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Towards self-sustainable European Regional Cattle breeds

Towards (self) sustainability of local cattle breeds in Europe

S.J. Hiemstra, C. Diaz, D. Duclos, Y. de Haas, A. Mäki-Tanila, D. Martin, F. Pizzi, K. Soini, G. Gandini, the EURECA Consortium

Centre for Genetic Resources, the Netherlands

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EURECA Consortium

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National stakeholders
Experts

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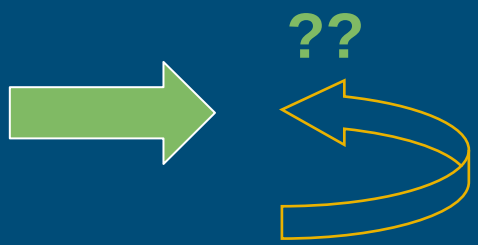
Background and objectives

- 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** ?
- **Successfull strategies and policies** for conservation, development and use of local cattle breeds ?



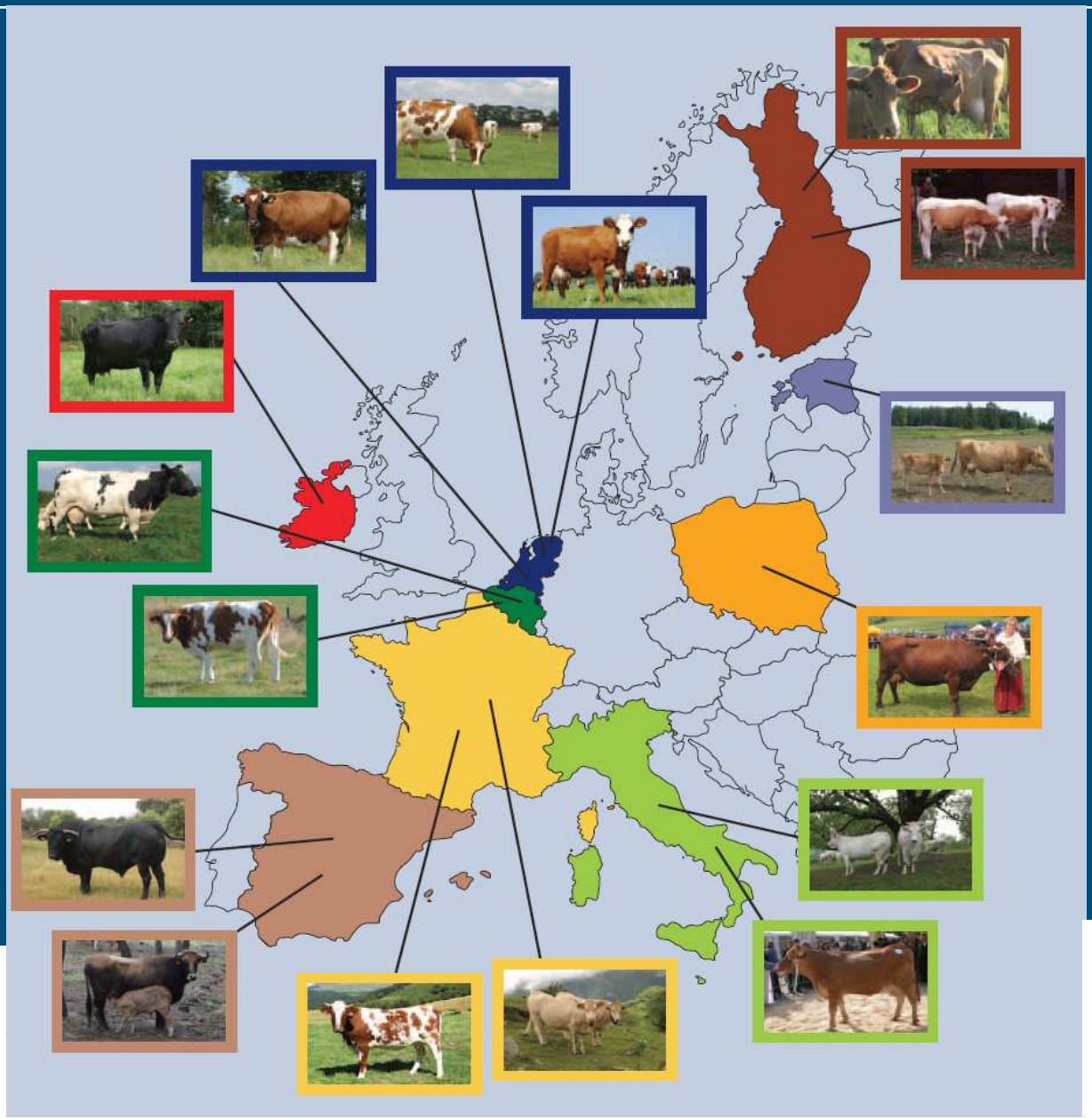
EU policy

- Community programmes for conservation, characterisation, collection and utilisation of genetic resources in agriculture - GENRES
