

Assembly Lines In Circulation – smart digital tools for the sustainable, human-centric and resilient use of production resources

D8.2 DEC Plan (1st) version 1.0

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Executive Summary

This document outlines a well-defined and tailored Dissemination, Exploitation, and Communication (DEC) plan for ALICIA. It identifies target audiences / consumers, dissemination tools and strategies. It also includes the policy for the dissemination and exploitation of results. As it is a "living" document, it will be reviewed and updated periodically by ALICIA's Management Board during the project duration. D8.3, due in month 16, and D8.4, due in month 29, will expand on the current plan, inform of progress made and propose concrete actions based on the progress of ALICIA.

ALICIA's DEC plan is structured around five main pillars:

- The project's brand image,
- the target audiences,
- the dissemination and communication channels,
- the dissemination and communication material (tools developed to support disseminating the brand and the project results to the target audiences through the selected channels),
- the exploitation strategy.

In order to develop the five pillars mentioned above, a set of strategic activities has been defined. More detailed information on these activities is provided in this report.

List of acronyms

AFNOR	Association française de normalisation
BDI	Bund der Deutschen Industrie
CEN	European Committee for Standardization
CME	Circular Manufacturing Ecosystem
DEC	Dissemination, Exploitation, and Communication
DIN	Deutsches Institut für Normung
HaDEA	European Health and Digital Executive Agency
IHK	Industrie und Handelskammer
ISO	International Organization for Standardization
IT	Information Technologies
SME	Small and Medium-sized Enterprises
UNE	Asociación Española de Normalización
VDA	Verband der Automobilindustrie
VDI	Verband Deutscher Ingenieure
VDMA	Verband Deutscher Maschinen- und Anlagenbauer

1. Introduction

The purpose of task 8.3 in ALICIA is to fine-tune and update the DEC plan and its activities to maximize the project's visibility. With the support of the European Health and Digital Executive Agency (HaDEA), the partners will work closely together to disseminate, exploit, and communicate the project results. This document summarizes the initial plans for dissemination, exploitation, and communication.

2. Dissemination, Exploitation, and Communication Objectives

ALICIA's task 8.3 aims to maximize the project's impact, raise awareness, and engage key stakeholders to facilitate the transition to a business model for exploitation. The DEC objectives are outlined below:

- Build the Circular Manufacturing Ecosystem (CME) and the ALICIA brand, disseminate the project ideas and results through the public website, dedicated partners' social media channels, participation in workshops and conferences, and publication in scientific journals,
- continue to build a dynamic community of researchers and application users who engage with the project through the public website and social media networks,
- communicate the benefits of ALICIA's research to industry stakeholders and the broader public via targeted conferences, publications, and project dissemination materials,
- promote ALICIA's CME to enable a market launch after the project work is completed by directly engaging with possible customer groups.

3. Dissemination, Exploitation, and Communication Strategy

This DEC plan aims to define the strategy for disseminating, exploiting, and communicating the project results, considering the direct impact on the identified target audiences (Section 4.4). This plan's activities should raise awareness and interest in the developed technologies and solutions among the defined target audiences. The three DEC activities are defined as follows to provide a common understanding throughout this document.

Communication activities inform various audiences about the project and its results. Therefore, communication activities are chosen to inform and reach a broad portion of society. Dissemination, on the other hand, focuses on the project results and the audiences that can use and take up these results. Finally, exploitation focuses on developing a business model based on the defined audiences and user requirements. The consortium's and each partner's activities will be used to build a business model so that the CME can be offered by the partners and used by the primary beneficiaries and end users.

3.1. Corporate Image

A graphic identity has been developed (see [Figure 1](#)) to create a recognizable brand associated with the project. All partners will use this image consistently and in all dissemination material. Corporate identity guidelines will be developed and will serve as an orientation for publications within the DEC activities. These guidelines shall, among others, include the logo, fonts, and Microsoft Word and PowerPoint templates. The policies will be available to all partners in the ALICIA internal repository. ALICIA's logo ([Figure 1](#)) has been defined and can be accessed in the internal repository.

