

The competitiveness of Latvian dairy farmers on a European scale

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Outline

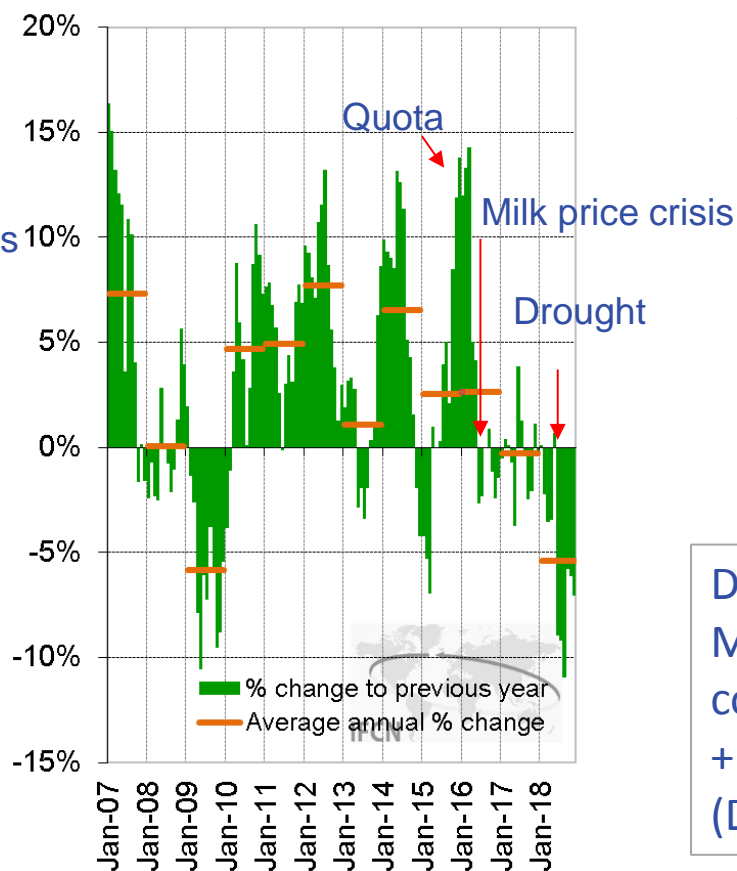
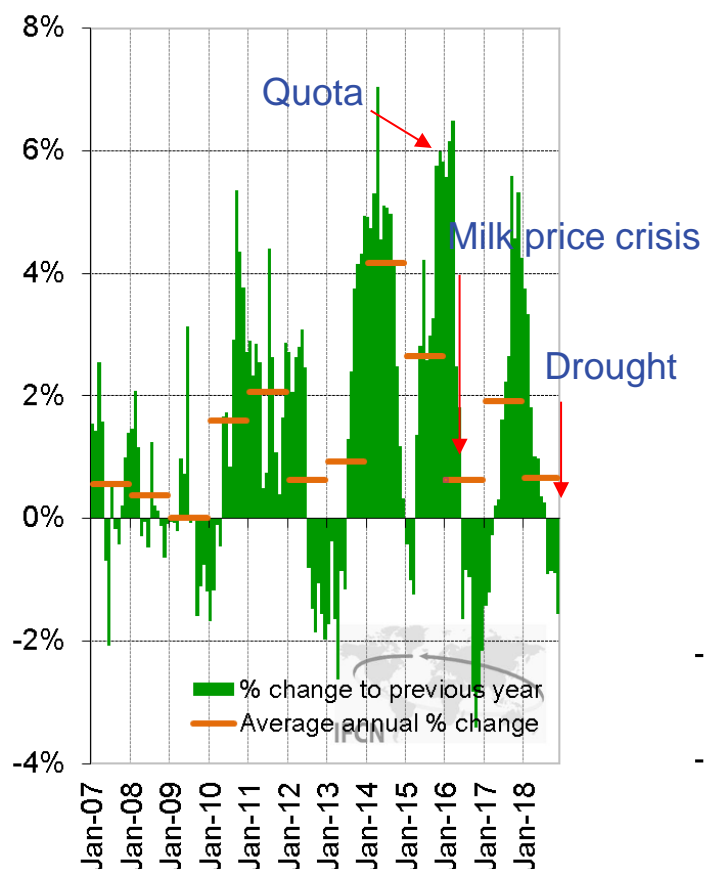
- 1. Production**
- 2. Prices**
- 3. Farm structure**
- 4. Farm level – IFCN farm comparison data**
- 5. Summary**

Change of Milk Production

Year-on-Year Change, in %

EU-28

Latvia



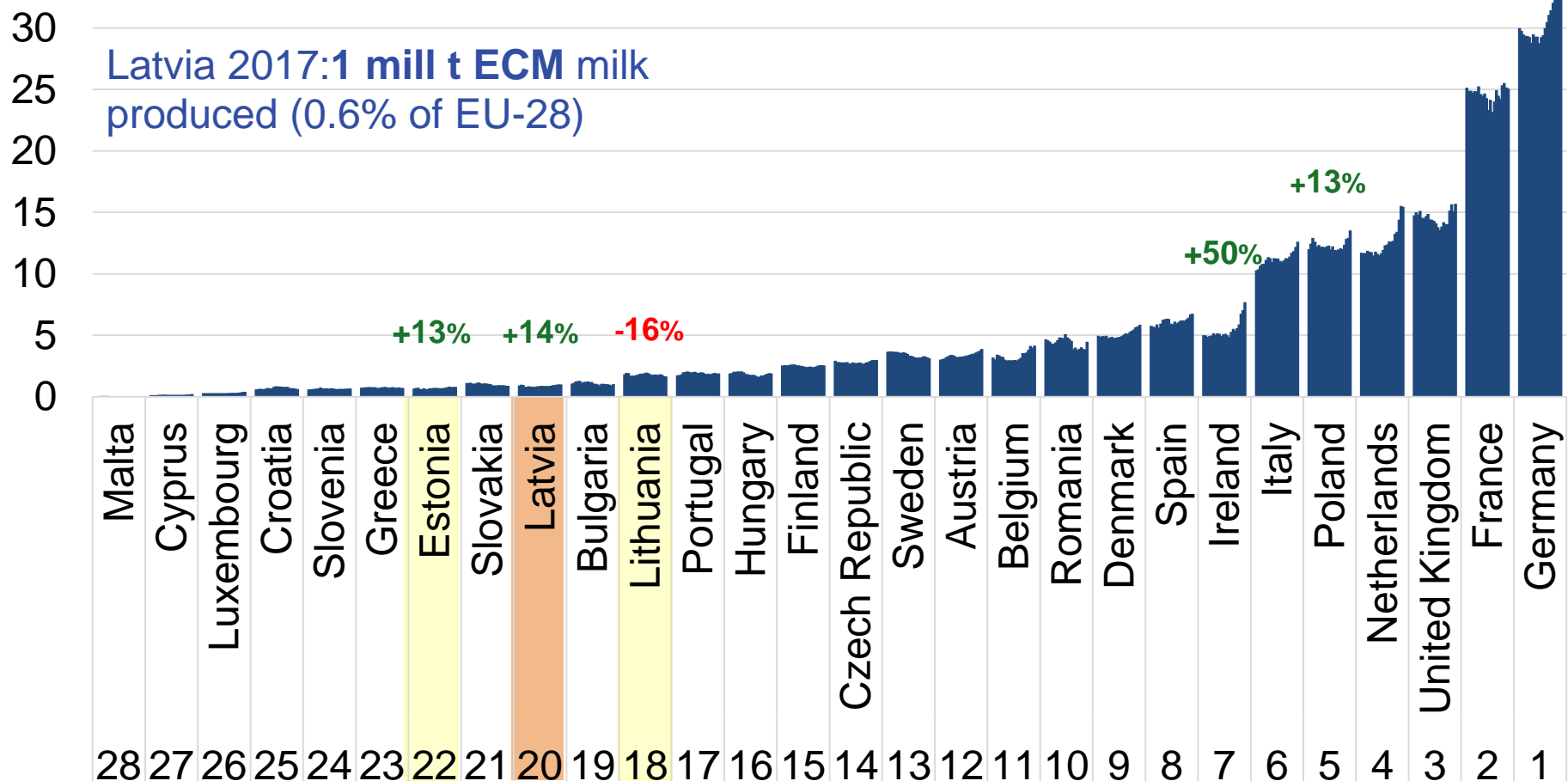
2015/16: Drop of milk volumes in Eu-28, Latvia ?

