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After being entrusted with new missions in 2015, namely the issuing of marketing authorisations for plant protection products, fertilisers and growing media and the establishment of the phytopharmacovigilance scheme, 2016 also proved to be an eventful year with further additions to the Agency’s missions, confirming the breadth of its responsibilities.

The first change, on 1 January, was the transfer of the national toxicovigilance scheme, based on coordination of the Poison Control and Monitoring Centres (CAP-TVs) previously run by the National Institute for Public Health Surveillance (InVS). On 1 July, this was followed by transfer to ANSES of responsibility for issuing marketing authorisations for biocidal products, provided for under the «DADDUE» Act of December 2015, and the strengthening of the missions of our reference laboratories in the field of health surveillance, in accordance with the provisions of the Act on the future of agriculture of October 2014.

To this can be added, in the framework of European Directive 2014/40/EU on tobacco products, following promulgation of the order of transposition of August 2016, responsibility for the management of declarations relating to products derived from tobacco and products used with electronic cigarettes, and the implementation of this new control mission, which will lead us to broaden our surveillance to include these products.

In 2016, ANSES therefore had three major areas of activity covering a constantly expanding field. This field includes human health, the risks to which each of us can be exposed in our daily environment or our diet, animal health and welfare, and plant health, all integral parts of our environment. ANSES identifies with the UN’s «One Health» initiative, and promotes an integrated approach to health as an answer to the globalisation of health risks. This approach perfectly illustrates our mission: that of global vigilance to reduce risk. Our ability to anticipate crises and health risks, together with our independence, is the best guarantee that our fellow citizens will continue to have confidence in the credibility of our work.

In a globalised world in which health risks and their implications are constantly increasing, while public opinion can sometimes underrate these risks through habit or the pace of changing media attention, with each crisis rapidly replaced by the next, it is my intention that the Agency should use vigilance and anticipation as the keys to risk prevention, in accordance with its motto: «Investigate, evaluate, protect». 
The renewal of the ANSES Board of Administrators was completed at the beginning of 2017. We, its members, must now ensure that the Board fulfils its role in enabling ANSES to define and implement its strategic orientations, in an ever-changing scientific and societal environment.

The task of the Chairman of the Board of Administrators is to ensure that every opinion can find expression in an atmosphere of mutual respect, so that our discussions always produce fruitful outcomes and that clear priorities for the Agency emerge. It is an exciting task that I shall attempt to perform by following in the footsteps of my predecessors, to whom I should like to pay tribute here: my friend and fellow-member of the Council of State, Senator Philippe Bas; Professor Didier Houssin, whom I succeed; and Pierre-Yves Montéléon, Vice-Chairman, who as Interim Chairman ensured that the Board’s work continued uninterrupted.

As an integral part of the Agency’s governance, the Board must constantly ensure that the Agency’s resources keep pace with the demands of its missions. This is a matter of particular importance for ANSES, considering the sensitivity of its field of competence and the new missions it has been given over the past few years. We will therefore need to seek creative solutions, with due consideration for the State’s budgetary responsibilities, via constructive discussions with its supervisory ministries, so that the Agency can develop its activity and its attractiveness with due respect for its fundamental values.

The Board of Administrators is the Agency’s primary cornerstone. Its secondary cornerstone is the expertise it possesses. One of the key challenges for the Agency is to maintain this widely recognised scientific strike force, by continuing to deploy its expertise for the benefit of the population in a spirit of independence, with an irreplaceable ethical approach. Expertise that ignored the expectations of society would become estranged from it and soon fail to fulfil its role, but expertise that gave way to economic and political pressures would lose its ability to offer advice and knowledge in the general interest.

I hope that ANSES’s Board of Administrators will play its role to the full while ensuring the Agency’s independence and the ethical safeguards built into its expertise process as essential requirements.
**KEY DATES**

4 January ANSES extended its goals and performance contract until the end of 2017.

12 January ANSES advocated strengthening the conditions of use for products containing neonicotinoids.


21 January A national reference mandate for the detection of bovine hypodermosis was granted to the Niort Laboratory.

26 January Signature of a memorandum of understanding between ANSES and the Food Safety and Standards Authority of India on methodologies for assessing health risks.

12 February ANSES issued its opinion on the carcinogenic nature of glyphosate for humans.

16 February ANSES recommends better protection and information for consumers and workers exposed to methyisothiazolinone, a substance used as a preservative in detergents, paints and varnishes, and also in mixtures for professional use.

19 February ANSES’s proposal for potassium permanganate to be classified as toxic for reproduction submitted for public consultation on the ECHA website.

22 to 25 February ANSES visited the USA to meet its counterparts in environmental and occupational health.

27 February to 6 March ANSES attended the Paris Agricultural Show.

2 March ANSES opened the new E-Phy website, listing the plant protection products authorised in France and their conditions of use.

14 March ANSES recommended immediate measures to limit the exposure of workers and residents to gases given off by decomposing Sargassum seaweed washed up on beaches.
4 TO 8 APRIL The Maisons-Alfort Laboratory for Animal Health and the Dozulé Laboratory for Equine Diseases took part in the 10th International Equine Infectious Diseases Conference in Buenos Aires (Argentina).

11 AND 12 APRIL ANSES welcomed a delegation from the Israeli Ministry of Health during a study visit to France on the subject of biocides.

14 APRIL The Maisons-Alfort Laboratory for Animal Health welcomed the European network of National Reference Laboratories on brucellosis, for training in bacteriology.

26 TO 28 APRIL The French Agency for Veterinary Medicinal Products ran a seminar in Kiev on good manufacturing practice for veterinary medicinal products in the context of its partnership with its Ukrainian counterpart, the SCIWP.

10 MAY ANSES’s proposal for methylmercury chloride to be classified as toxic for reproduction, mutagenic and carcinogenic was submitted for public consultation on the ECHA website.

18 MAY The Maisons-Alfort Laboratory for Animal Health celebrated its 115th anniversary.

17 MAY Roger Genet was appointed Director General of ANSES.

30 MAY ANSES’s proposed guidelines on issuing marketing authorisations for biocidal products were submitted for public consultation.

3 FEBRUARY ANSES’s proposal for potassium permanganate to be classified as carcinogenic by inhalation was submitted for public consultation on the ECHA website.

20 JUNE The Agency withdrew 126 marketing authorisations for plant protection preparations combining glyphosate and POE-tallowamine.

22 JUNE ANSES confirmed the health risks associated with night work and working conditions in sewers.

30 JUNE Pierre Le Coz was re-elected as Chairman of ANSES’s Committee for Ethical Standards and Prevention of Conflicts of Interest.
1 July ANSES was given responsibility for issuing marketing authorisations for biocidal products.

8 July ANSES recommended moderate and supervised use of wireless technologies by children.

12 July ANSES and the South Korean Institute of Food and Drug Safety Evaluation signed a partnership agreement on food safety.

13 July A new formula for the Euroreference journal became available.

25 July ANSES recommended ceasing the use of VELACTIS® and recalling all batches, including from livestock farms.

25 July ANSES published its report on occupational exposures to pesticides and recommended improving our understanding and reducing exposures.

27 July ANSES made its report on electromagnetic hypersensitivity available for public consultation.

29 July ANSES issued its conclusions regarding criteria for the identification of endocrine disruptors.

1 August ANSES recommended reinforcing the fight against mould contamination in buildings and its effects on public health.

28 September ANSES published its infant total diet study (ITDS) scrutinising the diet of children under three years of age.

1 to 16 October The 11 ANSES laboratories and the French Agency for Veterinary Medicinal Products «celebrated science»!

3 October Substitutes for phthalates in toys: ANSES found no evidence of a risk for the health of children under three years of age.

6-7 October Meeting in the Netherlands of the signatories to the «International cooperation for health - IC4Health» partnership agreement: ANSES, Public Health France, RIVM (Netherlands) and FHI (Norway).
13 October ANSES inaugurated iCube, its infectious disease research platform for animal health.

19 October Manuelle Vertot was appointed as ANSES’s ethics officer.

21 October ANSES issued three calls for research projects as part of the National Research Programme for Environmental and Occupational Health (PNR EST).

October 31 to 4 November The Director General of ANSES travelled to China, for the 10th International Conference on Food Safety and Quality in Shanghai, and also to South Korea.

14 November The National Research Programme for Environmental and Occupational Health celebrated its tenth anniversary!

16 November Antimicrobial resistance in animal health: rates of resistance stabilising, sales of antimicrobials continuing to fall.

30 November to 2 December ANSES organised the 11th annual meeting of international reference laboratories for foot-and-mouth disease.

7 December The Sophia Antipolis Laboratory celebrated forty years of research and reference work.

7 December ANSES organised the first meeting of the Veterinary Medicinal Products Monitoring Committee.

9 December Seven French public institutions for research, expertise and risk evaluation in the areas of health and the environment signed the charter of openness to society.

12 December ANSES’s ISO 9001 certification was renewed.

15 December ANSES concluded that there was a low probability that exposure to electromagnetic fields emitted by smart meters generates health effects.
ANSES’s MISSIONS
The French Agency for Food, Environmental and Occupational Health & Safety (ANSES) is a scientific body working in the areas of food, the environment, work, animal health and welfare, and plant health.

It is a public administrative body accountable to the French Ministries of Health, Agriculture, the Environment, Labour and Consumer Affairs.

ANSES carries out risk assessment missions in the areas of food, environmental health, occupational health, animal health and welfare, and plant health. This mission is sustained by the knowledge generated by the Agency’s monitoring, vigilance, research and reference activities. In return, risk assessment guides the monitoring initiatives and helps identify new avenues for research.

ANSES is also responsible for assessing applications for marketing authorisation for certain regulated products: plant protection products, fertilisers and growing media, adjuvants, biocides and veterinary medicinal products.

The Agency fulfils its expert appraisal mission in response to requests from the public authorities and stakeholders entitled to consult it. When it deems it necessary, it may also issue internal requests on any subject falling within its field of competence.

**Assessments at ANSES**

There is a range of hazards (pathogenic micro-organisms and parasites, chemical substances or physical agents) that are likely to affect the health of humans, animals or plants. For its risk assessment work, the Agency mobilises collegial and adversarial expertise via expert committees (CESs) consisting of experts acting independently of the Agency. The purpose of the recommendations issued following the expert appraisals is to inform the public action for the implementation of effective risk management measures. ANSES thus contributes to the safety of the population in their everyday lives.

As a lawyer, I respond to the requests from the different departments on various legal issues, mostly by analysing legal documents, and I participate in the drafting of ministerial decrees and orders. When disputes occur, I assess the legal risk, I attempt to avoid litigation and if applicable, I monitor proceedings before the courts. In particular, this involves writing defence briefs in close cooperation with the scientific and technical teams that issued the contested decisions. I thus help to ensure the legal security of certain decisions taken by the Agency.

**NOLWENN,**

a lawyer working in the Legal Affairs Department

ANSES also conducts scientific assessments of applications for marketing authorisations concerning plant protection products. It assesses the risks and the effectiveness of preparations and of the active substances used in the composition of these preparations. It also assesses the safety of fertilisers and growing media for consumers, workers, animals and the environment, as well as the quality of crop productions and the agronomic effectiveness of these products.

At national level, ANSES assesses the hazards, risks and effectiveness of biocidal active substances and products for which application dossiers have been submitted in France, in accordance with the criteria defined by the European regulations.

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**NOLWENN,**

a lawyer working in the Legal Affairs Department
As coordinator for the assessment of marketing authorisation applications for biocidal products, I verify the consistency of the entire scientific assessment, ensuring that it is both multidisciplinary (physico-chemical properties, effectiveness, risks to humans and the environment) and collective. To carry this out, I call on knowledge from various scientific fields, for which my skills as a chemist and the approach learnt during my training and my previous experience are put to use every day.

CAROLINE,
Chemical engineer in the Regulated Products Assessment Department, coordinator of assessments for biocidal applications

Managing and monitoring marketing authorisations for regulated products

Plant protection products, fertilisers, growing media and adjuvants

Since 1 July 2015, based on the conclusions of its scientific assessments, the Agency has been issuing, withdrawing and amending marketing authorisations (MAs) and permits, after assessment, for plant protection products, fertilisers, growing media and adjuvants, within a very strict regulatory framework. It also has an inspection mission with regard to the production, formulation, packaging and labelling of these same products.

To carry out its missions, ANSES follows:
- guidelines to ensure the transparency of the decision-making process;
- the Marketing Authorisations Monitoring Committee;
- a memorandum of understanding with the ministerial departments in charge of inspections in the field, to coordinate the actions by ANSES and the ministries regarding the inspection and control of products.

Biocidal products and active substances

On the basis of its scientific assessment of the effectiveness and the attendant risks, since 1 July 2016 the Agency has also been issuing marketing authorisations for biocidal products, in application of the Act of 2 December 2015 including various provisions for adapting to European Union law, in accordance with European Regulation (EU) No. 528/2012, a mission that had previously been the responsibility of the Ministry of the Environment. ANSES is also responsible for managing the biocidal products inventory (SIMMBAD), and declarations for inclusion in this database must be addressed to the Agency.

To make this process more efficient, ANSES has drawn up guidelines specifying the principles adopted for issuing MA decisions. These guidelines clarify the criteria according to which the Agency exercises its power of judgement. In accordance with Articles L. 120-1 and L. 120-2 of the French Environmental Code, the Agency’s proposed guidelines were submitted for public consultation from 30 May to 20 June 2016, in order to collect comments from the public, for examination before validation and publication of the final guidelines.

The Agency also assesses chemicals in the framework of the European REACh and CLP regulations, prioritising, identifying and compiling the dossiers to provide support for the competent French authorities.

The French Agency for Veterinary Medicinal Products, which is part of ANSES, is the competent French authority for veterinary drugs. It assesses the pharmaceutical quality and the safety of drugs for animals, users and the environment.

The assessments carried out by the Agency result in conclusions or opinions, together with conditions of use and recommendations, which serve as the scientific basis for granting, withdrawing or amending marketing authorisations for regulated products.

ANSES RENEWED ITS SCIENTIFIC BOARD

ANSES’s Scientific Board is independent and made up exclusively of scientists, more than a quarter of whom are from other countries. Its mission is to guarantee the high scientific standards and independence of the Agency's expert appraisals. ANSES renewed the 29 members on its Scientific Board in November 2016. They are among the leading French and foreign scientists in several disciplines, covering all of ANSES’s spheres of competence and including the viewpoint of the human and social sciences. The Scientific Board’s new Chair is Professor Isabelle Momas, who takes on the position for a three-year term.
The MA Monitoring Committee, set up in 2015 as part of the transfer of MAs for plant protection products, has had its sphere of competence broadened to include biocidal products. The Monitoring Committee can thus be consulted on the conditions under which the decisions will be taken, in particular on the applicability of the management measures associated with the MAs, but also on the health and environmental benefits of the different biocidal solutions available and the possible socio-economic impact of restrictions or prohibitions on the use of these products.

Monitoring process following marketing authorisation

Initiated in 2015 under the Act on the future of agriculture, food and forests, deployment of the Pharmacovigilance scheme continued in 2016. This scheme is intended to monitor and detect any adverse effects on humans, farmed animals including honeybees, cultivated plants, biodiversity, wildlife, water and soil, air quality and food, following the use of plant protection products, as well as the emergence of resistance to these products. This scheme enables the continual production of information for the benefit of risk assessment, placing products on the market and the risk management missions performed by ANSES and the competent ministries.

Decree No. 2016-1595 of 24 November 2016 relating to phytopharmacovigilance sets out the organisation of this scheme, describing the role of ANSES and that of its partners, whether leaders of the monitoring or vigilance schemes. This decree also lists the type of information that the MA holders, manufacturers, importers, distributors, professional users, and advisers and trainers of these users, must bring to the attention of ANSES or its partners in the event of adverse effects occurring related in any way to plant protection products.

Veterinary medicinal products

After having assessed their effectiveness and their safety for animals, users and the environment, the French Agency for Veterinary Medicinal Products is responsible, within the Agency, for issuing marketing authorisations for veterinary drugs. It also authorises clinical trials for veterinary drugs, the opening of pharmaceutical establishments for the manufacture, use, wholesale distribution and export of medicinal products, and also the import, temporary use and export of veterinary medicinal products.

