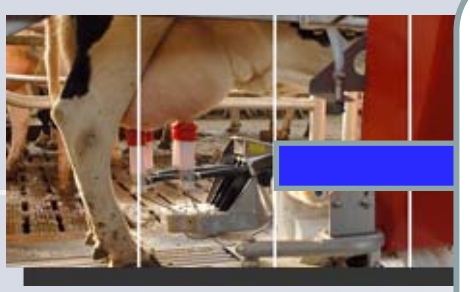
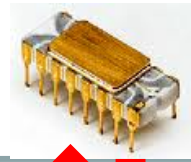
ICAR, RIGA, June 4th, 2010

Exchanging data from and into on barn automated systems and sensors

René ROGNANT (F)



Automated system

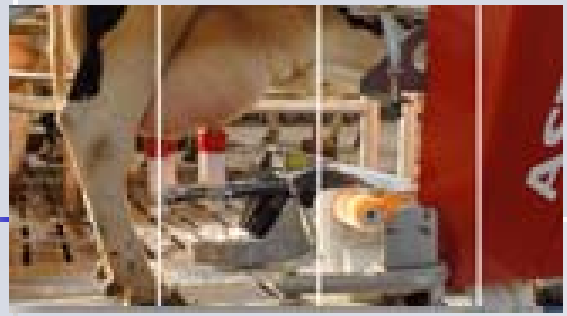


Data base

FIEA
France Informatique Elevage & Agriculture

On farm produced data

Before	With automated systems and sensors
Few data	Many data
Snap	Exhaustive
Externally observable caracters	Also internal physiological parameters
Expensive	Free



Farmer's requirement : data available on any farm information system

Interoperability :

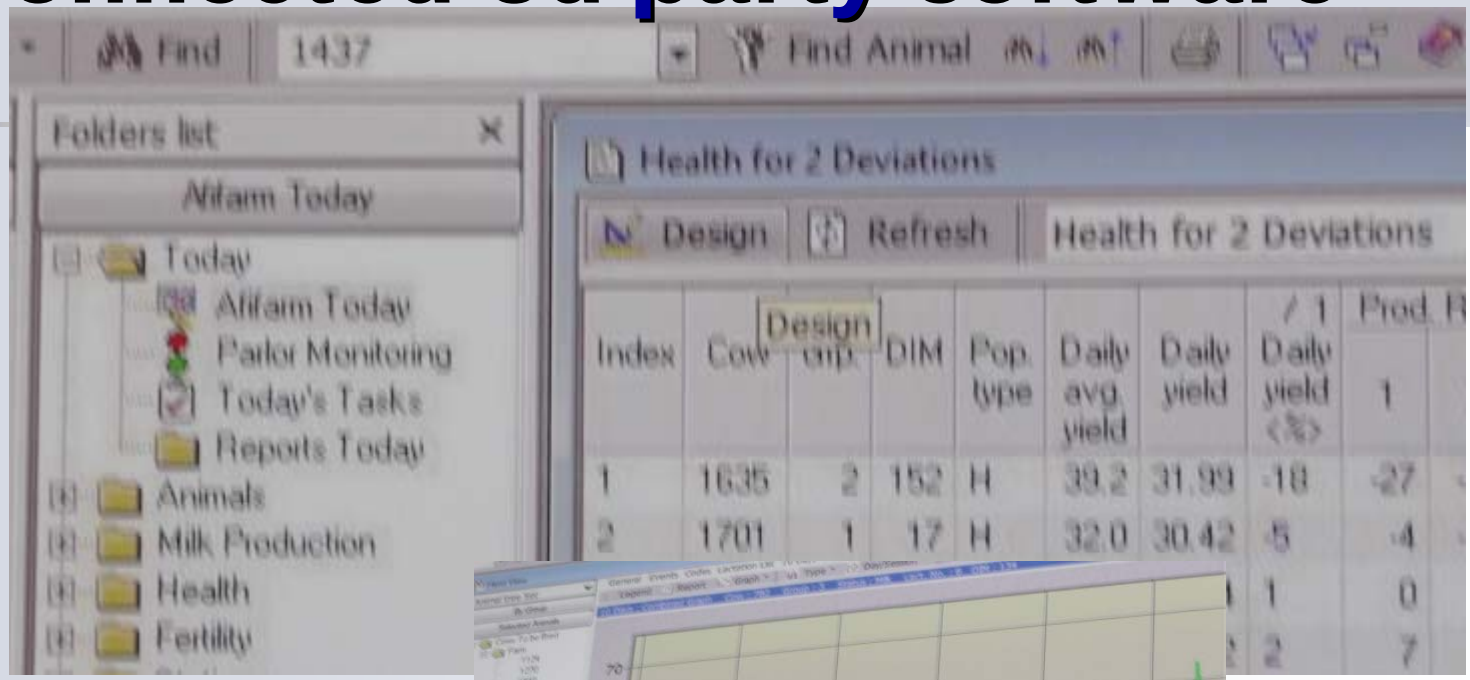
- simplifies the work of the farmer and the technician

