



THE GLOBAL STANDARD
FOR LIVESTOCK DATA

Network. Guidelines. Certification.

ICAR Board & Chairs

Chile

Sunday 23rd October

14:00 to 18:00

Version 1.0

23-10-2016 Brian Wickham & Martin Burke

Agenda

- 14:00 – 14:10 Welcome & Introductions
- 14:10 – 14:30 Outcome of last meeting
- 14:30 – 14:50 CE Progress Report – Martin Burke
- 14:50 – 15:50 Groups Update – Brian Wickham & Chairs
- 15:50 – 16:10 Refreshment Break
- 16:10 – 17:50 Workshop – ICAR Guidelines Brian & Martin
- 17:50 – 18:00 AOB

Outcome of last meeting

Table 1. Grouping Priorities for Action;

Item No.	Survey Rank	Priority Item Description	Classification
6	1	Improving the ICAR website	Tool
5	3	Improving communications <i>and collaboration</i> between ICAR groups,...	Tool
7	8	Improving the structure of the ICAR guidelines	Tool
2	5	Reviewing its Groups	Governance
8	6	Enhancing Links to International bodies/partners	Governance
9	7	Growing its reputation in Africa (and globally)	Governance
3	9	Establishing Group on Climate Change	Governance
4	2	Providing ICAR members with greater visibility	Service
1	4	Extend scope to cover developments	Service
10	10	Improving its services to customers	Service

Post Meeting Survey

- 11 responses
 - Getting to know each other better
Liked the process and outcome
 - Strategic priorities
Agreed with process and outcome
 - Group reports
Would like more time devoted to this
 - Value of meeting
Good, like similar in Chile, breakout was valuable, important to finish with dinner

CE Progress Report

- ICAR Mission
- ICAR Support & Technical Structure
- Update 2015 to 2016
- ICAR 2017 and beyond

ICAR Mission Statement

Mission of ICAR is to be the leading global provider of Guidelines, Standards and Certification for animal identification, animal recording and animal evaluation.

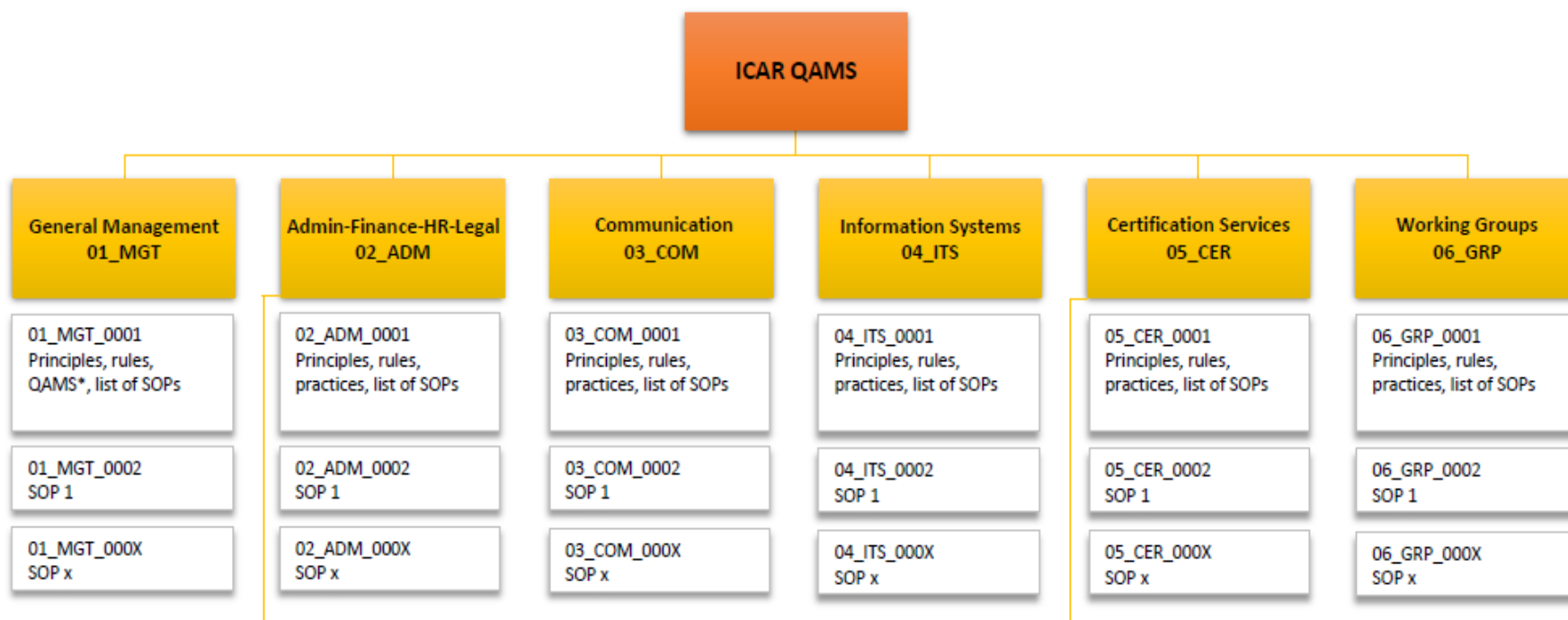
ICAR wants to improve the profitability, and sustainability of farm animal production by:

- Establishing and maintaining guidelines and standards for best practice in all aspects of animal identification and recording.
- Certifying equipment, and processes used in animal identification, recording and genetic evaluations.
- Stimulating and leading: continuous improvement, innovation, research, knowledge development, and knowledge exchange.

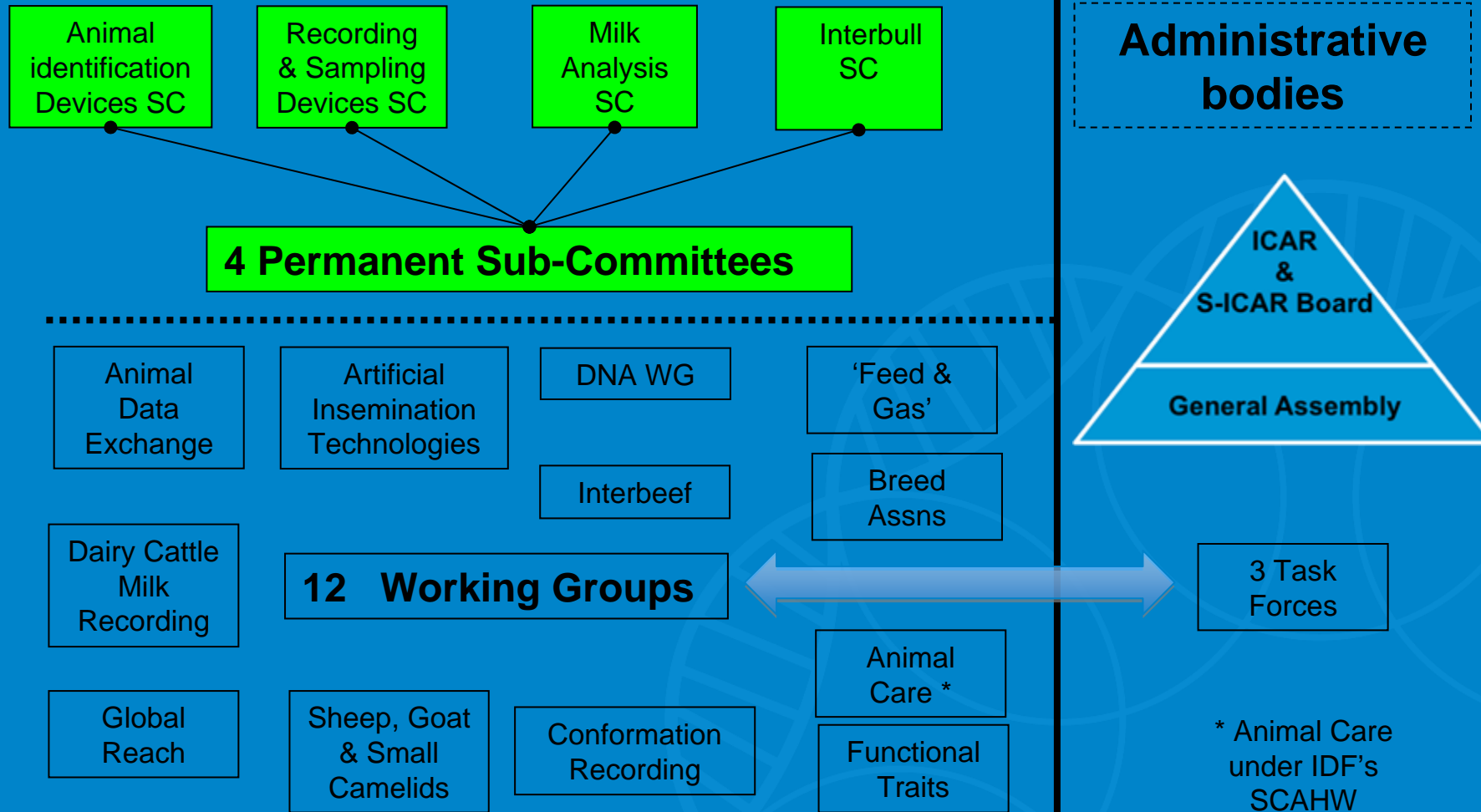
ICAR's focus

- **For our members**
 - ICAR is there for its members: farm and breeding organizations facilitating 'their' local farmers in data-recording and evaluation of production animals.
- **Help to make reliable farm management decisions**
 - Farmers need to be able to rely on data, in order to make management (including breeding) decisions.
 - Their aim is our aim: produce healthy, safe and sustainable food in a valuable way.
- **In close cooperation with associate members**
 - ICAR cooperates closely with those organizations that provide products and services to our members in the recording and genetic process and in farm management information.

