

# Overview of dairy farming globally

IDF World Dairy Summit in Yokohama 28.10. to 1.11. 2013.



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**Source: IFCN Dairy Report+ cooperation of dairy researcher from 90 countries.**

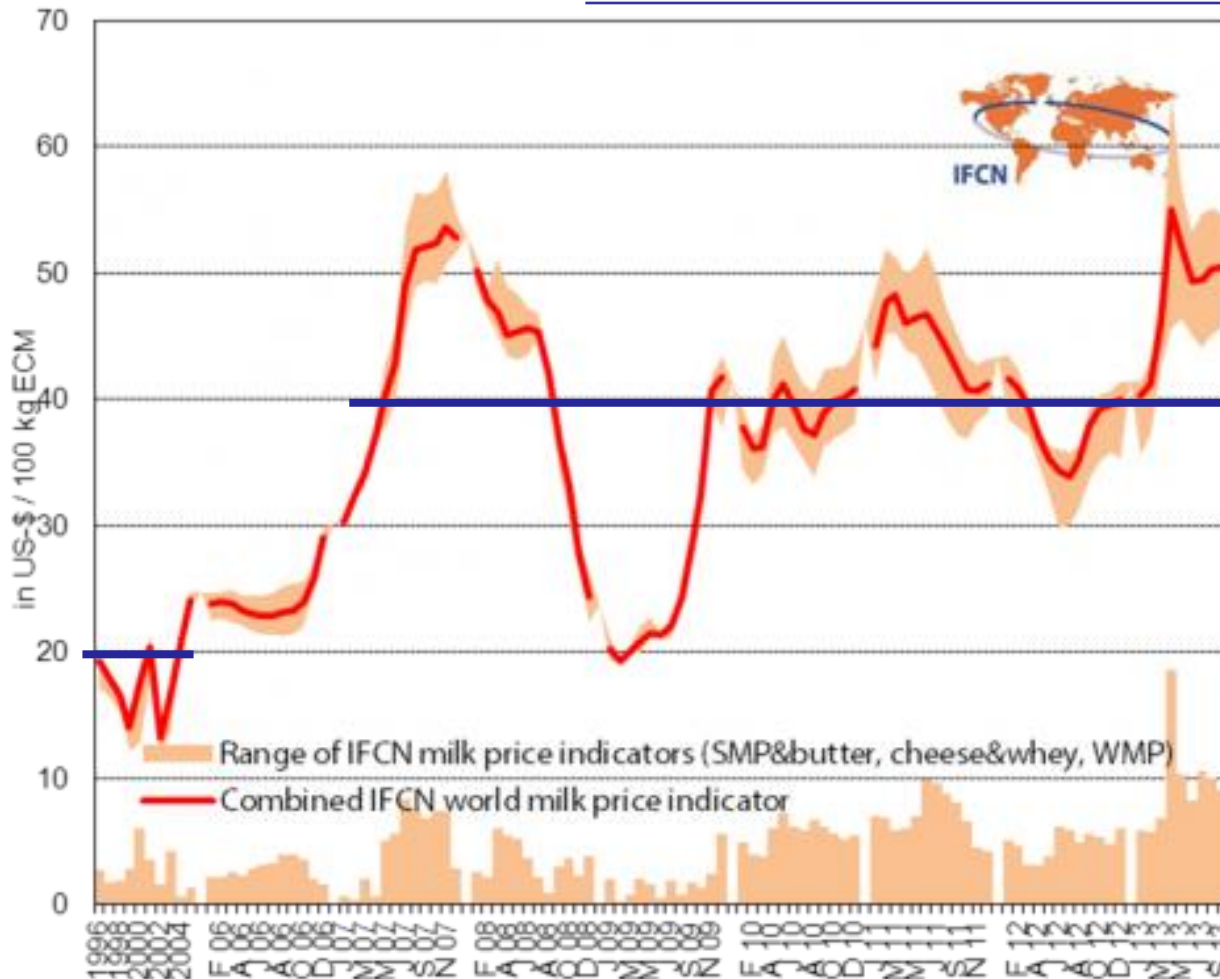
# What matters for dairy farmers most?

Where is the **milk price** now and where will it be in the future?



# IFCN's world milk price indicator

World market price of milk 1996 – 2013 Sept



30.2 €/  
100 kg  
17.2 US-\$/  
CWT  
6.8 NZ-\$/  
kg milk  
solids

Whats next?

What is the average level ?

What is the next min/max swing

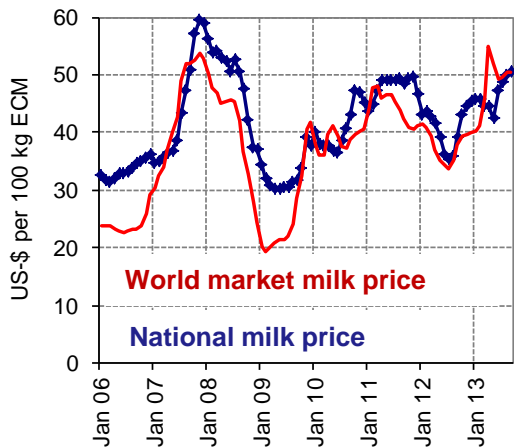
Comment: Exchange rate: 1 EUR = 1.32 US-\$, 1 NZ-\$ = 0,805 US-\$



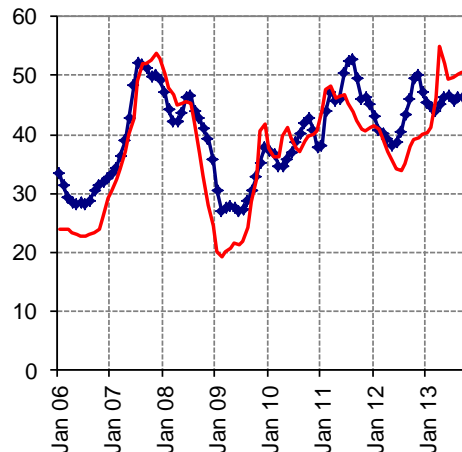
# World milk prices drive national prices

Monthly milk price developments 2006 – 2013 up to Sept.

