FOOD MPROV'IDERS

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

D 4.4 Report on the pedagogical outcome of the project



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 <u>www.foodimproviders.eu</u>.

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1. Introduction

D4.4 is the Assessment of the pedagogical output of the project and best practices learned. In the report D4.4 the pedagogical outcome of the project will be presented.

During (D3.1, D3.2, D4.2) and after the demonstration, the partners performed a final qualitative and quantitative assessment of the impacts of the FOOD IMPROV'IDERS project's pedagogical outputs.

This assessment, led by University of Ljubljana, was drawn up into a report on the final learning outputs of the FOOD IMPROV'IDERS project (D4.3) taking into account the expected pedagogical outcomes against the results, the learning experience of the trainees based on the received feedback and ergonomic, user experience, design of the platforms with an assessment of the adequation between the developed materials and learners' preferences and digital skills.

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. Assessment of the pedagogical output - University of Parma

In order to collects further feedbacks even after the uploading of the modules we added a link to a survey at the end of each module. The survey is managed using the platform Microsoft Forms, as agreed with the other partners. It's composed of 15 questions which are listed below:

General informations: Name, Surname, E-mail address

Feedback questions:

- Module addressed
- Did the training meet your initial expectations?
- Rate the module from 1 to 10
- Opinion on the technical aspects of the training modules (ease of connection, practicality of the tool)
- Are you satisfied with the pedagogical support provided?
- Will you have the opportunity to put into practice what you have learned?
- When the opportunities arise, do you think you will be able to use the proposed tools again?
- Your opinion of the training content (quality of the content, quality, and quantity of examples, etc.)
- Would you like to participate in other modules of this format?
- Any ideas, suggestions for new topics, difficulties, criticism?
- To what extent would you recommend this course to another person (from 1 "Not at all" to 5 "Definitely")
- Further comments
- Questions for students

3.1. Questions for students

During 2nd year we collected a total of 74 answers to this Feedback survey, the most evaluated modules were Managerial Advice and Marketing.

Module addressed	No. of Feedbacks
Case studies	3
Managerial advice	26
Labelling	2
Theoretical knowledge	2
Marketing	34
Food safety	1
Food processing	6
Total	74



a. How do you assess the quality of the individual pedagogical modules?

Considering the feedback in its totality, the evaluation was positive (average 7.7). The modules on labeling and case studies stand out.

Question: Evaluate the module on a scale from 1 to 10	Average
Case studies	8,7
Managerial advice	7,5
Labelling	9,0
Theoretical knowledge	8,5
Marketing	7,6
Food safety	8,0
Food processing	8,0
Total	7,7

b. Was the content of the modules useful for you in your daily life after you finished the courses? Which module would you highlight and why?

The learners stated that they expect to use the acquired knowledge in their daily lives "from time to time" for the modules most followed. In the case of marketing ¼ stated that they use the knowledge frequently.

Will you have the opportunity to put what you have learned into practice?	No. of Feedbacs
Case studies	3
Occasionally	3
Managerial advice	26
Occasionally	14
Frequently	6
Very often	1
Rarely	5
Labelling	2
Occasionally	1
Frequently	1
Theoretical knowledge	2
Frequently	1
Rarely	1



Marketing	34
Occasionally	19
Frequently	9
Never	1
Very often	1
Rarely	4
Food safety	1
Occasionally	1
Food processing	6
Occasionally	3
Frequently	2
Rarely	1
Total	74

c. How will you use this knowledge in the future and where?

In particular, the learners think they will be able to use the proposed knowledge frequently in the future, in their daily activities.

When the opportunity arises, do you think you will be able to use the proposed tools again?	No. of Feedbacs
Case studies	3
Frequently	3
Managerial advice	26
Occasionally	9
Frequently	13
Very often	2
Rarely	2
Labelling	2
Frequently	2
Theoretical knowledge	2
Occasionally	1
Frequently	1
Marketing	34
Occasionally	12
Frequently	19



Very often	3
Food safety	1
Frequently	1
Food processing	6
Occasionally	2
Frequently	3
Very often	1
Total	74

d. In your opinion how much you increased your knowledge after completing the courses (from 1-10).

