

## ***The EuroDairy Thematic Network***

***Presentation to the Civil Dialogue Group – Milk***

***Brussels, 20 February 2018***

**Ray Keatinge – Network Coordinator (AHDB)**

# Post-quota challenges common to EU dairy farmers

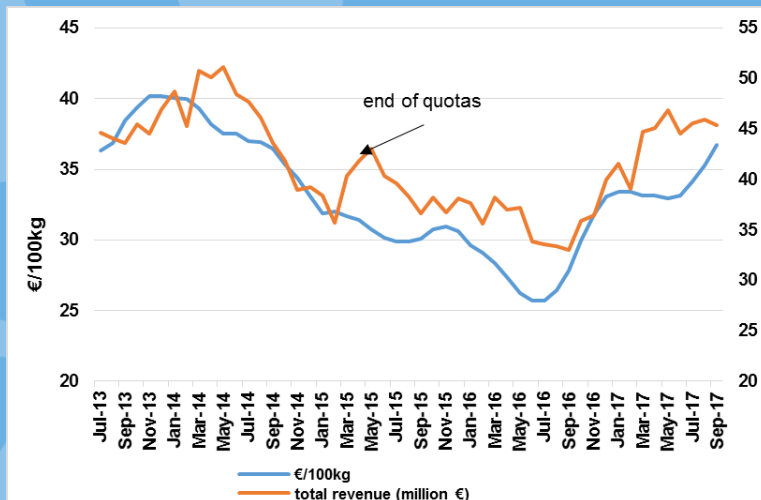
- Long-term price volatility
- Maintaining relative competitiveness
- Dealing with environmental regulation
- Increased societal scrutiny of animal production
- Achieving an acceptable quality of life for farmers & families
- Industry development - infrastructure, land mobility, succession

No soft landing



# These pressures still valid

## EU-28 weighted average farmgate milk price



## Dutch dairy cull plan agreed by EU

Saturday 25 February 2017 6:00

Jack Yates

The European Commission has accepted a plan put forward by the Netherlands government to save the Dutch dairy sector.

Europe's third largest dairy producer has committed to reducing the size of its dairy herd from 1 March by culling animals and incentivising farmers to leave the industry.

Since spring 2015, the Dutch dairy herd has grown by 5% to four million cows and heifers, bringing with it the spiralling production of phosphates.

