

SALSA GENERAL CONFERENCE  
Brussels/Bruxelles  
March 19 2014

# SALSA Project Results

Cesare Zanasi - Bologna University: presenter  
SALSA Partners: the makers

# EU and Latin American policy makers committed to sustainability

## Madrid Commitment conclusions of the joint EU- Latin America & the Caribbean Summit in 2002

“We need to ... take into account the importance of sustainable development, poverty eradication, cultural diversity, justice and social equity. We believe that furthering our integration processes and **increasing trade** and investment are important means of enhancing access to the benefits of globalization.”

(EU Commission Communication Department, 2002)

## AIMS

Sustainable development of  
Latin American soy and beef  
supply chains

Enhance EU beef and soy  
related industries  
competitiveness and  
sustainability

## THROUGH

### Enhancing the knowledge of

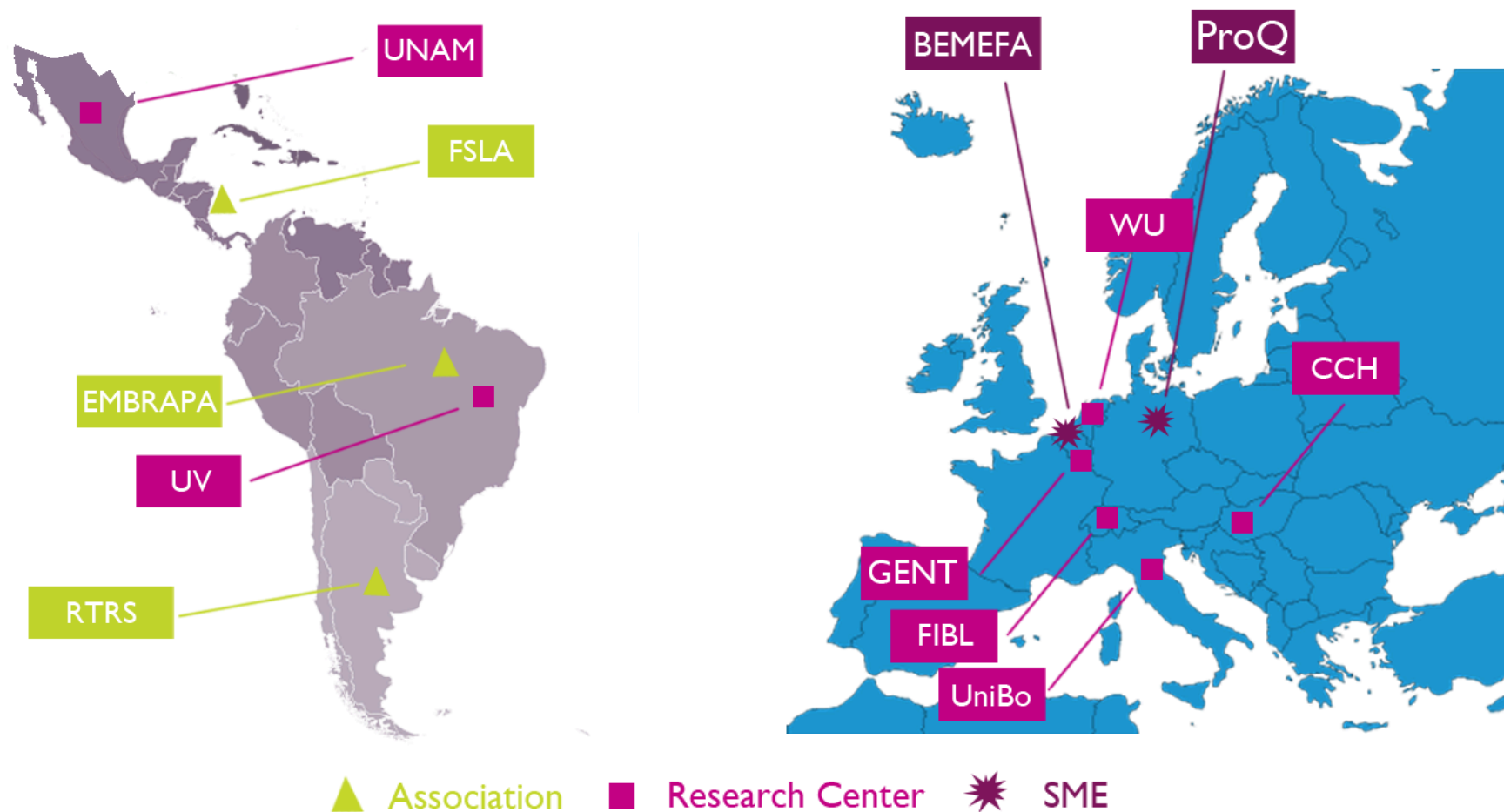
Related Latin American and EU  
environmental, economic and social  
contexts

The different dimensions of sustainability  
and their relevance for the beef and soy  
Lat. Am and EU chains

## Testing

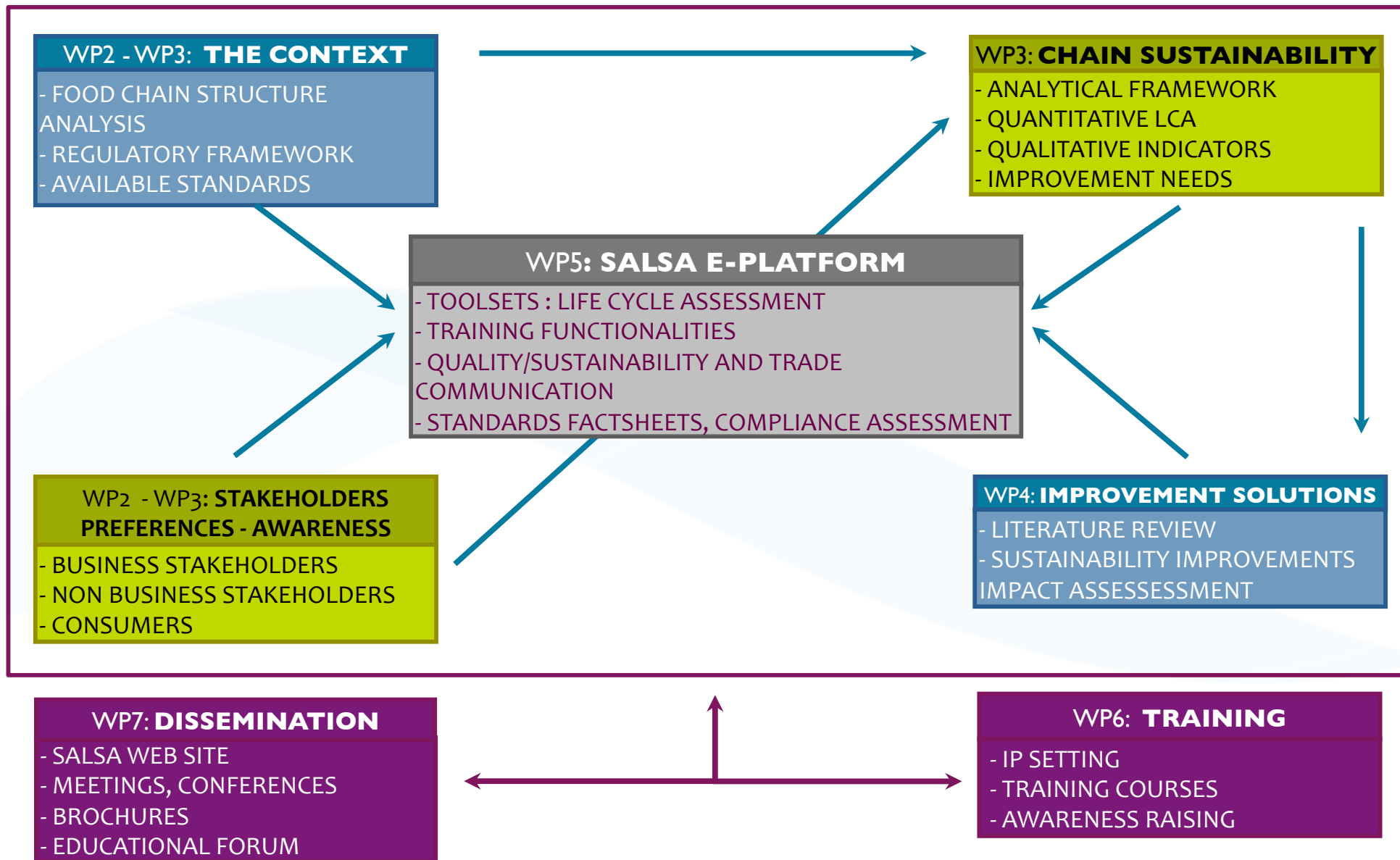
The impact on sustainability of  
innovative solutions related to the soy  
and beef production and trade between  
Latin America and EU

# SALSA Partners





# Summary of the Results

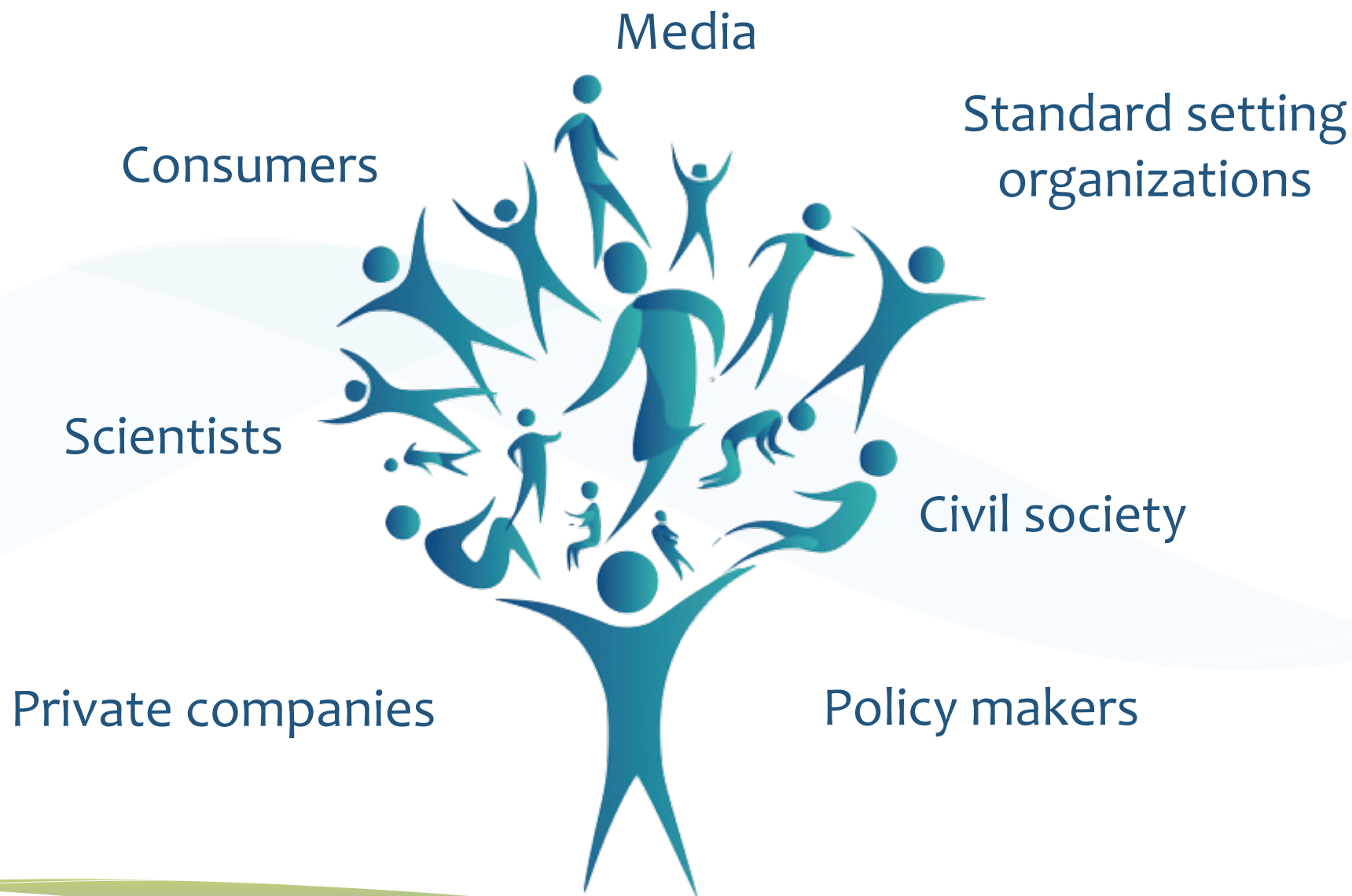


# Contributions to a sustainable development of food chains



[Source: Wageningen University](#)

# POTENTIAL USERS



# SALSA POTENTIAL USERS'

## Businesses questions & SALSA Answers

**Q:** How can I access the local and international market with sustainable products? Which characteristics my products should have?

