



Guidelines for demonstration and demonstration plans

Deliverable D3.1



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An EU-wide farm network demonstrating and promoting cost-effective IPM strategies

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Deliverable D3.1

Guidelines for demonstrations and demonstration plans

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1. Introduction

The focus of the work in WP3 is to organize demonstration events in the farm hubs. The main objective of these demonstration events is to demonstrate to farmers outside the network that IPM works, that it is possible to reduce farm reliance on pesticides, while maintaining (or even enhancing) farm profitability through advanced holistic IPM designed at the farm level.

Most of the demonstration events will be based on IPM success stories described at the cropping/farming system level, in line with the holistic view of IPM promoted by the network. In addition to this, some demonstration events will also rely on comparisons of alternative IPM strategies at field level.

The organization of demonstration events is an important task in the IPM**WORKS** project. To support you as a hub coach in creating successful demonstrations, you are required to create an annual hub strategic demonstration plan. In the creation of these plans, the guidelines described in this document should be followed. The guidelines make sure you address the required elements in your hub strategic demonstration plan and meet the requirements as set out in the project. You are required to submit your hub plan to the WP3 leader who will provide feedback and recommendations on the plan.

1.1. Strategic demonstration plan

Each hub will make an annual strategic plan for the demonstration activities based on the guidelines described in this document. The formal deadline for these plans is September of each year. Deadline for the first plan is 1 September 2021, for demonstrations in 2022. Hubs that have their demonstration plan ready can start organising demonstrations already in 2021. The strategic plans are ‘living’ documents and can be updated any time needed. This will often be the case as it is hard to have all the details clear in September for demonstrations in the year after. Each hub coach creates a tailor made plan, for the specific national and sectoral context. In the strategic demonstration plan, it is required to include the following elements:

- Goal of the demonstration
- Location of the demonstration
- Target audience
- Description of the IPM strategy that will be shown in the demonstrations
- Description of the ‘in field’ comparison of IPM (if any)
- Plan for promotion activities of the demonstration
- Planned production of dissemination material (e.g. videos, interviews, factsheets)
- Monitoring and evaluation of the demonstration
- Rules for monitoring and advertising demonstration events, using the NEFERTITI portal (<https://nefertiti-h2020.eu/NefertitiPortal/#!/app-h/networks>).

There is some flexibility for the hub coach to adapt his/her demonstration plan, however the plan should fit within the guidelines described in this document.

2. Demonstration events

Each hub coach must motivate hub members to participate in the event organization. You should organize these events for farmers outside of the hub, but together with the farmers in your hub. Therefore, most hub members should be present during the demonstration events. Each hub should facilitate and/or organize a total of **12 demonstrations**, approximately **4 demonstrations per year**. The demonstrations will be based on several objectives and good practices:

- Stimulate knowledge exchange, between visitors and between visitors and hub members
- Bring together innovations and demonstration farmers
- Promote peer-to-peer learning
- Adapt the knowledge to the need of the farmers according to their sector and their country
- Be adapted to the regional/national specific needs and background

2.1. What is a demonstration event?

Demonstration events focus on **showing** and understanding innovation within a **working farm** context or within a local setting. There are many different types of demonstration events, but they all have in common that they are based on knowledge exchanges to and between farmers and advisers. These exchanges can have multiple forms, e.g. dissemination of knowledge, provision of advice and solutions, co-design of tools and demonstration of ‘in field’ comparisons. This shows that demonstration events can be composed of multiple activities depending on their objectives.

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In the context of the IPM**WORKS** project, demonstrations should show IPM practices as part of a holistic IPM strategy, within a farm context to farmers and advisers. They should demonstrate that it is possible to reduce farm reliance on pesticides, while maintaining (or even enhancing) farm profitability through IPM practices at the demonstration farm level. As an organizer, you need to make sure you actively facilitate peer-to-peer learning between farmers and advisers and/or focus on knowledge and innovation transfer to farmers and advisers.

2.2. Where can I organize demonstration events?

The demonstrations in IPM**WORKS** are based on daily practices in real commercial farms implementing IPM. A demonstration event is preferably located on a commercial farm, preferably a farm of a hub member. Demonstration events are organized under responsibility of the hub coach, following the Farm Demo methodology for demo events (see 3.3). Exceptions for physical demonstrations at a farm location might be accepted under specific conditions, for example for phytosanitary reasons. In case of off-site demonstration events, specific technical solutions (e.g. video material) must be found to demonstrate the practical implementation of IPM in the supporting farm. In such a case, please specify in your plan the solutions foreseen to share practical knowledge.



2.2.1. Online events

Because of the nature of the events, it is difficult to organize demonstration events online. At this point, it is hard to tell how Covid-19 restrictions will affect physical demonstration events. If required, the organisation of virtual demonstrations is an option as long as the guidelines for demonstrations mentioned in 3.1 and 3.2 are respected. The organisation of virtual demonstrations should be based on the guidelines for virtual demonstration, available at <https://nefertiti-h2020.eu/downloads>.

