FOOD IMPROV'IDERS

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

D3.3
Report on the first year of self-learning on the e-learning platform

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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 in order 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

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Introduction

The e-learning platform, which is a central part of the Food Improv'iders project, has been developed using the iterative approach and wide involvement of the target groups in the whole process of development and improvement of all technical features and training content. This platform, tailored to meet the needs of EU producers, falls under IO3, " Online E-learning platform with adapted pedagogical contents for self-learning and complementary modules for blended learning".

Different countries implemented various approaches in the implementation. Some of the partners, like Italy, started early trials, the information from which was especially useful in the process of finalising the platform and putting it online. Others, like Spain, delayed the trials at a later point, which, on the other hand, provided feedback at a different, more advanced point of development of the technical specifications and training content.

This deliverable, the Report on the first year of self-learning on the e-learning platform, offers an exhaustive examination of the platform's development and the first-year outcomes, reflecting meticulous design considerations, dynamic methodology, and user-friendliness. It encompasses the process, the internal review, and the improvements made, while also detailing the efforts in the different countries.

In summary, the report plays a multifaceted role within the project. It not only documents what has been achieved, including successes and challenges but sets the direction for future work. As a strategic document, it emphasises the importance of iterative approach in the logic of the Food Improv'iders project. It explains the the collaborative endeavors within the project consortium, contributing to the project's broader goals. The detailed description of the analytics data used for reaching of better unterstanding of the user's behaviour and the analysis of the trials in each country, provide valuable information that will be effectively used for the improvement of all aspects of the Food Improv'iders training platform.

Analytics data from the Matomo platform

The Consortium relied on the Matomo platform as a web analytic tool to gather and generate user data for the whole period of the project implementation. This tool was chosen due to its technical compatibility with the FoodImprov'iders platform as well as for the variety and precision of data that can be collected.
The Foodimprov'iders platform was developed offline by using the iterative approach of constant communication with the target groups of the project. The platform was used offline during part of the blended learning sessions in the participating countries, during which period important developments were made. The Foodimprov'iders platform was launched online in the last 3 months of 2022 and analytics data is available only for this period of platform use. Despite the short period of real online testing of the platform, the Matomo data provided valuable information that was used further by the consortium to validate the training content and the interest of the target groups in it and to adapt the learning contents to their needs.
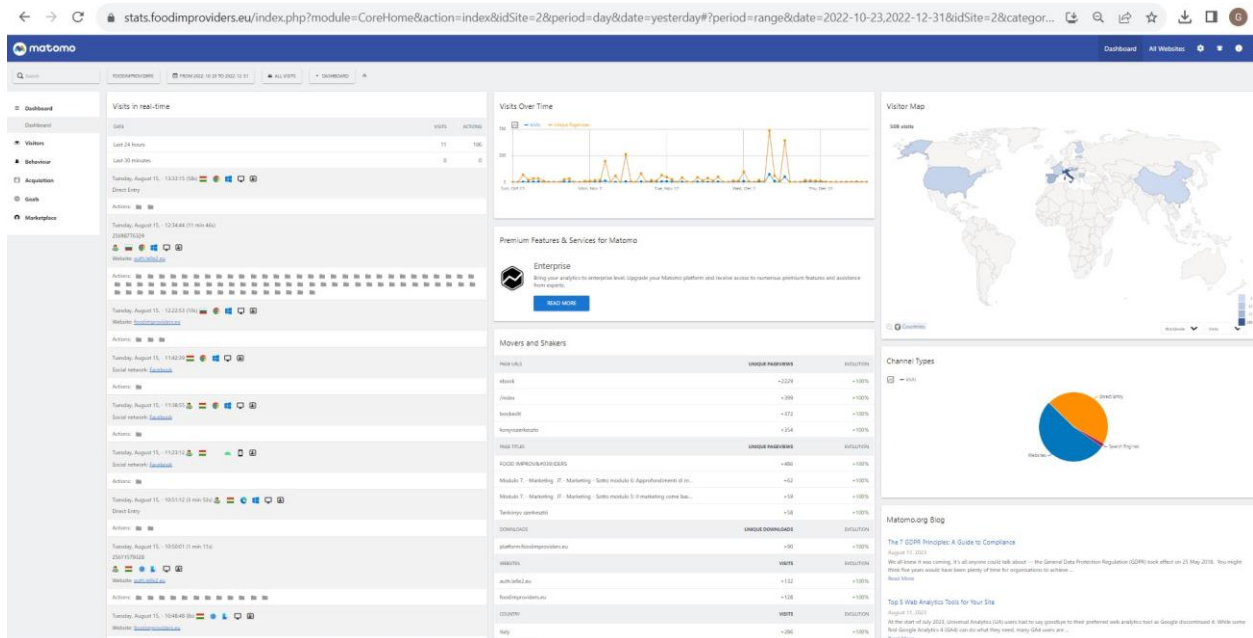
Figure 1: General view of the Matomo platform used to analyse the user's engagement

