## Innovations in dairy sector in The Netherlands



Jelle Zijlstra - Wageningen University & Research Centre



## Content

- 1. Dairy sector NL: characteristics
- 2. Outlook EU Dairy after 2015
- 3. Dairy farms NL: weak and strong characteristics
- 4. Response of farmers to abolotion of quota
- 5. Innovations on dairy farms
- 6. Cooperative processors NL: characteristics
- 7. Innovations processors
- 8. Sustainable dairy chain



## Strenghts Dutch dairy chain





Entrepreneurship and craftmanship family farms

Efficient and profitable farms





Competitive processors

#### Dairy in Spain, France and The Netherlands 2012

	Spain	France	The Netherlands
Milk production (mill. tons ECM)	6,5	24,6	12,7
Self-sufficiency %	69%	139%	168%
Number of dairy farms	20.000	75.000	19.000
Average dairy cows per farm	43	49	79
Average milk production per farm	330.000	346.000	636.000
Average ha per farm			50
Milk per cow	7.300	7.000	8.000
% grass / % maize + fodder crops			75% / 25%
DM yield per ha grass / maize			10.000 / 14.000
Kg concentrates per cow			2.060
Kg milk per full time worker			375.000







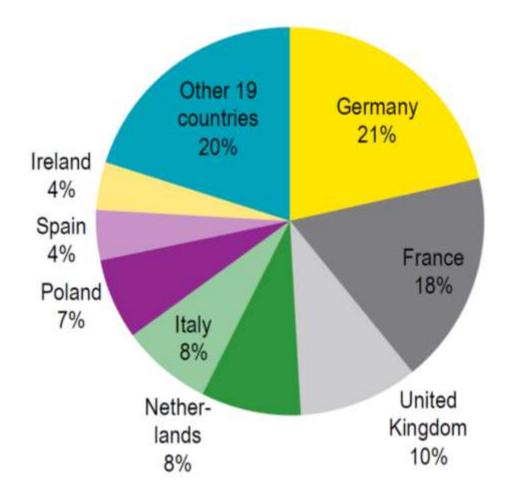






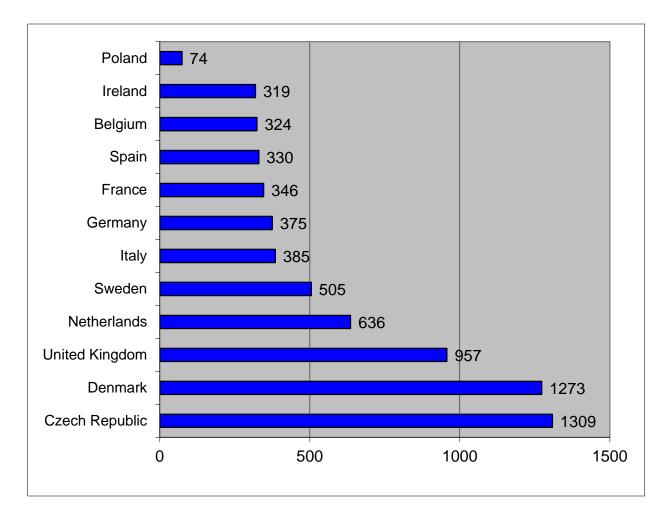


# Share of EU Member States in cow milk collection





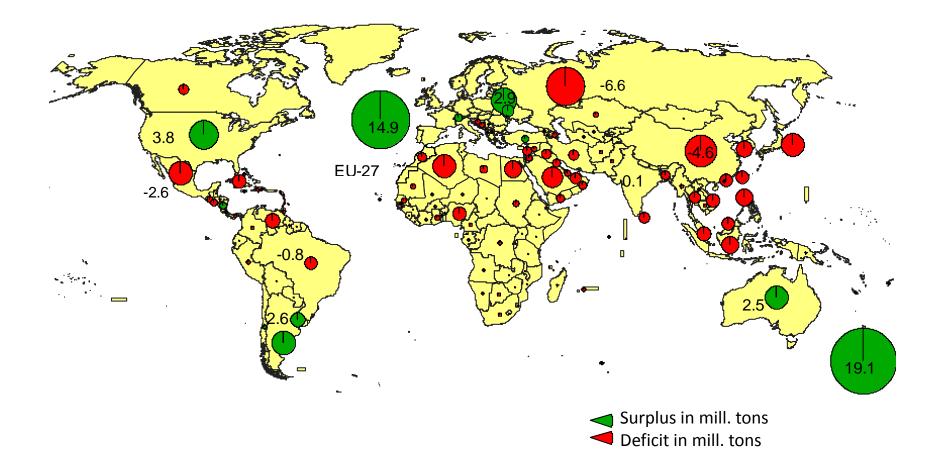
## Milk production per farm 2012 (tons)





