Monitoring milk meters: the French experience with this practice, between innovation and user feedback

Guillaume Hamon[1], David Saunier*[1], Xavier Bourrigan[1]

[1] France Génétique Elevage

Computerized monitoring of milk meters is a statistical method based on production data to verify compliance with accepted accuracy tolerances. Two monitoring methods are recognized in ICAR guidelines. The first applies to farms with milking parlors using milk meters. It compares the milk yield of a given milking with an expected volume calculated from the previous five milkings. This is repeated for all cows to determine the average deviation of each meter. By analyzing all milkings over one month, compliance of the installation can be assessed. The second method applies to single-stall robotic installations. It compares the total milk volume delivered to the bulk tank with the volume collected by the dairy over one month to verify that the meter remains within accepted tolerances.

Three prerequisites are required:

- A data exchange gateway between the robot and the advisory company's database. In France, DataHUB360 fulfills this role and connects all manufacturers.
- Confirmation that all necessary data are available through this gateway (transferable data library).
- Access to dairy collection data via agreements with farmers, plus a manual entry option if automatic retrieval is unavailable.

These systems enable large-scale monitoring. Beyond extending meter validity, they ensure that devices used daily for herd management (feeding, culling, etc.) remain reliable. Farm visits are triggered only when analysis confirms a drift, improving efficiency. This approach supports the rapid growth of milking robots in France, where 9 out of 10 new installations are robotic.

However, the method is currently limited to single-stall farms, while more than 55% of French farms have multiple stalls. After three years of research and field trials, Eliance and IDELE combined a stall-to-stall deviation test with the tank comparison method to extend the service to farms equipped with two robotic milking stalls.