

AKIS and advisory services in *France*

Report for the AKIS inventory (Task 1.2) of the i2connect project

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Executive summary

This report has been written in the framework of the Horizon 2020 project i2connect, whose objective is "to foster interactive innovation to support the transition of agriculture and forestry". It is part of a set of 28 reports on national Agriculture Knowledge and Innovation Systems (AKIS), which all follow the same outline. This "AKIS inventory" is an update of a previous inventory conducted by the PROAKIS project in 2014. The scope of this inventory has been extended to the forestry sector, although it is treated in less depth than the agriculture sector. A further update is planned at the end of the i2connect project, in 2024.

The present report draws its inspiration from the report "AKIS and advisory services in France" drafted by Pierre Labarthe (INRAe) in May 2014 in the framework of the PROAKIS project (FP7). This new report updates data and shows the changes, sometimes significant, that have taken place since 2014: reorganisation of AKIS actors, changes in public policies and agricultural development programmes, etc.

The document first recalls the main characteristics of French agriculture and forestry. Then it presents the main actors of the French AKIS as well as the public policies in this field. Finally, it focuses on agricultural and forestry consultancy in France: history, actors, interaction and current developments...

The report shows the importance of the agricultural and forestry sector for the economy, employment and development of rural areas in France. This importance explains the long-standing and substantial public investment in this sector, through the definition of strategic orientations, the provision of corresponding funding, dialogue and the delegation of various public services to professionals... The report also shows the richness and diversity of the AKIS actors, and in particular the farm and forestry advisory services: education, research, agricultural technical institutes, chambers of agriculture, upstream and downstream cooperatives and traders, management centres, farmers' associations, private advisors...

In recent years, facing major challenges, in particular climate change, AKIS actors have gradually become aware of the need to transition to more sustainable and resilient farming systems that are efficient from an economic, social and environmental point of view, in particular by using agro-ecology as a lever. This very complex transition requires a strong mobilisation and collaboration of all actors in research-development-innovation and, in particular, to encourage and support field innovation, designed with farmers, especially in a collective framework. In France, various mechanisms designed to stimulate field innovation, such as RMTs, DEPHY groups and GIEEs, have been set up to stimulate cooperation

between AKIS stakeholders and field innovation, and similar mechanisms have been set up at the European level, in particular the thematic networks and operational groups under the European Partnership for Innovation. On the ground, this work of supporting interactive innovation requires the acquisition of new skills by advisors and the implementation of an appropriate work organisation within agricultural advisory organisations, which is the focus of the i2connect project.

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Abbreviations

AA	Agricultural Area
ACTA	Association de Coordination des instituts Techniques Agricoles
ACTIA	Association de Coordination Technique pour l'Industrie Agro-Alimentaire
AFOCG	Associations de Formation Collective à la Gestion
ANDA	Association Nationale de Développement Agricole
AKIS	Agricultural Knowledge and Innovation System
APCA	Assemblée Permanente des Chambres d'Agriculture
ASAVPA	Association de Salariés Agricoles pour la Valorisation et la Promotion des métiers Agricoles
CAP	Common Agricultural Policy
CasDAR	Compte d'Affectation Spécial du Développement Agricole et Rural
CEL	Conseil Elevage
CER	Centre d'Economie Rurale
CETA	Centre d'Etudes des Techniques Agricoles
CGAAER	Conseil Général de l'Alimentation, de l'Agriculture et des Espaces Ruraux
CIRAD	Centre de Coopération Internationale en Recherche Agronomique pour le Développement
CIVAM	Centres d'Initiatives pour Valoriser l'Agriculture et le Milieu rural
CNMCCA	Confédération Nationale de la Mutualité, de la Coopération et du Crédit Agricoles
CNRS	Centre National de la Recherche Scientifique
CP	Confédération Paysanne
CR	Coordination Rurale
CUMA	Coopérative d'Utilisation du Matériel Agricole
DGER	Direction Générale de l'Education et de la Recherche
DGPAAT	Direction Générale des Politiques Agricole, Agroalimentaire et des Territoires
EAFRD	European agricultural fund for rural development
EIP	European Innovation Partnership
EPST	Établissement Public à caractère Scientifique et Technologique
EU	European Union
FAS	Farm Advisory System
FBO	Farmers' Based Organisations
FCEL	France Conseil Elevage
FNA	Fédération du Négoce Agricole
FNDA	Fond National de Développement Agricole
FNGEDA	Fédération Nationale des Groupes d'Etudes et de Développement Agricole
FNSEA	Fédération Nationale des Syndicats d'Exploitants Agricoles
GAB	Groupement d'Agriculture Biologique
GDA	Groupe de développement agricole
GDS	Groupe de Défense Sanitaire

GIEE	Groupement d'intérêt économique et environnemental
GIS	Groupement d'Intérêt Scientifique
GSP	Gross Standard Production
INRAe	Institut national de recherche pour l'agriculture, l'alimentation et l'environnement
INSEE	Institut national de la statistique et des études économiques
INSERM	Institut National de la santé et de la recherche médicale
IRD	Institut de Recherche pour le Développement
ITA	Instituts Techniques Agricoles
ITAB	Institut Technique de l'Agriculture Biologique
JA	Jeunes Agriculteurs
MODEF	Mouvement de Défense des Exploitants Familiaux
ONEMA	Office National de l'Eau et des Milieux Aquatiques
ONVAR	Organismes Nationaux à Vocation Agricole et Rurale
PCIA	Pôle du Conseil Indépendant en Agriculture
RMT	Réseau Mixte Technologique
SSP	Service de la statistique et de la prospective
TATFNB	Taxe Additionnelle à la Taxe sur le Foncier Non Bâti
UMR	Unité Mixte de Recherche
UMT	Unité Mixte Technologique

1. Main structural characteristics of the agricultural and forestry sector

General country information¹

On 1st January 2020, France had 67 million inhabitants.

In 2019, France's gross domestic product was 2,322.7 billion euros, i.e. 34,667 euros per inhabitant.

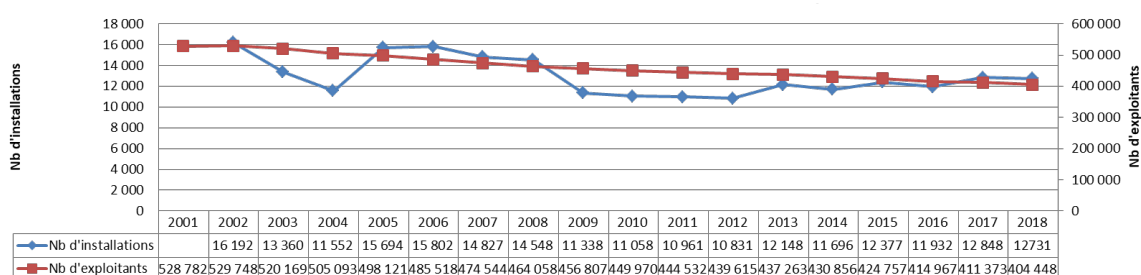
Metropolitan France covers 551,500 km² and the total French territory, including the overseas departments and territories, covers 675,417 km².

The agriculture sector²

The major trends are the decrease in the number of farms, the growth in economic size and the increased specialization of farms.

While there were more than 600,000 farms in 2000, there are only 404,000 left in 2019, which means a decrease of 33% over a period of 20 years. The average age of farmers is increasing, in a similar way to the age of the active population as a whole: 1.1% of farmers are under 24 years old, 44.3% are between 25 and 49, and 54.6% are over 50. Generational renewal is becoming a crucial issue: the number of farmers setting up has fallen from around 16,000 in 2001 to about 12,000 in 2020 (see Figure 1 below).

Figure 1: Evolution of farm establishments and total number of farms over time



Blue line: number of farm establishments

Red line: total number of farms

Source: APCA, based on data from the Observatoire du Développement Rural (ODR)

¹ Source of this section: website of INSEE, the National Institute of Statistics and Economic Studies: <https://www.insee.fr>

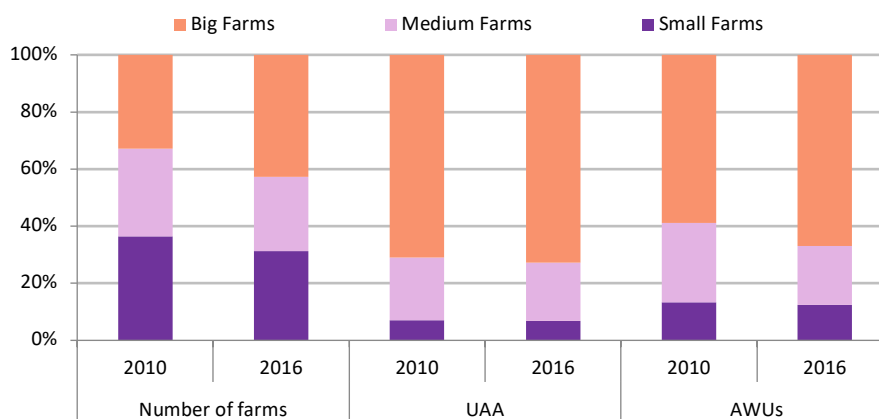
² This section is largely based on the information provided in the report "AKIS and advisory services in France" (P. Labarthe, 2014), but the figures have naturally been updated. The main source of data in this section are: recensements agricoles 2000 et 2010, enquête structure 2016 (agricultural census in 2000 and 2010 and farm survey in 2016), available on the website Agreste: <https://agreste.agriculture.gouv.fr/agreste-web/> Agreste is the brand name of the publications of the Service de la Statistique et de la Prospective (SSP), the service of statistics of the French Ministry of Agriculture.

On the other hand, the educational level has greatly increased: 85.9% of farmers have an education level higher than secondary school, compared to 18.3% in 1982³.

The average farm size is 63 hectares (2016 data), which is 7 hectares more than in 2010. There is also a growth in economic size and an increased specialization of farms (see Figures 2 and 3 below): between 2000 and 2016, the number of small and medium farms has decreased, while the number of large farms has increased by about 10%⁴. In addition, the total area cultivated by large farms has increased by 28%: they now cultivate about 73% of the total cultivated area of the country.

This change in farm size is associated with changes in farming models, where farms are increasingly specialized and outsource part of their farming operations to agricultural contractors⁵. Specifically, the number of farms specialised in crop production has increased (more than 25% of the total), while the number of specialized livestock farms and integrated crop and livestock farms have decreased. Concentration is particularly striking in the dairy sector: there were less than 57,000 farms producing milk in 2017 compared to 83,000 in 2008⁶.

Figure 2 : Number of farms, utilised agricultural area and annual work units according to the economic dimension



Scope : Metropolitan France

Source : SSP, Agreste, recensement agricole 2010, enquête structure 2016

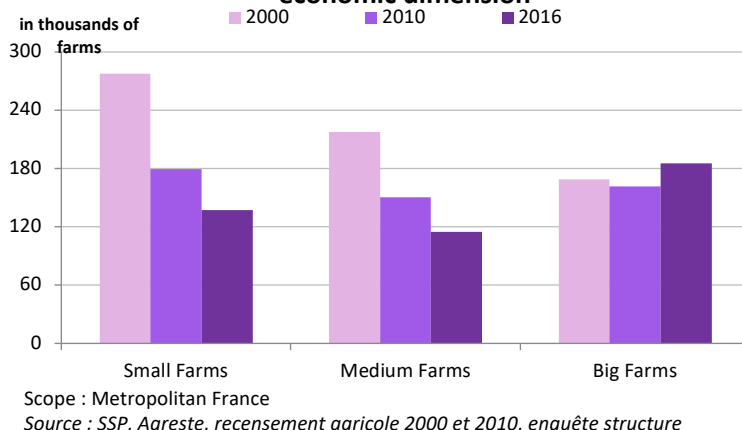
³ INSEE, enquête emploi, série longue sur le marché du travail, 2020

⁴ Since the 2010 census, farms have been classified according to their standard output (SO): small (SO < €25,000); medium (SO between €25,000 and €100,000); large (SO > €100,000); and very large (SO > €250,000). Source: INSEE.

