

A simplified demonstration prototype of a
World Research Database
on agricultural machinery

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Why a database prototype ?

A demonstration prototype of a possible *World Research Database* (*WRDB*) on agricultural machinery was implemented

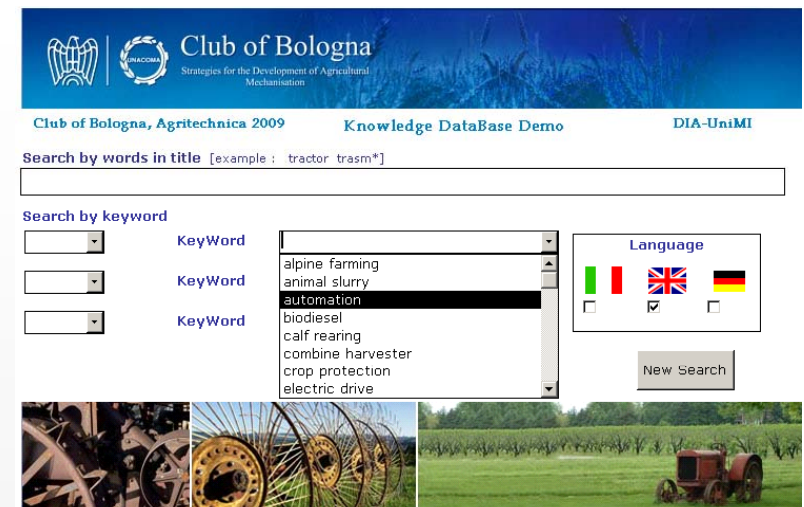
Aim of the demo is to stimulate Members' discussion and suggestions about :

- *WRDB* structure and functions (what information should be retrieved ? at what level of detail ?)
- *WRDB* management and policy (who should provide information ? who should access it ?)
- *WRDB* usability (how to obtain a valuable tool? to whom should be addressed ? how to guarantee and maintain its usefulness perception ?)

Basic features: be online

A *World Research Database* on agricultural machinery should **be online**, to allow:

- to access the information from anywhere
- to input information from anywhere
- to administrate the DB from anywhere



Basic features: effective inputs

Basic needs to manage worldwide information inputs:

- **guided inputs by simplified input forms**

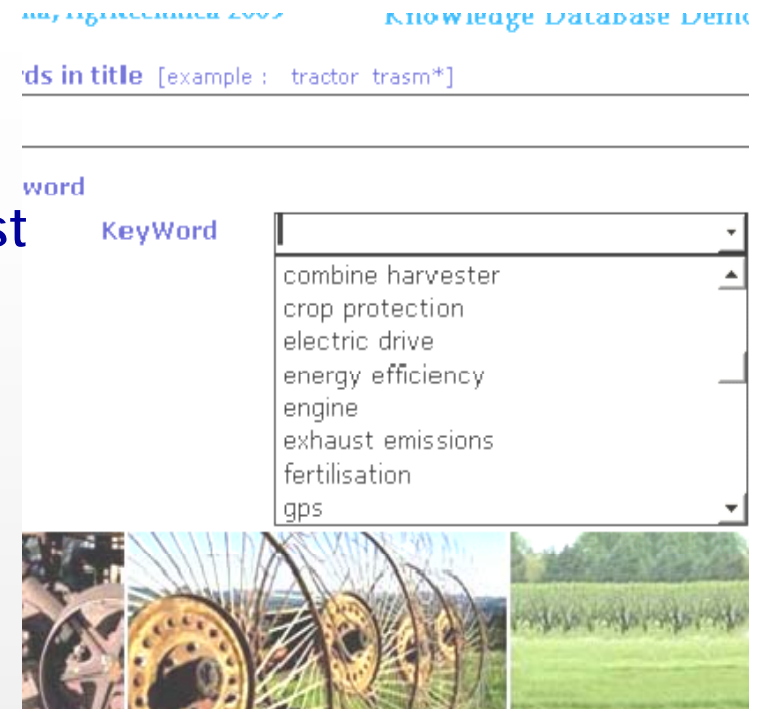
use of mandatory fields, maximum field length (but possibility to annex additional material) to obtain *concise, comprehensive, communicative and focussed* information

TITOLO	Injektionsdüngung mit Hochdruckwasserstrahl
TITOLOEn	Fundamental Studies on Injection Fertilizing with a High Pressure Water Jet
KeyWord1	düngung
KeyWord2	wirtschaftsdünger
KeyWord3	
RESPONSABILE	Hans-Heinrich Harms
ISTITUZIONE	Technische Universität Braunschweig
INDIRIZZO	Institut für Landmaschinen und Fluidtechnik - Braunschweig
PAESE	Germany
CONTATTO	h.harms@tu-bs.de
DATA	2007
SummaryEng	Under agronomical aspects, injection fertilizing offers many advantages. However, the mechanical techniques of injection fertilizing which are currently available have some disadvantages in field use. At the Institute of Agricultural Machinery and Fluid Power of the Technical University of Braunschweig/Germany, fundamental studies on the possibility of injection fertilizing with a high-pressure water jet are being carried out. Tests are being made on a stationary test rig with a high
Summary	Die Injektionsdüngung bietet pflanzenbaulich sehr viel Vorteile. Bisher verfügbare mechanische

