

FOOD IMPROV'IDERS

Provide producers with fit-for-purpose knowledge to develop new sustainable food chain models improving their revenue and enhancing consumers' satisfaction

D 4.3 Report on the learning outcomes of the training and self-learning opportunities in the second year of phase 2



Co-funded by the
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<https://foodimproviders.eu>

This document forms part of the deliverables from the FOOD IMPROV'IDERS project which has received funding from the European Union's ERASMUS+ program under grant agreement 2020-1-FR01-KA204-080640.

The project is aiming to develop the skills and knowledge of EU producers in short food chains circuits to facilitate their insertion in existing network and/or the creation of new one to rebalance their role in the food chain.

More information on the project can be found at www.foodimproviders.eu.

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1. Introduction

The present D.4.3 report is an update on D3.2 and D3.3 with a combined report on the second year of the implementation of the blended-learning and the self-learning opportunities.

This report will:

- provide an assessment of the second year of the implementation of the training and self-learning and
- compare the learning outcomes between the first and second year of the implementation.

As the leader of T3.2, University of Ljubljana was in charge of T4.3 with the notable support of UP (T3.1 task leader) and EP (T3.3 task leader).

T4.3 was continuing to implement what was used in WP3, and incrementally integrate the enhanced content, platform improvements and training offer refinements as they are validated, with M29 (D4.2) as the main deadline for the enhancements.

2. Project Summary

FOOD IMPROV'IDERS is an Erasmus+ project that aims to provide EU food producers with tailored training content in line with their needs and lifestyle to improve their skills and knowledge in short food chains circuits. To reach the beneficiaries, the project will offer the training content both online and in presential courses.

The FOOD IMPROV'IDERS project gathers 6 partners from 6 different EU Member States (France, Bulgaria, Italy, Hungary, Slovenia, Spain) having complementary profiles to provide the necessary expertise for the implementation of all project tasks.

Part. #	Partner name	Partner short name	Country
1	Association Nationale des Industries Alimentaires	ANIA	France
2	Eszterházy Károly University	EKU	Hungary
3	University of Ljubljana	UL	Slovenia
4	University of Parma	UP	Italy
5	Foundation Juana de Vega	FJDV	Spain
6	Europroject	EP	Bulgaria



3. Training program and feedback from Fundación Juana de Vega students

The Fundación Juana de Vega designed the second year of trials of the FOODIMPROVIDERS project based on the main conclusions drawn from the tests carried out in the first year.

The "B-learning training program on short food supply chains 2023" was launched on 17 February through the Fundación Juana de Vega's website. For this, in addition to advertising on social networks, two email campaigns were sent to the subscribers of the Juana de Vega Foundation website (described in the dissemination report) and information was also sent to the 40 people who showed interest during the first year of trials.

The program for the second year consisted of:

- 8 on-line modules offered through the project's platform.
- A face-to-face workshop for entrepreneurs in the primary sector.
- A grid of 12 synchronous web conferences.

In this second year, module 8 was created as an online version, as during the first year of testing it was only available in the form of web conferences.

To build the B-learning offer and complete the on-line modules, a program of 12 synchronous web conferences was created between February and June, which were designed as complementary information to the on-line modules and to disseminate unique projects and success stories in the field of CSFS in Spain and mainly in our region.

In all the activities of the project, it was detected that there are many initiatives in the field of SFSC at regional level throughout Spain that share problems, many of them derived from their small size.

The synchronous activities (web conferences) and the face-to-face workshop programmed, in addition to complementing the on-line contents, were intended to help create relationships between stakeholders and target groups.

We also detected that these SFSC models are preferred by the group of New Entrants in agriculture, people who often come from the urban environment, often lacking connections with the rural environment and specific knowledge, although with high levels of knowledge in other disciplines. Those New Entrants are aware of production models that respect the environment, the product and supply chains that allow direct contact with the consumer.

For this profile, on-line training is the preferred training modality, so, based on the conclusions of the first year of testing, we decided to propose only training via synchronous videoconference, which allows to combine short and specific training pills and at the same time the exchange and networking between participants, but avoids the time lost in travelling.

The second year trials were designed in such a way that each interested student could choose a personalized training pathway combining several of the options offered.

Students were free to enroll in any modality and in any online module or web conference according to their interests.

In order to maintain direct contact with interested parties, students were asked to pre-register through the website of the Fundación Juana de Vega.

3.1. Web conferences

A schedule of 12 live short web conferences was programmed with a duration of 45 minutes, 30 minutes of presentation by the speaker and 15 minutes of questions and exchange.

MS Teams was used as virtual meeting software.

February-March

Principles for building a successful brand. Session I. What your customer wants, not what you want to do. Building a brand that is relevant to the market. 22nd of February

Bio canteens Project. A cooperation project between eleven Galicia LAG, Gadisa (distribution group) and the Axencia Galega de Servizos Sociais (Regional Social Services Agency), whose objective is to facilitate the commercialization of local and organic products in school canteens. 7th of march.

Principles for building a successful brand. Session II. 22nd of March

April

EO alimenta: food strategy and presentation of the study about "Social perception of local food production and consumption systems". 10th of April

How do I promote my product? Session I. Articulate the communication of your products through your benefits. 12th of April

Proyect Daqui darredor: a collaborative project that provides producers with a mobile slaughterhouse for poultry and rabbits, a shared-use kitchen, and a twice-monthly market for the sale of local agri-food products in Brion- A Coruña. 18th of April

How do I promote my product? Session II. 26th of April

May

Pricing our product (Keys to pricing and promotions that we can carry out to stimulate demand). Session I. 11th of May; Session II. 24th of May

June

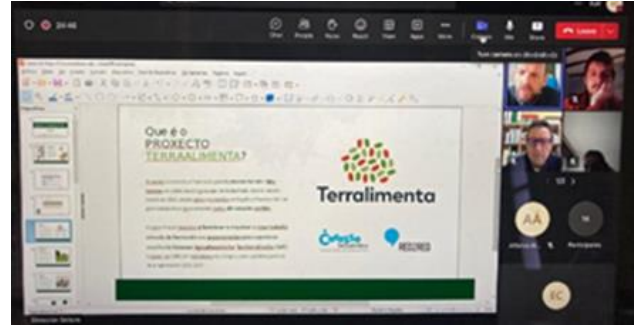
How to raise the price without dying in the attempt? Session I. Strategies for raising the price of our products to avoid losing customers. 7th of June. (Session cancelled due to lack of attendees and rescheduled for 21st of June. Sessions I and II were held together).

Slow Food Compostela, and bio-gastronomic association that promotes gastronomy as an expression of identity and culture from a multidisciplinary approach. 15th of June

How to raise the price without dying in the attempt? Session I. 21st of June



Picture 1: Web conference #2. Bio canteens project.



Picture 2: Web conference #4. EO alimenta project.