2.3. Designing demonstration events

The hub coach is responsible for the organization of the hubs' demonstration events. The organisation of demonstration events requires good preparation and can be a complex task. Within the FarmDemo H2020 project, a farm demonstration design guide was developed. This demonstration design guide summarizes in 6 steps how to design an on-farm demonstration event, starting from a clear definition of the objectives and ending with a good evaluation and follow-up. It guides you through the process of designing your demonstration events. The Demonstration Design Guide is downloadable in multiple European languages, and is available at: <https://trainingkit.farmdemo.eu/demo-design-guide/>.

The demonstration design guide should be considered in the creation of the strategic demonstration plan. In your demonstration plan it should be clear which resources you used in creating the plan. You should elaborate on which methods you plan to use and why.

2.4. Promotion of the demonstration

Define for each demonstration who the target groups are (consider crop and soil types) and how you will promote the event, by using website and social media (guidelines will be prepared in WP6), personal invitations, newsletters, articles, etc.

2.5. Creation of dissemination material

For both "Follow-up" activities and project communication purposes, dissemination materials are required. Some of these materials can be used during the demonstration as well. These dissemination materials can be in the form of video reports, press articles, factsheets, interviews, and so on. Make sure you arrange to have dissemination material made during the demonstration. You should use the communication guidelines for the materials you produce as provided in the communication and dissemination plan (WP6).

2.6. Monitoring and evaluation

Feedback on demonstration events is essential for continuous learnings. The demonstration of IPM strategies will contribute to the knowledge of farmers about the technical and economic effectiveness of the strategies and to motivate farmers to apply these strategies on their own farm. The monitoring and evaluation will help to see how far along the project has come concerning the objectives, and provide input for further improvement of the next demonstration activities. Expertise and experiences from

H2020 projects NEFERTITI, AgriDemo and PLAID will be used for this task. Monitoring and evaluation will be broken down into the following questions:

1. Goal of demonstration – Peer to peer learning, motivation, how to cover project outcomes
2. Target audience group – Defining the audience, group size and consider role of advisors and stakeholders
3. Methods used during the demonstrations (f.e. a farm field walk, a machine demonstration, etc.)
4. What did farmers learn? – Theory into practice, key messages, exploring new innovations
5. What did they take home? – Networking opportunities, going away with knowledge skills and inspiration to make IPM decisions on farm
6. Monitoring and evaluation questions will be partly included in the Nefertiti portal. Additional questions, specific for IPM**WORKS**, and instruction will be presented by LEAF (May 2021, Task 4.1).

2.7. Guidelines for adding events to the NEFERTITI platform

All demonstration events you organise need to be submitted to the NEFERTITI platform. The NEFERTITI H2020 project establishes an EU-wide highly connected network of well-specified demonstration and pilot farms. This network is designed to enhance thematic knowledge exchanges, cross fertilisation among actors and efficient innovation uptake in the farming sector through peer-to-peer demonstration of techniques.

Information about how to submit your event to the NEFERTITI platform can be found in ANNEX 2 (note: will probably be adapted in the coming months).

3. In field comparisons

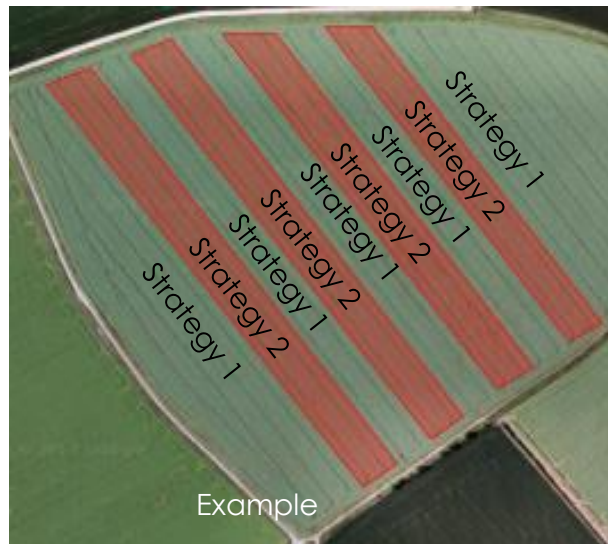
A good option to compare and demonstrate IPM strategies, is to carry out a comparison of strategies within the same field, in the same crop, under the same conditions. This task is coordinated by ADAS. ADAS has sufficient budget within this project to enable each new hub to complete approximately three ‘in field’ comparisons during this project, starting from 2022. Work carried out by hub coaches on this task should be included within the hub budget.

The comparison should compare a farm standard approach, with an alternative IPM strategy, within the same field. The strategies to compare should already have proven to work. For example, you could compare the farm standard approach against a decision support system.