Structure of ICAR's Quality Assurance Management System



ICAR Technical Organisation 2016



Update : 2015 -2016

ICAR Brand Project

✓ New Logo & 'Strapline'



THE GLOBAL STANDARD
FOR LIVESTOCK DATA

✓ New 'Descriptor'

Network. Guidelines. Certification.

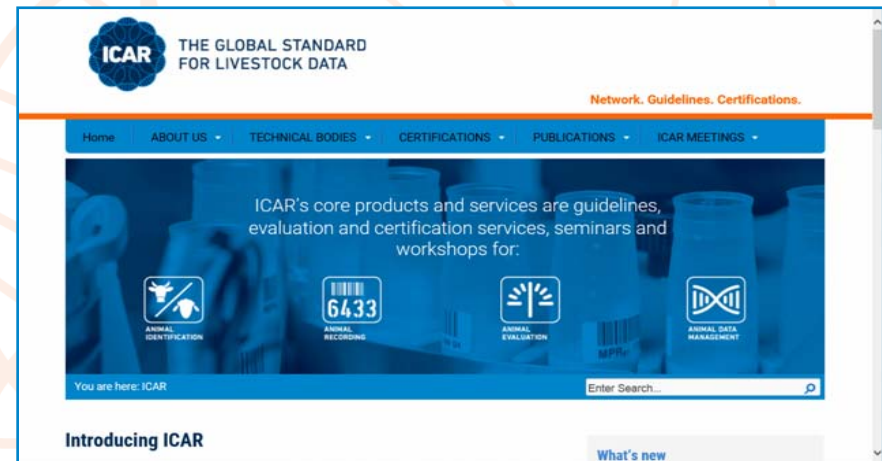
✓ New Website

Visit us on www.icar.org

✓ Launch in ICAR2016 Chile



THE GLOBAL STANDARD
FOR LIVESTOCK DATA



Update 2015 -2016

ICAR Groups Refresh/Consolidation ;

- ✓ New **ICAR - Interbull Task Force** – harness synergies so we have ‘one voice’ to members
- ✓ New **DNA Working Group** - made up of former Genetic Analysis + Parentage Recording Working Groups
- ✓ New **‘Feed & Gas’ Working Group** - guidelines for recording dry matter intake and methane output
- ✓ New **Sensor Task Force** – next generation of ‘Accuracy’ Task force to classify sensors and sensor data in recording.
- ✓ Animal Care to be under IDF Sub Committee Animal Health & Welfare

Update 2015 -2016

ICAR Services to Members ;

- ✓ New **ID 5 yr Certification** – ensures up to date certified products listings are available for members/users
- ✓ New **ID Device Change Notification (DCN)** – to aid manufacturers as product changes occur.
- ✓ New **ID Field Validation** for Competent Authorities – QA in the field.
- ✓ New **Milk Analysis Proficiency Testing (PT)** - now under ICAR with Global coverage.
- ✓ Revamp of **Certificate of Quality** process – introduction of Consultative Review, keeps ICAR in touch with Members

ICAR's core products and services

- Guidelines
- Certification Services
- Evaluation Services
- Seminars and workshops

for



ANIMAL
IDENTIFICATION



ANIMAL
RECORDING



ANIMAL
EVALUATION



ANIMAL DATA
MANAGEMENT

ICAR's (Independent) Services;

- Identification Tag Test and Certification

- ICAR and ISO have together developed independent test procedures, protocols and guidelines through which compliance of RFID systems with the ISO standards can be verified.
- Since 2007, ICAR is the Registration Authority for ISO in respect to ID devices conforming to ISO Standards 11784 / 11785.
- Working with our Industry stakeholders ICAR has in 2016 introduced a QA system for ID, namely; Certification, 5Yr Retest, DCN, Field Validation Services.



ICAR's (Independent) Services ;



- Recording Device Test and Certification
 - Evaluates, tests and certifies milk recording and other animal recording/sampling devices in the market for compliance with stipulations of the latest ICAR Recording Guidelines. (Section 11)
 - In 2016 ICAR convened a Task Force to review Sensors in Recording. The goal of this ICAR Sensor Task Force is to provide guidelines/methodology to help classify and qualify Sensors and Sensor data.

ICAR's (Independent) Services ;



- **DNA Laboratory Accreditation**
 - Provides Accreditation for laboratories who analyse biomaterial to produce DNA Genotypes (DNA Data). For this accreditation, applicants (so called wet labs) have to provide a valid ISAG membership number. ICAR maintains a list of accredited laboratories on its website.
- **DNA Interpretation Centre Accreditation**
 - ICAR has developed a new Accreditation for DNA Data Interpretation Centres who take the DNA Data from the 'wet labs' above and interpret the data for the purposes of Animal Identification, Parentage Verification and Parentage Discovery. (so called dry labs).

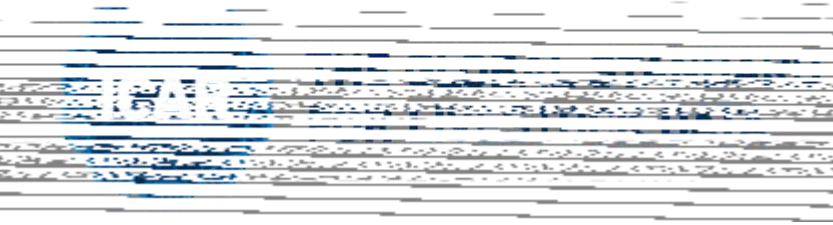
ICAR's (Independent Services);

- Parentage SNP Exchange ('GenoEx' PSE)
 - ICAR & INTERBULL are offering a new genotype exchange service. This is to facilitate the work of organisations in charge of parentage certification by sanctioning the establishment of a database for storage and exchange of SNP data at the Interbull Centre in SLU.
 - The goal of ICAR is to identify the needs and also sanction the stepwise build-up of a system that meets the requirements of using SNPs in parentage validation and recording.



ICAR's Values 2016 & Beyond;





- 2017 Focus for ICAR Team

- ICAR Guidelines - Refresh Access/Navigation.
- ICAR 'Global Reach' - bringing ICAR to all parts of the globe

Summary of Benefits – 7 Reasons to work with ICAR

1. An open platform for best practices and shared development
2. A shared system for the benefit of all in quality based livestock production
3. Helping to keep up with speed of innovation
4. Certification Services to validate quality and to stimulate open markets
5. A neutral body for open international markets and a level playing field
6. Working for equal opportunities for all, also in emerging markets
7. A roadmap to professional breeding programs

Groups Update

- Overview
- Group reports and discussion

		Name	Chair/Convenor	Status
Sub-Committee		Animal Identification	Martin Burke (Ireland)	Chair
		INTERBULL	Reinhard Reents (Germany)	
		Milk Analysis	Gavin Scott (New Zealand)	
		Recording Sampling Devices	Steven Sievert (USA)	
Task Force		Accuracy	Brian Wickham (Ireland)	Complete
		Interbull & ICAR Operations	Martin Burke (Ireland)	
		PSE-ITF	Toine Roozen (Sweden)	
		Sensor Devices	Steven Sievert (USA)	New
Working Group		Animal Data Exchange	Erik Rehben (France)	
		Animal Fibre	Marco Antonini (Italy)	Merge
		Artificial Insemination and R.T.	Gordon Doak (USA)	
		Breed Association	Matthew Shaffer (Australia)	
		Conformation Recording	Gerben De Jong (The Netherlands)	
		Dairy Cattle Milk Recording	Pavel Bucek (Czech Republic)	
		DNA		New, Chair
		Feed & Gas	Roel Veerkamp (The Netherlands)	
		Functional Traits	Christa Egger-Danner (Austria)	
		Genetic Analysis	Wim van Haeringen (The Netherlands)	Merge
		Global Reach	Charl Hunlun (South Africa)	New
		Goat Performance Recording	Zdravko Barac (Croatia)	Merge
		Interbeef	Andrew Cromie (Ireland)	
		Parentage Recording	Suzanne Harding (United Kingdom)	Merge
		Performance Recording of Dairy Sheep	Jean-Michel Astruc (France)	Merge
		Sheep, Goat and Small Camelid	Jean-Michel Astruc (France)	New

