



D7.1

SMARTHANDLE Public Web Portal



This project has received funding from the European Union's Horizon Europe research and innovation programme under grant agreement n° 101091792. This document reflects only the author's view, and the EU Commission is not responsible for any use that may be made of the information it contains.



D7.1 SMARTHANDLE Public Web Portal

Project Title	Resilient manufacturing lines based on smart handling systems
Project Acronym	SMARTHANDLE
Grant Agreement No	101091792
Instrument	Research & Innovation Action
Topic	HORIZON-CL4-2022-TWIN-TRANSITION-01-04
Start Date of Project	JANUARY 1, 2023
Duration of Project	36 months

Name of the Deliverable	Public Web Portal
Number of the Deliverable	D7.1
Related WP Number and Name	WP7 –Exploitation, Communication and Dissemination
Related Task Number and Name	T7.1 – Public Web Portal
Deliverable Dissemination Level	Public
Deliverable Due Date	28/02/2023
Deliverable Submission Date	27/02/2023
Task Leader/Main Author	INTRA
Contributing Partners	TECNALIA, LMS, ABEE, ALUMIL, MENICON
Reviewer(s)	LMS, TECNALIA



D7.1 SMARTHANDLE Public Web Portal

Keywords

Communication, Dissemination, Website

Revisions

Version	Submission date	Comments	Author
v0.1	31.01.2023	Logo preparation, Website Layout, ToC	INTRA
v0.2	10.02.2023	First complete online website version	INTRA
v0.3	17.02.2023	First complete draft of the report	INTRA
v.0.4	24.02.2023	Revised draft	INTRA
v.0.5	27.02.2023	Final Version	INTRA



Disclaimer

This document is provided with no warranties whatsoever, including any warranty of merchantability, non-infringement, fitness for any particular purpose, or any other warranty with respect to any information, result, proposal, specification, or sample contained or referred to herein. Any liability, including liability for infringement of any proprietary rights, regarding the use of this document or any information contained herein is disclaimed. No license, express or implied, by estoppel or otherwise, to any intellectual property rights is granted by or in connection with this document. This document is subject to change without notice. Smarthandle has been financed with support from the European Commission. This document reflects only the view of the author(s) and the European Commission cannot be held responsible for any use which may be made of the information contained.

Executive summary

The goal of this document is to introduce the website and social media accounts of the project, which will serve as the main communication channels for sharing information with the public about the project's updates, outcomes, and accomplishments.

The D7.1 deliverable includes the website and social media accounts and validates their creation, providing an overview of their initial structure. The document also indicates that there will be updates and revisions as the project progresses, with new content becoming available.



D7.1 SMARTHANDLE Public Web Portal

Contents

1. Introduction.....	7
1.1. Overview	7
1.2. Document's structure.....	7
2. Project Website.....	7
2.1. Introduction.....	7
2.2. Website structure	7
2.3. Website Content.....	8
2.3.1. Home page	8
2.3.1.1 SMARTHANDLE logo	8
2.3.1.2 Main Menu	9
2.3.1.3 Main Content Area	9
2.3.1.4 Linking Blocks	10
2.3.1.5 About Us.....	10
2.3.1.6 SMARTHANDLE factsheet	11
2.3.1.7 Use Cases	11
2.3.1.8 Partners Section	12
2.3.1.9 Footer	12
2.3.2. About.....	13
2.3.3. Use Cases	16
2.3.4. News & Events	18
2.3.5. Library	19
2.3.6. Synergies	21
2.3.7. Contact.....	21
3. Social Media.....	22
3.1. LinkedIn	22



D7.1 SMARTHANDLE Public Web Portal

3.2. Twitter	23
3.3. YouTube channel.....	24
4. Conclusions.....	24

List of Figures

Figure 1. SMARTHANDLE's sitemap	8
Figure 2. SMARTHANDLE'S logo.....	9
Figure 3. Main menu for navigating through the website.....	9
Figure 4. Front page and Main Content Area	10
Figure 5. Four linking blocks to content areas	10
Figure 6. About SMARTHANDLE small introduction	11
Figure 7. SMARTHANDLE's factsheet	11
Figure 8. Use Cases blocks with links to their description	12
Figure 9. List of partners' logos.....	12
Figure 10. SMARTHANDLE's homepage footer.....	13
Figure 11. SMARTHANDLE's Vision section.....	13
Figure 12. SMARTHANDLE's Objectives Section	14
Figure 13. SMARTHANDLE's list of partners and their descriptions.....	15
Figure 14. SMARTHANDLE's Use Case #1 - Metal Industry	16
Figure 15. SMARTHANDLE's Use Case #2 - Consumer Goods	17
Figure 16. SMARTHANDLE's Use Case #3 - Automotive.....	18
Figure 17. News articles about SMARTHANDLE project	19
Figure 18. Gallery with photos from SMARTHANDLE's Kick-off meeting at TECNALIA's premises..	20
Figure 19. Synergies and Clustering section	21
Figure 20. SMARTHANDLE's Contact Form	22
Figure 21. SMARTHANDLE's LinkedIn Page	23
Figure 22. SMARTHANDLE's Twitter Account.....	24
Figure 23. SMARTHANDLE's YouTube account.....	24



D7.1 SMARTHANDLE Public Web Portal

1. Introduction

1.1. Overview

The present document is the first deliverable within “WP7- Exploitation, Communication and Dissemination”. Here, the SMARTHANDLE website’s structure and content will be introduced, providing an overview of the main communication interface of the project. Furthermore, a brief overview for the three SMARTHANDLE social media accounts (LinkedIn, Twitter, YouTube) will be provided. The document will conclude with an opening to the future versions along the progressions of the project.