Regarding monitoring, it verifies the quality of veterinary medicinal products and assesses the risks of adverse effects (veterinary pharmacovigilance), as well as monitoring veterinary pharmaceutical establishments and advertising for veterinary medicinal products.
ESTABLISHMENT OF THE MONITORING COMMITTEE FOR VETERINARY MEDICINAL PRODUCTS

The French Agency for Veterinary Medicinal Products (ANMV) has set up a Monitoring Committee for Veterinary Medicinal Products, with thirteen members (a chairman, five scientists, five practitioners, a healthcare professional and an environmental specialist), which met for the first time on 7 December 2016. Its decisions are based on a scientific expert appraisal and a risk/benefit assessment of the veterinary medicinal product, but the health and socio-economic impacts also need to be taken into account.

As part of its management of authorisations relating to veterinary medicinal products, the ANMV collects information on the uses of drugs in veterinary medicine in France (adverse effects, therapeutic shortcomings, etc.) and the context of these uses (impact of management measures, relevance of proposed protective measures). The feasibility of each decision concerning marketing authorisation and its consequences, the context, the alternatives, and the economic and health impacts all need to be taken into account. With this in mind, the Monitoring Committee contributes information and is consulted on:

- the optimisation of the pharmacovigilance system;
- the safe use of products;
- the conditions of applicability of risk management measures as regards marketing authorisations;
- issues of availability of veterinary medicinal products;
- how it can contribute to the identification of priority topics in terms of expert appraisals to be conducted;
- the identification of priority topics concerning control and surveillance of veterinary medicinal products.

A NEW MISSION IN 2016 CONCERNING PRODUCTS DERIVED FROM TOBACCO AND «VAPING» PRODUCTS

Directive 2014/40/EU of 3 April 2014 (known as the Tobacco Products Directive) regulates the provisions for the manufacture, presentation or sale of tobacco products and related products. Order no. 2016-623 of 19 May 2016 transposing this Directive requires the manufacturers and importers of these products to declare them prior to making them available on the French market. In application of these provisions, ANSES was appointed by the Ministry of Health to manage the receipt of notifications and declarations, as well as the storage, processing and analysis of the information provided by manufacturers and importers, and the verification of the emissions measurements and studies submitted.

This concerns:

- tobacco products (cigarettes, cigarillos, cigars, tobacco for rolling, for pipes, for waterpipes, snuff, chewing tobacco, and new non-combustible tobacco products),
- «vaping» products containing nicotine (electronic cigarettes or e-cigarettes, refill cartridges and bottles containing e-liquids),
- smoking products based on plants other than tobacco.

This mission falls within the general framework of ANSES’s health protection activities, especially the work carried out in the area of chemicals, consumer products and the risks associated with air environments.

As part of the implementation of these new tobacco missions, ANSES will be working more closely with its partners at European level, in particular in the framework of a European project for joint action on tobacco.
ANSES’s MISSIONS

Research and reference activities to protect human, animal and plant health

The Agency has a network of eleven reference and research laboratories located throughout France near the related production sectors. They cover the three broad fields of food safety, animal health and welfare, and plant health. They have achieved international recognition in their various fields of expertise.

The ANSES laboratories play a vital role in qualifying hazards and the collection of data from networks of accredited laboratories. In particular, their scientists and technicians use reference methods to identify major pathogens in animal health and plant health, and develop methods for identifying biological, physical or chemical contaminants in food and water.

These reference and research activities position ANSES at the heart of the analysis networks. This gives the Agency a direct link with events in the field, which is essential for its missions of monitoring and issuing alerts, and enables it to respond more rapidly during the resurgence or emergence of new pathogens and contaminants in France.

A COLLECTIVE ASSESSMENT OF THE LABORATORIES’ SCIENTIFIC ACTIVITIES IN 2016

From 28 June to 1 July 2016 the four-yearly audit of the scientific activities of ANSES’s laboratories took place, an opportunity for the Laboratories Executive Board and the head of each scientific unit to review the results of the previous four years and to submit a plan to the Agency for the years to come. This exercise, which produced a very favourable result overall, also provided a wealth of information; both the successes identified and the suggestions for potential improvement and change provided material for a one-day seminar of the Scientific Board, which produced twenty-seven recommendations. Whether on the reference frameworks for scientific governance, public and private partnerships, issues of internal transversality, initiatives for scientific coordination or career development, the Laboratories Executive Board will be preparing an action plan in 2017 for the five years to come, which will feed into the Agency’s overall discussions.

A NEW NATIONAL REFERENCE MANDATE

In 2016, the Niort Laboratory, which specialises in diseases in ruminants, was given a new health mission contributing to the certification of French herds: it became the reference for detecting bovine hypodermosis (or “warble”). Bovine hypodermosis is a disease with a high economic impact, since it results in losses in dairy production, a significant degradation of animal hides, slower growth and occasional nervous disorders.

My day-to-day work involves verifying the laboratory’s accreditations (analyses, proficiency tests, etc.), thus demonstrating its competence and its ability to produce technically valid results. In this way I help control the quality of the data generated by the teams and promote the work of the laboratories.

MICKAËL,
Quality Officer at the Fougères Laboratory

In 2016, 500 scientific articles were published in international peer-reviewed journals, 314 of them in journals ranked A+ and A.
Support for expertise and research activities

Whether for research or expert appraisals, the Agency can only carry out its activities if it has the necessary resources (literature, databases, standards, etc.) and tools for seeking scientific and technical information. This is why the Agency allocated more than €500K for this purpose in 2016. Access to these resources must be accompanied by the proper use of tools to extract the information to be taken into account, for either expertise or research. This is a strategic issue, as the quality of the Agency’s work depends on the relevance of the literature taken into account. With this in mind, in 2016 ANSES revised its bibliographic research process in order to improve the resulting quality and traceability.

ANTICIPATING RISK AND FUTURE PLANNING

ANSES’s monitoring and vigilance activities are carried out in parallel with forward-looking discussions intended to imagine what the future might look like and which risks could potentially emerge.

This involves constructing hypothetical scenarios featuring tomorrow’s products, practices and work environment, etc. For example:

- in the framework of the R31*, green technologies, the fate of consumer goods, technologies, agri-food, connected objects, etc.;
- in the framework of the ALLENI alliance, an analysis of around a hundred forward-looking exercises related to the environment, with the aim of identifying “Standard visions of the future”;
- with the National Research and Safety Institute (INRS) on “Modes and methods of production in France in 2040: what will be the consequences for occupational health and safety?” to be followed, in the near future, by “The circular economy”.

* A network of 31 partner scientific organisations that work in the Agency’s field of expertise

Another of ANSES’s missions is to organise and support research. This is expressed in its work as part of the National Research Programme for Environmental and Occupational Health (PNR EST), a vital tool for acquiring the knowledge with which to support public policy-making and health risk assessment work. The calls for projects issued each year are part of the objectives of the various national plans: National Environment and Health Action Plan, National Occupational Health Plan, National Cancer Plan, Ecophyto plan, etc. Through these, ANSES and its partners pursue their ongoing work of supporting the research communities in environmental and occupational health, with the aim of developing knowledge for the purposes of risk assessment.

The Agency celebrated the tenth anniversary of this programme in 2016. To mark this event, scientific conferences were organised to take stock of the programme’s record, together with the publication of a special issue of Cahiers de la Recherche. In the course of these ten years, 356 projects were selected involving 965 research teams, for a total amount of aid of €47.8M. This combined body of research should ultimately lead to the publication of 700 scientific articles.

"I run the network of information professionals, so I pay close attention to emerging scientific and technical information, so as to meet the needs of our scientists and offer them appropriate services.

SOPHIE,
Documentation Specialist in the Research & Science Watch Department

1 ANSES (2016) Cahier de la Recherche No.8: «A look back at 10 years of research. The PNR EST, from 2006 to 2015»
In 2016, the PNR EST programme attracted 285 applications. After a selection process based on the assessments of a Scientific Committee, thirty-four projects were selected: twenty-five will be funded directly by ANSES (€4.43M), six other projects will be supported by the AVIESAN ITMO Cancer multi-agency thematic institute (€1M), two will be funded by Onema as part of the Ecophyto Plan (€0.32M) and one by the Environment and Energy Management Agency (ADEME) (€0.2M).

For the 2017 edition of PNR EST, three calls for projects were issued in October, for total funding of around six million euros. This year for the first time, one of the calls for projects is devoted to the theme of «Antimicrobial resistance and the environment», as announced on 17 November 2016 as part of an interministerial programme to combat antimicrobial resistance.

There are six doctors like me working at the Agency. And I often find that we bring a useful point of view that sheds more light on the relationship between scientific data and their practical consequences for human health (recommendations, withdrawals of regulated products, and so on...)

JULIETTE, a doctor at the Health Monitoring and Alerts Unit

ANSES’s MISSIONS

Monitor and vigilance

The Agency performs monitoring, alert, surveillance and vigilance missions in human, animal and environmental health. These different actions feed into its risk assessments by informing it of actual conditions in the field, thus enabling the Agency to respond more efficiently in the event of a health crisis. With the extension of its monitoring and vigilance capacity in 2016, the Agency also gained new sources of data as input for its expert appraisal and research activities, for the benefit of public policymaking.

Running the toxicovigilance scheme

French Act No. 2016-41 of 26 January 2016 on the modernisation of our healthcare system entrusted ANSES with the coordination of the toxicovigilance scheme and, more broadly, the vigilance activities of the poison control centres.

Toxicovigilance involves identifying adverse effects for humans associated with the use of or exposure to non-medical and non-cosmetic agents, substances or products. Its aim is to prevent future poisonings, through the reports and poisoning cases recorded by the French poison control centres (CAPs). For the products in question, better information can then be provided to users or restrictions introduced on their use, while the most hazardous products may even be withdrawn from the market. It is usually the occurrence of several similar cases that prompts the health authorities to issue an alert.

ISO 9001 CERTIFICATION RENEWED

ANSES’s ISO 9001 certification, obtained in 2013, was renewed by AFNOR in November, according to the new 2015 version of the standard. This process covers the objectives in terms of scientific excellence of the expert appraisal work of the Agency and of the Agency for Veterinary Medicinal Products, the responsiveness of its actions, and compliance with the requirements for independence, transparency and openness to society. For the Agency, the renewal of its ISO 9001 certification is the confirmation of the dynamism it has always striven to develop since its creation, to match the priorities of its goals and performance contract.

ANSES’s GOALS AND PERFORMANCE CONTRACT EXTENDED UNTIL THE END OF 2017

On 26 February 2013, ANSES signed its first goals and performance contract (COP) for the period 2012-2015. This contract sets out the Agency’s strategic priorities and consolidates its monitoring, expert appraisal, research and reference missions. It also sets objectives in terms of efficiency to be achieved through the optimisation of internal processes. The transfer of new missions to ANSES in 2015 and again in 2016 has led the Agency to adapt its strategic orientations and objectives. For this reason, an amendment to the COP was signed between the Agency and its five supervisory ministries in January 2016. The goals and performance contract is thus extended to the end of 2017 and provides ANSES with an ambitious management tool to help it address the changes to its scope and missions, mainly in the area of health monitoring, surveillance and vigilance.
Opening up expertise and dialogue with stakeholders

ANSES accords considerable importance to dialogue with all the stakeholders: associations, NGOs, social partners and professional organisations. These sit on its Board of Administrators and are particularly involved in defining the Agency’s work programme. They can ask it to address subjects that concern them.

In addition, there are five thematic steering committees (food safety, environmental health, occupational health, animal health and welfare, and plant health) whose members include representatives from Agency management, members of the Board of Administrators and other individuals from outside the Agency closely involved and/or strongly identified with specific trends in civil society. These committees help in defining the Agency’s policy orientations and determining needs in terms of risk assessment and research.

The two dialogue committees on «Radiofrequencies and health» and «Nanomaterials and health», set up respectively in 2011 and 2012, are especially important tools for informing the lasting exchanges between the Agency’s scientists and experts, citizen groups, trades unions and industry players involved in these issues.

The Toxicovigilance Coordination Committee is made up of managers from each CAP, the relevant health agencies (ANSES, ANSM and the French Public Health Agency, the Agricultural Mutual Insurance Scheme (MSA), the veterinary poison control centre of Lyon (CNITV) and the Directorate General for Health. Its role is to investigate signals and alerts generated by the CAPs or other channels, provide expertise and contribute to monitoring the toxic effects for humans of products, natural substances and pollution. A strategic committee for the organisations in charge of toxicovigilance will soon be set up to strengthen the strategic and decision-making control over the vigilance activities of the CAPs (Decree of 15 December 2016, Article R. 1340-2).

ANSES processes the data from the CAPs to contribute to the other national vigilance systems it coordinates: veterinary medicinal products, phytopharmacovigilance and nutrivigilance.

In 2016, following reports of an increase in snake bites in the Pays de la Loire region, a regional and temporal analysis of data from the CAPs, performed by ANSES in collaboration with CAP experts, helped quantify this alert and draw attention to the issue of management of anti-viper serum stocks in hospital pharmacies.

Strengthening of surveillance schemes for better diagnosis of zoonoses

As a result of the 2016 implementation of the Order on surveillance (introduced under the 2014 Act on the future of agriculture), the national reference laboratories now have a more active role in supporting the surveillance schemes. They now contribute to collecting and analysing data on pathogens circulating in food and farms, in particular. Thus, by combining genomic sequencing approaches and surveillance network engineering methods, the ANSES laboratories are developing essential tools for communicating with the national reference centres on infectious animal and human diseases, and speeding up the detection of emerging resistance and sources of contamination affecting populations.

ONGOING SOCIETY WATCH

A society watch function and the identification of social actors in the area of food, environmental and occupational health risks is carried out in-house. This enables the Agency to understand the causes that mobilise citizen concern, both at home and abroad, and brings to the forefront issues, expectations and knowledge that can provide guidance for expert assessment work.
In addition to the participation of stakeholders in its governing bodies, the Agency has set up several participation schemes to implement the principle of opening up the expertise function to include civil society. The involvement of stakeholders is structured around three themes: governance, scientific health risk assessment and publicising the results of the expert appraisals, the purpose of which may include information, consultation and consensus-building.

The information process may involve feedback meetings, information or training events, to publicise product appraisal and explain what the work entails. The number of feedback events for stakeholders increased significantly in 2016 compared to previous years. One of the most memorable such events provided feedback on work for the infant total diet study (ITDS), during a morning in September 2016. It brought together the main professional organisations and associations concerned and enabled scientists from the Agency to present the working method adopted and the Agency’s main recommendations in this field. An information meeting about the manner in which the Agency will conduct the assessment on the alternatives to neonicotinoids also attracted considerable interest from the participating organisations.

Consultations mostly concern the expertise process. Prior to risk assessments, they are held to provide a framework for formal requests; in 2016 they involved stakeholders affected by topics such as breastfeeding or air pollution. Numerous hearings of stakeholders with technical knowledge or experience in particular practices were also held during expert appraisals. Then, in the next part of the process, preliminary reports were submitted for public consultation, in particular those on «Radio frequencies and children» or «Electromagnetic hypersensitivity», eliciting many contributions from civil society.

Consensus-building involves fostering a joint discussion process prior to the launch of work or concerning changes to certain activities. Examples of this were the all-day discussion events about the proposed study of the exposure to pesticides of populations residing near agricultural areas in March, the national strategy on endocrine disruptors in October, or the best ways of publicising the results of the Agency’s expert appraisals in November 2016.

The Charter for greater openness to society was originally signed by ANSES (under the name of AFSSET), INERIS and the IRSN in 2008. These were joined in 2011 by Irstea (under the name of Cemagref) and Ifistar. On 9 December 2016 two new public institutions who share the same values and commitments adopted the Charter, the French Geological Survey (BRGM) and Public Health France. As part of their missions, all seven of the public institutions who have signed the Charter are responsible for providing the State with scientific and technical support concerning risks in the areas of health and the environment, to assist with decision-making. The Charter aims to build, together with actors from society, a shared understanding of the complex issues of risk situations and the alternatives for dealing with them. It contributes to enhancing the quality of the work provided by these institutions to public policy makers, as well as the confidence in which society holds the decision-making process.
An augmented ethical framework

A Committee for Ethical Standards and the Prevention of Conflicts of Interest was set up when ANSES was created to rule on certain issues concerning the ethical standards applicable to the Agency, its personnel and outside experts participating occasionally (Art. L.1313-9 of the French Public Health Code). The first mandate of the Committee for Ethical Standards and Prevention of Conflicts of Interest came to an end in 2016. During these first five years of existence, the Committee issued twelve opinions, three of which were in 2016.