SC – ID Martin Burke

Priorities addressed since June 2015 (last report)

- 5 yr ReCertification - first year of service
- Device Change Notice (DCN) – also first year.
- Validation Protocol
- Ring test for Labs
- Section 10 Guidelines update, ID.
- ISO RA consolidation

Priorities for next year

- Chair/Member recruitment
- Promotion Expert Group

Issues for ICAR Board to consider

None

Interbull SC – Reinhard Reents

Priorities addressed since June 2015 (last report)	<ol style="list-style-type: none"> 1 Recruitment and induction of new Interbull Centre Director 2 Implementation of GenoEx-PSE (with additional assistance of the GenoEx-PSE Implementation Task Force and Expert Group). 3 Review and update of Interbull Terms of Reference. <p>Key activities and decisions have been reported in the Interbull Executive Summaries, (Jan-April 2016, May-June 2016 and July-September 2016): http://www.interbull.org/ib/executivesummary</p>
Priorities for next year	<p>Ensure continued relevance of current services, especially the core Interbull Service: MACE.</p> <p>A successful role out of GenoEx-PSE services to service users and expansion of the other GenoEx services (for example GDE).</p>

Interbull SC (continued)

Issues which the Group wishes ICAR Board to consider

1. The SC would like the ICAR Board to review and approve the new Interbull ToR.
2. Continuing the activities started within the Interbull-ICAR Operations Task Force, the SC would like to continue the closer collaboration with ICAR, in order to build more mutual benefits for the wider ICAR community and the Interbull Community.
3. The SC would like to ask the ICAR Board to ensure that clear procedures are in place for ICAR members to provide accurate information on the number of milk-recorded cows in their countries, so that Interbull is able to provide accurate and up-to-date invoices for the annual service fees to its users.
4. The Interbull SC would like to ask for the locations and formats of future ICAR meetings to be suitably taking account of the Interbull community, so that the Interbull Annual Meetings continue to be the leading event for research and implementation on bovine genetics and genomic national and international evaluations.

Milk Analysis SC – Gavin Scott

Progress:

1. We now have better geographical representation with new members from England, Eastern Europe, and Africa. Two of the new members from South America and Africa have since left the group. However it is believed that we have adequate cover and we should only replace these members if we can find members who are going to be actively involved. **Completed**
2. Proficiency testing. Big progress here with Silvia being employed by ICAR and taking coordination of the ICAR PT scheme under ICAR control. The limits to evaluate the SCC PT, have been extended to 10 %. **In Progress**
3. IDF/ ISO validation protocol. Silvia is leader of this IDF / ISO standard. Draft standard currently being reviewed by the IDF / ISO Action team. Once completed decision to be made whether ICAR certifies milk test instruments against this standard (similar to what is done for milk meters). **In Progress**
4. AQAS – Discussion with the Board at last meeting followed up by discussion on MA SC conference call November 2015. Decision taken to put this on the back burners and revisit at a later date. **On Hold**

Milk Analysis SC continued

Priorities for next year

1. Continue the roll out of the ICAR global PT scheme.
2. Certification of milk analysers against the completed IDF / ISO standard.
3. Involved with rollout of SCC reference system
4. Review of ICAR Guidelines. Some initial discussion already started in group around usability – looks like ICAR Board may be looking at similar issues.
5. Coordinate program for Edinburgh conference

Issues which the Group wishes ICAR Board to consider

Certification of milk analysers against the completed IDF / ISO standard and ICAR protocol. Is this something the Board endorses?

Recording & Sampling Devices SC – Steven Sievert

Priorities addressed since June 2015 (last report)

- Addition of members to RSD-SC to broaden expertise and skill set, now at fully engaged and cohesive subcommittee.
- Reaffirm commitment of the German Test Centre (Potsdam) to device testing.
- Improved communications with manufacturers by RSD-SC and specific RSD-SC members with manufacturers based in their local country/region.
- Development of revised website for ICAR-certified recording devices (presently under completed at ICAR).
- Development of action teams (3x3) to take lead on projects such guidelines revisions, AMS systems, new devices.
- Streamlined protocols for device testing and approvals.
- Continued development of carry-over reduction testing and best practices.

RSD SC continued

Priorities for next year

- Launch of revised website that will be database driven (as opposed to static pages), searchable, and have external links to routine procedures.
- Update *Periodic Checking of Meters* document (will occur parallel to website update).
- Testing of AMS-Sampling Shuttle combinations.
- Fully support the work of the Sensor Devices Task Force.
- Guidelines revisions for Section 11 – to be launched in October 2016.
- Carry-over technical (applied) session for ICAR 2017 in Scotland – the program content has already been determined and shared with ICAR staff and the 2017 organizing committee.
- Outreach and cooperation with other WG on device approvals for goats and sheep.
- Development of guidelines for new classes of devices such as body condition scoring tools.

RSD SC continued

Issues which the Group wishes ICAR Board to consider

- Support (direction, position and/or mandate) for challenges associated with AMS systems with various sampling shuttles. The RSD-SC has prepared a matrix (attached) of current ICAR-certified combinations, combinations under test, and those used in the field but that have not been tested. The scope of the issue is illustrated in the table.
- Support for publication of best-practices guide for managing carry-over in recording and sampling devices.
- Streamlined process for guidelines revisions.

NOT APPROVED - combination used in the field
 ICAR APPROVED - based on this combination the sampler was ICAR approved
 UNDER TEST - currently undergoing ICAR test

Certification.

RSD

	Delaval VMX sampler	Delaval VMX-7 sampler	GEA Mione sampler	Lely Shuttle A	Lely Nordic Shuttle B	Lely Shuttle XY	ORI Collector	Prolion sampler
BouMatic MR-D1				NOT APPROVED			NOT APPROVED	
BouMatic MR-S1				NOT APPROVED			NOT APPROVED	
Boumatic ProFlex				NOT APPROVED			NOT APPROVED	
Delaval VMS	ICAR APPROVED							
Delaval VMS 2007	NOT APPROVED	ICAR APPROVED					ICAR APPROVED	
Delaval VMS 2010		NOT APPROVED					ICAR APPROVED	
Delaval VMS 2013		NOT APPROVED					ICAR APPROVED	
Gascoigne Melotte AMS								NOT APPROVED
Gascoigne Melotte RMS								NOT APPROVED
Gascoigne Melotte Zenith								NOT APPROVED
GEA Monobox			NOT APPROVED				NOT APPROVED	
GEA MiOne		ICAR APPROVED					NOT APPROVED	
GEA Titan								NOT APPROVED
Happel AktivPuls 2020						UNDER TEST		
Insentec Galaxy				NOT APPROVED			NOT APPROVED	
Insentec Galaxy Astrea 20.20				NOT APPROVED		UNDER TEST	NOT APPROVED	
Insentec Galaxy Starline				NOT APPROVED			NOT APPROVED	
Lely A1			ICAR APPROVED	NOT APPROVED	NOT APPROVED			
Lely A2			NOT APPROVED	NOT APPROVED	NOT APPROVED	NOT APPROVED	NOT APPROVED	
Lely A3			NOT APPROVED	UNDER TEST	ICAR APPROVED	ICAR APPROVED	ICAR APPROVED	
Lely A3 Next			NOT APPROVED	UNDER TEST	ICAR APPROVED	ICAR APPROVED	ICAR APPROVED	
Lely A4			NOT APPROVED	UNDER TEST	ICAR APPROVED	ICAR APPROVED	ICAR APPROVED	
Manus Miros								NOT APPROVED
Merlin			NOT APPROVED		NOT APPROVED	NOT APPROVED	NOT APPROVED	
Merlin 225			NOT APPROVED		NOT APPROVED	NOT APPROVED	NOT APPROVED	
Merlin Pro			NOT APPROVED		NOT APPROVED	NOT APPROVED	NOT APPROVED	
Prolion/Punch AMS Liberty								NOT APPROVED
Prolion/Punch Titan								NOT APPROVED
Roboleo			NOT APPROVED					
SAC FutureLine			NOT APPROVED				NOT APPROVED	
SAC FutureLine Max			NOT APPROVED		UNDER TEST	NOT APPROVED		

Accuracy TF – Brian Wickham

Priorities addressed since June 2015 (last report)	Consult with ICAR Groups. Finalise report to ICAR Board
Priorities for next year	None – work is complete.
Issues which the Group wishes ICAR Board to consider	Note – thanks for the opportunity to tackle this task.

