Animal identification for traceability and performance recording : FAO's multipurpose and integrated approach

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Global context

- Massive increase in demand for food of animal origin

- Longer and more complex transport and value chains

- Intensification of production systems and development of industrial private sector

- Reduction of public investment, transfer of certain services to private sector and awareness of shared responsibility

- Awareness of consumers about food safety, quality, animal welfare and the environment

Global context

Meat: Million metric tons

Legend: Developing (red), Developed (blue)
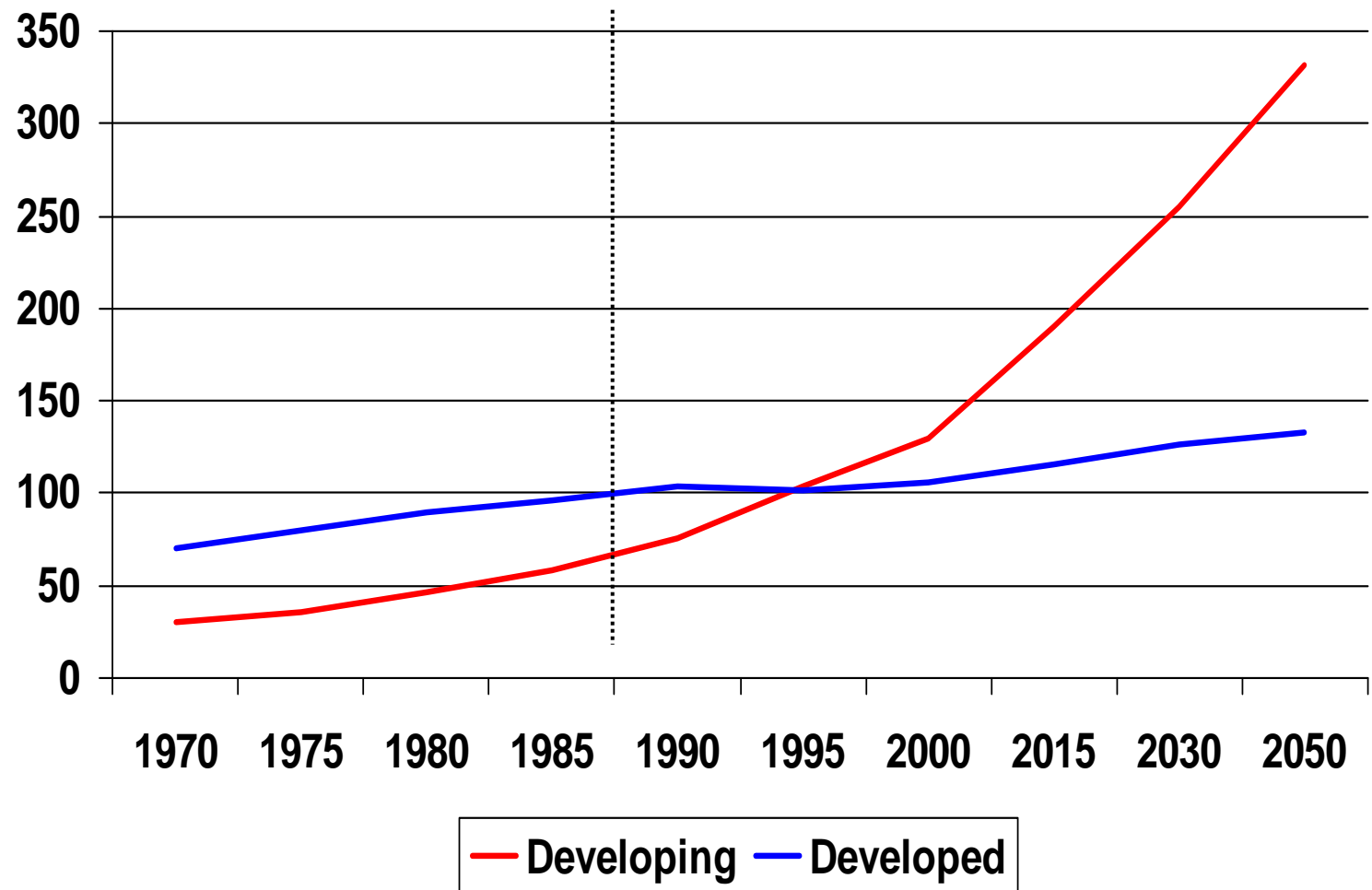
Farming systems evolution in Dvl'g Countries

from:

- Smallholder mixed **to** large-scale industrial
- Multifunctional **to** commodity-specific
- Local market **to** globally integrated markets
- Scattered **to** clustered production
- Diverse breeds/varieties **to** narrow genetic base
- Increasing dichotomy between large and small/middle size farms

Animal identification, traceability and performance recording

Definitions

- Animal identification is the marking of an animal, individually or collectively by its group, with a unique individual or group identifier

- Animal identification system is the inclusion and linking of components such as identification of establishment / owner(s), the person(s) responsible for the animals, movements and other records with animal identification

- Recording is the process by which data including parentage, characteristics, performance and relevant events, are collected, recorded and securely stored and made appropriately accessible to the users.

Definitions - Traceability

- **ISO8402:** The "aptitude to find the history, the use or the localisation of an entity by means of recorded identifications"

- **Codex definition (27th CAC 2004):** Traceability/product tracing: The ability to follow the movement of food through specified stage(s) of production, processing and distribution.

