Organic Knowledge Network on Monogastric Animal Feed

OK-Net EcoFeed

Extended OK-Net knowledge platform and toolbox

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Executive summary

This deliverable describes the platform Organic Farm Knowledge, which was set up in the framework of the OK-Net Arable project and has been developed further in the OK-Net EcoFeed project. In this document, the features of the platform are outlined.; Furthermore, it is shown how the work is organized with the partners and in what way the platform will be developed further.

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I.   Introduction and aims according to the grant agreement

The overall aim of the OK-Net EcoFeed Work Package 5 "Online knowledge platform" is to further develop the OK-Net knowledge platform established in the OK-Net Arable project, to extend it with information related to organic and regional feed for monogastrics, and to promote it and its tools in Europe.

The specific goals, of which each is linked to a task, are:

- To further develop and maintain the OK-Net knowledge platform with pertinent information for organic farmers, breeders, feed processing companies, advisors and other business actors in the organic and regional feed value chain;
- To further develop and maintain an easy-to-use open-access toolbox as part of the OK-Net platform including features for feedback and exchange of tools and experiences;
- To promote the OK-Net platform and animate the discussion forum

On December 19, 2018, the new Organic Farm Knowledge platform – with new URL www.organic-farmknowledge.net – went online. Up until that date, it was hosted by the International Centre for Research in Organic Food Systems ICROFS; now it is run by the Research Institute of Organic Agriculture FiBL. The move from ICROFS to FiBL was associated with a relaunch, which included the following main changes

- A specific logo for the platform was created (in the first version of the platform, the OK-Net Arable logo was used) and a new layout was designed. The platform will now be branded as "Organic Farm Knowledge"
- The previous URL Farmknowledge.org was changed into Organic-Farmknowledge.org.
- A news and events section was added
- The automatic translation was improved
- The use of AGROVOC keywords was implemented

Further developments are underway.

II.   Platform relaunch

With the relaunch, the previous URL "Farmknowledge.org" was changed to "Organic-Farmknowledge.org" (referred to as Organic Farm Knowledge platform), to make the focus of the platform clearer. However, the platform can still be accessed with the "old" URL, and links are still working.

Originally, it was planned to set up the new platform in way so that it could accommodate entries related to arable farming from OK-Net Arable and those related to animal husbandry/the entries directly related to OK-Net EcoFeed. In the course of 2018, while developing the platform, it turned out that a far wider scope was needed, as other Horizon 2020 projects showed interest in using the platform as well. This had an impact on the look and feel of the platform (i.e. the direct relationship with the two OK-Net projects is not shown anymore), on the theme structure, and on the keyword management, which has now been solved by using AGROVOC keywords, which allows for a high level of flexibility and standardisation.

For the new version of the Organic Farm Knowledge platform, a new layout was chosen, based on the logo which was developed specifically for the platform.

On December 19, 2018, the new platform went online, and is now run by the Research Institute of Organic Agriculture FiBL. In addition, the current version of the platform is still directly linked to the online archive Organic Eprints, which is maintained by the International Centre for Research in Organic Food Systems ICROFS, who set up the first version of the platform.

III.   Description of the platform and its features

In the following sections, the main features of the platform are described, following the navigation of the website.

III.1   Home - https://organic-farmknowledge.org

On the homepage of Organic Farm Knowledge, a **search field** that guides users directly into the toolbox with tools and materials for organic farmers is placed.