Picture 3: Web conference #3. Principles for building a successful brand II.

39 students pre-registered for one or more of the 12 web conferences (Table 1).

Table 1: List of students pre-registered for one or more of the 12 web conferences.

ID	Surname	Mail	Number of selected web conferences
1	Araujo Martínez	earaujo98@hotmail.com	8
2	Montenegro Piñeiro	evamontenegro@gmail.com	8
3	Vilar Pumares	info@verdecubico.es	1
4	Queijeiro Bello	luciahugoeva@gmail.com	10
5	Pazos	cristinapazos@dubraseda.es	7
6	Ferro Prieto	ferroeidian@gmail.com	10
7	Queijeiro Bello	susoqb@gmail.com	10
8	Ruibal	ramiro.ruibal@ponorte.com	10
9	Taboada Álvarez	amadeo.taboada@ponorte.com	10
10	Garriga Rodríguez	sgarriga@nelabiosense.es	11

11	Gesto Casás	t.gesto.casas@gmail.com	10
12	Fernández Piñeiro	pineiroangela@gmail.com	10
13	Lema Rivas	lema.rivas@gmail.com	10
14	Gallero Moreiras	adriangallero@gmail.com	10
15	Boán Mascareñas	amaliaboanmascarenas@hotmail.com	10
16	Peixoto Torres	pablo.peixoto.torres@gmail.com	10
17	Arévalo Rodríguez	jorgearevalorguez@hotmail.com	8
18	Rodríguez Rodríguez	evadecesuras@gmail.com	9
19	Cid Outeiriño	mcidouteirino@gmail.com	4
20	Vazquez Rama	ovazquezrama@gmail.com	6
21	López Quiroga	evalquiroga@gmail.com	10
22	Doallo Álvarez	raquel@aopaso.gal	10
23	Rodríguez De Torres	ruben@vigoimago.com	11
24	Santos Vázquez	angeles.santos@udc.es	2
25	Cortiñas	logacs@gmail.com	9
26	Rodríguez Rodríguez	labrecos@gmail.com	10
27	Ostrovshii	comunicacao@actuar-acd.org	1
28	Villaverde Lopez	Pavlp@me.com	9
29	Losada Balboa	losadaybaeza@hotmail.com	8
30	García Fernández	franeselle@gmail.com	2
31	Suárez Sánchez	bea.suarez.sanchez@gmail.com	1
32	Cardoso Filipe	marianafilipe@hotmail.com	9
33	García Carregal	slowcompostela@gmail.com	6
34	Lorenzo Abalo	lorenzo.leonor@gmail.com	4
35	Estévez Parada	rosendoluis@trasdezanatur.com	1
36	Lorenzo Echevarria	Fereche85@hotmail.com	1
37	Martínez Rodríguez	info@condadoparadanta.com	1
38	Feal Pereira	delfinfeal@gmail.com	1
39	Costas Vazquez	Maisamery@gmail.com	1
			269

In total, the 39 students registered for a total of 269 web conferences, which means that each interested person selected on average 6,8 web conferences from those offered.

Table 2 shows the actual number of attendees at each of the web conferences.

Table 2: Actual number of attendees at each of the web conferences.

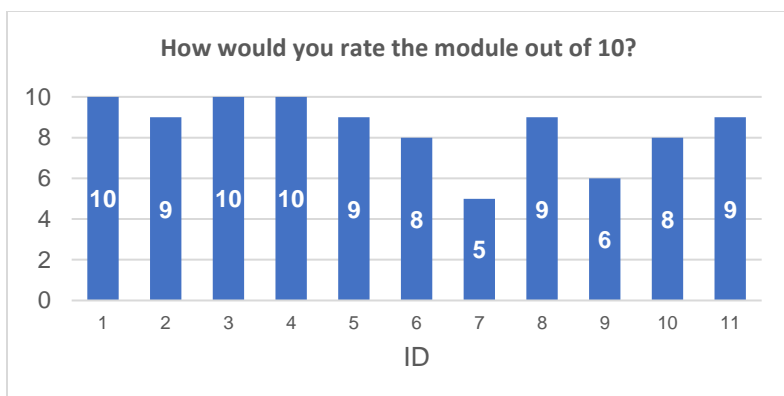
Session number	Number of actual participants
1	7
2	14
3	8
4	11
5	5
6	11
7	5
8	4
9	8
10 &12	4
11	8
Total	69

One week before each web conference, a reminder email with the connection link and the date and time of the session was sent to all registrants. All web conferences were recorded with the permission of the speakers and attendees and made them available to all students in a shared folder ([Videos conferencias web Erasmus+ FOODIMPROVIDERS](#)).

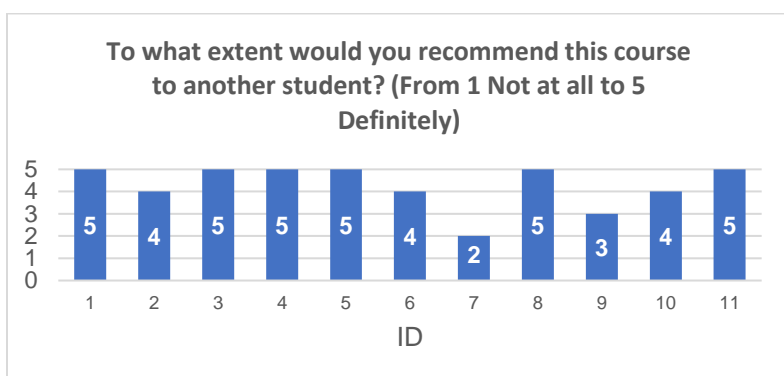
At the end of each session, students were asked to complete the validation form. Only 11 surveys were collected from 7 different people. The most relevant results are presented in Table 3.

Table 3: Validation form results.

ID	Name	1. Did the training meet your expectations?	2. Your opinion on the technical aspects of the training (ease of connection, practicality of the tool, etc.)	3. Were you satisfied with the methodological advice you were given?	4. Do you think there will be an opportunity to use the proposed tools?
1	Leonor Lorenzo Abalo (Session 6)	Very much so	Very practical and useful training system for everyone.	Completely satisfied	Quite often
2	Rocío García Carregal (Session 9)	Very much so	Easy access, interaction with the speaker, good communication always.	Completely satisfied	Quite often
3	Oscar Vazquez Rama (Session 2)	Very much so	very good	Completely satisfied	Very often
4	Eva López Quiroga (Session 2)	Very much so	All very good	Completely satisfied	Very often
5	Miguel Angel Cid Outeiriño (session 6)	Very much so	Delighted with the ease of access to both registration and connection to the session.	Completely satisfied	Occasionally
6	Adrián Gallero Moreiras. (Session 2)	Very much so	Very easy.	Somewhat satisfied	Quite often
7	Adrián Gallero Moreiras (Session 5)	Somewhat yes	Easy to connect	Somewhat satisfied	Rarely
8	Miguel Angel Cid Outeiriño (Session 2)	Very much so	Excellent clarity in the project description	Completely satisfied	Occasionally
9	Belén Rodríguez Rodríguez (Session 2)	It depends	All good	Completely satisfied	Occasionally
10	Belén Rodríguez Rodríguez (Session 9)	Very much so	Very easy access to the session.	Completely satisfied	Quite often
11	Miguel Cid Outeiriño (Session 12)	Very much so	Very easy access to the session.	Completely satisfied	Quite often



Picture 4: Module rating.