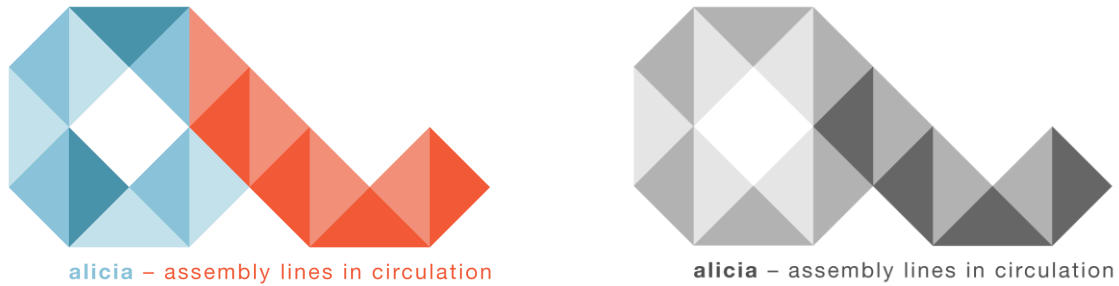


Figure 1: The ALICIA logo in color (left) and in gray (right)

In the first year, task 8.3 will focus on building awareness of ALICIA among target audiences by communicating and disseminating the project's brand and objectives. Awareness of ALICIA will prepare and support other DEC activities, e.g., contributing to standards for second-hand equipment, in line with ALICIA's progress and provide a basis for post-project exploitation. The first goal is to attract visitors to the ALICIA website, where project information will be posted. In order to create a uniform appearance, fonts are chosen to be used in publications and when disseminating information about ALICIA to third parties (Table 1).

Table 1: Font types

Channel	Font name
Website	Arial
External documentations and publications (if not defined otherwise)	Arial
Internal project documentations such as deliverables, presentations, templates, etc.	Arial

Detailed information on the selected dissemination and communication channels for ALICIA are given in Section 4.

The official language of ALICIA is English as it is a European Union project and reflects the transnational nature of the consortium. Further, English provides a broader scope to its natural audiences and scientific communities. However, dissemination materials may be translated into a partner's local language where necessary or appropriate. Each partner will ensure that material is translated adequately into local languages, for example, in the case of press releases for local media.

3.2. Project Templates

As mentioned in section 3.1, the coordinator provides templates (e.g., Figure 2) to support a corporate identity during the main dissemination activities for ALICIA. These activities may include workshops, conferences, or training courses. Presentation and deliverable templates are already available on the internal file-sharing platform.



ALICIA

Presentation template



alicia – assembly lines in circulation



ALICIA – Project 101091577 – Horizon Europe

ALICIA

Presentation Template



This is an example slide:

- Asitatem con rem ab in et quam, estiisci dolupta tempos aut que dolupta di ut am sant, qui ut exero dernam, odis debis imus enihit mo ipsapitate solupta tectatu rerumet repuditatet explant doloruptas pellaut as net la atur sersped quis alit re doleseguati in nimolo et quasperate di vel invel mo molorep ereriam excerum reici iumquo blabo. El idis mos sequis delit volut ut es dolorepe ex eati siliusc ilignam quiatatur ad ma sam illupta temquam, ipsam sit voluptas dempossin conet, culpa sus et mosamendi blandebis ad ut etur, Epelit aditaqui as sit verferi corectati cullesc iendendae plitiun danturis adi occulpa pro omno inciendicium repedit iumquo verfercima quae consequo explatur, solorpostis esequias et assimin plabore perion et el magniet, essed eos dolorem laborepe prat.
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ALICIA – Project 101091577 – Horizon Europe

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Figure 2: Example slides of the ALICIA presentation template; title slide (top) and text slide (bottom)

3.3. Target Audiences

ALICIA's target audiences and potential stakeholders were identified as part of the DEC activity preparation. These groups include:

- Research communities (main areas: manufacturing, data science, circular economy), technical standardization committees on national or international level (e.g., Association française de normalisation (AFNOR), Deutsches Institut für Normung (DIN), Asociación Española de Normalización (UNE), European Committee for Standardization (CEN), International Organization for Standardization (ISO) etc.), and industry associations (e.g., Verband Deutscher Maschinen- und Anlagenbauer (VDMA), Verein Deutscher Ingenieure (VDI), Industrie und Handelskammer (IHK), Bundesverband der Deutschen Industrie (BDI), Verband der Automobilindustrie (VDA) etc.),
- factory owners, machine builders, system integrators, and second-hand equipment resellers,
- policy makers,

- small and medium-sized enterprises (SMEs) and start-ups in the area of manufacturing and software service providers in related to manufacturing,
- the general public,
- adjacent industries and their associations (e.g., process industries).