Overall data for the users of Foodimprov'iders platform

The following picture generated directly by the Matomo platform provides a comprehensive overview of user engagement and geographic distribution for the last 3 months of 2022, during which the real online testing of the platform was conducted:

Visits Overview

508 visits ⬆ **+100%**

9 min 24s average visit duration ⬆ **+100%**

23% visits have bounced (left the website after one page) ⬆ **+100%**

16.3 actions (page views, downloads, outlinks and internal site searches) per visit ⬆ **+100%**

328 max actions in one visit ⬆ **+100%**

7,838 pageviews, **3,918** unique pageviews ⬆ **+100%**

0 total searches on your website, **0** unique keywords ● **0%**

124 downloads, **104** unique downloads ⬆ **+100%**
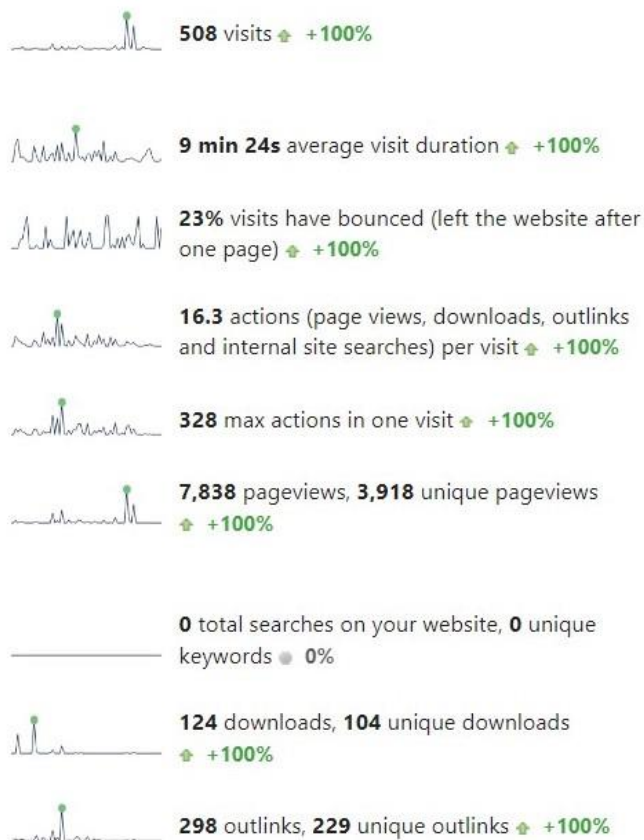
298 outlinks, **229** unique outlinks ⬆ **+100%**

Figure 2: Overview of the Matomo platform data for the last 3 months of 2022

Since its very launch, the Foodimprov'iders platform demonstrates a very good online presence predominantly in Europe, which is the target location specified in the project proposal. Italy was the country from which the platform generated the most visits and views, followed by Spain and Hungary.
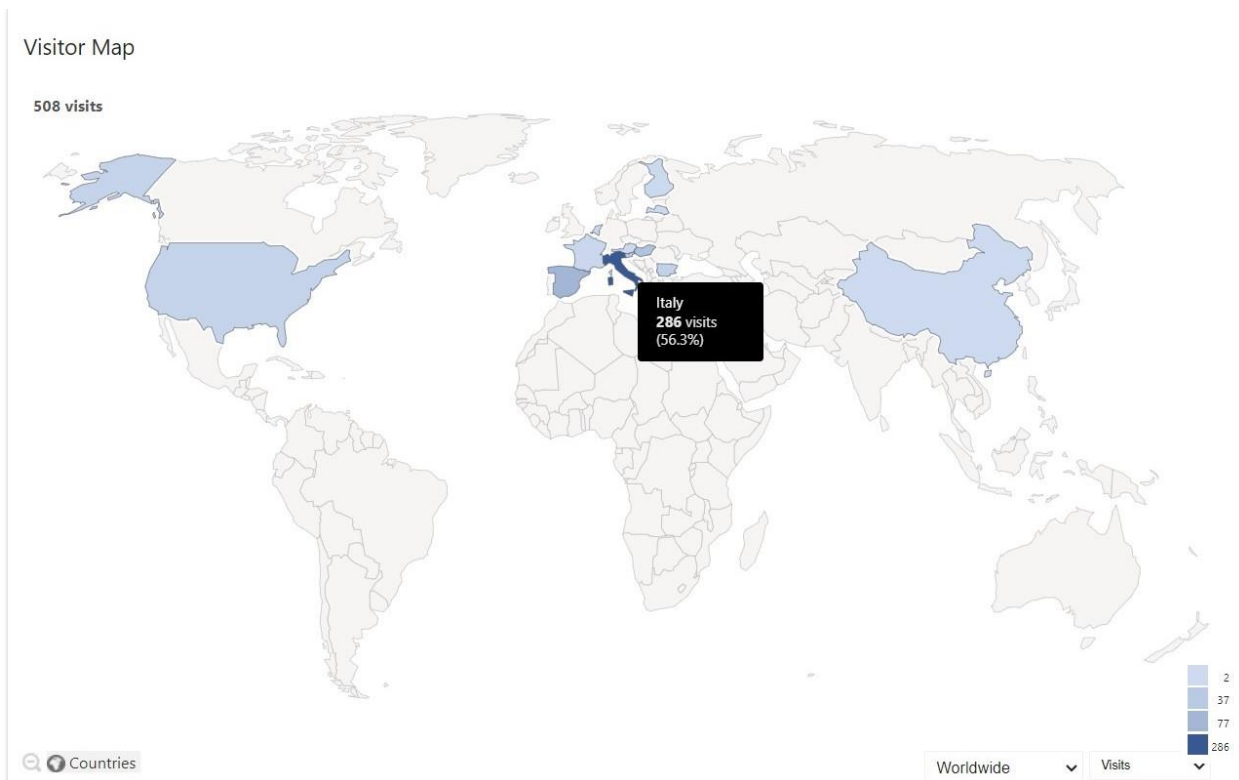
Figure 3: Geographic distribution of the users of the Foodimprov'iders platform