Picture 5: Evaluation of the module recommendations.

Continuation of the Table 3

ID	Name	5.Your opinion on the content of the training (adapted content, with examples...)	6.Would you like to participate in other modules in this format?	7.Ideas, suggestions for new themes, difficulties, criticism...
1	Leonor Lorenzo Abalo (Session 6)	Excellent.	Yes because I prefer distance learning	Family farming
2	Rocío García Carregal (Session 9)	The contents are general but easily adaptable to the needs of each sector.	I will participate in both face-to-face and distance learning	HACCP
3	Oscar Vazquez Rama (Session 2)	very good	I will participate in both face-to-face and distance learning	Short food supply chains
4	Eva López Quiroga (Session 2)	Very satisfied	Yes because I prefer distance learning	No
5	Miguel Angel Cid Outeiriño (session 6)	The contents are very well presented and well synthesised.	Yes because I prefer distance learning	Training in conservation and/or small-scale processing of products.

6	Adrián Gallero Moreiras. (Session 2)	Positive the concreteness of the exposition	Yes because I prefer distance learning	I like the short duration of the sessions, because it makes them lighter, but it would be good to facilitate more interaction between the people present.
7	Adrián Gallero Moreiras (Session 5)	I think that it was not very adapted to the reality of most productive projects that work in the field of SFSC	Yes, because I prefer distance learning	Adapt the speakers more
8	Miguel Angel Cid Outeiriño (Session 2)	Clarity in the presentation	Yes, because I prefer distance learning	None
9	Belén Rodríguez Rodríguez (Session 2)	Correct	I will participate in both face-to-face and distance learning	More time for questions from the audience. We were left wanting to interact.
10	Belén Rodríguez Rodríguez (Session 9)	All correct	Yes, because I prefer distance learning	None
11	Miguel Cid Outeiriño (Session 12)	The activity they carry out is very well described.	Yes, because I prefer distance learning	Keep it up

3.2. Face-to-face workshop for entrepreneurs "Building the future scenario of my company".

4th of May 2023

5 Entrepreneurs in the agri-food sector using LEGO® SERIOUS PLAY® methodology.

The workshop (Pictures 4-6) has the aim to identify and examine in depth the current situation of the company/business/project and visualize its state over a 3-year time, defining an initial roadmap to help them move from the initial state A to the desired state B.



Pictures 6-8: Presentation of the LEGO® SERIOUS PLAY® methodology.

11 people applied for the workshop, but only 5 people registered (Table 4).

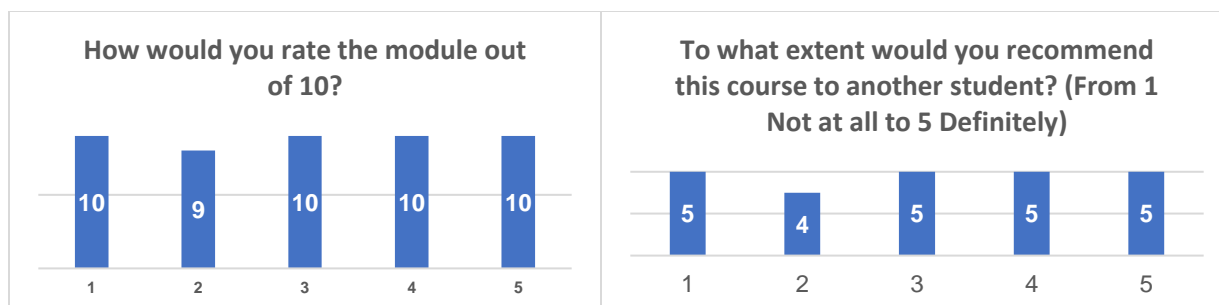
Table 4: Registered participants to the workshop.

Name	Surname	E-mail
Emilio	Araujo Martínez	earaujo98@hotmail.com
Diego	Castro Rodríguez	diego@centrallecheragallega.com
Laura	Sánchez	lauradarua@gmail.com
Silvia	Garriga Rodríguez	sgarriga@nelabiosense.es
Alberto José	Lema Rivas	lema.rivas@gmail.com
Jefferson	Pinilla Patarroyo	jeffersonpini@gmail.com
Ivan	Rodríguez Rodríguez	evadecesuras@gmail.com
Belén	Rodríguez Rodríguez	labrecos@gmail.com
María Hortensia	Losada Balboa	losadaybaeza@hotmail.com
Susana	Rodal	hortenhl@gmail.com
Carmen	Cainzo	carmen.cainzos@gmail.com

At the end of the workshop the 5 students filled in the satisfaction survey. The most relevant results are presented in Table 5.

Table 5: Results of the satisfaction survey.

ID	Name	1. Did the training meet your expectations?	2. Your opinion on the technical aspects of the training (ease of connection, practicality of the tool, etc.)	3. Were you satisfied with the methodological advice you were given?	4. Do you think there will be an opportunity to use the proposed tools?
1	Emilio Araujo Martínez	Very much so	Great tool for developing ideas. Versatile and easy	Completely satisfied	Very often
2	Silvia Garriga Rodríguez	Very much so	Interesting and different approach	Completely satisfied	Quite often
3	María Hortensia Losada Balboa	Very much so	Very well organised	Completely satisfied	Very often
4	Susana Rodal Aparicio	Very much so	Totally adequate	Completely satisfied	Very often
5	Carmen Cainzo López	Very much so		Completely satisfied	Very often



Pictures 9-10: Rating and recommendation of modules.