Below the search field, access is given to the current two **theme blocks:**

- Arable farming, with tools collected or produced in the framework of OK-Net Arable
- Animal husbandry, with information to be provided in the framework of OK-Net EcoFeed
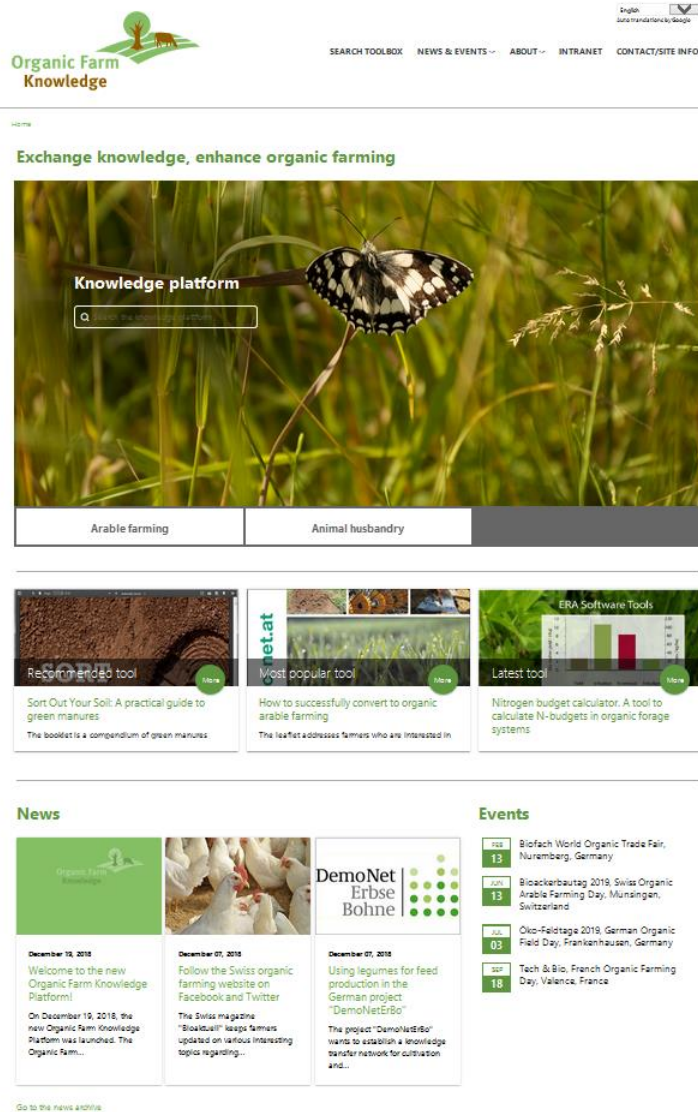
Figure 1: Screenshot of the homepage of Organic Farm Knowledge

Furthermore, on the homepage, access is given to the **latest tool** entered in the toolbox, to the **most popular tool** (based on the ratings of users), and the **recommended tool**, based on the recommendation of the editors/editorial board selecting among all tools in the toolbox (see VIII.1, page 16).

As a new feature compared to the previous version of the platform, **news** are provided to inform readers about latest relevant developments in the organic farming sector. Furthermore, **events** of European-wide relevance, which are of interest to organic farmers and advisors, are listed.

Further developments of the homepage will include the links to the social media accounts of the Organic Farm Knowledge platform as well.

Future Action 1: Include links to social media

III.2 Toolbox/Search toolbox - https://organic-farmknowledge.org/search-toolbox

III.2.1 Search page of the toolbox and list view

The toolbox with tools and information is the core of the platform. At the time of writing, it contained 170 tools, which were either selected or produced in the OK-Net Arable project.

The toolbox is directly linked to the ICROFS-run Organic Eprints archive for literature and information related to organic farming research. All tools that are shown on organic-farmknowledge.net are originally stored on Organic Eprints. If marked with a special code, they are exported into the toolbox of the Organic Farm Knowledge platform.

Apart from the arbitrary keyword search, the tools in the toolbox can be searched/filtered by (see Figure 2)

- Language; i.e., the original language in which a tool is available
- Theme; i.e., the main themes that have been identified by the OK-Net Arable and OK-Net EcoFeed project partners (see section IV, page 13)
- Type; i.e., Books/reports, practice abstracts, calculation tools, videos, etc.
- Year; i.e., year of publication
- Country of origin
- Keyword; i.e., by predefined, recommended keywords for the platform (see section IV.2, page 15)

Search results are shown in the tool list, which, compared to the list view of the previous platform, does not only include the title, but also the issuing organisation, the year of release, and the rating of the tool. It is possible to sort the entries on the list.

An additional field is planned to include the name of the project under which a tool was selected or produced.

