

# EURECA



## **Local cattle breeds in Europe** **Policies and strategies for self-sustaining breeds**

EU GENRES 012 (870/04)

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Experts  
National Coordinators  
Farmers  
National stakeholders  
National funding sources  
GLOBALDIV  
FAO



## EURECA partners



- CGN – Netherlands
- IE – France
- UNIMI – Italy
- MTT – Finland
- FUSAGx – Belgium
- EAU – Estonia
- NRIAP – Poland
- ICBF – Ireland
- INIA – Spain
- UMB – Norway



## In this presentation

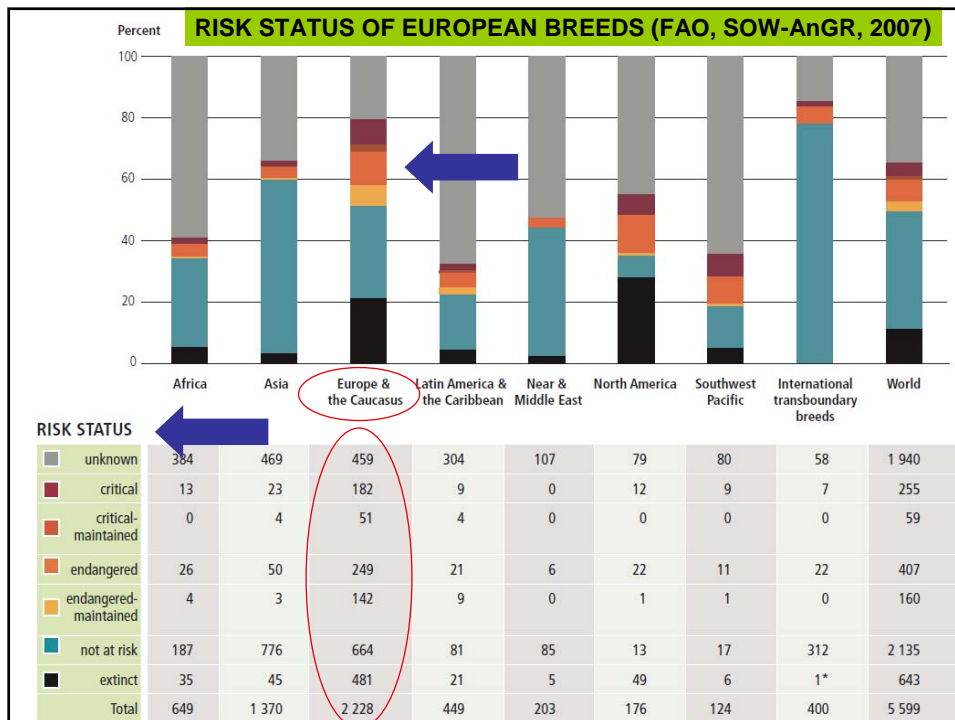
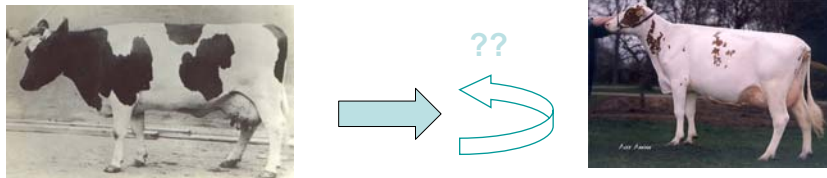
- Background to EURECA project
- Objectives and main activities
- State of local cattle breeds in Europe
- From breed analysis to breed strategy development
- Dissemination

Followed by 4 EURECA Consortium presentations,  
+ invited expert presentations (Alderson, Drucker),  
+ other GENRES projects  
(ELBARN, HERITAGESHEEP)




# Background

- Replacement of local/regional, often 'dual purpose' cattle breeds by specialized, international, mainstream breeds
- How to conserve local/regional breeds, their unique characteristics and important genetic, cultural, historical, socio-economic and environmental values ?
- Successful strategies and policies for conservation, development and use of such cattle breeds ?