According to the learners, the training content was found to be of excellent quality, rich and wellstructured.

The content is covered in a discursive way, in fact it is very interesting to read and the concepts easily assimilated, and it is also comprehensive thanks to the additional materials (boxes, pdfs, external links, etc.).

The examples are many (although some learners would like more) and help supplement the explanations of the topic.

The only request is the ability to download the forms so that they can be used offline\print and store them.

To go inside the evaluation we had two short in person interviews with small producers about Food processing and Marketing Modules.

For what concerned Food processing the interviewee read the module and gave to us his feedback stating that he found in it very useful information in particular related with new technologies. He said to us that he found them really useful for the food producer because their use decrease the work load for the farmers and allows to decrease food losses in field.

For what concerned the Marketing module the interviewee stated that she was satisfied with the knowledge provided and that she will for sure put them into practices in order to improve the promotion activities of her company. She also added that she already knew some of the themes described in the module but she also learned new things e.g tool for the study of marketing.

For what concerned the Food processing module the interviewee stated that she was already aware of some of the new techniques described in the module and added that some of them could be useful for her small company.



3.2. Questions for teachers

Teacher 1

1. What challenges have you faced in the preparation of the pedagogical modules, please give some positive and negative experiences?

After the definition of the topics that had to be treated in each module, search for information wasn't too difficult. There were some issues for certain topics mainly related to the discrepancies related to the different national regulations (e.g. topic such as Food Safety a,nd Food Labelling). Another challenge that we faced was the simplification of certain topics. In fact, considering our target and the best practices that were defined we had to write each module in such a way that is easily understandable by the reader and for some topics this simplification was more difficult than for others. This process was particularly difficult for topics such as Managerial advice and Food processing which are big topics, and some concepts can be difficult to simplify.

2. How did you check that the pedagogical content is sufficient quality and appropriate for your country during the translation into the national language?

After the first translation in our national language, we had some test sessions with some students of the University of Parma. The aim was to understand if the pedagogical material was sufficient and clearly understandable by the readers. The comments received after these trials were useful to implement and correct the material.

These test sessions were fundamental to understand if and where the translation of the module could be improved to have a good quality pedagogical material.

Teacher 2

1. What challenges have you faced in the preparation of the pedagogical modules, please give some positive and negative experiences?

The first step into creating the pedagogical content was to make sure that the structure followed the given guidelines, therefore I created a syllabus, trying to focus on the most important information that should be given in regards of food safety, which was not very easy.

There are many topics that should be included, though we as writers had to keep in mind that the pedagogical content had not the purpose to be a thorough guide but more of an introduction to the salient points. The modules are rich in links and additional readings for this reason exactly, we wanted our readers to know where to look and which sources to trust and become independent over time.

The biggest challenge I faced was in the interpretation of the EU regulation on short food supply chains, which as we've discovered are much overlooked at, hence we needed to understand



which regulations applied on the longer food chains could be applied to these multifunctional farms as well. Through this research for sure we've learned as well!

Another challenge, in my opinion, was the translation into the national language. It's not easy to translate accurately every word and express in the same way ideas, but at the end I can say that this was a learning experience.

2. How did you check that the pedagogical content is sufficient quality and appropriate for your country during the translation into the national language?

When writing the pedagogical content I double checked my sources, which for the majority of the time were official websites such as the European Commission or EFSA.

So once we've appurated that the content was right, we made several tests on students to check whether the pedagogical content had been rightfully written and if everything was working (i.e., links, additional readings and so on).



4. Assessment of the pedagogical output - Fundación Juana de Vega

4.1. Questions for students

FJDV sent the questions developed by UL to the students who followed the training during the year 2021. The students contacted were those who completed the entire programme in B-learning and on-line mode.

Five responses were received.

