

# Guidelines for the development of integrated and multipurpose animal recording systems

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## What are they about?

### **Assist in the planning and implementation of animal recording systems**

- Take the user through a step-by-step decision-making process, leading to the establishment of AIR systems
- Explain how to plan and implement AIR systems, technically and operationally
- Inform on the necessary conditions for such development, their implications and the possible time frame in which the planned activities could be implemented

## For whom?

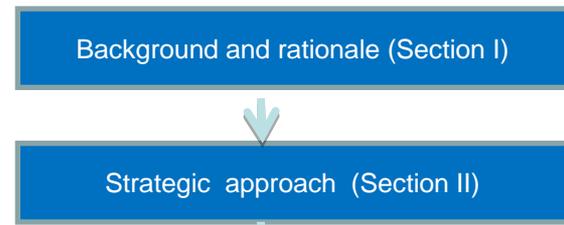
- For countries or organizations wanting to develop their AIR system, but have limited experience and a limited number of qualified staff.
- For all stakeholders interested and/or involved in the planning & implementation of AIR activities: officials of national & regional governments, research institutions, private sector, farmers' organizations, NGOs...



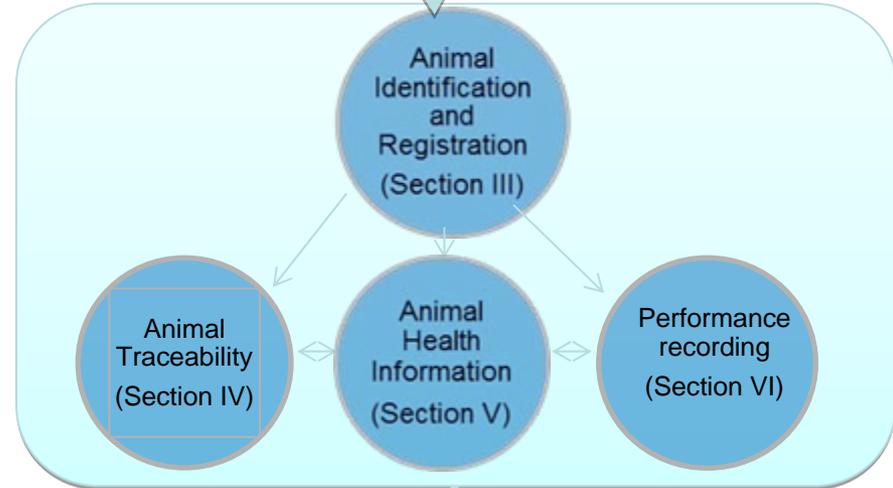
# How are they structured?

