



Bio-based Industries Research and Innovation action

**CALL IDENTIFIER:** H2020-BBI-JTI-2019  
**TOPIC:** BBI-2019-SO2-R2  
**GRANT AGREEMENT NO:** 887115  
**PROJECT ACRONYM:**



**PROJECT TITLE** Combining carboxylic acid production and fibre recovery as an innovative, cost effective and sustainable pre-treatment process for heterogeneous bio-waste

**PROJECT WEBSITE** [www.cafipla.eu](http://www.cafipla.eu)

## D4.8 Output workshop/focus group: description of format and content

**START DATE OF PROJECT** 01.06.2020  
**DURATION OF PROJECT:** 36 Months  
**DELIVERY DATE:** Month 30  
**RESPONSIBLE FOR THIS DELIVERABLE** DBFZ  
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**KEYWORDS** output workshop, PESTEL, supply chain concept, stakeholder activation

**DISSEMINATION LEVEL:** PUBLIC

This project has received funding from the Bio Based Industries Joint Undertaking (JU) under grant agreement No 887115. The JU receives support from the European Union’s Horizon 2020 research and innovation programme and the Bio Based Industries Consortium.

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This deliverable has been prepared in the context of the project CAFIPLA receiving funding from the Bio Based Industries Joint Undertaking (JU) in accordance with the grant agreement No 887115. The JU receives support from the European Union's Horizon 2020 research and innovation programme and the Bio Based Industries Consortium.

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Please refer to this deliverable as:

CAFIPLA – D4.8 (2022), Deliverable D4.8 – Output workshop/focus group: description of format and content, November 2022.

## EXECUTIVE SUMMARY

Deliverable 4.8 contains the concept and content of a stakeholder meeting in form of an output workshop, which is scheduled for February 2023. The workshop will present the final results from the PESTEL and supply chain analysis to stakeholder, decision-maker and project partner and deliver an important input to the future development of the CAFIPLA-concept.

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## ABBREVIATIONS

	Description
CAP	Carboxylic Acid Platform
COVID-19	Coronavirus disease 2019
DBFZ	Deutsches Biomasseforschungszentrum gGmbH
Dx.x	Deliverable ( <i>of the project</i> )
EU	European Union
FRD	Fibres Recherche Développement
FRP	Fibre Recovery Platform
IDE	IDELUX Environnement
Mx	Month ( <i>of the project</i> )
OWS RF	Organic Waste Systems Research Foundation
PESTEL	Political, economic, social, technological, ecological, legal ( <i>factors</i> )
TRL	Technology readiness level
Tx.x	Task ( <i>of the project</i> )

## 1 INTRODUCTION

The overall objective of CAFIPLA is the development of an integrated pre-treatment process to convert heterogeneous organic wastes, residues and by-products into building blocks for a bio-based economy. This is achieved by linking a Carboxylic Acid Platform (CAP) with a Fibre Recovery Platform (FRP) to transform biomass into bio-chemicals, -products, -materials and feed. To demonstrate the potential of the technology, a pilot plant was built in the project to achieve TRL5 (CAFIPLA Project Consortia 2020). Currently the CAFIPLA “LOOP” reactor is tested at IDELUX.

Main aim of task 4.3 is the extension of the insights gained through a PESTEL analysis started in task 4.2 through participatory research. Additional information was gathered during the input workshop conducted in June 2022 at IDELUX facility (D4.4). Currently the results of the research are summarized in D4.7, where enablers and hindrances for implementation of a supply chain concept at IDE pilot plant are identified. In the output workshop all results will be presented to project partners and interested external stakeholders. The meeting is expected to be held in Tenneville on 23 February 2023. In the following deliverable 4.8 the content and structure of this output workshop will be described.



## 2 OUTPUT WORKSHOP AT IDELUX, TENNEVILLE (FORMAT AND CONTENT)

Workshops can be a useful tool to either collect or disseminate data on a specific topic. They are flexible in their design and can be tailored to a specific purpose. Often used as part of participatory research (Merriam 2014) workshops help to engage stakeholders, find solutions to specific problems or questions and create a mutual understanding of a topic (dscout 2022).

