



AGRICULTURAL INDUSTRY
ELECTRONICS FOUNDATION

The AEF ISOBUS Certified Label and the AEF ISOBUS Database

Think ISOBUS ...

The Problem

Electronics are today's key driver for innovations in agricultural engineering. First and foremost the new standard ISOBUS. But until now the discussion about ISOBUS was surrounded by a myriad of questions.

- How do I find the fully ISOBUS compatible implement for my ISOBUS tractor to make full use of the enormous benefits?
- Is the implement I already own ISOBUS certified and compatible with the tractor I intend to buy? And if it is, which functionalities can I use with both of them?
- Is the tractor or implement manufacturer's dealer service responsible if my ISOBUS combination is not working?

The Problem

Finding answers often took a lot of time.

And very often farmers', but also dealers' and manufacturers' uncertainties and lack of knowledge lead to frustration.



But now things become easier

- A newly developed AEF ISOBUS Certified Label and the preceding AEF ISOBUS Conformance Test plus the AEF ISOBUS Database provide clarity.
- All three of them are based on the AEF Functionality Concept which defines independent “modules” on the ISOBUS.
- For the first time the new label can be found on certified components at this year’s Agritechnica.

The AEF Certified Label



- The new AEF ISOBUS Certified Label shows six small squares representing the entire functionality concept.
- The three at the bottom symbolize more functionalities to come.
- More information about the product and its software capabilities are available via the AEF ISOBUS Database.

The AEF Certified Label

- Only ISOBUS products that have been certified by one of the AEF ISOBUS Test Laboratories are allowed to bear this label. And only they are listed in the database.
- To find out which functionalities are present in ISOBUS components visit www.aef-isobus-database.org.

Scenario 1 – Consulting

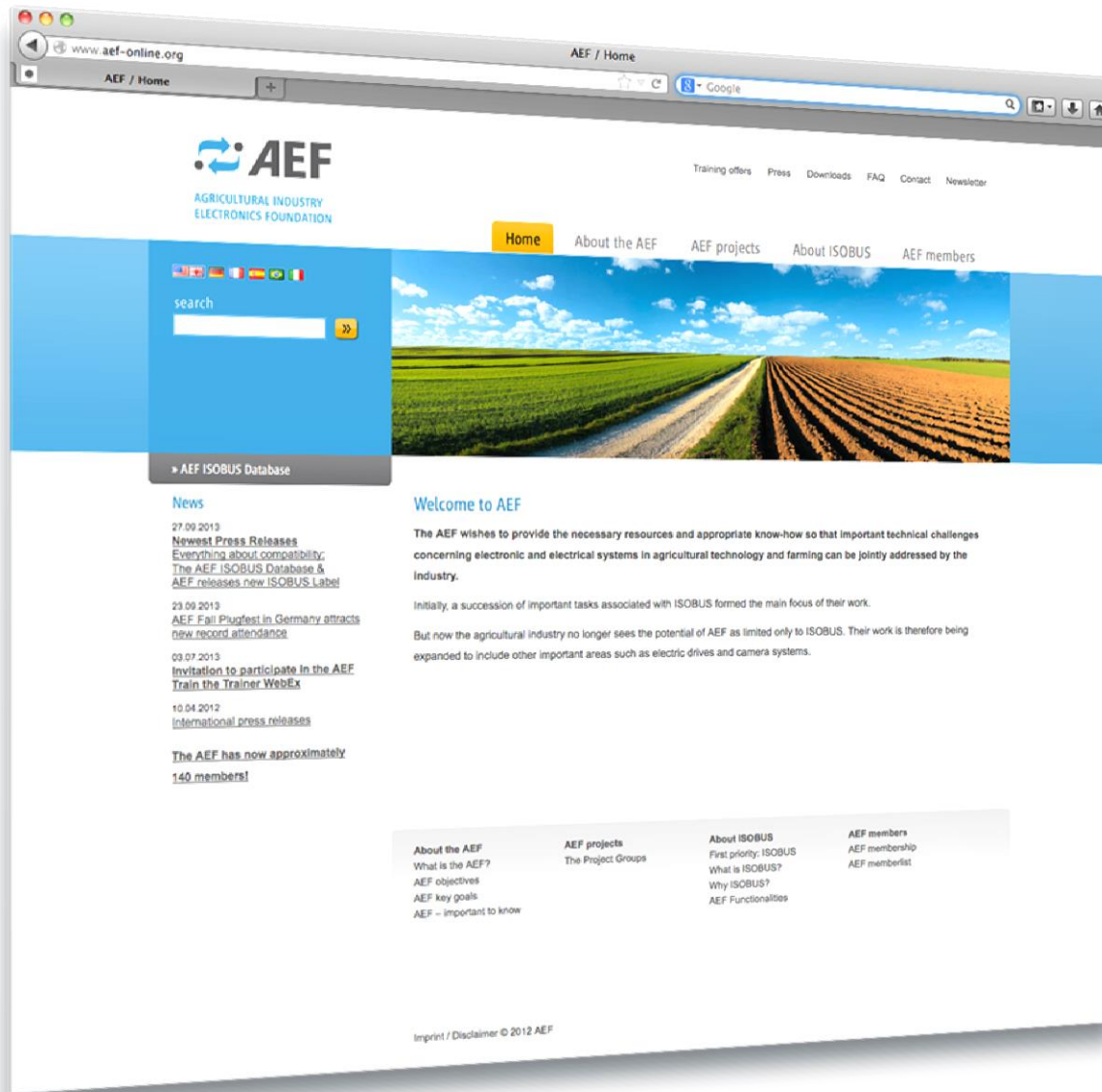
John Q. Public, farmer from Wisconsin, wants to buy a new rake