ID	Student	Company/Project	
1	Carmen Caínzos López	Shared kitchen " A Fusquenlla"	
2	Eva Rodriguez Rodriguez	Granxa ecolóxica Ameixeira (Organic dairy farm)	
3	Ana Juncal Pena	Asociación Raíña (Organic vegetable and eggs producer)	
4	María Joao Marques De Oliveira Chambel	Student of agriculture and entrepreneur	
5	Ana Isabel Gago Garcia	CFEA de Sergude. Estudiante GM Producción Agroecolóxica (student of agriculture and entrepreneur)	

a. How do you assess the quality of the individual pedagogical modules? How useful did you find the content of the modules in your professional activity?

ID	Answer
1	I think the modules were of high quality and very concentrated to offer interesting topics despite the tight time constraints. I would say that none of them was unnecessary.
2	Very positively
3	Very useful and interesting
4	The modules were presented in a very good quality considering their experimental character.
5	8/10



b. Was the content of the modules useful for you in your daily life after you finished the courses?



Which module would you highlight and why?

ID	Answer
1	Perhaps the module of conferences (M8), because they were very well selected, the people who gave them are good communicators and they represented the subject of the course very well, covering different sectors of great interest. (*)
2	I can't find one that stands out, they are all complementary to each other.
3	The second for the concepts learnt (M2: Food Safety)
4	I would highlight the last module (M8), for personal and professional reasons in the medium term. It will be very useful for me. (*)
5	"Alternative chains" (M5) for the new options it present and M8: Case studies for showing the realities of projects in progress, with their achievement and difficulties". (*)

(*) During the first year of testing, FJDV did not have the online version of module 8 (case studies), so module 8 was delivered through 4 web conferences in which 4 successful cases of SFSC in our country were presented to the enrolled students:

- Regional marketplace; Son de Lugo (https://sondelugo.com/es/)
- Consumer group: Subética ecológica. (https://subbeticaecologica.com/)
- Bio- school catering and public procurement: Eco-comedores da biosfera (<u>https://www.marinasbetanzos.gal/proyectos/eco-comedores-biosfera</u>)
- Producers' association: Vallaecolid (<u>https://www.vallaecolid.es/</u>)

c. How will you use this knowledge in the future and where?

ID	Answer
1	I am already using them in a canning project, with which I am taking the first steps, and in a food processing centre (shared kitchen) of which I am a partner.
2	Many of them even on a day-to-day basis, but above all in the creation of my business.
3	In my day-to-day work
4	I have an agro-ecological project and this knowledge will be very useful for me and fits perfectly with my project.
5	To give advice to young farmers. Use of collaborative kitchens and sale of own surpluses.



d. Additional comments

- ✓ It was very enriching. It would be interesting to participate in more dynamics of this type.
- ✓ Everything was very good and correct. Undoubtedly very useful.
- ✓ Thank you for creating the contents.

4.2. Questions for teachers

d. What challenges have you faced in the preparation of the pedagogical modules, please give some positive and negative experience

From the beginning it was clear to us that it was essential to adapt the contents of the modules both to the objectives we wanted to achieve and to the characteristics of their potential users. We were given a series of topics to address throughout the modules, and the main challenge was to do so while combining academic rigour with accessibility for the people who were going to use them in the training processes. To this end, we have tried to give the contents a practical orientation, with understandable examples taken from real life, and with a simple wording adapted to an intermediate level reader. In short, the aim was for the user to be able to reach a series of basic and clear ideas on the subjects dealt with, with a reasonable level of applicability and which would open the door to going deeper in the future into those issues that are more attractive or necessary.

Among the positive aspects for carrying out the task entrusted to us, we found a large volume of information available in digital format that was of interest both from the general point of view of the contents (business management) and from the specific point of view in which it should be applied (management of an agricultural company); the autonomy given to us by FJDV for the preparation of the work and, also, the support provided to resolve certain specific doubts that arose due to the delimitation of certain contents or orientations.

