



***REMODEL - Robotic tEchnologies
for the Manipulation of cOmplex
Deformable Linear objects***

Deliverable 8.4 – DISSEMINATION ACTIVITIES AND MATERIALS

Version 2020-04-30

Project acronym: REMODEL

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Lead Beneficiary: TECNALIA

Authors: All partners

Dissemination level: Public

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Project website address: <https://remodel-project.eu>

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1 Executive Summary

This deliverable contains an overview of the dissemination activities and materials. Creation of specific communication tools and broad communication actions will be undertaken to promote the project's objectives, activities, progress and results in a clear and understandable manner.

This document describes the means and communication channels created and used to reach the following goals:

- Establish identity and recognition for the project;
- Ensure the most effective tools and channels are created and set-up;
- Ensure maximum support for the dissemination and exploitation objectives.

This report presents the dissemination activities that were undertaken until M6 of the project, and the dissemination approach that will be followed during REMODEL project. Logo, presentation templates, social media, website and poster are set up. Furthermore, this document lists targeted dissemination opportunities.

2 Introduction

REMODEL result will be disseminated through scientific publications, conferences, workshops, summer schools, fairs, local and international events. All the partners have experience on such activities and are motivated to disseminate in the best way all the project's developments.

In addition, a dissemination plan has been proposed, helping the partners to perform specific dissemination activities, this information is detailed in deliverable D8.3

The overall REMODEL dissemination objectives address EU requirements and can be summarized as follows:

- enable discussion with end-users on how to fully take advantage of the REMODEL outcomes;
- show how the outcomes are relevant, creating jobs and introducing novel technologies in the European market;
- make better use of the results, by making sure they are taken up by decision-makers to influence policy-making and by industry and the scientific community to ensure follow-up;
- show how European collaboration has achieved more than would have otherwise been possible, notably in achieving scientific excellence, contributing to competitiveness and solving societal challenges;
- give enough technical details and/or performance indicators to allow a comprehension of the design and an appreciation of the benefit coming from the project (with proper safeguarding of IPR);
- communicate the developed results to the scientific community;
- communicate the achievements of the project amongst other industries to improve their access to research results and to explore additional applications of the new technologies.

3 Communication tools

3.1 Logo and graphic identity

The project logo is one of the main dissemination means, which acts as its trademark of the project. The project has two variants:

- Simple logo: It shows the name of the project. Some letters have been written as if they were a wire, because the main target of the project is handling of deformable linear objects



Figure 1: REMODEL simple logo

- Complex logo: In this variant, a robot has been added



Figure 2: REMODEL complex logo

All the dissemination material should include this logo

3.2 Printed materials

A template document has been created by the project coordinator (UNIBO) and shared with the partners in order to be used for the presentations in the different events.

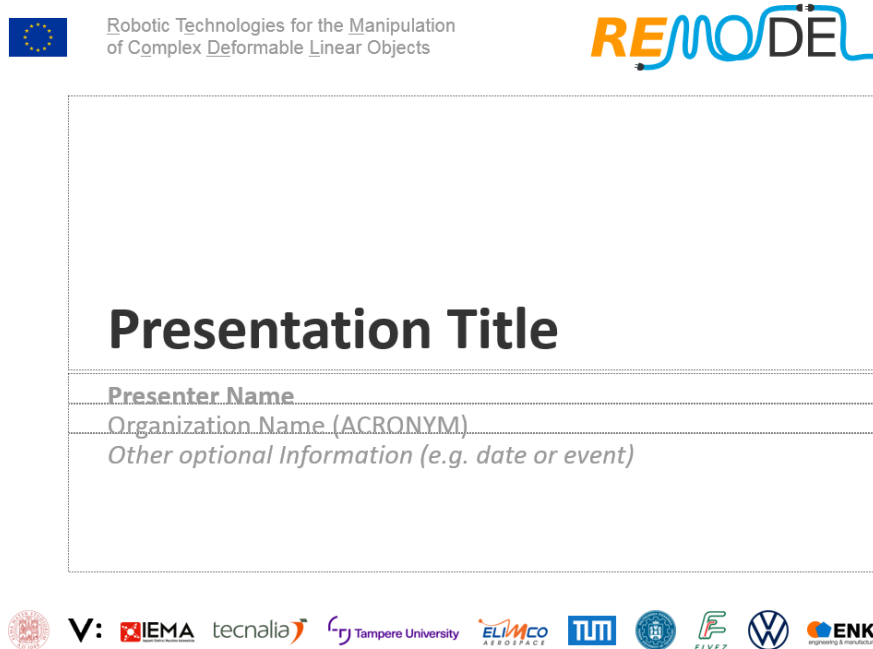


Figure 3: REMODEL presentation template cover slide

In addition to this, a poster and a project leaflet have been created depicting the objectives of the project. These documents are REMODEL public material and will be used by partners in all the dissemination activities: fairs, conferences etc.



