Activating Circular Services in the Electric and Electronic Sector

GA NUMBER: 776714

Deliverable 8.4
Mid-Term Exploitation, Communication & Dissemination Plans progress (PEDR)

Acronym:	C-SERVEES
Project title:	Activating Circular Services in the Electric and Electronic Sector
Contract Nº:	776714
Start date:	1st May 2018
Duration:	48 months

Deliverable number	D8.4
Deliverable title	Mid-Term Exploitation, Communication & Dissemination Plans progress (PEDR)
Submission due date	M32 – December 2020
Actual submission date	30/12/2020
Work Package	WP8
WP Leader	SAT
Dissemination Level	Public
Version	02
Deliverable Lead Beneficiary	SAT

DOCUMENT CONTROL PAGE

<table>
<tr><td>Author(s)</td><td>Bernd Kopacek (SAT), Anna Dubois (VERTECH)</td></tr>
<tr><td>Version history</td><td>
<table>
<tr><th>#</th><th>Reviewer</th><th>Comments</th></tr>
<tr><td>00</td><td>SAT</td><td>Document creation</td></tr>
<tr><td>01</td><td>ALL PARTNERS</td><td>Contributions to the document</td></tr>
<tr><td>02</td><td>TMC</td><td>Document revised by TMC</td></tr>
</table>
</td></tr>
</table>

1. Executive Summary

C-SERVEES is a project funded under the H2020 Program (2018-2022) that aims to boost circular economy business models in the EEE sectors. The business models will be developed through wide consultation with relevant stakeholders and their viability will be tested through demonstrations involving four target products: washing machines, printers and toner cartridges, televisions and access link monitoring equipment used in telecoms (ALM). These products belong to EEE categories that together account for 77% of WEEE collected in the EU.

C-SERVEES will provide several eco-innovative solutions for the above products such as Eco-design and customization, eco-leasing, re-use and remanufacturing, recycling and ICT services.

The project is structured in three steps:

1. Information gathering: Data gathering and compilation of relevant information to identify requirements for building viable economic models in the EEE sector. Mapping of stakeholders' initiatives and projects related to circular economy and the EEE sector.
2. Demonstrations: Four demonstrations associated to the products above covering their value chains.
3. Analysis, conclusions and solutions: Identification of key enablers in replicability and transferability of the circular economy business models proposed in C-SERVEES.

The project will thus contribute to transform the EEE sector into circular and 4.0, raising new opportunities for end-users (such as their involvement in design or the access to a product as a service) and for social and solidarity economy (conducted by NGOs, which employ people at risk of social exclusion to repair and prepare WEEE for re-use). C-SERVEES will be in line with business realities and set the foundation for realistic market-ready solutions.

Deliverable 8.4 Mid-Term Exploitation, Communication & Dissemination Plans progress (PEDR) is part of the activities of WP8 "Communication and Dissemination of results". This document reports the progresses achieved by M32 towards the execution of exploitation, dissemination and communication activities.

Content

2. Acronyms and abbreviations

AB	Advisory Board
CEBM	Circular economy business models
EEE	Electrical and Electronic Equipment
EoL	End of Life
ICT	Information Communication Technologies
IPR	Intellectual Property Rights
IPREB	IPR, Dissemination and Exploitation Board
KPI	Key performance Indicator
KER	Key Exploitable Result
PEDR	Plan for Exploitation and Dissemination of the Results
WEEE	Waste Electrical & Electronic Equipment
WP	Work Package

3. Definitions

Communication

"Communication on projects is a strategically planned process that starts at the outset of the action and continues throughout its entire lifetime, aimed at promoting the action and its results. It requires strategic and targeted measures for communicating about

(i) the action and

(ii) its results to a multitude of audiences, including the media and the public and possibly engaging in a two-way exchange."

(Source: EC Research & Innovation Participant Portal Glossary/Reference Terms)

Dissemination

"The public disclosure of the results by any appropriate means (other than resulting from protecting or exploiting the results), including by scientific publications in any medium."

(Source: EC Research & Innovation Participant Portal Glossary/Reference Terms)

Exploitation

"The utilisation of results in further research activities other than those covered by the action concerned, or in developing, creating and marketing a product or process, or in creating and providing a service, or in standardisation activities."

(Source: EC Research & Innovation Participant Portal Glossary/Reference Terms)

4. Introduction

To assure market uptake of the C-SERVEES solutions, numerous dissemination activities and measures will be taken during and after the end of the project. Additionally, C-SERVEES communication activities form essential elements in the path Communication, dissemination and exploitation are linked activities and must be undertaken in a coordinated way, thus exploiting synergies and avoiding overlap between them; in C-SERVEES they will be coordinated by an IPR, Dissemination and Exploitation Board (IPREB). Activities and their impacts will be continuously monitored during the project and the resulting actions again reported in the interim and final Plan for Exploitation and Dissemination of the Results (PEDR), due in months 32 and 48[1].

C-SERVEES partners represent different industrial sectors and form a new circular value chain fulfilling the specific challenge and scope of the topic CIRC-01-2017. C-SERVEES will implement a range of activities to ensure the optimal visibility of the project and its results, increasing the likelihood of market uptake of the knowledge it produces, and ensuring a smooth handling of the individual intellectual property rights of the involved partners to pave the way to knowledge transfer and exploitation. Table 4.a. summarizes the focus of activities and how the dissemination and exploitation plans fit together to produce the overall PEDR.

Table 4.a. Plan for Exploitation and Dissemination of the Results (PEDR).

Communication activities	Purpose – Raise awareness of project aims and outputs amongst broad stakeholder base. • **Communication KPIs** to measure effectiveness and efficiency. • **Messaging and visual identity** of the project and **Stakeholder mapping.** • Communication channels (website, social media, printed materials, scientific/trade journals)
Dissemination plan	Purpose – Support project exploitation through technical dissemination and industrial outreach. • Dissemination strategy: objectives, targets, activities and channels. • **Dissemination KPIs** to measure the dissemination effectiveness and efficiency. • Management of the three dissemination activities: – Circular business model knowledge for an effective take-up of the demos in the actual chain – Reaching the selected early adopters to motivate change, – Preparing the effective exploitation of the project results. • Dissemination administration (approval, reporting, deliverable). • **Scientific and trade publications.**
Exploitation plan	• IPR strategy and Exploitation plan for the project results • Business models and plans for key project results

[1] Because of COVID-19 a lot of conferences and dissemination events have been postponed. As a consequence a project extension would be desirable and highly beneficial for the impact of WP8.

The consortium has established the following work flow of information for the Dissemination and Communication strategies. The Dissemination and Communication manager (SAT), supported by WEEE FORUM and VERTECH, as they both are also linked to the Communication, Dissemination and Exploitation activities, will be the ones responsible for the coordination of the Communication & Dissemination materials to be generated and distributed to the rest of the partners.

5. Objectives and approach

The active communication and dissemination of the C-SERVEES results to industry, academia and the wider public is an important part for the success of the project. The following sectors and stakeholders have already been identified as essential to the project and special attention will be paid to them in the exploitation and dissemination of the project progress, results and outcomes, including: EEE industries, research and scientific community, EU and national policy making representatives, civil society, investors and commercials, environmental agencies. The results obtained in the project will be communicated through several routes as summarized later on.

The proposed dissemination activities framework is defined in terms of the following questions:

- 'Why' (the purpose of the communication and dissemination activity),
- 'Who' (the audience of the activity),
- 'What' (the key message that the activity intends to transmit to the audience),
- 'How' (the method by which the message will be transmitted), and
- 'When' (the timing of the communication and dissemination activity).

Whilst technical activities will be demonstrating the benefits and feasibility of various technology innovations, communication efforts will ensure that these approaches are more widely recognised, understood and positively perceived.

6. Target audience

Targeted communication and dissemination measures for promoting the project and its results are shown in Table 6.a., defining different audiences, what information and how it will be communicated, and who are responsible for the communication.

Table 6.a. C-SERVEES target Communication Measures

For whom	What	When	How	By whom
European Commission, governments and policy makers, NGOs, standardization bodies, etc.	Main results related to the sustainability, safety and social aspects. Considerations for legislation, standardisation and regulations.	Key stakeholders have been identified at the beginning of the project (Task 8.1) and updated periodically	**Activities**: Direct communi-cation, press conferences, high level industrial events, etc. **Material**: Websites, presentations.	Communi-cation manager (SAT) All partners
CIRC-01 and related projects	Highlights of research results, key impacts.	Key projects and initiatives have been identified at the beginning of the project (Task 8.1) and updated periodically	**Activities**: Specific workshops and conferences. **Material**: Tailored presentations.	Exploitation manager (VERTECH) WP leaders
Industrial companies; Producer compliance schemes; Repair, refurbishing and remanu-facturing organisations; processors and recycling companies; Entrepreneurs and product developers; Network operators.	Preliminary hypotheses and later proven results related to applications of re-used, remanu-factured and recovered valuable resources in EEE for the defined companies (specific target applications)	At the beginning, midway and end of the project	**Activities**: Internal workshops and round tables. **Material**: All materials described in the communication & dissemination plan.	LEXMARK, ADVA, ARCELIK, WEEE Forum and other industrial partners

For whom	What	When	How	By whom
Research and technological innovation organisations: Researchers and students outside the actively participating persons, research administration, IPR departments, marketing and sales departments	Innovative results related to technological developments, potential for new income sources, IPR or dissemination via partner's own channels	Whole duration of the project	Activities: Internal meetings and other channels in use by the partners. Material: All materials, detailed presentations of the results.	AIMPLAS, GAIKER, LOU, SAT, RINA, WEEE FORUM, CIRC, EXERGY, VERTECH
Society at large, general public and end-users (consumers & B2B customers (e.g., hotel industry, mass events industry, resellers, etc.)	Practical outcome of the project in a non-technical language. Success stories about new sustainable solutions for everyday life. Social and environmental impact in terms of consumption.	The results are continuously evaluated for their interest to the general public and informed when relevant. Task 8.1 has created a dynamic project network open to the general public and categorised into Special Interest Groups (SIGs).	Activities: News coverage, communication in social media. Material: Website, webinar, videos, press releases, popular publications, material for social media. Infographics.	All partners

7. Communication measures

C-SERVEES consortium has and will continue to communicate significant results and findings during and after the end of the project via press releases, presentations at internal and external stakeholder events, social media and websites. They aim at reaching the communication impacts expected and reinforcing the plausibility of the exploitation plan. Open access will be ensured to all peer-reviewed scientific publications. Special care with dissemination will be taken in the case of inventions and potential patent applications. Such results will be published or publicly discussed only after the invention has been protected. It will aim to maximize the impact and visibility of the project among all relevant stakeholders at European level.

Networking: In addition to the direct commercial contacts of C-SERVEES industrial partners, wider dissemination has been and will be achieved through using the partner memberships of trade associations related to the aims of the project. Working with trade associations the Consortium would increase the potential for exploitation of project results and additionally create a mutual opportunity with the associations to promote the C-SERVEES CEBM, within the relevant industrial sectors. Moreover, the know-how transfer of C-SERVEES to the European industry has been and will be also provided by all C-SERVEES partners via existing contacts to other European research institutes and networks.

A registration form to build a network of stakeholders was created and posted on the project website. Consortium partners have been continuously requested to send invites for registration to their own networks. The number and type of organisations registered is monitored during the whole project duration. Registrants receive project updates via the project newsletter and invites for participating at the different project activities, such as the surveys released in WP1.

An Advisory Board (AB) with representatives of all stakeholder groups has been already created in order to provide baseline information and feedback on the project progresses. This Advisory Board is chaired by WEEE FORUM and co-chaired by SAT. Advisory Board members will also play a crucial role to disseminate the C-SERVEES findings in their relevant networks.

Table 7.a List of members of the C-SERVEES Advisory Board

Organisation	Type of organisation	Region
Relight/TREEE	WEEE treatment	EU
Umicore	WEEE treatment	EU
University of Limerick	Academia	EU
Thinkstep	Academia	EU
ANARPLA (Spanish Plastic Recyclers Association)	Secondary raw materials	ES
iNEMI (International Electronics Manufacturing Initiative)	EEE Manufacturer	out EU
Siemens	EEE Manufacturer	EU

Organisation	Type of organisation	Region
CECIMO (European machine tool industries)	EEE Manufacturer	EU
CDC RAEE	WEEE Clearing House	EU
RREUSE	WEEE re-use	EU
EIT RawMaterials	Academia	EU
Panasonic	EEE Manufacturer	out EU
Green Electronics Council	Standards	USA
Hitachi	EEE Manufacturer	out EU
Nokia	EEE Manufacturer	EU
Centre for Sustainable Design, University for the Creative Arts	Academia	EU
University of Northampton	Academia	UK
Toshiba	EEE Manufacturer	out EU
APPLiA (former CECED, European Committee of Domestic Equipment Manufacturers)	EEE Manufacturer	EU

The AB members were requested to acknowledge the Terms of reference that in turn refer to a consent form. Once the consent form has been signed by the AB members, the specific authorized information about the experts has been posted on the project website.