John Q. Public is faced with an important investment. He wants to purchase a new Rake.

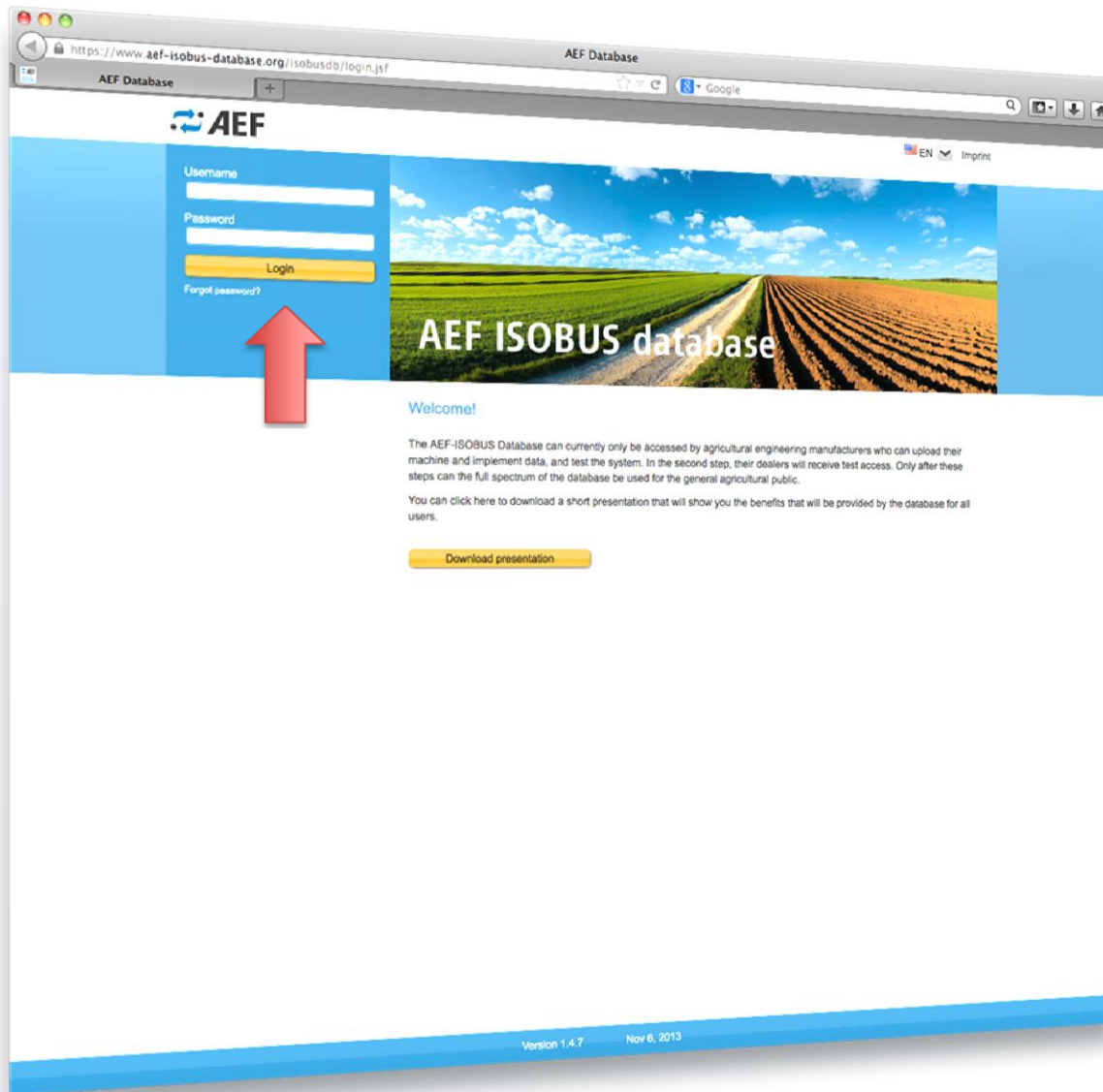
Which manufacturers should be considered?

