

Partnership on the environmental benchmarking of livestock supply chains

an introduction

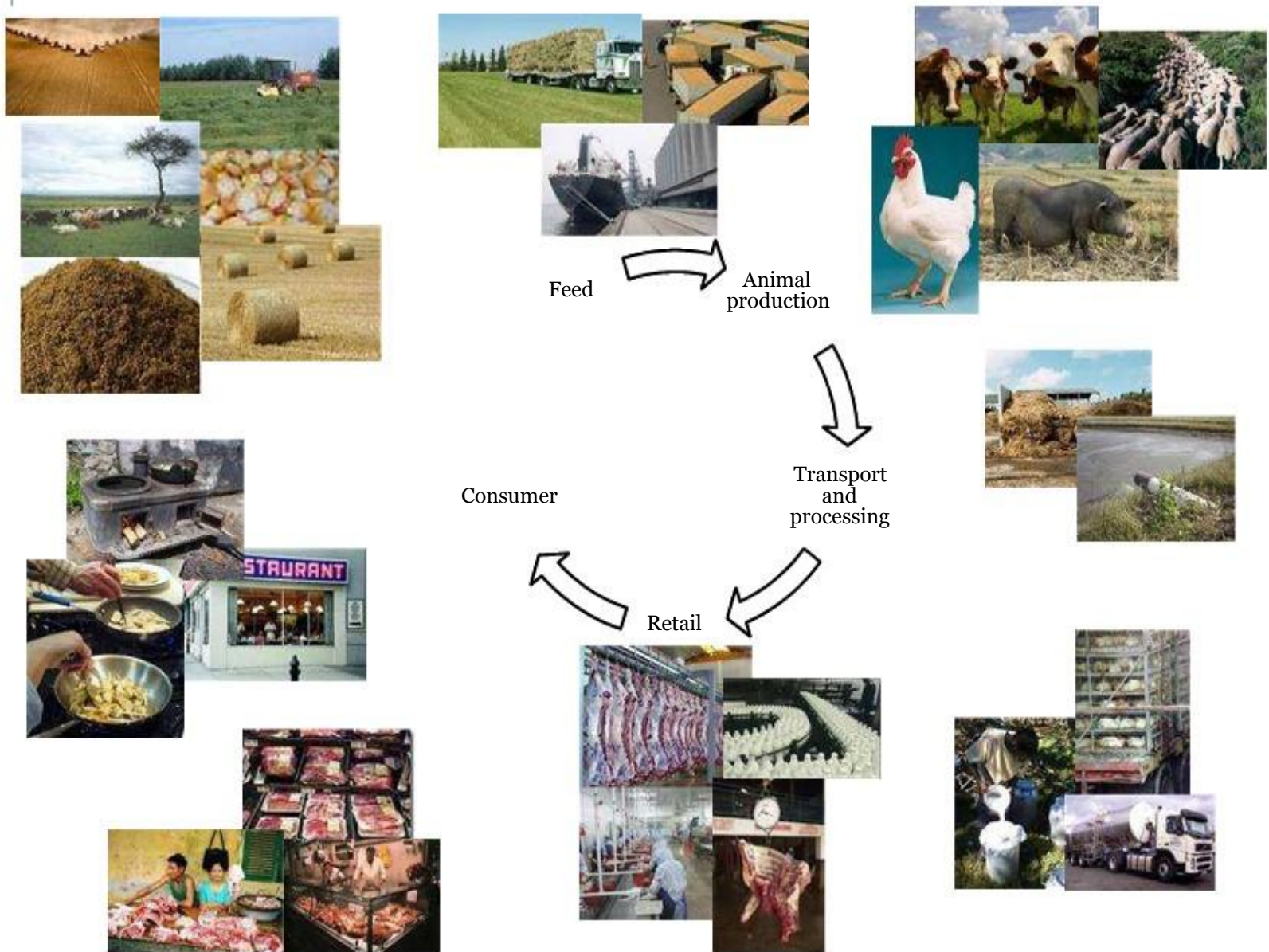
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Point of Departure - raising challenges

- Demand will continue to grow and needs to be accommodated within finite resources
- The livestock sector is resource-hungry
- The sector has specific resource issues
 - Low NRU efficiency
 - geographic dispersion (extensive systems)
 - geographic clustering (intensive systems)
- Potential for social, health and economic gains needs to be seized
- The need for connecting actors and for joint action

An overview of livestock food chains (LFC)



