

10 recommendations to favor the access and the valuation of data

White paper of the French Technical Agricultural Institutes

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**Big Data, a multiscale solution
for a sustainable agriculture**

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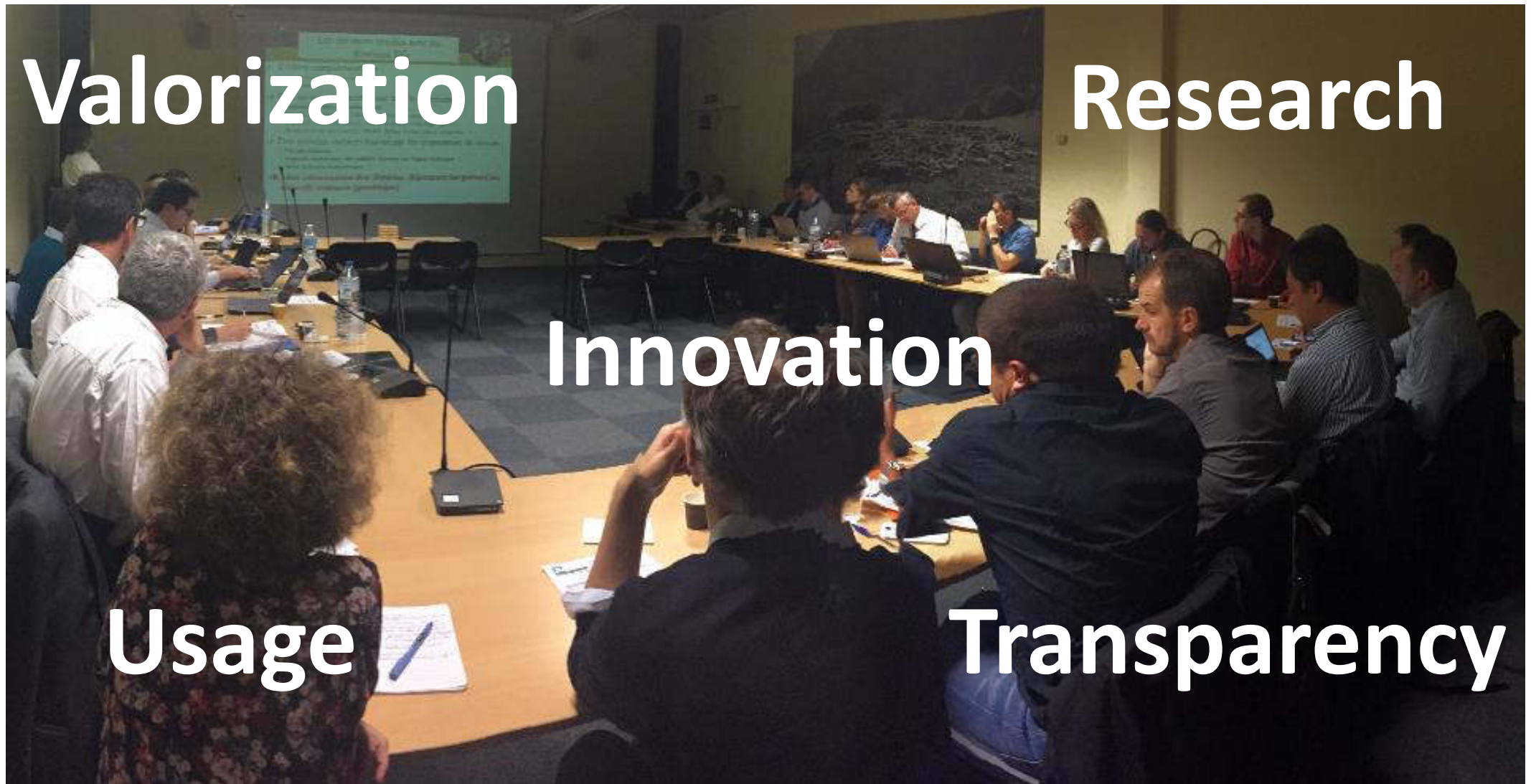
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Institutes**



acta
LES INSTITUTS
TECHNIQUES
AGRICOLES #

Exchanges on the issue of data access (2015-2016)