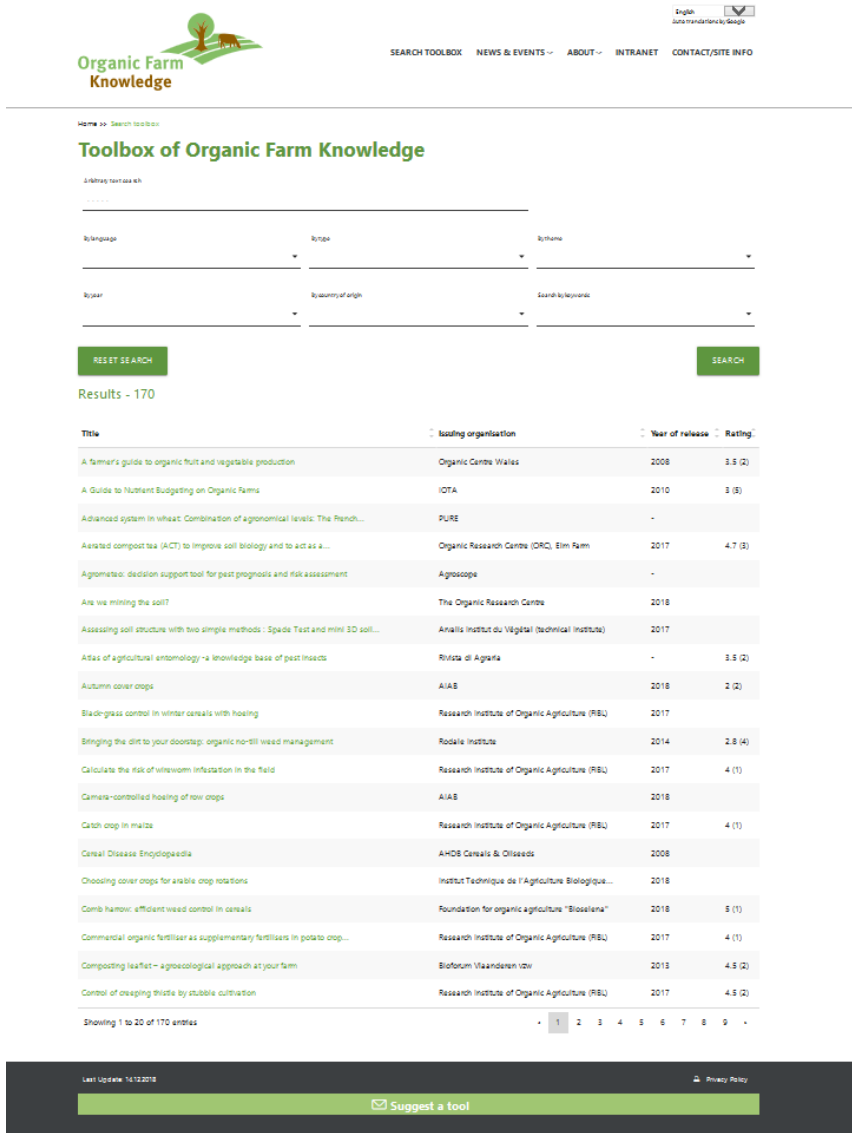*Future Action 2: Add search field for tools by research project*

Figure 2: Screenshot of the toolbox search field and the list view of Organic Farm Knowledge

III.2.2   Full view of entries

The full view (Figure 3) of an entry (tool) contains the following:

- An icon symbolizing the type of tool;
- The rating of a tool and the rating function;
- Information on the problem that the tool addresses, the solution it offers and a description of the tool or recommendations;
- A cover picture (if no cover picture is available, a placeholder is used);
- A link to the tool as such is provided (either to be downloaded, or link to webpage, link to YouTube…);
- The possibility to discuss the tool on Disqus;
- On the right margin, the following information is provided: Theme and keywords, to which a tool is allocated, link to the issuing institution, the languages in which it is available, the year of release, the country of origin, the e-mail address of a contact person.

Further necessary developments include the addition of further discussion fora and the link to related information on Organic Eprints.

Future Action 3: Add further fora to discuss a tool to the tool descriptions (Facebook and Twitter)

Future Action 4: Add link to related information on Organic Eprints to the tool description.