Note that during the proposal preparation a series of stakeholders have already been contacted and they have offered their support through (recommendation) letters. This is the case of: **EIT Raw Materials** (European Institute of Innovation and Technology), an EU body that brings research institutes in touch with manufacturing industry and innovation and PhD programmes, in support of distinct EU programmes, such as the Raw Materials Initiative and the European Innovation Partnership on Raw Materials; **APPLiA** (European Household Appliance Manufacturers Industry Association) speaks for the home appliance manufacturing industry in Europe, with brands such as Bosch, Siemens, Electrolux, Miele, Indesit, Fagor and Whirlpool; **DIGITALEUROPE** that speaks for consumer electronics, telecom and digital industry; **ORGALIME**, the voice of Mechanical, Electrical & Electronic, Metalworking & Metal Articles Industries; **BT Group** (British Multinational Telecommunication company); **KU Leuven Materials Engineering Department and Mechanical Engineering Department** plays a leading role in European research on circular economy, resource efficiency and critical raw materials; **CECIMO**, the voice of the European machine tool industries, has all the know-how around additive manufacturing (3D printing); **ECP4** (European Composites, Plastics and Polymer Processing Platform) able to widen the potential stakeholders at industrial plastic sector level; **LIFE project REWEEE** (LIFE14/ENV/GR/000858), which can provide synergies and best practices useful for the project; **ANARPLA** (Spanish Plastic Recyclers Association) who will promote the advantages of the secondaray raw materials obtained; **IHOBE**, Basque Country Public Body for environmental management, who will provide to C-SERVEES the view and

expertise of local environmental authorities offering, and will analyze the outcomes of the project to incorporate them in implementation of new policies and market instruments; ACLIMA, the Cluster Association of Environmental Industries in the Basque Autonomous Community, who will provide feedback from the industry and identify future opportunities and business strategies to be transmitted to their associated companies.

The engagement of other relevant groups will also be promoted with communication activities aimed at audiences outside the project's own community to assist in the uptake and exploitation of the results. C-SERVEES has started already an extensive stakeholder mapping exercise and is in the process of contacting all identified as relevant and very relevant.

An appropriate infrastructure for C-SERVEES communications have been set up. Intra-project communication has been executed on day-to-day basis by the creation of a project mailing list, a cloud-based infrastructure for sharing files and a collaborative environment where main technical contents of C-SERVEES are handled and where partners can support each other (intranet in project website). External communication has been and will be promoted by the creation of an ad-hoc website and social network accounts (LinkedIn, Facebook and/or Twitter) that will spread C-SERVEES outcomes to the targeted audience. One of the first tasks in the project has been the definition and identification of different target audiences and project stakeholders for which tailored communication strategies and activities will be pursued.

Particular attention has been paid to the project website already available at: http://c-serveesproject.eu. It represents the first means for external communication. The website has been and will be updated periodically with input from all partners and contains information on project purposes, plans, technologies, outcomes, partners and events. Additionally, the public deliverables approved by the European Commission have been uploaded to the website.

C-SERVEES communication activities will be adjusted and anchored to ongoing environmental debates and related events, such as public consultations and workshops. A series of events related to the project and aimed at communicating its main impacts and outcomes have been and will be organized during the project and after its completion. Target audience and types of communication are summarized in Table 7.b.

Table 7.b. C-SERVEES target audience and type of communication

Type of communication	Target audience
Leaflets	Industry, consumers, academia
e-newsletter	All stakeholders
Other promotional material (C-SERVEES introduction slide set, posters, logo, etc.)	All stakeholders
Press releases	All stakeholders
Public website	All stakeholders
Internal communication platform (using website intranet and other applications; e.g., SharePoint)	C-SERVEES participants
News via social media (LinkedIn, Facebook, Twitter, YouTube, SlideShare)	All stakeholders
Project demonstration videos	All stakeholders

Type of communication	Target audience
Papers in technical journals	Industry
Articles at market oriented, economic and environmental journals	Industry, consumers
Peer reviewed scientific papers	Academia
Presentations at conferences and exhibitions	Academia and industry
Webinar	Academia and industry
Informative (initial and mid-term) workshops and final conference	Academia and industry

Mass media & Magazines: Newspapers, local TV, e-newsletters of sectorial associations and sectorial magazines related to each demonstration (e.g., for telecommunications equipment: IEEE Journal of Lightwave Technology, IEEE Photonic Technologies Letters, IEEE Communications Magazine, Optical Society of America Journal of Optical Communications Networks, etc.) and region (e.g. www.poslovni.hr, https://lider.media/, https://www.total-croatia-news.com/).

Open Access Journals: Waste Management & Research; Journal of Cleaner Production; Journal of Industrial Ecology; The International Journal of Life Cycle Assessment; Waste Management; Resources, Conservation and Recycling; Journal of Environmental Management; Journal of Polymers and the Environment; Recycling International Magazine; and broader audience journals (Science, Nature, etc.); but also national/regional journals, such as FuturENVIRO and Forum Calidad.

Events: Ecofira (Spain); CARE Innovation (Austria); WEEE Forum Conference; Circular Materials Conference (Sweden); K-Fair (Germany); Pollutec (France); PRSE Plastic Recycling Show Europe (The Netherlands); Sustainable Plastics (Germany); World Resources Forum; RWM Resource Waste Management (UK); Green Week (Belgium); Conama (Spain); International Conference on Sustainable Waste Management (Turkey); ISWA World Congress (Norway); European Circular Economy Conference (Belgium); Electronics Goes Green (Germany); International Electronics Recycling Congress (Austria); RapidTech (Germany); International Conference on Additive Manufacturing & 3D Printing (UK); Additive Manufacturing Show (The Netherlands).

In addition to the project website, the following social media appearances have been already created:

https://www.linkedin.com/groups/12132383

https://twitter.com/CServees

In parallel, all partners will promote the project through their Digital Channels (both company website and social media) to engage a wider audience.

On special request of the European Commission an additional short video will be produced on C-SERVEES in general. A working group (WEEE Forum, SAT, AIMPLAS, LEXMARK, LOUGHBOROUGH UNIVERSITY, CIRCULARISE, EMAUS, ARCELIK, GAIKER and other

volunteering partners) has been established to develop a script, select a suitable sub-contractor and supervise the production. As the budget for this additional short video has been secured by WEEE Forum, they took over the lead in the working group.

Recently the following, more detailed Communication & Dissemination Plan has been compiled by SAT with inputs from all WP leaders and partners:

Table 7.c. Activities/results/findings that can be communicated & disseminated now

Activities/results/findings that can be communicated & disseminated now	Responsible partner
A journal paper will be submitted to the journal Resources, Conservation and Recycling in December 2020 based on WP1 EEE stakeholders survey results (D1.1 & D1.2)	LOU
A journal paper was submitted to the Journal of Cleaner Production based on the findings of WP2 D2.1 (Circular Economic Business Reference Model for the Electrical and Electronic Sector (REF-CIRCMODE))	LOU
ACTIVITIES/RESULTS: outcome from the design and production stage of the demonstrations: putting developed CEBMs to practice (generic results that may be presented at selected events, to be later included in a joint paper)	GAIKER/LOU
FINDINGS: implementation of eco-design in washing machines and TV sets – Increasing recycled content in large household appliances and consumer electronics equipment	ARÇELIK
FINDINGS: ICT functionalities to enable circular economy – certification of recycled content by ICT (see ICT chapter in Del 4.2, subchapter Acelik)	ARÇELIK/ CIRCULARISE
FINDINGS: QR Code Usage for user manual, C-SERVEES project information, %recycled content info	ARÇELIK/ CIRCULARISE
FINDINGS: technical analysis of recycling and dismantling operations, recommendations for eco-design of printers and toner cartridges from end-of-life studies	LEXMARK
FINDINGS: characteristics of energy-consuming ICT equipment regarding CE(BMs)	ADVA
RESULTS: Life cycle sustainability assessment (LCSA) of current products/business models, including results of environmental, economic and social impacts for washing machine, laser printer, ALM and TV set.	AIMPLAS
FINDINGS: Main novelty - use of LCSA approach, including not only (environmental) LCA but also life cycle costing (LCC) and social LCA (S-LCA) → the methodological approach could also be interesting for other companies in E&E sector or in other sectors.	AIMPLAS
FINDINGS: Main novelty - use of Material Circularity Indicator (Ellen McArthur Foundation) to assess product circularity from 0 to 1. We proposed some assumptions to apply the methodology to our complex products → the methodological approach could also be interesting for other companies in E&E sector or in other sectors	AIMPLAS

Activities/results/findings that can be communicated & disseminated now	Responsible partner
Demonstration content from website: https://cte-gray.now.sh/, (web app 0.3)	CIRCULARISE
Screenshots, pictures, graphs and links of all presentations of TMCs showing the platforms, usage and tools.	CIRCULARISE
Deliverable 3.4 Clickable Demo	CIRCULARISE

Table 7.d. Activities/results/findings that will become available for communication & dissemination in 2021

Activities/results/findings that will become available for communication & dissemination in 2021	Responsible partner	Approx. date
PARTICULA: progress report 3D printing services of customized and out-of-stock spare parts in E&E sector (linkedin article) D6.1 Guidelines for the ecodesign of E&E products	RINA-C PARTICULA	January/ February 2021
With the application of the regulations and best practices in the field of cybersecurity and data protection (GDPR and best practices suggested by ENISA documents) the compliance of the platform could be made known	RINA-C	15-02-2021
A journal paper will be submitted to Journal of Industrial Ecology based on WP2 Task 2.1 work on circularity indicators	LOU	March 2021
Involvement of interested parties and potential stakeholders in the framework of Task 6.3	RINA-C	April 2021 October 2021
Findings: Results and documentation of Demonstration with Lexmark	CIRCULARISE	May 2021
FINDINGS: ICT functionalities to enable circular economy – certification of recycled content by ICT in printers and toner cartridges	LEXMARK/ CIRCULARISE	Q2/2021
RESULTS: analysis of 3D printing viability for parts/components of washing machines and TVs	PARTICULA/ ARÇELIK	Mid 2021
RESULTS: high-level analysis of ALM/ICT PSS	ADVA	H2/21
ACTIVITIES/RESULTS: outcome from the distribution and use stage of the demonstrations: putting developed CEBMs to practice (generic results that may be presented at selected events, to be later included in a joint paper)	GAIKER/LOU	Q4 2021
A journal paper will be submitted to the Journal of Cleaner Production based on WP2 D2.2 to D2.5	LOU	December 2021
Eco-design guidelines for the sustainable production of EEE along the entire life cycle.	RINA-C	December 2021
RESULTS: analysis of customer and market acceptance for refurbished printers	LEXMARK	End 2021

Activities/results/findings that will become available for communication & dissemination in 2021	Responsible partner	Approx. date
RESULTS: analysis of renting/leasing model/PSS for washing machines and TVs	ARÇELIK	End 2021
RESULTS/FINDINGS: Possibility to publish scientific paper or present current results and methodological novelties applied (Deliverable 5.1) in some events if industry partners agree.	AIMPLAS	2021
PROGRESS IN RESEARCH: Methodological approach for LCSA of new products/business models → some aspects of the new business models are really complex for modelling in LCA, LCC, etc. (e.g., PSS or some EoL aspects), so the related methodological approach and assumptions made could be interesting for scientific community and companies.	AIMPLAS	2021
RESULTS/PROGRESS IN RESEARCH: Partial results for LCSA of new products/business models	AIMPLAS	N/A

Table 7.e. Activities/results/findings that will most likely become available for communication & dissemination from 2022 onwards

Activities/results/findings that will most likely become available for communication & dissemination from 2022 onwards	Responsible partner	Approx. date
A journal paper will be submitted based on the WP4 demonstration activities in relation to the implementation of WP2 D2.2 (WASH-CIRCMODE), D2.3 (PRINT-CIRCMODE), D2.4 (ALM-CIRCMODE) and D2.5 (TV-CIRCMODE)	LOU/ GAIKER	January 2022
Involvement of interested parties and potential stakeholders in the framework of Task 6.3	RINA-C	March 2022
Position paper with recommendations for policy makers. This paper will include policy recommendations to overcome legislative barrier towards circularity in E&E sector	RINA-C	July 2022
Outcomes of Task 6.3 "Measures towards the standardization of circular economy in the E&E sector" in the form of a Deliverable "Proposal for standardization of circular economy in the E&E sector"	RINA-C	July 2022
ACTIVITIES/RESULTS: outcome from the end-of-life stage of the demonstrations: putting developed CEBMs to practice (generic results that may be presented at selected events, to be later included in a joint paper)	GAIKER/LOU	Mid 2022
FINDINGS: recommendations for ICT equipment regarding CE(BMs)	ADVA	Mid 2022
FINDINGS/RESULTS: ICT functionalities to enable circular economy in demonstrator products (QR codes/blockchain, logistic tool, information sharing tool)	CIRCULARISE/ RINA-C/ SOLTEL?	Mid 2022

