Smart Dairy Farming 3.0: multiplying innovations on the farmyard

B. van ’t Land, G. Smeenk, H. Lucas, A. Lamers

Speaker: Bert Van ‘t Land

SMART DAIRY FARMING 3.0: MULTIPLYING INNOVATIONS ON THE FARMYARD

G. SMEENK (FRIESLANDCAMPINA), H. LUCAS (AGRIFIRM), A. LAMERS (FIRST8), B. VAN 'T LAND (CRV)

PROGRAMME

SMART DAIRY FARMING 3.0: MULTIPLYING INNOVATIONS ON THE FARMYARD

1. SMART DAIRY FARMING IN COOPERATIVE PERSPECTIVE
2. WHY THIS PROJECT?
3. ARCHITECTURE
4. CURRENT STATUS

SMART DAIRY FARMING IN COOPERATIVE PERSPECTIVE

SMART DAIRY FARMING

DATA MANAGEMENT THROUGH COLLABORATING

SmartDairyFarming

agrifirm

CRV

FrieslandCampina

nourishing by nature

OVERVIEW

DYNAMICS IN THE AGRICULTURAL SECTOR

DECREASE OF DEMAND AND INCREASE OF SUPPLY:
IN SEARCH OF A NEW BALANCE

GEOPOLITICAL TENSIONS AND LOW OILPRICES

FARMERS' INCOME UNDER PRESSURE AND STRONGLY FLUCTUATING

REGULATIONS CONCERNING PHOSPHATES IN THE NETHERLANDS

DYNAMICS IN THE AGRICULTURAL SECTOR

WHAT CONNECTS US?

DYNAMICS IN THE AGRICULTURAL SECTOR

PRODUCTION OF MILK PER COW PER YEAR

- Average production: 8,000 kg per year
  Distribution: 5,000 – 11,000 kg per year
- Average production during cow’s life: 31,000 kg of milk
- Top production during cow’s life: 200,000 kg of milk