Figure 4: REMODEL poster

3.3 Infographic videos

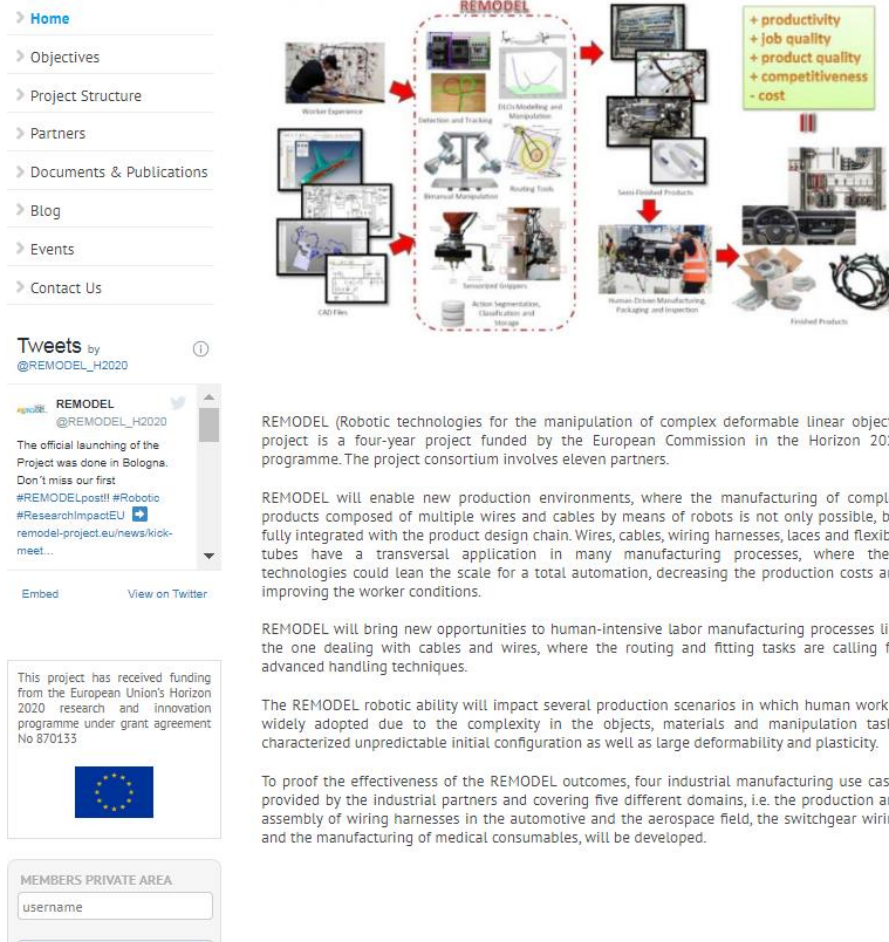
Infographic videos are also a very effective way to communicate. REMODEL videos will be produced along the duration of the project: one at the beginning of the project (during first year) to promote the projects challenges, objectives and aimed solutions; and one during the second half of the project implementation to summarize the main outcomes of the project.

They will be shared and used as much as possible by all partners

3.4 Website

The project website is intended to serve as the main communication tool. The website has been set up by the leader of WP8 (TECNALIA) and it is available at the following link: <https://remodel-project.eu>. The website contains information about REMODEL project: the concept, objectives and the structure. In addition, on the website there is information about the partners and public material: press material, public deliverables, publications, blog and events.

A detailed description is available in Deliverable 8.1.



The diagram illustrates the REMODEL process flow, starting with CAD Files and Worked Experience, moving through Detection and Tracking, EDC Modeling and Manipulation, Routing Tools, Manual Manipulation, and Assembly Operations, leading to Serial Produced Products, Human-Driven Manufacturing, Packaging and Inspection, and finally Finished Products. A green box highlights the benefits: + productivity, + job quality, + product quality, + competitiveness, - cost.