2018 drought: Latvian milk production drop stronger than EU-28 average

Data source: IFCN
Monthly data,
covering 62 countries
+ real time estimates
(Data until Nov. 2018)

Eu-28 Milk Production

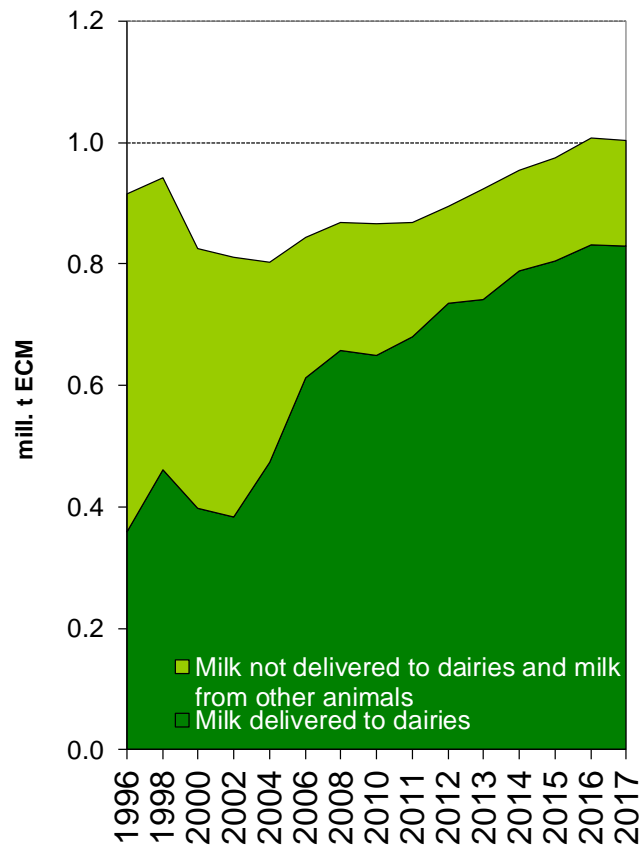
EU-28 milk production in mill t ECM, 1997-2017



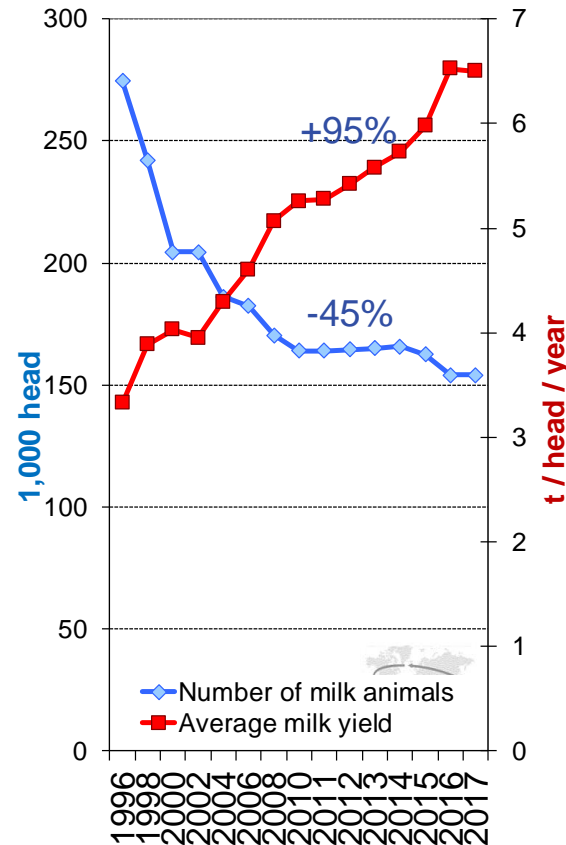
*percentage growth 2017 vs 2007

Latvia: Growth driven by yield

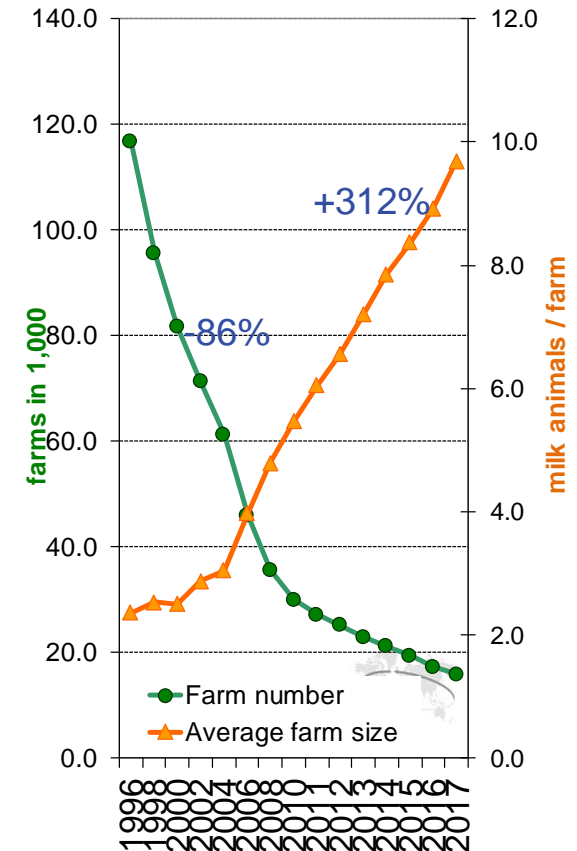
Milk production



Herd size and milk yield



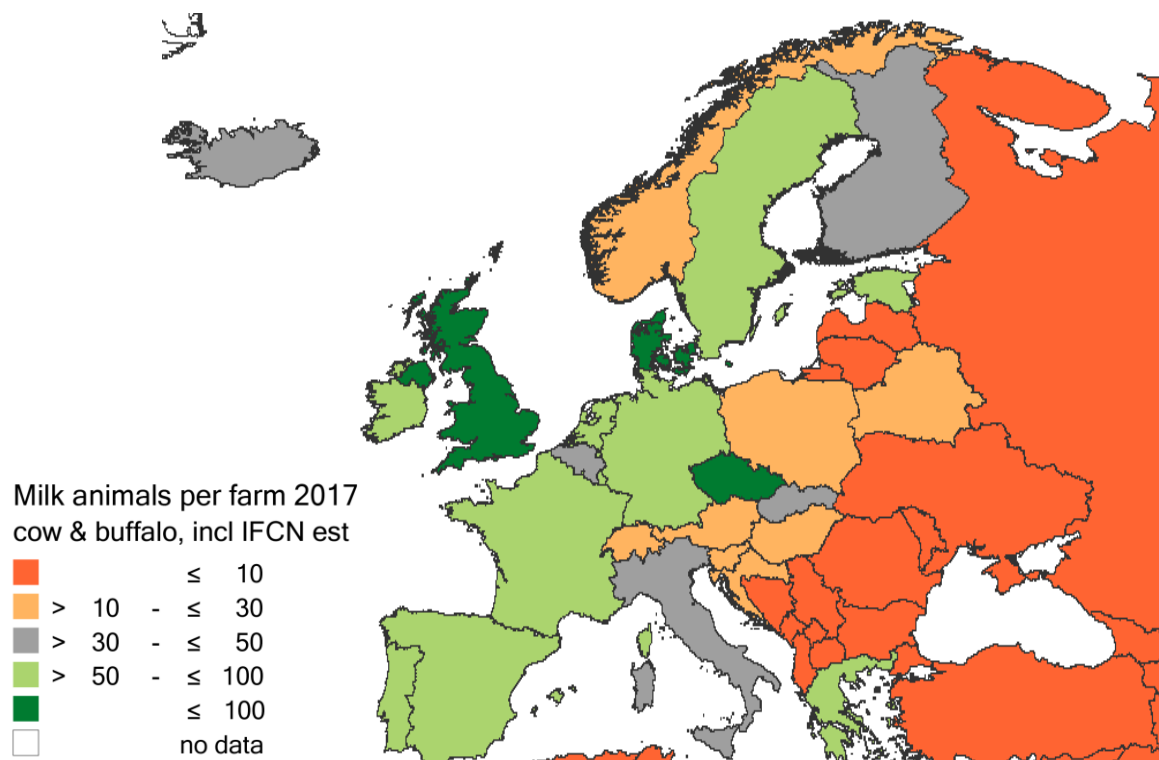
Farm number and size



Delivery share increased to 80% in 2017

+14% growth in milk volume achieved via **productivity growth** (2017:6.7 t/head/year (EU-28:7.2))

Average dairy farm size per country



		2017 vs 2007
Latvia	10	+5
Lithuania	7	+4
Finland	40	+18
Germany	64	+23
France	59	+19
UK	146	+33
CZ	211	+50

Global average: **3** cows per farm
EU-28 average: **19** cows per farm

→ Latvia farm size below Eu-28 average

Farm ownership & their key drivers

Small farms “Household farms”

Key characteristics: Small farms 1-3 cows, dairy is one income source,
50% of the milk is consumed on the farm, 50% sold.

Key driver: Selling milk provides daily cash for family needs.

Medium farms “Family farms”

Key characteristics: Work is mainly done by the family,
size in developed countries 10 up to 100/300 cows?

Key driver: Generate an income.