ADAS has developed software and new statistical procedures so those conducting ‘in field’ comparisons can reach the right conclusions quickly and easily. The software was developed for use in **arable crops** using combine harvester yield maps. However, this approach has also been used to analyse vegetation indices such as NDVI from drone and satellite imagery, in forage and field vegetable crops. Although this process has not been explored **in vineyards, orchards or greenhouses**, the same principles could be used to set up ‘in field’ comparisons in these sectors. Please specify in your plan, details are to be worked out with ADAS.

Working with hub coaches, ADAS will help to design the demonstration, taking into account underlying variation and ease of management. ADAS will provide protocols to hub coaches describing how to set up the demonstration, carry out any relevant in-field assessments and collect yield data from the farmers. If these are followed, differences between strategies can be compared statistically.

The farmers hosting the demonstration should have a relatively large, consistent field with good access to locate the demonstration. The chosen field should be at least 200m long and wide enough to carry out the different strategies, ideally with some replication. The host farmer must be willing to carry out different strategies within the same field and harvest the area in a specific way, as instructed by ADAS, to collect accurate yield data. Ideally, the host farmer would have access to a yield mapping combine harvester to generate spatial data that can be analysed by the software. However, if this is not possible, the yield of each strategy could be measured over a weighbridge.



Completing this task will provide a demonstration of IPM strategies, allowing you to show visitors what strategies have been compared, how they were carried out and discuss the pros and cons of each strategy. You could also share any early data collection and stand on the boundary between two strategies to see if there are any visual differences. ADAS will analyse any data collected to show whether there were any



significant differences between the strategies, and produce a brief report on each comparison. This can then be shared with the individual hub for discussion and anonymised to share within the wider network.

To help design the demonstration, ADAS will require information on the chosen farm, field and strategies to compare, at least a month before the strategies need to be carried out. For example, this could be a month before the field is due to be drilled, if you are looking at different cultivation strategies, or a month before the first pesticide application, if looking at different application strategies.

If you would like more information, or choose to complete this task in your hub, contact Chloe.Morgan@adas.co.uk who will provide further guidance.

4. Budget

Every hub has a budget, this is included in the hub partners project budget. You are free to make your own financial planning in line with your institution estimated budget.

Annex 1. Hub strategic demonstration plan template

Planning of demonstrations

Each hub will organize 12 demonstrations in the period 2022-2024. Please indicate in the table below what your initial planning is. This plan is a living document and will be updated at least once every year, in September.

Number of demonstrations	2021	2022	2023	2024
Planned				
Completed				

Template

For each demonstration in the coming year please complete the template below.

Complete the plan for each coming year and send it before the deadline to h.brinks@delphy.nl.

Name hub coach(es):	
Organisation:	
Country:	
Sector:	
Strategic hub demonstration plan period from-to (DD/MM/YYYY):	



Demonstration number:	
Planned date of demonstration (DD/MM/YYYY):	
Name & location of the farm	
Hub member	Yes/No
Physical, virtual or other (please specify)	
Expected number of visitors:	
<p>Goal of the demonstration</p> <p>For any demo event it is important to explicitly state clear objective(s) and key messages well in advance. They determine all the other decisions you will make during the preparation and the performance of the demo event: the set-up, which actors to involve, the evaluation of effectiveness. Start by addressing the ‘why’ (why are we doing this demo) and then the ‘what’ (what do we want to demonstrate). Is it a widespread practice that could be optimised and refined by farmers? Often the strength of a demo event lies in its simplicity. It is therefore advisable to limit the number of topics addressed during one event. If you want to address multiple topics, you may consider organising a series of demo events or make sure sufficient time is planned for each individual topic.</p>	
<p>Location of the demonstration (description):</p> <p>A demo might have more impact when the host farm operates under the same ‘real life’ conditions as average farms. On the other hand, for example, pioneer farmers can show innovative and more experimental techniques. You should check whether the host farmer’s activities, practices and farm facilities coincide with the purpose of the demo and the expected number of participants. Travel time can be an important criterion, however participants are willing to travel further for demos on innovative techniques that are not common in their own region.</p>	



In the case of virtual demonstrations consider the time, duration and breaks. What software will you be using and how will participants be supported with issues navigating this digital demonstration.

If the demonstration is online, what are the plans to facilitate interaction?

Consider: group size, a safe place for discussion, polling questions and interactive video material.

Target audience:

From the demo objective subsequently follows the ‘who’ (the targeted audience for the demo) and the ‘how’ (the demo set-up and learning methods). The selection of the target group(s) depends on what you aim to achieve with the demo. For example, if intensive knowledge exchange or knowledge co-creation on a very specific topic is envisioned, you might choose to target a small group of farmers who “speak a similar language” to assure qualitative and intense interactions. Identifying specific target groups will determine which information channels should be used to reach them.