Tweets by @REMODEL_H2020

REMODEL
@REMODEL_H2020
The official launching of the Project was done in Bologna. Don't miss our first #REMODELpost!! #Robotic #ResearchImpactEU remodel-project.eu/news/kick-meet...

This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No 870133.

MEMBERS PRIVATE AREA
username

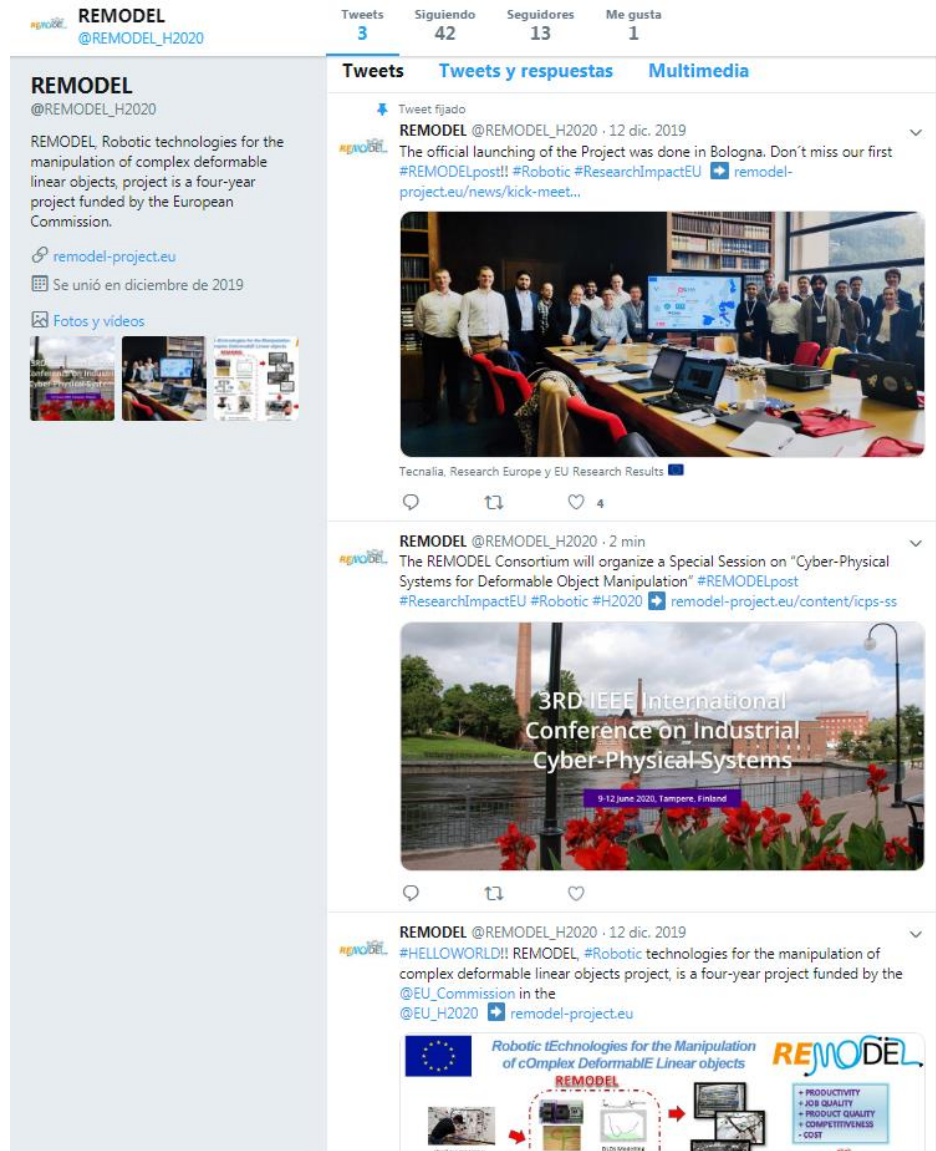
Figure 5: REMODEL website homepage

3.5 Social media strategy and networking

The project social media strategy is focusing on strengthening the project presence in the European and International Social Media.