Activities/results/findings that will most likely become available for communication & dissemination from 2022 onwards	Responsible partner	Approx. date
FINDINGS: analysis of reuse model for washing machines and TVs	EMAÚS/ ARÇELIK	Mid 2022
FINDINGS: analysis of reuse/refurbishment model for printer parts	LEXMARK	Mid 2022
Findings: Results and documentation of Demonstration of End of life ICT use with all three industry partners	CIRCULARISE	End 2022
RESULTS/FINDINGS: Final results for LCSA of new products/business models, including washing machine, laser printer, ALM and TV set → Possibility to publish scientific paper or present results in some events if industry partners agree.	AIMPLAS	2022-2023

8. Key messages of C-SERVEES

The following key messages have been already proposed by C-SERVEES partners:

- C-SERVEES will measure the feasibility and sustainability of new circular economic business models, assessing not only their environmental and economic benefits but also their impact upon and acceptance by society (AIMPLAS)
- C-SERVEES will provide ICT tools to promote eco-innovative services and products, taking advantage of the potential and synergies of the circular economy and the Industry 4.0 (AIMPLAS)
- You do not move from a linear business model to a circular business model by making Incremental changes (Loughborough University)
- "Use rather than own" will drive the future adoption of circular economy (SAT)
- 3D print is important driver for circular economy uptake (PARTICULA)
- Designing circular use of electronic products and services to produce benefits (GAIKER)
- Demonstrating the benefits of circular economy approaches through the electronic sector (GAIKER)
- Transferring tools and methodologies for sustainable practices in the electronics sector (GAIKER)
- Identifying business opportunities is a vital part of the circular economy development (VERTECH)
- A logistics platform is the key to enable advanced services and to boost resource efficient circular economy in the E&E sector (RINA-C)
- For end of life electronics to be prepared for reuse, repaired, remanufactured, recycled, parts harvested or upgraded, they need to be returned first. That's where the producer responsibility organisations of the WEEE Forum can play a role, i.e. in offering collection services and infrastructure, and in raising awareness among consumers and society at large (WEEE Forum)

- The C-SERVEES project aims at identifying and eliminating roadblocks toward broadscale CEBM in dependence of market, business and product specifics (ADVA Optical)
- The C-SERVEES project aims at creating tools that facilitate circular economic business models by providing ICT tools allowing communication and knowledge sharing of stakeholders along the supply chain. C-SERVEES researches and tests circular economy business models and builds example cases and resulting guidelines that allow companies and entire supply chains to learn from the example, implement similar models and identify which tools and economic processes they need to establish for their own successful CEBM. C-SERVEES thereby leads to saving raw materials, drastically reducing CO2-emissions through reducing the amount of necessary resources and resulting garbage, as well as changing mindsets towards a more circular thinking in consumption and business models. (CIRCULARISE)
- With the circular economy model, we will be able to retain the value of the product and the resources by putting them back into the system when their normal lifespan is over (Exergy)
- Circular economy, recycling and zero landfill are part of our DNA. With the sustainable treatment of WEEE and the recovery of critical materials, we contribute to the reintroduction of valuable secondary raw materials into the market for a new life cycle (INDUMETAL RECYCLING)
- Large amounts of ICT products are generated on the market, with significant impact on economy and environment. With a more focused approach some of these products can be reintroduced in the economic circuit for the benefit of organization and areas with less competitive requirements. In particular toner cartridges are generating a deregulated market with low quality and dangerous products for human kind. The producers must involve and get this subject under their responsibility, in order to control the quality and prevent negative environment impact. Organizations like Greentronics can be the candidates that could fill the gap and help producers to collect used products and help toward the increase of the reuse rate on the market (GREENTRONICS)
- Generation of quality employment through reusing, remanufacturing and refurbishing WEEE, with high potential of incorporate social disadvantage collectives (EMAUS)
- By developing new business model, the lifetime of product will extend and the environment will be preserved (ARCELIK).

These key messages will be furthered developed during the project and modified to the respective target audiences.

9. Key Performance Indicators

The C-SERVEES consortium has defined the following KPIs. These will be regularly monitored in order to ensure the targets are achieved. A template to collect information on the communication and dissemination activities carried out by consortium members have been created and circulated.

Table 9.a. C-SERVEES Communication& Dissemination KPIs

Type of communication	Estimated amount	Responsible participants
Leaflets	2	WEEE FORUM
e-newsletter	5	WEEEFORUM All partners
Other promotional material (C-SERVEES introduction slide set, posters, logo, etc.)	3–6	WEEE FORUM All partners
Press releases	2 per partner	WEEE FORUM All partners
Public website	1	AIMPLAS All partners
Internal communication platform (using website intranet and other applications; e.g., SharePoint)	1	AIMPLAS All partners
News via social media (LinkedIn, Facebook, Twitter, YouTube, SlideShare)	4 per partner min.	SAT All partners
Project demonstration videos	1 per demo, 4 in total	WEEE FORUM All partners
Papers in technical journals	3-6	SAT All partners
Articles at market oriented and economic journals	3-6	SAT All partners
Peer reviewed scientific papers	2-4	SAT All partners
Presentations at conferences and exhibitions	12-20	SAT All partners
Webinars	2	SAT WEEE FORUM and AIMPLAS
Informative (initial and mid-term) workshops and final conference	3	SAT WEEE FORUM

10. Dissemination activities

10.1. Events

Events that may be relevant for presenting information related to the C-SERVEES project are listed and regularly updated. The table below shows the last list of events created.

Table 10.1.a. Updated list of events relevant for C-SERVEES

Name	Last/upcoming edition website
International Electronics Recycling Congress (IERC)	https://www.icm.ch/ierc-2021
Interdisciplinary Circular Economy Conference (ICEC)	https://www.circulus-project.de/icec-2020/registration/
CIRP Conference on Life Cycle Engineering	https://lce2021.in
International Conference on E-Waste Management and Life Cycle Assessment	https://waset.org/e-waste-management-amd-life-cycle-assessment-conference-in-april-2021-in-paris
Spanish Congress on Environment (CONAMA)	www.conama.org
Circular Materials Conference	https://www.circularmaterialsconference.se/
International Conference on Circular Economy Strategies	https://waset.org/circular-economy-strategies-conference-in-april-2021-in-tokyo
Institute of Scrap Recycling Industries (ISRI)	https://isri2021.org/
International Conference on Industrial and Hazardous Waste Management	http://www.hwm-conferences.tuc.gr/
Product Lifetimes and the Environment International Conference (PLATE)	https://www.plateconference.org/plate-2021-conference/
WEEE Forum International Conference: Digital Circular Economy as Climate Change Policy	www.weee-forum.org
WasteLCA_3	http://engconf.us/conferences/civil-and-environmental-engineering/wastelca-3-life-cycle-sustainability-assessment-for-waste-management-and-resource-optimization-iii/
Plastics Recycling World Exhibition	https://plasticsrecyclingworldexpo.com/eu
International Trade Fair for Recovery and Recycling (SRR)	https://www.ifema.es/en/srr

Name	Last/upcoming edition website
European Recycling Conference (ERC-EURIC Conference)	https://euric-aisbl.eu/european-recycling-conference-2020
International Conference on New Business Models (NBM)	https://www.newbusinessmodels.org/
International Conference on Modelling of Industrial Processes and Circular Economy	https://waset.org/modelling-of-industrial-processes-and-circular-economy-conference-in-june-2021-in-montreal
World Resources Forum	https://wrf2020.wrforum.org/
International Conference on Product Lifecycle Management (IFIP)	https://www.plm-conference.org/en/
World Congress and Expo on RECYCLING	https://recycling.environmentalconferences.org/
Connected Manufacturing Forum	https://www.wbresearch.com/events-manufacturing-us-december-2020/?utm_source=connectedmanwbr&utm_medium=referral
Inspire	https://inspire.ec.europa.eu/conference2020
European Roundtable on Sustainable Consumption and Production (ERSCP)	https://erscp2019.eu/
E-scrap Conference	http://www.e-scrapconference.com/
World Circular Economy Forum (WCEF)	https://www.sitra.fi/en/news/wcef2020-in-toronto-postponed-to-2021/
Recycling & Waste Management Exhibition & Conference (RWM)	https://www.rwmexhibition.com/whats-on/speakers
International Solid Waste Association (ISWA) World Congress	https://iswa2020.org/
Global Conference on Sustainable Manufacturing (GCSM)	https://gcsm.eu/
International Fair on Environmental Solutions and Energy (ECOFIRA)	http://ecofira.feriavalencia.com/en/
29th International trade show for environmental equipment, services and technologies (POLLUTEC)	https://www.pollutec.com/
International Waste Management and Landfill Symposium (Sardinia Symposium)	http://www.sardiniasymposium.it/
Circular Economy Hotspot Catalonia	http://www.cehotspot.cat/

Name	Last/upcoming edition website
International Symposium on Environmentally Conscious Design and Inverse Manufacturing (EcoDesign)	http://ecodenet.com/ed2021/
ECOMONDO	https://en.ecomondo.com/ecomondo/info/presentation
World Manufacturing Forum (WMF) Annual Meeting	https://worldmanufacturing.org/activities/forum-2020/
Circular Change Conference	https://circularchange-conference.com/
E-Waste World Conference & Expo	https://www.ewaste-expo.com/
Plastics Recyclers Annual Meeting	https://www.plasticsrecyclersam.org/
Day [avniR]	https://congres.avnir.org/appel_a_temoignages/
Word´s Leading Trade Fair for Water, Sewage, Waste and Raw Materials Management (IFAT)	https://www.ifat.de/index-2.html
Electronics goes green	https://electronicsgoesgreen.org/
Going Green - CARE INNOVATION	http://ci2018.care-electronics.net/
International Conference on Engineering Solutions for Sustainable Development	https://icessd.uni-miskolc.hu/
International Conference on Resource Sustainability (icRS)	http://icrs2020dublin.ucd.ie/
IFA Berlin	https://www.ifa-berlin.com/
Integrated Systems Europe (ISE)	https://www.iseurope.org/

It will be regularly updated and shared with the C-SERVEES consortium, including the meetings with the Advisory Board, which will be listed well in advance for more efficient communication. It will allow all project partners to monitor relevant conferences to promote the project and, whenever possible, give presentations, share publications and lend support to other work packages. Through consultation and coordination with the other work packages a series of conferences, workshops, presentations at other conferences and trade fairs, electronic and print stories and news media campaigns will be organised. In addition, the consortium will connect with other on-going research activities such as other EU-funded projects.

SAT and WEEE Forum will organise a series of **at least 3 dedicated dissemination events** during the project implementation. These will include an initial workshop to present the project objectives and scope, a mid-term workshop to present the intermediate results and one final conference to promote the replicability and exploitation of the project

results. The workshops will be organised in the fringe of relevant EEE-related events (e.g., International Electronics Recycling Congress, World Resources Forum, Circular Materials Conference). They will follow the tradition of the Green Electronics workshops, which is a series of successful workshops on different environmental issues of the electronics industry that runs for more than 10 years, with more than 30 workshops organised in 16 countries in Europe and attracting between 50 and 180 participants from all over Europe.

In addition, **own C-SERVEES presentations/sessions** have taken place **at CARE INNOVATION 2018** (hosted by SAT), **and will take place at WEEE Forum Conference 2021** (hosted by WEEE FORUM) and **Electronics Goes Green 2020+**, some of the world´s leading and most prominent congress series on electronics and the environment.

Moreover, industrial partners in C-SERVEES will use relevant trade fairs to present project findings besides their usual product portfolio.

10.2. Projects

An initial mapping of projects was carried out in Task 8.1. The task delivered a list of projects to liaise with and discuss joint activities as well as exchange of findings and results. An invite to join the network and project events are sent to project coordinators.

Table 10.2.a. Projects relevant for C-SERVEES

Name of the Project	Project acronym	Project website
Implementing a new circular economy model for composite products in automotive, furniture and building sectors with high potential for cross-sectorial replicability and transferability	ECOBULK	http://www.ecobulk.eu
Development and demonstration of Waste Electrical and Electronic Equipment (WEEE) prevention and reuse paradigms	ReWEEE	https://www.reweee.gr/en
Sustainable Smart Mobile Devices Lifecycles through Advanced Re-design, Reliability, and Re-use and Remanufacturing Technologies	sustainablySMART	https://www.sustainably-smart.eu/

Name of the Project	Project acronym	Project website
Future business models for the Efficient recovery of Natural and Industrial secondary resources in eXtended supply chains contexts	Fenix	http://www.fenix-project.eu/
A circular economy approach for lifecycles of products and services	CIRC4Life	https://www.circ4life.eu/
New approaches for the valorisation of urban bulky waste into high added value recycled products	URBANREC	http://www.urbanrec-project.eu
Cities cooperating FOR Circular Economy	FORCE	http://www.ce-force.eu/
Transition from linear to circular	R2pi	R2π – tRansition from linear 2 circular
E-Mining@School	E-mining@ School	http://ewaste.education/game/players/sign_in
Raw MatTERS Ambassadors at Schools 3.0	RM@School	https://rmschools.isof.cnr.it/

This list will be continuously updated during the project duration.