Description of IPM strategies that will be shown in the demonstrations:

<p>Please provide additional information about what will be demonstrated.</p> <p>Will you be using 'in field' comparisons?</p>
Empty space for user input
<p>Promotion activities of the demonstration:</p> <p>Effective recruitment has an influence on the attendance rate of the demo. Make sure to adapt the language (jargon) to the target audience. There are some questions to consider when designing an invitation, like: who is your target audience? Specify your target group in the invitation (e.g. only organic farmers, or both organic and non-organic farmers). This can ensure that you attract farmers with a specific interest. What is your main message? What is your call for action. Choose a good name for the demo event that also reflects the key message. What is the problem your target audience is struggling with and how will you solve it? Clearly mention the goals and objectives of the demo, because it contributes to the demo's effectiveness. If you have knowledgeable demonstrators, skilled facilitators or host farmers, clearly mention it on your invitation as they might attract farmers. What advantage will your target audience get out of it?</p> <p>Multiple communication channels can be used for recruitment of participants. Invitations can be spread using flyers, letters, e-mails, posters, newspaper articles, websites, social media, mouth-to-mouth or radio and television promotions. To spread the invitation, one might make use of meetings, personal contacts, own networks or mailing lists, networks of other organisations (e.g. farmer unions, advisor networks), announcements in schools.</p>
Empty space for user input
<p>Planned production of dissemination material (e.g. videos, interviews, factsheets):</p> <p>Describe what, how and why you will produce dissemination materials. Be clear and specific in the amounts, for example 1 video per demo event. Be specific on what</p>



steps you will take to produce these materials. When will the materials be ready? How will they be used and how will they be accessible for the project? What about privacy regulations regarding taking photos and recording videos? Will visitors sign a consent form?

Monitoring and evaluation:

Describe how you will keep track of the number of visitors, which activities were carried out and how you plan to report to the project about the success of the demonstrations. How will you learn from this demonstration for the next one? How can other hubs learn from your experiences?

(LEAF is coordinating this task and will provide more input for this part in Q2 of 2021).

When will the information be submitted on the NEFERTITI platform?



Annex 2. Adding events to the NEFERTITI platform

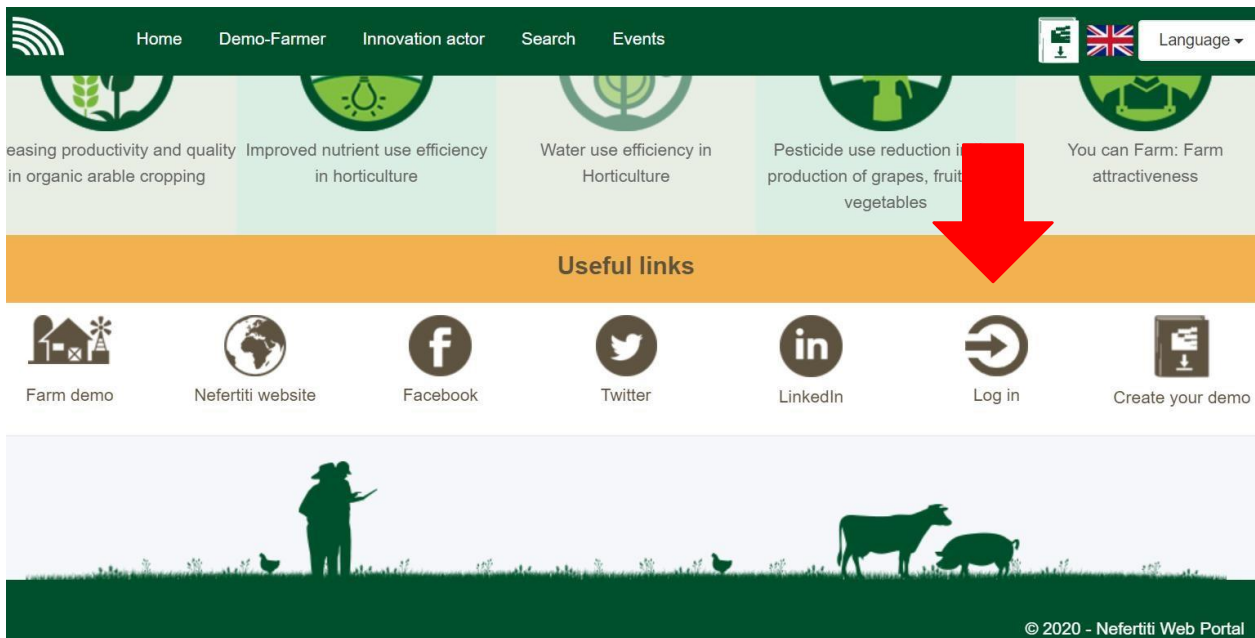
Hello there and welcome to the official NEFERTITI Guideline!

In this document we tried to answer all of those frequently asked questions you had and also to give advice on how to use the NEFERTITI platform in the best way possible. First, let's get started by checking which category do you belong in.

If you are a Hub Coach/Network Leader, please continue below. If you are a farmer / innovation actor, please jump to page 6.