Large farms “Business farms”

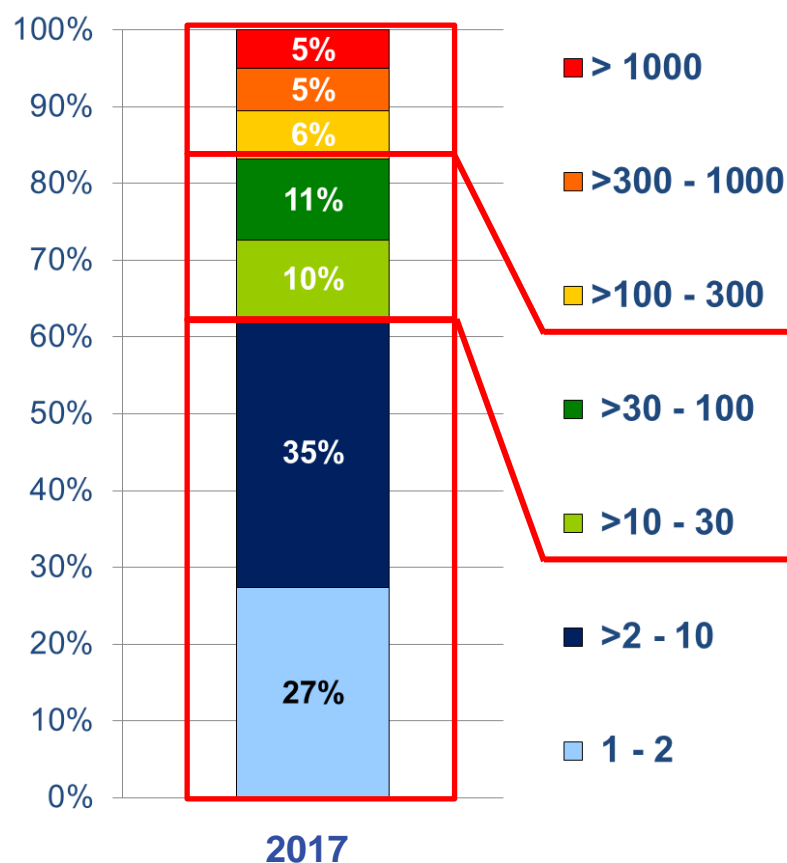
Key characteristics: Work is mainly done by employees,
size in developed countries > 300 cows?

Key driver: Generate the expected ROI.

Farm structure status 2017

IFCN Farm Structure Database >90 countries

IFCN Standard Classes - World dairy animals in % per size classes



16% of world milking animals in >100 classes

225,000 Business farms in 2017

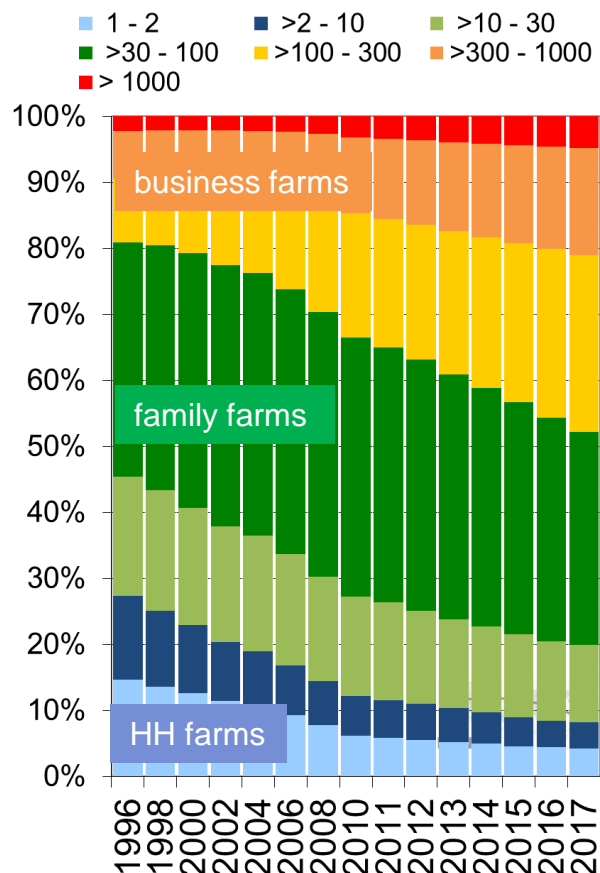
Family farms own **21%** of world dairy animals

Households dominate with a share of **62%** of world dairy animals

Structural changes in dairy animal numbers

% dairy animals per IFCN Standard Classes

EU-28

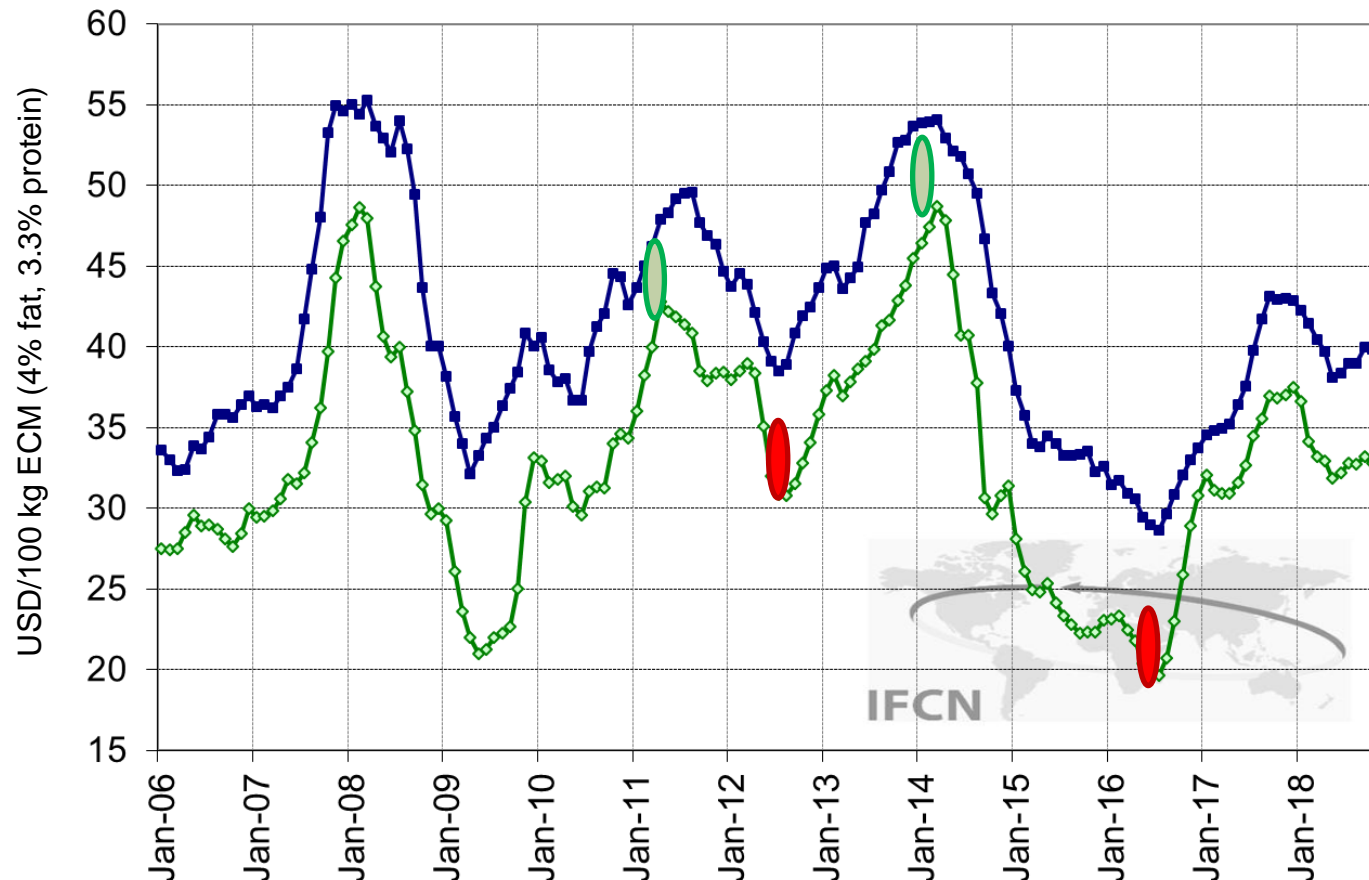


Moving from family to
business farms

World market price vs. national milk prices

Farmgate milk prices with estimates for last 3 months

—◇— Latvia —■— EU-28 aggregate



Latvia milk price on average 6 USD below EU-28 average*

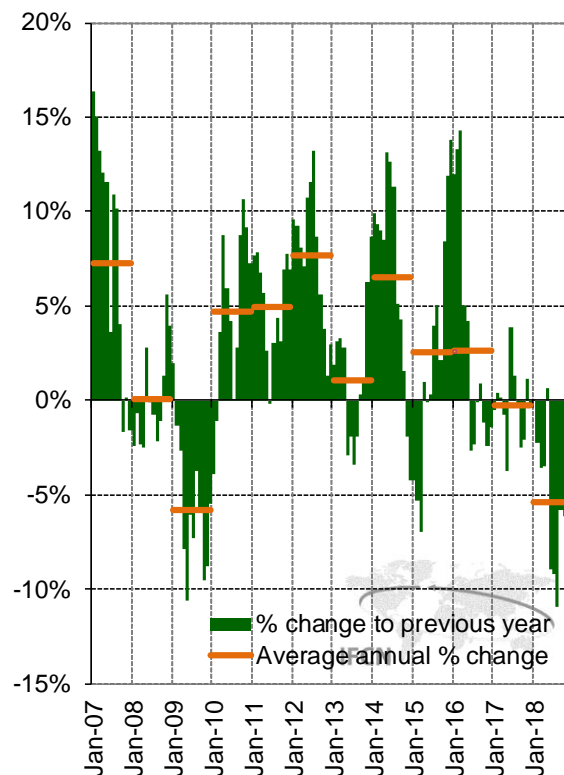
*(Lithuania: 7; EU-13: 3)