Partnership on the environmental benchmarking of livestock supply chains

Rationale

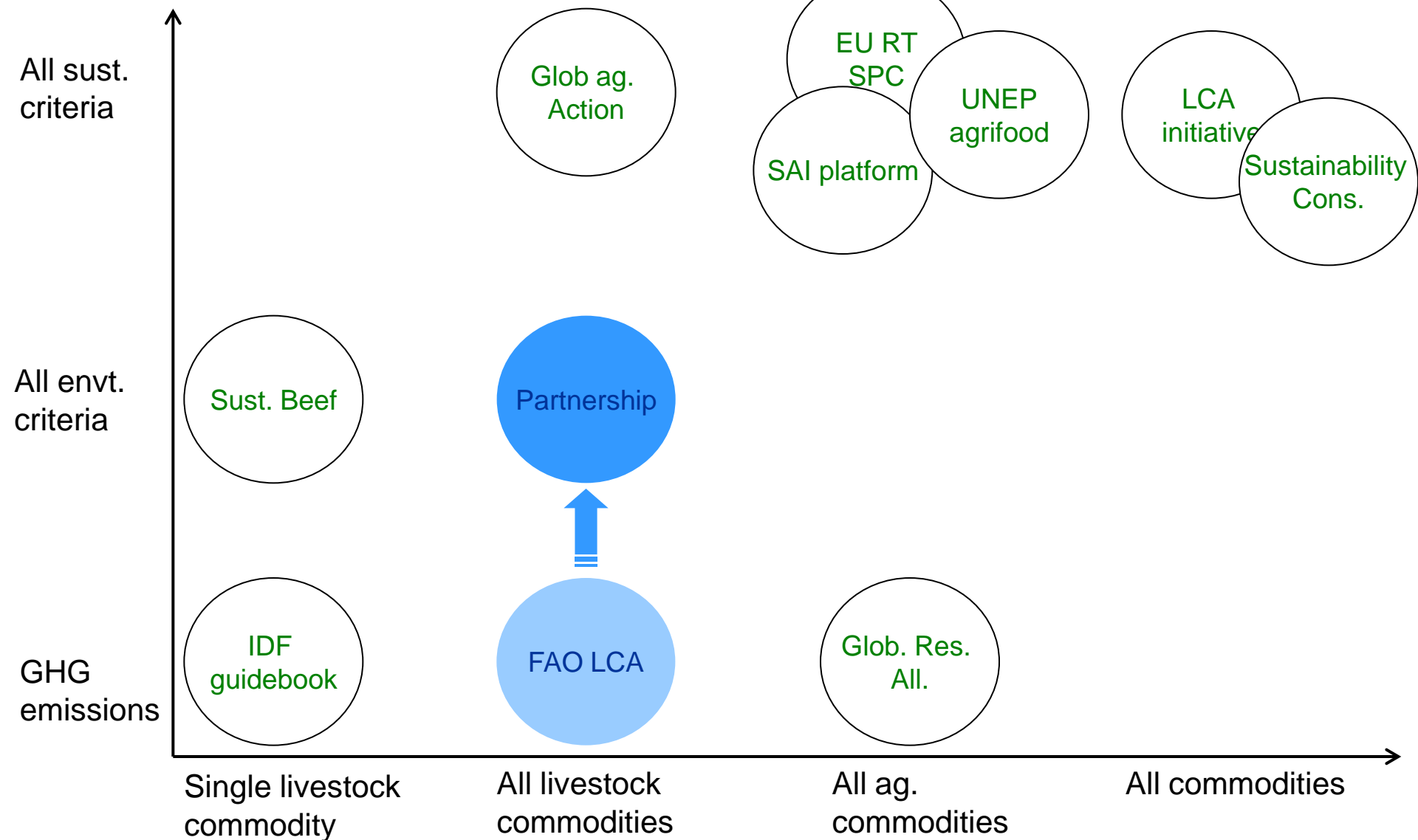
- Lack of balanced, detailed, yet comprehensive data on environmental performance
- Environmental performance benchmarking is on the horizon
- “You manage what you measure”
- Need to build a broadly accepted framework to guide and monitor progress

