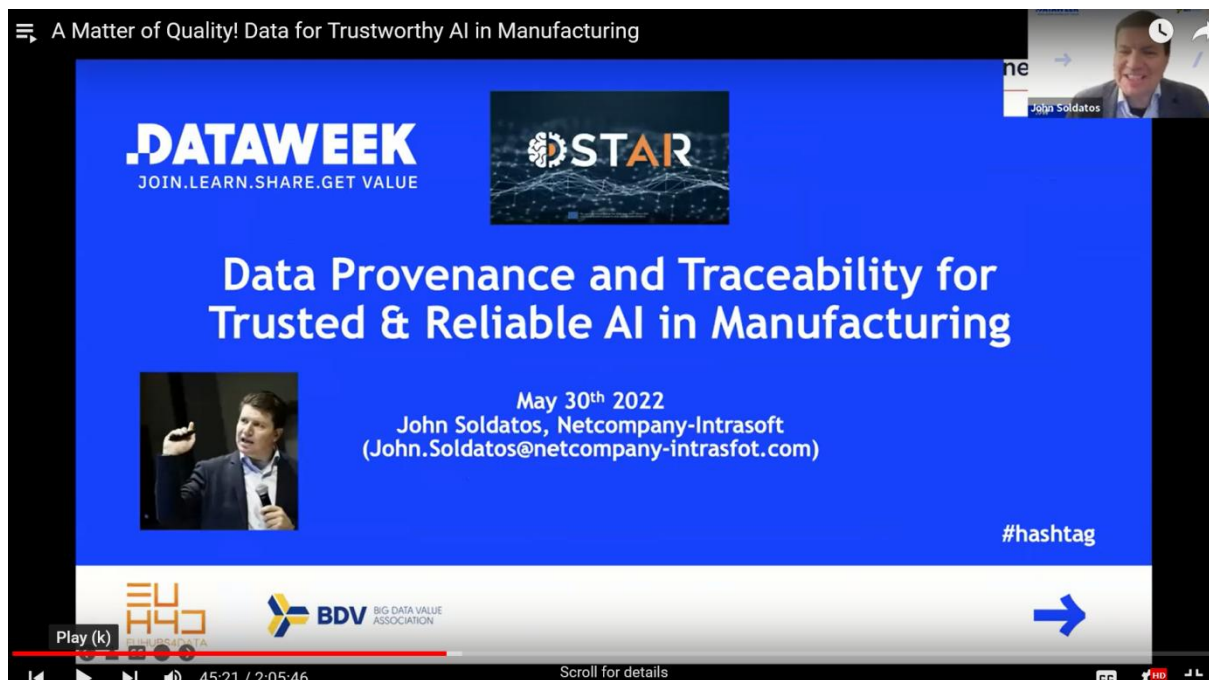


Figure 9: Presentation of the STAR blockchain approach to data provenance and traceability Data Week - session on "Data Provenance and Traceability for Trusted & Reliable AI in Manufacturing" 30/05/2022

### 2.4.5 Alliance for Internet of Things Innovation ([AIOTI](#)) WG11 Sustainable Manufacturing

AIOTI Working Group 11 ‘Smart Manufacturing’ main focus is the application of the Industrial Internet-of-Things for Smart Manufacturing, addressing both discrete and process industrial interests. The Industrial Internet-of-Things (IIoT) denotes to the industrial subset of the Internet-of-Things; it refers to interconnected sensors, actuators, instruments, and other devices networked together with computers’ industrial applications. Such infrastructure allows for data collection, exchange, and analysis, enabling the generation of insights that facilitate improvements in productivity, efficiency, quality, safety and much more.

Artificial Intelligence (AI) is, without any doubt, the most disruptive digital enabler of the Industry4.0 era. In the manufacturing sector, advanced AI technologies enable solutions to large scale optimisation and control problems. Applications areas include: Prescriptive Maintenance, Predictive Quality Management, Smart/Autonomous Control, Smart Robotics, Human-Robot collaboration, Smart Logistics Management, Agile Production, Generative Product Design, Zero-Defect Manufacturing, etc.

As such, the AIOTI Working Group 11 is working to contribute to merging the Industrial Internet-of-Things with Artificial Intelligence – the so-called Artificial Intelligence of Industrial Things (AIIoT) – in a safe, trusted and effective manner to enable further outstanding transformational possibilities in manufacturing. Ensuring the safety and reliability of AIIoT systems is key for deploying them at scale and for fully leveraging the benefits of AI in manufacturing.

### 2.4.6 International Data Spaces Association ([IDSA](#))

International Data Spaces Association (IDSA) is an international association under German law with legal seat in Berlin, German, and a head office in Dortmund, Germany. The IDSA pools the requirements on International Data Spaces (IDS), organizes the knowledge exchange between research and business and develops guidelines for the certification, standardization and utilization of the results emerging from the different IDS related research projects on European and national level.

The International Data Spaces Association (IDSA) has defined a reference architecture and a formal standard to be used for creating and operating virtual data spaces. The IDS Architecture is based on commonly accepted data governance models facilitating secure exchange and easy linkage of data within business ecosystems.