- Divided into:
  - 3 parts
  - 11 sections

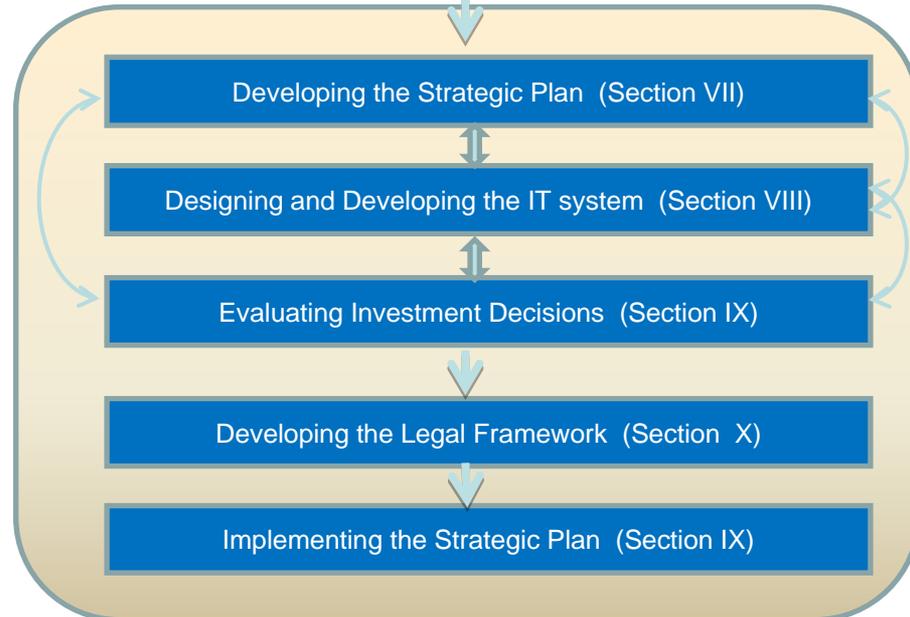
Setting the Scene



Developing the Concept



Putting the Concept into practice



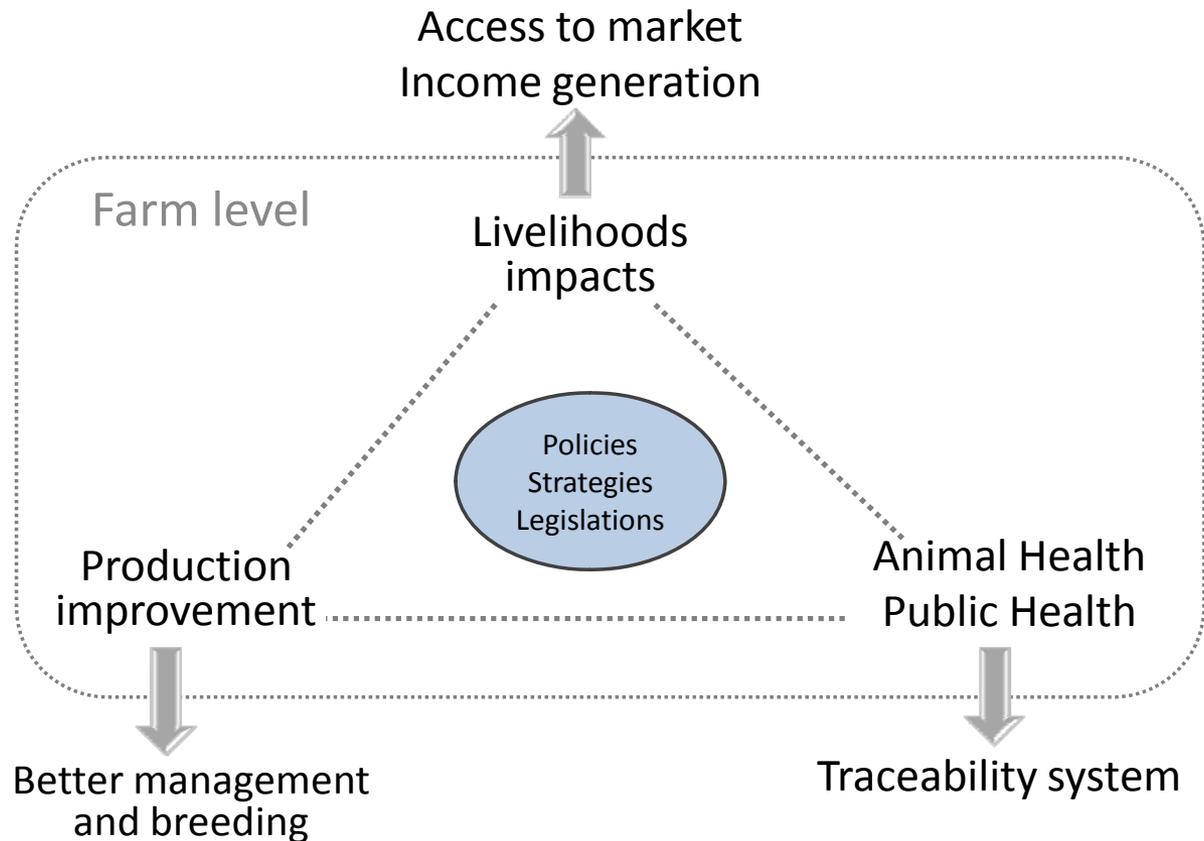
# PART 1: SETTING THE SCENE

## Section I: Background and rationale

- Outlines the potential benefits and beneficiaries of AIR systems
- Gives overview of AIR that have been implemented in a number of developed and developing countries, and highlights the lessons learned from these experiences
  - E.g need to broaden the scope of AIR by adopting a multipurpose approach
- Reviews existing guidelines and their applicability in developing countries, in general, and in small-scale production environments, in particular

