

PlastiCircle

Grant Agreement No 730292



Deliverable D9.10

Final communication report

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This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No 730292.

Factsheet

Document name: Final communication report

Responsible partner: ICLEI

Work package: WP9

Deliverable number: 9.10

Version: 1

Version date: 18.05.2021

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	PP = Restricted to other programme participants (including the EC)
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	CO = Confidential, only for members of the consortium (including the EC)

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Abstract

This document identifies and describes the communications activities undertaken by PlastiCircle, specifically in WP9, aimed at promoting the project, raising awareness on the plastics issue in Europe, informing the general public, and engaging the target audiences. This deliverable is based on the results of T9.6 and uses information provided by partners on various communication activities, as well as monitoring and tracking conducted by ICLEI EURO. In addition, it provides a retrospective look at the original communication and dissemination plan – updated during the project lifetime – to allow future projects working within the circular economy for plastics to benefit from the key lessons learnt and other insights.

Partners short names

1. ITENE: INSTITUTO TECNOLÓGICO DEL EMBALAJE, TRANSPORTE Y LOGÍSTICA
2. SINTEF: STIFTELSEN SINTEF
- 3.
4. AXION : AXION RECYCLING
5. CRF : CENTRO RICERCHE FIAT
6. UTRECHT : GEMEENTE UTRECHT
7. LAS NAVES: FUNDACION DE LA COMUNITAT VALENCIANA PARA LA PROMOCION ESTRATEGICA EL DESARROLLO Y LA INNOVACION URBANA
8. ALBA: PRIMARIA MUNICIPIULUI ALBA IULIA
9. MOV: MESTNA OBCINA VELENJE
10. SAV: SOCIEDAD ANONIMA AGRICULTORES DE LAVEGA DE VALENCIA Spain
11. POLARIS: POLARIS M HOLDING
12. INTERVAL: INDUSTRIAS TERMOPLÁSTICAS VALENCIANAS
13. ARMACELL: ARMACELL Benelux S.C.S.
14. DERBIGUM : DERBIGUM N.V.
15. PROPLAST : CONSORZIO PER LA PROMOZIONE DELLA CULTURA PLASTICA PROPLAST
16. HAHN : HAHN PLASTICS Ltd.
17. ECOEMBES : ECOEMBALAJES ESPAÑA S.A.
18. KIMbcn : FUNDACIÓ KNOWLEDGE INNOVATION MARKET BARCELONA
19. PLAST-EU: PLASTICS EUROPE
20. ICLEI: ICLEI EUROPASEKRETARIAT GMBH
21. PICVISA
- 21.1. CALAF
22. SINTEF AS

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1. Introduction

The European Union produces more than 25.8 million tonnes of plastic waste per year (50 kg per EU citizen), with only 29.7% being recycled (39.5% is incinerated, 10.19 Mt; 30.8% is landfilled, 7.95 Mt²). Besides the clear environmental impact, this signifies a gap in the plastic market loop, with losses of over €10 billion every year.

Packaging waste is the main plastic waste fraction, representing 63% of the total plastic waste generated in Europe. Being mainly a domestic residue, its quality depends on the system of segregation available and the behaviour and environmental awareness of citizens. Considering these aspects, this 20-partner consortium thought and planned the PlastiCircle project as a step towards closing this loop and raising awareness of the population.

Through a holistic process to increase packaging waste recycling rates in Europe, the PlastiCircle project allowed plastic waste to be reprocessed in the same value chain, aligning the strategy with the objectives established by the European Commission (Circular Economy Package¹³; goal to recycle 75% of packaging waste by 2030).

Aimed at reinforcing the plastic recycling value chain, the project's communication and dissemination strategy promoted an innovative and integrated approach, with both technological advancement and behavioural changes in mind. Among other objectives, the WP9 activities focused on sharing the technical findings of the project on each stage of the value chain (collection, transport, sorting and recycling); promoting the adoption of new ways to valorise plastic recycling; stimulating the demand for recycled waste plastic; contributing to a behaviour change in the treatment of domestic waste by citizens; and influencing future policies on plastic waste collection and valorisation.

The PlastiCircle communication activities focused on promoting both the project and its results targeting multiple audiences that get a benefit out of the project and its outcomes. Such audiences involved citizens participating in the pilots, NGOs and local community groups and associations, local and regional administrations, EU public authorities, European recycling and waste treatment companies, and European plastic and packaging industries.

The messages conveyed to the public included the project's goals and its expected results, factual numbers related to the plastic value chain (especially collection and recycling), as well as the environmental and economic benefits of implementing the PlastiCircle approach. Such messages were transmitted through a series of channels:

- Social Media: LinkedIn and Twitter
- Project e-mail, visual identity, leaflets, posters and banner
- Events
- Media and press releases
- Project videos

2. Communication activities

The communication plan focused on promoting both the project and its results targeting multiple audiences that get a benefit out of the project and its outcomes, such as the general public, citizens associations, community groups, and local governments. The communication strategy included visual identity, briefing pack and communication materials; campaigns on awareness-raising, waste management and recycling; workshops on case studies in the pilot cities, replicability and exploitation; virtual study visit to a pilot city; mid-term and final Conferences; media work; and videos about the project and the pilot cities.

2.1 Visual Identity, Briefing pack and Communication materials

ICLEI EURO developed a series of several visual materials to give the project a consistent, attractive and recognisable character. ICLEI worked with a design agency to produce the PlastiCircle visual identity.

At the beginning of the project, in 2017, a logo was designed to reflect the four axes of the plastic recycling value chain on which PlastiCircle would then spend the next four years working on: collection, transport, sorting and recycling. In addition, icons were developed to represent the four stages of the plastic value chain and the pilot cities.



Figure 1: PlastiCircle Logo



Figure 2: PlastiCircle icons

Templates at Microsoft Word and PowerPoint were created and distributed to partners to be used in internal meetings and events. Such documents have been updated during the project when needed.

A set of communication materials such as posters, roll-up banners, leaflet and designs for bags were created to be used in relevant events and/or distributed and sent to organisations from the European polymer industries, waste managers and public authorities.

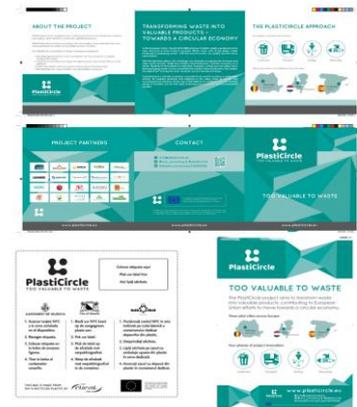


Figure 3: Communication materials

2.2 Social Media

PlastiCircle was largely promoted on social media through two specific channels: Twitter and LinkedIn. In order to increase the impact and reach out to a wider audience, both accounts were initially managed together with Circk-pack - a project from the same Horizon 2020 call which focused on improving plastic packaging recycling, in which several PlastiCircle beneficiaries were also involved. These accounts display the logos of both the projects.

2.2.1 Twitter



Figure 4: PlastiCircle Twitter account

All PlastiCircle Twitter activities were done under the account *Circular Economy for Plastics*, and the handle [@circ_economy](https://twitter.com/circ_economy). The total number of followers in the final month of the project (May 2021) was **over 2,800 followers**. The main hashtags used were #PlastiCircle and #CircularEconomy.

In sum, PlastiCircle's Twitter account has exceeded expectations on reach and engagement, and has been a great tool to promote and position the project in the plastics "market". In addition, Twitter was also the main

channel to disseminate results and events. The combination with the Circk-pack project was a helpful factor to help to reach a broader audience in the first months of the account. After Circk-pack was finished (May 2020), PlastiCircle became the sole handler of the account and kept it growing exponentially, reaching additional 1,000 followers in the period of one year.

The top tweets with the most impressions and engagements relating to the biggest events of the project. The period surrounding the EU Green Week and the PlastiCircle Mid-term Conference in May 2019 had a total number of monthly impressions reaching

near 100,000 for three months straight. The same success can be identified in the period around PlastiCircle's Final Conference, in March and April 2021, when PlastiCircle's tweets earned almost 70,000 impressions over a 61-day period, which would count for 1,100 impressions per day. The top tweet in March 2021 was the one announcing the opening of registration for the project's final event, summing 3,296 impressions, while the top tweet in April 2021 was a reminder one week before the event, summing 3,507 impressions.