Figure 3: Screenshot of a toolbox entry

III.3 Themes and discussion https://organic-farmknowledge.org/discussion

The "Themes & discussion" page gives access to information related to the themes of OK-Net Arable and OK-Net EcoFeed and provides the option to discuss the themes.

- The current themes for arable farming are soil quality and fertility, nutrient management, pest and disease control, weed management, cropping systems and crop specific.

- The current themes for organic animal husbandry are pigs, broilers, layers, processing and handling of harvested feed, feeding and ration planning.

Access to the theme pages is given with a teaser box (Figure 4, Figure 5). Each theme page contains

- An introductory text and a picture;
- The latest, the recommended and the most popular tool related to the theme;
- A list of all tools related to the theme (based on a tool'skeywords, which are all linked to a theme); and
- The option to discuss a theme with Disqus.

An important further development includes the addition of new themes in collaboration with partnering projects.

Future Action 5: Establish links with further projects and partners to develop the theme pages further
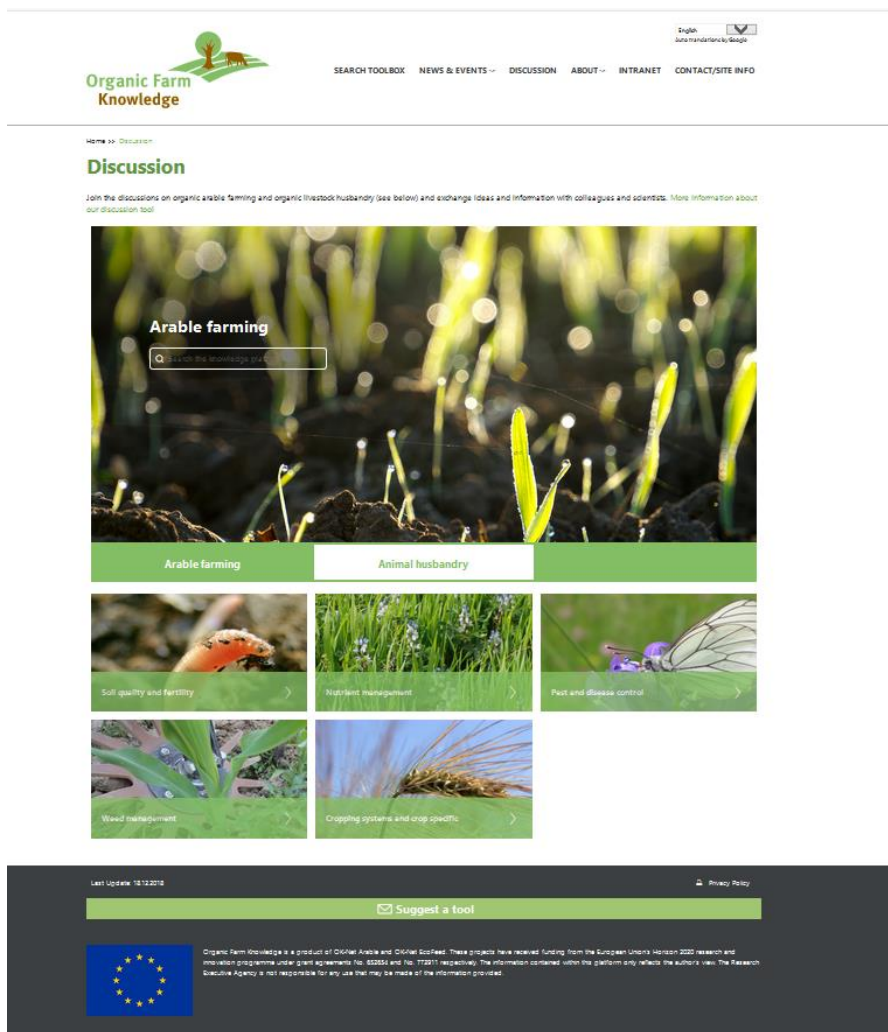
Figure 4: Screenshot of the theme pages related to organic arable farming

Figure 5: Screenshot of the theme page on cropping systems (theme description, featured tools, tool list, discussion option).