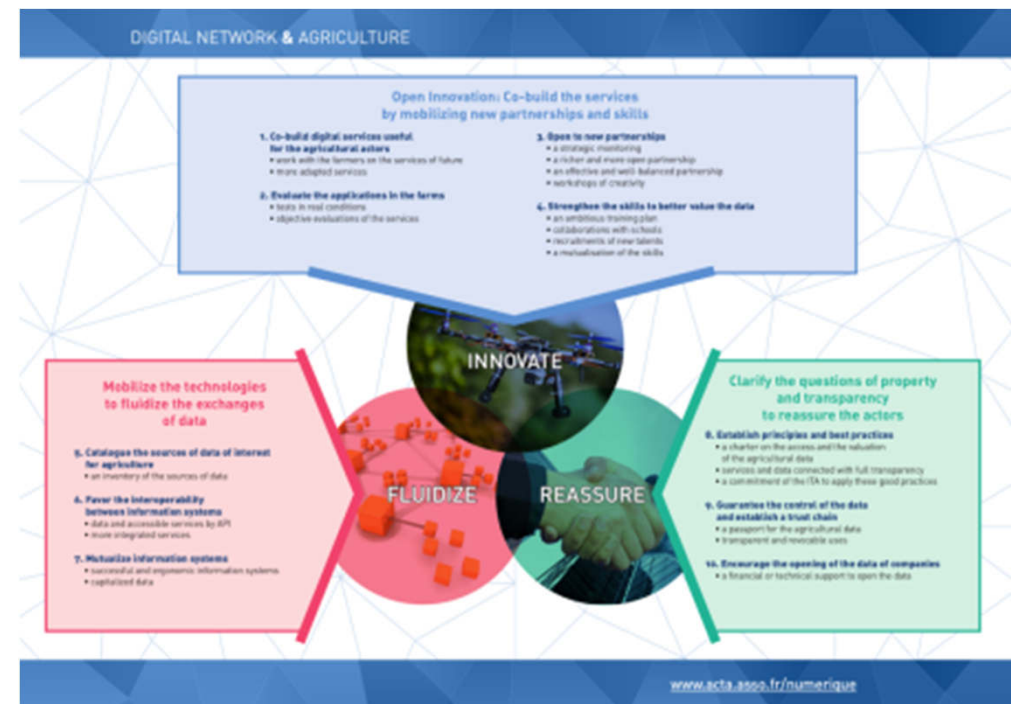


Formalized as a white paper at the end of 2016



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Available for free :
www.acta.asso.fr/numerique
with a summary in English





**The farm
becomes a
source of data**

Let us look ahead a near futur...

Technological context

- Mature technologies and plethora of offers at low cost
- Proliferation of the collected data
- Proliferation of the available services

Agricultural context

- Need to increase competitiveness for the conventional farmers
- Strong competition between the partners of the farmer (suppliers of inputs, equipment and services)

A big exploitation in mixed farming-breeding

3 partners, 270 ha of cereal, 150 dairy cows, 3 buildings of poultry farming. Committed to the automation and to the digital technology.



The farmer is captive of the information systems of the partner

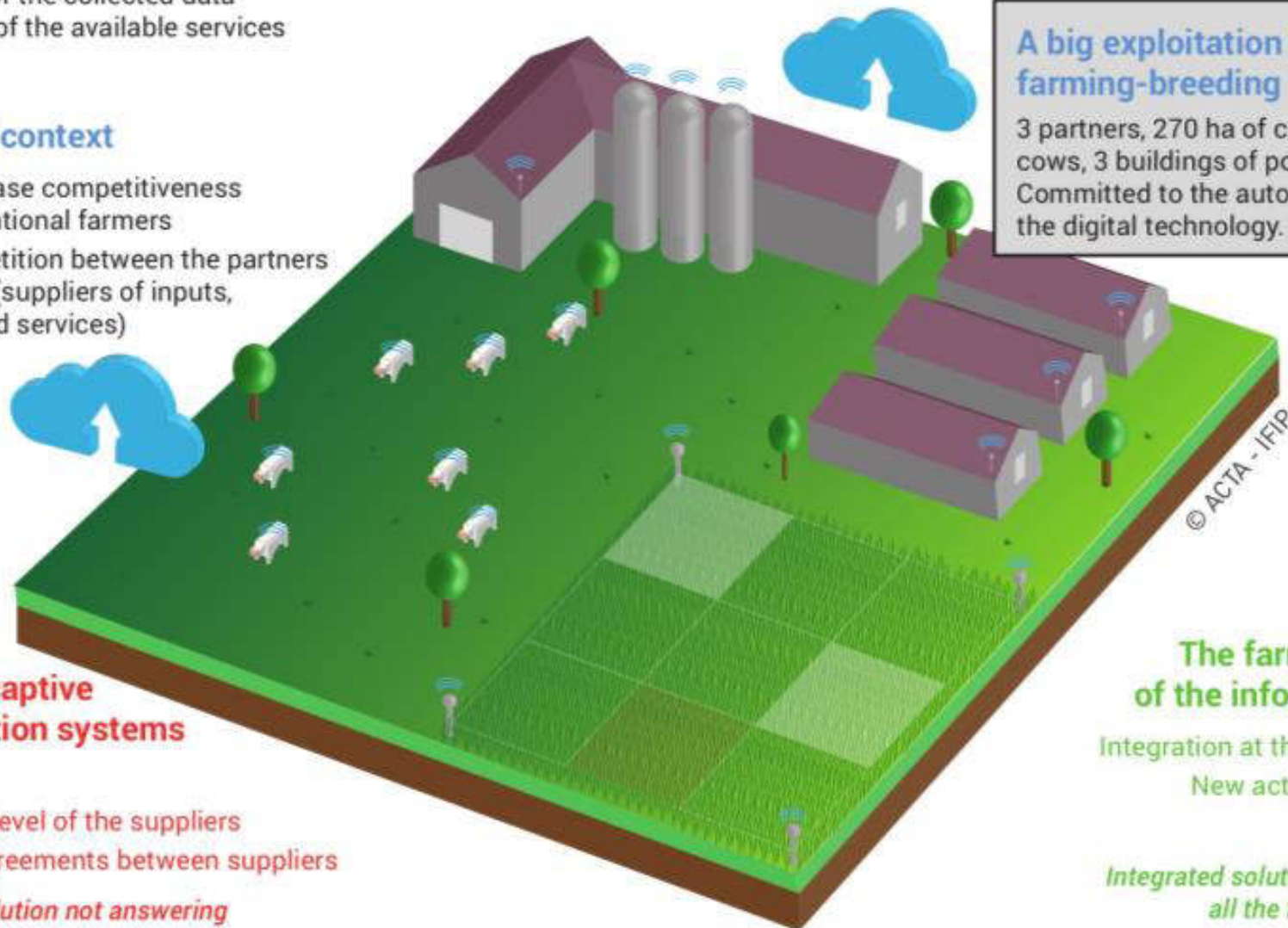
Integration at the level of the suppliers
Exclusive trade agreements between suppliers