- **OIE:** The ability to follow an animal, or group of animals, during all stages of its life

AI: Important tool for many purposes

- Farm management
- Genetic improvement
  - *basis for pedigree and performance recording*
  - *artificial insemination schemes*
- Biodiversity management
- Prevention & control of zoonosis & other animal diseases

- Trade opportunities
  - *trade certification and access to markets for higher quality and geographically identifiable products*
- Proof of ownership
  - *subsidy payment schemes*
- Theft control

AI & traceability as tools to

Protect public health (food safety)

- identify, trace and control animal movements
- identify, trace and recall unsafe foods (and feeds) at any stage of the food production and distribution chain
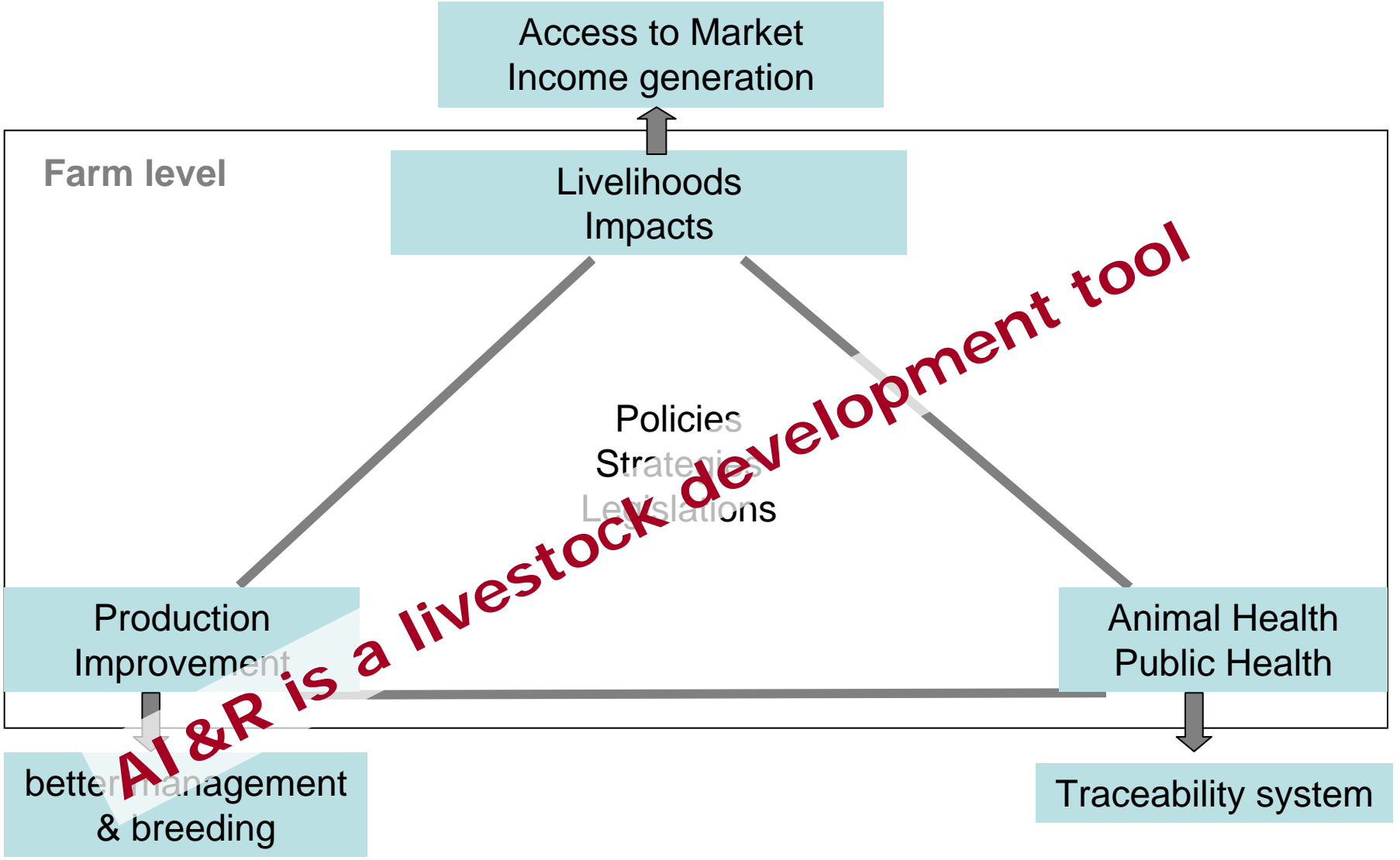- tool of risk management

Plant and animal health

- Ensure inspection and certification for animal health

Ensure fair practices in food trade (WTO TBT Agreement)

- protect from deceptive practices and fraud in the market place and unsubstantiated product claims (e.g. geographic indication, food quality)

AI&R: FAO Multipurpose integrated approach

Access to Market
Income generation

Farm level

Livelihoods
Impacts

Policies
Strategies
Legislations

Production
Improvement

Animal Health
Public Health

AI&R is a livestock development tool

better management
& breeding

Traceability system

This multipurpose and global approach increases acceptance and distribution of costs among all stakeholders

Players – National level

- **Breeders organisations**
  - Production recording
  - Herd book and IPR
  - AI and breeding programme management

- **Competent authorities**
  - Traceability
  - Public health
  - Animal health and welfare
  - Animal movement

- **Livestock and food industry**
  - Market access
  - Traceability
  - Product branding

