What is meant by reference activities?

For certain pathogens (viruses, bacteria, parasites) or major chemical contaminants, either regulated or emerging, the health authorities need to have the support of an effective surveillance system which depends on a network of reliable laboratories in order to conduct official analyses.

For each pathogen or regulated contaminant under surveillance, laboratories accredited for conducting analyses, as well as a “reference laboratory”, are appointed by the health authorities. This reference laboratory guarantees the reliability of the analyses conducted by all of the accredited laboratories. It may have:
- a national mandate (NRL for animal health, plant health or food safety),
- a European mandate (EURL, in which case it heads a network of national reference laboratories) or,
- an international mandate (OIE Reference Laboratory or FAO Reference Centre).

Depending on the pathogen or contaminant being investigated and the level of circulation of the agent under scrutiny, the number of accredited laboratories to be supervised can vary from just a few to nearly one hundred.

A collaborating centre (OIE or WHO) is a centre of expertise appointed in a particular area of competence.

ANSES holds 65 national reference mandates, 9 European mandates and 25 international mandates.

Reference Laboratories develop and validate official analysis methods for pathogens or contaminants for which they have been designated and send them to Laboratories in view of their accreditation.

In order to guarantee the accuracy of the analyses conducted by the laboratory network it coordinates, a Reference Laboratory organises training sessions on the newly developed methods and performs inter-laboratory proficiency tests (ILPTs), which test the effectiveness of official analyses.

These inter-laboratory proficiency tests are organised at a rhythm which is determined by the Reference Laboratory itself depending on the difficulty of the method implemented and the maturity of the laboratory network. Frequency varies between one and four tests over a two-year period.

In practice, the Reference Laboratory sends the accredited laboratories samples to analyse, the contents of which are known only to the Reference Laboratory itself. Accredited Laboratories implement the official method and submit their results to the Reference Laboratory. All non-compliant results require discussions with the Laboratory or Laboratories which obtained erroneous results, in order to identify the adjustments which need to be applied.

These reference activities place ANSES at the core of the analysis networks. Thus, the Agency benefits from its direct links in the field, which are essential for its monitoring and alert missions, and which enable it to be highly responsive when pathogens or contaminants emerge or re-emerge in France.