FRIESLANDCAMPINA – FOQUS PLANET

SUSTAINABLE DEVELOPMENT: CONTINUOUS IMPROVEMENTS OF RESULTS

- Minimum: 30 points
- Average: 100 points
- Maximum: 210 points

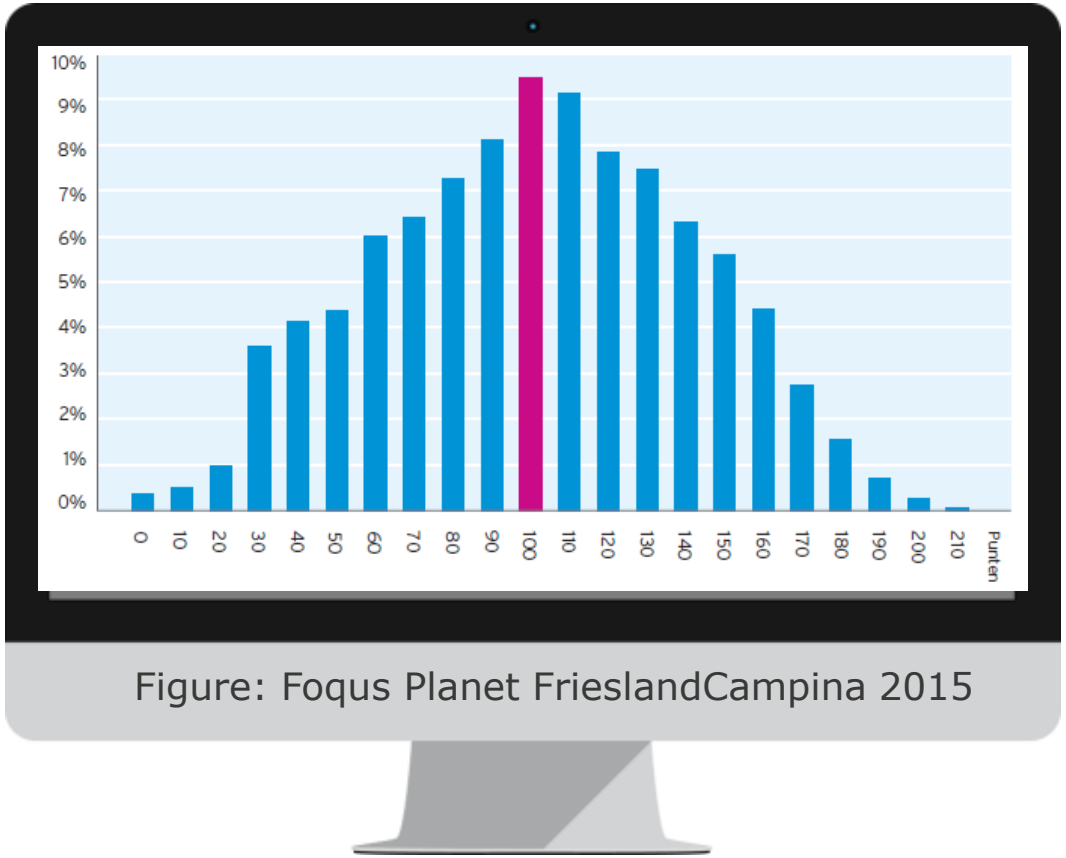


Figure: Foqus Planet FrieslandCampina 2015

DYNAMICS IN THE AGRICULTURAL SECTOR

HOW DO WE MAINTAIN OUR LEAD AS DUTCH DAIRY

Up until now: Focus on growth

Future: Optimisation through agricultural precision

Quality, Sustainability and Transparency

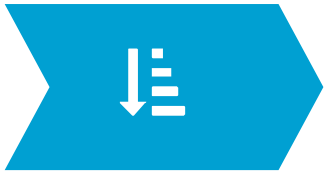
SMART DAIRY FARMING 3.0: WHY?

- *VIDEO SDF –*

http://smartdairyfarming.nl/en/

SMART DAIRY FARMING 3.0:

GOAL: ACCELERATING INNOVATION ON THE FARM



LOWERING TOTAL COST OF OWNERSHIP FOR DAIRY FARMERS

INCREASE EFFICIENCY OF DAIRY CHAIN

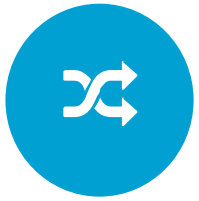
IMPROVING SUSTAINABILITY ACHIEVEMENTS OF DAIRY CHAIN

SMART DAIRY FARMING 3.0:

GOAL: ACCELERATING INNOVATION ON THE FARM

1. Secured data ownership of dairy farmers

- Farmer is owner of data
- Agreements with data suppliers about data availability