  - Council Regulation (EC) 1467/1994
  - Council regulation (EC) 870/2004
- EU policy to support local endangered breeds
  - Reg. CEE 2078/92
    - Financial support to farmers
  - Reg. CE 1257/99 – Reg. CE 817/2004
    - Financial support to farmers
    - Financial support for conservation of AnGR
- Incentives probably are not a long term solution (?)
- Potential to add value to local breeds (?)

EURECA approach

- Assessment of the *state* and *dynamics* of local cattle breeds in Europe
  - Breed demography
  - Breeding, conservation, marketing
  - Farmer survey
  - National coordinator survey
- From breed analysis to breed strategy development
  - SWOT analysis → **Breed strategies**

Individual breed assessments - 15 detailed breed case studies



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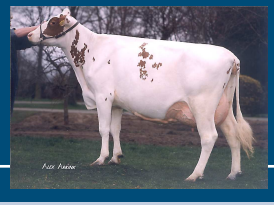
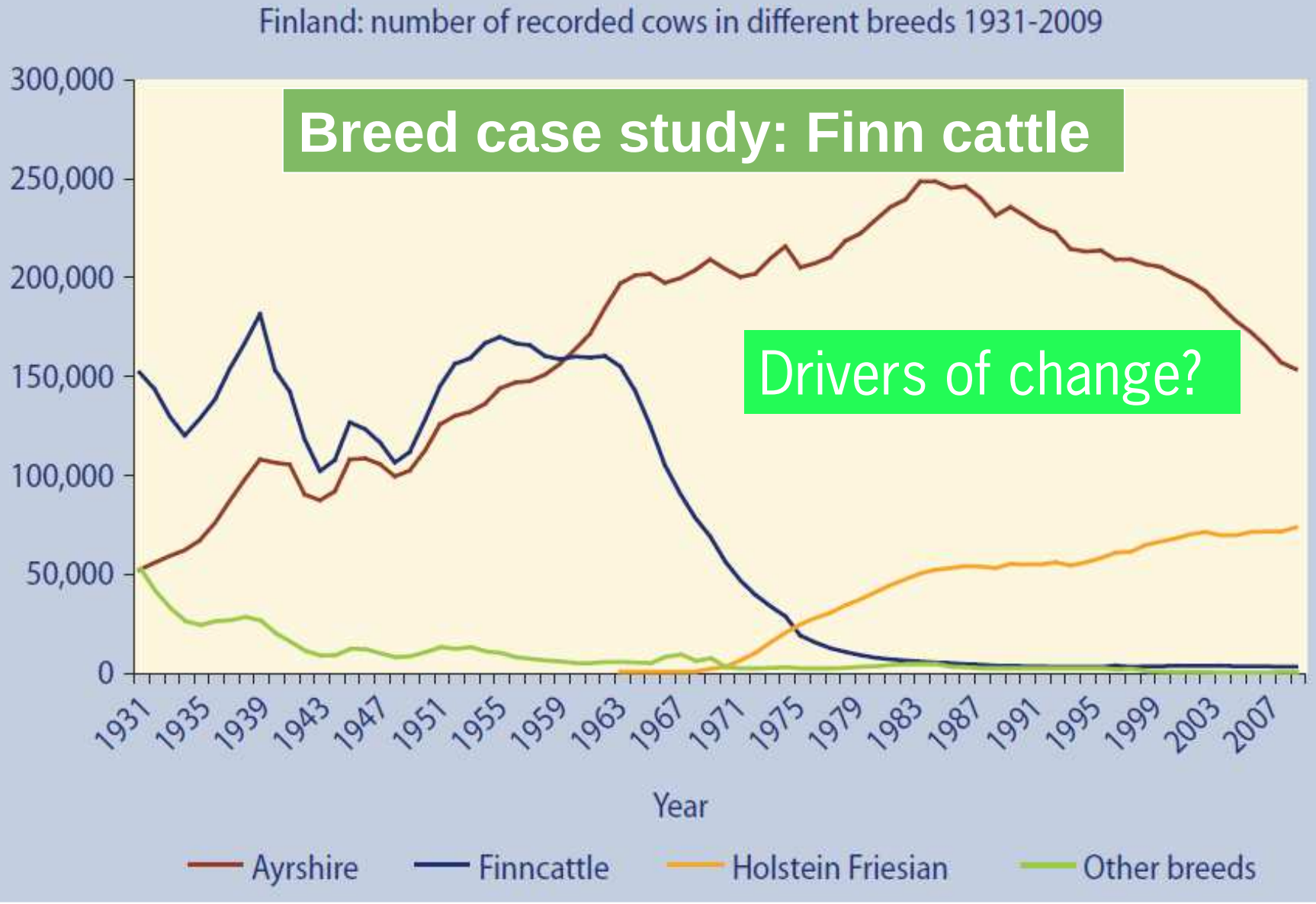