Social media presence includes:

- Twitter: https://twitter.com/REMODEL_H2020



The image shows a screenshot of the REMODEL Twitter profile page. The profile name is REMODEL (@REMODEL_H2020) and it was created in December 2019. The bio states: "REMODEL, Robotic technologies for the manipulation of complex deformable linear objects, project is a four-year project funded by the European Commission." The profile includes a website link (remodel-project.eu) and a section for photos and videos.

The main content area displays three tweets:

- Tweet 1 (Pinned):** "The official launching of the Project was done in Bologna. Don't miss our first #REMODELpost!! #Robotic #ResearchImpactEU" with a link to remodel-project.eu/news/kick-meet... and an image of a group of people at a meeting.
- Tweet 2:** "The REMODEL Consortium will organize a Special Session on 'Cyber-Physical Systems for Deformable Object Manipulation'" with a link to remodel-project.eu/content/icps-ss and an image of a conference poster for the 3RD IEEE International Conference on Industrial Cyber-Physical Systems.
- Tweet 3:** "#HELLOWORLD!! REMODEL, #Robotic technologies for the manipulation of complex deformable linear objects project, is a four-year project funded by the @EU_Commission in the @EU_H2020" with a link to remodel-project.eu and a project diagram.

The project diagram in the third tweet shows the flow from "REMODEL" to "ROBUSTNESS" and "PRODUCTIVITY", "2019 QUALITY", "PRODUCT QUALITY", "COMPETITIVENESS", and "COST".