1.2. Document’s structure

The Document’s structure is the following:

- Chapter 1: Introduction, where an overview of the document is given
- Chapter 2: Project website. This is the main part where the website structure and content
- Chapter 3: Social media, where a brief overview of the SMARTHANDLE social media accounts is provided
- Chapter 4: Conclusions

2. Project Website

2.1. Introduction

The website is the main communication channel of SMARTHANDLE’s project that will be used to diffuse to our target audiences and stakeholders the project’s news, results, and outcomes.

Within the content of SMARTHANDLE project, there are the descriptions of the project’s scope, objectives as well as the consortium partners. Also, there will be continuous updates about SMARTHANDLE’s events, news, articles, newsletters, media etc.

All partners have the responsibility to contribute to the website's updates, while INTRA is in charge of its design, hosting, and maintenance.

The website of SMARTHANDLE can be found in the following link: <https://smarthandle-project.eu>

2.2. Website structure

The website structure includes a home page that introduces the project's main idea and concept, an "About" section that provides an overview of the project with three subpages: Vision, Objectives,



D7.1 SMARTHANDLE Public Web Portal

and Partners. There is also a "Use Cases" section that presents real use cases with distinct application scenarios of the project. In addition, the "News & Events" section announces upcoming events related to the SMARTHANDLE project, and the "Blog" provides a platform for articles contributed by all partners. Finally, the "Results" page showcases the project's main outcomes, such as Deliverables and Publications. The "Library" section will include all dissemination material such as Newsletters, Press releases and images. Furthermore, the synergies section will promote SMARTHANDLE's clustering activities.

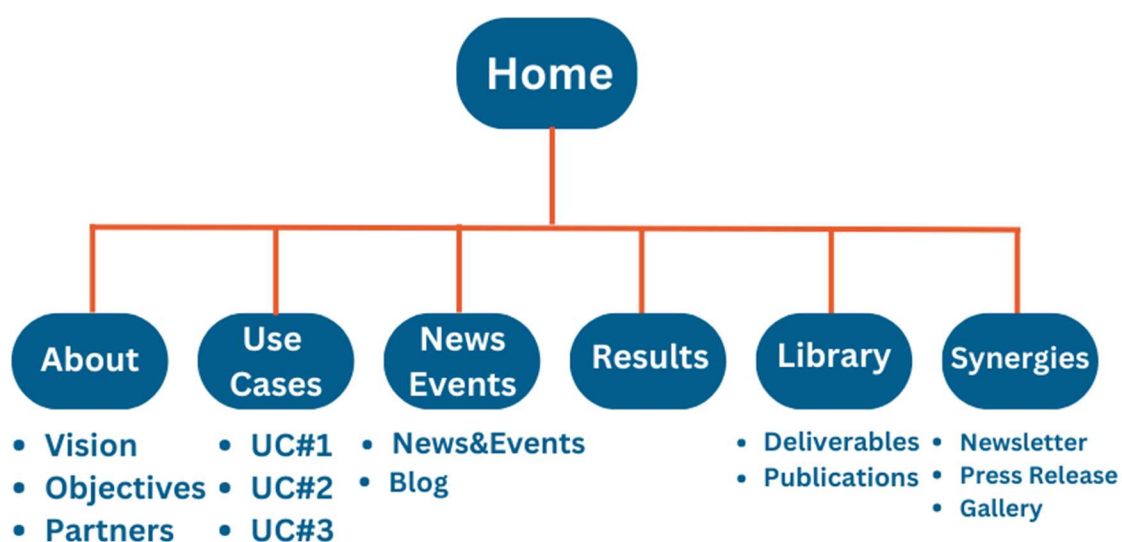


Figure 1. SMARTHANDLE's sitemap

2.3. Website Content

2.3.1. Home page

Below, we describe the structure of the home page of the SMARTHANDLE website. All site content areas are accessible with links via the home page.

2.3.1.1 *SMARTHANDLE logo*

On the left top corner of SMARTHANDLE, there is the logo of the project designed during M1.



D7.1 SMARTHANDLE Public Web Portal



Figure 2. SMARTHANDLE'S logo

2.3.1.2 Main Menu

On the top of the page, there is the main menu to facilitate access to the website content areas. See also Figure 1 for the complete website structure.



Figure 3. Main menu for navigating through the website

2.3.1.3 Main Content Area

The front page of SMARTHANDLE website is an image depicting a robotic handle in order to instantly reflect the scope and context of the project to the user when entering the webpage. Also, there is a link button ("Read more") directing the user to the project's Vision page.