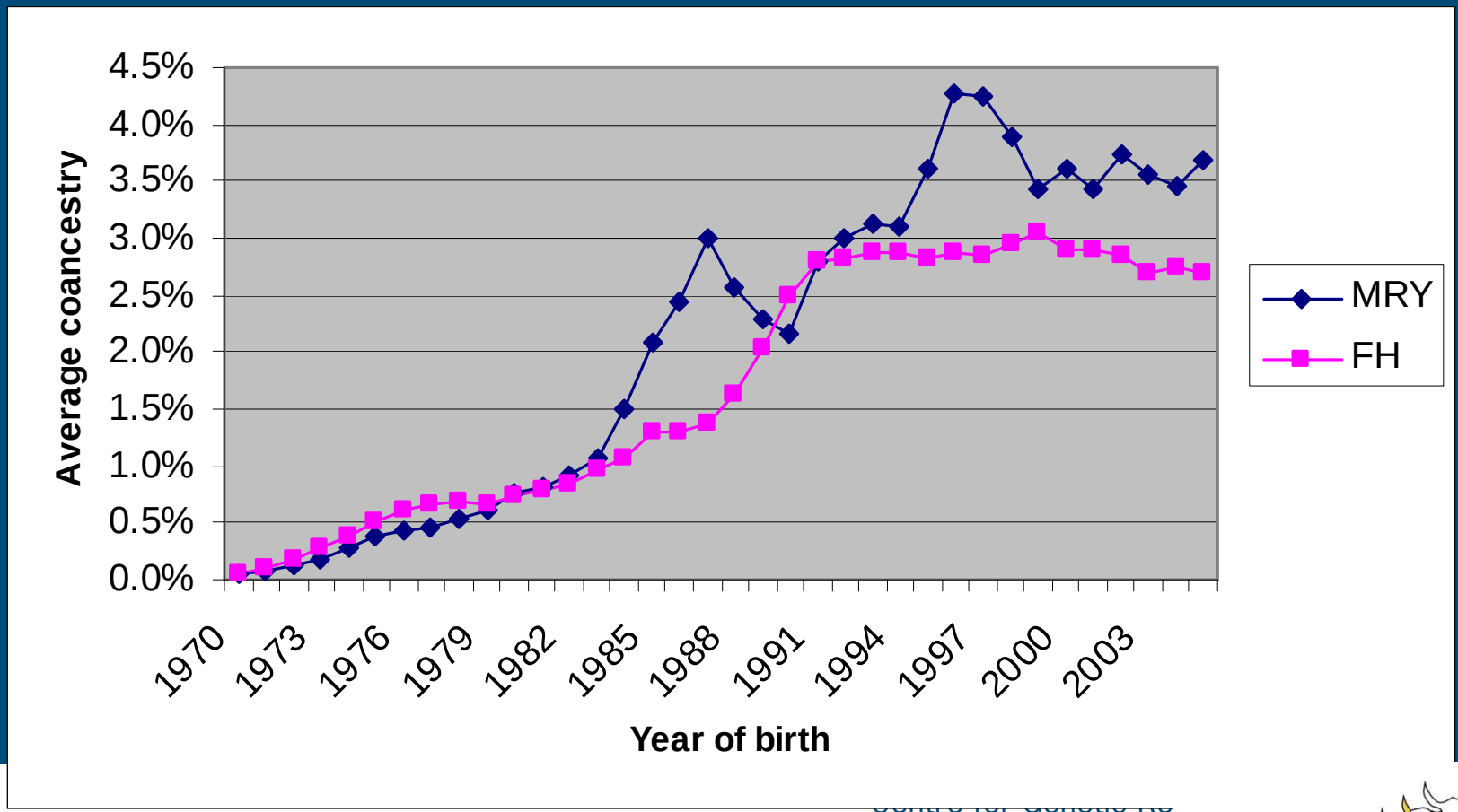
Breed case study: Finn cattle

Drivers of change?



