RMT JOINT TECHNOLOGY NETWORK
Fertilisation & Environment

Since 2007, the *Fertilisation & Environment RMT* has brought together actors of agricultural R&D around crop fertilisation and biogeochemical cycle management, in order to meet farmers' needs.

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+34
Partners

22
Founding members

12
Associate partners

+ 100
Participating professionals

8
facilitators

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RÉPUBLIQUE FRANÇAISE

MINISTÈRE DE L'AGRICULTURE ET DE L'ALIMENTATION

Avec la contribution financière du Compte d'Affectation Spéciale « Développement Agricole et Rural »

RMT RÉSEAU MIXTE TECHNOLOGIQUE
Fertilisation & Environnement

Our Network brings together, develops and fosters synergies between the existing scientific and technical skills in the agricultural research, training and development system.

Role of the Fertilisation & Environment RMT

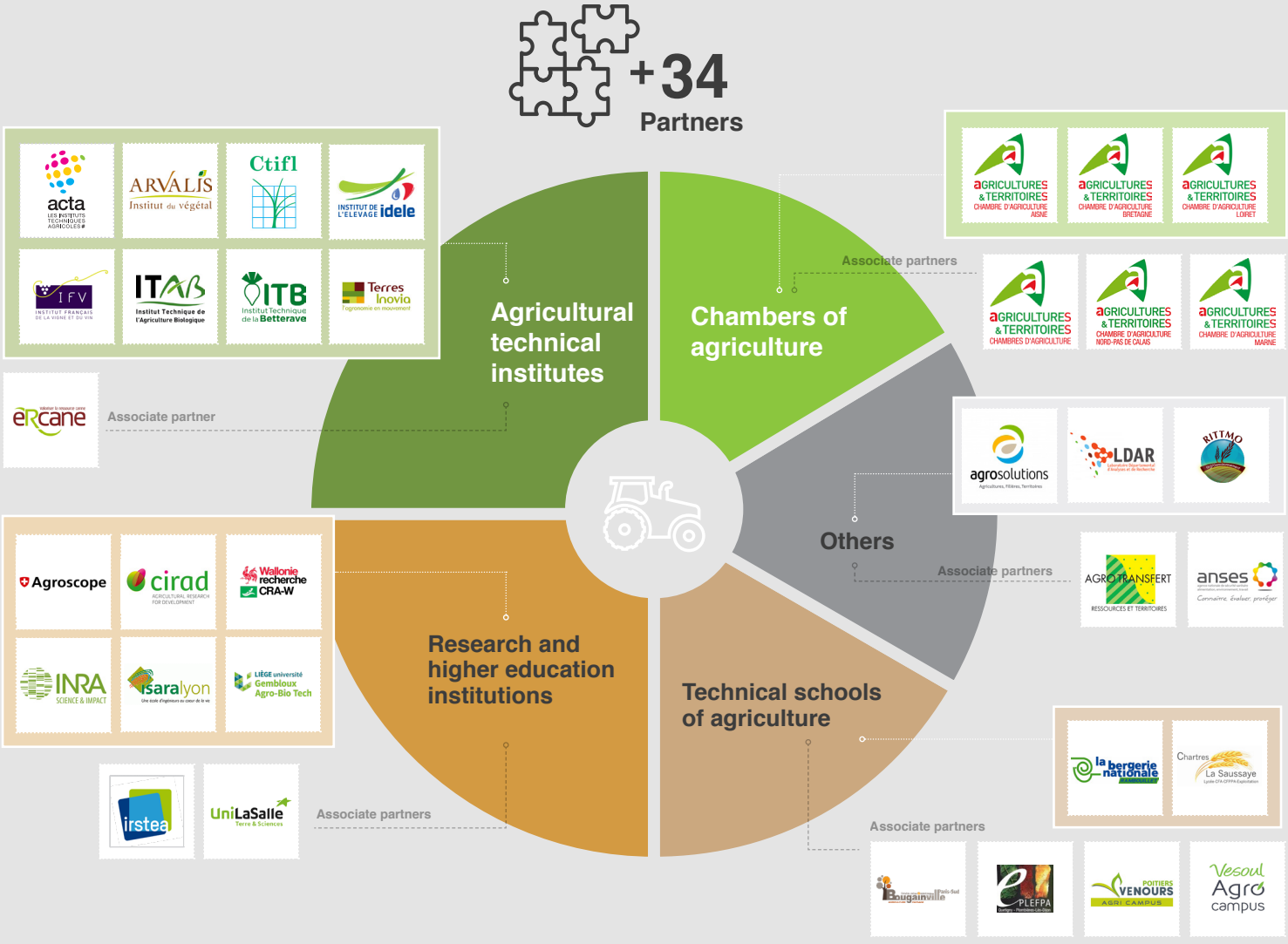
- To identify current and future needs concerning references, methods and tools for biogeochemical cycle management and fertilisation streamlining in crops,
- To develop references, methods and tools for biogeochemical cycle management and a sound rationale of soil fertility,
- To encourage adoption of these latter by current and future users through development, transfer and training (both initial and ongoing) actions, as well as public policy guidance.

