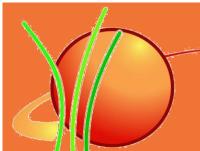


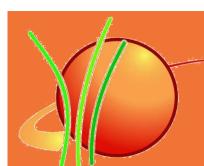
Fertilization & the Environment A technological network



Stakes and aims

Reduction of chemical inputs in Agriculture – **Mitigation of nutrients losses** in the environment (waters, air) – Reduction of energy, nitrogen and phosphorus dependence of farms.

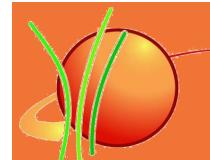
Endow the actors (farmers, agricultural extension services, resources and territories managers, authorities) of methods and tools for a sustainable management of the biogeochemical cycles in cropping systems and the fertility of soils.



32 partners

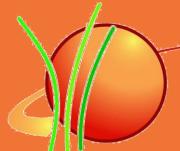
involved in research, training and extension activities:

7 Research Institutes and higher education schools in France (INRA, CIRAD, IRSTEA, ISARA), Belgium (Gembloux University, CRA-Wallonie) & Switzerland (Agroscope), 7 agricultural technical institutes specialized by agricultural production and processing network (arable crop, fruit and vegetable, vine and wine, livestock farming) and their head-of-network (ACTA), 5 Chambers of Agriculture and the national organization gathering them (APCA), 6 technical schools of agriculture, 5 private laboratories, companies, agencies.



Main goal

to coordinate the wide range of activities which are needed for the successful design and transfer of new tools in agriculture (identification of the end-users and their needs, scientific state-of-the-art, shared data-sets, R&D projects, decision-making tools development and parameterization, training, ...)



On-going projects

- 1. Collaborative R&D projects, development of databases and implementation of decision-making tools
- Characterization of **organic wastes**, naming and typology according to use, structure of a national database, implementation in fertilization tools
- Improvement of **N and P management** at plot, farm to regional scales; measurements of **losses** (ammoniac volatilization, nitrous oxide emissions, nitrate leaching); impact of agricultural practices (crop rotations, legumes, reduction of mineral fertilizer)
- **2. Development of tools** for diagnostics and/or decision making in the area of fertilization and management of biogeochemical cycles: e.g., **AzoFert®**, software for advice on N fertilization at the annual field scale. **Syst'N®** webservice tool for diagnosis of N emissions (NO₃-, NH₃, N₂O), at the cropping system level
- Conception of an educational tool (N'EDU) and modules adapted to the vineyard and to the arboriculture (N-Pérennes) on the basis of the AZOFERT® tool
- 3. Communication, dissemination and training. Network animation, communication and training for the various actors in the use of the developed tools. Contribution to the national expertise, notably to authorities (Nitrates Directive)



Management

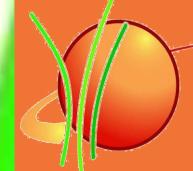
The network is managed by a **strategic board**. Every project is carried out by a **project team**.

Created in 2007, renewed in 2014 for 5 years.



Sylvie Recous, sylvie.recous@reims.inra.fr

Mathilde Heurtaux, mathilde.heurtaux@acta.asso.fr



Dutputs

Data sets, software, scientific and technical publications, training sessions, educational tools, meetings and seminars, technical support to government policies.



