



# Case Study Pilot 5.4

## DEMETER Enabler Hub (DEH)

DEMETER's goal is to lead the digital transformation of Europe's agri-food sector through the rapid adoption of advanced IoT technologies, data science and smart farming, ensuring its long-term viability and sustainability. Twenty real-world pilot projects, grouped into five pilot clusters, are running within DEMETER to demonstrate and evaluate how agricultural innovations and extended capabilities benefit from the interoperability mechanisms.

DEMETER focuses on interoperability as the main digital enabler, extending the coverage of interoperability across data, services, platforms, M2M (machine to machine) communication, and online intelligence but also human knowledge, and the implementation of interoperability by connecting farmers, advisors and providers of ICT solutions and machinery. As part of this DEMETER has developed the DEMETER Enabler Hub (DEH) to make resources available to developers to guide the deployment of adopted technologies as well as ownership of resource factors.

### What is the DEH?

As a core module of DEMETER Architecture, the DEMETER Enabler Hub centralises the full description of all the components, devices, services, data sources, platforms, etc. that are accessible for exploitation and ultimately for deployment.

### How does the DEH work?

The DEH provides the registration of resources, their maintenance and discovery and allows DEMETER Providers to promote their resources making them reusable by different DEH users. Users have two roles - DEMETER provider and/or DEMETER consumer.

A DEMETER provider is able to offer his/her resources, while DEMETER consumers are able to browse the catalogue and find suitable resources matching their requirements.

The resources hosted in the registry can be discovered and made accessible via the web interface, but also via API's.

### What are the benefits of the DEH for the end-users?

End-users as DEMETER providers, through the DEH, can promote their resources that thus can be validated by different DEMETER consumers. On the other side, DEMETER consumers are able to browse the collection of registered digital tools and services, and find suitable resources matching their requirements.



***The DEMETER Enabler Hub (DEH) centralises the full description of all components, devices, services, data sources, platforms, etc. that are accessible for exploitation and ultimately for deployment.***

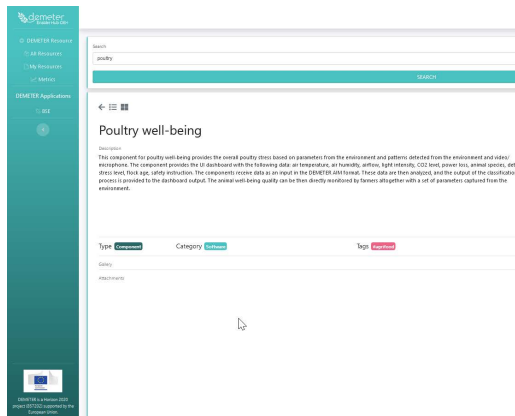
# Pilot 5.4: Transparent supply chain in the poultry industry (integrated with proprietary solutions)

## Pilot Overview

The poultry supply chain is well developed. However, there is a lack of information about chicken wellbeing, medical treatment, feeding patterns etc., which is required by stakeholders, especially consumers. Even if this information is available, it is isolated and lacks an integrated overview of the complete supply chain. This pilot enables information sharing about animal wellbeing and resources used during production, thus creating the basis of a transparent supply chain. DNET's poultryNET platform is used for gathering data from the breeding process perspective. Inputs and feedback from the farmer are used to improve and validate the functionality. The outputs of poultryNET are combined with information provided by fleet management systems from transport companies delivering the feed and transporting chicken. The pilot investigates the required granularity of collected data, its lifespan, as well as technical implications of processing large amounts of data. A blockchain-based data exchange protocol (OriginTrail) is used to ensure trust and transparency between actors and integrity of the data exchanged.

## Using the DEH

The DEH module was used as a key place to promote the components and enablers that were developed as part of pilot 5.4. All developed components and enablers are registered within the DEH module using the DEH web interface and they are visible to other interested parties. We used the Provider role to present the created software components to possible consumers.



## Benefits for the end user

The process of registering components is very intuitive using the web interface. Also, everything can be done using the exposed REST API. Information has been included about each software component developed within pilot 5.4, so that other users can access them and be informed. In this way, opportunities for cooperation and interoperability are created. Additional benefits are information about visiting and downloading components within the DEH web portal.

For more information visit:

[WWW.H2020-DEMETER.EU](http://WWW.H2020-DEMETER.EU)

Or get in touch via email:

[INFO@H2020-DEMETER.EU](mailto:INFO@H2020-DEMETER.EU)

Follow us:

[@H2020DEMETER](https://twitter.com/H2020DEMETER)

[H2020DEMETER](https://facebook.com/H2020DEMETER)

[h2020-demeter](https://linkedin.com/company/h2020-demeter)

[h2020-demeter](https://youtube.com/h2020-demeter)