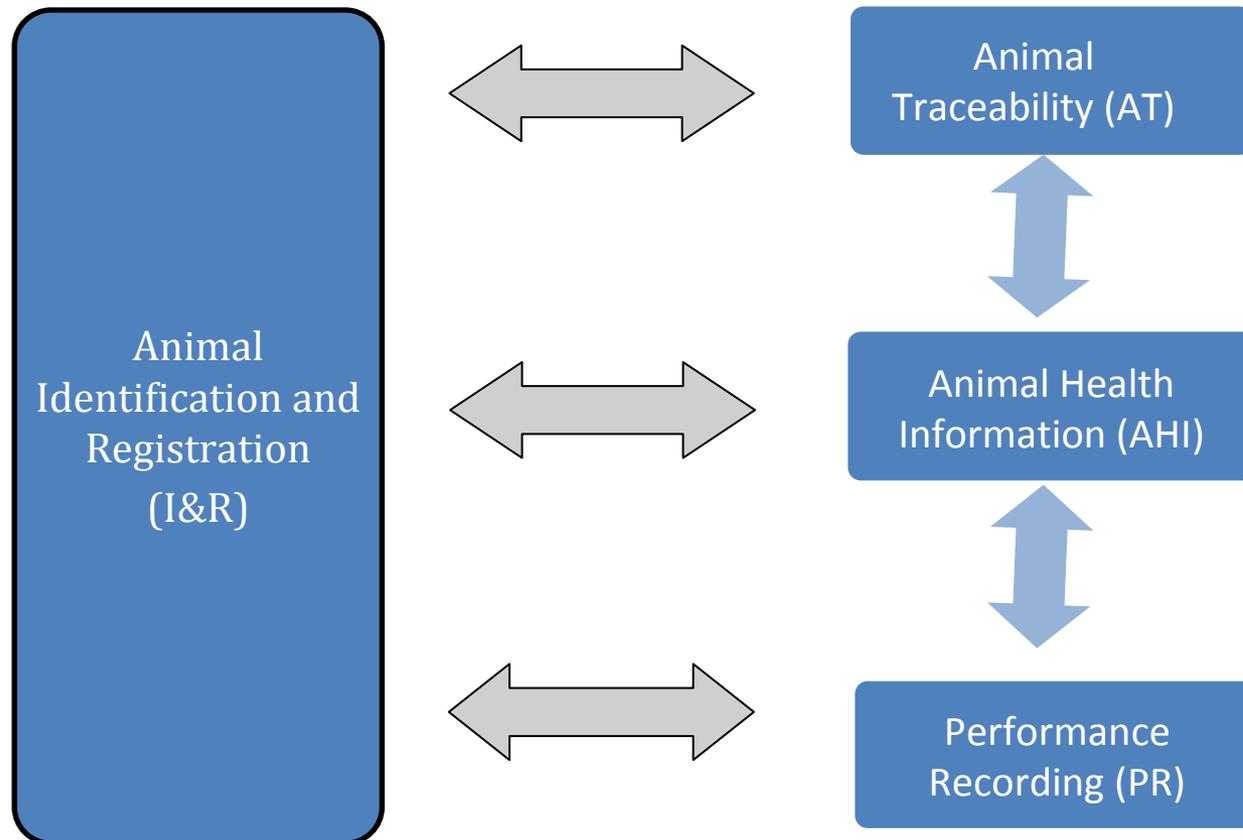
## Section II: Strategic approach

The concept of a multipurpose approach...



## Section II: Strategic approach

### The multipurpose integrated systems



## **PART 2: DEVELOPPING THE CONCEPT**

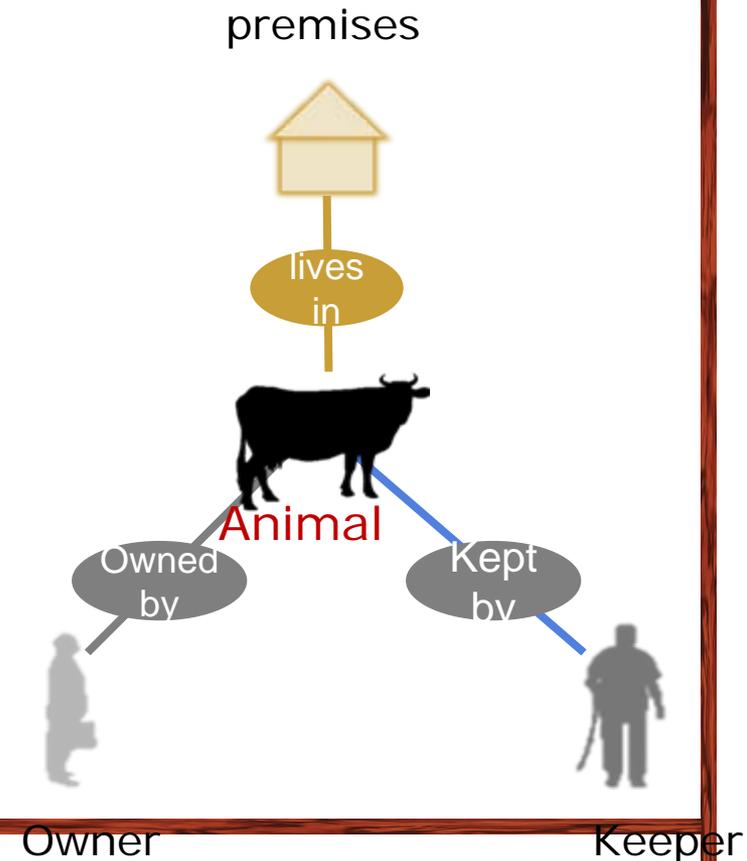
## Section III: A. Identification & Registration