## **EURECA objectives**

- To better understand the **factors affecting the dynamics** of local/regional cattle breeds and **assess the state** of local/regional cattle breeds in Europe
- To **assess state and organisation** of existing cattle **cryopreservation** programmes
- To review available methodologies and software, which are useful **supportive tools for genetic management**

→ Disseminate Guidelines, Good Practices, Policy Information

## Main activities EURECA project

- Detailed assessment and analysis of breed cases (*Gandini et al.*)
- Comparison of cryopreservation in 4 countries (*Pizzi et al.*)
- Europe-wide survey of local cattle breeds
- Methods and software for genetic management (*Mäki-Tanila et al.*)
- SWOT analysis by breed and across countries (*Martin et al.*)
- Breed strategy development (breed cases)
- Overall analysis, Synthesis and Dissemination



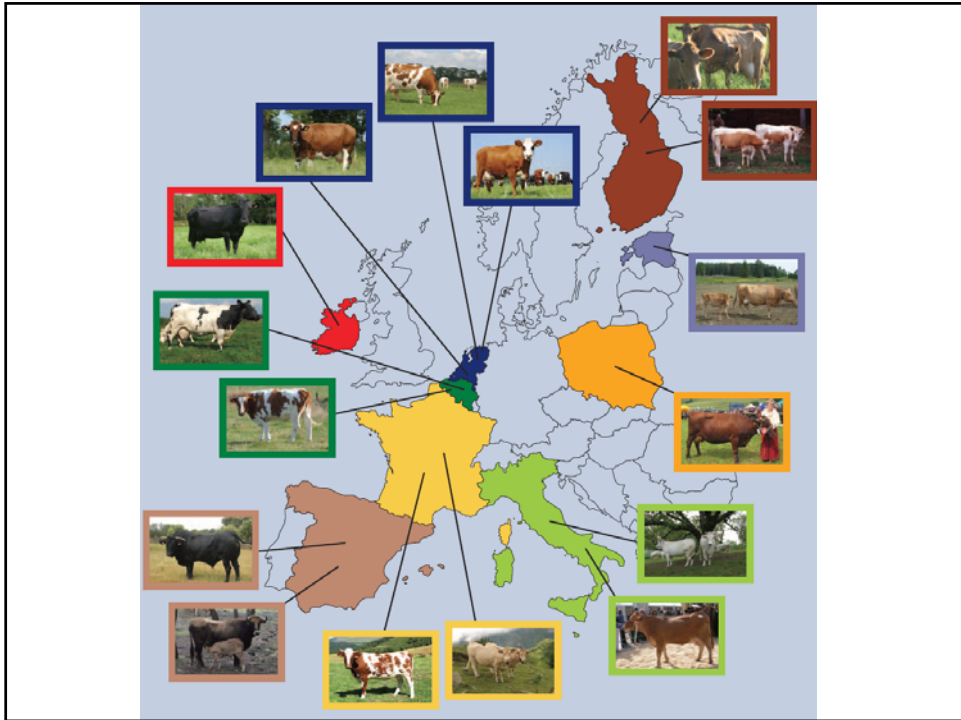
## Individual breed assessments 15 breed cases

- Evolution of breed demography, farm profiles, productivity, country context
- Past and current breed development and conservation activities
- Farmers attitude and values
- Stakeholders attitude and values
- SWOT analysis
- Willingness to pay study



- Breed reports and brochures
- Analysis and synthesis across countries (e.g. *Gandini et al*, *Martin et al*)





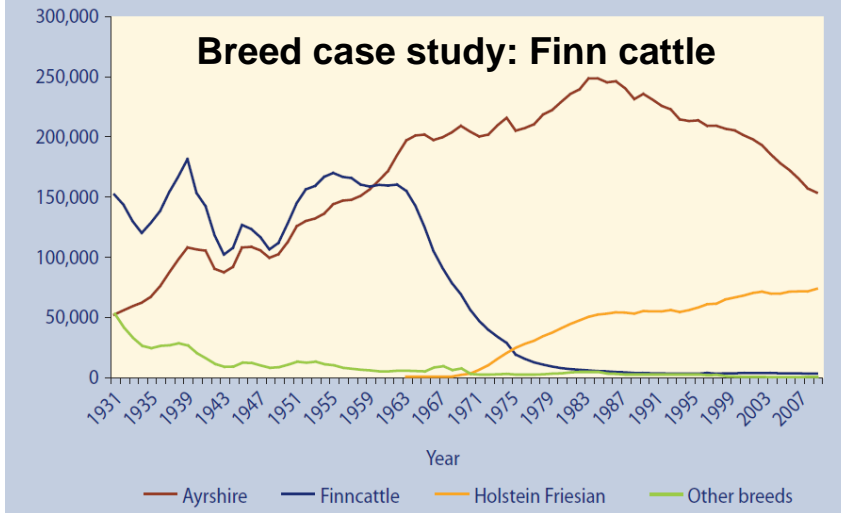
## Breed case study: Developments in last decades/centuries (FI)



