



## D7.8 – Report summary of case studies workshops

WP7- Dissemination, communication, exploitation and training

Authors

	
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## Project information

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<b>Project Coordinator:</b>	Institut National de Recherche pour l'Agriculture, l'alimentation et l'environnement (INRAE)
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CS leaders	04/12/2024	Contribution to Sections 3 to 8	<b>V0.2</b>
IFA	06/12/2024	Second draft	<b>V0.3</b>
Genevieve Gésan-Guiziu (INRAE)	12/12/2024	Peer review	<b>V0.4</b>
IFA	13/12/2024	Final draft	<b>V0.5</b>
Genevieve Gésan-Guiziu (INRAE)	18/12/2024	Final approval and submission to the E.C	<b>V1.0</b>

# 1 Executive Summary

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In the course of the 4<sup>th</sup> and final year of FAIRCHAIN, six workshops were held in the framework of the case-studies (CS) with the aim to share with actors of the food value chain the learnings and good practices brought by the project. These events were organized at national level – in Austria, Belgium, France, Greece, Sweden and Switzerland – and offered both training and demonstration activities.

Deliverable (D) 7.8 details the objectives, contents, audience and conclusions of these workshops which covered 12 days and were attended by more than 560 participants in total, representing all sectors of the food value chain – mostly small private companies such as food producers (e.g. farmers) or food-processing SMEs, as well as research & academy, although the participants profiles varied depending on the specificities of each CS.

Overall, the workshops were well appreciated. The feedback collected from the participants shows that most of them (59%) consider the FAIRCHAIN innovations applicable to their daily work, of which nearly 90% declared themselves rather to very likely to use these innovations.

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# List of Acronyms

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Abbreviation / acronym	Description
CS	Case study
D	Deliverable

## 2 Introduction

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The 4<sup>th</sup> Year events of the FAIRCHAIN Case Studies (CS) aimed at training food chain actors in the best practices learned during the project. The events were organized at national level including a training workshop and a demonstration session. Deliverable (D) 7.8 presents the events organized by each CS underling the learning objectives and including: the attendance list, the agenda of the event, the target audience as well as the presentation materials. During these events dissemination materials in the form of interview videos or demonstrations on the use of innovations were produced and further used for communication and dissemination purposes. Participants were also asked to fill in a feedback form to evaluate the events and the innovations presented, and the results are presented for the entire event or for each day organized according to each CS.

### 3 Case study Austria

The overarching ambition in the Austrian case study is to transition from individual initiatives by single short value chain actors to a more coordinated and cooperative approach involving intermediate value chains. This ambitious goal will be addressed through a social innovation: the implementation of a Food Innovation Incubator.

The events in Austria took place on June 13, 2024, with the demonstration in the morning and the training workshop in the afternoon.

#### Learning or training objectives:




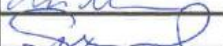
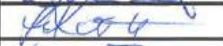

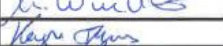

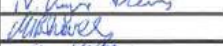

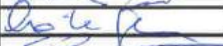




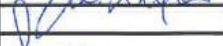








- provide insights into the replicability of the food innovation incubator for interested parties
- showcase the results of the food innovation incubator and its performance
- set up possible future cooperations

#### 3.1 Attendance list



FAIRCHAIN Demonstrations-Tag  
13.06.2024

Unterschrift

Vorname	Nachname	Institution	
Manfred	Klade	Technisches Büro Klade	
Patrick	Birkel	K&P Consulting	
Lisa	Bauer	Gesundheitsfonds Steiermark	
Lisa	Maurer	LFS Grottenhof	
Peter	Stachel	LK Steiermark	
Sandra	Karner	IFZ Interdisziplinäres FZ	
René	Kollmann	STRATECO	
Claudia	Winkler	Joanneum Research	
Thomas	Vogel	PTO 22	
Daniel	Humpel	PTO 22	
Oliver	Feth	PTO 22	
Idiot	Michael	PTO 22	
Chrysantos	Höbbling	PTO 22	
Christian	Kozina-Voit	Stadt Graz	
Honko	Grosse	PH Joanneum	
Simon	Reiner	PH Joanneum	
NIKOLAUS	RITTENAU	BP NUTRITION	
Benjamin	Pleberger	BP NUTRITION	
GERANZ	DEMS	Wanderhahn GmbH	
ISWILD	SCHUSCH	Styria AG, K&S	
Katharina	Krauscher	Larannhof	
Doris	LENGAUER	Alo, Perschke & Partner	
		P. Speiser & Partner	
BETTINA	GUGLBERGER	bedilicious	

## 3.2 Agenda of the event

Time	Programm
09:00 - 09:30	Welcoming through head of the study program
30 Minutes per Session: 09:30 - 11:30	Title: From the idea to the product 30 minutes: Understanding regional consumption 30 minutes: Product development 30 minutes: Hygiene/quality assurance 30 minutes: Workshop/equipment
12:00 - 13:00	Lunch
13:00 - 13:30	4 years of Food Innovation Incubator - modules, model, experience reports
13:30 - 14:00	Present model / Incubator model
14:00 - 14:30	Coffee Break
14:30 - 14:50 15:10 - 15:30 15:30 - 15:50	Inputs from Incubator Participants: Bettina Ganglberger: e.g. start-up learnings Doris Lengauer: Styrian ginger
15:45 - 16:30	Panel discussion
16:30 - 18:00	Food and Networking

## 3.3 Target audience

Both established collaborators and new stakeholders engaged during the project were invited representing the entire food value chain.

Number of invited participants: 33

- no. of actors (producers, food SMEs, traders, distributors): 10
- no. of stakeholders (NGOs, public authorities, opinion leaders, and regulators): 4
- no. wider audience (policy makers, retail, food industry, citizens): 10
- no. from research and scientific organizations: 9
- no. from sister projects: 0

## 3.4 Presentation material

In the morning, an engaging Open Lab Day showcased project outcomes through hands-on demonstrations in a laboratory environment. This session was entirely interactive, and no formal presentations were provided. In the afternoon, the focus shifted to a structured presentation of the Incubator's achievements, delivered via PowerPoint. The following slides offer a detailed overview of these afternoon activities:

26/11/2024



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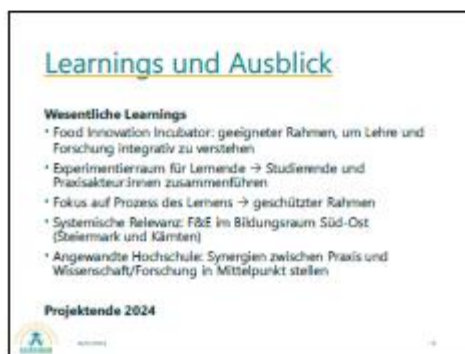




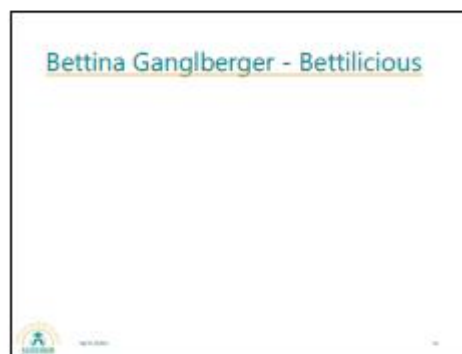
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14



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### 3.5 Dissemination materials (demonstrations & interviews)

These videos were created showing the results of the Food Innovation Incubator:

<https://www.youtube.com/watch?v=gT5gtVrJGHM>

### 3.6 Feedback form

During the Demonstration Day, oral feedback was collected, highlighting the participants' appreciation for the activities provided by the Food Innovation Incubator. Attendees particularly valued the practical approach and noted an enhanced connection between stakeholders in the



food sector. However, it was observed that interest in participating in activities tends to be higher at the outset. Despite sharing detailed plans for the project's remaining duration, the long-term outlook of the Food Innovation Incubator remained unclear due to unresolved funding issues.



## 4 Case study Belgium

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The CS in Belgium aimed at developing innovative packaging machine for small and mid-sized actors. As previously communicated in the mitigation plan: to date, there is no operational machine. For that reason, the following mitigation measures are planned or already performed: “Despite the machine not being fully operational, the prototype will be utilized for demonstration purposes, and knowledge transfer regarding its implementation will be disseminated through tutorials to various stakeholders (processors; packaging suppliers; machine builders, etc.). This aims to bring together diverse actors to collectively work on shaping the future of value chains. Tutorials will be made which may be used to demonstrate the results achieved and how these may be used/implemented by SMEs (machine builders, food companies, farmer processors, etc.) across Europe. These tutorials will be used for training in the Master Sustainable food packaging and other educational programs (WP7: Training 1 + having material to reach farmers over EU).”

The 4th year events were organised on three different days.

Day 1: September 12, 2024 - Training sessions join with the co-creation workshop (WP1) at UGent-campus Kortrijk

Day 2: October 10, 2024 – Training event online

Day 3: November 15, 2024 – Demonstration event at Veg-i-Tec building, 8500 Kortrijk

Further, on 2 and 3 December, new small events were organized to demonstrate the small packaging machine with real product to a small French producer. This was described in D3.4. A small video was made to demonstrate to the broader public.

### **Learning or Training Objectives:**

- explore aseptic packaging and its advantages.
- evaluate packaging in pouches as the future of sustainable packaging and the potential increase in shelf-life.
- identify the needs of the actors involved in food production and packaging.

## 4.1 Attendance list

Day 1:



Thursday 12 September 2024

### Attendance list

By completing this list you agree that your opinions stated at this event and your **photos/videos/audio** may be used by the FAIRCHAIN project only for purposes of **communication and dissemination** about the project. Your name and affiliation will never be associated with your comments. You agree that your **name and affiliation may be distributed** to the participants of the workshop.

	First name + Surname	Affiliation	Email	Stakeholder	Signature
1	Anckaert Kristoff	Vandemoortele	kristoff.ankaert@vandemoortele.com	Bigger processing plants (Vegetable & Fruit)	
2	Balcaen Paul	Segers & Balcaen	gracy.ramont@segers-balcaen.com	Packaging	
3	Benezech Thierry	INRAE	thierry.benezech@inrae.fr	Research	
4	Broeckx Hans	Natuursoep	hans@lasoupe.be	Farmer/processor	
5	Callemeyn Luc	Baliehof	contact@baliehof.be	Farmer/processor	
6	Chys Michael	Ghent University	michael.chys@ugent.be	Research	
7	Daveloose Alexis	Food Process	alexis.daveloose@ugent.be	Journalist	

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Thursday 12 September 2024

	First name + Surname	Affiliation	Email	Stakeholder	Signature
8	De Baets Elke	Footstep / ODAS	elke.debaets@odas.be	Farmer/processor	
9	De Bruyckere Louis	Ghent University	louis.debruyckere@ugent.be	Research	
<del>10</del>	<del>De Clercq Karel</del>	<del>Profilan/Indusfilter</del>	<del>k.declercq@profilan.be</del>	<del>Filter company</del>	
<del>11</del>	<del>Depickere David</del>	<del>Engisol</del>	<del>depickered@gmail.com</del>	<del>Machine builder</del>	
12	Devlieghere Frank	Ghent University	frank.devlieghere@ugent.be	Research	
13	Dewulf Steven	Indusfilter	steven.dewulf@indusfilter.be	Filter company	
14	Dohogne Guy	Retired	guy.dohogne@telenet.be	Packaging	
15	Halsberghe Tomas	Smurfit Kappa	tomas.halsberghe@smurfitkappa.be	Packaging	

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Thursday 12 September 2024







	First name + Surname	Affiliation	Email	Stakeholder	Signature
16	Hoevenaars René	VDL-Packaging	r.hoevenaars@vdlpackaging.com	Machine builder	
17	Housmans Joëlle	Ghent University	joelle.housmans@ugent.be	Research	
18	Kovács Ildikó	Vandemoortele	ildiko.kovacs@vandemoortele.com	Bigger processing plants (Vegetable & Fruit)	
19	Lambert Thierry	NV Euralpack Belgium	thierry.lambert@euralpack.com	Packaging	
<del>20</del>	<del>Lejeune Thibault</del>	<del>Brugs Foodlab</del>	<del>thibault@republiekbrugge.be</del>	<del>Representative</del>	
21	Loos Gerrit	IMVERTEC	g.loos@imvertec.com	Machine builder	
22	Loveniers Pieter-Jan	Ghent University	pieterjan.loveniers@ugent.be	Research	
23	Naeye Marino <i>Boutte Yannis</i>	Sowepo	laurens.boutte@sowepo.be	Farmer/processor	

*Naeye Marino**Sowepo**Farmer/processor*

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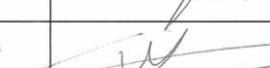

Thursday 12 September 2024

	First name + Surname	Affiliation	Email	Stakeholder	Signature
24	Parmentier Sofie	Aldia	Sofie.Parmentier@aldia.be	Bigger processing plants (Vegetable & Fruit)	
25	Ragaert Peter	Pack4food	Peter.Ragaert@UGent.be	Packaging	
26	Saelens Harald	Scaldopack	harald.saelens@scaldopack.be	Machine builder	
27	Sampers Imca	Ghent University	imca.sampers@ugent.be	Research	
28	Schouteten Joachim	Ghent University	joachim.schouteten@ugent.be	Research	
29	Taillieu Eline	Ghent University	eline.taillieu@ugent.be	Research	
30	Tuytschaever Tessa	Ghent University	tessa.tuytschaever@ugent.be	Research	
31	Van Cauwenberge Wim	Daklapack	wim.vancauwenberge@daklapack.be	Packaging	

4/5



Thursday 12 September 2024

	First name + Surname	Affiliation	Email	Stakeholder	Signature
32	Vancleemput Katelijne	POM West-Vlaanderen	katelijne.vancleemput@pomwvl.be	Representative	
33	<del>Van Goethem Katrien</del>	<del>Cobelpast</del>	<del>katrien.vangoethem@cobelpast.be</del>	<del>Packaging</del>	
34	Vanderplaetsen Sofie	Professional Media Group	vas@pmg.be	Journalist	
35	Vanmechelen Hans	Greenyard	Hans.Vanmechelen@greenyardprepared.com	Bigger processing plants (Vegetable & Fruit)	
36	Verbeke Lowie	Agrafresh	lowie@agrafresh.be	Bigger processing plants (Vegetable & Fruit)	
37	Verherbruggen Hedwige	Pack4food	hedwige.verherbruggen@ugent.be	Research	
38	Vermoesen Piet	Mademoiselle Desserts	p.vermoesen@mdesserts.com	Bigger processing plants (Dairy)	
39	Vervaecke Heinz	Beckhoff	h.vervaecke@beckhoff.com	Machine Builder	

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
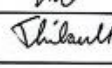
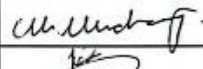
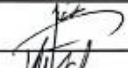
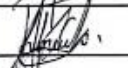
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Thursday 17 October 2024 &amp; Friday 15/11/2024

**Attendance list**

By completing this list you agree that your opinions stated at this event and your photos/videos/audio may be used by the FAIRCHAIN project only for purposes of communication and dissemination about the project. Your name and affiliation will never be associated with your comments. You agree that your name and affiliation may be distributed to the participants of the workshop.

	First name + Surname	Affiliation	Email	Stakeholder	Signature
<input checked="" type="checkbox"/>	Md. Rashedul Islam Asif	Ghent University	MdRashedulIslam.Asif@UGent.be	Student	
2	Xuán-An Biu	Ghent University	Farzanehsadat.Ghafoori@UGent.be	Student	
3	Thibault De Visscher	Ghent University	Thibault.DeVisscher@UGent.be	Student	
4	Merve Erdoğan	Ghent University	Merve.Erdogan@UGent.be	Student	
5	Farzanehsadat Ghafoori	Ghent University	Farzanehsadat.Ghafoori@UGent.be	Student	
6	Apollo Kibuuka	Ghent University	Apollo.Kibuuka@UGent.be	Student	
<input checked="" type="checkbox"/>	Karen Priest	Ghent University	Karen.Priest@UGent.be	Student	
<input checked="" type="checkbox"/>	Phebe Wittevrongel	Ghent University	Phebe.Wittevrongel@UGent.be	Student	

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## 4.2 Agenda of the event

Day 1:

TIME	ACTIVITY TYPE	ACTIVITY TITLE	ACTIVITY LEADER
13.00	Arrival	Welcome	Imca Samplers
13.30	Introduction	Lectures: <ul style="list-style-type: none"> <li>Determining factors of microbiological shelf life &amp; safety</li> </ul>	Frank Devlieghere, Professor at Ghent University
13.45	Presentations	Lectures <ul style="list-style-type: none"> <li>Hygienic design &amp; innovation working together in action (in English)</li> <li>Air purification and aseptic filling under scrutiny</li> <li>What requirements must sustainable food packaging meet?</li> </ul>	<ul style="list-style-type: none"> <li>Thierry Benezech, Research Director at INRAE</li> <li>Pieter-Jan Loveniers, Researcher at Ghent University</li> <li>Peter Ragaert, Director of Pack4Food &amp; Professor of Packaging Technology at Ghent University</li> </ul>
15:30	Break		



16:00	Co creation workshop		
18:00	Networking event and drinks		all

Day 2 and Day 3:

DATE	TIME	ACTIVITY TYPE	ACTIVITY TITLE	ACTIVITY LEADER
17/10/24	16.15-20.30	Training	Online	Imca Sampers
15/11/24	08.30-10.30	Introduction	Demonstration	Imca Sampers
2-3/12/2024	Whole day	Demonstration small packaging machine	Small farmer testing	Imca Sampers

### 4.3 Target audience

Day 1: Number of invited participants: 230 (+ LinkedIn, newsletter Pack4Food)

- no. of actors (producers, food SMEs, traders, distributors): 122
- no. of stakeholders (NGOs, public authorities, opinion leaders, and regulators): 71
- no. wider audience (policy makers, retail, food industry, citizens): 18
- no. from research and scientific organizations: 17
- no. from sister projects: 2

Day 2 and Day 3: Master's students enrolled in the Master program: "Sustainable food packaging and other educational programs": 8

### 4.4 Presentation material

Due to space constraints the presentations which has 176 slides is added as pdf document.



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### 4.5 Dissemination materials (demonstrations & interviews)

The following videos were created:

[Testimonials of participants](#)

[The role of air quality during packaging](#)

[Sustainable food packaging](#)

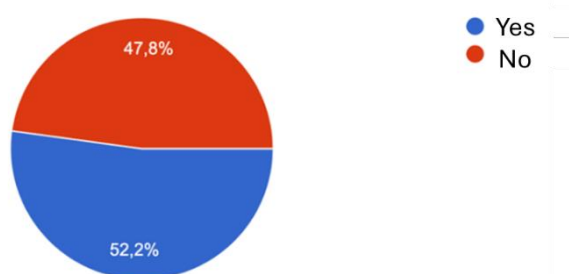
[Hygienic design of filling machine](#)

[Demonstration of the small packaging machine](#)

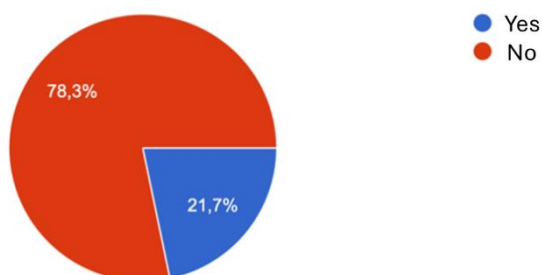
## 4.6 Feedback form

The feedback form of the CS Belgium was filled by 23 participants with half being partners of the FAIRCHAIN project, 62% male and aged between 41 and 60. The event was of high interest for private companies (43,5%), universities (21.7%) and non-profit organizations (17.4%). Most of respondents, 52.2 %, found that the event was appropriately useful and 56 % felt that they are well trained in the best practices presented during the workshops, with the demonstration as their favorite part. The innovation presented was found interesting and sustainable by 47.8% and 52.2% of the participants, respectively, and 65% will be interested in using it in their work.

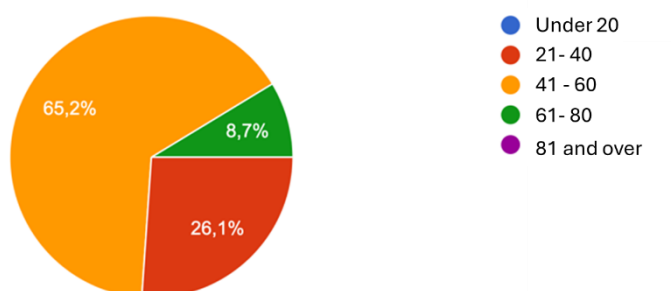
### 1. Are you a partner in the FAIRCHAIN project



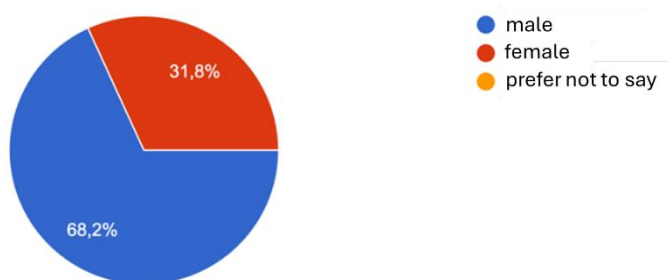
### 2. Are you a partner on any other food-related EU projects?