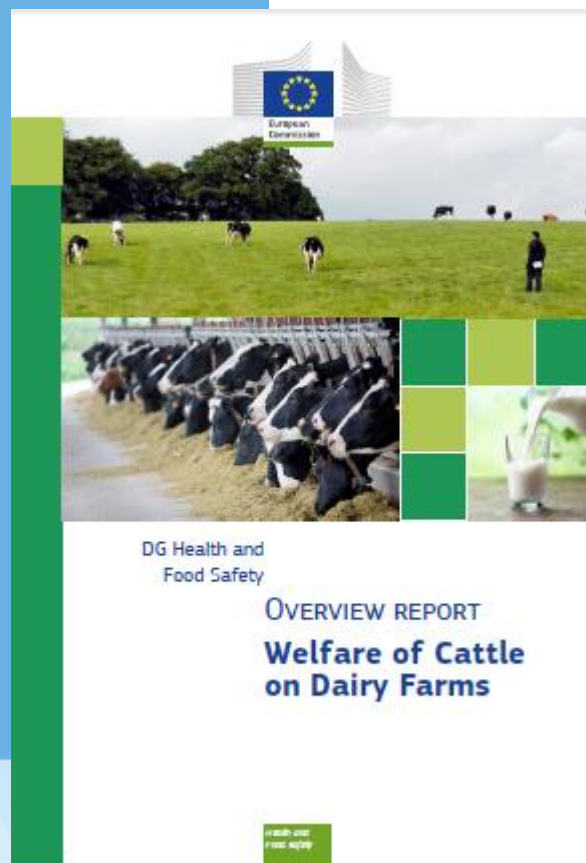


© Cultura/Rex/Shutterstock



OCTOBER  
2017

## WWF PERSPECTIVE DAIRY SUSTAINABILITY FRAMEWORK

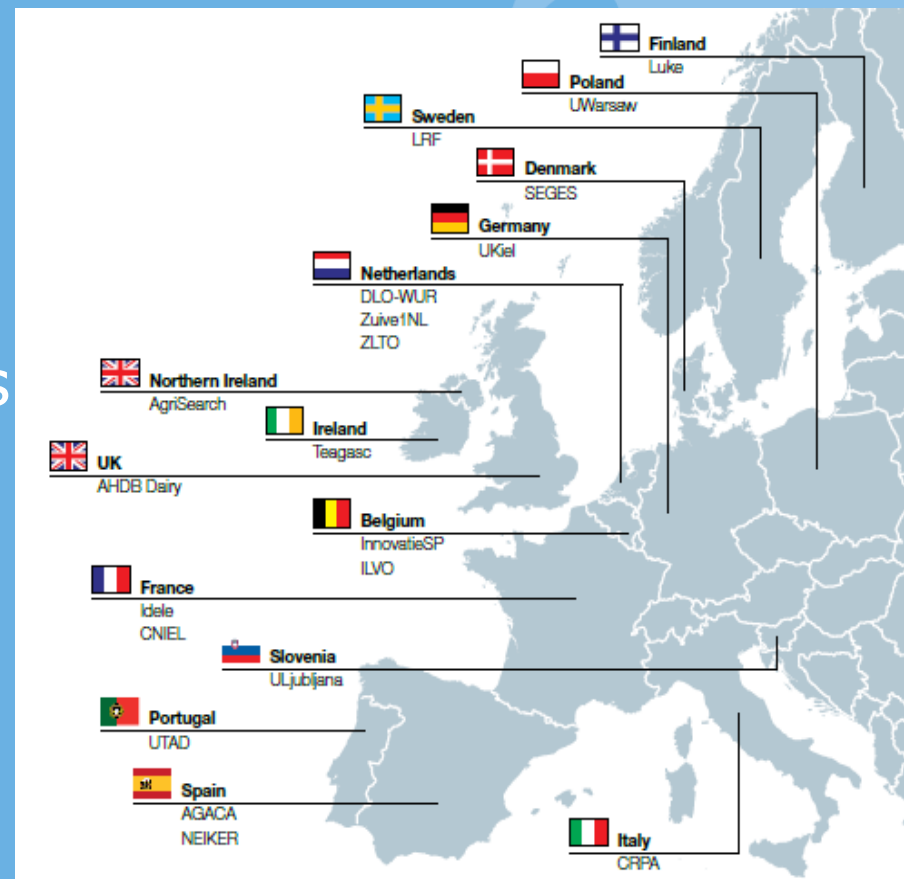


# EuroDairy objectives

- Main objectives
  - Improve the economic, social & environmental sustainability of European dairy farming, by
  - Promoting best practice and the adoption of practice-based innovation, and
  - Sharing that knowledge across the network
- Sub-objectives
  - Identify end-user requirements for further R&D
  - Collaborate with other H2020 projects
  - (Demonstrate effectiveness of EIP model)

# EuroDairy - who is involved

- 14 states, 20 project partners
- Covering:-
  - 40% of EU dairy farmers
  - 45% of EU dairy cows
  - 60% of EU milk output
- Mature & developing regions
- Supported by:-
  - European Dairy Farmers
  - European Cattle Innovation Partnership
  - European Grassland Federation



# Definitions

## Innovation

'... successful implementation of a technique, tool or technology previously unknown on that farm or region....'