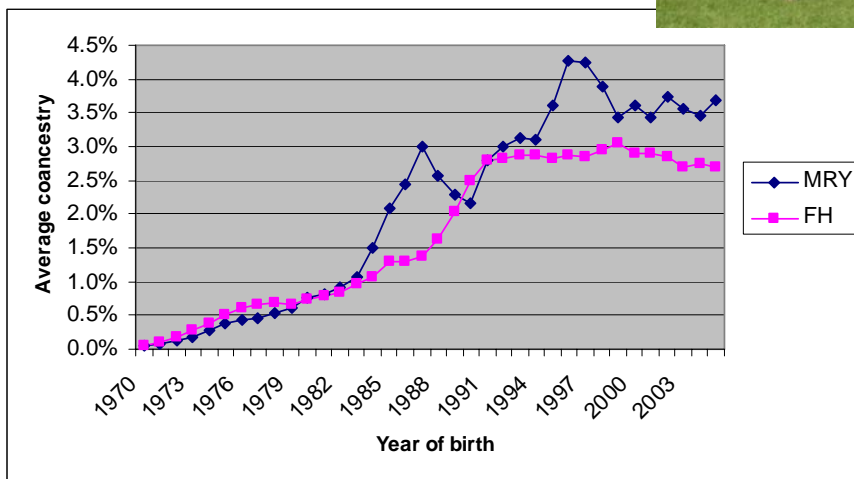
Agricultural society		Industrial society			Post-Industrial consumer society		Towards more sustainable society?		
Great famine 1866-1868	From self-sufficient households to food markets and trade	Yoghurts and low-fat milk products introduced	Arrival of international food cultures	Food crises; discussion about quality of food starts	Movement on local food emerges	Products of local breeds available in the markets and restaurants			
Importance of milk production increases	Agricultural research and extension organised	Dairy co-operatives, tractors, milking machines	Overproduction, payment for slaughtering cows	Milk quota system introduced 1982	Membership of EU 1995 & CAP	Rapid decrease in number of farms			
1800	1900	1950	1960	1970	1980	1990	2000	2010	
State imports breeds	Imports banned due to animal diseases	Productivity requirement was included in herdbook in 1912	Discussion about differences between Finncattle breeds	Crossbreeding of Finncattle with Holstein-Friesian and Ayshire	Establishment of cryobank	First Eastern Finncattle embryos stored	Separation of Eastern, Northern and Western Finncattle in animal register		
	Association & herdbook for Eastern Finncattle in 1898	Herdbook for Western Finncattle in 1906	Joint association for Finncattle breeds		Attention to critical situation of Finncattle	Finncattle housed in three prisons for conservation	Agri-environmental subsidies for keeping Finncattle 1995->	Eastern Finncattle receives attention in the media	
									2020



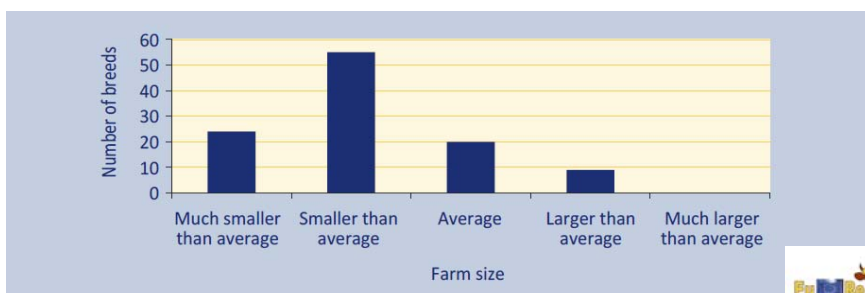
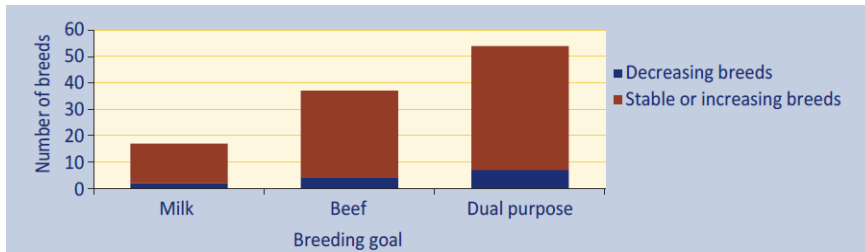
Finland: number of recorded cows in different breeds 1931-2009