Table 10.2.a. Updated list of Projects relevant for C-SERVEES

Acronym (if any)	Full name	URL
CRM Recovery	Critical Raw Material Closed Loop Recovery	http://www.criticalrawmaterialrecovery.eu/
EcoRAEE	Demonstration of a re-use process of WEEE addressed to propose regulatory policies in accordance to EU law	http://www.life-ecoraee.eu/en/
InnoWEEE	Innovative WEEE traceability and collection system and geo-interpole	https://e3da.fbk.eu/projects/innoweee
	Life-Cycle Inventories (LCI) Database on WEEE management	http://weee-lci.eco-systemes.com
SCRREEN	Solutions for CRitical Raw materials - a European Expert Network	http://scrreen.eu/
NEW_InnoNet	The Near-zero European Waste Innovation Network	http://www.newinnonet.eu/

Acronym (if any)	Full name	URL
	Slovenia WEEE campaign project	http://life.zeos.si/en/about-project/objective-and-purpose-of-the-project.html
DiVERSiTY	Cloud Manufacturing and Social Software Based Context Sensitive Product-Service Engineering Environment for Globally Distributed Enterprise	https://www.diversity-project.eu/
FORCE	Cities cooperating FOR Circular Economy	http://www.ce-force.eu/
ProRegio	Customer-driven design of product-services and production networks to adapt to regional market requirements	http://www.h2020-proregio.eu/
ReWEEE	Development and demonstration of Waste Electrical and Electronic Equipment (WEEE) prevention and reuse paradigms	https://www.reweee.gr/en
WEEE trace	Full traceability of e-waste management to increase collection rates, reduce uncontrolled flows and ensure proper treatment.	http://www.weee-trace.com/index.php?LANG=EN&ids=9
sustainablySMART	Sustainable Smart Mobile Devices Lifecycles through Advanced Re-design, Reliability, and Re-use and Remanufacturing Technologies	https://www.sustainably-smart.eu/
HydroWEEE	Innovative Hydrometallurgical Processes to recover Metals from WEEE including lamps and batteries	http://www.resoutech.com/ or http://hydroweee.sat-research.at/
ZeroWIN	Towards Zero Waste in Industrial Networks	http://www.zerowin.eu/
CELION	Circular Economy applied to LI-ION batteries for smart electric mobility in cities	https://cordis.europa.eu/project/rcn/213324_en.html
RECYVAL-NANO	Development of recovery processes for recycling of valuable components from FPDs (In, Y, Nd) for the production of high added value NPs	http://www.recyval-nano.eu
NIRSORT	Development and Market Replication of novel NIR-transparent polymer colourants to replace carbon black, and allow the sorting of black and coloured polymers from mixed waste streams	http://www.nirsort.com/
URBANREC	New approaches for the valorisation of urban bulky waste into high added value recycled products	http://www.urbanrec-project.eu
ECOBULK	Implementing a new circular economy model for composite products in	http://www.ecobulk.eu

Acronym (if any)	Full name	URL
	automotive, furniture and building sectors with high potential for cross-sectorial replicability and transferability	
CLOSEWEEE	Integrated solutions for EEE pre-processing, closing the loop of post-consumer high-grade plastics, and recovery of critical materials	http://closeweee.eu
PREMANUS	Product Remanufacturing Service System - overcome the asymmetric distribution of information in the End of Life recovery of products by connecting OEMs and subcontractors, with a special emphasis on remanufacturing.	http://www.premanus-project.eu
MANUTELLIGENCE	Product Service Design and Manufacturing Intelligence Engineering Platform	http://www.manutelligence.eu/
	Think Tank – Circular Economy Business Ecosystem	https://eitrawmaterials.eu/project/think-tank/
PSYMBIOSYS	Product-Service sYMBIOtic SYStems	http://www.psymbiosys.eu
int:CEB	intCEB: International Intelligence and Business Development Network on Circular Economy Business Opportunities with China	https://eitrawmaterials.eu/project/intceb/
CIRCULAR IMPACTS	Measuring the IMPACTS of the transition to the CIRCULAR economy	https://circular-impacts.eu/about
REECOVER	Recovery of Rare Earth Elements from magnetic waste in the WEEE recycling industry and tailings from the iron ore industry	https://cordis.europa.eu/result/rcn/202427_en.html
CircE	European regions toward Circular Economy	https://www.interregeurope.eu/circe/
CIRC4Life	A circular economy approach for lifecycles of products and services	https://www.circ4life.eu/
	Life WEEE	https://www.lifeweee.eu/lifeWeee_en
	Storie di Economia Circolare	http://www.economiacircolare.com
R2π	tRansition from linear 2 circular: Policy and Innovation	http://www.r2piproject.eu/
Fenix	Future business models for the Efficient recovery of Natural and	http://www.fenix-project.eu/

Acronym (if any)	Full name	URL
	Industrial secondary resources in eXtended supply chains contexts	
	Boosting Circularity among SMEs in Europe	http://ec.europa.eu/environment/sme/pdf/024-2019%20Report%20Boosting%20the%20circular%20economy%20among%20SMEs.pdf
	E-mining@ School	https://www.trentinoinnovation.eu/en/project/e-miningschool-2/
RM@School	Raw MatTERS Ambassadors at Schools 3.0	https://rmschools.isof.cnr.it/
REBus -	resource efficient business models	http://www.rebus.eu.com/
INSPIRE	Towards growth for business by flexible processing in customer-driven value chains	http://www.inspire-eu-project.eu/; https://cordis.europa.eu/project/id/723748/results
CIRC-PACK	Towards circular economy in the plastic packaging value chain	https://circpack.eu/home/
MOVECO	Mobilising Institutional Learning for Better Exploitation of Research and Innovation for the Circular Economy	http://www.interreg-danube.eu/approved-projects/moveco/section/circular-economy
ECOtronics	Sustainable Electronics and Optics	https://www.ecotronics.fi/
PC4Change	The Computer Reuse Project	https://www.pc4change.net/
CEDaCI	Increasing collaboration and communication to drive sustainability in the data industry	https://www.cedaci.org/

10.3. Initiatives

Finally, T 8.1 also delivered a list of initiatives for potential cooperation. Invites to join the project network and participating at project surveys and events are sent to them during the project.

Table 10.3.a. Updated list of Initiatives relevant for C-SERVEES

Name of the initiative	Website
ECOS Standard	http://ecostandard.org/
International Electronics Manufacturing Initiative (Inemi)	http://www.inemi.org/about-us

Name of the initiative	Website
Sharing knowledge of WEEE initiatives	http://www.weeeshare.eu/
The United Kingdom cartridge remanufacturers association (UKCRA)	http://www.ukcra.com/index.html
European Toner and Inkjet Remanufacturers Association (ETIRA)	http://www.etira.org/
Environcom England Ltd.	http://www.environcom.co.uk/
Ellen MacArthur Foundation	https://www.ellenmacarthurfoundation.org/
WEEE 2020 - Partnership of industry leaders to deliver advancements across the WEEE value chain to improve environment and drive circular economy	https://ec.europa.eu/growth/tools-databases/eip-raw-materials/en/content/weee-2020-raw-material-partnership-%E2%80%93-delivering-advancements-across-weee-value-chain-improve
Cluster of H2020 Research Projects on Product Service Systems	http://www.fof-pss-cluster.eu/
Circular Society	https://www.circularsociety.eu
European Investment Bank	http://www.eib.org/projects/initiatives/circular-economy/index
International Solid Waste Association	https://www.iswa.org
Plastics Recyclers Europe	https://www.plasticsrecyclers.eu
Circular Norway	circularnorway.no
European Circular Economy Stakeholder Platform	https://circulareconomy.europa.eu/platform/
European Electronics Recyclers Association	https://www.eera-recyclers.com/
The Product-Life Institute	http://www.product-life.org/
World Resources Forum, WRF	https://www.wrforum.org/
RREUSE	http://www.rreuse.org/about-us/
Zero Waste Europe	https://zerowasteeurope.eu/our-network/
Assessing the Circular Economy Potential of EU Product Policy	http://www.eunomia.co.uk/assessing-the-circular-economy-potential-of-eu-product-policy/
Circular Economy Club (CEC)	https://www.circulareconomyclub.com
LAUNCH - 2018 CHALLENGE: CUSTOMER ENGAGEMENT AND NEW BUSINESS MODELS	http://www.launch.org/circular/customer-engagement/
RE-CET: Redesigning Electronics in a Circular Economy Transition	Not found. Email sent: https://mailchi.mp/bf8c95c3f11c/redesigning-electronics-in-a-circular-economy-transition-14199?e=[UNIQID]
The Circular Design Guide	https://www.circulardesignguide.com/

Name of the initiative	Website
Circular Computing	http://www.circularcomputing.com/about-us
Economie Circulaire	https://www.economiecirculaire.org/
ENVIE	www.envie.org
Les Ateliers du Bocage	https://ateliers-du-bocage.fr/
Conseil Européen de Remanufacture (European Remanufacturing Council)	http://www.remancouncil.eu/
European Remanufacturing Network (ERN)	http://www.remanufacturing.eu/
EPRA - Electronic Products Recycling Association	https://epra.ca
The Voluntary Agreement on WEEE - Report on Circular business models for WEEE	http://di.dk/SiteCollectionDocuments/Milj%C3%B8/Nyheder/Sarahs%20mappe%20-%20nyheder/WEEE/Circular%20business%20models%20for%20WEEE%20final%20final.pdf
The E-waste academy	http://ewasteacademy.org/
Circular Economy Industry platform	http://www.circulary.eu/
WRAP - Waste and Resources Action Programme	http://www.wrap.org.uk/
L'Institut National de l'Économie Circulaire	https://institut-economie-circulaire.fr/
Platform for Accelerating the Circular Economy, PACE	https://www.acceleratecircularеconomy.org/
European Recycling Industries' Confederation - EuRIC	https://www.euric-aisbl.eu/
Home Appliance Europe (APPLiA)	https://www.applia-europe.eu
International Society for the Circular Economy	https://www.is4ce.org/en/society-for-the-circular-economy
Sustainable Electronics Recycling International	https://sustainableelectronics.org/
Green Electronics Council	https://greenelectronicscouncil.org/
Holland Circular Hotspot	https://hollandcircularhotspot.nl/
Dutch Circular Economy Week	https://deweekvandecirculaireeconomie.nl/
Circular Business and Engineering Systems (CirBES)	http://www.cirbes.se/projects/
International E-Waste Day (IEWD)	https://weee-forum.org/iewd-about/
TCO certified	https://tcocertified.com/tco-certified/
Reuse electronics ensuring final recycling	https://www.ereuse.org/

Name of the initiative	Website
Material Focus	https://www.recycleyourelectricals.org.uk/about-us/
PREVENT Waste Alliance	https://prevent-waste.net/en/about-us/

This list will be regularly reviewed throughout the project.

11. Communication rules for Consortium partners

All Consortium partners are to:

- Provide input to the newsletter whenever required;
- Follow the approval rules for communication and dissemination activities;
- Fill out the dissemination template (log) with information on the communication activities performed;
- Use the communication materials and templates specifically designed when communicating about C-SERVEES;
- Follow the rules for the handling of personal data.

12. Confidentiality and control of information released

Given the confidential nature of part of the information, intelligence and data that will be collected and generated during the project, the requirements of Directive 95/46/EC and Regulation 2016/679 on General Data Protection[1], and national laws regarding the handling of confidential data will be adhered to at all times. Many of the project participants are already experienced in handling personal data and confidential material.

Everything the Consortium releases to the media must be subject to approval by the IPR, Dissemination and Exploitation Board (IPREB).

13. Reporting and monitoring

WP8 partners will keep track of the different press releases and communication and dissemination activities performed during the project in order to monitor the communication and dissemination performance of the project. A template for dissemination activities has been created to formalize the compilation of information

from the consortium members. It is expected that partners participating in dissemination activities will periodically provide these details on the activity performed to the WEEE Forum.

The WEEE Forum will compile the information and SAT will monitor the execution of the activities stated in this deliverable.

14. Communication and Dissemination Progress

The Table below summarizes the progress on the Communication activities considering the defined KPIs

Table 14.a. Progress on Communication activities

Type of communication	Estimated amount	Already achieved
Leaflets	2	2
e-newsletter	5	3
Other promotional material (C-SERVEES introduction slide set, posters, logo, etc.)	3–6	1 slide set 1 logo 1 poster
Press releases	32	0
Public website	1	1
Internal communication platform (using website intranet and other applications; e.g., SharePoint)	1	1
News via social media (LinkedIn, Facebook, Twitter, YouTube, SlideShare) and press releases	64	92
Project demonstration videos	1 per demo, 4 in total	0
Papers in technical journals	3-6	0
Articles at market oriented and economic journals	3-6	0
Peer reviewed scientific papers	2-4	0
Presentations at conferences and exhibitions	12-20	17
Webinars	2	0
Informative (initial and mid-term) workshops and final conference	3	1

In addition, the first C-SERVEES session took place at CARE INNOVATION 2018 (hosted by SAT). The Going Green - CARE INNOVATION 2018 conference took place from November 26-29, 2018 in the historic Schoenbrunn Palace Conference Center in Vienna, Austria. With a wide range of experts from industry (again more than 70%), academia, NGOs and policy the Going Green – CARE INNOVATION 2018 conference gave valuable insights how the electronics industry, science and policy approach the global challenges of circular economy, sustainability and climate change. Legislative actions, higher efficiency, less

resource consumption, new approaches towards sustainable development and reuse were other key topics.