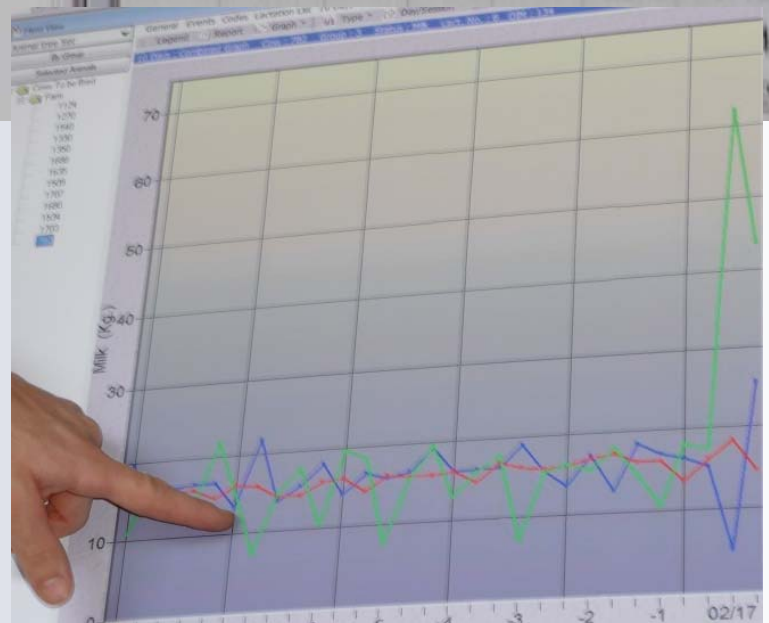
- Saves money

- Allows each one to get more services

- Implies everybody to share the same language

Example of data valorization by a connected 3d party software





Universal exchange tool : ORI-AUTOMATE

- French, canadian collaboration
- Manufacturers involved
  - Boumatic
  - Delaval
  - GEA Westphalia
  - Lely
  - Packo Fullwod
- Based on ISO standard (11787, 11788)

Objectives

- Farmers and technician : To enter data once. Permit reusing by several systems sharing the data
- Software developers : to have a unique interface with any farmer or field staff software
- To hide the complexity from :
  - existence of different manufacturer data dictionaries
  - Differences in implementing ADIS syntax

Use of the tool

- The user (farmer or recorder) selects which event type to enter or to retrieve. Example :
  - Calvings, insemination, heat, dry off, pregnant checking, weights, milkings, ...
- Data extraction :

  The tool triggers the extraction from the data base of the automated system and the transfer as a unified format file : XML message (or Adis format)