Players – International level

- Standard and guideline setting

  WTO, OIE, Codex Alimentarius (FAO/WHO), ICAR, ISO, private/retail/processing

- Support to standards implementation

  FAO, World Bank and other funding agencies, Livestock and food industry

FAO

4000 staff - 192 Members

FAO

regional offices

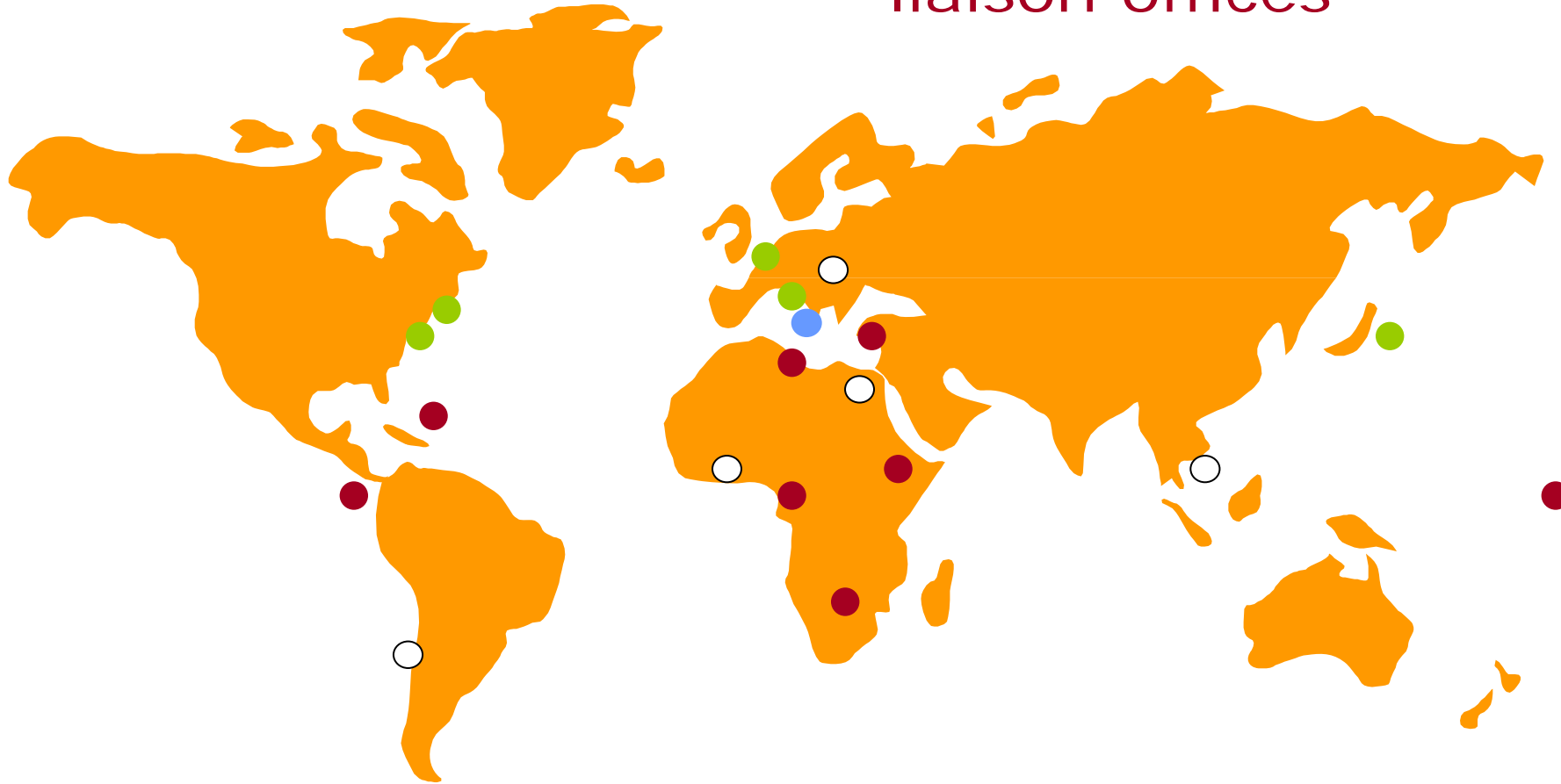4000 staff - 192 Members

FAO

sub-regional offices

4000 staff - 192 Members

FAO

liaison offices

Seventy-eight Country Representations

4000 staff - 192 Members

FAO

- National Counterpart: Ministry of Agriculture, Livestock, Environment, Health, Planning, etc

- Partners: international conventions and bodies, REO, CGIAR/ARIs/NARS, NGOs, private sector

FAO's Global Goals

- reduction of number of people suffering from hunger;

- elimination of poverty, increased food production, enhanced rural development and sustainable livelihoods;

- sustainable management and utilization of natural resources for the benefit of present and future generations.

Based on FAO's comparative advantages:

- putting information within reach

- sharing policy expertise

- providing common fora for countries and stakeholders

- bringing knowledge to the field

FAO's activities in AI&R

- Technical cooperation projects for formulating legislation and designing national AI&R systems; e.g. Chile, Uganda, Malawi, Lesotho, Moldova, Ukraine, India, Swaziland, Tanzania,….

- Organization of joint FAO-ICAR workshops: Tunisia, 2011, Hungary 2008; Finland 2006; Tunisia 2004; Switzerland 2002; Slovenia 2000; Poland 1998; India 1997

- Develop/update guidelines for AI&R, with focus on small-scale production

- Support to ICAR WG for Developing Countries

guidelines for AI & R

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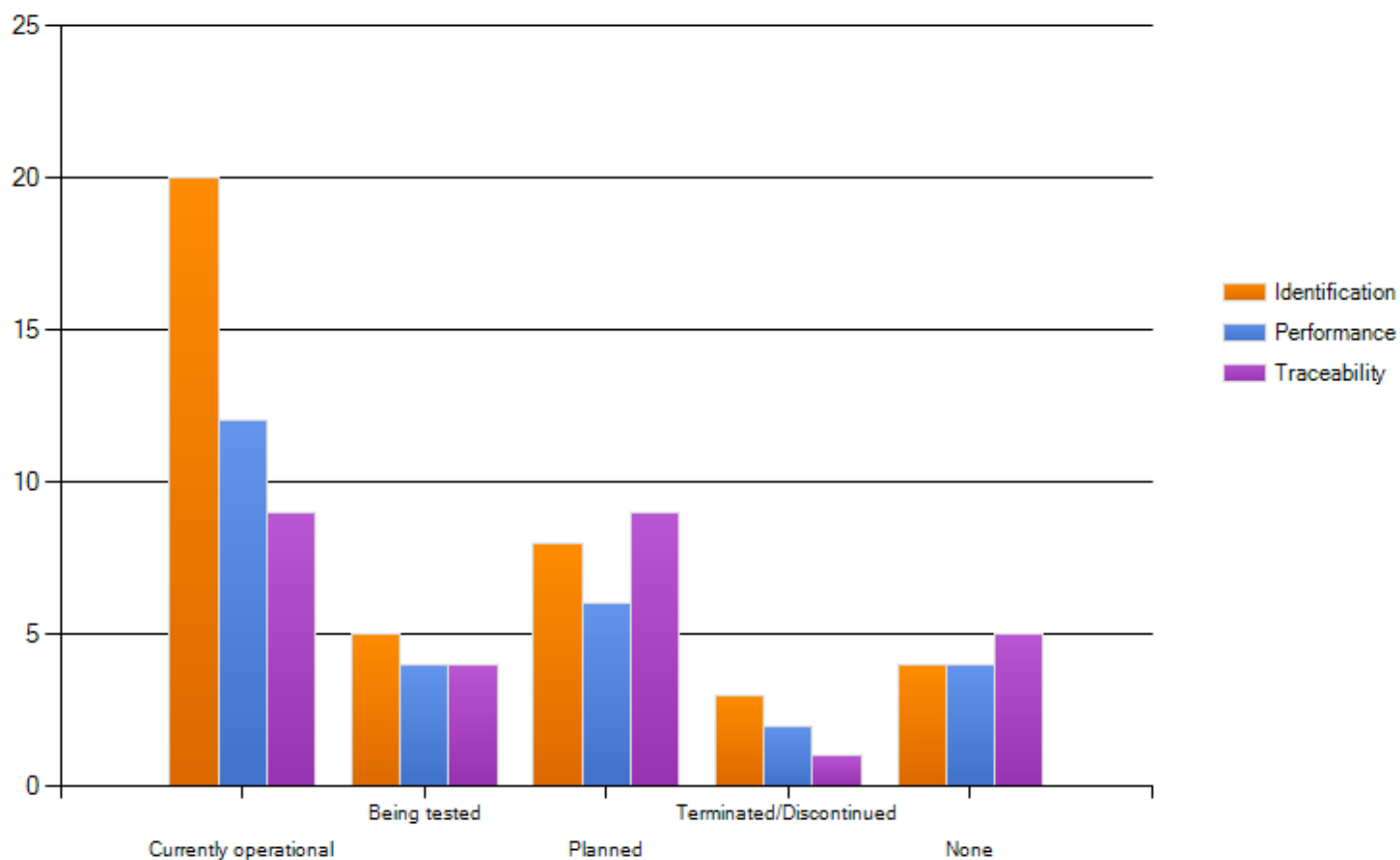
FAO Survey

