



# THE GLOBAL STANDARD FOR LIVESTOCK DATA

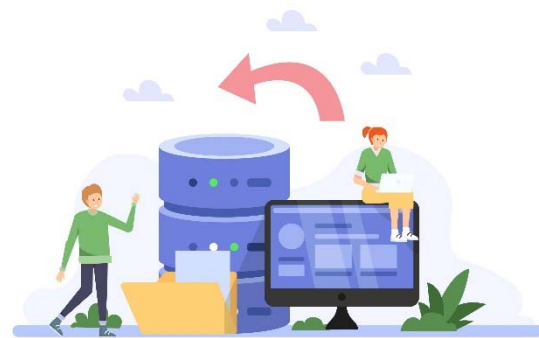
Network. Guide

ICAR Insights: December 2025

## LATEST NEWS

### ICAR ADE 1.50 - supporting smarter livestock data exchange

ICAR ADE (Animal Data Exchange) sets the global standard for sharing livestock data with a specification that is simple, consistent, and interoperable. Built on JSON APIs, ADE connects equipment, farm management software, breeding organisations, and national recording databases.





ICAR ADE covers a wide range of animal recording and management activities:



- Animal records
- Animal identification and registration, births, deaths, and movements
- Milk recording, liveweight, and production data
- Health diagnoses, treatments, and medicines
- Reproduction and insemination records
- Conformation scores and traits
- Device and sensor data, including alerts and position



Version 1.5, available now and provides:

- An Observation Summary for sensor data such as rumination, walking, and lying times
- A new Remark Event to capture farmer notes
- Compliant with the latest conformation trait guidelines
- Support for DIY Inseminations
- Devices can now be linked to animals
- Combined bundled OpenAPI schema to make code generation simpler
- Additional reason codes, dose units, production purposes and disposal methods

Version 1.5 is backwards compatible, so ready to adopt for existing integrations.

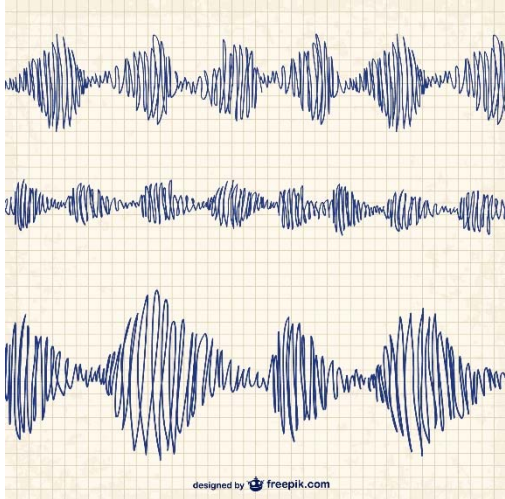
	<p>This release continues the commitment of the ICAR Animal Data Exchange Working Group to improving data clarity, system compatibility, and user experience. For full documentation and migration guidance, please refer to the official ICAR ADE developer portal.</p> <p>Video of the webinar for presenting the new 1.5 standard is available <a href="#">here</a></p>
<p><b>New ICAR Inspector</b>  <b>Vanessa Müller</b>  <b>(BRS; Germany)</b></p>	<p>Vanessa Müller, from the German Livestock Association (Bundesverband Rind und Schwein e. V. – BRS) has been nominee ICAR interim Inspector</p>
<p><b>Proceedings from the ICAR 2025 Annual Conference held in Anand (India)</b></p>	<p>The Proceedings of the ICAR 2025 Annual Conference held in Anand (India) have been published and are available <a href="#">here</a></p> <p>Hosted by the National Dairy Development Board , NDDDB, the International Committee for Animal Recording (ICAR) held its Annual Conference in India at “Anand – The Milk City of India” for the very first time—marking not only a milestone for ICAR but also the first time the event was hosted in Asia. This historic meeting reflected the growing importance of the region in shaping the future of livestock farming and highlighted the power of international collaboration in addressing global challenges.</p> <p>Around 200 specialists from across the world came together, bringing with them a wealth of knowledge, experience, and passion. Their presence made the meeting a relevant forum for exchange, where ideas flowed freely and new partnerships were based.</p> <div data-bbox="1117 638 1420 1052">  </div>
<p><b>ICAR Certificate of Quality</b></p>	<p>In 2025, the following ICAR Member Organisations renewed their CoQ for their fields:</p> <ul style="list-style-type: none"> <li>• SEGES-RYK</li> <li>• Coöperatie Koninklijke CRV u.a.</li> <li>• Slovak Breeding Services (PSSR) s.e.</li> <li>• Irish Cattle Breeding Federation (ICBF)</li> </ul> <div data-bbox="1053 1310 1388 1512">  </div>