D7.1 SMARHANDLE Public Web Portal

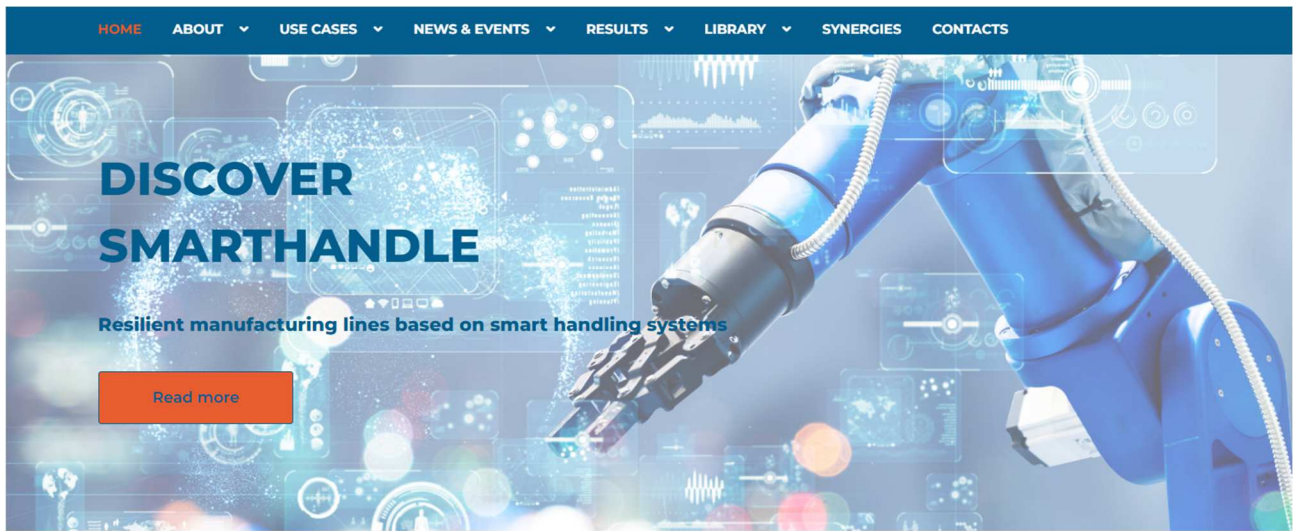


Figure 4. Front page and Main Content Area

2.3.1.4 *Linking Blocks*

Below the front page, there is a 4-block menu directing the user to the project's:

1. Vision
2. Results
3. Use Cases
4. News & Events

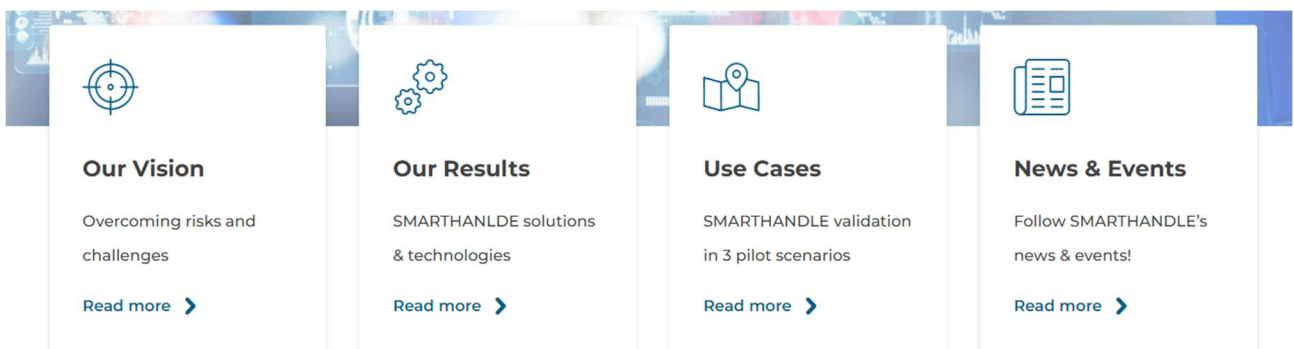


Figure 5. Four linking blocks to content areas

2.3.1.5 *About Us*

Further scrolling down, the user will see an "About Us" section illustrated with a picture related to robotics in manufacturing, especially related to dexterous manipulations.



D7.1 SMARTHANDLE Public Web Portal



ABOUT US

Smart handling systems for resilient manufacturing

Manual and automated production lines must evolve to "produce more and diverse with less", while addressing important shortcomings such as product variabilities, lack of high-level autonomous reasoning and accurate adaptable control and holistic efficient planning systems. SMARTHANDLE will research technologies to address these needs and support European industry.

Figure 6. About SMARTHANDLE small introduction

2.3.1.6 **SMARTHANDLE factsheet**

Further down, there is a factsheet of the project, where the main elements such as Name, Grant Agreement No, Topic of the call, Duration, level of funding and the coordinator are listed, ensuring transparency of our work to the user.

PROJECT FACTSHEET

SMARTHANDLE Facts & Figures

Project name: Resilient manufacturing lines based on smart handling systems

Grant Agreement No: 101091792

Topic: HORIZON-CL4-2022-TWIN-TRANSITION-01

Duration: 1/1/2023- 31/12/2025

EC Contribution: € 5 995 176,25

Coordinator: FUNDACION TECNALIA RESEARCH & INNOVATION, Spain

Figure 7. SMARTHANDLE's factsheet

2.3.1.7 **Use Cases**

Here, a dedicated portal to the 3 Use Cases of SMARTHANDLE is presented, along with relevant illustrations for each pilot industry.



D7.1 SMARTHANDLE Public Web Portal

USE CASE #1

METAL INDUSTRY



[Read More](#)

USE CASE #2

CONSUMER GOODS



[Read More](#)

USE CASE #3

AUTOMOTIVE



[Read More](#)

Figure 8. Use Cases blocks with links to their description

2.3.1.8 Partners Section

Here, we present the consortium partners by listing their respective logos.