III.4 News and events

On the "News & events" pages, all current and past news (including those from the first version of the platform) and events are listed chronologically and archived (Figure 6). All news and events are also featured on the homepage.
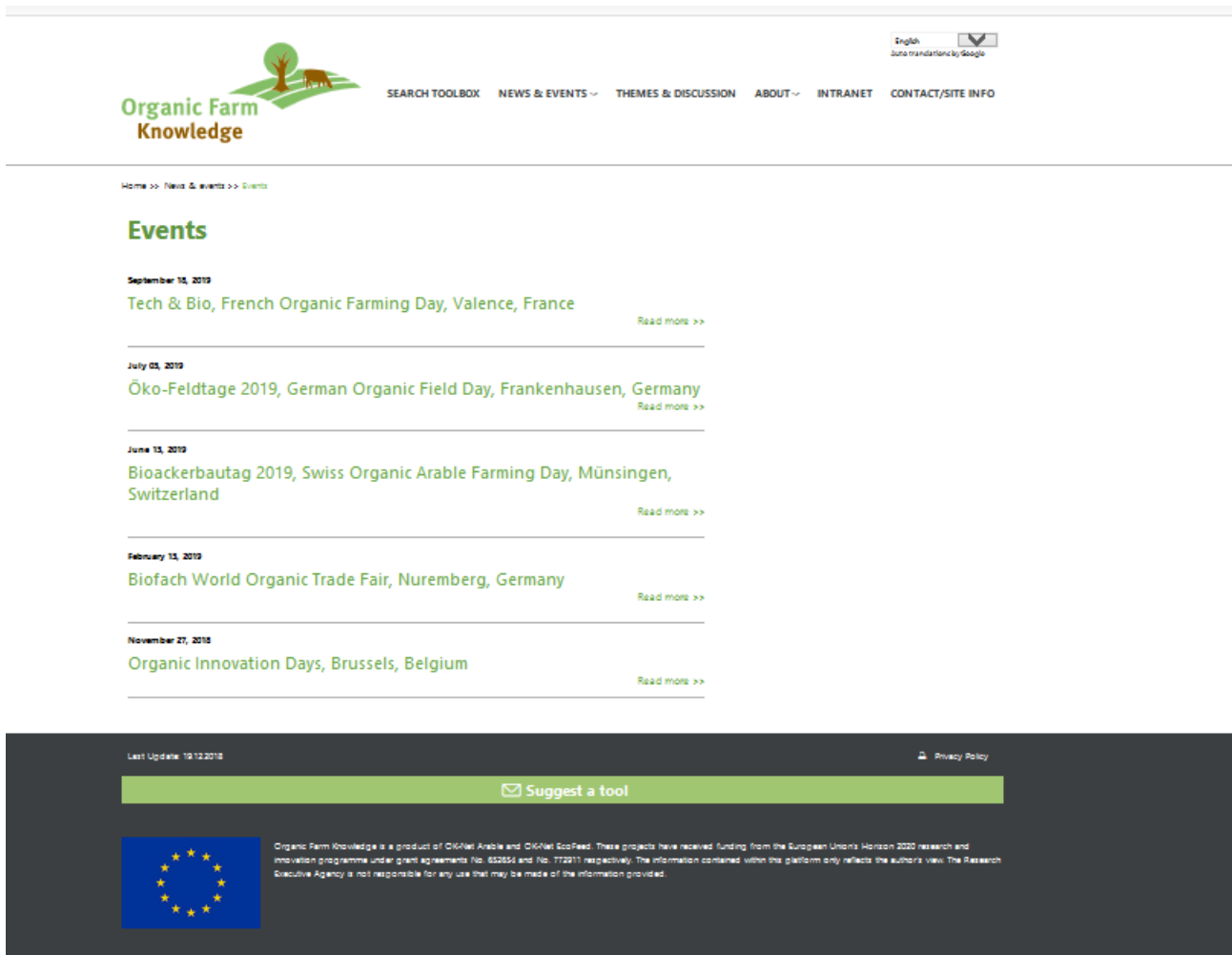
Figure 6: Screenshot of the news and event page

It is planned to develop this section further into a "services" section to include information about key players and initiatives of relevance for organic farmers and advisors all over Europe.