In a society where scientific expert appraisals play an important role in public policy-making, the reliability of the scientific publications on which these expert appraisals are based has become a major issue. In its 2016 Opinion on the exploitation of the scientific literature necessary for carrying out expert appraisals, the Committee for Ethical Standards and Prevention of Conflicts of Interest expressed concern about the declining integrity of scientific publications, in agreement with a large number of institutions and public figures. If the scientific publications on which an expert appraisal is based are unreliable, due to errors or bias, the validity of the expert appraisal itself will be lost and, as a result, the justification for the official decision based on this appraisal will disappear and the public will lose confidence in the choices of the decision-making authorities. The entire process for reaching official decisions would thus be threatened. The Committee’s recommendations give priority to three approaches: enhancing the Agency’s documentary functions, a strict methodology for the use of bibliographic tools, and discussions about the choice of articles with the stakeholders. In particular, the Committee recommended setting up a thematic working group for the «Assessment of and Methodology for Processing Bibliographic Sources», which would complement the different methodological guidelines used by the Chairs of Expert Committees and Working Groups.

Another Opinion from the Committee was in response to a question of whether it was ethical to include a minority position in an ANSES Opinion, when the late expression of this dissenting opinion had made it impossible to discuss it in a plenary session. The Ethics Committee also issued a favourable opinion on the appointment of an Agency employee as Ethics Officer, based in particular on the fact that all the members of the Ethics Committee are from outside ANSES. One way and another, in order to maintain a balance between the independence of the Committee and a knowledge of the Agency’s internal operations, it appeared appropriate that the Ethics Officer should be an ANSES employee.

Interview with

PIERRE LE COZ

Chairman of ANSES’s Committee for Ethical Standards and Prevention of Conflicts of Interest

From its very creation in 2011, the Ethics Committee was quickly able to establish its position in ANSES’s organisational structure, and excellent conditions for carrying out its mission.

The Committee’s discussions have always been respectful and friendly. We were also able to draw on logistical support and the help of the legal affairs department. We had regular visits from ANSES’s senior management, further proof of the important position held by the Committee for Ethical Standards and Prevention of Conflicts of Interest in the Agency’s governance structure.

As to our work, the Committee issued twelve opinions, which represents a satisfactory output. The questions submitted for our consideration concerned both specific and general issues. For instance, we were called on to interpret certain decisions of the Council of State or the Constitutional Council; we took part in the drafting of the Agency’s Code of Ethics.

More globally, we issued recommendations on ways of ensuring the independence and impartiality of the assessment process. To reach its opinions, the Committee’s method was to appoint one or two rapporteurs and hold hearings for individuals chosen for their skills or their public involvement.
A WORD FROM THE ETHICS OFFICER

«In application of these provisions, the Director General of ANSES appointed me to be the Agency’s Ethics Officer by a decision dated 7 November 2016. I had also been Head of the ANSES Legal Affairs Unit since December 2012, so it was with great pleasure but fully aware of the challenges ahead that I accepted the mission entrusted to me, as the Ethics Officer has to guarantee that ANSES always acts in line with its ethical rules.»

ANSES’s MISSIONS

Manuelle Vertot appointed as ANSES’s Ethics Officer

In application of the Act No. 2016-41 of 26 January 2016 on the modernisation of our healthcare system, Decree No. 2016-779 of 10 June 2016, issued in application of Article L.1451-4 of the Public Health Code, provides for the appointment of an Ethics Officer in health-related agencies and organisations, including ANSES. This measure reinforces the regulatory framework on transparency with regard to links of interest, under Act No. 2011-2012 of 29 December 2011 on the strengthening of the safety of medicines and health products.

The Ethics Officer’s role is to ensure that the procedures for reporting links of interest and prevention of conflicts of interest are implemented effectively by the organisation within which they are appointed. This officer has the following missions:

- Supervision, to ensure that the institution takes the appropriate measures to collect and analyse public declarations of interest;
- Proposal, to recommend that management takes the organisational measures necessary for compliance with the obligation to report links of interest and prevent conflicts of interests.
- Verification, to ensure that the necessary measures are taken to prevent or bring to an end any situation involving a conflict of interest.

The Committee was entirely free to make independent choices in this respect.

The Committee’s Opinions were posted on the Agency’s website as they became available. They were regularly presented to bodies such as the Board of Administrators, meetings of the Chairs of Expert Committees or, at their request, the scientific committees. The Ethics Committee is becoming respected and well-known in the academic community; its members are invited more and more often to national symposia on integrity and ethics.

Half of the Committee’s members were renewed in April 2016. The newly-composed Committee has found the work accomplished during the previous mandate to be very valuable, since the start of the new session in June 2016. The previous Opinions provide, if not a doctrine, at least a set of conceptual tools with which to structure the work to come.

The new Committee also benefits from a summary of the Opinions covering the period from March 2011 to March 2016.
HEALTH RISK ASSESSMENT
ANSES carries out risk/benefit assessments related to the nutritional and health effects of food, to environmental and occupational health, and also to animal health, calling on groups of experts and the scientific know-how of its own personnel.

2016 saw the publications of several Opinions and Reports in all the Agency’s fields of competence.

Here is a presentation of some of these studies, grouped by ANSES’s major areas of activity.

**Food and nutrition**

*More physical exercise and less of a sedentary lifestyle for better health*

The National Health & Nutrition Plan, or PNNS, aims to improve the state of the population’s health by acting on diet and physical activity, which are major determinants of nutrition. ANSES was asked by the Directorate General for Health to update the nutritional guidelines relating to these determinants. The Report and Opinion published by ANSES demonstrate the favourable effects of physical activity and the reduction of sedentary behaviour in preventing many chronic disorders. The Agency therefore recommends reducing sedentary behaviour and practising physical activities, in all contexts of life and at all ages. The development of spaces reserved for pedestrians and cyclists, the promotion of modes of public transport, the organisation of working time and school time, would in particular help achieve this objective.

*Nutritional classification of foods: comparison of the SENS and 5-C systems*

The French Act of 26 January 2016 on the modernisation of our health system provides for optional information, in the form of graphics or symbols displayed on packaging, to summarise certain data on nutritional quality, with a view to improving consumer information. Several food classification systems have been developed to calculate scores to be applied to each product, based on certain elements of its composition (fat, saturated fatty acids, protein, salt, etc.). These scores will result in a suitable labelling system (colour, shape, etc.).

Following an Opinion issued in 2015 on the system referred to as 5-C and based on Rayner’s score, ANSES received a formal request from the Ministries in charge of Health, Food and Consumer Affairs to assess the algorithm used for the French Simplified Nutrition Labelling System (SENS), with a view to its deployment on the French food market, and then to compare the classification of foods obtained after these two systems had been applied. In the report published in April, the Agency found overall agreement between the two food classification systems, with limited differences. It also emphasised the feasibility limitations common to these two systems. ANSES is supplementing this work with a comparative analysis of the relevance of these two systems, in nutrition terms, in light of the public health issues, the results of which will be published in 2017.

> It's highly motivating and rewarding to know that every day I provide a gateway between the world of science and civil society, between our expertise and the messages addressed to our fellow citizens to keep them in good health.

**SANDRINE,**

a nutrition scientist and scientific coordinator of collective expert appraisals at the Risk Assessment Department.
ANSES scrutinises the diet of children under three years of age

In September, ANSES published an initial snapshot of dietary exposure of children under three years of age to a vast number of substances. The infant total diet study (iTDS) in fact covers more than 95% of the diet of toddlers: some 670 substances were analysed. This study confirmed the high level of health management regarding toxicity reference values, since a risk can be ruled out for most of the substances assessed. Some points, however, deserve particular attention: among the substances or classes of substances for which a risk could not be ruled out, 16 require a reduction in exposure, including nine considered a priority (trace elements such as arsenic, or persistent organic pollutants such as PCBs, for example). ANSES is therefore recommending measures to reduce exposure of the infant population to these substances and acquire additional knowledge for refining risk assessments.

In light of the findings of the present study, the Agency stresses the importance of following up the recommendations of the National Health and Nutrition Programme, in particular, not to introduce any foods other than infant formulas before 6 months and, subsequently, to vary the diet and sources of supply. In addition, the Agency reiterates that only breast milk or infant formulas can cover an infant’s needs. Normal milk, regardless of the animal species that produced it, is not suited to the nutritional needs of children under one year of age.

Updating the Ciqual reference database, which lists the nutritional composition of foods

In 2016, ANSES updated the Ciqual database, a reference tool on the nutritional composition of foods, an open-access resource available free of charge on the Internet. Several new data were added. For the 2600 foods most consumed in France, the Ciqual data therefore now provides the nutritional profile broken down into 61 constituents, making it one of the most complete such databases in Europe. In addition, it is a resource that can be exploited by doctors with a specific interest in nutrition, dieticians, researchers in nutrition and public health, and by manufacturers in the agri-food industry.

Food supplements for athletes: health risks with uncertain benefits

The national nutrivigilance scheme run by ANSES receives reports of adverse effects likely to be linked to consumption of food supplements. These reports, and the widespread consumption in several sporting disciplines of this type of product for the purpose of developing muscle mass or reducing body fat, led ANSES to draw attention to the potential risks to health. Effects that are potentially serious, primarily cardiovascular (tachycardia, arrhythmia and stroke) and psychological (anxiety and mood disorders), have been observed. The Agency therefore advises against the use of these food supplements by people with cardiovascular risk factors or suffering from heart disease, impaired kidney or liver function, or neuropsychiatric disorders, or by children, adolescents, and pregnant or breastfeeding women. ANSES also recommends avoiding the consumption of food supplements containing caffeine before and during any sporting activity, as well as the concomitant consumption of several food supplements, or their combined consumption with medicinal products. ANSES reiterates the need to seek advice from a healthcare professional before taking food supplements.
Environmental health

**ANSES issues its conclusions regarding criteria for the identification of endocrine disruptors**

In May 2016, ANSES received a formal request to propose criteria for defining endocrine disruptors (EDs). While this request was being examined, the European Commission published a proposal on 15 June 2016 for criteria for identifying EDs, which had been expected since late 2013. In late July 2016, ANSES therefore published the results of its expert assessment, whose scope had to be modified to take into account the draft proposed by the Commission. In its conclusions, the Agency recommends retaining the definition and criteria for identifying EDs from Option 3 of the European Commission’s 2014 roadmap, which divides EDs into three categories: «known», «presumed» and «suspected».

In addition, the Agency advocates that classification of EDs be performed by a single European body, to avoid any risk of divergence of classification for a given substance.

**Disruption of medical devices by radio frequencies: practices to be adapted for each situation**

The risk of electromagnetic interference of certain medical devices, generated by mobile telephones, has long been a subject of discussion. The use of mobile telephones in any place and at any time by a majority of the population is common practice, including by health professionals, patients or their families. In practice, the recommendations alerting users to the risks of electromagnetic fields emitted by mobile telephones interfering with medical devices appear to be applied less and less. In this context, the Ministries of Health and the Environment asked ANSES to assess the potential risks of electromagnetic interference of medical devices exposed to radiofrequency radiation. In its Opinion published in June, the Agency recommended establishing areas where use is authorised, limited or prohibited, in light of the diversity of situations in which wireless communication systems are used and the risks they may involve. In addition, the Agency recommends that wearers of active implantable medical devices (pacemakers, neurostimulators, etc.) ensure that they keep away from the greatest sources of exposure (mobile telephones).

**Exposure of children to radiofrequencies: a call for moderate and supervised use of wireless technologies**

ANSES carried out an expert appraisal on the exposure of children to radiofrequencies and the potential effects on their health. In its conclusions, the Agency emphasises that children can be more exposed than adults because of their morphological and anatomical features, in particular their small size, as well as the characteristics of some of their tissues. It issued a series of recommendations aimed at adapting the regulatory limit values in order to reduce the exposure of children to electromagnetic fields, which starts from a very early age due to the expansion of the use of new technologies. In this context, ANSES recommends moderate and supervised use of wireless communication technologies by children.
ANNUAL REPORT 2016

Managed aquifer recharge conceivable under certain conditions

In France, more than 95% of catchment systems for the production of water intended for human consumption use groundwater. With the effects of climate change, weather events that are becoming more marked and more frequent will all affect water resources. This change is prompting concerns about an increase in deficient areas and longer periods of water shortages. Managed aquifer recharge could be a means of managing these resources sustainably. In this context, the Agency issued an internal request to study the health risks associated with managed aquifer recharge. In its opinion, it states its belief that managed aquifer recharge using surface water or treated wastewater is one of the solutions that could be used, under certain conditions, to counter the decrease in groundwater resources. It emphasises the importance of preserving the quality of water resources in the long term, specifically to guarantee quality compatible with production of water intended for human consumption.

ANSES made its report on electromagnetic hypersensitivity available for public consultation

ANSES's draft report on electromagnetic hypersensitivity or Idiopathic Environmental Intolerance attributed to electromagnetic fields was made available for public consultation in July. Members of the scientific community, doctors and interested stakeholders were invited to provide their comments on the preliminary report through an on-line public consultation. This enabled ANSES to gather additional scientific data and comments that may be taken into account in the final version of the expert appraisal report, which will be published in 2017.

Substitutes for phthalates in toys: no risk identified to the health of children under three years of age

ANSES carried out an expert appraisal on the health risks associated with oral exposure to several chemicals in plastic toys and equipment that can be put in the mouth by infants and children under three years of age. The Agency found no evidence of a risk to the health of children for four of the substances studied that are substitutes for phthalates (DINCH, DEHTP, ATBC and TXIB). The Agency nevertheless recommended that a risk assessment be systematically carried out for any new substance found in the composition of the plastics used in toys and equipment intended for children, before they can be placed on the market. The Agency will shortly be undertaking an assessment of the cumulative health risks associated with the exposure of children to certain phthalates classified as toxic to reproduction, taking into account several routes of exposure (consumer goods, air, dust, food, etc.).
Environmental and occupational health

Better protection and information for workers and consumers exposed to methylisothiazolinone

Methylisothiazolinone (MIT) is a substance used as a preservative in many commercial mixtures such as detergents, paints and varnishes, and also in mixtures for professional use. It is also found in cosmetic products: its presence must then be mentioned on the packaging. Over the last few years, in France and elsewhere in Europe, an alarming increase in the number of cases of skin allergies to MIT has been observed. Work is currently being conducted on this substance with the aim of proposing a harmonised European classification under the CLP Regulation (on classification, labelling and packaging), as well as in the framework of the Regulation governing the marketing of biocidal products. In this context, ANSES issued an internal request with a view to identifying the categories of products most responsible for exposure. Besides cosmetics and detergents, for which information is already mandatory, the Agency is recommending that information intended for the general public and professionals be provided systematically on the packaging of mixtures containing MIT. Lastly, ANSES is continuing its work to identify the sectors or jobs entailing the most exposure, with a view to better prevention and protection of exposed professionals.

Sargassum seaweed washed up on beaches: immediate measures to be taken to limit the exposure of workers and residents

Since August 2014, the French West Indies and French Guiana have been faced with successive waves of Sargassum seaweed washing up on their coastlines. Despite the cleaning methods used, the seaweed decomposes in situ. This decomposition leads to the production of hydrogen sulphide (H₂S), which has been detected at high concentrations. Doctors’ reports concerning the health effects suffered by people exposed to the H₂S, and complaints from the public relating to the problem of odours, have increased significantly. In the current state of knowledge concerning the health effects of H₂S, the Agency insists on the need to collect washed-up seaweed without delay and recommends that measures be implemented to protect the workers involved in collecting, transporting and processing the seaweed. Meanwhile, the public needs to be informed that they must not handle the seaweed.