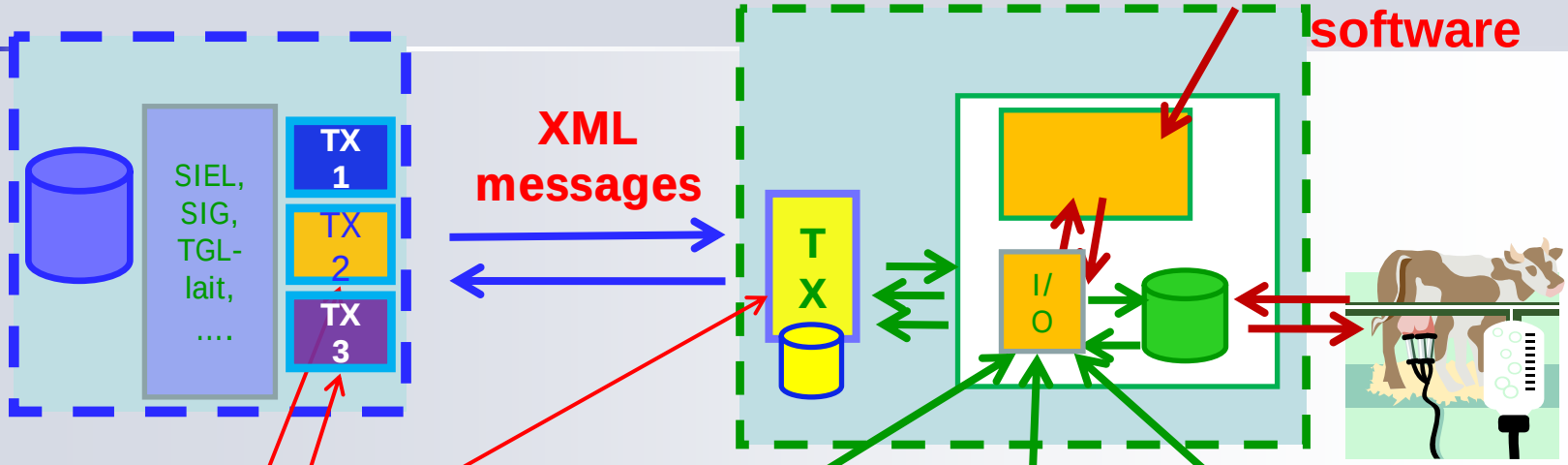
- Data entry :
  - The system transform the input data in the format of each automated system type
  - may prompt the datas for them to be checked by the farmer before submitting to the automated system
  - Submits the data to update the automated system data base

Automation of data transfers

- The data transfer may be automatically scheduled or manually triggered
- On line automated exchange with central data bases are possible, by using FTP or Web service SOAP protocol

Other software : Milk recording or farmer software)

Automated system software



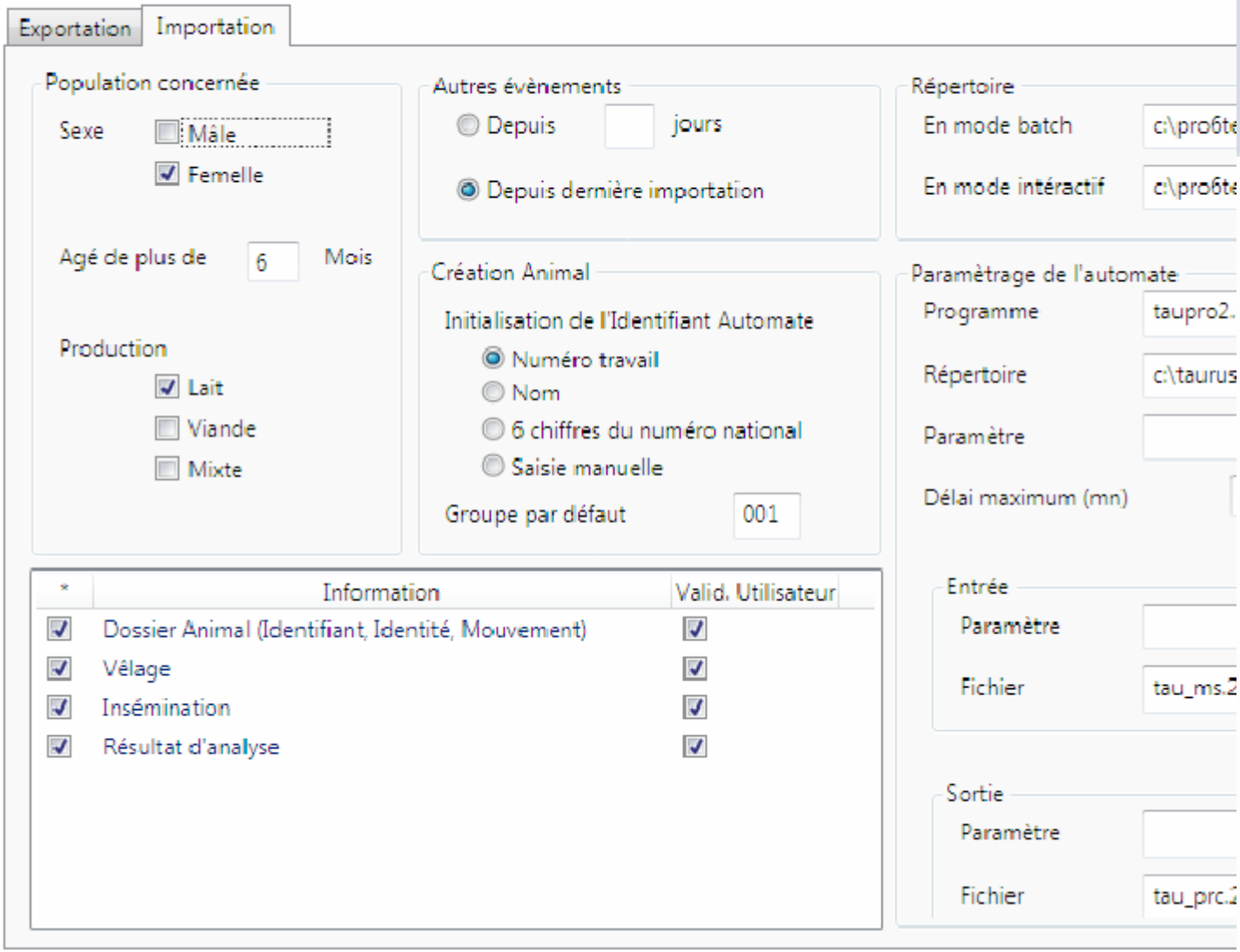
Import-export modules)