The C-SERVEES project organised a successful workshop at this event. The workshop, which attracted more than 50 key stakeholders in the EEE sector, posed the question: **"Is circularity possible in the EEE sector?"**. Following project partners presentations (WEEE Forum, ADVA Optical, Loughborough University) attendees debated this question covering the areas of price, consumers, design, product lifespan and policy. There were interesting views expressed, some claiming that a tax on raw materials is absolutely key to driving circularity, others that the low cost of consumer EEE is a barrier to developing circular leasing models and a further view that it is too easy to blame consumer habits for the lack of circularity and it is up to manufacturers to develop and market attractive circular products. The consensus at the end of the discussion was that it is possible but it will require a lot of hard work and innovation at all points in the value chain. It was an excellent couple of hours of discussion and the C-SERVEES project got some useful viewpoints.

The first of a series of **at least 3 dedicated dissemination events** during the project implementation was successful. SAT has submitted a proposal for a workshop (similar to those at CARE INNOVATION 2018) to the organisers of the "**Sardinia 2019 - 17th International Waste Management and Landfill Symposium**", (30.09.-04.10.2019, Sardinia, Italy) Symposium. As the organisers accepted the proposal, SAT developed the agenda of the workshop, wrote the conference paper with inputs from WEEE Forum and compiled the CVs of all speakers. SAT actively promoted the workshop to its clients by 2 newsletters, several social media posts and also at the conference distributing workshop flyers (designed by WEEE Forum), posting articles and invitations in the conference app and actively speaking to attendees on site inviting them to attend the workshop. Finally, the workshop took place in the framework of this conference on October 3, 2019 with participants mainly from academia and the waste management sector. After short introductory presentations from AIMPLAS, WEEE Forum, SAT and Lexmark, WEEE Forum led a very fruitful discussion with the audience on potential opportunities and barriers of circular economy in the electronics industry.

Agenda:

Introduction -The landscape and opportunities for developing the circular economy in the EEE sector

A new Circular Economy Business Model, created within the C-SERVEES project

Workshop: – debating the issues:

Some issues identified so far

- Conflict between sales and the circular economy
- Consumers do not know what the circular economy is
- Circular economy is more than increasing reuse and improving recycling

Questions to be addressed:

- Can the e-sector adapt to circular economy thinking?
- Why don't we see more examples of circular economy thinking in the e-sector?
- Does circular economy work for all product categories in the e-sector?
- Does our Circular Economy Business Model match the needs of consumers and industry?

Summary, next steps and how to participate further in our work

Timeline:

30 min Introductory speeches
60 min Discussion (moderated by P. Leroy, WEEE Forum, BE)
10 min Wrap-up

Speakers:

B. Kopacek, SAT, AT
P. Leroy, WEEE Forum, BE
P. Carminati, LEXMARK, CH *to be confirmed*
E. Moliner, AIMPLAS, ES *to be confirmed*

The following social media appearances have been already created and the following results achieved until now:

https://www.linkedin.com/groups/12132383

- 194 members
- 140 posts

https://twitter.com/CServees

- 207 tweets
- 140 follower
- 568 likes

Additionally, the partners have promoted the project through their Digital Channels (both company website and social media) to engage a wider audience.

Several partners have undertaken some dissemination activities, in addition to those explained before, which are summarised in the next table:

Partner	Title	Description	Start date (dd/mm/aaaa)	End date (dd/mm/aaaa)	Location, Country
PARTICULA	Horizon 2020 - C-Servees Project	Website	05.01.2018	05.01.2018	Croatia
SAT	4th Symposium on Urban Mining and Circular Economy	Participation to a conference	21.05.2018	23.05.2018	Bergamo, Italy
GREEN	Smart Alliance Summit	Participation to a conference	11.06.2018	11.06.2018	Bucharest, Romania
GAIKER	Recycling Workshop by GAIKER	Participation to a workshop	21.06.2018	21.06.2018	Mondragon, Spain
GAIKER	The C-SERVEES Project is launched (in Spanish)	Press release	03.07.2018	03.07.2018	Zamudio, Spain
WEEE FORUM	Circular Economy Mission	Participation to a conference	03.09.2018	03.09.2018	New Delhi, India
SAT	6th International Conference on Industrial & Hazardous Waste Management	Participation to a conference	04.09.2018	07.09.2018	Chania, Greece
WEEE FORUM	WEEE Forum General Assembly	Other	21.09.2018	21.09.2018	Reykjavík, Iceland
SAT	EU Circular Business conference 2018	Participation to a conference	26.09.2018	26.09.2018	Brussels, Belgium
EMAÚS	Global Social Economy Forum	Organisation of an event (other than conference or workshop)	07.10.2018	07.10.2018	Arrasate, Spain
WEEE FORUM	WEEE Ireland	Participation to a conference	08.10.2018	08.10.2018	Dublin, Ireland
CIRCULARISE	World Resources Forum 2019	Participation to a conference	16.10.2018	26.10.2019	Tokio, Japan
AIMPLAS	IV Conference on Plastic and Circular Economy (IV Jornada Plástico y Economía Circular)	Participation to a conference	23.10.2018	23.10.2018	Madrid, Spain

Partner	Title	Description	Start date (dd/mm/aaaa)	End date (dd/mm/aaaa)	Location, Country
CIRCULARISE	EIT Raw Material Autumn School on Critical Raw Materials	Participation to a conference	24.10.2018	26.10.2019	Delft, Netherlands
WEEE FORUM	Ecomondo fair 2018	Exhibition	07.11.2018	07.11.2018	Rimini, Italy
WEEE FORUM	Raw Materials Week	Participation to a conference	12.11.2018	16.11.2018	Brussels, Belgium
RINA-C	EEE Conference	Participation to a conference	14.11.2018	15.11.2018	London (UK)
WEEE FORUM	ORAMA clustering event	Participation to a workshop	15.11.2018	15.11.2018	Brussels, Belgium
GAIKER	Meeting of the Pilot Group "Ecosystems" of the Basque Science Technology and Innovation Framework Programme (PCTI2020)	Participation to an event (other than conference or workshop)	21.11.2018	21.11.2018	Bilbao, Spain
AIMPLAS	14th National Conference on Environment (14º Congreso Nacional de Medio Ambiente)	Participation to a conference	26.11.2018	29.11.2018	Madrid, Spain
WEEE FORUM	WEEE Forum General Assembly	Other	30.11.2018	30.11.2018	Lisbon, Portugal
CIRCULARISE	Boosting Circularity in SMEs	Participation to a conference	06.12.2018	06.12.2018	Brussels, Belgium
CIRCULARISE	Consumer Electronics Exhibition	Exhibition	07.01.2019	11.01.2019	Las Vegas, USA
ARCELIK	CES2020 (Consumer Electronics Exhibition)	Exhibition	07.01.2019	10.01.2020	Las Vegas, USA
LOU	C-SERVEES CEBM workshop	Organisation of a workshop	30.01.2019	30.01.2019	Brussels, Belgium
WEEE FORUM	Circular Economy Policy Workshop	Participation to a workshop	14.02.2019	14.02.2019	Brussels, Belgium

Partner	Title	Description	Start date (dd/mm/aaaa)	End date (dd/mm/aaaa)	Location, Country
WEEE FORUM	A Second LIFE for Critical Raw Materials	Participation to a conference	20.02.2019	20.02.2019	London, UK
WEEE FORUM	Waste Management in the Circular Economy	Participation to a conference	25.02.2019	25.02.2019	Berlin, Germany
AIMPLAS	World Resources Forum 2019	Joint activities with other H2020 projects	25.02.2019	26.02.2019	Antwerp, Belgium
WEEE FORUM - L3P	Introdurre modelli di business circolari nel settore delle AEE	Social media	27.02.2019	27.02.2019	online
WEEE FORUM - L3P	Introdurre modelli di business circolari nel settore delle AEE	Social media	27.02.2019	27.02.2019	online
WEEE FORUM - L3P	Introdurre modelli di business circolari nel settore delle AEE	Social media	27.02.2019	27.02.2019	online
GREEN	Conferinta Forumul de Mediu	Participation to a conference	28.02.2019	28.02.2019	Bucharest, Romania
WEEE FORUM	EuRIC conference	Participation to a conference	13.03.2019	13.03.2019	Brussels, Belgium
WEEE FORUM	'Making the circular economy work'	Participation to a conference	20.03.2019	21.03.2019	Rome, Italy
WEEE FORUM	The policy framework for action: what should be done to facilitate transition to a digitalized circular economy?	Participation to a conference	28.03.2019	28.03.2019	Brussels, Belgium
EMAÚS	Plan Acción Klima DSS2050	Participation to a conference	29.03.2019	29.03.2019	San Sebastian, Spain
WEEE FORUM - L3P	C-SERVEES Project Meeting 2-3 April 2019 Loughborough	Social media	03.04.2019	03.04.2019	online
WEEE FORUM - L3P	C-SERVEES Project Meeting 2-3 April 2019 Loughborough	Social media	03.04.2019	03.04.2019	online
WEEE FORUM - L3P	C-SERVEES Project Meeting 2-3 April 2019 Loughborough	Social media	03.04.2019	03.04.2019	online

Partner	Title	Description	Start date (dd/mm/aaaa)	End date (dd/mm/aaaa)	Location, Country
AIMPLAS	Plastics Recycling Show Europe 2019	Trade fair	10.04.2019	11.04.2019	Amsterdam, The Netherlands
AIMPLAS	Chemplast Expo 2019	Trade fair	07.05.2019	09.05.2019	Madrid, Spain
GREEN	PRIA Environment Conference	Participation to a conference	18.05.2019	25.05.2019	Bucharest, Romania
WEEE FORUM	ISEE	Participation to a conference	20.05.2019	22.05.2019	Jeju, Korea
PARTICULA	Key Findings From Particula Group 12 Months Research in C-Servees Project	Social media	20.05.2019	20.05.2019	Croatia
GREEN	Conference Circular 4R Economy	Participation to a conference	21.05.2019	21.05.2019	Bucharest, Romania
AIMPLAS	WCEF 2019 Side session "Scaling up innovative circular solutions for plastics"	Joint activities with other H2020 projects	03.06.2019	03.06.2019	Helsinki, Finland
AIMPLAS	Circular Economy: a new innovation opportunity for the plastic sector (Economía Circular: una nueva oportunidad de innovación para el sector del plástico)	Participation to a workshop	06.06.2019	06.06.2019	Valencia, Spain
EMAÚS	Circular Economy at University	Other	17.07.2019	17.07.2019	Vitoria, Spain
ARCELIK	IFA	Exhibition	06.09.2019	11.09.2019	Berlin, Germany
GAIKER	Circular Economy Workshop: Shaping the Europe of Tomorrow	Participation to an event (other than conference or workshop)	18.09.2019	18.09.2019	Brussels, Belgium

Partner	Title	Description	Start date (dd/mm/aaaa)	End date (dd/mm/aaaa)	Location, Country
ARCELIK	LAUNCH EVENT: REPORT OF THE HIGH-LEVEL COMMISSION ON CARBON PRICING AND COMPETITIVENESS	Participation to an event (other than conference or workshop)	21.09.2019	21.09.2019	New York, USA
WEEE FORUM	Digital Circular Economy	Organisation of a workshop	26.09.2019	26.09.2019	Brussels, Belgium
WEEE FORUM	17th International Waste Management and Landfill Symposium - SARDINIA 2019	Organisation of a workshop	30.09.2019	03.10.2019	Cagliari, Italy
LEXMARK	17th Int waste management & landfill consortium	Participation to a conference	30.09.2019	04.10.2019	Sardinia, Italy
SAT	17th International Waste Management and Landfill Symposium - SARDINIA 2019	Organisation of a workshop	30.09.2019	04.10.2019	Cagliari, Italy
AIMPLAS	ECOFIRA 2019 - International Fair on Environmental Solutions	Trade fair	01.10.2019	03.10.2019	Valencia, Spain
CIRCULARISE	Information Afternoon on Social Challenge EU projects of Dutch Stakeholders	Pitch Event	02.10.2019	02.10.2019	Hoofddorp, Netherlands
AIMPLAS	17th International Waste Management and Landfill Symposium - SARDINIA 2019	Organisation of a workshop	03.10.2019	03.10.2019	Cagliari, Italy
AIMPLAS	29th ISWA World Congress	Participation to a conference	07.10.2019	09.10.2019	Bilbao, Spain
WEEE FORUM	WEEE Ireland 'WEEE and EPR'	Participation to a conference	15.10.2019	15.10.2019	Dublin, Ireland
SAT	Made in Europe - The Future of Europe´s Mannufacturing	Participation to a workshop	15.10.2019	15.10.2019	Brussels, Belgium