## 'Operational Group'

'Multi-actor' group focussed on a particular problem, constraint or opportunity

Combining scientific and practice based knowledge

Developing and innovating to produce implementable solutions

Which can be demonstrated & shared more widely

# Thematic Networks link Regional Operational Groups

*Regional  
Multi actor  
OG  
e.g. UK*

*Regional  
Multi actor  
OG  
e.g. Fr*

*Regional  
Multi actor  
OG  
e.g. NL*

*Regional  
Multi actor  
OG  
e.g. S*

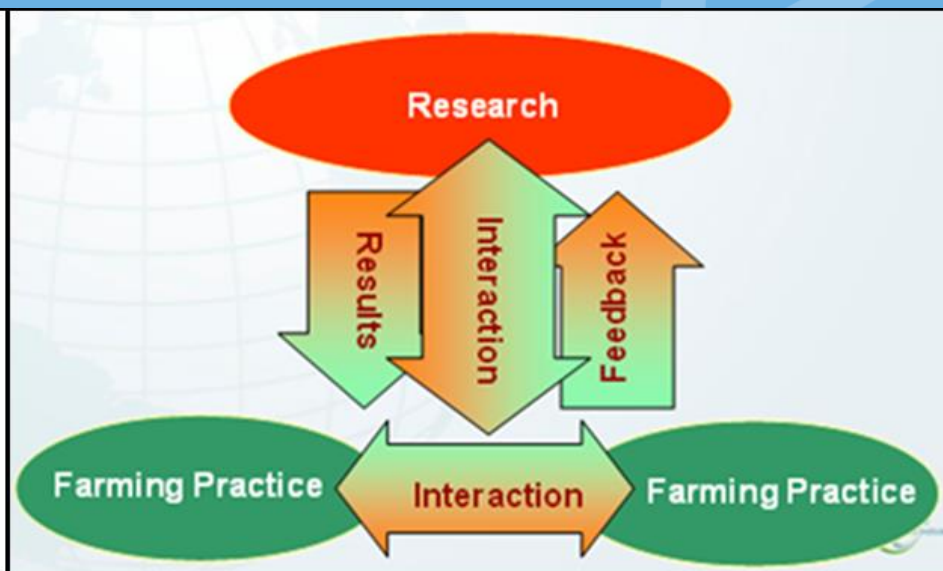
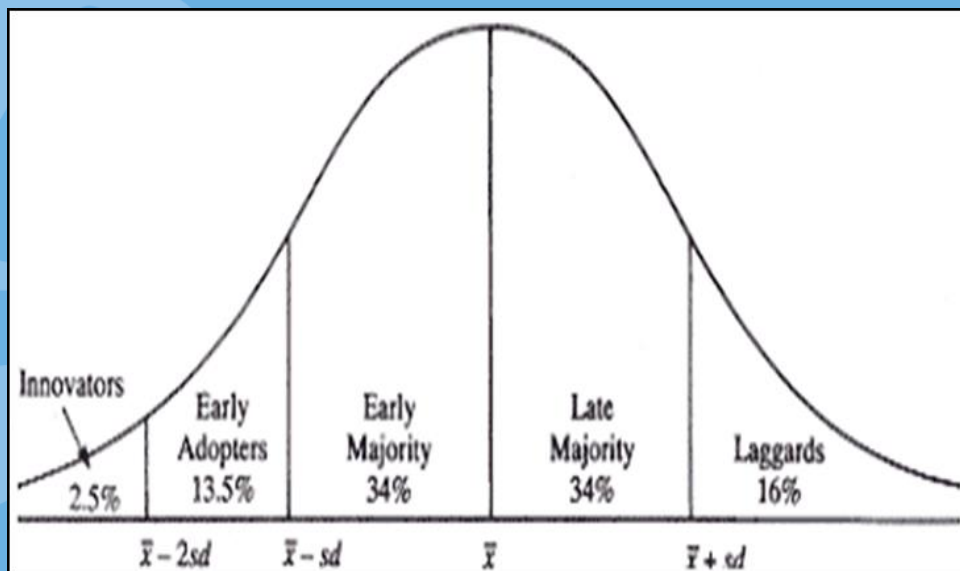
**H2020 Thematic Network project**



