

DECISION MAKING TOOLS FOR THE DEVELOPMENT OF BREED STRATEGIES



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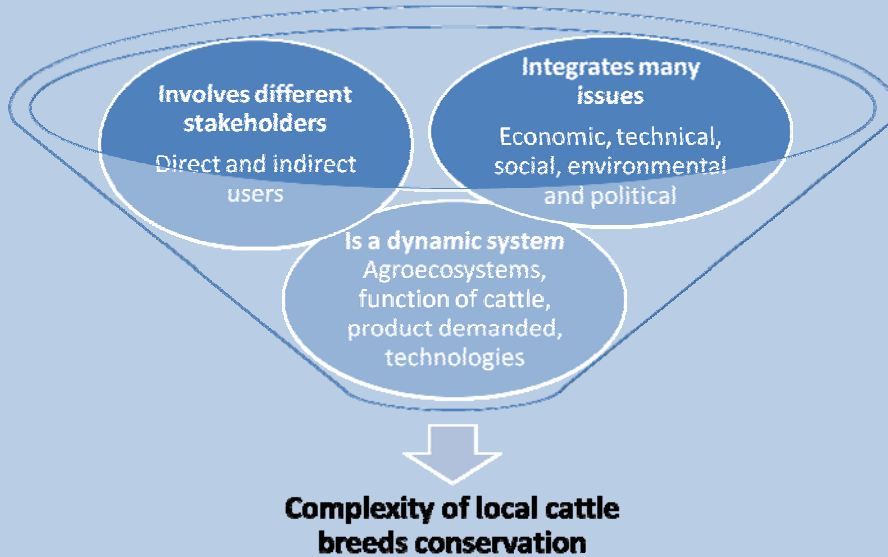
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Presentation outline

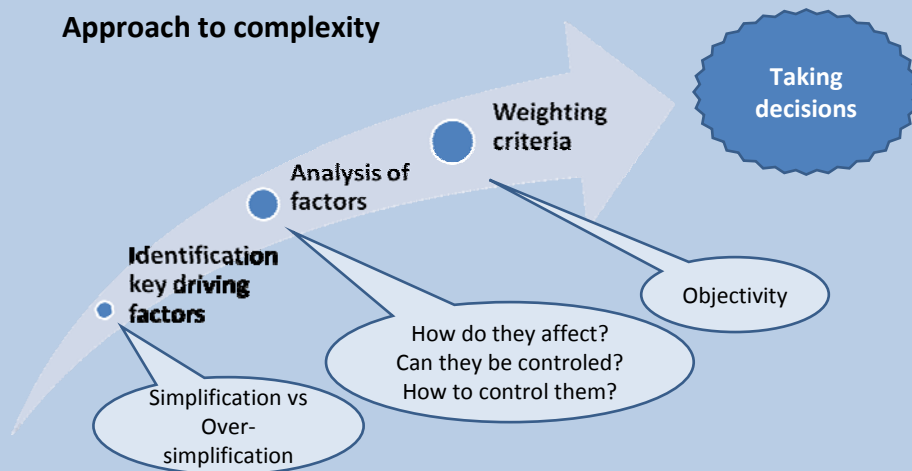
- Approaching the complexity of local cattle breeds conservation
- The use of decision making tools: an structured and quantified SWOT analysis for developing strategies
 - Introduction
 - Steps of the analysis
 - Strategies definition and comparison
- Lessons learned