On the negative side, the limitations derived from the proposed format sometimes meant that we had to summarise the work and could have lost some of the nuances. However, we have resolved this circumstance, proposing complementary bibliography with different levels of detail so that those who show interest or need can go deeper into the topics presented.

e. How did you check that the pedagogical content is sufficient quality and appropriate for your country during the translation into the national language?

The original writing language was English. In this sense, the choice of the vehicular language did not condition the contents, since from the outset, the main aim was to find materials that could be reproduced simultaneously in English and Spanish, or, failing that, that had very similar contents and approaches. In other words, if the initial option was to write in Spanish, the contents collected would be the same as those included in the work. When similar examples or cases could not be found, it was generally decided to elaborate illustrative cases. As a result, the translation effect was neutral as there was no adaptation of content strictu sensu.



5. Assessment of the pedagogical output - University of Ljubljana

We developed the four questions for students who followed the training during the year 2021-2022. The students contacted were those who have participated in the Foodimproviders programme at the Veterinary Faculty and the Faculty of Health studies. We receive response from four students.

5.1. Questions for students

a. How do you assess the quality of the individual pedagogical modules?

Students answered very positively to this question. They praised the quality of the content presented in the modules and highlighted the usefulness of the content for their studies and later for their work.

b. Was the content of the modules useful for you in your daily life after you finished the courses? Which module would you highlight and why?

The students really liked the practical examples shown through three Slovenian good practices (case studies) from local environments, highlighting the presentation of organic herb production on the Majnika organic farm.

Among the teaching modules, they highlighted the clarity and quality of the content of the Food Safety and Food Labelling modules.

c. How will you use this knowledge in the future and where?

Two students indicated that they already use the content of the Food Safety and Food Labelling modules in preparation for the exam covering these areas. They also indicated the usefulness of the content in their professional work later when they are employed. One student indicated that she had presented the content to her family members who run a large family farm and they were also enthusiastic about the other pedagogical modules.

d. In your opinion how much you increased your knowledge after completing the courses (from 1-10).

Students indicated that their knowledge had been enriched in all areas covered by the pedagogical modules. They also praised the effort put in by the teachers in preparing the modules, but pointed out that the modules could have included more pictures and interactive material linked to videos and some successful examples of local food production and processing enterprises/farms.



Additional comments:

- The content is very interesting, and I will recommend it to my friends.
- I have enjoyed participating in the module presentations. It was difficult at first when I saw how much material I had to process, but in the end, I found it very useful.
- It was fun and informative.
- I would like to participate in more projects like this.

5.2. Questions for teachers

Teacher 1

1. What challenges have you faced in the preparation of the pedagogical modules, please give some positive and negative experiences?

The subject areas of each module were well chosen and there were no problems in finding relevant literature. The challenge we faced in coordinating the modules was certain differences in legislation between participating countries.

Once the modules were finalised, they were tested for comprehensibility, and it was found that the content of individual modules (e.g. Managerial advice) needed to be written in a more simple and clear way.

2. How did you check that the pedagogical content is sufficient quality and appropriate for your country during the translation into the national language?

The official websites in pedagogical modules were checked several times, first we checked if all the websites were active and properly listed. Then we asked the students to check the website and comment if they found any problems.

It also took a lot of time to cover the pictures, which were prepared in English, but we were able to translate them and design some of them so that they were suitable for the national language.

Teacher 2

1. What challenges have you faced in the preparation of the pedagogical modules, please give some positive and negative experiences?

When preparing the pedagogical modules, the first challenge was the content preparation of the elements that would be included in the preparation of each module.

When we prepared the first concept of the content of the module, we met with experts from the content areas and reviewed the content framework of each module. We then incorporated the comments and additional ideas into the content section and revised the content of the module. Then we organized an event where students were asked to read the pedagogical modules and



provide comments. We got some very useful information from the students regarding text comprehensibility and content relevance. We reviewed the comments and tried to make the text even more transparent and comprehensible.

The next major challenge was the translation of the acquired pedagogical modules into the national language, as some expressions were unique, and it was necessary to consult with experts several times to prepare a professionally appropriate text.