Which ISOBUS functionalities are supported by his Tractor and Universal Terminal?



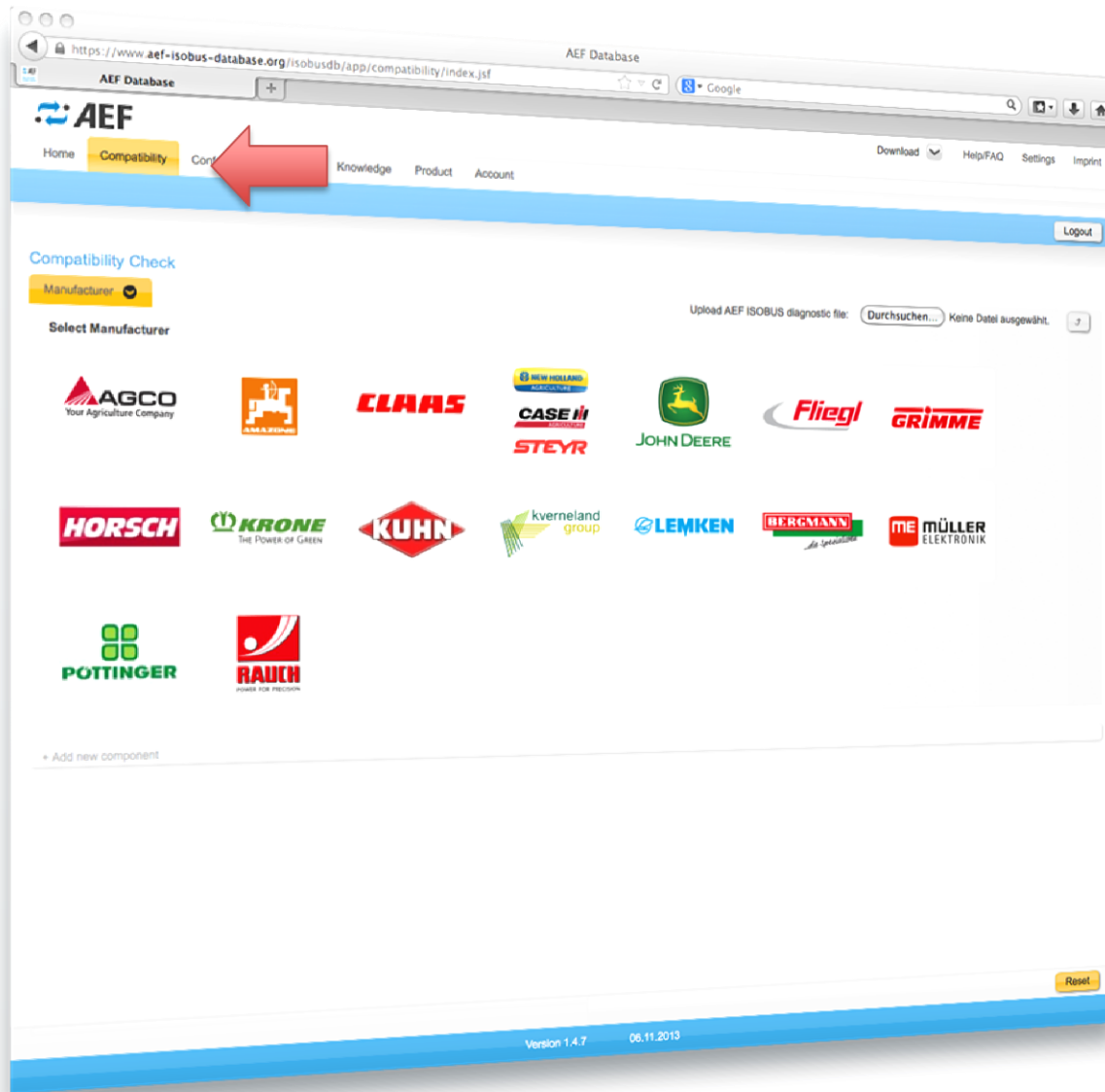
Via the AEF website
or directly
John Q. can access the
AEF ISOBUS Database.