Latvian milk price follows global commodity price developments (Latvia as net exporter)

Latvia milk price takes lows but not hikes of price developments

Latvia monthly data

Change in milk production on monthly basis



Production: Leap year adjustment. February adjusted to 28 days

Farm comparison analysis done 2017

What? Detailed comparison of farms annually from 2000 onwards

Why? Estimation of **competitiveness** and future dairy trends

How? Method

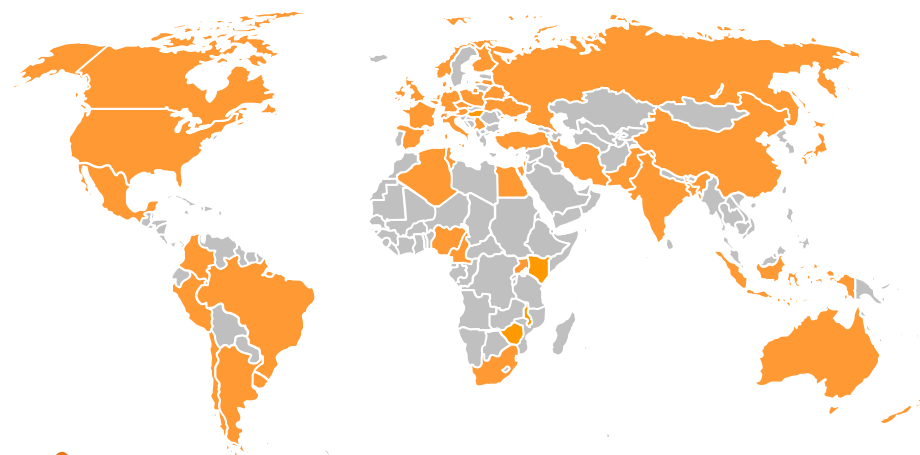
- a) Typical farm concept
- b) Model TIPICAL
- c) Validation loops & Quality check

How to use?

Milk processor: Where to source milk; sustainability of the farms in a region

Farm input companies: Economic situation of the farms in different regions and behaviour in the future

Participating countries 2017



● Countries where IFCN Typical farms are analyzed

Details of analysis

No. of typical farm types: 177

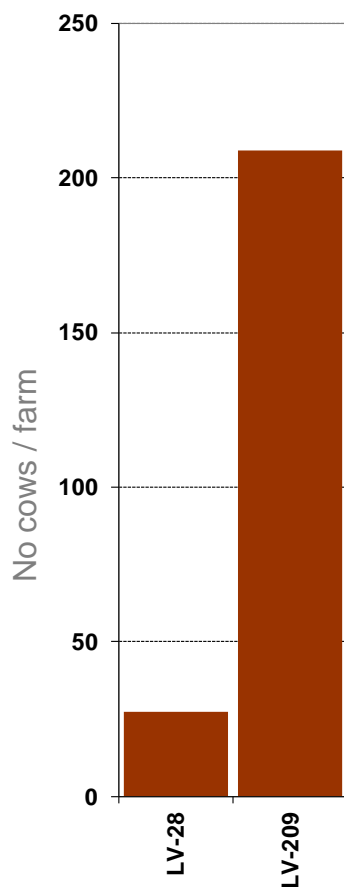
Example: NZ-397= Farm with 397 cows

Time period: Calendar year 2017

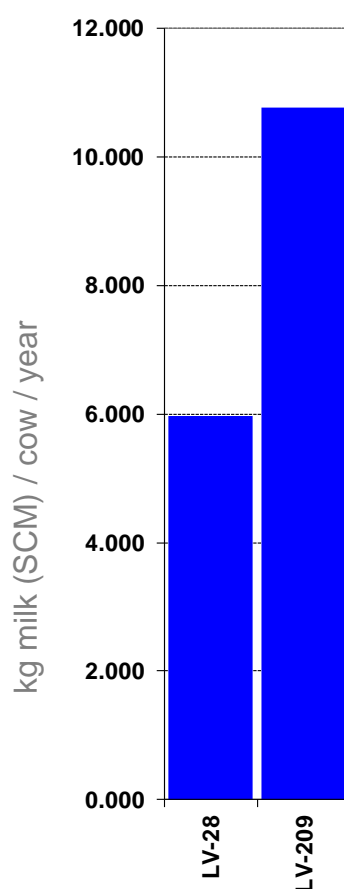
Coverage: 53 countries; 89 % production

Latvian farms: Farm description

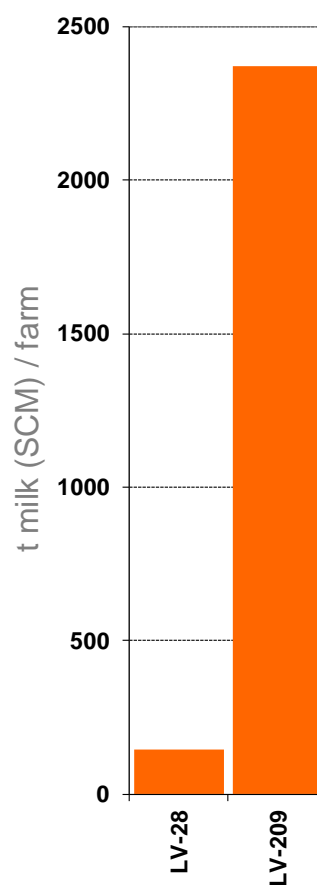
Farm Size



Milk Yield



Milk Output



LV-28:

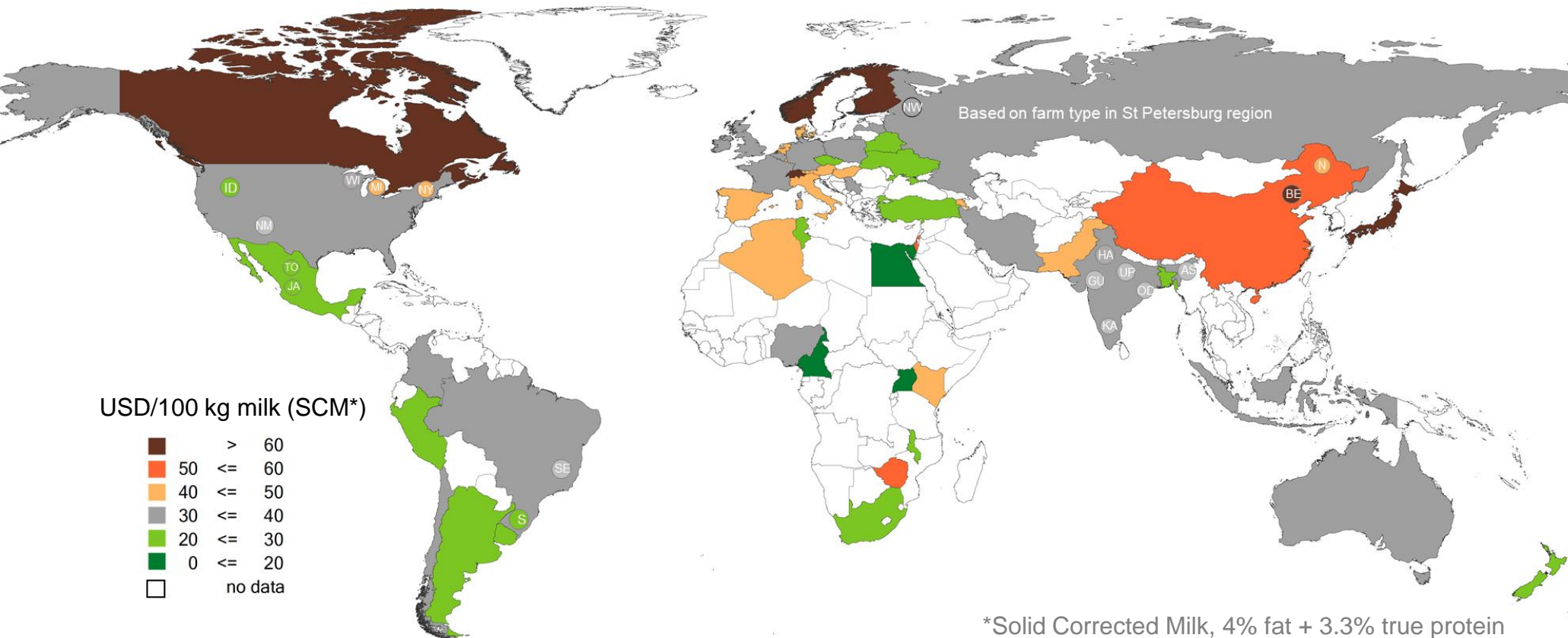
- Average family farm
- 1 employee and family work
- Stanchion barn
- Bucket milking machine
- Local crosses of Latvian Brown and Holstein Friesian
- 86.5 ha land