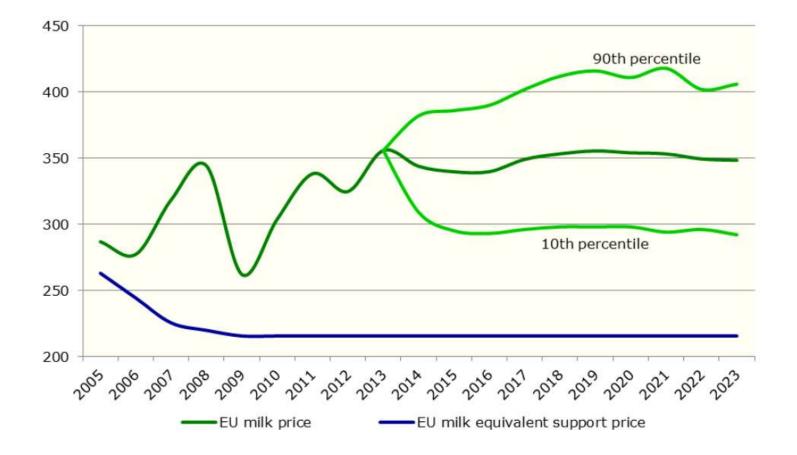
### Country milk surplus or deficit in 2011

in mill. tons milk equivalents





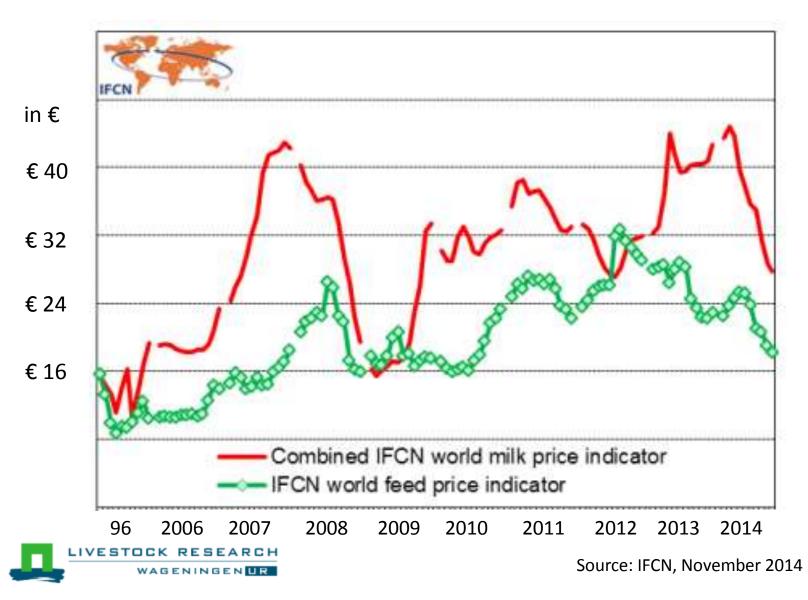
# Outlook EU milk price and EU support price (real fat content, €/ton)