<p><b>ICAR 2026 Annual Conference in Verona</b></p> <p><b>Registrations and "Call for Abstracts"</b></p>	<p>The registrations and the "Call for Abstracts" for the ICAR 2026 Annual Conference (Verona, Italy) are now open (<a href="#">here</a>).</p> <p><b>IMPORTANT DEADLINES:</b></p> <ul style="list-style-type: none"> <li>• Call for abstract open: November 17th 2025</li> <li>• Call for abstract deadline: February 15th 2026</li> <li>• Notification to authors: by March 15th 2026</li> <li>• Deadline for Presenters registration: April 1st 2026</li> <li>• Deadline for submitting the first draft of the manuscript: May 20th</li> </ul> <p>More information on the web site of the event at <a href="http://www.icar2026.it">www.icar2026.it</a></p> 
<p><b>Webinar on "ICAR new service: Validation of Methane Recording Devices".</b></p>	<p>Organised with two dates, a webinar for presenting the new ICAR service on the validation of methane recording devices was held, with approximately 250 participants.</p> <p>The video of the webinar is available <a href="#">here</a></p> <p>This webinar will introduce a new ICAR service "Validation of Methane Recording Device" according the ICAR protocol.</p> <p>ICAR validation ensures that a methane recording device (e.g. methane sniffers or other devices) meets manufacture performance claims through ICAR-approved test plans conducted by a qualified ICAR Test Center. Successful validation confirms that the system can reliably deliver quality data when used correctly, leading to the award of an ICAR Certificate of Validation</p> 
<p><b>DNA Certification of genetic laboratories by "SNP-based genotyping certification" and for the "STR Microsatellite-based parentage testing certification"</b></p>	<p>Managed by the ICAR DNA Working Group, 12 international genetic laboratories have been certified by ICAR in 2025 round test for the "SNP-based genotyping" and for the "STR Microsatellite-based parentage testing"</p> <p>The DNA WG rejected a couple of applications due to the lack of laboratory accuracy of the applicants</p>

<p><b>New ICAR Members</b></p>	<p>In 2025, the Department of Energy, Environment and Climate Action (Victoria, Australia) and Dairy Standard Agency joint ICAR as a new Full Member</p>  <p>The Department of Energy, Environment and Climate Action (DEECA) is a Victorian Government department established in January 2023. It brings together responsibilities for climate action, energy, environment, water, agriculture, and resources under one umbrella, ensuring coordinated policies and services across the state</p> <p>The Dairy Standard Agency (DSA) is a registered non-profit company in South Africa. Its mission is to promote compliance of milk and other dairy products with food safety, product composition, and metrology standards, ensuring consumer protection and industry credibility</p> 
<p><b>Certification as DNA Data Interpretation Centres</b></p>	<p>In 2025, 16 laboratories applied and successfully were granted as DNA Data Interpretation Centres for Parentage Verification and/or Parentage Discovery (<a href="#">here</a>)</p> <p>The DNA Data Interpretation Centres for Parentage Discovery is a pre-requisite for participating to the GenoEx, the service for exchanging standardized sets of SNP for genotyped animals to facilitate and streamline parentage analysis activities.</p> <p>More information about the certification as DNA Data Interpretation Centres are available <a href="#">here</a></p> 