⁵ Report Actif'Agri, Service de la Statistique et de la Prospective (SSP), 2019

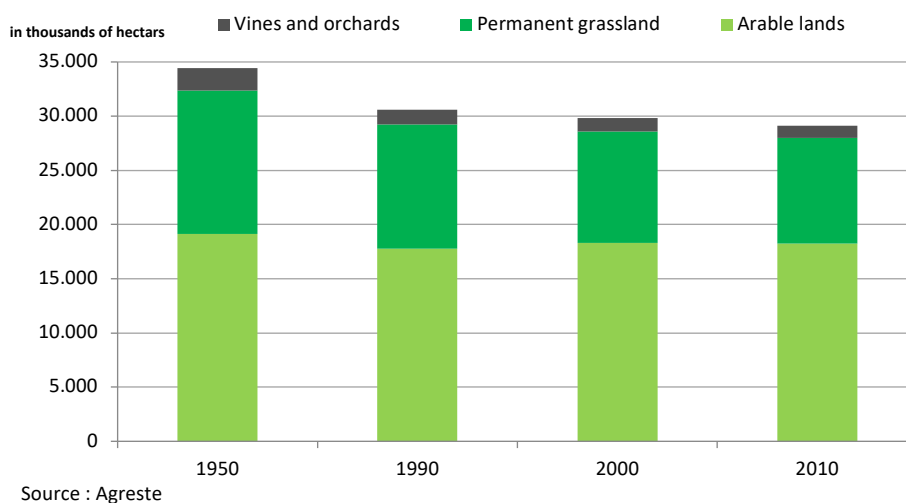
⁶ Agreste, 2019

Figure 3 : Number of farms according to their economic dimension



There is also a decrease in the total cultivated area: Since 2000, the utilised agricultural area (UAA) has decreased by less than 4% and amounts to about 29 million hectares. However, the decrease is more significant in areas under urban influence (about 6%). Moreover, land use is fairly stable over time: arable land occupies 60% of the UAA (of which more than 30% are cereals) and permanent grassland 30% (see Figure 4).

Figure 4: Agricultural area in France



In 2019, organic farming represents 10% of farms and 8.5% of the agricultural areas (2.3 million hectares). Organic farming has grown rapidly in recent years, with its total area doubling between 2014 and 2019⁷.

Overall, agriculture represents 2.5 % of the total employment in France. In 2018, 670,000 people were working permanently on farms (without considering non-permanent workers). Besides the decreasing number of farm holders, two other

⁷ Source: Agence Bio, 2019

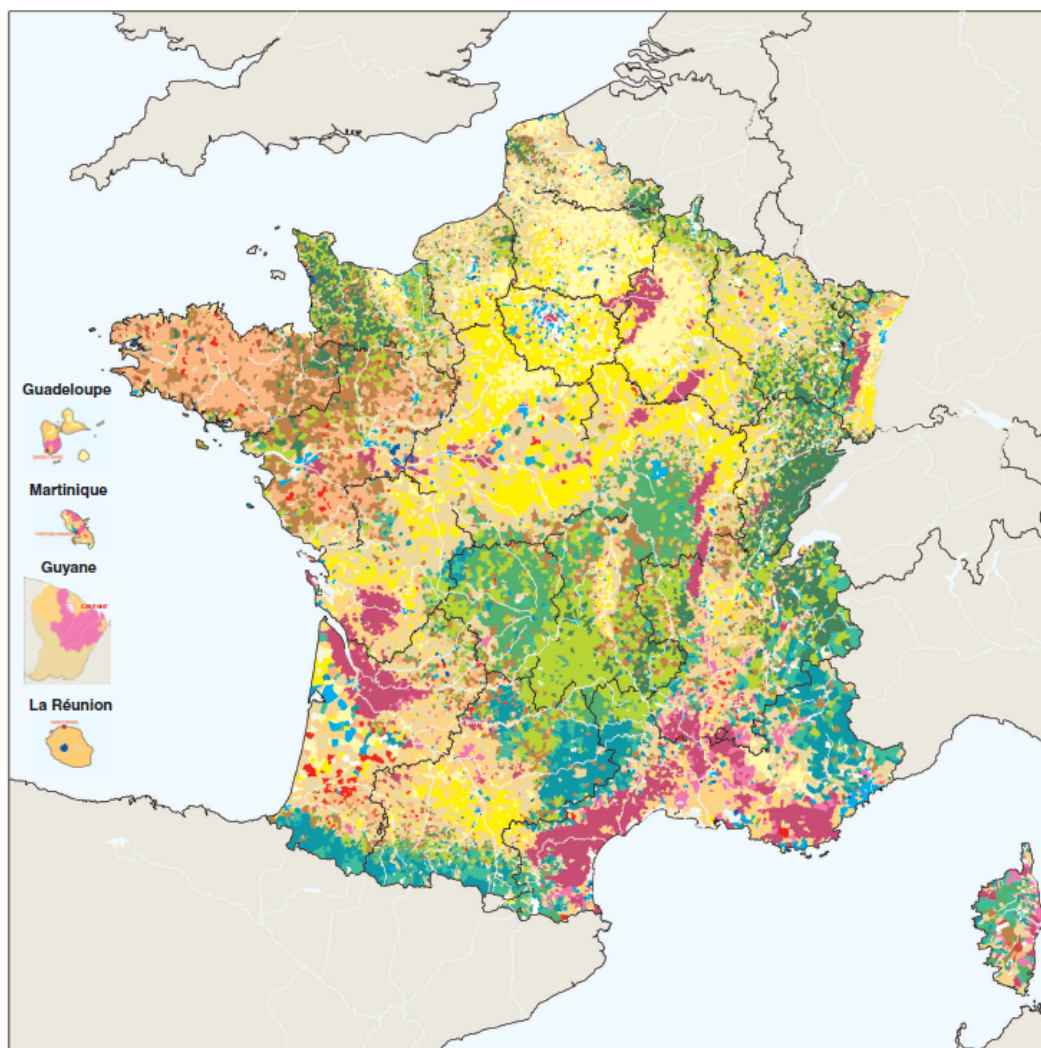
trends should be noted: spouses' involvement and family labour is decreasing sharply, whereas the number of employees increases, with about 136,000 permanent workers and 109,000 seasonal or non-permanent workers.

Despite the decrease in the number of farms, agriculture continues to play an important role in rural development, for instance through farm diversification (involving 57,000 farms and more than 70,000 people), agritourism (13,800 farms) or through the production of renewable energy (7,000 farms). 90,500 farms are involved in short supply chains (Agreste Primeur, 2013).

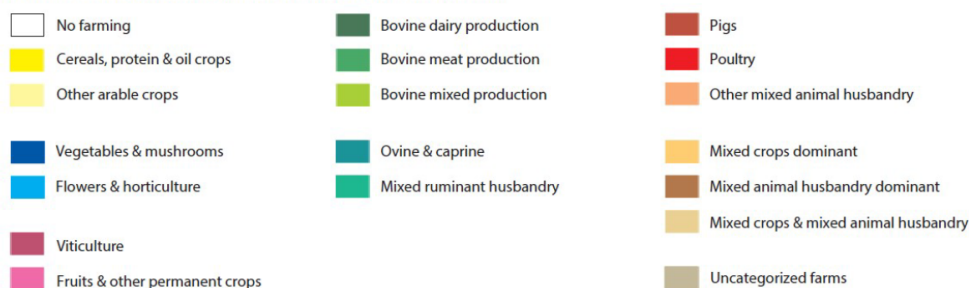
Beyond employment and rural development, agriculture is still an important economic sector in France, in particular through its contribution to the agri-processing industries. It contributes to about 2% of the gross domestic production. Together, agriculture and agrifood represent an added value of about 82.4 billion euros, and both of these sectors are very important for the commercial balance of the country⁸.

⁸ INSEE, 2019

Map: technical and economic orientation in farming⁹



Technical and economic orientation of the local communities



The agrifood sector

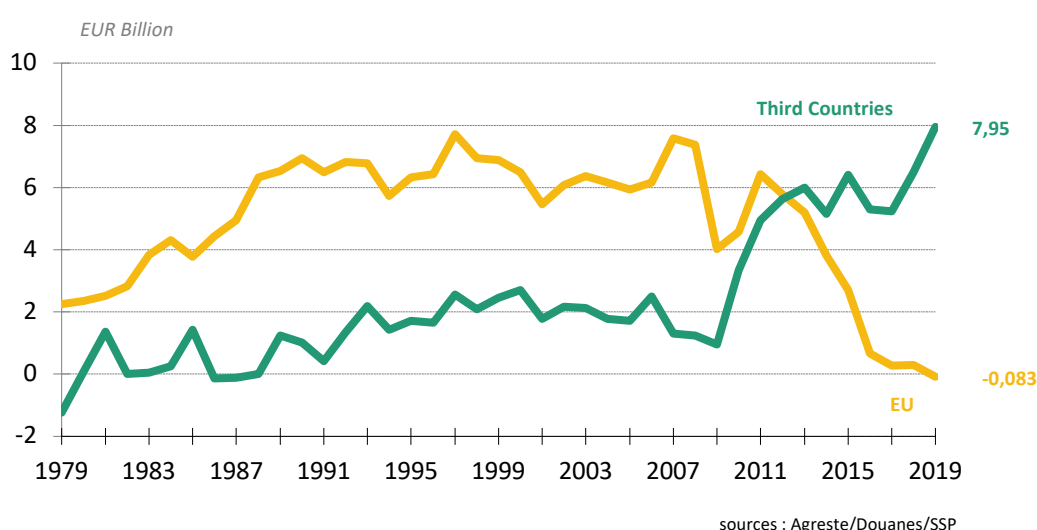
In December 2017, the French agri-food industries employed 461,544 full-time equivalents in 15,040 companies. They had a turnover of 213 billion euros¹⁰. The

⁹ Source: Agreste 2012, based on the agricultural census 2010

¹⁰ Source: "Panorama des industries agroalimentaires – Chiffres et indicateurs clés", Ministère de l'agriculture, édition 2020

agri-food sector is the third largest net contributor to the French trade balance, with a surplus of 8 billion euros. Wines and liqueurs, cheese and milk powder, cereals, sugar and potatoes are the main exported products. Until 2011, the European Union was the main export market for French agri-food products, but the economic crisis in the euro zone and the strong competition on European market have led French operators to prospect third countries, which are now the main source of the surplus in the French agri-food trade balance (see Figure 5). However, Belgium, Germany and the United Kingdom remain the three largest importers of French agri-food products.

Figure 5: France agrifood trade balance by zone



The forestry sector

Forest is an important economic resource (60 billion euros of revenue, 430,000 direct and indirect jobs) and gain ground each year in France with a growth rate of 2 million hectares since 1980. Wooded ground cover 41 % of the French territory and French forest represent the fourth forest area in European Union with 16.8 million hectares composed of hardwoods (60%), softwoods (30%) and poplars (5%). However, the wood processing sector is not competitive on the European and international market, compared to countries like Sweden or Germany. The French wood products trade balance is negative and shows a trade deficit between 6 and 7 million euros (see Figure 6).

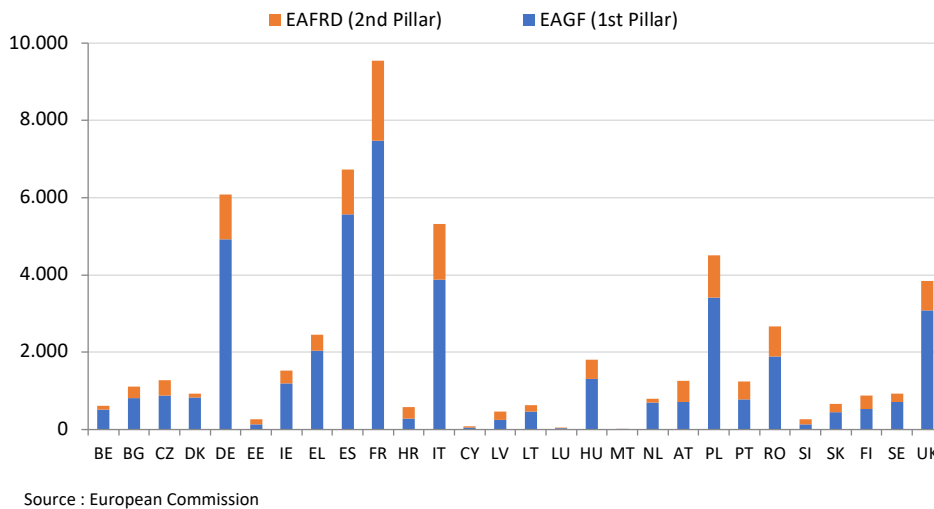
Figure 6: French forest products trade balance



The Common Agriculture Policy (CAP)

Due to the size of its farming sector, France has been the largest beneficiary of the CAP in Europe for several decades. For the period 2014-2020, the CAP budget amounts 62 billion euros from EU funds, including 50 billion euros for direct payments and market measures (“first pillar”) and 12 billion euros for rural development (“second pillar”)¹¹.

Figure 7: European Agricultural Guarantee Fund (EAGF) and European Agricultural Fund for Rural Development (EAFRD) - Market related expenditure and direct payments 2019 (EUR million)



¹¹ Source : brochure « la PAC dans votre pays », Commission européenne, octobre 2016

2. Characteristics of AKIS¹²

2.1. AKIS description

The AKIS in France is characterised by public investments at national scale in various research and education organisations, and by collaboration and contracting with farmers associations, non-profit organisations and private actors for advisory services and applied research.