Source: EU Prospects Markets, Dec. 2013

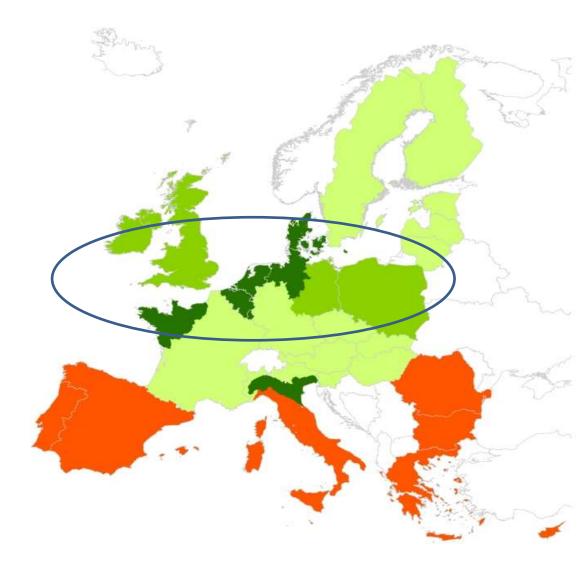


### World milk and feed prices in €



#### Change in milk production 2006-2020

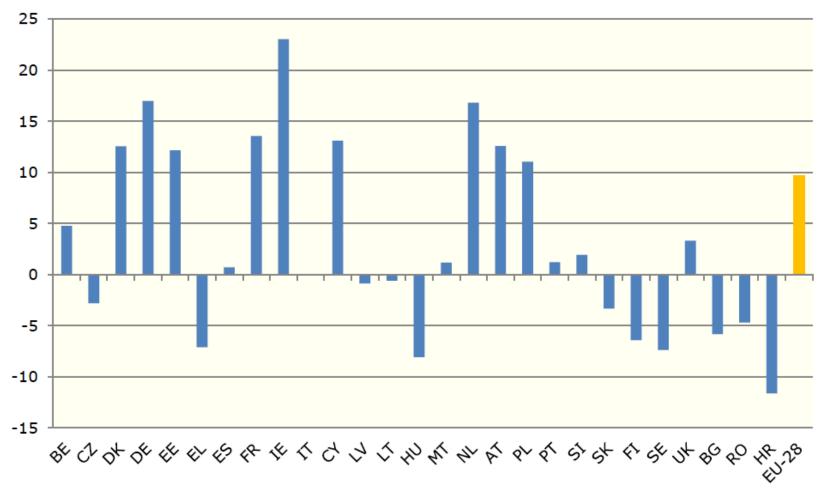
(in %)







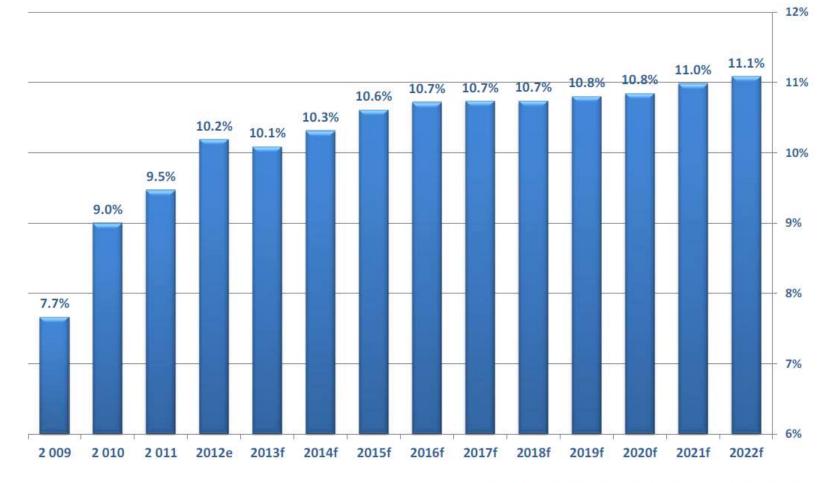
# Expected % change in national milk deliveries 2023 compared to 2012



Source: JRC-IPTS / ESIM model, 2014



### EU export in % of total dairy production

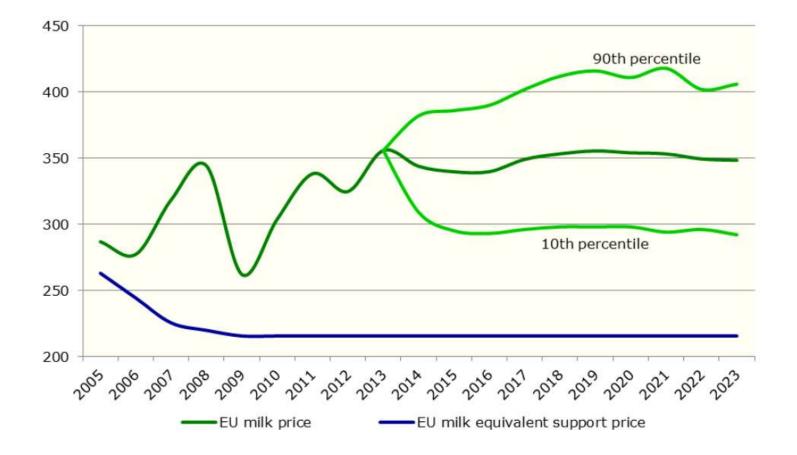


Source : DG AGRI Medium Term Outlook, Eurostat (Comext)

Extra EU milk is sold on the world market



# Outlook EU milk price and EU support price (real fat content, €/ton)



Source: EU Prospects Markets, Dec. 2013



## Threats for Dutch dairy farms

- High land prices (€ 30.000 €80.000 / ha)
- Reducing emisions (N, P, NH3, CO2 and CH4)
- High investments in expansion (from 80 to 150 cows/farm)
- Disposal of manure (€ 10 20 / ton)
- Less direct payments CAP EU
- Negative attitude society about "mega" farms (> 400 cows)