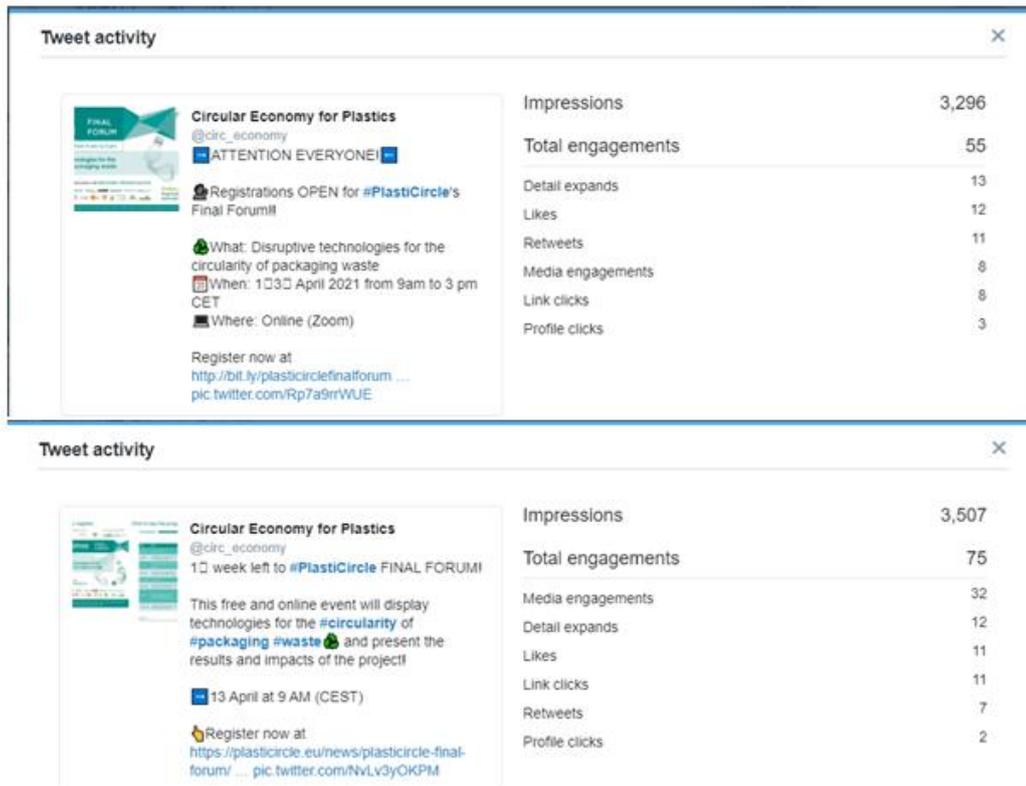


Figure 5: Twitter impressions for specific posts

Your Tweets earned **69.3K impressions** over this **61 day period**

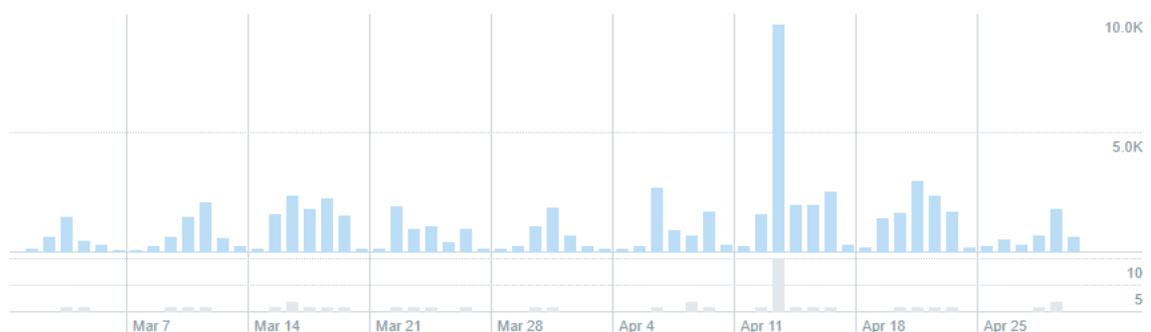


Figure 6: Twitter impressions March-April 2021

The performance of the video campaign (detailed in D9.9) on Twitter is also worth mentioning.

Video	Impressions	Media views	Engagements
Introduction	3,014	267	83
Collection & Transport	490	-	22
Sorting	3,050	296	64
Recycling	3,212	196	39
Pilot cities	1,382	133	24

Figure 7: Video campaign performance on Twitter

2.2.1 LinkedIn

A LinkedIn group was set up as a discussion forum to address a professional audience, such as waste managers and technology providers, researchers and other actors along the plastic value chain: [linkedin.com/groups/12055948](https://www.linkedin.com/groups/12055948)

Initially populated by Circ-pack and PlastiCircle partners, the group has reached 512 members by May 2021. Participants used it to share news related to circular economy and plastics, as well as events and surveys. ICLEI EURO has been responsible for managing the account.

In general, LinkedIn was not the main channel of communication but it was useful to extrapolate content and reach an audience who may not follow our Twitter account.

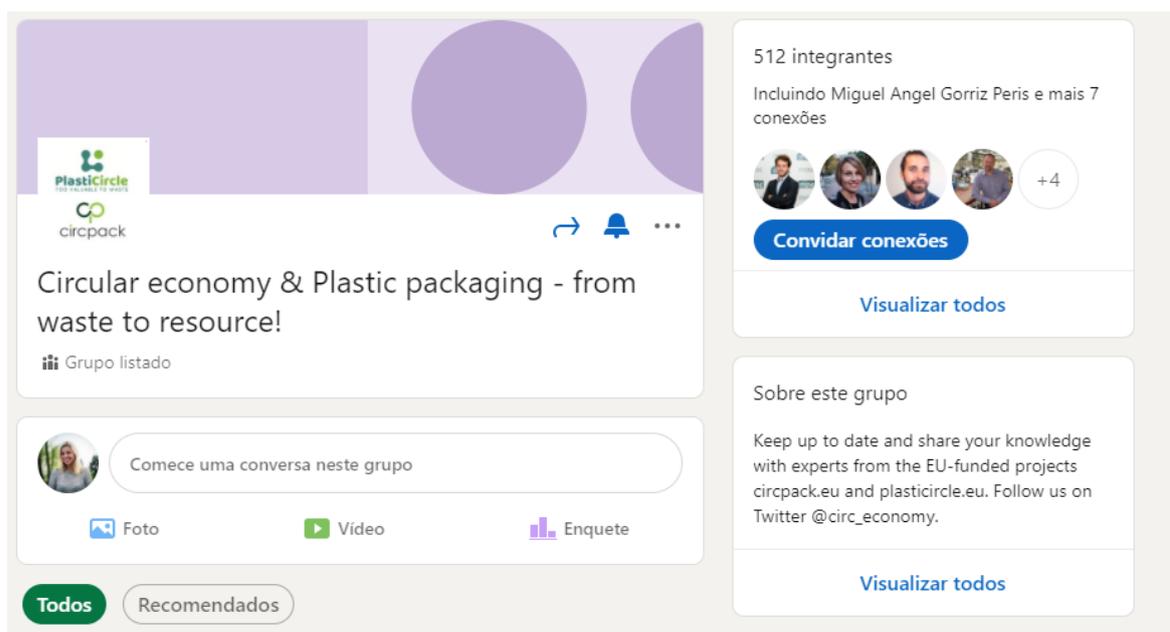


Figure 8: PlastiCircle LinkedIn group

2.3 Communications campaigns

Three types of communication campaigns were executed by several partners aimed at reaching and engaging different target audiences.

2.3.1 Raising-awareness campaigns

The three pilot cities developed a communications and engagement plan to inform citizens about the pilots, explain how to participate and reach a high number of people involved. Both in the pre-pilot and during the pilot implementation phases, the pilot teams focused on developing and implementing a campaign to strategically reach the right people.

Valencia: Aimed at reaching as many citizens as possible and increasing engagement with the pilot, Las Naves placed people on the streets to talk directly to the citizens of the pilot area and get to know the area's conditions. In addition, a social-economic report was conducted on the district to learn more about the socio-demographic characteristics of the local population (residential or commercial? age?).

Once they had this information they could tailor the communication campaign to choose the right messages, the right methodology. For example, during the research, it was found that most of the population was older so the communication changed its focus from online activities to face-to-face events, as this would fit more to that target audience. Before the pilot started, Las Naves organised workshops and information stands. The rewarding system was another important factor to increase engagement, for citizens showed interest in receiving prizes and awards for participating in the pilot.



Figure 9: Valencia communications campaign

Utrecht: Before the pilot implementation, the Municipality of Utrecht hired communications experts to prepare a strategy to communicate with the pilot area and engage citizens. The communications team initially set up a recruitment campaign, posting advertisements on social media (Facebook and Instagram), street-recruiting at a local shopping centre with flyers, and sharing the news on Newsletters. At the start of the

project, the team organised a kick-off meeting at a school in the neighbourhood and set up the distribution of goodie bags with useful information.

Alba Iulia: Due to the COVID-19 pandemic, the original communications strategy prepared for the Alba Iulia pilot went through a replanning process to accommodate the imposed lockdown and social distancing rules at the time (2020). The City had initially formed partnerships with local universities and prepared a door-to-door approach to promote the pilot, but most of the communication activities had to go online. The team put the main information on links to the pilot's dedicated website and integrated the Valencian platform into it. Printed materials (around 5,000 brochures, leaflets) explaining how to handle plastics, Facebook Ads, and an info kiosk were also put into place.

