

EU-FarmBook

Multilinguality in EU-FarmBook

A guide to the multilingual functionalities and
features in the EU-FarmBook platform



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1. Introduction

Welcome to the guide to multilinguality on the EU-FarmBook (EU-FB) platform. In this guide, we describe the multilingual functionalities and features of the platform's various components. These include the platform interface, the delivery and ingestion of metadata, the delivery of knowledge objects (KOs) or practice-oriented materials (POMs), the interaction with the Farm Assistant (EU-FB's chatbot), and the platform's search functionality. At the time of writing this guide, some multilingual functionalities have already been integrated into the platform, while others are planned for implementation in future platform versions.

2. Multilingual platform interface

The platform interface includes both static text and clickable buttons and is available in all 24 official EU languages (Bulgarian, Croatian, Czech, Danish, Dutch, English, Estonian, Finnish, French, German, Greek, Hungarian, Irish, Italian, Latvian, Lithuanian, Maltese, Polish, Portuguese, Romanian, Slovak, Slovenian, Spanish and Swedish). The user can switch between different languages by clicking the language button located in the top right corner of all EU-FB pages, highlighted in Figure 1. By clicking at a specific language, e.g. "Français", the user can see the webpage content in French (Figure 2).

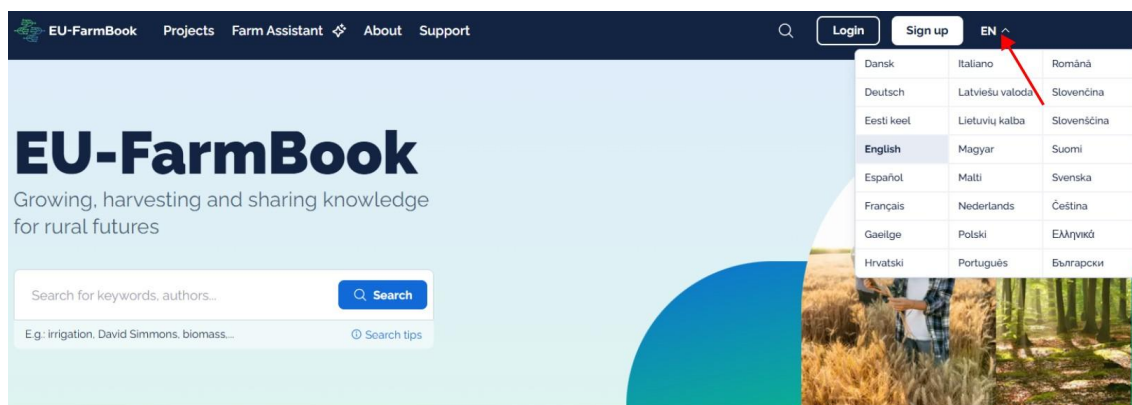


Figure 1: Changing the interface language in the EU-FB platform.

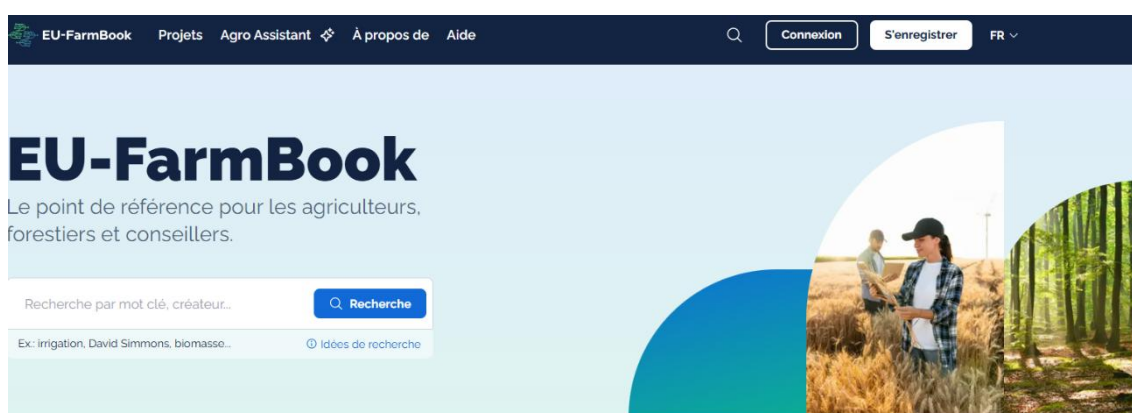


Figure 2: Interface in French.

In addition to hosting POMs, the EU-FB platform also offers EU projects the possibility to create their own website within the platform, where project contributors can upload deliverables and publications, as well as publish project updates and events. These project websites, often referred to as “Project pages,” are not formally considered part of the EU-FB platform interface. As a result, only automatic translations will be provided for the content of Project pages - a feature that will be integrated into future platform versions.