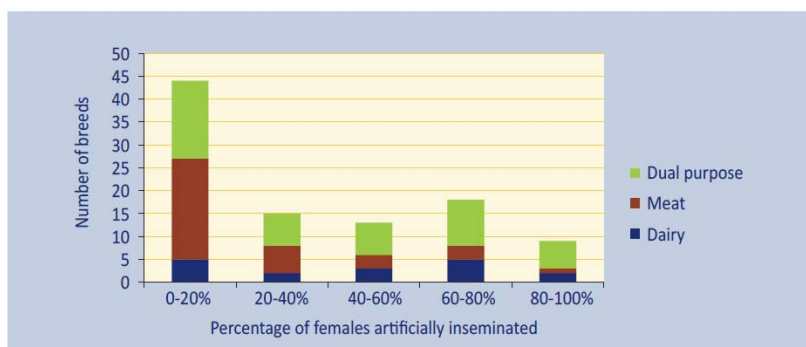
### Breed case study – genetic diversity MRY - NL



### Europe wide NC survey (breeds <7500 females) (108 breed questionnaires from 24 countries)



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Number of straws	Number of breeds
<1000	8
≥1000 and <10,000	27
≥10,000 and <50,000	25
≥50,000	24
Total	84

## Europe wide NC survey (breeds <7500 females) (108 breed questionnaires from 24 countries)

Tasks	Percentages of females registered or recorded					
	0%	<20%	20-40%	40-60%	60-80%	>80%
Registered in a herdbook	4	4	10	8	17	65
Milk recorded	61	15	8	4	6	14
Beef recorded	62	14	9	7	7	9



## Europe wide NC survey (breeds <7500 females) (108 breed questionnaires from 24 countries)

- >50 of breeds surveyed benefit from direct subsidies
- Subsidies range from 75-400 euro/head/yr




- 25% mentioned a breed specific product
- Not always branded or professional marketing



## Europe wide NC survey (breeds <7500 females) (108 breed questionnaires from 24 countries)

	Stakeholders							
	National government	Regional government	Breed society	NGO	Livestock sector organization	Technical institute	University	Others
Breed census	52	10	44	7	1	28	29	4
Breeding programme	27	13	50	3	4	22	19	4
Breed registration	33	29	45	3	8	14	12	2
<i>Ex situ</i> conservation	21	7	27	0	1	15	19	2
<i>In situ</i> conservation	34	14	56	7	0	22	28	4
Performance recording	8	22	35	1	3	0	15	9
Promotion of the breed	35	19	64	22	7	20	26	4
Scientific research	9	7	15	0	1	6	47	2
Technical assistance	19	28	57	7	6	19	38	3

Number of breeds concerned ≥ 25%  
Number of breeds concerned ≥ 15% and < 25%



## From breed analysis/assessment to development/strengthening of breed strategies.....

- Breed assessment, incl. SWOT analysis
- Multi-stakeholder approach, work with farmer network / breed association

Example Belgium – Dual purpose Belgian Blue

- Cross border breed strategy: INTERREG project with North Blue association (France): Genetic evaluation



Example Netherlands – Groningen Whiteheaded

- Breed related product chain development
- Development of breed-driven breeding program
- Bottom-up approach to develop breeding program
  - Network of farmers/breeders
  - Involvement of main breed interest groups



## What did we learn....?

### Farmer's quote:

*'Local breeds are like diesel cars. Slow to start, run on cheap fuel and keep going for a long time'*



## What did we learn...



**It is worth to conserve our local cattle breeds in Europe, but breed development is also something 'dynamic'**

**Farmers, other users, and stakeholders are the main drivers !**



**DISSEMINATION EURECA ?**

- National publications
- International, scientific publications
- Website [www.regionalcattlebreeds.eu](http://www.regionalcattlebreeds.eu)
- Book
- Conferences

**EURECA-EAAP-ERFP**  
 Workshop Barcelona August 2009  
 Practical strategies and tools for the genetic management of farm animal populations