## NL: legislation on NH3, N and P



#### Low NH3-emission technology:

- Slatted floors
- Storage of manure
- Application of manure

High efficiency of N and P fertilization:

- Restrictions for N and P per ha
- Disposal of excess manure



## **Opportunities for Dutch dairy**

#### **Dairy chain level**:

- Faster reaction to market opportunities
- Sustainability as unique selling point
- Export of added value dairy products

#### Farm level:

- Improving technical, labour and economic efficiency
- Optimize: automation, hired labor and contract work
- Expansion of farms



## How to create higher margins on the farm and excellent customer satisfaction in the store?





## NL: Sustainability: society loves grazing

#### Grazing premium of 1 ct/kg milk



- 1. Animal welfare
- 2. Icon in Dutch landscape

### Automation



















## Expansion: new free stalls





## Investments expansion (in €)

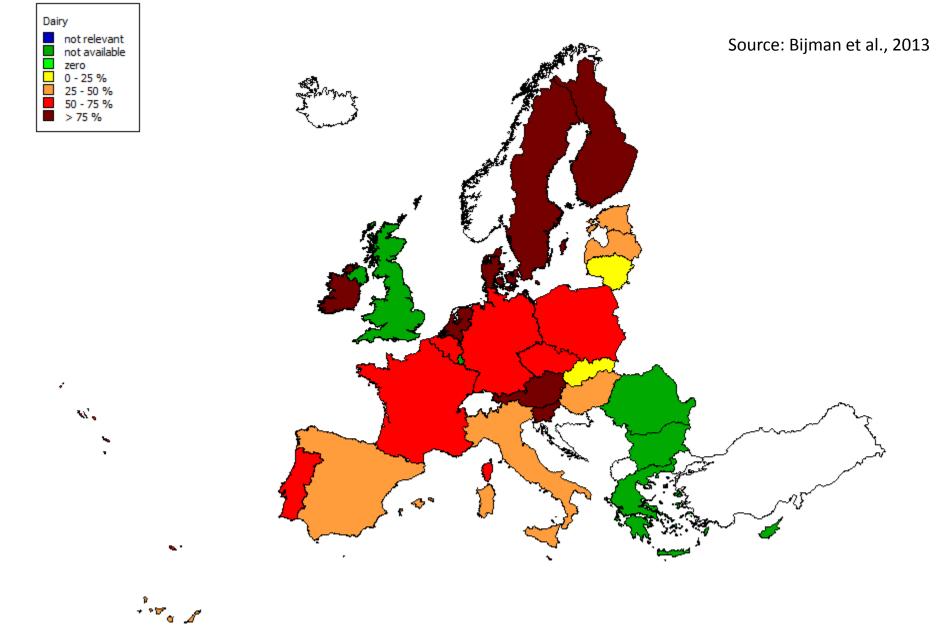
- Investments per cow
  - Housing 5.000
  - Milking equipment 1.000
  - Feed storage 1.000
  - Cow 1.500
- Prices of grass- and maizeland: 40.000-90.000
- ROI on land: 0-2 %



#### Faith of dairy farmers in NL future



#### Market share of cooperatives in dairy processing



## Characteristics Dutch cooperatives

#### Members

- Commitment and trust in board members
- Participation in decision making and control
- Constantly adapting to the market
- Realize benefits

#### Market + organisation

- Strong partners in dairy chain and export
- Training and education of board members (professionalism)



## Innovation in dairy products



Food services for catering Europe



Dairy beverages





Infant feeding Asia & Africa



**Branded cheeses** 

#### **Objectives of Sustainable Dutch Dairy Chain 2020**

#### 1. Energy reduction and production: e.g.

- 30% CO2 compared to 1990
- Climate neutral growth of dairy sector
- 2. Animal health and welfare: longevity and antibiotics
- 3. Maintain 75% of farms grazing
- 4. Biodiversity and environment
  - 100% sustainable soya and palm pit kernels in dairy cow rations
  - Decrease N- and P-leakage and NH4-emission
  - More biodiversity

Sustainable Dutch Dairy Chain is a joint initiative of all Dutch dairy processors



## Future European dairy

- 1. The future is about adapting to markets. What is the market you focus on?
- 2. Sustainability is the key to improve the added value of dairy products in Western Europe





Realizing both is the best gaurantee for a high milk price