Assessment of chemical substances in the framework of REACh and CLP

In 2016, ANSES assessed several chemicals with a view to proposing a classification to the European Chemicals Agency (ECHA) in the framework of the REACh and CLP regulations. The Agency submitted three proposals:

- that potassium permanganate be classified in Category 1B as toxic to reproduction, made available for public consultation on the ECHA website on 17 February 2016,
- that methylmercury chloride be classified in Category 1A as toxic to reproduction, in Category 2 as mutagenic, in Category 2 as carcinogenic and in Category 1 for its toxicity to specific target organs (nervous system, kidney), made available for public consultation on 28 April,
- that titanium dioxide be classified in Category 1B as carcinogenic by inhalation, made available for public consultation on 31 May.

Submitting these different proposals for public consultation on the ECHA website gives all stakeholders an opportunity to present their positions, scientific arguments or any additional information they have at their disposal. After this public consultation, the process of examining the classification proposals follows the steps laid down by Regulation (EC) No 1272/2008 on classification, labelling and packaging of substances and mixtures, known as the CLP Regulation, until the adoption of a final opinion by ECHA’s Committee for Risk Assessment. On the basis of each of these opinions, the European Commission decides whether to include the classifications proposed by ANSES in the CLP Regulation.
ANNUAL REPORT 2016

Occupational health

Long-term health effects associated with working conditions in sewers

In June, ANSES published an expert appraisal on the specific exposures and health risks to which sewer workers are subjected. On the basis of a thorough analysis of the scientific literature identifying exposure to multiple chemical and biological agents, including carcinogenic, mutagenic and reprotoxic compounds present in the untreated wastewater and atmosphere of the sewers, ANSES concluded that there are long-term health effects associated with working conditions in sewers. In its Opinions and its Report, ANSES issued a series of recommendations on prevention, measures to be implemented for protecting and monitoring the health and exposure of sewer workers, and also on additional research to be conducted. The Agency may formulate additional recommendations when all the results from a campaign still in progress to measure biological agents in the air of the Paris sewers are available.

ANSES confirms the health risks associated with night work

ANSES received a formal request to assess the health risks for professionals exposed to atypical working hours, in particular night work, whether regular or irregular. The Agency’s expert appraisal identified proven risks of sleep disorders and metabolic disorders, and probable carcinogenic risks, cardiovascular disorders and psychological disorders for the workers concerned.

In its conclusions, the Agency considers that the use of night work may be justified for situations where there is a need to ensure the provision of services of social value or the continuity of economic activity. It nevertheless advocates optimising the ways in which night work is organised, in order to minimise its impact on the personal and professional lives of employees. It stresses that anything that reduces the desynchronisation of biological rhythms and sleep debt is favourable in principle.

A need to better understand and reduce occupational exposure to pesticides

In France, more than a million professionals in the agricultural sector are potentially exposed to pesticides. In 2011, ANSES issued an internal request to conduct a collective expert appraisal aiming to identify, assess and characterise the exposure of agricultural workers to pesticides. As a result of the expert appraisal, ANSES recommends decreasing exposure by reducing the use of pesticides, as well as various preventive measures. In addition, the Agency recommends improving understanding of exposure in actual conditions of use, in the current context where there is often a shortage of available data.

My work at ANSES involves coordinating expert appraisals from the point of view of the human and social sciences. By bringing specialist knowledge and skills to bear, which, depending on the Request, may involve geography, sociology, psychology or economics, gives greater scope to the Agency’s work and to the recommendations it issues.

THOMAS, a Social Economist in the Department of Information, Communication and Dialogue with Society
The social sciences and expertise at ANSES

To more effectively frame the context of certain expert appraisals and document aspects that may be useful in the risk assessment process, ANSES has in recent years turned to the human and social sciences for support. These contributions take the form of internal expertise (mainly driven by the Risks and Society Unit), external expertise (by mobilising experts in these disciplines for several working groups) and academic partnerships formalised by research and development agreements, as well as the calls for research projects issued annually by the Agency.

In 2016, the Agency completed and published several expert reports in which the social sciences played a major role.

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Reinforcing the fight against mould growth in buildings and its effects on human health

In August, ANSES published the results of its expert appraisal concerning mould in buildings, which constitutes a major public health challenge given the proven effects on respiratory health and the large proportion of housing concerned. As overcrowded housing conditions and fuel poverty facilitate fungal development, it is essential to be particularly vigilant concerning disadvantaged sectors of the population. In its conclusions, the Agency recommends on the one hand preventing the development of mould in buildings by strengthening the coordination between the actors in the industry sectors concerned (construction, energy, etc.) and also between the authorities and other public actors, and on the other hand improving the information given to residents. The Agency also recommends preventing the health consequences, particularly for the most susceptible populations, by changing the regulations to better take into account the risk associated with exposure to mould in housing.

Smart meters: health risks unlikely

Act No. 2015-992 of 17 August 2015 on energy transition for green growth authorises the deployment of smart meters throughout France, enabling the day-to-day transmission of electricity and gas consumption metrics to energy suppliers. Water distribution organisations have also started upgrading their water meters. The installation of these meters has raised concerns among part of the population, and certain associations asked ANSES to carry out an expert appraisal to assess the exposure of the population to the electromagnetic fields emitted by these devices and any possible associated health effects. A considerable effort was also invested in analysing the controversy, how it developed, the arguments used and the parties involved. The Agency concluded that there is a low probability that exposure to electromagnetic fields emitted by smart meters, as they are currently being deployed, generates health effects in either the short or the long term. However, it called on operators involved in the deployment of these new technologies to provide users with clear and easily understandable information on the way they operate.
Two questions for
JEAN-NOËL JOUZEL
a Researcher at the Centre for the Sociology of Organisations (Member of the WG «Pesticides and Agricultural Workers» and coordinator of the project for the monitoring of uncertain occupational risks – SURIPI – financed by ANSES’s PNR EST).

> How do you rate the interdisciplinary cooperation within the expert group devoted to the study of exposure of agricultural workers to pesticides?

— Since its creation, ANSES has encouraged the incorporation in its risk-assessment missions of disciplines from the human and social sciences, which were traditionally considered marginal in the field of public health or environment expertise.

The Working Group on the exposure of agricultural workers to pesticides has taken this trend much further, following the appointment of an economist as its Chair, with a historian and sociologist, a political sociologist, and also an ergonomist joining the Group.

This type of knowledge is largely qualitative, meaning that it can be difficult to include it in the risk assessment process. In addition, each of these approaches has its own specific procedures, and it can be as difficult to combine their input as it can be to combine each one with the «harder» sciences. As I see it, the initiative has been successful because all the members of the group have willingly accepted the experiment, regardless of which field they belong to. In my particular case, for example, I worked more and more closely, over time, with the group’s epidemiologists, who approach these problems in a very different way but who provide material for similar interrogations, for example on the limitations of the regulatory procedures for estimating occupational exposures to pesticides.

However, it can take some time to identify and exploit these potential synergies: it took longer than the three years originally planned for the group to produce its final report. This report is particularly detailed and long because of the variety of approaches it had to accommodate.

This type of experience carries lessons for future expert appraisals making greater use of the social sciences, which will be able to call on these disciplines to reach cruising speed more rapidly.

> You have been working for several years on the mechanisms of the invisibilisation of risks[CO4]. What room for progress do you see regarding research and expertise?

— I think there is considerable room. In my opinion, the case of agricultural workers’ exposure to pesticides shows us how there is an increasingly clear separation between two types of science: on the one hand, academic science, produced by academics according to the standards of their disciplines, and on the other, regulatory science, generated in the context of risk assessments. It is striking to note how difficult it is for data produced on occupational exposure to pesticides to move between these two social spaces, which each have their own validation criteria: peer review in the academic world, and compliance with guidelines and Good Laboratory Practice in the regulatory context.

It doesn’t seem right that the few data produced by academics on the exposure of workers to pesticides are not taken into account in the regulatory assessment of risks related to pesticides, when they cast doubt on the basic premises behind certain assumptions used in this assessment, on the effectiveness of personal protective equipment or on the frequency of incidents that increase the levels of exposure of agricultural workers during application, for example.

While the rules of risk assessment, designed at European level, impose necessary standards of evidence on the companies that produce most of the data used in the marketing authorisation process for pesticides, it is unfortunate that these same rules tend to prevent the inclusion of new data from field research.
Animal health

Supporting the authorities in responding to health crises: the Agency’s involvement in the response to avian influenza

Since the end of November 2016, more than 200 outbreaks of highly pathogenic avian influenza (HPAI) H5N8 have occurred in French farms, in particular in southwest France, a year after the beginning of the avian influenza epidemic caused by the highly pathogenic H5N1, H5N2 and H5N9 viruses. Several European countries are affected, either by cases identified in wild birds, or by outbreaks in domestic poultry (in early January, 18 European countries had declared outbreaks to the World Organisation for Animal Health (OIE)). Currently, duck and goose farms are the most frequently affected.

This new virus, which is non-transmissible to humans, and was very probably introduced into France by wild birds, is particularly pathogenic for poultry farms, including duck and goose farms, where it spreads rapidly. The health situation has evolved differently depending on the areas: while the situation has stabilised in some of the Regulated Areas established to control the spread of the virus around the outbreaks detected (in particular in the Tarn, Aveyron and Lot-et-Garonne départements), it has not yet stabilised in another area, where a majority of the most recently confirmed outbreaks occurred, including part of the Gers, Landes and Hautes-Pyrénées départements.

The Agency has been heavily involved and its teams have worked on a number of different fronts. Indeed, as soon as the first cases were detected in neighbouring countries, the Directorate General for Food issued an emergency request for ANSES to provide an opinion on the circulation of HPAI viruses of the subtype H5N8 detected in Europe.

The avian influenza expert group and ANSES’s risk assessment teams responded with remarkable speed to the scientific questions posed by the Directorate General for Food. The experts’ answers enabled the authorities to make decisions based on reliable scientific data and resulting from a collective expert appraisal.

Furthermore, at its national reference laboratory at Ploufragan-Plouzané, the Agency is responsible for characterising the pathogenicity of viruses detected by the first-line laboratories. The complete sequencing of a sample of these viruses helps characterise their possible pathogenicity to other animal species or humans and track the genetic evolution of circulating viruses, in order to reconstruct their history and monitor their mutations. Epidemiologists in the field support the departments of the Ministry of Agriculture by helping them understand how these viruses spread, modelling them and proposing ways of limiting their dissemination.

Lastly, through its participation in the National Epidemiological Surveillance Platform for Animal Health, ANSES contributes to the drafting of regular situation updates that enable consolidated information on the French and international situation concerning an outbreak to be rapidly disseminated to all.

Prioritisation of health hazards that are either exotic or present in metropolitan France among exotic pets or zoo, circus and laboratory animals

Controlling animal diseases is a major problem for the public authorities. Whether for public health or economic reasons, it is essential to control the main diseases in order to protect both animal and human populations, since certain animal diseases can be transmitted to humans (zoonoses). In this context, following the establishment of the new health governance system (resulting from the États généraux du sanitaire consultation in 2010), ANSES developed a method for prioritising the animal diseases present in metropolitan France or likely to be introduced here and applied it for the different livestock species and domestic carnivores, based on the available data. The Agency subsequently continued this prioritisation process, applying it to exotic pets and to zoo, circus and laboratory animals, publishing the results in 2016.
Assessment of the risks in the event of the authorisation of the use of autogenous vaccines in ruminants

The Decree of 2 December 2003 prohibits the preparation, placing on the market, prescription, dispensing, administration, import and export of autogenous vaccines for veterinary use with cattle, sheep or goats on the basis of products of bovine, ovine or caprine origin, particularly in the light of the risk of prion transmission. Given the very positive developments of the epidemiological situation in the field of transmissible spongiform encephalopathies (TSEs) since 2003, in 2013 ANSES recommended revising the regulations concerning autogenous vaccines in ruminants. At the request of the Directorate General for Food, ANSES conducted a risk assessment concerning the potential authorisation of the use of autogenous vaccines in ruminants, concluding that the preparation of autogenous vaccines would be beneficial for a number of bacterial diseases of ruminants, and that there was a low risk of prion transmission as a result of the use of these autogenous vaccines (estimated probability of zero to almost zero), provided that a certain number of recommendations were followed (avoid the use of certain tissues, favour single-use devices throughout the autogenous vaccine preparation chain, etc.).

DIFFERENT VIEWS ON THE AVIAN INFLUENZA CRISIS

As Assistant Manager of the national reference laboratory, my work includes constant cooperation with our network of laboratories for the confirmation of suspected cases of avian influenza in France, while I also participate in research on these viruses and the corresponding techniques, in order to improve our knowledge and our effectiveness. In a crisis, I have to work with the team to set up an organisation dedicated seven days a week to producing emergency diagnoses, in order to remove bottlenecks rapidly for livestock farmers and allow the authorities to take the appropriate measures.

AUDREY, a Virologist at the Ploufragan-Plouzané Laboratory

I work in the field, researching the spread of viruses and their persistence in the environment. In the avian influenza crisis, I took samples from animals and their environment in the infected flocks, and also in slaughterhouses or transport trucks, to increase our knowledge and provide input for decisions about management measures. Working in close collaboration with the veterinary services, but especially listening to farmers on the ground, gives a better understanding of the reality of the epidemic.

RODOLPHE, an Epidemiological Technician at the Ploufragan-Plouzané Laboratory

As a veterinary practitioner, my knowledge gives me a better understanding of the pathologies and the data from laboratories and the field, enabling me to efficiently interpret the comments of the experts resulting from risk assessments and emergency situations, such as outbreaks of avian influenza.

CLAIRE, a Veterinary Practitioner in the Risk Assessment Department
MANAGING AND MONITORING MARKETING AUTHORISATIONS FOR REGULATED PRODUCTS
An important event for ANSES in 2016 was the acquisition of a new mission concerning the management of regulated products: from 1 July, the Agency, which already coordinated the assessment of the hazards, risks and effectiveness of the active substances and biocidal products for which applications have been submitted in France, was made responsible for issuing, withdrawing or amending marketing authorisations for these products.

The Agency and the French Agency for Veterinary Medicinal Products have also had other important subjects to deal with: these have included expert appraisals concerning neonicotinoids and glyphosate, the continued deployment of the phytopharmacovigilance scheme, the ANMV’s close involvement in a project for the international harmonisation of data on veterinary drugs, etc.

A report is available specific to the activities related to plant protection products, fertilisers and growing media, adjuvants and biocidal products, for more details on the work carried out by ANSES in 2016.

**Biocidal products and active substances**

**New missions for ANSES concerning biocidal products**

On 1 July, ANSES’s sphere of competence was extended when it took over management of marketing authorisations (MAs) for biocidal products and responsibility for declarations to the biocidal products inventory (SIMMBAD). For this new mission, the Agency is building on the organisation it set up in July 2015 to issue marketing authorisations for plant protection products, while taking account of the specific features of the European regulation governing biocidal products. This regulation, applicable since 2013, seeks to ensure a high level of protection for humans, animals and the environment. In gaining these new missions, the Agency strengthens the integrative approach it has adopted in the area of chemical risk, with the aim of safeguarding consumers and the environment. Since 1 July 2016, ANSES has issued authorisation decisions for 54 biocidal products, including 26 decisions relating to initial marketing authorisation and the mutual recognition process.

**The Zika epidemic: ANSES’s recommendations on the use of mosquito nets treated with deltamethrin**

Certain mosquito nets impregnated with deltamethrin are recommended by the World Health Organization to prevent the transmission of vector-borne diseases transmitted by mosquitoes. These nets are not covered by any marketing authorisation in France; as a result, they may not be used under the Biocides Regulation. Against this background, the Ministry of the Environment issued ANSES with a request for an urgent opinion on the suitability of using mosquito nets impregnated with long-lasting deltamethrin under an exemption, as provided for by Article 55.2 of the Biocides Regulation. On the basis of the available data, ANSES concluded that the use of such nets may be authorised. However, it recommends attaching nets around the beds of new-born babies and children so that they are not easily accessible, in order to prevent children placing them in their mouths. It also recommends the use of mosquito nets whose effectiveness has been validated by the WHO and restricting washing to a minimum, given the high toxicity of deltamethrin for the aquatic environment.
Plant protection products, fertilisers and growing media

In January 2016, ANSES published its conclusions on the risks to bees and other pollinators presented by insecticides based on neonicotinoids. In its conclusions, the Agency first identified all the uses for which the risk to honeybees, bumblebees and wild bees are considered to be low, subject to compliance with certain conditions of use. The Agency also emphasised that great uncertainty persists about some uses, in particular the treatment of seed for winter cereals or the spraying of orchards and vineyards. Moreover, the Agency recommends imposing stricter conditions of use for all the applications about which there remains substantial uncertainty; it also recommends not planting a crop likely to attract pollinators immediately following a crop treated by certain neonicotinoid-based products.