ICAR & Interbull Operations Task Force – Martin Burke

Priorities addressed since June 2015 (last report)	<ul style="list-style-type: none"> • Formalise Communications Structure • Transparency of Fees for both ICAR and Interbull • GenoEx PSE Service contracts and co-launch • Parentage Working Group and Genetic Analysis Working disbanded and new DNA WG to form. • New Accreditation SOP for DNA Data Interpretation Centres
Priorities for next year ‘To be’	Focus on Governance in next 6- 9 months - up to Edinburgh 2017; <ul style="list-style-type: none"> • Finalise Transparency of Fees (‘one’ cow no’s basis) • Review and ratify contracts and agreements including ToRs, SLAs etc so governance is enhanced • ICAR to develop how Interbull Centre SLU can expand its role as preferred partner.
Issues which the Group wishes ICAR Board to consider	<p>Review Contracts and Support</p>

GenoEx-PSE Implementation Task Force – Toine Roozen

Priorities addressed since June 2015 (last report)	<p>The immediate priorities (as defined by the Task Force's ToR) were:</p> <ol style="list-style-type: none"> To finalise the GenoEx-PSE Service agreement. To finalise the technical aspects of the GenoEx-PSE Service (in consultation with the GenoEx-PSE Expert Group). To implement the GenoEx-PSE Service To develop and implement a communication plan for members/customers of ICAR, Interbull, Interbeef and ISAG
Priorities for next year	<ol style="list-style-type: none"> A successful role out of GenoEx-PSE services to ICAR members and other potential service users, as well as the possible expansion of other GenoEx services to Interbull Users. A successful role out of GenoEx-PSE may result in the dispersal of this Task Force or a renewed mandate and ToR at the discretion of ICAR and the Interbull Steering Committee.

Genoex PSE ITF continued

Issues which the Group wishes ICAR Board to consider

1. The Interbull Centre is grateful for the financial grant from the ard, which contributed to establishing the GenoEx platform.
2. At the same time the Interbull Centre is grateful to SLU, because it extended the previously planned support from €20 000 to €60 000.
3. In order to promote the use of the GenoEx-PSE services by a maximum number of Service Users, it is critical that ICAR establishes a low fee for the required ICAR Accreditation for DNA Data Interpretation Centres, especially since the majority of costs will be incurred by the Interbull Centre rather than Service ICAR.

Sensor Devices Task Force – Steven Sievert

- Work has just started.
- Steven will present in Plenary on Wednesday afternoon

Animal Data Exchange – Erik Rehben (ανολοσν)

5 Recommendations for the future.

5.1 *Continue to develop standards*

According to our survey, international standards are important to making data exchange between central databases and on farm data collection systems easier, faster and more reliable.

The working group members consider that ICAR should edit and maintain these standards which are already rather well known.

However to avoid unjustified duplication of efforts, ICAR should coordinate its activity with the two main standard makers, ISO and UNCEFACT. Furthermore, internal duplications within the ICAR working groups should be avoided.

5.2 *ICAR guidelines*

Even there is no implementation, the current ADE version which meets the most important needs and which is in compliance with state of art of ICT should be submitted to the approval of members.

5.3 Road map by mid 2018.

Considering that a critical mass of users may be existing by the end of 2018, ICAR should take the following provisions:

Fostering and supporting early adopters.

ICAR should support as much as possible the early adopters by:

- Regular contacts.
- Monitoring progress.
- Sharing information.
- Responding in a reactive manner to any demand dealing with the ADE.

Issuing a reviewed version 1.9 for the early adopters by mid-2017.

The results of the survey confirming that the existing messages meets already an important subset of the needs, the priority should be not the business content but to make the technical specifications as flexible as possible without jeopardizing the profitability of the investments because of a too wide range of technical diversity.

By mid-2017, a reviewed, version 1.9, addressing at least the following technical issues should be issued:

- Message syntax: XML, JSON, JSON + XML + CSV...
- Communication protocol: SOAP, REST, SOAP + REST...
- Roles during the communication: is the equipment always the client? Might it be also the server?

Animal Fibre WG – Marco Antonini (apology)

Priorities addressed since June 2015 (last report)	<p>Definition of new Guidelines for the cashmere production</p> <p>Definition of the guideline on objectives and criteria of Alpaca selection</p> <p>Definition of the objective parameters to differentiate <u>Suri</u> and Huacaya fibre</p>
Priorities for next year	<p>Involvements of International Official Bodies for animal fibre analysis and certification.</p>
Issues which the Group wishes ICAR Board to consider	<p>AFWG needs a support by ICAR Board on two specific issues:</p> <p>Support for the definition of an agreement with International Lab for fibre raw material and lots certification</p> <p>Political support in order to propose the defined cashmere guide line at Chinese Animal Production Association</p>

Artificial Insemination and Relevant Technologies

WG – Gordon Doak

Priorities addressed since June 2015 (last report)	None
Priorities for next year	<p>Develop a web page presenting descriptions of straw identification in different countries</p> <p>Monitor new developments in straw labelling and/or automatic reading systems</p> <p>Update/Revise bar coding guidelines</p> <p>Work with ICAR to increase awareness of NAAB-ICAR stud codes (http://www.naab-css.org/db/studcode.html)</p> <p>Review assignment of breed codes for use on straws (http://www.naab-css.org/guidelines/breed.html) (http://www.interbull.org/ib/icarbreedcodes)</p>

Breed Association WG – Matthew Shaffer

Priorities addressed since June 2015 (last report)	GenoEx PSE and its effects on herd books
Priorities for next year	GenoEx PSE implementation Conformation Defect coding
Issues which the Group wishes ICAR Board to consider	

Conformation Recording WG – Gerben de Jong

Priorities addressed since June 2015 (last report)	<p>Carried out a survey among goat breeds and added a chapter to the recommendations on goat conformation traits</p> <p>Carried out a survey on defects scored during classification of cows and establish a list which could be used by organisations</p> <p>Three new members were added to the group to cover beef cattle breeds and dual purpose breeds.</p>
Priorities for next year	<p>Finish up the chapter on recommendations on conformation defects.</p> <p>Carry out a survey among dual purpose breeds on traits scored in these breeds</p> <p>Discuss how to approach the new technologies. New techniques become available like usage of images to score BCS, scanned images to describe body traits, udder trait measurements based on teat positions from milk robots, locomotion information using walk pads. We want to contact manufacturers to see what kind of techniques are available.</p>
Issues which the Group wishes ICAR Board to consider	<p>none</p>



Dairy Cattle Milk Recording – Pavel Bucek

Individual projects and/or tasks – completed in last year

1. Guidelines, processing major revisions of section 2.1. Feedback from external experts (the WG would like to thank them for that). Guidelines will be promoted during T.S.6 (paper T.S. 6).
2. Completion of the survey project: World trends in milk recording: preparation of paper for the Journal of Dairy Science and translation into languages other than English (Russian, Finnish, Polish, Hebrew, and Czech). Preparation of brochure covering all project indicators.
3. Survey 1: Management of Milk Recording Organisations – Current Problems and Future Challenges, 41 organisations worldwide, 51-question questionnaire (results to be presented during T.S. 6).
4. Survey 2: Practical and Methodological Aspects of Milk Recording and Management in South America (South American Project) based on an 86-question questionnaire. Countries: Brazil, Chile, Colombia, Uruguay, Argentina (presentation on Tuesday, MR in developing countries)
5. Data pipeline for novel traits in the genomic era: From farms to DHI to evaluation centres
6. On-farm recording of novel traits – genetic parameters and recommendations (presentation in TS 4).
7. Data processing and milk recording, calculation for AMS (presentation in TS 6).
8. Factors for standardising lactation yield in relation to mature equivalents and 305-day bases in Chile (presentation on Tuesday).
9. Quality Management Systems for Dairy Farming - Opportunities & Challenges for Recording Organisations. New services for MRO. New section for the ICAR Guidelines (presentation TS 6).

DCMR WG continued

Projects on practical experiences of changes to MROs, redesigning management, evaluation of processes (projects in point 10)

10. Study from France and experiences from Finland (presentations in TS 6).

11. Statistical analysis of data from in-line equipment (AfiLab project). Paper during the T.S. 2.

12. Practical use of Milk Recording Information (presentation on Tuesday MR in developing countries).

DCMR WG continued

Working group is planning to have a project focuses on connection between milk yield production and health traits and will try to develop possible new indicators. Projects number 13, 14 and 15 supported this project

13. Health-recording systems: improving breeder-recorded processes (presentation T.S.4)

14. Synchronised and timed insemination procedures improve fertility of subclinical mastitic dairy cows (electronic posters T.S. 6)

15. Scientific research: Two methods of improving fertility of subclinical mastitic dairy cows, Y. Lavon, M. Kaim, G. Leitner, D. Biran, E. Ezra, D. Wolfenson, Journal of Dairy Science, Vol. 99, Issue 3, p2268–2275

16. Session during the ICAR meeting in Chile, Friday 28th 08:30 – 10:30, chaired by Pavel Bucek & Neil Petreny, T.S.6.

17. Session during ICAR meeting in Chile, Milk recording in developing countries. Chair: Juho Kyntäjä, Tuesday 25th October 2016.