Figure 6: REMODEL Twitter profile page

- LinkedIn: <https://www.linkedin.com/groups/13797630/>

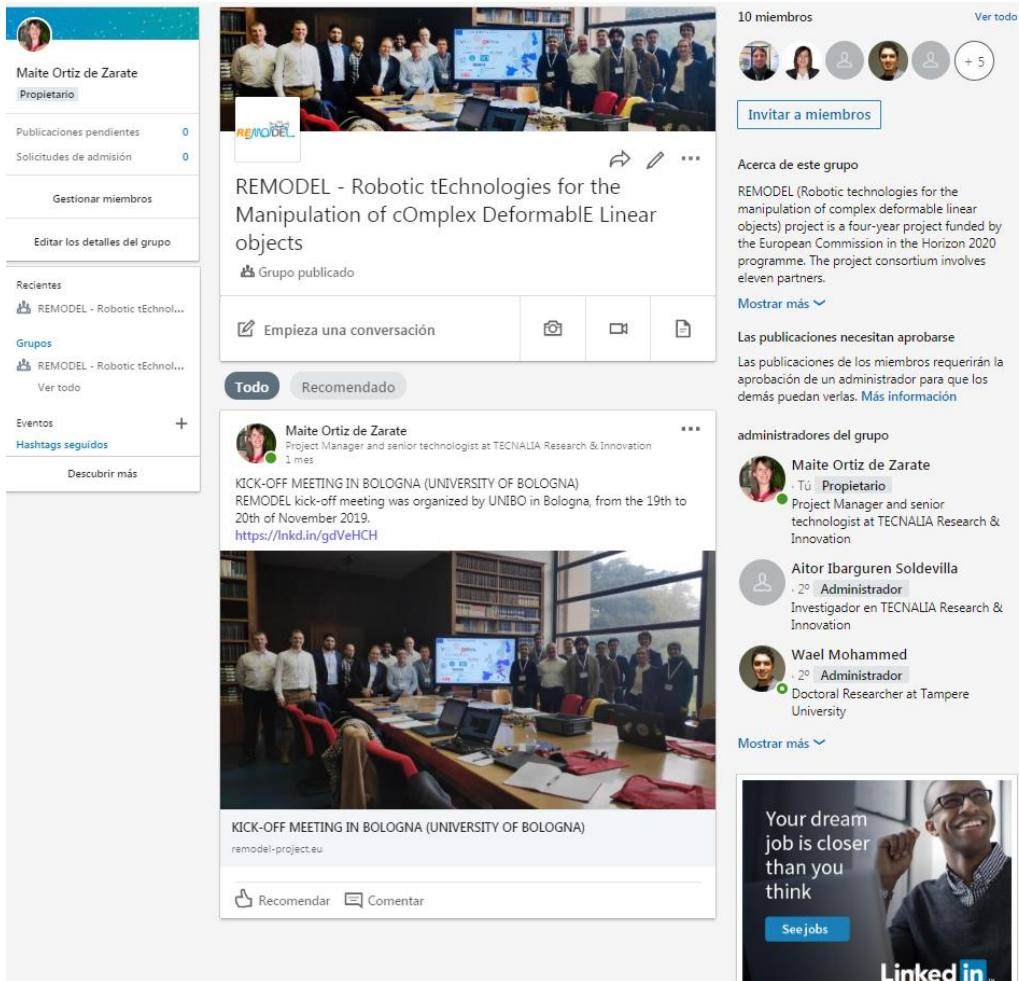


Figure 7: REMODEL LinkedIn profile

- Youtube: <https://www.youtube.com/channel/UC5hbRiWoe10-mlsq5pCqGRQ/featured>

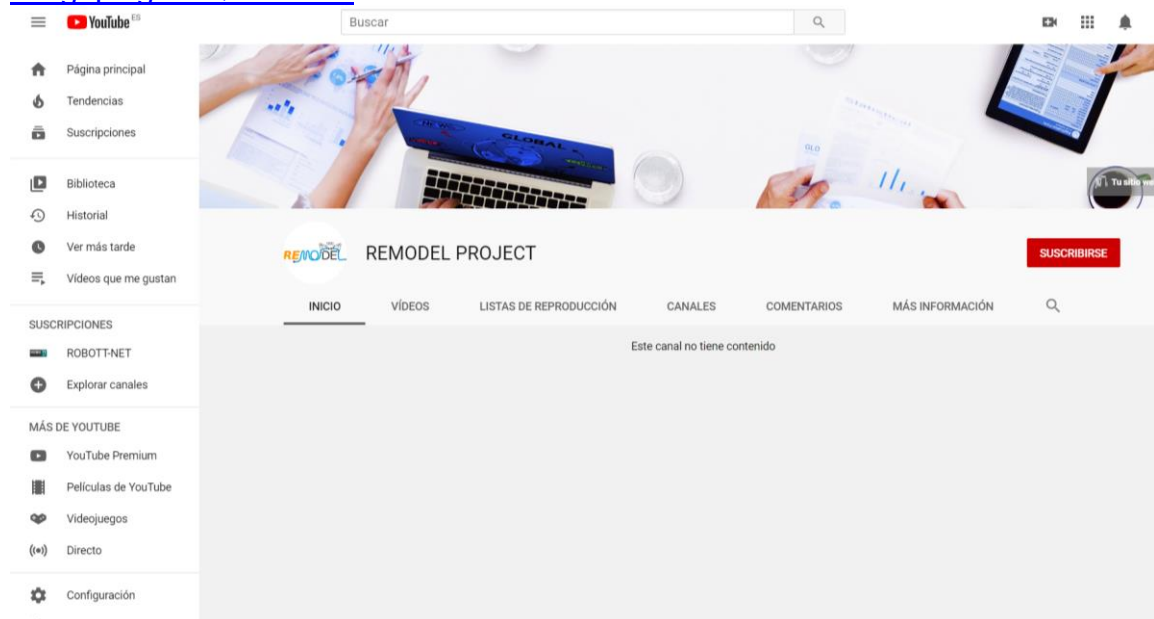
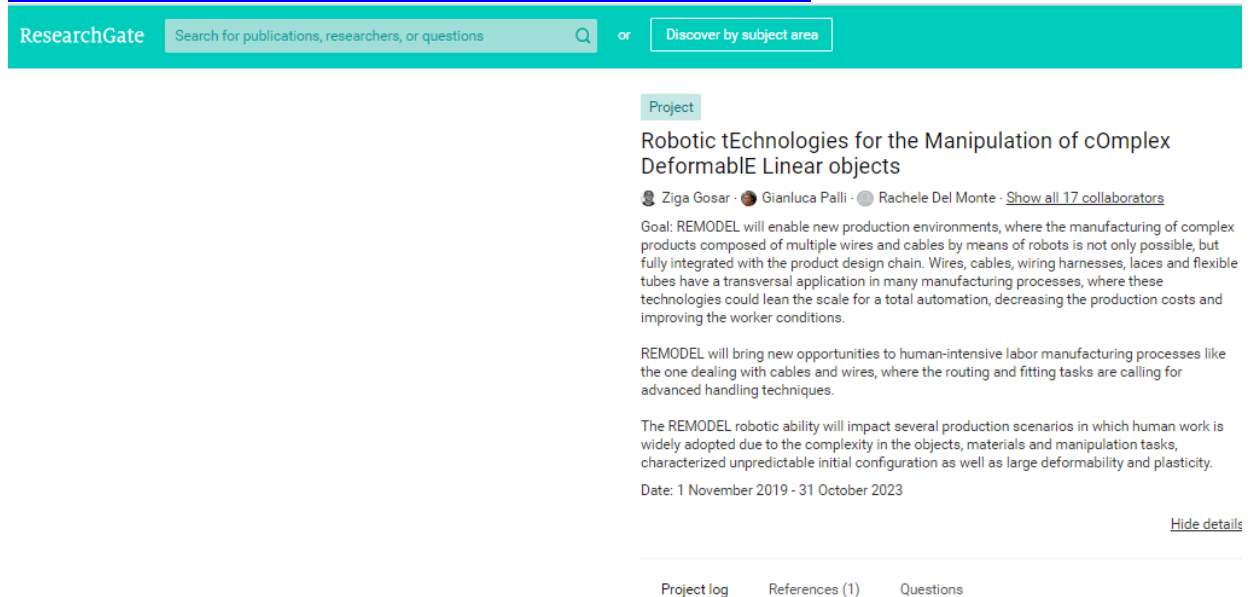