Objectives:

- What is the current situation? Threats & Opportunities?
- What lessons can we learn?
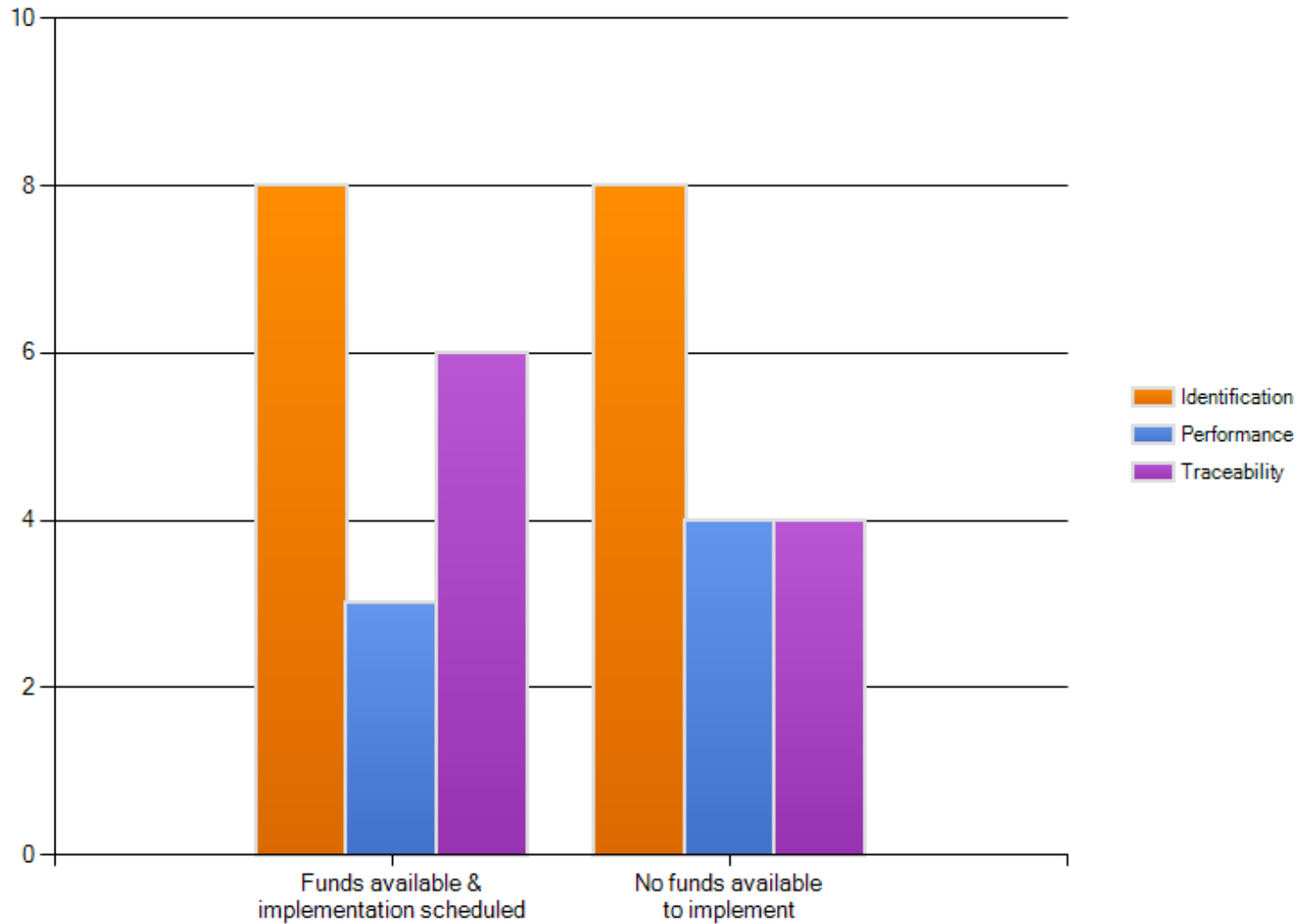
Survey (Questionnaire)