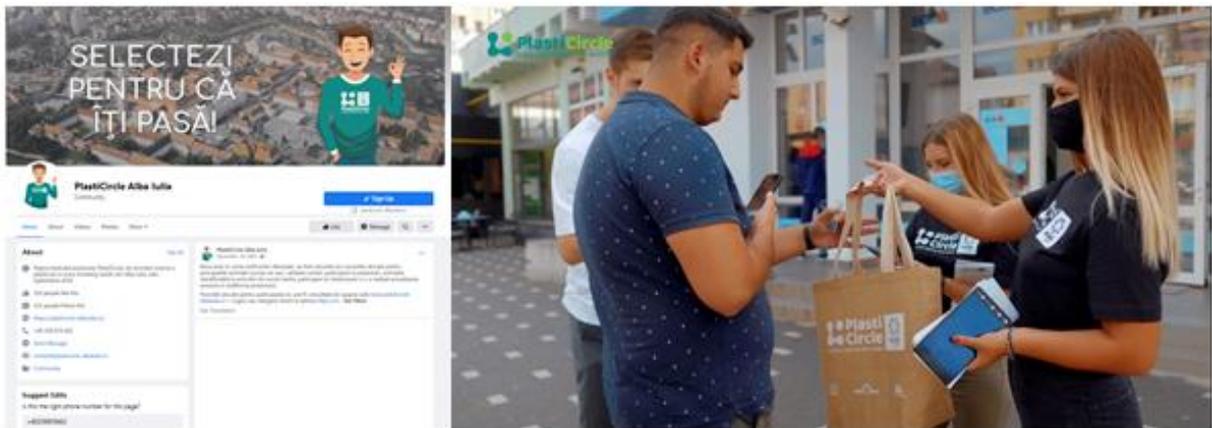


Figure 10: Alba Iulia communications campaign

2.3.2 Waste management campaign

On 30 March 2021, SAV hosted a waste management workshop targeting Spanish speaker waste managers from European countries. The goal was to inform them about the implementation and use of the solutions and technologies in each pilot demonstrator. The event had 17 attendees. ITENE started the event by introducing the project, followed by two presentations from SAV about smart container technology and the eco-driving system, concluded by PICVISA, who gave a presentation about sorting achievements.



Figure 11: Waste management workshop

2.3.3 Recycled plastic campaign

Industrial partners were responsible for organising communication campaigns addressing the importance of recycling plastics. The goal was to show the expected impact and benefits of using recycled plastic from packaging waste in the manufacture of new products. During the project lifetime, partners organised events and presented the PlastiCircle approach in third-party conferences, addressing the topic. Due to the COVID-19 pandemic, some of the campaigns took place online through social media and web posts.

- **INTERVAL**

- 18 April 2019: Design and production of the PlastiCircle bag, made 100% of recycled material

Interval made a plastic bag with a special design for the pilots of Valencia and Alba Iulia. The bag was given to the participant citizens for the manual characterization and separation of the material to be thrown in the PlastiCircle container.



Figure 13: Hygienalia+ Pulire Fair, Madrid

- 14 November 2019: Hygienalia+ Pulire Fair in Madrid, Spain

Interval was present in the last edition of Hygienalia+Pulire fair, in Madrid, Spain. The event addressed hygiene products and had over 100 exhibitors. Interval talked about the



Figure 12: PlastiCircle plastic bag

importance of using recycled material and explained what are Circular Economy and Green Tenders to an audience of 40 people, among industrial companies of the hygiene sector and company of facilities services.

- 27 July 2020 Radio Interview about the importance of recycled material and the PlastiCircle project:
https://cadenaser.com/emisora/2020/07/27/radio_valencia/1595848192_003058.html

• CRF and PROPLAST

- On 21 May 2019, Proplast and CRF organised a booth during the Conference “Research and Innovation for plastics in a circular economy – strategic research needs for the European plastics and composite industry” to present the PlastiCircle project. The event had 158 participants from many European countries (industries, RTOs and Universities), including Vincenzo Gente, from EASME, who also joined the panel discussion.
- On 22-23 October 2019, Proplast participated as a speaker in the 2nd Annual Vehicle Recycling International Conference in Berlin, Germany, and presented some results of Plasticircle project.
- On 19 November 2020, CRF has presented PlastiCircle at *PLASTIX - Polimeri sostenibili: problemi e soluzioni tecnologiche per lo stampaggio*. The event took place online and had the attendance of 100 industrial players from the plastics value chain. Speaking about strategies for the development of low environmental impact automotive materials, CRF presented PlastiCircle's main results.

• HAHN PLASTICS

In March 2021, Hahn Plastics organised an online campaign on their social media channels (LinkedIn, Twitter, Instagram, and Facebook) promoting products made 100% from recycled plastic targeting both the general public and plastic stakeholders.

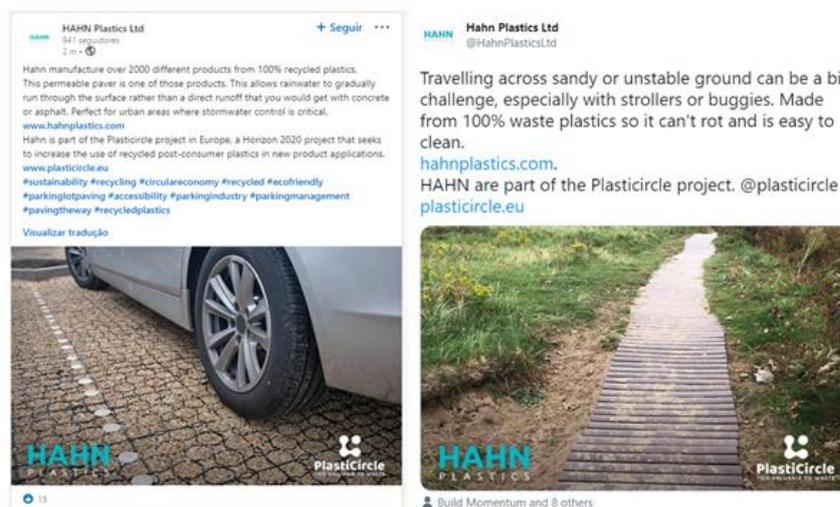


Figure 14: Hahn Plastic's social media campaign

• DERBIGUM

In April 2021, Derbigum made a post on its LinkedIn account promoting a product made from recycled plastic (https://www.linkedin.com/posts/derbigum_recycledpolymer-circulareconomy-norooftowaste-activity-6790641010948091904-OVqk/) and added a newsflash to the company's website presenting PlastiCircle and Derbigum's role in the project: <https://norooftowaste.com/en/derbigum-nt-sustainable-membrane/>



Figure 15: Derbigum LinkedIn post

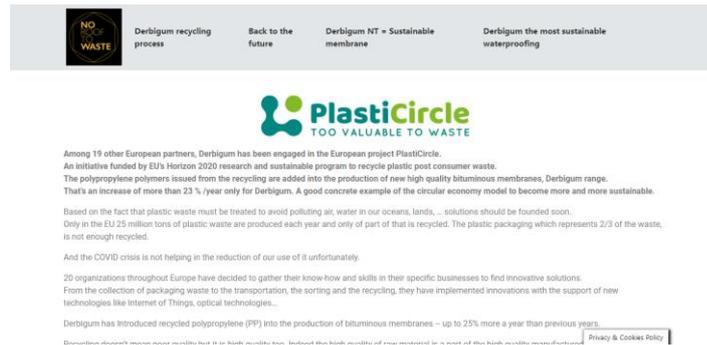


Figure 16: Derbigum newsflash

- **ARMACELL**

Armacell has published an article on their website addressing plastics recycling and the PlastiCircle approach. Postcards in French and in English were distributed to 11.736 mailboxes in an area of 3km around Thimister (Armacell) plant.



Figure 17: Posters prepared by Armacell

- **PLASTICSEUROPE**

PlasticsEurope participated in a series of events promoting the PlastiCircle project and addressing the importance of plastic recycling.

On 7-8 March 2019, PlasticsEurope participated in the *IdentiPlast 2019 - Plastics, Sustainability and Society, London, UK*. The 14th edition of IdentiPlast, Europe's leading conference focused on the recycling and recovery of used plastics, featured talks from over 50 world-leading speakers in plastics recycling and waste management and had over 340 attendees. PlasticsEurope contributed with a lecture, poster and fliers from the project.

Public: Plastic recycling Industry, policymakers.

Attendance: more than 250 attendees



Figure 18: PlasticsEurope at IdentiPlast 2019

- **ECOEMBES**

Ecoembes is continuously launching campaigns about recycled plastic from packaging waste.