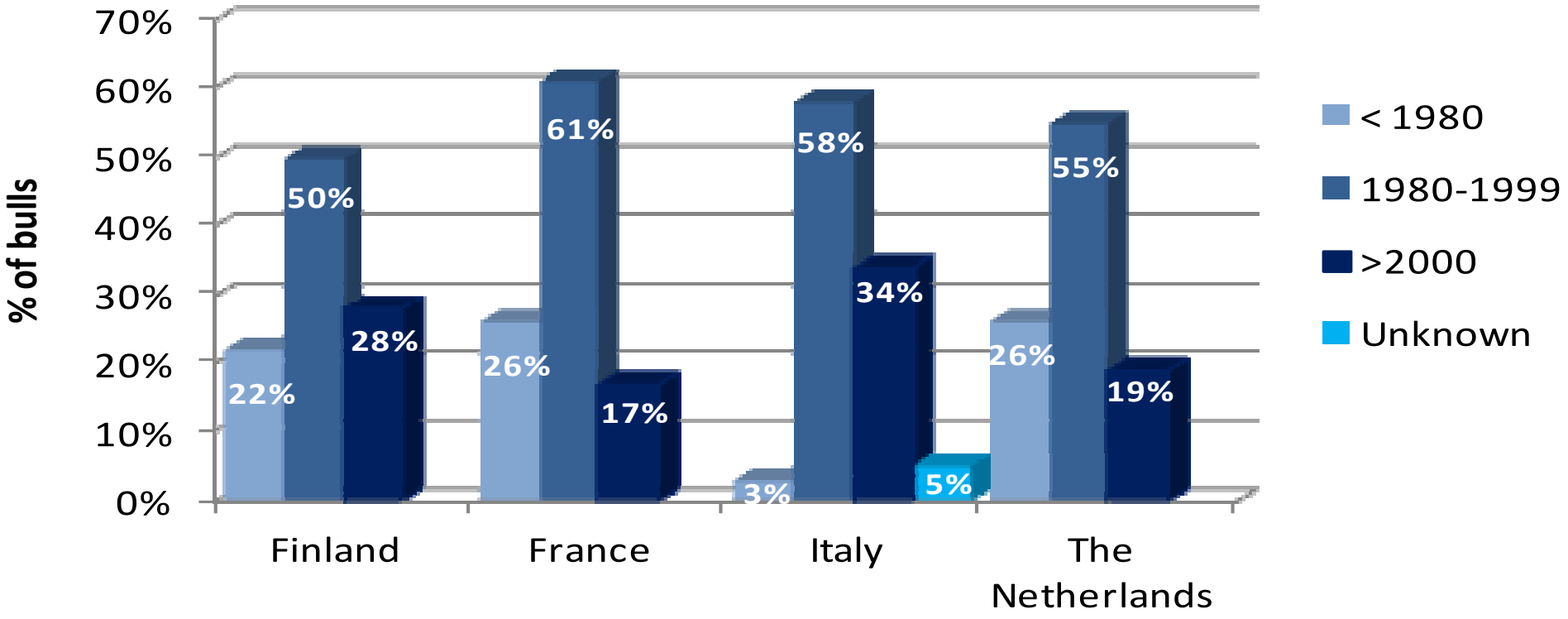
Proper genetic management ?

