



*This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No 101023664.*



# WASTE2FUNC

<b>Project Acronym:</b>	WASTE2FUNC
<b>Project Title:</b>	Lactic acid and biosurfactants sourced from sustainable agricultural and industrial (food) WASTE feedstocks as novel FUNCtional ingredients for consumer products
<b>Project Number:</b>	101023664
<b>Topic:</b>	BBI.2020.SO1.D1
<b>Type of Action:</b>	BBI-IA

## Deliverable 7.10

Report of Stakeholder Focus Group  
workshop 3

Deliverable 7.10: Report of Stakeholder Focus Group workshop 3

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## 1 Introduction

The WASTE2FUNC project is seeking to create, as a demonstration, a new and sustainable biomass waste supply chain. This will integrate fluctuating supplies of agricultural food-crop biomass waste with an industrial food waste supply chain in order to demonstrate the potential for converting this combined stream into lactic acid and microbial biosurfactants as functional ingredients for home and personal care applications.

As part of the WASTE2FUNC project Work Package 7, regular Stakeholder Focus Groups are to be carried out throughout the project, with the third Stakeholder Focus Group to be held during project months 12-24.

## 2 Workshop

This workshop was an initiative organised during the Pitch Perfect Event on the 26<sup>th</sup> of September 2022 at the Sheraton Brussels Airport Hotel. It was a pitching, matchmaking and networking event bringing together the networks of six important bioeconomy platforms: WASTE2FUNC, The ProtelInnClub, Pilots4U, Tech4Biowaste, Bioeconomy Ventures, BIOMAC Tech4Biowaste and Bio Base Connect. As such, this guaranteed a diverse attendance reaching from investors, SMEs, start-ups, about-to-be start-ups, scale-ups, large companies, research organisations, technology providers to organisations offering relevant innovation services such as access to finance, scale-up trials, application testing, business plan writing, feedstock analysis, life cycle assessment, social acceptance, etc.

More specifically we organised a dedicated WASTE2FUNC workshop to showcase the first version of the app that was developed in the framework of WP2 and to gather input from different stakeholders (also from the WASTE2FUNC focus group) on the further development of the app. The final agenda of the event showcasing the workshop can be found via this link: [https://www.bbeu.org/wp-content/uploads/2022/09/PPBEB\\_Programme\\_2022.pdf](https://www.bbeu.org/wp-content/uploads/2022/09/PPBEB_Programme_2022.pdf).

To promote the satellite event an e-mail was sent to several stakeholders:

“In the BBI-JU subsidized EU project WASTE2FUNC, several partners are investigating the development of a **user-friendly app for the specific registration (and future collection) of waste/by-products from food processing companies and the primary sector** that are not currently valorised or have a lower value valorization route.

All this with the intention of looking at the potential of their valorisation to **high-quality functional ingredients, such as biosurfactants and lactic acid.**

The first version of this app/website will be presented on **Monday 26/9/2022** to food processing companies that have side streams available for which they are currently looking for a (better) valorization route. This will take place as a satellite event at the “Pitch Perfect and Boost the Bio-Economy” event in Brussels, organized by the Bio Base Europe Pilot Plant and co-hosted by the WASTE2FUNC project. The satellite event will take place from 10:15 AM to 11:45 AM, subject to program changes. The full program can be found at <https://biopilots4u.eu/events/pitch-perfect-and-boost-european-bioeconomy-2022>

Companies that wish to actively participate in this workshop in the context of this event can participate for free with the discount code “W2F926”, you can also attend all pitches that are planned, as well as participate in B2B meetings and enjoy a lunch and network reception afterwards.

We hope to see you then!

The WASTE2FUNC Coordination Team

Sofie Lodens

Sophie Roelants

## 2.1 Meeting attendees

We've reached out to all official members of the WASTE2FUNC and to several partners in the network of the WASTE2FUNC consortium. More specifically, the following companies were present: Milcobel, Tessengerlo, B2BFacilitator, Piece of Meat, Renewi, Lotus, Nele Loenders, Code-on and Bio Base Europe Pilot Plant (Sofie Lodens and Sophie Roelants). Unfortunately, apart from Renewi, no other members of the dedicated stakeholder focus group (see D7.7) were present.