www.aef-isobus-database.org



He registers free of charge as a user of the AEF ISOBUS Database.

After the registration he logs in and ...



... has free access to the compatibility check.

Here, by choosing manufacturers, he can find a tractor, a terminal or an implement.

The screenshot displays the AEF Database interface for a compatibility check. The page title is "Compatibility Check". The table below shows the results of the search:

Product	Update	Available Functionalities	Combined Functionalities	Certification
CLAAS Tractor XERION 5000/4500/... XERION Trac/ TracVC	Product Version	UT 1.9, TECU 1.8	UT 2.0	AEF Certified ISOBUS 2013 / 15 conformance tested 2013
Lemken GmbH&Co.KG LEMKEN GmbH & Co... Electronic Compo... Terminal LEMKEN-CCI 200 LEMKEN CCI-200	Product Version	UT 2.0	UT 2.0	ISOBUS 2010 -
KRONE Rake Rotary Rake Swadro Swadro 1400 Plus	Product Version	UT 3.0	UT 2.0	AEF Certified ISOBUS 2013 / 15 conformance tested 2013

At the bottom of the table, there is a yellow bar with the text "+ Add new component". A "Reset" button is located at the bottom right of the table area. The footer of the page shows "Version 1.4.7" and "06.11.2013".

The result of his search gives John Q. an overview of the functionalities of the chosen models as well as an understandable illustration of the components' compatibility.