**A:** *Know the rules: regulations + clients requests in terms of sustainability*

**Q:** How can I make the products' characteristics known?

**A:** *Certify the products using "sustainability schemes". Access their contents and check their compliance to the market requests*

### SALSA CONTRIBUTION

- Data base on Standards and Regulations
- Consumers and stakeholders' awareness on sustainability

# SALSA POTENTIAL USERS'

## Policy makers' questions & SALSA answers

**Q:** How can I define policies able to increase a global and regional sustainable development and trade?

**Q:** What are the current Latin American and EU priorities in terms of beef and soy chains impact on sustainability?

**A:** *Know the different stakeholders priorities*

**A:** *Know the beef and soy food chain hot spots*

### SALSA CONTRIBUTION

- Data base on Standards and Regulations
- Consumers and other stakeholders' awareness on sustainability
- SALSA Life Cycle Impact Assessment and Improvement Options

# Know the rules

## Access to info on regulations and sustainability schemes

### Normative Data Base on Trade Regulations and Standards for Soy and Beef



The research leading to these results has received funding from the European Community's Seventh Framework Programme under grant agreement n° 265927 ('SALSA' Project)

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Territory	Type of document	Sector	Supply chain	Environ- me	Social	Econo- mi	Organic	Fair trac	Food Safe	Quality	Tracea- bili	Animal welfi	Score
10-Ireland	2-Regulation	2A-Beef Cattle	7-Whole	0	0	0	0	0	0	0	0	1	1
03-Argentina	2-Regulation	1A-Soy	7-Whole	0	0	1	0	0	0	0	0	0	1
03-Argentina	2-Regulation	1A-Soy	7-Whole	0	0	1	0	0	0	0	0	0	1
05-Mexico	2-Regulation	2A-Beef Cattle	2-Processing	0	0	0	0	0	1	0	0	0	1
05-Mexico	2-Regulation	2A-Beef Cattle	2-Processing	0	0	0	0	0	1	0	0	0	1
04-Brazil	2-Regulation	1A-Soy	1-Production	0	0	0	0	0	0	0	1	0	1
05-Mexico	2-Regulation	2A-Beef Cattle	5-Trade	0	0	0	0	1	1	0	0	0	2

# Know the rules

## Access to info on regulations and sustainability schemes

## FACTSHEET



- > NGO / retail initiated
- > crop products non-soy-specific
- > no GMO
- > improvement model with performance criteria
- > consumer label



### ProTerra Certification Standard

*The ProTerra Certification Standard was developed by Cert ID<sup>1</sup> based on the Basel Criteria for soy. It was created by industry and public interests, including COOP-Switzerland and the World Wildlife Fund. The ProTerra certification programme aims to meet the market's need for differentiated crop products with higher standards of ethics, social responsibility, and environmental sustainability. It also motivates companies towards continuous improvement of their systems, processes and practices. The ProTerra certification standard is currently operational in Brazil, USA, UK and Japan.*

#### Key features of the standards

- > The Basel Criteria, from which the ProTerra Standard was formed, established the guidelines of sustainable, ethical, responsible production, transport storage and processing of soy and soy products. The ProTerra Standard enlarges that concept to cover all agricultural crop products.
- > The ProTerra Certification Standard for sustainable agricultural production systems is based on three tiers: social justice, economic viability and environmental care.
- > Certification is applicable to three levels of production within the food production chain: Agricultural production (Level I),
- > Handling, transport and storage (Level II) and Processing, manufacturing and labeling (Level III).
- > Basic requirements that apply to all levels include the absence of forced labour and abuse of child labour; compliance with national and local legislation; the need to avoid unin-

tentional contamination of certified products by GMOs. There are also progressive requirements which are to be met according to a timetable and plan and which are presented at the time of application for certification.

- > Certified organisations are required to train all employees and maintain training records for at least two years.

#### Sustainability key features

Environmental and ecological sustainability are integrally related to social welfare.

- > Ecological sustainability is assured by an environmental management program, which includes environmentally friendly water, waste and energy management practices, non-GMO.

<sup>1</sup> <http://www.cert-id.eu/About-Us> CERT ID is a global company providing third party certification services to the food industry since 1999. Clients are manufacturers, retailers and agricultural producers.



## Know the rules

### Access to info on regulations and sustainability schemes

- How legal regulations consider the sustainability dimensions
- Most of the regulations are associated with food safety
- Almost all legal regulations showed a very low association with environmental (12), social (9) and economic (15) dimensions of sustainability



## Certification Schemes

Distributions of Requirements of the Standards within the four dimensions of sustainability (SAFA)

	Proterra	RTRS	Naturaland	FLO	SAN	Global
Environmental integrity %	22,7	22.9	23.4	13.3	30.3	20.4
Social well-being%	22,7	23.3	11.7	33.9	22.9	11.9
Economic Resilience %	4,3	3.1	17.5	2.0	4.0	16.1
Good Governance %	50,3	50.7	47.4	50.8	42.8	51.6
Total requirements n.	285	149	154	399	297	285

# Survey: sustainability awareness & preferences

## Non Business stakeholders survey

**48** Environmental non-profit organizations, Universities, Agricultural policy Ministry and Social non-profit organizations in Latin America and EU

## Consumers survey

N. of respondents **864** from:  
Brazil, Mexico, Italy, The Netherlands

# Clients requests in terms of sustainability

## Main Outcomes and Suggestion to **standards setters**

- No need to create new certification schemes, rather improve existing ones
- Organic label has highest recognition and highest sustainability performance according to consumers
- However, organic label does not clearly stand out as the most sustainable label according to non-business stakeholders in terms of soy and beef chain

# Clients requests in terms of sustainability

## Main Outcomes and Suggestion to **standards setters**

- GMOs in beef (and indirectly in soy as feed) is not in accordance with consumers' preferences
- Strong interest not only on Environmental aspects but also on the Social and Economic sustainability dimensions
- **but** Food characteristics less related to environmental sustainability (food taste, quality, and safety) are still very important to the consumers and should not be decoupled from sustainability concerns

# Clients requests in terms of sustainability

## Suggestions to **policy makers**

- Food regulations both in EU and Latin America should increase their content in terms of environmental, social and economic sustainability
- There is a need to focus also on the “local dimension” by increasing the value added in the local chain and community
- Focus on the sustainability impact on farm income and the poverty prevention and alleviation, both in Latin America and EU
- Consumers and civil society organizations expect policy makers play a more relevant role in supporting sustainability in the food chain

## Business Stakeholders survey: **Sample**

Assessing the constraints, opportunities, experiences, perceptions and preferences, related to sustainability in the soy and beef chain

**46** producers, processors traders retailers and consultants from EU and Latin America

# Business Stakeholders survey: Results

## ALL STAKEHOLDERS

**Consumers are not aware** of sustainability issues in the beef and soy chain. Especially soy as it is a hidden ingredient for European consumers buying meat

- Need for harmonization or benchmarking of certification schemes
- Need to define farm standard and certification process instead of product-based certification, to reduce administrative requirements
- Demand for “sustainable” products still low

# Business Stakeholders survey: Results

## Latin American stakeholders

Major barriers for business stakeholders to adopt certification schemes:

- **Technical:** lack of technical knowledge and managerial skills mainly for smaller farmers
- **Economic:** certification expensive
- **Legal:** weak law enforcement



# Business Stakeholders survey: Results

## Latin American stakeholders

- Low worldwide market demand and relatively prices for sustainable products, do not encourage progress on sustainability initiatives
- China, as the main importer of conventional soy, can further reduce motivations to enter markets for sustainable products
- China exports organic soy to EU and Latin America!