### Objective:

Describe the elements of an I&R system and provide guidance on how to choose the method of animal identification

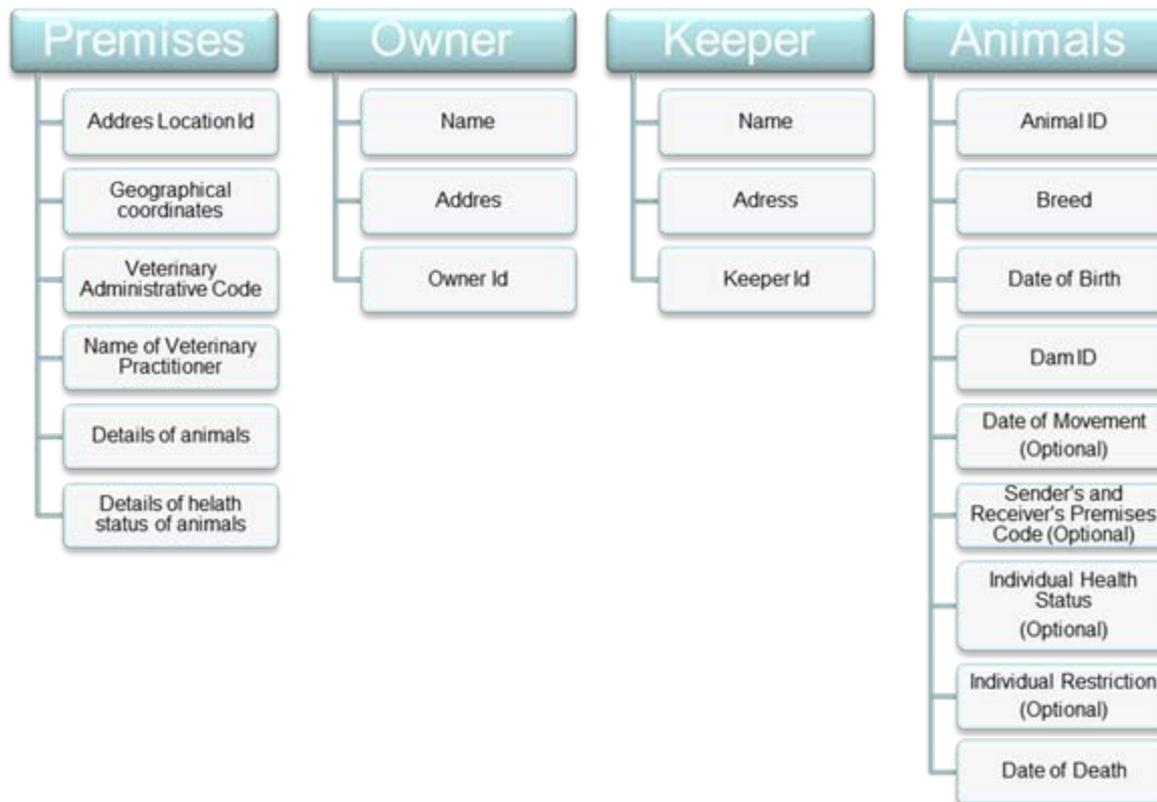
### Concept:

I&R refers to identification and registration of premises, keepers and owners, and animals.



