

An outline of the ruminant livestock industry in Hungary

(structure of the livestock industry and future priorities for the sector in Hungary)

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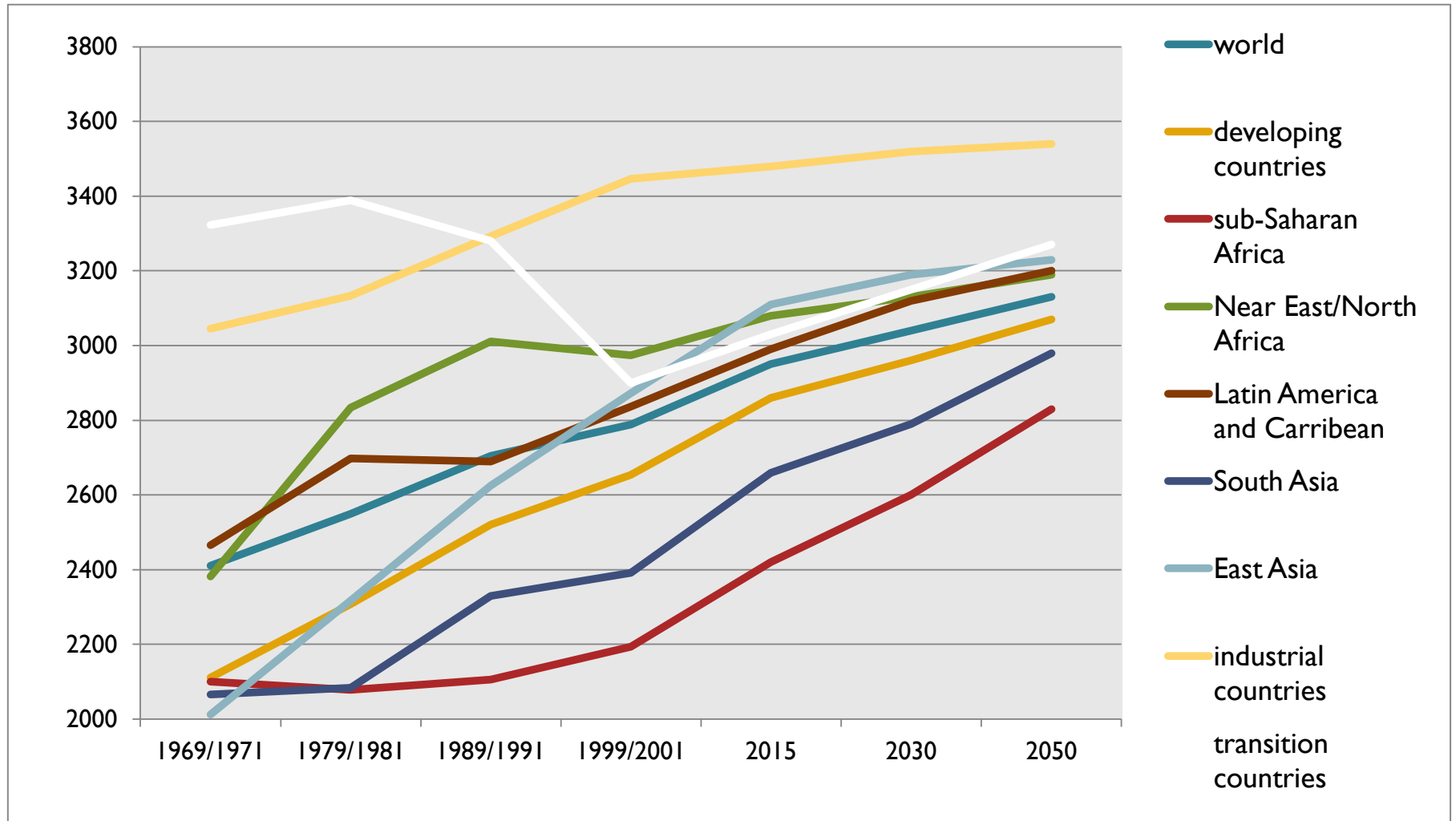


CHANGES OF CONSUMPTION AND TRADE OF ANIMAL PRODUCTS



Changes of the food consumption(kcal/person/day)

Source: Alexandratos (2006)



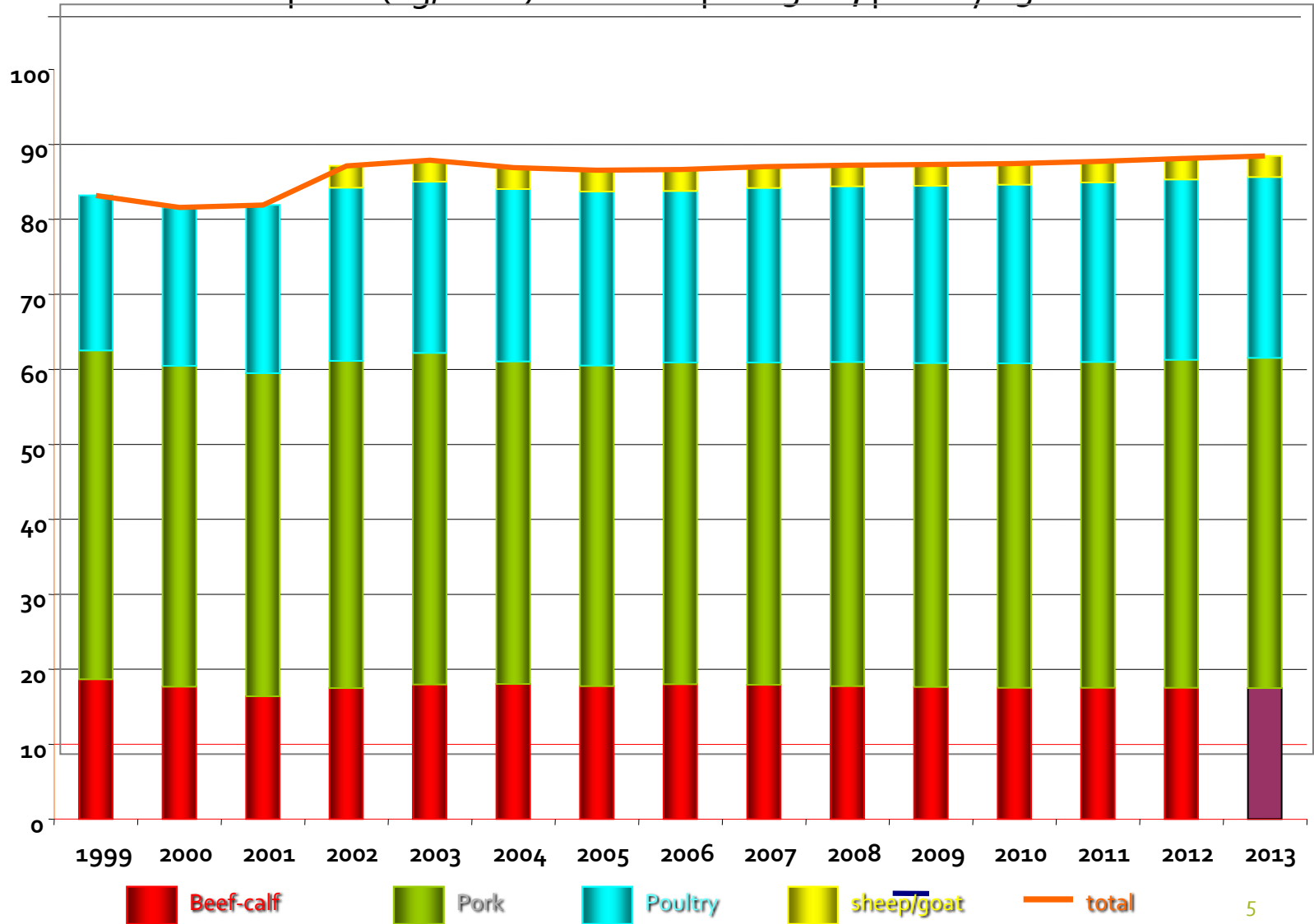
World wide trends of meat and milk consumption

Source : WB

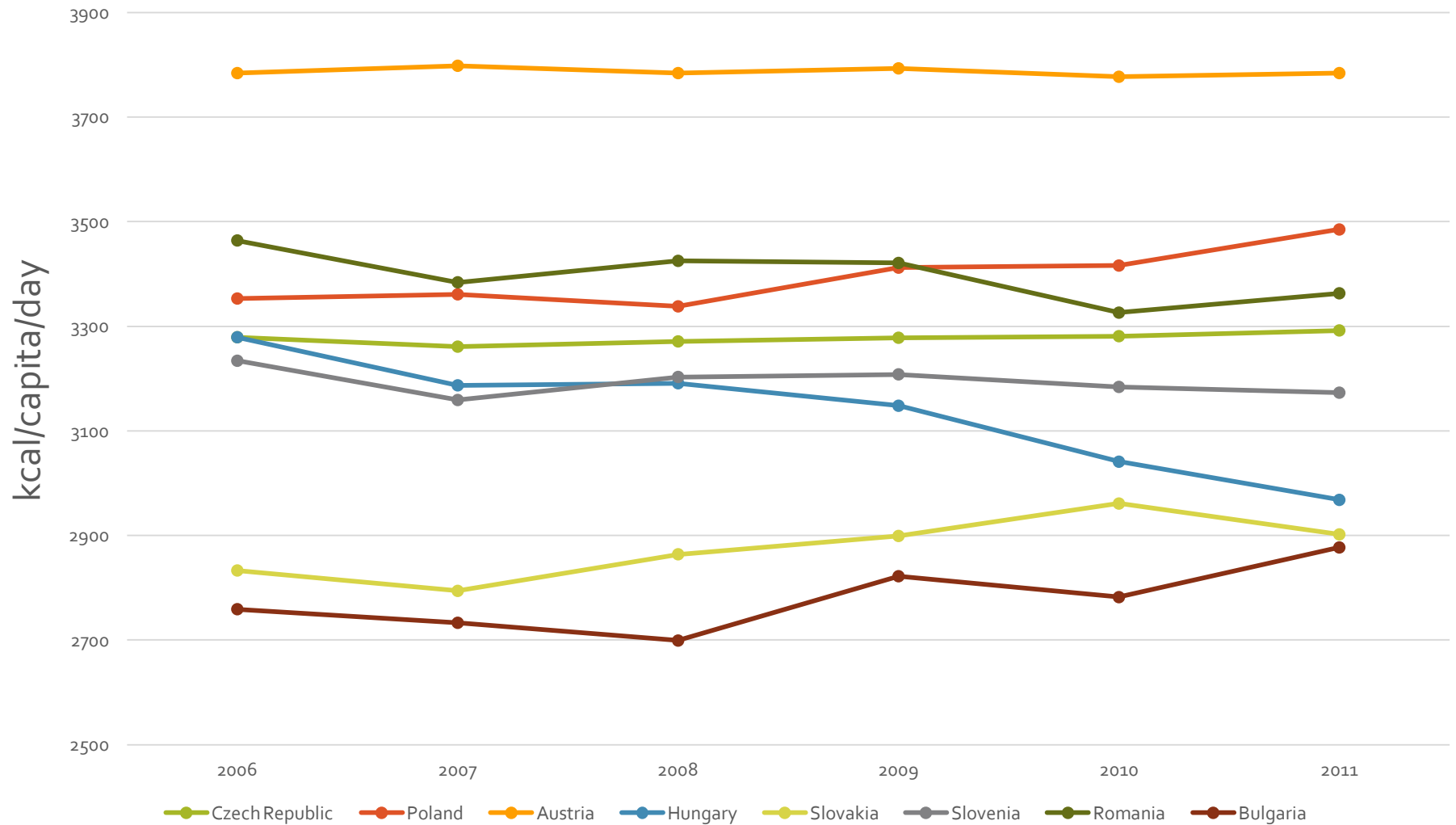
	Consumption (million tons)		
Region	1983	1997	2020
Developed countries			
Cattle	32	30	34
Hog	34	36	39
Poultry	19	28	38
Total meat	88	99	114
Milk	233	254	276
Developing countries			
Cattle	16	27	52
Hog	20	46	80
Poultry	10	29	67
Total meat	50	112	213
Milk	122	198	372