Future Action 6: Include key players and initiatives of relevance to European organic farmers and advisors

III.5   About

On the "About" page, the background of the platform is explained, and the partners and related projects are briefly introduced (Figure 7).
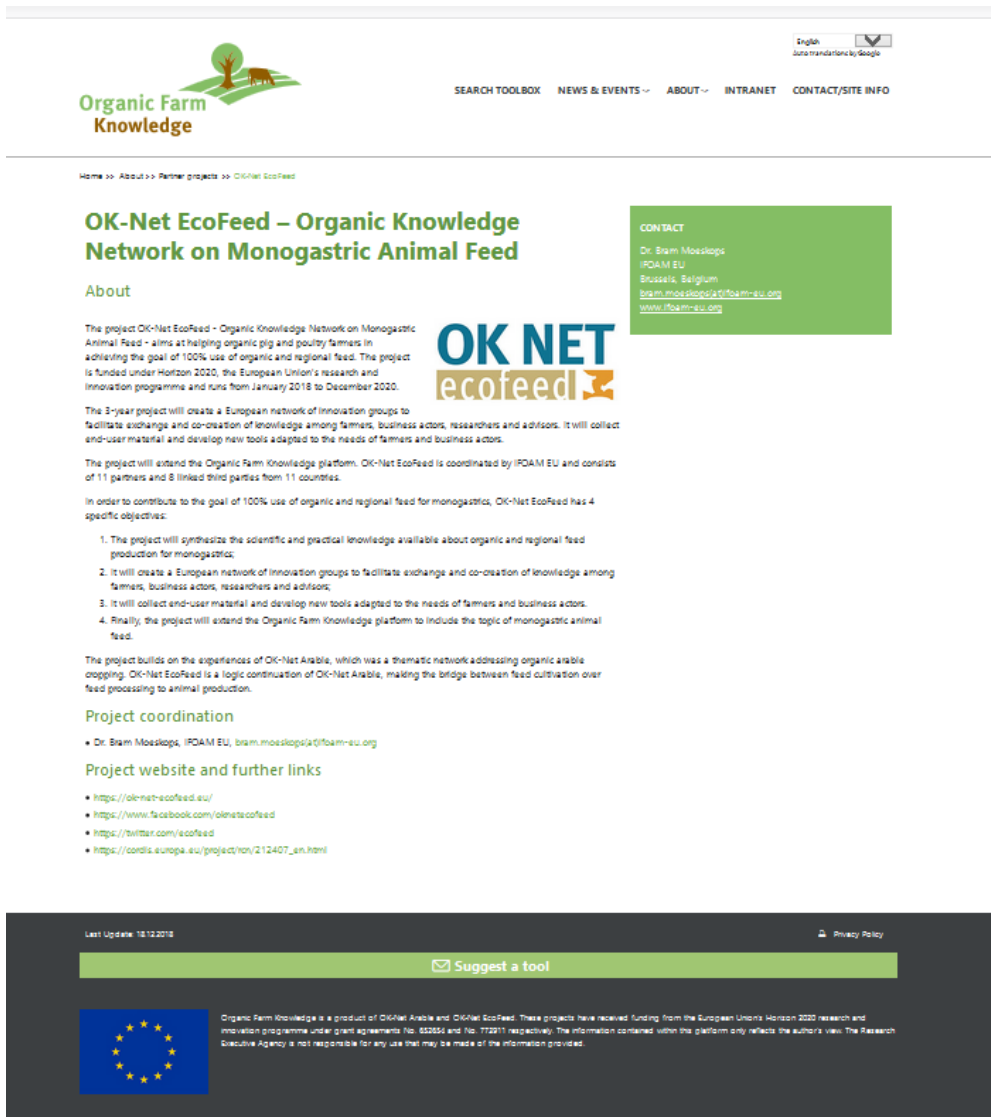
Figure 7: Screenshot of the page introducing the OK-Net EcoFeed project

III.6   Helpdesk

A helpdesk page is under construction. It will provide help and manuals related e.g. to the use of the discussion software Disqus or uploading tools to Organic Eprints.