Partner	Title	Description	Start date (dd/mm/aaaa)	End date (dd/mm/aaaa)	Location, Country
EMAÚS	formación profesorado ingurugela-economía circular	Organisation of a workshop	17.10.2019	17.10.2019	Eibar, Spain
WEEE FORUM	Gesellschaft für Internationale Zusammenarbeit (GIZ)	Participation to a workshop	24.10.2019	24.10.2019	Geneva, Switzerland
AIMPLAS	Circular Economy Seminar: "How to implement circular economy in companies"	Participation to a conference	29.10.2019	29.10.2019	Valencia, Spain
EMAÚS	Emaus Europe Regional Assembly workshop: How is the circular economy implemented by the Emaús Fundación Social in San Sebastian?	Organisation of a workshop	29.10.2019	29.10.2019	San Sebastian, Spain
GREEN	Annual meeting Chamber of Comerce Teleorman	Participation to an event (other than conference or workshop)	31.10.2019	31.10.2019	Alexandria, Romania
AIMPLAS	Circular Economy in Cities: URBANREC final conference	Participation to an event (other than conference or workshop)	06.11.2019	07.11.2019	Brussels, Belgium
LEXMARK	Closing the loop on the global e-waste challenge	Participation to a conference	14.11.2019	15.11.2019	Frankfurt, Germany
ARCELIK	COP25	Participation to an event (other than conference or workshop)	10.12.2019	10.12.2019	Madrid, Spain
AIMPLAS	Innovative services and products for the circular economy (H2020 projects workshop)	Participation to a workshop	11.02.2020	11.02.2020	Brussels, Belgium
ARCELIK	Sectoral Talks: Arçelik Sustainability Journey, Sustainable Business Model Strategy	Participation to an event (other than conference or workshop)	25.02.2020	25.02.2020	İstanbul, Turkey
WEEE FORUM - L3P	Circular products and services driven by industry 4.0	Website	09.03.2020	31.12.2022	online

Partner	Title	Description	Start date (dd/mm/aaaa)	End date (dd/mm/aaaa)	Location, Country
GREEN	Regional Development Agency Sud Muntenia Workshop	Participation to a workshop	02.04.2020	02.04.2020	Tragoviste, Romania
GREEN	C-SERVEES post on Linkedin	Social media	15.05.2020	30.11.2020	Bucharest, Romania
ADVA SE	Electronics Goes Green 2020+	Participation to a conference	20.08.2020	01.09.2020	Online
PARTICULA	Project presentation in Croatian chamber of commerce	Participation to an event (other than conference or workshop)	17.09.2020	17.09.2020	Croatia
EMAÚS	Presentation on WEEE & Circular Economy	Organisation of a workshop	10.11.2020	10.11.2020	San Sebastian, Spain
AIMPLAS	V jornada debate: plásticos, economía circular sostenibilidad y reciclaje.	Exhibition	12.11.2020	12.11.2020	Spain
INDUMETAL	European week for waste reduction	Participation to an event (other than conference or workshop)	21.11.2020	29.11.2020	online
ADVA SE	ITG-Fachtagung Photonische Netze 2020	Participation to a conference	24.11.2020	25.11.2020	Online

In addition, C-SERVEES partners also executed the following communication activities (articles, newsletter, publications, posters, etc.):

Partner	Title	Description	Date of publication (dd/mm/aaaa)	Location/Country	Media
WEEE FORUM	Article in WF's newsletter, Eye on WEEE	Newsletter	17.07.2018	worldwide	Eye on WEEE. Campaign monitor
WEEE FORUM	Article in WF's newsletter, Eye on WEEE	Newsletter	24.09.2018	worldwide	Eye on WEEE. Campaign monitor
GREEN	News article for Ecologic magazine	article in journal or similar	21.10.2018	Romania	Ecologic Magazine
AIMPLAS	C-SERVEES - Activating circular services in the electric and electronic sector	poster in conference/workshop or similar	23.10.2018	Madrid/Spain	IV Conference on Plastic and Circular Economy (IV Jornada Plástico y Economía Circular)
AIMPLAS	C-SERVEES - Activando los servicios circulares en el sector eléctrico-electrónico (C-SERVEES - Activating circular services in the electric and electronic sector)	poster in conference/workshop or similar	26.11.2018	Madrid/Spain	14th National Conference on Envrionment (14º Congreso Nacional de Medio Ambiente)
AIMPLAS	Claves para el éxito de los proyectos de innovación en economía circular - Documento de Trabajo del GT 17 CONAMA "Innovación en proyectos con visión de economía circular" (Keys for the success of innovation projects in circular economy - Working Document of CONAMA WG 17 "Innovation in projects with a circular economy vision"	non scientific & non peer reviewed publication	26.11.2018	Madrid/Spain	CONAMA website
AIMPLAS	Article in AIMPLAS R&D Newsletter December 2018: Innovative solutions for plastics materials	newsletter	12.12.2018	Valencia/Spain	AIMPLAS R&D Newsletter
RINA-C	Article in RINA Website	news	12.12.2018	worldwide	RINA website
RINA-C	Article in RINA Italian Website	news	12.12.2018	Italy	RINA Italian website

Partner	Title	Description	Date of publication (dd/mm/aaaa)	Location/Country	Media
CONSORTIUM	C-SERVEES Newsletter #1	Newsletter	20.12.2018	worldwide	project promotion. WEEE Forum in charge
WEEE FORUM	Article in WF's newsletter, Eye on WEEE	Newsletter	21.12.2018	worldwide	Eye on WEEE. Campaign monitor
WEEE FORUM	invitation to fill out the survey	Other	30.12.2018	worldwide	Invitation to individuals
SAT	invitation to fill out the survey	newsletter	14.01.2019	worldwide	Invitation to individuals
AIMPLAS	No a la obsolescencia programada (No to planned obsolescence)	news	17.02.2019	Valencia/Spain	LEVANTE-EMV
AIMPLAS	C-SERVEES: Activating Circular Services in the Electric and Electronic Sector	other	01.03.2019	EU	European Circular Economy Stakeholder Platform - Good Practices
WEEE FORUM	Article in WF's newsletter, Eye on WEEE	Newsletter	02.04.2019	worldwide	Eye on WEEE. Campaign monitor
CONSORTIUM	C-SERVEES Newsletter #2	Newsletter	20.06.2019	worldwide	project promotion. WEEE Forum in charge
LEXMARK	Article on the C-Servees Project in the yearly CSR Report	article in journal or similar	01.07.2019	worldwide	csr.lexmark.com
WEEE FORUM	Article in WF's newsletter, Eye on WEEE	Newsletter	05.07.2019	worldwide	Eye on WEEE. Campaign monitor
WEEE FORUM	Article in WF's newsletter, Eye on WEEE	Newsletter	17.09.2019	worldwide	Eye on WEEE. Campaign monitor
WEEE FORUM	Article in WF's newsletter, Eye on WEEE	Newsletter	17.12.2019	worldwide	Eye on WEEE. Campaign monitor
Lexmark	Article on the C-Servees Project in the yearly CSR Report		01.01.2020	worldwide	csr.lexmark.com
Lexmark	Article Press	other	01.02.2020	worldwide	Social media
ADVA SE	Non-financial Report 2019	other	16.02.2020	Global	ADVA website
CONSORTIUM	C-SERVEES Newsletter #3	Newsletter	04.03.2020	worldwide	project promotion. WEEE Forum in charge

Partner	Title	Description	Date of publication (dd/mm/aaaa)	Location/Country	Media
AIMPLAS	Proyecto C-servees para impulsar la economía circular en el sector electrico electrónico	news	01.04.2020	worldwide	SONITRÓN
WEEE FORUM	Article in WF's newsletter, Eye on WEEE	Newsletter	03.04.2020	worldwide	Eye on WEEE. Campaign monitor
ARCELIK	Sustainability newsletter	newsletter	01.05.2020	worldwide	Arçelik Global website
ARCELIK	E-Waste Day post	other		worldwide	Linkedin and Twitter
ARCELIK	C-SERVEES Project information post	other		worldwide	Linkedin and Twitter
ARCELIK	Our collaboration with Circularise in CES 2020 post	other		worldwide	Linkedin and Twitter
AIMPLAS	Proyecto C-servees para impulsar la economía circular en el sector electrico electrónico	news	28.05.2020	worldwide	Revista Plàstic Magazine
AIMPLAS	La Economía Circular llega al sector eléctricoelectrónico	news	10.06.2020	worldwide	Magazine recycling
ARCELIK	Sustainability report 2019	other	June 2020	worldwide	Arçelik Global website
AIMPLAS	Economía circular en el sector eléctrico electrónico	news	06.07.2020	worldwide	www.ambienteplástico.com
AIMPLAS	AIMPLAS uses new project to bring new circular economy business models to electrical and electronic sector	news	07.07.2020	worldwide	Europe Plastic Product Manufacturer
INDUMETAL	FCC, olipe e indumetal participan en proyectos europeos de economía circular	news	15.07.2020	worldwide	Empresa XXI
EMAÚS	The washing machines that clean greener	press release	12.08.2020	Spain	Diario Vasco

Partner	Title	Description	Date of publication (dd/mm/aaaa)	Location/Country	Media
EMAÚS	The washing machines that clean greener	other	13.08.2020	Spain	Linkedin
ADVA SE	Challenges of ICT Equipment regarding Circular Economy	other	01.09.2020	Global	EGG2020+
INDUMETAL	C-Servees Project post: Proposal for the transition of printers and ink cartridges to a circular economy model (in Spanish)	non scientific & non peer reviewed publication	29.09.2020	worldwide	Indumetal Blog, Linkedin and Twitter
INDUMETAL	C-Servees Project post: Indumetal and Lexmark collaborate on a project to facilitate the recycling and reuse of printers (in Spanish)	non scientific & non peer reviewed publication	01.10.2020	worldwide	Indumetal Blog, Linkedin and Twitter
INDUMETAL	C-Servees Project post: Indumetal and Lexmark collaborate on a project to facilitate the recycling and reuse of printers (in Spanish)	other	01.10.2020	worldwide	Residuos profesionales - Digital magazine on professional waste
INDUMETAL	C-Servees Project post: Indumetal and Lexmark collaborate on a project to facilitate the recycling and reuse of printers (in Spanish)	newsletter	02.10.2020	worldwide	ACLIMA - Basque Environment Cluster
INDUMETAL	C-Servees Project post: Did you know everything that is inside your printer? (in Spanish)	non scientific & non peer reviewed publication	21.10.2020	worldwide	Indumetal Blog, Linkedin and Twitter
INDUMETAL	C-Servees Project post: Indumetal and Lexmark collaborate on a project to facilitate the recycling and reuse of printers (in Spanish)	other	22.10.2020	worldwide	FVEM - Biscayan Federation of Metal Companies

Partner	Title	Description	Date of publication (dd/mm/aaaa)	Location/Country	Media
INDUMETAL	C-Servees Project post: The wide variety of microwaves on the market implies a great knowledge of the operator to carry out an efficient disassembly operation at the end of their useful life. (in Spanish)	non scientific & non peer reviewed publication	02.11.2020	worldwide	Indumetal Blog, Linkedin and Twitter
INDUMETAL	C-Servees Project post: Treatment of printer cartridges and toners (in Spanish)	non scientific & non peer reviewed publication	12.11.2020	worldwide	Indumetal Blog, Linkedin and Twitter
INDUMETAL	C-Servees lace in the European Week for Waste Reduction	other	24.11.2020	worldwide	Twitter and LinkedIn
Lexmark	Article Press	other	01.12.2020	worldwide	Social media
ADVA SE	Requirements of Circular Economy on Photonic Products	other		Germany	ITG-Fachtagung Photonische Netze
LOU	A Reference Circular Economy Business Model for Electrical and Electronic Equipment (REF-CIRCMODE)	article in journal or similar	To be confirmed	worldwide	Journal of Cleaner Production
LOU	Circular economy business model opportunities, challenges and enablers: Electrical and Electronic Equipment stakeholders' perspectives	article in journal or similar	To be confirmed	worldwide	Resources, Conservation and Recycling

15. Exploitation plan goal

The C-SERVEES Exploitation aims to cover the most important topics concerning the identification of the project results as well as the methods of exploitations (including all relevant information).

16. Innovation Objectives of C-SERVEES Project and Their Management

16.1 Innovation Objectives

The main objective of the C-SERVEES project is to boost a resource efficient circular economy model in the electrical and electronic (E&E) sector through the development, testing, validating and transfer of new circular economic business models (CEBMs) based on systemic eco-innovative services, which may include: 1) eco-leasing of EEE; 2) product customization; 3) improved WEEE management and 4) ICT services to support the other eco-services.

To achieve the goals of the project, as stated in the GA, the following key exploitable results (KERs) have been identified (see Table 16.1.a.).