# SALSA POTENTIAL USERS'

## Businesses questions & SALSA Answers

**Q:** How am I performing in terms of being able to fulfill the market requests for sustainable products

**A:** Assess you sustainability performance (tool, training, exchange of knowledge)

**Q:** How can I improve my sustainability performance?

**A:** Consider different improvement options

**A:** Test the improvement options impact

### SALSA CONTRIBUTION

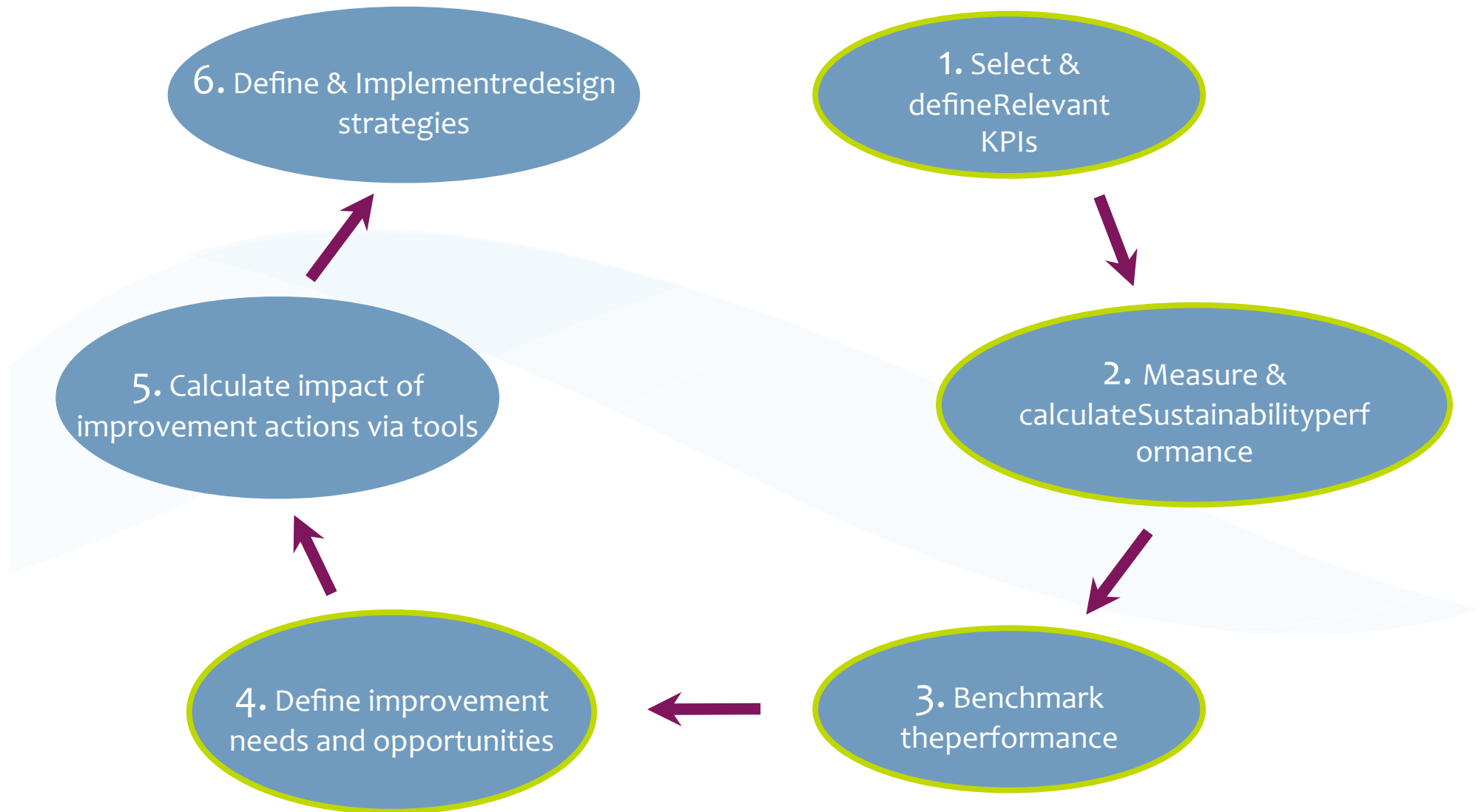
- Life Cycle Impact Assessment & Improvement options impact assessment

## How SALSA LCIA assessment tool can assist?

### By providing an external and third party service:

- assessing different Key Performance indicators of sustainability (KPIs) related to single agents and to the whole chain
- weighing the different dimensions of sustainability according also to partners' preferences (users – their clients – investors)
- externalizing and reducing costs and skills required for assessing sustainability in relatively small scale activities

# SALSA LCA protocol



# Extended LCA managed by SALSA partners

DIMENSION	CATEGORIES
Environment	Air and Climate
	Water
	Soil
	Material Cycles
	Biodiversity

DIMENSION	CATEGORIES
Social	Decent livelihood
	Labour rights
	Equity
	Occupation health and safety
	Cultural diversity

Economy	Full cost-accounting
	Investment into sustainability
	Vulnerability
	Local Economy
	Product safety and quality

Governance	Accountability
	Participation
	Rules of law
	Ethics
	Sustainability Management

SAFA Sustainability dimension, Source: FAO (2012)

## Selecting Indicators narrowing down from the SAFA long list through

- Panel of Experts + Consumers survey
- Literature review

Stakeholders	n	Soy			Beef		
		Total	LA	EU	Total	LA	EU
Business	46	29	-	-	17	-	-
Consumers	874	-	-	-	874	679	195
NGOs, academia	48	25	13	12	23	13	10
<b>Total</b>	<b>968</b>	<b>54</b>	<b>13</b>	<b>12</b>	<b>914</b>	<b>692</b>	<b>205</b>

# Selection of Key Performance Indicators

	Environmental	Economic	Social	Governance
<b>'Core'</b> indicators	Global warming	Profitability	Food safety & quality	
	Land use change	Volatility	Working conditions	
	Land use		Employability	
	Water deprivation		Animal welfare	
	Energy demand			
<b>'Extra'</b> indicators	Soil quality and land degradation	Local economic development	Food and nutrition security	Participation
	Biodiversity	Investments	Labour rights	Accountability
	Waste disposal	Economic vulnerability	Equity	Rule of law
			Working conditions	
			Capacity building	