# Twin track approach to improving performance

More rapid uptake of best practice

More 'practice-based' innovation





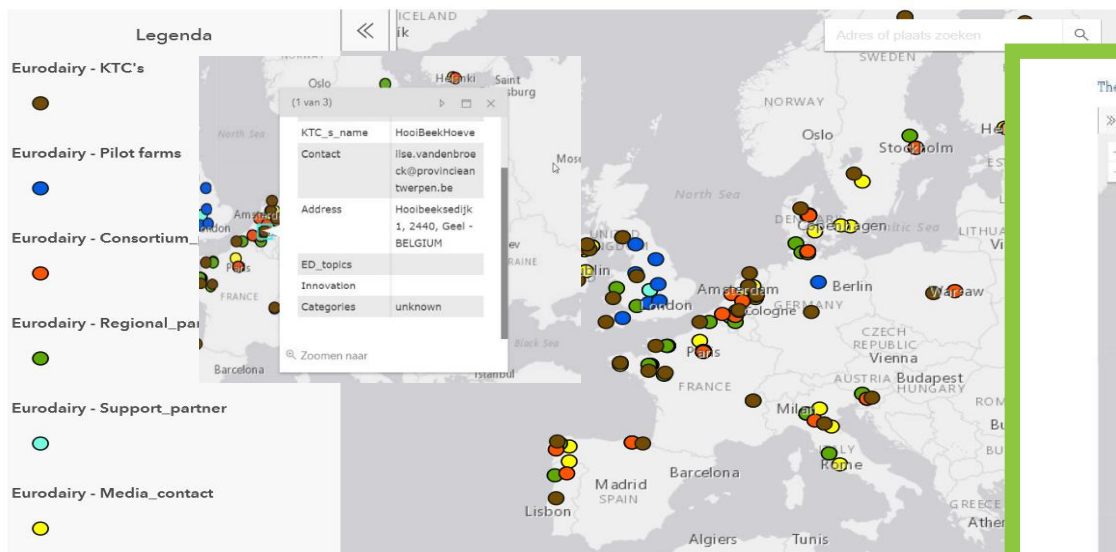
# EuroDairy ambition

- 40+ operational groups
- 120+ innovating Pilot Farmers
- Four broad technical areas
  - Resource efficiency
  - Animal care
  - Socio-economic resilience
  - Biodiversity
- Economic costing using EDF methodology
- Schedule of seminars, meetings and workshops
- Farmer exchanges
- Programme of case studies, videos, webinars, interactive website

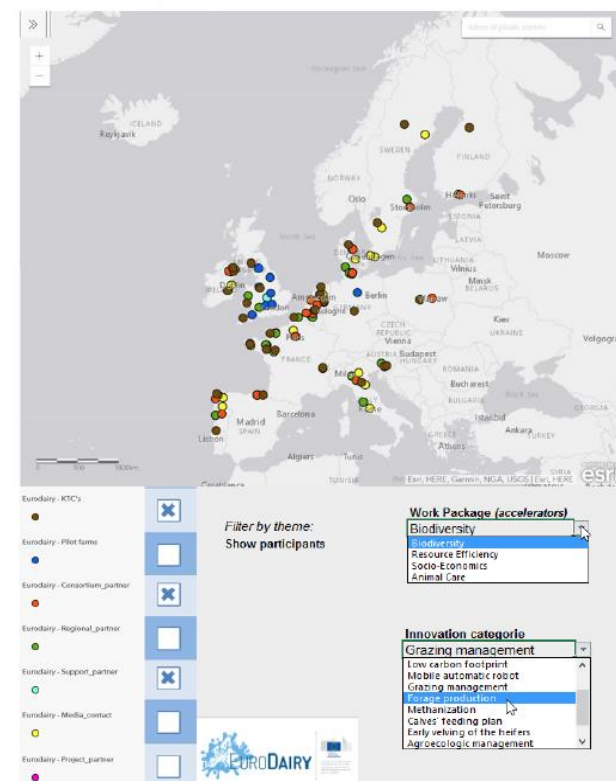


# Mapping the network

The network in one map



The network in one map



# Themes for Innovation and best practice

## Resource efficiency

Feed  
efficiency

Nutrient  
management

Carbon,  
energy and  
water

## Animal care

Reducing  
antibiotic  
inputs

Practical  
welfare  
assessment

Optimising  
the housed  
environment

## Socio-economics

New  
business  
models

Improving  
quality of  
life

Tactics for  
volatility

## Biodiversity

Combining  
profitability with  
environmental  
management



# 'Engine room' of EuroDairy – Pilot farmers

**Robert Craig**  
Dolphenby Farm  
Penrith

GB

**Innovations**

- Socio-economic resilience
- Resource efficiency
- Biodiversity

## The herd

- Specialist dairy farm
- 400 cross-bred cows
- 6000 litres/cow/year
- 4.88% fat & 3.87% protein
- Specialist rotational grazing system from early February until December
- Spring 12 week block calving
- 140 home reared heifers
- Stocking rate 2.57 livestock units/ha
- Average age at first calving: 24 months

## The Farm

- 279 ha agriculture area
- Furthest paddock 2km from the parlour
- Workforce: 4 full time + 2 relief milkers

## Aspirations

- Optimise grassland productivity to grow 14 t DM grass/ha annually
- Improve fertility parameters to achieve <10% empty rate
- Create surplus heifer stocks to sell as bonus cash flow
- Produce 11000 litres/ha or 910kg milk solids annually