Future Action 7: Include helpdesk page

IV.   The themes and keywords

IV.1   Themes

The themes and subthemes for Organic Farm Knowledge were developed in the projects OK-Net Arable and OK-Net EcoFeed, and they are displayed on the "Themes and discussion" pages. Currently, only the theme

pages on organic arable farming and on organic animal husbandry are displayed. It is planned to develop the theme pages further with the input of further projects (see also section VIII.3., page 17).

Each theme page contains an introductory text, a picture, the latest, the recommended and the most popular tool related to the theme, a list of all tools related to the theme, and the option to discuss a theme with Disqus.

The list of tools by theme are generated via the keywords, each of which is allocated to a theme.

Table 1: Draft theme and subtheme structure for Organic Farm Knowledge as planned by December 2018

Main theme	Subtheme	AGROVOC	Related project
Arable farming	Soil quality and fertility	soil properties http://aims.fao.org/aos/agrovoc/c_330883 soil fertility http://aims.fao.org/aos/agrovoc/c_7170	OK-Net Arable
	Nutrient management	nutrient management http://aims.fao.org/aos/agrovoc/c_330697	OK-Net Arable
	Pest and disease control	pest control http://aims.fao.org/aos/agrovoc/c_5726 disease control http://aims.fao.org/aos/agrovoc/c_2327	OK-Net Arable
	Weed management	weed control http://aims.fao.org/aos/agrovoc/c_8345	OK-Net Arable
	Cropping systems and crop specific	cropping systems http://aims.fao.org/aos/agrovoc/c_1971 crops http://aims.fao.org/aos/agrovoc/c_1972	OK-Net Arable
	Seeds and breeding	plant breeding http://aims.fao.org/aos/agrovoc/c_5956 plant propagation http://aims.fao.org/aos/agrovoc/c_5977	Liveseed
Animal husbandry	Pigs*	pigs (swine) http://aims.fao.org/aos/agrovoc/c_7555	OK-Net EcoFeed
	Broilers	broilers (broiler chicken) http://aims.fao.org/aos/agrovoc/c_9435	OK-Net EcoFeed
	Layers	laying hens (layer chicken) http://aims.fao.org/aos/agrovoc/c_12109	OK-Net EcoFeed
	Feeding and ration planning**	Feeding http://aims.fao.org/aos/agrovoc/c_2838	OK-Net EcoFeed CORE Organic (animal feed)
	Processing and handling of harvested feed	feed processing http://aims.fao.org/aos/agrovoc/c_16127	OK-Net EcoFeed
	Veterinary Medicine****		RELACS

Main theme	Subtheme	AGROVOC	Related project
	Economics***	farm economics (agricultural economics) http://aims.fao.org/aos/agrovoc/c_8672	OK-Net EcoFeed
Horticulture	Horticulture in general	Horticulture http://aims.fao.org/aos/agrovoc/c_3671	CORE Organic (Plant production)
	Seeds and breeding	plant breeding http://aims.fao.org/aos/agrovoc/c_5956plant propagation http://aims.fao.org/aos/agrovoc/c_5977	Liveseed
Processing			CORE Organic (organic food processing)
Environment			
Other	Inputs	Inputs http://aims.fao.org/aos/agrovoc/c_11788	Relacs

* Includes the following sub-subthemes: Sows, piglets, weaners
** Includes the following sub-subthemes: Nutritional value of organic feedstuffs; Nutrient needs; Forage; Roughage
*** Includes the following subthemes: Production of animal products and Price/availability
**** Includes the following sub-subthemes: Antibiotics, anthelminthics, vitamins

IV.2   Keywords

A major improvement compared to the first version of the platform is that, for the current version, the keywords of AGROVOC are used. AGROVOC is a controlled vocabulary covering all areas of interest of the Food and Agriculture Organization (FAO) of the United Nations, including food, nutrition, agriculture, fisheries, forestry, environment etc. It is published by FAO and edited by a community of experts. It contains more than 30'000 keywords. More information is available at http://aims.fao.org/vest-registry/vocabularies/agrovoc.

The benefits of using AGROVOC, which is integrated into Organic Eprints and can therefore be used for Organic Farm Knowledge, are

a) The use of an international standard for agricultural terms;
b) The availability of a translation for these terms, which are fully included into Organic Farm Knowledge; and
c) The availability of definitions.

