Precision Livestock Farming: opportunities for herd management

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Cooperative herd improvement organisation

• genetics
• management information
• services
Focus on herd management

• Good herd management is key

• CRV helps farmers with solutions to improve herd performance

• How can Precision Livestock Farming create value?
Examples to create value for farmers

1. **Ovalert concept**
   using mature PLF technique within a total solution concept

2. **SmartDairyFarming project**
   creating synergy and new innovations in production chain
1. Ovalert®

- Focus on fertility management
- Reliable heat detection based on activity data
- Ovalert is an integrated fertility solution
  - partners provide sensor technology
  - CRV provides information, genetics and fertility services
Ovalert®

Activity sensors  AI service  Fertility consultancy

Management software  Text msg  Semen  Pregnancy check  Mating advice
2. SmartDairyFarming Project (2011-2014)

Main objective
support farmers with their main herd management processes
(young stock rearing, fertility and transition)

Large consortium
• 3 large farmer cooperatives
• 7 SME companies
• universities, research institutes, agricultural colleges
• 7 commercial dairy farms
SmartDairyFarming Project: results

**Improved sensor technology**
- improved bolus to record rumen pH
- validation of body weight recording and activity sensors

**Decision support**
- improved standard operating procedures (SOPs)

**New concept infrastructure PLF data production chain**
- InfoBroker
InfoBroker concept

- **Aim:** facilitate linking and using data
- **Platform for data providers and users**
- **A broker:**
  - connects to data stored externally
  - no central database
- **Current size:**
  - 7 dairy farms / 1500 animals
  - 20 sensors / 10 providers
    (milk yield, activity, body weight)
- **Managed by nonprofit organisation**
- **Business model**
  - fixed fee (connections)
  - variable fee (pay-per-view)
Challenges

Technical challenges
- new applications for more complex processes
- use genomic data: e.g. cow-specific feeding
- exploitation of big data

Commercial challenges
- closed vs open data platforms
- data ownership and privacy
- business models
Conclusions

PLF creates value to current and future herd management

Implementation of PLF technology depends on
• value proposition (stand-alone vs total solution)
• collaboration at chain level

Further innovations will benefit from
• stronger focus on farmers’ needs
• new techniques to analyse data
• exploration of new business models data
Thank you for your attention!

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