The more precise data is as follows:

Italy: 286 visits, 5,414 actions, 328 max actions in one visit, 157,295 page views
Spain: 77 visits, 1,614 actions, 171 max actions in one visit, 76,144 page views
Hungary: 51 visits, 251 actions, 26 max actions in one visit, 6,468 page views
Slovenia: 37 visits, 201 actions, 19 max actions in one visit, 25,661 page views
Bulgaria: 20 visits, 390 actions, 99 max actions in one visit, 8,255 page views
Others: 37 visits, 390 actions, 112 max actions in one visit, 12,704 page views

The provided figures reflect the geographical diversity of the platform's audience, illustrating significant user engagement from different countries. The interest in the platform, as well as the number of actions, should be connected with the blended learning trials conducted at the same time and the lecturers' ability to attract student's attention to the topic of short supply chains.

Regarding the more specific regions from which the Foodimprov'iders platform has been entered, the data outline Emilia Romagna in Italy, Ljubljana in Slovenia, and Madrid in Spain.
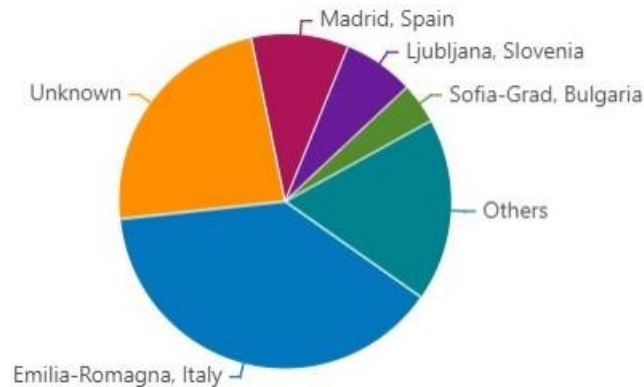
Region

Figure 4: Regions from which users have entered the Foodimprov'iders platform

For the period analysed period, the platform registers a total of 508 visits, with a steady growth over time. The average time spent on the platform is 9 minutes and 24 seconds but we should also consider the fact that many of the students share that they prefer to download the materials and read them offline with more than 90 unique downloads for the period that covers less than 3 months.

The data show that more than ¾ from the visitors are highly engaged in the learning content performing 16.3 actions on average per visit, including page views, downloads, outlinks, and internal site searches. Anyway, 23% of the users leave the platform after checking only one page. The data shared indicates substantial growth in user interaction but also shows areas that might need improvement, such as bounce rate.

The analytics data show that the platform was accessed mainly through various languages, which emphasises the importance of the shared efforts of the consortium to translate and adapt the training content to the national languages. Expectedly, having in mind the majority of entries from Italy, the most used access language to the platform is Italian (53.9%), followed by Spanish (14.6%), English (13%), Hungarian (9.8%), and Slovenian (7.1%).

Web-browser language
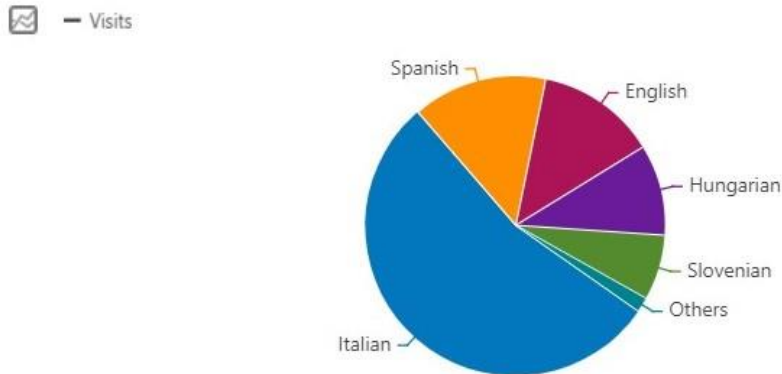
Related report: Language code

