Scientific interest groups in France: an innovative multi-stakeholders initiative for collaborative research in agricultural sectors

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Resume

In France, **Scientific Interest Groups (SIGs) were set up for major agricultural supply chains: livestock, arable crops, fruits and vegetables**. They bring together the main stakeholders from research, development, production, education and, for some of them, industry sectors to share their vision on the main challenges they are facing and align them as much as possible to their strategic agenda. Indeed, in view of the societal challenges and the extent of the changes foreseen to move towards more ecological farming, sharing ideas and pooling resources to address common challenges and issues is proving to be a valuable asset.

Exchanges and collective thinking are the basis for a better understanding of the constraints and motivations of all actors involved. It allows the identification of common emerging research questions subsequently addressed in collaborative actions and projects. Such participatory process is an effective approach to ensure the operationality of results, thus facilitating their adoption by farmers. In that sense, they can be seen as "living labs" at the scale of agricultural and food chains.

Introduction

Four Scientific Interest Groups (SIG) were created in 2009-2010 in order to **federate stakeholders in research, agricultural development, production and agronomic training** to **address strategic issues** and **contribute to the transition of these supply chains towards more sustainable systems**.

The pooling of forces, by involving all the links in the sectors and placing their needs at the heart of the discussions, has proved to be a real leverage effect of the SIGs. **This cooperation has enabled the identification of research avenues**, which are subsequently addressed in collaborative projects, but also **the production of operational tools** meeting the needs of the field and integrating the most recent knowledge.

Objectives

The four "commodity chains" SIGs aim to :

Bring together the main stakeholders involved in each agrifood supply chain

- Research institutes, high education, production, industry & agricultural advisory sectors

Address strategic issues

- By conducting targeted research & development programs

Produce & disseminate new knowledge

- By promoting collaborative/participatory studies
- Towards more sustainable agroecosystems

Findings

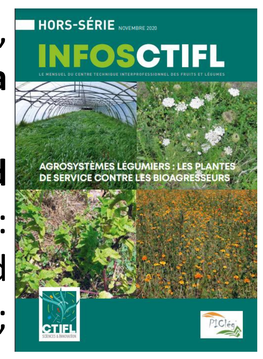
SIGs gather together different types of actors, leading to the **construction of a global common vision of the main issues to be addressed in agricultural sector**. The collaborative mode of operation, involving a wide range of different partners over decades, can be considered as an innovation.

In the previous years, the collaboration between the SIGs members resulted in different types of **key actions and projects**:

- **Research and training project**: thematic working groups, prospective and/or exploratory studies, etc.
- **Internships, scholarships** (Master / engineer levels): from 4 to 10 funded by each of the SIGs each year
- **Seminars and scientific days**
- **Scientific projects building**, …

Several examples of the SIGs' productions can be cited:

- "Avenir Elevages" (livestock) : a **pioneering work on controversies in livestock** (Delanoue & Roguet, 2015) was further addressed by a **PhD thesis and a national R&D project**;
- "PICLég" (vegetables): various **studies on pest and diseases control by non-chemical means** : biocontrol, soil solarisation, serviced plants… and overall syntheses (Dijan Caporalino & al., 2018; Caravel & al., 2020);



- "Fruits" : many **projects aiming at implementing and promoting environment-friendly agricultural** practices, leading to the publication of the "**Guide Ecophyto Fruits**" (Laget & al., 2015) or the coordination of the **EU-EIT Climate-KIC "Friendly Fruit" project**

- "Grandes cultures" (arable crops) : many thematic groups paving the way for several **projects on the design of low or no herbicide-based cropping systems** (Colbach & al., 2016) or the **development of an operational tool for assessing the sustainability of innovative systems** (Craheix & al., 2012; 2015), for example.
- The SIGs on livestock and arable crops developed in common a **methodological guide on sustainability evaluation for accompanying different types of users** (researchers, teachers, students, agricultural advisors, policy makers…) in the implementation of a consistent approach with their needs (Lairez & al., 2015).

Significance of the work for policy and practice

The SIGs' main innovation is their **collaborative mode of action, involving a wide range of partners over decades**, resulting in a form of sectoral living-lab. **This pooling of ideas and resources at the various stages of the research, development and training process is proving to be profitable**. These structures, by remaining over years, create a useful space of exchange and discussion between all stakeholders, as living labs do, although they are not territorialized.