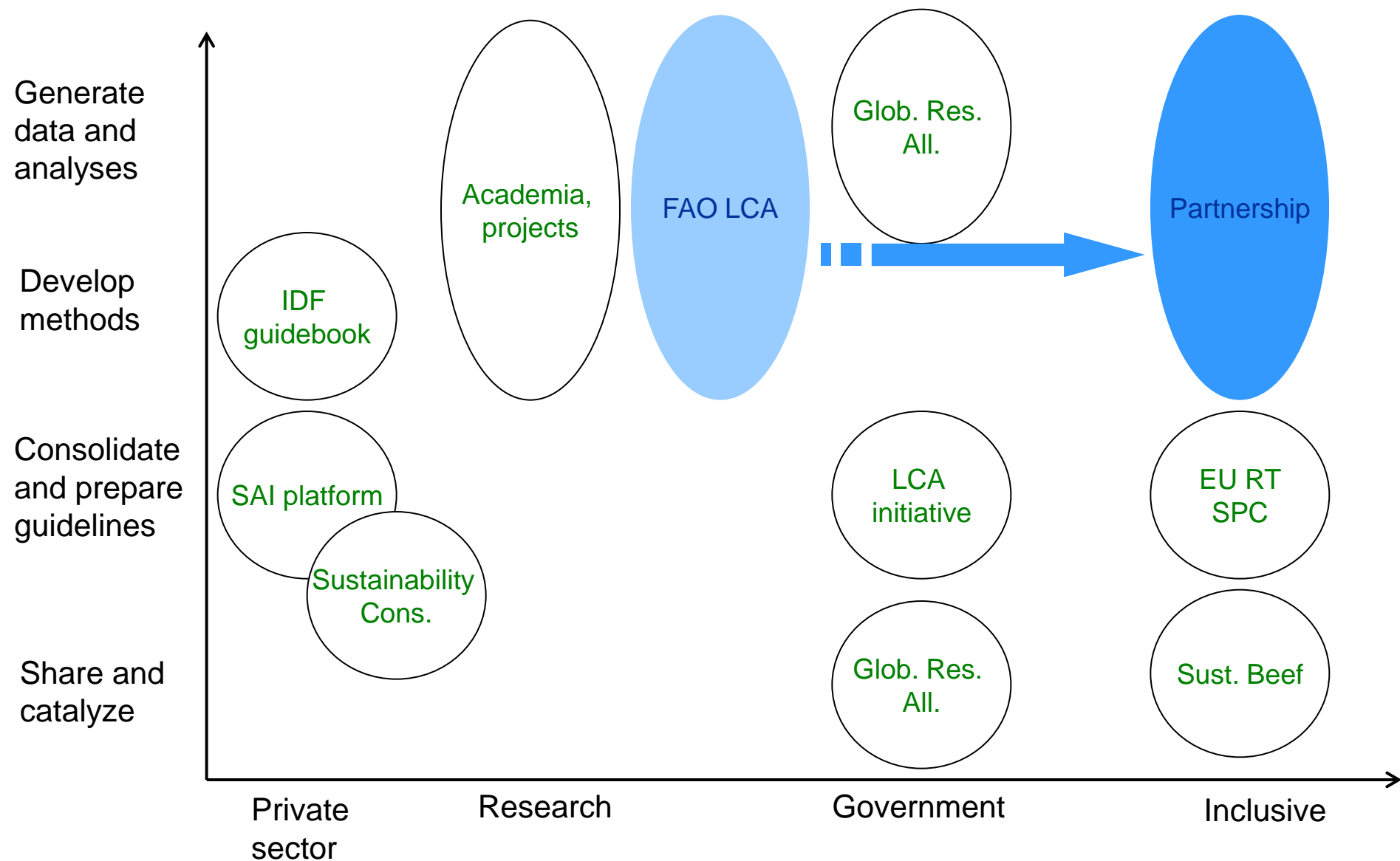
A multitude of related initiatives

- Global Research Alliance
- European Food Sustainable Consumption and Production Round Table
- Global Roundtable for Sustainable Beef
- Sustainability consortium
- SAI platform
- Global Agenda of Action
- UNEP - Sustainable production and consumption in the agrifood sector
- UNEP/SETAC International Life Cycle Initiative
- Common Carbon Footprint Approach for Dairy: The IDF guide to standard lifecycle assessment methodology for the dairy sector
- Carbon Footprinting of Animal Nutrition, Agri-BALYSE, Animal Change
- Sustainability consortium
- ...

What is specific to the partnership we envisage?