There are many actors involved in the French AKIS. In recent years, their number has slightly decreased due to mergers of organisations, some linked to the reform of administrative regions (2015), which reduced the number of metropolitan regions from 22 to 13. However, in the meantime, some new organisations were also created on new topics such as agroforestry, biogas, urban agriculture...

2.1.1. AKIS actors and knowledge flows

The agricultural sector

For an overview of the main AKIS actors, please refer to the AKIS diagram (section 2.2)

Agricultural secondary education and short curricula in higher education¹³

In 2020, there were 216 public agricultural schools (LEGTPA, LEGTA or LPA) and 589 private secondary schools¹⁴. These schools train 138,347 pupils per year.

There were also 94 public apprentice training centres (CFA) and 46 private ones. They train 36,726 apprentices.

Furthermore, there were 154 public vocational training centres for adults (CFPPA) and 256 private ones. These centres give 14.3 million trainee-hours per year.

These schools deliver the Baccalauréat diploma (European Qualifications Framework - EQF 4), either general, technological and vocational. Some of them also offer 2-year curriculum leading to the Brevet de Technicien Supérieur (BTS, EQF 5). There are currently 443 BTS in agriculture in France. Some curricula enable students to carry on in higher education (master degrees).

¹² This chapter is partly based on information from the report “AKIS and advisory services in France” (P. Labarthe, INRAE, 2014).

¹³ Source: “infographie l’enseignement agricole” (data 2020) on the website of the Ministry of Agriculture: <https://agriculture.gouv.fr/infographie-lenseignement-agricole>

¹⁴ Private agricultural schools include: 368 rural family houses (affiliated to UNMFREO), 183 catholic agricultural schools (affiliated to CNEAP), 37 affiliated to UNREP and 2 independent schools.

Agricultural higher education

There are no agricultural faculties within French universities, even though some of these have departments specialised in environment, rural sociology or geography.

On the other hand, there are 18 *engineers' schools*, including 11 public schools, 6 private schools and 1 Euro-Mediterranean school. These schools are under the supervision of the Ministry of Agriculture. They train about 35,604 students every year in the fields of agronomy, food sciences, environment, landscape management, veterinary sciences, animal health and forestry (EQF 7).

Research Institutes: there is one main public research institute involved in the agricultural sector in France, along with 18 private applied research institutes.

- The new *National Research Institute for Agriculture, Food and the Environment (INRAe)* was created on the 1st January 2020 by the merger of INRA, the National Institute for Agricultural Research, and IRSTEA, the National Research Institute of Science and Technology for the Environment and Agriculture.

The Institute's mission is to carry out, organise and coordinate, on its own initiative or at the request of the State, any scientific and technological research work in the fields of agriculture, food, forestry, the environment, water, biodiversity, the bio-economy, the circular economy, sustainable territorial and risk management.

The institute is a public scientific and technological body, under the dual supervision of the Minister for Research and the Minister for Agriculture.

The Institute has its headquarters in Paris and 18 regional centres in all regions of France.

Key figures¹⁵

- 11,500 staff including 2,000 researchers, 3,100 engineers and assistant engineers, and 3,300 technicians
- 18 centres, 14 research divisions
- 268 research units, experimental research units and support units
- 5721 Grade A publications in 2018 (INRAe)

¹⁵ Source : website of INRAe, 2020 : <https://www.inrae.fr/en/about-us>

- 30.9 million euros in revenues, including 9.1 million euros in earnings from software licenses, consultancy work, and plant variety certificates
- A budget of 1 billion euros
- 10,000 ha of experimental land

- Other research institutes are also involved in agriculture: *CIRAD (Agricultural Research for Development)* and *IRD (French National Research Institute for Sustainable Development)*, which both play a very important role for agricultural R&D in French overseas areas and abroad (especially in tropical and subtropical countries); *INSERM (French National Institute for Health and Medical Research)* for research on health related issues; and *CNRS (National Center for Scientific Research)*, for research on biology, environmental and agro-ecological questions.
- *The Agricultural Technical Institutes (ITA)* are private non-profit research organisations. There are 18 qualified institutes and 8 associated organisations. These institutes are specialised according to production sectors (pork, poultry, ruminants, wine, fruit and vegetable, cereals, horticulture, etc.) and are spread over the whole country, on more than 180 regional sites. The “technical institutes” are qualified as such every 5 years by the Ministry in charge of agriculture, following a quality procedure and an evaluation by an independent committee. The technical institute for organic agriculture (ITAB) has recently been qualified.

In addition, 8 other technical institutes work under the supervision of one of the 18 “qualified institutes”.

Their activities include applied research, scientific and technical monitoring, experiments, innovation support, expertise, technical assistance and knowledge transfer (training and dissemination). The objectives are decided by representatives of farmers’ associations, supply chains and agri-food industries: the boards of the institutes are mainly composed of representatives of farmers’ associations and their presidents are farmers.

The association ACTA coordinates the ITA network, carries out activities on cross-cutting topics and ensures monitoring activities, for instance on EU regulations and calls for projects, as well as networking or training.

The ITAs employ about 2,000 engineers and technicians. The funding (211 million euro in 2019) of these institutes combine different sources: the CasDAR fund managed by the Ministry in charge of agriculture (24% in 2019), other public funds: ministries, agencies, regional councils, European Union (20%),

farmers' contributions (30%). The remaining funds (26%) come from the supply of services and training, from decision support systems, from editing activities, from research projects (national or international calls)¹⁶.

Advisory services: The main providers of advisory services across the country are the chambers of agriculture and the cooperatives. The associations CER (bookkeeping and farm management) also reach a very large number of farmers. In addition, numerous associations and private organisations provide advice on specific themes (e.g. organic farming, urban farming) or on a specific production (e.g. advice to dairy farmers). Altogether, these organisations employ about 20,000 staff providing advice (see details in section 4).

Farmers' unions: there are five farmers' unions: the National Federation of Farmers' Unions (FNSEA), the Union of Young Farmers (JA), the Peasant's Confederation (CP), the Rural Coordination (CR) and the MODEF. The financial support allocated to these farmers' unions by the State depends on their representativeness, measured by their results in the elections of the Chambers of Agriculture, which. These elections take place every six years, the last ones in 2019. In the electoral college of farm managers, FNSEA and JA obtained 55% of farmers' votes, CR 22%, CP 20% and Modéf 2%. Thus, FNSEA won the election in 91 of the 94 of the Chambers of Agriculture.

In 2020, the **FNSEA** claims 212,000 members. It federates 20,000 local unions, 95 federations at département level, 12 regional federations and 31 associations specialised by production sector (cereals, milk, meat, fruit and vegetables, etc....). The federations at the different levels employ staffs that offer various services to farmers, including advice on legal issues (eg. tax and labour laws).

The **JA** (young farmers) had more than 50,000 members in 2012. The **CR** (Rural Coordination) has around 15,000 members; the **CP** (Peasant's Confederation) represents about 10,000 farmers and the **MODEF** a few thousands. Beyond local operations, the national federations have employees who ensure monitoring on different regulations and coordinate national commissions on different production sectors (dairy, pork, vegetables...) or transversal themes (land, social issues...).

¹⁶ Source: flier "les chiffres clés des instituts techniques agricoles" (2019), available on the website of ACTA.

Lifelong learning of farmers: The four main farmers' unions (FNSEA, JA, CR and CP), together with the chambers of agriculture and the National Confederation of Mutuality, Cooperation and Agricultural Credit (CNMCCA) created a mutualised fund for farmers' training (VIVEA). It has 1,800 elected members and about 70 employees across the country, who coordinate the distribution of funds to various training programmes. In 2019, about 547,000 people contributed to the VIVEA fund and 148,000 benefited from training courses. The total budget of these courses, including co-funding, was 47.4 million euros¹⁷. The training courses, co-financed by VIVEA, are implemented by various organisations: private companies, chambers of agriculture...

Support by the upstream and downstream organisations: Cooperatives and private companies, which supply inputs, machinery and technology to farmers and purchase agricultural products, play an important role in the provision of advisory services and in R&D investments in the agricultural sector. (see section 4 for more details).

Public administration: Beyond the financial support and supervision of AKIS actors (see section 2.2), the Ministry of Agriculture is also involved through **FranceAgriMer**, a national agency managing the distribution of national and EU subsidies, enhancing consultation within the various production sectors and disseminating information on commodities and agrifood markets. FranceAgriMer coordinates 11 specialised councils (cereals, oilseeds, sugar, cattle, poultry, dairy, wine, fruits and vegetable, horticulture...), which bring together professionals in each production sector and the public authorities. In 2018, approximately 6 million euros were spent on data acquisition and economic studies. FranceAgriMer employs 986 staff, including 335 at regional level¹⁸.

Another public agency plays a significant role: **ADEME**, the French Agency for Ecological Transition, which is under the joint authority of the Ministry for an Ecological Transition and the Ministry for Higher Education, Research and Innovation. ADEME supports knowledge creation and projects in areas of direct interest to AKIS actors: climate change mitigation, soil and air quality, renewable energy, circular economy, etc. ADEME has over 1,000 employees based in 26 regional divisions (including overseas)¹⁹.

¹⁷ Source: flier "Activités 2019 - VIVEA en quelques chiffres", available on the website of VIVEA.

¹⁸ Source: leaflet "FranceAgriMer", 2019 available on the website of FranceAgriMer.

¹⁹ Source: website of ADEME, 2021 : <https://www.ademe.fr/en/about-ademe>

The forestry sector²⁰

Education

There are different levels of education in forestry: Bac Pro (EQF4), BTS (EQF5), licence pro, engineer and master (EQF7). 13 schools offer a BTS in forest management, three schools are specialised in the wood industry and four engineer schools deliver the diploma of forestry engineer, including one specialized in Mediterranean and tropical forests.

Basic research

INRAE has at least four research units working on forestry, in Bordeaux, Nancy, Montpellier and Paris.

Applied research

- The **research, development and innovation department (RDI) of the national forestry office** (*Office National des Forêts, ONF*)
- The **national institute of geographic and forest information** (*Institut national de l'information géographique et forestière, IGN*) is responsible for the national forest inventory, published every five years.
- The **institute for forestry development** (*Institut pour le Développement Forestier, IDF*), which is the research and development department of the CNPF. The IDF is qualified as an agricultural technical institute.
- The **industrial technical centre FCBA**: it is a technological institute working on the topics forest, cellulose, wood construction and furniture

Advisory services

- The **national centre for forest property** (*Centre National de la Propriété Forestière, CNPF*): it is a public body in charge of developing sustainable management of private forests.
- **Chambers of Agriculture**: Some chambers of agriculture also employ forestry advisors, notably in the Auvergne Rhône-Alpes, Bourgogne Franche-Comté, Grand Est, Occitanie and Nouvelle Aquitaine regions (85 advisors in total).
- **Private advisors**: They are united within the association “forest experts of France” (**Experts Forestiers de France, EFF**).

²⁰ Most information in the forestry section is based on the interview of Lionel Viard, APCA, January 2021 and on information taken from the websites of the various forestry actors.

Unions

- **Fransylva** (*Forestiers Privés de France*) is the federation of private forest owners. It has 15 regional unions, 73 unions at département level, 41,000 members covering 2 million hectares.
- **Pro Silva France** is an association that advocates "Continuous Cover Forestry", ie. no clear cutting.

Cooperatives

The UCFF ("Union de la Coopération Forestière Française") or the federation "Les Coopératives Forestières" brings together 17 forestry cooperatives and unions of cooperatives throughout France.

Downstream industries

- The *Fédération Nationale du Bois* is the professional organisation of actors in the forest industry and wood processing in France.
- The *Union des Industriels et Constructeurs Bois (UICB)* federates 9 associations or unions, 3 professional organisations and brings together 11 trade branches linked to the wood construction industries.

Environmental NGOs

Environmental NGOs such as *France Nature Environnement* (FNE), *Ligue de Protection des Oiseaux* (LPO) which is a member of BirdLife International, or *World Wildlife Fund France* (WWF France) also produce knowledge and standards on forest management.

Public administration and public bodies

- **The Department of Forest Health** in the Ministry of Agriculture manages a forest monitoring network in mainland France, supported by 230 field observers.
- The **national forest office** (*Office National des Forêts*, ONF) is the manager of the French public forest
- **Regional Nature Parks or National Parks** can produce recommendations for forest management

Research & development Networks:

RMT AFORCE: Adaptation des FORêts au Changement ClimatiqueE, involves some fifteen actors of the forestry development.