Meat consumption trends in the EU

Consumption (kg/head): of which pork 50%, poultry 25%



Food supply of the central European countries (2006-2011)

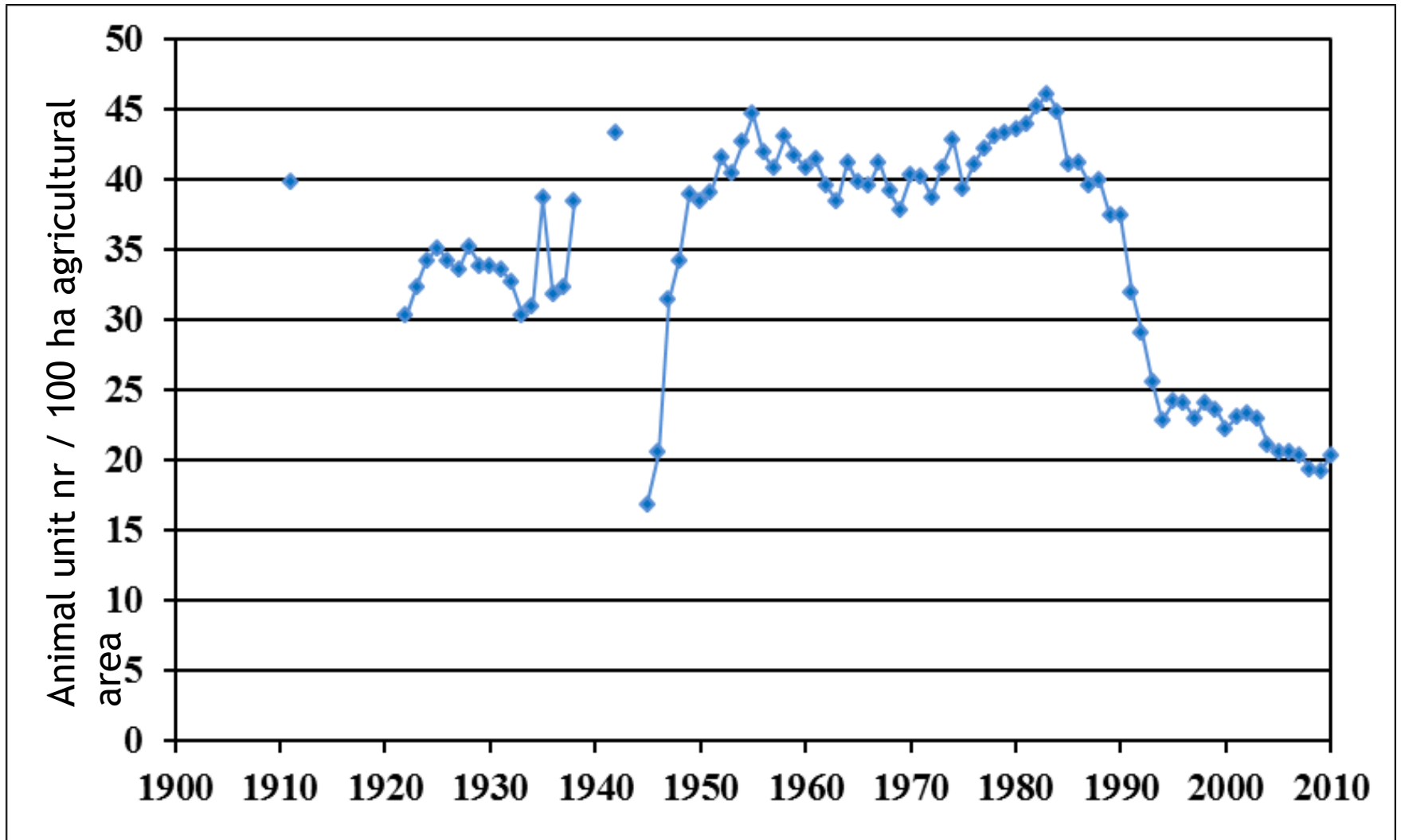


Slowly decreasing energy in Hungary!

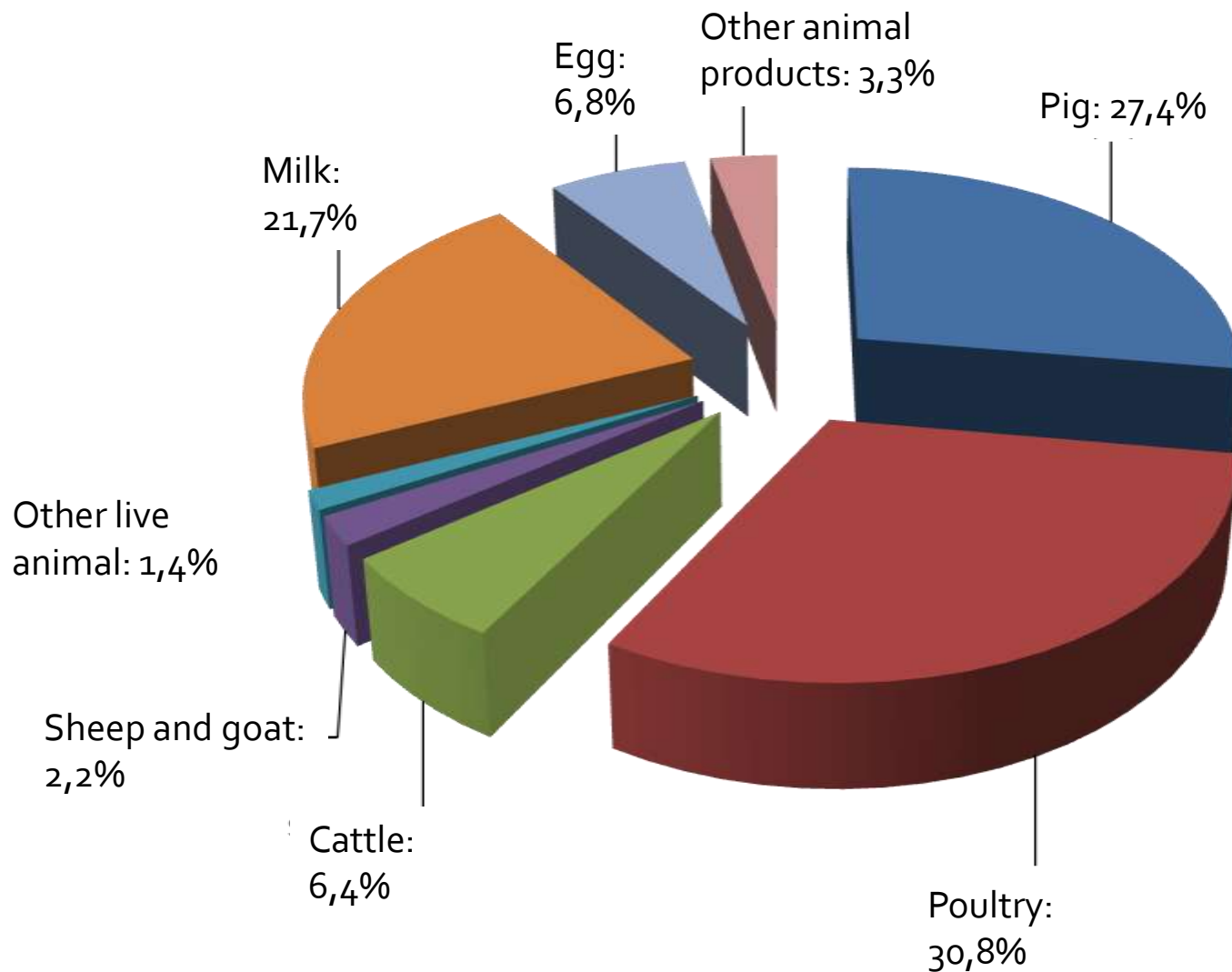
Main characteristics of animal products in Hungary