<p><b>Proficiency Test on Cow sheep and Goat Milk in 2025</b></p>	<p>Similarly to the previous years, two round tests of Proficiency Test for cow milk laboratories have been organized in which almost 90 laboratories took part, participating with Reference or Routine method for the different parameters offered.</p> <p>The ICAR Proficiency Test on sheep and goat milk was launched for the first time in 2025, following interest from participating laboratories. We anticipate greater engagement in the future, which will allow us to expand participation and gain a more complete picture of this analytical field.</p> <p>Information for the round scheduled in 2026 is available <a href="#">here</a> while an example of the delivered report for Reference and Routine method is available <a href="#">here</a></p>
<p><b>New Interbull Chair, Urs Schnyder (Qualitas, Switzerland)</b></p>	<p>A warm welcome to Urs Schnyder (Qualitas) as new Chairperson of the ICAR Interbull Sub-Committee.</p> <p>The Secretariat is glad to have such a knowledgeable and experienced figure leading our subcommittee. His proven leadership and deep knowledge of the field will be crucial in guiding future activities, promoting excellence in genetic evaluation, and strengthening international collaboration.</p>
<p><b>New Chairperson of the Beef WG</b></p>	<p>Kim Matthews from AHDB, UK, is the new Chair of the Beef WG</p> <p>ICAR looks forward to achieving new results in animal welfare, efficiency, and sustainability under his guidance.</p> <p>The sector of recording and genetic evaluation breeds and traits or relevance to beef production needs a strong guide to achieve next objectives.</p>
<p><b>The 2025-2026 Brian Wickham Young Person Exchange Program (BWYPEX)</b></p>	<p>The 2025-2026 Brian Wickham Young Person Exchange Program (BWYPEX) has been launched in which seven candidates have been selected for the present round:</p> <ul style="list-style-type: none"> <li>• Sarah-Joe Burn (BOKU University Vienna)</li> <li>• Maria Frizzarin (Agroscope Switzerland)</li> <li>• Amélie Vanlierde (CRA, Belgium)</li> <li>• Fazel Almasi (Agriculture Victoria).</li> <li>• Colin Lynch (Lactanet Canada)</li> <li>• Meike Beatrijs van Leerdam (Cornell University)</li> <li>• Michael Aldridge (AGBU Australia)</li> </ul>



<b>The ICAR “Bull Semen Proficiency Test”</b>	<p>The ICAR Proficiency Test on Bull Semen was launched in June 2025 and has generated strong interest. Thirty-seven laboratories from four continents are participating in this first inter-laboratory comparison. This ICAR initiative is the first to promote analytical equivalence in this sector. Results are expected in spring 2026, due to shipment delays caused by customs requirements.</p>
<b>Webinar on “Using MIR to predict methane emissions”</b>	<p>The ICAR Feed and Gas Working Group, in collaboration with the ICAR/IDF project on ExtraMIR Project, organised a webinar on “Using MIR to predict methane emissions”.</p> <p>Using MIR to predict methane emission is a novel and promising approach that combines physics, chemistry, biology, and statistics. In this webinar, we will reviewed the principles, applications, and challenges of this method, and provide some examples of how it can be used to improve the sustainability of dairy production.</p>  <p>Assisted by around 120 technicians, the webinar focussed on the use of MIR to predict methane emission as a novel and promising approach that combines physics, chemistry, biology, and statistics. In this webinar, speakers reviewed the principles, applications, and challenges of this method, and provided some examples of how it can be used to improve the sustainability of dairy production</p>
<b>MAIN ACTIVITIES OF THE ICAR GROUPS</b>	
<b>Animal Data Exchange Working Group (Chairs: Robert Fourdraine and Jasper van der Noord)</b>	<p>Achieved results:</p> <ul style="list-style-type: none"> <li>• Updating of the ICAR Guidelines</li> <li>• Collaboration with other organizations and/or ICAR SCs–WGs <ul style="list-style-type: none"> <li>○ ICAR-IDF for the sensor initiative</li> <li>○ AgGateway</li> <li>○ ISO TC 347</li> <li>○ Digi4Live</li> </ul> </li> <li>• Expand ADE standards based on user feedback</li> <li>• Opportunities for growing participation: <ul style="list-style-type: none"> <li>○ Outreach from ICAR to members about ADE</li> <li>○ Participate in industry meeting as a speaker</li> <li>○ Gather information from interested parties to expand the technical specifications</li> </ul> </li> </ul>