Figure 9. List of partners' logos

2.3.1.9 Footer

At the bottom of the home page there is a footer containing information about the:

- coordinator of SMARTHANDLE project
- the project's generic email, info@smarthandle-project.eu
- Social media links
- EU funding acknowledgement
- Website Privacy Policy



D7.1 SMARTHANDLE Public Web Portal

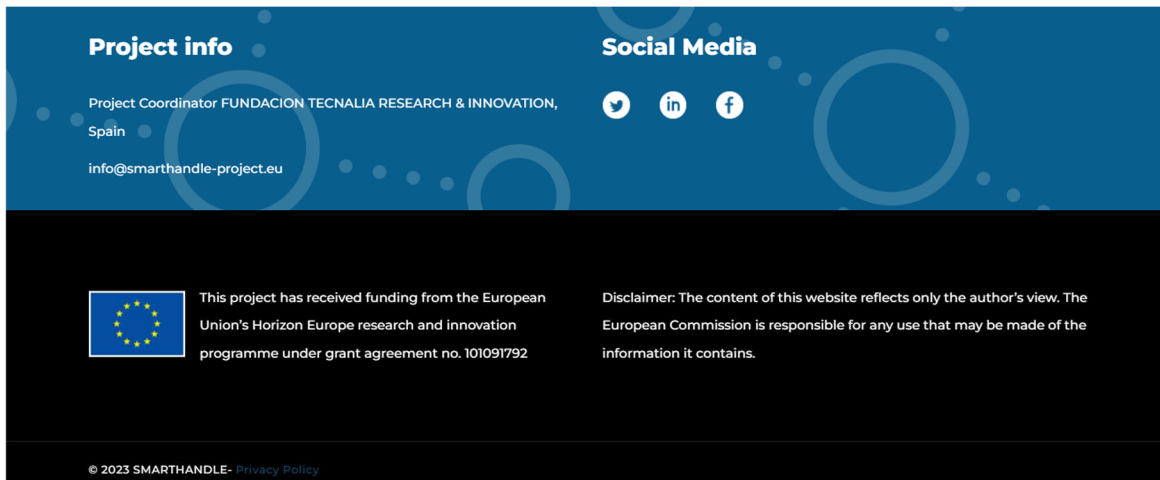
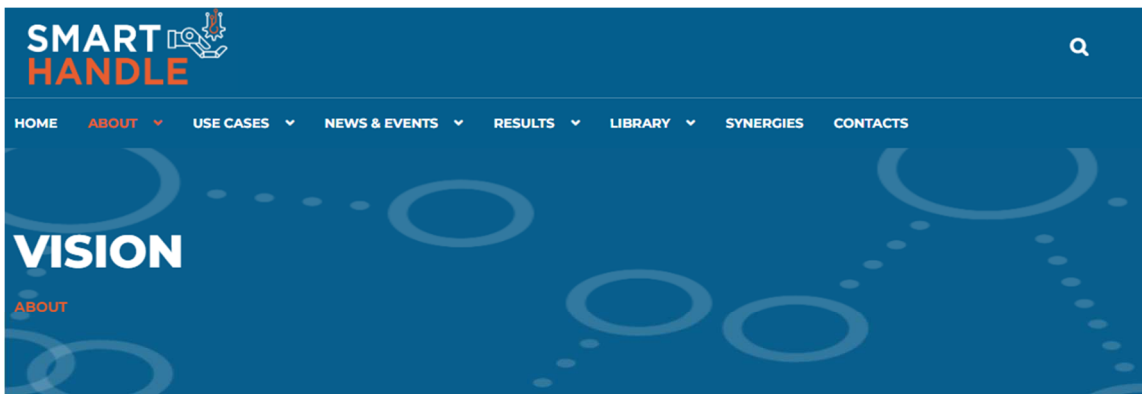


Figure 10. SMARTHANDLE's homepage footer

2.3.2. About

Here, there are 3 subpages related the project's vision, objectives and partners.



Manual and automated production lines must evolve to "produce more and diverse with less", while addressing important shortcomings such as product variabilities, lack of high-level autonomous reasoning and accurate adaptable control and holistic efficient planning systems. SMARTHANDLE will research technologies to address these needs and support European industry, by implementing:

- intelligent agents providing dexterity for handling applications,
- AI based reasoning enablers
- Higher-level planning and coordination mechanism for successful deployment in real life use cases.

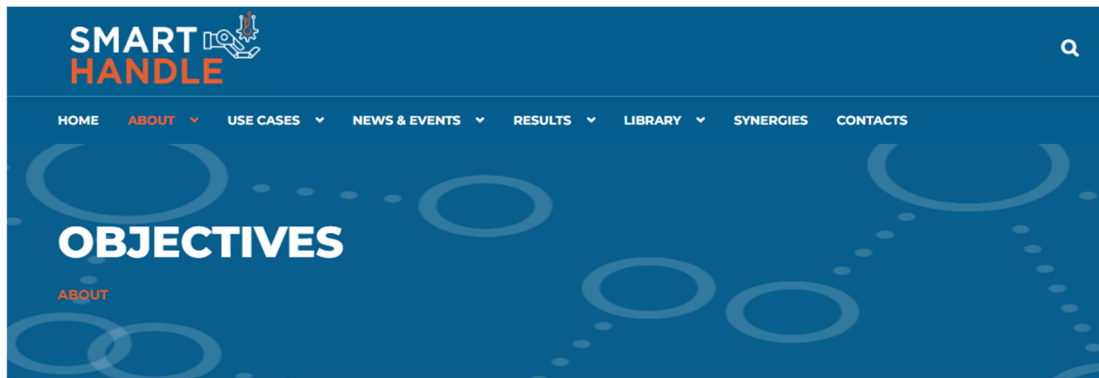
To demonstrate SMARTHANDLE solutions in real-life applications, 3 use cases have been designed from the field of consumer goods requiring delicate and high precision handling (contact lenses), Metal Industries, packaging of large variable section materials (aluminium) and automotive tier-1 suppliers, disassembly of complex products (batteries) involving dexterous operations that are not possible to implement with the existing technologies.