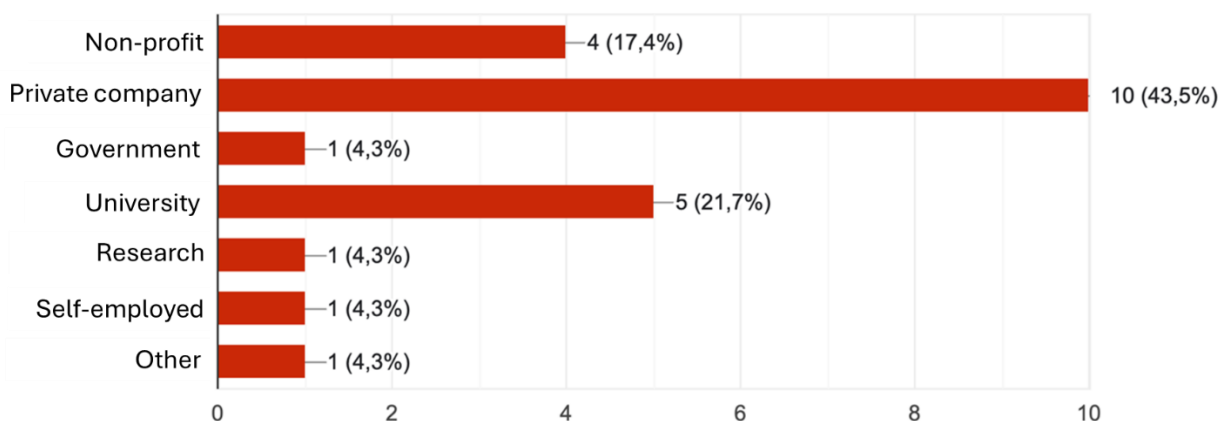
### 3. Age range



## 4. Gender



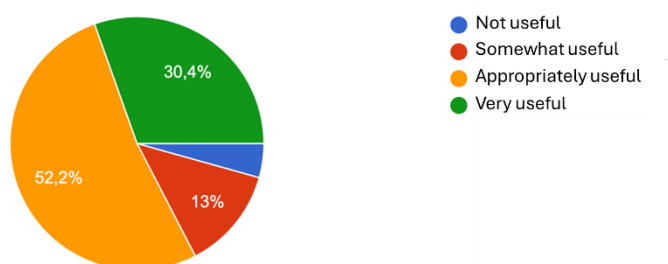
## 5. What type of organization do you work for?



## 6. What is your primary type of work?



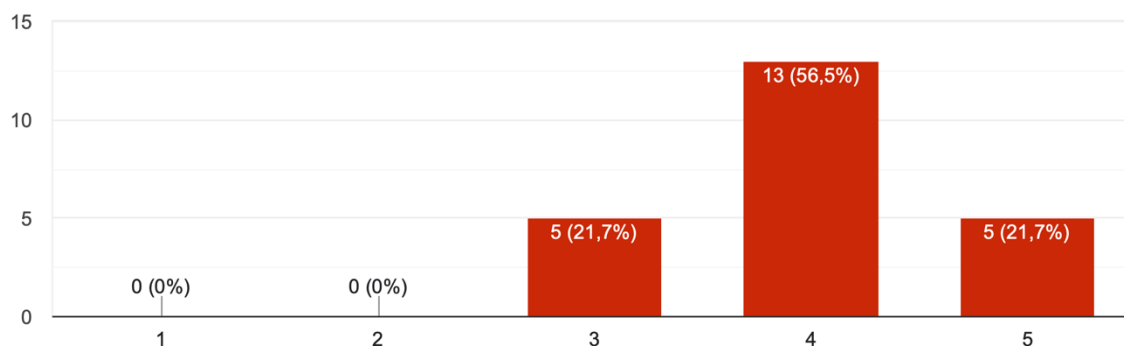
## 7. How would you rate the usefulness of this workshop?



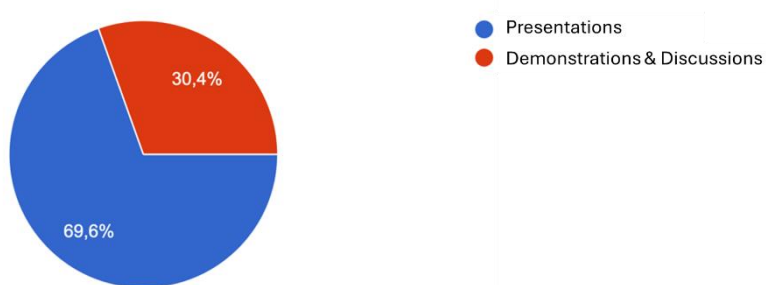


8. How well trained were you in the best practices presented at this workshop?

1. not well trained to 5. very well trained

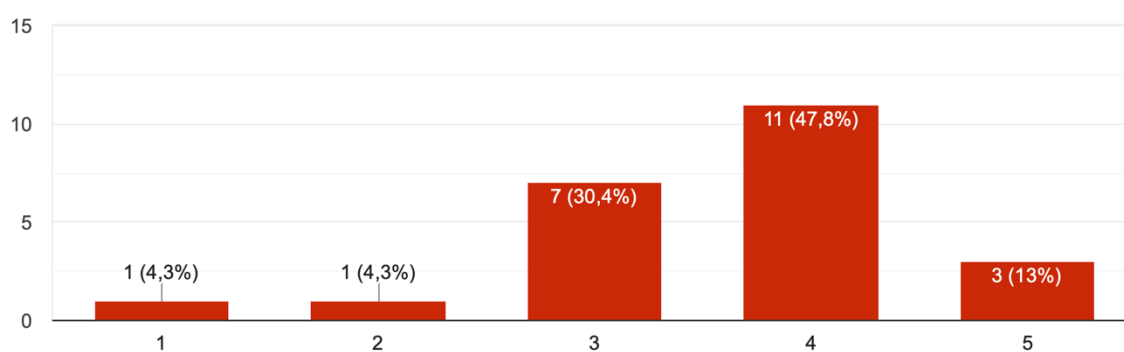


9. What was your favorite part of the workshop? (to be specific for each workshop according to the agenda)



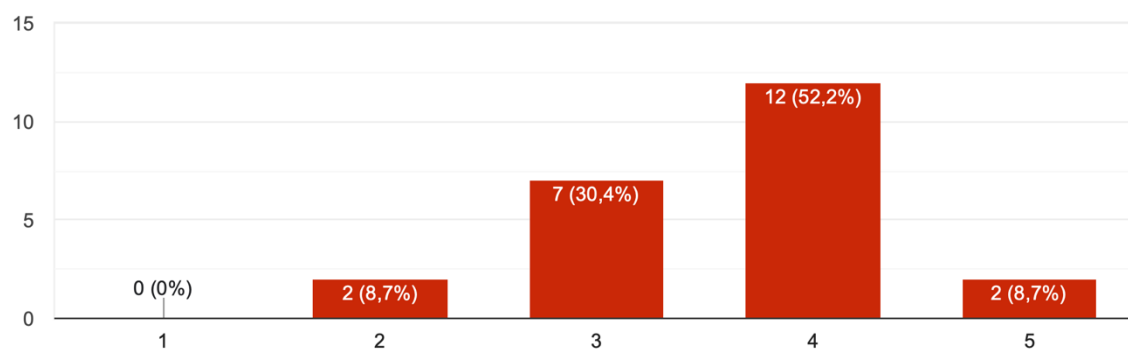
10. How interesting did you find the innovations presented at this workshop?

1 not at all interesting to 5 very interesting

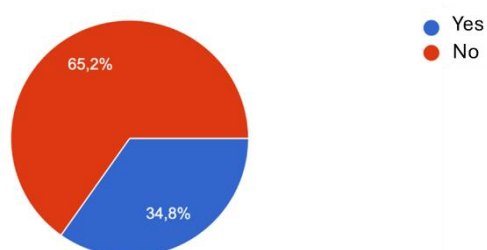


11. Rate the sustainability of the innovations presented.

1 not at all sustainable to 5 very sustainable



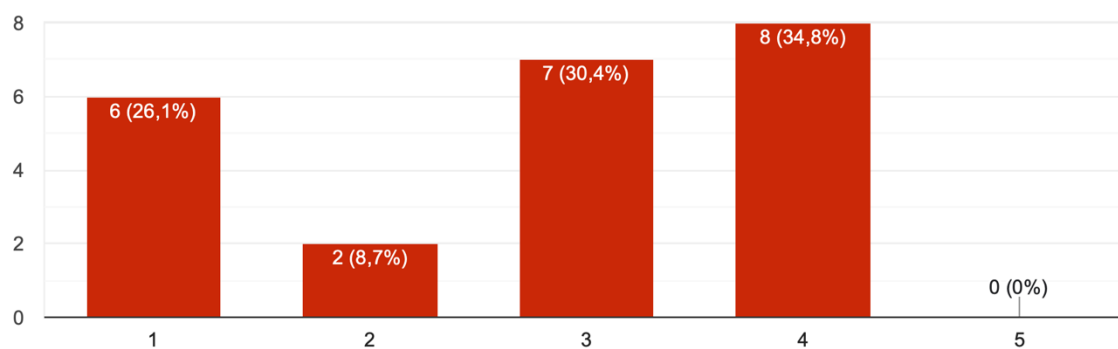
12. Are these innovations applicable to your daily work?



If Yes,

How likely would you be to use the innovations presented here?

1 not at all to 5 very likely



## 5 Case study Greece

CS in Greece aimed at increasing the traceability and reliable information sharing in local dairy production. The events were organized on two different days:

Day 1: September 27, 2024 – Training event hybrid involving actors in Athens and Stymfalia.

Day 2: September 28, 2024 – Demonstration event in Stymfalia

### Learning or Training Objectives:

- present and demonstrate the results of the case study to chain stakeholders and interested parties
- explain the technologies involved and investigate their extensibility / scalability
- discuss and critically evaluate the results of the CS

### 5.1 Attendance list




#### FINAL CS Demonstration Workshop

#### Greek CS (Blockchain-based Traceability in the Dairy Sector)



Date: 28/09/24

By completing this list you agree that your opinions stated at this event and your photos/videos may be used by the FAIRCHAIN project only for purposes of communication and dissemination about the project. Your name and affiliation will never be associated with your comments.

Name	Affiliation	Email	Type of audience	Signature
Panagiota Ntoule	Food sector expert	<a href="mailto:fjoralba_dule@yahoo.gr">fjoralba_dule@yahoo.gr</a>	Actor	
Kostas Pramataris	Agia Sofia Estate	<a href="mailto:kpramat@gmail.com">kpramat@gmail.com</a>	Stakeholder (producer)	
Yiannis Oikonomidis	Intrasoft International	<a href="mailto:yannis.oikonomidis@netcompany.com">yannis.oikonomidis@netcompany.com</a>	Stakeholder (blockchain)	
Apostolos Skias	Marketing expert	<a href="mailto:skiasapo@yahoo.gr">skiasapo@yahoo.gr</a>	Stakeholder	
Tasos Baltas	Lakre SA (sales)	<a href="mailto:tasosvip@hotmail.com">tasosvip@hotmail.com</a>	Stakeholder	
Kostas Sakellaris	Municipality Ag. Anargyrou	<a href="mailto:c.sakel@gmail.com">c.sakel@gmail.com</a>	Wider audience	

Name	Affiliation	Email	Type of audience	Signature
Vasileios Vallinas	EcoLab	vassileios.vallinas@ecolab.com	Stakeholder	
Dimitrios Saltapidas	Parmaklis Labs	dim.saltapidas@phoo.gr	Stakeholder	
Konstantinos Lambropoulos	Food Sector	klambropoulos@konstantinos41@gmail.com	Stakeholder	
Georgia Bourloka	Food Sector expert		Stakeholder	
Georgios Xernos	Food Sector expert		Stakeholder	
Gatsiopoulos Vasileios	Academic		Stakeholder	
Raftopoulos Dimitrios	Sales Manager	raftopoulos@phoo.gr	Stakeholder	
Alexopoulou Vasiliki	Food Sector Expert	-	Stakeholder	
Nagou Athanasia	Food Sector	-	Stakeholder	




	Expert			
Panagiota Karavioti	Food Sector Expert	penny.kaz@gmail.com	Stakeholder	
Konstantinos Efstathiou	Maintenance Manager at Food Sector	elkon.tech@gmail.com	Stakeholder	

### FINAL CS Demonstration Workshop

#### Greek CS (Blockchain-based Traceability in the Dairy Sector)






28/09/24

By completing this list you agree that your opinions stated at this event and your photos/videos may be used by the FAIRCHAIN project only for purposes of communication and dissemination about the project. Your name and affiliation will never be associated with your comments.

Name	Affiliation	Email	Type of audience	Signature
Markos	Leggas	markosleggas@stymfalia-sa.gr	Actor	
Dimitris	Chatzitheodorou	quality@stymfalia-sa.gr	Actor	
Anastasia	Andriana kou	quality@stymfalia-sa.gr	Actor	

**FINAL CS Demonstration Workshop**  
**Greek CS (Blockchain-based Traceability in the Dairy Sector)**

Date: 28/09/24

Name	Affiliation	Email	Type of audience	Signature
Filissia Melissari	Synelixis	<a href="mailto:melisari@synelixis.com">melisari@synelixis.com</a>	Actor	
George Nikolakis	Synelixis	<a href="mailto:nikolakis@synelixis.com">nikolakis@synelixis.com</a>	Actor	
Katerina Papadopoulou	Synelixis	<a href="mailto:kpapadopoulou@synelixis.com">kpapadopoulou@synelixis.com</a>	Actor	
Konstantinos Railis	Synelixis	<a href="mailto:railis@synelixis.com">railis@synelixis.com</a>	Actor	
Andreas Papadakis	Synelixis	<a href="mailto:papadakis@synelixis.com">papadakis@synelixis.com</a>	Actor	

## 5.2 Agenda of the event

Day 1:

TIME	ACTIVITY TYPE	ACTIVITY TITLE	ACTIVITY LEADER
15.50	Arrival		
16.00	Presentation	Introduction and objectives of Training	Synelixis and Stymfalia
16.15	Online learning	Blockchain technology	Synelixis
16.45	Discussion	Traceability in dairy sector	Stymfalia
17.15	Break		
17.30	Demo and Experimentation	Access and usage of ICT / Blockchain tools. Dairy operation data. Verification of data trustworthiness.	Synelixis and Stymfalia
18.30	Discussion and wrap up		Synelixis and Stymfalia
19.00	End		

Day 2:

TIME	ACTIVITY TYPE	ACTIVITY TITLE	ACTIVITY LEADER
09.00	Arrival		
09.15	Presentation	Context and intro to the project, the CS, and the demo workshop.	Synelixis and Stymfalia

09.45	Presentation and demo	Design and technical solution	Synelixis
10.15	Break		
10.30	Presentation and demo	Dairy processes (Feta and yoghurt) and traceability	Stymfalia
11.00	Demo and experimentation	Hands-on experimentation. Actual production, inspection of QR by participants.	Synelixis and Stymfalia
12.00		Discussion, evaluation, possible extensions.	
12.30	Lunch		

### 5.3 Target audience

As target audience actors of the food chain, actively involved in the development of the CS and food chain stakeholders were considered.

Number of invited participants: 23

- no. of actors (producers, food SMEs, traders, distributors): 12
- no. of stakeholders (NGOs, public authorities, opinion leaders, and regulators): 2
- no. wider audience (policy makers, retail, food industry, citizens): 7
- no. from research and scientific organizations: 2
- no. from sister projects: 0

### 5.4 Presentation material



**FAIRCHAIN:**  
Innovative technological, organisational and social solutions for FAIRer dairy, fruit and vegetable value CHAINS



**Κοινοπραξία FAIRCHAIN**

22 οργανισμοί σε 8 χώρες

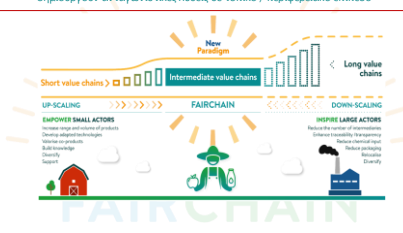


#### Ατζέντα

- Συνοπτική παρουσίαση έργου και μελέτης περίπτωσης
- Παρουσίαση παραγωγής
- Επίδειξη χρήσης συστήματος
- Συζήτηση – αξιολόγηση για την καινοτομία και τη διαδικασία της ανάπτυξης (συν-δημιουργία)

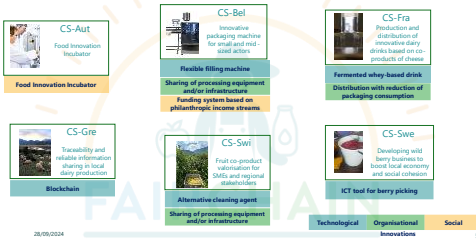


Ενδιάμεσες Αλυσίδες Αξίας: Μικροί και μεσαίοι παραγωγοί της αλυσίδας τροφίμων δημιουργούν ανταγωνιστικές λύσεις σε τοπικό / περιφερειακό επίπεδο





## 6 Πιλοτικά σε 6 χώρες



## Το Σκεπτικό



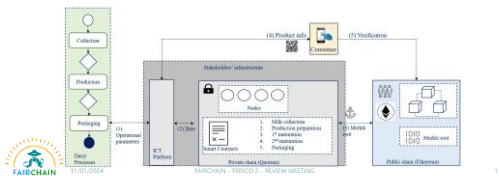
## Σχεδίαση

- Πλαίσιο
  - Νομοθεσία και καλές πρακτικές τυροκομείου
  - Διαδικασίες τυροκομείου και ποσοτικοποιημένες παράμετροι (pH, θερμοκρασία, χρονικό διάστημα)
- Επιλογές σχεδίασης
  - Φέτα (POF) και παραδοσιακό πρόβιο γιαούρτι
  - Σχεδίαση συστήματος ΤΠΕ και Blockchain
  - Επικύρωση της ακεραιότητας της πληροφορίας και επιβεβαίωση ευθυγράμμισης με τους κανόνες



## Τεχνική Προσέγγιση

- Συνδυασμός ιδιωτικής (Quorum) και δημόσιας (Ethereum) αλυσίδας
- Το σύνολο των παραμέτρων εγγράφεται στην ιδιωτική και μια σύντομη στη δημόσια (pH, temperature, duration, organoleptic and microbiological checks)
- Έξυπνα συμβόλαια (smart contracts) για τον έλεγχο κανόνων
- Μείωση κόστους εγγραφής στο δίκτυο Merge, ~1.5\$)



## Εφαρμογή Χρήστη

- Smart phone application
- Το QR επιτρέπει πρόσβαση σε πληροφορίες του blockchain



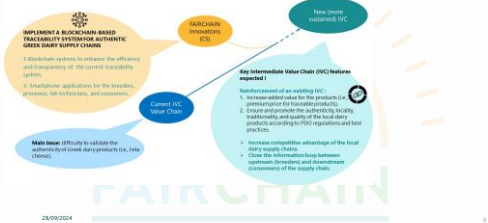
## Επίσκεψη Κοινοπραξίας και demo



## Ελληνικό Πιλοτικό / Μελέτη Περίπτωσης



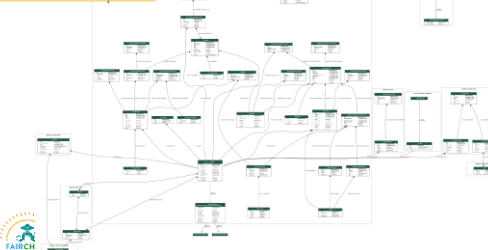
## Ανάπτυξη εξωστρεφούς συστήματος ιχνηλασιμότητας βασισμένο στην τεχνολογία Blockchain το οποίο είναι διαθέσιμο στους μετέχοντες και τους καταναλωτές



## Μεθοδολογία



## Μοντέλο Δεδομένων



## Υποδομή IoT – SynAir

- Απαιτήτηση από συζήτηση συν-δημιουργίας
- Συνθήκες διαβίωσης ζώων
  - THI (Temperature Humidity Index)
- SynAir IoT measuring air quality
  - SynField ([www.synfield.gr](http://www.synfield.gr)) ecosystem (άνω των 300 εγκαταστάσεων σε 15 χώρες σε Ευρώπη, Ασία και Αφρική)
  - Μετράει: Temperature, Relative Humidity, CO2, Particulate Matter (PM1.0, PM2.5, PM4, PM10) & NH3



## Ευχαριστούμε για την προσοχή σας



### Συζήτηση

- Υπάρχει ενδιαφέρον για μια τέτοια λύση (blockchain-based traceability) στον τομέα των τροφίμων, για ποια προϊόντα και με ποια κριτήρια (π.χ. επαρκώς ακριβό / πολύτιμο αγορά);
- Αφαιρούνται χρόνο οι καταναλωτές στο ράφι (ή κατόπιν της αγοράς) για να διαβάσουν ή και να ψάξουν περαιτέρω πληροφορίες για τα υποψήφια για αγορά προϊόντα;
- Ποια χαρακτηριστικά του προϊόντος (τυπώ και γιαούρτι) και της διαδικασίας παραγωγής είναι ενδιαφέροντα (και κατανοητά) από τον καταναλωτή; (π.χ. οι μετρήσεις Η μπορεί να μην σημαίνουν και πολλά, ωστόσο είναι η ευθυγράμμιση με το θεσμικό πλαίσιο παραγωγής της φέτας π.χ. ελάχιστη διάρκεια ωρίμανσης, ποσοστό μείξης πρόβειου και κατσικίσου γάλακτος κλπ καθώς και οι καλές πρακτικές που ακολουθούν τα τυροκομεία ώστε να προσφέρουν κάτι παραπάνω από αυτό που απαιτείται από το νόμο)
- Σχόλια επί της τεχνικής προσέγγισης (GUI)
- Θα ήταν οικονομικά βιώσιμη η λύση υποθέτοντας ένα 10% επιπλέον στην τρέχουσα τιμή; (κάνουμε ένα survey με Έλληνες καταναλωτές και οι απαντήσεις ήταν εν γένει καταφατικές).
- Ποια θα ήταν μια ενδεδειγμένη προσέγγιση για την εισαγωγή ενός τέτοιου προϊόντος στο λιανεμπόριο;
- Μπορεί η σχεδίαση τέτοιων λύσεων να είναι συνεργατική;



28/06/2024

17

## 5.5 Dissemination materials (demonstrations & interviews)

Food actors' opinion

[Interview Supplier expert](#)

[Interview Supplier](#)

[Interview Food Chain Stakeholder](#)

[Interview breeder](#)

[Interview employee](#)

[Interview owner](#)

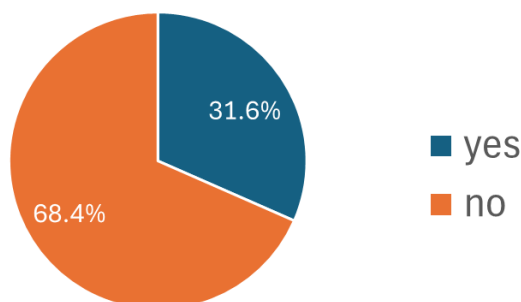
[Positioning Valinas](#)

[Interviews after the training event](#)

## 5.6 Feedback form

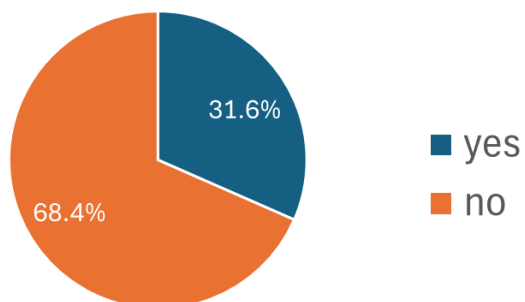
The feedback form of the CS Greece was filled by 19 participants with the majority not involved in the FAIRCHAIN project nor in any other EU project. 68% of the participants were male and were equally distribute in the age range of 21 to 40 and 41 to 60. The event was of high interest to private companies, with good representation of the research (36,8%), food chain actors (26,3%) and other types of work (26%). 84.2 % found that the event was very useful and 47,7 % felt that they were well trained in the best practices presented at the workshop, finding all parts of the events very relevant. The innovation presented was found interesting and sustainable by 89.5% and 52.6% of the participants respectively, but 68% will not be able to use it in their work.