Introduction. Dissecting complexity



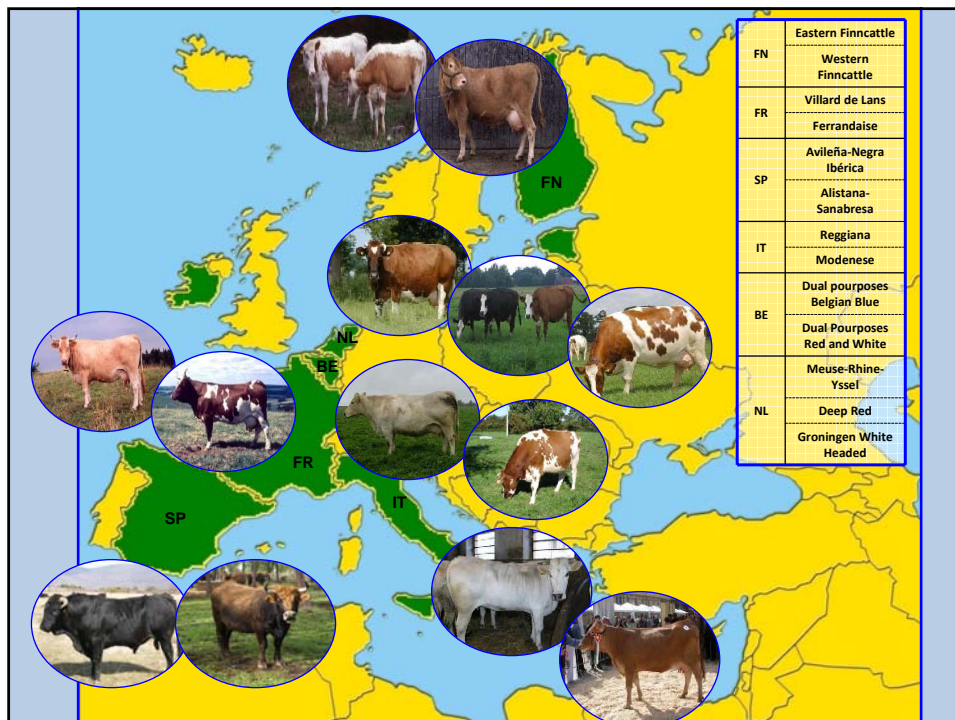
Introduction. Solving process

Approach to complexity



Introduction. Aims

- Explore the use of decision making tools to tackle complexity of local breed conservation.
- Adapt SWOT analysis into a specific decision making tool to help in the identification and selection of strategies.



The SWOT analysis: a decision making tool

- Decision making tools were developed in the business world to help in the process of taking decisions in complex systems
- SWOT (Strength, Weaknesses, Opportunities, Threats) analysis splits affecting factors in:
 - **Internal:** attributes of the company (breed). Can be controlled
 - **External:** Environmental situations. Cannot be managed

SWOT Matrix		Internal factors	
		Strengths	Weaknesses
External factors	Opportunities	SO Strategy Maximise both strength and opportunities	WO Strategy Minimise weaknesses and maximise opportunities
	Threats	ST Strategy Maximise strengths while minimising threats	WT Strategy Minimise both weaknesses and threats

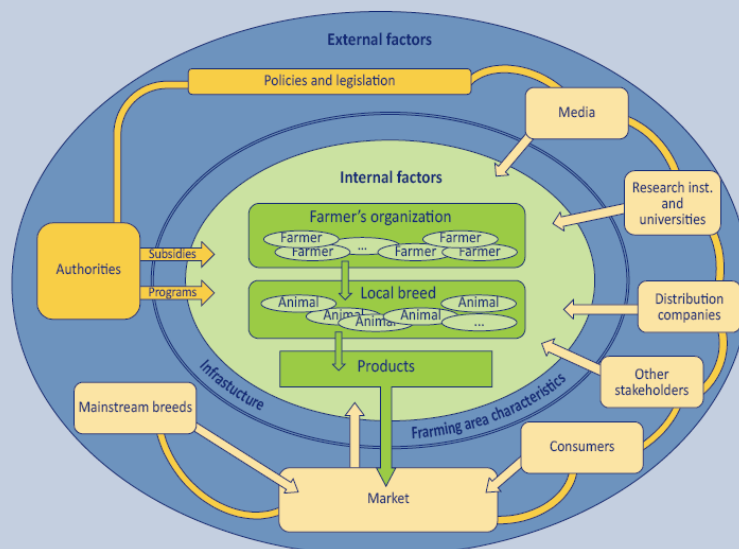
Using SWOT analysis for the development of conservation strategies

- Phases of EURECA SWOT for local cattle conservation:
 1. Definition of the system
 2. Identification of driving factors: strengths, weaknesses, opportunities and threats
 3. Identifications and prioritization of breed strategies