Integrated solution not answering all the farmer's needs

The agricultural R&D disconnected from the modern agricultural world

Difficulties of accessing to the data
Impossibility to compare and estimate the innovative services



The farmer at the heart of the information system

Integration at the level of the farmer
New actors integrating data and valuing them

Integrated solution answering all the farmer's needs



An efficient agricultural R&D and representative of the agricultural world

More representative references
Innovative services more reliable and bringing added value

**10 recommendations
to favor
the access and the valuation
of data**



INNOVATE

FLUIDIZE

REASSURE

1. Co-build digital services useful for the agricultural actors

- ✓ work with the farmers on the services of future
- ✓ more adapted services

2. Evaluate the applications in the farms

- ✓ tests in real conditions
- ✓ objective evaluations of the services

Des partenariats et services adaptés
à chaque étape du développement de l'innovation.

01 IDÉE

- Projets de recherche
- Essais pour tiers

02 PROTOTYPE

Mise à disposition de :

- matériel
- ressources SI
- experts agronomes
- experts technologies

03 PRODUIT COMMERCIAL

Testeur d'outils et services
en condition « exploitation » :

- protection des cultures avec un focus sur le désherbage
- fertilisation
- irrigation

Utilité ☒
Robustesse ☒
Gain ☒

Robots for weed management

Testing the Ecorobotix weeding robot on sugar beets

2017 Testing



Weather data : Valuable informations for agriculture

Assessment 2017

- **Meteus : solution Isagri**
(Temperature, relative humidity, rainfall, global radiation, wind speed and direction)
- **Sencrop**
(Temperature, relative humidity, rainfall)
- **Weenat**
(Temperature, relative humidity, rainfall)
- **VisioGreen**
(Temperature, relative humidity, rainfall)



3. Open to new partnerships

- ✓ a strategic monitoring
- ✓ a richer and more open partnership
- ✓ an effective and well-balanced partnership
- ✓ workshops of creativity

4. Strengthen the skills to better value the data

- ✓ an ambitious training plan
- ✓ collaborations with schools
- ✓ recruitments of new talents
- ✓ a mutualisation of the skills

5. Catalogue the sources of data of interest for agriculture

- ✓ an inventory of the sources of data

6. Favor the interoperability between information systems

- ✓ **data and accessible services by API**
- ✓ **more integrated services**

API-AGRO : open- and co-innovation



www.api-agro.fr

7. Mutualize information systems

- ✓ successful and ergonomic information systems
- ✓ capitalized data

8. Establish principles and best practices

- ✓ a charter on the access and the valuation of the agricultural data
- ✓ services and data connected with full transparency
- ✓ a commitment of the ITA to apply these good practices

9. Guarantee the control of the data and establish a trust chain

- ✓ a passport for the agricultural data
- ✓ transparent and revocable uses

10. Encourage the opening of the data of companies

- ✓ a financial or technical support to open
the data**

Open Innovation: Co-build the services by mobilizing new partnerships and skills

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Mobilize the technologies to fluidize the exchanges of data

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INNOVATE

FLUIDIZE

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Clarify the questions of property and transparency to reassure the actors

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