**Local cattle breeds in Europe**  
*Development of policies and strategies for self-sustaining breeds*

edited by:  
 Sipke Joost Hiemstra  
 Yvette de Haas  
 Asko Mäki-Tanila  
 Gustavo Gandini

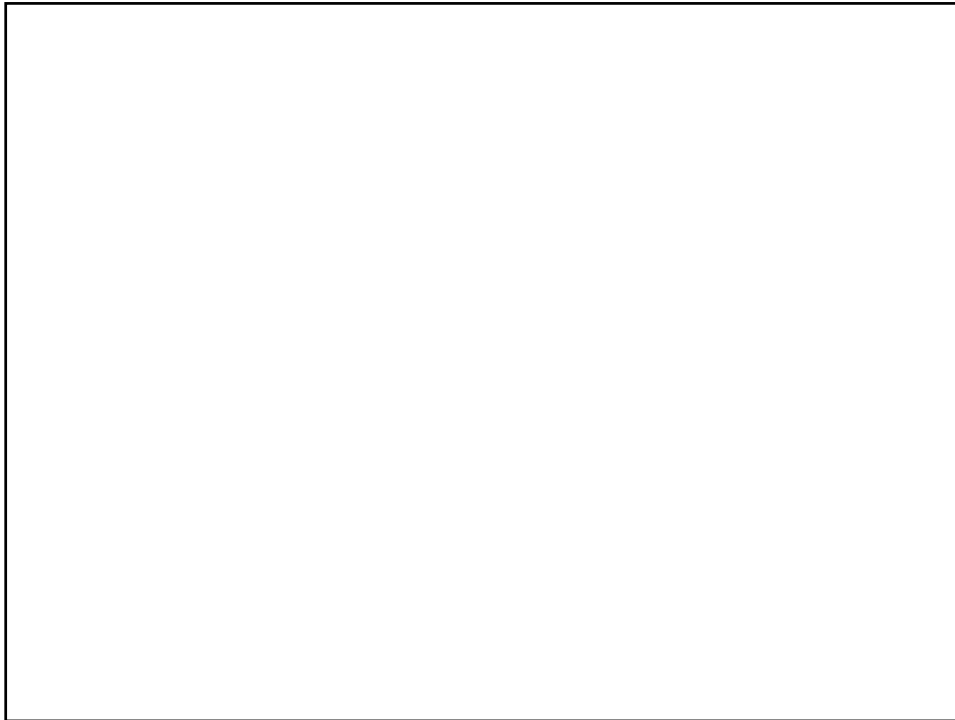
Eu Re Ca

**Eu Re Ca**  
 Towards self-sustainable European Regional Cattle breeds

# Thank you for your attention




[www.regionalcattlebreeds.eu](http://www.regionalcattlebreeds.eu)  
[www.WageningenAcademic.com/cattlebreeds](http://www.WageningenAcademic.com/cattlebreeds)



## Achievements - EURECA

### National

- Breed case studies, incl. SWOT
- Strengthening farmer and stakeholder networks
- Raising awareness *in situ* + *ex situ* strategy
- National publications

### International

- Exchange of knowledge, experiences
- Better view on state of local cattle breeds in Europe (*in situ* + *ex situ*)
- Better view on development of common (EU) and breed-specific policies and strategies
- International publications and conference contributions



## **Recommendations EURECA (1)**

### *for management of local cattle breeds in Europe*

- Development of policies and strategies to make breeds more self-sustaining, to be included in National Action Plans
- Need for better indicators to assess breed status, that include demographic and non-demographic information, genetic and non-genetic information
- Support measures for breed conservation should take into account (future) farm profiles and attitudes
- Use of decision support tools (SWOT) and multi-stakeholder approach for strategic planning at breed level
- Common (EU) policies to be accompanied by local policies, tailored to specific breed/country situations



## **Recommendations EURECA (2)**

### *for management of local cattle breeds in Europe*

- Breed managers to give proper attention to management of genetic variation to keep populations vital
- Breeding programs/policies to be strengthened to minimize profitability gap with mainstream breeds
- Further development of national cryoconservation programs and international collaboration
- Use strengths and opportunities to make breeds more self-sustaining and more independent from economic support
- Continue to exchange experiences and knowledge on breed strategies across breeds and countries



## General discussion - EURECA

- Achievements
- Recommendations
- Follow-up