1. Are you a partner in the FAIRCHAIN project

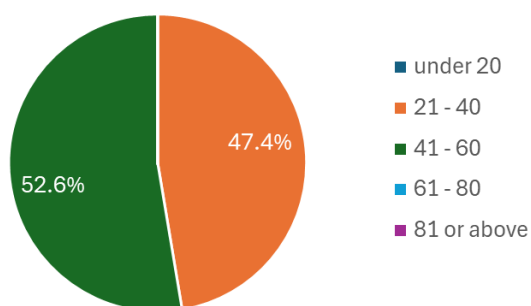




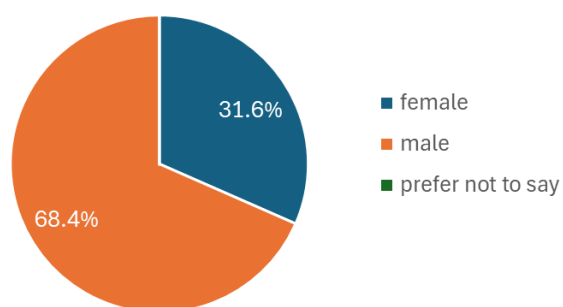
2. Are you a partner on any other food-related EU projects?



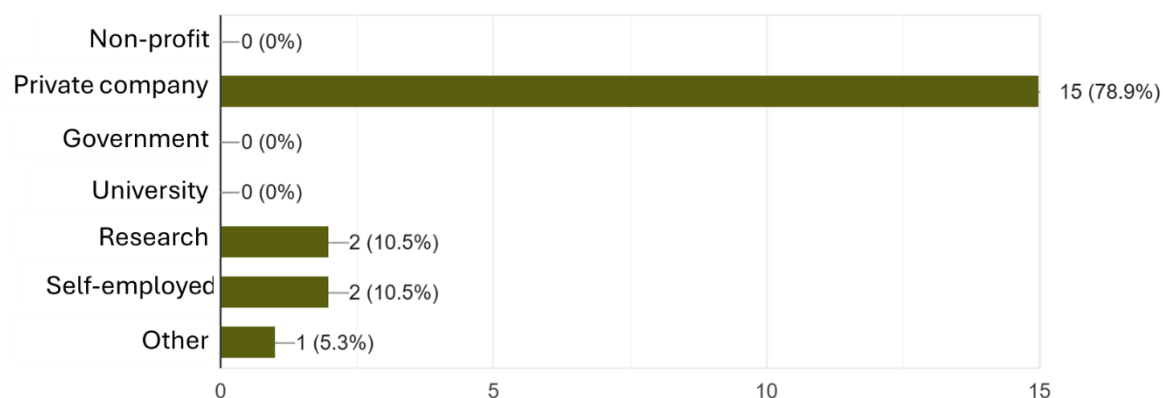
3. Age range



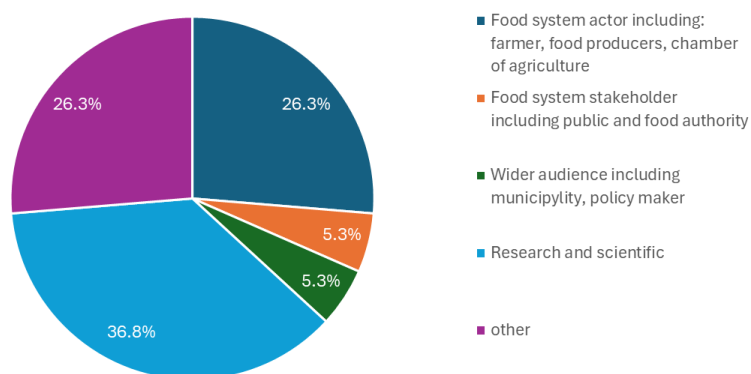
4. Gender



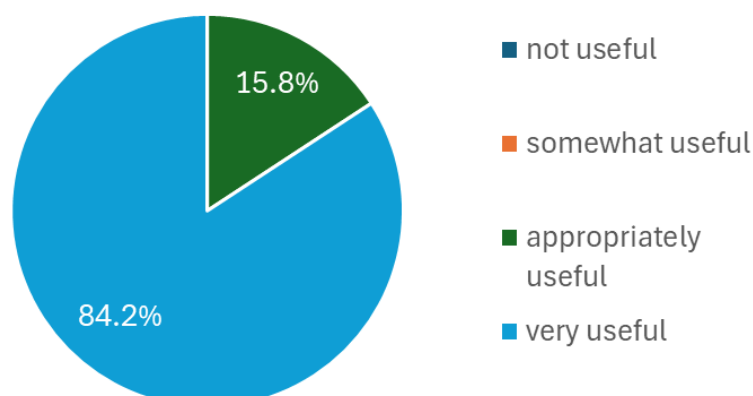
5. What type of organization do you work for?



6. What is your primary type of work?

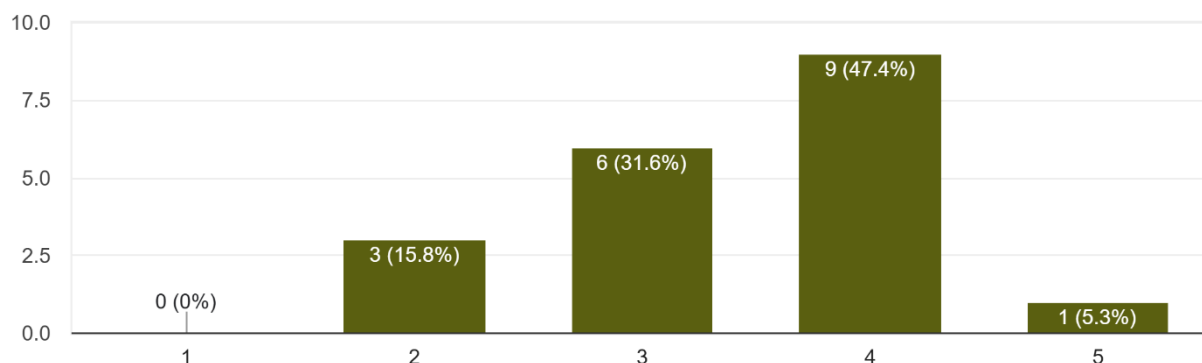


7. How would you rate the usefulness of this workshop

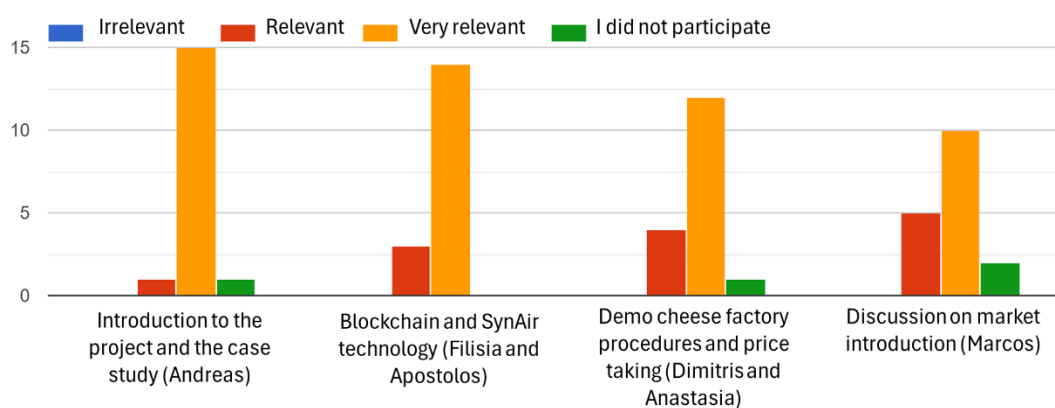


8. How well trained were you in the best practices presented at this workshop?

2. not well trained to 5. very well trained

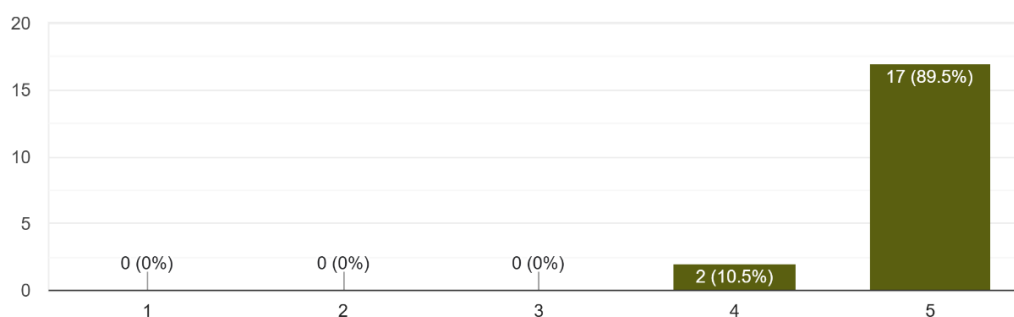


#### 9. How did you find the different parts of the event



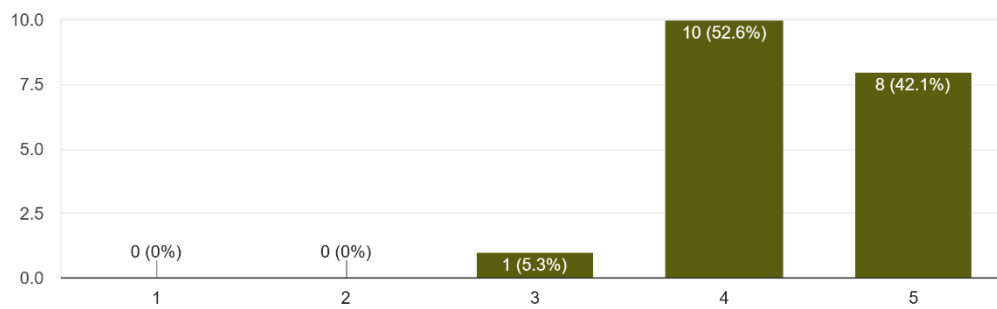
#### 10. How interesting did you find the innovations presented at this workshop?

1 not at all interesting to 5 very interesting

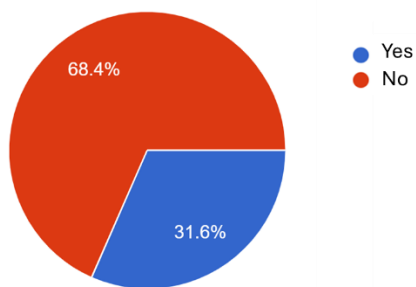


#### 11. Rate the sustainability of the innovations presented.

1 not at all sustainable to 5 very sustainable



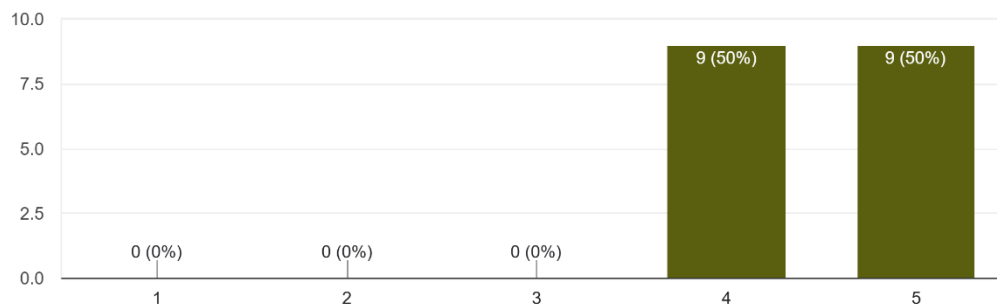
## 12. Are these innovations applicable to your daily work?



If Yes,

How likely would you be to use the innovations presented here?

1 not at all to 5 very likely



## 6 Case study France

The CS in France aimed at production of innovative dairy drinks based on co-products of cheese manufacturing held the training and demonstration event in two days focused on two different topics:

Day1 – reuse of glass bottles, September 17, 39800 Poligny, France, Maison du Comté

Day 2 - production of whey-based drinks, September 18, 39800 Poligny, France, Maison du Comté

### Learning or Training Objectives:

#### Day 1

- understand the different types of reuses, and know the context (actors, regulations) at the regional and national levels
- sharing the experience of actors involved in the different stages of reuse
- discover a tool to help design reuse scenarios based on environmental criteria currently being developed as part of FAIRCHAIN
- sharing the achievements of the FAIRCHAIN project: What should an SME pay attention to when deciding on reuse?

#### Day 2

- understanding the process of producing whey into fermented beverages
- benefit from advice on how to set up the process
- collectively discuss possible/necessary improvements to the process and its implementation to ensure its adoption and replicability
- obtain a complete view of the achievements of the CS-FRA, recommendations

### 6.1 Attendance list

#### Day 1:

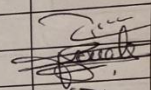
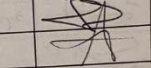
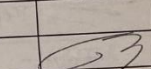
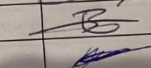
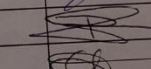
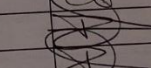
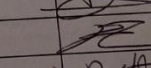
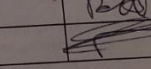
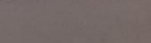
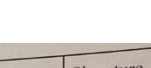
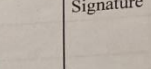
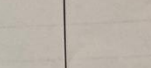
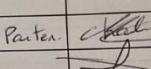
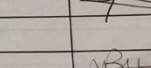
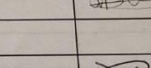
**Journée Réemploi des bouteilles consignées, 17 Septembre 2024**

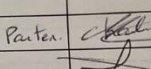
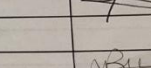
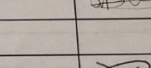
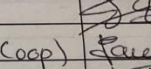
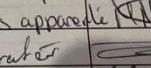
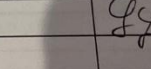
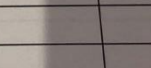
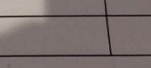





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Prénom	Nom	Affiliation	Email	Indiquer la catégorie la plus adaptée à laquelle vous appartenez . Producteurs, PME alimentaires, Industrie alimentaire, commerçants, distributeurs . ONG, autorités publiques, leaders d'opinion et régulateurs . Décideurs politiques, citoyens . Organismes d'enseignement et/ou de recherche . Partenaires des projets européens apparentés . Autres précisez_	Signature
Isabelle	CUVILLIER	ENILEA	isabelle.cuvillier@educagri.fr	organismes public -> enseignement	Partenaire
Laura	BELOH	CIFC	l.belloh@cifc.fr	Industrie agroalimentaire	Partenaire
Christophe	COTILON	ACTIA	c.cotilon@actia-assoc.eu	Industrie agroalimentaire	Partenaire
Chloé	VANIEL	BIVB	chloe.vaniel@bivb.eu	Vin	Partenaire
Sandrine	HUBER	RESSOURCES	sandrine.huber@ressources.fr	Conseil et accompagnement économie circulaire	Partenaire
Clément	GUDAT	Cogitex	c.gudat@cogitex.fr	Producteur de vin	Partenaire
Raphaël	CHACON	SIL EST	raphael.chacon@sil-est.fr	Industrie Alimentaire	Partenaire
Samuel	LE FEON	INRAE	samuel.lefeon@inrae.fr	Évaluation Environnementale	Partenaire
Yohann	BOJANNE	REUSE	yohann.bojanne@reuse.fr	ONG	Partenaire



Prénom	Nom	Affiliation	Email	Indiquer la catégorie la plus adaptée à laquelle vous appartenez · Producteurs, PME alimentaires, Industrie alimentaire, commerçants, distributeurs · ONG, autorités publiques, leaders d'opinion et régulateurs · Décideurs politiques, citoyens · Organismes d'enseignement et/ou de recherche · Partenaires des projets européens apparentés · Autres précisez	Signature
Hugues	PELLETIER	PETREL	hugues.pelletier@petrel.fr	Producteur	
Fabienne	GRONAU	ENILEA			
Didier	LANQUEVIN	ENILEA	didier.lanquevin@enilea.fr		
Sonia	BERTHIAULT	TRICOOP	sonia.berthiault@tricoop.fr	Producteur	
Jean-Louis	BERNER	ENILEA	jean-louis.berner@enilea.fr	Producteur	
Alain	BOYHOT	SAS André Boyhot	alain.boyhot@boyhot.fr	Producteur	
Richard	Brunet	SAS André Brunet	richard.brunet@brunet.fr	Producteur	
Nathalie	LEFEVRE	Coopérative Nathalie	nathalie.lefevre@coop-nathalie.fr	Producteur	
Loïc	BOURGEOIS	ENILEA	loic.bourgeois@enilea.fr	Producteur	
Cécile	GERMAIN	DRAAF/DRFDR	cécile.germain@draaf-drfr.fr	Etat - service déconcentré	
Thierry	GERRAUD	ENILEA	thierry.gerraud@enilea.fr		
Olga	NOÏR	ENILEA	olga.noir@enilea.fr	Enseignante + 12 élèves	
Éléonore	COTTIER	ENILEA	eleonore.cottier@enilea.fr	Formatrice + 4 élèves	
Julie	BASTIEN	ENILEA	julie.bastien@enilea.fr	Formatrice + 6 élèves	
Aurélien	PERRENOT	ENILEA	aurélien.perrenot@enilea.fr		

Prénom	Nom	Affiliation	Email	Indiquer la catégorie la plus adaptée à laquelle vous appartenez · Producteurs, PME alimentaires, Industrie alimentaire, commerçants, distributeurs · ONG, autorités publiques, leaders d'opinion et régulateurs · Décideurs politiques, citoyens · Organismes d'enseignement et/ou de recherche · Partenaires des projets européens apparentés · Autres précisez	Signature
Muriel	CHARLET	Alternative 7	muriel.c@alternative7.fr	Industrie Agro / Opérateur de réemploi / Parten.	
Olivia	COUSIN	Andia	olivia.cousin@andia.fr	Industrie Agro	
Nicolas	BRAGANTI	ENILEA	nicolas.braganti@enilea.fr	Enseignant	
Mélina	GRELOT	ENILEA	mélina.grelot@enilea.fr	"	
Bruno	LEFEMME	STAVOA	bruno.lefemme@stavoa.fr	Industrie Agro - fermier	
Fredéric	Gauchier	CNIEL	fgauchier@cniel.com	Filière laitière (Ind, Coop)	
Maurice	Maillard	Grangeneuve	maurice.maillard@gr.ch	Partenaires des projets européens apparentés	
Rémi	Thomas	Grangeneuve	remi.thomas@gr.ch	Partenaires des projets européens apparentés	
Géraldine	Benveniste	INRAE	geraldine.benveniste@inrae.fr		
Deutch	Stephanie	INRAE	stephanie.deutch@inrae.fr	partner	
PARIZEL	Odile	Schalis	odile.parizel@schalis.fr	partner	
Herbert	Virginie	Schalis	virginie.herbert@schalis.fr	partner	
BUCHIN	Fabrice	ENILEA	fabrice.buchin@enilea.fr		

Day 2:



**Liste d'émargement**  
**Journée Production de boissons fermentées à base de lactosérum, 18 Septembre 2024**

En remplissant cette liste, vous acceptez que vos opinions exprimées lors de cet événement et vos photos/vidéos puissent être utilisées par le projet FAIRCHAIN uniquement à des fins de communication et de diffusion du projet. Votre nom et votre affiliation ne seront jamais associés à vos commentaires. Nous collecterons également des données personnelles à des fins de recherche (par exemple, évaluation du processus de co-création lui-même...). Ces données seront pseudonymisées ou anonymisées à des fins d'analyse et de publication. Une fois les résultats publiés, vos données personnelles ne seront pas révélées et il ne sera pas possible d'extraire des données qui pourraient révéler votre identité.