2.1.2. Policy framework at national level

The agriculture sector

National funding

The support for AKIS organisations accounts for about 28% of the total budget of the **Ministry of agriculture**, which is close to 5 billion euros (4.8 billion euros in 2020 and 2021). It takes two main forms:

- The **direct funding of public organisations**, mainly the research institutes and the higher agricultural education (360 million euros²¹), as well as the agricultural secondary education and short curricula in higher education (1.48 billion euros).
- The funding of non-profit organisations that provide advisory services or implement applied research activities, thanks to a specific fund managed by the Ministry of agriculture: the “Special Account for Agricultural and Rural Development” or **CasDAR**²². This fund is fed by a tax on agricultural gross income, with a fixed amount of 90 euros per farm and a variable amount (0.19% up to 370,000 euros turnover and 0.05% beyond). CasDAR's resources vary from year to year, they amounted 144.4 million euros in 2019.

The use of CasDAR funds is programmed over several years: First, the chambers of agriculture, the technical institutes and the ONVARs sign “multiannual contracts of objectives” with the Ministry of Agriculture. Then, each year, their annual agricultural and rural development programmes (PNDAR) must be approved by the Ministry. An independent scientific committee within each network supports the preparation and implementation of its work programme. The last programming period was 2014-2020 and a new programming period has just started.

The CasDAR supports different types of actions:

- the multi-annual programmes of the chambers of agriculture, technical agricultural institutes and ONVARs and a programme on animal genetic progress as well;

²¹ Source: the initial budget of the Ministry of Agriculture for 2021.

²² "Special accounts" (*comptes d'affectation spéciale*) are funded by specific revenues intended for specific expenditures. These accounts are distinct from the general State budget: the contribution from the general budget cannot exceed 10% of the special account and the special account cannot be used to fund the general State budget.

- calls for projects managed by the Ministry of Agriculture: applied research, experimentation and agricultural and rural development projects, including “economic and environmental interest groups” (GIEE);
- cross-cutting actions, such as cross-cutting thematic actions (ATT), regional pilot projects (PPR) implemented by chambers of agriculture, mixed technology networks (RMT), a national platform to collect and disseminate the results of CasDAR-funded actions (*plateforme de la R&D Agricole*).

In addition, several **national public agencies** also support AKIS actors, especially FranceAgriMer and ADEME, the French Agency for Ecological Transition.

European and regional funding for the AKIS

Besides national funding, AKIS actors can also benefit from European and/or regional funding.

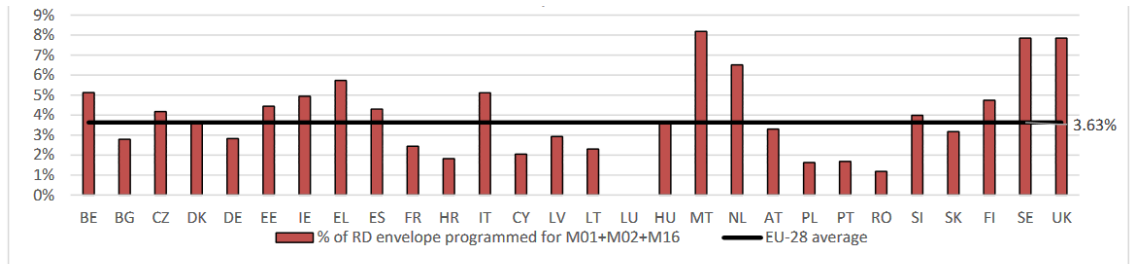
In France, 3% of the **CAP Rural Development** budget (EAFRD) was programmed for knowledge sharing, advice and innovation over the period 2014-2020 (cf. Figure 8 below). AKIS actors were particularly concerned by three measures managed by the Regional Councils:

- Measure 1 "Knowledge transfer and information actions", activated in almost all regions – 96.8 million euros from EAFRD;
- Measure 2 "Advice", which supports advisory organisations, was only activated by four regions in Metropolitan France and by the five Overseas Regions (32.1 million euros). Overall, the “farm advisory system” (FAS) was little used, probably because existing systems were already well structured and covered the whole territory.²³
- Measure 16 "Cooperation", which supports EIP-agri operational groups, activated in all regions except Corsica (169.6 million euros).²⁴

Figure 8: Percentage of Rural Development budget programmed for cooperation-EIP, knowledge transfer and advisory services, period 2014-2020

²³ Source: PAC post 2020 - projet de diagnostic Plan Stratégique PAC, Fiche diagnostic de l'objectif transversal “Modernisation du secteur en stimulant et en partageant les connaissances, l'innovation et la numérisation dans l'agriculture et dans les zones rurales, et en encourageant leur utilisation” (CAP post 2020, draft CAP strategic plan), 2020

²⁴ Source: Modalités de soutien à l'innovation prévues dans les 27 PDR - <https://www.reseaurural.fr/le-partenariat-europeen-pour-linnovation-agri/le-pei-en-regions>



Source: MS notification in SFC (based on adopted programmes up to July 2019)

Similarly, in some regions, the **European Regional Development Fund (ERDF)** can play an important role in funding applied research in agriculture.

In addition, many AKIS actors benefit from European funds allocated through **calls for projects**, within the framework of various EU programmes such as ERASMUS+, Horizon 2020, INTERREG, LIFE+ ...

These diverse European programmes or projects are **co-financed by national or regional budgets**.

Furthermore, public administrations or agencies (eg. water agencies) at regional or département level often have contracts with local organisations (chambers of agriculture...) to carry out specific projects.

Thematic policies

National thematic policies provide orientations for the allocation of public funding and efforts:

One of the main national programmes is the **Écophyto** plan, which aims at reducing the use of pesticides, through in-depth innovations in production systems and supply chains. The Écophyto plan resulted from a large national consultation on environmental issues ("*Grenelle de l'environnement*") in 2008. It is also the French transposition of the European directive 2009/128 on the "sustainable use of pesticides". The Écophyto II+ plan was launched in 2018 and aims at reducing the use of pesticides by 50% by 2025. The plan was initially managed by the Ministry of Agriculture alone and is now co-managed by the Ministries of Agriculture, Environment, Health and Research. Its overall budget has been increased from 41 to 70 million euros per year. It is financed by a tax, the "diffuse pollution fee" (*redevance pour pollutions diffuses*), paid by the buyers of plant protection products.

The key actions of the Écophyto 2+ Plan are:

- the plant health bulletin (BSV), a weekly information to warn farmers on crop pests: 15,000 fields monitored in 2018 at a weekly rate by nearly 4,000 observers
- a network of experimental and demonstration farms (DEPHY): in 2018, 254 groups of farmers and 3,054 commercial farms were involved, plus 200 experimental sites testing radical reductions in pesticide use
- a training and certification system on pesticides use (Certiphyto) awarded to farmers and advisors, valid for 5 years (705,794 certificates were awarded between 2010 and 2019)
- support to 30,000 farmers in their transition to agro-ecology
- funding dedicated to experiments, biocontrol and renewal of farm equipment.

The Ecophyto plan, which is intended to provide an enabling framework and encourage voluntary changes in farming practices, is supplemented by regulatory measures that are compulsory. The latest is the **ordinance on the separation of the provision of farm advisory services from the sale of plant protection products**, which will be further presented Section 3 of this report.

Although less significant in financial terms, another thematic programme is worth mentioning: the **national "Ecoantibio" plan** (phase 1: 2012-2016, phase 2: 2017-2022). In 8 years, this plan has already led to a 45% reduction in the use of antibiotics in animal husbandry, all sectors combined.

Another structuring national policy is **agro-ecology**: this plan was launched in 2012. It relies on a holistic approach of farming systems and on the optimisation of ecosystem services. This approach allows maintaining or even improving the technical and economic performance of farms, while improving their environmental performance. This global plan is applied to all actions financed by the Ministry of Agriculture and concerns the whole range of AKIS actors. For example, for agricultural education, this results in the plan "Teaching to Produce Differently" (*Enseigner à Produire Autrement*). Similarly, since 2012, the agro-ecological transition has been one of the general objectives of the PNDAR actions funded by CasDAR.

In September 2020, in response to the COVID 19 crisis, the French government has published a **"Recovery Plan" (Plan de Relance)**, a roadmap to address the

country's economic, social and ecological challenges. The measures in the "Agricultural, food and forestry transition" section, endowed with a budget of 1.2 billion euros, have three main objectives:

- strengthening food sovereignty;
- accelerate the agro-ecological transition to give all French people access to healthy, sustainable and local food;
- adapt agriculture and forestry to climate change.

The forestry sector

As in the agricultural sector, there is also a **national forest and wood programme** (*programme national de la forêt et du bois*, PNFB)²⁵. This programme is also managed by the Ministry of Agriculture. It sets out the guidelines for forestry policy in public and private forests, in metropolitan France and overseas, for the period 2016-2026. It has four main objectives:

- Create added value in France and manage the forests sustainably
- Meet citizens' expectations and contribute to regional development,
- Combine mitigation and adaptation of forests to climate change,
- Develop synergies between forests and industry.

This programme is implemented thanks to the Strategic Forest and Wood Fund (*Fonds stratégique de la forêt et du bois*, FSFB)²⁶: it is funded by State funds, part of the additional tax on unbuilt land (TATFNB) and receives co-financing from the European Agricultural Fund for Rural Development (EAFRD). The FSFB supports forestry investment (e.g. forest access), forest development actions at regional level, and forestry research and development.

The latest guidance document for forestry development is the "roadmap for the adaptation of forests to climate change"²⁷, Ministry of Agriculture, December 2020.

2.1.3. Coordination structures

As described above, the State provides financial support to AKIS actors and guides their activities through multi-annual programmes and thematic policies.

²⁵ Source: Website of the French Ministry of Agriculture: <https://agriculture.gouv.fr/le-programme-national-de-la-foret-et-du-bois-2016-2026>

²⁶ The FSFB is created by Article 47 of the Finance Act 2013-1278 of 29 December 2013.

²⁷ Feuille de route pour l'adaptation des forêts au changement climatique, Ministère de l'Agriculture, décembre 2020.

In the agriculture sector

At national level, there is a coordination body for the CasDAR: the “Thematic Commission on Agricultural and Rural Development of the Superior Council of Orientation” (*Commission Thématique Développement Agricole et Rural du Conseil Supérieur d’Orientation*, CTDAR-CSO), which is chaired by one of the directors of the Ministry of Agriculture. This Commission meets three times a year.

Similarly, at regional level, there is a coordination body for CasDAR, the “Research Development Training Committee” (*Comité Recherche Développement Formation*, COREDEF). This committee is chaired by the Regional Chamber of Agriculture and its actual influence varies depending on the region.

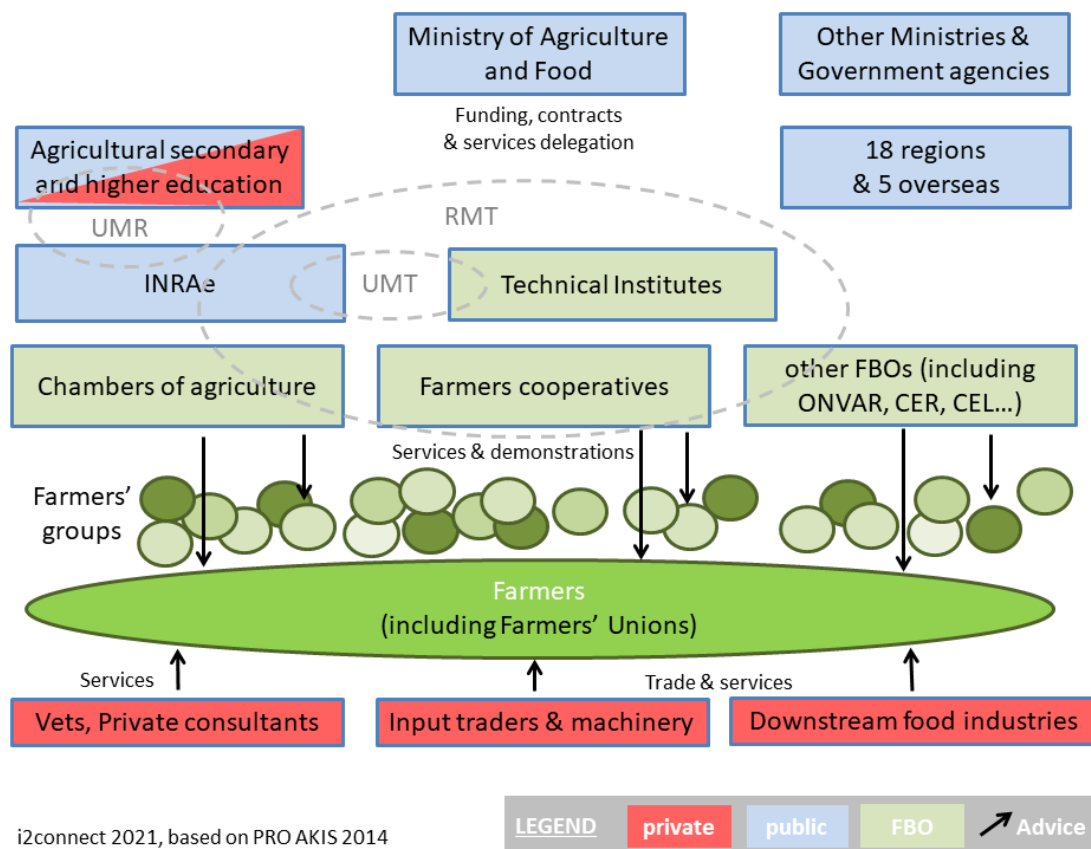
In addition, the State is also involved in various governance bodies, to ensure consultation, dialogue and cooperation between the various AKIS actors. This is the case, for instance for the planning of applied and finalised research, via the participation of farmers representatives in the board of research institutes (ITA, INRAe...) or in some Scientific Interest Groups (GIS) – see section 4.5 for more details.