Some examples below:

- Circular Economy general campaign launched in March 2021: <https://www.youtube.com/watch?v=VrWH0XG8ZPs>
- Innovation projects: example of recycled plastic film from urban packaging waste in July 2020: https://www.youtube.com/watch?v=8UJ10_PH41hM&t=15s
- Campaign on Instagram with short videos informing about the possibilities of urban plastic waste from packaging:
 - Shoes: <https://www.instagram.com/p/COugn-oqgGU/>
 - Jacket: <https://www.instagram.com/p/CLd806zDPK6/>
 - Polar fleece: <https://www.instagram.com/p/CJYUUmK0Bf/>
 - Backpack: <https://www.instagram.com/p/ClqFnlvqBB6/>

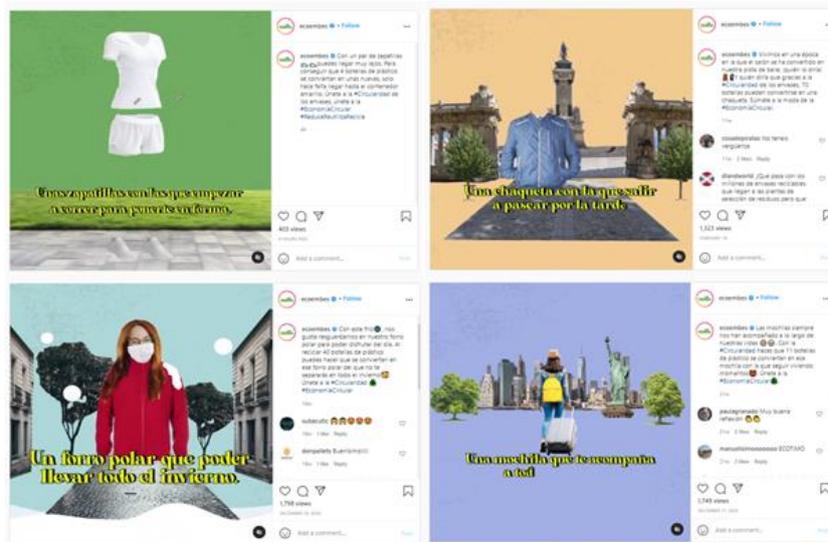


Figure 19: EcoEmbes Instagram posts

2.4 Regional workshops

A series of regional workshops were organised and hosted by partners in order to inform and engage local actors in the project.

2.4.1 Case Studies workshops

Pilot cities were responsible for organising communications activities to disseminate results from the pilots to different actors from the plastic waste circular economy.

- Valencia:** On 12 December 2019, Las Naves and EcoEmbes gathered stakeholders and citizens involved in the pilot to present results and delivery awards to the participants. Among beneficiaries of Plasticircle, citizens, local stakeholders (Cultural centre and Neighbourhood association representatives) and city council representatives, around 550 people attended the event. On the occasion, the results of the pilot and recommendations were shared with the audience. The workshop addressed the correct sorting and importance of re-use. At the occasion, awards were handed to the winning citizens, who also gave interviews.



Figure 20: Valencia's pilot final event

- Utrecht:** The Municipality of Utrecht has disseminated the results of their pilots through a special publication named "Glossy Magazine". Published in February 2020, the 13-page magazine features testimonials from the project's coordinator, Cesar Aliaga, and the City's Alderman Circular Economy, Klaas Verschuure; quotes from participants; the pilot's ambassador Madame Plastique; the plastic context in Europe; examples of products made from plastics; information about the pilot area and the participants; information about the other pilot cities; lessons learnt.

The publication is available at the project's website: [https://plasticircle.eu/fileadmin/user_upload/Other documents/GEMU PlastiCircle Magazine Engels_LR.pdf](https://plasticircle.eu/fileadmin/user_upload/Other_documents/GEMU_PlastiCircle_Magazine_Engels_LR.pdf)



Figure 21: Glossy Magazine

- Alba Iulia:** Alba Iulia Municipality participated in several third-party events disseminating the pilot's results and presenting the project to new audiences. Besides

presenting in the Virtual Study Tour organised by ICLEI on 15 October 2021, Alba Iulia Municipality shared the pilot's results at the 3rd RSG Color CIRCLE meeting in Centru Region (RO), which took place on 26 January 2021. Alba Iulia presented the PlastiCircle approach as good practices together with two other European projects (C-Voucher and Ecotic). The event brought together 31 people: representatives of local public authorities, academia, business, and representatives from regional civil society.



Figure 22: Alba Iulia participation at Color CIRCLE meeting

In addition, Alba Iulia presented PlastiCircle in two workshops from international projects:

- 4 April 2021: Project Celsius - Celsius
- 23 April 2021: Project EURE- „Effectiveness of Environmental Urban policies to improve Resources Efficiency“

2.4.2 Replicability workshops

From January to May 2021, PlastiCircle organised 6 replicability workshops around Europe focused on explaining how a city can replicate the PlastiCircle approach and its results. The first workshop was organised by the Municipality of Velenje targeting Balkan Countries, followed by SINTEF (Norway), Velenje (Municipality of Velenje), ICLEI (Brussels/Europe), Proplast (Italy), and Axion (UK).

- **21 January 2021**: The Municipality of Velenje organised a workshop targeting the Balkan countries. The event had attendees from Croatia, Serbia, Bosnia, and Montenegro.

Agenda:

13:00 – 13:05	Opening and welcome
13:05 – 13:15	Plastic waste in EU legislation (Jana Miklavčič, Ministry of the Environment and Spatial Planning)

13:15 – 1:25	Presentation of good practice in Municipality of Velenje (Alenka Centrih, PUP Saubermacher, Waste Management Company)
13:25 – 13:40	Presentation of Pilot action in Valencia (Julian Torralba, Lasnaves)
13:40 – 13:55	Presentation of Pilot action in Alba Julia (Valentin Voinica, Municipality of Alba Julia)
13:55 – 14:00	Questions and Discussion
14:00 – 14:05	Conclusion

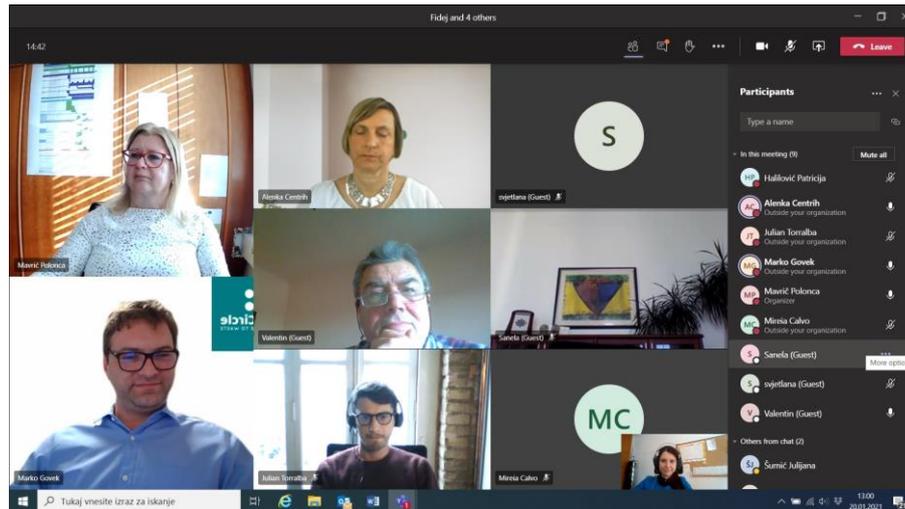


Figure 23: Balkan countries Replicability Workshop

- **14 April 2021:** SINTEF organised a workshop in collaboration with Avfall Norge for Norwegian cities and stakeholders. During 1,5 hours, 48 attendees heard about the project and possible replicability issues in other cities.

A summary was included suggesting issues for replication of the results in other cities. Funding opportunities were not specifically questioned, but specific tasks could either be financed locally by the municipalities or by national programs when involving more actors in the waste chain. Based on the presentations, an interest in further contact between Oslo and Utrecht on waste management was announced.