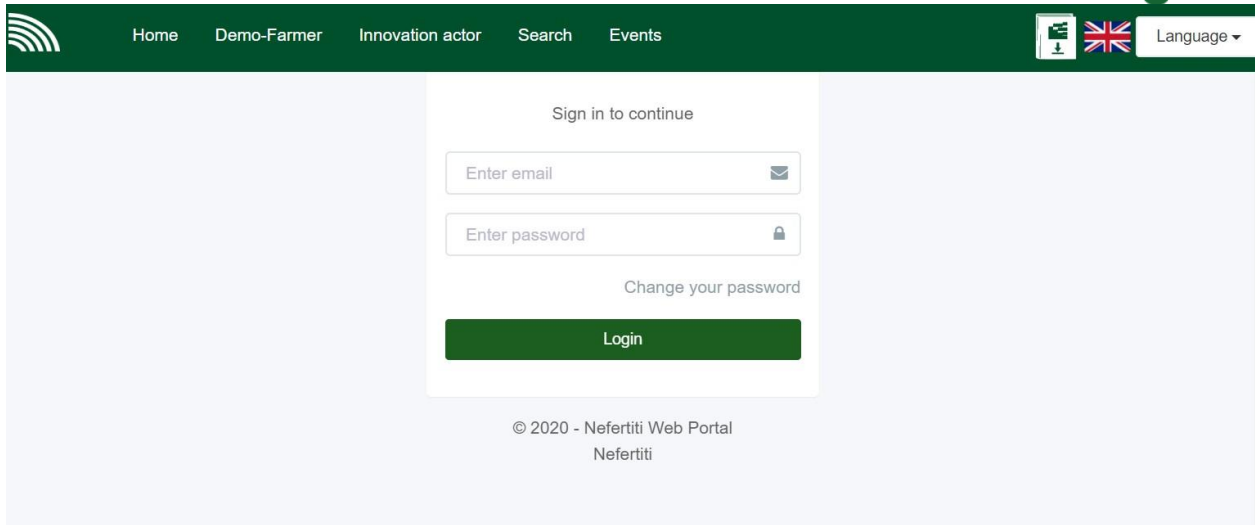
Q1: How to log in to the Nefertiti platform?

To log in to the platform please use the log in button at the bottom of the page (picture 1). You will need a username and password to log in (picture 2). If you face any issues, please contact prokin.marko@biosense.rs. It is recommended you to change your password upon receiving the log in information.



Picture 1 – Log in button

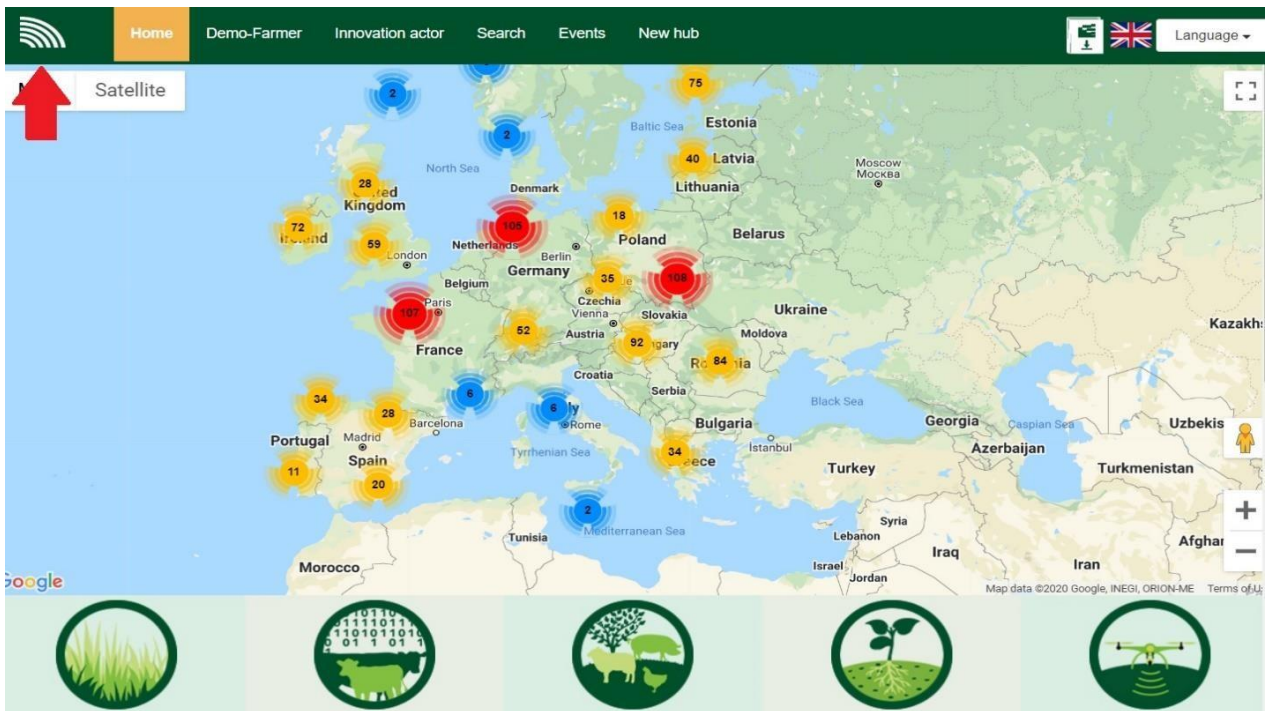




Picture 2 – Log in page

Q2: How to choose your country?