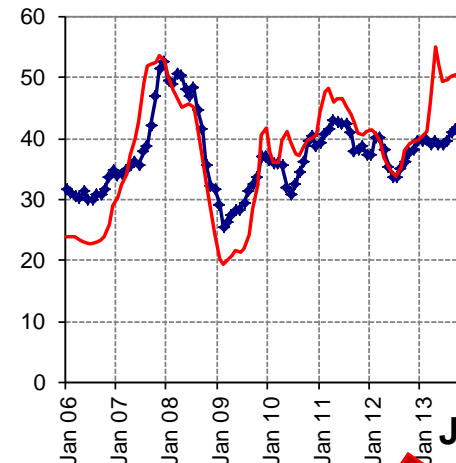
## Germany



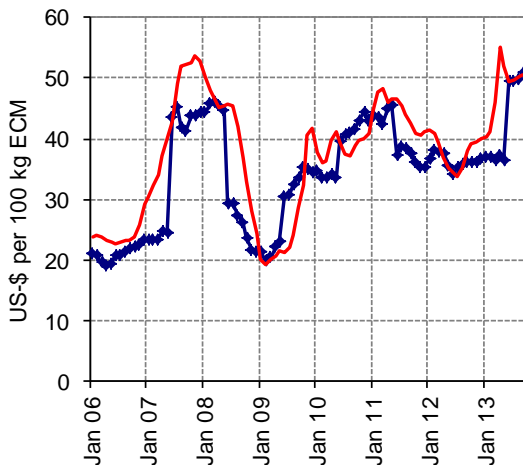
## USA



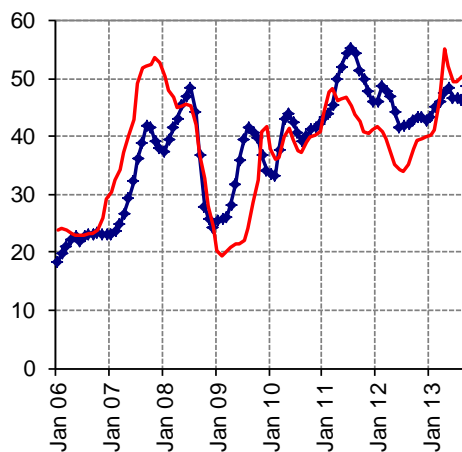
## Poland



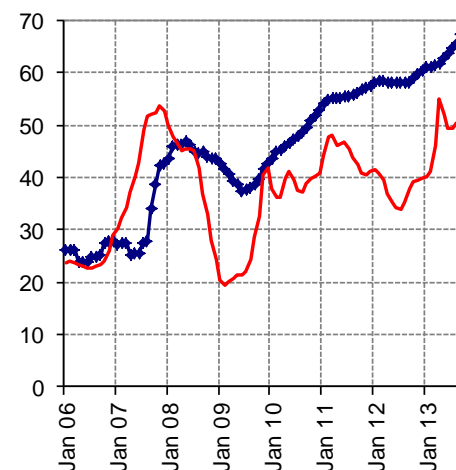
## New Zealand



## Brazil



## China

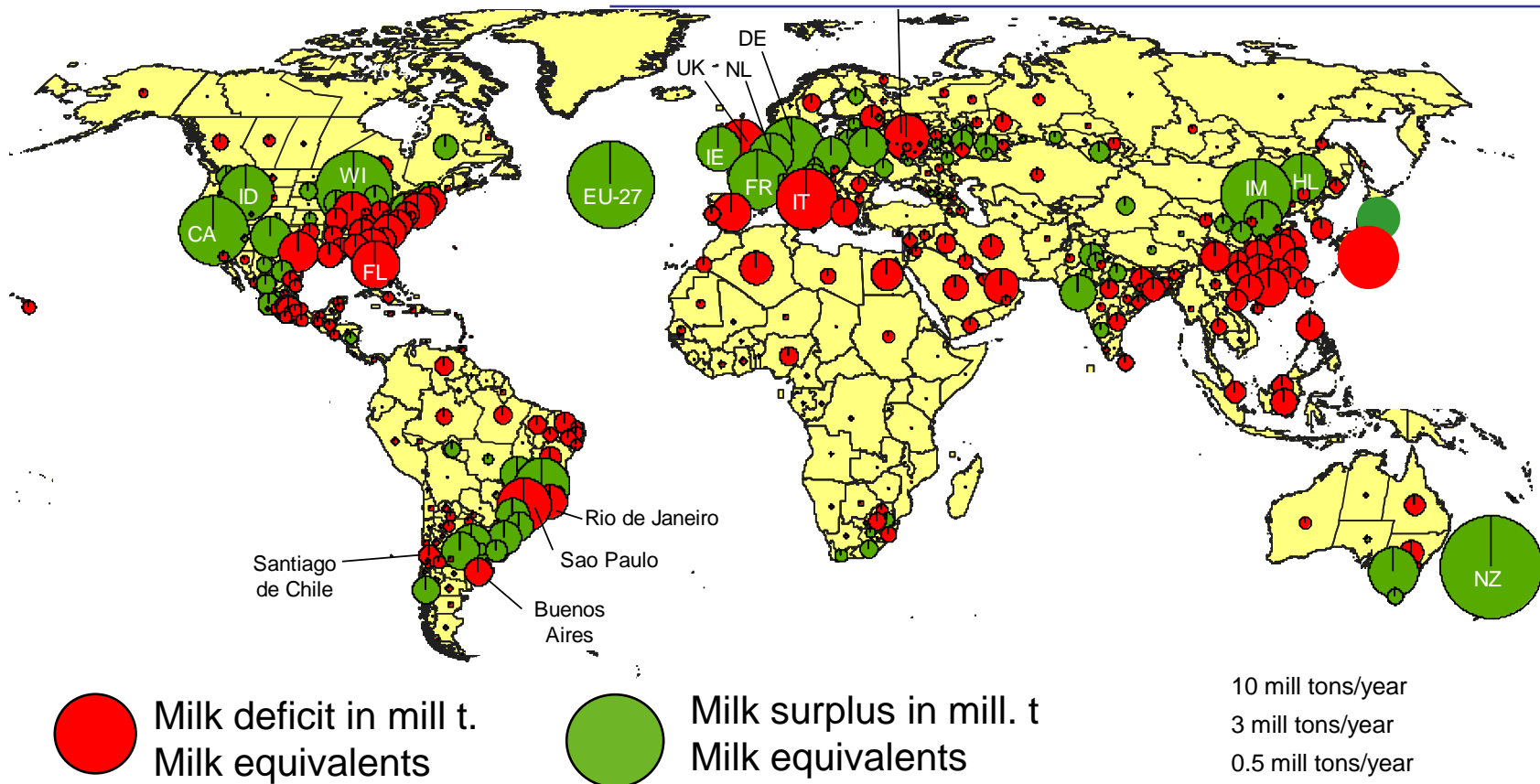


Japan



# The key driver for world milk prices

## Milk surplus and deficit by dairy region 2010



**Calculation of surplus or deficit per country or region:** Milk production minus milk demand. Regional demand: Regional population and country average per capita milk consumption. Additional assumption for India: Not delivered milk is consumed in the region where it is produced. **Remarks:** Moscow region and city shown as one, Buenos Aires region and city shown as one, Santiago de Chile = Metropolitana region. Regional abbreviations: USA: CA = California, ID = Idaho, WI = Wisconsin, FL = Florida. China: IM = Inner Mongolia, HL = Heilongjiang Sheng.



# Outline

IFCN concept + method

Milk production & dairy farming

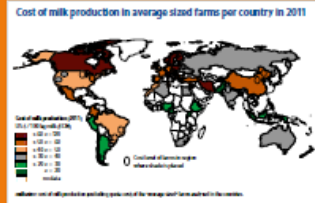
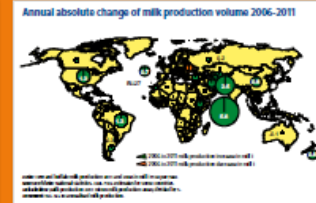
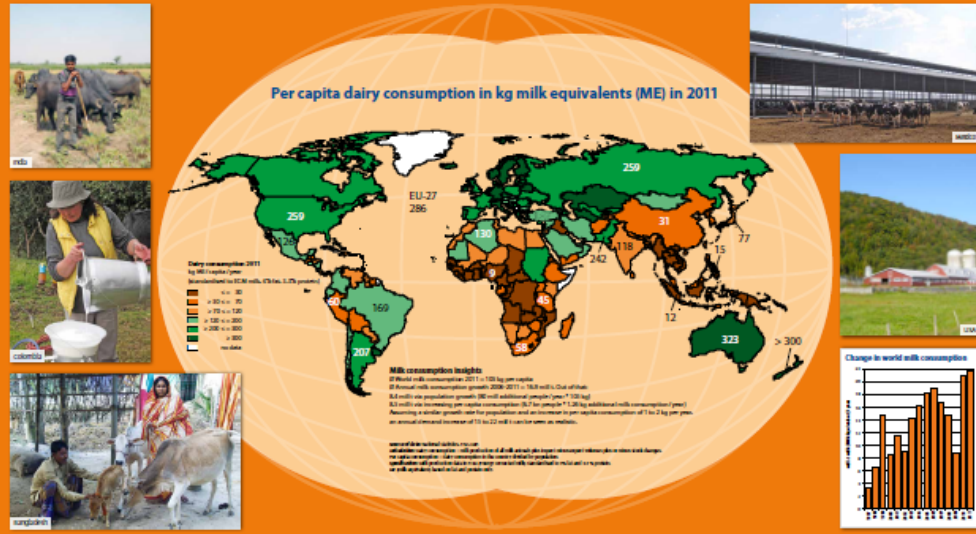
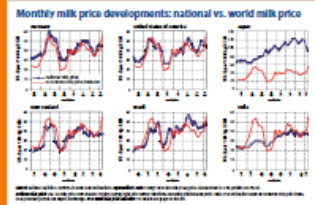
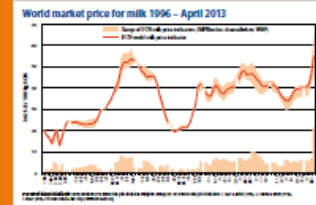
Costs of milk production

Perspectives

Sum up

**Top 20 milk processors by milk intake – IFCN ranking**

Company name	Country	Milk intake (1000 t)	2011	2010	2009
1. Nestlé	Switzerland	174	174	174	174
2. FrieslandCampina	Netherlands	170	170	170	170
3. Danone	France	152	152	152	152
4. Arla Foods	Denmark	142	142	142	142
5. Lactalis	France	138	138	138	138
6. Fonterra	New Zealand	132	132	132	132
7. GFL Foods	Germany	128	128	128	128
8. Borden	USA	122	122	122	122
9. Sargento	USA	118	118	118	118
10. Lacteo	Spain	112	112	112	112
11. Friesland	Netherlands	108	108	108	108
12. Danone	France	102	102	102	102
13. FrieslandCampina	Netherlands	98	98	98	98
14. Lactalis	France	92	92	92	92
15. Friesland	Netherlands	88	88	88	88
16. Lactalis	France	82	82	82	82
17. Friesland	Netherlands	78	78	78	78
18. Lactalis	France	72	72	72	72
19. Friesland	Netherlands	68	68	68	68
20. Lactalis	France	62	62	62	62



**Agribusiness partners**  
These companies use the research for their strategic planning.

**Research partners / organisations participating**  
These researchers provided information in all about their countries and own-farm-level research knowledge.

**Institutional partners**

**The IFCN**

# IFCN = International Farm Comparison Network

The IFCN is a global dairy **network of researchers, companies** and other stakeholders who are active in the dairy chain.

The IFCN has a **Dairy Research Center** with 15 dairy researchers coordinating the network process + running dairy research activities.

The IFCN is **independent** from third parties and committed to truth, science and reliability of results.