3. Translation of POMs

POMs are materials on the EU-FB platform that are uploaded by contributors. They may include documents, slideshow presentations, videos, audio files (e.g., podcasts), images, software applications, or datasets. POMs are the beating heart of the EU-FB platform, as they constitute a repository of information that can be applied in end users’ farming practices. It is therefore important to make this information easily accessible to a high percentage of end users. For this reason, translations of POMs will be provided in at least the six most spoken EU languages (English, French, German, Italian, Polish, and Spanish), wherever possible. Depending on the type of POM, different translation strategies are applied.

3.1. Text-based POMs

Text-based POMs include documents and slideshow presentations, which currently make up the majority of POMs on the platform. These are translated using DeepL Pro, a commercial machine translation service that offers high translation quality while preserving the format and layout of files. If a translation of a text-based POM in any of the six languages - English, French, German, Italian, Polish, or Spanish - is not available, the user can request one. If a translation is available, it will appear as an option in the drop-down menu on the POM page, as shown in Figure 3.

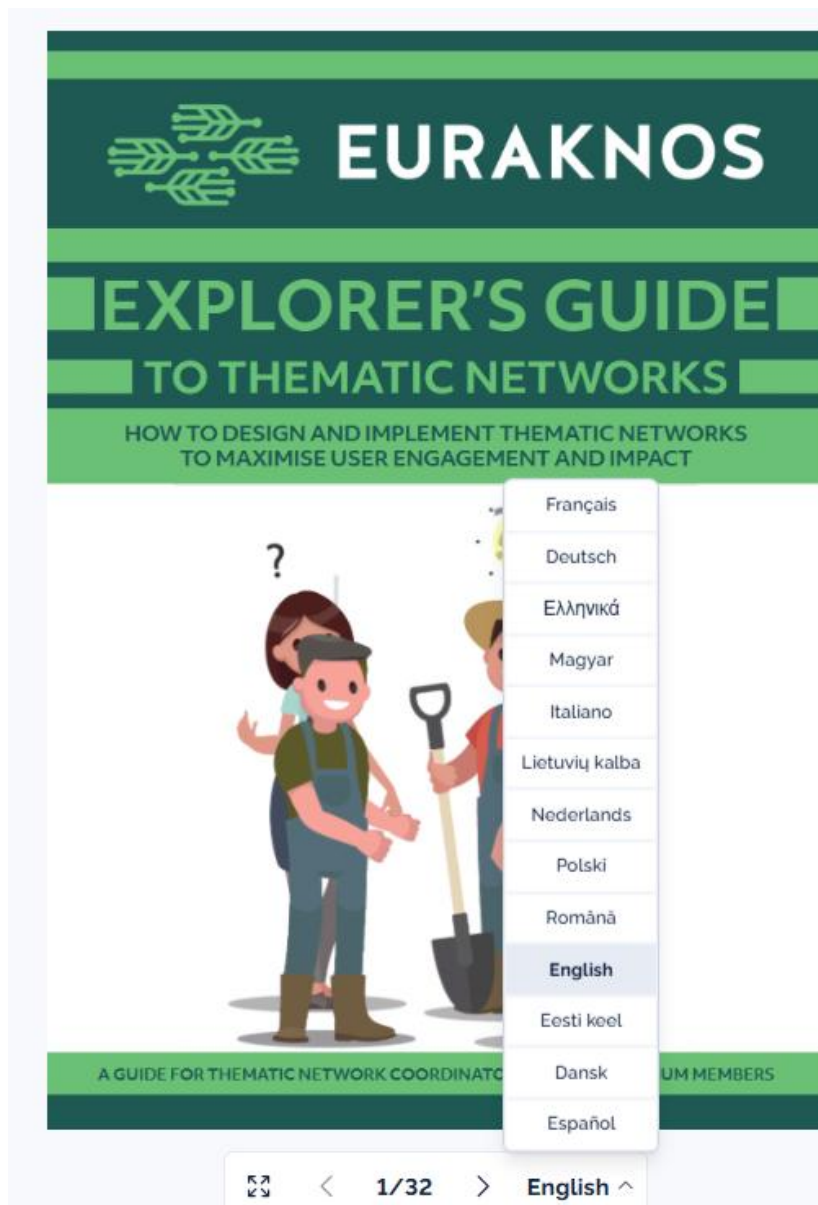


Figure 3: Menu of translations available for a POM.

3.2. Videos and audio files

For videos and audio files, machine translations of subtitles and the audio transcripts respectively will be provided. If subtitles or transcripts are missing, they will be created

with speech-to-text recognition and subsequently translated. The integration of this feature has been planned for a future platform version.