# Measure & calculate Sustainability performance

**This framework provided the basis for:**

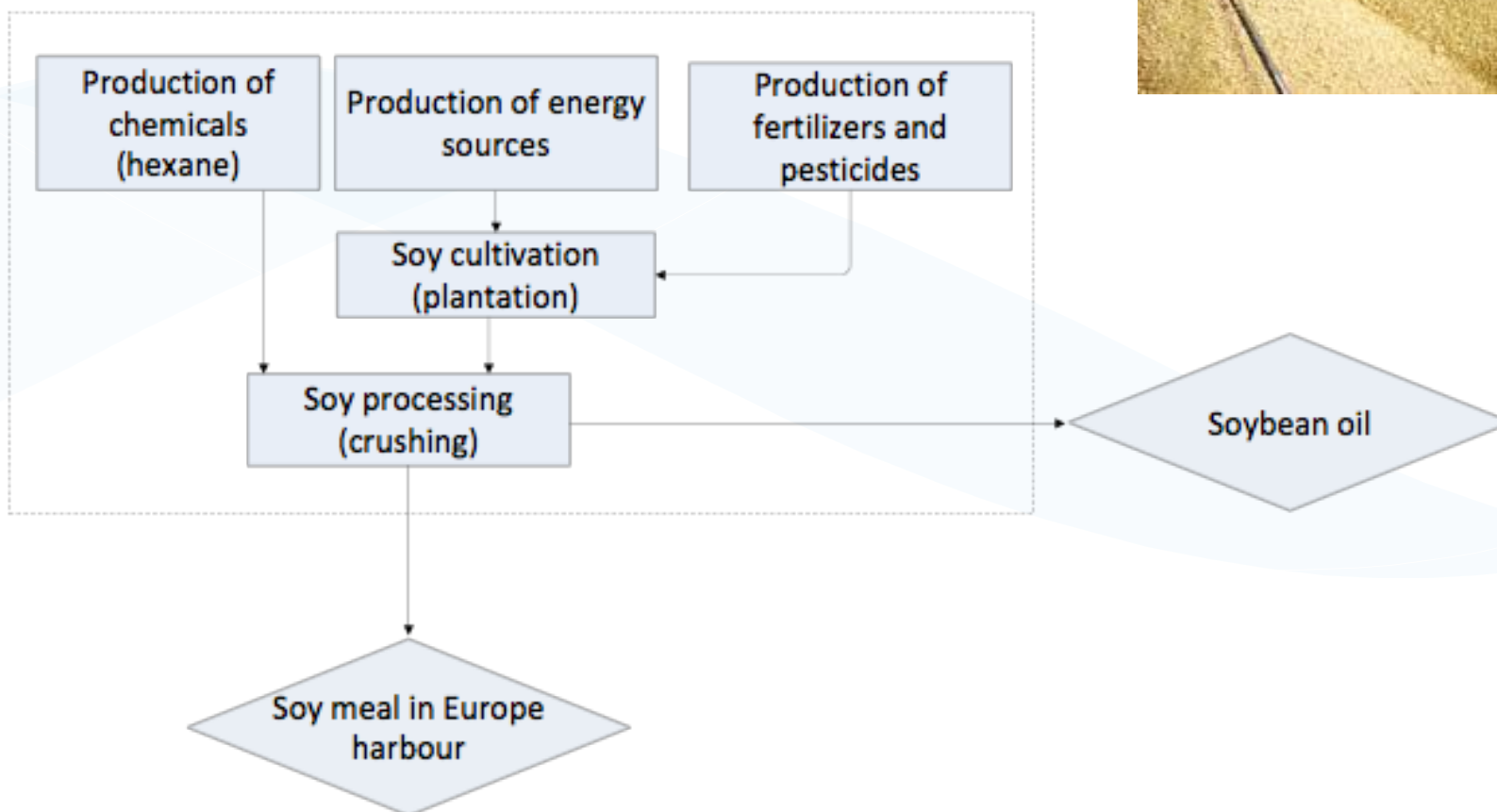
Quantitative LCA

Qualitative LCA

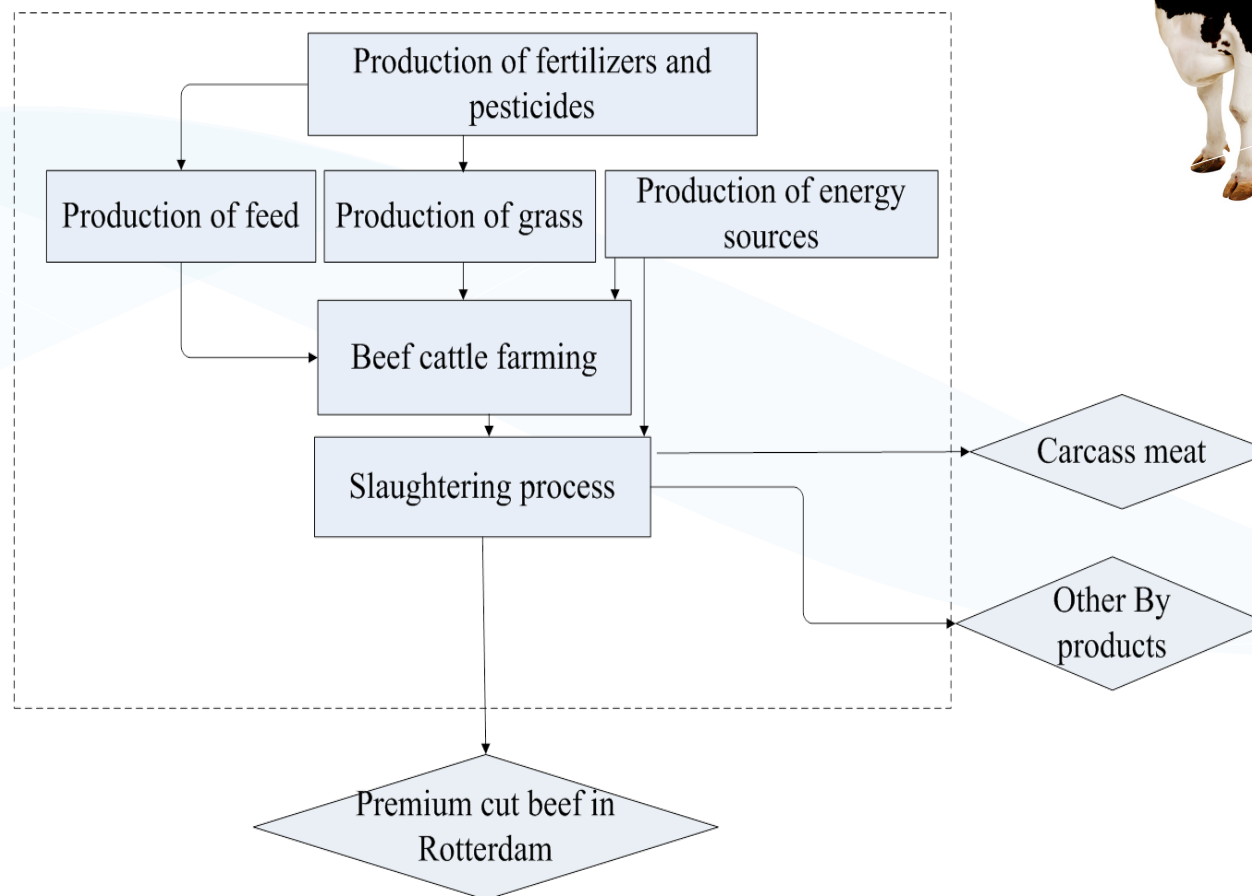
Multi-criteria assessment



# Extended LCA System boundaries: Soymeal



# Extended LCA System boundaries: Beef



# Data inventory



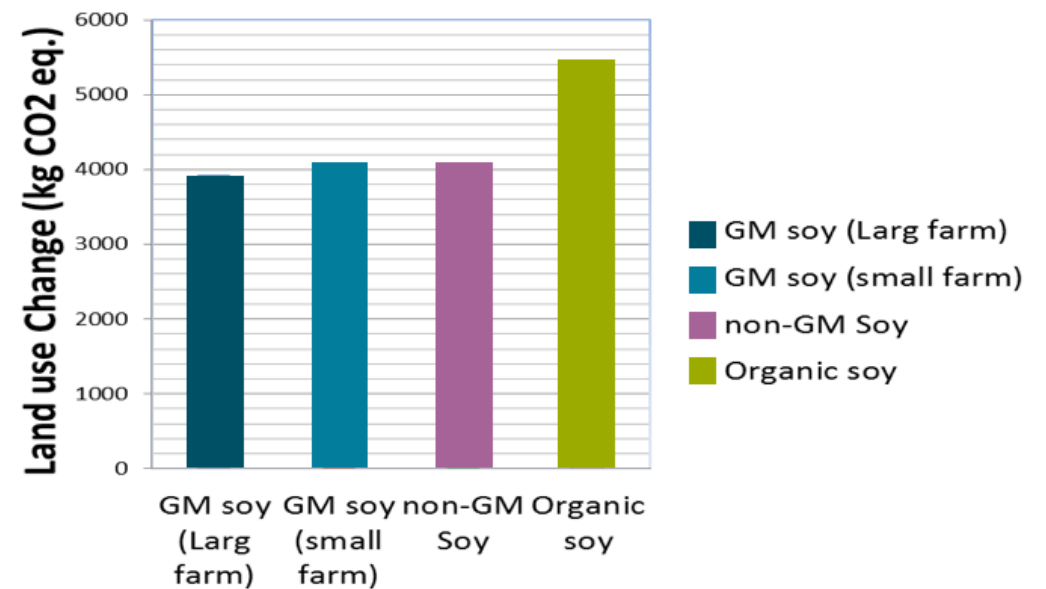
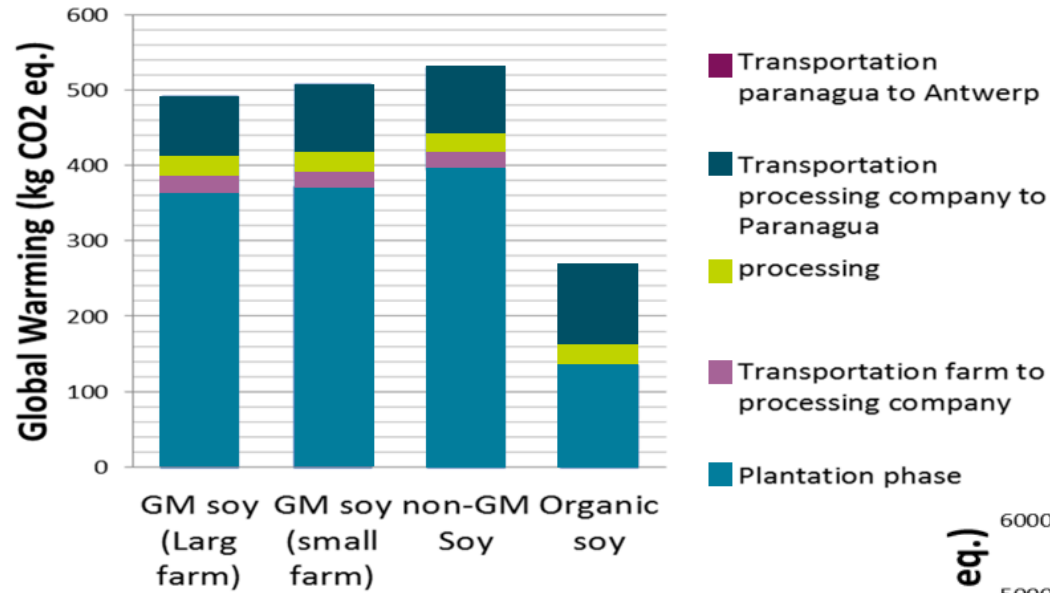
## Case studies

	Soy	Beef
Farm	GM (large) GM (small) Non-GM (small) Organic (small)	Beef Mixed beef-cropping Organic
Processing	Crushing	Slaughterhouse
Transport	Truck, ship	Truck, ship

## Panel data

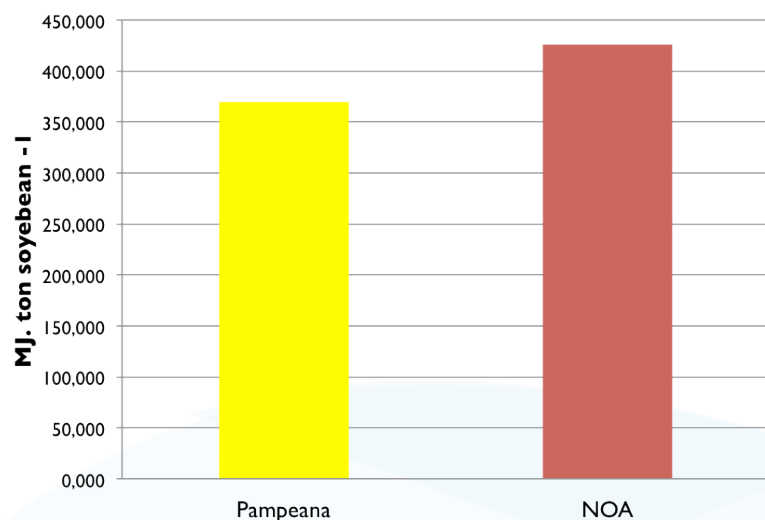
	Soy
Farm	43 farms (Pampeana Region) Av. Size: 468 ha (115-900) Yield: 3.0 ton/ha (2.5-3.5)

# Some results – Soymeal Brazil

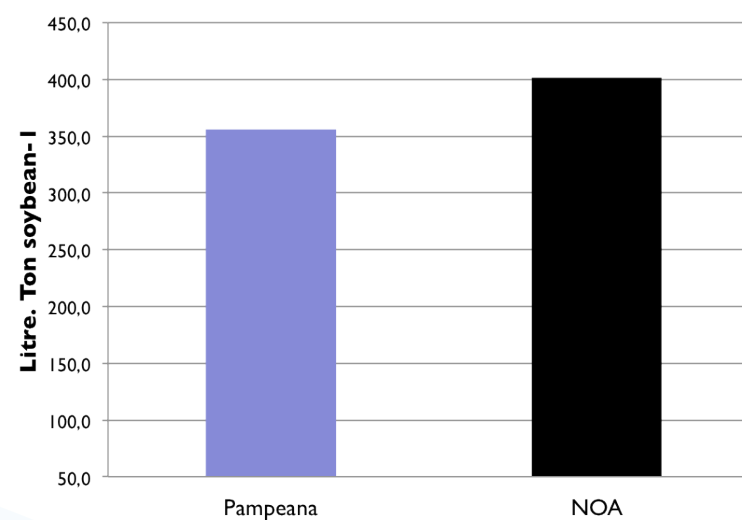


Land use change (Brazil)

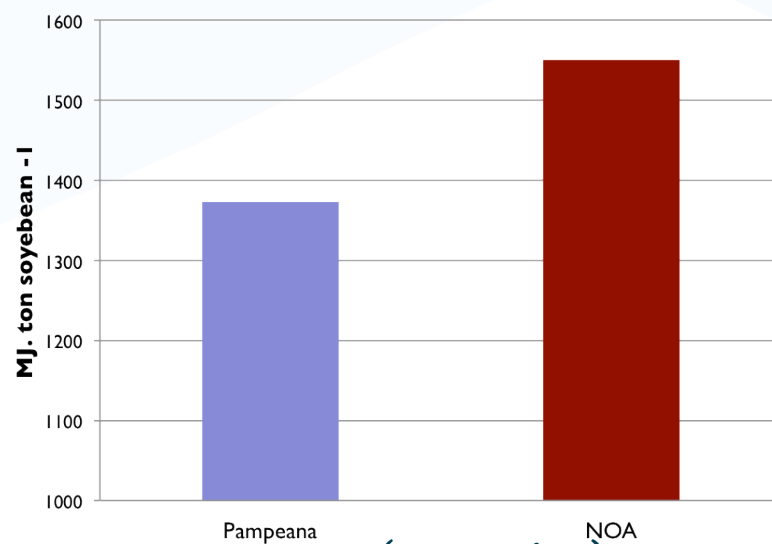
## Some results – Soybeans



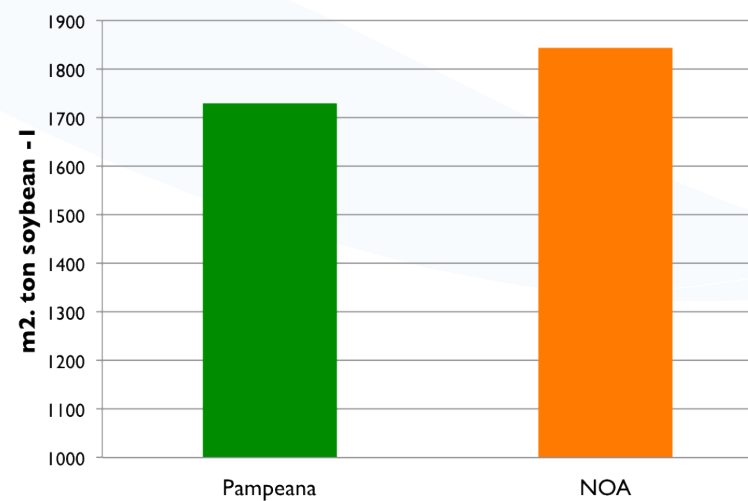
Global warming (Argentina)



Water deprivation (Argentina)