Phase 1. Definition of the system

- A clear and contrasted definition of the system is needed
 - The **European local cattle production system** was defined by EURECA partners.
- The system is defined to be used in a SWOT analysis by the breeders
 - Internal factors: features of the breed, the breeders and their associations
 - External factors: Aspects related with the social, political, economic, environmental, technical context

Phase 1. Definition of the system



Phase 2. Identification of driving factors

- The system has to be simplified to get a manageable n° of factors.
- All important factors has to be considered

- Stakeholders were asked to point out the strenghts, weaknesses, opportunities and threats for their respectives breed

Stakeholders

National, regional and local Agriculture Authorities
 National, regional and local Environmental Authorities
 Research Institutes, Universities and State farms
 Trade and distribution companies
 Rural development agencies
 Slaughter houses and dairy cooperatives
 Association of breeders and artificial insemination centres
 Farmers

Phase 2. Identification of driving factors

Weaknesses groups	Stakeholders					
	Farmers	Assoc. of Breeders	Rural development Agencies	Local cattle farming Authorities	Research Institutes/ Universities	Distribution companies
Animal features						
Product features						
Farmers features						
Production system						
Marketing system						

Phase 2. Identification of driving factors

- 108 factors were identified: 39 strengths, 28 weaknesses, 23 opportunities and 18 threats.
- Factors were grouped in different categories to facilitate the analysis

Internal factors categories

1. Animal
2. Breed
3. Farmer
4. Production system
5. Products
6. Marketing system

External factors categories

1. Market of current products
2. Market of new products and functions
3. Production system
4. Policies and legislation
5. Stakeholders

Phase 2. Organization of factors

GROUPS	CATEGORIES	FACTORS					
Strengths	Animal	A-C-D-...	B-C-E-...	...	A-C-G-E...	B-G-E...	
	Breed	A-C-D-...	B-C-E-...	...	A-C-G-E...	B-G-E...	
	Farmers	A-C-D-...	B-C-E-...	...	A-C-G-E...	B-G-E...	
	...	A-C-D-...	B-C-E-...	...	A-C-G-E...	B-G-E...	
	Marketing system	A-C-D-...	B-C-E-...	...	A-C-G-E...	B-G-E...	
Weaknesses	Animal	A-C-D-...	B-C-E-...	...	A-C-G-E...	B-G-E...	
	...	A-C-D-...	B-C-E-...	...	A-C-G-E...	B-G-E...	
	Marketing system	A-C-D-...	B-C-E-...	...	A-C-G-E...	B-G-E...	
Opportunities	Market of current products	A-C-D-...	B-C-E-...	...	A-C-G-E...	B-G-E...	
	Market of new prod. & func.	A-C-D-...	B-C-E-...	...	A-C-G-E...	B-G-E...	
	...	A-C-D-...	B-C-E-...	...	A-C-G-E...	B-G-E...	
	Stakeholders	A-C-D-...	B-C-E-...	...	A-C-G-E...	B-G-E...	
Threats	Market of current products	A-C-D-...	B-C-E-...	...	A-C-G-E...	B-G-E...	
	...	A-C-D-...	B-C-E-...	...	A-C-G-E...	B-G-E...	
	Stakeholders	A-C-D-...	B-C-E-...	...	A-C-G-E...	B-G-E...	

Phase 3. Identifications and prioritization of breed strategies. Quantification of SWOT factors

- An expert for each breed ranked the factors within categories.
- A quantification process was carried out allowing:
 - Comparison of the different factors of the system
 - Comparison of the importance of each category
 - Comparison of the importance of the groups

GROUPS	CATEGORIES	FACTORS
Strengths (2)	Animal (1)	A(2)-C(1)-D(3)
	... (2)	A(3)-C(2)-D(1)
	Marketing system (3)	A(1)-C(3)-D(2)
Weaknesses (1)	Animal (3)	
	... (2)	
	Marketing system (1)	

Phase 3. Identifications and prioritization of breed strategies. Strategies definition