Production and trade of raw materials and animal products in Hungary

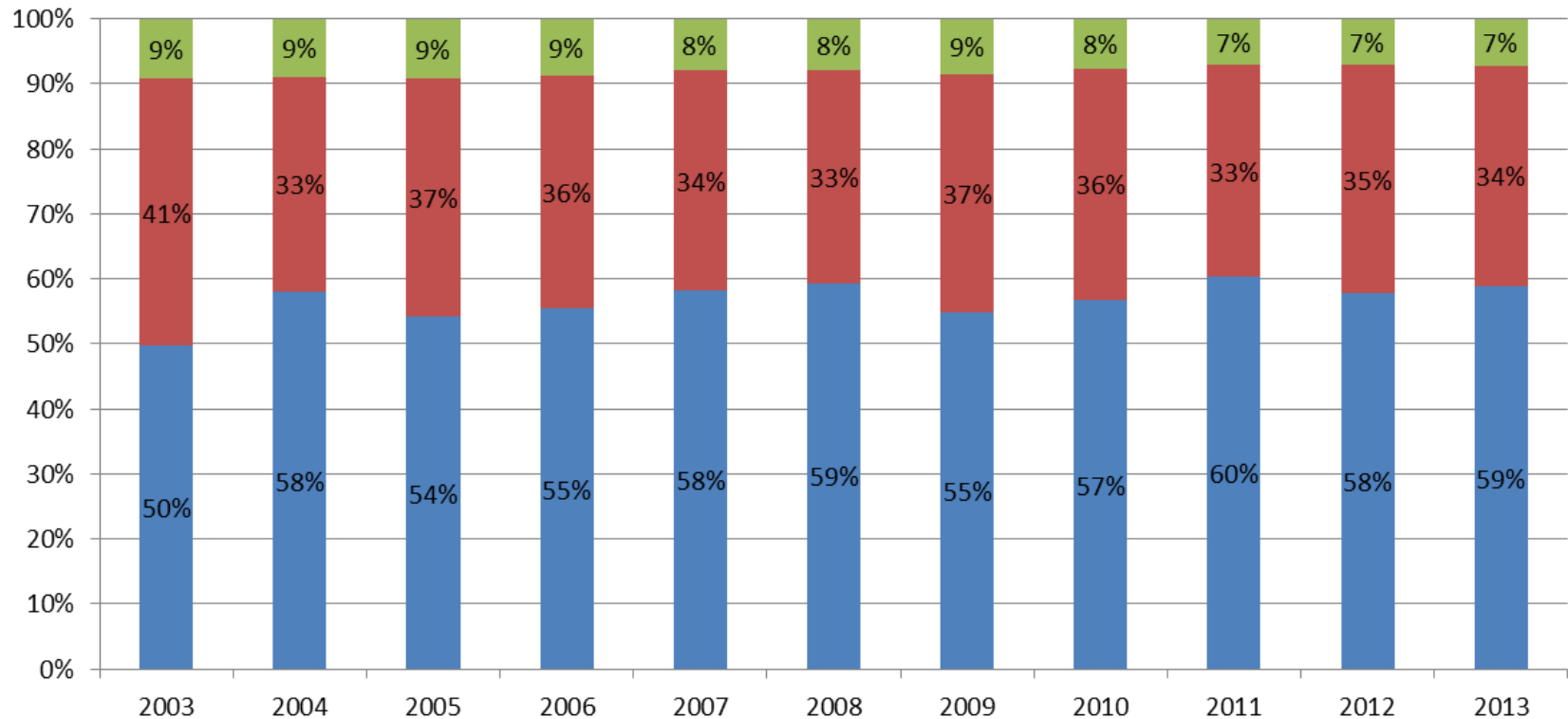
Livestock numbers in Hungary, 1901-2010



Structure of the Hungarian livestock production, 2013 (%)

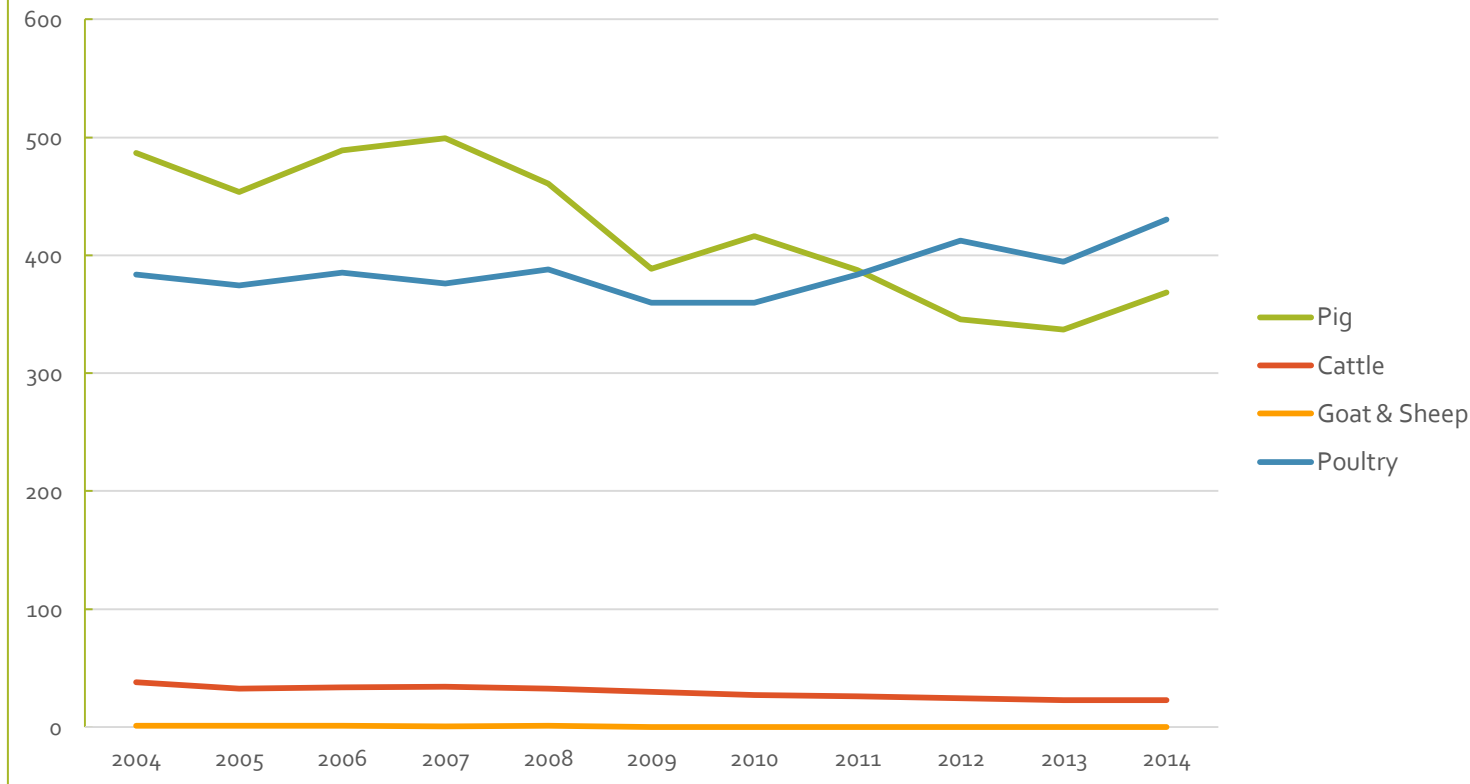


Change of the structure of Hungarian agriculture (2003-2013)



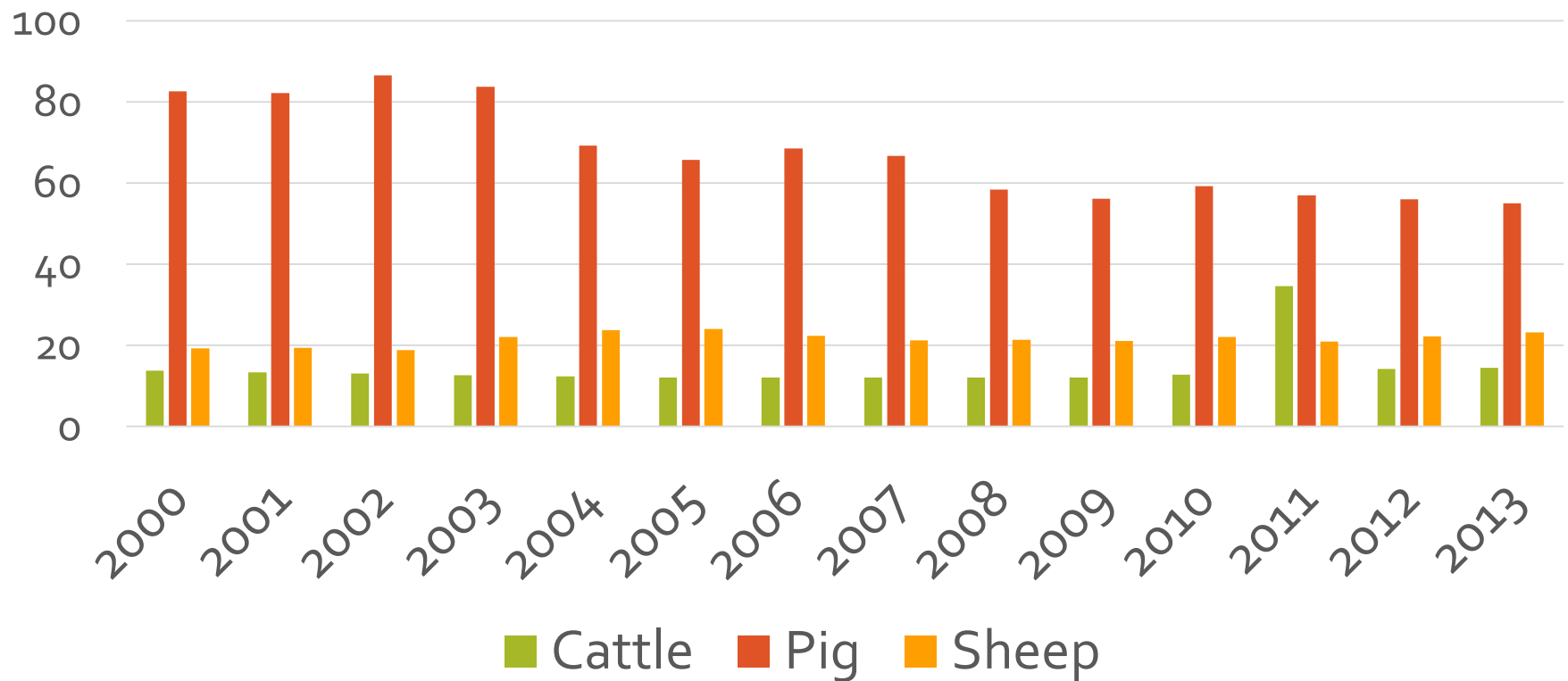
■ Crop production ■ Animal husbandry ■ Agricultural services, non-agricultural secondary activities