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LAURE	BOURGEAIS	ENILEA		Partenaire	
Isabelle	CUILLIER	ENILEA		Partenaire	
Fabienne	GROUQUE	ENILEA		Partenaire	
Samuel	DAUTER	Lactalis		Industrie alimentaire	
Samuel	LEFEON	INRAE	smueller@inrae.fr	Partenaire	
Delphine	ABRAHAM	INRAE		Associés	
Maureen	Mabilard	Grangeneuve		partenaire	
Thomas	Pine	Grangeneuve		partenaire	
Christophe	COTILLON	ACTIA	c.cotillon@actia-assoc.eu	Partenaire	

Prénom	Nom	Affiliation	Email	Indiquer la catégorie la plus adaptée à laquelle vous appartenez . Producteurs, PME alimentaires, Industrie alimentaire, commerçants, distributeurs . ONG, autorités publiques, leaders d'opinion et régulateurs . Décideurs politiques, citoyens . Organismes d'enseignement et/ou de recherche . Partenaires des projets européens apparentés . Autres précisez	Signature
Romain	BRANGES	BBS	romain@thebbs.com		
Stéphanie	VOITOUA		led3900@gmail.com	PME Alimentaire	
Jérôme	ANXIONNAZ	Région BFC		Collectivité Territoriale	
Yaphet	CHACON	SILL Env.		Industrie Alimentaire	
Lucie	LE ROUX	SILL Entreprise	luc.leroux@sill.fr	IAA	
Fredric	CHACHEL	CNIEL	fchachel@ciel.fr	Filière lait	
Thierry	BERGARD	ENILEA			
Sylvain	SORNET	ENILEA			
Albina	CHABANE-CHOUACHE	Vitagora	albina.chabane-chouache@vitagora.com		
Karen	CHAUMAZ	K-centre des Tact	kennedystaples@chaco.fr	Producteur	
Eric	WRASCHI	AER	elwrascchi@act-5pc.com	act-5pc.com	
Genevieve	GESAN-GIZARD	INRAE		Recherche	
Stephanie	DEUTSCH	INRAE	visio		
Odile	PARIZEL	ACTALIA	visio		
Virginie	HERBRETEAU	ACTALIA	visio		
Rivianon	Lamée-Richet	laboratoire grande			
Fabrice	Buchin	ENILEA			

## 6.2 Agenda of the event

Day 1

TIME	ACTIVITY TYPE	ACTIVITY TITLE	ACTIVITY LEADER
09.00	Welcome coffee		
09.30	Lecture	Introduction: Presentation of the FAIRCHAIN project and the case study conducted in France	Geneviève Gésan-Guiziou (INRAE)
10.00	Lectures	Bottle reuse: what is it, why and with whom?	Hugues Pelletier (Petrel) Melchior de Roquemaurel (rseauConsigne et Vrac)
10:30	Break		
10:45	Discussions and debates	Sharing experiences with players involved in reuse	Muriel Charlet (J'aime Mes Bouteilles)
13.00	Lunch		
14.30	Lecture and demonstration	Presentation of a software tool based on environmental criteria to help design reuse scenarios	Samuel le Féon
16:00	Break		
16:15	Lectures	Presentation of FAIRCHAIN's achievements: What do we need to pay attention to, what are the difficulties, what are the benefits, when we want to embark on reuse, as small and medium-sized players?	Odile Parizel & Virginie Herbreteau (Actalia) Muriel Charlet (J'aime Mes bouteilles) Laure Raverot-Bourgeois (ENILEA) Samuel Le Féon (INRAE) Geneviève Gésan-Guiziou (INRAE)
17:30	Discussion	Conclusions	Geneviève Gésan-Guiziou (INRAE) & Hugues Pelletier (Petrel)
17:45 - 19:00	Tasting	Buffet apéritif with tasting of the drinks developed in FAIRCHAIN	
20:00		Outdoor dinner	



Day 2

TIME	ACTIVITY TYPE	ACTIVITY TITLE	ACTIVITY LEADER
8:30	Lecture	Introduction: Presentation of the FAIRCHAIN project and the case study conducted in France	Geneviève Gésan-Guiziu (INRAE)
8:45	Lecture	Presentation of the production processes for two types of beverage (sparkling and non-sparkling)	Laure Raverot-Bourgeois (ENILEA)
10:00	Break		
10:30	Visit & Demonstration	Visit to the ENILEA hall: presentation and explanation of how the equipment works for the preparation of the drinks	Laure Raverot-Bourgeois (ENILEA) And ENILEA team
12:00	Lunch		
13:30	Lectures	Presentation of FAIRCHAIN's achievements: What do you need to pay attention to, what are the difficulties and what improvements should you consider if you want to start producing whey-based drinks?	Odile Parizel & Virginie Herbreteau (Actalia) Laure Raverot-Bourgeois & Fabrice Buchin (ENILEA) Samuel Le Féon (INRAE) Geneviève Gésan-Guiziu, INRAE
15:00	Discussion/Conclusions		Geneviève Gésan-Guiziu

### 6.3 Target audience

Number of invited participants: 75 (+ Newsletter of Actalia, + INRAE network + network of Valorial competitiveness cluster + sister project network)

- no. of actors (producers, food SMEs, traders, distributors): 25
- no. of stakeholders (NGOs, public authorities, opinion leaders, and regulators): 17
- no. wider audience (policy makers, retail, food industry, citizens): 18
- no. from research and scientific organizations: 11
- no. from sister projects: 4

Also 40 students from ENILEA, studying for their Advanced Technician Certificate, took part in this first demonstration day.

## 6.4 Presentation material

Due to space constraints the presentations which have more than 100 slides are added as pdf documents:



1-FAIRCHAIN\_CSFranc  
e\_Reemploi-17Sept-20



2-FAIRCHAIN\_CSFranc  
e\_Reemploi-17Sept-20



3-FAIRCHAIN\_CSFranc  
e\_Boissons-18Sept-20



4-FAIRCHAIN\_CSFranc  
e\_Boissons-18Sept-20

## 6.5 Dissemination materials (demonstrations & interviews)

What do beneficiaries think ? Reuse of returnable bottles for whey based drinks

[Raphaël CHACON, Directeur Recherche et Innovation, SILL Entreprises](#)

[Thierry Bonnot, président de la SAS André Bonnot](#)

[Céline GERMAIN, Chargée de Mission à la Direction Régionale de l'Alimentation, de l'Agriculture et de la Forêt \(DRAAF\), de la région Bourgogne-Franche Comté.](#)

[Melchior DE ROQUEMAUREL, animateur de l'association Consigne et Réemploi en Bourgogne Franche-Comté](#)

What do beneficiaries think ? Production of innovative whey-based drink

[Linda Leroux, Ingénieur de recherches pour SILL Entreprises](#)

[Thomas RIME, Responsable Développement et Innovation à l'Institut Grangeneuve, Suisse.](#)

[Jérémi Anxionnaz, Chargé de mission, Filières agricoles, Région Bourgogne Franche-Comté](#)

[Aldja Chabane -Chaouche, Ingénieur Innovations, chez VITAGORA, Pôle de compétitivité](#)

[Avis du consommateur sur la boisson innovante à base de lactosérum \(consumer opinion on the innovative fermented whey based drinks\)](#)

How to produce innovative whey-based drinks – demonstration

[English](#)

[French](#)

## 6.6 Feedback form

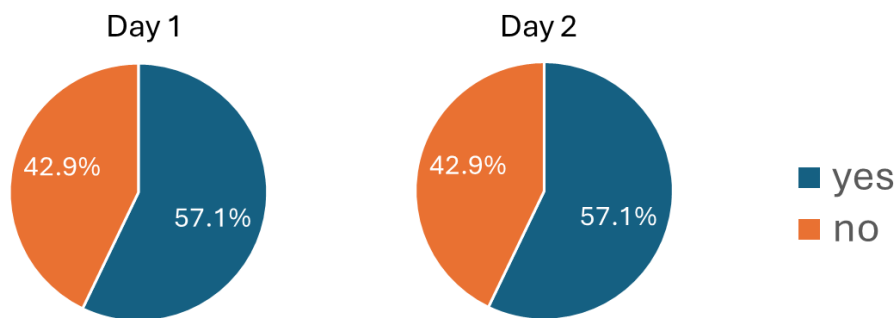
The CS in France asked the participants after each day to provide feedback. Therefore, the results include both days of the event with the answers of 21 and 19 people respectively. More than half

of the respondents on both days were involved in different activities of the FAIRCHAIN project and only 9.5% and 21.4% involved in any other EU project respectively. Among them the age was distributed between 21 – 40 and 41 to 60 years old with a slightly higher participation of male.

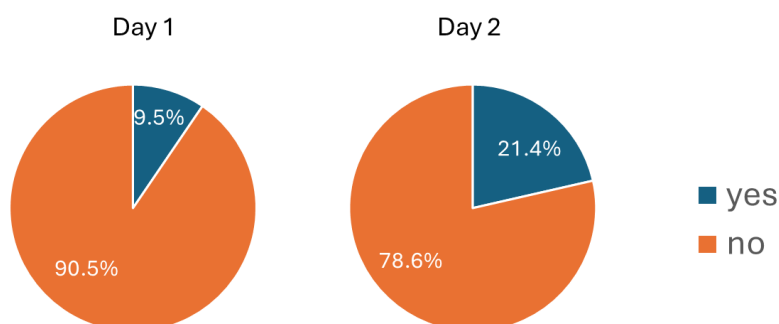
The event of the first day was of high interest for private companies (38.1%) while in the second day both the private companies (35.7%) and research institutions (28.6%) were well represented. In day 1 the food actors, food stakeholders and researchers were equally present with 33.3% while in Day 2 the food actors counted for 42.9% while food stakeholders and researchers were represented with 21.4 % and 28.6 % respectively. The sessions at the events were rated as relevant or very relevant on both days. However, after the first day the respondents considered that they were equally trained or well trained 33.3% in the best practices presented during the event and in the second day the half considered that they were somehow trained.

The innovation presented was found very interesting and interesting by 47.6% and 50% in the two days and sustainable by 61.9 % and 57.1% of the participants in the two days. Furthermore, more than 70% will be able to use it in their work.

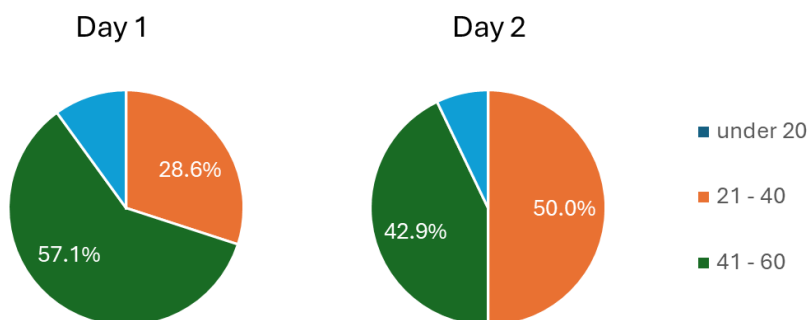
### 1. Are you a partner in the FAIRCHAIN project



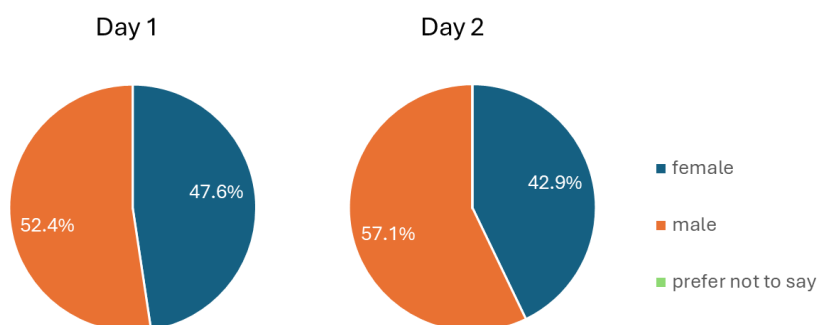
### 2. Are you a partner on any other food-related EU projects?



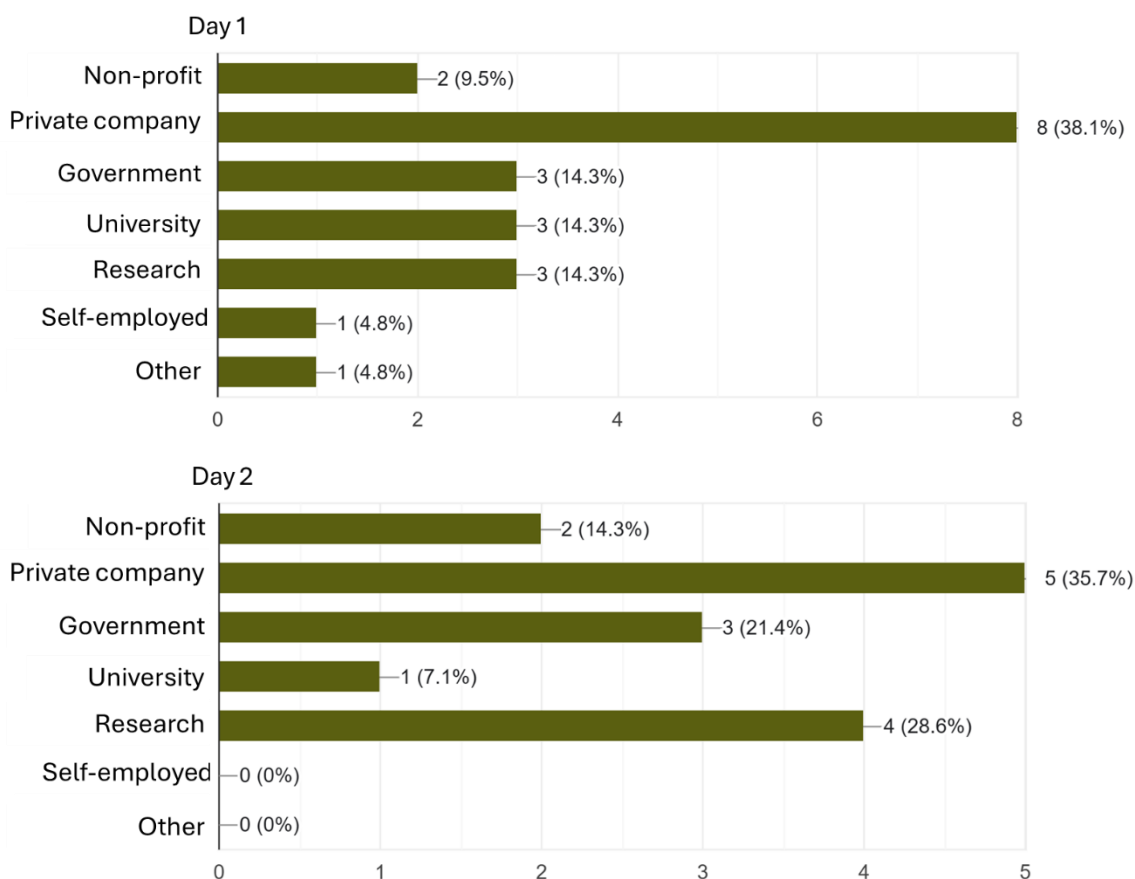
### 3. Age range



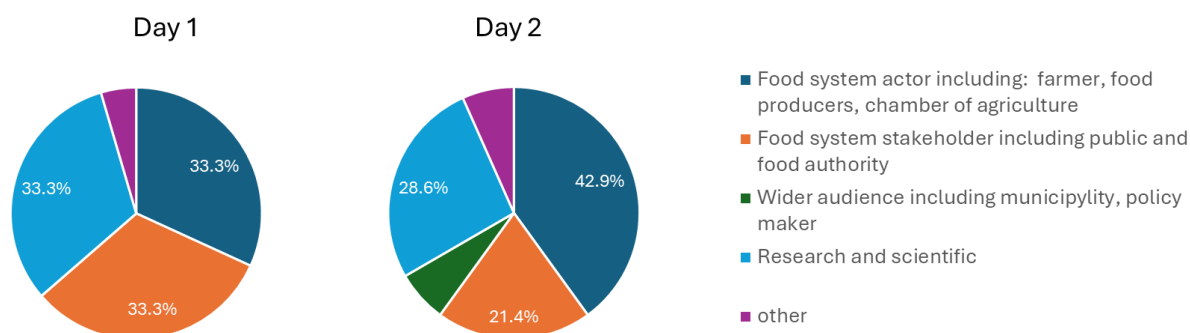
## 4. Gender



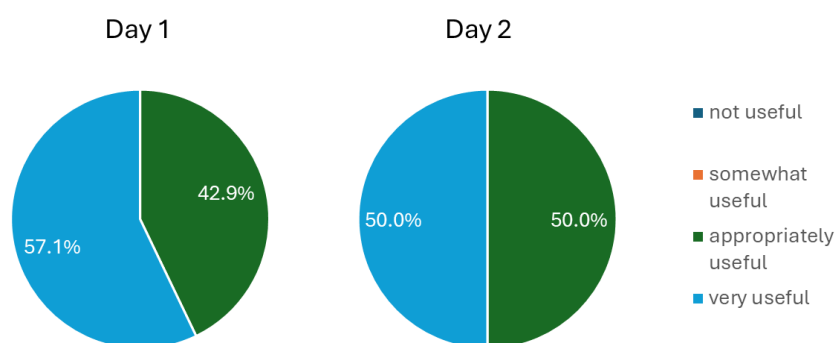
## 5. What type of organization do you work for?



## 6. What is your primary type of work?



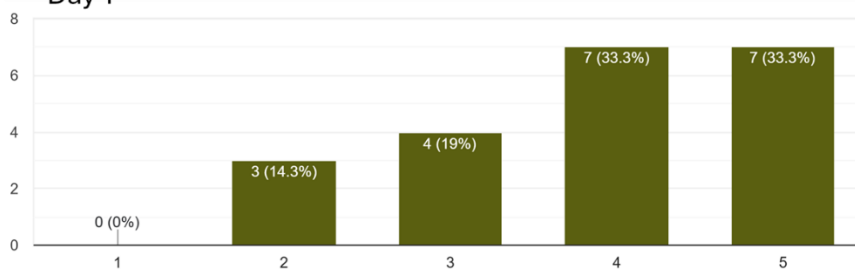
## 7. How would you rate the usefulness of this workshop



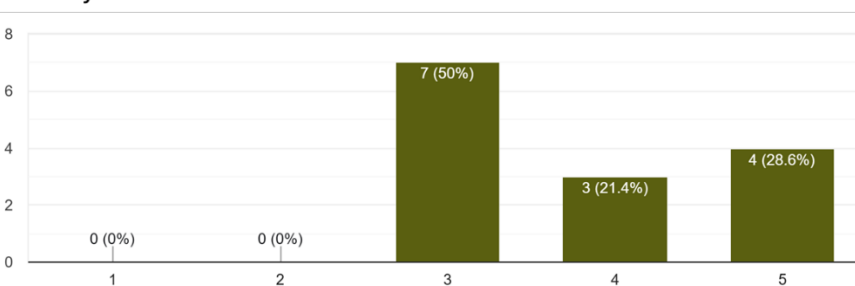
## 8. How well trained were you in the best practices presented at this workshop?