Agenda:

PlastiCircle – Post-consumer packaging waste in a circular economy. Technology and user involvement - Åge G. Larsen, Senior research scientist, SINTEF Industry
Experiences using smart technology for waste management in Oslo – short overview - Johnny Stuen, Director of production at the Waste Agency, City of Oslo
PlastiCircle in Utrecht - Frank Donkers Information Advisor, Municipality of Utrecht
Expected benefits with electrified plastic waste transport - Kamal Azrague, Senior Researcher, SINTEF Community - Ola Martin Rennemo, Senior adviser at Mobility and Economics, SINTEF Community
End applications for recycled polymers from packaging - Richard McKinlay, Head of Consulting, Axion

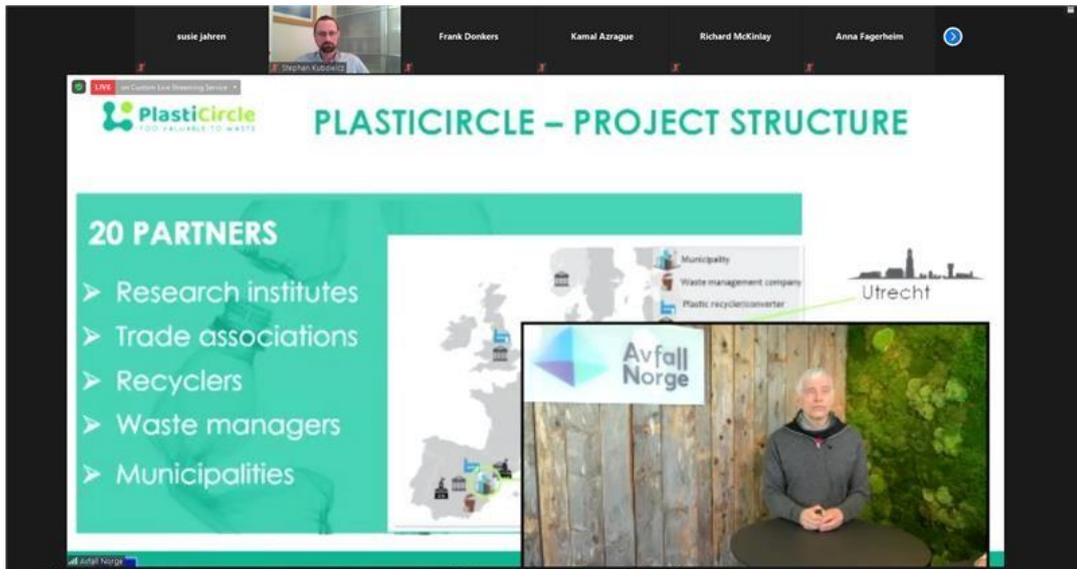


Figure 24: Noway Replicability Workshop

- **21 April 2021:** Municipality of Velenje organised the workshop *Handling of package waste*, for Velenje Stakeholders

During 2 hours, 22 attendees heard presentations and debated possibilities of including the project's findings into the Slovenian territory and how to achieve the last European directive about plastic waste. In the end, Velenje informed the participants about the new perspective of the Horizon program - the new EU research and innovation program worth around 100 billion EUR. Conclusions were that a first step would be to work on awareness-raising campaigns to citizens on why the waste collection is important and how to do it the right way. The Municipality of Velenje intends to continue the debate in future meetings, aimed at achieving more solutions for plastic waste collection and circular economy in the city.

Agenda:

13:00 – 13:05	Greeting - Cesar Aliaga
13:05 – 13:20	Presentation of results / improvements identified during the implementation of two projects (Valencia-Spain and Alba Julia-Romania) - PolonaMavrič
13:20 – 13:35	Presentation of the practice in Simbio Celje - waste separation line Mr. MARŠ
13:35 – 13:45	Presentation of packaging collection supported by sensors in the company Snaga Ljubljana Mr. PETEK
13:45 – 14:00	Round table on the possibilities of the implementation of pilot results in the circular economy of packaging waste management in Slovenia
14:00	Conclusions



Figure 25: Velenje Replicability Workshop

- **4 May 2021:** ICLEI EURO organised a workshop for Brussels and other European cities and stakeholders to discuss replicability steps in other regions. The event featured PlastiCircle and CityLoops, two Horizon 2020 projects working in circular economy. During almost 1,5 hour, 48 attendees heard from representatives from ITENE and Alba Iulia Municipality about the PlastiCircle approach and the innovations tested in the pilot cities. The presenters also addressed funding possibilities for other cities that would like to replicate the project, such as National and European funds available for innovation programmes, recovery plans from the COVID-19 pandemic, and fund available from the European Commission to make cities more modern and sustainable.

The recorded video of the event is available at ICLEI'S YouTube channel: <https://www.youtube.com/watch?v=pbRIEfem2eU>

Agenda:

14:00	Welcome and interactive introduction to the Workshop
14:05	Valentin Voinica (City of Alba Iulia): Presentation by the PlastiCircle pilot on the solutions implemented and results achieved
14:15	Mireia Calvo (ITENE): introducing the collection & transport phases and how to replicate them
14:25	Interview with speakers
14:35	Kimmo Haapea, City of Mikkeli: presenting the CityLoops approach with a focus on decision making, the tools and measures that are implemented and a business case study
14:45	Kaitlyn Dietz, Officer Sustainable Economy and Procurement, ICLEI Europe: Outlining CityLoops replication approach and the ways in which the project will aim to transfer knowledge and experiences
14:55	Moderated Discussion and Q&A
15:05	Wrap-Up and Closing

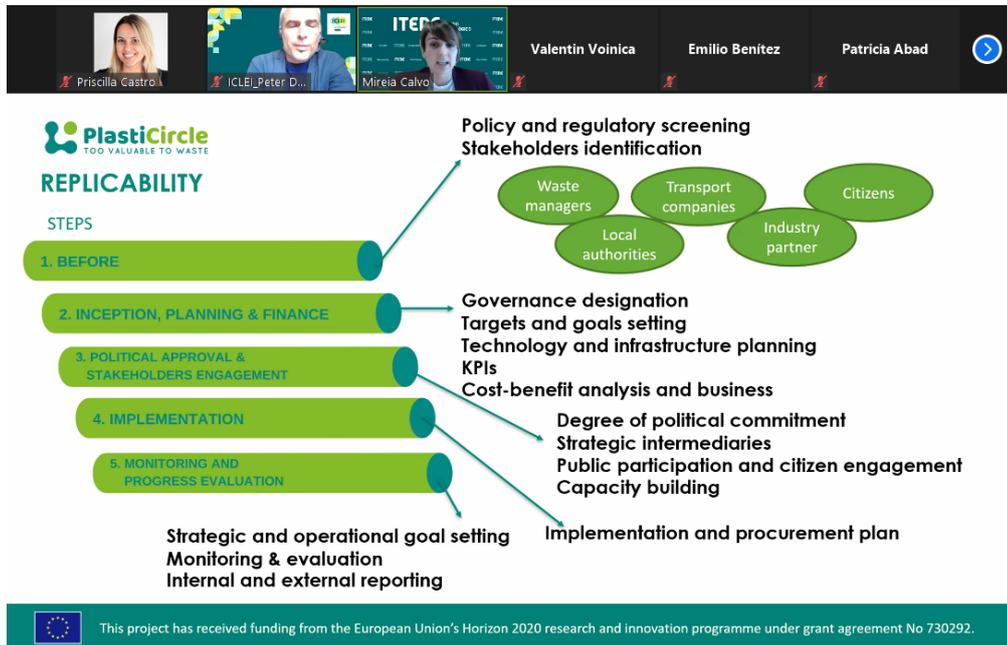


Figure 26: Brussels/Europe Replicability Workshop

- **13 May 2021:** Proplast hosted the workshop “*The management of post-consumed plastic: a virtuous model to be replicated?*” targeting Italian public bodies, waste management entities, municipalities, sorting centres, recyclers, compounders. During 1,5 hour, 23 attendees heard about the project with a focus on citizens’ awareness, featuring the Valencian pilot. Picvisa presented sorting technologies developed for plastic packaging, and Proplast addressed the replicability topic focusing on the end-user experience. The new Horizon Europe funding program has been mentioned, but no particular discussion was held on possible new projects.

Agenda:

General introduction on Plasticircle Project (Marco Monti_Proplast)
Increasing citizens awareness and commitment to reach an improved waste quality: Valencia Pilot-experience (Julian Torralba_Las Naves)
How new technologies in sorting will help to create new streams: Plasticircle model for films an PET Trays (Silvia Gregorini_ Picvisa)
Plasticircle Recycling Experience: strategies and approaches to boost the use of recycled materials in 5 market sectors (Maria Teresa_Proplast)
Questions & answers



COMMUNICATION CAMPAIGN: BOOST THE PARTICIPATION & KEEP THE INTEREST

Continuous Presence in the district: Street Informers, Workshops



 This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No 730292.

Figure 27: Italy Replicability Workshop

- **28 May 2021:** Axion hosted the workshop "*PlastiCircle Replicability Workshop: how to improve packaging recycling in the UK*"

There is the possibility of carrying out more projects, focused on the recycling of non-packaging and projects on increasing recycled content in packaging. In the UK the most likely route for further funding is through Innovate UK, and this should be monitored for suitable funding opportunities. The event had 17 attendees, from waste and recycling and municipalities, who heard about characterisation and compensation procedure, the Utrecht's pilot, and end products with a focus on Hahn products.

Agenda:

10:00 – 10:10	Axion	Introduction and overview of Plasticircle
10:10 – 10:20	ITENE	Improving quality of material at collection
10:20 – 10:30	Utrecht	Plasticircle pilot in Utrecht
10:30 – 10:45	Axion, Hahn	End applications for recycled polymers
10:45 – 11:00	All	Questions and discussion

Also addressing replication, the Municipality of Velenje, with the support from ICLEI EURO, produced an Initial Replication Guide (D9.8) in May 2020, touching on some of the steps needed to replicate the PlastiCircle Approach and using the Valencia pilot as an example. In December 2020, a Final Replication Guide (D9.11) was produced by ICLEI Euro with detailed recommendations and lessons learnt to help other cities and stakeholders to replicate the PlastiCircle approach in its entirety or some of the phases in the plastic value chain. This final guide addressed all three pilots implemented.