USA



Argentina

## IFCN mission

We create a better understanding of milk production world wide



India



China



Ethiopia



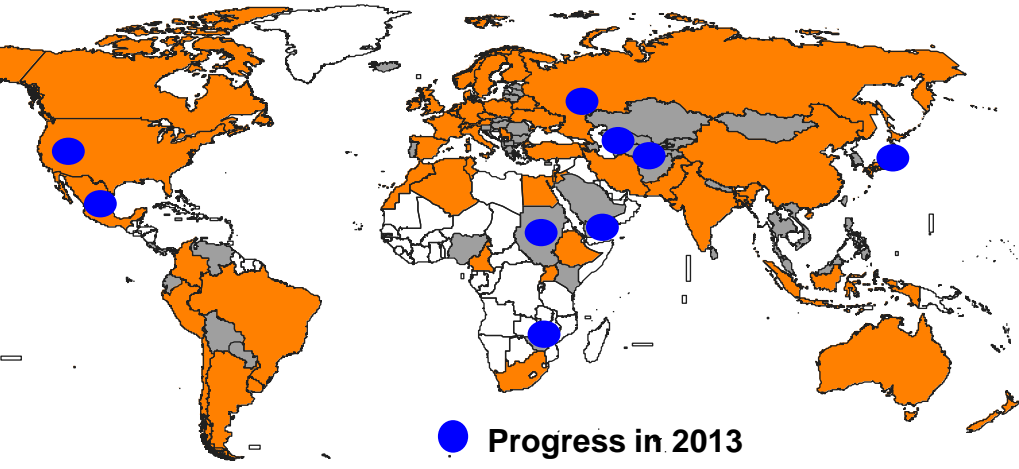
Brazil





# Status of the IFCN Network in 2013

## Researchers partners f. 95 countries



● Progress in 2013

■ Farm Comparison: 51 countries & 61 dairy regions

■ Country Profile: + 44 countries = 95 countries


## > 100 Supporting partners



### Milk processing



### Milking and barn equipment



### Health and hygiene



### Feed



### Farm machinery



### Genetics for animal & plants



### Other branches of the dairy chain



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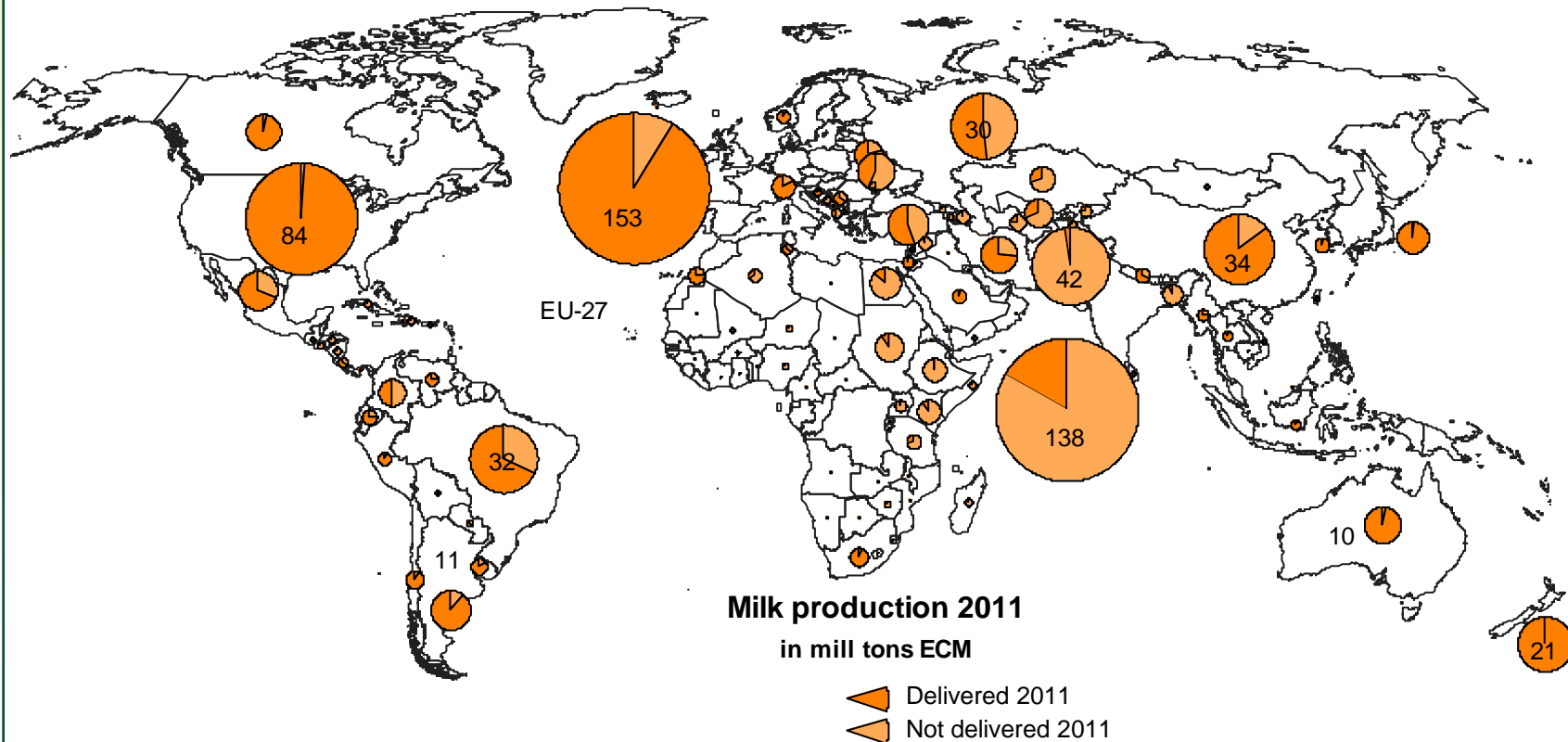
## Dairy Report 2013