LV-209:

- Large family farm
- Most work done by employees
- Free stall barn
- Parlour milking system
- 392 ha
- Holstein Friesian

Cost of milk production – 2017

On large typical farms in USD/100 kg milk (SCM*)



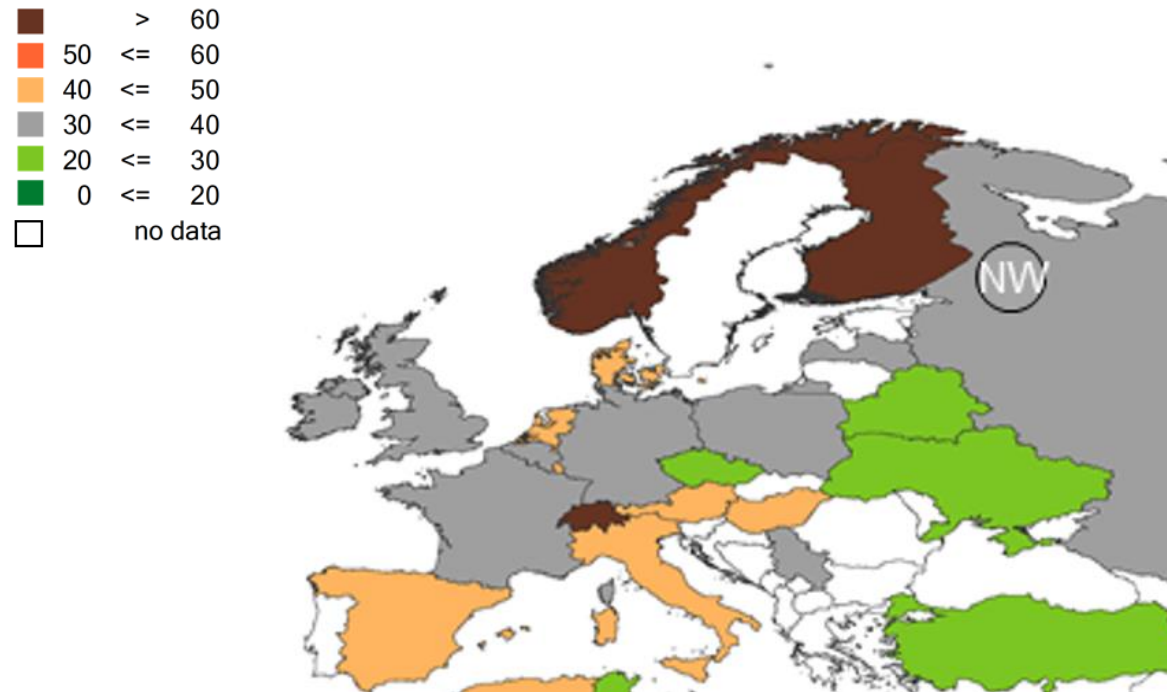
Low cost (< 30 USD): New Zealand, Ukraine, Argentina, Uruguay, Peru, South Africa

Moderate (30 – 50 USD): **Latvia**, parts of Europe, Australia, US, South Asia

High cost (>50 USD): Canada, Japan, Switzerland, Scandinavia, China

Cost of milk production – 2017

On large typical farms in USD/100 kg milk (SCM*)