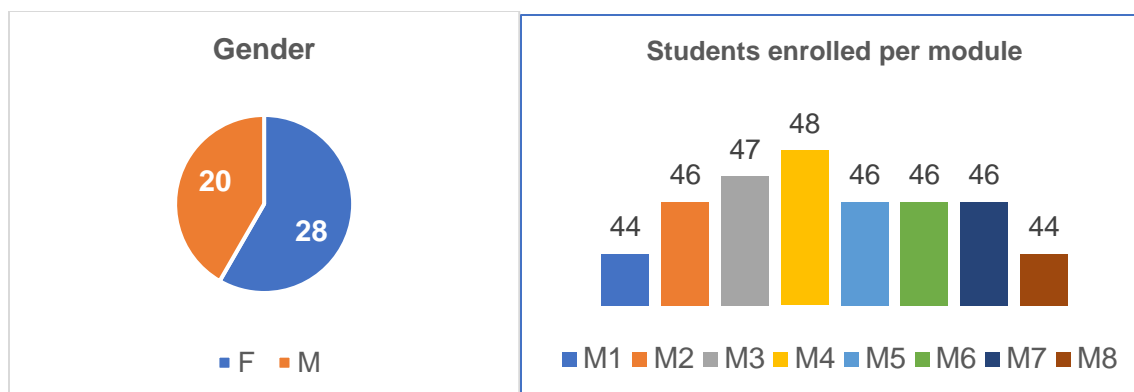
Continuation of the Table 5

ID	Name	5. Your opinion on the content of the training (adapted content, with examples...)	6. Would you like to participate in other modules in this format?	7. Ideas, suggestions for new themes, difficulties, criticism...
1	Emilio Araujo Martínez	everything great, no negative considerations	I will participate in both face-to-face and distance learning	
2	Silvia Garriga Rodríguez	Well adapted to the intended results	I will participate in both face-to-face and distance learning	
3	María Hortensia Losada Balboa	Very well-developed content. Excellent trainer	I will participate in both face-to-face and distance learning	Training in promotion and marketing
4	Susana Rodal Aparicio	It was an introspective training to get to know ourselves and our projects.	I will participate in both face-to-face and distance learning	Hold a continuation session with the same methodology to further deepen our projects.
5	Carmen Cainzo López	It was an entirely practical session. I didn't have a preconceived idea and I loved it.	I will participate in both face-to-face and distance learning	

3.3. Modules on-line

As with the web conferences, students interested in taking the online modules were asked to pre-register on the Fundación Juana de Vega website (Table 6) instead of registering directly on the FOODIMPROVIDERS platform (Pictures 11-12).

The aim was to have direct contact with the students and be able to send them information about the rest of the project activities.



Pictures 11-12: Gender of students and their enrolment by pedagogical module

Table 6: List of registered persons per pedagogical modules.

ID	Name	Surname	E-mail	Modules selected
1	Eva	López Quiroga	evalquiroga@gmail.com	8
2	Emilio	Araujo Martínez	earaujo98@hotmail.com	8
3	Eva	Montenegro Piñeiro	evamontenegro@gmail.com	8
4	Ana	De Diego Ortiz	anadediego@hotmail.com	8
5	Tamara Isabel	Franco Grandas	isabel.francograndas@outlook.es	8
6	Begoña	Souto López	begoña_souto@hotmail.com	8
7	Carlos	Díaz Herrera	Info@curtindecarlos.com	8
8	Samuel	Romero Gallego	sromerogallego@gmail.com	8
9	Maria Belen	Raposo Perez	torredeesmoris@gmail.com	7
10	Leticia	Vilar Pumares	info@verdecubico.es	8
11	Alfonso Luis	Martinez Moroño	cardeita10@gmail.com	8
12	Ruth María	Pérez García	rt_pegas@outlook.com	8
13	Boris	Roca	Borisdelaroca@gmail.com	8
14	Alfredo José	Ferreiro Salgueiro	contacto@alfredoferreiro.com	8
15	Xose Manuel	Ferro Prieto	ferroedian@gmail.com	8
16	Laura	Sánchez	lauradarua@gmail.com	8
17	Jesús	Queijeiro Bello	susoqb@gmail.com	8
18	Monica	Barcia Paredes	adl@ribadeo.org	8
19	Ramiro	Ruibal	ramiro.ruibal@ponorte.com	8
20	Silvia	Garriga Rodríguez	sgarriga@nelabiosense.es	8
21	Amadeo	Taboada Álvarez	amadeo.taboada@ponorte.com	8
22	Eva	Queijeiro Bello	luciahugoeva@gmail.com	8
23	Alfonso	Ribas	aribas@juanadevega.org	8
24	Alberto José	Lema Rivas	lema.rivas@gmail.com	8

25	Ángela	Fernández Piñeiro	pineiroangela@gmail.com	4
26	Fátima	Estévez Posada	fatimaestevéz@edu.xunta.gal	7
27	Adrián	Gallero Moreiras	adrigallero@gmail.com	8
28	Estefania	Diez Amo	vallaecolid@gmail.com	8
29	Amalia María	Boán Mascareñas	amaliaboanmascarenas@hotmail.com	8
30	Pablo	Peixoto Torres	pablo.peixoto.torres@gmail.com	8
31	María Dolores	Marín Godoy	mariola.mmg93@gmail.com	7
32	Jorge	Arévalo Rodríguez	jorgearevalorguez@hotmail.com	8
33	Mónica	Arnosó Gómez	moarnosó@gmail.com	8
34	Eva	Rodríguez Rodríguez	evadecesuras@gmail.com	8
35	Elena	González López	elenagonzalezlopez@gmail.com	8
36	Manuel	Araujo Iglesias	maraujoiglesias@gmail.com	8
37	Laura	Lagos Abarzuza	laura.lagos@udc.es	6
38	Rebeca	Carballo Coello	quecacarballo@gmail.com	8
39	Laura	Cortiñas	logacs@gmail.com	8
40	Elena	López Seco	elena.viruca@gmail.com	8
41	Antonio	Rodríguez Corbal	arcobal@gmail.com	6
42	Belén	Rodríguez Rodríguez	labrecos@gmail.com	8
43	Paula	Ruivo	paula.ruivo@esa.ipsantarem.pt	8
44	Mariana	Cardoso Filipe	marianafilipe@hotmail.com	8
45	Luis	García Fernández	luis.garcia@efagalicia.org	8
46	Pablo	Villaverde Lopez	Pavlp@me.com	8
47	Yolanda	Paz Pereira	yolixpp@gmail.com	3
48	Félix	Martínez Colmenero	felixdirr@gmail.com	8
				368

In total, the 48 students registered for a total of 368 on-line modules, which means that each interested person selected on average 7,6 modules from the 8 offered.

At the end of the online modules (except for modules 1 and 8), as in the first year of testing, students were required to complete a satisfaction survey and a short test on the content.

Both were necessary to obtain a certificate of completion of the course.

Only 3 satisfaction surveys from 2 different students and 13 tests were collected (Table 7).