SSH aspects will be addressed, demonstrating benefits for workers by reducing their involvement in unsafe and unhealthy tasks, improving their working conditions when working in areas where the SMARTHANDLE reconfigurable solutions will operate.

Figure 11. SMARTHANDLE's Vision section



D7.1 SMARTHANDLE Public Web Portal



- Development and implementation of intelligent handling procedures with improved perception, cognition and manipulation capabilities for a wide set of workpiece handling, thus augmenting the flexibility of production lines.
- Development of smart tools (HW & SW) for planning and monitoring, based on workpiece features, handling agents' capabilities and real time data, with the aim to decrease the reconfiguration costs.
- Introduce enhanced robotics and multi-level process planning, based on Artificial Intelligence, for better productivity and resilience of production lines, to overcome recurrent changes.
- Implementation of advanced methodologies for human centric design of interfaces, to improve working conditions and operator inclusion in teaching and operating of intelligent reconfigurable systems.

Figure 12. SMARTHANDLE's Objectives Section



D7.1 SMARTHANDLE Public Web Portal



- > TECNALIA

- > LMS

- > Universitat Politècnica de Catalunya -BarcelonaTech- (UPC)

- > AIMEN

- > Eindhoven University of Technology

- > Teaching Factory Competence Center

- > KUKA

- > Roboception

- > Netcompany-Intrasoft

- > Demcon

- > Alumil

- > Menicon BV

Figure 13. SMARTHANDLE's list of partners and their descriptions



D7.1 SMARTHANDLE Public Web Portal

2.3.3. Use Cases

SMARTHANDLE's dexterity, reconfiguration and reasoning enabling technologies will be validated and will demonstrate their advances through three real-life manufacturing scenarios. Those originate from Metal (ALUMIL), Consumer goods (MENICON) and Automotive tier-one supply (ABEE) industrial sectors. These use cases have been selected for

USE CASE #1 – METAL INDUSTRY

The metal production use case deals with the packaging of aluminum profiles on pallets based on personalized customer orders. On each line, operators are involved for manually transferring aluminum profiles and feeding two sequential machines for the placement of protective foils and paper covers before they are transferred to the pallet.

Automation of packing processes using industrial robots will increase productivity as robot agents will effectively and consistently transfer profiles between machines towards their final packaging. Intelligent fixtures and machine learning algorithms will enhance the system's performance for new product variants.

The overall system will promote shifting of human workers to more added value and less strenuous operations, increasing their well-being and improving ergonomics, quality, error occurrences and cost savings.

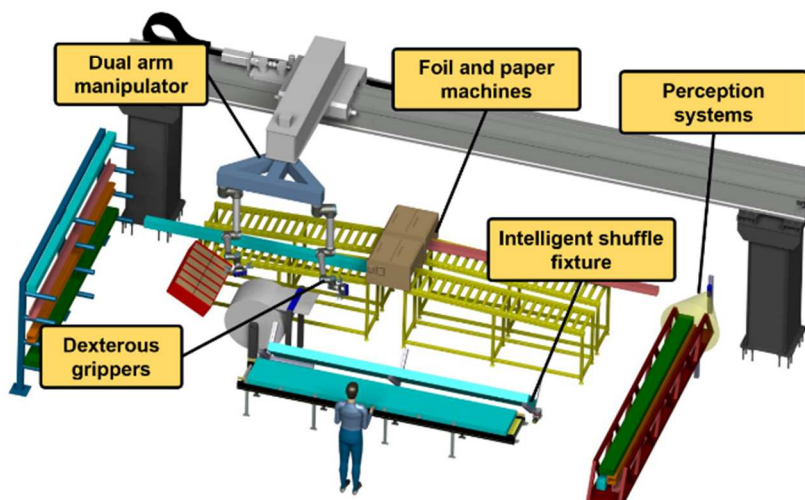


Figure 14. SMARTHANDLE's Use Case #1 - Metal Industry

covering a wide spectrum of dexterous handling operations. In overall, the project's outcomes will tackle handling challenges for small to large sized parts, made from rigid or deformable materials, presenting simple or sophisticated geometries that require conventional or specialized handling treatments.



D7.1 SMARTHANDLE Public Web Portal

USE CASE #2 – CONSUMER GOODS

USE CASES

The second SMARTHANDLE Use Case is related to contact lenses production. Full customization, high-volume production techniques and specialized machines are required for contact lenses production. Most of the manufacturing steps are not automated and require manual activity and interventions by operators. Current manufacturing challenges result in errors and lead to a quality rejection of 15% of the produced soft contact lenses. Automation of logistics and machine tending operations will enhance productivity and will contribute to ergonomics improvement. A flexible logistics solution equipped with smart fixtures and dexterous tools will be responsible for handling workpieces between manufacturing line workstations.

The designed dexterous and reconfigurable end-effectors will be able to manipulate all lens variances for all their production step-related shapes. In the same principle, the implemented fixtures will accommodate the lenses for logistics or processing without requiring time demanding hardware modifications.