# Section III: A. Identification & Registration

Animal identification and registration - an integrated view



## Section IV: Animal Traceability

### **Definition:**

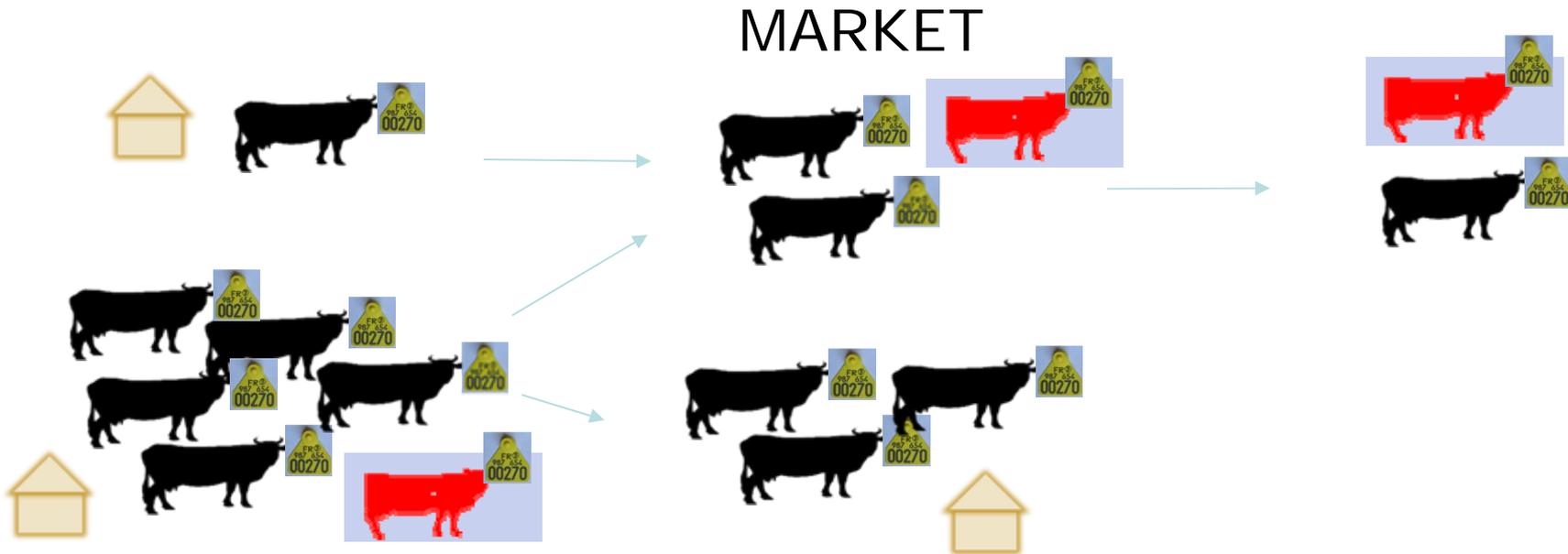
Animal traceability refers to the ability to access the history of an animal or a group of animals through all its life.

### **Objective:**

Describe the types of AT systems and their requisite elements that should be developed, considering the local situation and the objectives for which it is being implemented.

# Section IV: Animal traceability

Concept:



I&R is a prerequisite of a functional AT system, and that the latter cannot be developed until the former is in place

## Section V: Animal health information

### **Objective:**

describe the elements of an AHI system and provide guidance on how they may be used and integrated with other relevant systems

→ See next talk by Paolo Calistri

## Section VI: Performance recording

### Preamble:

*FAO Secondary Guidelines for Development of National Farm Animal Genetic Resources Management Plans - Animal Recording for Medium Input Production Environment*

<http://www.fao.org/ag/againfo/programmes/en/lead/toolbox/indust/anim-rec.pdf>

### Objective:

Put PR in more general context of national animal recording, highlighting the linkages between PR, I&R, AT and AHI.

Describe the different types of PR, and the elements of such systems, as well as the data that should be collected or provided in each case.

- Examples based mainly on dairy recording

# PART 3: PUTTING THE CONCEPT INTO PRACTICE

## Section VII: Developing the strategic plan

### **Objective:**

Provide guidance on how to develop a strategic plan for establishing an integrated multipurpose animal recording system, taking into account the specifics of its components.