A unifying and ambitious goal

To provide the stakeholders (including farmers, agricultural advisers, trainers, resources and land managers and public authorities) with methods and tools for the sustainable management of biogeochemical cycles and soil fertility in the main cropping systems, all over France and its overseas territories.

4 workstreams to spur real achievements

- Prospective analysis and scientific watch; opening up to Europe
- Coordination and pooling for:
  - new scientific and technical references
  - adoption of new paradigms
- Developing and improving decision-making support tools for stakeholders
- Transfer and training for teaching and development, public policy support



Stakes at the heart of the agro-ecological transition

- Reducing the use of inputs
- Minimizing nutrient loss in the environment (water, air)
- Farming sector's contribution to climate change mitigation

3 agro-ecological thematic priorities

- Crop fertilisation
- Biogeochemical cycle control at various scales and levels of organisation
- Recycling of manures and residue resources (mainly organic) and self-sufficiency of each farm in nitrogen and phosphorus

Diversified collaborative productions for tangible results

A collective work of prospective thinking

« Fertilisation et Environnement : Quelles pistes pour l'aide à la décision ? » *Co-published by Acta - Quæ, Feb. 2014, 288 pages*

International forum on biogeochemical cycles management and fertilisation

In collaboration with INRA and COMIFER, side-event of 20th N Workshop in Rennes, June 27th, 2018.

Supporting tools for decision-making and agro-environmental diagnosis

- **Syst'N®**, assessment tool of nitrogen loss and diagnosis tool for nitrogen management at cropping system level
- **N-Pérennes**, a prescription tool for nitrogen fertilisation of fruit trees and vine, and **N'EDU**, an educational software dedicated to nitrogen dynamics and the nitrogen balance method, both evolved from **AzoFert®**, a dynamic nitrogen fertilisation prescription tool at plot and annual scales.
- Benchmarking protocols for DST (decision-support tools) in fertilisation and labelling approach (in partnership with COMIFER, Comité Français d'Etude et de Développement de la Fertilisation Raisonnée).

And also…

- **Numerous collaborative R&D projects**, dealing for example with organic waste products characterisation and usage, including anaerobic digestates, nitrogen loss induced by ammonia volatilisation after spreading mineral and organic fertilisers, cropping systems' performances and nitrogen self-reliance, etc.
- **Common and shared references** and databases, resulting from the above-mentioned collaborative projects (PERTAZOTE, SI PRO...).
- **Scientific and technical support to public policies** through national technical tutoring of the Groupes Régionaux d'Expertise Nitrates (GREN, Regional Groups for Nitrate Expertise), in partnership with COMIFER.
- **Educational tools, scientific and technical publications**, workshops, technical days to foster knowledge sharing and transfer.

RMT RÉSEAU MIXTE TECHNOLOGIQUE Fertilisation & Environnement

- The Network acts as a **collaborative R&D project incubator**, avoiding dissipation and overlapping and encouraging synergies and bridges between projects.
- The Network has developed a **labelling process** designed to improve the quality of the projects before entering calls for proposals.
- The Network favours the **sharing** of knowledge, tools and references.
- The Network helps building **scientific and technical consensuses** between its members and beyond. It develops a common vision of the challenges linked to managing biogeochemical cycles.

Operating mode and governance

The Fertilisation & Environment RMT is steered by a Strategic Committee, headed by Acta's Scientific, Technical and Innovation Director (Acta being the institution in charge of the RMT) and comprising representatives from the various members of the RMT, ministries in charge of Agriculture and Environment, COMIFER and other partner RMTs, as well as experts, as required and according to the agenda.

The role of the Strategic Committee is to supervise the Network's activities; to steer research and to label the projects; to monitor their progress and ensure that they are linked to other internal (inside the RMT) or external projects; and to define the RMT training, communication and outcome distribution policies.

The Network is coordinated by a team of facilitators responsible for the scientific and technical follow-up and the overall coordination of its programme, and who also play a role of liaison between the various members and institutions.

Every year, that team organises, inter alia, the Annual Days of the RMT, which give all the members and partners of the Network the opportunity to meet during 48 hours. The topics discussed include, for example, the "4 per 1000" Initiative, the various bioindicators of soil functions or the spatial approaches in cropping systems and practices.

The workload is distributed among several Working Groups, each dealing with a specific theme and, if necessary, developing R&D projects (terms of reference concerning fertilising matters and growing media tests, PNW [Potentially leachable nitrogen], agronomical typology of anaerobic digestates...).

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Workstream 4: Transfer and training for teaching and development; public policy support

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acta LES INSTITUTS TECHNIQUES AGRICOLES

Réseau Mixte Technologique Fertilisation & Environnement

FOR MORE INFORMATION
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