In order to choose your country and see its activities, please click on the first button in the upper left corner of the page (picture 3) and then choose your country. This will not only show you the page in your language, but also show you the activities of your country in the 10 Nefertiti Networks. If you click on the EU flag this will take you to the general site in English language.

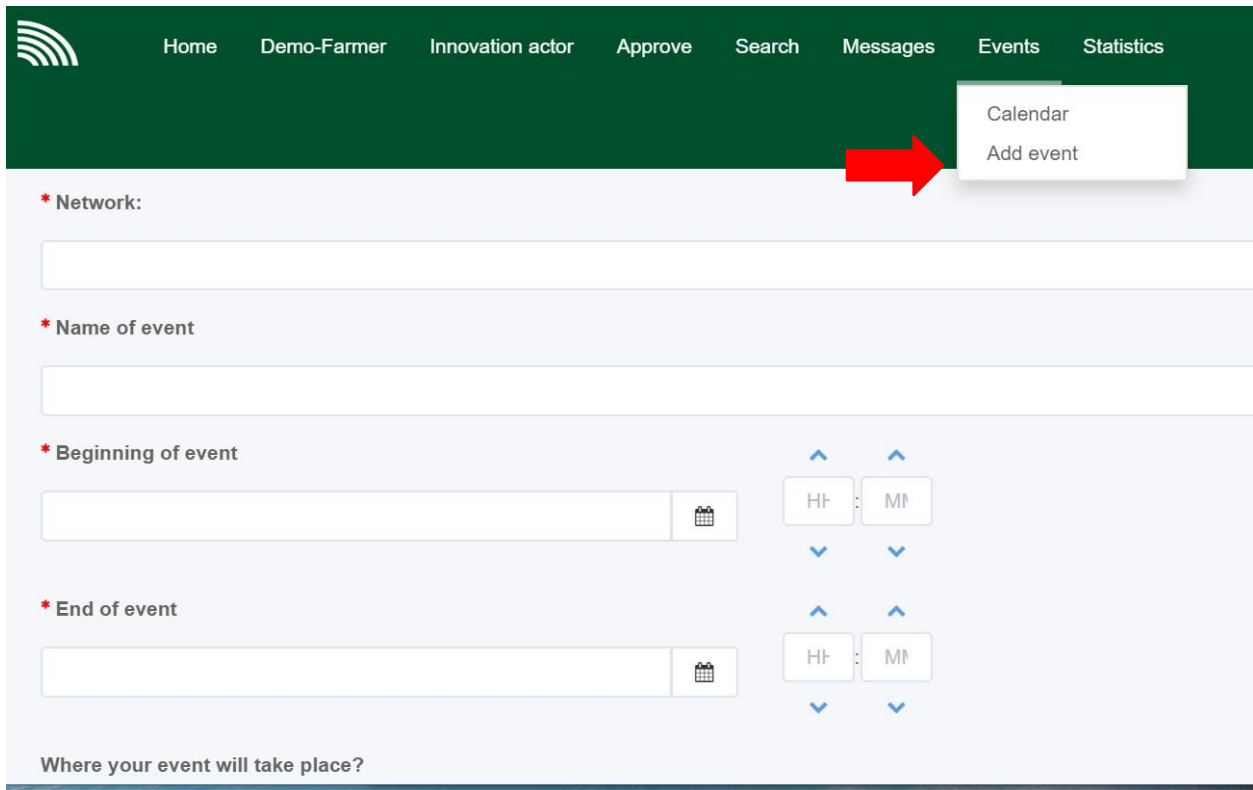


Picture 3 – Main menu



Q3: How to register an event your hub is hosting?

In order to register your event, log in to the platform and click on the Events tab in the menu. Then choose the option add event (picture 4). After answering all questions, please save your answers.



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Picture 4 – Add event

Q4: How to successfully complete an event your hub organized?

After the event, within the event report, you will find a couple of after-event questions. Steps needed to submit the after-event questions are as follows:

1. Go to: <https://nefertiti-h2020.eu/NefertitiPortal/#!/app-h/networks>
2. Login (mail + password)
3. In main menu choose your Network
4. Choose your hub
5. Scroll down to the events calendar
6. Click on your event
7. Scroll down and choose Edit
8. Answer the questions at the bottom of the page and click on Update

These help us report on project successfulness in terms of the project achieving its goal and showcasing to all of the included stakeholders what has been accomplished. As these are only a couple of very straight-forward questions, it shouldn't take up much of your time. You should fill out both in English and in your native language. This will be also used on our social media accounts for promotion.