## Innovations

- Progressive expanding business aiming to maximise milk from grass in a profitable simple system
- Assessing sustainability indicators as part of Nestle milk producer group
- KPIs are set and achieved to drive high production from grass
- System depends on grazing through the year with in calf heifers overwintered on grass and monitored by regularly weighing
- The dry cows are managed on deferred grazing and silage bales before being housed in free stalls
- Desired breeding traits include productivity, longevity and aggressive grazing
- Heat observation is done by staff three times per day during the mating period
- Staff management and motivation is delivered through regular attendance of courses and discussion groups
- Their motto is 'simple and enjoyable @'

## Areas of interest

- Soil management
- Externalities of farming and environmental impact

**Tom Rawson**  
Houghton Lodge Dairy  
Leicester

GB

**Innovations**

- Socio-economic resilience




## The herd

- Specialist dairy farm
- 800 cross-bred cows
- 3000 litres/cow/year
- 4.75% fat & 3.65% protein
- Milk from forage 3104 litres/cow/year
- Rotational grazing system February to November
- Spring and autumn block calving
- Stocking rate 2.55 cows/ha
- Average age at first calving: 24 months

## The Farm

- £1 million of seed capital invested to bring life back to a redundant dairy unit
- 428 ha agriculture area
- 273 ha grazing platform
- Workforce: 3 full time and in hand machinery operations

## Aspirations

- 20% return on tenant's capital
- 19% profit retained after rent and finance
- Mature cows yielding their body weight in milk solids
- Reduce concentrate use to 700kg cow/year
- Build up to 1000 cows
- Increase milk from forage to 3500 litres/cow/year
- 2018 year business profit of at least 5pence/litre

## Innovations

- Innovative business model involving share capital and crowdfunding
- Two new 24x48 swing over parlours
- Borehole - £30,000 digging project found water at 100m down
- 20,000 concrete sleepers at £3.05 each for cow tracks to improve infrastructure
- Infrastructure of more than 40km of electric fencing invested to set up paddock grazing
- Re-seeding ground previously laid to arable
- Grass is key to keep cost low however meal can be fed through parlour feeders
- Landlord provides the straw in exchange for manure and help with cleaning out

## Areas of interest

- New business models





**Neil & Jane Dyson**  
Holly Green Farm  
Buckinghamshire

GB

**Innovations**

- Socio-economic resilience
- Animal care
- Resource efficiency

## The herd

- Specialist dairy farm
- 300 Holstein cows
- 9000 litres/cow/year
- 4.2% fat & 3.25% protein
- Milking 3 times/day
- Housed in free stalls with sawdust on mattresses
- Autumn seasonal block calving
- 120 home reared heifers
- Average age at first calving: 23-24 months

## The Farm

- Has been in Jane's family for 100 years
- 110 ha Agriculture area
- 170 ha arable land
- 40 ha permanent grassland
- Workforce: 6

## Aspirations

- Continue to improve profitability and resilience by actively planning and regularly reviewing budgets



## Innovations

- Attention to detail with minimal use of technology
- 0% mortality of replacement heifers reared in a high bio-security unit
- Graduate training programme to encourage staff personal development
- Use of sex semen is being trialled and compared against non-sex semen
- Slurry separation to exchange muck for straw with arable neighbour
- Fresh calvers temperature and blood ketone levels are monitored
- Monitor dry cows urine pH to balance Dietary Cation-Anion Balance (DCAB) diets to eliminate milk fever
- Rumen fluid samples taken to help balance feed rations
- Scientific methodology to calculate quantity of feed offered
- Genomic breeding is used on two-thirds of the herd. Traits for milk yield, solids and legs and feet are selected
- In the top 10% of Arla farms for low carbon footprint due to a biomass boiler, solar panels and exclusion of soya from the rations

## Areas of interest

- Staff management



# 'Engine room' of EuroDairy – Operational Groups



## Operational Group: Résilience Lait Normandie

Start and finish date: 30/03/2016 to 31/12/2019

### EuroDairy Topics:

### Location:



Socio-economic  
Resilience



### Objective:

- Identify economic and social resilience ways in different systems
- Characterize measurement criteria and develop adequate measurement tools
- Communication about different actions to improve resilience

Number of farmers: 7

Website: <http://www.chambre-agriculture-normandie.fr/> (not available yet)

Coordinator: Catherine BAUSSON - [catherine.bausson@normandie.chambagri.fr](mailto:catherine.bausson@normandie.chambagri.fr)

### Partners:



### Funding Organisms:



## Operational Group: Free walk barns 2.0

Start and finish date: 2012 – April 2018

EuroDairy Topics: Animal Care



Location: 15 dairy farmers across the Netherlands



### Objective:

A so called free walk barn for dairy cows is characterized by no cubicles, an alternative floor instead of concrete and more square meters per cow for lying and moving. Participating dairy farmers in this group want to further improve this innovative system especially regarding the organic bedding materials and management. Animal health, especially claws, udder health and fertility are monitored as the main objective is to increase longevity (how long a cow stays in the herd).