Livestock production of Hungary (1000 t)



Source: FAOSTAT

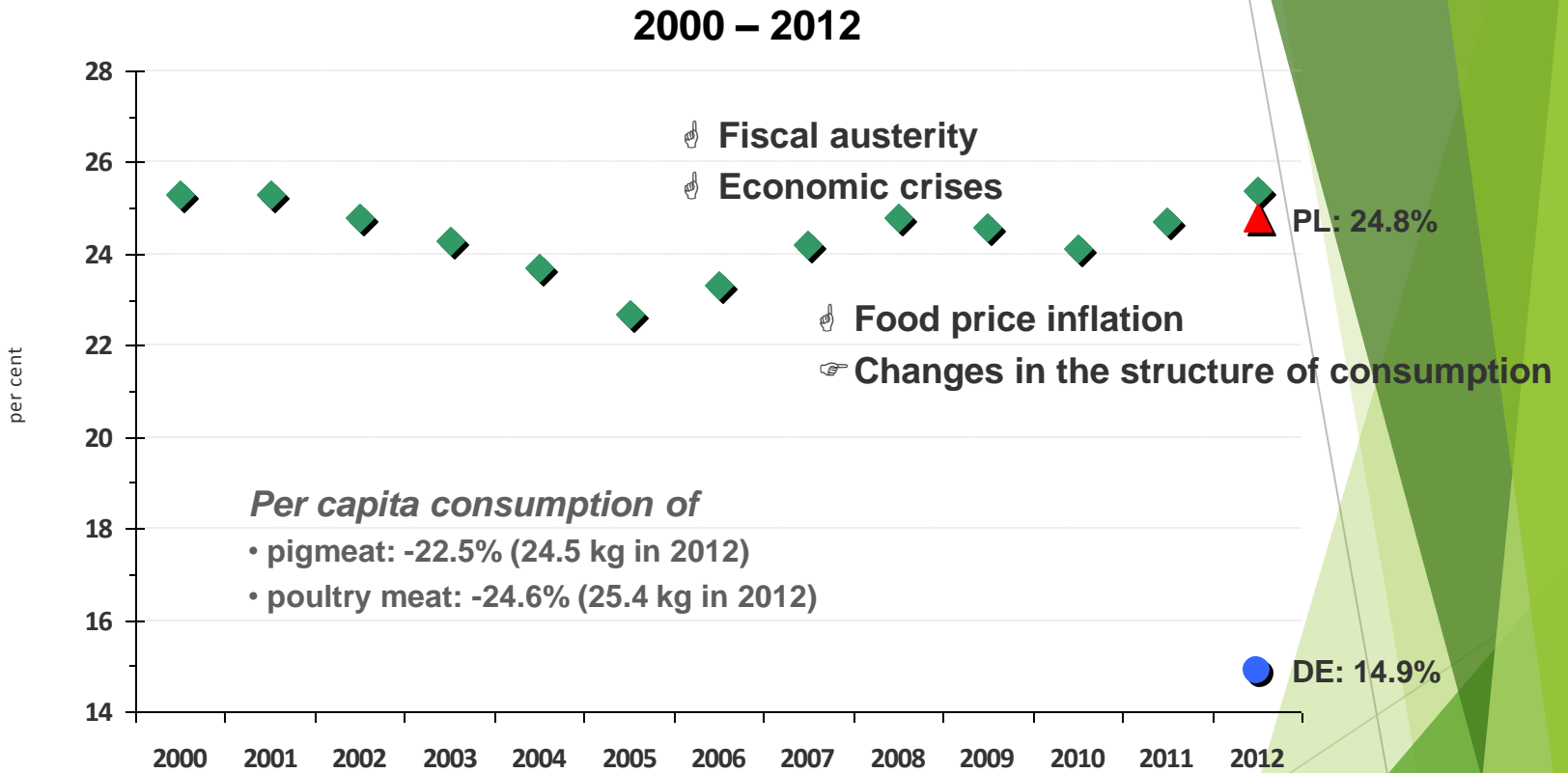
Number of animals per 100 hectares of agricultural area by species 2000-2013 (pieces)



A photograph of a woman with dark hair, wearing a red long-sleeved top, looking at a display of produce in a grocery store. The background is slightly blurred, showing other shelves and a person in a red top. The text 'Food security issues, consumers' habits in Hungary' is overlaid on the image in a green font.

Food security issues, consumers' habits in Hungary

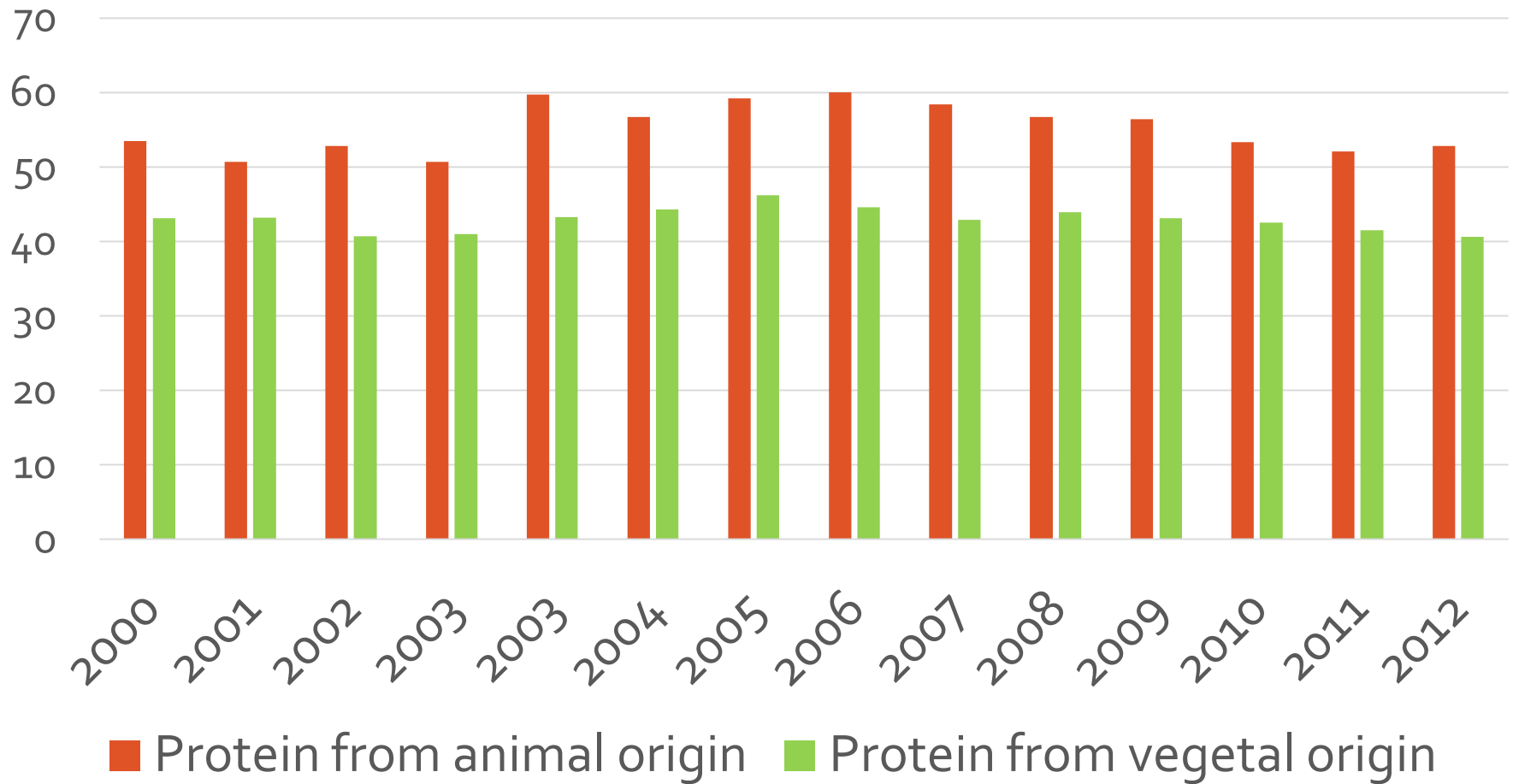
The share of consumer spending* on food in Hungary