3.3. Other POMs

Translations are restricted to the previously mentioned types of POMs, while images, software applications, and datasets will be delivered to the user as uploaded by the contributor.

4. Metadata

Metadata are data that describe a POM, such as the POM title, description, keywords, etc. For a comprehensive list, please refer to the EU-FB “Metadata guide”. There are two main cases in which contributors and users interact with EU-FB metadata: via the upload form and via EU-FB pages where POMs are displayed, along with their corresponding metadata. We will examine these cases separately.

4.1. Metadata in the upload form

In the process of uploading POMs (see the EU-FB “Upload Manual”), contributors are prompted to fill in POM-specific metadata. These metadata are either automatically extracted from the POM or provided by the contributor. In the current version of the upload form, contributors are allowed to upload POMs in any of the official EU languages. Nevertheless, the metadata are extracted and stored only in English, regardless of the POM’s original language. Similarly, for metadata provided by the contributor, only English metadata are expected and accepted.

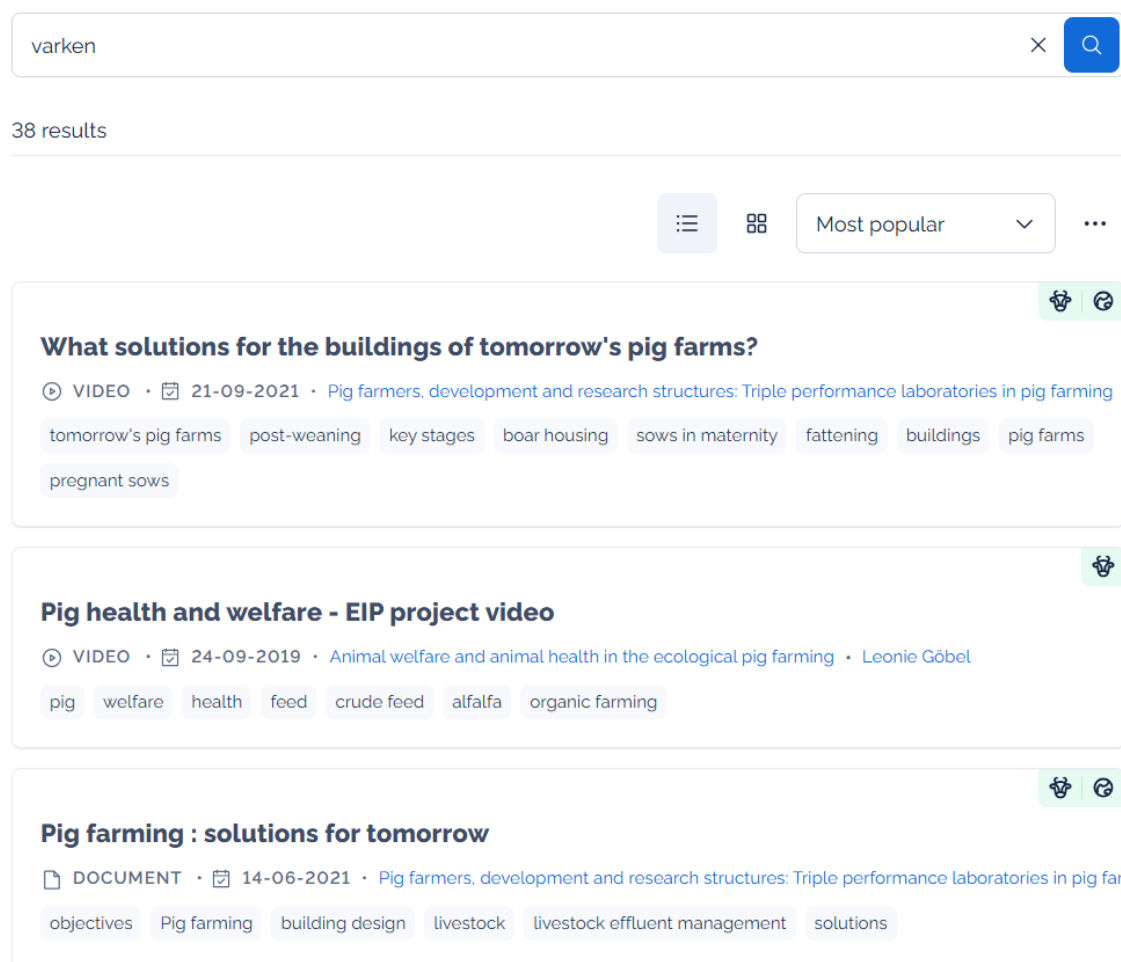
4.2. Metadata in the EU-FB pages

POMs and some of their corresponding metadata are displayed, e.g., on the EU-FB Homepage or after a query in the search bar. In the current platform version, the POM metadata are only available in English. In future versions of the platform, an on-the-fly, optional translation will be provided to the user, with the push of “Translate” button. The provided translation from English will match the website language that the user has chosen, as described in Section 1.