Breed case study – MRY - NL



Role and organisation of cryopreservation

Birth date of bulls in Gene Banks



371 farmer interviews – 8 countries

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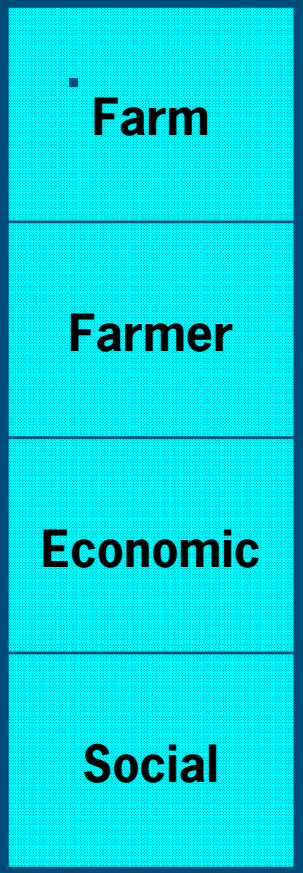
Methodology/parameters surveyed, including:

- Farm size (ha)
- Number of cows (all breeds on farm)
- % of cows of the local breed on farm
- Herd size relative to the breed average herd size
- Evaluation of the breed, compared to a mainstream breed

- Age of the farmer
- Degree of entrepreneurship activity of the farmer
- Level of cooperation with other farmers of the local breed

- % of farm land owned by the farmer
- % of total family income from cattle farming
- % of total family income from local cattle farming
- % of the cattle production sold on farm/local market

- Farmer's opinion on the appreciation of "his work" by society
- Farmer's opinion on the importance of his breed for society
- Relevance of tradition as reason for keeping the local breed



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Analysis farmer survey

- Indicator of 'sustainability'

  Expected change of local cattle herd size in next five years

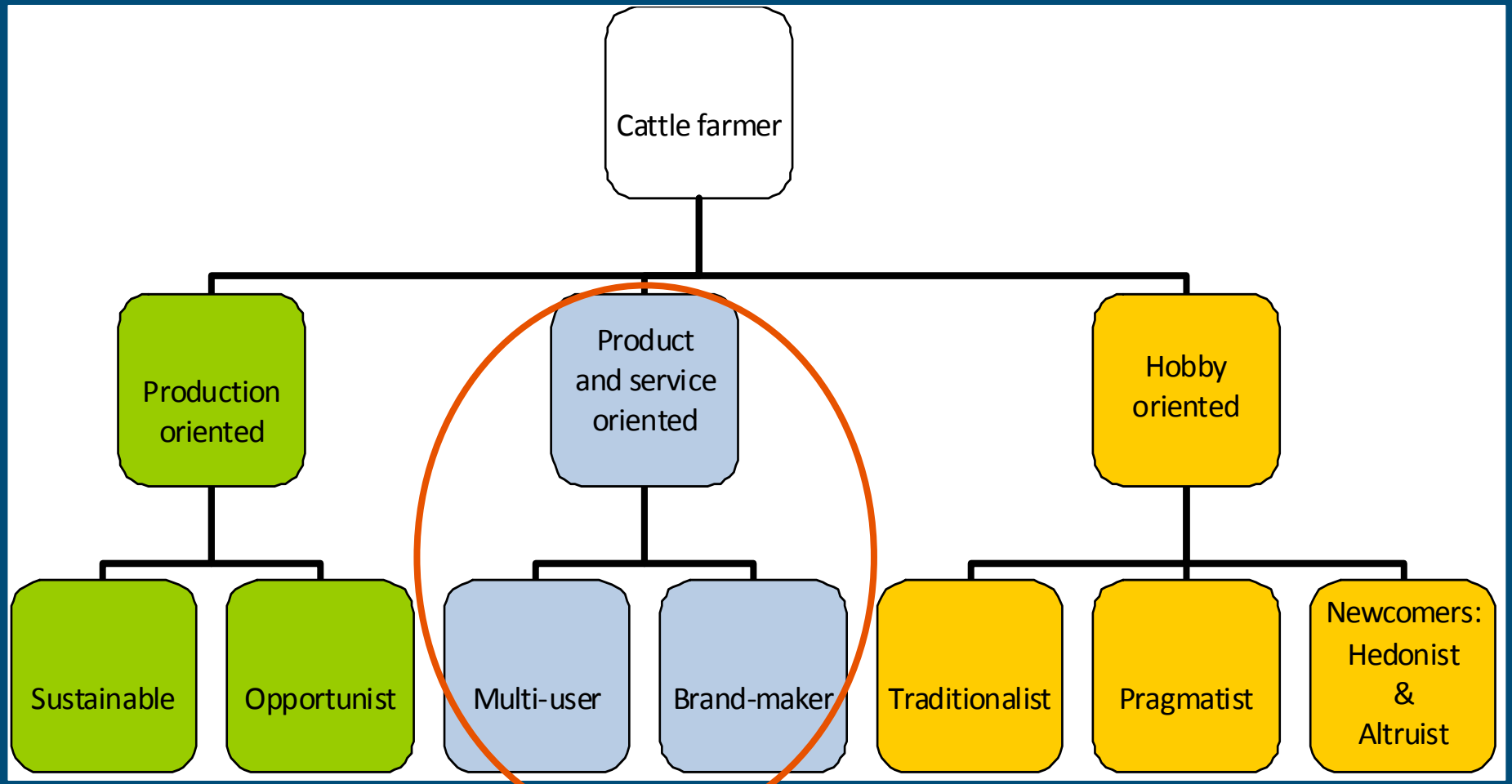
- Discriminant analysis was used to identify those parameters that affect herd size trend in all countries
- Parameters to be taken into account when developing policies