2. How did you check that the pedagogical content is sufficient quality and appropriate for your country during the translation into the national language?

When the pedagogical modules were translated into the national language, we wanted to analyse whether the pedagogical material had achieved its objective and whether it was comprehensible. The students provided useful comments, which we considered in the final preparation of the modules. The testing of the content of the individual pedagogical modules contributed to the preparation of quality teaching material.



6. Assessment of the pedagogical output - Eszterházy Károly Catholic University

6.1. Questions for students

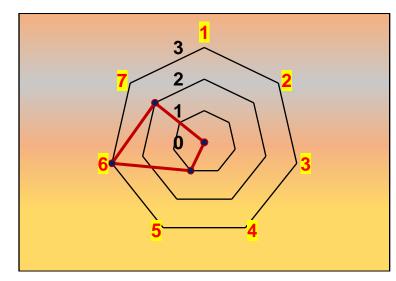
Six students participated in the survey. The results were measured and scored on a 7-point Likert scale. The following interpretation was assigned to the scale measures:

The degree of the scale	Interpretation
1	Very dissatisfied
2	Not satisfied
3	Rather not satisfied
4	He doesn't know
5	Rather satisfied
6	Satisfied
7	Very satisfied

To better assess usefulness, we also presented the results graphically, and respondents were given the opportunity to express their personal opinions and subjective feelings in writing.

a. How do you assess the quality of the individual pedagogical modules? How useful did you find the content of the modules in your professional activity?

The following values were identified for the quality of the modules and the usefulness of the content:



Likert scale grade	Incoming response
0	quantity
1	0
2	0
3	0
4	0
5	1
6	3
7	2

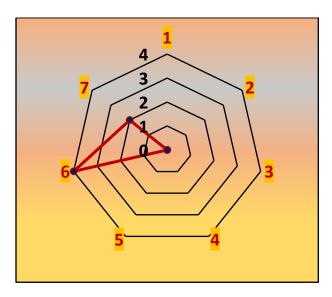


Respondents were all satisfied with the content and quality of the modules. Of these, two were rated as very satisfied. In addition, the following comments were received:

Serial number	Opinion, comment	
1	In my opinion, the modules were easy to understand.	
2	Figures and tables helped a lot in processing the content.	
3	The content is also useful for practice.	
4	I think the quality of the content is excellent. It is easy to understand and not too complicated.	

b. Was the content of the modules useful for you in your daily life after you finished the courses?

Overall, we found that the respondents were satisfied with the usefulness of the modules' content. They considered it easy to use in practice, and they were satisfied with the complexity of the content.



Incoming
response
quantity
0
0
0
0
0
4
2

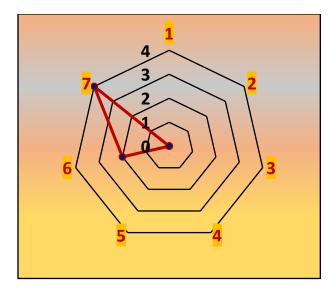


According to the results of our survey, 1/3 of the respondents were particularly satisfied with the usefulness of the modules and the workshop. In this regard, we received the following opinions:

Serial number	Opinion, comment
1	As a producer, I found the marketing and good practice modules very useful.
2	I was able to get good ideas about the module presenting good practices.
3	I felt that the practice of food quality was particularly important.
4	I felt the entire educational material was complex and uniform.

c. How will you use this knowledge in the future and where?

All of the interviewed respondents are connected to the short food chain, so all respondents found the possibility of utilizing the acquired knowledge in the future.



Likert scale	Incoming
grade	response
	quantity
1	0
2	0
3	0
4	0
5	0
6	2
7	4



The respondents expressed the following individual opinions regarding the question:

Serial number	Opinion, comment	
1	In the field of marketing, I received a lot of help to develop my business.	
2	As a producer, I received a lot of new information regarding food safety.	
3	I found the presentation of good practices very useful.	
4	Knowledge of short food chains will help a lot.	
5	Thanks to the marketing module, I want to try some innovations.	
6	I am trying to reorganize the activities of my farm based on the good practices curriculum.	

d. Additional comments

Serial number	Opinion, comment	
1	It was very enjoyable to participate in the workshop.	
2	Thank you very much for the opportunity to participate in the	
	program.	
3	I found the program very useful.	
4	I will recommend the curriculum to my friends.	
5	We thank the organizers for their efforts.	
6	I would like more opportunities in this area.	