The Agency was also involved in the procedure to renew the approval granted to the active substance glyphosate, following publication of the results of the assessment conducted at European level and the conflicting results of the International Agency for Research on Cancer (IARC) that concluded that this substance should be classified as «probably carcinogenic to humans».

ANSES received a formal request to investigate the hazards posed by glyphosate to human health and concluded, in light of the limited level of evidence, that it was not possible to propose a classification in Category 1A or 1B (respectively known or presumed to be carcinogenic to humans under the CLP Regulation), but that it could arguably be classified in Category 2 (substances suspected of being carcinogenic to humans, CLP). ANSES therefore believes that the classification of glyphosate should be rapidly reviewed by the European Chemicals Agency (ECHA).

Then in June, ANSES withdrew 126 authorisations for products combining the active substance glyphosate with the co-formulant POE-tallowamine.

Moreover, as part of the simplification of procedures for users, a large-scale project to digitise applications was undertaken in 2016 (the DPhy project); this is designed to make ANSES considerably more efficient by saving time on data entry and the handling of documents in paper format, improving the reliability of the collection of administrative data and shortening the time needed to process dossiers.

My role at the Agency is to provide a scientific assessment of the environmental risks that may be posed by plant protection products. The assessment may lead either to suitable management measures or to restrictions to limit environmental exposure.

In this way I help to protect wild flora and fauna.

YANNICK, an Ecotoxicologist and Scientific Investigator

Being an inspector gives me the opportunity to broaden my knowledge of regulations in the field of plant protection products, while participating in what is a new activity for ANSES. By carrying out product compliance inspections on the ground through discussions with the people concerned (distributors, trainers, etc.) I contribute to the protection of operators, while providing some of the answers to the many questions raised in connection with particularly complex legislation.

The inspections carried out at points of sale on the premises of product distributors provide an opportunity to check how products are stored, the conditions under which they are sold and how withdrawals are managed.

ATTILA, an Inspector in the Market Authorisations Department
Close to 500 relating to dossiers for active substances received

Close to 3,000 declarations filed and followed up under the regulations on R&D trials

2,484 authorisation or permit applications received

103 concern fertilisers and growing media

51 concern adjuvants

2,330 concern plant protection products:

Close to 2,000 decisions signed

85 concern fertilisers and growing media

28 concern adjuvants

1,883 (94% of the total) concern plant protection products

20 establishments inspected (9 for professionals, 7 for amateurs and 4 mixed)

in 6 administrative regions

1,586 products investigated

of which 1,579 (or more than 99%) had a currently valid MA.
Veterinary medicinal products

2016 IN FIGURES FOR THE FRENCH AGENCY FOR VETERINARY MEDICINAL PRODUCTS

Marketing Authorisations (MAs)

- 108 MAs issued in 2016
- 722 procedures for amending MAs assessed
- 119 renewals and 18 transfers between holders
- 662 import authorisations issued
- 41 submissions for clinical trials
- 4 applications for temporary authorisation for use
- 3 parallel import applications assessed

Inspection and market surveillance

- 108 inspections of pharmaceutical establishments
- 17 applications for authorisation to open, 78 amendment applications, 13 transfer applications
- 2,596 export certificates for veterinary medicinal products
- 72 official batch release certificates
- 146 quality control tests performed on 68 veterinary medicinal products
- 99 requests for qualification on the legal status of the product
- 74 notifications of supply interruptions
- 93 notifications of quality defects leading to 33 batch recalls
- 553 advertising applications

Pharmacovigilance

- 4,122 adverse effect reports assessed, parmi of which 2,140 were considered serious
ANSES recommends ceasing the use of VELACTIS® and recalling all batches, including from livestock farms

Following several reports of serious adverse effects related to the veterinary drug VELACTIS®, ANSES suspended authorisation for the use of this medicine in July. The Agency then asked veterinary practitioners to stop prescribing VELACTIS®, a veterinary medicinal product used as a herd management aid for drying off dairy cows. All batches were recalled. Farmers were invited to return all unused products to their veterinarians.

Use and monitoring of autogenous vaccines

In 2016, the French Agency for Veterinary Medicinal Products was closely involved in issues concerning autogenous vaccines, especially on two subjects. At European level, and following the review carried out in the Member States the previous year, the ANMV, as the representative of France on the committee for the harmonisation of veterinary drugs, led a working group tasked with defining the minimum requirements within the Member States for the preparation, use and control of autogenous vaccines. At the same time, the French authorities are working to ensure that these requirements can be incorporated in the forthcoming European regulation on veterinary medicinal products.

In France, following an Opinion issued by ANSES in May 2016 on «assessment of the risk, in particular of prion transmission, in the event that the use of autogenous vaccines is authorised in ruminants», and the decision by ANSES’s supervisory ministries to partly lift the ban on preparing and prescribing autogenous vaccines for ruminants, the ANMV worked on the regulatory framework and prepared two draft amending orders, which were published at the end of January 2017. The possible prescribing of autogenous bacterial vaccines in ruminants in the absence of available authorised vaccines, is a step forward in the context of reducing antibiotic use.

European reform of the management of veterinary medicinal product data

The European Medicines Agency (EMA) has launched a major project aiming to offer harmonised tools for managing data on medicinal products, in order to comply with international standards. The ANMV is involved in this project, alongside the EMA and the other Member States, by actively participating in the project’s steering committee (EU Network Data Board) and its operational sub-groups, in order to represent purely veterinary agencies.

"Veterinary drugs and medicinal products for human use have much in common, but they also have specific features that make it impossible to process their authorisation applications identically. At the French Agency for Veterinary Medicinal Products, my training as a pharmacist enables me to see how public health issues are related to animal health and welfare. This is very useful during negotiations at European level about veterinary pharmaceutical regulations, and it’s also important when it comes to providing advice on the governance of veterinary medicinal products at the international level. Discussions with my colleagues at the Agency from whatever discipline (veterinarians, chemists, biologists and so on) are always very edifying because our respective experiences complement and enrich each other.

CATHERINE, a Pharmacist at the French Agency for Veterinary Medicinal Products"
RESEARCH AND REFERENCE ACTIVITIES TO PROTECT HUMAN, ANIMAL AND PLANT HEALTH
The Agency’s eleven reference and research laboratories incorporate the concept «One Health» in all their work.

This concept, promoted by the World Health Organization, the World Organisation for Animal Health and the United Nations Food and Agriculture Organization, encourages an integrated approach to human, animal and environmental health.

To carry out its missions, the Agency works on major issues of public health, such as antibiotic resistance, and develops increasingly effective tools such as the iCube platform, which provides important assistance for its activities concerning infectious disease, in particular in collaboration with its fellow scientific institutions in the Île-de-France Region, as well as in other countries.

How the laboratories contribute to health surveillance and the «One Health» policy

Throughout 2016, ANSES’s laboratories worked on consolidating and structuring their skills to better support the health surveillance schemes and thus assist the health authorities and field operators working for human health and veterinary agencies, in accordance with the new missions entrusted to the National Reference Laboratories (NRLs) by the French Rural Code. This support could be seen in its participation in the work of the National Epidemiological Surveillance Platform for Animal Health and the discussions on the creation of platforms in plant health and food safety.

The Agency’s teams possess considerable skill in the exploitation, improvement and mapping of health data, which enables them to provide the managers of health crises with geolocated results showing how epidemics in France evolve in real time, whether these be bluetongue, highly pathogenic avian influenza or the Xylella fastidiosa bacterium, a plant pathogen.

In 2016, an agreement was reached between the National Reference Laboratories (NRLs) and the National Reference Centres (NRCs) concerning work on zoonotic pathogens (those communicable to humans) during a seminar organised jointly by Public Health France and ANSES, which will be put into effect as a series of actions during 2017. The NRLs and the Agency’s epidemiology units are developing a qualitative approach to their involvement in the surveillance schemes, in the framework of a unit spanning all the laboratories; they are identifying the key issues that will have to be worked out in discussions between the NRLs and the NRCs to ensure that the databases that can be of use to public health are fully interoperable.

iCube: an additional tool for reference work on foot-and-mouth disease

Foot-and-mouth disease is one of the most contagious animal viral diseases in susceptible animals such as cattle, small ruminants and swine. Due to its considerable socio-economic repercussions, especially in the agricultural sector, foot-and-mouth disease is seen as a major pathology with a global impact on production and international trade in foodstuffs of animal origin. The ANSES Laboratory for Animal Health at Maisons-Alfort has acquired iCube, an infectious disease research platform in animal health (Containment Level 3), for the study and manipulation of highly pathogenic animal viruses, including the foot-and-mouth virus. Its creation will strengthen ANSES’s research into infectious diseases as well as the scientific collaboration with other scientific organisations in the Île-de-France region and abroad.

iCube, the Agency’s platform for research into infectious diseases in animal health, was inaugurated on 13 October, in the presence of Stéphane Le Foll, Minister of Agriculture, Valérie Pécresse, President of the Regional Council of Île-de-France, Michel Herbillon, MP and Mayor of Maisons-Alfort, Christian Cambon, Senator for the Val-de-Marne and Monique Eloit, Director General of the World Organisation for Animal Health (OIE).
Antibiotic resistance in animal health: ANSES continues its efforts

Resistance to antimicrobials is recognised as a major human and veterinary health problem at the international level. ANSES has long been an active player in the fight against antimicrobial resistance, and every year since 2009 it has organised a science day devoted to this theme, open to all stakeholders. This scientific event, whose most recent edition was organised on 16 November 2016 at the headquarters of the OIE, is fully in line with the inter-Ministerial approach aiming to strengthen and coordinate efforts so as to combat antimicrobial resistance more effectively. The event included an annual review of the work of the Agency and its partners in the field of animal health.

The sales survey of veterinary medicinal products containing antimicrobials in France, carried out by the French Agency for Veterinary Medicinal Products (ANMV) since 1999, and the 2015 annual report of the French Surveillance Network for Antimicrobial Resistance in Pathogenic Bacteria of Animal Origin (Résapath), coordinated by ANSES’s Lyon and Ploufragan laboratories, revealed two important trends: a 20.1% decrease in the exposure of animals to antimicrobials in France over the last four years, thus confirming the positive impact of national plans to encourage the rational use of antimicrobials, and a decrease in resistance to third-generation cephalosporins in several sectors and the stabilisation of resistance to fluoroquinolones after several years of decline.

INCREASED RESISTANCE TO ANTIBIOTICS FOLLOWING REPEATED EXPOSURE TO SUB-INHIBITORY CONCENTRATIONS OF DISINFECTANTS

The development of antibiotic resistance is associated with the use of antimicrobials in veterinary and human medicine. Disinfectants are intended to kill bacteria, and their manufacturers are required to issue recommendations for their use. However, they can be found at sub-inhibitory concentrations when used inappropriately. The work at the Fougeres Laboratory shows that repeated exposure to sub-inhibitory concentrations of a commonly-used quaternary ammonium, didecyl dimethyl ammonium chloride, led to an increase in minimum inhibitory concentrations (MICs) for this molecule for nearly half of the strains of Escherichia coli and Listeria monocytogenes tested and for a very low proportion of strains of Salmonella enterica. The MICs for these strains were also increased by a factor of 2 to 3 for another quaternary ammonium, benzalkonium chloride. For several antibiotics, the MIC values were multiplied by factors of 4 to 32 in strains of E. coli. The phenomenon was less marked for Listeria, Campylobacter and Salmonella, however. These studies highlight the importance of considering the use of disinfectants, in epidemiological studies on the development of resistance to antibiotics.

However, there was a slight upward trend in resistance to other antimicrobials in almost all the production sectors. This will need to be confirmed before being regarded as significant, but it is a point that warrants vigilance. Efforts should therefore be continued and all the parties concerned should maintain their mobilisation for the rational use of antimicrobials in veterinary medicine, with the aim of preserving their therapeutic efficacy in animals and humans.

In addition, on 6 October 2016, the Board of Directors of the European Joint Programming Initiative on Antimicrobial Resistance (JPIAMR) elected Jean-Yves Madec, Acting Director of the Lyon Laboratory and coordinator of the Agency’s antimicrobial resistance unit, as a member of its Scientific Advisory Board for two years. The JPIAMR coordinates different national funding efforts and fosters concerted action to fill the gaps in our knowledge concerning antimicrobial resistance. The goal is to promote joint international activities (22 countries are involved). The Scientific Advisory Board assists the JPIAMR’s Board of Directors in all matters of scientific interest, including the establishment of the strategic research programme, and suggests scientific priorities based on societal needs and new scientific evidence. It also supports activities for the implementation of the strategic research programme.

ZIKALLIANCE, A GLOBAL ALLIANCE FOR THE CONTROL AND PREVENTION OF THE ZIKA VIRUS (H2020 COLLABORATIVE PROJECT)

A multi-disciplinary research consortium of more than 50 European and Brazilian partners was set up to address three major issues: the impact of infection by the Zika virus during pregnancy and its effects in the short and medium terms on newborns; the natural history of infection by the Zika virus in humans and the human environment in the context of the circulation of other arboviruses; and the development of a research strategy to prepare for future threats of epidemics, in particular the establishment of a network of research centres in Latin America and the Caribbean prepared for the study of emerging pathologies. The project began in October 2016 and will run for three years. It aims to improve our knowledge of the species of mosquitoes that are potential vectors of the virus in areas where Zika is enzootic and epidemic, with the help of a high-throughput screening tool based on microfluidic PCR developed at the Maisons-Alfort Laboratory for Animal Health, in collaboration with the Pasteur Institute.
A look back at a few examples of the work carried out in 2016 by the scientific teams of the Agency’s laboratories

**Animal health**

**Re-emergence of the bluetongue virus**

Bluetongue is an infectious disease caused by a virus transmitted by a biting arthropod of the genus *Culicoides*. This virus has 27 serotypes. The bluetongue virus has already been detected in Southern Europe several times in the last sixteen years. Six years after its first appearance in France, mainland France was declared free of bluetongue on 12 December 2012. Nearly three years later, at the end of August 2015, serotype 8 of the bluetongue virus reappeared in the centre of France (Allier), and subsequently spread through France. The Maisons-Alfort Laboratory for Animal Health, the national reference laboratory for bluetongue, again isolated this virus.

In September 2016, the laboratory once again isolated serotype 8, which had managed to survive the winter. More than 1700 cases have been reported since September 2015.

Finally, just as a vaccination campaign against the serotypes 1 and 4 had been launched in Corsica, a serotype 4 of the virus was identified unexpectedly on 1 December 2016 in biological samples of diseased sheep in the south of the island (which would otherwise have recovered its disease-free status a few months later). This virus, whose complete genetic sequence has been determined, is close to the serotype 4 virus circulating in the Balkans.

"My objective is to make the workplace more suitable for people and not the other way round! In this rewarding and complex task I count on people to be proactive and to take an interest in improving their own health and safety at work, while also showing concern for others!"

CHRISTINE, Prevention Assistant

**A new DIM 1-HEALTH project supported for 2017-2020 by the Ile-de-France Region**

On 15 December 2016, the Ile-de-France Region agreed to fund the DIM 1-Health project run by a broad consortium of all the institutions working on infectious disease in the Ile-de-France: the three university groupings (COMUEs), all the scientific and technological public institutions (EPST), four laboratories of excellence (Labex), various agencies, the Paris Public Hospital System (APHP), plus industrial partners and other stakeholders in the local economy. Pascal Boireau, Director of the Maisons-Alfort Laboratory for Animal Health, is the scientific coordinator of this unique project, built around the concept of «One Health». The DIM 1-Health project will be overseen by a steering committee involving EnvA, Inserm, ANSES, CEA and INRA. The goal is to support research and the development of the Ile-de-France scientific community in the field of infectious disease, based on the three pillars of environmental, human and animal health, areas that are strongly interrelated because of their close interactions.
Two new reference sera for infectious bovine rhinotracheitis and paratuberculosis

Two reference sera for single-serum ELISA testing were developed at the Niort Laboratory in 2016, one for infectious bovine rhinotracheitis (SRF2) and the other for paratuberculosis (PTB50). Obtained from a pool of positive cattle sera from different infected herds, diluted in a pool of negative sera from the reference collection, they have been freeze-dried and are used pure after reconstitution in demineralised water. They were developed following the work of readjustment (for infectious bovine rhinotracheitis) or of evaluation (for paratuberculosis) of the performance of the reagents available on the French market.