## 2.2 Meeting content

The meeting was divided into two parts: a presentation of the project and its progress by the project consortium, followed by a demo of the app, accompanied by two VoxVote questioning rounds to get more insight in 1) Which companies are around the table, 2) what is still needed for the app.

The presentation of the workshop is added in addendum 1.

## 2.3 Feedback from the Advisory Board

During the presentation questions were posed about food waste regulation, for example in insect farms, it is not allowed to start from food waste regulatory wise, many examples were given where regulatory wise starting from food waste was not allowed, which is definitely something we will further investigate during the project.

After the first part of the general presentation around the WASTE2FUNC project we shifted to the VoxVote for more general questioning. We will sum up the questions below, and will describe the results/discussion per question:

**1. Does your company have any biomass side and/or waste streams available currently having no valorisation route or a low-value valorisation routes?**

All present people indicated to have these streams available or indicate to know a company that have streams available.

**2. Are these streams recurring side/waste streams?**

For all companies there were indeed recurring side/waste streams.

**3. How often are they available?**

This is really dependent from stream to stream, weekly, two weekly, sometimes daily.

**4. What is the current valorisation route of these streams?**

Fish feed, additive for cattle feed, biogas conversion, etc.

Piece of meat had no plan yet for the valorisation of the medium they use to grow their animal cell lines (contains a lot of lactic acid). They are actively looking for potential waste streams since the media for these cell lines are very expensive, considering all growth factors.

**5. Do you have occasionally available side/waste streams (see definitions in introduction) available?**

These streams are limitedly available for all companies present

**6. What is the main reason of the availability of these streams? (options: bad batch, seasonality, technical breakdown)**

None of the available options were chosen, as another reason everyone indicated they sometimes have limited availability of certain streams (very variable), but they believe these amounts are not interesting, nor economically viable.

**7. Do you have a valorisation route for these occasional streams currently?**

See above, not applicable.

**8. If these streams can be registered for collection in the future (for alternative valorisation routes), do you prefer an app/website/telephone line for this?**

All are interested in this.

After this questioning, a demo of the current (front-end) version of the app was shown and a new dedicated VoxVote poll was started up with specific questions on the app. We will sum up the questions below, and will describe the results/discussion per question:

**1. Initial Account Registration: What is missing in the registration screen?**

No specific remarks on the registration screen

**2. Do you need several pick-up addresses for your company?**

For Tessengerlo and Renewi this will be the case. For other companies as well if they expand in the future.

In between there is the opening screen: a question was raised about the earned/saved screen since it was not completely clear what was meant with this. It was opted to maybe remove this as it might be confusing.

**3. Waste/Side Stream registration: Are kg and m<sup>3</sup> useful units for the weight? Do you prefer other/extra units? Which ones?**

For piece of meat litre would also be a preferred unit to add (fermentation spent broth), so this will be added.

A question was raised whether this should be exact or it can be an estimated value, obviously this can be an estimated value.

**4. Does your waste also contain other compounds than what is mentioned? If yes, what?**

For piece of meat "fermentation spent medium" should be added. Others can also be added gradually if required.

**5. What other potential contaminants are in your streams that should be mentioned? Should Dry/Wet be mentioned separately?**

Dry or Wet should be a separate question. Also if possible add the % of Dry Matter (if this is known, not as something obligatory).

For sure glass should be added, but also the packaging material of the stream (if needed).

A very important remark is that now it is not mentioned in what type of packaging the material is being collected.

For example: Is it on a pallet? Is the material in an IBC? Is it in a dedicated waste container that is emptied in a truck and left at the company that offers the stream (like in supermarkets)? Is the material in a special package that can be returned to the company, etc.