- Existing systems (running, planned or being implemented)
- Purpose(s)
- scope
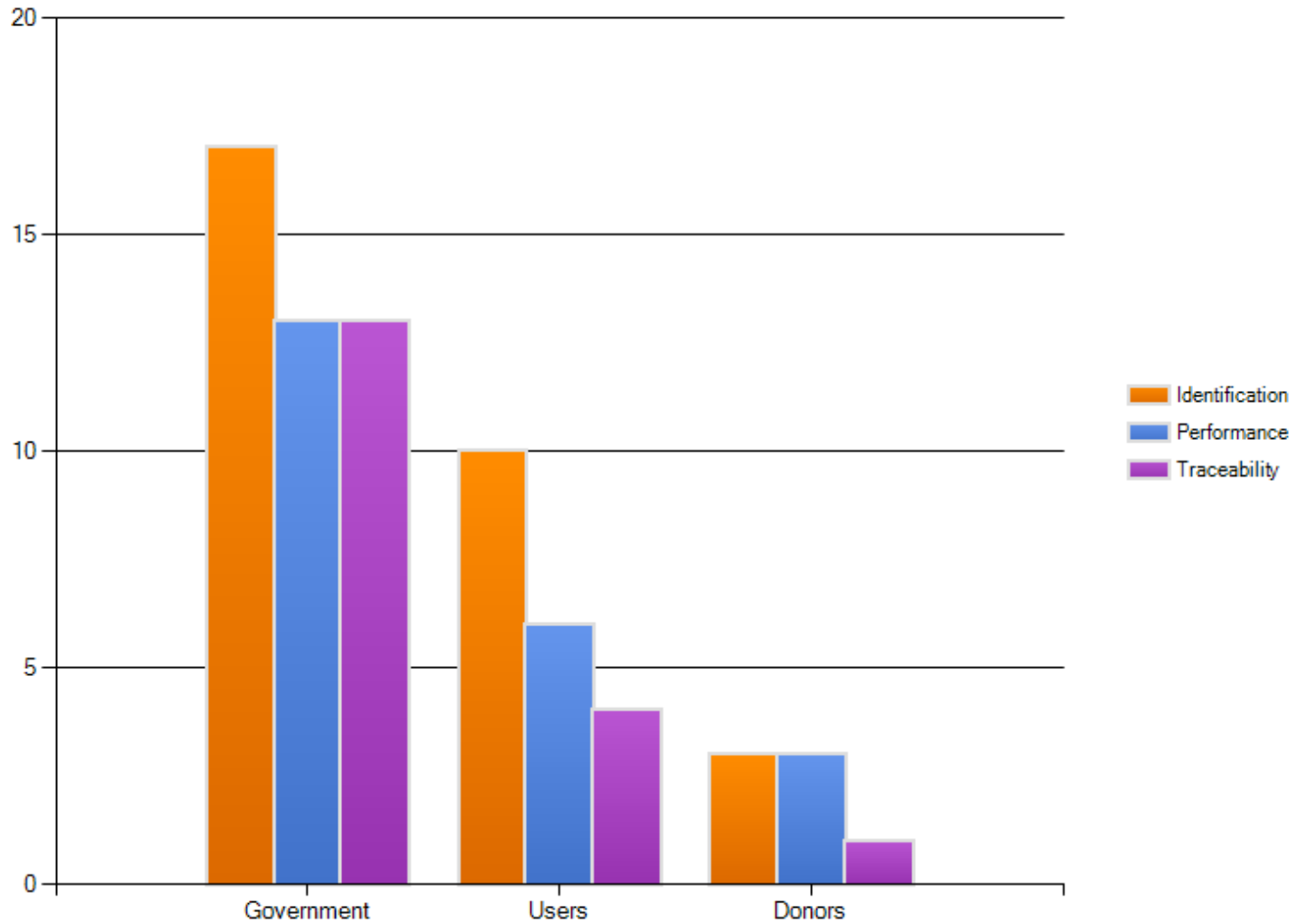- Funding
- Type of production system
- …

Do you have any animal identification and recording systems in your country?
**

<i>Definitions: </i>
<i>A system is being tested if it has been running for less than 5 years. </i>
<i>A system is considered planned if there is an agreed strategy to implement by the stakeholders. </i>
<i>There may be different systems of the same type at different stages in a country (e.g. 2 performance recording systems, 1 operational & 1 being tested)</i>**

Legend:
- Identification (orange)
- Performance (blue)
- Traceability (purple)

Categories (x-axis): Currently operational, Being tested, Planned, Terminated/Discontinued, None

If systems are planned, what is the progress towards implementation?