### 2.1 CONTENT AND AIMS

For a successful workshop a clear aim needs to be defined (dscout 2022). The overall aim of the output workshop is the presentation of the PESTEL and supply chain analysis and process and product results from the CAFIPLA LOOP. Participants will be invited to give their feedback on the new results and address needs for a productive market environment. Furthermore, it is important to disseminate the CAFIPLA concept showing possible applications, and processes to interested stakeholders and potential users. Therefore, feedstocks from the pilot plant trials including output products will be shown and the working pilot plant demonstrated. While stakeholders were already activated at the input workshop and the possibility for networking was given, this is continued in the output workshop, broadened and intensified by more targeted talks between developers, operators, legal institutions, and potential investors to prepare follow-up projects and upscaling activities. As it is important to generate added value not only for CAFIPLA members but also for the participating stakeholders, the following aims are defined.

#### **Aims from a project internal perspective (WP4):**

- Sharing findings and conclusions of CAFIPLA, (focus on D4.2, D4.3, and D4.7), getting feedback from experts, plant operators, and increasing the quality of previous findings
- Gathering more information for policy advice and market needs, follow-up project preparation, and market uptake activities
- Bringing together relevant stakeholders (highest interest and power, stakeholder matrix D4.7) from different groups along the whole supply chain and promoting the CAFIPLA concept

#### **Aims from an external stakeholder perspective:**

- Getting an overview of the role and potential of biogenic resources used in innovative technologies regarding the manufacturing of sustainable bio-based products
- Networking/getting in contact with regional actors along the whole CAFIPLA concept:
  - from feedstock suppliers, through conversion stakeholders; also including service providers like technology producers and waste companies; as well as stakeholders from policy and research
- Learning from experiences made by other stakeholders from different fields
- Learning from experiences made within the EU H2020 project “CAFIPLA”

Data and results presented in the output workshop will summarize the activities and findings of Task 4.3. The outcomes of this workshop will be also included in the final project report and a scientific publication.

## 2.2 GENERAL WORKSHOP ORGANISATION, PRELIMINARY AGENDA AND PARTICIPANTS

The output workshop is planned to be held on 23 February 2023. The focus, as said, is on the PESTEL and supply chain analysis results as well as on a pilot plant demonstration. First products from the pilot plant will be shown and discussed.

Based on the stakeholder groups differentiated within D4.2, representatives of potential feedstock supplier, waste management operators, potential product user and public authorities will be invited. At least two stakeholders from each group are expected to take part in the workshop to represent each perspective adequately. Additional to the invitations to all participants of previous stakeholder workshops held during the CAFIPLA project (Input workshop Tenneville, Belgium; workshop atACHEMA fair, Frankfurt, Germany) also other important stakeholders (D4.7) such as waste treatment plant operators or potential product users are invited to get the opportunity to learn about experiences and results of the CAFIPLA project. To target this groups the network of the CAFIPLA partners is used.



**Figure 1: Previous stakeholder workshops**  
**A: Input workshop, Tenneville (Belgium), B: Workshop at ACHEMA, Frankfurt (Germany)**

DBFZ prepared an invitation in English language, which is shown in Figure 3 of this deliverable. In order to reach local stakeholder, IDELUX prepares a translation in French and sends personalised emails with the invitation. If stakeholders from other CAFIPLA partners are invited, the invitation will be sent by them. This increases the engagement and response to the workshop.

The workshop is held again at the site from IDELUX Environmental in Tenneville. Especially for the demonstration of the pilot plant it is preferred to have the whole workshop at one place, although the accessibility is not very easy due to missing public transport. Therefore, transportation is offered for participants arriving in March-en-Famenne without car to go to Teneville in the morning and back in the afternoon. The need for this option is checked with the invitation feedback.

Invitations will be sent in November/early December 2022, requesting participant confirmation for attendance by mid December 2022. Therefore, the following preliminary agenda is still flexible and will be refined in the course of December if needed. Depending on the number of actual participants as well as their stakeholder group affiliation, the discussion session(s) will be organised. Possible options are described below.

The workshop agenda is drafted into two blocks. In the first information about the project and new results are given and in the second the participants are asked to give their input.