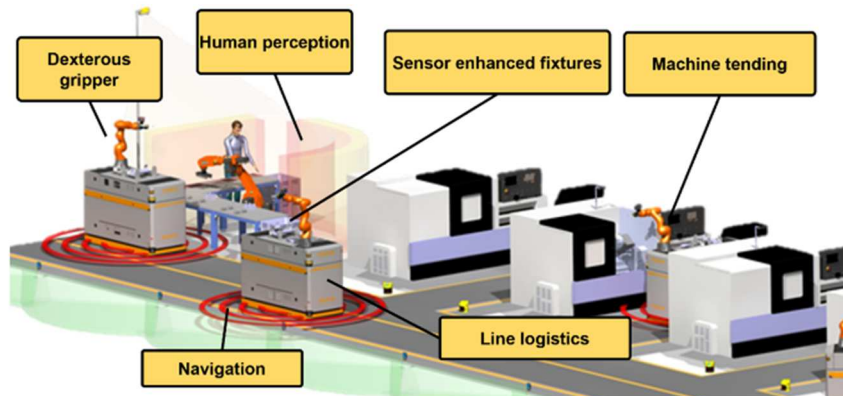


Figure 15. SMARTHANDLE's Use Case #2 - Consumer Goods



D7.1 SMARTHANDLE Public Web Portal

USE CASE #3 - AUTOMOTIVE

USE CASES

The EV battery industry is currently handling most of its disassembling processes for recycling purposes by manual means. Current operational procedures lead to destroying electronic equipment that requires further separation to achieve lithium recovery.

This use case will address those manual processes that imply a risk to human operators and are time-consuming. EV battery packs and modules dismantling will be done faster and safer in a coordinated effort of human operators and robotic solutions. EV recycling processes will not only improve dismantling time but also open the possibilities for cleaner lithium recovery.

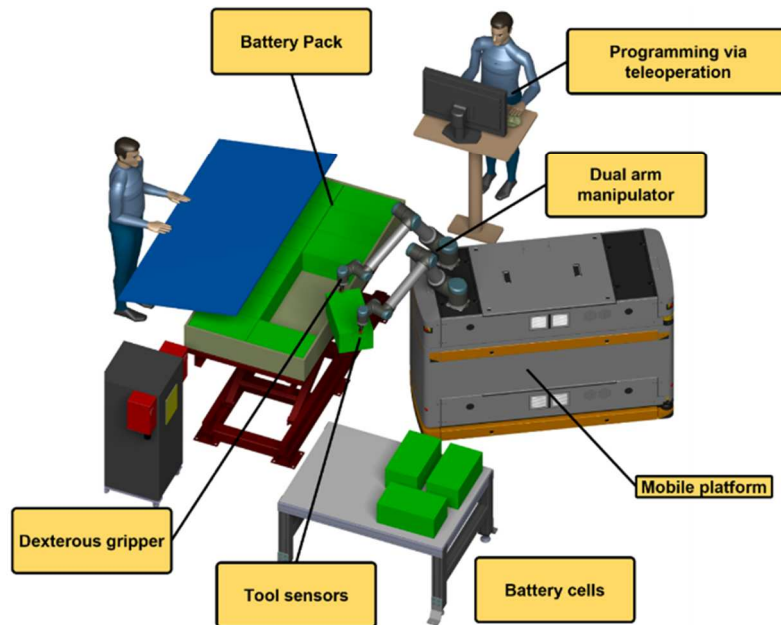


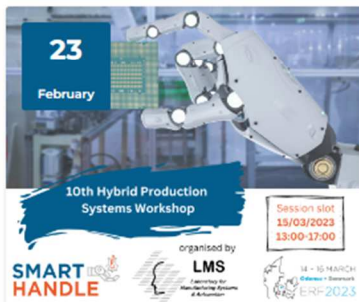
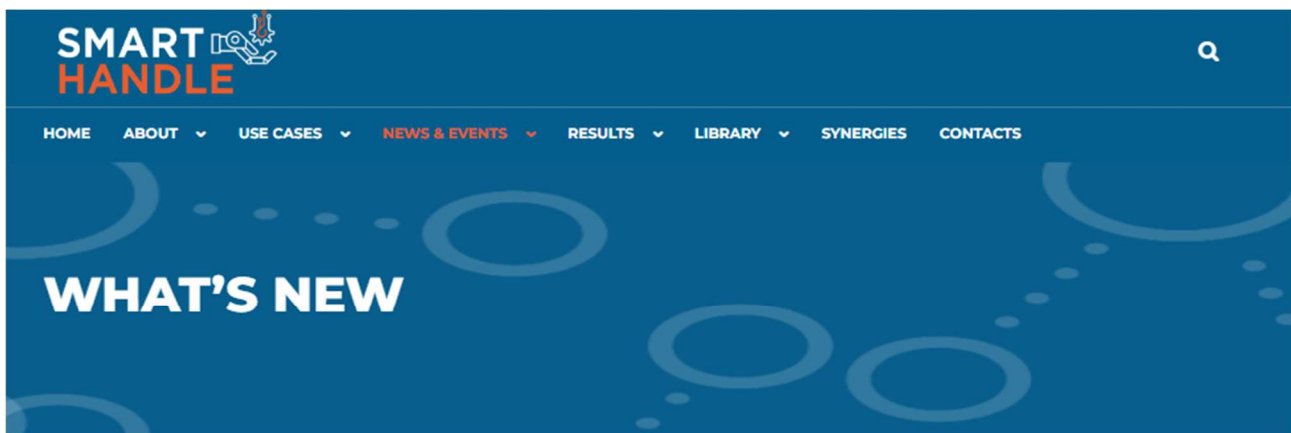
Figure 16. SMARTHANDLE's Use Case #3 - Automotive

2.3.4. News & Events

Under the section "News & Events", all events, workshops, webinars as well as articles and blog posts will be diffused.



D7.1 SMARTHANDLE Public Web Portal



SMARTHANDLE will be presented at the 10th Hybrid Production Systems Workshop on 15th March

The SMARTHANDLE project will be presented at the 10th Hybrid Production Systems workshop organised by LMS



SMARTHANDLE EU project on resilient manufacturing lines is launched for 3 years!

SMARTHANDLE EU project is launched for 3 years!