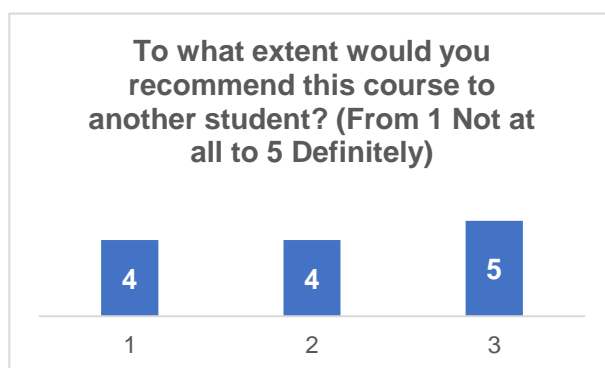
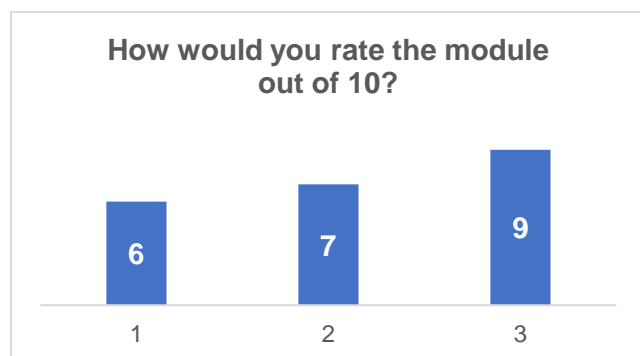
Table 7: Number of tests completed per pedagogical modules.

Pedagogical module	No. of tests completed
M2	6
M3	3
M4	2
M5	2
M6	0
M7	0

The most relevant results from the surveys are presented in Table 8.

Table 8: Results of the satisfaction surveys.

ID	Name	Module	1. Did the training meet your expectations?	2. Your opinion on the technical aspects of the training (ease of connection, practicality of the tool, etc.)	3. Were you satisfied with the methodological advice you were given?
1	Emilio Araujo Martinez	Module 2. Food safety	Somewhat yes	I find it very practical, I have not had any problem in the navigation between chapters.	Completely satisfied
2	Ruth María Pérez García	Module 3. Managerial advice	Somewhat yes	Modules that have already been completed should be marked	Completely satisfied
3	Emilio Araujo Martinez	Module 2. Food safety	Very much so	I have no negative comments about the tool	Completely satisfied



Pictures 13-14: Rating and recommendation of modules.

Continuation of the Table 8

ID	Name	4. Do you think there will be an opportunity to use the proposed tools ?	5. Your opinion on the content of the training (adapted content, with examples...)	6. Would you like to participate in other modules in this format?	7. Ideas, suggestions for new themes, difficulties, criticism...
1	Emilio Araujo Martinez	Quite often	I think it is well structured	I will participate in both face-to-face and distance learning	None
2	Ruth María Pérez García	Occasionally	Sufficient examples	Yes because I prefer distance learning	
3	Emilio Araujo Martinez	Quite often	In general it is very well presented and organized	I will participate in both face-to-face and distance learning	None

Table 9: The test results.

Student	M2	M3	M4	M5
Amadeo Taboada Álvarez	10/10	9/10		
Emilio Araujo Martinez	10/10			
Adrián Gallero Moreiras	10/10	10/10	10/10	10/10
Elena González López	10/10			
Eva López Quiroga	9/10			
Ruth María Pérez García	10/10	10/10	10/10	10/10

3.4. Conclusions

1. The training proposal was received with great interest among the target group, however, the actual attendance at the web conference sessions was very low, as were the satisfaction surveys received.
2. We have no data of the number of trainees who viewed the web conferences on a webcast mode, by accessing the cloud archive that was made available for this purpose.
3. We have detected that some students fill in the surveys or take the tests in duplicate. It would be highly advisable for the platform to provide students with information on the modules taken and, on the surveys, and tests completed.
4. In general, learners validate the training contents as very interesting, of good quality and useful for their working life.
5. The registered learners belong entirely to the first target group (primary producers, rural

entrepreneurs, new entrants...) or to other actors of the food supply chain (public/private rural advisors) who are looking for complementary training but are generally not interested in diplomas or certificates, hence the low number of learners completing the surveys or taking the tests.

6. Some students have been able to register directly on the e-learning platform, as they are only interested in the on-line contents, and are not registered on the Fundación Juana de Vega website and therefore not included in the statistics and data showed of this document.
7. We recommend increasing the number of management tools currently available in the platform software, especially those for student monitoring and evaluation.

4. In-presence training from the University of Parma students

University of Parma students from two different study program had 5 in-presence sessions, where they encountered four pedagogical modules.

Various trainers (Cristina Mora, Audrey Cavalieri and Hilva Gjoni) were involved in the presentation of the project and the individual pedagogical modules.

Then the work done by the partners was presented the phases analyzed were:

- The starting survey aimed to define the topics for the modules;
- The final index of the main modules and all the submodules.

Table 10: Demonstration of the activities carried out to present the modules to University of Parma students.

Date	Title of the presentation
13.10.2022	The Food Improviders projects
12.12.2022 15.12.2022	Marketing and Managerial advice modules - Food Science course
17.3.2023 24.3.2023	Project presentation and Food Processing modules - Quality and procurement of raw materials for agri-food course

4.1. Project presentation - Food Science course

On October 13th, 2022 the first of a series of in presence training sessions was organized with the students of the Food Science course of the University of Parma.

The aim of this first session was to present the Food Improviders projects.

After the presentation of the project the trainers moved on showing the e-learning platform and how it works.

Then asked the participants to create an account on the platform in order to have access to the pedagogical material.

The first of three in presence session with this group of participants ended at this point.

4.2. Marketing and Managerial advice modules - Food Science course

The second and third sessions with the students of the Food Science course took place on the 12th and 15th of December 2022.

The students were asked to login on the platform and perform different activities:

One related to the **Marketing module**. The participants had to read the module to have a general knowledge of the topic, then the trainers focused the activity on the Digital strategy. The aim was

to analyze the presence of the Parmigiano-Reggiano Consortium on the social-media platforms mostly used nowadays. The trainers made available a table (Table 11) that the participants had to fill based on their researches.

One related to the **Managerial advice module**. In this case the activity was focused on the Business plan and the Business model canvas. The participants had to read the module to acquire a general knowledge on the topic and then in groups of max. 3 participants they had to perform a practical activity. They had to choose a food company and design for one of their products a Business model canvas considering two trends: digitalization and sustainability.

Table 11: Presence on the social-media platforms.

Social-media	Presence	Followers	Likes
Facebook			
Instagram			
LinkedIn			
TikTok			
Youtube			



Pictures 15-16: Working groups of students.

4.3. Project presentation and Food Processing modules - Quality and procurement of raw materials for agri-food course

On the 17th and 24th of March 2023 other training sessions were organized by the University of Parma.

The participants were the students of the Quality and procurement of raw material for agri-food course.

During the first session the trainers, Cristina Mora and Audrey Cavalieri, presented the project, the aim, the target, the e-learning platform and gave an overview of the pedagogical material that can be found in it.

After the presentation of the project the participants focused on the Food processing module with a particular focus on the Innovations in the food production (Farm 4.0).