Figure 5: Web browser labguage of the users of the Foodimprov'iders platform

The Matomo data also shows that the platform was accessed mainly through desktop computers but also through smartphones, which emphasises the importance of optimising the platform's accessibility for different devices, which is one of the main tasks that the consortium and the output leaders are planning.
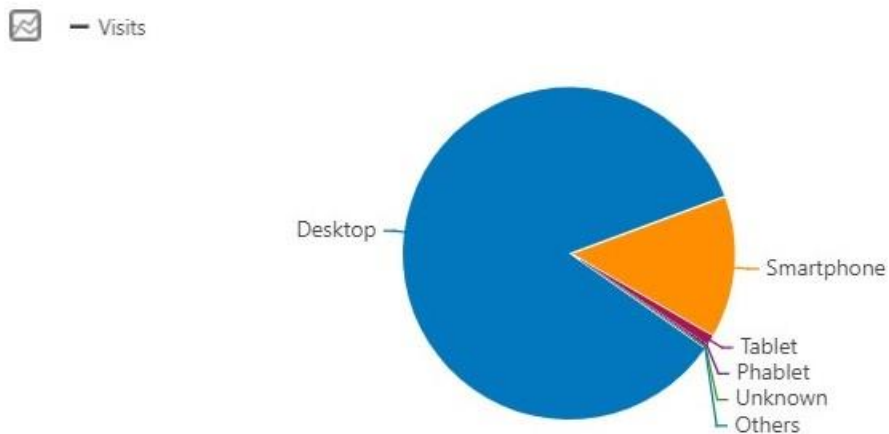
Device type

Figure 4: Device type through which the Foodimprov'iders platform was accessed

Most of the users enter the platform from websites including the Foodimprov'iders project website and partner websites. As clear from the data, these trainees show much higher engagement level than the ones that enter directly to the platform or do this via a random web search:
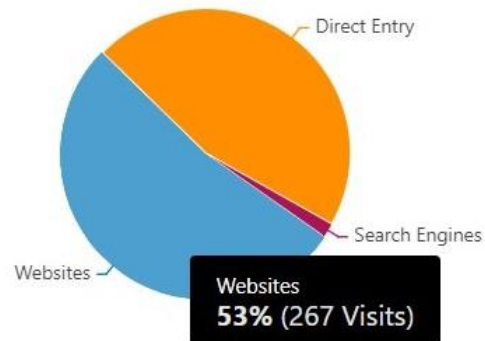
Figure 6: Channel types through which the Foodimprov'iders platform has been entered

The more precise data is as follow:
Websites entries: 267 visits, 6,365 actions, 13 minutes 38 seconds average time, 7% bounce rate.
Direct Entry: 233 visits, 1,654 actions, 4 minutes 31 seconds average time, 42% bounce rate.
Search Engines: 8 visits, 241 actions, 10 minutes 44 seconds average time, 13% bounce rate.

In terms of the local time of the visit, peak engagement was observed during 14:00 (18.7%) and 15:00 (19.3%), with minimal visits during the early morning hours. This insight can guide the timing of updates and live interactions and for finding a time-slot for blended/in-presence sessions that are convenient to most of the participants.

Visits per local time

Figure 7: Prefered local time for entering the Foodimprov'iders platform

Comprehensive User Engagement Analysis

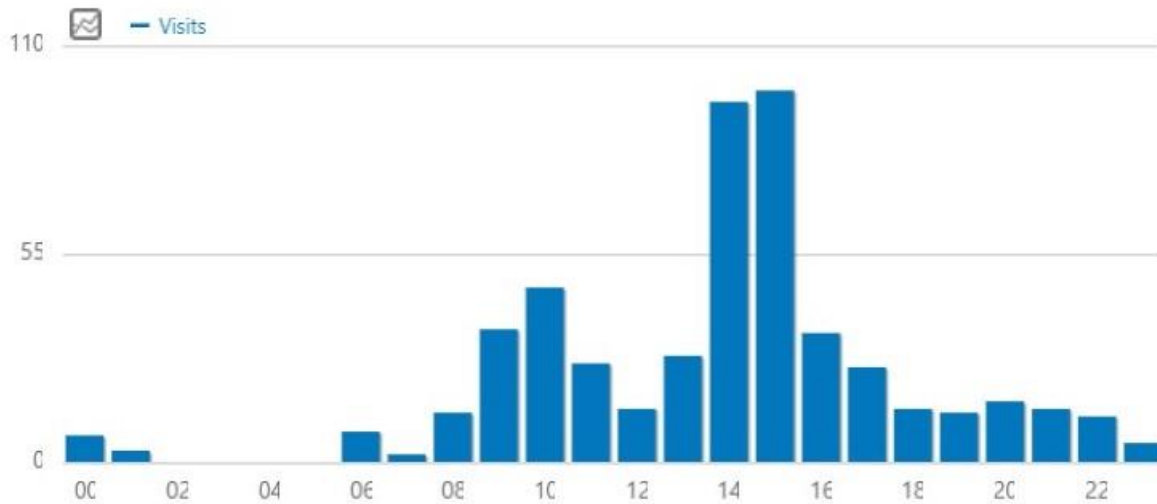The platfom shows good engagement level since its very launch, which is a proof for the high quality of the preliminary work done by the consortium, as well as for the close cooperation with the target groups in the whole process of the development and adaptation of the training materials.