For a better  
understanding of  
milk production  
world-wide



**IFCN**  
International Farm  
Comparison Network

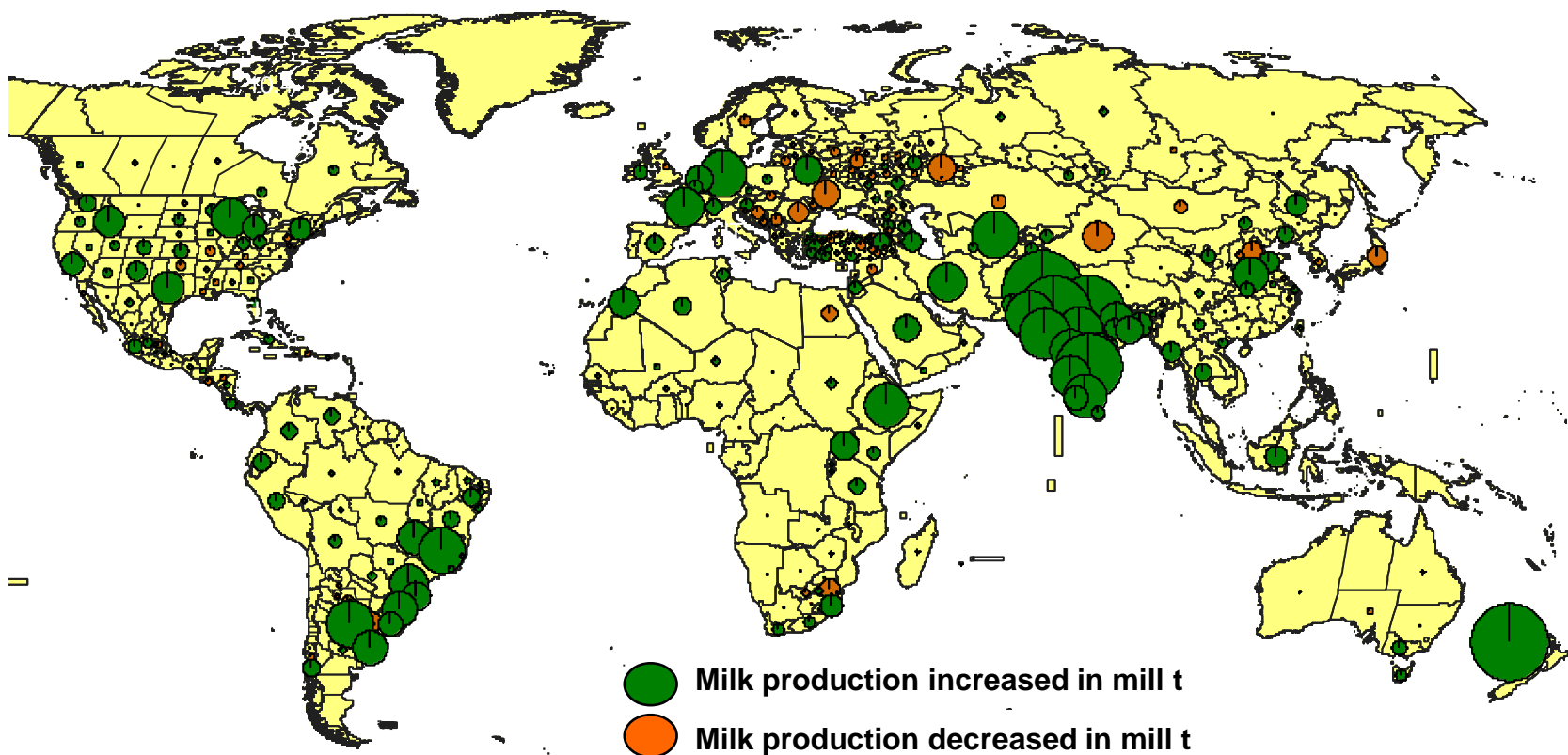
# Status of world milk production



Milk volumes cows & buffalo milk –standardised to 4% fat and 3,3% protein

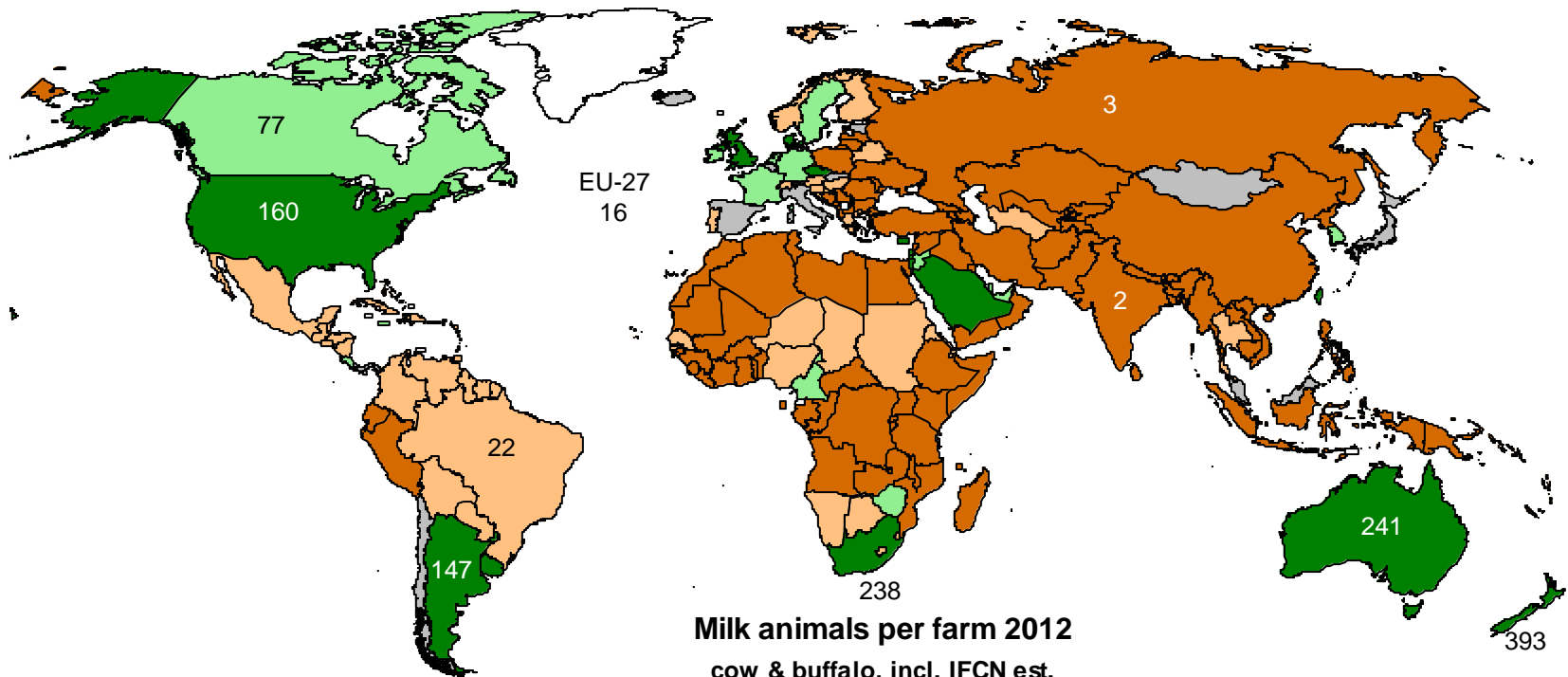


# Growth of milk production **by region** in mill t per year 2007 – 2012 on average



# Small farms still dominating

Average farm size in 2012, cows and / or buffalos per farm



Milk animals per farm 2012  
cow & buffalo, incl. IFCN est.



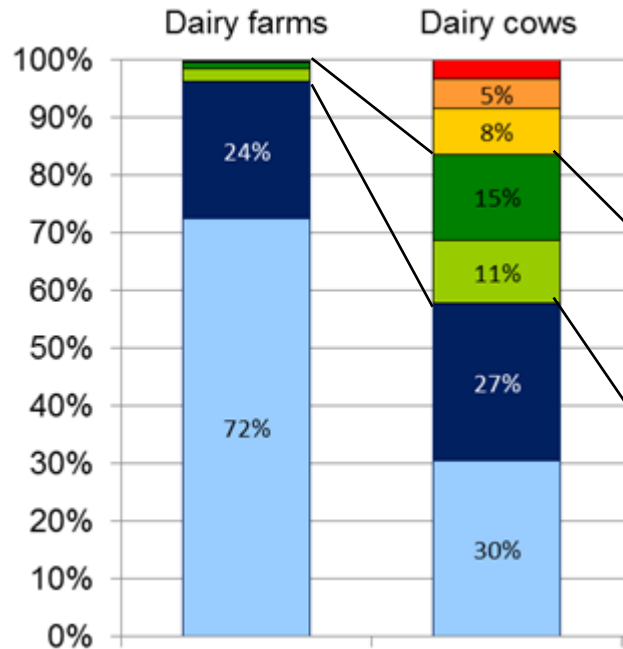
Countries with ∅ farm size >100: DK, GB, CZ, CY, AR, UY, US, AU, NZ, SA, IL, ZA, TW.



# World-wide farm structure

## IFCN Standard Classes for world aggregate 2012

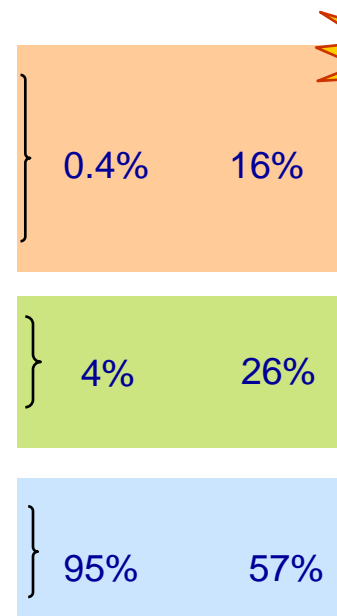
### % Share in size classes



Size classes in cows per farm

- > 1000
- >300 - 1000
- >100 - 300
- >30 - 100
- >10 - 30
- >2 - 10
- 1 - 2

### Farms Cows



**World → 289,253 farms >100 cows**

Data: Farms in Standard Classes based on 91 countries, cows in Standard Classes based on 83 countries. Estimated milk production per standard size class representing 85% of cow & buffalo milk production. 2012 data preliminary or estimated for selected countries.

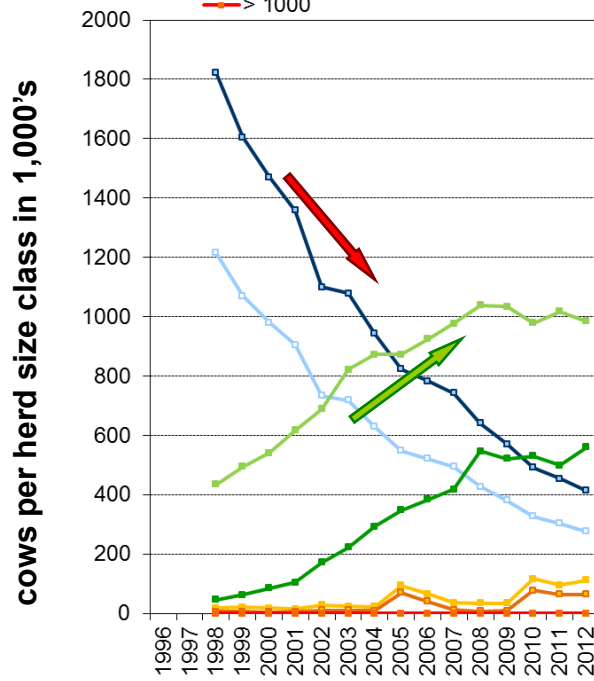


# Each farm size category has its time

## status and development – cows per size class in 1,000's

### Poland

size classes, cows per farm:

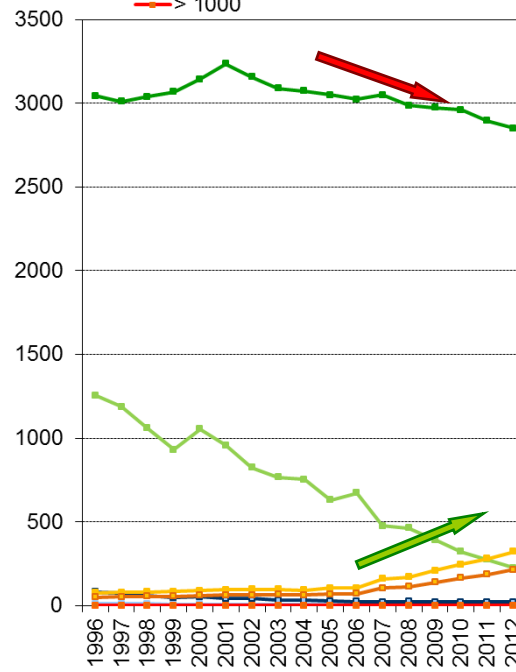


Ø herd size change 1996-2012 2 to 6

Ø change in farm no. -78%

### France

size classes, cows per farm:

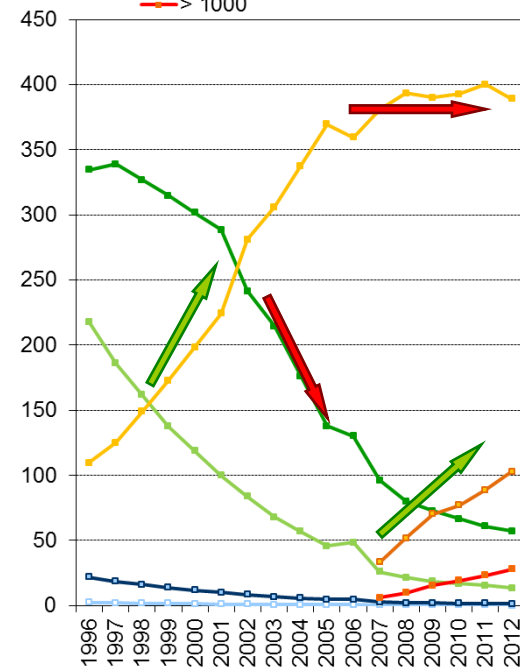
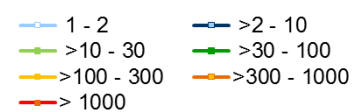


30 to 51

-53%

### Denmark

size classes, cows per farm:



47 to 147

-74%



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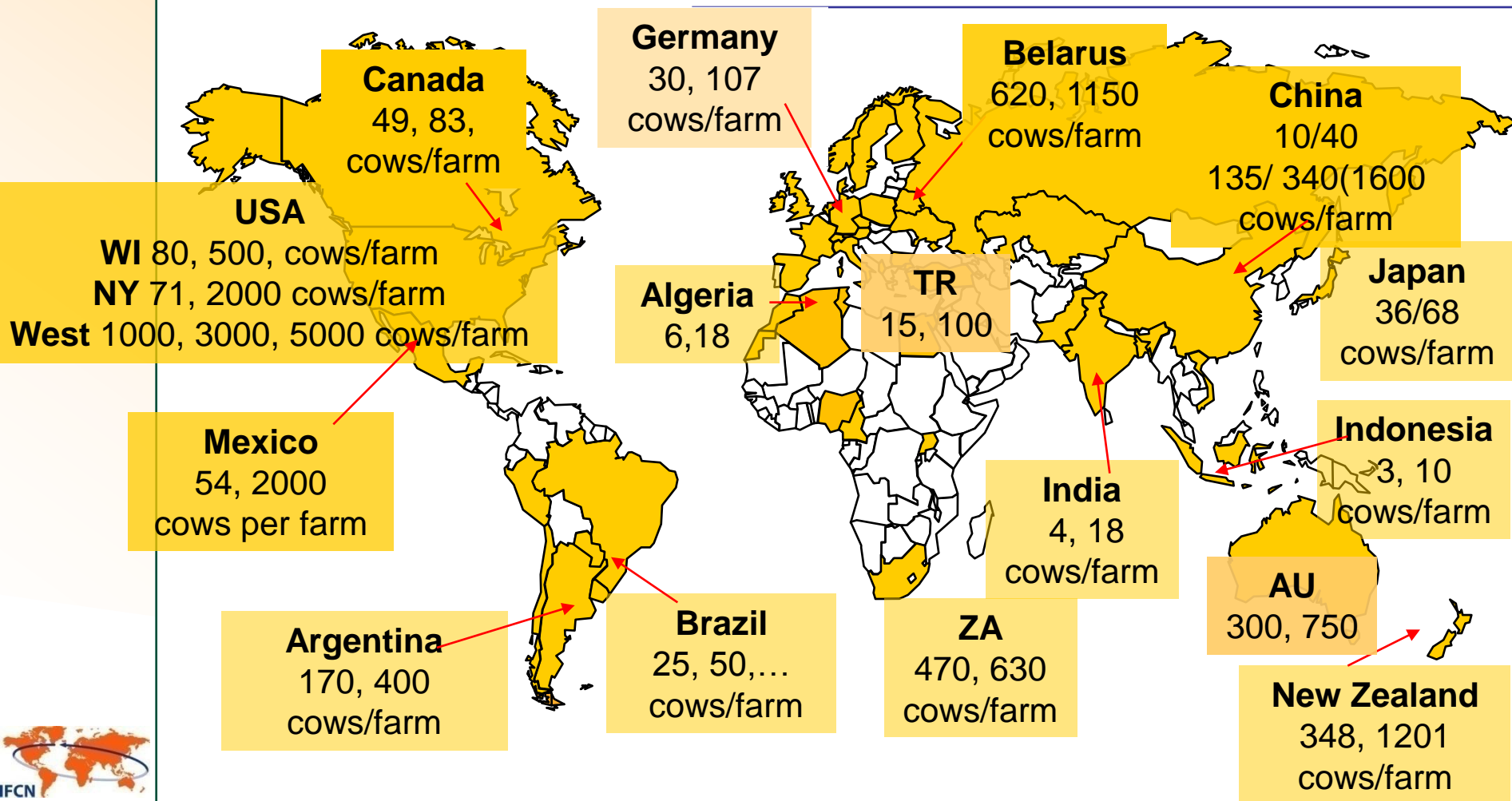


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International Farm  
Comparison Network



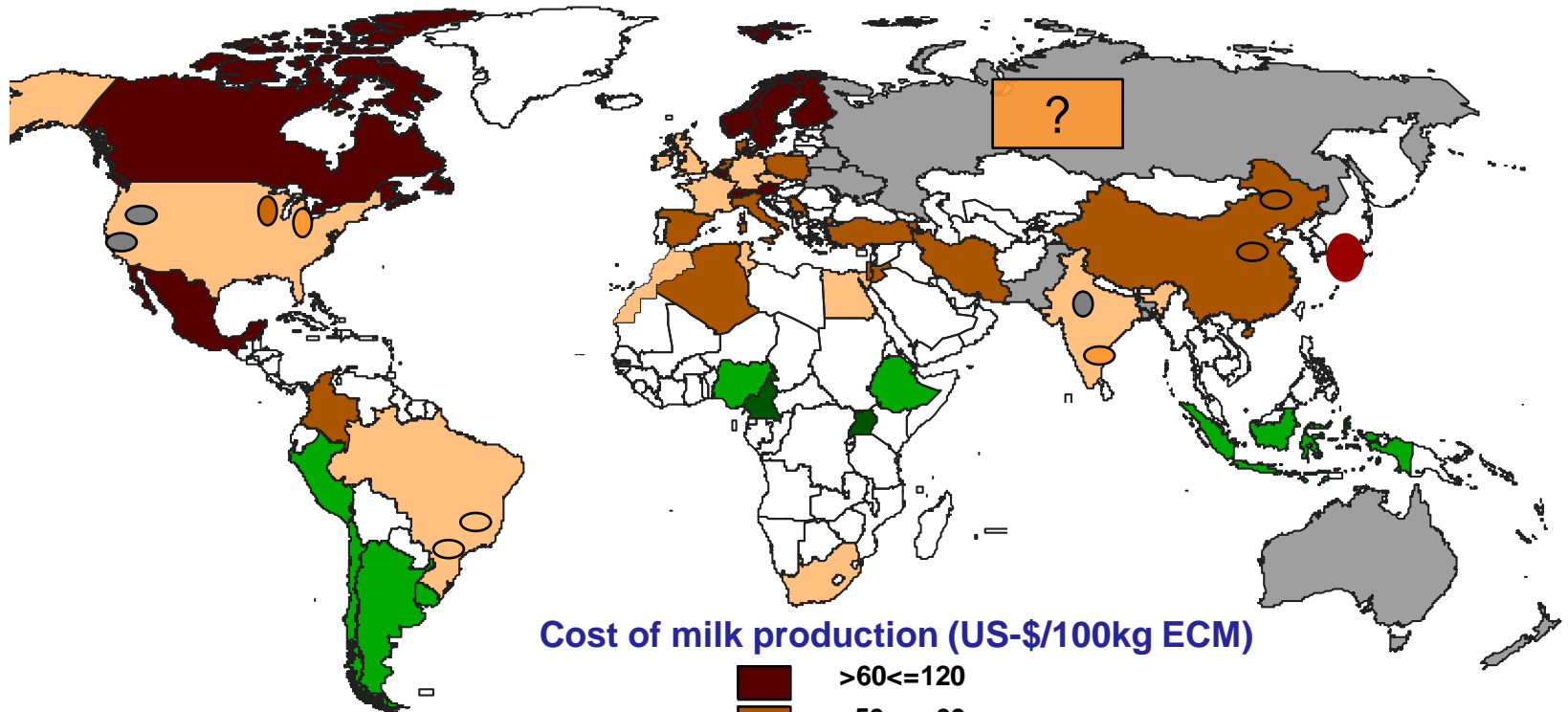
# Examples of typical farms 2012

they represent in a country a certain share of milk production



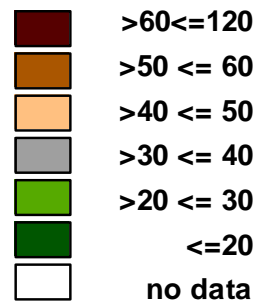
# Cost of milk production only in 2012

- average sized farms -



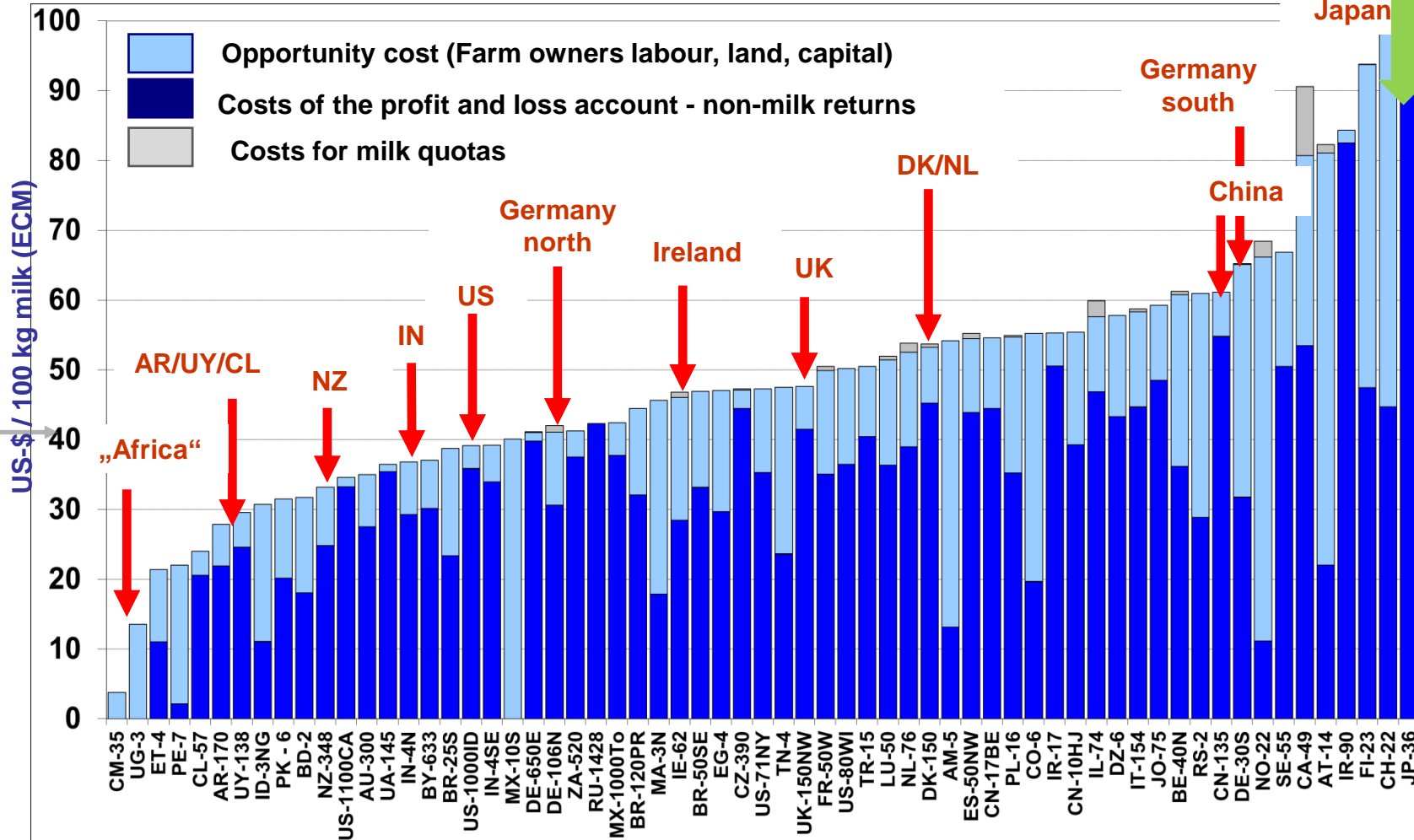
Cost of milk production (US-\$/100kg ECM)