They were divided in couples and at each of them was give a particular technological innovation among the ones listed below:

- Computers
- Driverless field vehicles
- Drones/sensors
- Robots
- Biotechnologies
- Vertical farming/hydroponics

Then using the pedagogical material present on the platform and informations found on the internet the had to list the advantages and disadvantages of the given new technology considering different factors for examples the different actors in the food supply chain (Table 12).

Table 12: Advantages and disadvantages of new technologies

	Advantages	Disadvantages
Producers (farms)		
Producers (industrial companies, suppliers)		
Consumers		
Citizens		
Environment		

During the second training session the participants watched some videos on the most common new technological tools used today in the field of food production.

Then one of the trainers, Edoardo Ortolano, presented a focus on out-of-soil cultivation and hydroponics and talked about the advantages and disadvantages of this type of cultivation.

After that the participants performed a practical activity related with this topic.

4.4. Marketing and Managerial advice modules - Food Science and Technology course

On the 26th of April and 3rd of May 2023 the first two of three training sessions with the students of the Food Science and Technology course took place.

During the first session the trainers, Cristina Mora and Audrey Cavalieri, presented the project, the aim, the target, the e-learning platform and the work done.

After the introduction the participants created an account on the e-learning platform in order to have access to the material.

Then they read the Marketing module with a particular focus on the Digital marketing section and its additional reading (focused on Food Blog) and the Brand image section.

Then they had to choose a food company and perform three different activities:

The first one related with the **topic of Digital Strategy** which involved analyzing the presence on social media of the chosen food company and with the information's collected fill the table given by the trainers (Table 13).

The second one related with the **topic of Brand image** which involved searching reviews/comments/articles that talked about the food company that they chose. Analyzing if they were positive or negative and who talked about it (e.g. consumers, users, expert users, distributors). Then going further analyzing if there were specific blogs talking about the chosen food company using the help of keywords to narrow the research on the internet.

The third one related with the **topic of Digital strategy** which involved the analysis and evaluation of the website of the chosen food company. The participants had to give a score from 1 to 10 considering different factors and to answer to some questions (Table 14).

Table 13: Presence on the social-media platforms.

Social-media	Presence	Followers	Likes	Other comments
Facebook				
Instagram				
LinkedIn				
TikTok				
Youtube				
Twitter				
Others				

Table 14: Factors and questions for the evaluation of the food company website

Factors to be scored (from 1 to 10)	Questions
Accessibility of the website	Who the target audience is (consumers, other companies, distribution, general public, other)?
Ease of use	Is the Online shop present?
General appearance of the website	Is the “Work with us” section present?
Presence of content (completeness)	
Adaptability to other devices different from computers (e.g smartphones, tablets)	

The third training session with this group of participants took place on the 10th of May. During this sessions the participants had to read the **Managerial advice module** in particular the sub-module on the Business plan and the business model canvas.

Then they had to perform an activity related with this topic. Using the food company that they chose for the previous activities they had to design/modify/refine one of their products using the business model canvas considering two trends: sustainability and digitalization.



Pictures 17-18: Working groups

4.5. Conclusions

As highlighted in this document the training sessions organized at the University of Parma always consisted in two different sections:

- The theoretical section, in which the participants acquired the general knowledge on one or more topics
- The practical section, in which the participants were put in situations in which they had to apply/use what they had just learned considering a realistic scenario.

These training sessions were useful for the participants because they were guided in the first uses of the platform and during the activities.

For the partners these sessions were useful to understand how the users can actually use all the materials that are presented in the modules.

5. In-presence training from the University of Ljubljana students

On February 15th, 2023 the first in presence training sessions with students at the Veterinary Faculty (Urška Jamnikar Ciglencečki) and at the Faculty of Health Sciences (Mojca Jevšnik) was organized. The aim of this first sessions was to present the aim and goals of the FOODIMPROV'IDERS project and the concept of Short Food Supply Chain. After the presentation of the project the trainers demonstrated how the e-platform works of the FOODIMPROV'IDERS project.

Students were then introduced to the different topics of the modules and asked to create an account on the e-platform to access the pedagogical modules. Table 15 shows the content of presentations topics to the students.

Table 15: Presentation of pedagogical modules to students from Veterinary faculty and Faculty of Health Sciences.

Date	Title	Location	No. of students
15.2.2023	Food hygiene	Veterinary faculty	24
15.2.2023	Hygiene of premises and processes	Faculty of Health Sciences	23
17.2.2023	Short food chain	Veterinary faculty	12
1.3.2023	Good practices in agri-food chain	Faculty of Health Sciences	15
2.3.2023	Sustainable food chain models	Veterinary faculty	18
3.4.2023	Food safety	Veterinary faculty	15
6.4.2023	Developing sustainable models in the agri-food chain	Veterinary faculty	10

5.1. Analysis of surveys and results of tests by each module

1. Food safety - evaluation of the survey

6 women aged 17-34 answered the survey on the Food Safety module. The topic of food safety was very relevant to the 5 women and helped them to learn new skills. Only one respondent answered that the topic was moderately relevant and helped her to acquire new knowledge. All found the presentation of Food Safety on the online platform clear and were generally satisfied with the quality of the Food Safety content. All respondents liked this way of presenting the information and would recommend the training to other trainees.

Food Safety: results of the knowledge assessment

26 respondents answered the knowledge test on Food Safety module. Results of the knowledge assessment is in Table 16.

Table 16: Results of the food safety knowledge test.

Questions	Correct answers (n)	Incorrect answers (n)
Choose the reasons why the One Health approach is becoming increasingly important?	24	2
How or where are zoonotic diseases transmitted from animals to humans?	26	0
What are the preventive measures to reduce contact with rodents and their droppings?	23	3
What does MRL mean?	25	1
What is meant by the term 'misinformation'?	21	5
What is the principle of product traceability?	23	3
Which of the recommendations for on-farm food preparation can be omitted?	25	1

2. Basic elements of food processing and storage - evaluation of the survey

3 women (2 aged 17-34, 1 aged 45-54) responded to the survey on the module Basic elements of food processing and storage. The topics were very relevant to 2 of them and helped them to learn new skills. All respondents found the presentation of the topic on the online platform clear and were generally satisfied with the quality of the topic covered (2 respondents chose an average score of 4 and 1 chose an average score of 5). All respondents liked the way the information was presented and would recommend the training to other students.

Basic elements of food processing and storage: results of the knowledge assessment

17 respondents answered the knowledge test on the Basic Elements of Food Processing and Storage. Results of the knowledge assessment is in Table 17.

Table 17: Results of the knowledge test on the Basic Elements of Food Processing and Storage.