Figure 17. News articles about SMARTHANDLE project

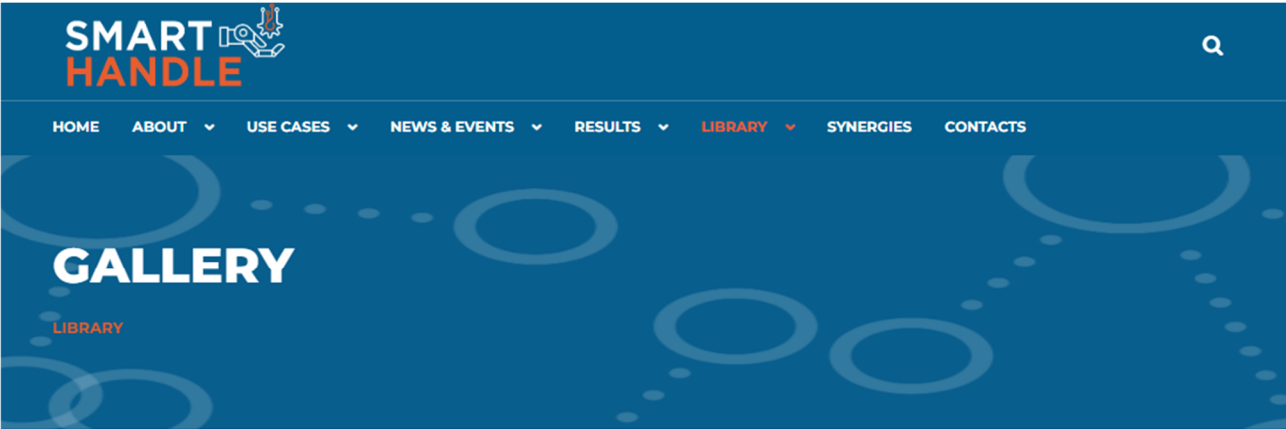
Within this section, SMARTHANDLE project's results will be published, especially Public Deliverables and Publications.

2.3.5. Library

The section "Library" will be used for gathering all the communication and dissemination material, such as Newsletters, Press Releases and images from events and demonstrations.



D7.1 SMARTHANDLE Public Web Portal



Kick-off Meeting, 1-2/2/2023, San Sebastian, Spain



Figure 18. Gallery with photos from SMARTHANDLE's Kick-off meeting at TECNALIA's premises



D7.1 SMARTHANDLE Public Web Portal

2.3.6. Synergies

SYNERGIES

SYNERGIES WITH SISTER PROJECTS IN THE SAME CALL TWIN-TRANSITION-01-04

One core ambition of European Union is to enhance the impact and effectiveness of its funding programs by promoting collaboration and mutual learning between projects and stakeholders of similar calls, leveraging each one's strengths and resources to achieve common goals. SMARTHANDLE embraces this ambition and emphasizes the importance of establishing synergies and clusters with partners of various backgrounds (academia and industry) to facilitate technology transfer, training and skill development. SMARTHANDLE has agreed upon common activities with the three projects of same European call:

MASTERLY - (Nimble Artificial Intelligence driven robotic solutions for efficient and self-determined handling and assembly operations),

HARTU - Handling with AI-enhanced Robotic Technologies for flexible manufacturing),

AGILEHAND - Smart Grading, Handling and Packaging Solutions for Soft and Deformable Products in Agile and Reconfigurable Lines

The 4 sister projects have already agreed on several ways of collaboration:

1. dissemination activities: conferences and workshops, common newsletters and media posts, white paper at the end of projects, starting off with the interactive ERF2023 workshop on the feasibility of agile manufacturing for SMEs in March.
2. technical collaboration: benchmarking opportunities, shared datasets, common 'taxonomy' to characterize and define the parts, exchange information in soft/deformable/delicate part manipulation, multi-robot applications, mobile manipulators, new gripper concepts, system architectures, standardization efforts, collaboration in similar applications,
3. others: external Advisory Boards, regular meetings to share experiences.

Figure 19. Synergies and Clustering section

2.3.7. Contact

Here, we have included a contact form for facilitating the user to contact the project's partners.



D7.1 SMARTHANDLE Public Web Portal

The screenshot shows the contact form on the SMARTHANDLE website. At the top, there is a dark blue navigation bar with the SMARTHANDLE logo and menu items: HOME, ABOUT, USE CASES, NEWS & EVENTS, RESULTS, LIBRARY, SYNERGIES, and CONTACTS. Below the navigation bar, the form is divided into two columns. The left column is titled 'GET IN TOUCH WITH US' and contains fields for Name, Email, and Message. The right column is titled 'SPECIFIC QUESTIONS' and contains the text 'For general questions please send e-mail to: info@smarthandle-project.eu'. Below the form, there is a CAPTCHA image showing the code 'AN74T' and a text input field for the code. A 'Submit' button is located at the bottom of the form.

Figure 20. SMARTHANDLE's Contact Form

3. Social Media

In addition to the website, social media will be utilized to amplify the reach and effectiveness of the project's communication and dissemination efforts. To establish a cohesive brand name for the project, a uniform visual identity has been adopted for both the website and social media accounts, incorporating identical images, logos, and descriptions

The project's social media accounts will serve as a platform to update the audience on the latest news, outcomes, accomplishments, and participation in events. To maximize the impact of the project's social media accounts, partners will collaborate by promoting the accounts through their own social media channels.

3.1. LinkedIn

LinkedIn is a professional networking platform that targets specific professional groups and also serves as a source of information. Hence, it is necessary to maintain a strong presence on the platform. The SMARTHANDLE project has a LinkedIn page ([@SMARTHANDLE EU Project](#)) that aims to share the latest news, activities, and developments of the project with experts in the fields of AI for manufacturing and robotics.