The Matomo data shows a good percentage of returning visits but there is still space for improvement in attracting and retaining new users. The more precise data are as follow:

Returning Visits: 295 visits: an average duration of 12 minutes and 5 seconds per visit, with 18 actions per visit. Only 18% bounced. The returning visitors have performed 5,311 actions, which indicates a strong engagement level among those revisiting the platform.

New Visits: 213 visits with an average duration of 5 minutes and 41 seconds, with 13.8 actions per visit. However, 31% bounced. The new visitors have performed 2,949 actions, which is a relatively lower interaction level, indicating room for improvement.

Returning Visits Over Time

Frequency Overview

295 returning visits	**213** new visits
12 min 5s average visit duration for returning visitors	**5 min 41s** average visit duration for new visitors
18 actions per returning visit	**13.8** actions per new visit
18% returning visits have bounced (left the website after one page)	**31%** new visits have bounced (left the website after one page)
5,311 actions by the returning visits	**2,949** actions by the new visits

Figure 8: Overview of the returning and new visits to the Foodimprov'iders platform

The visit duration data shows a diverse distribution with almost half of the visitors having a quick look on the platform within a minute and the others staying for up and more than half an hour. The quick visits can be explained with the approach of a good number of trainees who prefer to work on the materials offline. However, this spread highlights the need to further investigate the content accessed by users who stay for shorter durations and those engaged for longer periods.

Visits per visit duration

Figure 9: Number of visits to the Foodimprov'iders platform per visit duration

Another important indicator is the number of pages opened per a single visit. The distribution shows a clear distinction between two main groups: a significant number of users who intera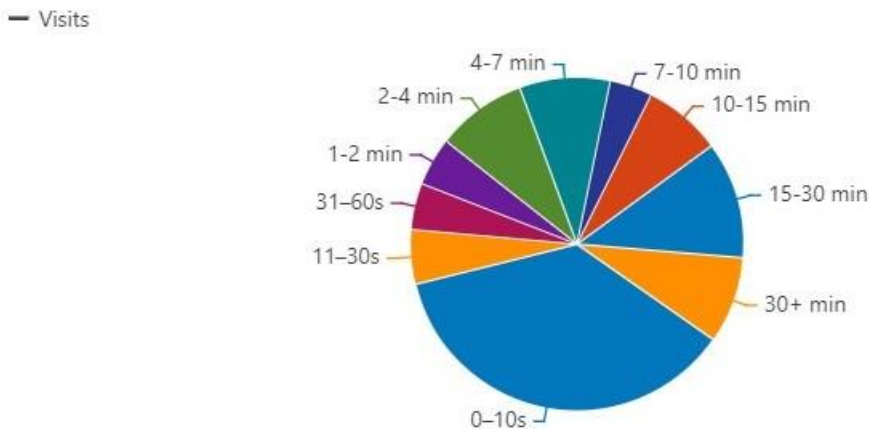ct with only one page and those extensively exploring the platform. A good percentage of the visitors stay longer with more than 21 pages checked for a visit, which is an excellent sign that the platform is engaging enough to them. There is another group of people, who just check one page and leave the platform, which opens a space for finding ways for their further engagement.

Visits per number of pages
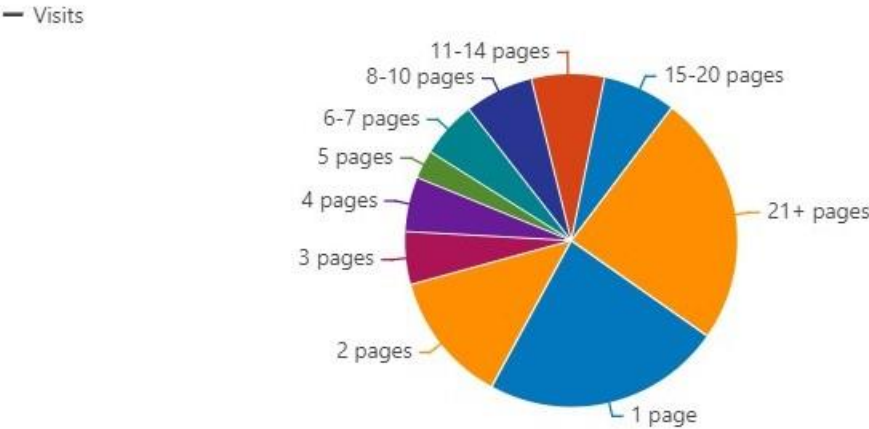
Figure 10: Number of visits to the Foodimprov'iders platform per pages visited

The analytics data show that the partners should work further for the engagement of one-time visitors, which are more than 40%. Despite the considerable number of one-time visitors, however, there is a small yet significant group of highly engaged users.

The distribution of visits over time gives insight into user retention. Most are new visits (213) or visits within the last three days (212), with diminishing numbers thereafter.