Table 2 defines and describes the DEC measures as well as the motivation to address the target audiences. To set priorities and, in turn, disseminate and communicate ALICIA and its results effectively, the target audiences are categorized as follows:

- (i) “Prioritize for engagement” (highest priority);
- (ii) “Empower to advocate” and “Meet needs/address concerns” (both second highest priority); and
- (iii) “Engage indirectly” (lowest priority).

Target groups are assigned to a category according to their interest in ALICIA and their influence on the project. Scoring high in both criteria resulted in an allocation in category (i), while groups in category (iii) scored low in both criteria.

Table 2: Planned dissemination and communication measures per target audience

Category	Target audience	Dissemination and communication measure	Justification
(i)	Research communities, standardization bodies, industry associations	The consortium plans to present the concept and demonstrator data at manufacturing and Information Technology (IT) conferences and in manufacturing and IT journal articles. Additionally, an analysis of ALICIA's network and sustainability measurement methodology will be presented at circular economy conferences. These publications will be combined with posts on LinkedIn and articles on the ALICIA website.	- Share scientific findings with the broader community, distinguishing between different research subgroups - Communication will be tailored to the research subgroups - Share ALICIA results with the standardization community and thereby reach a wide network of experts
(i)	Factory owners, machine builders, system integrators, second-hand equipment resellers	The communication material (e.g., pictures) summarizing the benefits of line reuse for factory owners will be accessible to this group, e.g., via the website. The training kit will also be available there.	- Promote and strengthen the benefits of ALICIA for this target audience
(i)	Policy makers	Information on ALICIA will be made available for policymakers through the project website, deliverables, and review meetings.	- Reinforce messages sent to policymakers via the website and social media
(ii)	SMEs and start-ups in the area of manufacturing	The ALICIA CME opportunities will be promoted to SMEs and start-ups active in app development and provision of remanufacturing or recycling services at dedicated conferences. This group will also be targeted through LinkedIn posts.	- Raise awareness for ALICIA CME and its marketplace within the target audience and promote its capabilities - Attract investors to fund post-EU project activities
(ii)	General public	The project will be promoted through social media to raise awareness for ALICIA. The project's goals and progress will be shared and documented in detail on the public website.	- Point out the environmental benefits of the ALICIA CME to environmental non-governmental organizations and the

			human-centred aspects to labour unions - Inform citizens to enable them to engage in science
(iii)	Adjacent industries and their associations	The project and its results will be published through the website, social media, and cross-industry conferences.	- Inspire spill-over and use of selected ALICIA elements in other industries or EU projects

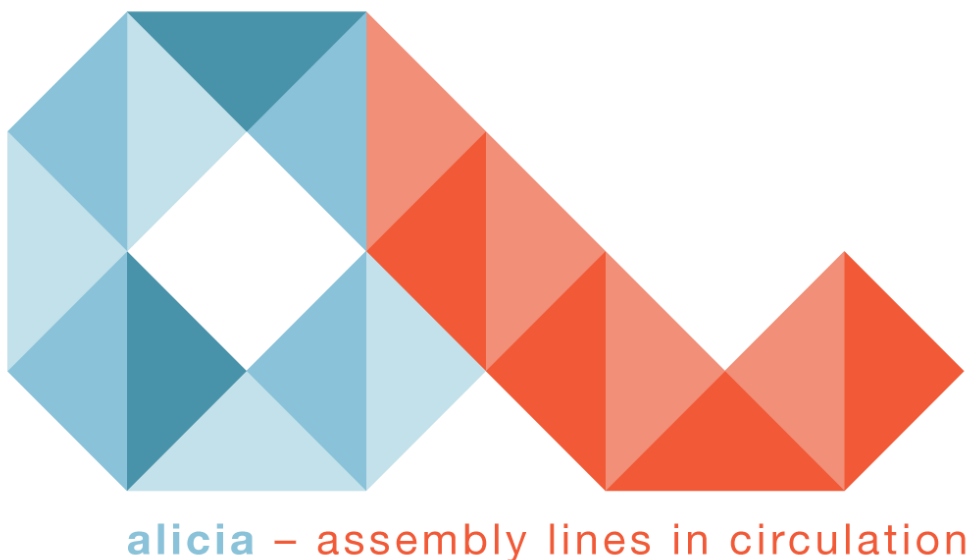
4. Dissemination, Exploitation, and Communication Channels

In ALICIA, a broad spectrum of dissemination channels will be used to efficiently reach the dissemination targets and maximize the project's visibility. ALICIA's DEC plan is therefore built on three pillars. The first one is the project's public website (Section 4.1) which will play a central role in all DEC activities and is the most crucial channel. In addition, the partners will use their social media channels, for example, LinkedIn (Section 4.2); other means of communication are press releases or videos. Therefore, social media forms the second pillar. The third pillar of DEC activities will be scientific publications, which play an essential role in this research project and will be described in more detail in a separate section (Section 5).