<b>Artificial Insemination and related technologies Working Group (Chair: Marleen Broekhuijse)</b>	<p>The last achievements of the AI WG include:</p> <ul style="list-style-type: none"> <li>• Launch of the first round of the Bull Semen Proficiency Test participated by 35 laboratories, from 19 countries in 4 continents</li> <li>• Participation to the AI VETS 2025 in Budapest, Hungary <ul style="list-style-type: none"> <li>◦ Update on the BUII Semen Proficiency Test presented</li> <li>◦ Chaired the Round Table discussion with CASA manufacturers which emphasized need for standardization</li> </ul> </li> <li>• Participation to the NAAB Technical Conference, Madison, US <ul style="list-style-type: none"> <li>◦ Present update and recommendation</li> </ul> </li> </ul>
<b>Beef Working Group (Chair: Kim Matthews)</b>	<p>The Beef Working Group has been restructured having Kim Matthews as the new Chair, establishing three distinct groups: the Beef Working Group, the Beef on Dairy Task Force, and the Interbeef Evaluation User Group. The group has refined its terms of reference and priorities, including reviewing membership, defining services and policies, and establishing guidelines.</p> <p>Main actions:</p> <ul style="list-style-type: none"> <li>• Organisation of the first Interbeef Evaluations User Group meeting held 18 September 2025</li> <li>• Working on Terms of Reference for Beef-on-Dairy Task Force (with Interbull)</li> <li>• Refined operation of Beef Working Group</li> <li>• Define services and policies for activities not related to evaluations</li> <li>• Maintenance of ICAR Guidelines Section 03: Beef Cattle Recording</li> <li>• Service fee for the genetic evaluation of the beef</li> </ul> <p>A technical conference on beef cattle – genetic evaluation and recording is scheduled during the ICAR Annual Conference in Verona. The session will cover the latest developments in genetic evaluations and phenotype collection for genetic improvement.</p> <p>Abstract submissions are more than welcome! <a href="https://icar2026.it/abstract-submission/">https://icar2026.it/abstract-submission/</a></p>
<b>Conformation recording Working Group (Chair: Gerben De Jong)</b>	<p>Progress has been made on updating the beef cattle confirmation trade list, with 18 defects remaining to be addressed by year-end, and a subgroup led by Jean Carrington and Nicole Lam is working on a sheep confirmation trade list for dairy and meat sheep.</p> <p>Major achievements:</p> <ul style="list-style-type: none"> <li>• Internal meetings in January, June and September</li> <li>• Three actions on the Guidelines <ul style="list-style-type: none"> <li>◦ Update "Cattle conformation defect list" (Current list of defects defined 15 year ago)</li> <li>◦ Establish "Sheep conformation traits list" – work in progress</li> <li>◦ Update "Beef cattle conformation traits list" – work in progress</li> </ul> </li> </ul>