Visits by visit number

VISIT NUMBER ▲	VISITS	% VISITS
1 visit	213	42%
2 visits	84	17%
3 visits	43	8%
4 visits	22	4%
5 visits	19	4%
6 visits	20	4%
7 visits	12	2%
8 visits	11	2%
9-14 visits	40	8%
15-25 visits	29	6%
26-50 visits	15	3%
51-100 visits	-	0%
101-200 visits	-	0%
201+ visits	-	0%

Visits by days since last visit

DAYS SINCE LAST VISIT ▲	VISITS
New visits	213
0 days	171
1 day	12
2 days	29
3 days	33
4 days	10
5 days	4
6 days	7
7 days	5
8-14 days	13
15-30 days	9
31-60 days	2
61-120 days	-
121-364 days	-
365+ days	-

Figure 11: Number of visits to the Foodimprov'iders platform by visit number and by days since last visit

The analytics data on the behaviour of the visitors also show that most of them, once entered the platform, continue to browse internal pages instead of leaving the website to look for further information. Despite this, the project partners believe that upon reaching a certain level of knowledge users would like to have quick links to external information and have provided them in the training modules.
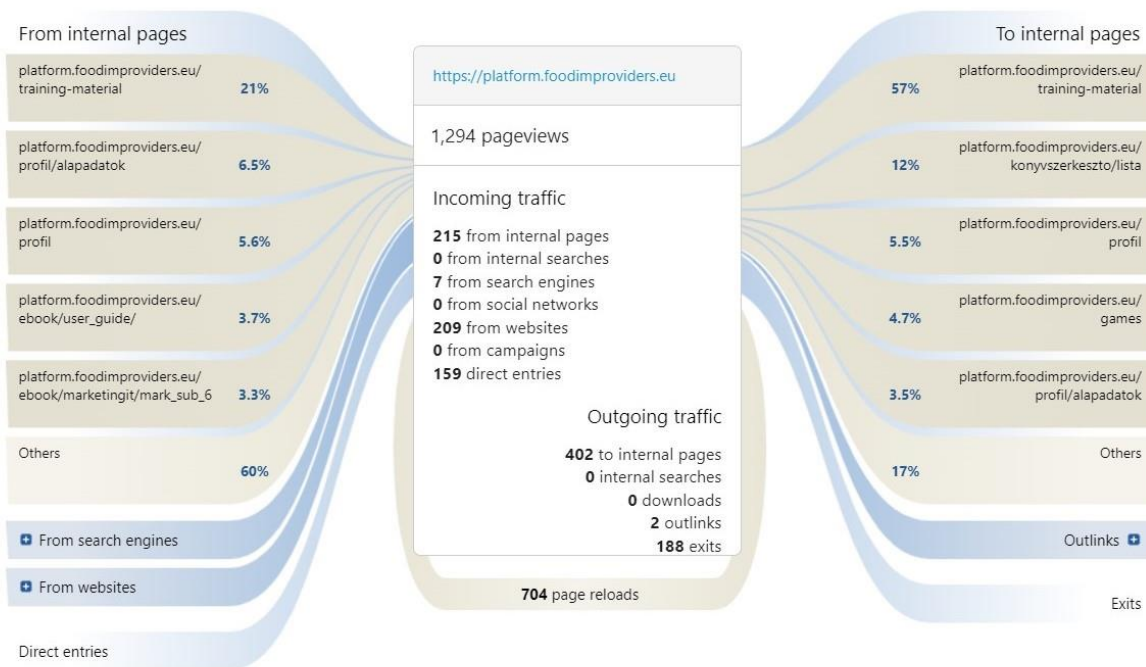

From internal pages

platform.foodimproviders.eu/training-material	21%
platform.foodimproviders.eu/profil/alapadatok	6.5%
platform.foodimproviders.eu/profil	5.6%
platform.foodimproviders.eu/ebook/user_guide/	3.7%
platform.foodimproviders.eu/ebook/marketingit/mark_sub_6	3.3%
Others	60%

⊞ From search engines

⊞ From websites

Direct entries

https://platform.foodimproviders.eu

1,294 pageviews

Incoming traffic

215 from internal pages
0 from internal searches
7 from search engines
0 from social networks
209 from websites
0 from campaigns
159 direct entries

Outgoing traffic

402 to internal pages
0 internal searches
0 downloads
2 outlinks
188 exits

704 page reloads

To internal pages

platform.foodimproviders.eu/training-material	57%
platform.foodimproviders.eu/konyvszerkeszto/lista	12%
platform.foodimproviders.eu/profil	5.5%
platform.foodimproviders.eu/games	4.7%
platform.foodimproviders.eu/profil/alapadatok	3.5%
Others	17%

Outlinks ⊞

Exits

Figure 12: Transitions

Conclusions based on the data provided by the project partners on the first year of implementation of the Foodimprov'iders platform

The blended and online learning offer and implementation during the first year in the partner countries provides direct and indirect data on the quality of the training materials and the technical level of the training platform. This document concentrates only on the online training opportunity, while Report D3.2 on the implementation of the first year of the blended-learning explains in length the results from the blended learning implementation in the different countries.

