

This project has received funding from the European Community's Horizon 2020 Framework Programme under grant agreement 820774

MANUELA

Additive Manufacturing
using Metal Pilot Line

Deliverable D10.2

Project print media, brochure, leaflets available

WP 10

Deliverable Status	FINAL
Type	WEBSITES, PATENT FILLINGS, VIDEOS,ETC
Dissemination level (according to the proposal)	PUBLIC

Project Name:	MANUELA - Additive Manufacturing using Metal Pilot Line
Grant Agreement:	820774
Project Duration:	1 October 2018 – 30 September 2022

Document Information

Work package	WP10
Lead beneficiary	AMIRES s.r.o.

Due Date	3/31/2019	Due date in months	6
Date of submission	5/27/2019	Month of submission	8

Status	Authors name and Company/Organisation	Date
Prepared by	Václav Smítka (AMIRES)	4/30/2019
Reviewed by	Terpsithea Ketegeni (CHALMERS)	5/15/2019
Approved by	Lars Nyborg (CHALMERS)	5/27/2019



This project has received funding from the European Community's
Horizon 2020 Framework Programme under grant agreement 820774

Contents

Executive Summary	3
1 Introduction	4
2 MANUELA printed promotional materials	5
2.1 MANUELA logo	5
2.2 MANUELA factsheet.....	5
2.3 MANUELA flyer	6
2.4 MANUELA leaflet v1	7
2.5 MANUELA leaflet v2.....	8
3 Conclusions	9

Executive Summary

Timely and effective dissemination of results is an essential part of every research project. This ensures that the gained knowledge or exploitable foreground can benefit the whole society, and that any duplication of research and development activities is avoided.

This document shows printed materials that has been created in order to provide information on the project and its results, to support the project exploitation and to attract and involve the stakeholders from different markets and application fields.

1 Introduction

D10.2 is the deliverable associated with task T10.1 Dissemination and communication. The objective of this task is to ensure that the results of the project will be disseminated to the European and industrial community. It will ensure on-going communication between the general public, experts, technicians, grid operators etc. on one side and partners of the project on the other.

The task also describes preparation of a set of dedicated printed promotional materials. These materials will be prepared and issued during the entire lifetime of the project and its content will be regularly updated based on the project phase and results gained.

2 MANUELA printed promotional materials

Following chapters shows pictures of created promotional materials. In order to reduce the size of the document, pictures are reduced in resolution and dimensions. Materials in high resolution can be found on the MANUELA webpage in the section "Download".

2.1 MANUELA logo



2.2 MANUELA factsheet

Additive Manufacturing using Metal Pilot Line - MANUELA	
<p>H2020 project fact-sheet:</p> <p>Additive Manufacturing using Metal Pilot Line</p> <p>MANUELA</p> <p>Project ambition:</p> <p>MANUELA's ambition is to provide the European industry with world class, reliable Pilot line manufacturing service leveraging metal Additive Manufacturing products. This will be achieved by having the hardware solutions cost-efficiently connected to the best possible competences and capacities across Europe to cover the full range of powder bed fusion technologies from medium to large scale LPBF as well as EBM.</p> <p>Since, no single machine solutions can fit all necessary end user demands, this concept is expected to best possible solution from cost and agility point of view. Leading European institutes in the field of AM have hence agreed to link their manufacturing capacity, technological know-how and facilities in the MANUELA project to develop a pilot line service capable of producing high quality series of products on state-of-the-art equipment in a reliable and production efficient way. The strength of the MANUELA pilot line lays in the cooperation between the RTD partners enabling industrial partners and end users to request most advanced demonstrators by selecting from the various manufacturing routes and functionalities provided. This ensures that the end-users can expect optimum output with respect to costs, reliability and performance. Hence, MANUELA is the most comprehensive AM pilot line service related to AM-parts realization, involving designing methods, the AM processes, post-AM treatment and part characterization.</p> <p>The principle five innovations, leading to the pilot line deployment, combined in MANUELA are:</p> <ol style="list-style-type: none"> 1. Tailored recyclable metal powder, for robust and reliable part manufacturing 2. Comprehensive pilot line dashboard allowing to design, simulate and follow the manufacturing process 3. Full pilot line workflow optimisation and automation 4. Exploiting collected process data on the full pilot line and part, towards real-time in-line process monitoring feedback and process adaptation 5. Establish the qualification and certification standard for full chain process in the aim improve the productivity, particularly in such fields where the certification is mandatory: automotive, aeronautic and medical (MANUELA's use cases) 	<p>Project facts:</p> <p>Start date: 01/10/2018 End date: 30/09/2022</p> <p>Duration in months: 48</p> <p>Project EU funding: € 12.5 M</p> <p>H2020 Innovation Action</p> <p>Grant Agreement: 820774</p> <p>Call: H2020-NMBP-FOF-2018</p> <p>Topic: FOF-04-2018</p> <p>Pilot lines for metal Additive Manufacturing</p> <p>Keywords: Metal Additive Manufacturing, Powder Bed Fusion, Design for AM, In-line control, Quality monitoring, Machine learning, Post AM processing, Material qualification for AM, Automation, Standardization</p>
<p>Project coordinator:</p> <p>Prof. Lars NYBORG Chalmers University (Sweden) lars.nyborg@chalmers.se</p> <p>Dissemination manager:</p> <p>Václav SMÍTKA, Ph.D. AMIREs s.r.o. (Czech Republic) smitka@amires.eu</p> <p>Website:</p> <p>http://manuela-project.eu/</p>	<p>Project coordinator:</p> <p>Prof. Lars NYBORG Chalmers University (Sweden) lars.nyborg@chalmers.se</p> <p>Dissemination manager:</p> <p>Václav SMÍTKA, Ph.D. AMIREs s.r.o. (Czech Republic) smitka@amires.eu</p> <p>Website:</p> <p>http://manuela-project.eu/</p>