Basic features: effective inputs

Basic needs to manage worldwide information inputs:

- guided inputs by simplified input forms
- **guided classification by closed keywords list**
use of mandatory keywords from a closed list to obtain *organised, easily retrievable* information.
Keywords additions to the list should be administrated

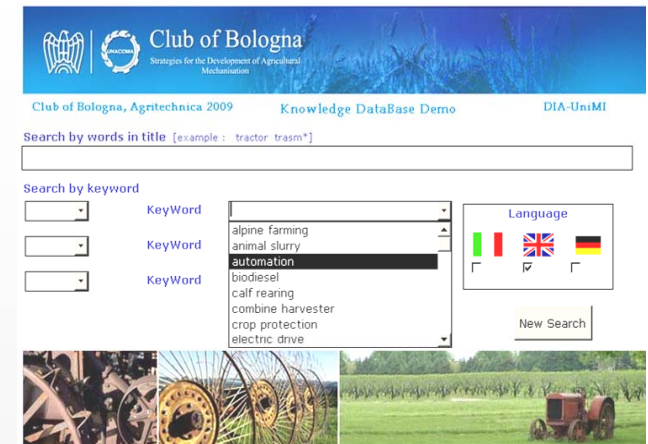


Basic features: effective inputs

Basic needs to manage worldwide information inputs:

- guided inputs by simplified input forms
- guided classification by closed keywords list
- authoritative validation of inputs prior publication

Inputs should be authoritatively reviewed to guarantee the quality of the information. Club of Bologna Members could contribute to this aim.

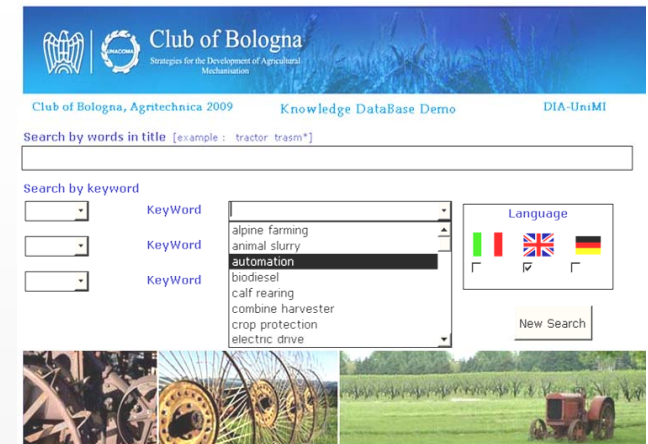


Basic features: effective inputs

Basic needs to manage worldwide information inputs:

- guided inputs by simplified input forms
- guided classification by closed keywords list
- authoritative validation of inputs prior publication
- **invitation of selected inputs**

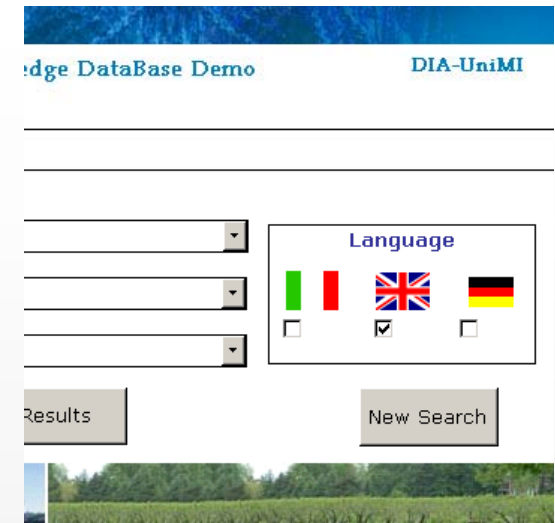
Club of Bologna Members could stimulate research institutions to provide selected inputs about *knowledge* and *results* transferable to industry



Basic features: multilanguage

Essential inputs must be in English (Title, Summary, Main results...) to guarantee access to worldwide information (and by a worldwide user)

Inputs in native languages could be crucial in encouraging the dissemination of the DB among non English-speaking users



For a more confident information navigation, keywords should be translated in users' native languages.

With a modularity-based design, translated keywords lists can be added at any time to expand WRDB usability to other languages

A small demo

Let's go through a couple of examples with the help of a simple prototype

The screenshot shows the 'Club of Bologna Knowledge DataBase Demo' interface. At the top, there is a blue header with the Club of Bologna logo and the text 'Club of Bologna Strategies for the Development of Agricultural Mechanisation'. Below the header, the page is titled 'Club of Bologna, Agritechnica 2009 Knowledge DataBase Demo DIA-UniMI'. The main search area includes a 'Search by words in title' field with an example 'tractor trasm*'. Below this is a 'Search by keyword' section with three dropdown menus for keywords. A list of keywords is displayed, including 'alpine farming', 'animal slurry', 'automation', 'biodiesel', 'calf rearing', 'combine harvester', 'crop protection', and 'electric drive'. To the right of the keyword list is a 'Language' selection box with checkboxes for Italian, English, and German. A 'New Search' button is located below the language selection. At the bottom of the interface, there are three small images: a close-up of a tractor wheel, a row of combine harvesters, and a red tractor in a field.

Back to initial question: *why a database prototype ?*

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