The workshop starts with welcoming and introductory presentations about the day structure and the CAFIPLA project. Participants who have not yet participated in any of the CAFIPLA events will be informed adequately so all participants are on the same level. This is followed by a more in-depth explanation about the technical insights of the pilot plant. The first block finishes with the presentation of the PESTEL and supply chain concept results. After a coffee and networking break the second block of the morning is used for active discussion session(s) with short breaks in between. As underlined before, depending on the group’s background composition and size the focus of the sessions can be on policy and legal limitations for the CAFIPLA supply chain concept, possible markets, business models, and technical challenges for upscaling. In the main part of the discussion session the group will be divided into smaller subgroups. These subgroups will discuss more specific topics. Several leading questions will be prepared beforehand, which support the moderators in guiding the discussion. For each session, experts from the project are involved with moderation. In the end of the session the group comes together and each subgroup moderator presents their results which can be commented by rest of the participants. In mid-December 2022 after the registration deadline, it is expected that the organisers will have a better overview of the workshop attendees and take a decision on the discussion topics.

After lunch break, a visit to the IDELUX site is planned. During the visit the operating pilot plant (the “CAFIPLA LOOP”) and processes are demonstrated in action. Input feedstock and output products can be examined.

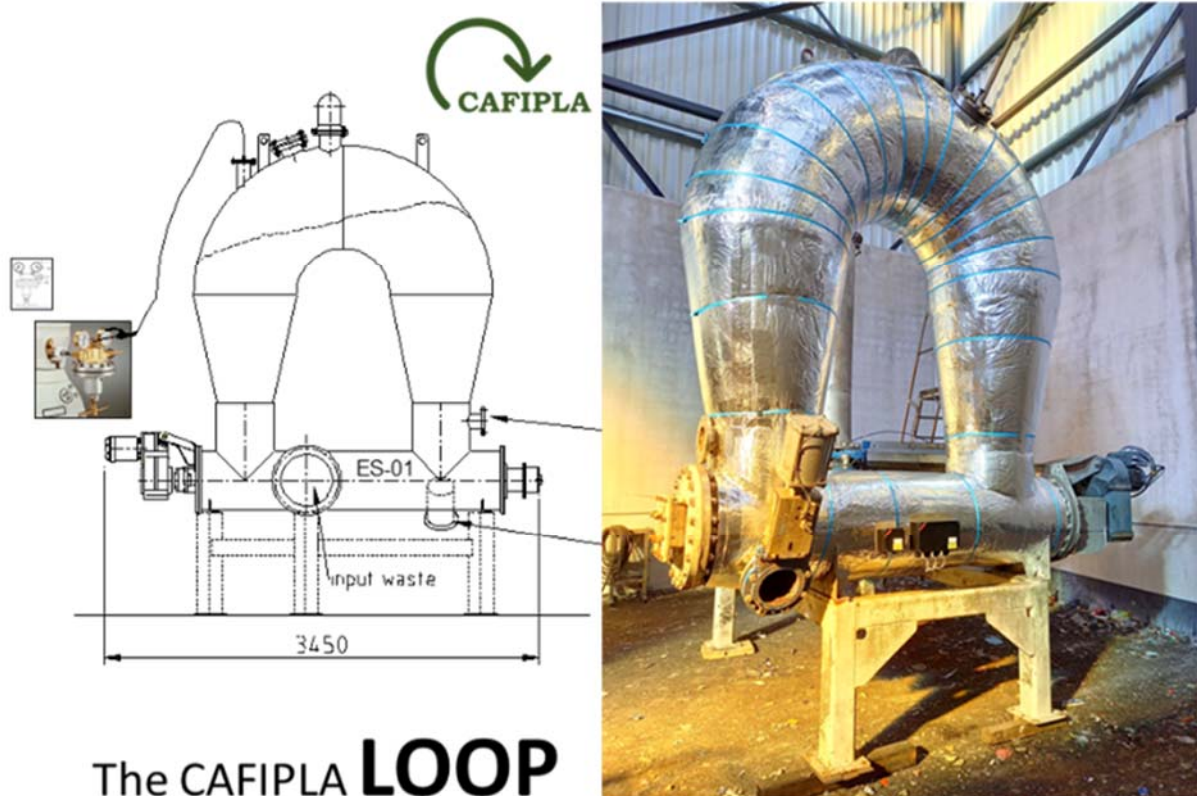


Figure 2: The CAFIPLA LOOP

**Workshop innovative CAFIPLA project:**  
**Project Results and Pilot Plant Visit**  
**Bio-based products from bio-waste**

Thursday, 23 February 2023  
 9:00-16:00 (CEST)  
 at IDELUX in Tenneville, Belgium

**SAVE  
THE DATE!**



Are you interested in new ways of valorisation of biomass residues and explore new value chains?