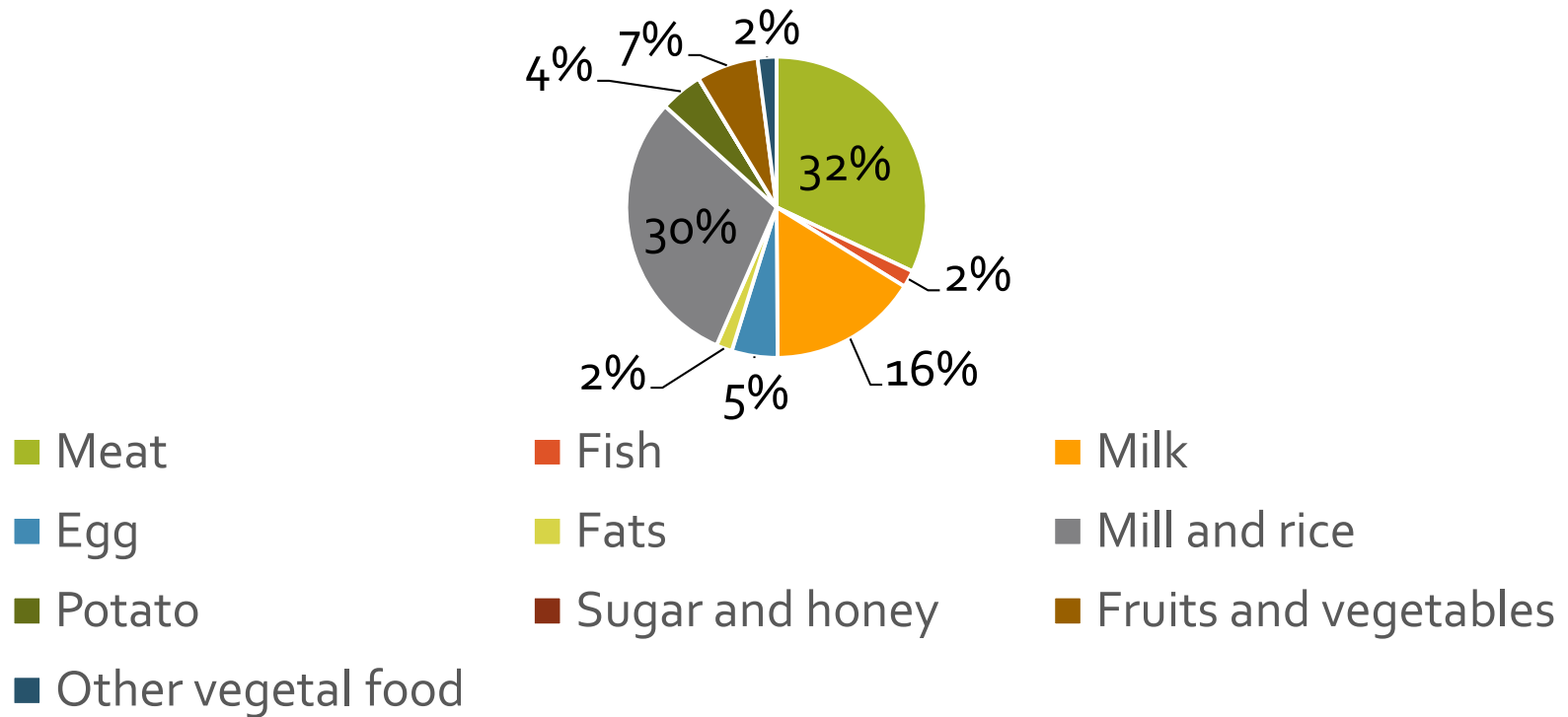
* Based on the classification of individual consumption according to purpose (COICOP)

👉 The level of consumer incomes has a significant impact on the demand for food

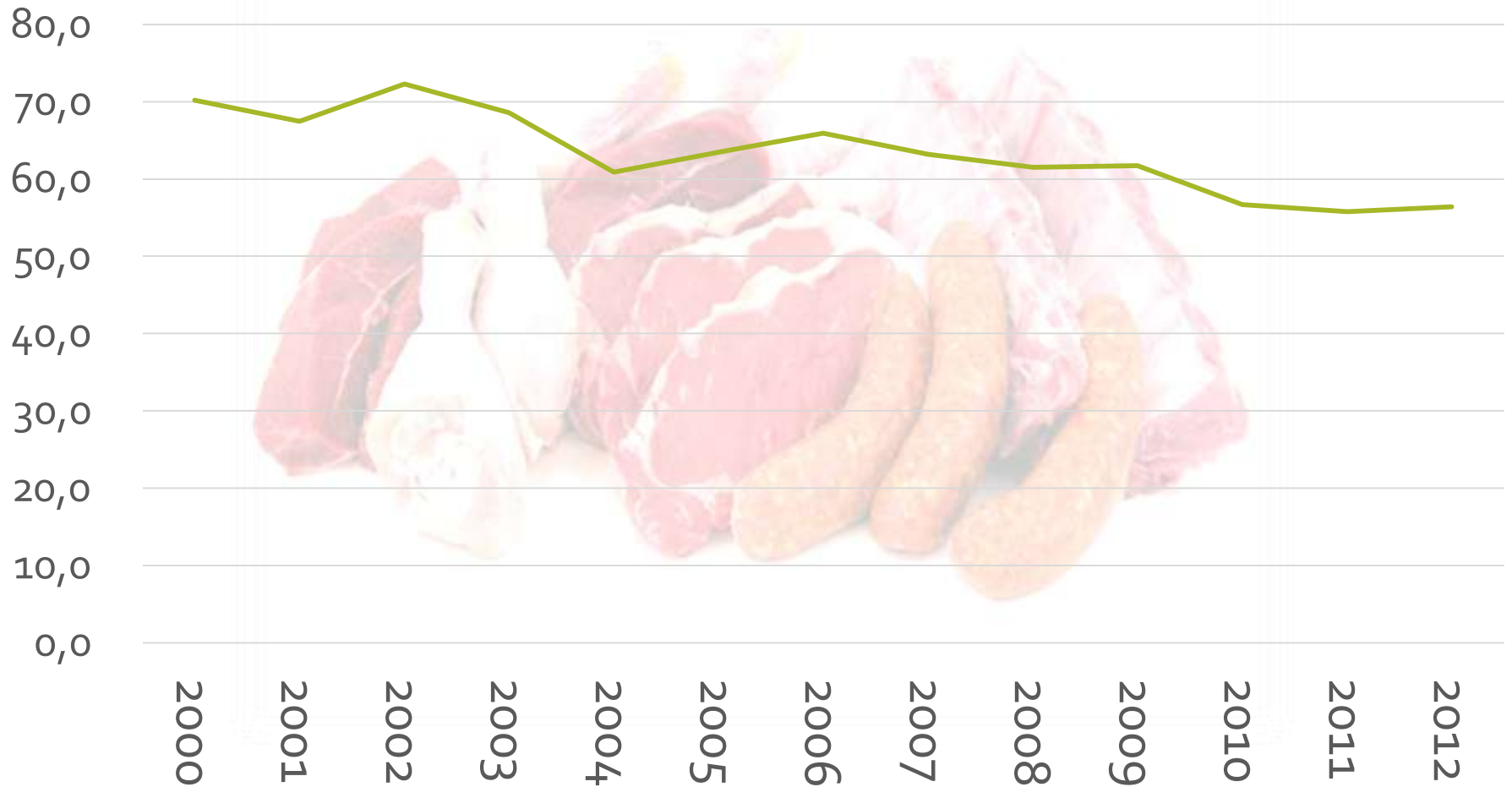
Daily protein consumption per capita by origin, 2000-2012 (g)



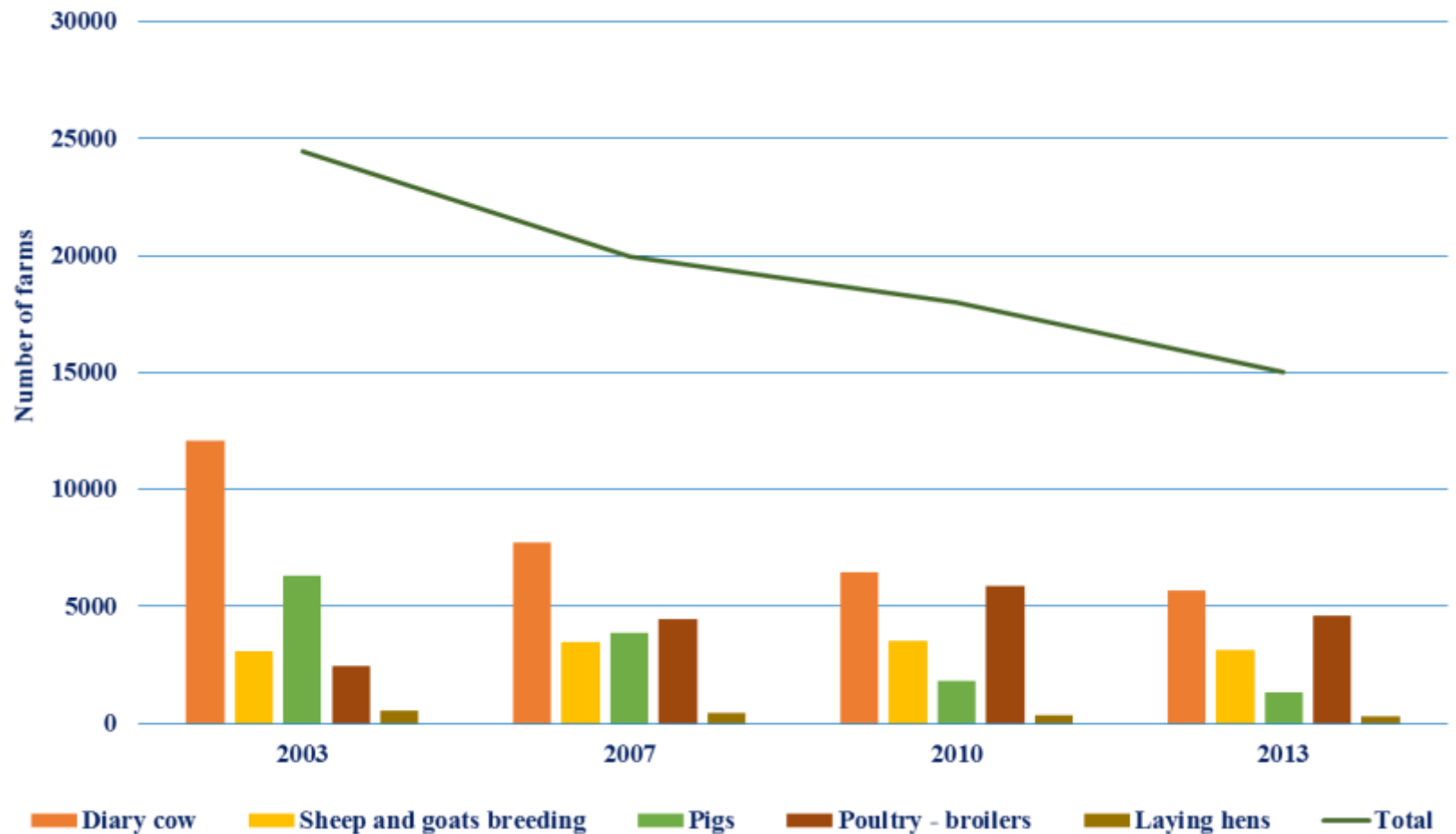
Composition of daily protein consumption per capita by source 2012



Meat consumption per capita 2000-2012 (kg)