Questions	Correct answers (n)	Incorrect answers (n)
How would you describe quality?	6	11
What factors influence quality in the agri-food chain?	17	0
What substances are added to certain products to extend their shelf life?	17	0
What physical process causes the complete destruction of all living micro-organisms?	12	5
What are the advantages of containers and silos?	5	12
Does food packaging play an important role in preserving food throughout the distribution chain?	17	0
The agricultural industry has developed new techniques that lead to more efficient production. What is the result of this?	14	3
What is the focus of the circular economy?	5	12
What is meant by sustainable food systems (SFS)?	9	8
What is the definition of a block chain?	10	7

3. Food Labelling: evaluation of the survey

Two respondents (1 aged 17-34, 1 aged 45-54) answered the survey on the Food Labelling module. One respondent found the topic very relevant and helped her to learn new skills. Both respondents found the presentation of the topic on the online platform clear and were generally satisfied with the quality of the topic (1 respondent chose an average score of 4 and 1 chose an average score of 5). Both respondents liked the way the information was presented and would recommend the training to other students.

Food labelling: results of the knowledge assessment

21 respondents answered the knowledge test on Food Labelling. Results of the knowledge assessment is in Table 18.

Table 18: Results of the Food Labelling knowledge test.

Questions	Correct answers (n)	Incorrect answers (n)
What does food labelling cover?	18	3
Is it true that Regulation (EU) No 1169/2011 lays down rules on food labelling?	20	1
All information on the label must be:	21	0
Is it true that it is allowed to promote the nutritional and/or health benefits of products even if these benefits are not scientifically proven?	20	1
Is it true that the nutrition label must contain the energy value and the amount of fat, carbohydrates, sugars, proteins and fats?	21	0
Is it true that voluntary information must not mislead and must not be ambiguous or misleading to the consumer?	20	1
What are the key objectives of the PGI and TSG schemes?	14	7
This is the logo for...	18	3
Is it true that the carbon footprint is an environmental label for foodstuffs that can be used to assess the potential impact of a product on the climate by estimating the value of its direct and indirect greenhouse gas emissions over its entire life cycle (from fork to fork)?	21	0
What is meant by 'food without miles'?	21	0

4. Marketing: evaluation of the survey

4 respondents (3 aged 17-34, 1 aged 45-54) answered the survey on the Marketing module. One respondent found the topic very relevant and helped her to acquire new skills (rating 5). Two respondents rated the topic as 4 and one respondent rated it as 3. All respondents found the presentation of the topic on the online platform clear and were generally satisfied with the quality of the topic (1 respondent chose an average rating of 4 and 1 chose an average rating of 5). All respondents liked this way of presenting the information and would recommend the training to other students, except for one respondent.

Marketing: results of the knowledge assessment

14 respondents answered the knowledge test on Marketing. Results of the knowledge assessment is in Table 19.

Table 19: Results of the Marketing Knowledge Test.

Questions	Correct answers (n)	Incorrect answers (n)
In which country did they start marketing?	11	3
Who or what is the starting point for marketing?	11	3
Who said, "My customers can choose the colour of their car, as long as it is black"?	11	3
What does segmented marketing mean?	10	4
What are the "4 P's" of the McCarthy model?	9	5
What are the objectives and responsibilities of marketing in a company?	6	8
What is needed between individuals of different professions in medicine, veterinary medicine and ecology?	14	0
What is marketing segmentation?	8	6
Is it true that the concept of marketing assumes that a company needs to be more competitive and better than its competitors in the design of its offer, pricing, distribution and communication of its offer to its target markets in order to achieve its objectives?	13	1
Is it true that a distribution channel without intermediaries is also called a direct sales channel?	14	0

5. Managerial advice: evaluation of the survey

4 respondents (3 aged 17-34, 1 aged 45-54) answered the survey on the Managerial Advice module. One respondent found the topic very relevant and helped him to acquire new skills (rating 5). Two respondents rated the topic as 4 and one as 3. Two respondents found the presentation of the topic on the online platform very clear and were overall very satisfied with the quality of the topic (1 respondent chose an average rating of 4 and 1 chose an average rating of 3). Two respondents liked the way the information was presented. Two of the four would recommend the training to other trainees.

Managerial advice: results of the knowledge assessment

19 respondents answered the knowledge test on Managerial Advice. Results of the knowledge assessment is in Table 20.

Table 20: Results of the knowledge test on Managerial Advice.

Questions	Correct answers (n)	Incorrect answers (n)
Multifunctional agriculture means that businesses combine agricultural production with services for society, such as:	18	1
Recent studies on the willingness to diversify incomes in European agriculture show that:	12	7
Which of the following is correct?	12	7
Which of the following statements is correct?	4	15
The total farm budget takes into account all costs, income and profit for the whole farm operation. What is the partial budget?	14	5
Which business plan is preferable if you are detail-oriented, want a comprehensive plan or foresee financing from traditional sources?	14	4
What is the purpose of the mission statement?	17	2
For which of the following factors is it recommended to renew the machine?	12	7
When should a piece of equipment be refurbished?	12	7
What should be done before thinking about how to raise money to start a business?	17	2

6. Alternative food chains: evaluation of the survey

3 respondents (2 aged 17-34, 1 aged 45-54) answered the survey on the Alternative Food Chains module. One respondent found the topic very relevant and helped him to acquire new knowledge (rating 5). Two respondents rated the topic as 4. Two respondents found the presentation of the topic on the online platform very clear and were overall very satisfied with the quality of the topic (1 respondent chose an average rating of 4). Two respondents liked the way the information was presented. Two of the four would recommend the training to other trainees.

Alternative food chains: Results of the knowledge assessment

15 respondents answered the knowledge test on Alternative Food Chains. An analysis of the responses can be seen in Table 21.

Table 21: Results of the knowledge test on Alternative Food Chains.

Questions	Correct answers (n)	Incorrect answers (n)
Farmer initiatives are an example of a short food chain. What do such initiatives involve?	13	2
According to EU Regulation 1305/2013, a "short food chain" is defined as a supply chain that...	14	1
What is taken into account when talking about the sustainability of a short food chain?	15	0
What does consumer confidence in the actors in the food chain depend on?	15	0
Why does the European Union support farm diversification?	12	3
What are the tasks of agriculture?	14	1
Which diversification activities have been developed by farmers in Europe?	15	0
What influences the decision of European farmers to engage in a particular type of non-agricultural activity?	15	0
What is the organisational structure of conventional and short food chains?	14	1
What are the advantages of short food chains?	15	0

5.2. Conclusions

Students had in general the highest knowledge in the pedagogical module tests: Food safety, Food labelling and Alternative food chains, and the worst performers on the test Managerial advice which was also reflected in first-year of blended learning.

6. In-presence training from the Eszterházy Károly Catholic University students

On May 27, 2023, the workshop "Market opportunities in short food chain models" was held in the framework of the FOOD IMPROV'IDERS project as the 2nd year blended learning opportunity. The event included five presentations on the topics of community supported agriculture and short food chains, with a focus on current issues, domestic knowledge, and good practices. There was also a discussion on how to make local products successful.