- Focus on livestock food chains
- Develops metrics and methods to guide environmental performance improvement: benchmarking and monitoring
- Range of environmental criteria: GHG emissions, water, nutrient cycles, etc.
- Rely on a core analytical capacity and related databases
- Multi-stakeholder: private sector organizations, Governments, civil society





Core activities for years 1-3

- **Component 1:** Sector-specific guidelines and methods for the Life Cycle Assessment of GHG emissions from livestock food chains
- **Component 2:** Global database of GHG emissions related to feed crops
- **Component 3:** Measures of non-GHG environmental performance of livestock food chains
- **Component 4:** Communication

Component 1: Development of sector-specific guidelines and methods for the LCA of GHG

- Builds on existing efforts to generate sector specific guidelines
- Harmonized
 - agreed across livestock sectors
 - agreed across stakeholders
 - compliant with ISO standards
- Have an impact on practices and results
 - towards a common language on environmental performance
 - enabling practitioners to carry out assessments

Component 1: Development of sector-specific guidelines and methods for the LCA of GHG

Work plan for first year

- Consolidation , harmonization, development of sector specific guidelines

Outputs

- Cross-cutting guidelines:
 - soil carbon and LU (and LUC)
 - improving detail and consistency of input data
- Comprehensive sector specific guidelines:
 - feed, chickens (meat and eggs), small ruminants (meat and milk): Draft guidelines
 - pork and beef: Review of existing guidance and scoping
 - dairy (cow): No new guidelines - contribute to the review of the IDF guidelines

Component 2: Global database of GHG emissions related to feed crops

- In collaboration with existing projects (Feedprint, Agribalyse, FAO LCA)
- Global database disaggregated by:
 - commodities,
 - main production systems
 - world regions and
 - agro-climatic zones
- All major GHG emissions quantified, include changes in carbon stocks associated with land use and land use change

Tentative approaches for evaluation of emissions

Importance as a source of GHG emissions	Feedstuff	Approach
High: crops contributing >5% of total feedcrops – 72% of feed crops by mass in total	Maize Soybean Wheat Barley Cassava	Full analysis , first year
Moderate: crops contributing 1-5% of total feedcrops – 18% of feed crops by mass in total	Potatoes Vegetables, Other Sweet Potatoes Sorghum Sugar Cane Rape and Mustard seeds Rice (Milled Equivalent) Cereals, Other Oats	Partial analysis, focusing in crops with known high GHG intensity (e.g. rice) and geographical areas with high concentrations of these crops.
Low	All crops that are less than 1% of total feed production.	Reduced analysis with less disaggregation, based on secondary data.

Component 2: Global database of GHG emissions related to feed crops

Work plan for first year

- Focus on:
 - quantification of emissions arising from land use and land use change
 - develop a global database

Outputs

- First version of database for:
 - maize
 - soybean
 - wheat
 - barley
 - cassava

Component 3: Measures of non-GHG environmental performance of livestock food chains

- Focus on
 - water consumption, scarcity and impacts
 - impact on nutrient cycles and resources (with emphasis on efficiency and impacts on water quality)
 - biodiversity
- LCA may not be the sole approach but we will look for quantification (metrics)
- Simple indicators (no aggregation rule), which will be subject to review and improvement over time.
 - net impact, i.e. including both the negative and positive effects of food production

Component 3: Measures of non-GHG environmental performance of livestock food chains

Work plan for first year

- Upstream work on water, nutrient and biodiversity
- Test water consumption and water impact indicators with FAO LCA model, research projects on nutrients and biodiversity

Outputs

- Preliminary proposal for water use indicators
- Appraisal of methods for evaluating nutrient and biodiversity related impacts

Component 4: Communication

Objectives

- Raise the profile of the Partnership and facilitate its development
 - Ensure that the work of the Partnership well understood and presented
 - towards a common message
 - Provide context
 - Disseminate the methods clearly will facilitate critical feedback and enable refinement over time.
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- Will rely on a number of supports - technologies

Component 4: Communication

Work plan for first year

- Focus on:
 - raising awareness of the existence and purpose of the Partnership
 - attract new Participants
 - providing channels for internal

Outputs

- Website
- Brochure

Organizational structure (i)

- The Participants

- all members who adhere to the Partnership's goals and objectives and have signed the Partnership's Agreement.
- Access documentation for discussion, propose comments and experts to the SC

- Steering Committee

- composition reflects the various constituencies: representatives from the private sector, FAO member countries and NGOs/CSOs
- advisers (ISO, UNEP, Academia)
- reviews and approves workplan, budget and outputs, coordinates (inward and outward)

Organizational structure (ii)

- Secretariat
 - hosted at FAO
 - manages and contributes to the implementation of the activities
- Technical Advisory Groups
 - experts selected for their knowledge of the methods and sector
 - support the implementation of the work programme

Participants to date

- Governments: France, Ireland, Netherlands, New Zealand
- Private Sector organizations: IFIF, FEFAC, FEDIOL, AFIA, IDF, IPC, IEC, IMS, UECBV, IFAH
- NGOs : WWF, WRI, IPC, CSM
- Standard organization: ISO
- Intergovernmental organization: UNEP

<http://www.fao.org/ag/againfo/livestock-benchmarking>