Legend:
- Identification
- Performance
- Traceability

How is the system funded?
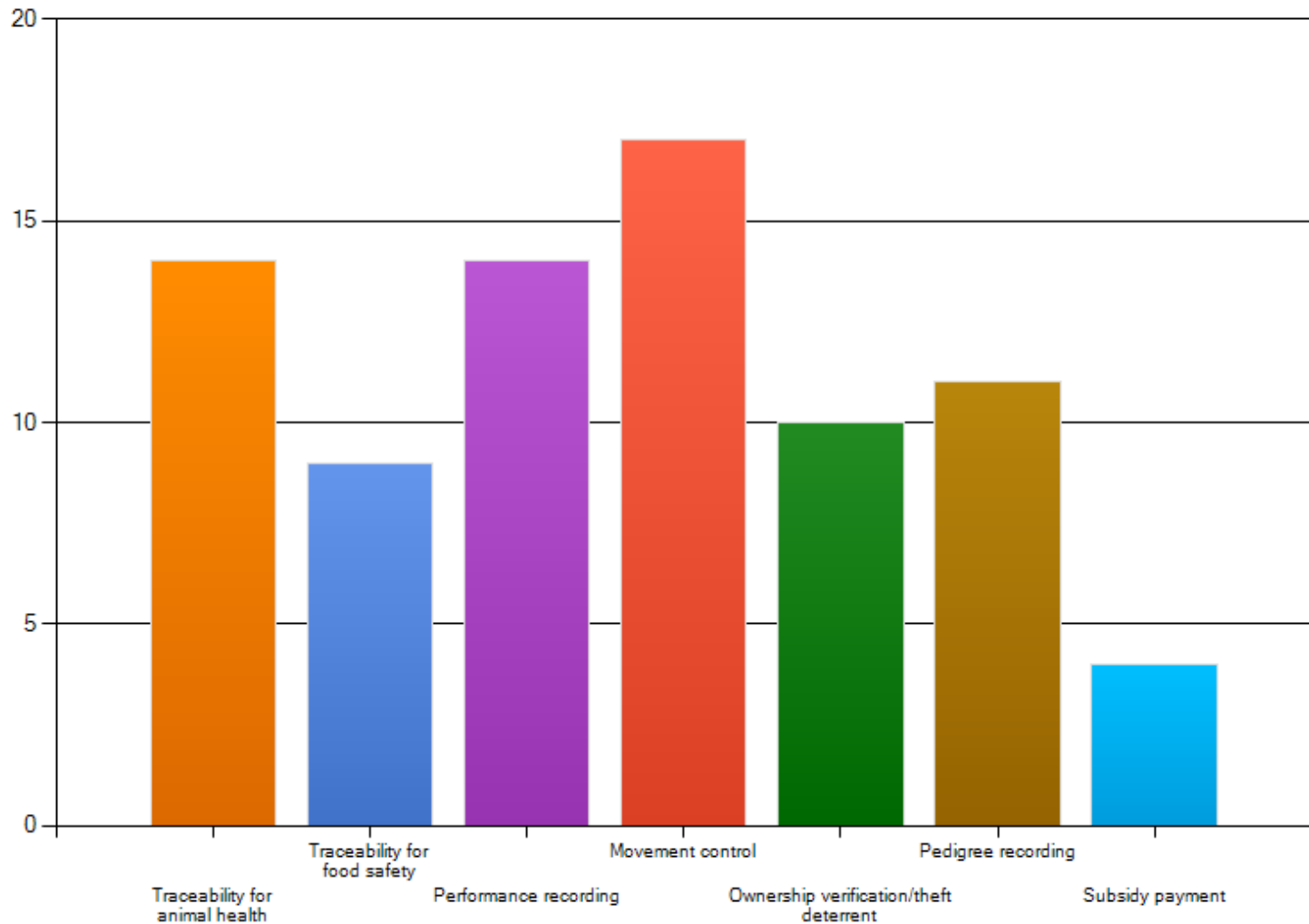
Legend:
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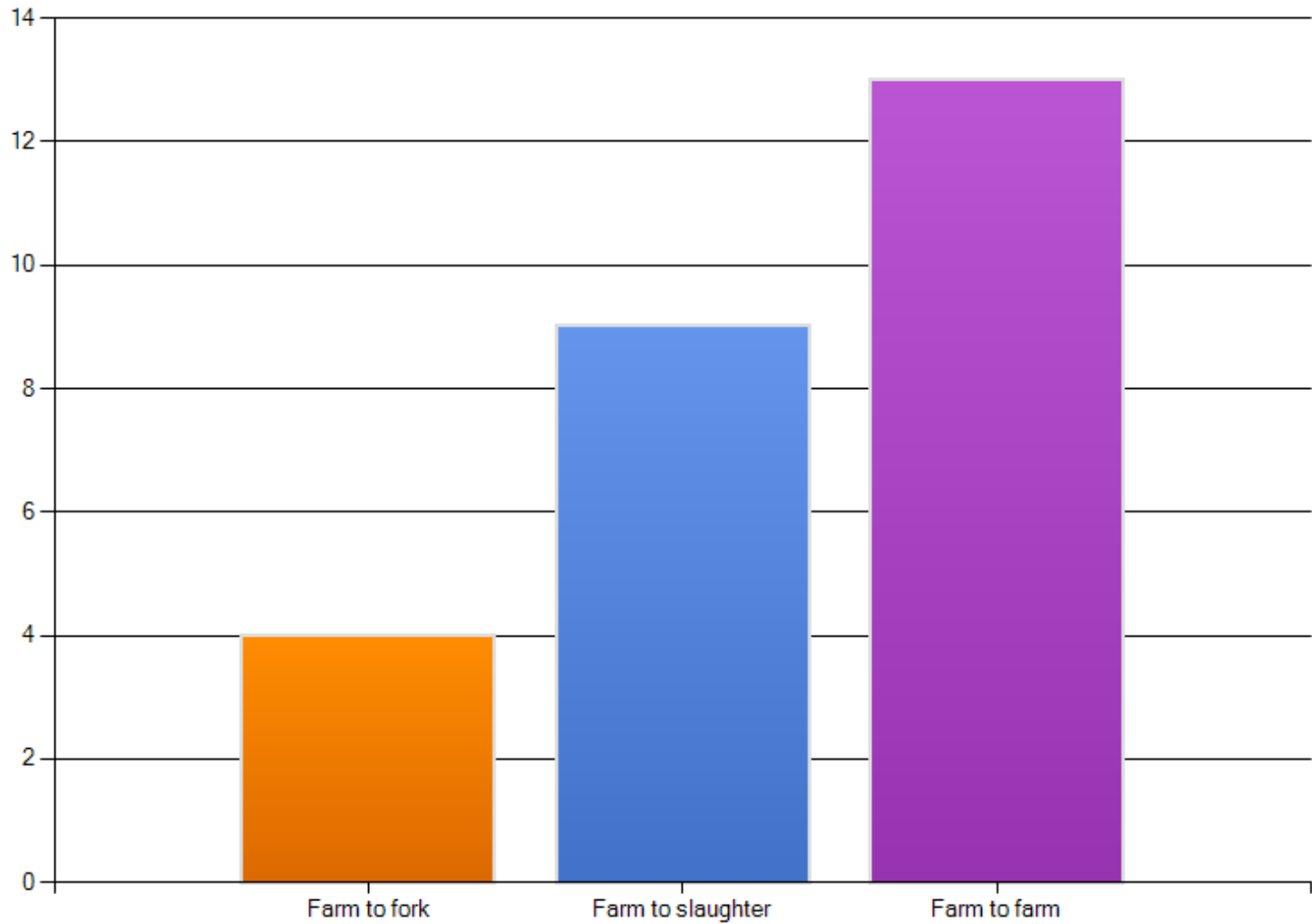What are the purpose(s) of the identification systems in your country?

What is the extent of the traceability systems that operate in your country?