Currently, the consortium does not plan to use print media, as their use contradicts the sustainability concept of the project. If the use of print media is unavoidable at a later date (e.g., for conferences), they will be created and procured in an appropriate quantity.

4.1. Website

ALICIA's public website (Figure 3) is the central medium for disseminating all project information, results and activities. The Management Board is primarily responsible for editing the content of the website. The ALICIA website is developed and managed by TUM. The domain alicia-cme.eu has been purchased by TUM and its license will be renewed if necessary.

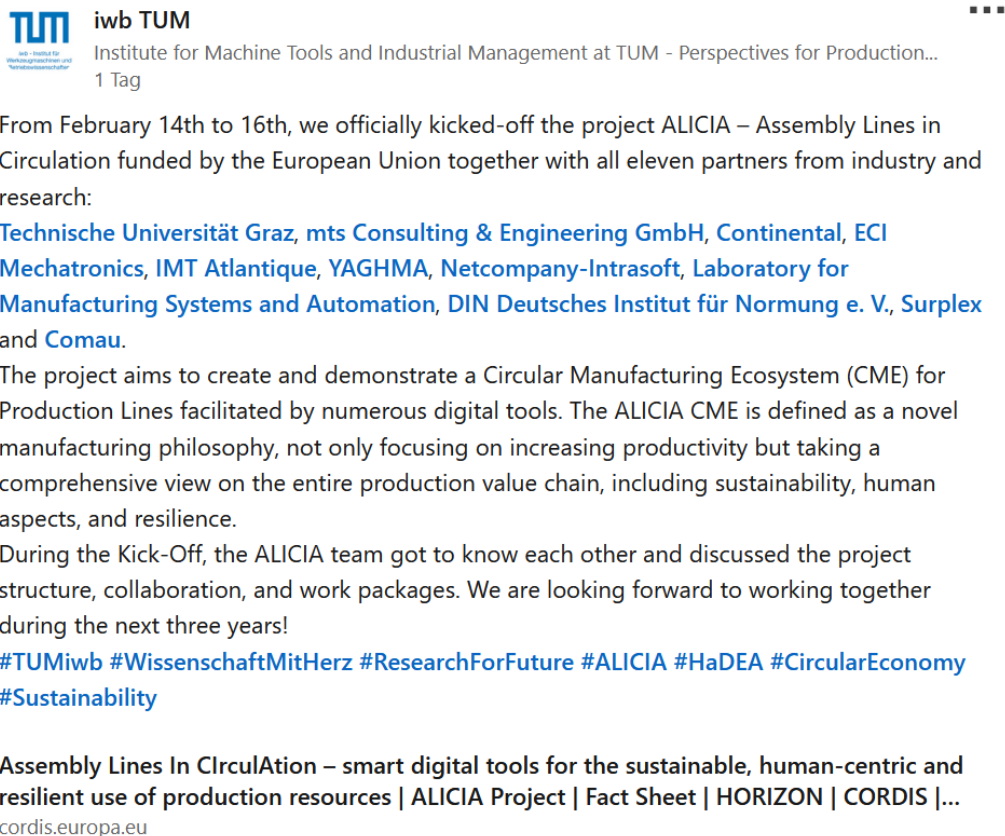


Under construction

Figure 3: The ALICIA website, currently under construction

4.2. LinkedIn

Social media is considered as a useful dissemination channel to reach the mentioned target audiences and to generate visibility (Section 3.3). LinkedIn is selected as the main social media channel as it is the most used by the target audiences. Partners may use other platforms if they consider them to fit the purpose better. ALICIA's partners will use social media platforms to disseminate key messages, project information, and latest developments and technologies related to the project. Creating a LinkedIn profile for the project would require very frequent activity on the profile to have a meaningful impact. Instead, ALICIA partners will use their LinkedIn profiles to promote ALICIA by posting content about the project and its activities, software, and trends in Industry 5.0 and CME (e.g., Figure 4, Figure 5). Thereby, the frequency of meaningful posts can be ensured and the range of the already existing profiles can be used in favor of ALICIA. The posts will contain a link to ALICIA's website (Section 4.1), where all information about the project is available.



