CONTEXT PROFILE

GERMANY

FARMER
Gerben Gäting

INNOVATION
Slurry management

Video

MAIN DOMAIN OF THE INNOVATION
Improvement of nutrient cycle

SOIL TYPE
Gley

FINANCE/INVESTMENT
High

AGROCLIMATIC AREA
Atlantic central

MANAGEMENT
Pasture dairy

MARKET
Global

CLIMATE
Moderate rainfall

TECHNICAL
Difficult

SOCIAL
Full-time farmer

All contents of this document are expert opinions of the G4AE Scientific Technical Working Group

CONTEXT PROFILE

GERMANY

Case Study: DE_11	Agroclimatic Zone								
Item (Key Innovation Elements)	**Alpine**	**Atlantic Central**	**Atlantic North**	**Atlantic South**	**Boreal**	**Continental North**	**Continental South**	**Mediterranean North**	**Mediterranean South**
Handling of slurry	+++	+++	+++	+++	+++	+++	+++	+++	+++
Automated cleaner for slatted floors	++	++	++	++	++	++	++	++	++
Separation of slurry	++	++	++	++	++	++	++	++	++
Slurry application with trailing shoe	++	++	++	++	++	++	++	++	++

+++ **Strong transferability**

++ **Slightly limited transferability**

\+ **Very limited transferability**

× **Generic information/not relevant**

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Implementation Gaps

- Mainly for slurry-based systems with grassland
- Mainly for stable-based dairy production with boxes and walking area with slatted floors
- High investment costs

Research Gaps

- Effectiveness versus costs

Suggestions to Adapt

- Can be applied in parts: automated cleaning of slatted floors (cow welfare, less N emission), separation of slurry (easier application of liquid phase, less N losses), application with trailing shoe (less NH3, better N efficiency)

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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	high
Product value added	mid
Additional farm income through agroecological/agri-environmental payment schemes	not applicable/not known

- **Environmental**

Animal feed self-sufficiency increase	not applicable/not known
Biodiversity increase	not applicable/not known
Improved nitrogen cycling	not applicable/not known
Soil regeneration	not applicable/not known
Animal health and welfare improvement	not applicable/not known

- **Social**

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

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Literature

English

- https://www.sciencedirect.com/science/article/pii/S0269749122015160
- https://www.researchgate.net/publication/286010527_Mechanical_cleaning_of_slatted_floors
- https://www.sciencedirect.com/science/article/pii/S096085240000016X

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