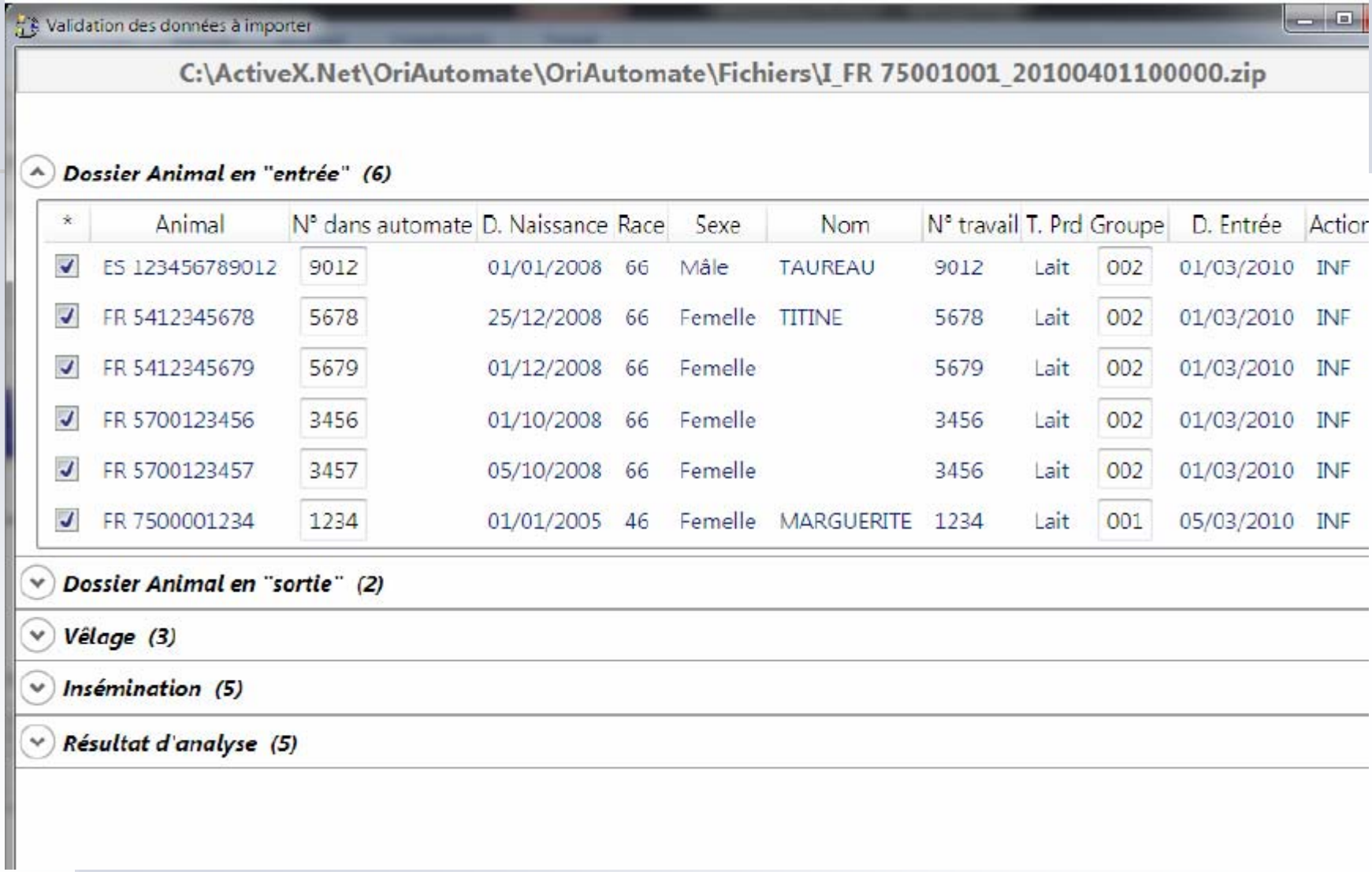
Taurus Interfaces:
- Lély
- Boumatic
- Packo