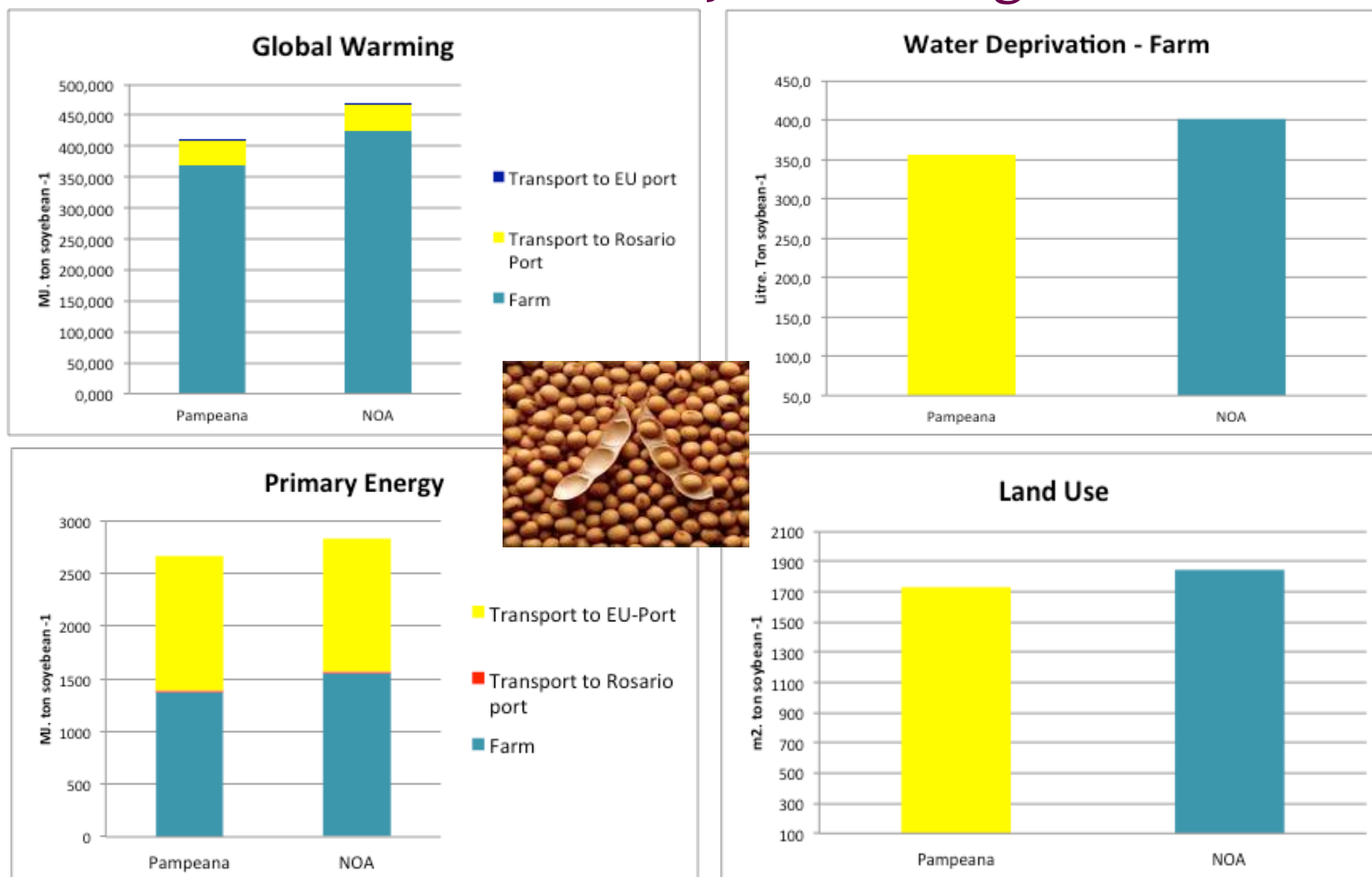


Energy (Argentina)

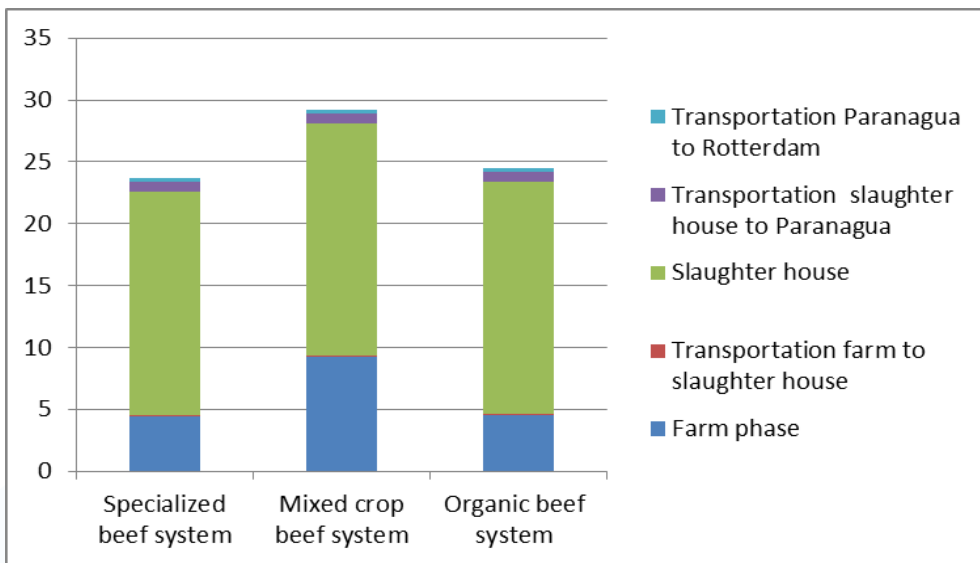


Land use (Argentina)

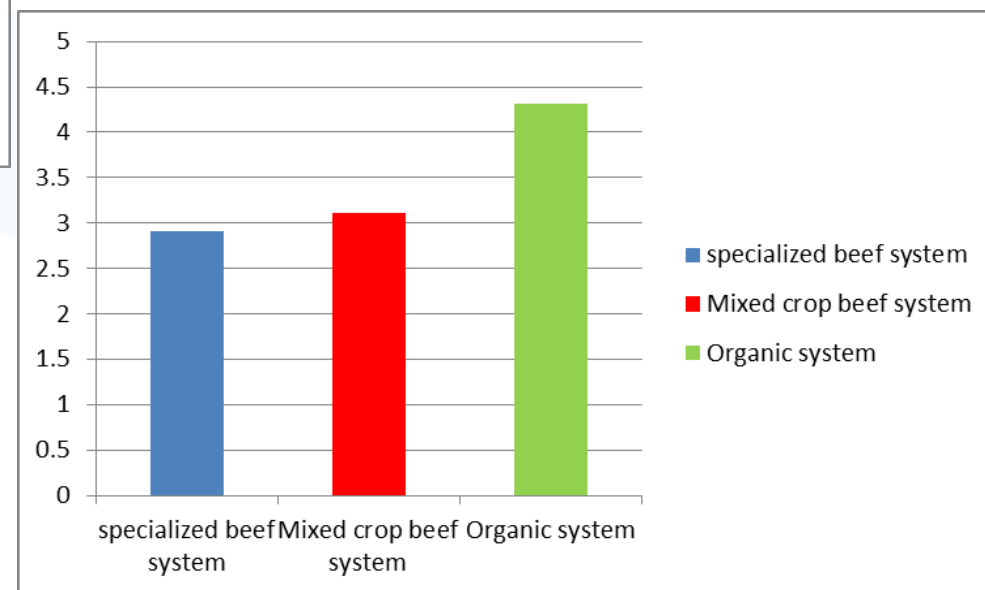
# Some results – Soybeans - Argentina



# Some (more) results - Beef



## Water consumption (Brazil)



## Operating profit (Brazil)

# Quantitative LCA managed by SALSA partners

## HOT SPOTS

- Farm level far more impacting in nearly all the LCA quantitative indicators
- Transport overseas (10,000 km) not relevant in Environmental terms
- Global warming: enteric methane emissions confirmed as a priority



# Quantitative LCA managed by SALSA partners

## TRADE OFFS

- At the farm: Organic and other extensive systems - non optimal in terms of GHG Emissions and Land use

## INTERPRETATION

- Less efficient feed conversion or lower yields for organic soy and beef vs. conventional
- Longer life span for beef

# Quantitative LCA managed by SALSA partners

Main qualitative results: supporting interpretation of quantitative LCA

## Supply Chain Governance: (Mexico, Brazil, Argentina)

- Complying to sustainability related certification schemes is demanding for smallholders and SMEs
- Increases the need for food chain coordination
- Asks for support from other actors (farmers' organizations – cooperatives - consultants - chain leading company)

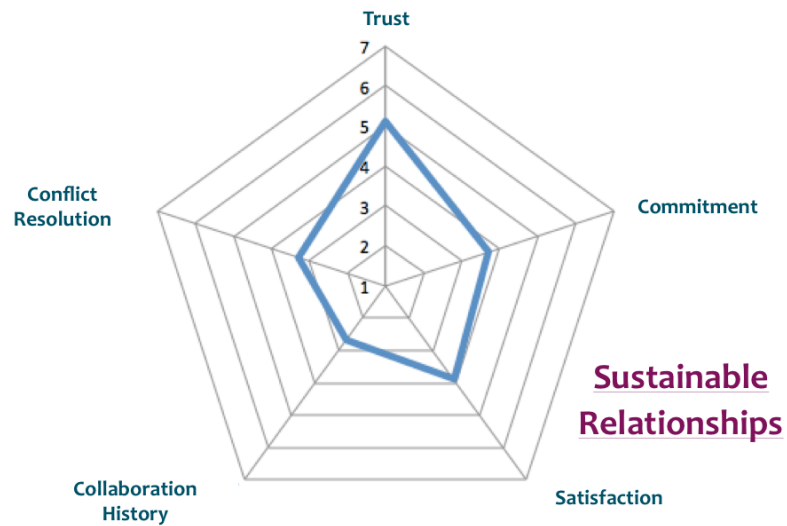
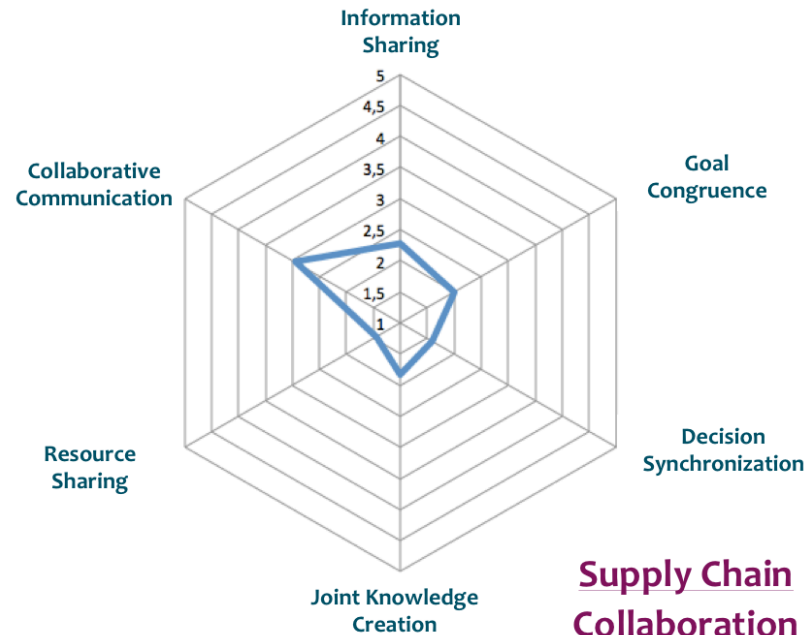
# Quantitative LCA managed by SALSA partners