Table 16.1.a. List of C-SERVEES Key Exploitable Results

No.	KER Name	Lead partner	Participants
1	Knowledge on WEEE plastic recycling and secondary raw materials application in the EEE and other sectors	AIMPLAS	GAIKER CIRCULARISE ADVA LEXMARK ARCELIK GREENTONICS INDUMETAL
2	Knowledge on the management of WEEE and other EoL complex products and separation and recycling of WEEE plastics and other critical materials	GAIKER	n/a
3	Extent the knowledge from the development of C-SERVEES circular economy models to value chains in other sectors (e.g., building & construction) and generate corresponding circularity consultancy and training methods, procedures and programmes for relevant stakeholders and end users	LOU	n/a
4	Extend the knowledge of 'pay-per-use' models. Improvement of researchers´ knowledge and skills to offer support and consultancy to their customers, and development of new possible	SAT	n/a

No.	KER Name	Lead partner	Participants
	educational and training courses in the project topics		
5	New CEBMs for IT equipment: how to implement these most efficiently, necessary partners (e.g., recyclers), optimization of (reverse) logistics, supporting ICT tools/services	LEXMARK	CIRCULARISE WEEE Forum + Other
6	New circular business models for telecom equipment: how to implement these most efficiently, necessary partners, optimization of (reverse) logistics, supporting ICT tools/services. Knowledge transfer to other business areas or parts of the portfolio (potentially leaving the 2-3% "niche" area of the demo to cover a larger fraction of our revenue)	ADVA	LOU VERTECH
7	New CEBMs for large household appliances and consumer equipment: how to implement these most efficiently, necessary partners (e.g., recyclers), optimization of (reverse)logistics, supporting ICT tools/services	ARCELIK	n/a
8	ICT tools for logistic services in WEEE collection & transfer. The exploitation of these tools in other sectors (e.g. transport of goods or other types of waste)	RINA	n/a
9	Optimized methods for WEEE repair and preparation for reuse, based on QR codes	EMAUS	n/a
10	Optimized methods for automatic sorting of WEEE, based on QR codes. Recycled materials for EEE and other applications	INDUMETAL	n/a
11	Optimized methods for automatic sorting of WEEE, based on QR codes. Recycled materials for EEE and other applications	GREEN	n/a
12	Technological transference of C-SERVEES solutions to compliance schemes across Europe	WEEE FORUM	n/a
13	ICT core platform for secure information exchange in EEE sector and other sectors (e.g. furniture, urban equipment)	CIRCULARISE	n/a
14	ICT modules for secure information exchange in EEE sector and other sectors (e.g. furniture, urban equipment, etc.)	SOLTEL	n/a
15	Customized parts and out-of-spare parts in EEE sector through 3D printing services	PARTICULA	GAIKER LEXMARK ARCELIK
16	Knowledge generated in the project related to CEBMs in E&E sector and its transference to other sectors	VERTECH	n/a

16.2 Exploitation Management

The management of the exploitation and the detailed elaboration of the exploitation strategy will be handled by the IPR, Dissemination & Exploitation Board (IPREB) chaired

by VERTECH. The IPREB will be responsible for preparing, monitoring and updating the project's key exploitable results (KERs); as well increasing the awareness regarding IP protection and ownership rights/implementation during the course of the project. A list of current IPREB members and organizations is provided below (see Table 16.2.a):

Table 16.2.a. IPREB Members

Partner	Representative(s)
AIMPLAS	Enrique Moliner Vicente Vert Itziar Carracedo
SAT	Bernd Kopacek
LEXMARK	Patrick Carminati Kris Watson
ADVA	Klaus Grobe Dovile Stanaityte
RINA-C	Mattia Comotto Carlo Strazza Giorgio Urbano Antonio Ferraro Davide Pizzo
WEEE FORUM	Pascal Leroy Lucia Herreras Maria Anta James Horne
CIRCULARISE	Brian Smits Jordi de Vos
PARTICULA	Luka Dobrović Danijela Dobrović
VERTECH (Chair)	Reza Marvasti Ana Dobois Erasmo Cadena

As of M32, three IPREB meetings/conference calls have taken place: 1st) Sept 2018; 2nd) April 2019 (as part of M12 general meeting) and 3rd) October 2019 (as part of M18 general meeting). The results of the IPREB meetings have been shared with the entire consortium.

In order to gain better knowledge regarding each KER, an Exploitation Plan Questionnaire was sent to all partners prior to M12 meeting. The questionnaire included questions regarding the current state of the art, competitors, foreseen methods of exploitations, information regarding foreground and background IP protection, as well as the advantages/disadvantages of each KER.

A brief explanation of the structure of the exploitation plan is provided in the next section.

17. Exploitation Plan Structure

This section sets out the general structure of the C-SERVEES Exploitation Plan. The segments listed below will be elaborated and discussed in detail during the course of the project. The information required for the completion of the Exploitation Plan has been collected via questionnaires, workshops or conference call(s) (with individual partners or during IPREB meetings).

This document describes the initial Exploitation Plan customized for the C-SERVEES project, funded by the European Union's (EU) Horizon 2020 programme under the Grant Agreement (GA) No. 776714.

This is only a draft version of the Exploitation Plan. This document will be updated periodically throughout the course of the project. The Final -Official- version of this document will be available to the consortium by M54.

According to the article 28.1 of the Grant Agreement, all involved partners are obligated to take necessary measures to ensure proper exploitation of the projects' results for up four years after the end of the project (M54).

C-SERVEES Exploitation Plan aims to cover the most important topics concerning the identification of the project results as well as the methods of exploitations (including all relevant information)

The current -draft- version of the Exploitation Plan includes a list of the exploitable results that have been identified in the GA, with relevant updates and revisions.

17.1 Exploitable innovations and ambitions

The main objective of the C-SERVEES project is to boost a resource efficient circular economy model in the electrical and electronic (E&E) sector through the development, testing, validating and transfer of new circular economic business models (CEBMs) based on systemic eco-innovative services, which may include: 1) eco-leasing of EEE; 2) product customization; 3) improved WEEE management and 4) ICT services to support the other eco-services.

To achieve the goals of the project, as stated in the GA, 12 key exploitable results (KERs) have been identified (see ¡Error! No se encuentra el origen de la referencia.6.1.a). The current status of exploitation and IP strategy development for each KER are presented in the following sections.

17.1.1 Technical description

This section will include the technical description of the innovation or services.

17.1.2 Innovation properties and benefits

This section will include a brief description of the value proposition (including added-value).

17.1.3 Limitation

The potential limitation of the innovation (if any) will be discussed in this section.

17.2 Exploitation strategy

An exploitation strategy shall shed light on the paths how the innovations of C-SERVEES project can be exploited and delivered to the market. This includes the necessary steps during the lifetime of the project, as well as the four years after the end of the project.

17.2.1 Exploitation routes and timeline

The exploitation routes and the timeline of the execution during the course of the project

17.3 IPR management

Issues related to the protection of intellectual property (before, during and after the project), will be discussed in this section.

17.3.1 Background IP access and ownership

Description of the background IP, developed by partners prior to the start of the C-SERVEES project, will be provided in this section. This section will also include an overview of limitation and conditions of utilizing the background UP for future exploitation.

17.3.2 Foreground IP

A description of the foreground IP and the method of protection will be provided in this section.

17.3.2.1 IP Strategy

A detailed IP strategy will be developed for each KER for the final version of the Deliverable (M48)

17.3.2.2 Analysis of filed patents

A description and a brief analysis of the filed patents will be provided in this section. It is important to note that currently there are no foreseen issues with patents or patent applications for the C-SERVEES project.

17.4 Exploitation risk management

This section will provide a description of the exploitation risks, as it might impact the successful exploitation of the project results. The risks will be identified based on internal and external sources (via Risk Matrix) and will be monitored and updated during the course of the project (see Figure 17.4.a.).

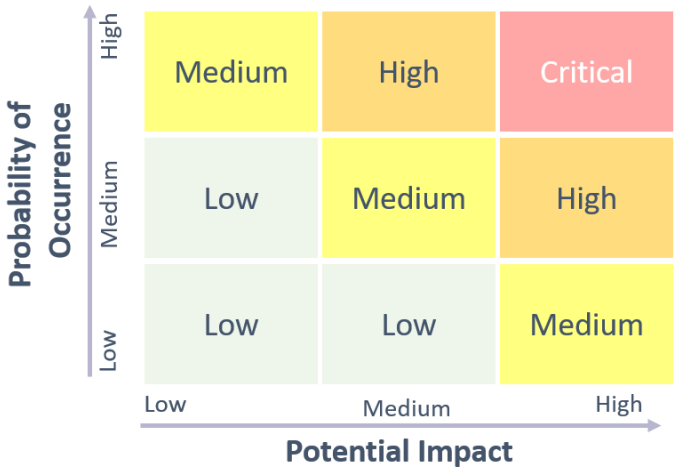

Figure 17.4.a. Risk Matrix

18. Individual Exploitation Plans

18.1 Exploitation Plan: KER #1

No.	KER Name	Lead partner	Participants
1	Knowledge on WEEE plastic recycling and secondary raw materials application in the EEE and other sectors	AIMPLAS	GAIKER CIRCULARISE ADVA LEXMARK ARCELIK GREENTONICS INDUMETAL

18.1.1 Exploitable innovations and ambitions

18.1.1.1 Technical description

This KER is currently at TRL 5 and is expected to reach TRL 7 by the end of the project.

18.1.1.2 Innovation properties and benefits

Optimization of plastic recycling process, leading to new forms of recycled plastics, with better properties (for EEE and other sectors). This innovation could be used in the following forms: Software, process, product, service and policy recommendations.

18.1.1.3 Limitation

18.1.2 Exploitation strategy

18.1.2.1 Exploitation routes and timeline

The full exploitation strategy is yet to be fully defined; however, it may include use for further research, transfer of IP ownership as well as use future use for standardisation activities.

18.1.3 IPR management

18.1.3.1 Background IP access and ownership

Currently, no issues related to background IP and ownership is foreseen.

18.1.3.2 Foreground IP

At the moment, no forms of protection is foreseen. This may evolve/change during the course of the project.

18.1.3.2.1 IP Strategy

18.1.3.2.2 Analysis of filed patents

18.1.4 Exploitation risk management

Currently no exploitation risk is foreseen.

18.2 Exploitation Plan for KER #2

No.	KER Name	Lead partner	Participants
2	Knowledge on management of WEEE and other EoL complex products and separation and recycling of WEEE plastics and other critical materials	GAIKER	n/a

18.2.1 Exploitable innovations and ambitions

18.2.1.1 Technical description

This KER is currently at TRL 5 and is expected to reach TRL 7 by the end of the project.

18.2.1.2 Innovation properties and benefits

This KER includes a more sustainable product re-design (including recycling technologies) via applied LCA methodology. This innovation could be used in the forms of processes, services as well as further development of skills and knowledge. The main foreseen benefit of the this innovation are the cost-saving and regulation compliance.

18.2.1.3 Limitation

18.2.2 Exploitation strategy

18.2.2.1 Exploitation routes and timeline

At the moment, development of new product or services is foreseen as the main exploitation strategy.

18.2.3 IPR management

18.2.3.1 Background IP access and ownership

Currently, no issues related to background IP and ownership is foreseen.

18.2.3.2 Foreground IP

The level of protection foreseen for this KER is Trade Secret.

18.2.3.2.1 IP Strategy

18.2.3.2.3 Analysis of filed patents

18.2.4 Exploitation risk management

Currently no exploitation risk is foreseen.

18.3 Exploitation Plan for KER#3

No.	KER Name	Lead partner	Participants
3	Extend the knowledge from the development of C-SERVEES circular economy models to value chains in other sectors (e.g., building & construction) and generate corresponding circularity consultancy and training methods, procedures and programmes for relevant stakeholders and end users	LOU	n/a

18.3.1 Exploitable innovations and ambitions

18.3.1.1 Technical description

The project will give rise to new concepts related to the Circular Economy, in particular to new business models. This will be initially carried out on an E&E sector-wide basis, followed by four product-specific circular economy business models.

18.3.1.2 Innovation properties and benefits

It is intended for these new business models developed during the course of the project to be transferable to other products in the E&E sector.

18.3.1.3 Limitation

18.3.2 Exploitation strategy

18.3.2.1 Exploitation routes and timeline

The information and tools developed during the course of the project could be used for development of new standards and/or policy recommendation(s).

18.3.3 IPR management

18.3.3.1 Background IP access and ownership

At the moment, no forms of protection is foreseen.

18.3.3.2 Foreground IP

At the moment, no forms of protection is foreseen.

18.3.3.2.1 IP Strategy

18.3.3.2.2 Analysis of filed patents

18.3.4 Exploitation risk management

Currently, no exploitation risk is foreseen.

18.4 Exploitation Plan for KER#4

No.	KER Name	Lead partner	Participants
4	Extend the knowledge of 'pay-per-use' models. Improvement of researchers´ knowledge and skills to offer support and consultancy to their customers, and development of new possible educational and training courses in the project topics	SAT	n/a

18.4.1 Exploitable innovations and ambitions

18.4.1.1 Technical description

18.4.1.2 Innovation properties and benefits

18.4.1.3 Limitation

Currently, no limitation is foreseen.