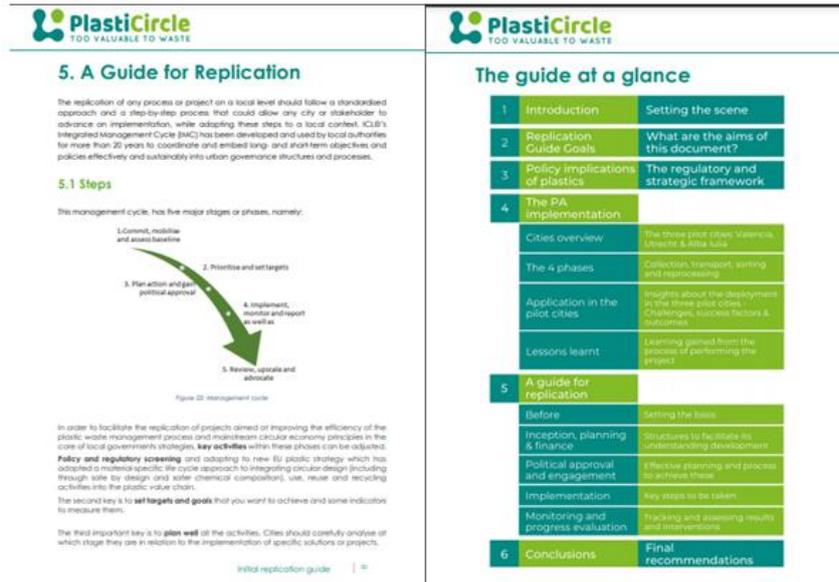


Figure 28: Initial and Final Replication Guides

2.4.3 Virtual Study Visit

ICLEI conducted a Virtual Study Tour of the third and final pilot of the project, which is located in the Romanian city of Alba Iulia. The event took place online on 15 October, with 40 participants in attendance, including city authorities, waste managers, procurers, companies, and other plastic stakeholders. Before hosting the webinar, ICLEI EURO, Alba Iulia Municipality and a local subcontractor produced a video showing the steps of the pilot in the city.

For the event, ICLEI prepared a short presentation on Google Earth to virtually take the attendants to the pilot sites. The presentation is available at <https://earth.google.com/earth/d/1uYHJQKWd04hNrs5R90GsMx7QsdDgBlxH?usp=sharing>

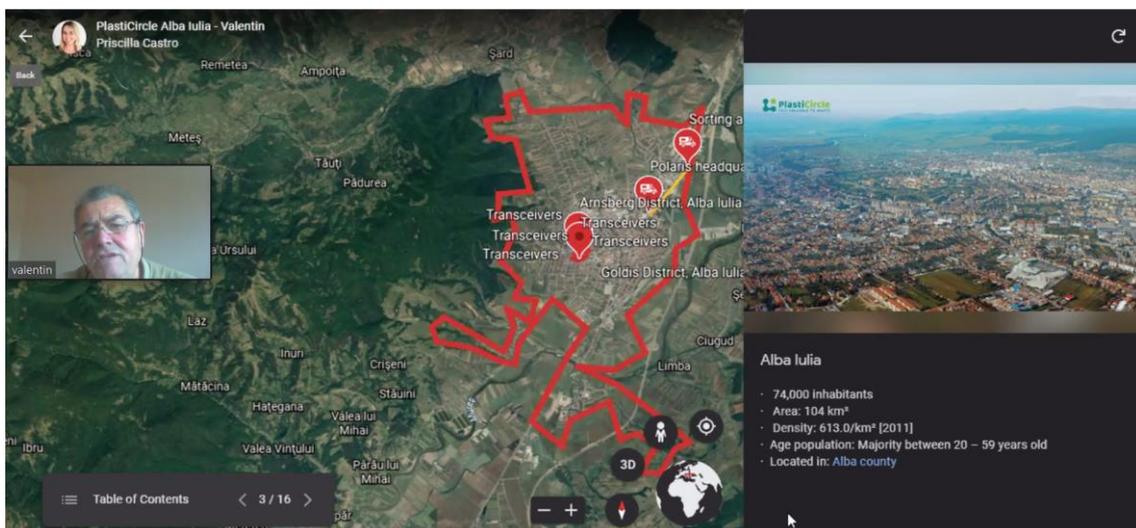


Figure 29: Virtual Study Visit - Alba Iulia pilot

The video, a short speech from Alba Iulia Deputy Mayor at the time, and a recording of the event are available at <https://www.youtube.com/watch?v=WQSuWrGYT8A&list=PLv-mhCFisOsW4qz2-fxl44xPvCGtpdmGi&index=2>

2.4.4 Exploitation workshop

The exploitation workshop, led by KIMbcn, was included in the PlastiCircle's Final Conference on 13 April 2021, in order to reach a higher audience and not to saturate the potential target audience with several PlastiCircle events in the final months of the project. More information below at section 2.5.2.

2.5 Project's Conferences

2.5.1 Mid-term Conference

On 16 May 2019, more than 100 policymakers, innovators and circular economy experts gathered at Scotland House in Brussels for the PlastiCircle and ICLEI Europe conference 'Circular Cities – Innovating to tackle plastic waste'. Held during the EU Green Week, the conference was a hub of activity for industry, NGOs, academia and Horizon 2020 projects – all looking to debate from policy, city and industry perspectives on the challenge of plastic waste and the need for real innovation in a circular economy. A dedicated page was added to the project's website for this event: <https://plasticircle.eu/news/circular-cities-conference/>

The Innovation Space exhibitors were: UrbanWINS, CIRC-PACK, BioVoices, FORCE, PlastiCircle, Zero Waste Scotland, Plastipolis, AVEP and Veolia.



Figure 30: PlastiCircle Mid-term conference in Brussels

2.5.2 Final conference

On 13 April 2021, PlastiCircle's Final Forum showcased the results and impacts of the project. The event took place online under the organisation of ITENE research centre in collaboration with KIMbcn, Proplast and ICLEI, with the support from Ecoembes and PlasticsEurope. Initially planned to take place in Valencia, the event changed to an online format due to the COVID-19 pandemic.

Twenty speakers presented an overview of the project's achievements to over 240 attendees, among them industrial players along the plastic packaging value chain - including the plastic industry, converters, waste managers and recyclers, as well as public authorities and policymakers. With a cross-cutting vision, PlastiCircle's Final Forum demonstrated how the industry can benefit from these developments to realise the new paradigm of the circular economy.

A dedicated page was added to the project's website for this event: <https://plasticircle.eu/news/plasticircle-final-forum/>

The event was divided into two sessions:

- 1. Morning:** PlastiCircle's final conference and the final commercialisation and stakeholders engagement event, where the new technologies for collection, transport, and sorting of packaging waste were explained, and the results of the three pilot projects in Valencia, Alba Iulia, and Utrecht were shared with the audience. This session had presentations from ITENE, the European Commission, SAV, PICVISA, PlasticsEurope, Las Naves, Utrecht Municipality, Alba Iulia Municipality, KIMBcn.



Figure 31: Final Forum

2. Afternoon:

a) Exploitation Workshop

Organised by the innovation Manager KIMbcn, the exploitation workshop had the objective to present project results in order to achieve their exploitation and further commercialization, studying further progress of PlastiCircle. Axion, Proplast, Armacell, Derbigum, CRF, Hahn Plastics, and Interval were speakers at the session.