**6. The drop-down menu will contain options like as soon as possible, within 2 days, within a week, within two weeks. What is the maximin timing between registration and pick up according to you? (Can be different for different streams).**

For most of the companies this is as soon as possible. However, there are other things missing:

- It should be possible to add when the material can be picked up (e.g. only during office hours + the exact hours), there should also be a tracking that the logistics employee knows the estimated arrival time.
- Proof of pick-up should also be included in the app (so all administration and all paper work related to that, both for the companies offering the stream and the waste collecting company).

**7. Do you think that being able to add a picture is an advantage or not necessary?**

This is for sure an advantage, in some cases this is even required, as for some things that need to be picked up, they need to be placed at a specific location in the company to avoid contamination (e.g. if it is standing close to something toxic that should not be picked up and you don't want the toxic material to be picked up instead).

It might be a good idea to foresee different pictures: 1. A picture of the waste itself, 2. the waste in its packaging material and 3. the exact location of the to be collected material. As such picking up the wrong thing can be avoided as much as possible.

**8. Is something else missing in the registration steps?**

One of the things that really should be checked with the waste collector is the proof of collection as this is very important (see Q6).

There was also a question on how things that are being collected can be weighed at the time of collection.

**9. Do you need other information in the history of collections?**

Here again the same remark as for Q8: a proof of collection coupled with this is very important.

## 2.4 Impacts of the workshop

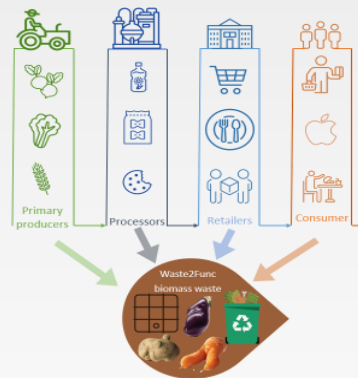
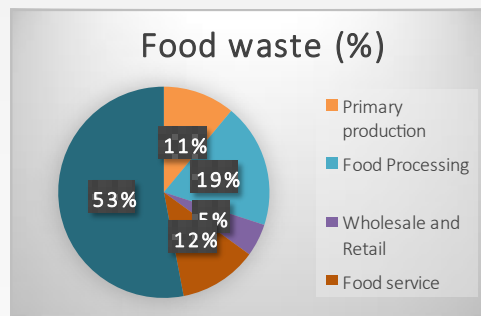
The required feedback was discussed with consortium partner Group Op de Beeck and based on these meetings the collection is further optimised. We have decided to have more such brainstorming sessions on the app and the whole project linked to bio-economy events. The next one up is Plant Based Summit (June 2023). Especially on the LCA and regulatory side more issues arose in the last months and these will be taken up during these workshops. It will also be tuned based on the public that is present.

### 3 Addendum: Presentation Satellite workshop WASTE2FUNC at the Pitch Perfect Event in Brussels (26/9/2022)



#### WASTE2FUNC Project: Background

- 88 million tonnes of food waste in the EU28 in 2012
- Cost of €143 billion



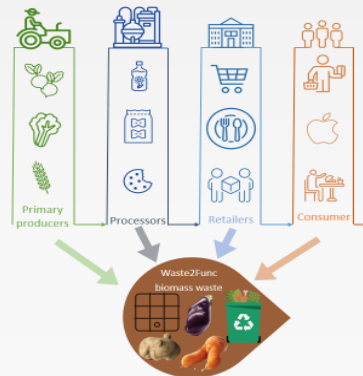
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## Background