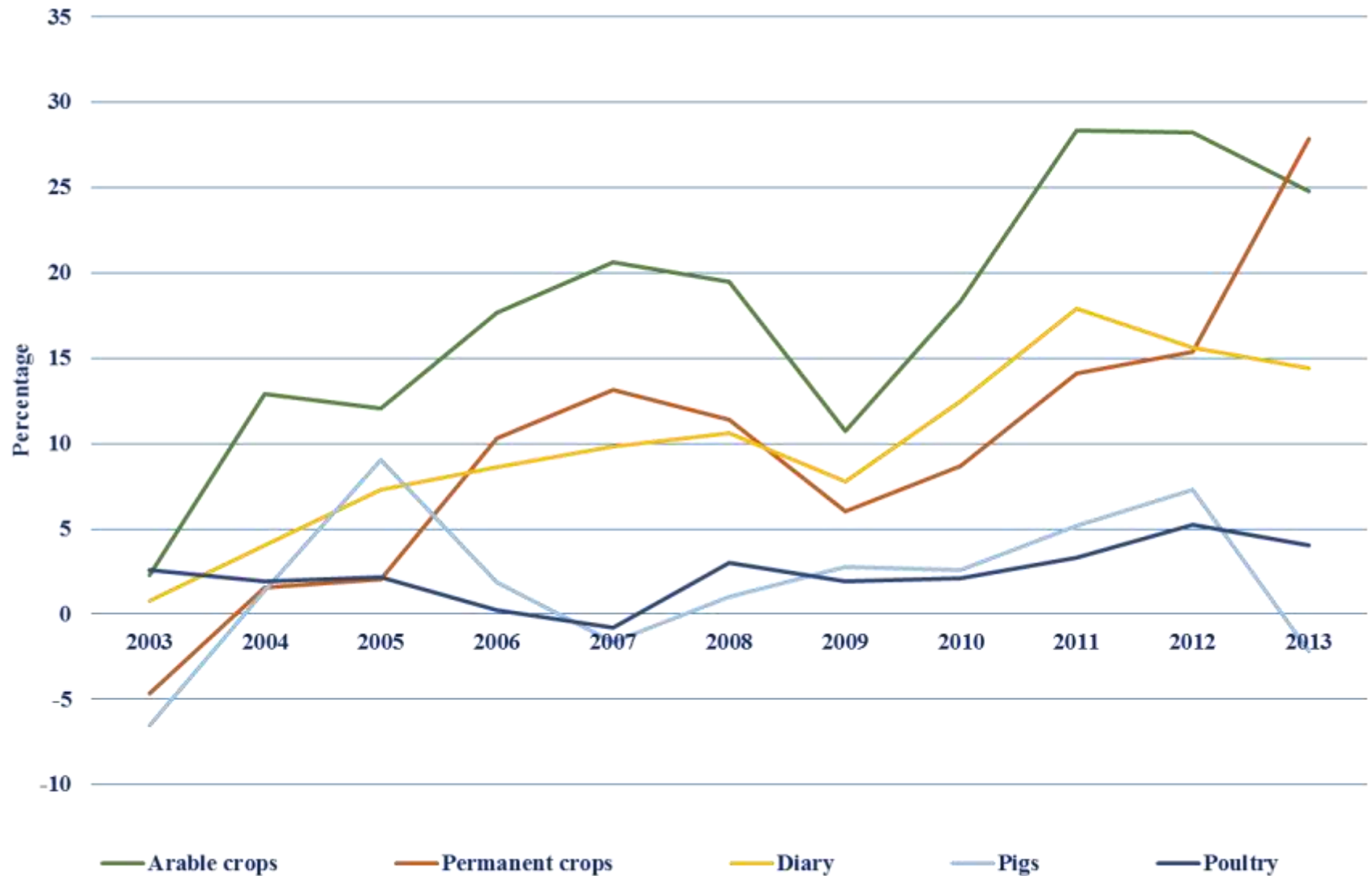


Number of professional livestock producers at the time of farm structure surveys



Source: Research Institute of Agricultural Economics, Hungarian FADN

Change in return on total output



Source: Research Institute of Agricultural Economics, Hungarian FADN

Policy measures

Subsidy per animal head by species in Hungary, 2013 (€/head)

Cattle 203,2755263

Pig 7,396473737

Poultry 0,560620557

Goat & Sheep 12,120573



Cattle: 154,4894 Million €

Dairy cattle: 64,9%

EAFRD – Animal welfare in the dairy sector: 13,7%

National milk subsidy: 17,3%

Support of dairy sector due to aflatoxin contamination: 0,007%

School milk programme: 4,9%

Special dairy premium: 29%

Beef cattle: 35,1%

Ruminant restructuring: 22,2%

Cow – linked to production: 7,7%

Beef cattle – decoupled: 4%

Extensification payment for cattle: 1,2%

Cattle export: 0,002%

Sheep and goat: 15,44161 Million €

Ruminant restructuring: 58,9%

Ewe subsidy: 5,9%

Additional ewe husbandry support–
decoupled: 4,9%

Ewe de minimis: 27,2%

She-goat de minimis: 0,99%

EAFRD – electronic tagging of sheep
and goats: 2,1%

Pig: 22,10806 Million €

Animal welfare payment: 98,8%

Support for strategic measures
improving the situation of pig
sector: 1,2%

Poultry: 21,60968 Million €

Animal welfare payment: 87,3%

EAFRD modernization of poultry
farms: 10,6%

Live poultry meat export: 2,1%

Egg export: 0,0012%

Other subsidies: 201,0123 Million €

Husbandry tasks: 1,3%

Prevention and overcoming of certain animal
diseases: 9,1%

Subsidy for the removal and disposal of animal
corpse: 2,9%

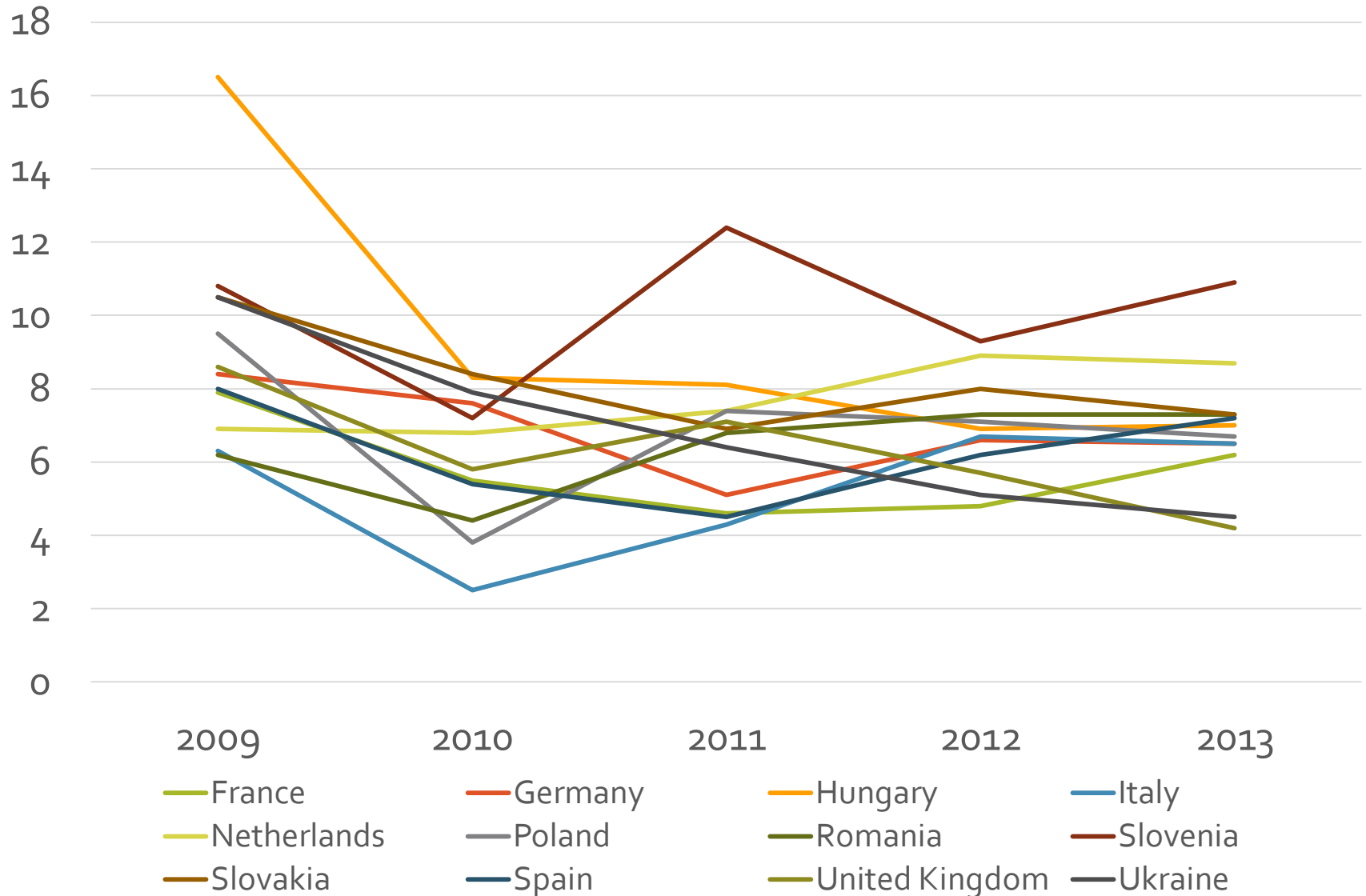
Animal and plant indemnification (uncapped
appropriation): 1,5%