As AGROVOC is not available for all languages which the Organic Farm Knowledge platform offers it is planned to enter into a dialogue with the AGOVOC team for more translations as well as the addition of keywords, where deemed necessary.

Project partners will provide support with the translation of keywords, which are not available in AGROVOC or where the AGROVOC translation is not satisfactory.

Partners of the platform will receive a list of selected keywords based on AGROVOC. In order to make sure that partners use this list and apply the selected keywords, it will be available in the tool description template (tick boxes) and the selection will also be available in the Organic Farm Knowledge handbook for partners, which will be finalized by FiBL in the course of 2019.

Future Action 8: Further develop keyword list and provide translations

Future Action 9: Provide Organic Farm Knowledge handbook for partners

V.   Social media

A Facebook and Twitter for Organic Farm Knowledge account have been set up. A plan how to manage these accounts in collaboration with the partners will be set up in early 2019.

Future Action 10: Develop social media concept with the partners including the management of the fora (see Future Action 3)

Furthermore, the platform allows the sharing of content with key social media channels; icons for these are displayed on each page of the platform.

VI.   Automatic translation

Like for the first version of the platform, Google Translate is used for the automatic translations. As the translation with Google Translate was highly unsatisfactory, for the current Organic Farm Knowledge another version of Google Translate is used, and the translations are now far better than in the past.

It is possible to "manually" translate individual parts of the Organic Farm Knowledge website, and this will be done with the help of the partners, where the automatic translation is not satisfactory.

Future Action 11: Check Organic Farm Knowledge website with partners for translation issues

VII.   User statistics

In order to monitor the development of the platform, the etracker software is used – both for Organic Farm Knowledge and for Organic Eprints. Thus, it is possible to track the activities on the Organic Farm Knowledge platform and to see how often a tool was actually downloaded from Organic Eprints.

Using the same software for both websites means that the statistics are directly comparable.

VIII.   Partnership and organisation

VIII.1 Partnership

The core partners of the Organic Farm Knowledge platform are FiBL (hosting, management, and maintenance), International Centre for Research in Organic Food Systems ICROFS (management and maintenance of Organic Eprints) and IFOAM EU (coordination and promotion).

Further partners are the Italian Association of Organic Agriculture AIAB, the German organic producer organisation Bioland, the Mediterranean Agronomic Institute CIHEAM Bari, and the UK-based Organic Research Centre ORC. These core organisations were all partners of OK-Net Arable, and are also partners (or linked third party) of OK-Net EcoFeed.

VIII.2 Editorial board

The board of Organic Farm Knowledge, in which all current core partners are represented, is in charge of strategic issues, such as quality criteria, and securing the maintenance, further development and the continuity of the platform.

VIII.3 Partner projects

The Organic Farm Knowledge platform was set up in the framework of the OK-Net Arable project and is currently developed further by the OK-Net EcoFeed project, both funded under Horizon 2020, the European Union's framework programme for research and innovation. In OK-Net EcoFeed's work package 4, tools are selected and developed, and will, after a quality check, be uploaded to the platform by FiBL.

Interest to join the Organic Farm Knowledge platform and expand it with pertinent organic knowledge has been expressed by several other European projects. Links are currently being built, and the following projects are expected to join:

- Liveseed (https://www.liveseed.eu/)
- RELACS (https://relacs-project.eu/)
- Remix (https://www.remix-intercrops.eu/)
- Future EU Aqua (project on aquaculture, website under development)
- Projects funded by ERA-Net CORE Organic (http://projects.au.dk/coreorganiccofund/)

In the course of 2019, a concept will be developed how further partners can contribute and how the partnership will be managed. This will also include a sponsoring concept.

Future Action 12: Develop partnership concept

VIII.4 Organic Farm Knowledge Intranet

FiBL set up an intranet to manage the workflow of the tool upload process. In

In the central "tool table", the workflow for the tool submission process is documented, so that the history of each tool can be tracked (Who suggested the tool? Was the tool approved by the partners? Has a quality check been carried out? Is the tool uploaded to the platform?)

IX. Future Actions at a glance