### **Genetic Analysis WG**

#### Marie-Yvonne Boscher

(LABOGENA, Jouy en Josas, France)

#### Elena Genzini

(Laboratorio Genetica e Servizi, Cremona, Italy)

#### Wim Van Haeringen

(Dr. Van Haeringen Laboratorium b.v., Wageningen, The Netherlands)

#### **Marco Winters**

(DairyCo Ltd., Gloucestershire, United Kingdom)

#### Paolo Ajmone Marsan

(Università Cattolica del S. Cuore, Piacenza, Italy) Coordinator

### COMMUNICATION

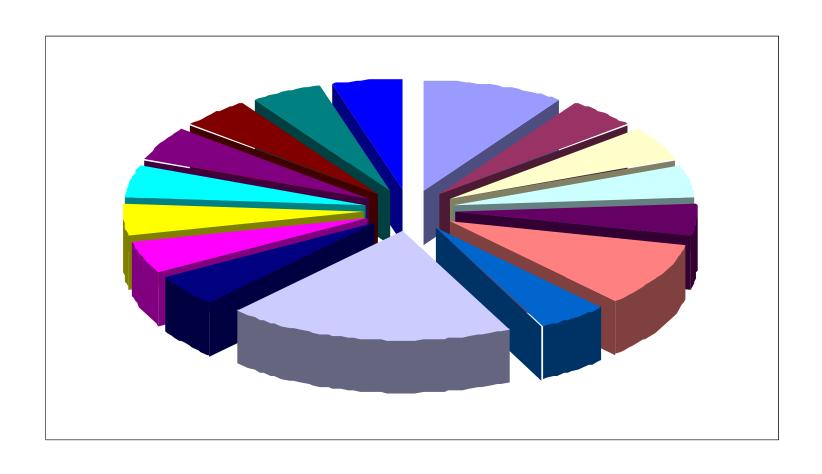
- Electronic discussion
- Conference calls

### **ACTIVITIES**

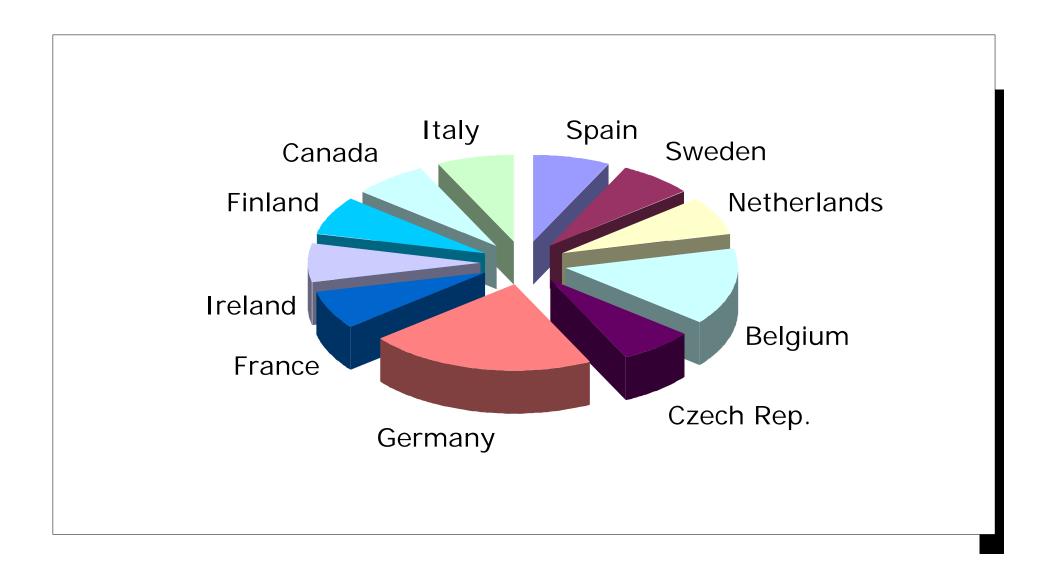
- Evaluation of applications received in 2007 (for accreditation of labs performing Cattle paternity analyses)
- Identification and correction of critical issues for the 2008 edition
- Start of New activities
- Draft agreement with ISAG