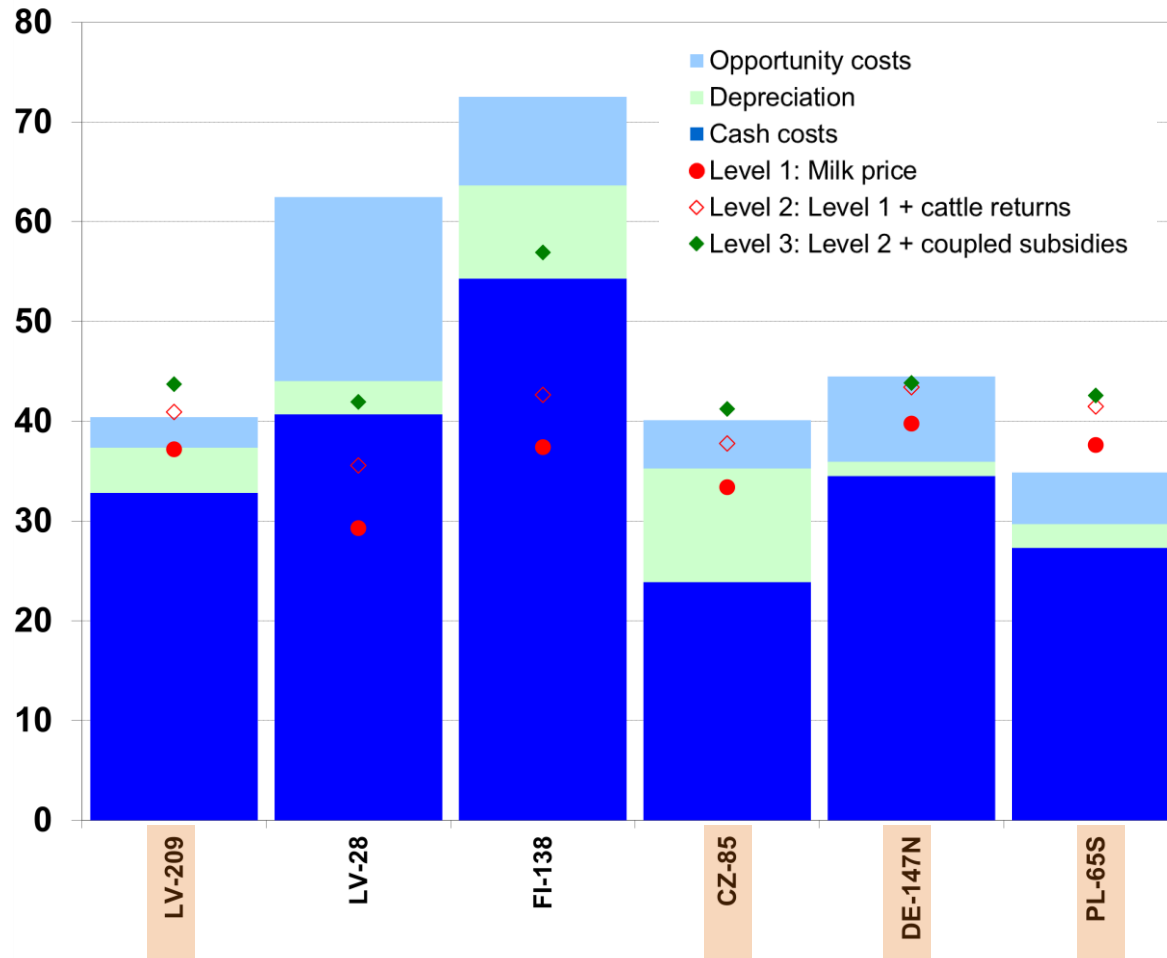
Low cost (< 30 USD): CZ, UA, BY

Moderate (30 – 50 USD): LV, PL, DE, FR, UK, IE, ES, IT, DK, NL

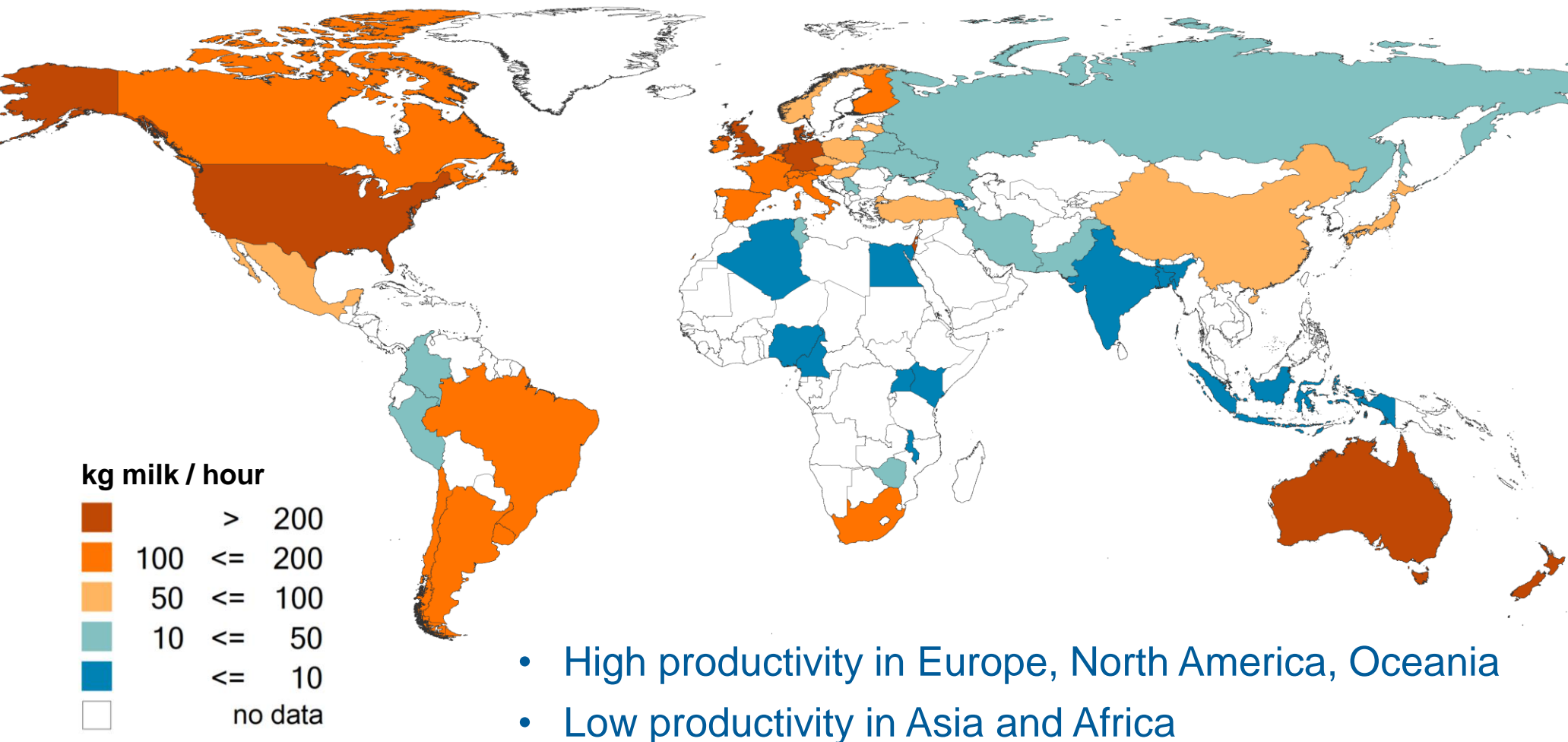
High cost (>50 USD): FL, SE

Total costs + returns of the dairy enterprise

Based on 2017 data

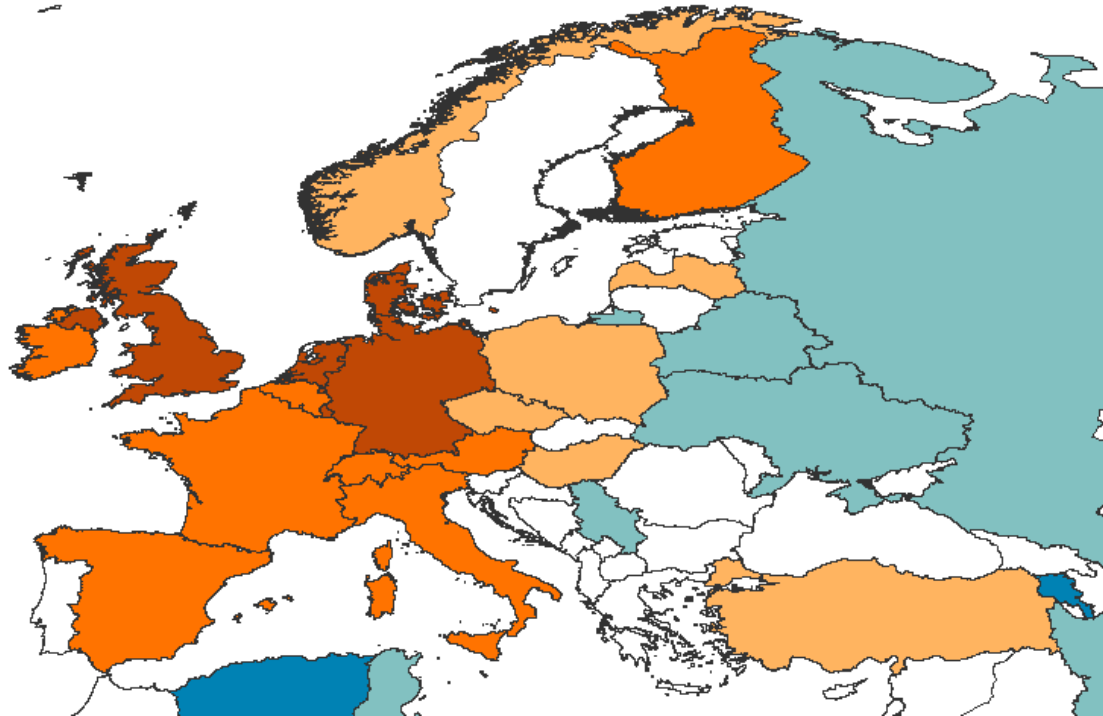
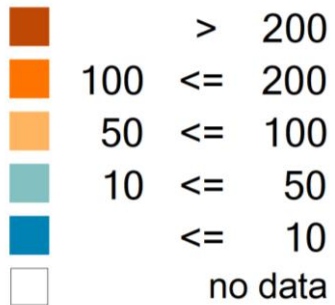