<p><b>Dairy Cattle Milk recording Working Group (Chair: Miel Hostens)</b></p>	<p>The Milk Recording Working Group is developing guidelines for yield calculations in calf-circulating herds and updating correction factors for Bavaria and Slovenia, which will be shared on the wiki.</p> <p>A student's work on auditing lab practices has been developed, particularly focusing on ICAR methods, and the group is reconsidering guidelines for smallholder farms in developing countries after the inputs received in Anand (ICAR Conference 2025).</p> <p>The group is collaborating on sensor data implementation and creating guidelines for sensor creation, awaiting input from the ADE working group. Martin Burke discussed the need for further work on AMS correction factors and the establishment of a new AMS task force to complete pending tasks, including device identification standards.</p> <p>Main actions:</p> <ul style="list-style-type: none"> <li>• New lactation yield calculation in suckling cow/calve herds</li> <li>• Update on flexible sampling system</li> <li>• New correction factors for AMS of Bavaria</li> <li>• Approval of Slovenian AT Method</li> <li>• Inventorying auditor practices on implementation of ICAR methods</li> <li>• Guidelines for milk recording on smallholder farms</li> </ul> <p>Developed collaborations with:</p> <ul style="list-style-type: none"> <li>• ICAR Animal Data Exchange Working Group</li> <li>• Functional traits – ICAR / IDF on sensors for welfare/health</li> </ul>
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<p><b>DNA Working Group (Chair: Romy O'Donnell)</b></p>	<p>The DNA Working Group reviewed the Guidelines and discussed parentage verification using whole SNP genotypes, extending ICAR certification services to sheep, equine, and canine species, and addressing genetic diseases.</p> <p>The group also aimed to collaborate with the group chaired by Ken Evers on animal identification tags and discussed standardizing DNA sampling tags with the International Society for Animal Genetics. Priorities included laboratory certifications, parentage discovery service improvements, and expanding services to other species, with the next meeting scheduled for February are at the attention of the Group.</p> <p>Achieved aims:</p> <ul style="list-style-type: none"> <li>• Finalised laboratory certifications for 2025</li> <li>• Finalise the Parentage Discovery service for DNA Data Interpretation Center</li> <li>• Extending certification services to species other than bovine.</li> <li>• Standardisation of Genetic Disease-in conjunction with WHFF &amp; BWYPEX candidate.</li> <li>• Exploration of ICAR certification for sequence based technologies.</li> <li>• Explore alternatives to ISAG ring tests.</li> <li>• Selection of SNPs for Parentage Discovery (PD) for Bos Indicus</li> <li>• ICAR Guidelines Section 04: DNA Technology under revision</li> <li>• Collaboration with other Organizations and/or ICAR SCs–WGs <ul style="list-style-type: none"> <li>○ ICAR sub-committee for Animal Identification-guidelines for tissue sampling devices specifically with the view of DNA labs.</li> <li>○ International Society for Animal Genetics (ISAG).</li> </ul> </li> <li>• Conferences attended <ul style="list-style-type: none"> <li>○ ICAR/IDF/ISO Conference Anand-India 29th March to 4th April 2025</li> <li>○ ISAG South Korea-20th to 25th July 2025</li> </ul> </li> </ul>
<p><b>Certificate of Quality Expert Advisory Group (Chair: Jessica Kinnander)</b></p>	<p>It was emphasized the importance of updating auditors on working group initiatives and invited members to review the COQ questionnaire. It was also highlighted the importance of the Certificate of Quality process, encouraging Chairs to involve expert auditors and optimize the audit process with a new online platform launching in January.</p> <p>Main actions</p> <ul style="list-style-type: none"> <li>• Revised 16 Auditors</li> <li>• Four renewals in 2025</li> <li>• Enhancing the effectiveness of the ICAR CoQ questionnaire</li> <li>• Optimized the CoQ process</li> <li>• New platform for the CoQ management</li> </ul>