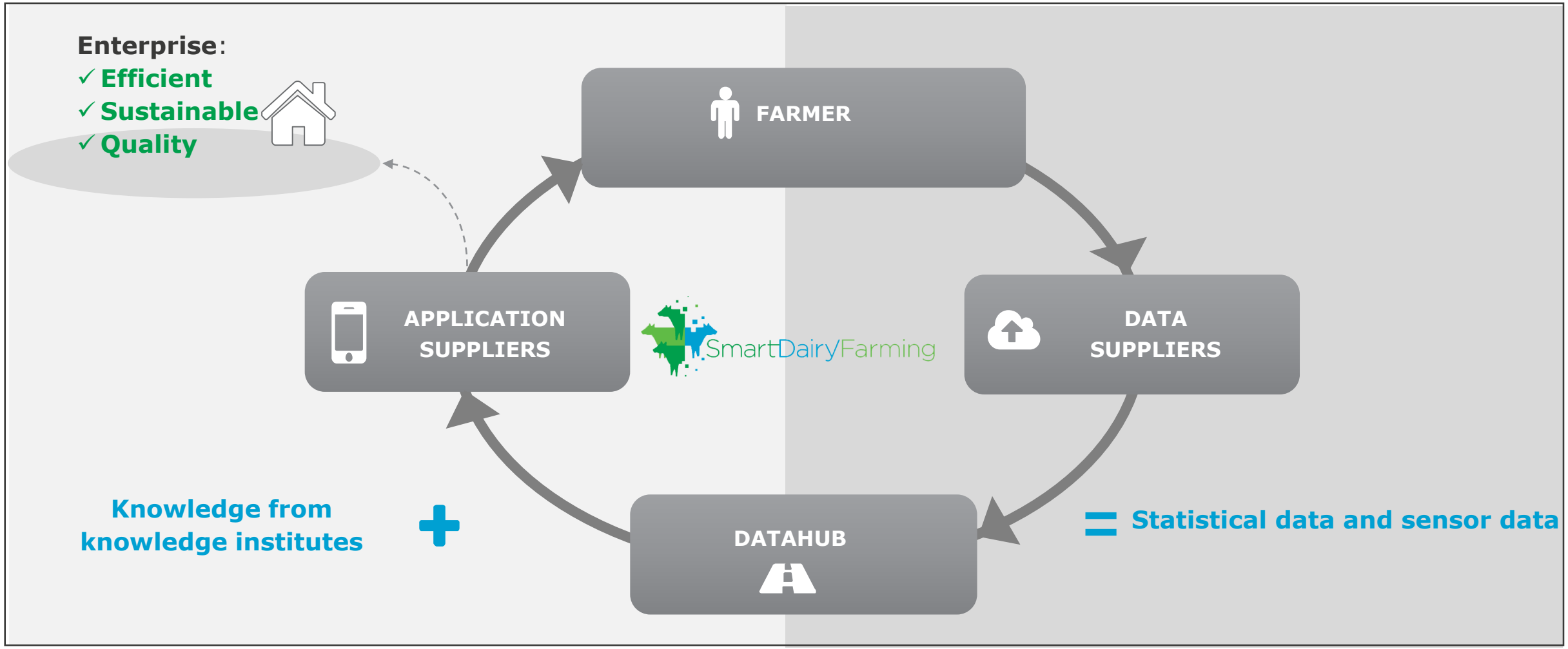
2. Sharing data through SDF Datahub

- Stimulate use of sensor data and statistical data through data exchange
- Farmer authorizes third parties for data use
- Datahub managed by SDF Foundation
- Open to third parties use Q4 2017

3. More efficiency and sustainability through applications

- Applications to increase efficiency on dairy farms
- E.g. by increasing nutrition efficiency and reducing environmental impact