Labour Productivity on large farms



Labour Productivity on large farms

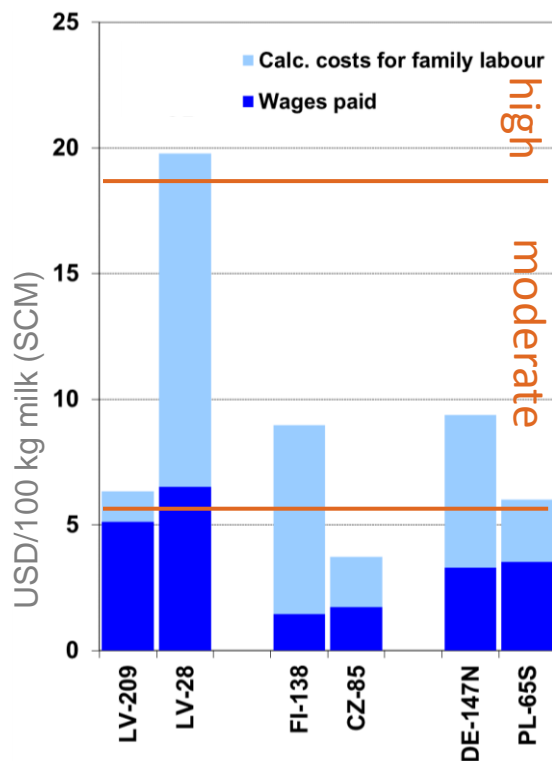
kg milk / hour



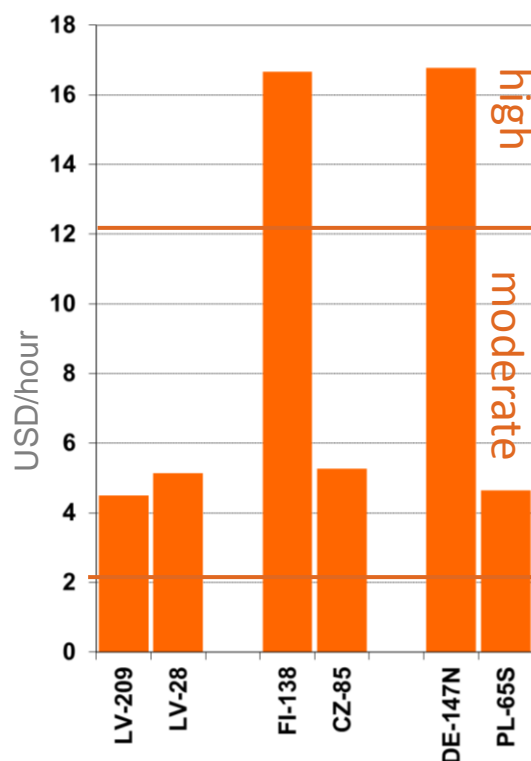
→ High productivity in Europe

Labour Productivity

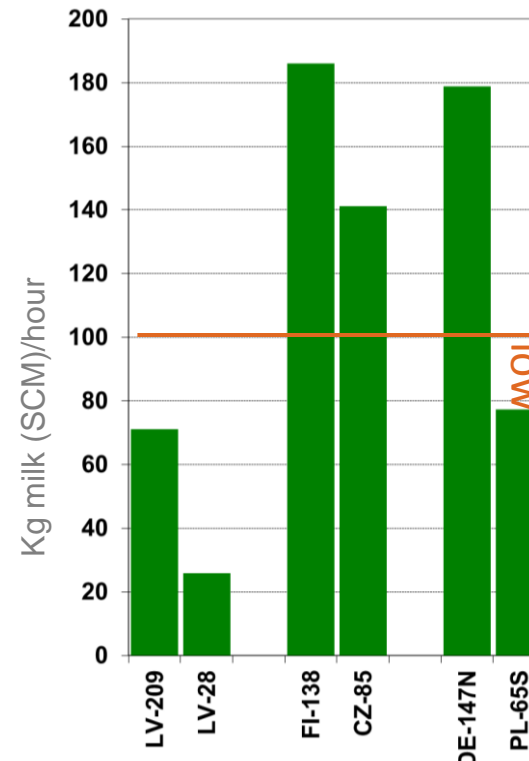
Labour Costs



Average wages on the farm



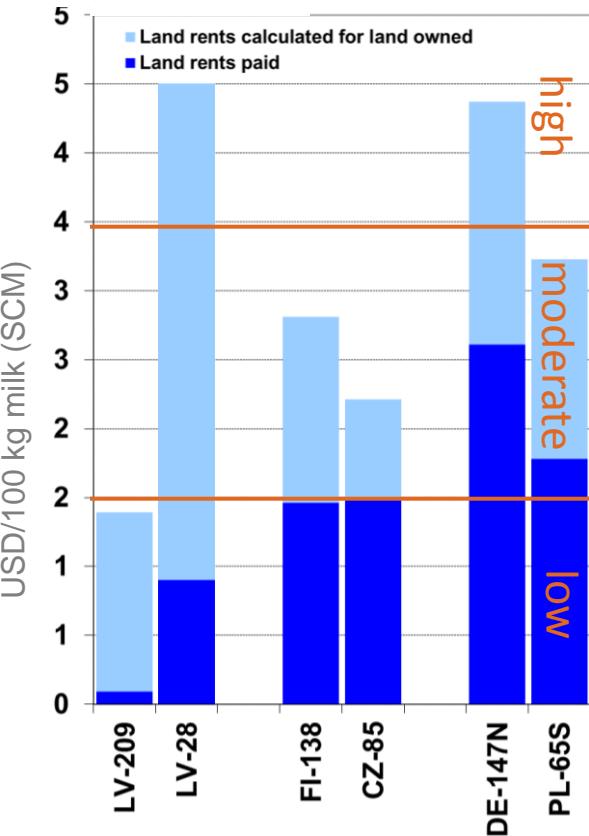
Labour productivity



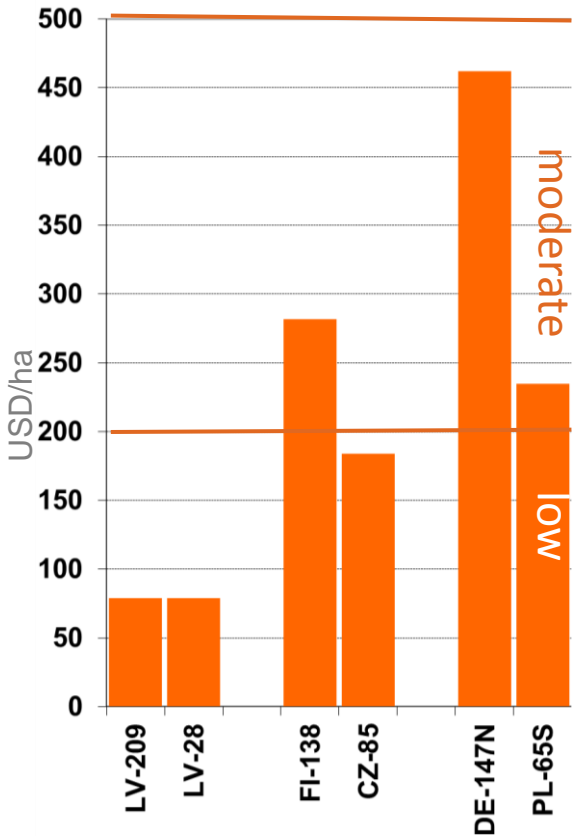
labour productivity <100: Low (e.g South Germany, No, FL, AT, CEEC)