### **Tasks:**

1. Assess the current situation in the country
2. Identify the stakeholders and their needs
3. Draft the strategic plan to establish an animal recording system

## Section VIII: Designing and developing the IT system

### **Objective:**

Provide guidance for procuring or developing a software application for an integrated multipurpose animal recording system and for setting up the necessary computer hardware

### **Tasks:**

1. Establish an IT project group responsible for the preparation of the URS
2. Organize preparatory field visits and interviews of key stakeholders
3. Define the objectives and scope of the IT system
4. Provide a general description of the required software

## Section VIII: Designing and developing the IT system

### **Objective:**

Provide guidance for procuring or developing a software application for an integrated multipurpose animal recording system and for setting up the necessary computer hardware

### **Tasks:**

5. Describe in detail the functionalities of the software
6. Describe the technical requirements
7. Validate the URS and the mock-up
8. Call IT companies for tender
9. Develop and test the animal recording IT system

## Section IX: Evaluating investment decisions

### **Objective:**

Provide the user with a clear breakdown of costs and benefits of an animal recording system, particularly animal identification, registration and traceability system, to facilitate their evaluation and to identify ways to make an equitable distribution of costs between the beneficiaries

### **Tasks:**

1. Identify and evaluate the costs
2. Identify and evaluate the benefits
3. Evaluate the cost-benefit relationship
4. Define the requirements for sustainability

## Section X: Developing the legal framework

### **Objective:**

Provide the reader with an overview of the key steps and considerations that must be addressed in order to develop a legal framework for an animal recording system, and to highlight key policy and regulatory decisions to be made when implementing such a system

### **Tasks:**

1. determine the purpose and scope of the animal recording system
2. consider all relevant international frameworks
3. identify all relevant areas of existing national regulatory frameworks

## Section X: Developing the legal framework

### **Objective:**

Provide the reader with an overview of the key steps and considerations that must be addressed in order to develop a legal framework for an animal recording system, and to highlight key policy and regulatory decisions to be made when implementing such a system

### **Tasks:**

4. determine an appropriate national legal framework for an animal recording system
5. develop suitable legislation

## Section XI: Implementing the animal recording system

### **Objective:**

Provide guidance on how to implement the integrated multipurpose animal recording system, based on the established strategic plan

### **Preamble:**

Before any animal recording system is deployed in a large area, it is always advisable to test all its functionalities in a pilot area

Both in the pilot region and during roll-out, the implementation activities can be categorized within three phases:

1. The preparatory phase
2. The execution phase
3. The maintenance phase

## Section XI: Implementing the animal recording system

### **Objective:**

Provide guidance on how to implement the integrated multipurpose animal recording system, based on the established strategic plan

### **Tasks:**

1. The preparatory phase
  - a. Set up the enabling environment
  - b. Deploy the personnel and train them
  - c. Prepare public awareness materials
  - d. Field test the software application
  - e. Procure relevant equipment and consumables
  - f. Prepare a budget and secure funding

## Section XI: Implementing the animal recording system

### **Objective:**

Provide guidance on how to implement the integrated multipurpose animal recording system, based on the established strategic plan

### **Tasks:**

#### 2. The execution phase

- a. Train the identified field staff
- b. Launch a public awareness campaign
- c. Procure and distribute the required equipment and consumables

Then, all or some of the following tasks

- d. Implement I&R/ AT/AHI/PR field activities

## Section XI: Implementing the animal recording system

### **Objective:**

Provide guidance on how to implement the integrated multipurpose animal recording system, based on the established strategic plan

### **Tasks:**

#### 3. The maintenance phase

→ activities initiated are carried forward with increased vigour and efficiency

## Development & validation of the Guidelines

- Draft Outlines developed in collaboration with ICAR-WG-DC
- 1<sup>st</sup> expert meeting (Oct. 2011) to discuss the draft outlines
- 2<sup>nd</sup> expert meeting (June 2013) to review the 1<sup>st</sup> draft GL
- 3<sup>rd</sup> expert meeting (June 2014) to review the 2<sup>nd</sup> draft GL
- 4 workshops (Botswana, Tunisia, Chile and Morocco), attended by a total of 236 scientists, technicians, and policy-makers, from 57 countries, contributed to validate the outlines, shape the conceptual approach and integrate the lessons learned from countries experiences

## Acknowledgements

In total, 13 experts from 10 countries contributed to the preparation of the GL

- Kamlesh Trivedi, Cuthbert Banga, Ole Klejs Hansen, Thomas Armbruster, Paolo Calistri, Gabriel Osorio, Daniel Trocmé and Graham Hamley have written and reviewed several sections of the guidelines
- Hans Jürgen Schild, Erik Rehben, Mohammed Bahari, Japie van der Westhuizen, Omrane ben Jamaa, and Ferdinand Schmitt have contributed in the discussions of the outlines of the guidelines and/or in the review of the document