Main qualitative results: supporting interpretation of quantitative LCA

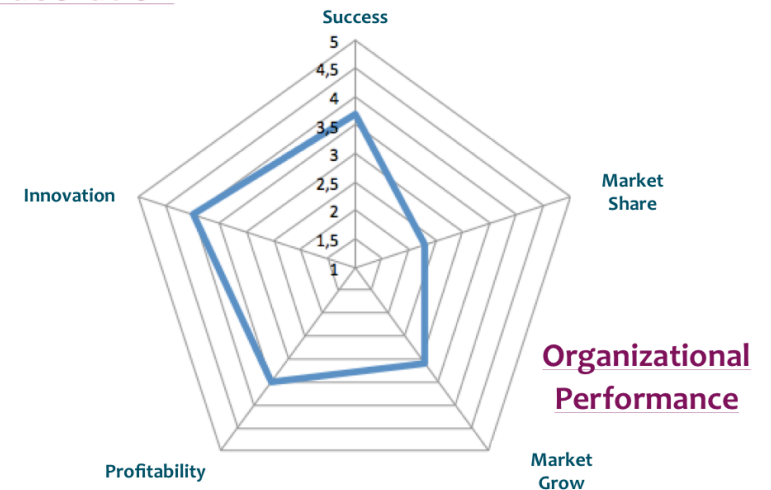
## Technical: Logistics

- **All:** transportation, storage, allocation of sustainable products is generally less efficient due to small quantities
- **Brazil:** distance from producing areas and ports; lack of infrastructures

# Governance and Organizational performance Index scoring Beef Farmers - Processors Brazil

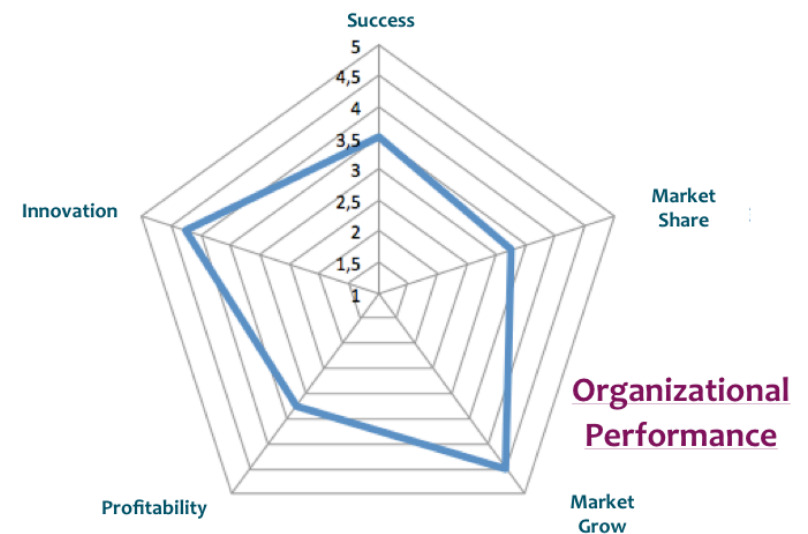
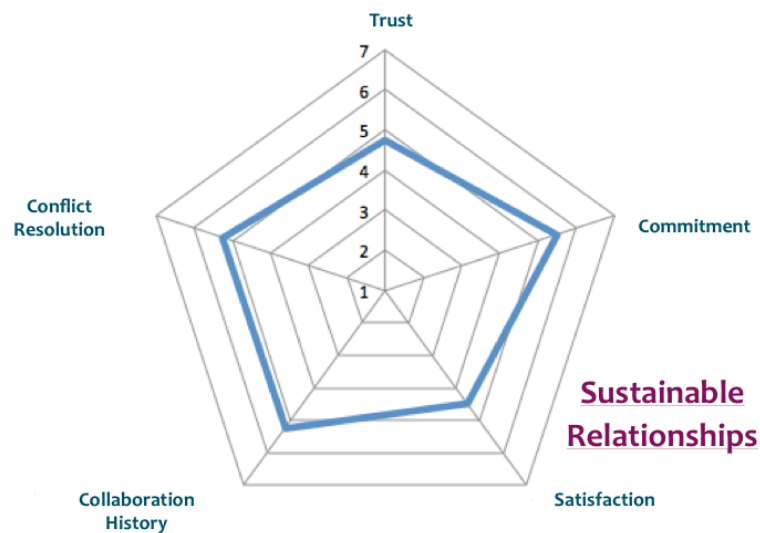
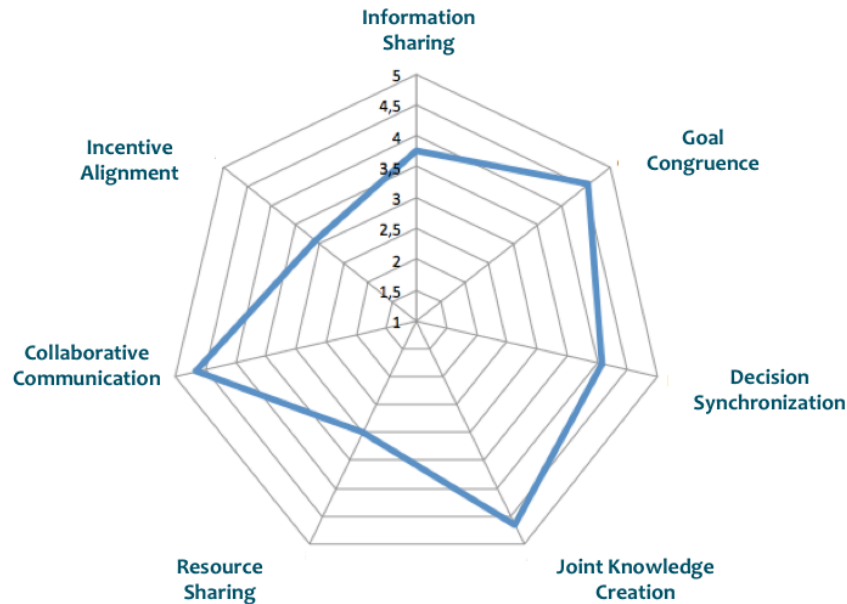


## Supply Chain Collaboration



# Governance and Organizational performance Index scoring

## Soy Farmers - Processors Brazil



# Extended LCA managed by SALSA partners

Detailed results on Mexico will be shown next



# Comparing chains through Multi Criteria Analysis (MCA)



Selection of key indicators (subset of core and extra indicators)

Weighting of indicators by different groups of stakeholders

Scoring of indicators by experts

Analysis and interpretation of scores and weights

## Further selection of relevant key indicators based upon LCA results

Dimension	Indicators	Method/Measure	SOY	BEEF
<b>Environmental</b>	Global Warming Potential	CO <sub>2</sub> -eq emissions in kg for beef, per ton for soybean meal  LCA -> Relative 1-7 Score	X	X
	Energy Consumption	MJ per kg of beef and per ton for soybean meal  LCA -> Relative 1-7 Score	X	X
	Biodiversity	Questionnaire -> Likert Scale	X	
	Water consumption	Liter/ha  LCA -> Relative 1-7 Score	X	X
	Land Use Efficiency	M <sup>2</sup>  LCA -> Relative 1-7 Score	X	X
<b>Economic</b>	Profitability	B\$ per kg of product  LCA -> Relative 1-7 Score	X	X
	Barriers to chain entry	Questionnaire -> Likert Scale	X	X
<b>Social</b>	Employability	Questionnaire -> Likert Scale	X	
	Food Safety	Questionnaire -> Likert Scale		X
	Working conditions	Questionnaire -> Likert Scale	X	X
<b>Institutional</b>	Degree of chain coordination	Questionnaire -> Likert Scale	X	X



## Results MCA (Brazil)

### Possibility to compare different dimensions of sustainability



SOY	GM	Non- GM (n=18)	Organic (n=15)
<b>Environmental</b>			
Global warming	4	3.5	3.9
Energy use	4	3.4	4.5
Land use	4	3.9	4.0
Biodiversity	4	4.4	5.6
<b>Economy</b>			
profitability	4	4.1	3.8
Barriers to entry chain	4	4.0	2.8
<b>Social</b>			
Employability	4	4.2	4.7
Working conditions	4	3.7	4.4
<b>Total</b>	<b>4</b>	<b>4.1</b>	<b>4.3</b>

BEEF	Conventional	Organic (n=15)
<b>Environmental</b>		
Global warming	4	4.1
water	4	4.5
Land use	4	4.0
<b>Economy</b>		
profitability	4	4.8
Barriers to entry chain	4	2.8
<b>Social</b>		
Food quality	4	5.3
Food safety	4	5.3
<b>Total</b>	<b>4</b>	<b>4.4</b>

## Results for integrated LCA

- The overall sustainability performance of the different food chains, does not differ much in different production systems
- Differences in the single indicators, when compared to GM soy and Conventional beef production show
- NO-GM soy less sustainable for Energy consumption and global warming
- Organic performs slightly better but low on Barriers to Entry

# Online tool for sustainability first assessment - available to users -

## DEMO: Input data



E-Platform




Cesare Zanasi (01\_UNIBO, Italy)   | 23.10.2013, 08:35


- Docu System ▾
- Analysis ▸
- LCIA Soy
- LCIA Beef
- Control ▾
- Communication
- Management ▾

The module Sustainability Integrated Performance Assessment has the objective to support production units of the beef supply chain in evaluating their environmental, economical and social performances. The module offers two type of performance indicators, quantitative and qualitative. All qualitative indicators follow the rule "the higher the value, the better the performance". The module allows also comparaisons with alternative production methods' performances (production system specialized on beef; mixed systems focussing on both vegetal and animal production; production of beef according to organic method). The intent is to stimulate considerations on the different performances deriving from the qualitative aspects proper of every type of production method. Nevertheless the module use is intended only for self-assessment purposes as the values of the altertative production methods refer to single case studies and not to statistically representative samples. Use of it for comparative analysis among different production units should be avoided.

-  Feedback / Contact
-  Legal information
-  proQuantis 2000 - 2013

### ANALYSIS SETTINGS PANEL

Country	Mexico ▾
Select the productive system boundaries (supply chain stage)	Farm ▾
Sus. Assessment Category	Global Warming ▾
Display output as	Single quantitative* value ▾

Calculations panel 

Formulas and fixed parameters used in the calculations are mainly based on the document DELIVERABLE 3.2 "Report on integrated performance assessment of Latin America-EU food chains and improvement needs" released by the Work Package 3 of the FP7 EU funded SALSA research project. The latter consists of the analysis of the beef and soy supply chains drawn, for the specific category of global warming, on the IPCC methodology (2006). For any question related to the calculations of the global warming module please refer to members of WP3 of SALSA EU project.