We bring together feedstock suppliers, representatives of waste and recycling industry as well as experts from research and regional administration. Together we discuss new results and perspectives of the innovative CAFIPLA concept. Additionally, you can attend a live demonstration of the new pilot plant!

**Join our workshop at IDELUX in Tenneville, Belgium!**



www.cafipla.eu #CAFIPLA

Please confirm your attendance by 15<sup>th</sup> December by email or phone:

Marie-Aline Pierrard (IDELUX Environnement)  
 E: [marie-aline.pierrard@idelux.be](mailto:marie-aline.pierrard@idelux.be)  
 T: +32 63 231 905

See [CAFIPLA brochure](#) for more information

Organiser:  Co-organiser: 

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Figure 3: Draft of output workshop invitation

Table 1: Preliminary agenda for CAFIPLA output workshop

Time (CEST)	Topic	Presenter/ Moderator
8:45-9:00 15 min	Arrival of attendees, socialising	
9:00-9:15 15 min	1   Welcome: Short introduction, overview of the workshop	IDELUX, DBFZ
9:15-9:30 15 min	2   Presentation of the project idea: Overview of the BBI JU project "CAFIPLA" and summary of results	Tecnalia
9:30-9:50 20 min	4   The CAFIPLA pilot plant, how does it work? - Processes and products	OWS
9:50-10:10 20 min	5   Presentation of PESTEL results and the supply chain concepts	DBFZ
10:10-10:30 20 min	6   Q & A	
10:30-11:00 30 min	Coffee break	
11:00-12:00 60 min	7   Discussion session(s) on enablers and hindrances related to the innovative biogenic waste processing and supply chain concept of CAFIPLA	tba
12:00-13:00 60 min	8   Conclusions, feedback and information on afternoon visit	DBFZ, IDELUX, presentation of discussion outcomes by moderators
13:00-14:00 60 min	Lunch break	
14:00-15:30 90 min	9   Plant visit	IDELUX

The organisers will pay attention to current COVID-19 restrictions during the mentioned time period. In case of event prohibition, the infrastructure and knowledge to transfer the event into an online meeting is given and manageable within short notice. The pilot plant cannot be visited online but could be shown in a prepared video clip.

### 3 EXPERIENCES AND FEEDBACK FROM THE INPUT WORKSHOP IN TENNEVILLE

The Input workshop on “Assessment of the opportunities for an innovative biogenic waste processing concept” took place on 29 June 2022 at the IDELUX Environmental facility in Tenneville, Belgium. In the morning participants learned about the technical CAFIPLA concept and the resource availability including seasonal variabilities of the different input feedstocks around the pilot plant and hence the inputs for the CAFIPLA LOOP. The presentations were followed by two discussion session about hindrances and enablers for the CAFIPLA technology and its market uptake. Results are included in D4.7 and the CAFIPLA stakeholder platform.



Figure 4: Insights from the input workshop

The input workshop was attended by 25 participants, 19 of them were external stakeholders. The following figure shows the share of participating external stakeholders of the different categories.



Figure 5: Stakeholder categorisation of input workshop participants

The interest from waste treatment and research facilities was great and not all interested participants could be invited to keep the balance of the different stakeholder groups. The input obtained in the discussion sessions from these two participants groups was good and lively. This shows the high potential these groups see for innovative waste treatment concepts in the future. Feedstock suppliers from industry did mostly not know about the high potential their residues already have and/or could develop in the future. Here we see a high demand for more information to unlock the potential and mobilise these feedstocks.

Despite several invitations sent out, political and agricultural stakeholders were underrepresented. The goal set in D4.4 of having two representatives from each stakeholder category was not achieved. For the output workshop it is important to invite them again and give a new opportunity to participate.

When asked which stakeholder group is most important for the success of the project and the market uptake the workshop participants clearly see political actors most important (Figure 6). They are followed by Feedstock supplier, competitor for feedstock, service provider and pilot plant operator. Least important is society in the opinion of the participants. Although, as described in D4.7, the consumer and their acceptance are a very important fact when we think of the market uptake.