Website: [www.vrijloopstallen.nl](http://www.vrijloopstallen.nl)

Coordinator: Bram den Hollander, IDV-advisory.

Contact: In Dutch [bram@idv-advies.nl](mailto:bram@idv-advies.nl) or in English: [koops@zuivelnl.org](mailto:koops@zuivelnl.org)

Partners: 15 dairy farmers in cooperation with a supplier of roof material and research. Executed by IDV-advisory.

Funding Organisms: National government and participating farmers.



## Operational Group: EuroMaito [EuroMilk] project

Start and finish date: 1.1.2017 – 31.12.2018

### Location:



EuroDairy Topics: (delete those which are not studied in your group)



Resource Efficiency



Biodiversity



Animal Care



### Objective: (using keywords)

- Milk production, resource efficiency, economy, forage yield, animal welfare, biodiversity

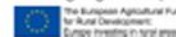
Website: <http://euromaito.savonia.fi/>

Coordinator name and contact: Natural Resources Institute Finland (Luke), [sari.kajava@luke.fi](mailto:sari.kajava@luke.fi)

Partners: Savonia University of Applied Sciences and ProAgria Rural Advisory Services

Number of farms: 12

Funding Organisms (names and logo):



# Pilot farm data collection

## EDF Cost of Production Comparison



Farmbook on your farm's results

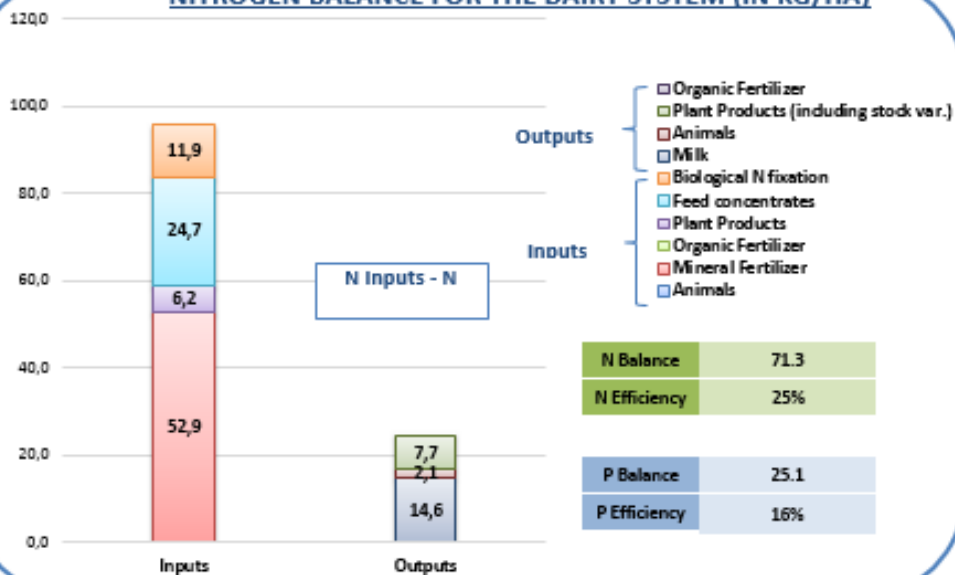
EDF - A club of farmers for farmers

Farm XX-XX

Accounting period, begin XX/XX

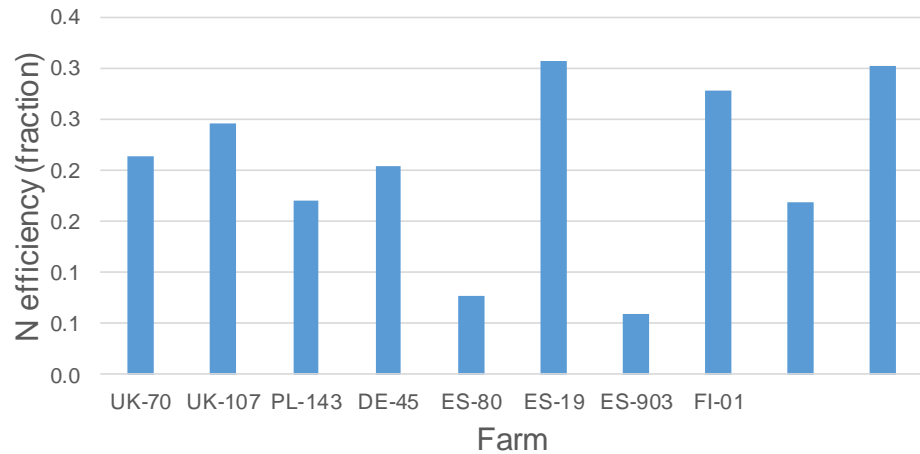


## NITROGEN BALANCE FOR THE DAIRY SYSTEM (IN KG/HA)

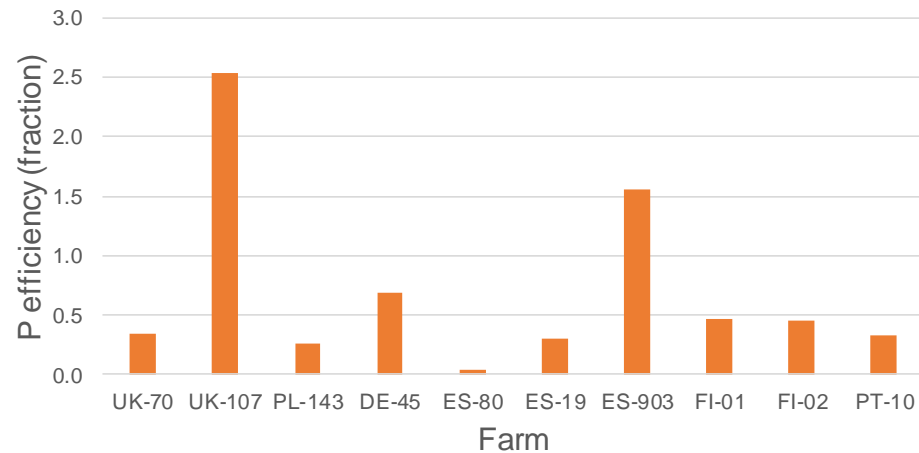


# EuroDairy – variance in nutrient use efficiency (Nitrogen & Phosphorous)

N efficiency



P efficiency






# Examples of Knowledge Exchange

- Operational Group Exchange visits
  - UK farmers to the Netherlands (Topic: Anti-Microbial Resistance / reducing use of antimicrobials, October 2016).