Figure 8: REMODEL Youtube channel

- ReseachGate: <https://www.researchgate.net/project/Robotic-tEchnologies-for-the-Manipulation-of-cOmplex-Deformable-Linear-objects>



The screenshot shows the ResearchGate profile for the project "Robotic tEchnologies for the Manipulation of cOmplex Deformable Linear objects". The page includes a search bar, a "Discover by subject area" button, and a "Project" tab. The project title is prominently displayed. Below the title, the collaborators are listed: Ziga Gosar, Gianluca Palli, and Rachele Del Monte, with a link to "Show all 17 collaborators". The goal of the project is described as enabling new production environments for complex products like wiring harnesses and flexible tubes. It also mentions that the project will bring new opportunities to human-intensive labor manufacturing processes and will impact several production scenarios. The date range is given as 1 November 2019 to 31 October 2023. At the bottom, there are links for "Project log", "References (1)", and "Questions".

Figure 9: REMODEL ResearchGate profile

3.6 Press releases

The newsletter issues will be produced and published to the project portal and the social networks, reporting and advertising the developments and activities the project had within each of the 12-months period.

4 Dissemination monthly report

In order to have all the dissemination activities are contained in a document, each month the partners will fill in the tables contained in the document "Dissemination monthly report" with the activities carried out that month.

The information recollected in the document will be follows:

4.1 List of scientific publications

List of publications: planned and submitted but not yet accepted

Table 1. List of Scientific Publications

Title of the article	Event and publication (name, date, other info)	Name of author and Organisations

4.2 Detailed information of scientific publications (once published)

Publications once they have been accepted

Table 2. List of Scientific Publications (detailed info)

Title	Authors	Title of the periodical or the series	Number, date or frequency	Publisher	Place of publication	Year of publication	Relevant pages	Permanent identifiers (if available)	Is/Will open access be provided to this publication?

4.3 General and business publications

Table 3. List of General & Business Publications

Title	Link or reference	Date	Partner/Authors (organisations)

4.4 Events: Conferences, seminars, workshops and webinars

Table 4. List of events

Event	Date	Name and type of audience	Countries addressed	Size of audience	People attending

Event	Date	Name and type of audience	Countries addressed	Size of audience	People attending

4.5 Blog posts

Table 5. Blog posts

Title of blog entry	Main author	Release Date

4.6 Collaboration & cooperation with other projects, programmes, working groups, initiatives...

We will describe here the projects with which we are collaborating, under which areas and topics, and the status.

Table 6. Collaboration with other projects

Project	Areas for collaboration	Remark	Status

4.7 Report of the collaboration & cooperation activities

Here we will report the collaboration activities performed, date, main conclusions and action points.

Table 7. Collaboration activities

No.	Project(s) Name	Description of activity
1.		

4.8 Press Releases

Table 8. Other dissemination Activities

Type	Published in	Partner/Authors

4.9 Other dissemination activities

Keynotes, workshops, prizes.