18.4.2 Exploitation strategy

18.4.2.1 Exploitation routes and timeline

The knowledge generated during the project will be used for further research.

18.4.3 IPR management

18.4.3.1 Background IP access and ownership

At the moment, no form of protection is foreseen.

18.4.3.2 Foreground IP

At the moment, no form of protection is foreseen.

18.4.3.2.1 IP Strategy

At the moment, no form of protection is foreseen.

18.4.3.2.2 Analysis of filed patents

18.4.4 Exploitation risk management

Currently no exploitation risk is foreseen.

18.5 Exploitation Plan for KER#5

No.	KER Name	Lead partner	Participants
5	New CEBMs for IT equipment: how to implement these most efficiently, necessary partners (e.g., recyclers), optimization of (reverse) logistics, supporting ICT tools/services	LEXMARK	CIRCULARISE WEEE Forum + Other

18.5.1 Exploitable innovations and ambitions

18.5.1.1 Technical description

This KER is currently at TRL 0 and is expected to reach TRL 5 by the end of the project.

This KER is about utilizing blockchain and IoT technology throughout the life-cycle of printers and cartridges.

18.5.1.2 Innovation properties and benefits

Possible benefits of this innovation may include: better tracking of components, improve data quality, improvement in the tracking of raw materials and increasing the number of cartridges eligible for refurbishment.

18.5.1.3 Limitation

Currently no limitation is foreseen.

18.5.2 Exploitation strategy

18.5.2.1 Exploitation routes and timeline

Possible exploitation routes may include development of new product or services, spin-off activities, selling of IP right and licensing.

18.5.3 IPR management

18.5.3.1 Background IP access and ownership

Currently, no issues with background IP rights is foreseen.

18.5.3.2 Foreground IP

The foreground IP generate during the course of the project is expected to be protected via 'industrial design' method of protection.

18.5.3.2.1 IP Strategy

18.5.3.2.2 Analysis of filed patents

18.5.4 Exploitation risk management

Currently no exploitation risk is foreseen.

18.6 Exploitation Plan for KER#6

No.	KER Name	Lead partner	Participants
6	New circular business models for telecom equipment: how to implement these most efficiently, necessary partners, optimization of (reverse) logistics, supporting ICT tools/services. Knowledge transfer to other business areas or parts of the portfolio (potentially leaving the 2-3% "niche" area of the demo to cover a larger fraction of our revenue)	ADVA	LOU VERTECH

18.6.1 Exploitable innovations and ambitions

18.6.1.1 Technical description

This KER is currently at TRL 4, and it is expected to reach TRL 7 or 8 by the end of the project.

18.6.1.2 Innovation properties and benefits

18.6.1.3 Limitation

18.6.2 Exploitation strategy

18.6.2.2 Exploitation routes and timeline

Currently development of new product or services is the main foreseen method of exploitation.

18.6.3 IPR management

18.6.3.1 Background IP access and ownership

18.6.3.2 Foreground IP

Currently no foreground IP protection is foreseen.

18.6.3.2.1 IP Strategy

18.6.3.2.2 Ownership allocation

No issue with ownership/rights is foreseen.

18.6.3.2.3 Analysis of filed patents

18.6.4 Exploitation risk management

Currently no exploitation risk(s) is foreseen.

18.7 Exploitation Plan for KER#7

No.	KER Name	Lead partner	Participants
7	New CEBMs for large household appliances and consumer equipment: how to implement these most efficiently, necessary partners (e.g., recyclers), optimization of (reverse)logistics, supporting ICT tools/services	ARCELIK	n/a

18.7.1 Exploitable innovations and ambitions

18.7.1.1 Technical description

This KER is currently at TRL 6 and is expected to reach TRL 9 by the end of the project.

18.7.1.2 Innovation properties and benefits

The main benefit of this KER is eco-design and eco-leasing of electronic equipment (mainly washing machines and TVs).

18.7.1.3 Limitation

Based on the information provided, current low level of TRL as well as the consumer preference for new product are seen as the main limitation factors.

18.7.2 Exploitation strategy

18.7.2.2 Exploitation routes and timeline

Development of new product and services, as well as the new partnership agreements are expected as the main methods of exploitation for this KER.

18.7.3. IPR management

18.7.3.1 Background IP access and ownership

18.7.3.2 Foreground IP

The current foreground IP protection methods are: Trade secret, patent, utility model and industrial design.

18.7.3.2.1 IP Strategy

Arcelik is expected to be the sole owner of the technology.

18.7.3.2.2 Analysis of filed patents

18.7.4 Exploitation risk management

Currently no exploitation risk(s) is foreseen.

18.8 Exploitation Plan for KER#8

No.	KER Name	Lead partner	Participants
8	ICT tools for logistic services in WEEE collection & transfer. Exploitation of these tools in other sectors (e.g. transport of goods or other types of waste)	RINA	n/a

18.8.1 Exploitable innovations and ambitions

18.8.1.1 Technical description

This KER is currently at TRL 4 and it is expected to reach TRL 7, by the end of the project.

THE LOGISTIC PLATFORM is a software module that will be integrated in the overall ICT platform to ensure a sustainable transportation of the electric/electronic waste from the collection points to the treatment/recycling sites and then from there to the manufacturers in order to enable the re-use of the recovered materials.

18.8.1.2 Innovation properties and benefits

The platform will use a Database including information related to: 1) collection points; 2) recycling sites; 3) manufacturers for each one of the 4 project case studies

The platform will perform modelling of routes/paths by including the assessment of the environmental impacts. There will be the development of the algorithm for the optimization of the paths. The constraints used for the optimization of the algorithms will be the minimization of the route, low environmental impact and the reduction of the travel time.

18.8.1.3 Limitation

No limitation is currently foreseen.

18.8.2 Exploitation strategy

18.8.2.1 Exploitation routes and timeline

The current exploitation strategy includes development of new product and services.

18.8.3. IPR management

18.8.3.1 Background IP access and ownership

No issues with background IP and ownership rights is expected.

18.8.3.2 Foreground IP

Copyright is the preferred method of protection for the foreground IP.

18.8.3.2.1 IP Strategy

18.8.3.2.2 Analysis of filed patents

18.8.4 Exploitation risk management

Currently no exploitation risks are foreseen.

18.9 Exploitation Plan for KER#9

--This section will be completed for the next version of the deliverable –

No.	KER Name	Lead partner	Participants
9	Optimized methods for WEEE repair and preparation for reuse, based on QR codes	EMAUS	n/a

18.10 Exploitation Plan for KER#10

--This section will be completed for the next version of the deliverable –

No.	KER Name	Lead partner	Participants
10	Optimized methods for automatic sorting of WEEE, based on QR codes. Recycled materials for EEE and other applications	INDUMETAL	n/a

18.11 Exploitation Plan for KER#11

No.	KER Name	Lead partner	Participants
11	Optimized methods for automatic sorting of WEEE, based on QR codes. Recycled materials for EEE and other applications	GREEN	n/a

18.11.1.1 Technical description

18.1.2 Innovation properties and benefits

This KER includes a development of new method for collection for the purpose of reuse or recycling.

18.11.1.3 Limitation

18.11.2 Exploitation strategy

18.11.2.2 Exploitation routes and timeline

Currently the following have been determined as the preferred methods of exploitation: Development of new product or service, development of joint venture as well as the generation of new standards and policies.

18.11.3. IPR management

18.11.3.1 Background IP access and ownership

No issues with background IP or ownership is foreseen.

18.11.3.2 Foreground IP

Current -expected- methods of protection are the utility model and the industrial design.

18.11.3.2.1 IP Strategy

18.11.3.2.2 Analysis of filed patents

18.11.4 Exploitation risk management

Currently no exploitation risks are foreseen.

18.12 Exploitation Plan for KER#12

No.	KER Name	Lead partner	Participants
12	Technological transference of C-SERVEES solutions to compliance schemes across Europe	WEEE FORUM	n/a

18.12.1 Exploitable innovations and ambitions

18.12.1.1 Innovation properties and benefits

The producer responsibility organisations in the WEEE Forum collect e-waste from households and businesses, and seek to contribute to the new thinking around leasing, re-use, repair and remanufacturing.

18.12.1.3 Limitation

Currently, no limitations are foreseen.

18.12.2 Exploitation strategy

18.12.2.1 Exploitation routes and timeline

According to the information provided by the partner, the current preferred methods of exploitation is the future use for information for standardization and research.

18.12.3. IPR management

18.12.3.1 Background IP access and ownership

Currently no issues with foreground IP and ownership is foreseen.

18.12.3.2 Foreground IP

Currently no methods of protection are expected for the foreground IP.

18.12.3.2.1 IP Strategy

18.12.3.2.2 Analysis of filed patents

18.12.4 Exploitation risk management

No exploitation risk is foreseen.

18.13 Exploitation Plan for KER#13

No.	KER Name	Lead partner	Participants
13	ICT core platform for secure information exchange in EEE sector and other sectors (e.g. furniture, urban equipment)	CIRCULARISE	n/a

18.13.1 Exploitable innovations and ambitions

18.13.1.1 Technical description

This technology is currently at TRL 4 and it is expected to reach TRL 9, by the end of the project.

This KER consist of an implementation on the Devvio platform.

18.13.1.2 Innovation properties and benefits

The KER will provide the following functionalities: 1) Identification: a system to associate unique identifiers and products (QR labelling) and store these identities; 2) Tracking: a system to keep track of the history of one or more identifiers; 3) Interaction: a set of protocols (interactive systems) that stakeholders can use to retrieve and permanently associate data to identifiers; 4) Privacy; and 5) Immutability.

18.13.1.3 Limitation

Blockchain is a new technology and will need to be modified to be used for the specific-sectors.

18.13.2 Exploitation strategy

18.13.2.1 Exploitation routes and timeline

The current preferred methods of exploitations are the following: use for further research, development of new product and services, and the use for development of new standards.

18.13.3 IPR management

18.13.3.1 Background IP access and ownership

This KER relies on the IP of the existing Circularise protocol features, which are owned by Circularise. Currently no ownership issues are foreseen.

18.13.3.2 Foreground IP

As of July 2019, a patent application for the "Distributed Databased Structures for Anonymous Information Exchange" has been filled by CIRCULARISE BV to the European Patent Office (EPO). As of writing of this report, the status of the application remains pending.

18.13.3.2.1 IP Strategy

18.13.3.2.2 Analysis of filed patents

18.13.4 Exploitation risk management

No exploitation risk is foreseen.

18.14 Exploitation Plan for KER#14

--This section will be completed for the next version of the deliverable –

No.	KER Name	Lead partner	Participants
14	ICT modules for secure information exchange in EEE sector and other sectors (e.g. furniture, urban equipment, etc.)	SOLTEL	n/a

IPR management

Relevant IP generated Will be protected via patents and licensing.

18.15 Exploitation Plan for KER#15

No.	KER Name	Lead partner	Participants
15	Customized parts and out-of-spare parts in EEE sector through 3D printing services	PARTICULA	GAIKER LEXMARK ARCELIK

18.15.1 Exploitable innovations and ambitions

18.15.1.1 Technical description

This KER is currently at TRL 4 and is expected to reach TRL 5 by the end of the project.

18.15.1.2 Innovation properties and benefits

This KER is about development of characterization and formulation of the recycled plastics via 3D printing (for washing machine and TV sets).

18.15.1.3 Limitation

18.15.1 Exploitation strategy

The expected methods of exploitation(s) are: development of new product and services, licensing, as well as the development of new standards and policy.

18.15.2.2 Exploitation routes and timeline

18.15.3. IPR management

18.15.3.1 Background IP access and ownership

No information is currently available regarding the background IP.

18.15.3.2 Foreground IP

The foreground IP Is expected to be protected via trade secret, trademark, utility model and/or industrial design.

18.15.3.2.1 IP Strategy

18.15.3.2.2 Analysis of filed patents

18.15.4 Exploitation risk management

Currently no exploitation risk(s) is foreseen.

18.16 Exploitation Plan for KER#16

No.	KER Name	Lead partner	Participants
16	Knowledge generated in the project related to CEBMs in E&E sector and its transference to other sectors	VERTECH	n/a

18.16.1 Exploitable innovations and ambitions

18.16.1.1 Technical description

18.16.1.2 Innovation properties and benefits

18.16.1.3 Limitation

No limitation(s) is currently foreseen.

18.16.2 Exploitation strategy

18.16.2.2 Exploitation routes and timeline

18.16.3 IPR management

18.16.3.1 Background IP access and ownership

Currently no issues with background IP or ownership is foreseen.

18.16.3.2 Foreground IP

No level of protection is currently required for the foreground IP.

18.16.3.2.1 IP Strategy

18.16.3.2.2 Analysis of filed patents

18.16.4 Exploitation risk management

No exploitation risk(s) is currently foreseen.