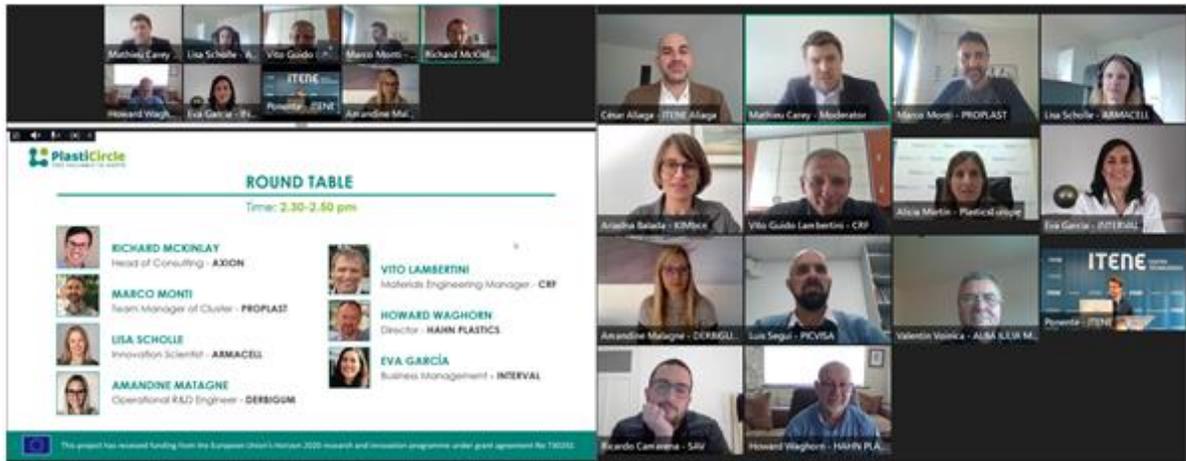


Figure 32: Exploitation workshop

b) PlastiCircle exhibition

PROPLAST prepared a 4-minute video presenting the industrial partners and their roles in the project. With the support from Interval, CRF, Hahn Plastics, Derbigum and Armacell, the video shows some products made from recycled plastic and their production process to inspire others to move into a circular economy. The video was exhibited during the final conference to 240 attendees and is available on PlastiCircle's website: <https://plasticircle.eu/phases/reprocessing/>

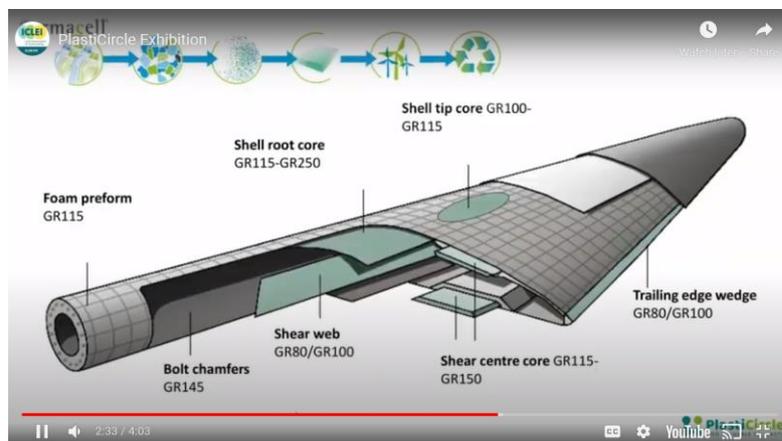


Figure 33: PlastiCircle Final Exhibition

A recording of the event is available at PlastiCircle's website, as well as all the presentations from speakers: <https://plasticircle.eu/news/plasticircle-final-forum/>

2.6 Media

PlastiCircle received satisfactory media coverage during the project lifetime. Partners began media work when the project started in 2017 and kept it going until the end of the project, in May 2021. The intensity of media coverage increased around events, pilots' implementation, and dissemination of results. The project was specially covered by the Spanish media, given the success of the first pilot implemented and the number of

press releases sent in Spanish. The Spanish media showed particular interest in the Final Conference organised by ITENE.

On 19 July 2017, a press release announcing the launch of the project was disseminated in eight languages: English, Romanian, Catalan, Spanish, French, Italian, Norwegian, and Slovenian. Through the **monitoring tool**, partners have reported **68 media activities**: 11 press releases, 30 press articles, 26 website and web articles, and 1 TV clip.

Additional activities have been found and archived by ICLEI Euro, such as mentions in the media. During the project implementation, PlastiCircle had over 50 mentions in the media, especially around the project's launch, the pilots' implementation, and specific events. In the last year of the project, PlastiCircle was mentioned at least in 30 different European publications. In addition, ICLEI wrote exclusive articles aimed at disseminating the project's results for some publications, such as *Recycling Magazine*.

WASTE PLASTICS

PLASTICIRCLE NOTICIAS DEL SECTOR

Valencia, Utrecht, and Alba Iulia turn plastic trash into cash

Plastic is far too valuable to waste. As a major source of carbon emissions, marine litter and land pollution, the EU Action Plan for a circular economy is treating plastics as a key priority. Working towards closing the plastics loop in Europe and improving the waste treatment chain, the PlastiCircle project has not only improved the quality of recycled plastic, but also reduced air pollution across three pilot sites.

Only containers that were more than half full were collected, while the route optimisation algorithm proposed the best route for collecting them. The system calculates a new route, considering the shortest distance to collect a series of containers, showing the order of collection and the best way to reach them. In addition, drivers had access to this information through an application, which displayed the locations and had sound alarms to encourage eco-friendly driving practices, including parameters such as speeding, excessive rpm, excessive idling and excessive use of the power take-off (PTO).

Besides the obvious economic benefit associated with reducing collection and transport costs, the savings have a positive environmental impact, with fewer greenhouse gas (GHG) and pollutants released into the atmosphere. The positive results are based on the number of containers and their volume capacity and also provide drivers with proper training on eco-friendly driving parameters.

Moreover, PlastiCircle has increased both the quantity and the quality of the material collected. In Valencia, the recycled plastic is manually separated by users in the pilot phase who of superior quality in regular markets, thus increasing efficiency and the recovery rate of the sorting stage of the process. The amount of 977 plastic recycled during the campaign was used to produce 102,000 T-shirts and saved 1,000 kg of carbon emissions.

Producing over 25 million tonnes of plastic per year and recycling less than 20 per cent of that amount, the European Union has to deal with economic losses of over 10 billion euros per year due to the low rate of reuse and recycling of end-of-life plastics. PlastiCircle aims at creating a behavioural change not only among consumers but also among manufacturers, increasing the use of recycled content in production cycles. Within the PlastiCircle consortium, the industries were responsible for demonstrating the use of recycled household packaging into value-added products such as farm boards, automotive parts, roofing membranes, garbage bags, asphalt and urban furniture.

According to Richard McKinlay, Head of Consulting at the Action Group, in the course of the project, the industrial partners

By Priocilla Castro, ICLEI Europe.

Financiado por el programa de Investigación e Innovación Horizonte 2020 de la Unión Europea, PlastiCircle está implementando innovaciones en la recolección, el transporte, la clasificación y el reciclado de residuos, y tiene como objetivo establecer los cimientos de una nueva generación de productos plásticos. El proyecto está demostrando condiciones innovadoras para aumentar los niveles de reciclaje de residuos plásticos, disminuir el desperdicio de residuos (conversión a gran escala en la ruta de IoT) de residuos de plástico a través de las nuevas tecnologías innovadoras de clasificación óptica para mejorar la clasificación y reducir residuos plásticos reciclados de alta calidad.

PlastiCircle está desarrollando un innovador sistema de recogida capaz de identificar la cantidad y calidad de los envases depositados en los contenedores y optimizar su autocolección a las empresas de recogida de residuos. Esta solución se centra en el desarrollo de un contenido innovador. El contenido incluye la posibilidad de identificar y clasificar, capacidad de responder, etiquetar, marcar, analizar, deducción de los niveles de basura y optimización de comunicaciones de última generación. Además, esta solución se ha desarrollado como un prototipo para investigar técnicas en contenedores no inteligentes existentes para permitir una fácil comercialización y adaptación en diferentes países.

Con el fin de fomentar una mejor separación de los residuos plásticos y reducir la cantidad de residuos mixtos que se generan, PlastiCircle está ayudando a las ciudades a construir e implementar un sistema de incentivos para los ciudadanos y barrios que separan los residuos correctamente.

Trayectoria

PlastiCircle está colaborando para optimizar los costos de recogida de residuos de plástico desde las ciudades hasta las plantas de clasificación. Además, la reducción del nivel del llenado de los contenedores permite que los contenedores solo se vacíen cuando están llenos, evitando la conexión con una pesadilla en la ruta de IoT. La reducción de costos también se ha logrado con nuevas optimizaciones, ahorrando combustible y tiempo de transporte.

Por Priocilla Castro y Mercedes Cea, ICLEI

En la Unión Europea se producen más de 25 millones de toneladas de residuos plásticos cada año. Teniendo en cuenta que gran parte de los residuos se envían a vertederos de todo el continente, esto supone, por un lado, un reto medioambiental y, por otro, una pérdida de valor para la economía europea. De todos los residuos plásticos que se producen en Europa, más del 40% son residuos de envases, en su mayoría de supermercados, alimentos y bebidas y todo tipo de productos domésticos. El proyecto PlastiCircle está orientado a iniciar una economía circular para los residuos de plásticos y envases de plástico, con pilotos en tres ciudades europeas: Valencia en España, Utrecht en los Países Bajos y Alba Iulia en Rumanía.