18. Accuracy Task Force chaired by Brian Wickham. WG represented by Karl Zottl, Filippo Miglior.

19. Dispute with Steve Eicker. Whole WG involved initially and later an ad-hoc group (Pavel Bucek, Bianca Lind and Karl Zottl). Compromise found. The WG would like to thank Bianca Lind for her support.

20. Discussion on approval policy re: new methods for 24-hour calculation and accumulated milk yield, monitoring new calculation methods

21. Advising and resolving specific problems among ICAR member organisations. Some members provide training in foreign countries (e.g. Juho Kyntäjä).

22. Involvement in ICAR CoQ, most members are active auditors.

23. New Terms of Reference for the working group and future priorities, discussion with Brian Wickham.

24. Some Lessons Learned Analyzing Nucleic Acids In Milk.

25. Practical aspects of cattle milk recording in the US. Discussion on specific aspects of milk recording in the US – part of a section monitoring situations in different parts of the world.

DCMR WG continued

Priorities to be updated at the WG meeting in Chile.
1. Development of ICAR Guidelines.
2. Project plausibility checks.
3. Project connection between health and milk yield production and possible new services for MROs.
4. Project outputs and outcomes from milk recording.
5. Organise a session on cattle milk-recording in Scotland.
6. Organise a workshop on ICAR Guidelines in Scotland.
7. 24-hour calculation and accumulated milk yield.
8. Quality management and assurance.
9. Sensors Task Forces, Karl Zottl and Friedrich Reinhard.
10. New technologies, screening and possible additions to the ICAR Guidelines.
11. Discussion on French sensors project, in-line analysis for AMS (sensors), data transfer, direct collaboration with manufacturers which produce AMS.
12. Daily milk yield recording data from Israel.
13. Discussion about new research on calculation in AMS in Canada, recalculation of Liu, 2000 in Germany, research in France on daily milk recording and adaptation of Liu 2000 in France. Discussion on sampling research in France.
14. Discussion on plans for a round table on practical aspects of calculations and processes 24-hour and/or calculation of accumulated milk yield.
15. Monitor development among ICAR members and non-members.
16. Other tasks and projects to arise before Scotland.

DCMR WG continued

1. Arrange a session on cattle milk-recording in Scotland organised and chaired by the Dairy Cattle Milk Recording WG. We propose extending the session from 2 hours to 3 hours. The reason for this is due to our increased output, interest of authors in session 6 in Chile on milk recording in cattle. 20 authors submitted papers, so some had to be moved to other sessions or changed to electronic abstracts. We want to involve invited speakers and submitted papers from the audience. The DCMR WG is able to cover all of the above.
2. Organise a workshop on practical aspects of milk recording and application of ICAR rules at the ICAR meeting in Scotland (organised and chaired by the Dairy Cattle Milk Recording WG). This will include not only milk recording but also milk laboratories and milk meters. Key aspects: keep best practice in milk recording and maintain interest of new members. This project is supported by Charl Hunlun: ICAR head of auditors.
3. Prepare a completely new part of ICAR Guidelines. It will focus on quality management outside milk recording and branding agricultural products. Production conditions on farms will be reviewed in terms of whole processes from the stable to the shelf to the supermarket. Similar programmes already exist in some EU countries (e. g. Germany, Austria, Czech Republic, etc.). It is a way of extending MRO services. Charl Hunlun who is responsible for ICAR audits supports the initiative. Some DCMR WG members have prepared a presentation on it for T.S.6.
4. The Dairy Cattle Milk Recording WG has developed a new system of nomenclature for sampling in milk recording in cattle. Our proposal is to add this system for goats and sheep to the ICAR Guidelines. A French member of ICAR is interested in doing the same for goats in France.

DNA WG – Chair not yet decided

- 11 applications – very high quality
- Holding appointment till Chair is decided
- Update meeting
 - Tuesday 25th October, 14:00 – 15:00 in room Maullin 1
 - Candidates invited or person in their place
 - Others interested most welcome

Feed & Gas WG – Roel Veerkamp

Priorities addressed since June 2015 (last report)	<ul style="list-style-type: none"> - Write guidelines for recording individual feed intake - Draft guidelines for recording individual methane emissions - Draft research plan for gDMI (part 2)
Priorities for next year	<ul style="list-style-type: none"> - Write guidelines for recording individual methane emissions - Work on research plan for gDMI (part 2) - Draft research plan for gCH₄ (global methane initiative)
Issues which the Group wishes ICAR Board to consider	None

Priorities addressed since June 2015 (last report)

- Translations of claw health atlas to meanwhile 18 languages
- Information on new standard of claw health data:
 - Lamness Conference in Chile (November 2015, Fiedler)
 - German Hoof Trimmers Association (Verein Geprüfter Klauenpfleger e.V.) Schloss Beichling, Deutschland (February 2016, C. Egger-Danner)
 - National Veterinary Conference in Leipzig (January 2016, K.E. Müller)
 - World Buiatric Conference in Dublin, Irland (July 2016, Kofler)
 - Seminar of Hoof Trimmers in Echem, Germany (July 2016, K.F. Stock)
 - EAAP-Conference in Belfast, North Irland (August 2016, Charfeddine)

Planned:

- *ICAR meeting in Chile (October 2016, Charfeddine)*
- *Interbull meeting in Chile (October 2016, Heringstad)*
- *National Veterinary Conference in Hannover, Germany (November 2016; K.F. Stock)*
- Further steps on elaboration of guidelines for claw health (work on benchmarking, Review paper on claw health and genetics - as base for guidelines)
- Review paper on metabolic disorders (Pryce et al. 2016)
- Update of udder health guideline
- EuroTier -15/11/2016 and 18/11/2016: Dialogue between practice and science in claw health – presentations and practical demonstrations organised by ICAR WGFT and German colleagues

FT WG continued

Priorities for next year

- Finish guidelines for udder health
- Finish guidelines for claw health
- Guidelines for metabolic disorders
- Survival (vitality, longevity,...)

Issues which the Group wishes ICAR Board to consider

- Visibility of guidelines on ICAR homepage. It is still difficult to find specific guidelines, not only for external persons, as all the guidelines are within one publication. Could it not be possible that the individual guidelines can be found if you search in google?
- Thank you to ICAR for the great support with all the work associated with the publication of the ICAR Claw Health Atlas and the related PR work (pdf templates in multiple languages for printing booklets, poster template for the EuroTier 2016)

Genetic Analysis WG - Wim van Haeringen

Priorities addressed since June 2015 (last report)	<ul style="list-style-type: none"> a) Continuous effort to keep track of technological developments, b) Overview of genetic abnormalities in cattle (overview made by Matt McClure 2015) c) Questionnaire distribution d) Collaboration with Parentage Verification WG e) Interaction with ICAR office on the questionnaire evaluation
Priorities for next year	<p>Possible merger with Parentage WG into Genomics WG</p>
Issues which the Group wishes ICAR Board to consider	<ul style="list-style-type: none"> 1) Possible merger with Parentage WG into Genomics WG. 2) Support of Service ICAR / administration on questionnaires.

Global Reach WG – Charl Hunlun

Priorities addressed since June 2015 (last report)

Work towards forming a regional network and promote ICAR activities in the respective regions of WG members.

The establishment of the ICAR Global Reach Working Group has been proposed by the former Developing Countries WG and approved by the Board of ICAR. The Terms of Reference of the WG was drafted, circulated and discussed by the ICAR staff and members of the former Developing Countries WG and ratified by the Board of ICAR.

Several discussions and tele-meetings were held to launch a Regional Sub-Group of the Global Reach WG for Latin America.

A meeting to establish the first Regional Sub-Group of the Global Reach WG is scheduled for Monday 2016/10/24 in Puerto Varas, Chile.

A member of the ICAR staff and a member of the former DCWG, Cuthbert Banga, attended a Symposium organised by the Botswana Animal Identification and Traceability System in Gaborone and had constructive discussions with several interested parties from the region with the aim to establish a Regional Sub-Group in Sub-Equatorial Africa. A formal presentation was made at the symposium on the role of ICAR in developing animal agriculture.

An item about the Global Reach initiative was placed in the March 2016 ICAR Newsletter.