<b>Feed and Gas Working Group</b> <b>(Chair: Birgit Gredler-Grandl)</b>	<p>The Group highlighted the progress in populating the Feed and Gas Wiki page with information on methane emissions and recording devices. The group is collaborating with the Global Methane Genetics Initiative, setting up working groups for various topics and developing a methane device Guidelines.</p> <p>Plans for upcoming webinars and a Global Methane Genetics Database are part of the plans. For the future, the group aims to update Guidelines for feed intake, continue device testing, and organize sessions in Verona focused on methane breeding values and carbon credits. It is also reported the validation work of methane devices, highlighting the importance of comparing manufacturer declarations to ensure conformity and build user trust.</p> <p>Main results:</p> <ul style="list-style-type: none"> <li>• Feed and Gas wiki page: with methane emission information continuously added</li> <li>• Global Methane Genetics. Open working groups to discuss issues/needs regarding methane</li> <li>• Development of the GMG database</li> <li>• Supporting: methane device testing center at WUR</li> <li>• Feed and Gas Workshop at International Greenhouse Gas &amp; Animal Agriculture Conference, Oct 2025, Kenya</li> <li>• BWYPEP 2025 (Sarah-Joe Burn, Fazel Almasi, Michael Aldridge, Maria Frizzarin)</li> <li>• Update guidelines feed intake</li> </ul>
<b>Functional traits Working Group</b> <b>(Chair: Christa Egger-Danner)</b>	<p>The Functional Traits working group's collaboration with IDF is well advanced, including Guidelines for body condition scoring and sensor-derived traits, as well as the upcoming activities such as a technical conference in Verona and a presentation at a European DG4Life meeting. The group continues to update the corresponding wiki guidelines.</p> <p>Main priorities under achievements:</p> <ul style="list-style-type: none"> <li>• Sensor derived functional traits</li> <li>• Proposal for Wiki Guidelines on Body condition score</li> <li>• Metabolic stress (in collaboration with EURO genomics)</li> <li>• Sensor, health and welfare (ICAR-IDF initiative)</li> </ul>

<p><b>Sheep, Goats and Camelids Working Group (Chair: Jean Michel Astruc)</b></p>	<p>The Group focussed on the sheep and goat working group's activities, including membership changes, guideline developments, and the EU Reference Center initiative.</p> <p>The Group finalised the approval of resilience guidelines for sheep and goats, ongoing work on conformation traits, and progress on the SHIB Geno X project.</p> <p>The group faced also the need to reactivate the EU Reference Center and addressed the completion of a questionnaire on genotyping activities.</p> <p>Achieved results:</p> <ul style="list-style-type: none"> <li>• Organisation of two meetings (May and November 2025). Agenda: Guidelines, EURC, Wiki, BWYPEX, Questionnaire on genotyping activities in sheep and goats</li> <li>• Guidelines for resilience traits in small ruminants: Endorsed by ICAR Board in Anand.</li> <li>• Guidelines on Conformation traits: driven by Conformation WG (Gerben de J.).</li> <li>• Switch to Wiki guidelines: done for sections 14, 16, 21, 23 related to the SGC-WG</li> <li>• EU Reference Centre in sheep and goats. Note produced by the SGC WG and sent to ICAR and Interbull Centre</li> <li>• Sheep GenoEx. Within ARDI2 project (int'l evaluation in dairy sheep FRA x ESP): Task with Interbull to (i) build a Sheep GenoEx and (ii) provide an imputed genotype file.</li> <li>• BWYPEX Michael Aldridge on methane and feed efficiency in sheep</li> </ul>
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<p><b>Animal Identification Sub-Committee (Chair: Ken Evers)</b></p>	<p>The SC finalised the completion of Procedure 6 of the Guidelines for device testing, updated the ICAR Code of Conduct, and efforts to design conformance and performance standards for UHF technology. The Sub-Committee also successfully finalised the training sessions conducted for manufacturers and governments</p> <p>The Group also discussed the challenges of implementing reusable transponder codes in animal identification systems, highlighting the need for database modifications to support recycling without compromising national identification systems.</p> <p>Achieved priorities:</p> <ul style="list-style-type: none"> <li>• Section 10 Guidelines – Completed Procedure 6 and Code of Conduct</li> <li>• Reviewing third party requests for ICAR certification</li> <li>• Collaboration with ISO Working Group 3</li> <li>• Chair attended Third Mexican Symposium on Animal Identification</li> <li>• Ongoing dialogue with governments regarding ICAR certification requirements for national identification programs.</li> <li>• Reviewing UHF technology and the implementation of appropriate testing to ensure necessary performance for animal identification.</li> <li>• Certifying an additional laboratory to conduct tag testing for ICAR certification.</li> <li>• Design training materials for competent authorities and manufacturers regarding ICAR certification procedures</li> </ul> <p>Some numbers of the activities performed by the AI SC are the following:</p> <ul style="list-style-type: none"> <li>• 91 ID devices tested</li> <li>• 39 new ID devices registered</li> <li>• 10 new conventional ear tags certified</li> <li>• 23 devices re-certified</li> </ul>
<p><b>Interbull Sub-Committee (Chair: Urs Schnyder)</b></p>	<p>Recent activities such as the completion of ICAR Guidelines Section 09 and the addition of gestation length to international evaluations have been achieved.</p> <p>Main results:</p> <ul style="list-style-type: none"> <li>• Updated ICAR Guidelines Section 09.</li> <li>• Interbull Annual meeting in Louisville, KY, USA with American Dairy Science Association (ADSA)</li> <li>• Published Proceedings of the Interbull meeting</li> <li>• Working on ToR for Beef-on-Dairy Task Force (in collaboration with with Beef WG)</li> <li>• All Interbull evaluations delivered as scheduled:</li> <li>• Expanded use of Genotype Data Exchange Platform</li> </ul>