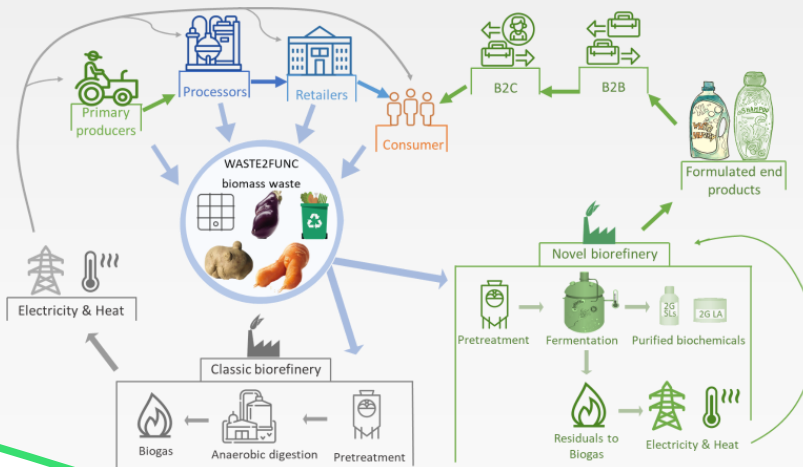
- Scattered
- Not continuously available
- No guarantee on volumes
- Difficult to build supply chains
- Not utilized or towards low value products (biogas)
- Landfilling, incineration



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## WASTE2FUNC biorefinery concept



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## Project overview and consortium

Coordinator: BIO BASE EUROPE PILOT PLANT



BBI JU contribution: €6 703 878.85

Duration: 01.06.2021– 30.11.2024



2 RTOs



7 SMEs



3 Large Companies



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## WASTE2FUNC Project: approach

SUPPLY CHAIN



LACTIC ACID



BIOSURFACTANTS



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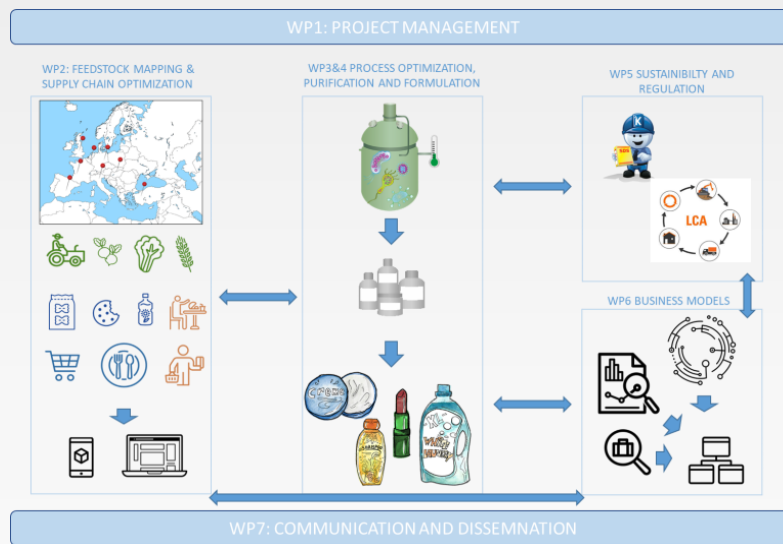
## Food waste based lactic acid and biosurfactants



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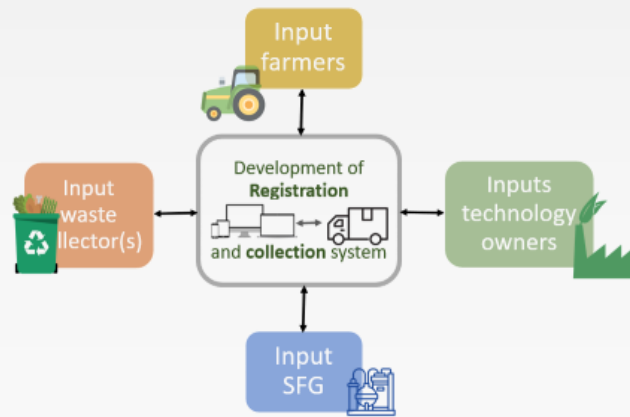
## Work plan



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## Supply chain: app/website development for waste/side stream registration and collection



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## DEMO of the WASTE2FUNC App



## VoxVote

- First some more general questions about potential side/waste streams in your company

[live.voxvote.com](https://live.voxvote.com)

PIN: 145655



- Afterwards some questions about the design of the WASTE2FUNC app



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## VoxVote

- First some more general questions about potential side/waste streams in your company

- Now some questions about the design of the WASTE2FUNC app



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## But first: A demo of the app

[https://invis.io/FK130SV1CG56#/469692565\\_Subscribe\\_Form](https://invis.io/FK130SV1CG56#/469692565_Subscribe_Form)

[https://invis.io/FK130SV1CG56#/469692566\\_Welkom](https://invis.io/FK130SV1CG56#/469692566_Welkom)



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## VoxVote

- Now some questions about the design of the WASTE2FUNC app

[live.voxvote.com](https://live.voxvote.com)

PIN: 145655



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## Q1 Initial Account Registration: What is missing in the registration screen?