The International Data Spaces Association (IDSA) is a coalition of more than 130 member companies that share a vision of a world where all companies self-determine usage rules and realize the full value of their data in secure, trusted, and equal partnerships.

The IDSA community for industry partners (IDS-I) exists to tailor IDS principles and technologies to these unique demands. The Industrial Community is an international coalition of industry partners that unites more than 60 organizations from around the world. The objective is Mapping IDS concepts and principles of data sovereignty to the requirements of the industrial sector. The IDS-I Community will strengthen the link between IDSA and the Platform Industrie 4.0 as well as the Industrial Internet Consortium and formal

liaison partners in the industrial sector, such as the Robot Revolution Initiative, the Industrial Value Chain Initiative, the Data Trading Alliance and the OPC-Foundation.

IDSAs events are ideal networking events to foster the exchange of experience between research and industry and the large semi-annual events attract more than 400 participants every year. STAR will aim to participate in these events to promote its aims and results.

### 2.4.7 National and Regional Associations and Initiatives

STAR will also pursue to liaise with national and regional manufacturing associations and initiatives in the countries of the project partners. Some of the national activities marked here and presented also in Table 1 are:

- [Plattform Industrie 4.0](#), Germany,
- [Industry 2025](#), Switzerland,
- [Fabbrica Intelligente](#), Italy,
- Portuguese Competitive Pole for Production Technologies ([PRODUTECH](#)), Portugal,
- [Portuguese ICT & Electronics Cluster](#), Portugal,
- [ICD \(Innovatie Cluster Drachten\)](#), Netherlands - a regional Smart Industry and Digital Innovation hub focused on working on solutions for future challenges at the cutting edge of technology,
- General Secretariat of Research & Technology ([GSRT](#)), Greece,
- National Documentation Centre ([NDC](#)), Greece,
- Technical Chamber of Greece ([TEE-TCG](#)), Greece,
- [IoTItaly](#) network for IoT diffusion, Italy.

## 2.5 Liaising with relevant standardization groups

The activities described in this paragraph are related to Task 8.3 Pre-normative Research and Standardization Activities, led by SIEMENS. This Task is in charge of the project’s pre-normative activities with an outlook towards standardization. For the success of this task, strong liaisons with the relevant standardization bodies and groups need to be built.

As a first step, the T8.3 leader initiated the review of existing Standards Developing Organizations (SDOs) and the way to approach them. We mostly focus on the SDOs and other standards development working groups where the partners participate (e.g., working groups within EFFRA, AIOTI (Alliance for IoT Innovation) and BDVA).

STAR plans to participate in meetings of the identified standardization groups as well as some selected policy makers towards presenting its relevant results, while at the same time identifying how to align them to the objectives and work of the SDOs. The preparation of relevant documentation about the results to be standardized (e.g., white paper, presentations, policy briefs) and the communication with representatives of the relevant SDOs as well as policy making groups are also in the consortium’s radar.

Special attention is given to the opportunity to promote in future EU level AI agenda by looking at the plans envisioned in the Commission AI White paper.

To engage key stakeholders in security, safety and ethics, the project will liaise with relevant standardization groups focusing on security and privacy (e.g., ENISA, ETSI) and will regularly participate in relevant events (e.g., ETSI security week).

In order to generate critical mass and maximize the impact of these activities, the consortium will evaluate the opportunity to jointly push together with peer ICT-38-2020 projects but also within the EFFRA community.

Project outcomes have been already presented to manufacturing related projects like Eur3ka, EFPF or AI4EU aiming to generate community support and interest. Ongoing discussions about future market segmentation, assets categorisation and relevance of connected details (e.g. data sets, protocols, containerisation strategies) are expected to lead to a coherent view between trust methodology, assets, explainability and semantics/taxonomies of terms, domains and acceptance criteria.

STAR will also use internal partners’ standardization contacts in order to ensure the largest possible impact generation and cross-feeding between various initiatives that are searching for AI and enabling data infrastructures design and operation at the European level (e.g. critical cyber-physical infrastructures, data spaces and Internet of Things).

In terms of BDVA channels, ongoing discussions related to CEN-CENELEC JTC 21 on Artificial Intelligence participation have been initiated and this represents a good opportunity for the STAR project to expose and contribute.

Project outcomes are also promoted toward maintenance related bodies such as IFIP TC5.1 WG A-MEST on Advanced Maintenance Engineering Services and Technologies.

## 2.6 Other collaborations

### 2.6.1 Manufacturing leaders’ business networks

To engage with relevant stakeholders’ developing/integrating AI components and solutions, WP8 will mobilize the business networks of the manufacturing leaders of the consortium (e.g., PHILIPS, SIEMENS, IBER) which comprise hundreds of AI solution integrators. Furthermore, the project will liaise with the business networks of manufacturers and pilot integrators that participate in the project and define the project’s pilot use cases and their potential business models.