A possible way of making the trade in goats more secure?

A large number of infectious diseases find their way into livestock farms as a result of the purchase and introduction of healthy carrier animals. Assessment of the status of the herds by analysing tank milk could provide a promising and innovative solution for health management in the goat sector. The MYCAP-TANK study, carried out jointly by the Niort and Lyon laboratories, shows that three or four annual samples could be used to identify the majority of herds infected with mycoplasma. Additional studies are planned to refine these first results and to explore the possibility of extending this approach to include other predominant health issues in the goat sector, such as CAEV and paratuberculosis.

First International Conference of the OIE Non-Tsetse Transmitted Animal Trypanosomoses (NTTAT) network

The Dozulé Laboratory for Equine Diseases (NRL and EURL for dourine) and the Institute of Tropical Medicine in Antwerp (OIE laboratory for surra) organised the first international conference of the Non-Tsetse Transmitted Animal Trypanosomoses (NTTAT) network on 15 and 16 December 2016 at ANSES. Thirty-three scientists from 14 countries on three continents participated. This event strengthens the position and the international influence of the Agency on animal trypanosomoses and consolidates the scientific partnerships of the Dozulé Laboratory for Equine Diseases on this theme.

Contribution of the Dozulé Laboratory for Equine Diseases to equine health surveillance

An academic thesis in epidemiology, entitled «Contribution to the improvement of surveillance systems by interconnection: application to three diseases in the equine sector» was completed at the Dozulé Laboratory for Equine Diseases and defended in December 2016. This thesis, co-financed by ANSES and the French Horse and Riding Institute (IFCE) and supported by INRA, gave rise to numerous joint activities (Maisons-Alfort Laboratory for Animal Health, IFCE, EnvA, VetAgro-Sup, INRA, Royal Veterinary College in London, Respe, and health and professional organisations in the equine sector). It investigated how the interconnection between the schemes and systems for monitoring the equine sector could improve their surveillance and proposes a generic approach for setting up such interconnections. The surveillance systems for equine infectious anaemia, equine viral arteritis and contagious equine metritis were assessed with the help of semi-quantitative (OASIS) and quantitative (capture-recapture) methods. A participatory workshop bringing together some 30 professionals concerned by equine health was also run to identify, assess and prioritise the avenues for improvement and for interconnecting the existing surveillance systems.

"I’m involved every day in the many reference activities entrusted to the laboratory, working closely with the different stakeholders in the equine sector, while participating in the development of ever-more-innovative diagnostic tools.”

DELPHINE,
Virology Technician at the Dozulé Laboratory for Equine Diseases
RESEARCH AND REFERENCE ACTIVITIES
TO PROTECT HUMAN, ANIMAL AND PLANT HEALTH

A glanders bacillus isolated for the first time in fifty years

For the first time in fifty years, the Maisons-Alfort Laboratory for Animal Health isolated a new glanders bacillus from Brazilian samples taken from a dead donkey with clinical signs. The genome of the bacterium was sequenced using the Identypath platform. A first analysis of the 23 markers making up the Multi-locus VNTR Analysis (MLVA) panel positioned this strain on a branch that is distinct from the other strains of *B. mallei* isolated to date in Asia and the Middle East.

Collaboration with Taiwan on rabies

The collaboration between the Nancy Laboratory for Rabies and Wildlife and Taiwan’s Animal Health Research Institute, formalised by a Memorandum of Understanding, was launched by ANSES in the autumn of 2013, following the discovery of cases of rabies in Taiwan and the decision by the authorities of this country to work with the laboratory on the issues of crossing the species barrier and control of rabies found in a new wild reservoir: the ferret-badger. The joint study, financed by the Taiwanese authorities, focuses on studies of pathogenicity, the expertise required for setting up control methods, and tests on protecting these animals by oral vaccines, which have proved conclusive.

Coronavirus: very wide host specificity, including mammals and birds

Coronaviruses became a subject of interest at the time of the SARS outbreak in 2002-2003, which was the first pandemic of the 21st century, and then during the MERS-CoV epidemic in the Arabian Peninsula, which is still in progress. These episodes also reminded us that the animal reservoir, and more particularly that of wildlife, plays an important role in the emergence of zoonotic diseases.
In August 2016, several outbreaks of anthrax (due to the bacterium *Bacillus anthracis*) were reported in the Moselle département. Nearly forty animals at pasture, which included nine sheep, all belonging to six farms, died on adjacent or nearby fields. Investigations were carried out by the Maisons-Alfort Laboratory for Animal Health (National Reference Laboratory) and on the ground in early September, involving both epidemiological and analytical procedures. In all, seven herds located in four neighbouring municipalities, three of them in the same one, were affected. Several unconfirmed suspicions from ten other municipalities around Sarrebourg were investigated by the NRL. Thirty-eight samples, thirty-three from cattle, three from sheep and two from deer, were analysed by the Maisons-Alfort Laboratory for Animal Health. Twelve cattle were found to be positive. All the cases were confirmed by isolation and specific PCR of *Bacillus anthracis*, and all the strains isolated were sensitive to penicillin, which facilitated the chemo-prophylaxis of the humans exposed. During this episode of anthrax in Moselle, twelve strains of *Bacillus anthracis* were isolated in the laboratory. Five strains were selected for analysis by whole genome sequencing, carried out by the ANSES IdentyPath platform. The comparison of the sequences of the five strains showed that they are similar and all belong, like most French strains, to the same sub-group, called B.Br Cneva.

**Q fever: a thesis on the genetic diversity of *Coxiella burnetii***

In order to study the links between genotypes and virulence and to identify the origin of outbreaks of Q fever, the work for a doctoral thesis focused on the molecular characterisation of strains of the bacterium *Coxiella burnetii* circulating in farms of ruminants in France. This study, carried out in the framework of a partnership between the Sophia Antipolis Laboratory, the INRA unit at Theix and Vetagrosup, aimed to: (1) identify potential links between the genotypes of *C. burnetii* and domestic ruminant species, (2) describe the distribution of genotypes of *C. burnetii* within the main breeding areas of domestic ruminants in France, and (3) propose a sub-panel of relevant markers to use for future studies. Samples from 301 animals that had aborted because of Q fever between 2006 and 2015 (160 cows, 76 ewes and 65 nanny goats) were characterised using a method that involved a multiple-locus variable-number tandem repeat analysis (MLVA) on the genome of the bacterium. Phylogenetic analysis identified 12 sub-genotype clusters grouped into three main clusters (A, B and C). This diversity was significantly associated with the species of the infected host, as well as with the area where the livestock was farmed.

**Q fever: epidemiological investigations in a zoo***

Following the reporting, on 30 August, of a confirmed case of Q fever among the staff of Montpellier Zoo, and a suspicion of grouped cases in four other people, epidemiological investigations were carried out, and analyses on animal and environmental samples were performed by the Sophia Antipolis National Reference Laboratory. The suspicion of a link with animals in the zoo arose because of an abortion that occurred among dama gazelles in April. Serological screening was carried out on 121 different species and on a flock of sheep also at the Zoo, as well as molecular tests on products of parturition and environmental samples. Ultimately, no evidence was found of the active circulation of the causative agent of Q fever, *a priori* excluding any link between the human case and the animals in the zoo.

**Swine influenza: a study of reassortments***

A study of the evolution of porcine influenza viruses, conducted downstream of the surveillance and the various surveys carried out in French farms, shows that the genetic and antigenic diversity of these viruses is increasing. In 2016, five different genotypes were distinguished for the virus sub-type «H1aVN2» alone. Some are derived from ad hoc reassortments between enzootic porcine viruses (H1aVN1 and H1huN2 in one case and H1aVN1 and H3N2 in another), others are derived from an H1aVN2 lineage of Danish origin and still others from reassortments between porcine and human viruses. Such viruses, from successive reassortments and carrying genes from human viruses, could have increased zoonotic potential and will continue to be monitored.
**Bee diseases: work continues for epidemiological surveillance**

In 2016, the Sophia Antipolis Laboratory, which specialises in honey bee diseases, was deeply involved in several surveillance schemes overseen by the Directorate General for Food (observatory for bee diseases, *Varroa* mite and *Aethina tumida*), and was also on the Steering Committee of the BAPESA study concerning the unintended effects on bee colony health of biocidal products and pesticides used in farms. This last study, funded by the DGAL, is being carried out in partnership with several organisations (Itsap, INRA, ADA, GDS France, SNGTV) and follows significant colony losses during the winter of 2013/2014 in the Pyrenean mountain chain.

In the framework of its European reference mandate on bee health, the Laboratory continued its investigations into the small hive beetle (*Aethina tumida*). This beetle was detected for the first time in September 2014 in the region of Calabria, Italy. It was detected again in Calabria in September 2015, then in 2016 in sentinel colonies. Its phylogenetic links and its possible origin were studied by comparing the sequences of the cox1 gene from Italian specimens with those available in the databases. The results showed that the Italian specimens are divided into two different groups and that the small hive beetle was probably introduced into Calabria from Africa before migrating to Sicily.

**Plant health**

**Characterising the risk of the introduction of *Xylella fastidiosa* into Europe**

*Xylella fastidiosa* is a phytopathogenic bacterium endemic to the Americas that has recently emerged in Asia and Europe due to the introduction of infected plants. In 2012, coffee plants introduced from Latin America two years previously (*Coffea arabica* and *Coffea canephora*) presented symptoms of leaf blight caused by *Xylella fastidiosa*. Three strains were isolated from these plants and characterised by the Plant Health Laboratory. One strain, CFBP 8073, isolated from *C. canephora* imported from Mexico, was attributed to *X. fastidiosa* subsp. *fastidiosa*/*X. fastidiosa* subsp. sandyi. The other two strains, CFBP 8072 and CFBP 8074, isolated from *Coffea arabica* imported from Ecuador, were attributed to *X. fastidiosa* subsp. *pauca*. These results show the global diversity of *X. fastidiosa* and emphasise the diversity of strains isolated from coffee plants and the high risk of introduction of strains that are potentially aggressive for European flora via plants that are most often asymptomatic.
Inter-laboratory validation studies concerning real-time PCR methods for the detection of GMOs: tE9 simplex, pea lectin simplex and pat/bar duplex screening

Within the European Union, the detection, identification and quantification of GMOs are based on the use of molecular biological methods validated at EU level. These mostly target specific portions of the GMO’s genome (corresponding to the genetic construction itself, or to its junction with the genome of the recipient organism). It is also indispensable to use methods for detecting and quantifying the target organism (whether transformed or not). In addition, considering the multiplication of GM events developed and the increase in the number of genetic elements to search for, multiplex tests appear necessary henceforth. A study by the Plant Health Laboratory enabled the validation of methods targeting the tE9 terminator found in many GMOs, a pea gene, and the simultaneous detection of the pat and bar elements commonly used for detecting GMOs.

Real-time management and analysis of disease data

ANSES’s laboratories are regularly involved in the management and analysis of data concerning animal or plant diseases. A large number of actors are involved at all levels of surveillance, whether on the ground for detecting outbreaks and taking samples, or in the analysis laboratories run by the individual départements to search for pathogens, in the State services at the departmental, regional or national level, and in the reference laboratory. This process generates a considerable volume of data that must be managed and analysed to ensure the relevance of the health actions to be taken. In 2016, the ANSES laboratories created several websites for the consultation of near real-time data by the State services in charge of disease management, the most noteworthy being the outbreak of the plant pathogen Xylella fastidiosa in Corsica and along the Mediterranean coast, or the outbreak of avian influenza that has been raging since November 2016.

Identification of Epitrix

Entomologists at the Plant Health Laboratory participated in the Euphresco Epitrix project, named after a group of tiny beetles just 1.7 mm long, which cause considerable damage to potato crops. The laboratory updated an international diagnosis protocol with a morphological identification key to differentiate the regulated species from the many indigenous species, which can be difficult to identify. A collection of reference specimens was also created and is available for the European plant protection authorities. As a result of a change in nomenclature, new specimens were collected in their area of origin (California) and a part of their genome was sequenced with the aim of updating the international Qbank database. The information thus produced will help anticipate the risk of the introduction of new species.

I assess the risk linked to the intentional or accidental introduction of exotic invasive plants for crops (loss of yield), or sometimes wild plants (loss of biodiversity and genetic resources). I’m also involved in tracking the unintended effects of agricultural practices on the flora at the edges of cultivated fields, in particular as part of phytopharmacovigilance. This enables me to use my botanical knowledge to protect crops and the environment.

GUILLAUME, a Botanist at the Plant Health Laboratory
**Better understanding the biology of common ragweed**

Since 2013, the Plant Health Laboratory, which specialises in invasive plants, has been participating in the European Cost Smarter project, which aims to better understand the biology of common ragweed (*Ambrosia artemisiifolia*), which causes severe allergies and reduces crop yields. For three consecutive years, the demographics of forty-four populations of common ragweed have been monitored across the whole of Europe (including two by the laboratory) in order to better predict the conditions in which a large quantity of pollen and seeds was produced and therefore to improve the mapping of agricultural and public health risk. The first results, concerning 2014, indicate that the size of the plants when fully developed, which is easy to measure in the field, provided a good approximation of the quantity of seeds and pollen produced. The size varies considerably from one site to another and depends mainly on the annual weather conditions, the type of habitat and the presence of *Ophraella communa*, a beetle that eats ragweed. The incorporation and analysis of the latest data collected in 2016 will give a better understanding of the interannual dynamics of the populations and help improve predictions about the impact of common ragweed in Europe.

**Achieving long-term control of nematode risk to seed potatoes**

Since 2014, the Plant Health Laboratory has been participating, together with the French National Federation of Producers of Seed Potatoes (FN3PT) and INRA, in the CASDAR Nematools project, whose objective is to develop tools for the long-term control of nematode risk, which affects the production of seed potatoes and other crops in the rotation cycle. This project aims to test different innovative solutions, in terms of tools (diagnosis, phenotyping, gene analysis, markers), risk assessment (risk analysis, databases and biomonitoring) and risk management via different approaches: strategy for the all-round protection of the crop against a collection of pests, ways of clearing industrial sites of nematodes using composting or thermal, chlorination, lagooning and anaerobic digestion techniques.
**Food and water intended for human consumption**

*Listeria monocytogenes*: a large genotypic diversity of strains and different levels of virulence

The work carried out under a partnership between the Laboratory for Food Safety and teams from the Pasteur Institute and the Paris-Descartes University was the subject of an article entitled «Uncovering *Listeria monocytogenes* hyper-virulence by harnessing its biodiversity», published in Nature Genetics. Using high-throughput sequencing on a wide collection of clinical and food strains, this study was able to differentiate between groups of strains for their infective potential in humans. The analysis of their genetic diversity led to the identification of virulence factors specific to strains with high infectious potential, validated by studies in animals. This article demonstrates the potential of genome analysis used on large collections of pathogens (nearly 7000 strains of *Listeria monocytogenes* obtained over nine years were studied). These studies help explain and confirm the assumptions of a great genotypic diversity of strains within the species *Listeria monocytogenes*, with different levels of virulence.

*Campylobacter*: sources other than poultry?

Around the world, source attribution when applied to *Campylobacter jejuni* has frequently incriminated the poultry sector as a major source of transmission of the bacteria to humans, focusing research efforts for ways of combating and controlling this pathogen on this sector. Using whole-genome sequencing and the analysis of nearly 900 genomes of *C. jejuni*, a new approach to source attribution has been developed in collaboration with a British laboratory that is a pioneer in the field. Fifteen new genetic markers were selected for their ability to differentiate between isolates according to the host of origin, and when this new approach was applied to human cases in France and the UK it showed that in France the cattle sector was no less incriminated than the poultry sector. These results, which were published recently in *Applied and Environmental Microbiology* and obtained with a robust approach based on the identification of new genetic markers, provide the first data for attributing the sources for human infections with *C. jejuni* in France and highlight the significant role of cattle as a reservoir, which had previously been under-estimated throughout the world (Thépault et al. 2017).