Conclusions based on the implementation of first year trials at the University of Parma

The trials in Italy started before the platform was officially online. Despite this, they had offline access to the training materials and an opportunity to contribute to their improvement at an early stage. The data on the results reached by the students during the first-year implementation of the trainings in Italy provides indirect information on the quality of the training materials although that there is no information about the level of technical implementation of the platform itself. Although that the platform was not online during the implementation of the trainings in Italy,
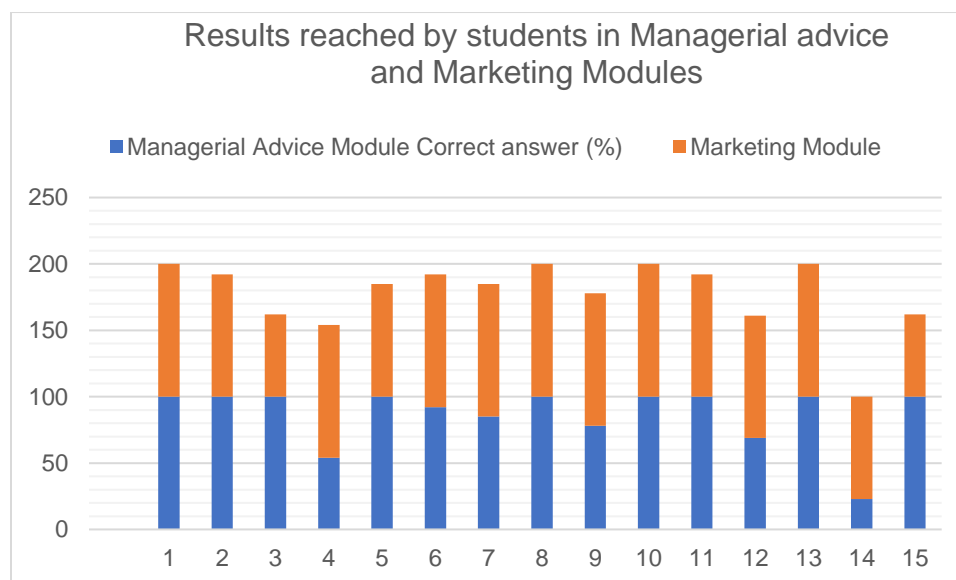

Figure 13: Level of knowledge aquired during the first-year implementation of traings in Italy

Conclusions based on the implementation of first year trials at the University of Ljubljana

The training modules were tested during 9 in-presence sessions with about 50 participants each. The trainees reached very high average results that are highlighted in the table below.
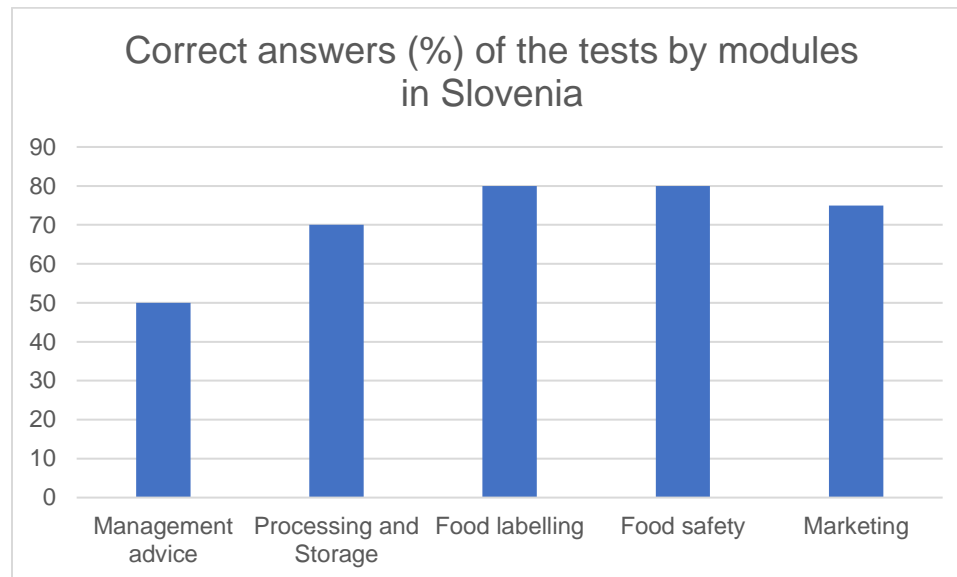

Figure 14: Level of knowledge aquired during the first-year implementation of traings in Slovenia

Even more valuable are the comments shared by the trainees who highlight important areas for improvement that should be considered by the partners in the process of iterative improvement of the training modules.

- Most of the students were satisfied with the quality of the seminar.
- Some of the respondents suggested clearer pictures and diagrams, and clarifying some more technical terms that might not be understood by respondents in the future.
- The students would have preferred to listen to the topic rather than a presentation by the professor. They would like to see more live lectures and find reading long texts dry and uninteresting.
- They made suggestions for more visual aids, such as tables, graphs, and infographics, and expressed preferences for presentations instead of a questionnaire.
- They liked the case studies provided, the link to additional learning, the additional resources, the infographics, the risks, and the problem of fake news, as well as guidance on how to ensure food safety.
- They would have liked more varied content and a summary of important messages with the professor. They praised the presentation and the topic, which helped them to acquire new knowledge.