In the forestry sector

There is a national coordination body, the higher council for forestry and wood (*conseil supérieur de la forêt et du bois*, CSFB). It brings together public administrations, local authorities, forest owners, producer organisations, forest managers, forest experts and other stakeholders. It is also chaired by one of the directors of the Ministry of Agriculture. The CSFB is responsible for the elaboration and monitoring of the National Forest and Wood Programme.

At regional level, there are regional forest and wood commissions responsible for drafting and monitoring regional forest and wood programmes.

2.2. AKIS diagram



i2connect 2021, based on PRO AKIS 2014

3. History of the advisory system²⁸

The origins²⁹

The origins of farm advisory services go back to the end of the 19th century: at that time, the first teachers in agricultural schools often also played a role of extension workers. At the same time, farmers began to set up unions, cooperatives, credit unions and mutual organisations. These organisations contributed to the dissemination of technical progress. Very quickly, private firms, especially fertilizer manufacturers, began to provide technical advice to farmers. After World War I, the State set up *départemental* and regional agricultural offices to support technical progress.

After World War II

The recent history of agricultural development in France is punctuated by several major “agricultural orientation laws” (“lois d'orientation agricole”), which provide strategic orientations and set measures destined to AKIS actors.

Farm extension really took off after World War II: as part of the first Plan for the Modernisation of Agriculture, the State set up local farm advisors and created pilot farms. At the same time, under the influence of farmers' unions, farmers' groups were formed, chambers of agriculture created farm extension services, bookkeeping & management services were set up, cooperatives developed technical support for their members and agricultural technical institutes were created at the end of the 1950s.

A new turning point occurred in the 1960s: support to agricultural development was gradually entrusted to farmers' professional organisations, but the State kept a steering and controlling role. In 1966, the decree on agricultural development created the “National Association for Agricultural Development” ANDA (*Association Nationale pour le Développement Agricole*) and the “National Fund for Agricultural Development” FNDA (*Fonds National pour le Développement Agricole*). In addition, the coordination of agricultural development at local level was entrusted to the Chambers of Agriculture and extension workers formerly employed by the Ministry of Agriculture were incorporated into the Chambers of Agriculture.

²⁸ This chapter is partly based on information from the report “AKIS and advisory services in France” (P. Labarthe, INRAE, 2014).

²⁹ Source : Développement agricole : réinventer le modèle à la française, Philippe ÉVRARD (INRA) et Georges VEDEL (ANDA), Cahier n°11, Club Demeter, 2003

Since the 1960's

The history of advisory services in France is linked to the evolution of relations between the State and the farmers' unions (Cerf and Lenoir 1987, Labarthe 2006). The case of the chambers of agriculture illustrates the close collaboration between the State and the farmers: they are chaired by farmers' representatives who decide on advisory services' priorities in their *département* (~county) and, at the same time, they are financially supported by public funds and targeted towards public missions. Thus, this system was described as a system of co-management of services, following Rivera's typology (Rivera 2000).

However, there has been a progressive shift from co-management towards delegation of services and contracting. This can be illustrated with the history of CasDAR, the national fund for agricultural advisory services and applied research. From 1960 until 2006, this fund was called the National Fund for Agricultural Development (FNDA). It was fed by a tax on agricultural commodities (so-called "para-fiscal" tax, consisting of a percentage taken on the first sale of milk, wheat...). The allocation of this fund, mainly to applied research institutes (ITA) and the chambers of agriculture, was negotiated between the State and farmers' unions within a dedicated institution: the National Association for Agricultural Development (ANDA), where the farmers' unions and the Ministry of agriculture were equally represented. This institution faced growing criticism over time. In 1999, a very critical report by the institution monitoring public expenditure in France (*Cour des Comptes*) emphasized several shortcomings, which finally led to the dissolution of ANDA: the lack of transparency in the allocation of funding and the lack of evaluation of its effectiveness; the lack of diversity in terms of beneficiaries; the inability of ANDA to address public interest issues, in particular environmental issues.

As a result, three major changes were implemented:

- ANDA was shut down in 2003 and temporarily replaced by a public body named Agency for Agricultural Development (ADAR, *Agence du Développement Agricole*). In 2006, the Ministry of Agriculture took over this role and the FNDA was replaced by the CasDAR, a special account managed by the Ministry of agriculture. There is no longer a co-management of the fund. It has been replaced by a consultation process and contracting procedures between the State and the beneficiaries of pluri-annual contracts.
- The funding mechanism was reformed: it is no longer a tax on the first sale of agricultural commodities, but a tax on farmers' gross income; and the global amount of tax collected has decreased.

- Efforts were made to diversify beneficiaries: Firstly, part of the funding was allocated through competitive calls for projects. Secondly, new actors were acknowledged as "National Agricultural and Rural Organisations" (ONVAR) and became eligible for CasDAR funding. There were initially 7 ONVARs and, since 2014, there are 18.

This reform has affected the various actors of AKIS and advisory services. The Chambers of Agriculture have progressively reoriented their activities towards new subjects such as environment, local development, land planning issues... The second consequence was the emergence of networks representing alternative non-profit organisations (ONVAR), which are now more visible, but have to comply with the procedure of proposing pluri-annual plans to the Ministry in charge of agriculture in a context of reduction of public expenditure.

More generally, environmental issues became increasingly important in the 1990s, with an emerging idea of multi-functionality in agriculture. For example, we can highlight the *Contrat Territorial d'Exploitation* (CTE) introduced by the 1999 agricultural orientation law and implemented between 1999 and 2003. This measure was intended to support farmers engaged in a global process of improvement, taking into account economic, social, environmental and rural development considerations. Its originality compared to the measures of the CAP's second pillar was to introduce a holistic approach of farms.

Another major trend lies in the growing importance of farmers' cooperatives. There has been major restructuring of these organisations, with many mergers and the creation of R&D units. An example of this is InVivo, a union of cooperatives created in 2001, which gathers nowadays 192 cooperatives, has a turnover of 5.1 billion euros, employs 5,818 staff and is established in 19 countries.³⁰ Nowadays, InVivo is also a major player in agricultural R&D.

Recent developments over the past 10 years

Since 2012, the Ministry of Agriculture has been promoting **agro-ecology**, a way of designing more sustainable production systems, considering farms as a whole and optimizing ecosystem services. This strategic objective is taken up in all the programmes financed by the Ministry of Agriculture. For example, it resulted in an

³⁰ Source: data 2020, website of the InVivo Group: <https://www.invivo-group.com/fr/en-bref>

action plan for agricultural education entitled "teaching to produce differently" and it is also one of the priorities of the actions financed by CasDAR.

A further trend is the promotion of **environment-friendly practices and innovation within groups**. Several national or European programmes provide funding for such groups: the Écophyto programme supports 254 "**DEPHY FERME**" groups bringing together 2,894 farmers engaged in Integrated Pest Management, whose practices and results are closely monitored over time and which serve as reference farms³¹. In addition, Écophyto supports the dissemination of IPM techniques to other groups of farmers, so-called "**Écophyto 30,000**" groups. In 2021, there are 472 such groups bringing together about 6,200 farmers.³²

Similarly, the CasDAR finances "economic and environmental interest groups" or **GIEE** (*Groupements d'intérêt économique et environnemental*): in 2020, 753 groups bringing together 12,637 farmers developing agro-ecological practices³³.

Moreover, since 2014, the CAP second pillar (EAFRD) includes a measure entitled "cooperation", which finances "**operational groups**", i.e. multi-actor groups devoted to developing and implementing innovative projects. These operational groups are key components of the European Innovation Partnership for Agricultural productivity and Sustainability (EIP-AGRI): in February 2021, there were 283 operational groups in France³⁴.

Overall, there are currently more than 1,760 farmers' groups dedicated to agro-ecology and/or innovation in agriculture, bringing together more than 22,000 farmers. These groups are supported by at least one advisor or facilitator and are part of national networks, which promote knowledge capitalisation and dissemination. A map and a database including the location and description of these groups are available on the website "Collectifs agroécologiques"³⁵.

Furthermore, the recent ordinance on the **separation of farm advisory services and the sale of plant protection products**³⁶, which was published in April 2019 and came into force in January 2021, will lead to a significant reorganisation of the actors involved in farm advisory services. This ordinance is motivated by the fact

³¹ Source: website ECOPHYTOPIC, April 2021: <https://ecophytopic.fr/dephy/carte-interactive-dephy>

³² Source : website « Collectifs agroécologiques », April 2021 : <https://collectifs-agroecologie.fr/>

³³ Source : Ministry of Agriculture, data 2020

³⁴ Source : French Rural Network, April 2021 : <https://www.reseaurural.fr/le-partenariat-europeen-pour-linnovation-agri/les-groupes-operationnels-du-pei>

³⁵ <https://collectifs-agroecologie.fr/>

³⁶ Ordonnance n°2019-361 du 24 avril 2019 relative à l'indépendance des activités de conseil à l'utilisation des produits phytopharmaceutiques et au dispositif de certificats d'économie de produits phytopharmaceutiques, JORF n°0097 du 25 avril 2019

that the use of plant protection products has not decreased significantly in recent years, even though considerable efforts have been devoted to the Ecophyto programme since its launch in 2009.

4. The agricultural and forestry advisory services³⁷

In France, there are approximately 23,500 farm advisors, who provide advisory services to farmers to varying degrees. This represents about 1 advisor for every 20 farmers. Publicly funded advisors represent about one third of the total.³⁸

4.1. Overview of all service suppliers

A first group of actors are the **Chambers of Agriculture**. They cover the whole country, at *département*, regional and national level. They are public bodies chaired by elected farmers. Their role is on the one hand to represent the farmers and foresters to local and national authorities and on the other hand to provide services to farmers, foresters, local authorities...

These services include information, individual advice to farmers, facilitating farmers' groups, training advisors and farmers, carrying out trials and demonstrations, supporting local development projects, expertise on policies and regulations...

In addition, the Chambers are in charge of public services delegated by the State: coordination of the regional agricultural and rural development programmes, coordination of actions to support the setting-up of young farmers, coordination of irrigation at regional level, registration of farm businesses, management of animal identification, contributing to local land planning, to the agro-ecological transition, etc.

The Chambers are key actors for a number of activities: For instance, they support about 50% of the young farmers benefiting from the CAP setting-up scheme. Similarly, they support a significant part of the agro-ecological farmers groups (about 60% of DEPHY FARM groups and more than a third of the Écophyto 30,000 and the GIEE groups). Moreover; they provide over a third of the farmers' continuing education; for example, they provide the training on plant protection products "Certiphyto" to about 30,000 farmers per year.

Moreover, the Chambers also run a training centre, named Resolia, which provides training sessions to 4,000 advisors, managers and administrative staff each year.

The Chambers of Agriculture are involved in 62 experimental stations. They also carry out on-farm trials and participate in multi-actor R&D projects. In addition, they follow-up the "INOSYS" network, designed to produce technical and

³⁷ This chapter is partly based on information from the report "AKIS and advisory services in France" (P. Labarthe, INRAE, 2014).

³⁸ Source: Hervieu B., Bour-Desprez B., Buer J.-L., Cascarano J.-L., Dreyfus F., Gosset G., Évaluation de la politique de développement agricole, rapport du CGAAER, n°13 059, Ministère de l'Agriculture et de l'alimentation, Paris, 2014.

economic references on different farming systems. These activities are often implemented in collaboration with technical institutes, for example the livestock institute IDELE in the case of INOSYS. In addition, the Chambers of Agriculture support about 1,700 innovative groups, with approximately 31,000 farmers³⁹. These various research and innovation activities provide examples of good practices and references for advising farmers.

In the next five years, the three strategic priorities of the Chambers of Agriculture are: to support the economic, societal and climatic transitions in agriculture; to create and keep more added value in rural areas; and to foster dialogue between agriculture and society⁴⁰.