The very useful and topical presentations approached short food supply chains (SFSC) from a farmer's perspective, with a strong emphasis on the functioning of community supported agriculture (CSA) organizations. The presentations aimed at promoting farmers' participation in short supply chains. The role of the domestic agricultural sector in the national economy was also presented, with speakers assessing the place of agricultural production in the value chain, highlighting the role of small farms, and highlighting the prospects of the sector.



Pictures 18-19: Presentations of Food supply chain approaches

The problems of locality were discussed, as were the reasons for the differentiation of spatiality. During the presentations, the participants were introduced to the types of CSA organizations and their internal and external functions. In particular, the economic and community-building role of producers within the organization was highlighted. The presenters also discussed the expectations of farms wishing to join, the necessary producer attitudes, and the challenges and opportunities facing farms.



Picture 20: Participants at the meeting.

The participants were introduced to several national good practices, particularly in relation to community supported agriculture. In Hungary, farmers' markets are still the most widespread in SFSC. Speakers stressed the importance of direct contact between producer and consumer. Trust and transparency are key. The presenters showed the theoretical background of the short supply chains. They spoke about the results of the research, the importance and critical points of short supply chains. The short supply chain is the solution to meet consumer and producer demands for local products, with positive effects not only in supply but also in sustainability and rural development. Physical distance between producers and consumers will be reduced by these food chains, and contrary to long supply chains personal relationships, confidence and organic certification are built into the system as a guarantee of quality. It will be provided the opportunity for local small farmers to production quality foods and realization of direct marketing. Meanwhile the convenient access to tasty local foods is guaranteed for consumers. Experience and research on the short supply chain Thematic Subprogram established within the framework of the Rural Development Program show that less than expected economy is choosing this option to sell its products. Despite the launch of the subprogram, the opportunities offered by SFSC are currently unexploited on both the producer and consumer sides in Hungary.



Picture 21: Presentations of SFSC.

The role of community-led development in the success of local produce, highlighted the many ways in which the local community can help local food chains operate. More intensive social capital can help more effectively. There are several programs around the world that can be used to help short supply chains. The Sustainable Livelihood approach can support the establishment of local resource-based supply chains that primarily support local supply (e.g.: in national parks). The Saemaul Undong, South Korean approach, is notable as a rural development success story of a fundamentally centralized, Asian-style society.

It has supported several local food projects. Another important specialty is that such a program proposal does not necessarily need financial support. Skills-based community development (ABCD) is essentially a methodology that focuses on mobilizing internal resources. It can also work in a metropolitan context, as demonstrated by a local food-focused program in a segregated London borough (Lambeth Food Flagship). In our country, LEADER and CLLD programs have been in operation for many years, and one of the important areas of support is to support local food production and distribution networks.



Picture 22: Presentations of Skills-based community development approach.

Overall, the participants received valuable, useful, and practical information on the topics presented. In addition to topical issues, participants were also given an insight into national and international good practices.



Picture 23: Participants at the meeting.

After the personal part of the blended learning session students was asked to use the platform education material as a self-learning opportunity. The registration to the platform and the basic technical guide was held during the personal session. All the registered students started their learning on the platform, which is a very nice result, however only few of them finished all the modules. At the end of each module, they are asked to answer 10-10 questions and there was a satisfactory survey (Table 23) for the whole blended learning session to get feedback. The results of the modular tests are in Table 22.

Table 22: Registered students on the Foodimproviders platform.

Modul	Number of fillers	Average points	Variance
Modul 1	n. R.		
Modul 2	20	8	1.4
Modul 3	27	10	1.7
Modul 4	27	7.7	1.6
Modul 5	20	6.3	1.1
Modul 6	12	7.9	1
Modul 7	12	5.7	1.2
Modul 8	n. R.		

6.1. Satisfactory survey

In University computer room 27 students completed the satisfactory survey (17 male, 10 female) in age group 17-34 years (Table 23a,b). They used desktop (20) and laptop (7).

Table 23a: The satisfactory survey.

Questions	Likert 5 point scale (n)				
	1	2	3	4	5
The platform site was easy to use			1	7	19
Assignment was relevant and helped me practice new concepts and skills				2	25
Presentations were clear				1	26
The delivery of the course was consistent with its stated objectives					27

Table 23b: The satisfactory survey.

Questions	Yes (n)	No (n)
Would you have taken this course if no certificate was offered?	2	25
Overall, are you satisfied with the quality of this course?	27	
Would you recommend this course to others?	27	
Questions with choices		
Answers (n)		
Was there a particular aspect of the course that you liked best?	E-learning	20
	Contact learning	3
	Topic	0
	Other: 3 pers (teacher herself, blended learning, length of the course (that it is short)	3
Open questions		
Answers		
What suggestions do you have for how we can improve this course (in its content, delivery, administration, or any other aspect)? (open question)	-Mobile friendly; -podcast like education materials; -more videos	
Was there a particular aspect of the course that you did NOT like?	No relevant answers (some funny that: all the other courses should be like this)	
What other short courses would you be interested in taking in the future?	Green tourism Viticulture Tourism Hospitality Climate change Arts	

6.2. Conclusions

Training sessions were organized in two different sections: the theoretical section, in which the participants acquired the general knowledge on one or more topics and in the practical section, in which the participants were put in situations in which they had to apply/use what they had just learned considering a realistic scenario. These training sessions were useful for the participants because they were guided in the first uses of the platform and during the activities.

For the partners these sessions were useful to understand how the users can actually use all the materials that are presented in the modules.

Stakeholders from the field of agriculture prefers personal trainings and may have difficulties in digital competences. This experience was coming from the organizers opinion and stakeholders feedback as well. This fact increases the need of educating stakeholders for digital competences and try to build up combined opportunities to make the life long learning style more attractive for them. From the professional point of view they have different input knowledge for a certain topic but due to their high interest great increase can be reached on their output knowledge level.

Some important findings are highlighted below:

1. The training proposal was received with great interest among the target group, however, the actual attendance at the web conference sessions was very low, as were the satisfaction surveys received.
2. We have no data of the number of trainees who viewed the web conferences on a webcast mode, by accessing the cloud archive that was made available for this purpose.
3. We have detected that some students fill in the surveys or take the tests in duplicate. It would be highly advisable for the platform to provide students with information on the modules taken and, on the surveys, and tests completed.
4. In general, learners validate the training contents as very interesting, of good quality and useful for their working life.
5. The registered learners belong entirely to the first target group (primary producers, rural entrepreneurs, new entrants...) or to other actors of the food supply chain (public/private rural advisors) who are looking for complementary training but are generally not interested in diplomas or certificates, hence the low number of learners completing the surveys or taking the tests.
6. Some students have been able to register directly on the e-learning platform, as they are only interested in the on-line contents, and are not registered on the Fundación Juana de Vega website and therefore not included in the statistics and data shown of this document.
7. We recommend increasing the number of management tools currently available in the platform software, especially those for student monitoring and evaluation.