**Registreren**

● **Stap 1: Info** > ○ **Stap 2: Ophaaladres**

Voornaam\* Tom Naam\* De Pauw

Beroepsnaam\* KoetjeBoe BTW-nummer BE0848 529 769

Mailadres\* tom.dp@gmail.com Telefoonnummer\* 053 222 333

**Volgende stap**

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## Q2: Do you need several pick-up addresses for your company?

**Registreren**

● **Stap 1: Info** > ● **Stap 2: Ophaaladres**

Adres 1 Nieuw adres toevoegen

**Tom De Pauw** [Toevoegen](#)

Boekhoutstraat 121  
1790 Affligem - België

GSM nummer tom.dp@gmail.com

[Wijzig](#)

**Inschrijven**

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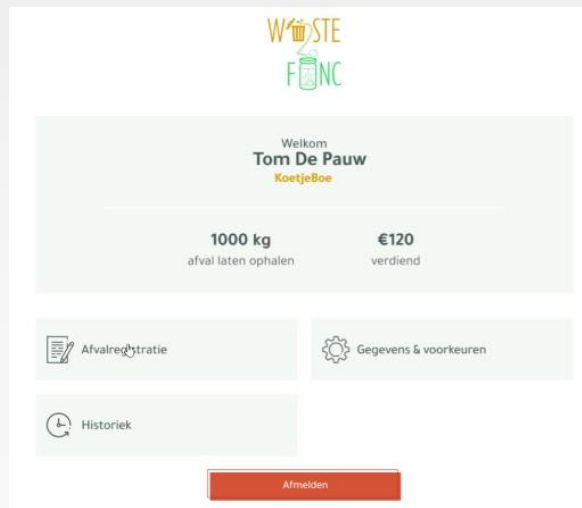
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Q3



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Q3: Waste/Side Stream registration: Are kg and m<sup>3</sup> useful units for the weight? Do you prefer other/extra units? Which ones?



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### Q4: Does your waste also contain other compounds than what is mentioned? If yes, what?

Type afval

Groente  Fruit

Vlees  Vis

Materie van vervuiling

Stenen  Andere gewassen  Droog

Zand  Nat

Afhankelijkheid

Ze snel mogelijk

Locatie

Adres 1	Adres 2	Adres 3
<b>Tom De Pauw</b> Boekhoutstraat 121 1790 Affligem - België GSM nummer tom.dp@gmail.com Wijzig Selecteer dit adres	<b>Tom De Pauw</b> Boekhoutstraat 121 1790 Affligem - België GSM nummer tom.dp@gmail.com Wijzig Selecteer dit adres	<b>Tom De Pauw</b> Boekhoutstraat 121 1790 Affligem - België GSM nummer tom.dp@gmail.com Wijzig Selecteer dit adres



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### Q5: What other potential contaminants are in your streams that should be mentioned? Should Dry/Wet be mentioned separately?