Category	Value
Farm to fork	4
Farm to slaughter	9
Farm to farm	13

What performance recording systems exist in your country?
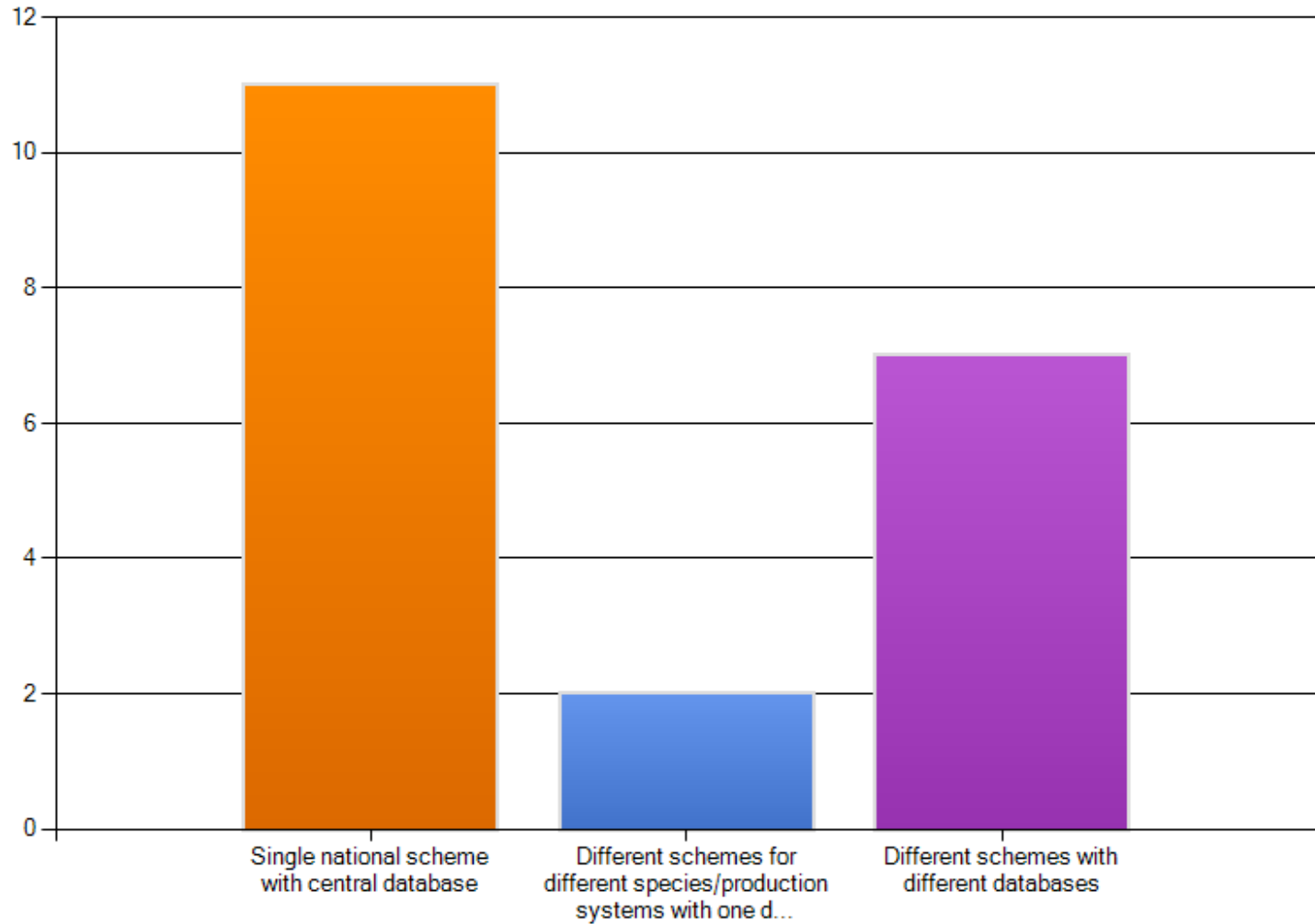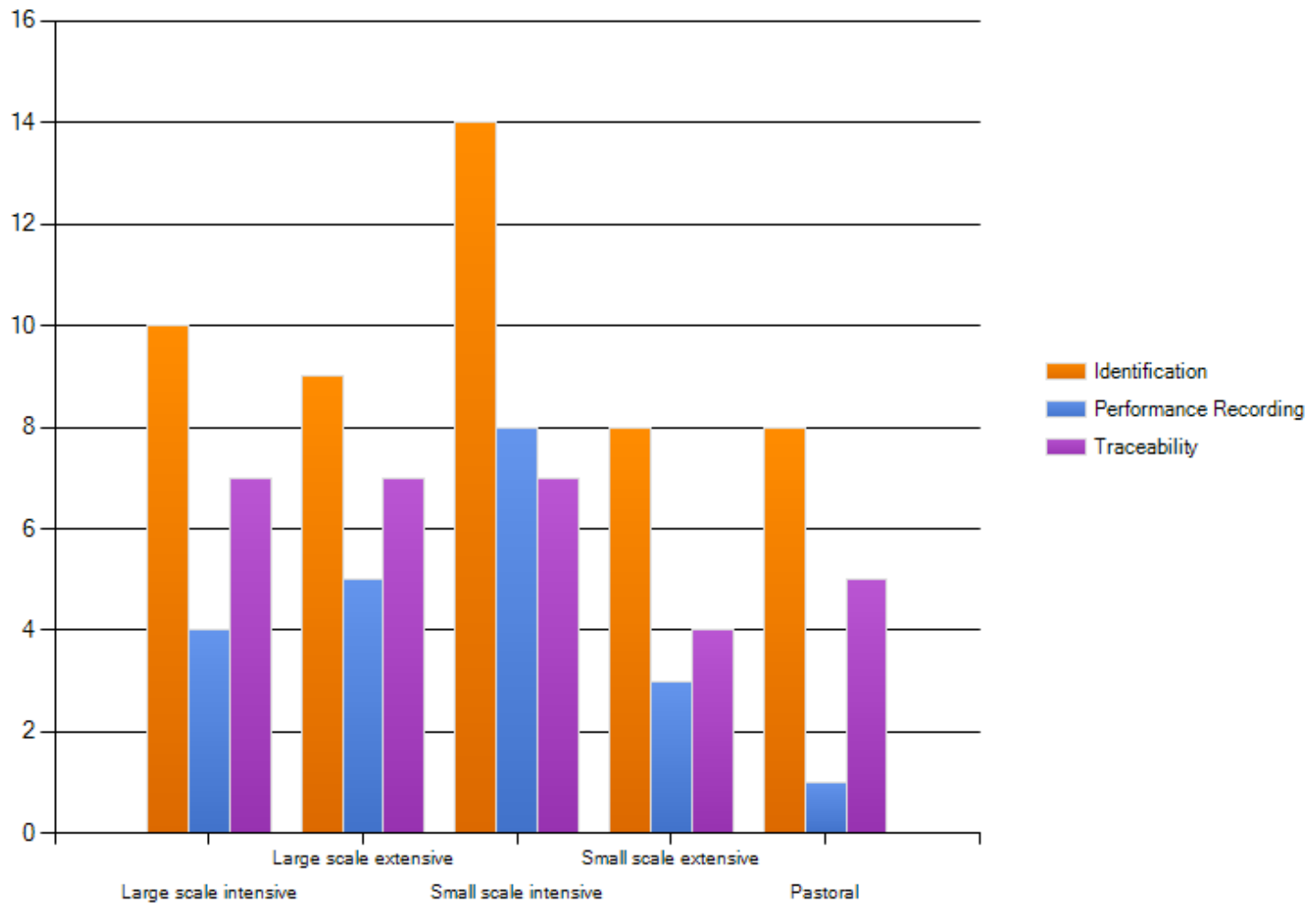
What are the purposes of your country's performance recording systems?
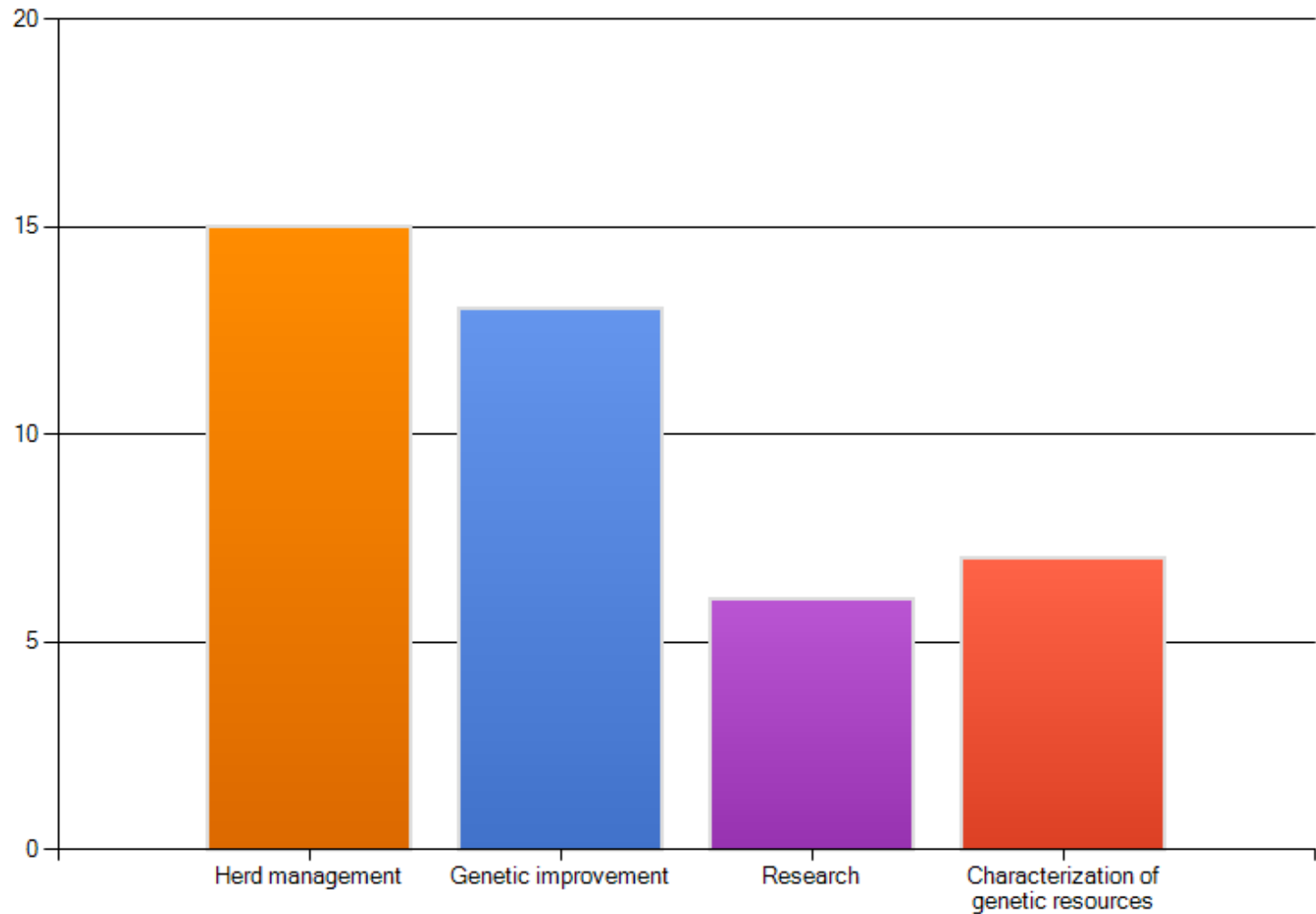
What are the main production systems with recorded animals in your country?

Legend:
- Identification (orange)
- Performance Recording (blue)
- Traceability (purple)

Categories: Large scale intensive, Large scale extensive, Small scale intensive, Small scale extensive, Pastoral

Challenges

- Countries' relations: trade (WTO, TBT, SPS)
- Lack of political will, esp. in absence of direct motivation (trade)
- Lack of resources (human and financial) in developing countries to implement traceability
- Lack of infrastructure and support services
- Need for a better collaboration and coordination among international players

What can FAO do more ?

- Reinforce capacity building and support to countries to implement compliant identification, traceability and perf. recording systems

- Ensure coordination with other international players, especially at the country level

- Play a bigger role in policy and standard setting - FAO may try to influence international agreements/standards so they focus more on results rather than the method