

# CONTEXT PROFILE

 GERMANY



## FARMER

Claas Bartels



## INNOVATION

3-breed crossbreeding system



[Video](#)



## MAIN DOMAIN OF THE INNOVATION

Breeding advance



## SOIL TYPE

Sand



## FINANCE/INVESTMENT

Mid



## AGROCLIMATIC AREA

Atlantic central



## MANAGEMENT

Pasture dairy



## MARKET

Local-urban



## CLIMATE

Moderate rainfall



## TECHNICAL

Difficult



## SOCIAL

Full-time farmer

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Case Study: DE_03	Agroclimatic Zone								
Item (Key Innovation Elements)	Alpine	Atlantic Central	Atlantic North	Atlantic South	Boreal	Continental North	Continental South	Mediterranean North	Mediterranean South
Three-breed cross (Holstein, Swedish Red-and-White, Montbéliarde)	+++	+++	+++	+++	+++	++	++	++	++
Short sward grazing system (kurzrasen)	++	+++	+++	+++	++	++	++	++	++

+++ Strong transferability
++ Slightly limited transferability
+ Very limited transferability
× Generic information/not relevant

## Implementation Gaps

- Use different breeds in different agroclimatic zones

## Research Gaps

- Optimum share of each of the different breeds
- Appropriate breeds for cross-breeding in different agroclimatic zones
- Disentangle the effect of cross-breeding and grazing system

## Suggestions to Adapt

- Use different breeds in different agroclimatic zones

# COST-BENEFIT ANALYSIS

## INVESTMENT COSTS

Total initial investment costs at start up:	mid
• Initial authorisation costs (e.g. sanitary, veterinary, etc.)	not applicable/not known
• Initial advisory costs	not applicable/not known
• Initial buildings and machineries	not applicable/not known
• Initial certification costs	not applicable/not known
• Initial working capital (personal qualification, marketing and promotion, etc.)	not applicable/not known

## ON-GOING COSTS

On-going advisory costs	not applicable/not known
On-going certification costs	not applicable/not known
On-going buildings and machinery costs	not applicable/not known
On-going working capital	not applicable/not known

## BENEFITS RELATIVE TO ORIGINAL SYSTEM

### ◦ Economic

Reduction in energy consumption (electricity; fuel consumption)	not applicable/not known
Reduction in input use (fertilizers; pesticides; feed) etc.	mid
Payback period	not applicable/not known
Product value added	mid
Additional farm income through agroecological/agri-environmental payment schemes	not applicable/not known

### ◦ Environmental

Animal feed self-sufficiency increase	high
Biodiversity increase	none or low
Improved nitrogen cycling	high
Soil regeneration	high
Animal health and welfare improvement	high

### ◦ Social

Workload reduction	mid
Engagement of young generation	not applicable/not known

# Literature

## English

- F. Buckley, N. Lopez-Villalobos, B.J. Heins, (2014) Crossbreeding: implications for dairy cow fertility and survival, *Animal*, Volume 8, Supplement 1 Pages 122-133,
- B. McClearn, L. Delaby, T.J. Gilliland, C. Guy, M. Dineen, F. Coughlan, F. Buckley, B. McCarthy, (2014) An assessment of the production, reproduction, and functional traits of Holstein-Friesian, Jersey × Holstein-Friesian, and Norwegian Red × (Jersey × Holstein-Friesian) cows in pasture-based systems, *Journal of Dairy Science*, Volume 103, Issue 6, Pages 5200-5214