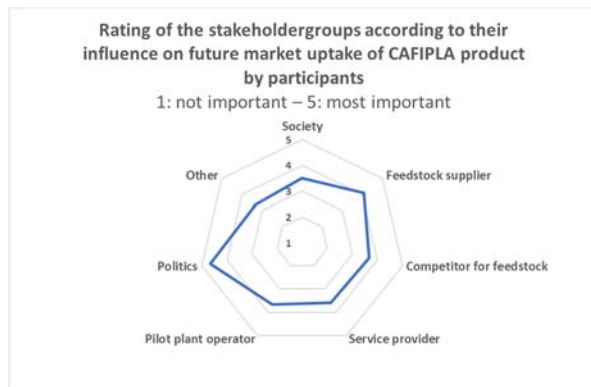


Figure 6: Rated potential of CAFIPLA products

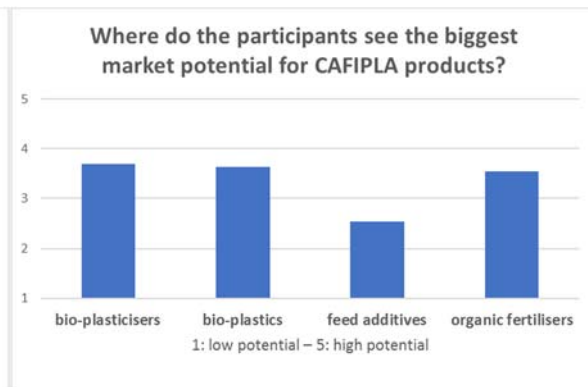


Figure 7: Stakeholder influence for market uptake

The highest potential for products on the market rated by the workshop participants are seen in bio-plasticiser, bio-plastics and organic fertiliser. In the coming months and especially in D1.5 the CAFIPLA partners will take this result into consideration.

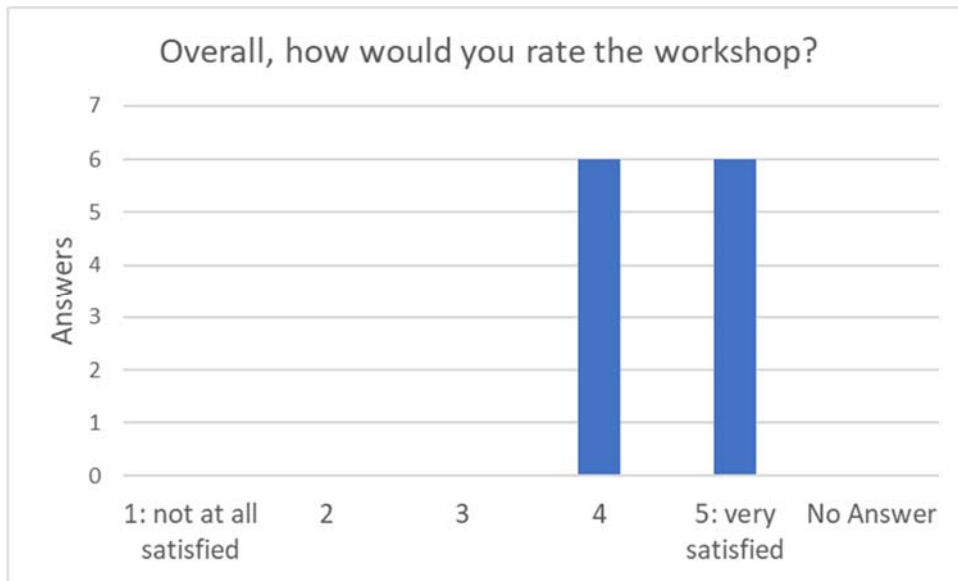


Figure 8: Input workshop feedback

The feedback from the input workshop was overall positive (Figure 8) and participants are interested to learn more about the pilot plant and the CAFIPLA concept. Recommendations from participants and experiences of the organizers are considered in the planning of the output workshop. Additionally, it became apparent that more time for discussion and networking was desired by the participants and is considered in the agenda of the output workshop.

## 4 OUTLOOK

Results and evaluation of the preliminary organised stakeholder workshops showed a very promising development and demand for concepts with cascading biomass use. Stakeholders from all groups were highly interested in the project and discussions have been very lively. The output workshop will continue to keep stakeholder updated with the newest results. The exchange will help to understand the demands on the CAFIPLA concept on the technical part on one hand and for the legal part on the other hand to bring the innovation to a higher technology readiness level and later on the market.

## 5 REFERENCES

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