1. not well trained to 5. very well trained

Day 1

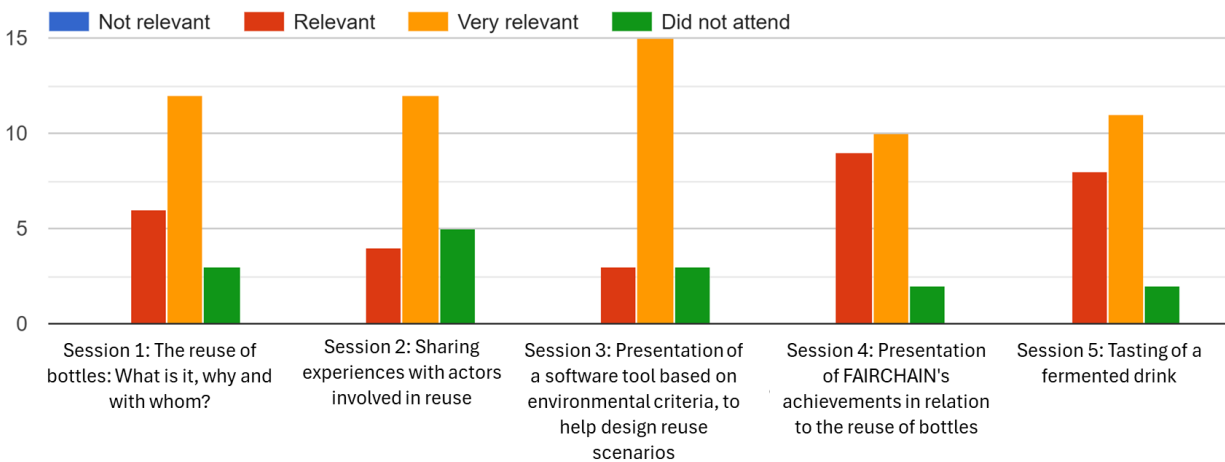


Day 2

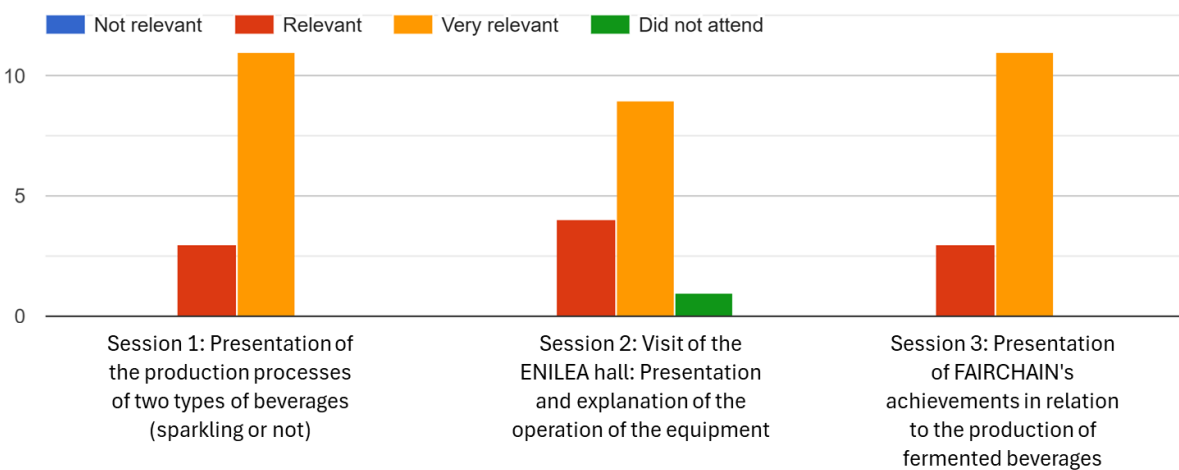


## 9. How did you find the different parts of the event

## Day 1

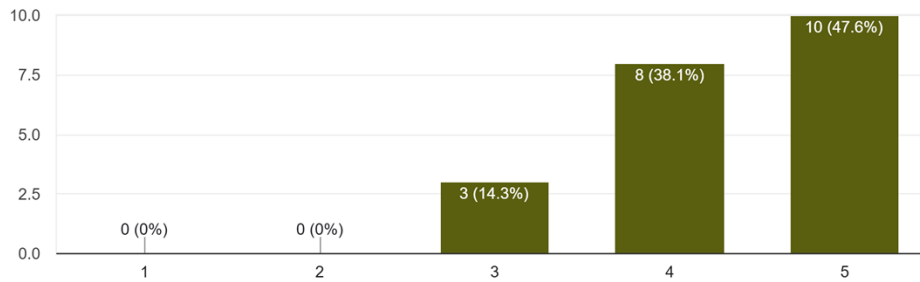
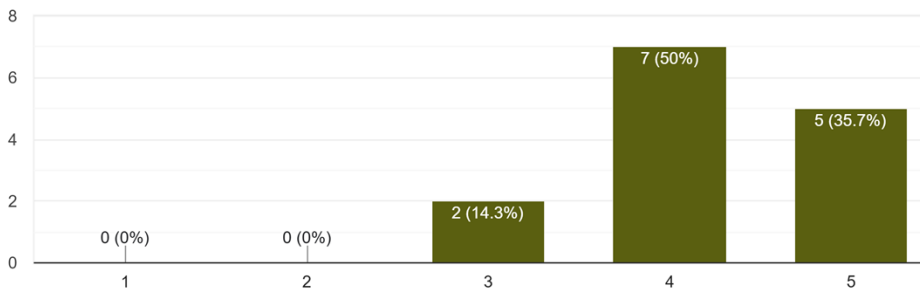


## Day 2



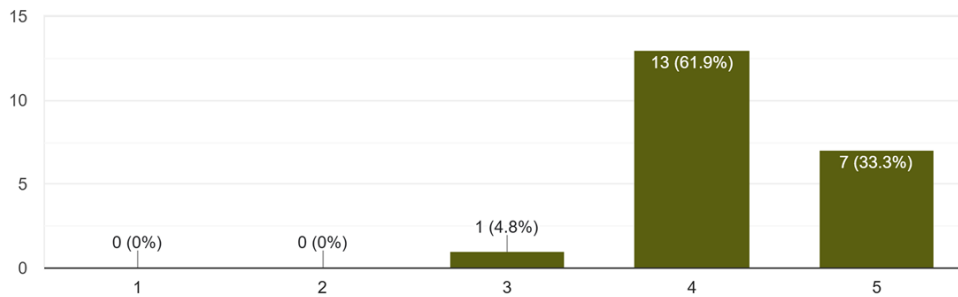
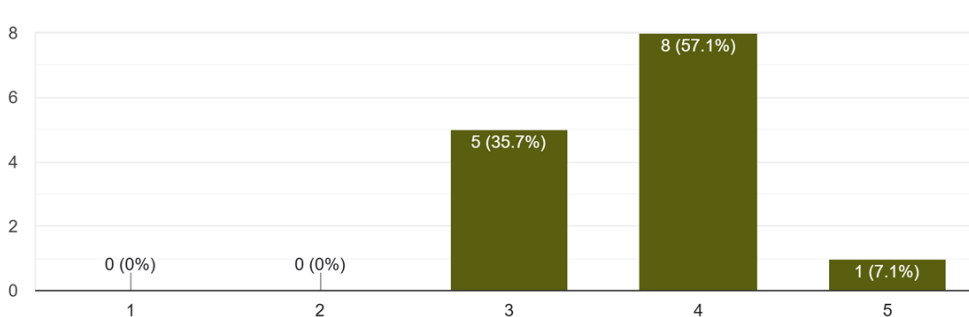
## 10. How interesting did you find the innovations presented at this workshop?

1 not at all interesting      to      5 very interesting

**Day 1****Day 2**

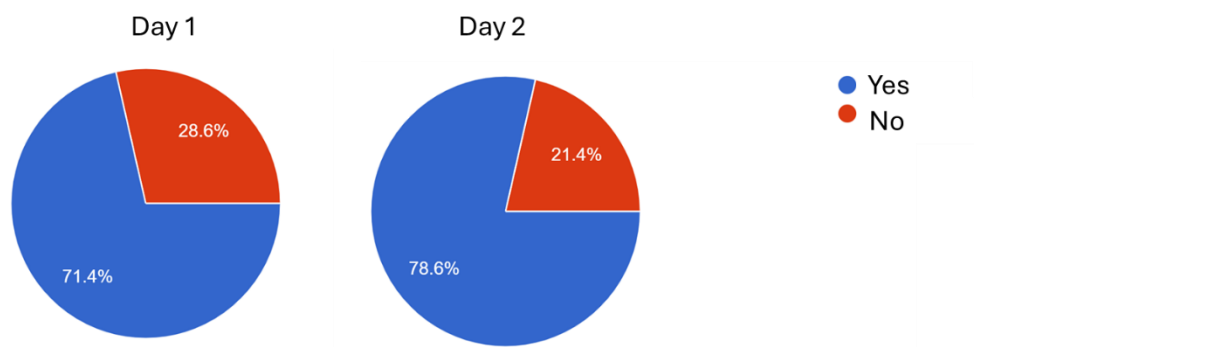
11. Rate the sustainability of the innovations presented.

1 not at all sustainable to 5 very sustainable

**Day 1****Day 2**

12. Are these innovations applicable to your daily work?



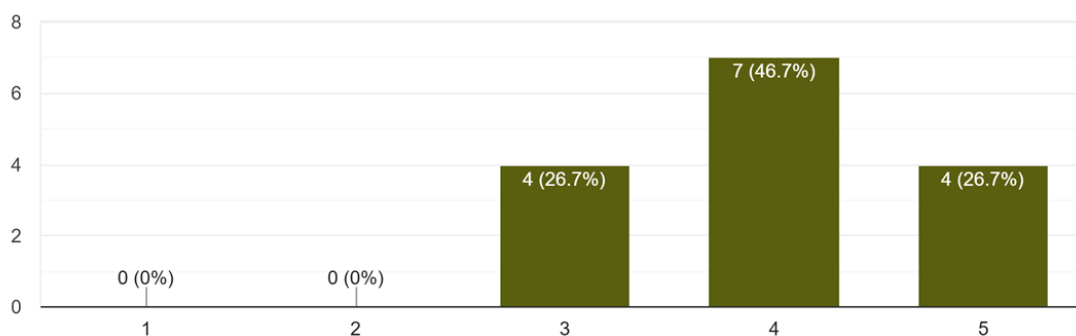


If Yes,

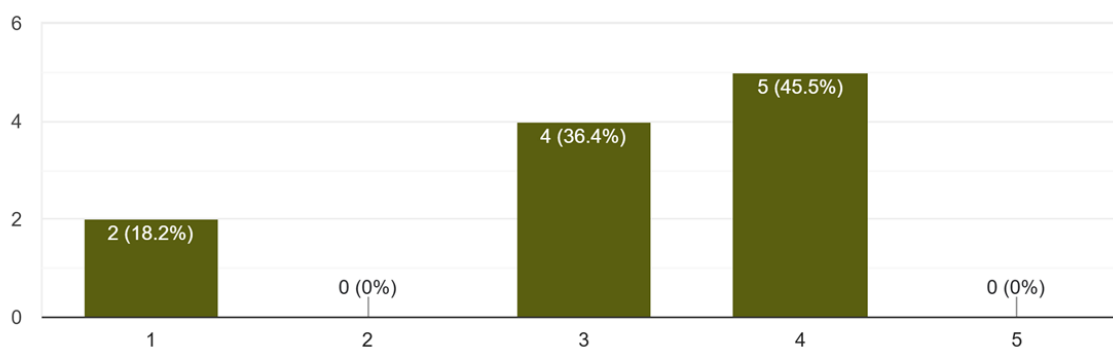
How likely would you be to use the innovations presented here?

1 not at all to 5 very likely

### Day 1



### Day 2



## 7 Case study Sweden

The CS in Sweden aimed at developing wild berry business to boost local economy and social cohesion and held the training and demonstration event in two days:

Day 1 – August 23, 2024, training event in Vännäs

Day 2 – August 24, 2024, demonstration event in Bjurholm

### Learning or Training Objectives:

- how to master the ICT tool BÄRRÄKNA – an innovative application to identify areas with high berry yields
- how promote a local intermediate value chain for wild berries
- demonstration of a local berry collection site and experiences of the set up and running it

### 7.1 Attendance list



#### FINAL SWEDISH CS F2F TRAINING AND DEMONSTRATION WORKSHOPS, 23-24 AUGUST 2024

##### BÄRRÄKAN och BÄRRÄKNA I BJURHOLM

Genom att fylla i denna lista ger du samtycke till att dina åsikter framförda på detta evenemang får användas av FAIRCHAIN-projektet i syfte att kommunicera och sprida information om projektet. Ditt namn och din tillhörighet kommer inte att kopplas till dina kommentarer. I listan anger du även hur bilder och kontaktuppgifter får användas.

GDPR\* Jag godkänner härmed behandlingen av mina personuppgifter i enlighet med EUROPAPARLAMENTETS OCH RÅDETS FÖRORDNING (EU) 2016/679 av den 27 april 2016 om skydd för fysiska personer med avseende på behandling av personuppgifter och om det fria flödet av sådana uppgifter och om upphävande av direktiv 95/46/EG (allmän dataskyddsförordning). Dvs. att uppgifterna lagras digitalt och används för kontakter inom projektet FAIRCHAIN.

Foto\*\* Jag godkänner att RISE använder foto och video av mig i information om projektet Fairchain

Namn, tillhörighet (organisation) och E-post	Målgrupp	GDPR*	Foto**	Signatur
MÅRTE BÄCK marten.back@umea.se UMEÅ KOMMUN	<input type="checkbox"/> Aktör <input checked="" type="checkbox"/> Intressent <input type="checkbox"/> Forskare <input type="checkbox"/> Allmänhet	<input checked="" type="checkbox"/> Ja <input type="checkbox"/> Nej	<input checked="" type="checkbox"/> Ja <input type="checkbox"/> Nej	
ANNA-KARIN KIRILSSON anna-karin.kirilsson@ri.se RI SE	<input type="checkbox"/> Aktör <input checked="" type="checkbox"/> Intressent <input type="checkbox"/> Forskare <input type="checkbox"/> Allmänhet	<input checked="" type="checkbox"/> Ja <input type="checkbox"/> Nej	<input checked="" type="checkbox"/> Ja <input type="checkbox"/> Nej	
CHARLOTTA HEDBERG, Inst. för Geografi, Umeå universitet charlotta.hedberg@umu.se	<input type="checkbox"/> Aktör <input type="checkbox"/> Intressent <input checked="" type="checkbox"/> Forskare <input type="checkbox"/> Allmänhet	<input checked="" type="checkbox"/> Ja <input type="checkbox"/> Nej	<input checked="" type="checkbox"/> Ja <input type="checkbox"/> Nej	
CHRISTINA LIDSTRÖM, KSO i Bjurholms kommun christina.lidstrom@bjurholm.se	<input type="checkbox"/> Aktör <input type="checkbox"/> Intressent <input type="checkbox"/> Forskare <input checked="" type="checkbox"/> Allmänhet	<input checked="" type="checkbox"/> Ja <input type="checkbox"/> Nej	<input checked="" type="checkbox"/> Ja <input type="checkbox"/> Nej	
Grethelidstaf, Bar i Bygden Bjurholm baribygden@bjurholm.se	<input checked="" type="checkbox"/> Aktör <input type="checkbox"/> Intressent <input type="checkbox"/> Forskare <input type="checkbox"/> Allmänhet	<input checked="" type="checkbox"/> Ja <input type="checkbox"/> Nej	<input checked="" type="checkbox"/> Ja <input type="checkbox"/> Nej	
Katarina Ennison, Bar i Bygden Bjurholm baribygden@gmail.com	<input checked="" type="checkbox"/> Aktör <input type="checkbox"/> Intressent <input type="checkbox"/> Forskare <input type="checkbox"/> Allmänhet	<input checked="" type="checkbox"/> Ja <input type="checkbox"/> Nej	<input checked="" type="checkbox"/> Ja <input type="checkbox"/> Nej	
Leif Andersson Gubbholmen must. gubbholmenmust@gmail.com	<input checked="" type="checkbox"/> Aktör <input type="checkbox"/> Intressent <input type="checkbox"/> Forskare <input type="checkbox"/> Allmänhet	<input checked="" type="checkbox"/> Ja <input type="checkbox"/> Nej	<input checked="" type="checkbox"/> Ja <input type="checkbox"/> Nej	
Kristina Balfors Kristina.balfors@gmail.com Balfors Gärd	<input checked="" type="checkbox"/> Aktör <input type="checkbox"/> Intressent <input type="checkbox"/> Forskare <input type="checkbox"/> Allmänhet	<input checked="" type="checkbox"/> Ja <input type="checkbox"/> Nej	<input checked="" type="checkbox"/> Ja <input type="checkbox"/> Nej	
Emma-Li Lidenstaf g-lidenstaf@hotmail.com	<input checked="" type="checkbox"/> Aktör <input type="checkbox"/> Intressent <input type="checkbox"/> Forskare <input type="checkbox"/> Allmänhet	<input checked="" type="checkbox"/> Ja <input type="checkbox"/> Nej	<input checked="" type="checkbox"/> Ja <input type="checkbox"/> Nej	
Tyra Berglund i.tyra.berglund@gmail.com Tyras Minkär	<input checked="" type="checkbox"/> Aktör <input type="checkbox"/> Intressent <input type="checkbox"/> Forskare <input type="checkbox"/> Allmänhet	<input checked="" type="checkbox"/> Ja <input type="checkbox"/> Nej	<input checked="" type="checkbox"/> Ja <input type="checkbox"/> Nej	

FINAL SWEDISH CS F2F TRAINING AND DEMONSTRATION WORKSHOPS, 23-24 AUGUST 2024

Funded by  
the European UnionRI  
SE**BÄRRESAN och BÄRFESTIVALEN I BJURHOLM**

Genom att fylla i denna lista ger du samtycke till att dina åsikter framförda på detta evenemang får användas av FAIRCHAIN-projektet i syfte att kommunicera och sprida information om projektet. Ditt namn och din tillhörighet kommer inte att kopplas till dina kommentarer. I listan anger du även hur bilder och kontaktuppgifter får användas.

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Foto\*\* Jag godkänner att RISE använder foto och video av mig i information om projektet Fairchain

Namn, tillhörighet (organisation) och E-post	Målgrupp	GDPR*	Foto**	Signatur
Karin Östergren, karin.ostergren@ri.se	<input type="checkbox"/> Aktör <input type="checkbox"/> Intressent <input checked="" type="checkbox"/> Forskare <input type="checkbox"/> Allmänhet	<input checked="" type="checkbox"/> Ja <input type="checkbox"/> Nej	<input checked="" type="checkbox"/> Ja <input type="checkbox"/> Nej	
Victor Marklund, victor.marklund@ri.se	<input type="checkbox"/> Aktör <input type="checkbox"/> Intressent <input checked="" type="checkbox"/> Forskare <input type="checkbox"/> Allmänhet	<input checked="" type="checkbox"/> Ja <input type="checkbox"/> Nej	<input checked="" type="checkbox"/> Ja <input type="checkbox"/> Nej	
Rebecca Lindmark, rebecca.lindmark@ri.se	<input type="checkbox"/> Aktör <input type="checkbox"/> Intressent <input checked="" type="checkbox"/> Forskare <input type="checkbox"/> Allmänhet	<input checked="" type="checkbox"/> Ja <input type="checkbox"/> Nej	<input checked="" type="checkbox"/> Ja <input type="checkbox"/> Nej	
Anna Molander RISE, anna.molander@ri.se	<input type="checkbox"/> Aktör <input checked="" type="checkbox"/> Intressent <input type="checkbox"/> Forskare <input type="checkbox"/> Allmänhet	<input checked="" type="checkbox"/> Ja <input type="checkbox"/> Nej	<input checked="" type="checkbox"/> Ja <input type="checkbox"/> Nej	
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	<input type="checkbox"/> Aktör <input type="checkbox"/> Intressent <input type="checkbox"/> Forskare <input type="checkbox"/> Allmänhet	<input type="checkbox"/> Ja <input type="checkbox"/> Nej	<input type="checkbox"/> Ja <input type="checkbox"/> Nej	

## 7.2 Agenda of the event

### Day 1

TIME	ACTIVITY TYPE	ACTIVITY TITLE	ACTIVITY LEADER
09.00H	Arrival & Lunch	Bus transport to forrest	Anna Molander
09.30H	Activity 1	Training ICT-tool BÄRRÄKNA	Victor Marklund and Rebecka Lindmark
11.00H	Activity 2	Visit Bär i Bygden berry site	Gun Lidestav
12.00H	Lunch		
13.00	Activity 3	Workshop	Anna Molander
15.30H	Tasting	Try berry products	Anna Molander

### Day 2

TIME	ACTIVITY TYPE	ACTIVITY TITLE	ACTIVITY LEADER
11:00 H	Activity 1	Test BÄRRÄKNA and exhibition of project on Berry festival	Victor Marklund and Rebecka Lindmark
14:00 H	Discussion	Sum up the days	Anna Molander

## 7.3 Target audience

120 invitations via email and TEAMS, 489 unique views on LinkedIN from the CS leader and additional views via shares by other project partners. Published the invitation on the [FAIRCHAIN project website](#)

and on [a local website for food activities in Västerbotten](#). The events were advertised in local newspaper with 3000 readers.

- no. of actors (producers, food SMEs, traders, distributors): 10
- no. of stakeholders (NGOs, public authorities, opinion leaders, and regulators): 30
- no. wider audience (policy makers, retail, food industry, citizens): 10
- no. from research and scientific organizations: 70
- no. from sister projects: Invitation has been sent by project organisation

In addition, there were around 200 visitors at the Bjurholm Berry festival (Day 2), where the ICT tool was demonstrated for a wider audience.

## 7.4 Presentation material

Material used to demonstrate the ICT tool “Bäräkna” at the Bjurholm Berry festival day 2. The “Bärit's berry hunt” activity was adapted for children who did the activity together with an adult. The adult downloaded the app on their mobile phone and then they could look for GPS points for blueberries, lingonberries and cloudberries.