**First case of ciguatoxins in metropolitan France**

In 2016, the Laboratory for Food Safety was involved in identifying the first case of ciguatoxins poisoning with a fish purchased in metropolitan France. The fish concerned was a red snapper fished in the Indian Ocean (from a batch imported from India). Two families, residing in the Paris region, purchased the fish in Paris; they became poisoned after cooking and consuming the fish in two separate meals, on 26 and 27 June 2016 respectively.

In all, seven people fell sick, including a pregnant woman who was hospitalised for a week. The symptoms, especially in the woman hospitalised, included digestive disorders (diarrhoea, vomiting) and neurological disorders (paraesthesia, itching, burning sensations) and clearly suggested ciguatera poisoning. The laboratory, which is the NRL for marine biotoxins, received frozen samples for analysis that had been taken at the home of one of the families poisoned, and detected the presence of ciguatoxins in the samples consumed. This episode was notified by the French authorities to the European Rapid Alert System for Food and Feed (RASFF).

**Per- and polyfluoroalkyls in water intended for human consumption**

Following the national campaign on perfluorinated chemicals in water intended for human consumption, research projects were conducted by the Nancy Laboratory for Hydrology on per- and polyfluoroalkyls (PFAs) at several contaminated sites in France. Original analytical methods were developed for the different matrices subject to this pollution pressure, the soil, water, sediments and sludge. The results of these studies, currently being published, will help characterise the impact of these compounds on the environment and on aquatic resources, according to the uses of these compounds.
Role of dammed ponds in reducing concentrations of micropollutants

In the framework of a regional scientific partnership within the Moselle River Basin Long-Term Ecological Research area (LTER, University of Lorraine, INRA), dammed ponds intended for fish farming were studied for the role they could play concerning micropollutants at the head of watersheds. These studies concerned several ponds, where around a hundred pesticides were monitored depending on variations in rainfall. Regarding the pesticides, a clear reduction was observed in the flows of concentrations between water upstream and downstream of the ponds, varying between 10% and 100% for the different pesticides.

Transfer of antibiotic resistance genes

In the framework of a cross-functional partnership between the Nancy Laboratory for Hydrology and the Lyon Laboratory on resistance to antibiotics, a search for plasmid-borne antibiotic resistance genes was carried out on samples of drinking water contaminated by coliforms and *E. coli*. Seven resistance genes were isolated (to amoxicillin, amoxicillin-clavulanic acid, cephalothin, streptomycin, tetracyclines, sulfonamides and nalidixic acid). For the management of the production of drinking water, these data show that in developed countries like France, the transfer of antibiotic resistance genes can occur in low bacterial contamination.

I characterise emerging mechanisms of antibiotic resistance in animals and compare them with those identified in humans. I thus contribute to risk assessments concerning cross-transmission between these two sectors.

MARISA, a Researcher in Microbiology at the Lyon Laboratory

ANSES CONTRIBUTES TO THE CONSTRUCTION OF EUROPEAN EXPERT APPRAISAL TECHNIQUES UNDER «ONE HEALTH» AND THE PERFORMANCE OF HEALTH ANALYSES PRACTISED IN THE MEMBER STATES

Two important initiatives by ANSES illustrate its efforts to advance the synergies between Member States:

- A proposal for a One Health European Joint Programme (EJP) «Foodborne Zoonoses and Emerging Risks», which led 46 agencies from 19 European countries and the Association MED-VET-NET to reflect, throughout 2016, on human health and veterinary health themes likely to foster the joint development of knowledge essential to the strengthening of the Agency’s European competences. The programme covers foodborne zoonoses (including antimicrobial resistance) and emerging risks. It focuses on research activities in relation with the reference and surveillance missions of the research laboratories, plus analysis and risk assessment activities.

- Renewed momentum for Euroreference: the launch in 2016, overseen by ANSES along with 16 other European partners, of the new digital version of the Euroreference magazine, shows the Agency’s determination to share experience and practices between European reference institutions in the fields of animal health, plant health, food safety, and drinking water quality, which is essential if we are to achieve the convergence of practices and improve efficiency.
The main objective of the Agency’s openness to the international arena is scientific exchange: it strives to maintain active involvement in the international scientific community, both to keep abreast as far as possible of all available data and knowledge, and to be an influential force with respect to European and international scientific trends and approaches. The Agency’s activities and its stance in the national, European and international context help to ensure the effectiveness of its surveillance, expert appraisal, reference, governance and research activities, and its ability to anticipate emerging risks.

A dynamic cooperation and support policy

The Agency participates in multiple cooperative efforts aiming to develop or reinforce the expert appraisal capacities and the scientific structures of the new Member States of the European Union and third-party countries. Following agreement on French and international strategic and geographic priorities, ANSES’s cooperation and technical support policy has a twofold objective of helping to reinforce and modernise the health structures of partner countries, particularly in the South, and of improving knowledge of their health situations, both of which are particularly important in a context of globalisation, with increasing movement of individuals and trade in products.

The mobilisation of ANSES’s teams in twinning, cooperative and support projects bears witness to the Agency’s strong and sustained commitment to the worldwide fight against health risks. This mobilisation finds practical expression in many ways, such as expert appraisal missions in third countries, training in France or in third countries, or hosting scientific or technical staff at the Agency. These actions are usually organised in consultation with (and funded by) ANSES’s supervisory ministries (mainly the Ministry of Agriculture) or international bodies (including the FAO or the OIE, in the framework of ANSES’s mandates as a Collaborating Centre or Reference Laboratory).

ANSES’s participation in twinning operations continued in 2016, in Morocco on plant protection products, fertilisers and growing media, in Tunisia through institutional support in the management of health and environmental risks, and in a joint project to strengthen the epidemiological surveillance system of the veterinary services in Azerbaijan.

Scientists from ANSES took on training roles as part of the European «Better Training for Safer Foods» (or BTSF) programme, whose beneficiaries are the Member States of the European Union (EU) but also associate countries outside the EU and outside Europe. These actions include training on the prevention and monitoring of antimicrobial resistance in the food chain, or training veterinary services in Central and South America regarding the health problems posed by the trade in equines between America and Europe.

The ANSES entities (laboratories and the French Agency for Veterinary Medicinal Products) holding mandates as reference laboratories or reference centres for the EU, OIE, FAO, or WHO carry out many missions involving scientific and technical assistance, advice and training. Two new mandates as OIE Reference Laboratories were awarded to ANSES’s Maisons-Alfort Laboratory for Animal Health in May, one on avian chlamydirosis and the other on the enzootic abortion of ewes (ovine chlamydirosis).
Signature of a memorandum of understanding between ANSES and the Food Safety and Standards Authority of India

On the occasion of the State visit to India of the President of the French Republic, Mr François Hollande, in January, ANSES and the Food Safety and Standards Authority of India signed an agreement to promote exchanges on health risk analysis methodologies and laboratory techniques in the area of food safety, topics on which ANSES has gained international recognition.

Signature of a cooperation protocol between ANSES and the National Institute of Food and Drug Safety Evaluation (NIFDS) of the Republic of Korea

During a visit to ANSES by a delegation of the Korean National Institute of Food and Drug Safety Evaluation (NIFDS), Dr Yeowon Sohn, Director General of the NIFDS, and Roger Genet, Director General of ANSES, signed a memorandum of understanding on 12 July 2016. This cooperation agreement also marks the year «France-Korea 2015-16», which celebrates 130 years of diplomatic relations between the two countries.

The French Agency for Veterinary Medicinal Products supported the implementation of a laboratory for quality control of chemical veterinary drugs at Cameroon’s National Veterinary Laboratory (LANAVET) in the framework of its development aid missions

In 2016, Cameroon’s National Veterinary Laboratory (LANAVET) at Garoua acquired the necessary equipment for setting up a laboratory for the quality control of chemical veterinary drugs. The ANMV has been providing assistance since the project was launched in 2013, with a feasibility study and the drafting of specifications for the acquisition of equipment. The part relating to training started in December with a visit to the French Agency for Veterinary Medicinal Products by the staff of the LANAVET who will be performing the analyses, and two inspectors from the Cameroon Veterinary Services Directorate. Over a period of two weeks, ANSES thus provided training on how to set up an inspection programme, and practical training courses and workshops for two analysts, the head of the LANAVET’s inspection unit and its quality manager. The aim of this session was to provide advice and support for the commissioning of the laboratory, including the drafting of procedures, the qualification of equipment and the accreditation of staff. The programme will continue in 2017.
11th Annual Meeting of OIE/FAO reference laboratories for foot-and-mouth disease

From 30 November to 2 December, the Agency organised the 11th meeting of the OIE/FAO Reference Laboratories for foot-and-mouth disease. This event brought together a hundred people, including international experts on foot-and-mouth disease from several countries, to compare and discuss their activities regarding this disease. This three-day event strengthened the Agency’s position and international influence on foot-and-mouth disease and consolidated its relationships with its counterparts on foot-and-mouth and other diseases.

"European research funding is of crucial importance for developing the Agency’s scientific expertise and helping it achieve recognition. I am the link between the Agency’s scientific teams, the national bodies that plan research activities and the European Commission. I help the scientists draw up European projects and coordinate their implementation."

ARNAUD, in charge of European projects in the European and International Affairs Department
INFORMING AND PUBLICISING
With new extensions to the Agency’s missions, the launch of the E-Phy website, publication of the results of numerous expert appraisals and of work carried out in its laboratories, plus the organisation of some 30 events, 2016 was a particularly active year in terms of information and promotion.

ANSES’s role is to provide benchmark scientific information based on the opinions and recommendations it issues to the public authorities and the work it carries out in its laboratories. In addition to systematically publishing all its work, the Agency publicises and promotes the results of its expert appraisals in order to meet the expectations of all its stakeholders and supervisory ministries, but also civil society, elected officials and journalists, on subjects of ever-increasing complexity. Its 2016 priorities were to strengthen its digital and media presence by making its knowledge more accessible via its websites and social media or at various events, as well as to assist with the integration of the new missions entrusted to the Agency, both internally and externally.

Making the Agency’s work accessible to the widest possible audience

The Agency continued with its use of social media via its Twitter feed (5800 followers in December 2016), which it regularly updates with news, and with its LinkedIn account aimed at professionals. It made greater use of Facebook to disseminate its recommendations to the widest possible public. In addition, depending on the scope of the topics, the Agency continues to rely on existing tools, mainly intended for the media, which range from the simple online publication of opinions and reports to press conferences. With an average of one news update per week published on its website and a monthly newsletter in French and English sent to more than 20,000 subscribers, ANSES ensures that the results of its work are widely available.

For the scientific community, ANSES has established tools to make it easier to read its periodicals. Thus, after the Bulletin Epidémiologique and the Bulletin de veille sanitaire, Euroreference was relaunched in a new format in July 2016.

A NEW HOME PAGE FOR THE AGENCY’S WEBSITE

The ANSES website is now adapted to all types of screen and easier to read on smartphones. Access to information is also easier and faster, with room for each of the Agency’s thematic areas. News items are presented in a carousel format, rotating between four lead-in images, but visitors can still select the theme of their choice. The Laboratories, Opinions and Reports and the register of decisions are all available lower down on the same page. A direct link provides access to the most recently published Opinions and Reports. The home page now also displays the news published on the social networks.

A NEW FORMAT FOR THE EUROREFERENCE MAGAZINE

The Euroreference magazine, produced jointly by a group of agencies from several Member States of the European Union, has been available in a new format since July 2016. Euroreference is a European journal created by ANSES in 2009. It deals specifically with reference activities in the areas of animal health, plant health, and food and drinking water safety. In its new format it has an editorial committee of 17 European partners, making the new Euroreference a collective publication devoted to better dissemination of knowledge at the European and international levels. It offers scientific and technical articles of interest to health and safety laboratories and agencies in Europe. Euroreference is thus intended to be an additional tool for greater efficiency in the establishment of European reference activities and now has its own website containing individual articles, the latest news and the magazine’s archives.
Promoting the Agency’s work through events

Every year, ANSES organises scientific conferences based on its priority work themes to publicise its research and expert appraisal activities, as well as workshops to foster knowledge-sharing in the framework of its partnerships. Its participation in trade fairs or events also enables the Agency to target its information at specific audiences, or alternatively to make the results of its expert appraisals and work more accessible to the general public.

In 2016, more than 30 events were organised, including a scientific seminar on Xylella fastidiosa, scientific conferences to present the results of the National Research Programme for Environmental and Occupational Health, which celebrated its tenth anniversary in 2016, a symposium presenting the work of the national research programme on endocrine disruptors, an annual symposium dedicated to bee health, and another on antimicrobial resistance. The presentations and reports of each of these events are available on the Agency’s website.

Like every other year, the Agency had a stand at the International Agricultural Show in Paris, with content focusing on the communication of health recommendations to the general public.

From 21 to 24 June, at the 34th National Congress of Medicine and Occupational Health, also in Paris, the Agency presented to the various stakeholders in occupational health the most recent advances in the field of occupational risk (assessment, prevention and reference values).

Other events in 2016 included the continuation of concerted measures to promote the activities of its laboratories and their involvement in regional life, as with the Fête de la Science (science festival), for which ANSES opened the doors of its eleven laboratories and the French Agency for Veterinary Medicinal Products with, this year, the participation of the Risk Assessment Department, and the celebration of anniversaries (115 years for the Maisons-Alfort Laboratory for Animal Health and 40 years for the Sophia-Antipolis Reference Laboratory).

Ensuring we work better together

The weekly internal newsletter ANSES Hebdo, and the updates to the Intranet site provide regular information to employees. Various events such as internal scientific seminars, the Laboratories Science Day, the PhD Students Day, thematic meetings and more informal scientific get-togethers (« Cafés des sciences ») stimulate horizontal exchanges and sharing between the Agency’s scientists.

ENVIRONMENT MINISTER SÉGOLÈNE ROYAL VISITS ANSES

Ségolène Royal, Minister of Ecology, Energy and the Sea, came to ANSES on 28 July, accompanied by Thierry Leleu, Prefect of the Val-de-Marne, and Marc Mortureux, Director General of the Ministry’s Risk Prevention Unit. After being welcomed by Roger Genet, Ségolène Royal visited the Laboratory for Food Safety. On this occasion, the Minister also formally received the Agency’s Report on the exposure of farm workers to pesticides, and its Opinion on the criteria for the definition of endocrine disruptors. The visit included a discussion with Agency staff on the assessment of plant protection products and biocides, bee health, the quality of indoor air, pollen in ambient air, etc.
Supporting the Agency’s new missions

As part of the extension of its missions in the management of marketing authorisations for plant protection products, fertilisers and growing media, ANSES launched a new E-Phy website in March 2016. The enlargement of the Agency’s responsibilities to include marketing authorisations for biocidal products, which came into effect on 1 July, as well as the new mission on tobacco and «vaping» products, required support at both internal and external levels (organisation of information meetings, creation of new pages, articles and news items on the website, announcements via social media, etc.).

CLOSE-UP ON THE AGENCY’S SOCIAL MEDIA

2016 was a very busy year with 5800 followers on Twitter and 3400 on LinkedIn as of 31 December! But most of the activity since last summer has been on Facebook, with recommendations according to the seasons or news items appearing regularly on ANSES’s «wall». It had 900 «friends» as of 31 December.

A SEMINAR FOR STAKEHOLDERS ON THE PUBLICATION OF THE RESULTS OF EXPERT APPRAISALS

About 40 people attended the Agency’s seminar for stakeholders on the theme «Publishing the results of the Agency’s expert appraisals: how are they received and with what results?» on 21 November 2016. After hearing two different points of view on the publication of risk assessments, one from an academic and the other from a journalist, an investigative study on how the Agency’s Opinions and work are received by the general public was presented and discussed. In the afternoon, the discussion turned to the experiences of ANSES’s partner institutions. To conclude the seminar, a round table was held on the choice of priority targets and the mobilisation of intermediaries to improve the dissemination of knowledge.
RESOURCES
To provide scientific and technical support to the new missions it has recently acquired, the Agency has to achieve and maintain high levels of scientific skill and equipment in its various fields of competence.

This implies a dynamic human resources policy, with an intense ongoing training effort, but also the considerable financial resources for investment, to modernise the facilities, renew equipment and continually improve the performance of the IT systems.