Key figures

There are 89 Chambers at *département*⁴¹ level (including 5 overseas *départements*), 13 regional Chambers and a national umbrella organisation (APCA). The Chambers have 4,200 elected members. Elections take place every 6 years. They have around 8,250 staff, about 75% of whom are engineers or technicians. Most farm advisors are employed by the Chambers at *département* level, except in the regions Bretagne, Normandie and Pays de la Loire, where the staff is employed by the regional Chambers.

The total budget of the Chambers of Agriculture is about 774 million euros. At *département* level, the Chambers combine different financial resources: a local tax on "non-built" land (TATFNB⁴², on average 42% of total budget), subsidies from the Ministry in charge of agriculture (CasDAR fund), contracts with local authorities (regions, *départements*, agencies, 21%) and fees paid by farmers for services (28%)⁴³. At regional and national level, their financial resources mainly come from fees paid from the Chambers at *département* level and contracts with public authorities.

A second major group of actors providing information and advisory services are organisations in direct contact with farmers for the supply of inputs or the purchase of agricultural commodities. There are two types of organisations providing such services: **farmers' cooperatives and private traders**.

Several research studies suggest that these organisations are often the first

³⁹ These figures include DEPHY and "30,000" groups, GIEE and EIP-Agri Operational Groups, as well as some more ancient "agricultural development groups".

⁴⁰ Source: Le projet stratégique 2019-2025 des Chambres d'agriculture, un nouveau développement pour plus de vie dans les territoires, 28 novembre 2019: <https://chambres-agriculture.fr/publications/toutes-les-publications/la-publication-en-detail/actualites/le-projet-strategique-2019-2025-des-chambres-dagriculture-version-complete/>

⁴¹ In the Eurostat classification, a French Région corresponds to NUTS2 level and a Département to NUTS3 level.

⁴² TATFNB : taxe additionnelle à la taxe sur le foncier non bâti

⁴³ Base de données sociales et financières, Synthèse des données 2019, APCA, 2019.

contact point for farmers to access technical information⁴⁴. Estimating the number of advisors in these organisations is difficult. A first reason is the speedy reorganisation of this sector, especially for cooperatives. A second reason is that the role of their field staff is variable, sometimes ambiguous, between sale, information on farm inputs and markets, and actual technical advice. Some years ago, the federation of farmers' cooperatives (La Coop ration Agricole, formerly Coop de France) and the federation of agricultural trade (F d ration du n goce agricole, FNA) claimed to have respectively more than 7,500 (Coop de France 2013) and 2,600 staff (FNA 2013) providing advisory services. Moreover, there are significant differences between the production sectors: the cereal cooperatives have the largest number of advisors. In the cereal sector, advisory services were commonly funded by the margins on the sale of plant protection products. In the fruits and vegetable sectors, they can be funded by the "operational programmes" of producer organisations (Common Organisation of Agricultural Markets). In the livestock sector, advisory services can be supported by FranceAgriMer.

These figures are likely to decrease in the short term, due to the entry into force of the ordinance on the separation of advisory services and sales of plant protection products in January 2021⁴⁵. This ordinance aims to prevent any conflict of interest that may result from the coexistence of advisory services and sales of plant protection products within the same organisation. This regulation will mainly affect cereal cooperatives: many of them will first focus on their commercial activities. In a second phase, some of them will develop advisory activities via separate legal entities.

Key figures⁴⁶

- 2,300 cooperatives in France, including 600 organic cooperatives
- Total turnover is 85.5 billion euros
- Cooperatives employ 190,000 staff
- 3 out of 4 farmers are active members of at least one cooperative
- 1 out of 3 food brands belong to a cooperative
- Cooperatives account for 40% of the total turnover of the French agri-food industry.

Downstream industries can also be key actors of advisory services (agro-food

⁴⁴ Source: AKIS and advisory services in France, PRO AKIS project, Pierre Labarthe, INRA, May 2014

⁴⁵ Ordonnance sur la s paration du conseil et de la vente, application, mise sur le march  de produits phytosanitaires du 24 avril 2019, issue de la loi « Egalim » du 30 octobre 2018.

⁴⁶ Source: economy department, La Coop ration Agricole, 2020

industries), even though there are strong differences between sectors. In production sectors with a high level of vertical integration (milk, poultry, potato...), some firms have created important advisory service departments, for instance, McCain for potato production in North of France (Tschuisseu and Labarthe 2013). Similarly, the fast food company MacDonald's France has adopted an agro-ecological strategy in 2010 and is working with various AKIS actors and with a network of reference farms to test farming practices that are both environmentally friendly and profitable.⁴⁷

A third group of actors is composed of various **farmers' associations** that provide services to their members.

Some of them have been recognized by the State as **National Agricultural and Rural Organisations (ONVAR, *Organisme National à Vocation Agricole et Rurale*)** for the period 2015-2021, which means they can receive funding from CasDAR.

The ONVARs are national umbrella organisations representing local non-profit organisations and/or federations of farmers and workers. These associations are very diverse in size, target groups and approaches. Many of them attach great importance to collective and participatory approaches, as well as to the autonomy of farmers, and they often promote alternative farming practices or alternative models for farm management or local development.

These organisations rely on various sources of funding: public subsidies including CasDAR, farmers' contributions, projects and purchase of services by clients (training, advice...).

Until 2014, the Ministry of Agriculture recognised 7 ONVARs that could benefit from CasDAR funds. After 2014, their number increased to 18, in order to further diversify approaches to agricultural and rural development (see complete list in appendix). It should be noted that the federation of cooperatives (La Coopération Agricole) is now considered as one of the ONVARs with regard to eligibility for CasDAR funds.

The main ONVARs providing advisory services to farmers are:

- FNCUMA is the national federation of cooperatives for the use of farm machinery (*Coopératives d'Utilisation du Matériel Agricole, CUMA*). It represents 10 regional federations, 11,740 local CUMA's and 202,000 members. Their primary aim is to share machinery among farmers. These cooperatives employ 4,700 staff, including drivers, but also bookkeepers and about 200 facilitators (advisors), who offer services such as individual and

⁴⁷ Source: <https://www.mcdonalds.fr/entreprise/developpement-durable/agriculture>

group advice, experiments, demonstrations with machinery companies, training... The national federation employs about 20 staff.⁴⁸

- TRAME is a network of federations, the two main ones being the federation of agricultural workers (*Association des Salariés de l'Agriculture pour la vulgarisation du progrès agricole*, ASAVPA) which brings together 6,000 members and 50 technicians, and the federation of farmers' groups for agricultural Development (*Fédération nationale des groupes d'études et de développement agricole*, FNGEDA). The later includes more than 40,000 members distributed in 1,200 groups. These farmers' groups can either be connected to the Chambers of Agriculture (*Groupes de développement agricole*, GDA, often facilitated by chambers' advisors) or they can be independent, as the *Centres d'Etudes des Techniques Agricoles* (CETA), where advisors are paid by farmers' contributions. Another member is APAD (*Association pour la Promotion d'une Agriculture Durable*) which focusses on soil conservation and has about 1,000 members (farmers and technicians). TRAME also includes newer organisations such as the biogas farmers association (*Association des Agriculteurs Méthaniseurs de France*, AAMF).
- The *federation of CIVAM* (*Centres d'Initiatives pour Valoriser l'Agriculture et le Milieu rural*) represents 135 farmers' groups (10,000 members) facilitated by 107 advisors with the support of a national federation employing 6 people. The CIVAM are for example involved in low-input production systems, localised agri-food systems, economic and social activities and networks in rural communities;
- The federation of organic farming (*Fédération Nationale d'Agriculture Biologique*, FNAB) brings together 82 local and regional groups (*Groupement d'Agriculteurs Biologiques* or GAB and *Groupement Régional d'Agriculteurs Biologiques*) and represents more than 10,000 organic farmers. Overall, the local and regional groups employ about 250 staff to provide various services to their members. The national federation employs 16 staff.⁴⁹

See the complete list of ONVARs in Appendix.

There are other federations of **non-profit organisations**, which play a key role in the provision of services to farmers, including advice on the technical and economic performance of farms:

⁴⁸ Source: data 2019, website of FNCUMA: <http://www.cuma.fr/content/les-chiffres-cles-des-cuma>

⁴⁹ Sources: the websites of FNAB: <https://www.fnab.org/> and produire bio: <https://www.produire-bio.fr/cest-quoi-la-bio/reseau-producteurs-bio/>

- *CER France*⁵⁰, a network of 59 local (département) and regional associations providing bookkeeping and other services to 170,000 farms and 83,000 SMEs, mainly in craft industry, retail and services. Farmers are still in the majority in the CERs' governing boards. These associations were founded some 60 years ago. They are independent associations supported by a national federation involved in networking, training and foresight. Overall, the CERs employ 13,000 staff.

Despite the decrease in the number of farms, their activity is still increasing, due to a continual diversification, not only towards new clients outside the agriculture sector, but also thanks to the diversification of services to farmers: before 1972, the CERs' services were focused on advice on management; in 1972, bookkeeping became compulsory for farmers and accounting became the central activity; in the 1980s, advice on legal and social issues emerged, followed in the 2000s by advice on environmental issues. Nowadays, accounting and issuing of payroll represents about 78% of the activity, while advice represents about 22% of the activity. Advice on economics and management, on CAP declarations, on marketing, on environmental and energy issues represents about 2/3 of the activity. And, finally, legal, social and asset-related advice represents about 1/3 of the activity. Nowadays, the CERs employ 1,400 advisors and 750 legal experts.

The services offered are mostly individual, but the CERs also facilitate some collective actions: 10 GIEEs and a network of 250 farmers engaged in environmental-friendly approaches.

In addition, CER France works closely with the Ministry of agriculture to monitor the economic results of farms, notably to feed the Farm Accountancy Data Network (FADN), which monitors farms' income and business activities across Europe.

- *France Conseil Élevage (FCEL)* is the national federation of livestock advisory companies (cattle and goats). Their two main activities are: (1) performance control⁵¹, aimed at optimising herd management, which has been the core activity for the last 100 years; (2) advice on technical and economic management and on environmental and societal issues. This second activity has been growing strongly over the past 15 years.

In 2019, the FCEL network monitored 50,000 farms, including 33,000 dairy farms (64% of the dairy cows), 1,600 goat farms (40% of the goats) and 1,200

⁵⁰ Sources: website of CER France (data 2019) and interview of Philippe Boulet, CER France, February 2021.

⁵¹ Measure of key indicators, such as the amount of milk produced per cow and weight growth rate for beef cattle.

beef cattle farms (15% of the beef).⁵²

The network comprises 85 companies and more than 4,000 employees, including more than 1,200 dairy advisors (dairy cattle and goats), 260 advisors in beef farming and 260 support engineers. The national federation employs 18 staff and provides various services to their members: representation to public authorities, training, quality management of the data that supports genetic selection, research and innovation projects, communication...

The livestock advisory companies are financed by farmers' contributions that cover basic services. Extra services are charged separately.

- The “animal health groups” (*Groupements de Défense Sanitaire, GDS*) are associations of breeders at département level. They are recognised by the Ministry of Agriculture as sanitary organisations and ensure that herds are in good health, studying the specific risks in their department and the breeds in the sector and advising breeders on what to do to prevent diseases: vaccination, hygiene, breeding conditions, etc. Nowadays, they represent more than 95% of cattle breeders, more than 70% of goat and sheep breeders, and nearly 50% of pig breeders. Their teams often include a veterinary providing information or training to farmers. About 240 advisors are involved in GDS (CGAAER 2014, p. 99).

Their equivalents in the plant sector are the regional federations for pest control (*Fédérations Régionales de Défense contre les Organismes Nuisibles, FREDON*) also recognised by the State as sanitary organisations.

A more recent group of actors are **private advisory companies**. In 2006, some of them founded a national association of independent farm advisors (*Pôle du Conseil Indépendant en Agriculture, PCIA*). The PCIA brings together between 70 and 80 firms. Some members are individual consultants, other are SMEs employing 1 to 5 advisors. For the moment, the association doesn't have any employees and relies on volunteers. The services offered include diagnosis, expertise, training and advice, with a focus on production techniques. Historically, the private advice started in the vineyard, orchard, small fruits and vegetable sectors, but the field of activity has now been extended to all crop productions and to animal production, notably animal nutrition. For years, the PCIA has been advocating for independent consulting firms that "only sell

⁵² Source: website of France Conseil Élevage (FCEL): <https://www.france-conseil-elevage.fr/>

knowledge". Since the entry into force of the Ordinance on the separation of advisory services and sale of phytosanitary products, several dozen consulting firms have applied to join PCIA.⁵³

The forestry sector

Advisory services

- The **national centre for forest property** (*Centre National de la Propriété Forestière*, CNPF) is a public body in charge of developing sustainable management of private forests. It is run by elected forest owners and represents about 3.5 million forest owners holding 12.6 million hectares of forest. It comprises 11 regional centres (CRPF) and the Institute for Forestry Development (IDF). The CNPF employs approximately 350 staff and has a yearly budget of about 35 million euros.

