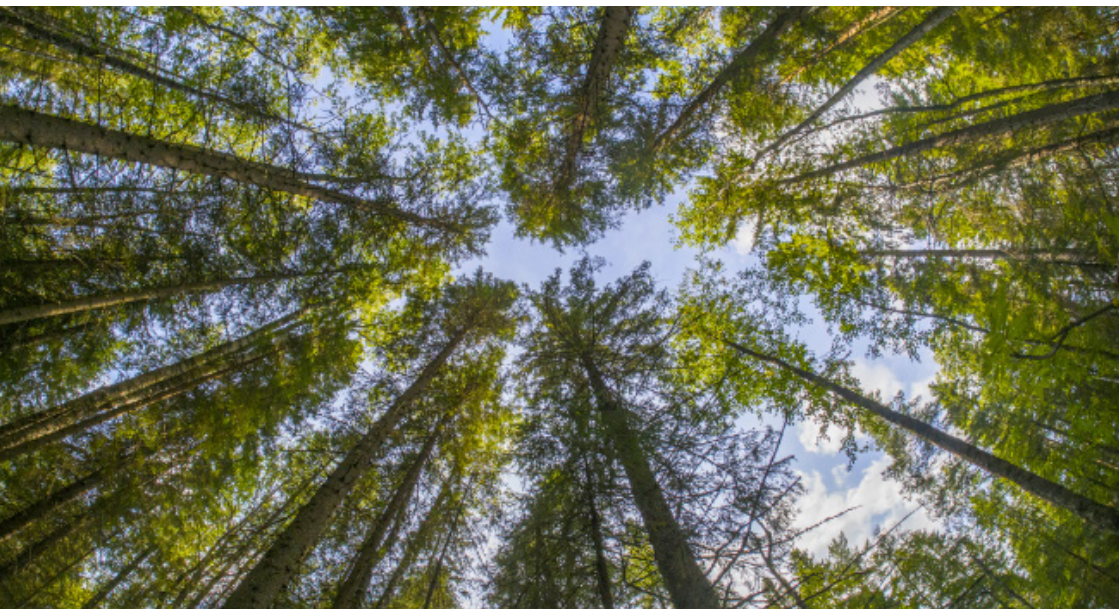www.valerie.eu

Valerie

Valorising European Research for Innovation in Agriculture and Forestry

VALERIE Project Update – Autumn 2016

Goals of VALERIE in brief

The VALERIE project started in 2014 with the following aims:

- Improve **access** for practitioners and advisers to existing **information for innovation** in agriculture and forestry, from European and national sources
- Build a **'virtual adviser'** tool (*ask-Valerie.eu*) to enable this access; and to support **communication** among practitioners and advisers
- Work with stakeholders in **case studies** to **guide the development** of the tool
- Deliver the **'virtual adviser'** tool for integration in the European Innovation Partnership (EIP) -AGRI Service Point platform to ensure its legacy

The case studies

- **Catchment scale resource use efficiency, UK**
- **Soil management in livestock supply chains, UK**
- **Sustainable forest biomass: recycling of wood ash, Finland**
- **Agroecology: managing plant protection, France**
- **Innovative arable cropping, France**
- **Sustainable forest management and ecosystem services, Navarra and Basque Country, Spain**
- **Improving milling wheat quality, Italy**
- **Drip irrigation management in tomatoes and maize, Italy**
- **Sustainable onion supply chains, Netherlands**
- **Sustainable potato supply chains, Netherlands/Poland**

Consulting stakeholders (advisers, farmers, processors, researchers, decision makers etc) in case studies is a **key part of the project** particularly in terms of developing *ask-Valerie.eu*.