# DEMO: Input data single indicator

### Global Warming: Farm

Farm		
average yearly cattle population: number of beef cattle on farm	99,90	number
slaughter weight mature male animals (cull cattle)	99,90	kg
slaughter weight mature female animals (cull cattle)	99,90	kg
slaughter weight young cattle (finished cattle)	99,90	kg
slaughter weight calves (cull calves)	99,90	kg

Please consider for the fill-in values a time frame of one year (all inputs used or outputs delivered by the productive system in a year time)

Close 
Confirm

# Measure & calculate sustainability performance

## Global Warming: Farm

### MY CASE

71610,41 kg of CO2 eq. / Animal

### SPECIALIZED BEEF

1084,11 kg of CO2 eq. / Animal

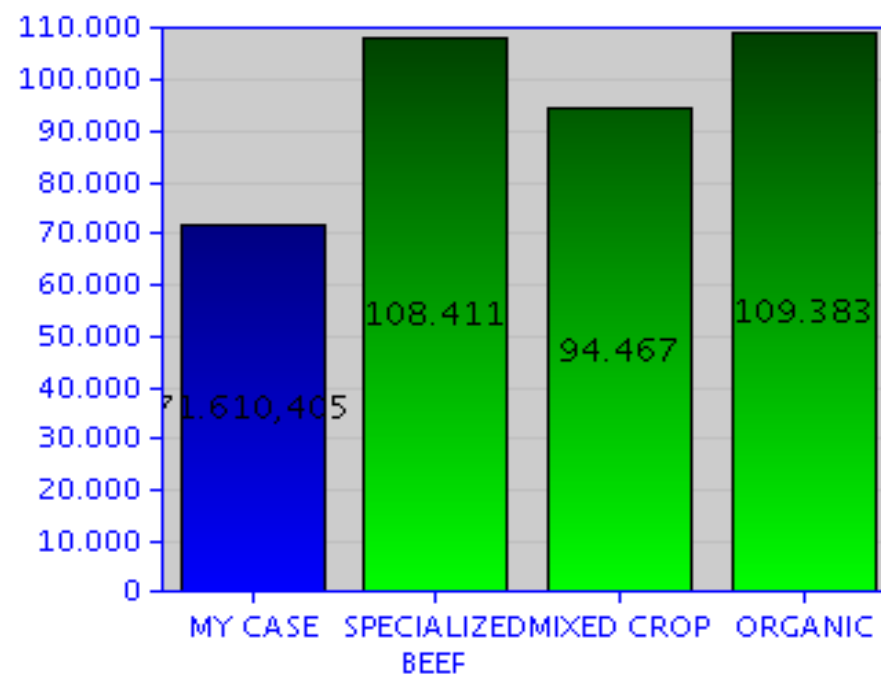
### MIXED CROP

944,67 kg of CO2 eq. / Animal

### ORGANIC

1093,83 kg of CO2 eq. / Animal

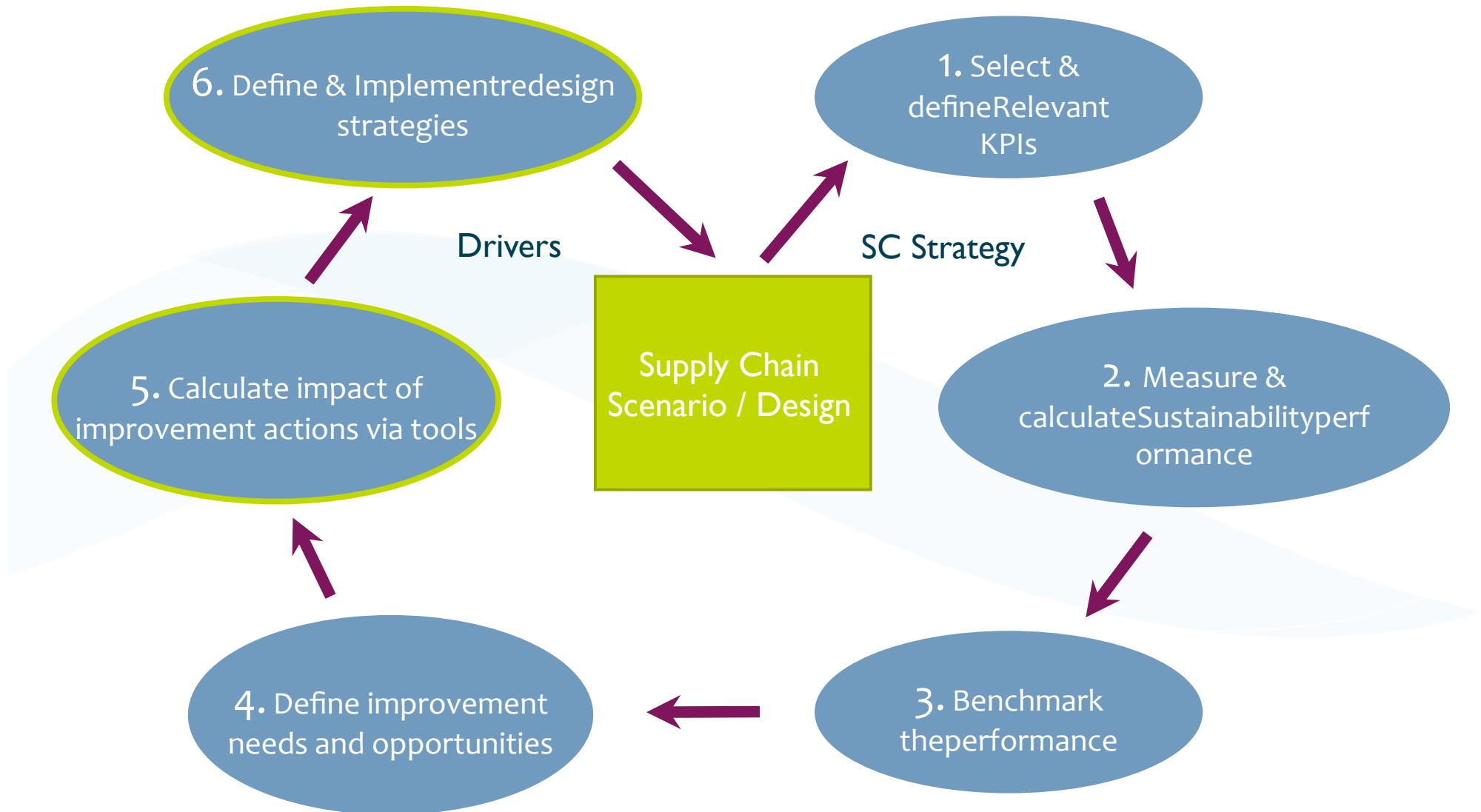
GHG emissions (kg Co2 equivalents) per Animal



## How do I perform with respect to others?

Indicators	Scores						
	1	2	3	4	5	6	7
Environmental							
Global warming		X					
Energy consumption							
Biodiversity							
Water consumption			X				
Land use		X					
Economic							
Profitability				X			
Barriers to entry			X				
Social							
Employability							
Working conditions					X		
Food safety			X				
Governance							
Chain coordination	X						
	Our Chain Average: 3.5				Benchmark Average: 4.5		

# SALSA LCA protocol



# The Impact Assessment Tool

## How it works

- A number of improvements options were selected based on literature review, panel of expert and the results coming from the LCA analysis to design the tool
- The improvement options will be chosen by the users according to their improvement needs coming from the LCA assessment (e.g I need to reduce my global warming impact)



# The Impact Assessment Tool

## IMPROVEMENT NEEDS

1. **Technological** area (farm, slaughterhouse, crushing plant)
2. **Logistics** area (transportation, storage, allocation)
3. **Food quality/safety**
4. **Supply Chain Governance**

# The Impact Assessment Tool

## Improvement needs examples

- Increase organic farming yield
- Reduce life span for beef
- Reduce beef enteric methane emissions
- Improve soil quality
- Better road conditions
- Economies of scale
- Transparency and data needed
- Reduce number of standards
- Etc.

# The Impact Assessment Tool

## I. Assess Current Sustainability of the supply chain

Scores	Weights per dimension		Weights	Benchmark	Current	Scenario impacts	Scenario A
		Global warming	0.25				
		Energy consumption	0.25				
		Water Consumption	0.25				
		Land use	0.25				
Environmental	0.25					3	
		Profitability	0.50				
		Barriers to entry	0.50				
Economic	0.25						
		Working conditions	0.50				
		Food safety	0.50				
Social	0.25						
Institutional	0.25	degree of chain coordination	1.00				
<b>Sustainability</b>		<b>Total score</b>					
Benchmark options							
		1 Beef, conventional					
		2 Beef, mixed crop					
		3 Beef, organic					
		4 Beef, global gap					

Diagram annotations: A red box highlights the 'Environmental' and 'Economic' rows, with a '2' next to the 'Economic' weight. Another red box highlights the 'Environmental' row, with a '3' next to the 'Current' score. Red arrows point from 'From LCIA' labels to the 'Benchmark' and 'Current' columns.

# The Impact Assessment Tool

**1° step:** select the improvement options

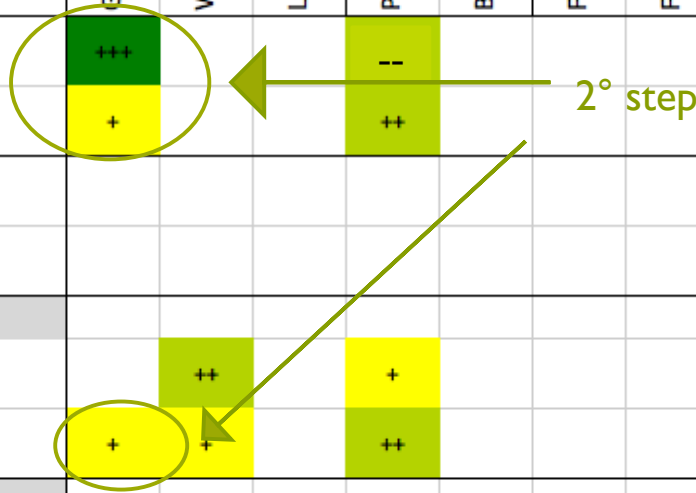
	Improvement options	Environmental			Economic		Social		Instit.
		Global Warming	Water Consumption	Land use	Profitability	Barriers to entry	Food Quality	Food Safety	Degree of Chain Coord.
<b>Logistics</b>	New fleet (fuel efficient)	++			-				
	Increasing fuel efficiency	+			+				
<b>Govern.</b>	Share resources								++
	Achieve common goals								+
<b>Farm Level</b>	<b>Soybean</b>								
	Decreasing phosphorus consumption		++		+				
	Decreasing amount of fuel used in farm land	+	+		+				
<b>Quality</b>	<b>Inadequate quality interpretation</b>								
	Common recall procedure along the food chain					++	+	++	
	Social requirements has to be considered (code of ethics standards)				-	-	+	+	
	<b>Unclear definition of the objectives</b>								
	Setting common quality of objectives of the whole supply chain				+		++	+	++

1° step

# The Impact Assessment Tool

**2° step:** select the values for small, average and high impact

	Improvement options	Environmental			Economic		Social		Instit.
		Global Warming	Water Consumption	Land use	Profitability	Barriers to entry	Food Quality	Food Safety	Degree of Chain Coord.
Logistics	New fleet (fuel efficient)	++			-				
	Increasing fuel efficiency	+			+				
Govern.	Share resources								++
	Achieve common goals								+
Farm Level	<b>Soybean</b>								
	Decreasing phosphorus consumption		++		+				
	Decreasing amount of fuel used in farm land	+	+		++				
Quality	<b>Inadequate quality interpretation</b>								
	Common recall procedure along the food chain					++	+	++	
	Social requirements has to be considered (code of ethics, standards)				-	-	+	+	
	<b>Unclear definition of the objectives</b>								
	Setting common quality of objectives of the whole supply chain				+		++	+	++