SMART DAIRY FARMING 3.0: INCENTIVE FOR INNOVATION ON THE FARM

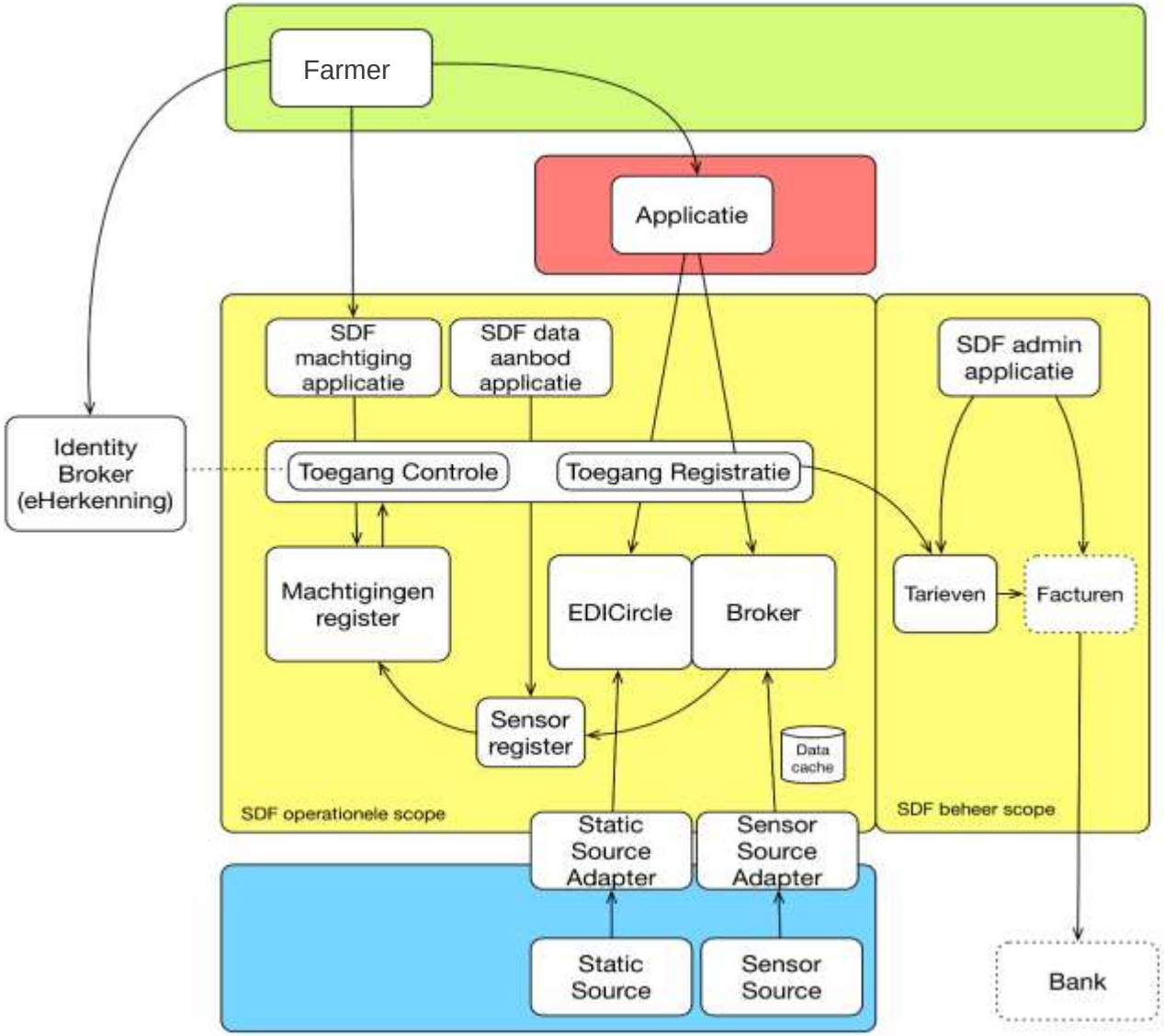


Decision making information + Data

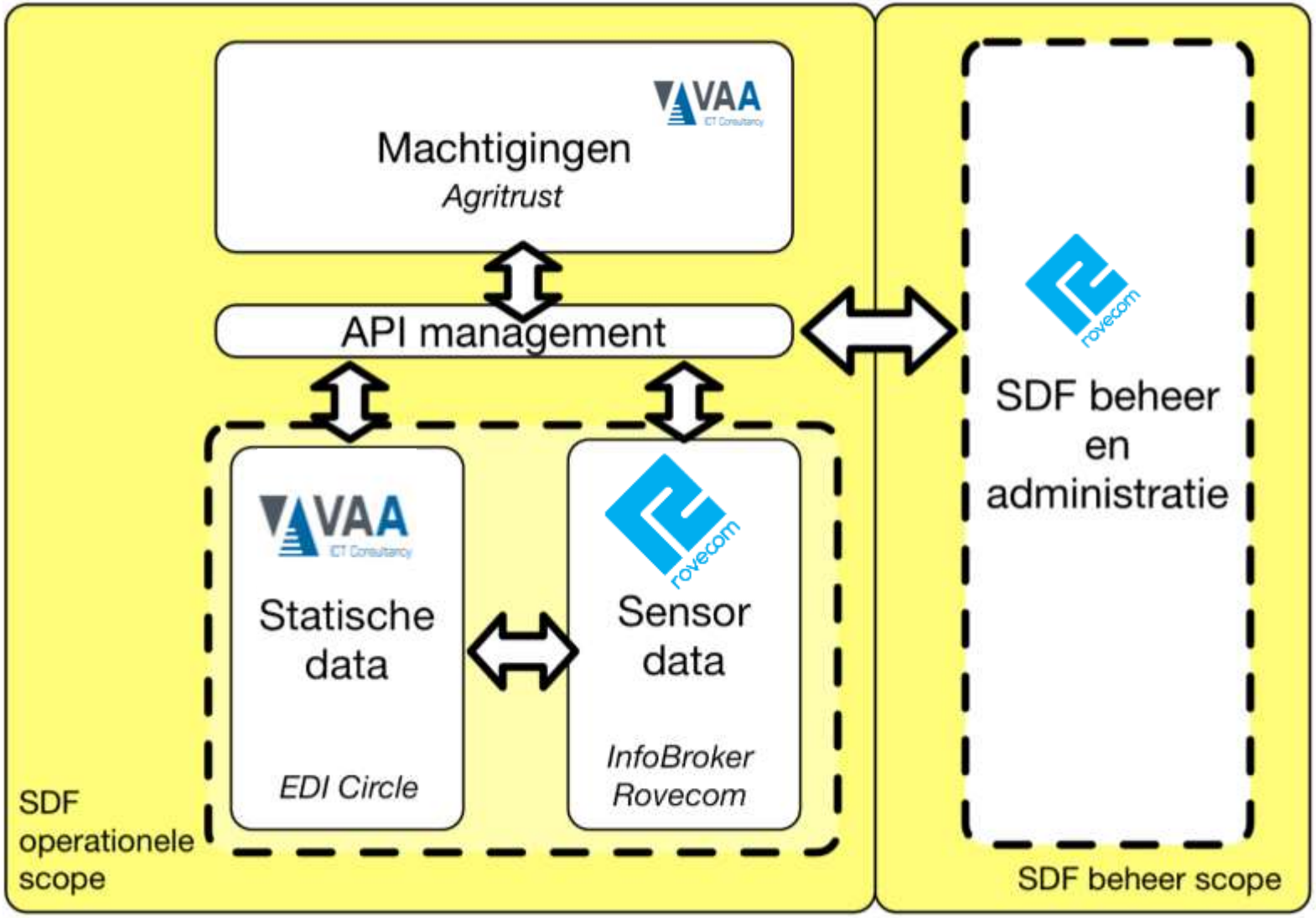
= Increasing efficiency

SMART DAIRY FARMING 3.0: ARCHITECTURE

Target architecture SDF 3.0 Datahub



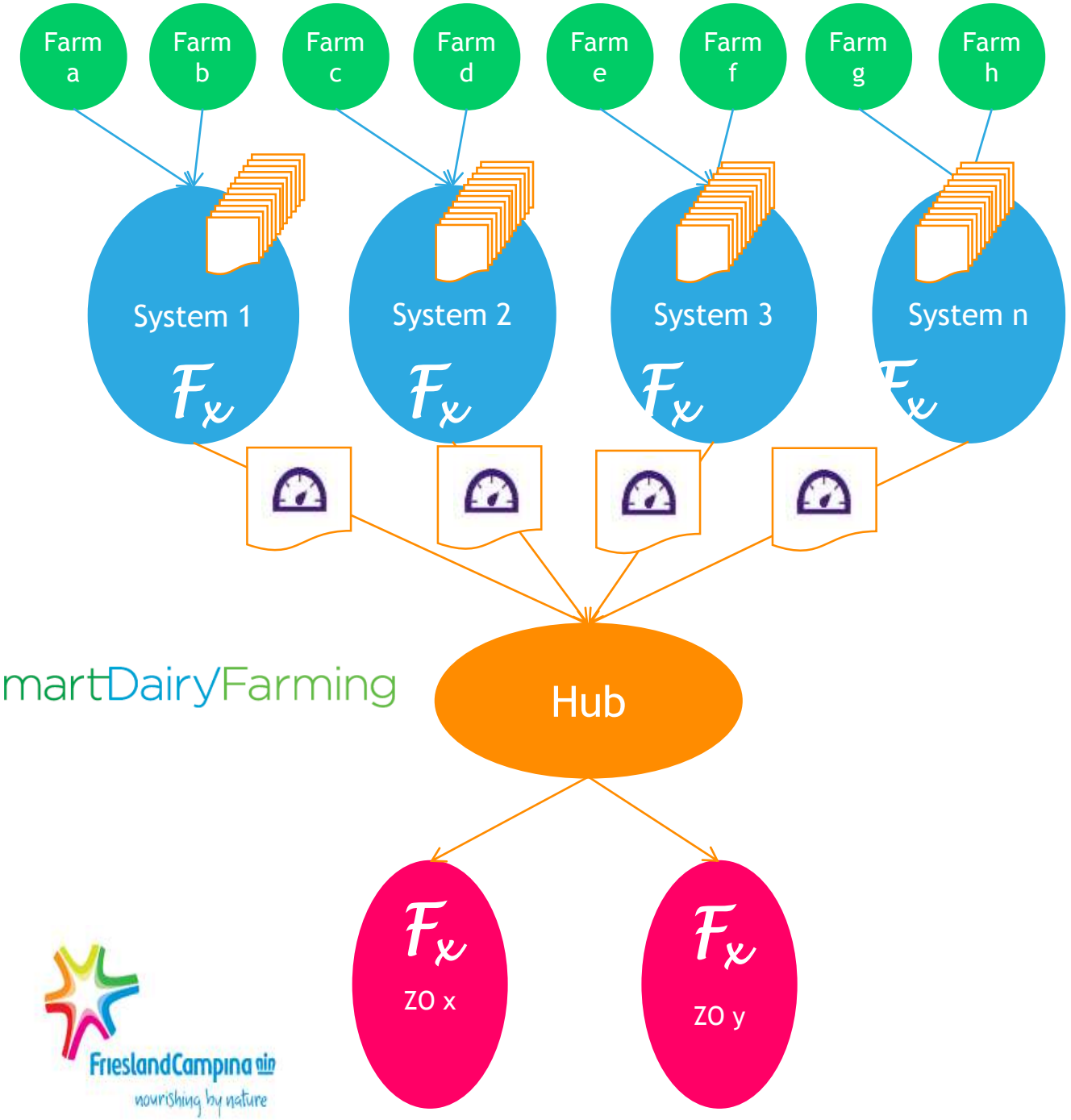
Best-of-Breed SDF 3.0



EXAMPLE: FIRST USE CASE SMART DAIRY FARMING

Digital grazing approvement

Dutch heritage
Showcase for Dairy industry
License to produce + license to operate
FrieslandCampina is doubling premium for milk from grazing herds


Farm a
Farm b
Farm c
Farm d
Farm e
Farm f
Farm g
Farm h
System 1
System 2
System 3
System n
Hub
ZO x
ZO y

SMART DAIRY FARMING 3.0: CURRENT STATUS

SMART DAIRY FARMING 3.0:
STATUS JUNE 2017

- Program SDF 3.0 launched in March 2016
- First use cases launched early 2017
- Prepare ‘Go live’ for market: Q4 2017

- SDF Foundation is owner ‘infobroker’ SDF 1.0
- SDF Foundation is owner ‘AgriTrust’
- SDF working on architecture and security of data streams through SDF Datahub

- SDF foundation associated with EDI-Circle
- LTO-Nederland new partner (LTO= Dutch Federation of Agriculture and Horticulture, an entrepreneurial and employers’ organisation, 50.000 members)
- Connecting most important data streams within dairy chain

- Formulating ground rules for SDF Datahub and Data usage
- Business Model agreed, cover the costs but no profit maximization
- Foundation for connecting other chain partners