- Two different approaches can be used
 1. Comparison of SWOT factors
 2. SWOT matrix strategies
 - Factors level
 - Categories level
 - Groups level
- Highly flexible method. Very useful tool for wide variety of stakeholders

Phase 3. Identifications and prioritization of breed strategies. Comparison of SWOT factors

In-depth analysis of most important factors within breeds

- Study the **external conditions** of a given breed **that make** one of its **internal features a strength**. Try to use it for other breeds if such conditions are met. For example:
 - Most important strength of Deep Red cattle and Avileña-Negra Ibérica is the efficiency of the Breeders Association.
 - Its experience can be shared with other breeds to benefit their development

Phase 3. Identifications and prioritization of breed strategies. Comparison of SWOT factors

Similar approach for external factors

Breed	Most important opportunity
Eastern Finncattle (Finland)	Increasing media interest in local breed
Groningen White Headed (Netherlands)	Increasing social environmental awareness
Modenese (Italy), Reggiana (Italy)	Increasing demand for products linked to the breed

- What is it about a specific situation that makes it an opportunity for a breed?
- Could this situation be considered an opportunity for other breeds as well?
- Which internal factors have to be met to make use of a recognized opportunity?

Phase 3. Identifications and prioritization of breed strategies. Comparison of SWOT factors

Analysis of the threats

- Become aware of factors that hampers performances in some breeds.
- Evaluate the conditions of having the same situation in other cases.

Breed	Most important threat
Avileña-Negra Ibérica (Spain)	Increasing demand for suckler cow for crossbreeding
Villard de Lans (France)	Competition against other economic activities

Phase 3. Identifications and prioritization of breed strategies. SWOT matrix based strategies

- SWOT matrices can be use to identify strategies in four diferent ways

SWOT Matrix		Internal factors	
		Strengths	Weaknesses
External factors	Opportunities	SO Strategy Maximise both strength and opportunities	WO Strategy Minimise weaknesses and maximise opportunities
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Phase 3. Identifications and prioritization of breed strategies. Matching the categories

- More concrete strategies from the analysis the SWOT matrix of categories.
- Develop strategies based on the highest valued pairs of categories

Avilleña-Negra Ibérica breed		Strengths						Weaknesses					
		Animal	Breed	Products	Farmers	Production system	Marketing system	Animal	Breed	Farmers	Production system	Marketing system	
Opportunities	Market for current products	High	High	Medium	Medium	Medium	Medium	Medium	Medium	Medium	Medium	Medium	Medium
	Market for new functions and products	Medium	Medium	High	High	High	High	High	High	High	High	High	High
	Policies and legislation	Medium	Medium	Medium	Medium	Medium	Medium	Medium	Medium	Medium	Medium	Medium	Medium
	Stakeholders	Medium	Medium	Medium	Medium	Medium	Medium	Medium	Medium	Medium	Medium	Medium	Medium
Threats	Market for current products	High	High	Medium	Medium	Medium	Medium	Medium	Medium	Medium	Medium	Medium	Medium
	Production system	High	High	High	High	High	High	High	High	High	High	High	High
	Policies and legislation	High	High	High	High	High	High	High	High	High	High	High	High
	Stakeholders	High	High	High	High	High	High	High	High	High	High	High	High

Lessons learned

- Definition and prioritization of **strategies** need to be **based** on an **objective evaluation of** the internal and external **factors** involved.
 - The **multi-stakeholder perspective** for a correct definition and weighting of driving factors
- Strategic planning requires **working at different levels**. **SWOT analysis is an useful tool** to do so.
 - We need to go from general to specific strategies and then to decide specific actions and activities for implementing the strategy.

Lessons learned

- **Common policies** have to **consider the heterogeneous state** and reality of European local breeds.
 - Policies and programmes need to recognize different groups of breeds, based, among others, on their development stage' and their basic features.
- Common policies **have to be extensive enough** to be adapted to the specific cases when reaching a lower level.
- **Decision-making tools proper framework** for the development of both European conservation and breeding programmes.
 - This is possible because they allow a structured and systematic view of the decision-making process.

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THANK YOU!!!