**MÅL, BAKGRUND och GENOMFÖRANDE**

**Utveckling av bärföretag för att stärka den lokala ekonomin och den sociala sammanhållningen**

- Den nuvarande situationen behöver förbättras
  - Industrin för vilda bär är underutvecklad, eftersom grossisterna föredrar att exportera
  - Beroendet av utländsk arbetskraft för plockning
- Huvudaktiviteter i FAIRCHAIN för att förändra
  - Utveckla en digitalt verktyg för att kartlägga och hjälpa till att upptäcka var vilda bär finns, för att underlätta plockning av lokalbefolkningen.
  - Utveckling av lokala bärrensning- och sorteringsföretag och regionala industriarbetsföretag

RI SE

## Projektaktiviteter

2020	2021	2022	2023	2024
Projektstart	Prototyp 1 BÄRÄKNA	Prototyp 2 BÄRÄKNA	Prototyp 3 BÄRÄKNA	Demo BÄRÄKNA
Kick-off	Investeringsbärkarta	Validering bärkarta	Test bärkarta	Referensgrupp
	Mål WS	Färplan WS	Sommarföretagare	Bär i butik
	Björholm utökas till plockkommun	Sommarjobbare	Food Hack	Final Co-Creation ws
		Tidig hållbarhetsvärdering	Nordisk Bärkonferens	Avslutningskonferens samarbetspartners
		Bärfestival	Bärfestival	Experimentverkstad
		Skiss affärsmodeller	Business model ws	Bärresan
			Policy ws	Bärfestival
				Bär i Bygden Björholm – egen utveckling och innovationer
				Final event, Belgien

RI SE

## Resultat

- Appen BÄRÄKNA redo för uppskalning
- Forskarutbyte i Nordic Wild Berry R&D Network och initierat återkommande Nordiska forskarkonferenser om vilda bär
- Ökat lokalt engagemang kring värdekedjan för vilda bär
- Startat upp Bärfestival i Björholm som ett verktyg för ökad synlighet och samverkan
- Två nya företag Bär i Bygden Björholm ek. för. och Tyras månbär
- Systemdemonstrator med bärsmottagning i Björholm
- Spridning av resultaten via media (9 st tidningsartiklar, 4 st TV reportage, 3 st Radioinslag, 20+ sociala medier (Facebook, LinkedIn), Hemsida 2 st)



RI SE

## Bär i Bygden Björholm ek.för.

- <https://www.baribygden.se/>



**Experimentverkstad ...snart är blåbären mogna....**

28 maj

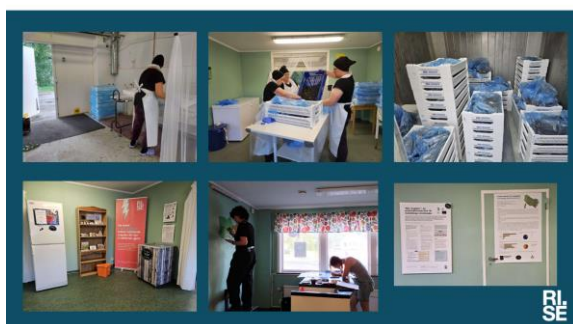
15 juli

6 juni

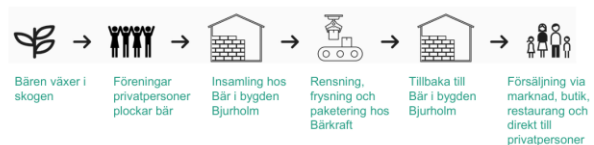
...tillgång till Bär i Bygdens experimentverkstad för att förbereda bärsmottagning, förädling och försäljning i augusti...

...plötsligt händer det...  
...kommer behövas en del kaffe....

RI SE



Bär i Bygden Björholms affärsmodellen i maj 2024



Så blev affärsmodellen i praktiken...





## Resultat Bär i Bygden

- 1000 kg blåbär plockat i Bjurholm och grannkommuner, även hjortron, vilda hallon och lingon
- Lokalbefolkningen plockar om priset är skäligt – 30 kr
- Nya kunder och affärsrelationer skapade, hittills 120 kg blåbär sålt till restauranger (tidigare relationer), 200 kg till livsmedelsförädlare, 100 kg till privatkunder och Bjurholms kommun köper 120 kg till egen verksamhet, fler på gång
- Positiva kunder som talar om var bären kommer från viktigt, på hållbarhetsveckan serveras Bär i Bygdens bär på restaurang

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## Utmaningar

- Lokal för livsmedelshandling med kyl och frysmöjligheter behövs, bärhantering kräver livsmedelsregistrering, mottagningsställe inte för långt från plockarna
- Rensning och infrysning flaskhalsar – det behövs innovation för småskalig lokal rensning, mycket backar för infrysning och stort frystrymme
- Kort säsong och logistiken behöver fungera
- Ekonomin – högt råvarupris kräver att mervärden går att ta igen vid försäljning, fasta kostnader och arbetskostnader är hög vid småskalig hantering
- Skatteregler och oklara besked från myndigheter – privat plockning skattefritt upp till 12 500 kr men måste ske på eget initiativ och får inte vara organiserat. Men inleveransen behöver styras upp och där är det en balansgång hur man gör det utan att det räknas som organiserat. Medlemmar i den ekonomiska föreningen kan inte sälja skattefritt till föreningen och det är ett hinder för rekrytering av medlemmar.

RI SE

## Möjligheter

- Vilda bär en resurs som kan utnyttjas både mer och bättre, framförallt kvalitetsmässigt
- Värde kan stanna i bygden
- Lokal samverkan och engagemang
- Beredskap - skapa lokala värdekedjor som ökar försörjningsförmågan vid kris
- Vilka resurser finns lokalt – både mjuka i form av engagemang och kunskap men även fysiska i form av livsmedelslokaler, kyl och frys samt logistik
- Samverkan med andra livsmedelsföretag - Bär i Bygden → Mat från bygden

RI SE

## Erfarenheter från praktiken

- Gå från ord till handling – någon behöver våga prova - allt behöver inte vara helt genomtänkt från början - förutsättningarna förändras eftersom - våga lita på att det löser sig
- Affärsrelationer - kommunikation, samsyn och win-win - samarbetsavtal bra men kräver förankring för att ge nytta
- Facilitera möjligheten att testa - snabba på processen
- Ge stöd kring praktiskt företagande och regelverk - vem frågar man om livsmedelsföretagande? Webkurser bra som förberedelse men det är först vid skapa frågor man kan få skarpa svar
- Inspirera unga företagare – sommarjobb, klasskooperativ

RI SE

## Tyra

sommarjobbare och ungdomsföretagare



- Sommarjobb i kommunen
- Startat eget företag
- Skapar engagemang och en inspiration för andra



RI SE

## Lokal och mer hållbar värdekedja för vilda skogsbär i Västerbotten



RI SE

## Hur skala upp och ut?

### BÄRRÄKNA

- Kartlager för hela Sverige
- Kommersiell eller offentlig aktör driver appen vidare

### Bär i Bygden XX

- Fler lokala värdekedjor för vilda bär
- Samla företagare inom bärbranschen till erfarenhetsutbyte i vinter - Kan det ingå i regionens projekt stärkt livsmedelsnäring i Västerbotten?

### Forskning, utveckling och innovationer

- Nya projekt och innovationsstöd

RI SE

## 7.5 Dissemination materials (demonstrations & interviews)

[Interview with beneficiaries of innovation developed to boost the wild berry economy in Sweden](#)  
[Demonstration of Case Study Sweden to boost the wild berry local economy and social cohesion](#)

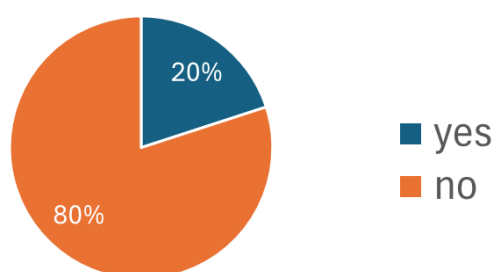


## 7.6 Feedback form

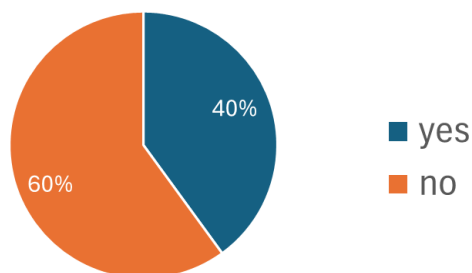
A total of 10 external and 4 RISE participants attended the events of the CSs in Sweden however only 5 filled the feedback form as presented below.

Of all respondents 20% were involved in the FAIRCHAIN project and 40% in any other EU project. The participants were in the age range of 21 – 60 and with 80% women working mainly in research. They rated the events as somehow useful (40%) and useful (40%) and 60% considered that they were well trained in the best practices at the end of the event. The reception of berries was part of the event considered by all respondents as being very relevant. The innovation was found interesting (40%) and very interesting (40%) and sustainable (60%). 60% of respondents said that the innovations are applicable to their daily work and 66.7% will probably use it in the future.

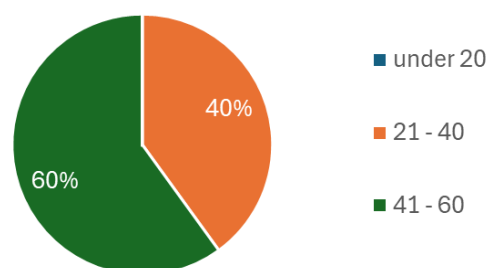
1. Are you a partner in the FAIRCHAIN project



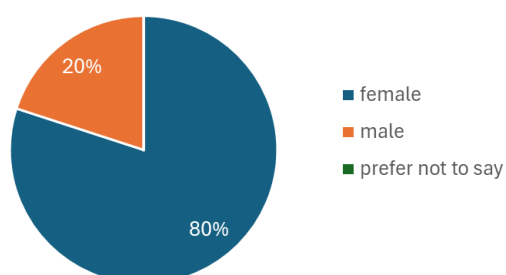
2. Are you a partner on any other food-related EU projects?



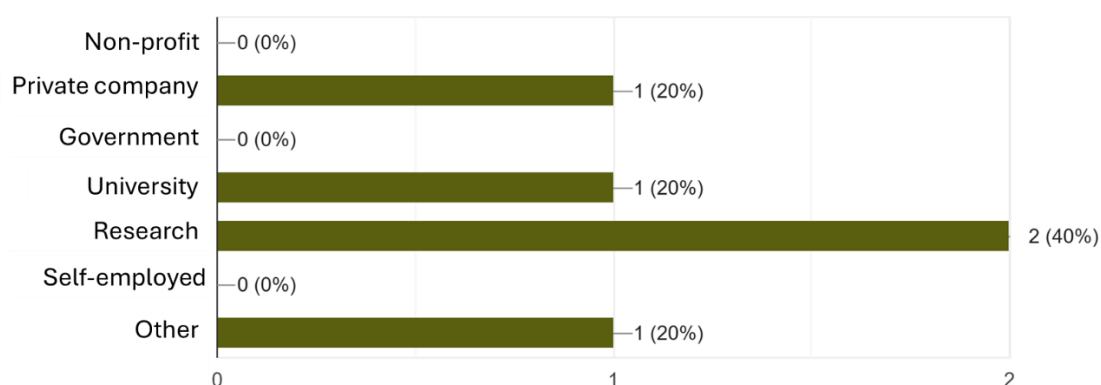
3. Age range



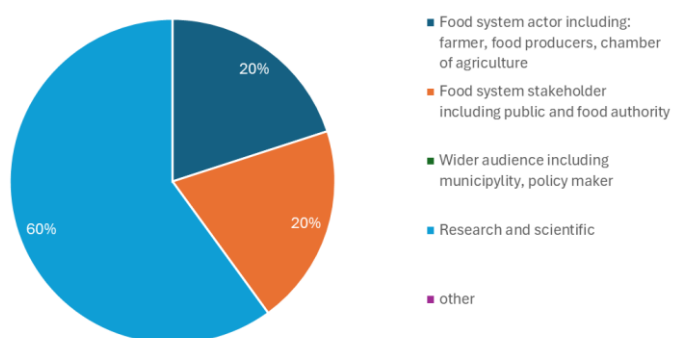
4. Gender



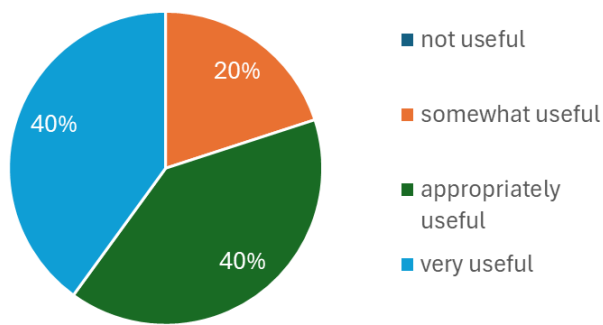
#### 5. What type of organization do you work for?



#### 6. What is your primary type of work?

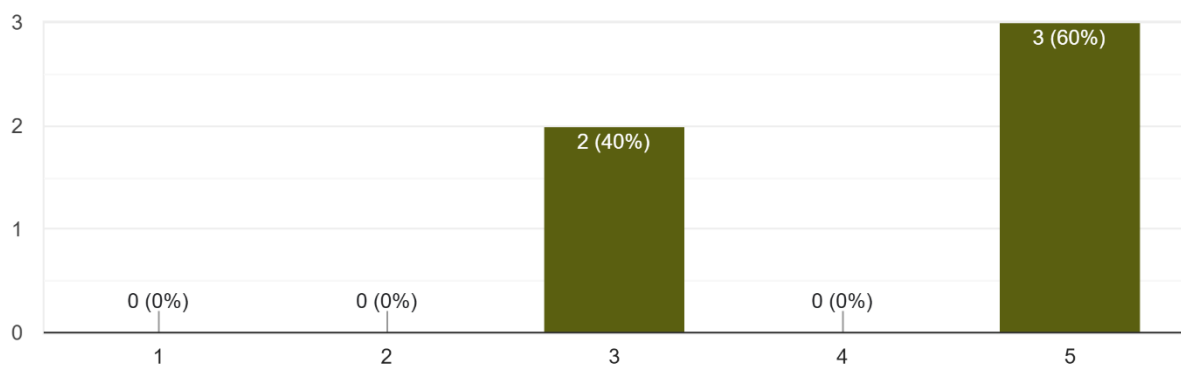


#### 7. How would you rate the usefulness of this workshop

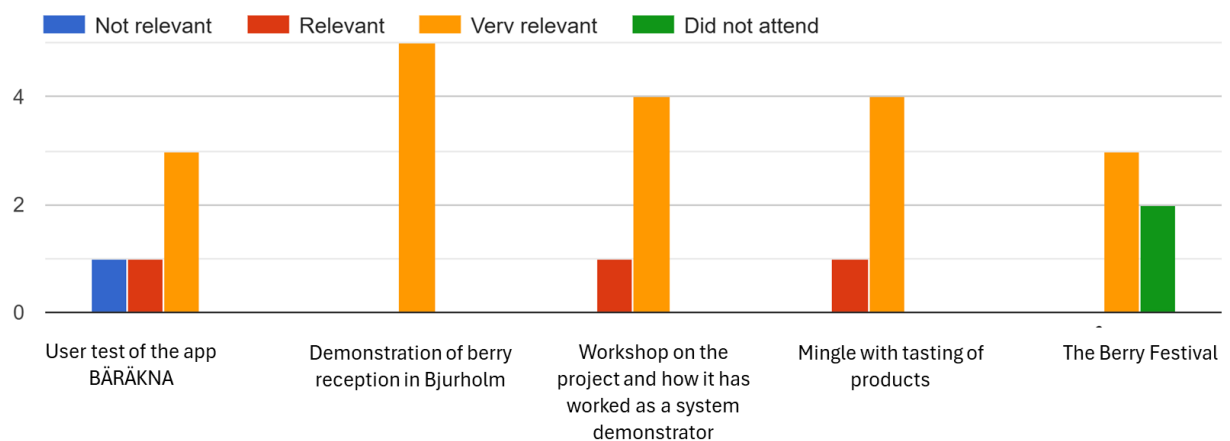


8. How well trained were you in the best practices presented at this workshop?

2. not well trained to 5. very well trained

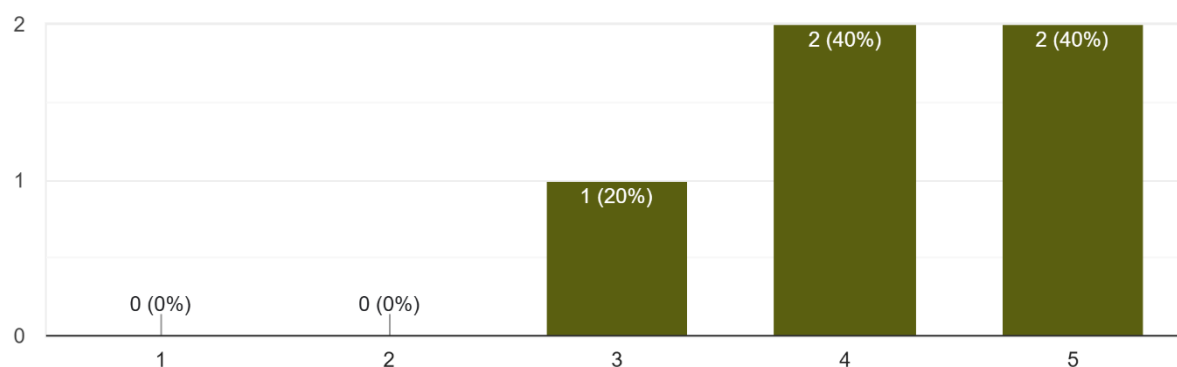


9. How did you find the different parts of the event



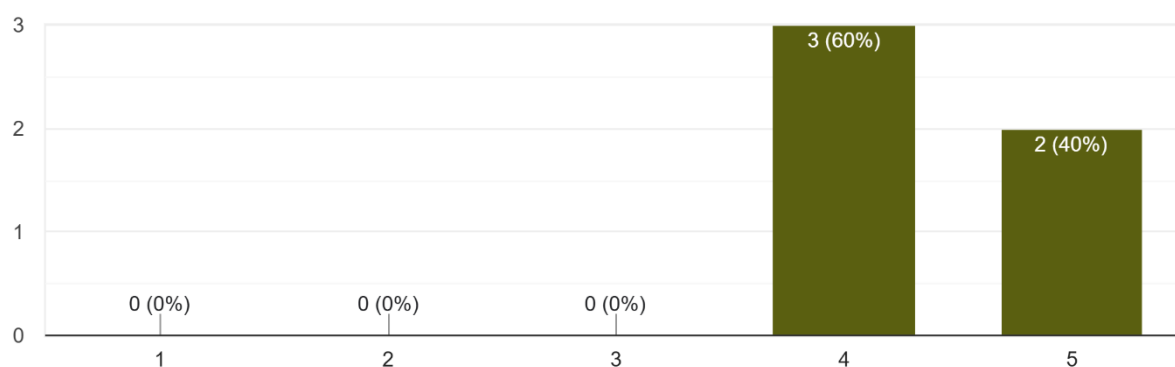
10. How interesting did you find the innovations presented at this workshop?

1 not at all interesting to 5 very interesting

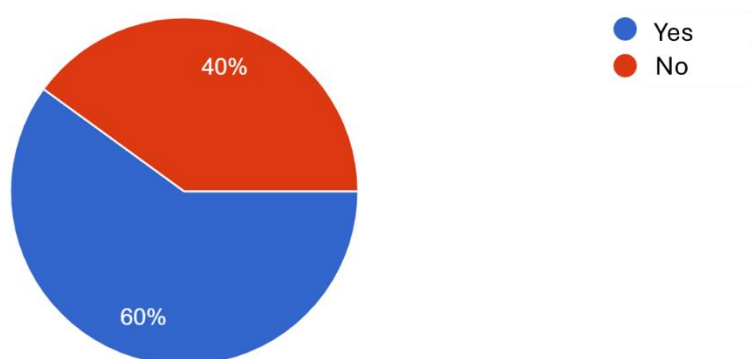


11. Rate the sustainability of the innovations presented.

1 not at all sustainable to 5 very sustainable



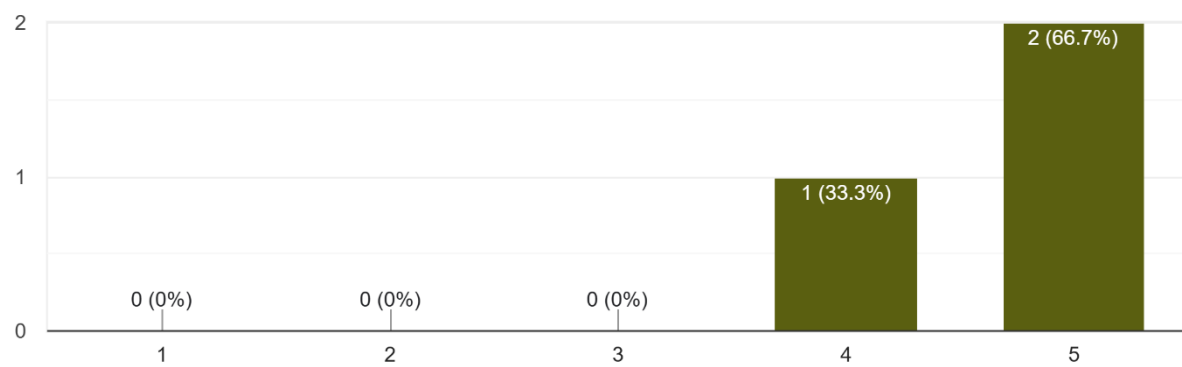
12. Are these innovations applicable to your daily work?