EAFRD modernization of animal farms: 73,7%

Subsidy for breeding of indigenous farm animals: 1%

Prevention and elimination of certain animal
diseases: 1,5%

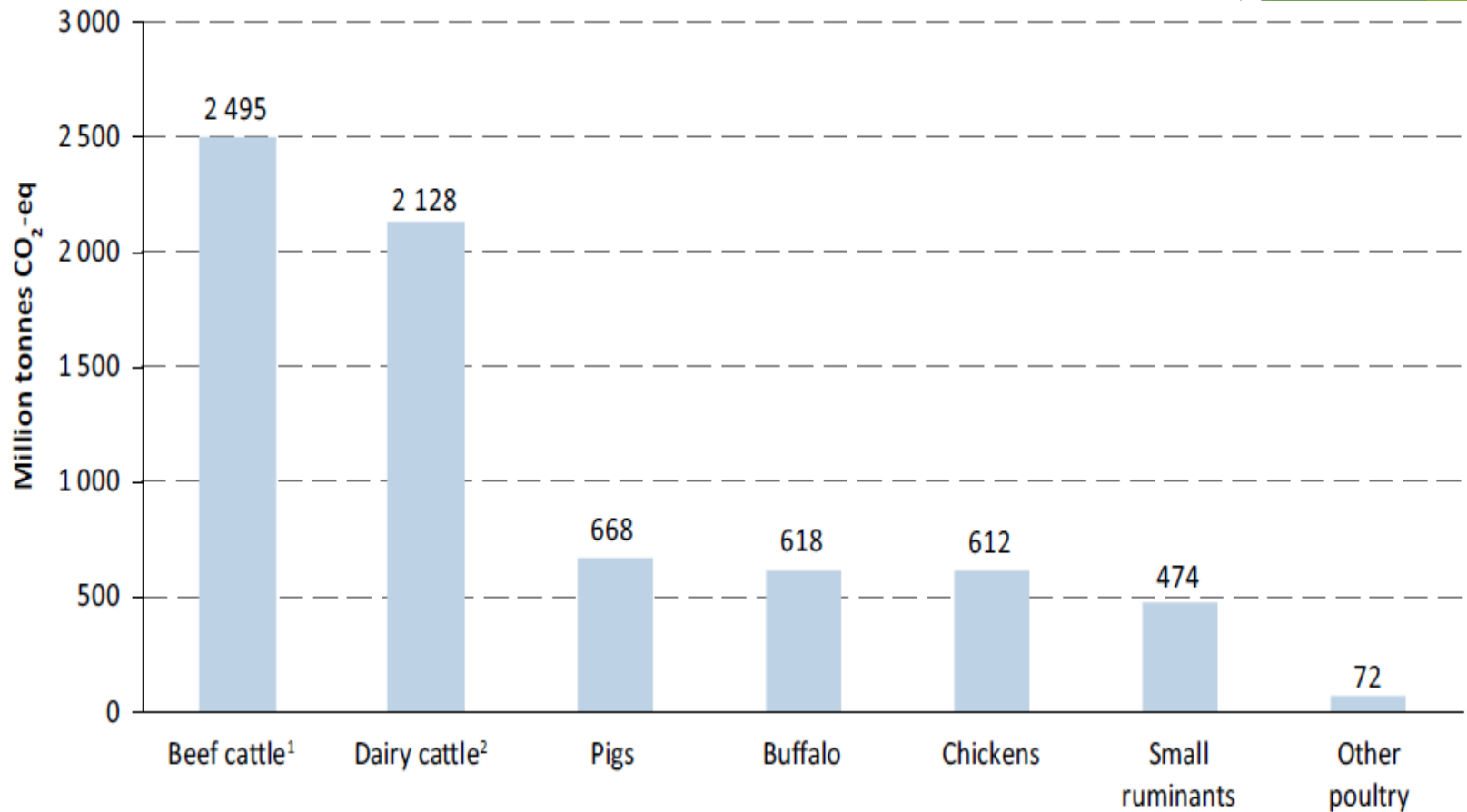
Domestic food price volatility index, 2009-2013



The background features a composite image. The upper portion shows three white wind turbines against a blue sky with light clouds. The lower portion shows a close-up of a hand holding a small, glowing globe of the Earth. The entire scene is framed by a green geometric design on the right side, consisting of overlapping triangles and lines in various shades of green.

Environmental effects of livestock production

Global estimates of emissions by species



*Includes emissions attributed to edible products and to other goods and services, such as draught power and wool.

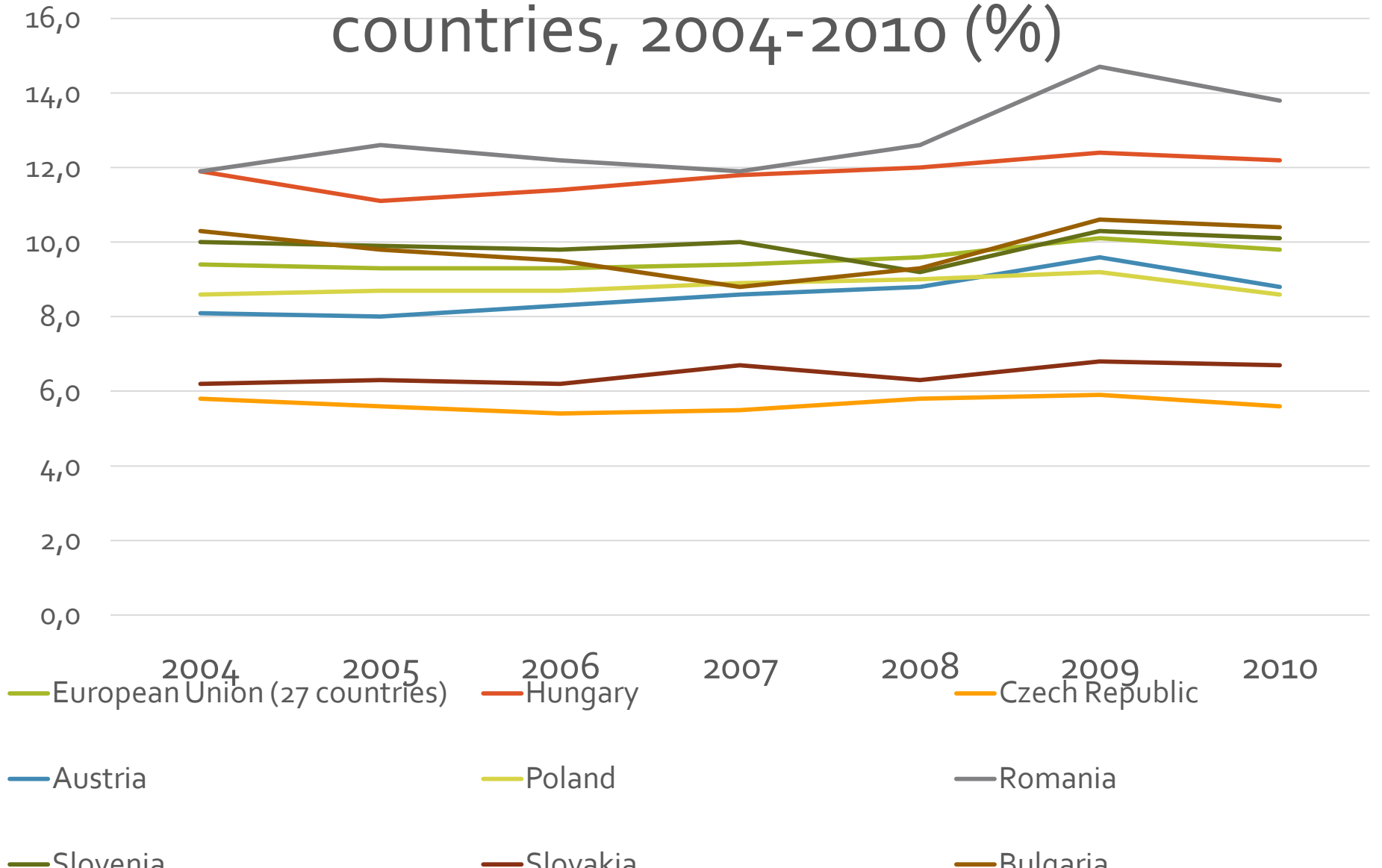
¹ Producing meat and non-edible outputs.

² Producing milk and meat as well as non-edible outputs.

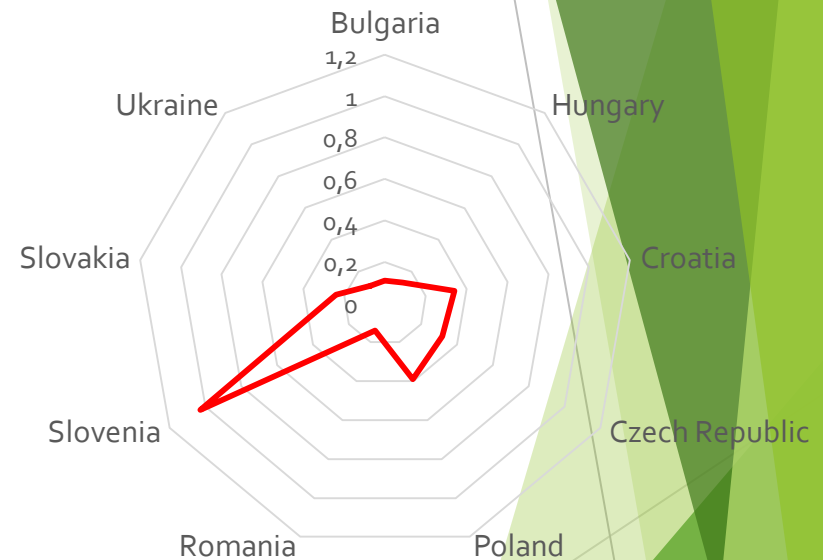
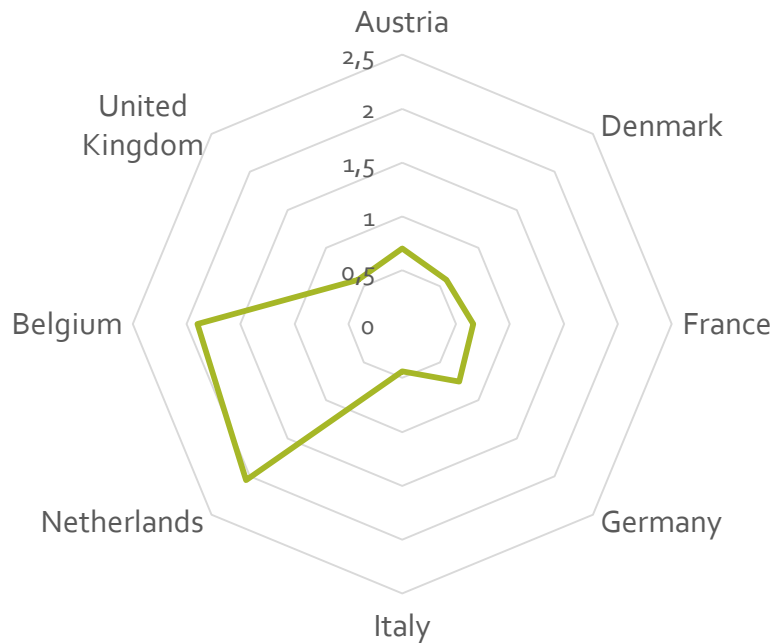
Source: GLEAM.