Land Productivity

Land Costs

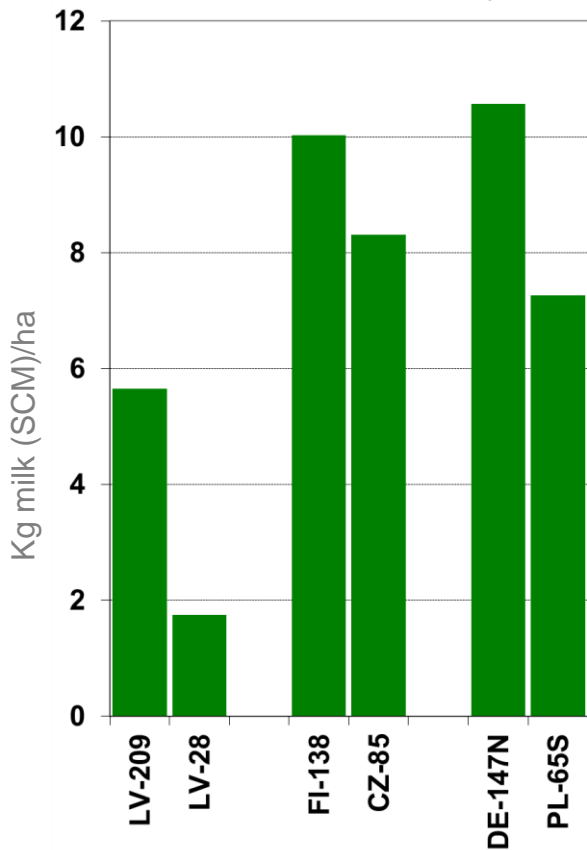


Rent for dairy land*



*weighted average, arable and pasture

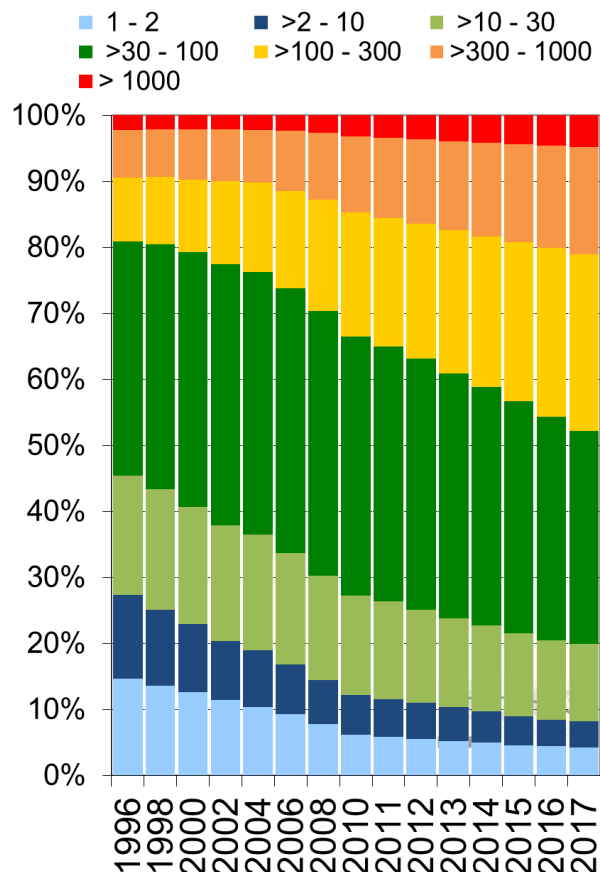
Land productivity



Structural changes in dairy animal numbers

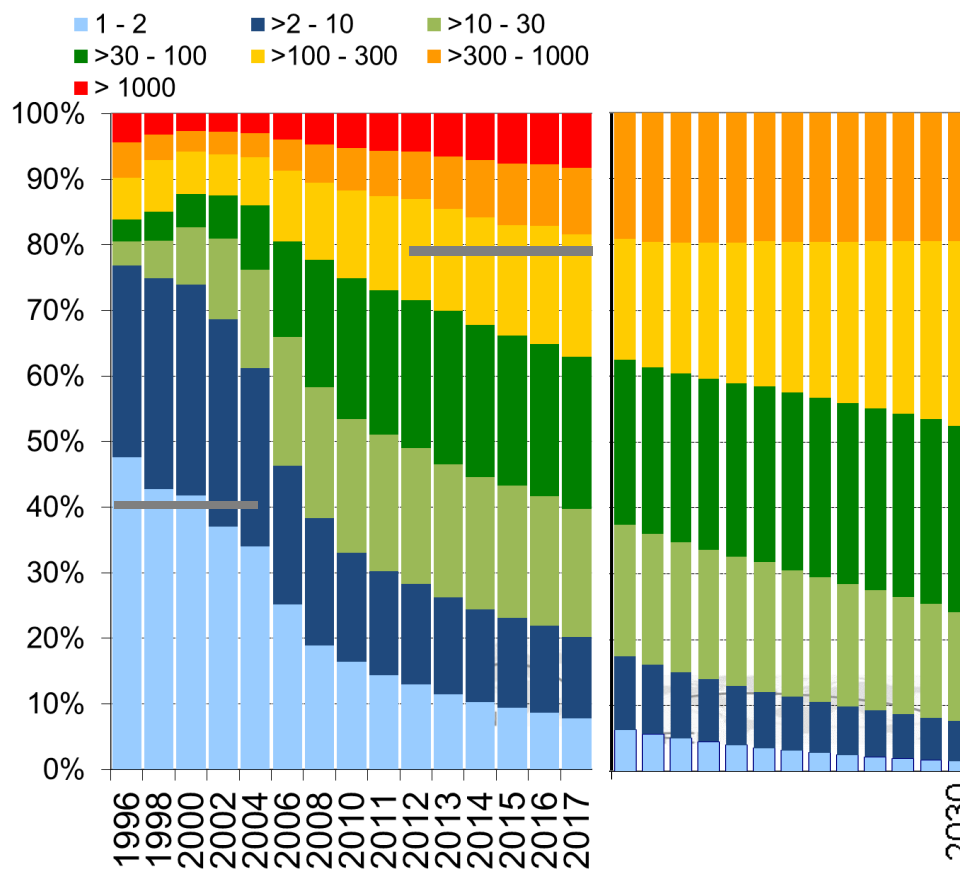
% dairy animals per IFCN Standard Classes

EU-28



Moving from family to business farms

Latvia



Moving from household to family farms
— Milk delivery share

Sustainability – How to measure?

Three dimensions

- Environmental
- Economic
- Social

The SDGs

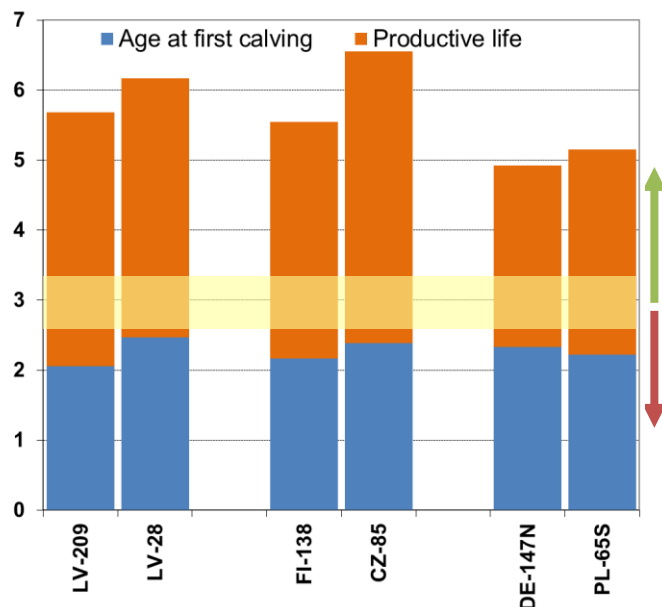


DSF Criteria

Greenhouse Gas Emissions
Soil Nutrients
Waste
Water
Soil Biodiversity
Market Development
Rural Economies
Working Conditions
Product Safety & Quality
Animal Care

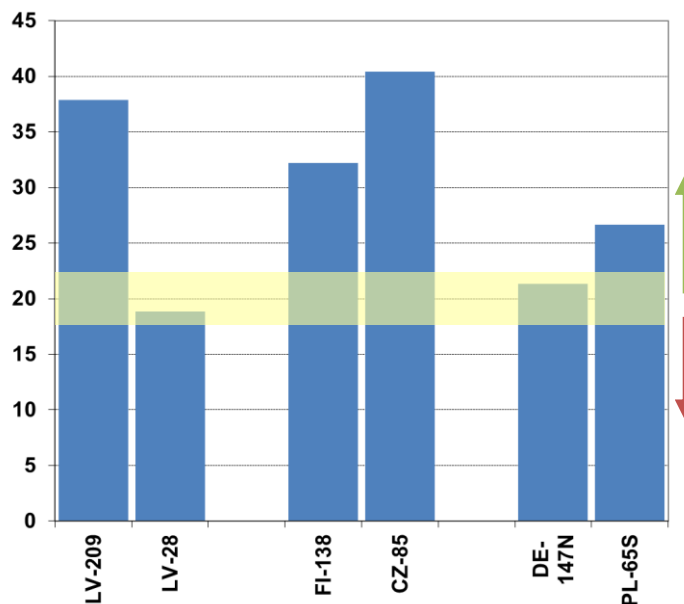
The cow's life – a consumer indicator?

Average age of a cow



Productive life is defined as years the cow is in milk production.
Productive life + Age at first calving
= average age of a cow at time of culling

Average lifetime production



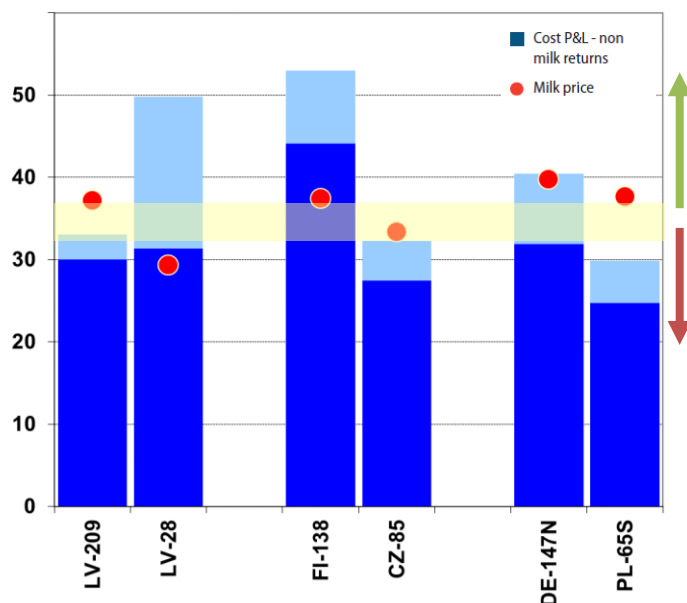
Lifetime production is a function of the productive years and the milk yield per year

Core messages:

1. We can measure different aspects of sustainability
2. We can put numbers to stories and anecdotes
3. We can develop ideas + strategies to improve

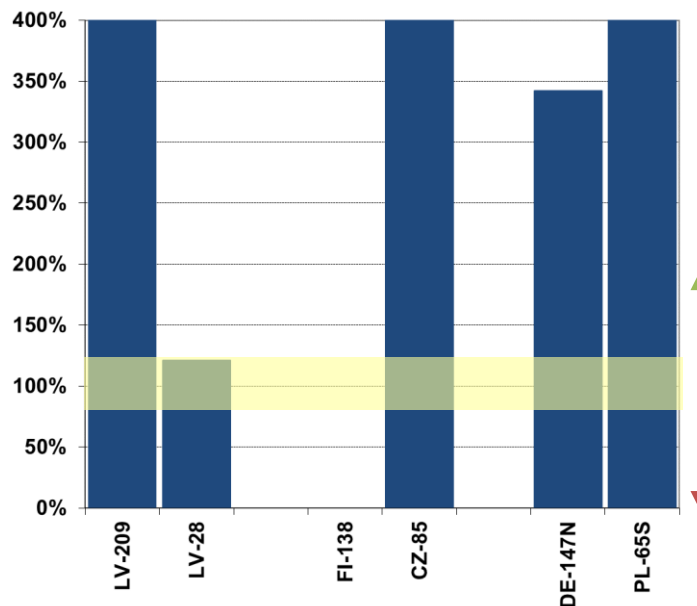
IFCN Sustainability Indicators

Economic sustainability



Indicator: Costs from profit and loss account – non-milk returns + opportunity costs = Costs of milk production only

Social sustainability



LV-28 close to minimum wage rate

Indicator: Farm income (including decoupled subsidies) per hour family labour input in relation to the national minimum wage rate

Thank you for your attention



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to make this presentation possible.*