  - French farmers to the UK (Topic: Socio-economic resilience, May 2017)
  - Dutch farmers to Northern Ireland, (Topic: Socio-economic resilience, March 2018)
- International webinars – over 260 registrations to join, and over 1500 views for single webinars
- Travelling experts – Netherlands to Sicily, June 2018

## ❄ Watch Fattoria Rossi's highly valuable short milk supply chain (video)



2 June 2017 

Our EuroDairy network is growing. Most European dairy farmers struggle with high volatility and low milk prices. Fattoria Rossi (Italy) walks the dairy chain the other way around. Their reflexive approach starting from the consumer end is highly valuable. EuroDairy made a special video case study around this inspirational example from Italy. Watch the video here!



Share this:



### Relevant dairy themes

EuroDairy drives the engine of innovations on 4 main themes at dairy farms: animal care, biodiversity, resource efficiency and socio-economic resilience. Find more info on these dairy topics here!

[Biodiversity](#)

[Resource Efficiency](#)

[Socio-Economics](#)

[Animal Care](#)

# Summary

- Context and weighting may vary, but most issues common to dairy farming across Europe
- Economic viability a pre-requisite to delivery on wider societal needs
  - Environmental protection
  - Animal welfare
  - Ecosystems services
- Socio-economic resilience arises at:-
  - farm-level
  - business-level
  - industry level

# Summary

- Many high-performing, innovative dairy farmers across Europe
- Others need to be inspired to adopt best practice
- Much to be gained by cross border exchange of information and experience
- Communications technology gives increasing options
- Local interpretation, and language critical to uptake
- Attitude, skills development, AKIS systems



# Thank you