Philips is engaging within the STAR project as a pilot use-case leader in order to explore the concepts of integrating AI components and solutions within its production facilities. Outcomes of the STAR project regarding the pilot use-case of Philips will be publicized via Philips internal media like the official Philips newsletters and the organizational Intranet. During the project, knowledge will be shared within several technology teams (i.e. vision, robotics and AI) both internally and within the STAR project. Next to that, Philips aims to share knowledge and project results with management and relevant regional stakeholders, including project leads of other Private-Public Partnership projects within Philips Drachten in a yearly onsite innovation event.

STAR will actively engage with the SIEMENS business units in the area of digital industries and smart infrastructure. STAR concepts and achievements, will be promoted and discussed

during the annual internal Data Analytics and Artificial Intelligence conferences where the most prominent results in this technology application are presented and commented together with the community. Projects results will be aligned with IPR experts in order to identify improved products/ services and promote patent filing and publications to specialized conferences or journals. Similar exposure opportunities like Hanover Messe will be considered for relevant use cases where STAR-related technology can be employed. Furthermore, the Pre-normative Research and Standardization Activities are led by SIEMENS.

The SmartFactory demonstrator at the DFKI premises that is going to be provided during the STAR project is used to deploy and test the newest technologies. The current AI methods available in the demonstrator are limited as the trustability of the AI is limited as well. With the STAR project, it is aimed to integrate more AI functionality to improve the assistance to the workers during operations, where high reliability and correct decisions are required. The existing industrial companies hesitate to convert their conventional systems into the AI-powered systems. SmartFactory demonstrator is an Industry 4.0 demonstrator, built according to the requirements of the industrial standards. Therefore, after a successful deployment of the components into the demonstrator, the role and visibility of the AI in the industry will be higher. Our dissemination activities will also present the impact of the AI in the production to our business network.

STAR and its results will be soundly promoted towards the Portuguese Engineering & Tooling Cluster, which integrates the tooling and plastics industries from Portugal, as well as towards the national and international industrial community through IBER. A mini-website of the project will be created by IBER-OLEFF, involving the project communication which will include news & events communication, videos about the project and its results (including the IBER’s pilot deployment).

## 2.6.2 Exploring further collaborations

STAR will explore setting up win-win relationships with all the DIH movements, but especially with those DIHs which could be both dissemination and exploitation channels for the project’s findings.

### 2.6.2.1 The AI DIH Network and DIH4INDUSTRY

#### 2.6.2.1.1 Digital Innovation Hubs Network ([ai-dih-network.eu](http://ai-dih-network.eu))

The European Commission (EC) has funded a preparatory action to create a European Network of Digital Innovation Hubs with focus on AI. To achieve this goal, the action - develops a blueprint for cross border collaboration based on a thorough assessment of hub business models, common systems, collaboration and governance structures (including financial and legal aspects of the collaboration). The action also supports the development of a concrete action plan, including a business case, for the collaboration and networking of DIH and will help the chosen DIHs to unlock their collaboration and networking potential through mentoring and coaching activities.

#### 2.6.2.1.2 DIH4Industry

The EU is creating digital innovation hubs (DIHs) to support European manufacturing SMEs in their digital transformation. DIH4INDUSTRY, in close collaboration with the European Commission Digital Innovation Hubs tool, aims at creating, nurturing and governing an Ecosystem of Digital Innovation Hubs with a regional Smart Specialisation in Manufacturing. DIH4INDUSTRY is a single access point for DIH practitioners and policymakers to identify which EC DIHs are active in the Manufacturing domain, where they are located, which experiments they are supporting and, last but not least, which services they are providing for the Digital Transformation of EU Manufacturing Industry.

### 3 Conclusion

The deliverable at hand presents STAR’s Contributions to Clusters and Associations during the period M01-M18 following the path that was thoroughly defined and described in the dissemination plan.

The STAR consortium recognises the importance of dissemination, communication and engagement activities and also the importance of the creation of a link between STAR and other European initiatives as are the other ICT-38 funded projects, the European Factories of the Future Research Association (EFFRA) and the Big Data Value Association (BDVA) and its evolution to AI, Data, Robotics Partnership (DAIRO) to name a few. The work performed by STAR in these first 18 Months in collaboration with these Clusters and Associations contributes in the creation of an ecosystem around smart manufacturing. This collaboration will continue throughout the project’s duration and thus a further report on the collaboration will be prepared during the last month of the project.

## References

Reference	Name of document
[REF-01]	<a href="https://ec.europa.eu/info/funding-tenders/opportunities/portal/screen/opportunities/topic-details/ict-38-2020">https://ec.europa.eu/info/funding-tenders/opportunities/portal/screen/opportunities/topic-details/ict-38-2020</a>
[REF-02]	STAR website. <a href="http://www.star-ai.eu">www.star-ai.eu</a> . Retrieved 2022-06-25.
[REF-03]	STAR Deliverable D8.1 "Dissemination and Communication Plan"
[REF-04]	ASPIRE website. <a href="https://www.aspire2050.eu">https://www.aspire2050.eu</a> . Retrieved 2022-06-26.