<p><b>Milk Analyses Sub-Committee (Chair: Josee Bordeleau)</b></p>	<p>ExtraMIR project is progressing considering two ISO/IDF methods to determine fatty acids and to built calibration model for MIR. In this field, a discussion paper is going to be finalize in collaboration with IDF.</p> <p>In the frame of BWYPEX the ExtraMIR approach has been extended to methane The group finalized and the ICAR members approved new Section 12 of the Guidelines that included the validation and certification of milk analysers including in-line milk analysers. .</p> <p>Activities in 2025 included:</p> <ul style="list-style-type: none"> <li>• ExtraMIR FA Project advancement: <ul style="list-style-type: none"> <li>◦ Evaluations around the reference method of choice among the two ISO methods available for Fatty acids determination: Work with IDF to get a consensus and obtain clarification for ExtraMIR FA WP1.</li> </ul> </li> <li>• Publication of the ICAR Wiki Guidelines, Section 12</li> <li>• Participation to ICAR sensor validation / certification</li> <li>• Organize a MA SC meeting to share BWYPEX experience- Maria Frizzarin and Amélie Vanlierde</li> </ul>
<p><b>Milk Recording and Sample Devices Sub Committee (Chair: Steven Sievert)</b></p>	<p>The Group emphasized the importance of validation services and the need for better communication about these efforts.</p> <p>Performed activities:</p> <ul style="list-style-type: none"> <li>• Three meetings with 19 manufacturers</li> <li>• Production of the Validated logo, revised brand policy and use instructions</li> <li>• Validation of the first system finalised; three applications/tests in progress</li> <li>• Review of needs and strategic planning for test centres completed</li> <li>• Webinar for manufacturers on Systems Validation</li> <li>• Synchronization of new Section 12 of the Guidelines with current Section 11</li> <li>• "Reference ID" project revamped</li> <li>• ICAR web site updates</li> </ul> <p>In 2025, the activities of the MRSD SC included:</p> <ul style="list-style-type: none"> <li>• 11 test applications received</li> <li>• 4 devices were certified</li> <li>• Meeting of the Sub-Committee and Test Centres at the WUR Dairy Campus in Leeuwarden</li> </ul>

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