A human resources policy that focuses on the enhancement of skills and expertise

ANSES relies on the high levels of expertise and skills of its personnel in very varied fields: food, environmental and occupational health & safety.

The Agency’s human resources policy is designed to enhance and develop their skills. To assist staff on their career paths, internal mobility was again encouraged in 2016: 68% of permanent positions were filled from among current staff.

In particular, with a view to attracting new skills, a campaign to recruit apprentices was launched.

To maintain the Agency’s expertise pool, the policy of preserving jobs was continued, with 43 short-term contracts consolidated as permanent contracts.

The Agency further increased its investment in terms of training, with 79% of its employees following courses, some of which were set up to cover the emerging specialisations.

ANSES makes every effort to maintain rich and constructive labour relations. The Agency continues to take seriously the issue of psychosocial risk and has set up a multidisciplinary team, as well as recruiting an occupational psychologist and a social worker.

My day-to-day work includes assisting and advising managers in the recruitment process. In this way, I help every department identify the candidate who best fits the profile they seek, whether from inside or outside the Agency.

I also advise employees on their careers. ANSES’s HR policy enables its employees to express their skills as fully as possible by boosting their professional careers.

GWENDOLINE, Internal Mobility/Recruitment Manager at the Human Resources Department

Constant changes to the regulatory framework, our specialisations or the technologies we use require perpetual adjustments between the existing skills of the personnel and those required to exercise their missions on behalf of the Agency.

In conjunction with the experts and managers of the various specialisations, I identify any gaps and am thus able to suggest the most suitable training to remedy the situation.

SÉBASTIEN, a Training Manager
The Agency’s expenditure in 2016 was strongly affected by the changes to the scope of its responsibilities, which continued in 2016: the transfer of toxicovigilance, of marketing authorisations for biocidal products, of prior authorisations concerning the advertising of veterinary drugs, the deployment of the phytopharmacovigilance scheme, and finally the new responsibility for the assessment of tobacco products, “vaping” and products for smoking.

In addition, 2016 was the first year under budget management and public accounting (GBCP), introducing the notions of limited commitment appropriations and payment appropriations (PAs), new standards of budgetary accounting and also the notion of “specific purpose”, which provides a way of making the Agency’s activities clear to its funding ministries: laboratory activities, assessment activities and support for activities.

ANSES’s financial situation is healthy, with working capital at 31 December 2016 of €26.1M, which enables it to deal with future investment needs and manage the dossiers submitted in the area of regulated products.

Revenue was €135.7M. Operating expenditure amounted to €133.7M, compared with the €136.1M forecast in the second amending budget. The overall budget spending rate was 98.19%. 100% of the payroll budget was consumed.
TOTAL VOLUME OF EXPENDITURE IMPLEMENTED €143.13M

Operations 93%

Investments 7%

2016 BREAKDOWN OF OPERATING COSTS €133.68M

Current operating expenditure 24%

Studies and research 1%

Calls for research projects 4%

Phytopharmacovigilance 2%

Toxicovigilance network 1%

Payroll 68%

DETAILED CURRENT OPERATING COSTS €32.25M

Expenditure on activities and services €18.89M

Travel expenses €2.90M

IT costs €1.60M

Equipment maintenance costs €1.57M

Infrastructure costs €7.49M

IMPLEMENTATION OF INVESTMENT 2016 (€9.45M)

Construction work €3.784M

Other €0.269M

Rent & capital Copernic building €0.895M

IT €2.481M

Scientific equipment €1.527M
Close-up on the information systems roadmap

The IT projects carried out in 2015 are in line with the information systems roadmap (SDSI) for 2014-2017, which defines the three priority application areas.

**The management of marketing authorisations (MAs):**

- The management of MAs for plant protection products, fertilisers and growing media, and their adjuvants, required considerable investment in the stabilisation of and upgrades to the TOP information system.
- The launch and execution of the first phase of the DPhy project (to digitise MA applications) successfully tested the first step toward the digitisation of the filing of MA applications for plant protection products via the transmission of information concerning the description of uses.
- With the transfer to ANSES of responsibility for biocide MAs, a register of decisions was set up on www.anses.fr and the Agency took over the management of Simmbad and Axonet.

In the field of surveillance and vigilance schemes, two IT tools were developed for use in the field of epidemiological surveillance:

- an application for entering and sharing alerts within the National Network for Epidemiological Observations in Poultry Farming (RNOEA);
- a platform known as Shiny, for the development of interactive Web applications based on R software, to facilitate access, from within and outside the Agency, to data from analyses carried out with R.

The Qualiplan project was launched to implement quality indicators for data from surveillance and control programmes. Prior studies were also carried out that will lead to the production in 2017 of new tools for vigilance activities: a register of alerts, and a website for online declarations in pharmacovigilance.

In the field of management tools:

- In order to meet the requirements of budget management and public accounting (GBCP), a new accounting and financial management tool, Qualiac, was installed. It was made available to users in January 2017.
- A laboratory information management system (LIMS) from Labvantage was deployed on the Boulogne-sur-Mer site and is in the process of being deployed at the Plant Health Laboratory in Rennes.

Concerning the IT infrastructure, considerable investments were made in 2016:

- to meet the growing needs in capacity and computing power expressed by the scientific teams and platforms at Ploufragan and Maisons-Alfort and provide them with new means of storage, networks and backup;
- to provide ANSES with new, more efficient and reliable means of communication: installation of videoconference systems at all sites, complete upgrade of the messaging system;
- to continue raising the level of security and to strengthen the resistance of information systems in a general context of increasing cyber attacks.
The iCube building erected on the Maisons-Alfort site was delivered to the Maisons-Alfort Laboratory for Animal Health on 1 July 2016. Operations launched in 2015 continued in 2016:

- The worksite phase of the project for the extension of the Boulogne-sur-Mer Laboratory started on 9 November 2016. Construction is expected to last for 13 months, including the preparation period, so the new building should be delivered to users in January 2018.

- Consultations for the construction of the new offices of the French Agency for Veterinary Medicinal Products at the Javené site near Fougères were launched in December 2016, after completion of the study phase. Work should start in September 2017.

- Studies for the restructuring of the Monod building, originally planned in line with the upgrading and rationalisation of the activities of the Food Safety Laboratory’s chemical contaminants in food department, have been supplemented and reinforced by a thorough diagnosis of the technical facilities conducted by the Design Bureau in charge of the project, following various malfunctions that resulted in some substantial procedural failures. The studies led to a renovation project on a greater scale. Consequently, the work has been scheduled in three successive instalments over three years, to allow activities to continue normally for the duration of the project.

With a view to the execution of the next real-estate strategy programme (2017-2020), two feasibility and planning studies were launched in 2016 to provide the two sites concerned, Lyon and Maisons-Alfort, with development roadmaps. The purpose of these studies, ahead of upcoming real estate operations involving large-scale reconstruction or refurbishment, is to conduct a comprehensive reflection on these sites in order to ensure that the result is scientifically, technically and functionally coherent.

2016 was also spent renovating two buildings located on the Maisons-Alfort site, for which the studies were carried out internally by the architects of the Property and Real-Estate Investment unit (SP2I) as part of the ongoing project to regroup all of ANSES’s activities on a single site.

My job requires rigorous attention to detail to ensure the Agency benefits from optimal accounting practices. I therefore have to provide the best advice I can to all the people I have to deal with and set up the most suitable processes, regarding both expenditure and revenue.

SANDRINE,
an Accountant in the Finance Department
THE BOARD OF ADMINISTRATORS
In addition to the Chairman and the staff representatives, ANSES’s Board of Administrators consists of five colleges bringing together representatives of the State, various associations, professional bodies, trade unions and elected officials.

It decides on the general policy of the Agency, including its multi-year strategy, its annual work programme and its goals and performance contract with the State. It deliberates on the Agency’s general organisation, including the creation of Expert Committees and the establishment of agreements with external organisations, and is involved in setting ethical standards.

Membership on 19 January 2017

CHAIRMAN
MR LUC DEREPAS

VICE-CHAIR
MR PIERRE-YVES MONTÉLÉON

GOVERNMENT REPRESENTATIVES

- The Director General for Health
- The Director General for Risk Prevention
- The Director General for Labour
- The Director General for Food
- The Director General for Competition, Consumer Affairs and Fraud Control
- The Director General for the Budget
- The Director General for Research and Innovation
- The Director General for Enterprise

REPRESENTATIVES OF ASSOCIATIONS

1st COLLEGE

- REPRESENTATIVES OF ENVIRONMENTAL PROTECTION ASSOCIATIONS
  - Member: Mr Pierre Benoît, France Nature Environnement
  - Proxy: Mr Alain Chabrolle, France Nature Environnement
  - Member: Mr Jacky Bonnemains, Robin des Bois, NGO for the Protection of Man and the Environment
  - Proxy: Ms Charlotte Nithart, Robin des Bois, NGO for the Protection of Man and the Environment

2nd COLLEGE

- REPRESENTATIVES OF STATE-CERTIFIED CONSUMER ADVOCACY GROUPS
  - Member: Ms Célia Potdevin, French Confederation for Consumer Affairs, Housing and Quality of Life (CLCV)
  - Proxy: Mr Étienne Defrance, Force Ouvrière Consumers’ Associations
  - Member: Mr Hubert Vermeersch, National Confederation of Catholic Family Associations (CNAFC)
  - Proxy: Ms Claudine Lemer, Rural Families

- REPRESENTATIVES OF STATE-CERTIFIED ASSOCIATIONS ACTIVE IN THE FIELD OF QUALITY OF HEALTH AND CARE OF THE SICK
  - Member: Ms Madeleine Madoré, Le Lien Association
  - Proxy: Ms Marie-Agnès Besnard, National Union of Family Associations (UNAF)
 REPRESENTATIVES OF SUPPORT ASSOCIATIONS FOR VICTIMS OF OCCUPATIONAL ACCIDENTS OR DISEASES REPRESENTED ON THE FRENCH COMPENSATION FUND FOR ASBESTOS VICTIMS

Member  Mr Alain Prunier, National Federation of Injured and Disabled workers (FNATH)
Proxy  Ms Michèle Chataigner, National Federation of Injured and Disabled workers (FNATH)
Member  Mr François Desriaux, National Association for the Defence of Victims of Asbestos (ANDEVA)
Proxy  Mr Guy Talès, National Association for the Defence of Victims of Asbestos (ANDEVA)

REPRESENTATIVES OF PROFESSIONAL ORGANISATIONS

Member  Ms Christiane Lambert, National Federation of Farmers’ Unions (FNSEA)
Proxy  Mr Louis Cayeux, National Federation of Farmers’ Unions (FNSEA)
Member  Mr Gérard Boivin, National Food Industry Federation (ANIA)
Proxy  Mr Hervé Lafforgue, National Food Industry Federation (ANIA)
Member  Mr Hervé Gomichon, Federation of Trade and Retail Companies (FECD)
Proxy  Ms Isabelle Bricard, General Confederation of Food Retailers (CGAD)
Member  Mr Jean-Louis Hunault, French Union for the Veterinary Medicinal Product and Reagent Industry (SIMVR)
Proxy  Mr Jacques Bonin, French Union for the Veterinary Medicinal Product and Reagent Industry (SIMVR)
Member  Mr Philippe Prudhon, French Chemical Industries Union (IUC)
Proxy  Ms Eugénia Pommaret, French Crop Protection Industry Association (UIP)
Member  Mr Jean-François Loret, Professional Federation of Water Companies (FPEE)
Proxy  Mr Yannick Beneba, Professional Federation of Water Companies (FPEE)

REPRESENTATIVES OF EMPLOYEE TRADE UNION ORGANISATIONS AND INTER-BRANCH EMPLOYERS’ ORGANISATIONS

Member  Ms Edwina Lamoureux, French Democratic Labour Confederation (CFDT)
Proxy  Ms Soraya Duboc, French Democratic Labour Confederation (CFDT)
Member  Mr Bernard Salengro, French Management Confederation (CFE-CGC)
Proxy  Mr Christian Expert, French Management Confederation (CFE-CGC)
Member  Mr Pierre-Yves Montéléon, French Confederation of Christian Workers (CFTC)
Proxy  Mr Jean-Michel Cerdan, French Confederation of Christian Workers (CFTC)
Member  Mr Alain Delaunay, General Confederation of Labour (CGT)
Proxy  Ms Hélène Courtin, General Confederation of Labour (CGT)
Member  Mr Jean Paoli, General Confederation of Labour - Workers’ Force (CGT-FO)
Proxy  Ms Justine Braesch, General Confederation of Labour - Workers’ Force (CGT-FO)

■ REPRÉSENTANTS DES ORGANISATIONS INTERPROFESSIONNELLES D’EMPLOYEURS
Member  M. Pierre Thillaud, General Employers’ Confederation for Small and Medium Enterprises (CGPME)
Proxy  Mr Philippe Chognard, General Employers’ Confederation for Small and Medium Enterprises (CGPME)
Member  Mr Frank Garnier, French Employers’ Confederation (MEDEF)
Proxy  Mr Cyril Gallet, French Employers’ Confederation (MEDEF)
Member  Ms Sandrine Bize, Union of Local Businesses (UPA)
Proxy  Ms Anne Novak-André, Union of Local Businesses (UPA)

■ ÉLUS
Member  Ms Isabelle Maincion, representing the Association of Mayors of France, Mayor of La Ville aux Clercs
Proxy  Mr Gilles Pérole, representing the Association of Mayors of France, Deputy Mayor of Mouans-Sartoux
Member  Ms Josiane Lei, representing the Assembly of French Départements, Vice-President of the General Council of the Haute-Savoie
Proxy  Mr Raymond Girardi, representing the Assembly of French Départements, Vice-President of the General Council of Lot-et-Garonne

■ PERSONNALITÉS QUALIFIÉES
Member  Mr Christophe Brard, Veterinary Doctor, President of the French National Society of Veterinary Technical Groups (SNGTV)
Proxy  Ms Janine Guaguère, Veterinary Doctor, Secretary General of the Veterinary Association Higher Council (CSOV)

■ REPRESENTATIVES OF AGENCY PERSONNEL
Member  Ms Nathalie Thieriet
Proxy  Ms Jocelyne Taché
Member  Mr Ludovic Le Hégarat
Proxy  Ms Chantal Gaudiche
Member  Mr Michel Laurentie
Proxy  Mr Bertrand Lombard
ADA: Beekeeping Development Association
ADEME: French Agency for Environment and Energy Management
ANMV: French Agency for Veterinary Medicinal Products
ANR: French Research Agency
ANSM: French Health Products Safety Agency
BfR: Bundesinstitut für Risikobewertung/German Federal Institute for Risk Assessment
BRGM: French Geological Survey
CAP: French Poison Control Centre
CEA: French Alternative Energies and Atomic Energy Commission
CES: Expert Committee
COP: Goals and performance contract
CS: Scientific Board
DGAL: French Directorate General for Food
DGS: French Directorate General for Health
ECHA: European Chemicals Agency
ED: Endocrine disruptor
EFSA: European Food Safety Authority
EMA: European Medicines Agency
ENV: Alfort National Veterinary School
EU: European Union
EURL: European Union Reference Laboratory
FAO: Food and Agriculture Organisation of the United Nations
FHI: Norwegian Institute of Public Health
GMO: Genetically modified organism
IARC: International Agency for Research on Cancer
IFCE: French Horse and Riding Institute
IFSTTAR: French Institute of Science and Technology for Transport, Development and Networks
INERIS: French National Institute for Industrial Environment and Risks
INRA: French National Institute for Agricultural Research
INSERM: French National Institute for Health and Medical Research
IRSN: French Radioprotection and Nuclear Safety Institute
IRSTEA: National Research Institute of Science and Technology for Environment and Agriculture
ITDS: French Total Diet Study (infants)
ITSAP: Technical and scientific institute for beekeeping and pollination
MA: Marketing authorisation
MSA: National Health Insurance Fund for Agricultural Workers and Farmers
NRC: National Reference Centre
NRL: National Reference Laboratory
OIE: World Organisation for Animal Health
PNNS: French National Health and Nutrition Programme
PNR EST: French National Research Programme on Environmental and Occupational Health
RIVM: National Institute for Public Health and the Environment (Netherlands)
SNGTV: French National Society of Veterinary Technical Groups
WG: Working Group
WHO: World Health Organisation
WIHC: Water Intended for Human Consumption