The CNPF carries out public services delegated by the State: the regional centres provide guidelines for the management of private forests in their region and they are also responsible for processing and approving “individual forest management plans” (*plans simples de gestion*). In addition, they encourage forest owners to group together and organise training and information activities.

The CNPF supports and coordinates the national network of forestry development organisations: centres for technical and economic studies and forestry experiments (CETEF) and forestry development groups (GDF). These local associations bring together forest owners who want to improve their forestry practices. They are run by advisors from the CRPF or the Chambers of Agriculture.

In addition, there are also “forestry economic and environmental interest groups” (*groupement d'intérêt économique et environnemental forestier*, GIEEF), aimed at encouraging the sustainable management of private forests within groups of private forest owners.

- **Chambers of Agriculture:** Some chambers of agriculture also employ forestry advisors, notably in the regions Auvergne Rhône-Alpes, Bourgogne Franche-Comté, Grand Est, Occitanie and Nouvelle Aquitaine (85 forestry advisors in total).

⁵³ Source: interview of the President of PCIA and website.

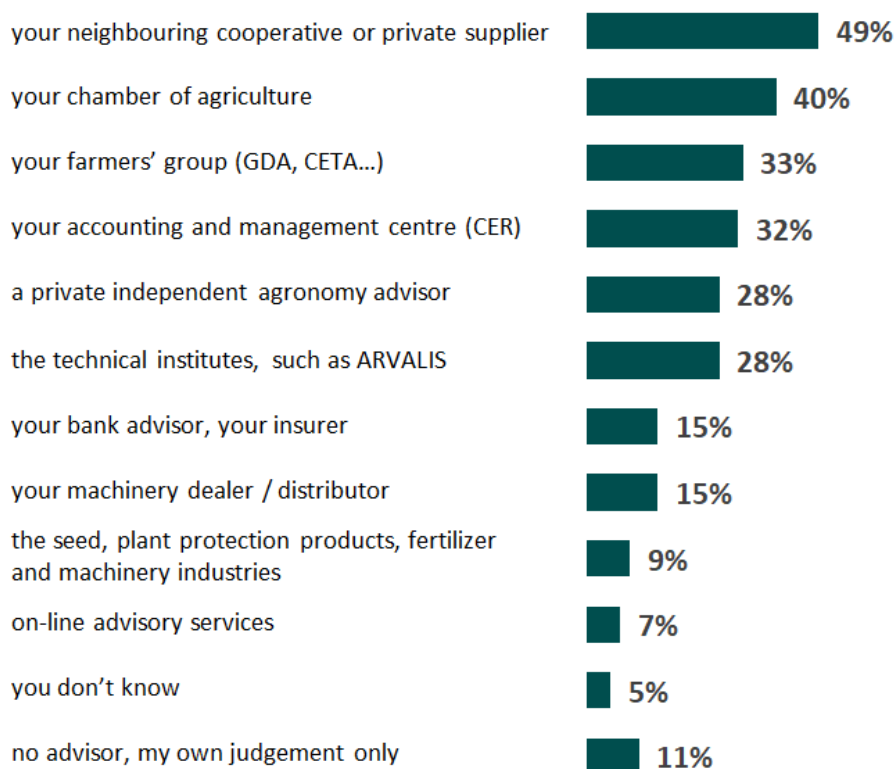
- **Private advisors:** They are united within the association “forest experts of France” (**Experts Forestiers de France, EFF**). Forestry experts must be members of the “national council for agricultural and forestry land expertise” (*Conseil National de l'Expertise Foncière Agricole et Forestière, CNEFAF*), which draws up the list of forestry experts each year. The list currently counts 116 experts.

Expected developments in the coming years

As mentioned earlier in this section, the recent ordinance on the separation of advisory services and sales of plant protection products will result in a certain restructuring of farm advisory services, especially in the arable crop sector.

A recent survey, which is currently in its second phase, informs us about the vision that farmers have of the evolution of their practices, including advisory services. It is the study “Agriculture in transition” carried out by the market research firm IPSOS among a sample of 1,032 farmers in the main production sectors throughout metropolitan France in October-November 2020⁵⁴. In particular, one of the survey’s questions was “Your profession is constantly reinventing itself. In your opinion, in 2025, who will you first call upon to support you in your technical and economic choices? The answers show that farmers believe they will still rely on their usual service suppliers (see details in the graph below).

⁵⁴ Source: étude “Agricultures en transition – suivre l'évolution des pratiques agricoles pour mieux préparer l'avenir” (ie. agriculture in transition - monitoring the evolution of farming practices to better prepare for the future). IPSOS, November 2020



Source: étude "Agricultures en transition". IPSOS, November 2020

4.2. Public policy, funding schemes, financing mechanisms, advisory service providers⁵⁵

The public policy, funding schemes, financing mechanisms and planning of advisory work have already been described partly in section 2 and section 3. Indeed, the CasDAR is the central element of a public policy characterised by procedures of delegation of services, where the State funds and regulates the supply of services without being directly active in their provision. Besides CasDAR, there is a second major fund to support advisory services: a tax collected on "non-built" land, the "*Taxe Additionnelle à la Taxe sur le Foncier Non Bâti*" (TATFNB). This tax is collected at département level and specifically benefits the chambers of agriculture at département level (about 42% of their budget), as well as the national center of forest owners (CNPF). However, the use of this financial resource is controlled: the TATFNB can only finance two types of expenditure: those related to the representation of farmers' interests to public authorities and those related to the provision of delegated public services and actions of general interest. Overall, the public funding of advisory services is complex, and mixes supports at different levels

⁵⁵ This chapter is partly based on information from the report "AKIS and advisory services in France" (P. Labarthe, INRAE, 2014).

(national, regional, EU) in different ways according to the various organisations (chambers, ITA, cooperatives...).

More globally, three trends are worth highlighting on the evolution of the funding and planning of agricultural advisory services:

- There is a growing trend towards devolution and decentralisation, as départements and especially regional councils tend to develop their own instruments to support agriculture, forestry and rural development in general. Moreover, since 2014, the regional councils manage the regional rural development programmes (RDPs) financed by the EAFRD, which include several measures that can finance farm advisory services, in particular the “cooperation” measure to finance the operational groups of the EIP-agri.
- There is not a global coordinated national policy regarding farm advisory services: there are different instruments, connected to different agricultural and rural policies. These instruments are conceived and evaluated separately by different divisions of the Ministry in charge of agriculture. This is true, for instance, in the case of CasDAR (linked both to rural development policy and to agricultural education policy), of the Ecophyto Plan (linked to “Grenelle de l’environnement”) or of the Farm Advisory System (linked to the CAP, see section 5);
- Many of these instruments are aimed at supporting interactions between the different actors of AKIS and advisory services (see section 4.5).

Impact assessment: apply the ASIRPA method to actions funded by the CasDAR

The Ministry of Agriculture requests a tool to assess the impacts of actions financed by the CasDAR, to be able to present them to all stakeholders concerned: farmers who contribute to the CasDAR, administrators and fund managers, actors of the agri-food chains, other ministries, public agencies, etc. A team of researchers at INRAE developed a method for evaluating the impacts of INRAE’s research activities, the “Socio-economic analysis of the impacts of public agronomic research” (ASIRPA⁵⁶, *Analyse socio-économique des impacts de la recherche publique agronomique*). This method helps to better understand the impact-generating mechanisms and to account for the societal impacts of research through the use of standardized case studies;

The objectives of the current assignment are to:

⁵⁶ <https://www6.inrae.fr/asirpa> Colinet L., Joly P-B., Gaunand A., Matt M., Larédo P., Lemarié S., 2014. ASIRPA – Analyse des Impacts de la Recherche Publique Agronomique. Rapport final. Rapport préparé pour l’Inra. Paris, France

- Adapt the ASIRPA method to case studies that have benefited from casdar funds;
- Carry out case studies to test the method on three different topics: organic farming and value chains, local and regional agri-food chains, and soils and fertilisation;
- Initiate a dynamic among beneficiaries of CasDAR funds in order to establish a culture of impact assessment and optimise the use of this fund.

This assignment will take place over the period June 2020 - December 2021. It is coordinated by ACTA, with methodological support from the INRAE team that designed the ASIRPA method and the involvement of CasDAR beneficiaries: chambers of agriculture, cooperatives, technical institutes and ONVARs.

4.3. Human resources and methods of service provision

The human resources are presented in section 4.1, for each category of organisation.

Nowadays, there are still three main ways to provide advisory / knowledge services to farmers:

- **Individualised advisory services** to increase farms' technical and economic performance (cooperatives, CERs, CEL...), reaching a significant number of farmers by combining advice together with other services: sale of inputs, buying and marketing agricultural products, bookkeeping, performance monitoring...
- **A collective and participatory approach**, based on farmers' groups facilitated by an advisor: this method is practiced by chambers of agriculture, cooperatives and most ONVARs. Since 2010, this approach has regained importance, being strongly encouraged by new programmes such as the DEPHY groups financed by the Ecophyto programme, the GIEEs financed by CasDAR or the EIP-AGRI operational groups financed by EAFRD. These approaches require a significant, long-term commitment from advisors and farmers and therefore involve a limited number of highly motivated farmers.
- **Farmers' training** also plays an important role in supporting farmer's projects. Training courses are often tailor-made, at the request of farmers' groups. It should be noted that the association VIVEA supports the design of innovative training courses, combining training in groups and individual support.

The two forms of individual advice to farmers

For many years, there have been two main forms of individual advice: on the one hand, strategic advice, which aims to clarify objectives and integrate various elements into an integrated approach to the farm to support the farmer's decisions. It is intended to strengthen the farmer's ability to manage a complex system faced with hazards and uncertainties. On the other hand, tactical advice, which allows the farmer to get information on specific subjects and quickly benefit from concrete and useful short-term expertise.

The strategic advice on the use of plant protection products

The strategic advice approach was once limited to a small number of farmers, but will now concern a large number of farmers. Indeed, in the framework of the ordinance on the separation of advice and sale, as from January 2021, strategic advice on the use of plant protection products has become compulsory for all farms (with the exception of some certified). In fact, to renew his/her "certiphyto", a farmer will have to have completed 2 strategic phytosanitary advice sessions over a period of 5 years.

4.4. Clients and topics / contents

To the best of our knowledge, there is no national study to estimate the number and the profile of farmers and foresters benefiting from advisory services.

4.5. Linkages with other AKIS actors/knowledge flows⁵⁷

The farm and forestry advisory organisations have longstanding collaborations, both institutional and informal, with the other AKIS actors, particularly with the agricultural technical institutes (ITAs).

This can be illustrated with the examples of two **agricultural technical institutes** (ITAs): Arvalis (cereals, maize, potatoes, flax and fodder crops) and IDELE (ruminants). There are interactions between Arvalis and other AKIS actors at different levels:

- *in the programming of applied research activities*: the work plan of ARVALIS (R&D topics...) is mainly decided by the board of administrators,

⁵⁷ This chapter is partly based on information from the report "AKIS and advisory services in France" (P. Labarthe, INRAE, 2014).

where farmers hold the majority. This board receives recommendations from two types of commissions: on the one hand, the scientific council, composed of four subgroups (public research and higher education, upstream private research, downstream private research and farmers); on the other hand, regional farmers' commissions (*commissions d'orientation professionnelles*). Some of the farmers' representatives are chosen locally by other AKIS actors, such as chambers of agriculture, cooperatives, specialised associations of wheat or corn producers;

- *in the implementation of research activities*: each year, ARVALIS implements experiments about the performance (yield, pest resistance, adaptation to soil and climate conditions...) of the different wheat varieties available on the market. These experiments are financed by farmers' contributions. They are run in 30 experimental stations, where ARVALIS shares facilities and competences with other AKIS actors (chambers, other ITAs). Some experiments are carried out directly on farms;
- *in the dissemination of the results of the experiments*: the results are disseminated via three channels: publication of regional reports available for free online; open days and demonstrations on experimental stations; training sessions for advisors. There are specific agreements between ARVALIS and each departmental chamber of agriculture, which allow the chambers to access to the results of experiments, but also to other resources of the institute, such as methods and agronomic tools for advisors.

The **livestock institute IDELE** has similar procedures: the strategic plan is decided by a board of administrators composed of farmers, but also other AKIS actors such as chambers of agriculture or FCEL. The board receives recommendations from a scientific council and from committees representing the value chains dairy, pork, meat... (*comités de filières*). A specificity of the livestock institute is that it works closely with advisory organisations (chambers or agriculture, FCEL, producers' associations) to produce reference data and develop new methods and tools for advisors (Dockès *et al.* 2010). IDELE also organises many training activities.