Table 8. Other dissemination Activities

Type	Name & Comment	Partner/Authors	Link if appropriate

5 Dissemination opportunities

The main channels for REMODEL dissemination of results will be the most relevant and high-impact factor journals, conferences and events. In the context of these activities the following groups are foreseen to be targeted to present their project's results, receive feedback and be kept informed about the developments of various organizations and research projects

- General public
- Scientific Community, especially researchers in the following areas:
 - Robotics
 - Sensors
 - Production Systems (Design, Organization, Scheduling, etc.)
 - Work Management and Organization
- Industrial Community:
 - System Integrators
 - End-Users from robot reluctant industries
 - End-Users with robot reluctant processes

5.1 Conferences, Workshops, Exhibitions

Below is a list of conferences and exhibitions where results related to REMODEL may be presented or special sessions or workshops may be organized. This list is detailed in deliverable D8.3 Dissemination and communication plan and it will be kept up-to-date updated during the project.

- IEEE International Conference on Robotics and Automation (ICRA)
- IEEE/RSJ International Conference on Intelligent Robots and Systems (IROS)
- IEEE/ASME International Conference on Advanced Intelligent Mechatronics (AIM)
- Conference on Artificial Intelligence (AAAI)
- IEEE International Conference on Automation Science and Engineering (CASE)
- ACM/IEEE International Conference on Human-Robot Interaction (HRI)
- IEEE RAS & EMBS International Conference on Biomedical Robotics and Biomechatronics (BioRob)
- IEEE International Symposium on Robot and Human Interactive Communication (RO-MAN)
- Feria internacional de la máquina herramienta (BIEMH)
- EU Robotics Forum
- Hannover Messe (Hanover Fair)
- Automatica
- IEEE International Conferences on Industrial Cyber-Physical Systems (ICPS)
- CIRP General Assembly

5.2 Scientific journal articles

Scientific journal articles represent an effective way of communicating research achievements toward the specialized audience. A tentative list of journals, which will be kept up-to-date kept up-to-date updated during the project, is presented below:

- International Journal of Robotics Research
- Journal of Field Robotics
- Transactions on Robotics
- Robotics & Automation Magazine
- Transactions on Automation Science and Engineering
- Robotics and Computer Integrated Manufacturing
- International Journal of Computer Integrated Manufacturing
- CIRP Annals – Manufacturing Technology

6 Planning of individual dissemination activities

The REMODEL consortium will ensure widespread dissemination in all possible directions. The individual dissemination activities of each partner will be detailed below

6.1 UNIBO

UNIBO will focus on the presentation of the project developments at international conferences and forums to demonstrate the project results.

UNIBO will also focus on publishing related papers concerning the development of mechatronic tools for the manipulation of deformable objects and on the applications of dual arm robots in handling of deformable objects.

UNIBO will devote part of its activities on the investigation of novel methodologies and algorithms to enable the modeling, the realtime simulation and the robotic manipulation of deformable objects.

UNIBO will disseminate the work being carried in REMODEL in the visits to the companies that it is in contact with in order to transfer knowledge about handling of deformable objects by devoted mechatronic tools and dual arm robots to the industrial environment.

6.2 UCLV

UCLV will contribute to the dissemination activities with the publication of REMODEL results on Scientific Technical Journals (e.g., IEEE Trans. On Robotics, IEEE/ASME Trans. On Mechatronics, Mechatronics - Elsevier, IEEE Robotics and Automation Letters, Sensors - MDPI, Sensors and Actuators A: Physical - Elsevier, etc.). In particular, the dissemination will concern technological aspects about the sensing system (tactile and proximity sensors), models for DLOs and control algorithms for DLO grasping and manipulation. Additionally, also international conferences will be used by UCLV for the dissemination of the same results. Finally fairs and exhibitions both for generic public and specialized companies will be exploited for the project results dissemination.

6.3 IEMA

IEMA will disseminate the work being carried in REMODEL to partner companies to improve knowledge in robotic wiring automation

IEMA will also present the result to customers in order to improve quality and show advanced automation capabilities

IEMA will present REMODEL project during future fairs participation

6.4 TECNALIA

TECNALIA will focus on the presentation of the project developments at international conferences and forums to demonstrate the project results.

TECNALIA will also focus on publishing related papers concerning the application of dual arm robots in handling of deformable linear objects.