5. Multilingual search

The search functionality on the EU-FB platform works as follows: if a search query is entered in English, the search algorithm attempts to match the query terms with the stored English metadata of POMs and returns the most relevant results. Since all metadata are stored in English - regardless of the POM’s original language - non-English POMs also appear in the search results. A similar process is followed for non-English queries: the query is first machine translated into English, then matched against the English metadata. As a result, all relevant POMs are included in the search results, regardless of the language of the query or the POM. Notably, if relevant POMs exist in the language of the query, they are “boosted” and appear among the top search results.

Figure 4 illustrates this functionality: the search term “varken”, the Dutch word for “pig”, returns POMs that contain the word “pig” in their metadata.



The screenshot shows a search bar with the text "varken" and a magnifying glass icon. Below the search bar, it says "38 results". There are three result cards displayed:

- What solutions for the buildings of tomorrow's pig farms?** (VIDEO, 21-09-2021). Tags: tomorrow's pig farms, post-weaning, key stages, boar housing, sows in maternity, fattening, buildings, pig farms, pregnant sows.
- Pig health and welfare - EIP project video** (VIDEO, 24-09-2019). Tags: pig, welfare, health, feed, crude feed, alfalfa, organic farming.
- Pig farming : solutions for tomorrow** (DOCUMENT, 14-06-2021). Tags: objectives, Pig farming, building design, livestock, livestock effluent management, solutions.

Figure 4: Multilingual search in the EU-FB platform. The Dutch search term “varken” (meaning “pig”) returns search results containing the word “pig”.

6. Multilingual Farm Assistant

The Farm Assistant is the EU-FB platform’s chatbot, trained on material provided by the POMs available on the platform. Users can prompt the Farm Assistant for information on forestry and agriculture, and it generates answers while citing relevant POMs. For a comprehensive introduction to the Farm Assistant, please consult the “EU-FB Farm Assistant Guide.”

Currently, the Farm Assistant can receive queries and respond in English, Dutch, French, German, Italian, and Spanish, with plans to expand this list of supported languages in the future. Figure 5 illustrates the Farm Assistant’s multilingual functionality. Using the Italian prompt “Come posso aumentare la biosicurezza nel mio allevamento avicolo?” - meaning “How can I increase biosecurity in my poultry farm?” - the Farm Assistant replies in Italian and cites the POMs used to compose its answer.



Ecco alcuni passaggi che puoi seguire per migliorare la biosicurezza nella tua fattoria avicola:

- **Formazione e Addestramento:** Forma i tuoi dipendenti, tra cui responsabili di fattoria, operatori di fattoria, dipendenti del vivaio, equipaggio di raccolta, autisti, consulenti per l'alimentazione e veterinari, sulle misure di biosicurezza. Ciò può essere fatto attraverso workshop, seminari e formazione online ^[3].
- **Auditoria de Biosicurezza:** Utilizza strumenti come il tool PULSE per condurre un'auditoria di biosicurezza nella tua fattoria ^[1].
- **Equipe di Salute della Fattoria Multiattore:** Collaborare con un'equipe di salute della fattoria multiattore per migliorare la biosicurezza. Ciò può includere agricoltori, consulenti e altri stakeholder. Puoi utilizzare strumenti come il toolbox DISARM MAFH per questo scopo ^[1].
- **Corso di Biosicurezza:** Partecipate a corsi teorici e pratici sulla biosicurezza. Questi corsi possono aiutarti a capire i benefici di buone pratiche di gestione e misure di biosicurezza e le conseguenze del non implementazione di essi ^[1, 2].
- **Valutazione della Barriera Sanitaria:** Utilizza strumenti pratici per valutare l'efficacia della barriera sanitaria della tua fattoria ^[1].
- **Approccio Partecipativo:** Considera un approccio partecipativo alla biosicurezza, coinvolgendo tutti gli stakeholder nei processi decisionali ^[1].

Consiglio di iniziare con la formazione e l'addestramento, poiché ciò fornirà una solida base per migliorare la biosicurezza nella tua fattoria.

SOURCES

¹ Training of poultry farmers on biosecurity

² Biosecurity handbook

³ Biosecurity handbook

⁴ Biosecurity handbook

⁵ Biosecurity handbook

Figure 5: The Farm Assistant's multilingual functionalities. The Farm assistant is prompted in Italian and replies in Italian.

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