In the process the project has provided the case studies with information on innovations and given them the opportunity to test selected innovations in trials.
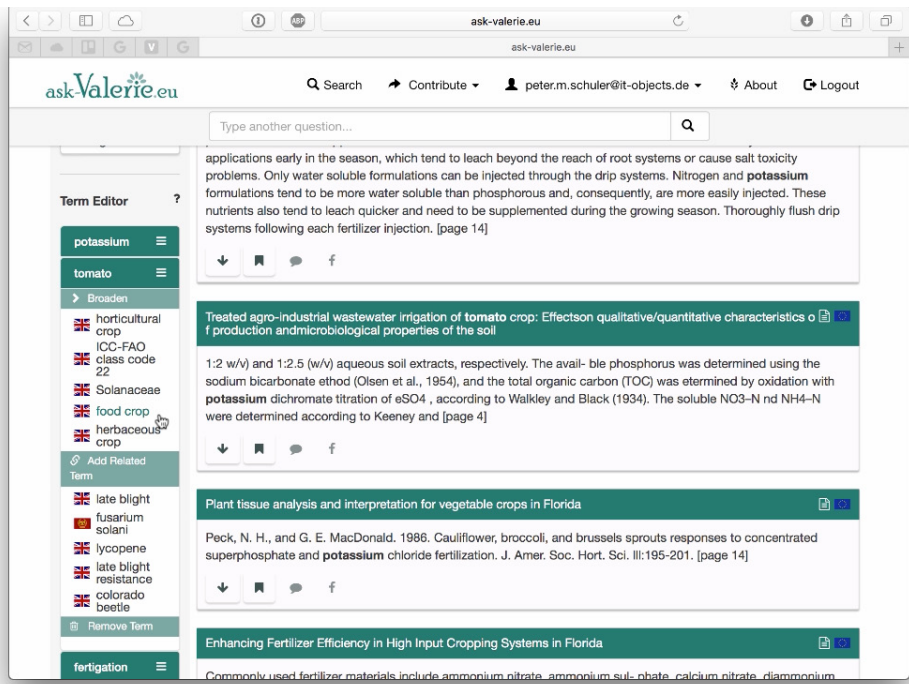
Talking to stakeholders we have learned how they identify innovation needs (research needs and gaps), and how they seek, interpret, and integrate new information. Now we are asking them as potential users to test and provide feedback on *ask-Valerie.eu*.

ask-Valerie.eu - the 'virtual adviser'

We are developing a highly interactive tool called *ask-Valerie.eu*. The tool uses **web-semantics** technology and core to the approach is a 'built-for-purpose **vocabulary**' of key terms covering agriculture and forestry. The tool integrates this vocabulary with the following components: (1) a selected **document** base; (2) a dedicated **search** tool; (3) an interactive user-interface that helps **articulate** user queries and **present** top ranked documents; and (4) a communication platform enabling stakeholders to **exchange views**, locate advisers or suppliers, etc.

When using *ask-Valerie.eu* users can improve the relevance of their search results by filling out the **user profile** and **language preferences**: selecting their preferred language for interaction with *ask-Valerie.eu*, and for retrieving documents.

Feedback so far

Over the last two years we have developed and tested *ask-Valerie.eu* and collected suggestions for improvement from advisers and experts involved in the project. We have also sought feedback from representatives of farming, forestry and extension organisations at the European level. This has helped us develop and improve the tool by highlighting the importance of **multiple languages**; of **separating scientific** information from practical guidelines (**fact sheets, manuals**); and of connecting to **existing national repositories** of documents for practice.

Unique features of *ask-Valerie.eu*

With the unique features of the tool (below) and the stakeholder and expert input into its development, we believe *ask-Valerie.eu* has the potential to provide a more tailored, smarter and interactive tool than other search engines for agriculture and forestry. With a year of the project left, we are now asking stakeholders to test the prototype tool and help us realise this potential
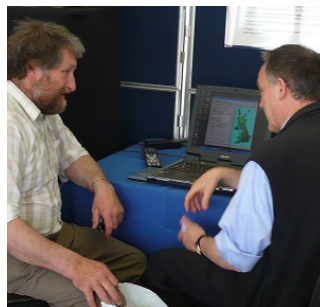
Vocabulary: key concepts relevant to agriculture and forestry

With the help of case study partners, we started by collecting terms both **scientific and colloquial** from the case studies, and then expanded these with the help of project experts. Topics include crops and cropping systems; soil, water and nutrient management; integrated pest management; supply chains; waste recycling etc. Such a vocabulary – also called **ontology** – is never complete and we are constantly expanding it. Nevertheless, with over **6,000 terms** we are now at a stage where the vocabulary can be effectively used and tested in *ask-Valerie.eu*. The vocabulary has now been translated into **English, Italian, French, Spanish, Finnish, Polish, and Dutch**.

Document base

There are three main sets of documents that will be available for access:

- **National or regional large collections of documents (repositories) of practical guidelines** written in local languages (e.g. repository holders include: levy boards, farmer cooperatives, extension bodies, universities and (regional) governments).

- **Scientific documents: journal papers and book chapters** and through databases such as USDA's AGRICOLA

- **Factsheets of innovations** prepared by the project where innovations are described and key references are provided. Some 200 sheets have been completed so far.

Digital assistant

Automated annotation of documents for **ranking** and presenting documents helps to achieve better results for a user query. The **'query editor'** is a novel feature which tailors the query and ensures the most relevant documents are retrieved.

Interactive community

An important part of *ask-Valerie.eu* being developed is the **communication dimension** which will allow users to **share information in a form of social media, and to contribute** documents, terms for the vocabulary, innovations, etc.

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