Type afval

Groente  Fruit

Vlees  Vis

Materie van vervuiling

Stenen  Andere gewassen  Droog

Zand  Nat

Afhankelijkheid

Ze snel mogelijk

Locatie

Adres 1	Adres 2	Adres 3
<b>Tom De Pauw</b> Boekhoutstraat 121 1790 Affligem - België GSM nummer tom.dp@gmail.com Wijzig Selecteer dit adres	<b>Tom De Pauw</b> Boekhoutstraat 121 1790 Affligem - België GSM nummer tom.dp@gmail.com Wijzig Selecteer dit adres	<b>Tom De Pauw</b> Boekhoutstraat 121 1790 Affligem - België GSM nummer tom.dp@gmail.com Wijzig Selecteer dit adres



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**Q6: The drop-down menu will contain options like as soon as possible, within 2 days, within a week, within two weeks. What is the maximin timing between registration and pick up according to you? (Can be different for different streams).**

The screenshot shows a registration form with several sections. At the top, there are radio buttons for 'Type afval' (Groente, Fruit, Vlees, Vis) and 'Mate van vervuiling' (Stenen, Andere gewassen, Droog, Zand, Nat). Below this is a dropdown menu labeled 'Afwijkingscode' with the selected option 'Ze snel mogelijk'. Underneath is a 'Locatie' section with three address cards for 'Tom De Pauw' at 'Boekhoutstraat 121, 1790 Affligem - België'. Each card includes a GSM number and an email address. A green box highlights the 'Afwijkingscode' dropdown menu.

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**Q7: Do you think that being able to add a picture is an advantage or not necessary?**

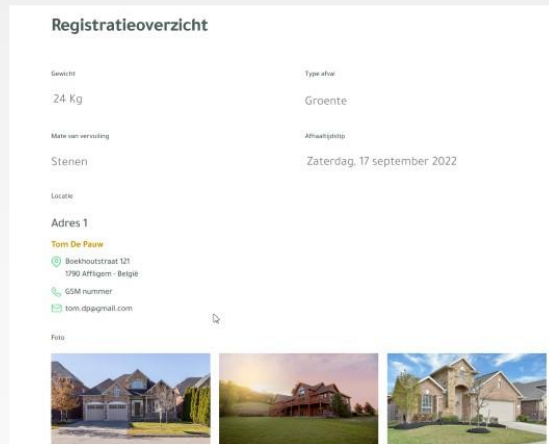
The screenshot shows the same registration form as above, but with a 'Foto' section below the address cards. It contains a text input field labeled 'Afbeelding uploaden' and a camera icon. A green box highlights this field. Below the input field is a green button labeled 'Volgende stap'.

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## Q8: Is something else missing in the registration steps?

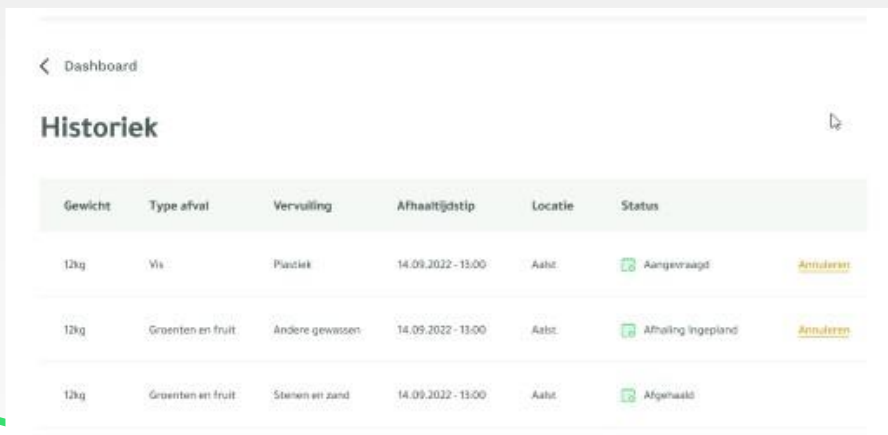


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## Q9: Do you need other information in the history of collections?



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## Q10: Is there anything essential missing? If yes, what? All other tips are also welcome.



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## Many thanks for your votes

- We are planning to test the app next year for a certain period (only the registration)
- Would you be interested in taking part of the development and testing phase of a specific user-friendly app for the registration (and future collection) of these streams?
- Please leave your contact details



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# Thank you



*This project has received funding from the Bio Based Industries Joint Undertaking under the European Union's Horizon 2020 research and innovation programme under grant agreement No 101023664*