The image shows a screenshot of a LinkedIn post from the profile of iwB TUM. The profile name is 'iwB TUM' with the full name 'Institute for Machine Tools and Industrial Management at TUM - Perspectives for Production...' and '1 Tag' (1 day) ago. The post text reads: 'From February 14th to 16th, we officially kicked-off the project ALICIA – Assembly Lines in Circulation funded by the European Union together with all eleven partners from industry and research: Technische Universität Graz, mts Consulting & Engineering GmbH, Continental, ECI Mechatronics, IMT Atlantique, YAGHMA, Netcompany-Intrasoft, Laboratory for Manufacturing Systems and Automation, DIN Deutsches Institut für Normung e. V., Surplex and Comau. The project aims to create and demonstrate a Circular Manufacturing Ecosystem (CME) for Production Lines facilitated by numerous digital tools. The ALICIA CME is defined as a novel manufacturing philosophy, not only focusing on increasing productivity but taking a comprehensive view on the entire production value chain, including sustainability, human aspects, and resilience. During the Kick-Off, the ALICIA team got to know each other and discussed the project structure, collaboration, and work packages. We are looking forward to working together during the next three years! #TUMiwB #WissenschaftMitHerz #ResearchForFuture #ALICIA #HaDEA #CircularEconomy #Sustainability'. At the bottom of the post, there is a link: 'Assembly Lines In Circulation – smart digital tools for the sustainable, human-centric and resilient use of production resources | ALICIA Project | Fact Sheet | HORIZON | CORDIS |... cordis.europa.eu'.

Figure 4: LinkedIn post by TUM about ALICIA's Kick-Off

Just kicked off an exciting new project, where the **YAGHMA** effort is led by **Shiva Noori**.

ALICIA (Assembly Lines In Circulation: Smart digital tools for the sustainable, human-centric and resilient use of production resources) project (<https://lnkd.in/eYzMprN8>) kick-off meeting, held 14-16 February in Munich at Institute for machine tools and business administration (iwb), **Technical University of Munich**. The project is part of the EU's funding program for research and innovation under the HORIZON-CL4-2022-TWIN-TRANSITION-01-07 call. ALICIA aims to create and demonstrate a Circular Manufacturing Ecosystem (CME) for production resources, such as robotic arms or conveyor belts. Central to the project will be two industrial demonstrations, undertaken in **Continental** and **Comau**, that will validate and improve the ALICIA CME platform in enabling design, deployment, run, decommission, and re-circulate second-hand production lines, reduce material consumption, and reuse of the assets.

Within the consortium of 12 partners, YAGHMA B.V. will assess non-technical aspects to ensure ALICIA CME is becoming an ethical, human-centric, and sustainable innovation. During the 3-day kick-off meeting, we had the opportunity to discuss the objectives and roadmaps of different work packages with the project officer and all partners. Thanks to iwb-TUM (**Sebastian Kurscheid**, **Nora Reinbold**, **Benedikt Schmucker**) for organizing the event.

We are looking forward to collaborating with the great ALICIA team in the coming three years!



Figure 5: LinkedIn post by Yaghma about ALICIA's Kick-Off

5. Scientific Publications

The consortium is committed to provide open access to published work in accordance with the Horizon Europe guidelines and the Data Management Plan. The project will guarantee open access to peer-reviewed scientific publications by depositing a machine-readable electronic copy of the published paper's final version or the final peer-reviewed manuscript accepted for publication, always respecting the embargo period. Each publication will be accompanied by bibliographic information, publication date, project funding metadata (action name, acronym, and grant number), date of open access publication, and a persistent identifier.

Based on these rules and the Grant Agreement, all resulting publications (publications, white papers, technical reports, etc.), as well as dissemination materials, should include the following sentence:

"ALICIA has received funding from the European Union's (EU's) Horizon Europe research and innovation program under grant agreement no° 101091577. Views and opinions expressed are however those of the author(s) only and do not necessarily reflect those of the EU or the European Health and Digital Executive Agency. Neither the EU nor the granting authority can be held responsible for them."

All publications will be presented in the Management Board and added to the *Publications* section on the website.