Scenario 2 – Problem Solving

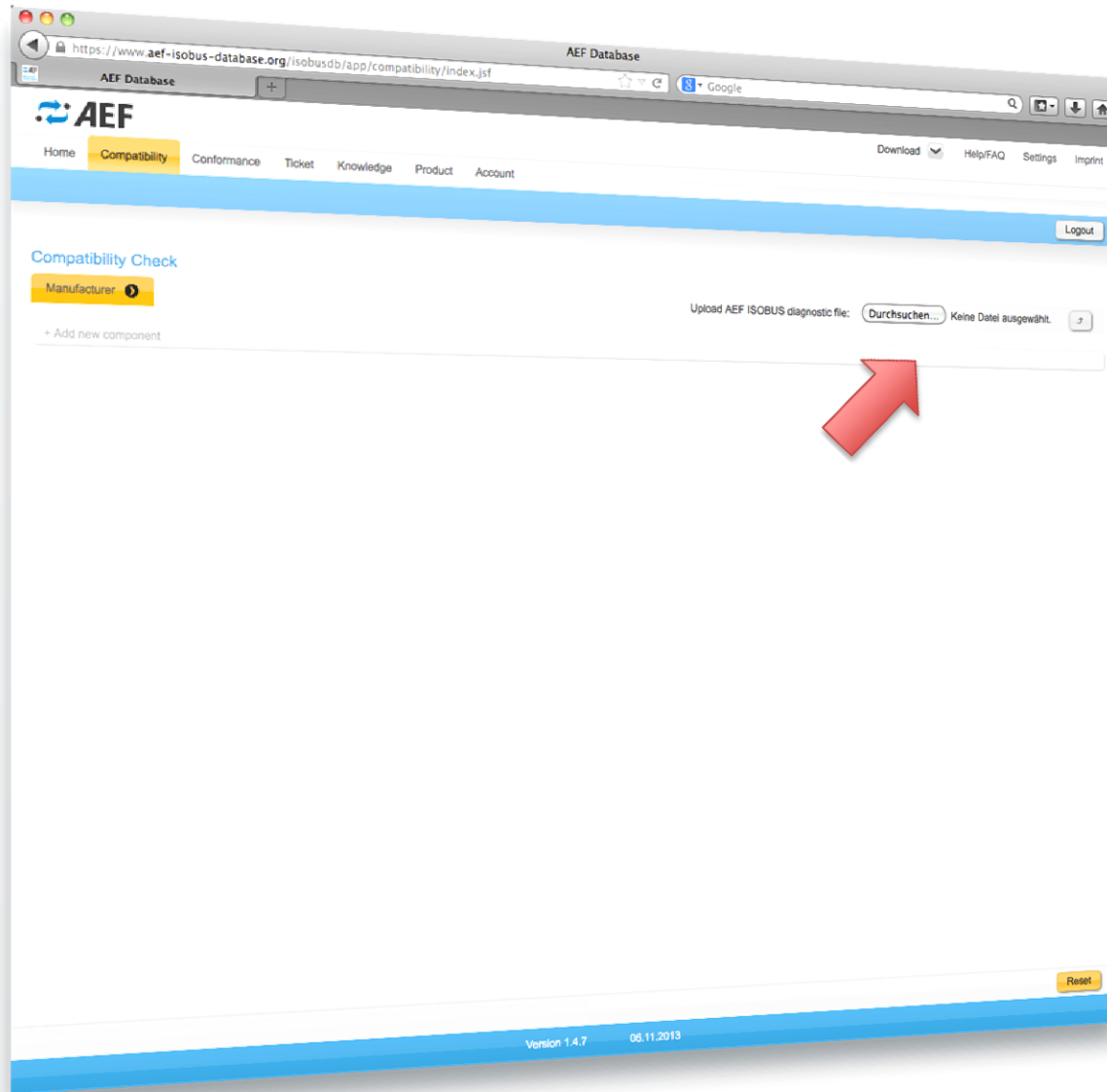
John Q. Public has a problem with his combination



Now John Q. has a problem with his combination. Nothing is working and he needs quick help from his dealer-service.



The service technician arrives, connects a laptop to the Universal Terminal (UT) in order to read out the diagnostic data with the AEF ISOBUS Check. The AEF ISOBUS Check application generates a diagnostic file.



Then the service technician accesses the AEF ISOBUS Database, logs in to his account and uploads the diagnostic file directly into the system via an upload function.

The screenshot shows the AEF Database website interface. The main content area is titled "Compatibility Check" and displays a table with the following columns: Product, Update, Available Functionalities, Combined Functionalities, and Certification. The first row is highlighted in yellow and contains the following data:

Product	Update	Available Functionalities	Combined Functionalities	Certification
20131105_142158_CAS2066N_VIN 2 2 2/20131105_142158_CAS2066N_VIN.xml ECU (A068 001321600.2)		VT 1.0	—	AEF Certified ISO 1177 2013 / 17 conformance tested 2013
TECU (A107 000015238.1)		VT 1.0 TECU 1.0	—	AEF Certified ISO 1177 2013 / 15 conformance tested 2013
Unknown_Virtual_Terminal		—	—	—
Unknown_Product		—	—	—
Unknown_Class1_TECU		VT 2.0 TECU 1.0	—	ISOBUS TEST 2012
Unknown_Task_Controller		—	—	—
Unknown_Product		—	—	—

A red arrow points from the "Available Functionalities" column to the "Certification" column of the first row. The interface also includes a "Logout" button, a "Create Ticket" button, and a "Reset" button. The footer shows "Version 1.4.7" and "08.11.2013".