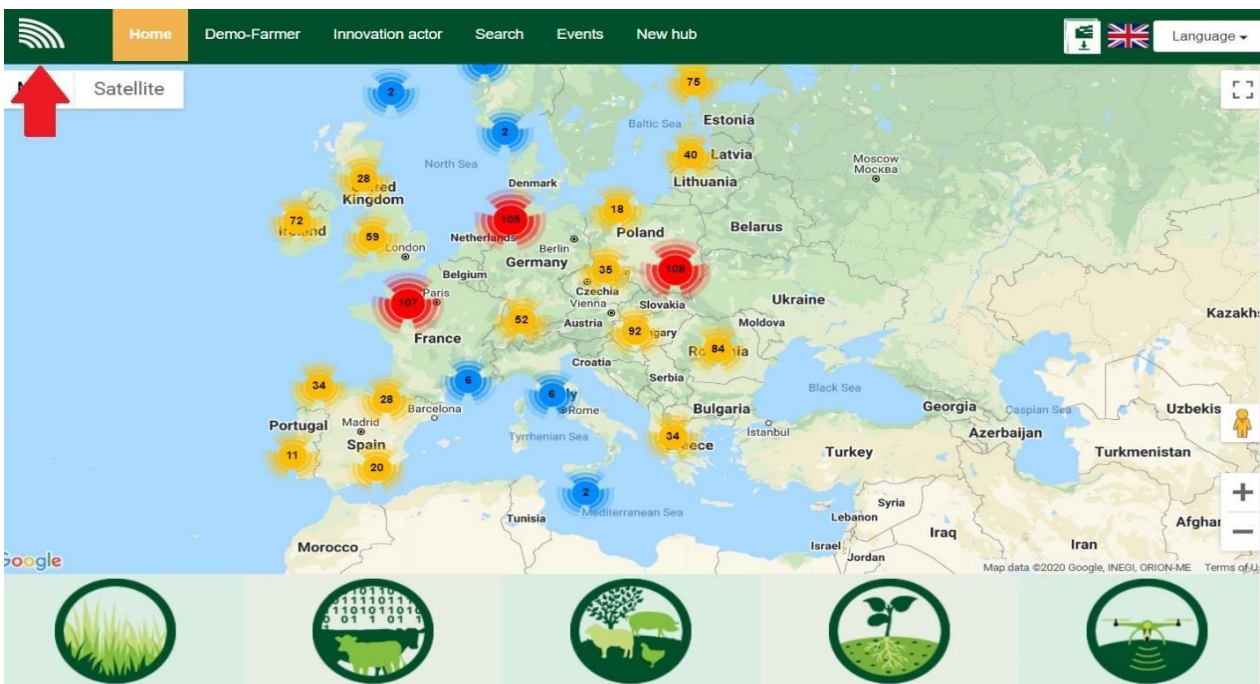
Situations in which you should contact us in order for the request to be communicated to our development team (contact email: prokin.marko@biosense.rs):

- If you want to edit the contact info of your hub
- If a new farm is not showing up in your hub
- If you notice any bug on the website/platform
- Any functionality improvement ideas

Dear farmer / innovation actor, welcome!

Q1: How to choose your country?

In order to choose your country and see its activities, please click on the first button in the upper left corner of the page (picture 5) and then choose your country. This will not only show you the page in your language, but also show you the activities of your country in the 10 Nefertiti Networks. If you click on the EU flag this will take you to the general site in English language.



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Picture 5 – Main menu



Q2: How to register your farm?

In the menu at the top of the page, please choose the option Demo-Farmer. After carefully reading the introduction and the informed consent, click on the box which indicates you have read, understood and that you agree with the informed consent. Once this is done, you will be taken to the online form page where you have mandatory and optional information fields. While you will need to fill out only the mandatory ones in order to submit the form, it would be beneficial and appreciated if you fill out all the fields. You will be able to recognize the mandatory questions as they will have a red asterisk in front of them. Please note that this form can be filled out by your hub coach, but that you will still need to validate all the provided information once the form has been filled out (you will get the validation request via email).

Q3: How to register as an innovation actor?

In the menu at the top of the page, please choose the option Innovation Actor. After carefully reading the introduction, click on the box which indicates you have read, understood and that you agree with the informed consent. You will then be taken to the online form which contains mandatory and optional fields. You will be able to recognize the mandatory questions as they will have a red asterisk in front of them. For each of the questions, you have a tick-box stating you wish for the provided information to be public. If you choose not to tick this, the information will stay private.