« VMS ISO Interface » , « Alpro ISO link » : Delaval

« DP Data exchange » : Westphalia

3.4 - Onglet « IMPORTATION » - Règle de gestion :





*	Animal	N° dans automate	D. Naissance	Race	Sexe	Nom	N° travail	T. Prd	Groupe	D. Entrée	Actior
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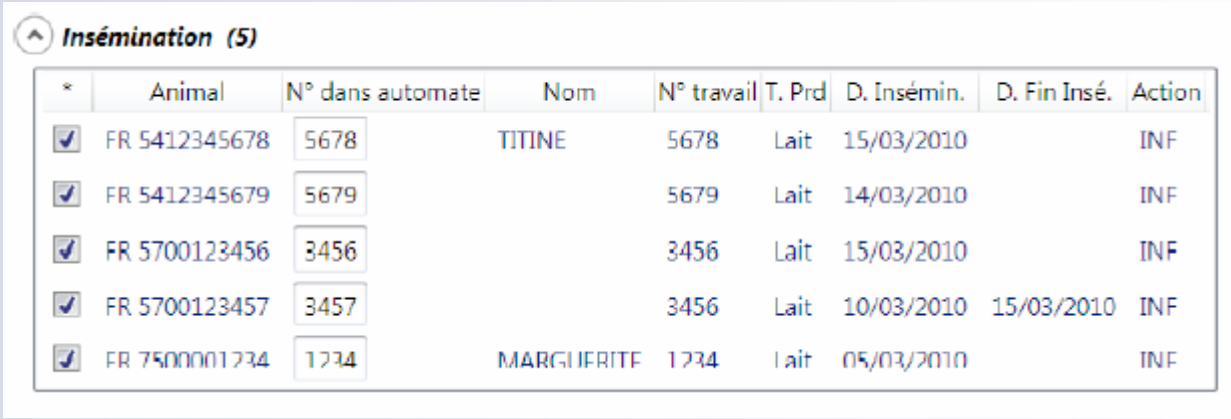
☑	FR 5412345679	5679	01/12/2008	66	Femelle		5679	Lait	002	01/03/2010	INF
☑	FR 5700123456	3456	01/10/2008	66	Femelle		3456	Lait	002	01/03/2010	INF
☑	FR 5700123457	3457	05/10/2008	66	Femelle		3456	Lait	002	01/03/2010	INF
☑	FR 7500001234	1234	01/01/2005	46	Femelle	MARGUERITE	1234	Lait	001	05/03/2010	INF


Insémination (5)
* Animal N° dans automate Nom N° travail T. Prd D. Insémin. D. Fin Insé. Action
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FR 5700123456 3456 3456 Lait 15/03/2010 INF
FR 5700123457 3457 3456 Lait 10/03/2010 15/03/2010 INF
FR 7500001234 1234 MARGUERITE 1234 Lait 05/03/2010 INF

Thank you