Despite the comments shared, there was an overall approvement of the modules and satisfaction with the training platform and materials.

Conclusions based on the implementation of first year trials at the Fundación Juana de Vega

The Fundación Juana de Vega scheduled its face-to-face sessions once the platform was ready for use. The face-to-face sessions were designed as complementary training actions to the online modules. The overall satisfaction level of the participants in the sessions was very good. Some of the comments they shared are as foloow:

- Some translation problems;

- I would like to go deeper into the topic.

- Complete the online modules with face-to-face sessions.

- Very clear and concise.

- More specific to small companies; Very interesting and necessary topic to transfer to the production and processing sector.

- It would be interesting to be able to keep all this information.

- Perhaps a more detailed description of the certification process for the producer.

- I believe that the concept of "organization and programming" of production according to consumer needs and demand needs to be developed.

- Excellent, they showed us how things can be done well. Very good work and exposure.

- The surveys are repetitive after each module. I suggest a simple evaluation of the module at the end and an overall satisfaction survey at the end of the training.

In the final satisfaction survey that students should complete at the end of each module, there was a dedicated question relating to the quality and usability of the platform. During the first year of testing, 40 responses were collected from 7 different people, as each student completed the same survey at the end of each of the modules. Some of the most important highlights on the technical aspect of the platform include the following comments:

- It's going quite well, although I had problems accessing the surveys and exercises.
- In general, the tool works well at the technical level.
- Easy connection
- it is a bit difficult to move around the platform, I think the index of the different modules could be more comfortable. But in general, the platform and its tools works well.
- Correct
- I have had connection problems, probably due to the rural satellite internet I have.
- Good accessibility. The platform is comfortable

All the comments will be taken into account and used for the further improvement of the platform.

1. ESZTERHÁZY KÁROLY UNIVERSITY

Conclusions based on the implementation of first year trials at the Eszterházy Károly University

The participants performed the tasks using the modules and sub-modules on the platform. The EKU team assessed the results from the online training in Modules 2 to 7. The results of the test performed are very high with a minimum of 7 out of 10. The average results per module are as follow:

	Module 2	Module 3	Module 4	Module 5	Module 6	Module 7
Average	8,4	7,8	7	7,4	8	9,2

The same applies to the satisfaction survey with max. of 10 points for a question conducted separately for each of the modules presented in the chart below:
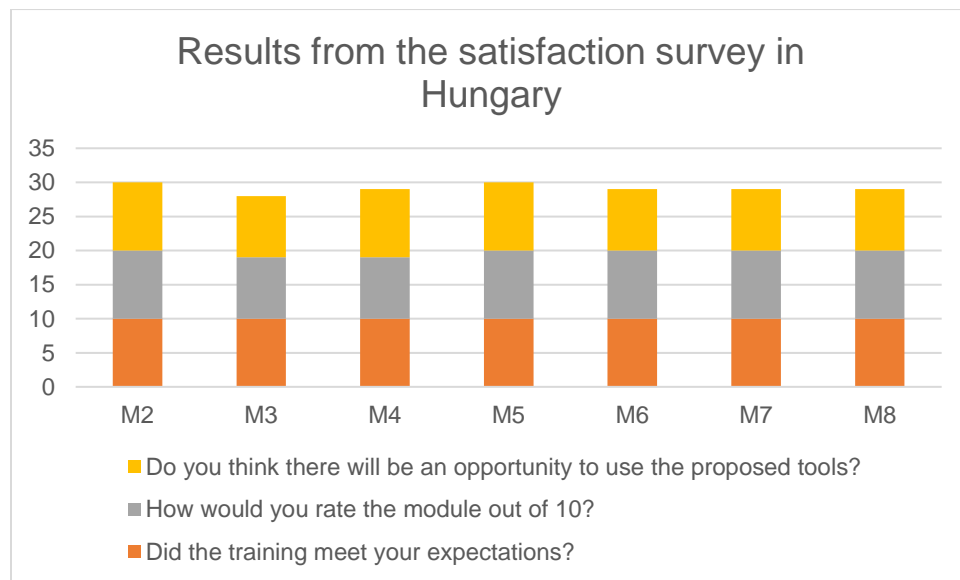
CONCLUSION

The results from the first year of self-learning on the e-learning platform are quite positive. The analytics data demonstrate the high interest in the tool developed, providing valuable information to all consortium partners on how to enhance the platform's features based on user behaviour.
Important insights are received also directly from the trainees during face-to-face and online sessions conducted in the partner countries. This wide approval of the training content confirms that the consortium is on the right path to developing valuable and essential training to support the broad adoption of short supply chains in the partner countries and across Europe. The iterative

approach adopted, coupled with close cooperation with the target groups of the project, is particularly crucial for achieving high-quality training materials and maximising the overall impact of the project implementation.