GR WG continued

Priorities for next year	<p>To formally establish the Regional Sub-Group of the Global Reach WG for Latin America.</p> <p>To establish the Central Coordinating Group of the Global Reach Working Group.</p> <p>To consult with the ICAR membership as widely as possible in order to determine in what region the next Regional Sub-Group of the Global Reach WG should be established.</p> <p>To work towards creating standard promotional and instructional material that can be used in the promotion of ICAR's activities and the possible establishment and work of the Regional Sub-Group(s).</p>
Issues which the Group wishes ICAR Board to consider	<p>None</p>

GR WG continued

- Meeting of all interested – Latin America
 - Wednesday 26th October
 - 18:00 followed by dinner
 - Venue to be confirmed

Goat Performance Recording WG – Zdravko Barač

- No report.
- Being merged into Sheep, Goat and Small Camelid WG, chaired by Jean-Michel Astruc, with chairs of three Expert Advisory Groups (EAGs) by product/trait
 - Milk
 - Fibre
 - Meat and Maternal Traits

Interbeef WG – Andrew Cromie

Priorities addressed since June 2015 (last report)

1. Simmental test evaluation. This was agreed in Austria in March, with six countries involved; DEU, CHE, IRE, DNK, FIN & SWE (operating as DFS). Decision re: implementation to routine service to be taken at this meeting.
2. Use of cross-bred data in genetic evaluations. Research undertaken by ICBF with results shared to service-users. Decision re: implementation to routine service to be taken at this meeting.
3. Updated “Code of Practice” document, including new service agreements for routine service and research collaboration. This work was undertaken with ICAR and Interbull Centre. Initial drafts will be presented at this meeting, with objective of making these agreements operational in time for services in 2017.
4. Interbeef service calendar established. This was established with the Interbull Centre and includes two official evaluations (release dates in Nov and April each year) and one test evaluation (in June each year), with the option of having one additional test run for new countries (in Sept each year).
5. Strategy for new members. A proposal has been developed for attracting new members to the Interbeef service. The proposal will be discussed at this meeting.

IB WG continued

Priorities for next year	<ol style="list-style-type: none"> 1. New service agreements. Establish service agreements to underpin new service agreements for routine service, and research collaboration. 2. New routine evaluations for calving traits. Move current research work in calving evaluations from research environment to routine evaluations. 3. Test evaluations for female fertility. Move current research work in female fertility evaluations to test evaluation status. 4. Data call and genetic parameter estimation for carcass traits. Initiate work on genetic evaluations for carcass and beef performance traits. 5. Expand Interbeef service to new members. Grow membership of ICAR-Interbeef through combination of existing members (i.e., small countries participating with existing members) and new members.
Issues which the Group wishes ICAR Board to consider	<ol style="list-style-type: none"> 1. <u>GenoEx (v2)</u>. Develop <u>GenoEx</u> for storage and exchange of genotypes for Interbeef research and future services. This is crucial for the continued expansion of ICAR/Interbeef services. 2. New members. Support for the expansion of service to new members.

Parentage Recording WG – Suzanne Harding

Priorities Addressed since June 2015	<ol style="list-style-type: none"> 1.new accreditation for applying the results of genotype analysis 2.GENOEX-PSE
Important Decisions made since May 2015	<ol style="list-style-type: none"> 1. Defined a new section for the ICAR Guidelines and web site - accreditation of applying the results of Genotype Analysis for Parentage Verification 2. Discussed GenoEX-PSE
Issues to be handled by the Board & Deadlines	<ol style="list-style-type: none"> 1. Assessing the new accreditation - Who will be the committee of experts and how will they be funded?

PR WG continued

Issues to be handled by the Board & Deadlines	<ol style="list-style-type: none"> 1. Assessing the new accreditation - Who will be the committee of experts and how will they be funded?
Priorities for next year	<ol style="list-style-type: none"> 1. Good practices guideline for natural service, liaising with AI WG 2. Guidelines as to acceptable level of errors in a population and what should be done about high occurrence of errors 3. Define the percentages of herds and animals that should be parentage checked 4. Define possible alternatives for optimal Parentage Recording. 5. Produce optimal parentage recording guidelines 6. Include parentage discovery and microsatellite imputation from SNPs as a guideline, once they are fully agreed. 7. Extend parentage recording to all species and all mating systems
Issues the group wish the ICAR board to consider	<ol style="list-style-type: none"> 1. Assessing the new accreditation - Who will be the committee of experts and how will they be funded? 2. How will this work - procedurally

Performance Recording of Dairy Sheep WG – Jean-Michel Astruc

Priorities addressed since June 2015 (last report)	<ul style="list-style-type: none"> -Replace in the working group the members left since <u>Berlin</u> : Francis <u>Barillet</u> (retired) and <u>Drago Kompan</u> (to be retired) -Encourage the group to participate more actively to the sessions and enhance members' interest to the yearly enquiry. Improve the on-line survey with new tool (in co-operation with ICAR secretariat) -Organize a session dedicated to small ruminants at every biennial session and maintain incentive to a good participation. -No updating of the guidelines in 2015-2016.
Priorities for next year	<p>Re-organization of the small ruminants & camelids fields in ICAR with the creation of the Sheep, Goat and Camelid WG and the creation of the 3 expert advisory groups on sheep & goat milk recording; <u>S</u>, G & small camelids fibre recording ; S & G meat, reproduction and maternal traits recording</p>
Issues which the Group wishes ICAR Board to consider	<p>The above priority will be discussed with and within the Board</p>

Sheep, Goat and Small Camelid WG – Jean-Michel Astruc

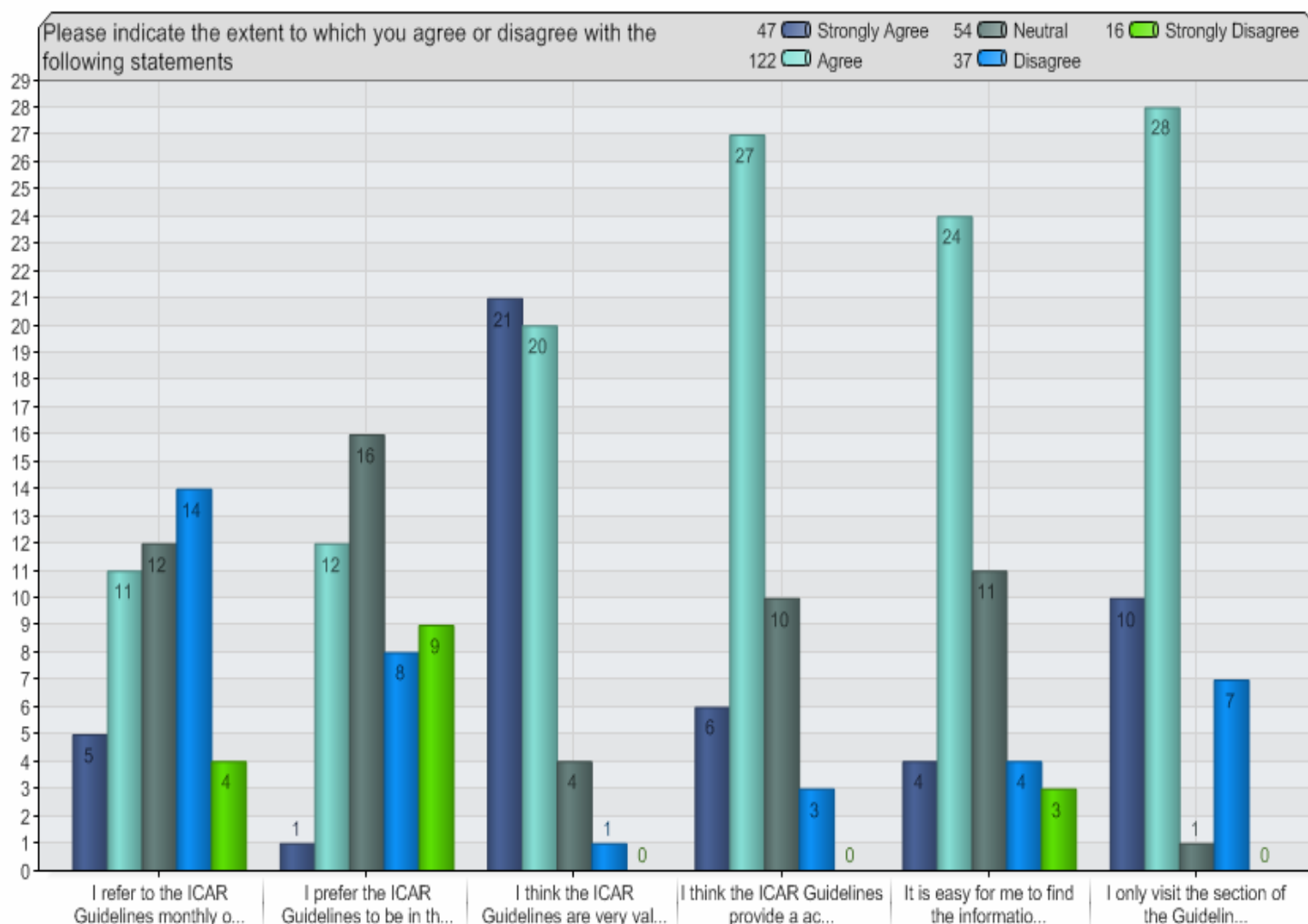
- New Group
- Replaces Sheep, Goat and Fibre WGs
- Chair confirmed by Board earlier today
- Meeting of potential members of EAG's and others interested
 - Tuesday 25th
 - 16:00 – 17:00
 - Room B Centre