2.3 MANUELA flyer

MANUELA

Additive Manufacturing (AM) with metals is on the verge of delivering on its promise as a cost competitive mass-production technology. The Manuela project is fundamentally about propelling this development and to provide a competitive edge to European industry within metal-based AM. Within the scope of Manuela, leading European universities, institutes and companies have therefore agreed to merge their manufacturing capacity, technological know-how and manufacturing facilities to form a world class consortium within advanced additive manufacturing with metals. The ambition with Manuela to leverage on the above objective is to develop a world-class pilot line manufacturing service for additive manufacturing in metals that is accessible for European Industry.

WWW.MANUELA-PROJECT.EU

This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement N°820774.





MANUELA

Project coordinator
Lars NYBORG
Chalmers University of technology

Exploitation Manager
Karl Lundahl
Chalmers Industriteknik

manuela@chalmersindustriteknik.se

WWW.MANUELA-PROJECT.EU

This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement N°820774.



This project has received funding from the European Community's Horizon 2020 Framework Programme under grant agreement 820774

2.4 MANUELA leaflet v1

1 2 3 4 5 6 7
 8 9 10 11 12 13 14
 15 16 17 18 19 20

Project coordinator
Lars Nyborg
 Chalmers University of technology

Exploitation Manager
Karl Lundahl
 Chalmers Industriteknik

manuela@chalmersindustriteknik.se

This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement n°820774.

WWW.MANUELA-PROJECT.EU

Source: EOS GmbH

ADDITIVE MANUFACTURING (AM) with metals is on the verge of delivering on its promise as a cost competitive massproduction technology. The Manuela project is fundamentally about propelling this development and to provide a competitive edge to European industry within metal-based AM.

Within the scope of Manuela, leading European universities, institutes and companies have therefore agreed to merge their manufacturing capacity, technological know-how and manufacturing facilities to form a world class consortium within advanced additive manufacturing ion metals.

The ambition with Manuela to leverage on the above objective is to provide European industry with an accessible world-class pilot line manufacturing service for additive manufacturing in metals.

If you would like to know more or have an interest in utilizing the Manuela pilot line manufacturing service, please visit

www.manuela-project.eu
 or contact us at
manuela@chalmersindustriteknik.se

WWW.MANUELA-PROJECT.EU

This project has received funding from the European Community's Horizon 2020 Framework Programme under grant agreement 820774

2.5 MANUELA leaflet v2

Project coordinator
Lars Nyborg
Chalmers University of technology

Exploitation Manager
Karl Lundahl
Chalmers Industriteknik

manuela@chalmersindustriteknik.se

This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement n°820774.

MANUELA

WWW.MANUELA-PROJECT.EU

KEY FACTS

- Research Topic: Additive Manufacturing
- Start date: October 2018
- End date: September 2022
- Duration in months: 48
- Project EU funding: 12.5 million Euro
- Project Coordinator: Chalmers University of Technology

ADDITIVE MANUFACTURING (AM) with metals is on the verge of delivering on its promise as a cost competitive mass-production technology. The Manuela project is fundamentally about propelling this development and to provide a competitive edge to European industry within metal-based AM.

Within the scope of Manuela, leading European universities, institutes and companies have therefore agreed to merge their manufacturing capacity, technological know-how and manufacturing facilities to form a world class consortium within advanced additive manufacturing ion metals.

The ambition with Manuela to leverage on the above objective is to provide European industry with an accessible world-class pilot line manufacturing service for additive manufacturing in metals.

If you would like to know more or have an interest in utilizing the Manuela pilot line manufacturing service, please visit www.manuela-project.eu or contact us at manuela@chalmersindustriteknik.se

MANUELA

WWW.MANUELA-PROJECT.EU

3 Conclusions

Additional promotional materials will be published throughout the lifetime of the project, in particular in the later stages of the project when the first results on demonstration activities can be expected.

The MANUELA promotional materials meet the requirements which were set for the website in the respective task T10.1 Dissemination and public events. The promotional materials have been prepared in order to increase public awareness of MANUELA and to disseminate the project's results. All the materials created up to now can be found on the webpage.

All promotional materials include the emblem of EU flag and following sentence: "This project has received funding from the European Community's Horizon 2020 Framework Programme under grant agreement 820774."