Towards an open development environment for recording and analysis of dairy farm data

30-05-2012, Bert Ipema
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- State of the art information exchange
  - Intra-enterprise integration
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- Integration issues
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Introduction

- In depth analysis agriXchange – EU funded CSA project
  - In field situation
  - Developments
  - Current issues

- Future challenges for Smart Dairy Farming project
State of the art: Intra-enterprise integration

- Electronic identification
  - State of the art developments

Individuall approach

Traceability
State of the art: Intra-enterprise integration

- Automatic concentrate feeding
  - State of the art developments

Production related feeding

Dose-respons feeding
State of the art: Intra-enterprise integration

- Sensors
  - State of the art developments
State of the art: Intra-enterprise integration

- Farm management systems (FMIS)
  - State of the art ......................... developments
State of the art: Inter-enterprise integration

- Information exchange between farm and chain partners

Cow module:
- Cow and calf mortality
- New mastitis cases
- Bulk milk SCC
- Changes in milk yield level
- Status certification diseases
State of the art - concluding

- Current - data exchange: numerous and various
  - Between farmers and service providers
  - Between farmers and governments
  - Between devices and FMIS

- Future – new technologies: even more data
  - Biosensors, wireless sensors
  - Data warehousing
  - From just alerts into advices or actions (SOP’s)
Integration issues

- Physical infrastructure
  - Lack of interoperability
  - Maturity of new technology
  - Availability of internet infrastructure
  - Lack of collaborative data infrastructure
  - (older) Embedded systems are limited in handling data and standards
  - Adopting standards
Integration issues

- Data exchange
  - Bad integration of data standards in countries
  - Poor alignment of data definitions and data dictionaries
  - Data quality and security
  - Availability of public data sets and schemas
Integration issues

- Application
  - Local vs. centralized storage of application data
  - Adoption of open web services
  - Open standards by software industry

- Process issues
  - Business process modelling as new skill for developers
  - Process approach only picked up in new areas
Integration issues

- Organization
  - Trust
  - Adoption of new technology
  - Limited investment possibilities
  - Lack of public involvement in collaboration (private-public)
  - CAP implications
Recommendations for new developments

- Awareness and trust
- Open innovations
- Collaborative and SO infrastructure
- Business process standards and SO approach
- Choose standards
Demonstrator - Smart Dairy Farming project

- AnySenseConnect
  (www.ijkljik.eu)

- Application programming interface (API)
- Internet data transfer sensors and observers
- Interface possibilities ‘third’ parties
  - Apps for mobile devices, websites etc.
Concluding

Let’s make it happen!

Thank you!