6.2. Questions for teachers

d. What challenges have you faced in the preparation of the pedagogical modules, please give some positive and negative experience!

The individual modules dealt with the area of the Food improviders project in a wide spectrum, so it was a big challenge to insert the individual modules into the series of modules completed in international cooperation. Of course, we were happy to undertake this task, since we ourselves gained a lot of experience in the field of the peculiarities of the national operation of short food chains during the development of the content of the modules.

Finding the right balance of theoretical and practical knowledge proved to be no easy task due to the limited scope of the modules. Keeping in mind the needs of future users, we had to make many compromises regarding the in-depth discussion of individual knowledge materials. In addition to all of this, we tried to emphasize the knowledge that lays the foundation for the students' knowledge towards moving in the direction of professional self-education.



The task of editing the figures and tables belonging to the modules, we also experienced as a positive experience. According to our hopes, with these tools, we were able to facilitate the easier understanding and learning of the teaching materials, showing the connections and effects between the individual factors. However, in our opinion, the graphical representation of the factors proved to be a tool that was able to convey a lot of essential information to the users, in addition to helping significantly in complying with the scope limits.

The main difficulty in developing the modules was the search and processing of individual good international practices from the point of view of the usability of the teaching materials. First of all, we had to familiarize ourselves with the cultural characteristics of the given nation before we could use it as teaching material in connection with the individual modules. However, we found little information in English for all of this, so the primary processing and analysis of the information and data appearing in the national language required considerable time.

In many cases, the essential information was available only in traditional, printed technical books and other publications. Often this data was only available to us in the national language. Thus, before transfer and processing in the modules, it was necessary to translate and digitize this information, which also took valuable time and energy away from the development of the module's curriculum. In addition to all of this, however, we also gained a lot of positive experience during the search and processing of background materials, as well as during translation.

e. How did you check that the pedagogical content is sufficient quality and appropriate for your country during the translation into the national language?

In this regard, we did not experience any difficulties during the translation of individual modules into the national language. The content of the source materials, as well as a significant part of the theoretical and practical connections presented in them, were already known to us, so presenting them in the national language and editing them according to the content of the module was not a problem.

In addition to all this, the completed chapters of the individual modules were proofread by helpful, critical colleagues with expertise in the field. Thus, before moving on between the individual chapters, we made sure of their comprehensibility, as well as the processability of the knowledge materials.

Many source materials were available to us in English, so their adaptation also did not prevent the presentation of the teaching materials for domestic users.



7. Conclusions

Students were in general satisfied with the content and quality of the modules. They also emphasized the usefulness of the modules' content. They considered it easy to use in practice, and they were satisfied with the complexity of the content. Students praised the practical examples in the material, the usefulness of the links, graphs and tables.

The main comments from teachers were positive and oriented towards the challenges of preparing the pedagogical modules, since they gained a lot of experience in the field of the peculiarities of the national operation of short food chains during the development of the content of the modules. The challenge teachers faced in coordinating the modules was certain differences in legislation between participating countries and finding the right balance of theoretical and practical knowledge due to the limited scope of the modules. Keeping in mind the needs of future users, teachers had to make many compromises regarding the in-depth discussion of individual knowledge materials. Another challenge that they faced was the simplification of certain topics in order to make them usable and understandable for users. This process was particularly difficult for topics such as Managerial advice and Food processing which are big topics, and some concepts can be difficult to simplify.

In order to determine whether the content was comprehensible, we gave all the pedagogical modules to participants to read and comment on their relevance and if everything was working (i.e., links, additional readings and so on).