# The Impact Assessment Tool

**3 and 4° step:** calculate, for each indicator, the related “scenario”

From  
3° step      4° step  
↓                    ↓

Scores	Weights per dimension		Weights	Benchmark	Current	Scenario impacts	Scenario A
		Global warming	0.25	● 5.00	● 2.40	+++	● 3.84
		Energy consumption	0.25	● 4.00	● 4.40		● 4.40
		Water Consumption	0.25	● 4.00	● 4.20		● 4.20
		Land use	0.25	● 6.00	● 6.30		● 6.30
<b>Environmental</b>	0.25			● 4.75	● 4.33		● 4.69
		Profitability	0.50	● 3.00	● 2.10	++	● 2.94
		Barriers to entry	0.50	● 4.00	● 3.10		● 3.10
<b>Economic</b>	0.25			● 3.50	● 2.60		● 3.02
		Working conditions	0.50	● 5.00	● 4.30		● 4.30
		Food safety	0.50	● 4.00	● 3.50		● 3.50
<b>Social</b>	0.25			● 4.50	● 3.90		● 3.90
<b>Institutional</b>	0.25	Degree of chain coordination	1.00	● 4.00	● 4.10		● 4.10
<b>Sustainability</b>		<b>Total score</b>		● 4.19	● 3.73		● 3.93

Each dimension's overall score is the sum of the weighted single scores

# The Impact Assessment Tool

## Interpreting the results

I can compare each improvement's score (current and scenario) with:

- the related overall dimension's score
- the overall sustainability score

Scores	Weights per dimension		Weights	Benchmark	Current	Scenario impacts	Scenario A
		Global warming	0.25	5.00	2.40	+++	3.84
		Energy consumption	0.25	4.00	4.40		4.40
		Water Consumption	0.25	4.00	4.20		4.20
		Land use	0.25	6.00	6.30		6.30
<b>Environmental</b>	0.25			<b>4.75</b>	<b>4.33</b>		<b>4.69</b>
		Profitability	0.50	3.00	2.10	++	2.94
		Barriers to entry	0.50	4.00	3.10		3.10
<b>Economic</b>	0.25			<b>3.50</b>	<b>2.60</b>		<b>3.02</b>
		Working conditions	0.50	5.00	4.30		4.30
		Food safety	0.50	4.00	3.50		3.50
<b>Social</b>	0.25			<b>4.50</b>	<b>3.90</b>		<b>3.90</b>
<b>Institutional</b>	0.25	Degree of chain coordination	1.00	4.00	4.10		4.10
<b>Sustainability</b>		<b>Total score</b>		<b>4.19</b>	<b>3.73</b>		<b>3.93</b>

# The Impact Assessment Tool

## Assessing future perspectives

After results interpretation, I can:

- Assess scenarios (fixed combination of options)
- Introduce new improvement options
- Comply with the improvement options requirements
- Retest my situation using the tool

### Scenario BEEF

- A.** Intensification of the production system
- B.** Carbon neutrality
- C.** Integrated land use



# The ICT supports

## SALSA Website

ENG POR

HOME PROJECT RESULTS PARTNERS NEWS & EVENTS CONTACTS

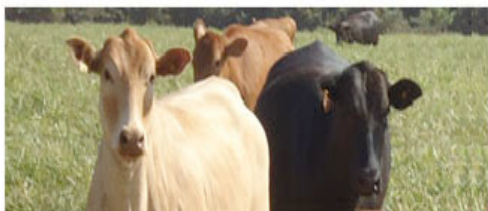
SALSA

Knowledge-based Sustainable value-added food chains: innovative tools for monitoring ethical, environmental and socio-economic impacts and implementing Eu-Latin America shared strategies

## SALSA E-Platform

SALSA

E-Platform



# SALSA POTENTIAL USERS'

## Policy makers' questions & SALSA answers

**Q:** How can I implement an effective political/advocacy strategy?

**A:** *Understand the social, economic and political context of the Latin American soy and beef production*

**A:** *Understand the market and food chains specific issues*

**A:** *Discuss with stakeholders your options*

**A:** *Support public awareness*

### SALSA CONTRIBUTION

- Qualitative sustainability Analysis
- SALSA Industrial Platform
- Other dissemination activities

# SALSA POTENTIAL USERS'

## Policy makers' questions & SALSA answers

**Q:** How can I understand if the product we buy are sustainable?

**Q:** How can I understand which production systems are more sustainable?

**A:** *by receiving a clear, simple and reliable information from different sources  
(Government – Consumers' organization – NGOs - Scientific sources – Companies*

### SALSA CONTRIBUTION

- Results Dissemination

# SALSA DISSEMINATION ACTIVITY



# SALSA DISSEMINATION ACTIVITY

## Workshops

Specific Meeting in EU and Latin America:

- Budapest – Hungary 2012
- Campo Grande – Brazil 2013
- Buenos Aires - Argentina 2013



## Conferences

SALSA General Conference

- Buenos Aires – Argentina 2013
- Brussels – Belgium 2014

# SALSA DISSEMINATION ACTIVITY

## Inventory of successful cases

Sustainable soy and beef chains  
in Mexico Argentina and Brazil



# SALSA DISSEMINATION ACTIVITY

## Webinars

1. Transparency, cost saving and use of by-products
2. Carbon foot printing, food factory in the future
3. Envifood (Environmental assessment of food and drink) and our relevant results from WP 3
4. Sustainability assessment of food technologies, products and value chains
5. Energy saving strategies at the cooling systems in the future food factory

# SALSA DISSEMINATION ACTIVITY

Industrial Platform:

Test SALSA results - contribute to SALSA knowledge exchange - networking

The current IP members : **13**

- 4 from Italy
- 2 from the Netherlands
- 3 from Brazil
- 1 from Mexico
- 1 from Hungary
- 1 from Argentina
- 1 International



## SALSA DISSEMINATION ACTIVITY

# SMEs Clusters for E-Platform evaluation

## 4 Clusters in 3 Regions

Argentina 1 cluster of soybean production users

Mexico 1 cluster of beef production users

Brazil 2 clusters of soybean and beef production users

# SALSA DISSEMINATION ACTIVITY

## Trainings

**7** training modules delivered in Argentina Brazil and Mexico  
two rounds of courses for each country

Training for the SMEs Clusters

# SALSA DISSEMINATION ACTIVITY

## Educational Forums

*1st to 4th of October, 2013*

**Educational Forum on Sustainability in Agribusiness**  
Federal University of Viçosa, Brazil.

WEB- Based Forums on SALSA website

# SALSA DISSEMINATION ACTIVITY

## Staff Secondments

- Organized between EU and Latin America
- facilitate the exchange of best practice and common protocols for managing the food chain
- 8-8 visits from EU and Latin Americas side will be organized for 1-1\_persons for 2-2 weeks each

# SALSA DISSEMINATION ACTIVITY

## Knowledge exchange and networking



## SALSA DISSEMINATION ACTIVITY

# Collaboration with other projects

### EU funded projects:

**FUSIONS:** waste management

**NAMASTE:** use of by-products

**IMSFood:** cost saving

**Transparent\_Food:** Transparency

**Food Manufacture:** Carbon foot printing, food factory in the future

### NON EU-funded projects:

**Soy Fast Track Fund (SFTF):** development of sustainable soy chains between Latin America and EU

**Nutrimentum:** communicate sustainability through art. Milan EXPO 2014

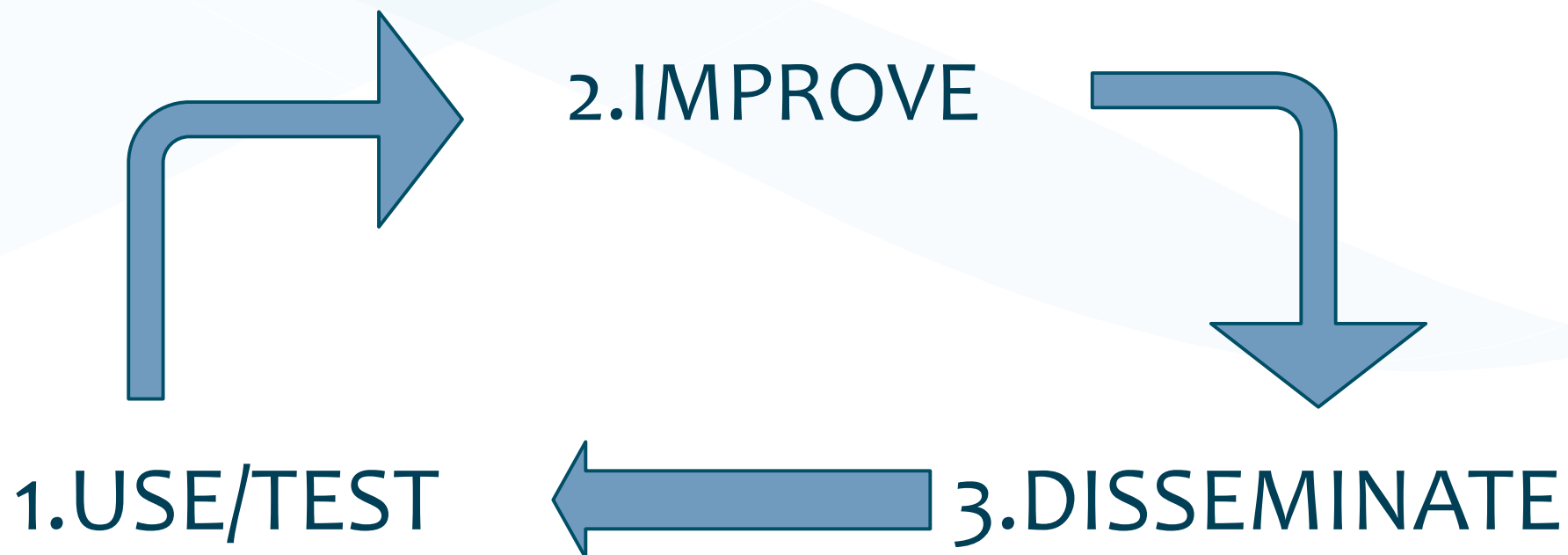
## SALSA DISSEMINATION ACTIVITY

# Collaboration with other institutions

- **FAO:** SAFA testing
- **COSA:** indicators testing and knowledge exchange
- **People4earth:** E-Platform networking
- **European Food Sustainable Consumption and Production (SCP) Envifood:** Testing their protocol

## NEXT STEPS

### FOOD CHAIN SUSTAINABILITY ASSESSMENT & MANAGEMENT





# CONCLUSIONS

Sustainability is too complex to be dealt with only from the technical point of view

Its successful implementation is heavily influenced by the ability to consider the political, cultural and economic context

# CONCLUSIONS

Necessity to join forces with other initiatives related to food sustainability assessment and management to increase:

- A shared vision of what sustainability entails
- the harmonization of the sustainability assessment methods
- the effectiveness of the analytical approach (indicators' choice and measurement)
- the food chains assessment representativeness
- the effectiveness of the sustainability improvement strategies

# CONCLUSIONS

Influence of communication in defining reputation and consensus towards different views of sustainability is central

It involves a multistakeholders' approach  
&  
must be managed and regulated at a global level



RTRS

Round Table on Responsible Soy Association



Universidade Federal  
de Viçosa

THANKS!



Campden BRI  
food and drink innovation



Solidaridad

proQUANTIS



Embrapa