The following journals are examples of possible platforms for scientific publications of the project's results:

CIRP Journal of Manufacturing Science and Technology, CIRP Annals – Manufacturing Technology, WGP Production Engineering – Research and Development, ASME Journal of Manufacturing Science and Engineering, Journal of Manufacturing Systems, The International Journal of Advanced Manufacturing Technology, IFIP Advances in Information and Communication Technology, MDPI Sustainability, Journal of Cleaner Production, Journal of Responsible Technology.

6. Exploitation Strategy

ALICIA's target market is structured on the one hand by suppliers, which include machine builders, system integrators, and used machinery dealers, and, on the other hand, the demand side, which includes factory owners and other actors willing to install used production lines and/or sell them to other companies when the line reaches the end of production. Furthermore, ALICIA's CME can be used as a service by large companies that own several sites and may be interested in circulating the used production equipment among their factories. In addition to the main stakeholders on the supply side, ALICIA will also open up the value chain to new stakeholders, such as SMEs and start-ups offering repair, remanufacturing, recycling services or novel IT applications. All this will be made possible by ALICIA's online marketplace.

From the research side, the project aims to increase the maturity of the individual technologies and the integrated system to ensure TRL7 or TRL8 level. Building on the research results, the expertise of the industrial partners Intrasoft, ECI, MTS, and Surplex on the supplier side and Comau and Continental on the user side is valuable for the project's exploitation. The exploitation's overall goal is to integrate ALICIA's results into the platforms of Intrasoft and Surplex by licensing and providing implementation packages of the consortium, for example, the training package for employees.

To maximize ALICIA's exploitation success, measures were defined for the individual stakeholders in the target audiences. These are summarized in [Table 3](#). The target audiences are categorized in accordance with [Table 2](#).

Table 3: Planned exploitation measures per target audience

Category	Target audience	Exploitation measures	Justification
(i)	Research communities, standardization bodies, industry associations	Anonymized lifecycle assessment datasets from the two demonstrators should be made available for further research via an open-access platform, e.g., OpenAIRE or Zenodo. Under the leadership of DIN, standardization activities will be initiated based on the project's results. Registering ALICIA digital tool patents at World Intellectual Property Organization would be the final step toward market introduction.	<ul style="list-style-type: none"> - Make selected project data available for further research according to the open science principles - Protect research results, ensure commercialization after the project, pave the way for future standards for reusing production resources
(i)	Factory owners, machine builders, system integrators, second-hand equipment resellers	Identifying the needs of individual workers and taking them into account when developing the training or retraining kit for workers will reduce the gap between the research results and the needs of the industry. Demonstrations at dedicated trade shows (e.g., Hannover Messe, Manufacturing Expo) or workshops, can be an option to involve this target audience in further post-project exploitation.	<ul style="list-style-type: none"> - Pave the way for post-project commercialization by presenting the benefits to factory owners as future end users and consider their needs during development - Persuade stakeholders whose current business models may be threatened by ALICIA to adopt ALICIA's CME by pointing out their potential benefits (e.g., lucrative business models associated with servitization)
(i)	Policy makers	A summary of the legal and policy barriers to the establishment of CMEs in the EU should be provided to the Industry, Research, and Energy Committee and Directorate General Connect in a position paper.	<ul style="list-style-type: none"> - Contribute to the development of future EU legislation on the circularity of manufacturing systems
(ii)	SMEs and start-ups in the area of manufacturing	This audience will be informed about ALICIA's objectives, architecture, and opportunities to encourage their engagement post-project. By directly engaging with future customers the industrial partners will directly consider this target audience's needs during development	<ul style="list-style-type: none"> - Open up the value chain to suppliers of repair, remanufacturing, recycling services or novel IT applications - Lower the barrier of adaption

7. Conclusion

This document, D8.2, has defined the initial frame and established a comprehensive path for DEC activities within ALICIA. Among others, the consortium has

- 1) defined a brand image for the project,
- 2) estimated the action's potential DEC scope and undertaken a niche public segmentation to facilitate prioritization,
- 3) established the optimal channels for DEC based on the audiences identified,
- 4) started working on the materials to be used, and
- 5) drafted a tailored exploitation strategy to maximize the impact of ALICIA's CME concept, help reduce adoption barriers and increase engagement among all stakeholders.

D8.2 forms the basis for D8.3, due in month 16, and D8.4, due in month 29, which will organically expand on the current plan and provide concrete actions in all five main pillars of the DEC plan.