TECNALIA will disseminate the work being carried in REMODEL in the visits to the companies that it is in contact with in order to transfer knowledge about handling of deformable linear objects by on dual arm robots to industrial environment

6.5 ELIMCO

ELIMCO will disseminate the work being carried in Elimco will include in its business presentations for its entire customers portfolio a specifically section full dedicated to the description of the REMODEL project and its applicability to the production process of our manufacturing activities for interconnection systems.

ELIMCO will dedicate an a visitable specific space inside of our production center in Seville with a full operative demonstrator prototype to be used for two specific purposes: to be demonstrator of the technology developed for our actual and future customers and to be a testing laboratory for the certification and qualification of equipment within the aeronautical sector.

The same information included our commercial presentations for REMODEL technology developed will be included on our website for global dissemination of our stakeholders.

6.6 TAU

TAU will focus on implementing REMODEL solutions in anthropomorphic themes (by using hands as tooling, modeled faces with intelligent vision systems, etc.) to prompt familiarity amongst the human workers.

TAU will focus on publishing papers focusing on creating ontological models which better enable the selection of the required tooling and manipulator, based on the task and other input criteria. Additionally, TAU is aiding in the organization of conferences and special tasks.

TAU will apply the concepts and learnt outcomes of the REMODEL project into its coursework and curriculum, thereby updating incoming robotics professionals with relevant background knowledge.

6.7 TUM

TUM, as a research institution, will focus on the dissemination of the project objectives and results mostly within scientific communities, but also among industrial partners.

The scientific channels that will be used include publications for conferences and journals, presentations in workshops and conferences as well as active participation in online community.

The industrial dissemination approach will include visits and presentations on the industrial fairs, visits and demonstrations at the interested industrial partners as well as hosting knowledge exchange events within TUM facilities.

In any of the cases above, TUM will focus primarily on the dynamic perception tasks and will ensure the excellent quality of the research and provided results.

6.8 PUT

PUT as the Academic partner will concentrate mainly on the presentation of the project developments at international conferences and forums.

PUT will also publish papers on scientific advancements in the field of perception of deformable linear objects in particular in the application for dual arm robotic manipulation

PUT will visit the companies from the region and beyond to disseminate the work being carried in REMODEL in order to attract their attention to the results of the project.

6.9 ELVEZ

ELVEZ will focus on the presentation of the project developments at international conferences and forums to demonstrate the project results.

ELVEZ will focus on publishing related papers concerning the development of mechatronic tools for the manipulation of deformable objects and on the applications of dual arm robots in handling of deformable objects.

ELVEZ will devote part of its activities on the investigation of novel methodologies and algorithms to enable the modeling, the realtime simulation and the robotic manipulation of deformable objects.

ELVEZ will focus on presenting of robotic platforms during visit of our concern management board members and other representatives of top management in order to share our knowledge and know-how obtained during project (as a part of rule "lessons learned").

ELVEZ will disseminate the knowledge and results of project and support their partners in order of design change to automate assembling processes.

6.10 VWP

VWP will focus on the presentation of the project results at internal company's press (both plant and concern press) in order to demonstrate an operation of robotic platform and to give a current status to our coworkers.

VWP will also focus on presenting of robotic platforms during visit of our concern management board members and other representatives of top management in order to share our knowledge and know-how obtained during project (as a part of rule "lessons learned").

VWP will also disseminate the knowledge and results of project and support our other plants in Volkswagen AG in order to automate assembling processes worldwide.

Project Coordinator (in VWP) will also report a current status (as well as results) of REMODEL project to VWP management board.

6.11 ENKI

ENKI will present during international conferences, forums the progresses and the results obtained during the advancement of the project.

In particular ENKI is going to:

- 14th Edition of The Trade Fair Dedicated to Innovation Technologies and 4.0 Skills, Turin, Italy, 12th-14th of February 2020
- Innovabiomed, Verona, Italy, 15th – 16^h of June 2020

(will be updated)

If there will be the possibility, ENKI will also focus on publishing related scientific papers or patents concerning the application of the automation platform.

ENKI will disseminate the work being carried in REMODEL with the collaborator and supplier in the biomedical area.

7 Result of dissemination activities

The results of REMODEL are planned to be presented at various international conferences, workshops and exhibitions and help promote the project and its outcomes.

The specific communication tools detailed in this document will help to promote the project's objectives, activities, progress and results