○ Cost level of farms in region where shade is placed



# Ranking countries by cost of production

## average farms per country in 2012



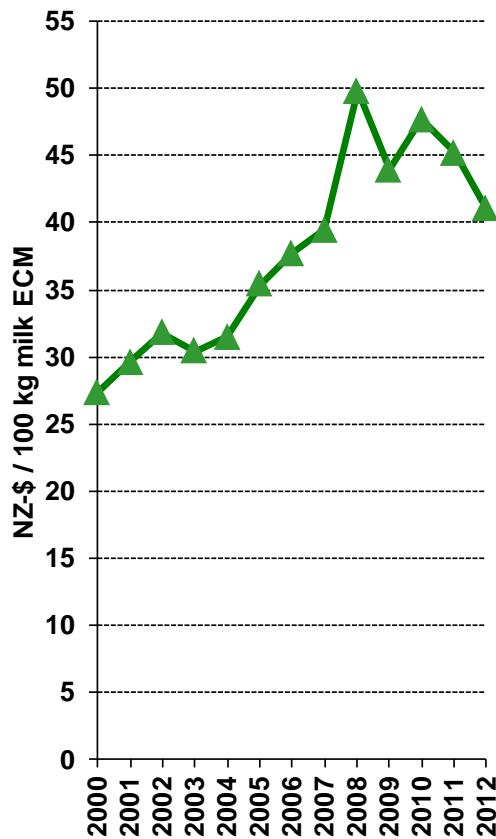
30.2 €/100 kg  
17.2 US-\$/CWT  
6.8 NZ-\$/kg milk solids



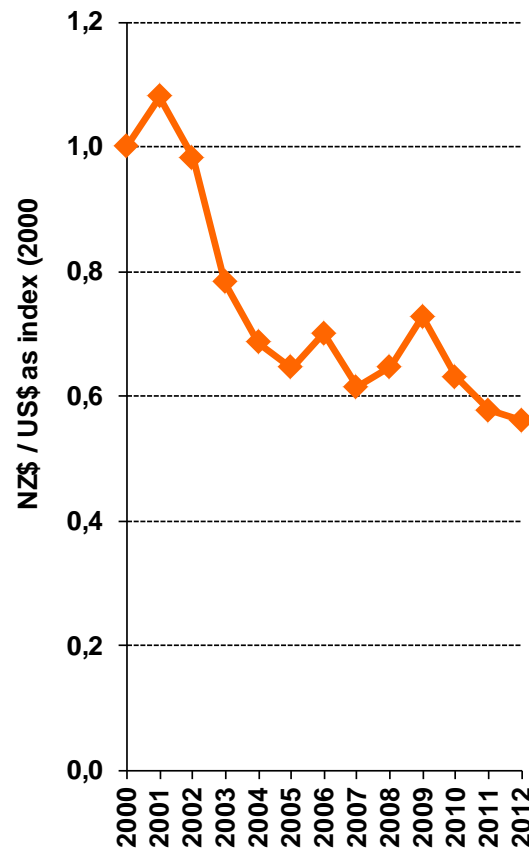
Comment: Average sized farms in the countries, analysed year: 2012 ECM: energy corrected milk (4% fat, 3.3% protein). For the conversion on the left hand side 2011 exchange rates used : 1€ = 1.34US-\$.

# NZ - Costs of milk production 2000 - 2012

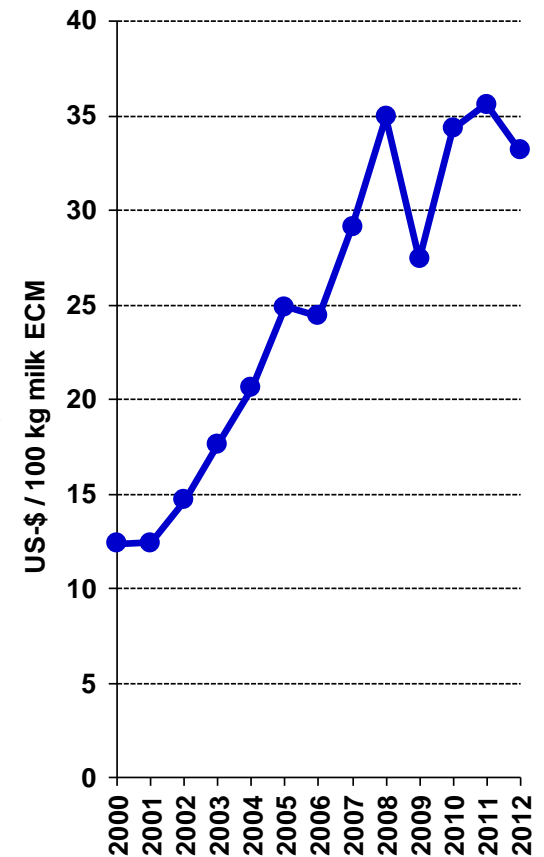
Cost milk production in NZ-\$



Exchange rate



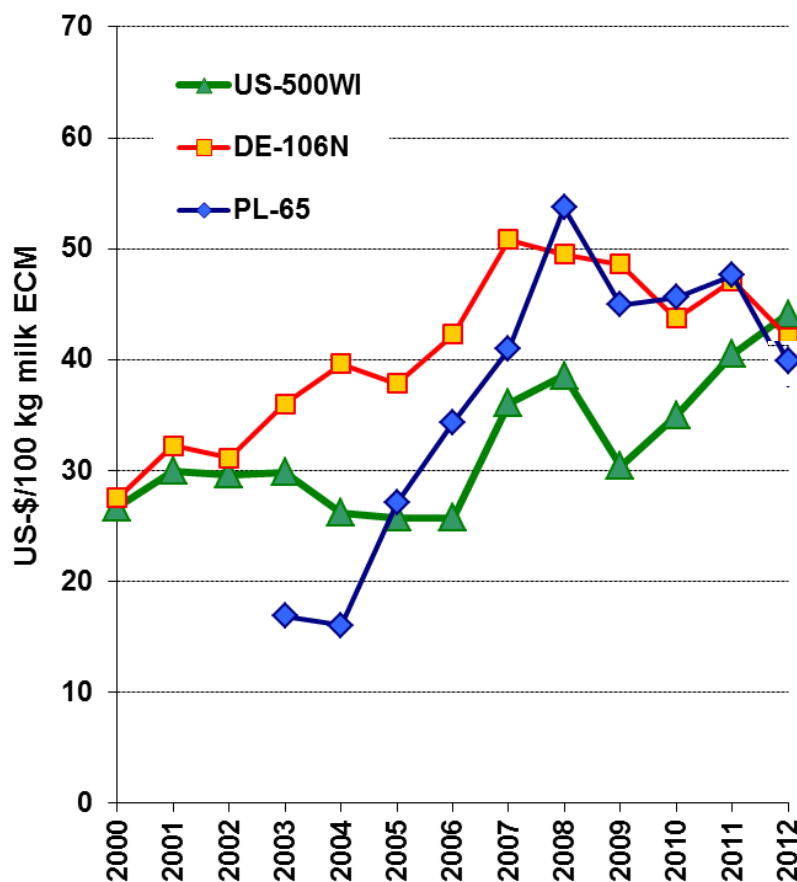
Cost milk production (US-\$)