Analysis farmer survey

- 3 important aspects were found to affect the trend of herd size, across countries:
  - Age of the farmer
  - Level of cooperation with other farmers of the local breed
  - Farmer's opinion on the appreciation of the local breed by society

(Gandini et al. 2010)

Can we identify farmers types regarding their attitude towards local cattle farming ?



(Gandini et al. 2010; Soini & Lilja 2010)

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Farmer types

- Several farmer types with different profiles could be found
- The farmer types could be found in all countries
- Farmer types between and within a breed

- Diversity of farmer types
  - May be a strenght considering the future of the local breeds
  - Seems to increase along with the development of the society

Europe wide survey local cattle breeds

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- Among National Coordinators Animal Genetic Resources
- Local cattle breeds <7500 females
- Response from 24 (out of 32) European countries
- 108 (out of 173) breed questionnaires returned

- >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 marketed

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From breed analysis/assessment…
to development/strengthening
of breed strategies……

Use of SWOT analysis
as a decision making tool
for the development of breed strategies

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SWOT analysis: a decision making tool

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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

Identification of driving factors

- Across breed case studies 108 factors were identified
- 39 strengths, 28 weaknesses, 23 opportunities and 18 threats

Internal factors categories
(strength, weakness)

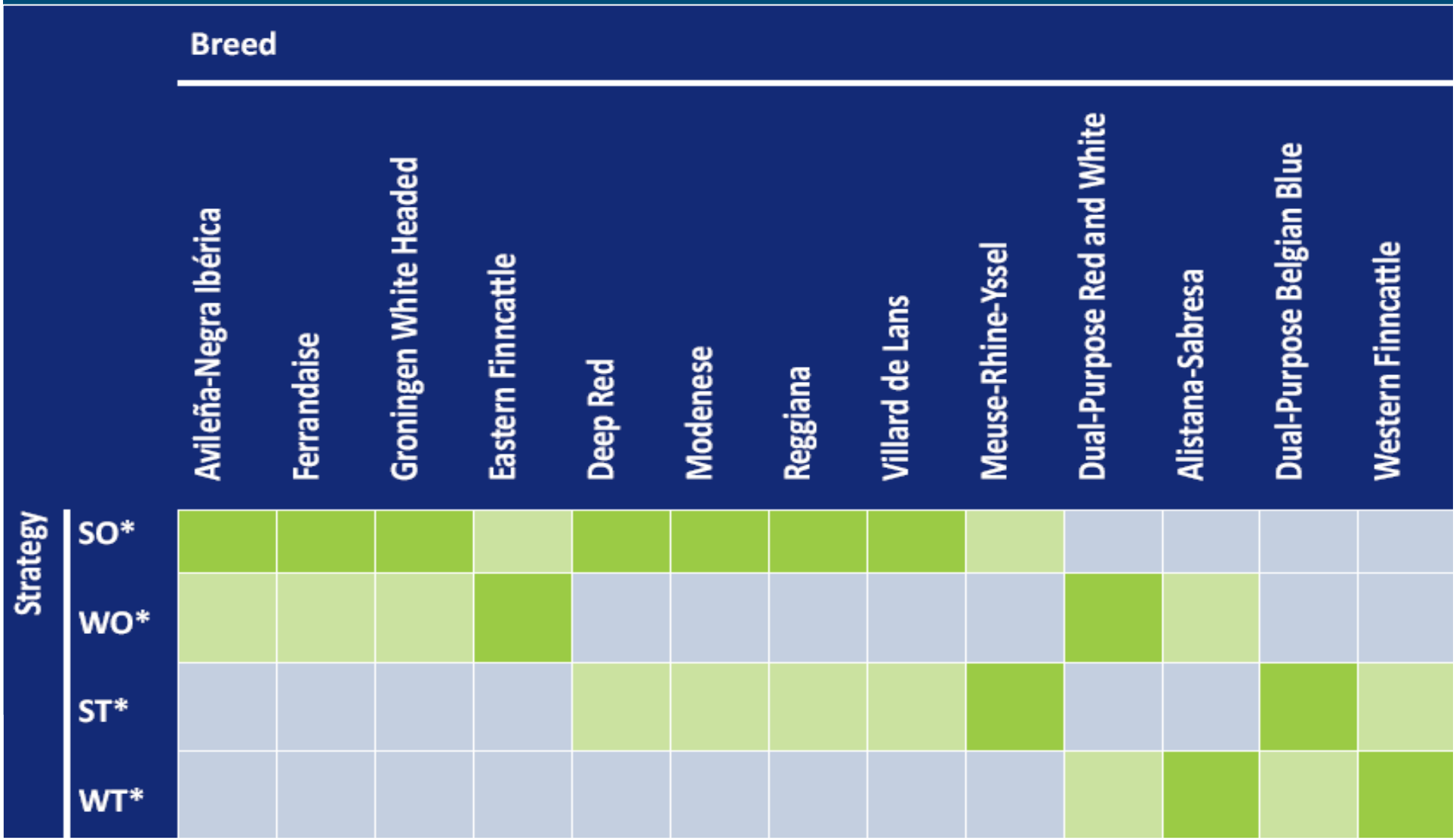
1. Animal
2. Breed
3. Farmer
4. Production system
5. **Products**
6. **Marketing system**