Similarly, the national umbrella organisation of **the chambers of agriculture**, APCA, has a "scientific committee" (*Comité Scientifique*) comprising representatives of INRAe, several technical agricultural institutes, an institute of higher agricultural education, a water management agency and the Ministry of Agriculture. The scientific committee is an independent advisory body that

provides scientific and technical advice on the agricultural and rural development programmes of the Chambers of Agriculture, as well as on other actions funded by CasDAR, notably the Joint Technology Networks (see below).

Beyond these long-standing institutional partnerships, a pioneering initiative was **Agro-transfert**: it brings together producers' organisations, applied research institutes, chambers of agriculture, local authorities, INRA...). They employ engineers who lead projects (3 to 6 years) so as to propose methods and practices that farmers can apply (about the reduction of the use of input, soil management...). The principle is to bring researchers and engineers in a same geographical location and under a same management unit to enhance the knowledge exchanges. Nowadays, there is only one Agro-transfert left, in Picardie (Hauts de France region).

Other collaborations involve **exchanges of resources and competences** between research institutes such as INRAe, and advisory organisations. For example, INRAe welcomes engineers seconded by advisory organisations and also makes experimental equipment and facilities available to various actors in applied research and advisory services.

As from 2006, the Ministry of Agriculture launched new institutional arrangements to foster the networking of AKIS actors and bridge the gap between research and practice. Three main networks exist at a national scale:

- The **“scientific interest groups”** (*Groupes d'Intérêt Scientifique, GIS*). GIS can be thematic (about agronomy, supply chains, soils, green biotechs...) or related to specific production sectors. In 2018, there are 7 ongoing GIS⁵⁸. These GISs organise an extensive consultation between the stakeholders concerned, with the aim to co-design research and R&D programmes adapted to their needs. In particular, the GIS “agronomy revival” (*GIS Relance Agronomique*) aims to improve the coherence of the agricultural research, development and innovation system at national and regional level.
- The **“joint technological units”** (*Unités Mixtes Technologiques, UMT*): the UMTs bring together at least one technical institute and one public research institute or one higher agricultural education institution, for

⁵⁸ 5 sector-related GIS : <https://www.gis-relance-agronomique.fr/GIS-UMT-RMT/Les-GIS-Filieres> and 2 topic-related GIS: <https://www.gis-relance-agronomique.fr/GIS-UMT-RMT/Les-GIS-thematiques>

example researchers from INRAe and from applied research institutes (ITA) with the aim to produce knowledge and innovations in various production sectors and on cross-cutting topics. In 2020, there were 37 ongoing UMTs⁵⁹.

- The “**joint technological networks**” (*Réseaux Mixtes Technologiques, RMT*): each RMT involves at least five partners: three applied research institutes and/or chambers of agriculture, one agricultural secondary school, one higher agriculture education institution or a public research institute. Other organisations such as ONVARs or private companies can also be involved. In 2020, there are 30 ongoing RMTs⁶⁰. Each RMT is affiliated with an institutional network: ACTA, ACTIA or APCA. The main goal of the RMTs is to bring together all the relevant stakeholders and skills in order to tackle collectively the various aspects of a topic, from agronomy (fertilisation, weeds management), to R&D methods (modelling...) or social and economic issues (labour and supply chains in animal production). The aims are to produce reviews of academic literature, comparative analysis (about tools, data bases, models...), knowledge transfer (handbooks, tools for advisors, training courses and communication), but also to identify new areas for public research and apply to new calls for R&D projects (mainly from CasDAR).

More recently, following the launch of the European Innovation Partnership for Productive and Sustainable Agriculture (EIP-agri) in 2012, the **French Rural Network** established a sub-network dedicated to the implementation of the EIP-agri in France, in both its CAP and Horizon 2020 dimensions. This network is led by the Ministry of Agriculture, in close collaboration with the National Agency for Territorial Cohesion (ANCT) and the Regional Councils (Regions of France). It collects and disseminates knowledge and good practices, encourages collaboration between AKIS actors as well as synergies with national schemes supporting innovation such as GIEE, RMT... It also convenes twice a year the “EIP advisory committee” (comité consultative PEI), composed of members of the National Rural Network.

4.6. Programming and planning of advisory work

The main coordination and planning bodies are already described in section 2.1.3.

⁵⁹ The list of UMS is available on this website: <https://www.gis-reliance-agronomique.fr/GIS-UMT-RMT/Les-UMT>

⁶⁰ The list of RMTs is available on this website: <https://www.gis-reliance-agronomique.fr/GIS-UMT-RMT/Les-RMT>

4.7. Advisory organisations forming the FAS and evaluation of their FAS implementation

The measure “Farm Advisory System” (FAS) was introduced in the CAP’s Second Pillar (EAFRD) in the 2007-2014 programming period and its scope was widened in the 2014-2020 programming period⁶¹. The aim of the FAS is to help farmers to better understand and meet the EU rules for environment, public and animal health, animal welfare and the good agricultural and environmental condition (GAEC). It can also be used to provide advice to farmers beyond the scope of cross compliance.

In France, the FAS was not used to establish new advisory services, as there were already many advisory service providers and other sources of funding. During the 2007-2013 period, France decided not to allocate any EAFRD funding to the FAS. Then, during the 2014-2020, the EAFRD measure 2, which provides support for advisory services, was activated by four regions in Metropolitan France and by all the Overseas Regions.

In France, the FAS has resulted in the creation of regional networks to inform and advise farmers on how to comply with cross-compliance rules. In order to be allowed to provide advice and certification under the FAS, the regional networks of advisory organisations must be accredited by the decentralised offices of the Ministry of Agriculture.⁶²

The FAS networks were very active in the first years after introducing the cross-compliance rules, but their activity slowed down over time, as French farmers were increasingly well informed about these rules and because farm advisors necessarily took into account cross-compliance rules while providing specialised advice to farmers (about farm management, agronomy, animal husbandry, farm buildings, etc.).

Furthermore, since 2012, the completion of a diagnosis under the FAS became the **first step in the environmental certification of farms**, which aims to distinguish farms that are committed to particularly environmentally friendly approaches. By using the FAS via accredited organisations, farmers benefit from a diagnosis that enables them to comply fully with the requirements of cross-compliance and thus to access level 1 of environmental certification, which is a prerequisite for level 3 certification known as “High Environmental Value” (HVE,

⁶¹ Legal basis: Regulation (EU) No 1306/2013 on the financing, management and monitoring of the Common Agricultural Policy.

⁶² The list of networks authorised to provide FAS advice and certification is available on the Ministry’s of Agriculture website: <https://agriculture.gouv.fr/le-systeme-de-conseil-agricole-sca-pour-accompagner-les-exploitants>

i2connect

INTERACTIVE INNOVATION

Haute Valeur Environnementale).

5. Summary and conclusions

The French AKIS has been developed progressively for almost 150 years. It is characterised by a diversity of organisations, often led by farmers, by a strong involvement of public authorities and by arrangements to promote synergies and achieve common objectives. This strong AKIS has contributed to the successful development of the agri-food sector in France.

Over time, there has been a shift from a co-management model between the State and the farmers to a model based on service delegation and contracting. Since the 2000s, environmental and societal issues have become increasingly important within AKIS, as well as the issue of innovation creation and support. The division of roles between advisory services is likely to change further in the coming years as a result of the recent decree on separating the sale of plant protection products from advisory services.

However, the agricultural and forestry sectors are now facing challenges on a completely new scale: mitigating and adapting to climate change, developing renewable energies, protecting natural resources, human, animal and plant health, developing the circular economy, maintaining employment and revitalizing rural areas and, of course, increasing the country's food autonomy.

The COVID-19 health crisis has emphasised the strategic importance of food autonomy and thus highlighted several issues for R&D: the substitution of imported products such as plant proteins; the diversification of production systems; the balance between distribution channels: short and long food chains, out-of-home catering, etc.; and the need for a competitive agri-food sector, in order to stand up to international competition...

Responding to these various challenges requires very complex changes for farms. The challenge for AKIS stakeholders is to support farmers and foresters in moving towards multi-performing systems, from an agronomic, economic, social, environmental and climatic point of view. The model of basic and applied research producing universal solutions that are disseminated in the field by advisors is no longer sufficient to meet the new challenges. The solutions must now be developed thanks to more decentralized and participatory processes that encourage co-design and ownership, by combining:

- Research activity oriented towards the production of applicable and available solutions;
- Support for interactive innovation processes in which each farmer, researcher, advisor and economic operator offers his or her own skills to co-design an original solution, adapted to local needs;

- A cross-cutting knowledge transfer activity, from needs identification to massive dissemination, knowing that to optimise the transfer, it is necessary to further refine the solutions, tools and experiences tested locally so that they can be assimilated and used by a large community of engineers, advisors and farmers to transform the systems.
- A massive dissemination through advisory and support actions allowing to engage a large number of farmers and not only a few pioneers.

At these different levels, collective approaches based on farmers' groups are beneficial and must be encouraged, in complementarity with individualized support to farmers.

6. Acknowledgement of partners, information sources and gaps

We would like to thank Pierre Labarthe (INRAE), the author of the report “AKIS and advisory services in France” (May 2014). As this report is an update of the PROAKIS report, we have re-used parts of the original text, updating figures and names where necessary.

We also thank the twelve experts interviewed by phone or in person, who shared their views, provided extensive data and contributed to this report:

- Hervé Bossuat, head of division development-projects, FNCUMA, January 2021
- Quentin Mathieu, policy officer, economic studies unit, APCA, January 2021
- Lionel Viard, policy officer forest-agroforestry, rural development, food and forestry unit, APCA, January 2021
- Philippe Boulet, director of the performance and foresight division, CER France, February 2021
- Guillaume Dyrzka, project manager of the advisory services action, La Coopération agricole, February 2021
- Constance Bigourdan, head of the quality procedure unit, February 2021
- Dominique Bouvier, head of the enterprise & setting-up unit, APCA, February 2021
- Anne-Laure Bourigault & Jérémie Dreyfus, in charge of strategic advice on phytosanitary products, enterprise & advice division, APCA, February 2021
- Hervé Tertrais, President, Pôle du conseil indépendant en agriculture (PCIA), March 2021
- Thierry Thuriot & Christophe Pinard, agricultural development and chambers of agriculture office, ministry of agriculture and food, March 2021

In addition, we consulted the websites and the activity reports of the main AKIS actors to update the data on these organisations (staff, turnover, etc.).

However, we were unable to conduct the survey online due to time constraints. We expect that the advisors' database developed in the i2connect project (AS Database) will provide us with additional data in the near future.

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Note: some other issues of the journal « Agronomie Environnement et Société » (AE&S) contain articles dealing with AKIS:

1. N°5-1 juin 2015 Changement climatique et agriculture : comprendre, anticiper, ici et ailleurs.
2. N°5-2 décembre 2015 Innovations agricoles : quelle place pour l'agronomie et les agronomes, en particulier l'article de Lamé et al (pp. 47-54)
3. N°6-2 décembre 2016 Savoirs agronomiques & Développement agricole, en particulier les articles de JM Meynard (pp. 17-27) ; P. Prévost et al (pp. 105-109) ; L.Prost et al (pp. 109-118) ; B. Omon (pp. 201-203)
4. N°7-1 juin 2017 Nutrition et agronomie, notamment articles de Duru et al (pp. 83-95)
5. N°8-1 juin 2018 Agronomie et agriculture numérique : ce qui change pour les agronomes
6. N°8-2 décembre 2018 Agronomie et design territorial, voir les articles de la partie "Des expériences de recherche dans une dynamique de design territorial", pp. 133-168
7. N°9-1 juin 2019 Gestion de la fertilisation, Meynard et Jeuffroy (pp. 45-54) et Lemaire (pp. 55-63)
8. N°9-2 décembre 2019 Démarches cliniques en agronomie et outils pour les agriculteurs et leurs conseillers

Appendix: list of the 18 ONVAR recognised by the Ministry of Agriculture to benefit from CasDAR funds

Organisation	Focus
Accueil Paysan	Agritourism
AFIP (association de formation et d'information pour le développement d'initiatives rurales)	
AFAF (association française d'agroforesterie)	Agroforestry
Association Française de Pastoralisme	Pastoralism
L'Atelier Paysan	Customised machinery
La Coopération française	All sectors
FADEAR (fédération des associations pour le développement de l'emploi agricole et rural)	Setting-up young farmers
FNAB (fédération nationale de l'agriculture biologique)	Organic farming
CIVAM	Groups approaches
FNCUMA	Sharing machinery
Association Nationale des Sociétés et GAEC	Legal issues (GAEC)
INTERAFOCG	Farm management
MIRAMAP (mouvement interrégional des AMAP)	Direct sale of farm products
Service de Remplacement France	Short-term replacement of farmers
Solidarité Paysans	Farmers facing difficulties
Terre de Liens	Access to farm land
Terres en Villes	Peri-urban agriculture
Trame	Resource centre on agricultural and rural development