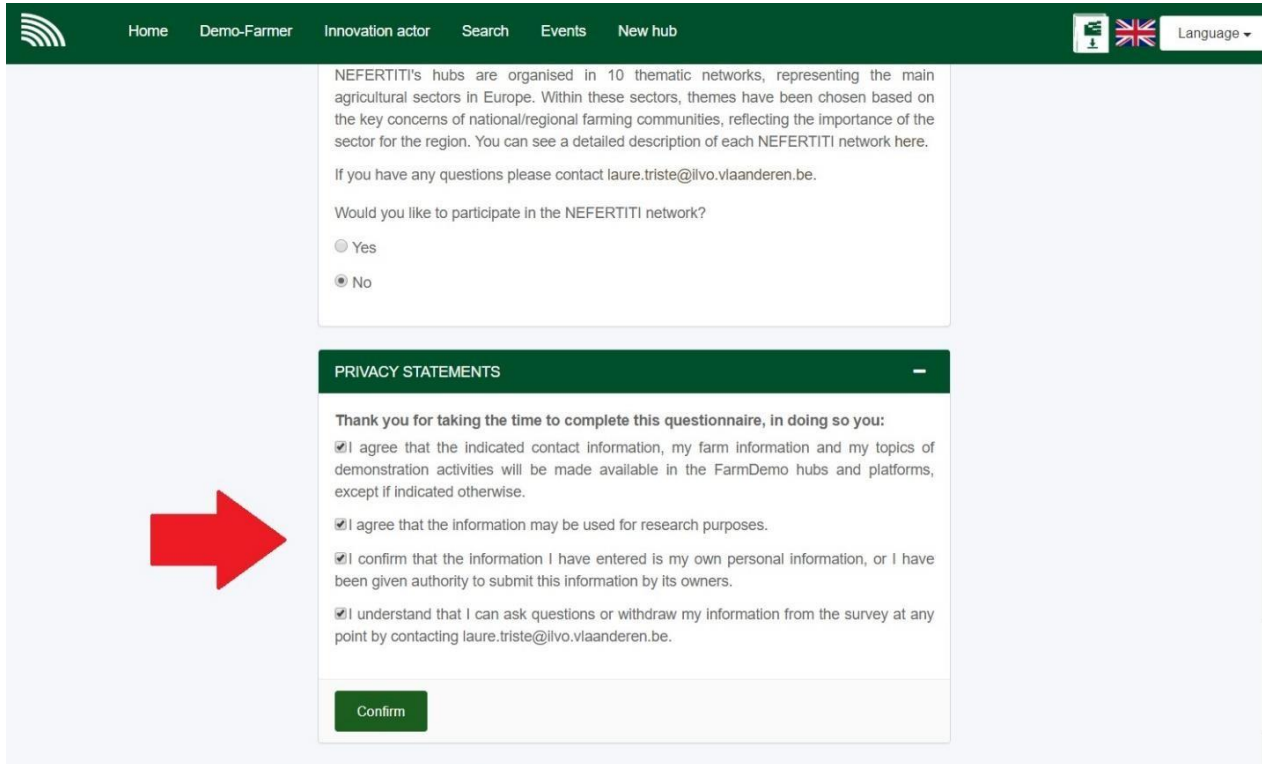
Q4: My hub coach/network leader has filled out the needed information for my farm. Is anything expected of me?

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If your hub coach/Network leader has filled out the registration form for your farm, you will still need to approve the information that is provided. The FarmDemo platform has sent you an automated email asking you to check provided answers and agree (confirm) that we can publish it on the platform. In the email, you will find the link which will lead you to your questionnaire.

Please read carefully the form to make sure the information provided is correct. Once you have gone through all of the information, you will need to accept the privacy statement at the bottom of the survey page (picture 6) and only then will you be able to click on confirm button and your farm will then be part of the FarmDemo system.





NEFERTITI's hubs are organised in 10 thematic networks, representing the main agricultural sectors in Europe. Within these sectors, themes have been chosen based on the key concerns of national/regional farming communities, reflecting the importance of the sector for the region. You can see a detailed description of each NEFERTITI network here.

If you have any questions please contact laure.triste@ilvo.vlaanderen.be.

Would you like to participate in the NEFERTITI network?

Yes

No

PRIVACY STATEMENTS

Thank you for taking the time to complete this questionnaire, in doing so you:

- I agree that the indicated contact information, my farm information and my topics of demonstration activities will be made available in the FarmDemo hubs and platforms, except if indicated otherwise.
- I agree that the information may be used for research purposes.
- I confirm that the information I have entered is my own personal information, or I have been given authority to submit this information by its owners.
- I understand that I can ask questions or withdraw my information from the survey at any point by contacting laure.triste@ilvo.vlaanderen.be.

Picture 6 – Privacy statements

Situations in which you should contact us in order for the request to be communicated to our development team (contact email: prokin.marko@biosense.rs):

- If you want to edit anything about your farm (pictures, information etc.)
- If you notice any bug on the website/platform
- Any functionality improvement ideas