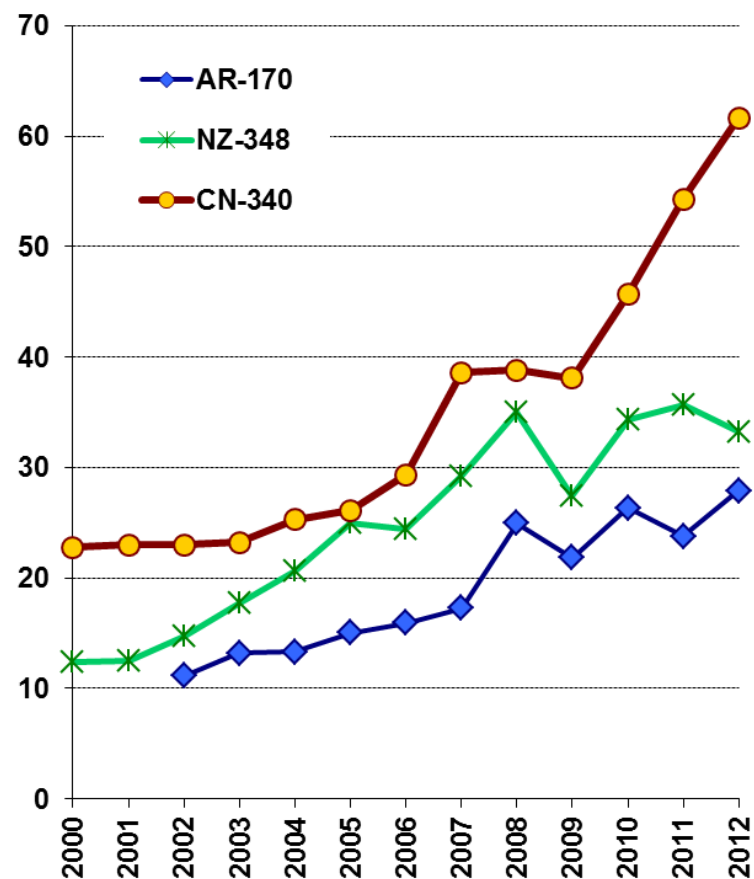
# Costs of milk production 2000 – 2012

## Estimate for typical dairy farms

### USA, Germany, Poland



### Argentina, New Zealand, China



30.2 €/100 kg

17.2 US-\$/CWT

6.8 NZ-\$/kg milk solids



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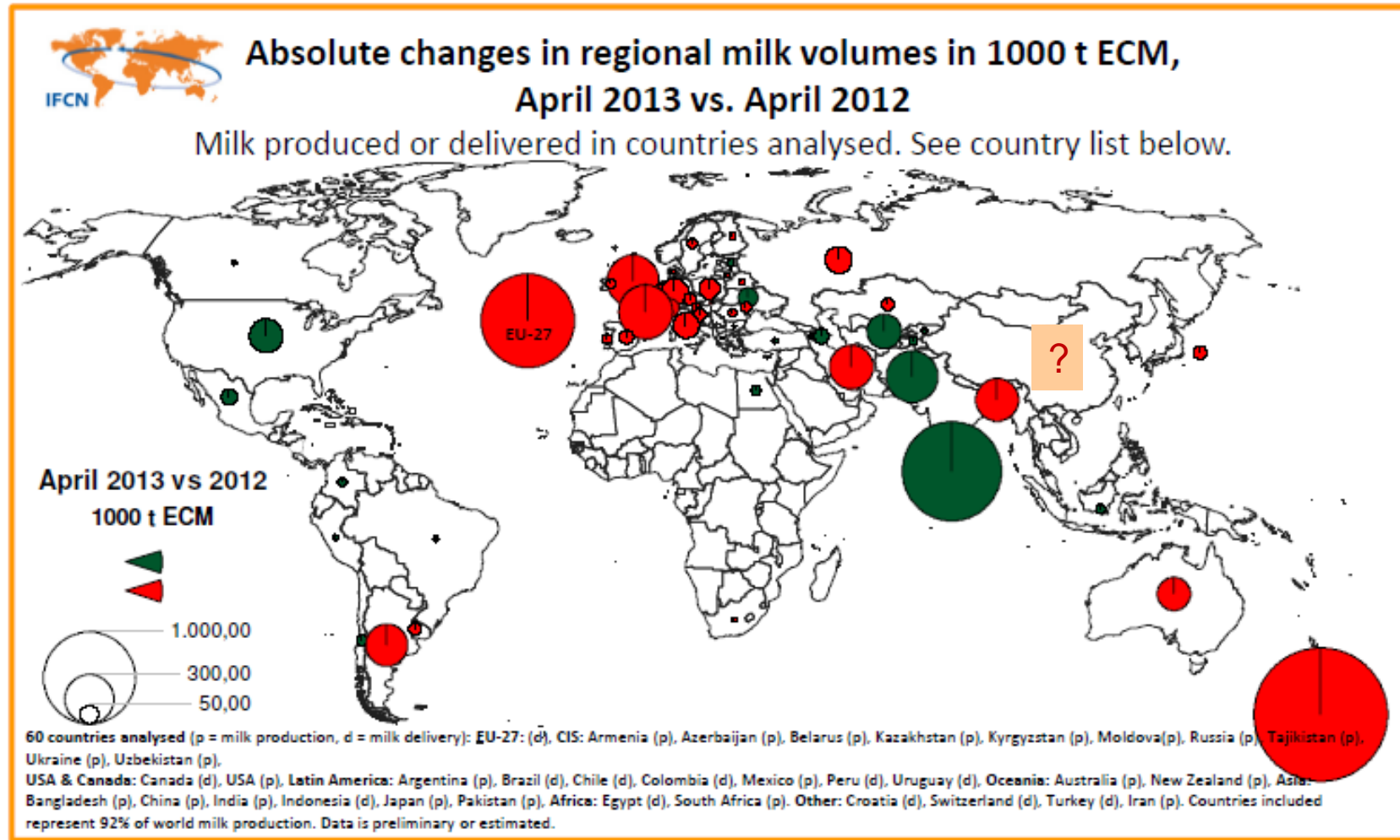
Costs of milk production

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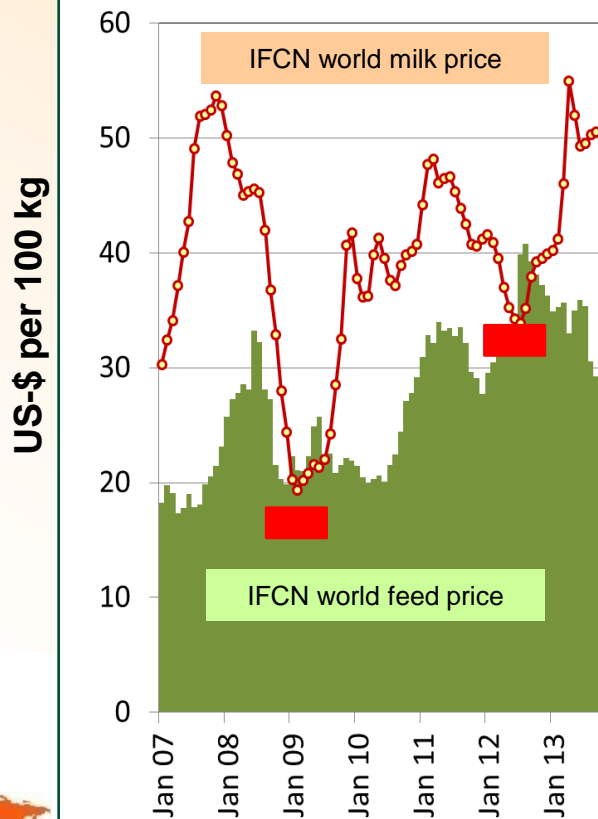
# World milk production – April 2013 vs. 2012



# Price, margins + milk production

2007 – 6/ 2013 July-Sept - real time estimates

## World milk and feed price



Explanation: Relative change of the 12-months rolling sum of milk production expresses the relative deviation of milk production in a 12 month period compared to the same period one year before. Countries included represent 92% of world milk production. Data is adjusted for leap year effect.