External factors categories
(opportunity, threat)

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

Definition and ranking of breed strategies

based on the relative importance of all S, W, O, T's



Example - breed strategy development

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Groningen Whiteheaded

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

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Conclusions

- Common policies should take into account common factors that affect breed sustainability
  (age of farmer, cooperation between farmers, awareness in society)
- Large variation between breeds/countries: need for tailor-made, local support measures
- Policies should take into account future farm profiles and attitudes and support various farmer types
- Need for strategic planning on breed level, involving relevant stakeholders and using decision support tools (SWOT)

Thank you for your attention

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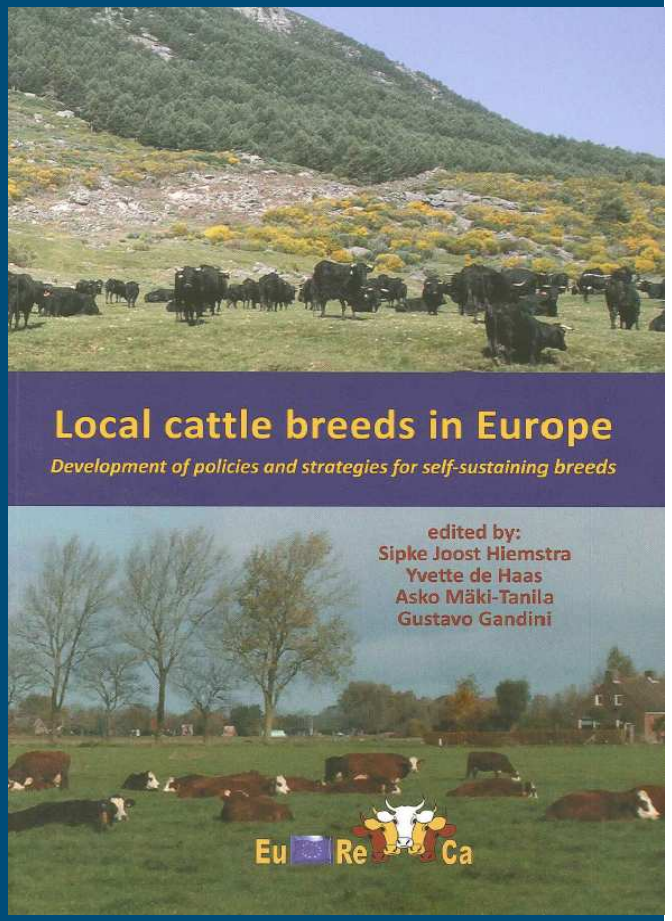

www.regionalcattlebreeds.eu

www.WageningenAcademic.com/cattlebreeds

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