Refreshment Break

Guidelines Workshop

- Survey
- Initial thinking
- Workshop 1
 - What issues should be addressed?
 - Break into groups
 - Create a list – do not attempt to prioritize – be as precise as possible
 - Report back
- Workshop 2
 - Consider list of ideas
 - Prioritize the top ten
 - Report back

Guidelines Survey Results



I refer to the ICAR Guidelines monthly or more often:

I prefer the ICAR Guidelines to be in the form of a printed book:

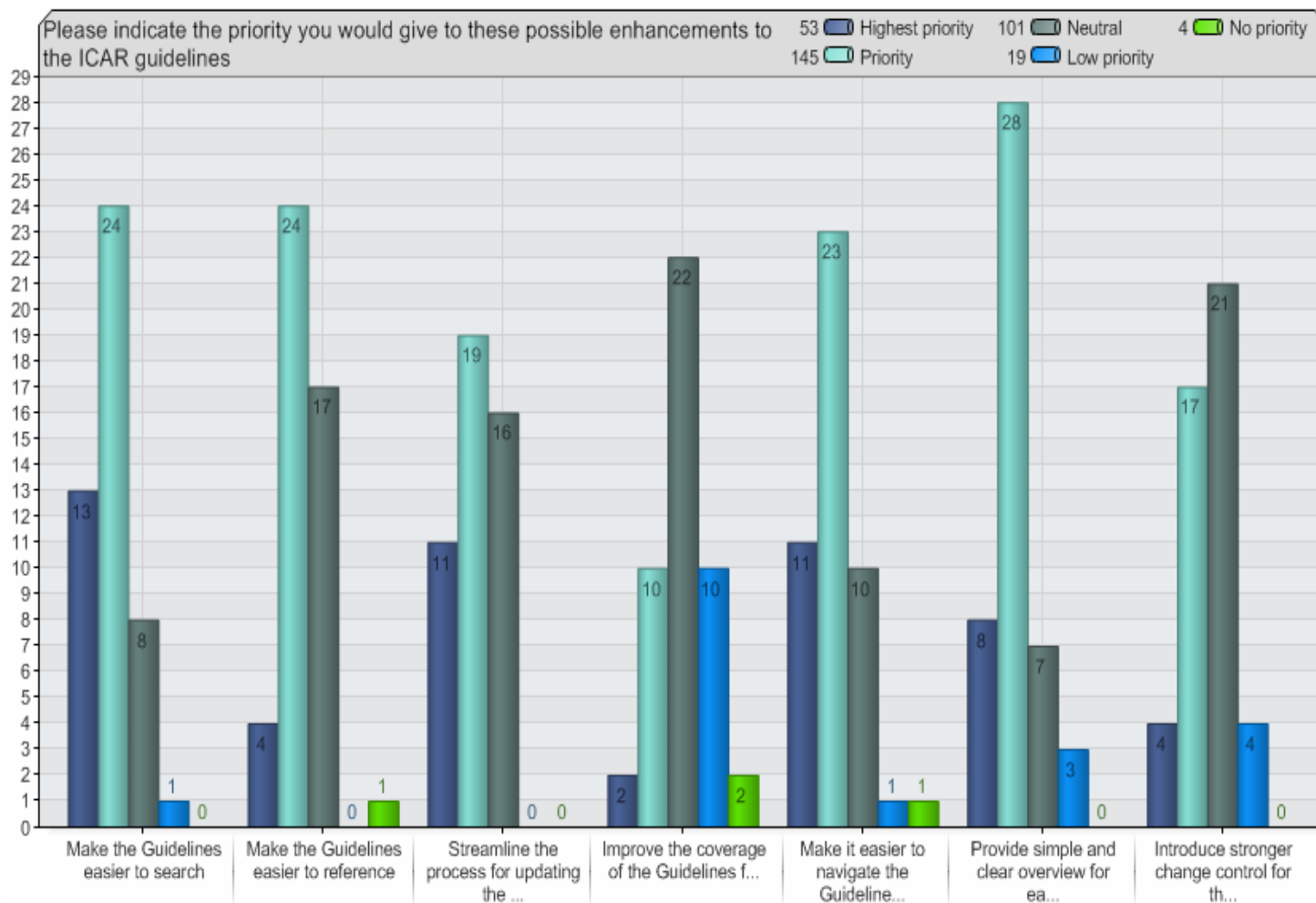
I think the ICAR Guidelines are very valuable:

I think the ICAR Guidelines provide a accurate description of best practice in animal recording:

It is easy for me to find the information I need in the ICAR Guidelines:

I only visit the section of the Guidelines dealing with my specific interests:

Guidelines Survey - continued



Make the Guidelines easier to search:

Make the Guidelines easier to reference:

Streamline the process for updating the Guidelines:

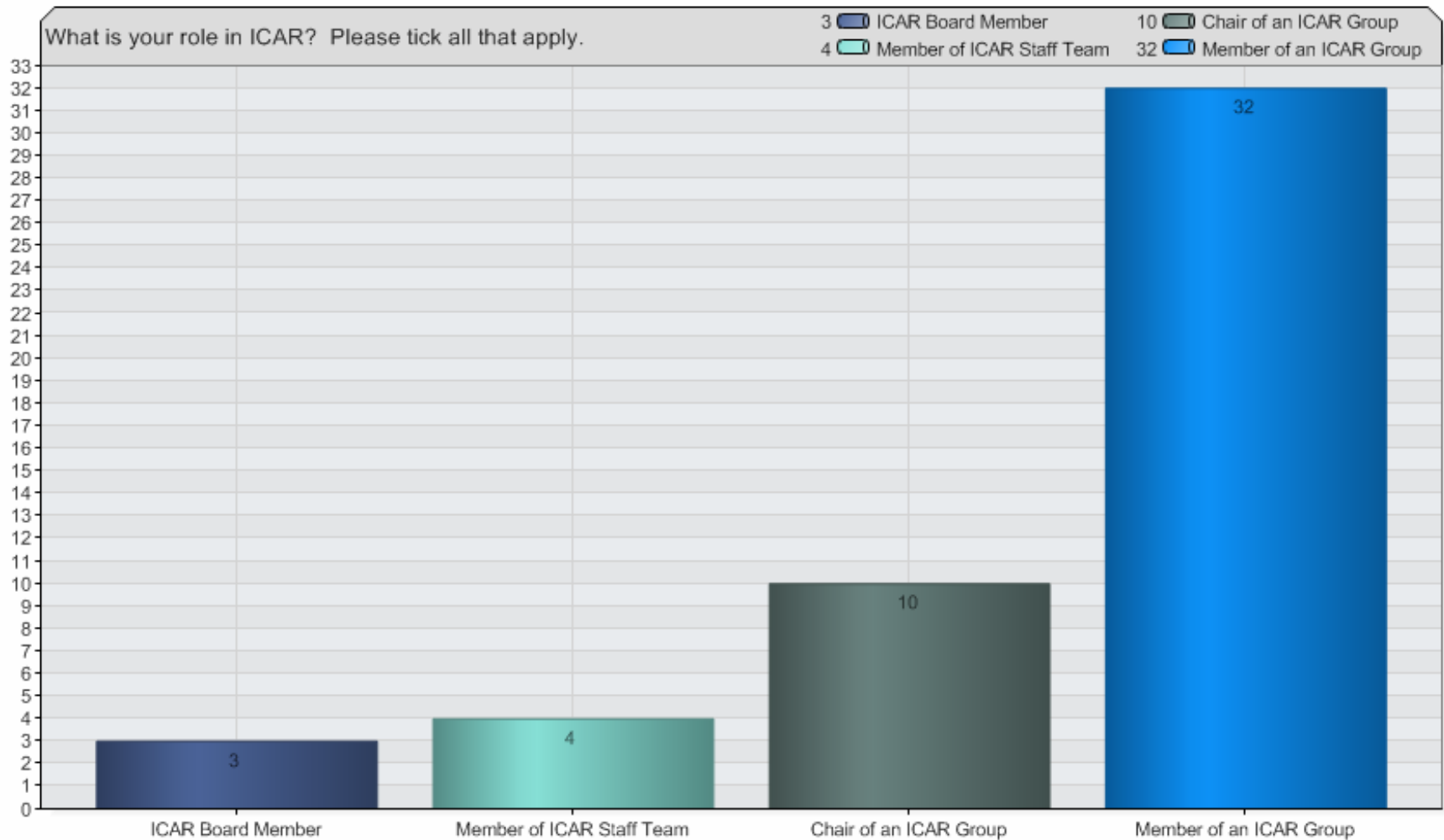
Improve the coverage of the Guidelines for other species:

Make it easier to navigate the Guidelines:

Provide simple and clear overview for each section of the Guidelines:

Introduce stronger change control for the Guidelines:

Guidelines Survey - continued



Initial Thinking

- Database structure – too difficult for now
- More granular structure with web navigation
 - Section Overview (MS Word for editing, PDF for publication)
 - Section Specific Guidelines (MS Word for editing, PDF for publication)
 - Section Annexes (in any suitable file format based on content)
- Version control
 - Shared editing
 - Changes from version to version
 - Access to older and newer draft versions
- Examples
 - Section 4 (Use of DNA and Related Technologies)
 - Section 2.1 (Dairy Cattle Milk Recording)
 - Section 16 (Certificate of Quality)

Example

Section 4.

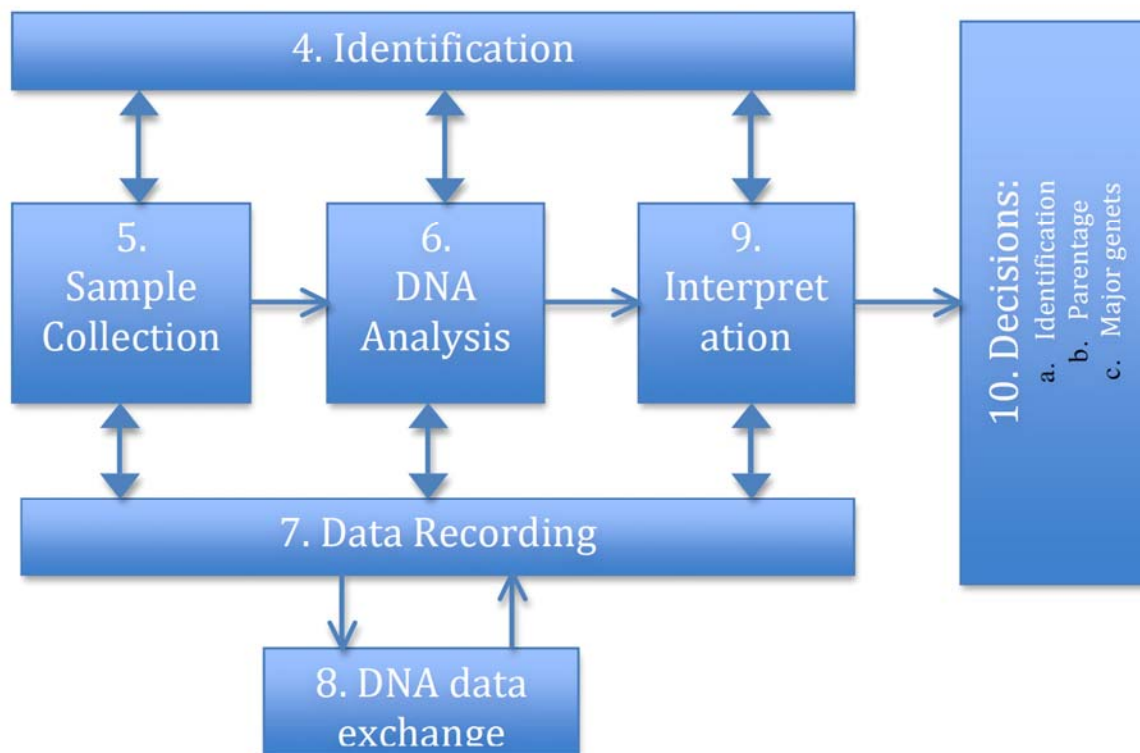
ICAR Guidelines – Use of DNA and Related Technologies.

Version 4. Draft dated 28th July 2016.

U s e o f D N A a n d R e l a t e d T e c h n o l o g i e s

Figure 1. Scope of Guideline.

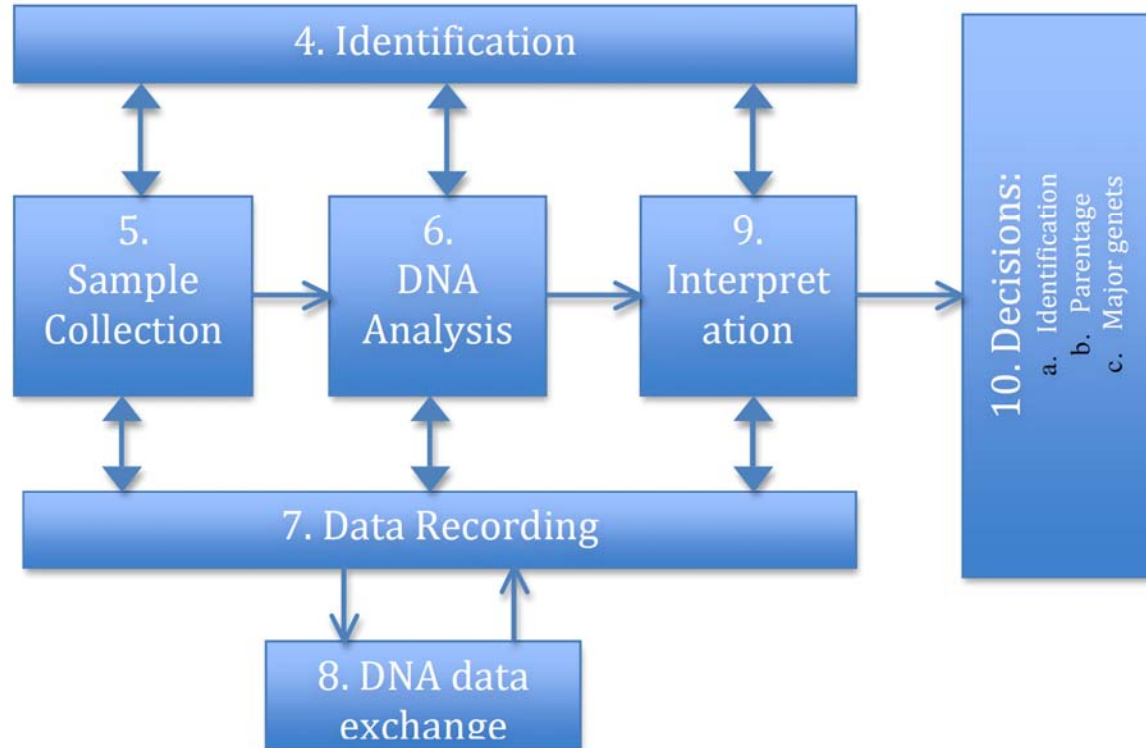
- 1 Introduction
- 2 Definitions and Terminology.....
- 3 Scope



Example

1	Introduction
2	Definitions and Terminology..
3	Scope
4	Identification.....
5	Sample Collection
6	DNA Analysis
6.1	Blood Typing.....
6.2	Microsatellites.....
6.3	SNPs.....
7	Data Recording.....
8	DNA Data Exchange.....
9	Interpretation of Genomic Data.....
9.1	Identification & Parentage ...
9.2	Major Genes.....
10	Decisions.....
10.1	Identification/Traceability.....
10.2	Parentage/Pedigree.....
10.3	Major Genes/Defects
10.4	Trait Improvement by Selective Breeding
10.5	Diseases resistance and genetic defects

Figure 1. Scope of Guideline.



Example

Section 4. Guideline A.
Accreditation of Laboratories Conducting DNA Analysis using Microsatellite- and or
SNP-based Tests.

Version 2.0 Draft dated 22nd October 2016

Accreditation of Laboratories Conducting DNA Analysis using Microsatellite- and or SNP-based Tests.

Section 4. Guideline B.
Accreditation of Organisations Performing Parentage and/or Identification Validation
using the Results of SNP-Analysis.

Version 2, Draft Dated 22nd October 2016.

Accreditation of Organisations Performing Parentage and/or Identification Validation using the Results of SNP-Analysis.

AOB

Close

- Feedback
- Survey?
- Thanks



THE GLOBAL STANDARD
FOR LIVESTOCK DATA

Network. Guidelines. Certification.

Thank you