D7.1 SMARTHANDLE Public Web Portal

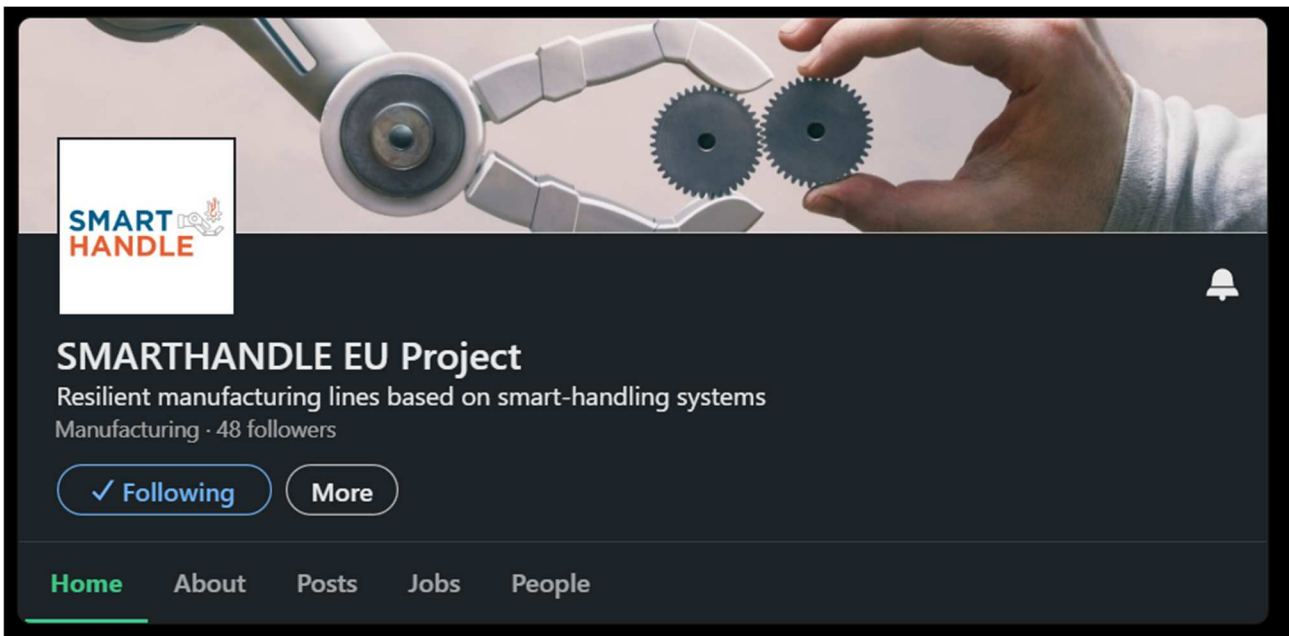


Figure 21. SMARTHANDLE's LinkedIn Page

3.2. Twitter

Twitter is a professional online networking platform that enables rapid communication with the SMARTHANDLE target audiences through real-time interactions using hashtags, reposts, images, and thematic tweets. The SMARTHANDLE project has a Twitter account page ([@SmarthandleEU](#)) dedicated to sharing the latest news, events, outcomes, results, milestones, and developments emerging from the project. The page serves to communicate and disseminate information to the project's target audience.



D7.1 SMARTHANDLE Public Web Portal



Figure 22. SMARTHANDLE's Twitter Account

3.3. YouTube channel

YouTube is a popular online communication platform that aims to share the essential project milestones through creative and high-quality videos. The SMARTHANDLE project has a dedicated YouTube channel ([@smarthandleeuproject](#)) that has been created for this purpose.

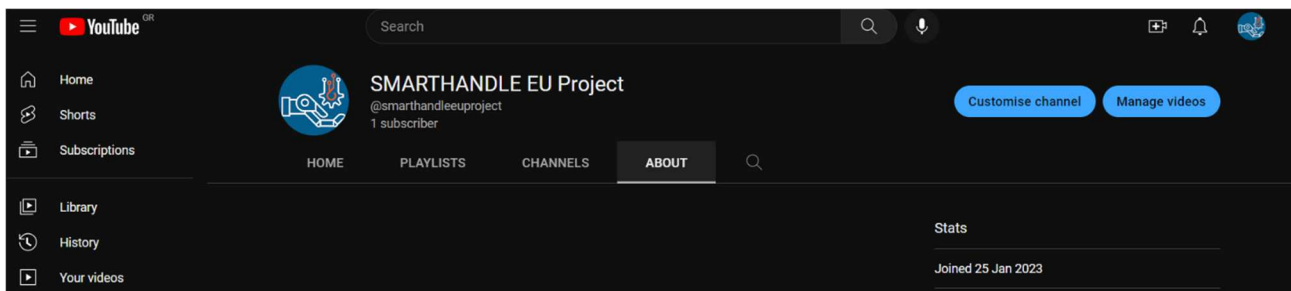


Figure 23. SMARTHANDLE's YouTube account

4. Conclusions

This document outlines the various communication channels that will be used to disseminate information about the SMARTHANDLE project. The project's website will serve as the primary platform for sharing content and has been designed to host all types of dissemination materials. In addition to the website, the project will utilize social media channels to increase visibility and reach



D7.1 SMARTHANDLE Public Web Portal

a broader audience, ultimately improving the project's outcomes. These efforts will help to ensure that the project's solutions and achievements are widely disseminated and have a significant impact in the field of manufacturing and robotics.