- Software Development of the SDF Datahub by Rovecom and VAA

- Informing chain partners, data suppliers and application suppliers

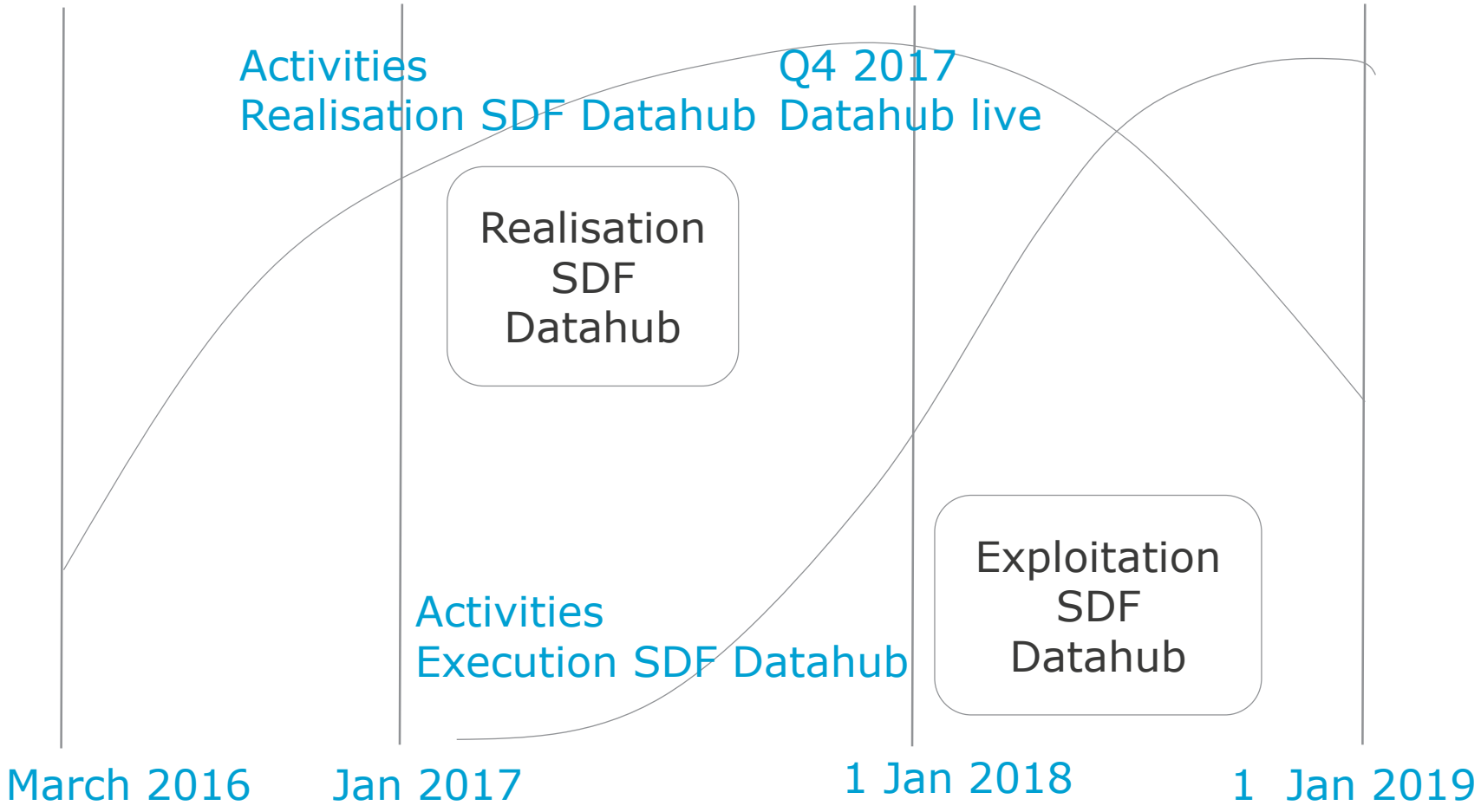
SMART DAIRY FARMING 3.0

SERVICE SDF DATAHUB Q4 2017

- Farmers are able to authorize third parties to use their data
- Data Suppliers can connect to the Datahub and deliver requested data
- Application suppliers can connect to the Datahub en retrieve requested data

SMART DAIRY FARMING 3.0:

REALISATION & EXPLOITATION SDF DATAHUB



SmartDairyFarming

www.smartdairyfarming.nl