### EVALUATION OF APPLICATIONS RECEIVED IN 2007

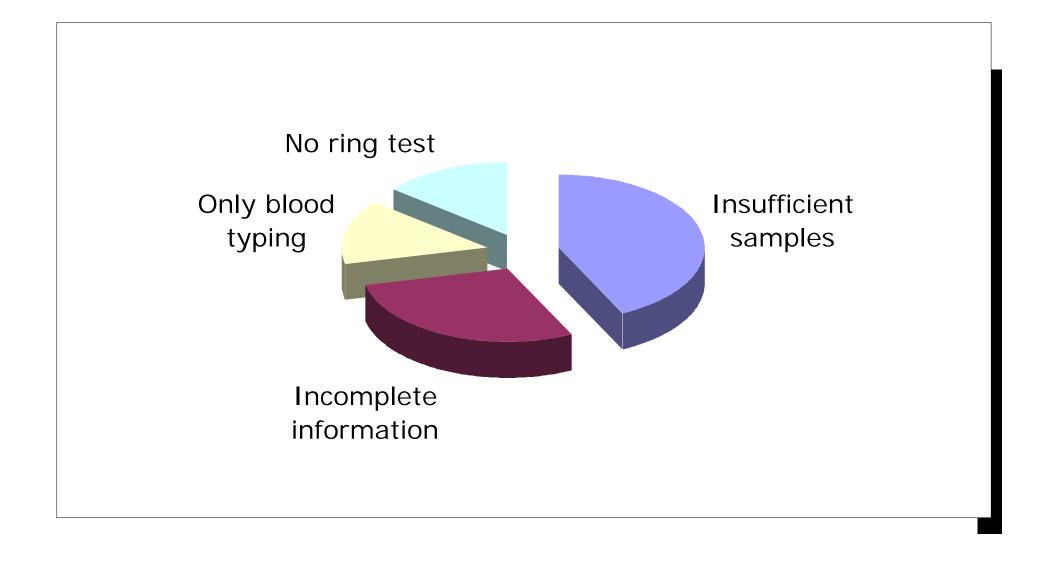
# 21 APPLICATIONS RECEIVED FROM 16 COUNTRIES



# ACCREDITED 14 LABORATORIES FROM 11 COUNTRIES



### REASONS FOR REJECTION



# IDENTIFICATION AND CORRECTION OF CRITICAL ISSUES FOR THE 2008 EDITION

## MINIMUM NUMBER OF SAMPLES ANALYSED PER YEAR

- In 2007 strict minimum threshold of 500 animals/year.
- Starting 2008 minimum threshold of 100 animals/year.
- Starting 2008 experts evaluate the acceptability of between 100 and 500 animals on a case-by-case basis.

### INTERNATIONAL CERTIFICATION

- Not a minimum requirement in 2007, 2008, 2009
- Minimum requirement starting 2010
- Evaluated on a case-by-case basis the validity of lab procedures and experience

### **DURATION OF ACCREDITATION**

Duration ICAR accreditation is 2 years

 In the second year accredited labs have to update ICAR with description of changes in lab equipment/personnel

### **OTHER ISSUES**

 The clarity and meaning of some questions have been improved

 New guidelines and questionnaires are online

### **NEW ACTIVITIES**

### **GENETIC DEFECTS**

- Questionnaire circulated by ICAR secretariat to collect information in cattle and other species
- Need to coordinate with WHFF, Interbull and other ICAR groups
  - Identification of the defect
  - Nomenclature
  - Exchange of results

### **NEW TECHNOLOGIES**

- using SNPs in paternity testing
- SNPs in Marker Assisted Selection (MAS),
   Gene Assisted Selection (GAS) and
   Genomic Selection (GS)
- Sequencing

### ICAR-ISAG coordination

- First contacts in 2002
- LoA to be discussed with ISAG management at Amsterdam ISAG session
- ISAG: Scientific topics; ICAR: technical application
- Use of ISAG Ring Test for ICAR labs accreditation
- Future coordination to develop new fields: parenthood verification through SNPs, genetic defects, etc.

### **OTHER ISSUES**

- Paternity testing in species other than cattle
- Enabling early detection of new genetic defects
- Enlargement of the WG

# DRAFT AGREEMENT WITH ISAG

# CATTLE PATERNITY RING TEST

- •