10

RECYCLING magazine International Edition

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Figure 34: Press articles

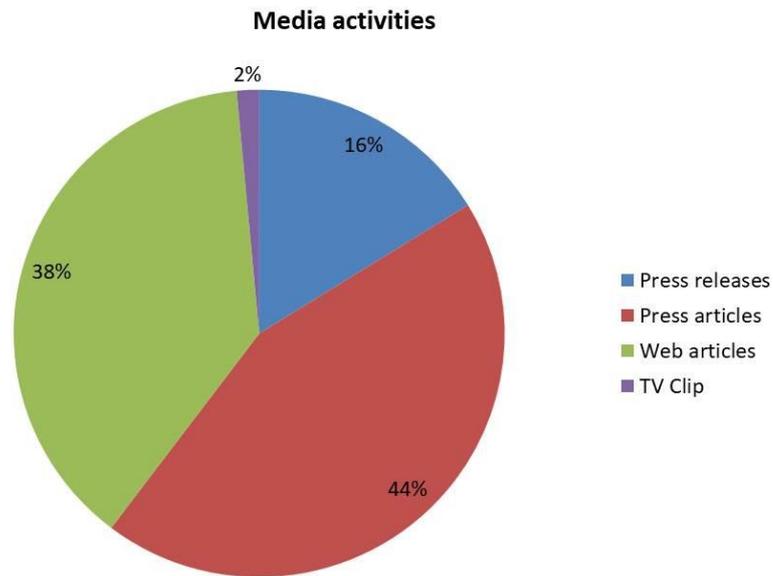


Figure 35: Media graph

2.7 Project videos

During the project lifetime, several videos were produced to present the project and the pilots' approach and results. At first, ICLEI EURO published a general video introducing PlastiCircle and explaining the plastic issue in Europe. During the pilots' implementation, the pilot cities produced and published some specific short videos. The Key Performance Indicator was 500 views per video.

2.7.1 PlastiCircle video

In May 2019, an animated video was published on ICLEI'S YouTube channel and on PlastiCircle's website landing page. The video presents the plastic context in the European Union, introduces the PlastiCircle project, outlining its goals and the four focus phases. The video has over 1,700 views on YouTube and served as the basis for the production of other materials during the project, such as promotional short videos for conferences and events, the project's exhibition video, among others.



Figure 36: PlastiCircle general video

2.7.2 Valencia videos

In Valencia, Las Naves has uploaded five videos related to the PlastiCircle project, showing visits to a basketball club and the European consortium, interviews, and the award ceremony for the winner citizens. Together, all videos surpass 1,100 views.

Videos were uploaded to Las Naves' YouTube channel and shared on the project's website: <https://plasticircle.eu/cities/pilot-1-valencia/>

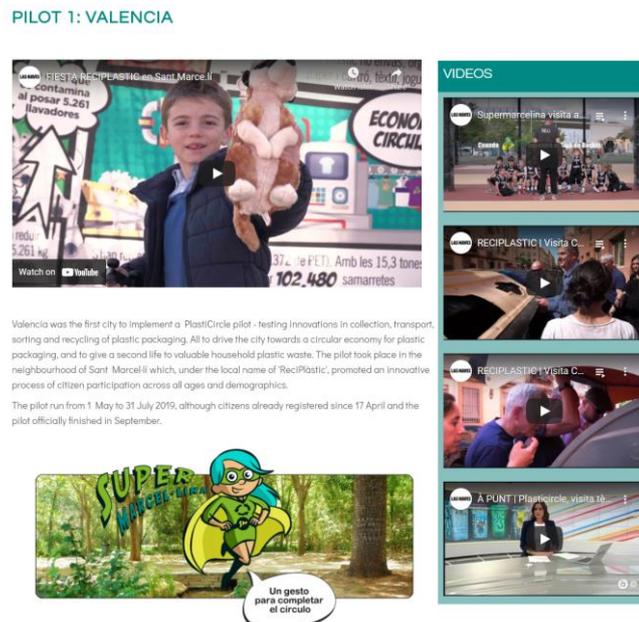


Figure 37: Valencia videos

2.7.3 Utrecht videos

Utrecht Municipality produced six short videos with ambassador “Madame Plastique”, explaining the importance of recycling plastics, talking to citizens about the topic, and interviewing a local waste manager. The videos were published both at ICLEI’s and Utrecht’s YouTube channels and is available on the project’s website: <https://plasticircle.eu/cities/pilot-2-utrecht/>

Together, all videos have around 800 views.

PILOT 2: UTRECHT



Gemeente Utrecht

The Dutch city of Utrecht, already at the vanguard of urban waste management in Europe, hosted the second PlastiCircle pilot from October 2019 to January 2020.

In collaboration with local authorities, the PlastiCircle pilot run in parallel with the city’s own waste management projects. Specifically, Utrecht and PlastiCircle asked some important questions: For instance, how can consumers be challenged to separate plastic waste from residual waste more effectively? What type of collection is best for Utrecht? Centralised underground containers, door-to-door collection of mini containers, or something else?

During the pilot, Utrecht made use of door-to-door collection of mini containers (from some 2,000 households) and also of underground containers. Some 43 underground “smart” containers were linked to the pilot, although in fact, Utrecht has almost 200 underground containers for plastics in the whole city. The pilot itself took place in the western sector of the city - one of five busy waste collection routes.

Check the *Glossy Magazine* published:



VIDEOS

PlastiCircle - Utrecht Pilot - M...
0:37 / 3:19
YouTube

PlastiCircle - Madame Plasti...
0:18 / 2:02
YouTube

PlastiCircle - Madame plasti...
0:11 / 4:56
YouTube

Figure 38: Utrecht videos

2.7.4 Alba Iulia video

ICLEI EURO and Alba Iulia Municipality produced a 5-minute video to present the pilot and explain the PlastiCircle approach. The video has footage from the city, containers, trucks, users and interviews with citizens, drivers and representatives from the Municipality. In addition, Alba Iulia and ICLEI produced a short video featuring Paul Voicu, Deputy Mayor of Alba Iulia at the time. Both products are available on ICLEI’s YouTube channel, on the dedicated website to the Alba Iulia pilot, and the pilot’s Facebook account. In total, the video has achieved 2,500 views.

The pilot video is also available at PlastiCircle’s website: <https://plasticircle.eu/cities/pilot-3-alba-iulia/>



Figure 39: Alba Iulia videos

Video	KPI	Results
General	500	1,700
Valencia	500	1,100
Utrecht	500	800
Alba Iulia	500	2,500

Figure 40: Videos results

3. Key challenges

During the PlastiCircle project, some challenges were identified and dealt with to successfully promote and communicate the results of the project. The COVID-19 pandemic had a direct effect on the communication activities from March 2020 onwards.

Initially scheduled to start in April 2021, the third and last pilot of PlastiCircle in Alba Iulia was postponed three months, to July 2021, due to the contact restrictions and the lockdown imposed in the country. The city had to adapt its communication strategy to reflect the situation and respect the health and social distancing restrictions, guaranteeing the safety of staff and participants.

The communication activities initially planned as physical events and visits to citizens' houses were converted to online activities, with a focus on social media and the dedicated website created for the pilot. The COVID-19 pandemic was also responsible for the cancellation of a technical visit to Alba Iulia's pilot scheduled to take place on 12 May and affected other meetings and workshops.

The global health crisis also forced a change in the final events to disseminate the project's results in 2021. The final conference, the exploitation workshops and the replicability workshops, initially planned to take place in the participating cities in the project, were held online. The adjustment did not have necessarily a negative impact on the project, since that most people were used to attend and organise online events by then. Most of the events had good attendance and were able to meet the original goals.

4. Conclusions

The communication strategy of the PlastiCircle project was overall successful. Partners were able to promote the project, pilot cities organised important communication activities to reach and engage citizens to participate, events had good attendance rates, and online activities had an important boost in the last year of the project. The Key Performance Indicators were reached and, in many areas, were overachieved, such as the website and articles for specialised magazines (dissemination activities detailed on D9.9).

Task	KPI	Results
Briefing pack (PPT presentation, elevator pitch, video presentation)	1	Done
Communication campaign in pilot cities	3 campaigns in each city	Online and physical campaigns in Valencia and Utrecht Mostly online campaign in Alba Iulia (due to COVID19)
Communication campaigns: Waste management campaign	10-30 attendees	17 attendees
Communication campaigns: recycled plastic campaign	10-20 attendees from plastic industry and recyclers	Over 100 attendees on physical events Good reach on online campaigns (due to COVID19)
Regional Case studies workshop in pilot cities	1 per country	1 event done in Valencia

		1 print publication in Utrecht Several participation in third-party events in Alba Iulia
Videos	500 views per video	Overachieved
Mid-term Conference	40 attendances	100 attendees
Replicability events	1 for Balkan countries 1 in Velenje 1 in Italy 1 in Norway 1 in the UK 1 in Brussels	6 done
Exploitation workshop	1	1 done
Final Conference	100 attendances	240 attendees

Figure 41: KPIs Vs. Results

The communication strategy was based on a targeted approach to each audience group, informing regional/local communities on changes, fostering discussions, exchange of ideas, sharing of experiences, and disseminating news related to PlastiCircle. Communication was of key importance for awareness-raising of the political and institutional community about the urgency of improving the plastics loop and the involvement of regional/local authorities in the process.




The project has received funding from the European Union's Horizon 2020 research and innovation programme under grant Agreement No. 730292.

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