If Yes,

How likely would you be to use the innovations presented here?

1 not at all to 5 very likely



## 8 Case study Switzerland

---

The CS in Switzerland aimed at co-product valorisation and generation of additional added value for SMEs and regional stakeholders and had two different areas of research separately considered for the two days of training and demonstration events:

Day 1 – focused on pyrolysis and biochar, March 21, 2024, at Ecole Agriculture du Valais (EAV), Chateauneuf-Conthey, Wallis

Day 2 – valorization of apple pomace, April 18 at Grangeneuve (Posieux) and Agropôle (Molondin)

### Learning or Training Objectives:

Day 1:

- raise awareness about the potential of a regional pyrolysis & biochar-based business concept starting from dry coproducts from the regional fruit sector.
- illustrate with a concrete CS in central Wallis, south Switzerland, showing the range of actors needed and the critical success factors.
- enable participants/actors to engage together and share their perspective on this kind of regional business concept.

Day 2:







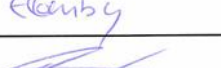


- demonstrate the results of the project, focusing on FAIRCHAIN vinegar production and the range of applications.
- enable participants/actors to engage together and share their views on this kind of regional business concepts.

### 8.1 Attendance list


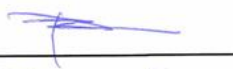


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Day 1





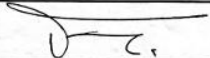


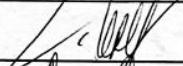

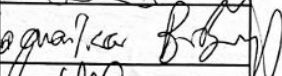


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Sofia	Tronca	Frutonic	info@frutonic.ch	
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Julien	Richard	Vitral	richard.julien@bluwin.ch	
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I hereby authorize the processing of my personal data in conformity with the REGULATION (EU) 2016/679 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 27th April 2016 on the protection of natural persons with regard to the processing of personal data and on the free movement of such data, and repealing Directive 95/46/EC (General Data Protection Regulation).


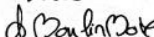
Prénom	Nom	Organisation	Email	Signature
Markus	Walther	Walther AG	markus.walther@walther.ch	
Pierre-Jean	Duc	OTKEN	pierre-jean.duc@oetken.ch	
Danielle	Albiker	Agidea		
Pascal	Walther	myclimate	pascal.walther@myclimate.org	

I hereby authorize the processing of my personal data in conformity with the REGULATION (EU) 2016/679 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 27th April 2016 on the protection of natural persons with regard to the processing of personal data and on the free movement of such data, and repealing Directive 95/46/EC (General Data Protection Regulation).

## Day 2

Prénom	Nom	Organisation	Email	Signature
Rodolphe	VIDAL	ITAB	rodolphe.vidal@itab.ansp.fr	
Mathilde	RENAUD	ITAB	mathilde.renaud@itab.ansp.fr	
Fabien	Hallenbauer	Biofruits	fabien.hallenbauer@biofruits.ch	
René	Angelini	Food Engineering	rene.angelini@foodengineering.ch	
Olivier	Brazzmann	Food Engineering	oliv.brazzmann@foodengineering.ch	
Camille	Wolf	Louimpark for SA	camille.wolf@louimpark.ch	
Dorée	SINONNET	Ayuso	doree.sinonnet@ayuso.ch	
Beccary	Bertraud	Vignoble	bertraud.beccary@vignoble.ch	
Générique	GESAN-GUIZON	INRAE	genierie.gesan-guizon@inrae.fr	
François	Barjat	UNIGE	fbarjat@gmail.com	

I hereby authorize the processing of my personal data in conformity with the REGULATION (EU) 2016/679 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 27th April 2016 on the protection of natural persons with regard to the processing of personal data and on the free movement of such data, and repealing Directive 95/46/EC (General Data Protection Regulation).

Hans  
 Aurélie  
 Matante  
 Maclin-Mio  
 HAFL  
 Grangeneuve  
 hamatante@gmail.com  
 aurelie.moulin@fr.ch  
  


## 8.2 Agenda of the event

Day 1

TIME	ACTIVITY TYPE	ACTIVITY TITLE	ACTIVITY LEADER
11H	Arrival & welcome + <b>attendance list</b>	Welcome participants	DSS+ team and EAV
11H15	Activity 1: Pedagogic presentation	FAIRCHAIN, definitions, context & case study results – best practices	Anne Verniquet, DSS+
11H45	Activity 2: Awareness raising - Video from a farmer in another region.	Learning from people already doing it!	Yan Pavillard, DSS+
12H15	Activity 3: Engaging session	And you, who else would you imagine as potential actors of such regional business concept?	Benjamin Herbreteau, Yan Pavillard, Anne Verniquet
12h35	Activity 4: Going beyond Wallis?	Towards a regional biochar operational group (Romandie)	Danielle Albiker, AGRIDEA

12H45	Feedback session	Q&A, <b>evaluation form</b> and short interviews	All, Yan Pavillard
13H15	Lunch together		All

Day 2:

TIME	ACTIVITY TYPE	ACTIVITY TITLE	ACTIVITY LEADER
8H00-9H00	Road Posieux to Molondin. Arrival & welcome	Getting to know each other's. Welcome participants	All DSS+, Cogiterre, Grangeneuve
9H15-9h45	Activity 1: Understanding the regional context	Agropôle presentation and visit	Melissa Fankhauser, Agropôle
9H45 -11h15	Activity 2: Demonstrations ! (2 sub-groups)	FAIRCHAIN vinegar production @ Cogiterre vinegar factory.  FAIRCHAIN vinegar detergency application @Clean-Green premises	Clément Gindrat, Cogiterre  Basile Giroud, Clean-Green
11H15-12H15	Activity 3: Road Molondin to Posieux	Networking time!	All
12H15-14H00	Lunch	Networking time!	All
14H-16H	Activity 3: Field visit, poster presentation, and brainstorming	Discovering potential phytosanitary applications for the FAIRCHAIN Vinegar. Challenging the research methodology and suggesting next steps.	Thomas Rime, Aurélie Moix, Grangeneuve
16h00-16h30	Feedback session		All

### 8.3 Target audience

Day 1

Number of invited participants: 79

- no. of actors (producers, food SMEs, traders, distributors): 40
- no. of stakeholders (NGOs, public authorities, opinion leaders, and regulators): 18
- no. wider audience (policy makers, retail, energy provider, citizens): 15
- no. from research and scientific organizations: 6
- no. from sister projects: 0

## Day 2

Number of invited/attended (without the FAIRCHAIN team): 49/12

- no. of actors (producers, food SMEs, traders, distributors): 15/4
- no. of stakeholders (NGOs, public authorities, opinion leaders, and regulators): 13/1
- no. wider audience (policy makers, retail, food industry, citizens): 5/1
- no. from research and scientific organizations: 14/4
- no. from sister projects: 2/2

## 8.4 Presentation material



### Gestion des données - préambule

- La réunion ne sera pas enregistrée
- Les données de contact ne seront conservées qu'à des fins de communication avec les participants.
- Les photos peuvent être utilisées pour la sensibilisation et la documentation de FAIRCHAIN (option de refus via le formulaire de consentement).
- Tous les documents élaborés au cours de l'atelier sont traités de manière anonyme ; les commentaires et le contenu ne sont pas attribués à une personne en particulier.



Public

2

### Objectifs



- Sensibiliser au potentiel d'un concept régional basé sur la pyrolyse et le biochar à partir de coproduits secs issus du secteur fruitier régional.
- Illustrer à l'aide d'une étude de cas concrète dans le centre du Valais, l'éventail des acteurs nécessaires et les facteurs critiques de succès.
- Permettre aux participants/acteurs de s'engager ensemble et de partager leur point de vue sur ce type de concept régional.



Public

dss\*



Public

dss\*

### Agenda !



Heure	Programme	Intervenant
11:00	Accueil des participants	
11:15	Présentation des résultats du cas d'étude Fairchain biochar Valais	Anne Verniquet, dss+ Benjamin Herbreteau, dss+
11:45	Présentation vidéo d'un cas concret en Suisse - BIOHOFACKER, Michael Kipfer (Stettlen, BE)	
12:15	Discussion autour des acteurs potentiels pour un concept biochar régional	
12:35	Vers un groupe opérationnel régional sur le biochar (Romandie)	Danielle Albiker, Agridea
13:15	Dîner offert par le service cantonal de l'agriculture	



### Carte d'identité du projet



Acronyme	FAIRCHAIN
Titre	Solutions technologiques, organisationnelles et sociales innovantes pour des chaînes de valeur plus équitables dans les secteurs des produits laitiers et des fruits et légumes
Duration	01.11.2020 – 31.10. 2024 (48 months)

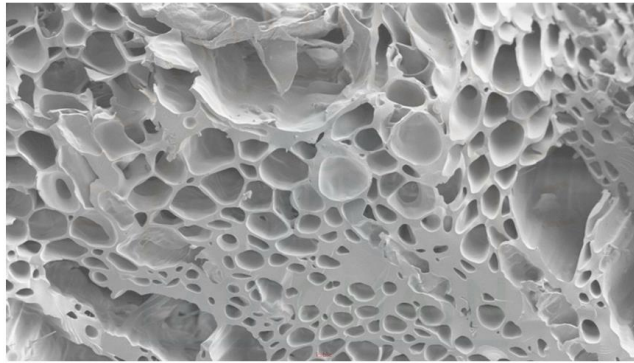
# FAIRCHAIN

Public

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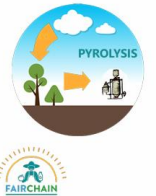


### Qu'est-ce que la pyrolyse/le biochar ?



### Le biochar, un potentiel...

... pour une énergie respectueuse du climat  
La production de chaleur est une source d'énergie renouvelable.



... agissant comme un améliorateur de sol  
Soutenir les pratiques agricoles régénératrices pour restaurer et préserver la qualité des sols



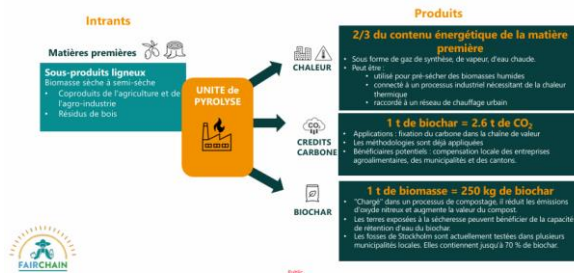
... et comme un puits de carbone  
Le biochar est reconnu comme une technologie à émissions négatives (GIEC 2018)



### LES SYSTÈMES DE PYROLYSE, UNE TECHNOLOGIE VERTE POUR PRODUIRE DU BIOCHAR



### Valorisation des coproduits secs issus du secteur fruitier et d'autres secteurs régionaux

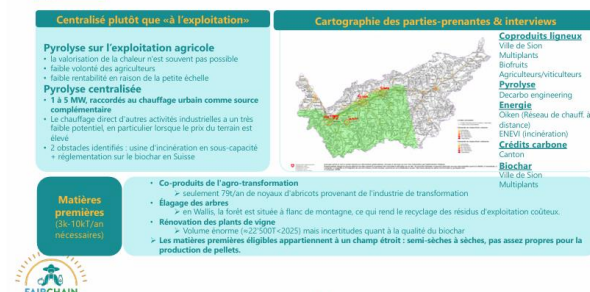


### Approche initiale et enseignements tirés

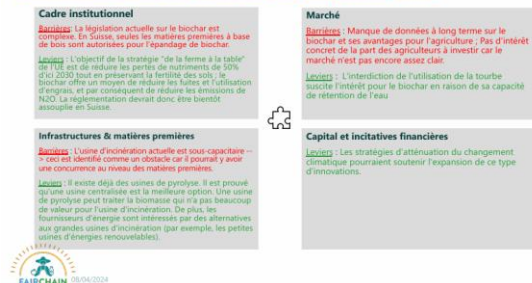
- Approche territoriale**
  - Analyser les matières premières disponibles en Valais (noyaux d'abricot, autres coproduits à base de fibres...)
  - Déterminer le potentiel de biochar et de décarbonisation
- Approche "utilisateurs"**
  - Comprendre les besoins et les intérêts des agriculteurs
  - Établir des liens avec d'autres potentiels agricoles (alternatives de fertilisation, gestion de l'eau, etc.)

- Enseignements**
- La matière première de noyaux d'abricot est loin d'être suffisante en Valais
  - Trouver des coproduits ligneux disponibles tant en termes de volume que de qualité est un enjeu.
  - Concurrence sur la biomasse
  - Un manque généralisé de connaissances sur le biochar, un marché prometteur mais encore immature.
  - Manque de données à long terme sur le biochar et ses avantages pour l'agriculture
  - Pas d'intérêt concret de la part des agriculteurs à investir car le marché n'est pas suffisamment clair.

### Valorisation des coproduits ligneux issus du secteur fruitier et d'autres secteurs régionaux



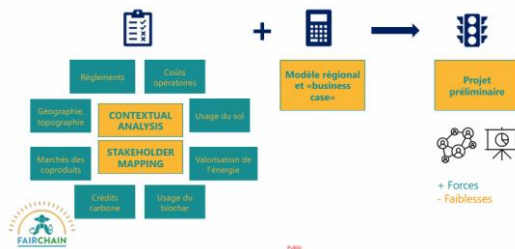
### Conditions cadres & modèle de pyrolyse régional





### Potentiel de reproductibilité d'un concept innovant basé sur la pyrolyse

Vers une boîte à outils de mise en œuvre pour évaluer rapidement le potentiel de production de biochar sur un nouveau territoire



### SOLUTION BIOCHAR ET PERSPECTIVES



### Exemple d'un modèle existant chez un agriculteur Suisse

### Pyrolyseur : cas concret

- Michael Kipfer, Agriculteur bio
- Agriculture régénérative depuis 2023 (sans labour & culture sur buttes)
- Localisation: Ferenberg, canton de Bern
- Formation: Charpentier puis agriculteur
- Activité: Grandes cultures (pommes de terre, blé, orge, épeautre, quinoa) et élevage de vaches allaitantes et de veaux
- Nombre d'hectares: 12 de cultures, 14 de pâturage & 4 hectares de forêt
- Pyrolyseur: Modèle Pyrofarm (1<sup>er</sup> prototype), puissance 60 KW, depuis 3 ans
- Biomasse valorisée: résidus de bois issus de sa production de bois de construction (50-100 m3/an)



### Pyrolyseur : cas concret



### Vos inputs

### Soyons ambitieux ensemble pour le Valais !

Et vous, qui d'autres imagineriez-vous comme acteurs potentiels d'un tel concept régional ?



### Et si on joignait nos forces avec d'autres cantons ?



### Qu'est-ce que le groupe opérationnel Biochar ?

- Objectif : promouvoir et encourager le dialogue entre les parties-prenantes
- Thèmes agricoles uniquement
- Réunions : 1 à 2 fois par an, pas de frais, pas de rémunération
- Connexion avec d'autres groupes d'intérêt traitant de divers sujets relatifs aux sols
- Échange : Apprendre à connaître les projets des autres
- Discussion sur un sujet pertinent choisi par les membres
- Les membres sont: agriculteurs, consultants, producteurs, chercheurs, cantons, Etat (OFAG, OFEV)

### Souhait de créer un groupe romand «charbon végétal»

- Jusqu'à présent, il n'y a qu'une seule Romande dans le Groupe Opérationnel
- Tout le monde ne parle pas français
- Les usages agricoles du Biochar sont peu connus en Romandie
- Possibilité de réunions communes plus tard



- Y a-t-il un besoin en Romandie pour un tel groupe ?
- Sur quels sujets ? Au-delà de l'agriculture ? p.ex. ville éponge, jardins, arbres, construction
- Qui serait prêt à organiser et/ou animer un tel groupe ?
- Autres liens vers des experts en Biochar : Charnet, association suisse pour le biochar  
<https://charnet.ch>

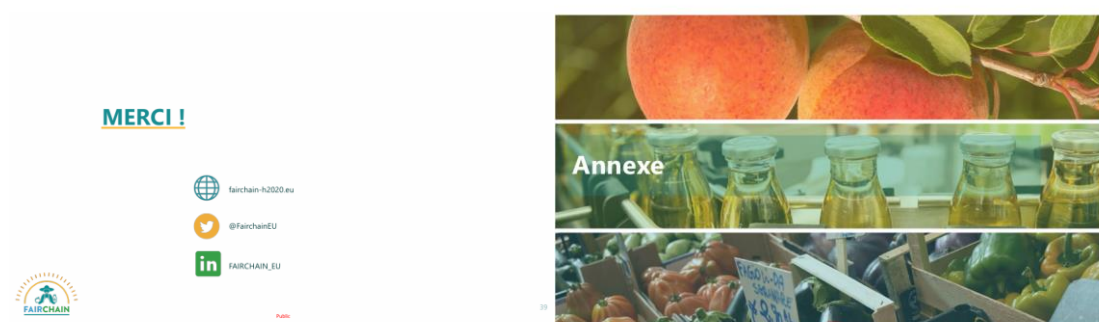


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 Cademazzo A Ramel 18 | CH-6593 Cademazzo | +41 (0)91 858 19 66



### Votre avis sur cette session

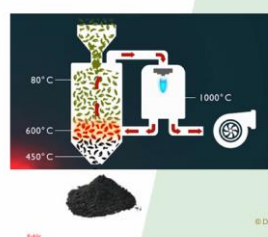




### Pyrolysis process description

Pyrolysis is a thermochemical reaction with 3 outputs: solid, liquid & gas which can be favored or not according to the operations conditions

- Biomass waste is prepared by grinding and drying (< 60% humidity) if necessary.
- Biomass is introduced in the main chamber and heated without oxygen to temperatures between 550 °C and 600 °C with residence time of around 0.5 h.
- Pyrolytic decomposition of biomass produces mainly carbon rich biochar and syngas that fuels the burner.
- CO<sub>2</sub> and excess heat (renewable energy) are by-products of the reaction.
- Depending on the reaction conditions, 25-35% of the feedstock mass is converted to biochar.
- Exhaust gases are compliant with European standards
- The biochar produced complies with the European Biochar Certificate standards.



## 8.5 Dissemination materials (demonstrations & interviews)

Qu'en disent les bénéficiaires? - Transformer vos déchets ligneux en ressources - pyrolyse & biochar  
[Alexandre Fricker, OPALINE Pierre-Jean Duc, OIKEN Sofia Moreira, FRUTONIC Case study Swiss](#)

[Use of the FAIRCHAIN vinegar by CleenGreens](#)

Qu'en disent les bénéficiaires? - Valorisation optimisée des coproduits de la filière fruits

[Basil Giroud Superviseur formation et support client CleanGreens Solutions SA Case Study Swiss](#)

[Camille Wolf Co-fondatrice Low Impact food SA](#)

[Clément Gindrat Project manager Cogiterre](#)

[Fabien Hallenbarter Responsable assurance qualité sécurité Biofruits](#)

[François Barja Université de Genève Microbiologie Appliquée](#)

[Thierry Benezech Directeur de recherche INRAE](#)

[Thomas Rime Responsable Développement et innovation Grangeneuve](#)

[Xavier Simmonet Collaborateur scientifique Agroscope](#)

## 8.6 Feedback form

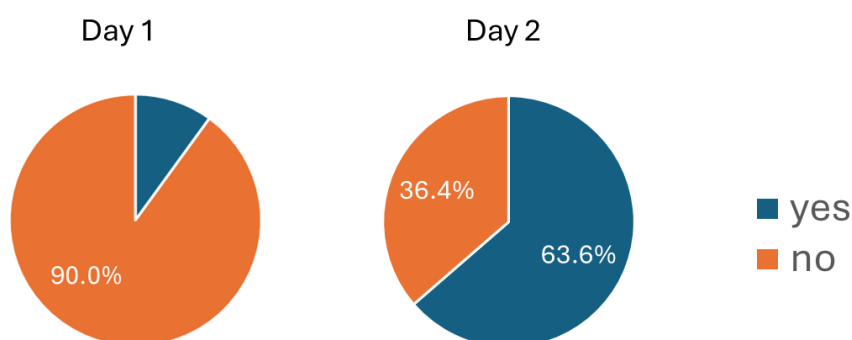
The CS in Switzerland organized the event in two different days according to the two topics covered by the CS. Therefore, 10 and 11 responses have been received for the two days of events. Day one had participants outside of the FAIRCHAIN project or any other related EU project, 70% male with the age range of 41 to 60. They work in private companies (40%), other types of work (30%) and at

the public authorities (20%) as researchers, food actors and food stakeholders. Day 2 had 63% of people involved in the FAIRCHAIN project with the age of 21 - 40 with a high participation of male. They work in research (45.5%), private companies (27.3%) and universities (27.3%).