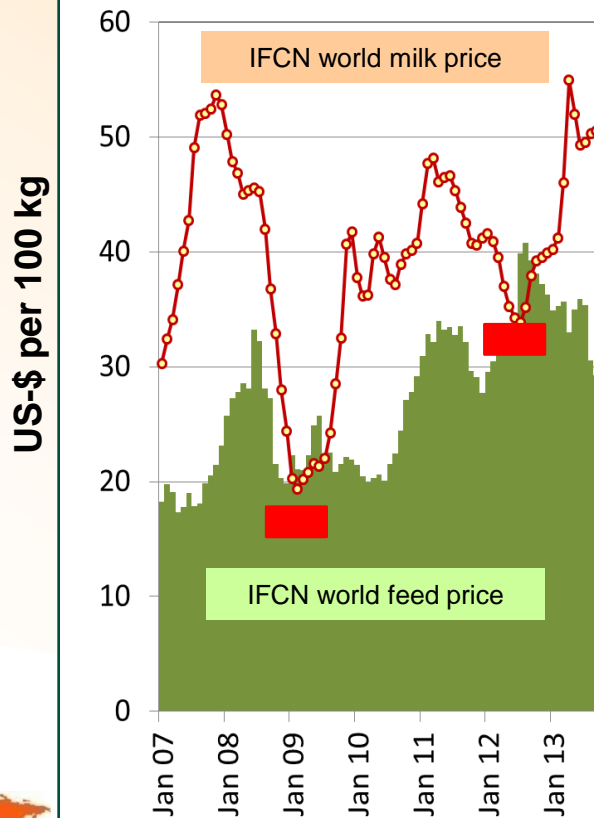




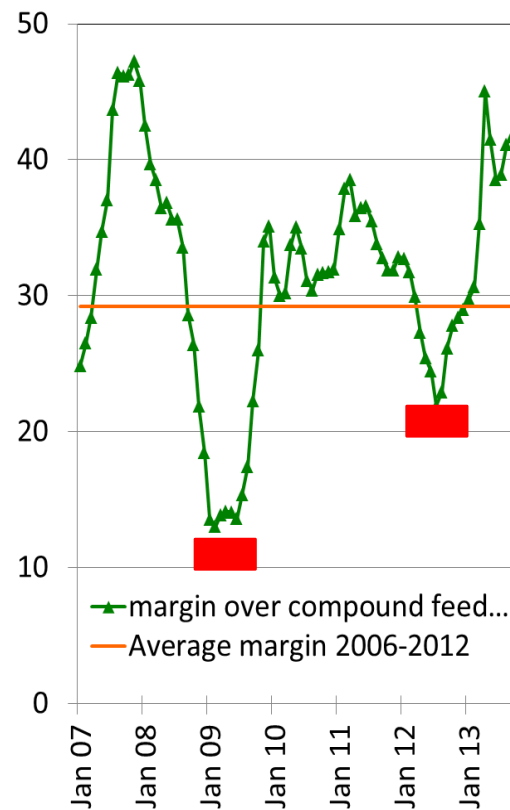
# Price, margins + milk production

2007 – 6/ 2013 July-Sept - real time estimates

### World milk and feed price



### IFCN margin over compound feed costs

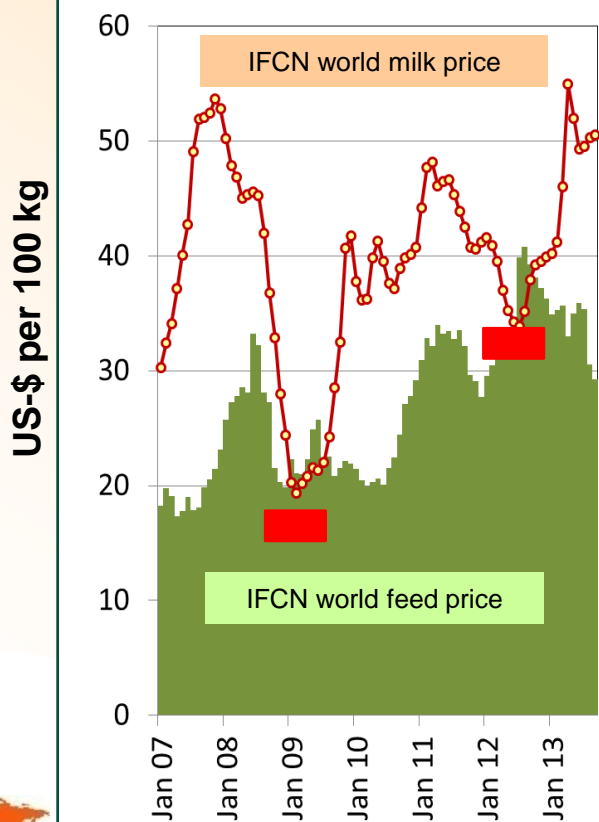


IFCN

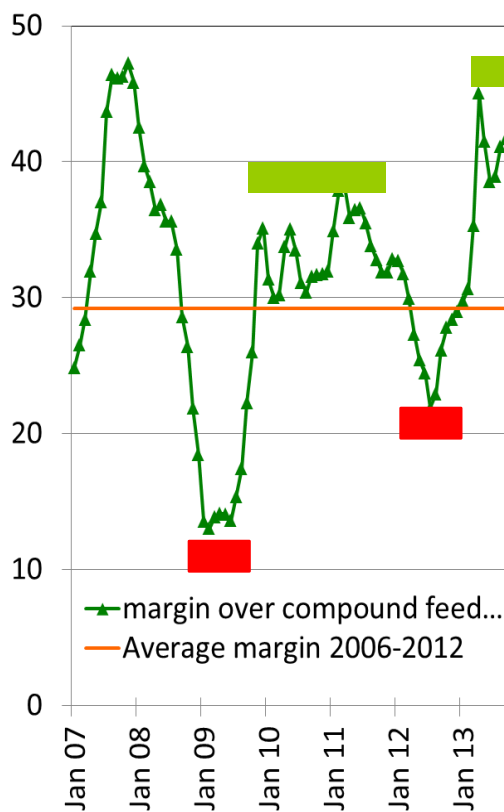
# Price, margins + milk production

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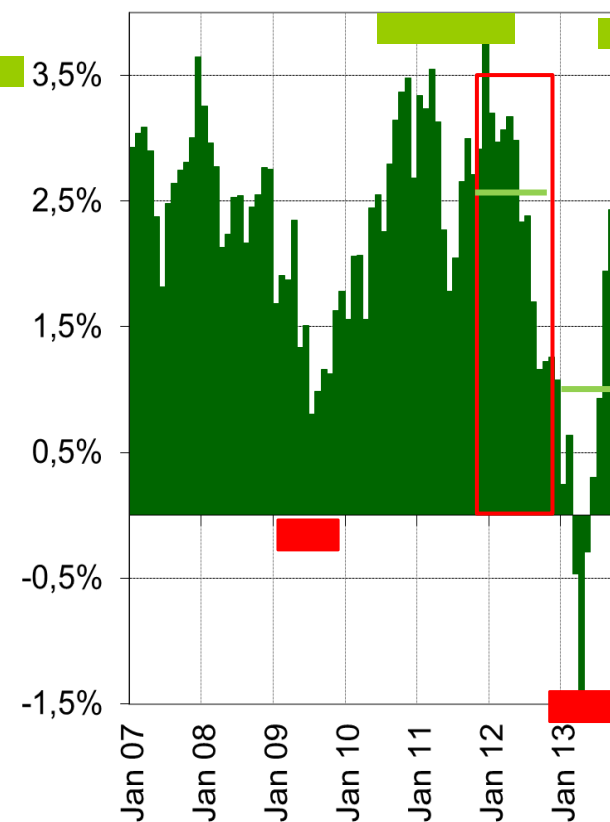
World milk and feed price



IFCN margin over compound feed costs



% change in milk production 60 countries



Explanation: Relative change of the 12-months rolling sum of milk production expresses the relative deviation of milk production in a 12 month period compared to the same period one year before. Countries included represent 92% of world milk production. Data is adjusted for leap year effect.

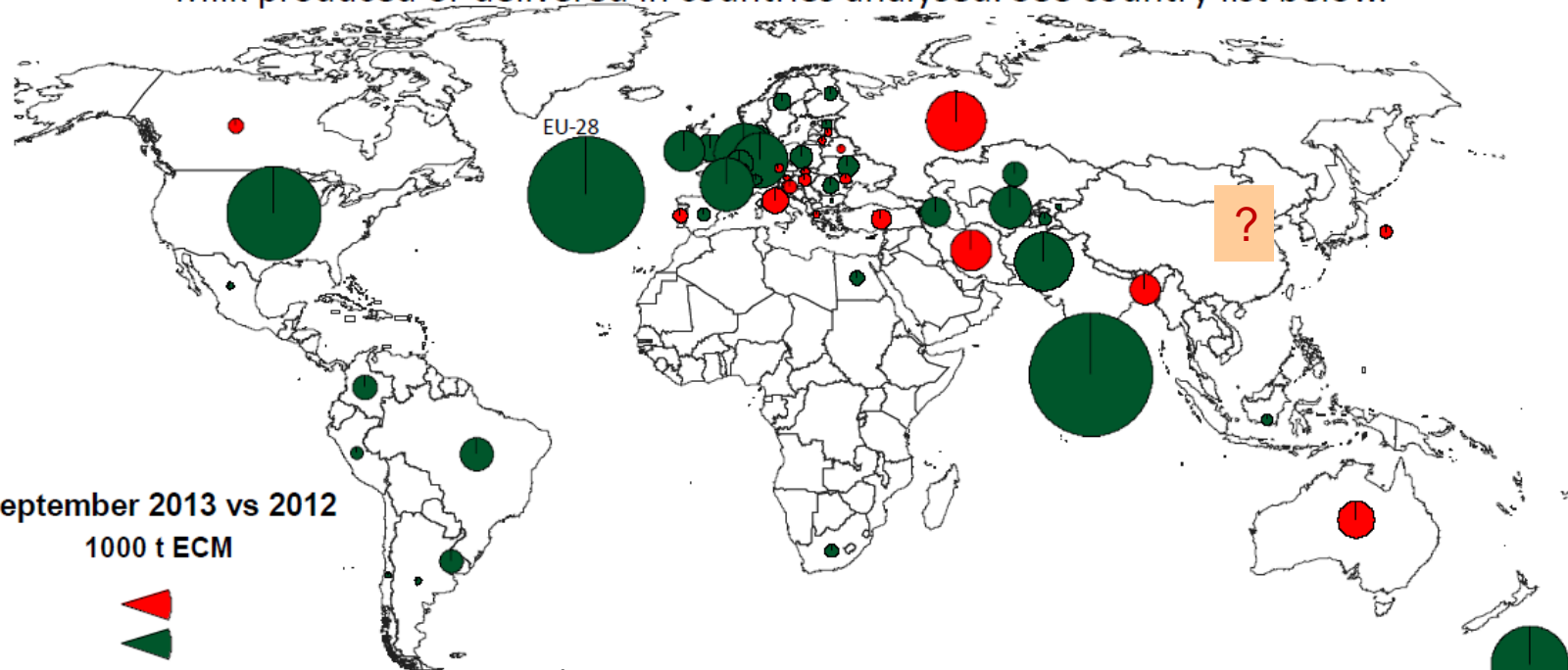


# World milk production - Sept 2013 vs. 2012



**Absolute changes in regional milk volumes in 1000 t ECM,  
September 2013 vs. September 2012**

Milk produced or delivered in countries analysed. See country list below.



**September 2013 vs 2012**  
1000 t ECM



60 countries analysed (p = milk production, d = milk delivery): EU-28: (d), CIS: Armenia (p), Azerbaijan (p), Belarus (p), Kazakhstan (p), Kyrgyzstan (p), Moldova(p), Russia (p), Tajikistan (p), Ukraine (p), Uzbekistan (p),

USA & Canada: Canada (d), USA (p), Latin America: Argentina (p), Brazil (d), Chile (d), Colombia (d), Mexico (p), Peru (d), Uruguay (d), Oceania: Australia (p), New Zealand (p), Asia: Bangladesh (p), China (p), India (p), Indonesia (d), Japan (p), Pakistan (p), Africa: Egypt (d), South Africa (p). Other: Switzerland (d), Turkey (d), Iran (p). Countries included represent 92% of world milk production. Data is preliminary or estimated.



# Summing up

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## Three selected findings:

- 1. 122 million dairy farms;** Ø 2,9 cows, Ø milk yields 2100 kg/cow/year
- 2. Costs to produce milk** in 2012 ranges from 4 - 128 USD per 100 kg milk  
**Be aware:** Costs can double or triple in US-\$ within 3-6 years driven by prices for feed, land, labour, exchange rates, droughts, etc.  
**Be aware:** Exchange rates can drive costs down – e.g. Japan -20%
- 3. Milk prices:** Once we are not reaching milk volume growth of 17 mill t / year or 2,4 % prices will to rise for the future?

## Paradigm shift confirmed:

**EU/US:** **More** competitive costs/ milk prices + **less** government support

## BRIC countries / selected emerging dairy countries:

**Less** competitive in costs / milk prices + **more** government support



# The IFCN work is a result of **researchers** from 95 countries cooperating !