The evaluation of the diagnostic file immediately shows him all relevant information about the components used and possible compatibility problems.

The screenshot shows the AEF ISOBUS Database website interface. The main navigation bar includes 'Home', 'Compatibility', 'Conformance', 'Ticket', 'Knowledge', 'Product', and 'Account'. A 'Logout' button is visible in the top right. The 'Compatibility Check' section displays a table of components with columns for Product, Update, Available Functionalities, Combined Functionalities, and Certification. A pop-up window titled 'ECU Details' is open, showing a table of fields and values for a specific ECU. A red arrow points to the 'Create Ticket' button at the bottom left of the interface.

Field	Value
ECU PartNumber	200806171
ECU Manufacturer Code	111 Maschinenfabrik Bernard Krone GmbH
ECU Manufacturer Name	Maschinenfabrik Bernard Krone GmbH
Software Identification	SW: 200815697#
Software Identification	* KMC 1: 150200085-26#
Software Identification	* ISO 2: 150200088-21#
Software Identification	*#
VIN	819300
Location	ZX
Function	Harvester Machine Control

Based on the diagnostic file the technician/dealer can decide to include one of the manufacturers in the problem solving process. To do this he can create a 'ticket' directly via the platform.

In this case the particular dealer also has access to the diagnostic file and can take necessary action immediately.

The Result



Thanks to the AEF ISOBUS Database John Q. Public's problems could both be solved quickly and reliably.

The Approach

The AEF ISOBUS Database, developed by the Agricultural Industry Electronics Foundation (AEF), gives the answers needed.

With few mouse clicks the user configures his/her tractor-implement combination and immediately sees if the chosen combination is compatible and which functions it offers. Also alternatives can be compared. If a machine cannot be found in the database, it is not certified either.

Just as quick the dealer-service can now locate problems. And in case that is not working out right away on site, with a 'ticket' he can approach one or both manufacturer directly, who will help then.

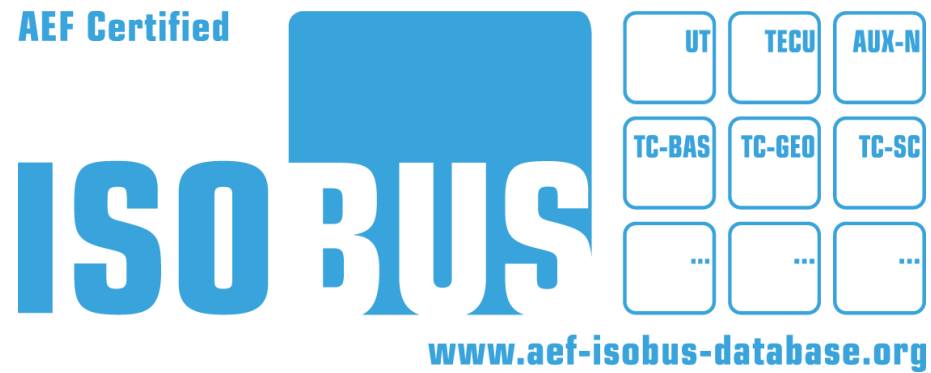
The Collected ISOBUS Knowledge

All problems that have occurred and the solutions developed are filed in the database. Thus, it is learning permanently.

The information collected helps making service for farmers and contractors more efficient because there is no troubleshooting necessary when the same error occurs again.

Ultimately the AEF ISOBUS Database supports the complete agricultural public (users, dealers and manufacturers) in using the new, worldwide ISOBUS standard.

The AEF Certified Label



Thank you for your attention.

Ευχαριστώ για την προσοχή σας.