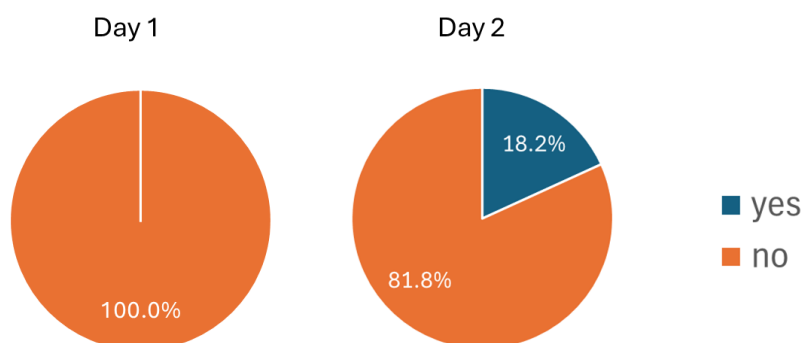
Events on both days were rated as appropriately useful (day 1: 70%, day 2: 45.5%) and very useful (day 1: 20%, day 2: 45.5%) with networking sessions considered very relevant among the others.

The innovation presented was found interesting by 50% (day 1) and 54.5% (day 2) and sustainable by 60 % (day 1) and 54.5 % (day 2). Furthermore, more than 70% (day 1) and 63.6 % (day 2) respectively, consider the innovation applicable in their work and 57.1% (day 1) and 71.4 % (day 2) will be able to use it in their work.

### 1. Are you a partner in the FAIRCHAIN project

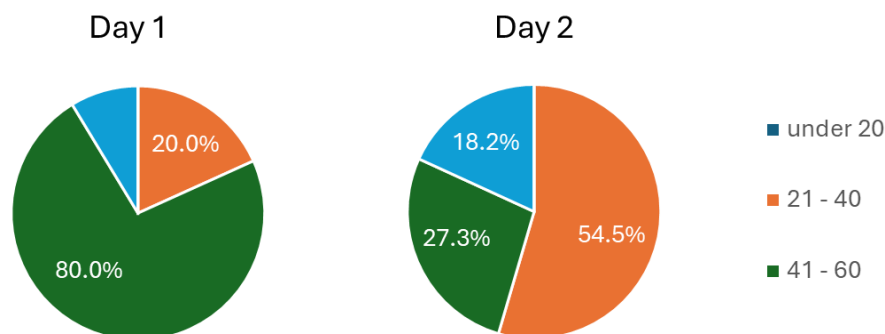


### 2. Are you a partner on any other food-related EU projects?

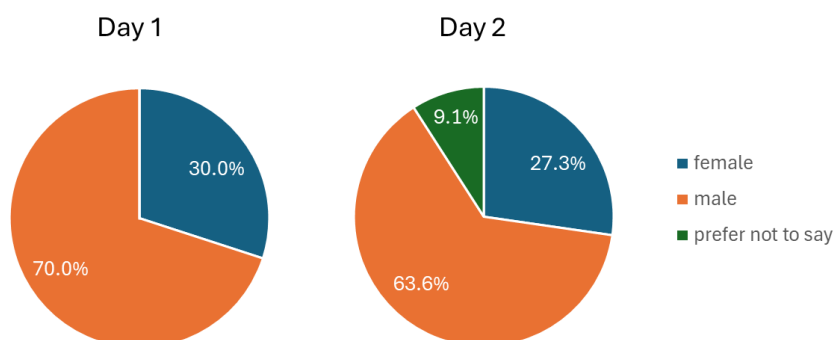


### 3. Age range

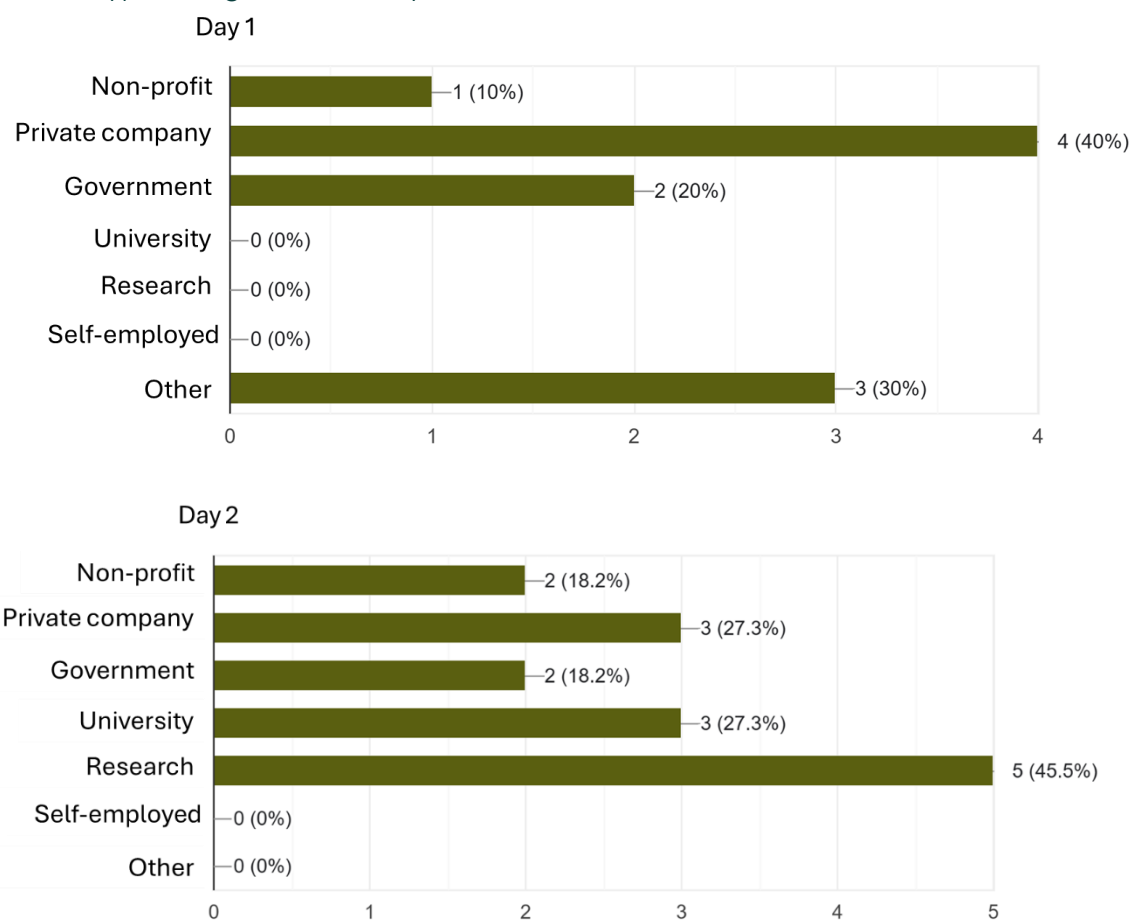




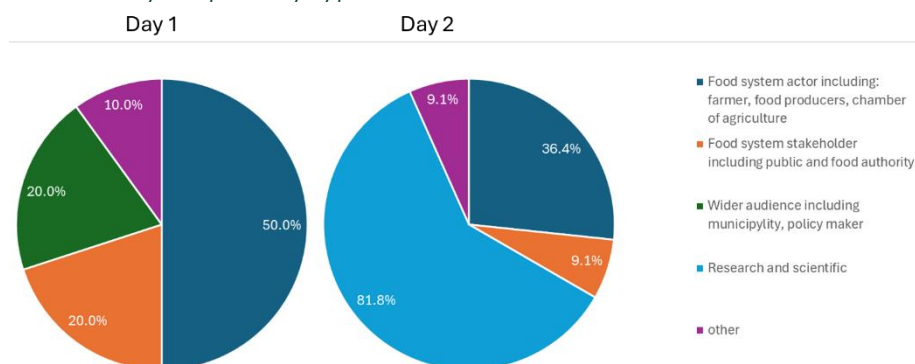
## 4. Gender



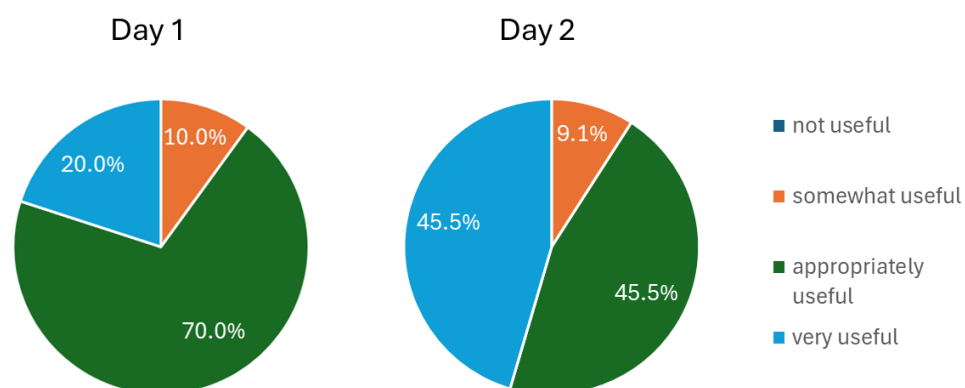
## 5. What type of organization do you work for?



## 6. What is your primary type of work?



## 7. How would you rate the usefulness of this workshop

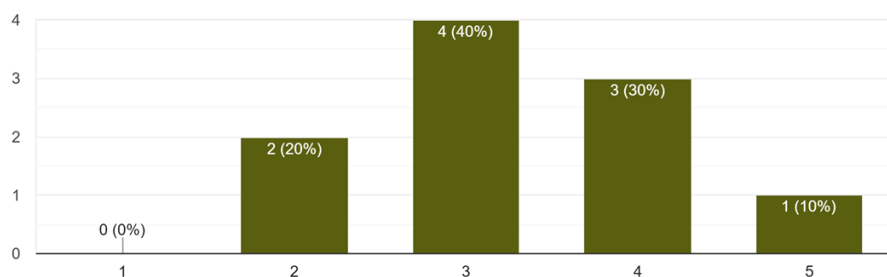


## 8. How well trained were you in the best practices presented at this workshop?

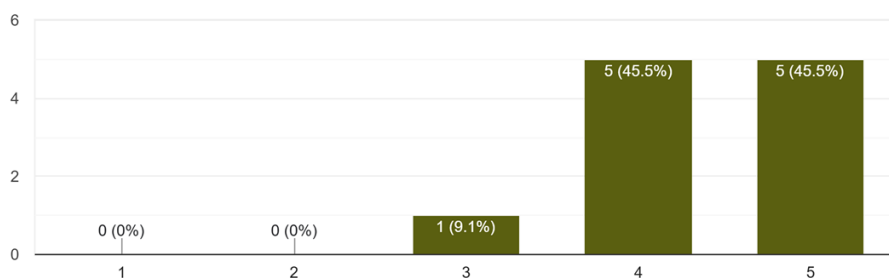
1. not well trained                      to                      5.very well trained



## Day 1

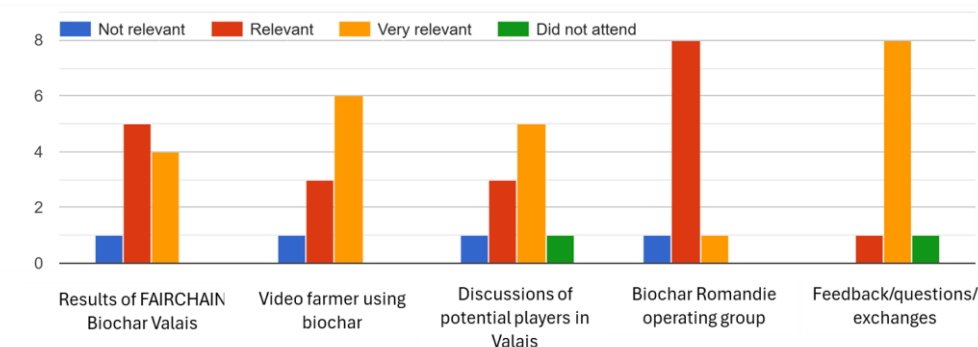


## Day 2

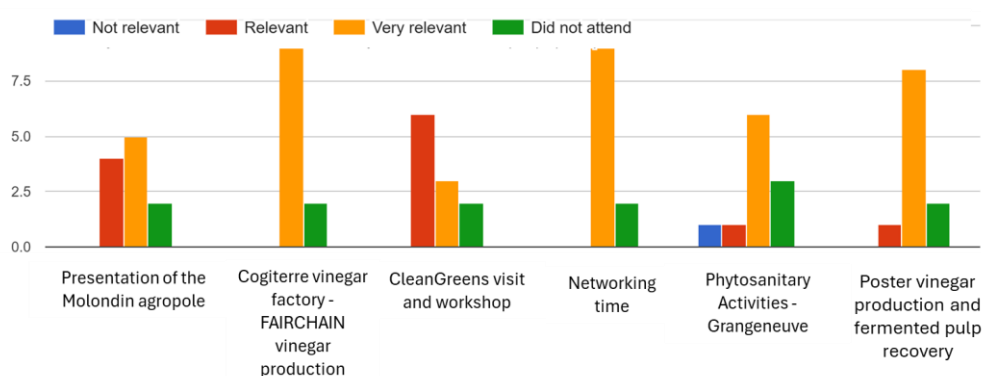


## 2. How did you find the different parts of the event

## Day 1



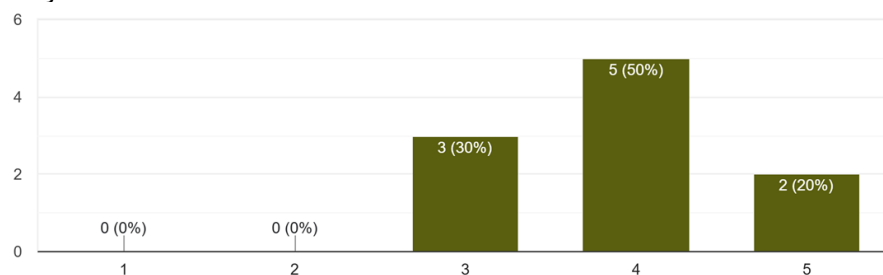
## Day 2



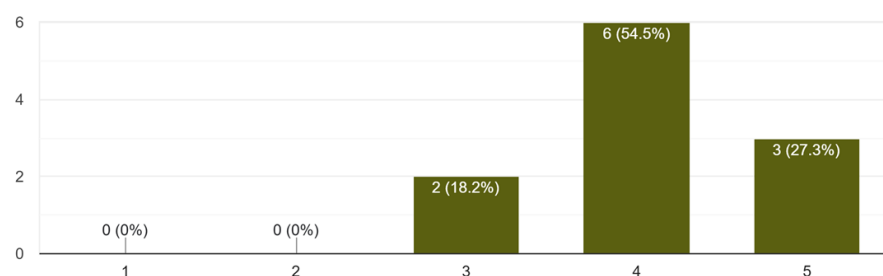
## 3. How interesting did you find the innovations presented at this workshop?

1 not at all interesting      to      5 very interesting

## Day 1



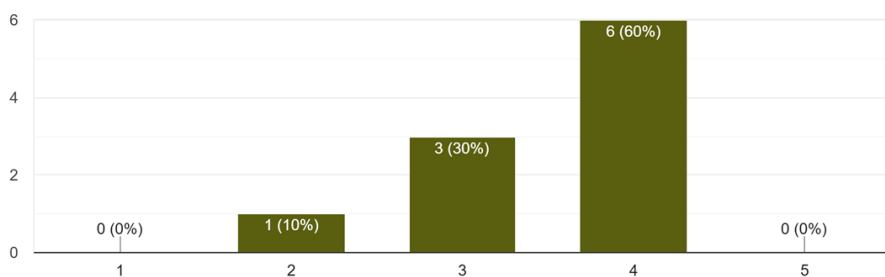
## Day 2



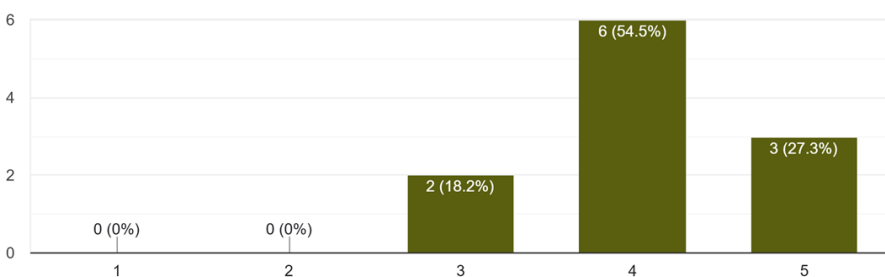
## 4. Rate the sustainability of the innovations presented.

1 not at all sustainable      to      5 very sustainable

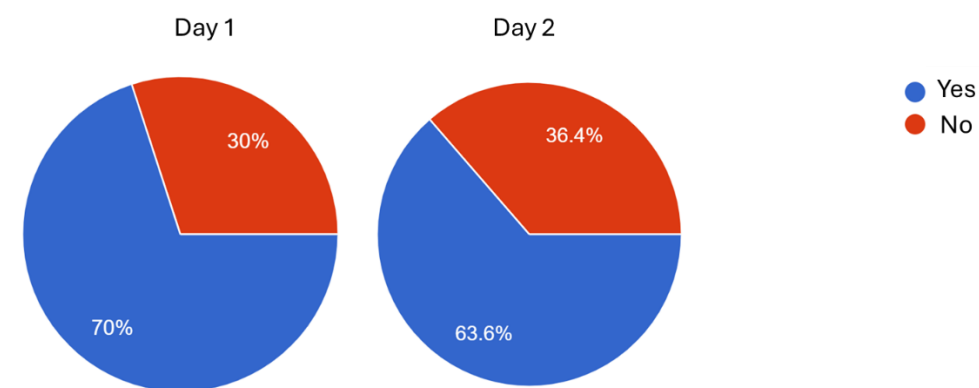
## Day 1



## Day 2



## 5. Are these innovations applicable to your daily work?

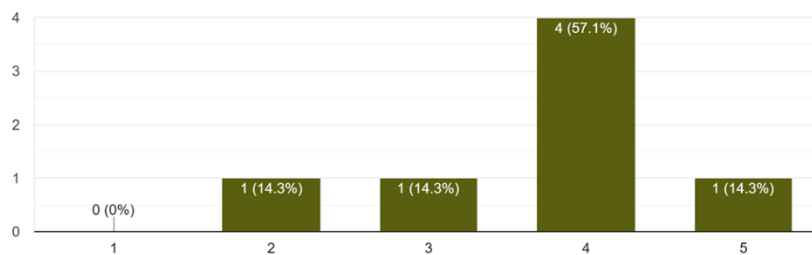


If Yes,

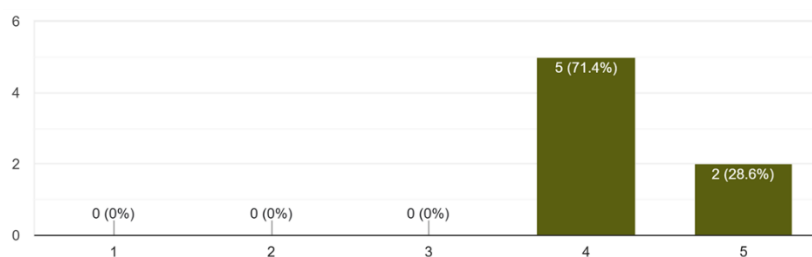
How likely would you be to use the innovations presented here?

1 not at all to 5 very likely

Day 1



Day 2



## 9 FAIR FAIRCHAIN Data Management policy

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Data produced in this deliverable have been not been stored in any dataset repository.

## 10 Conclusion

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The CS workshops were organized at national level by each CS to train the food actors in the best practices learned during the development of the case studies and in the use of innovations developed.

In total 12 days of training or demonstrations were organized with a more than 560 people invited. They represent actors (producers, food SMEs, traders, distributors): 219, stakeholders (NGOs, public authorities, opinion leaders, and regulators): 142, wider audience (policy makers, retail, energy provider, citizens): 78, research and scientific organizations: 115, representatives from sister projects: 6. From those 183 attended the events and signed the attendance list while others were present in different parts of the workshops e.g. 200 visitors at the Bjurholm Berry festival (Day 2), where the ICT tool was demonstrated for a wider audience and 108 (59%) filled in the feedback form provided. All data related to the feedback provided by participants do not include the CS in Austria where feedback was collected in an oral feedback session and documented in a protocol, which does not fit with the data provided by the google form the others used.

Most respondents were male 66%, with the age from 41 to 60 for 54%, not involved in the FAIRCHAIN project 57% nor in any other EU related project 79%. The events were of high interest for private companies represented by 40.5% of the responders, followed by representatives of the research sector 20%, universities 13% and government agencies 11%. The profile of participants varied depending on the particularities of each case study and applicability of the innovations demonstrated.

The events included training and demonstration sessions which were evaluated as relevant or very relevant by the respondents. 47% considered the events very useful and 38% appropriately useful, while 34% and 24% considered that they were very well and well trained in the best practices including during the event. Furthermore, 42% of the respondents consider the innovations interesting, 53,5% consider them sustainable, and 59% said that they are applicable to their daily work.

Overall, the events organized by the CS achieved their goals and reached their target audience and can be replicated at any time at national or regional level. During these events 37 videos in the form of interviews or demonstrations were produced and can be used as training materials to reach a greater audience.