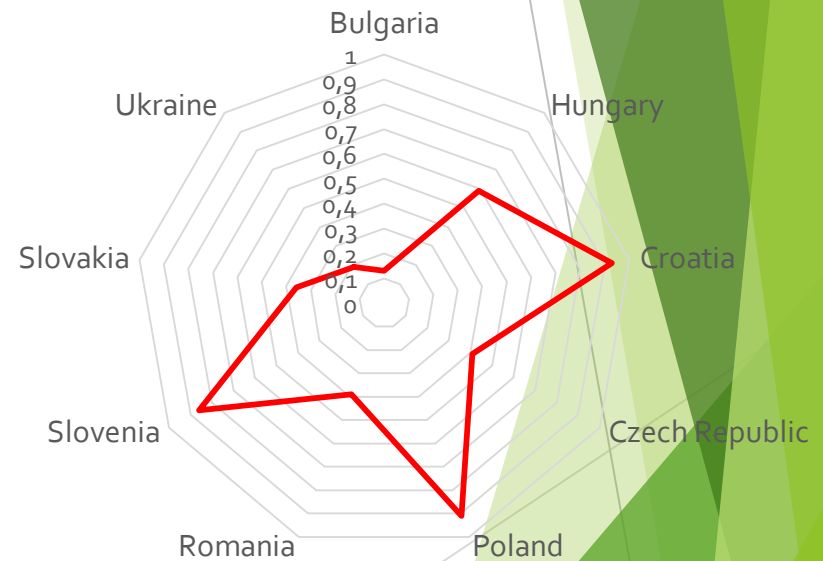
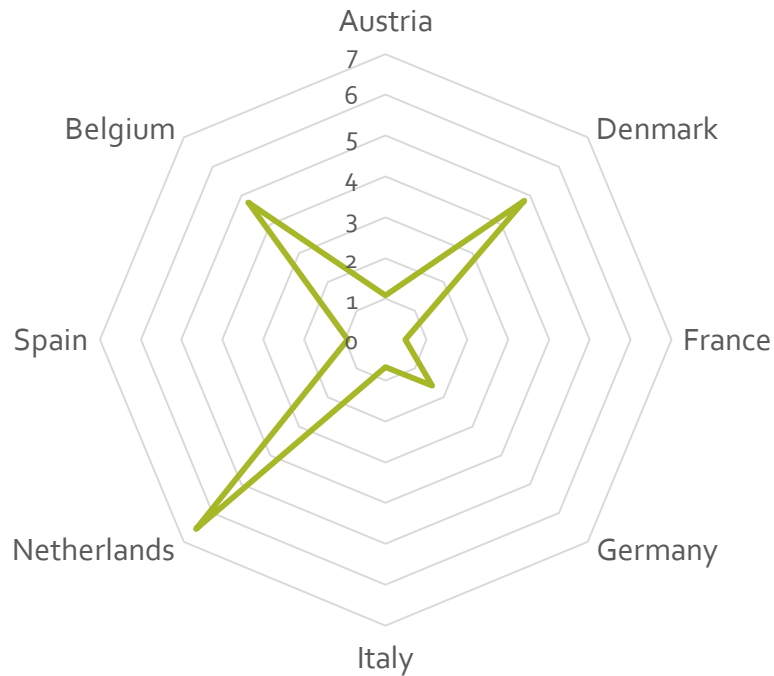
Share of agriculture in greenhouse gas emission in Central-Eastern-European countries, 2004-2010 (%)



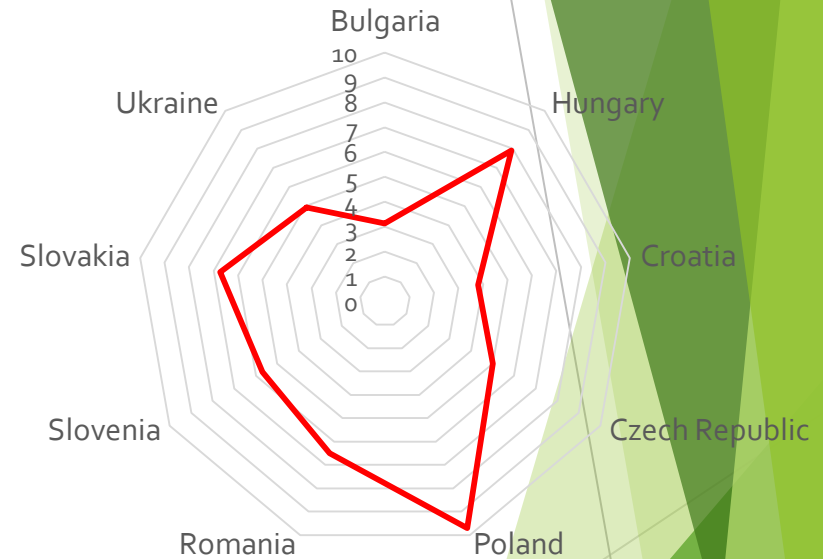
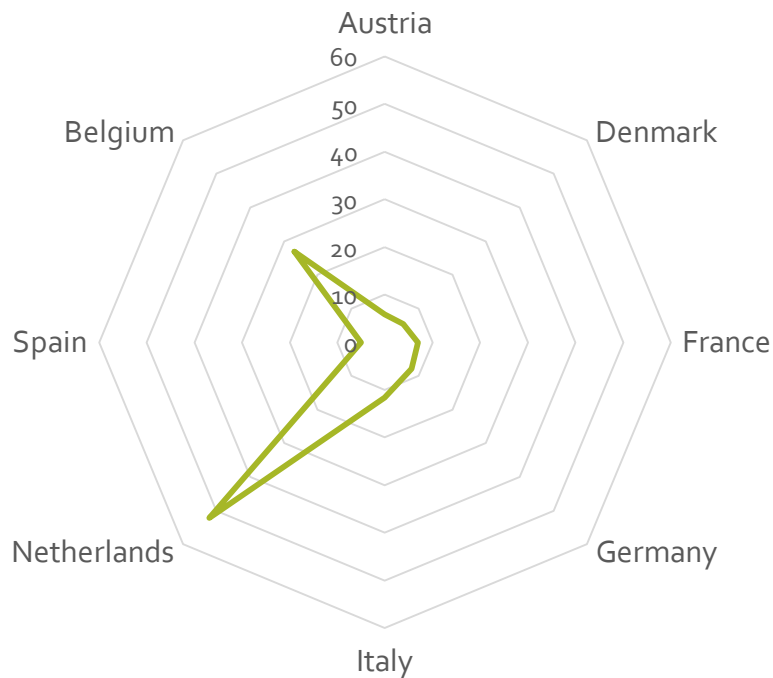
Density of cattles and buffaloes, 2011 (total/ha of agricultural land)



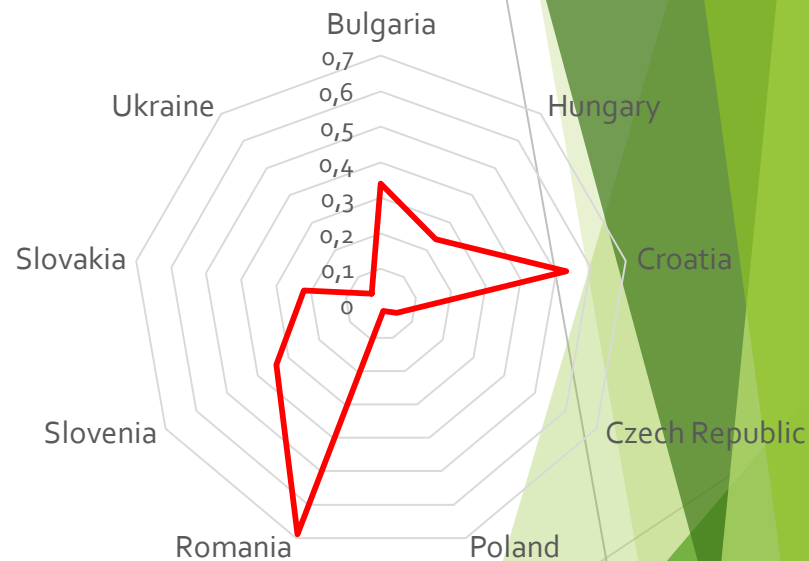
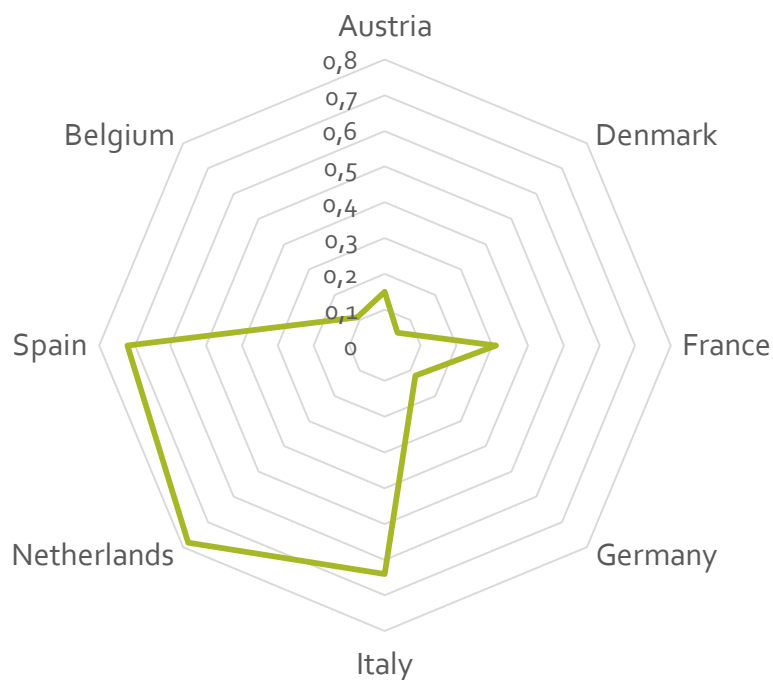
Density of pigs, 2011 (total/ha of agricultural land)



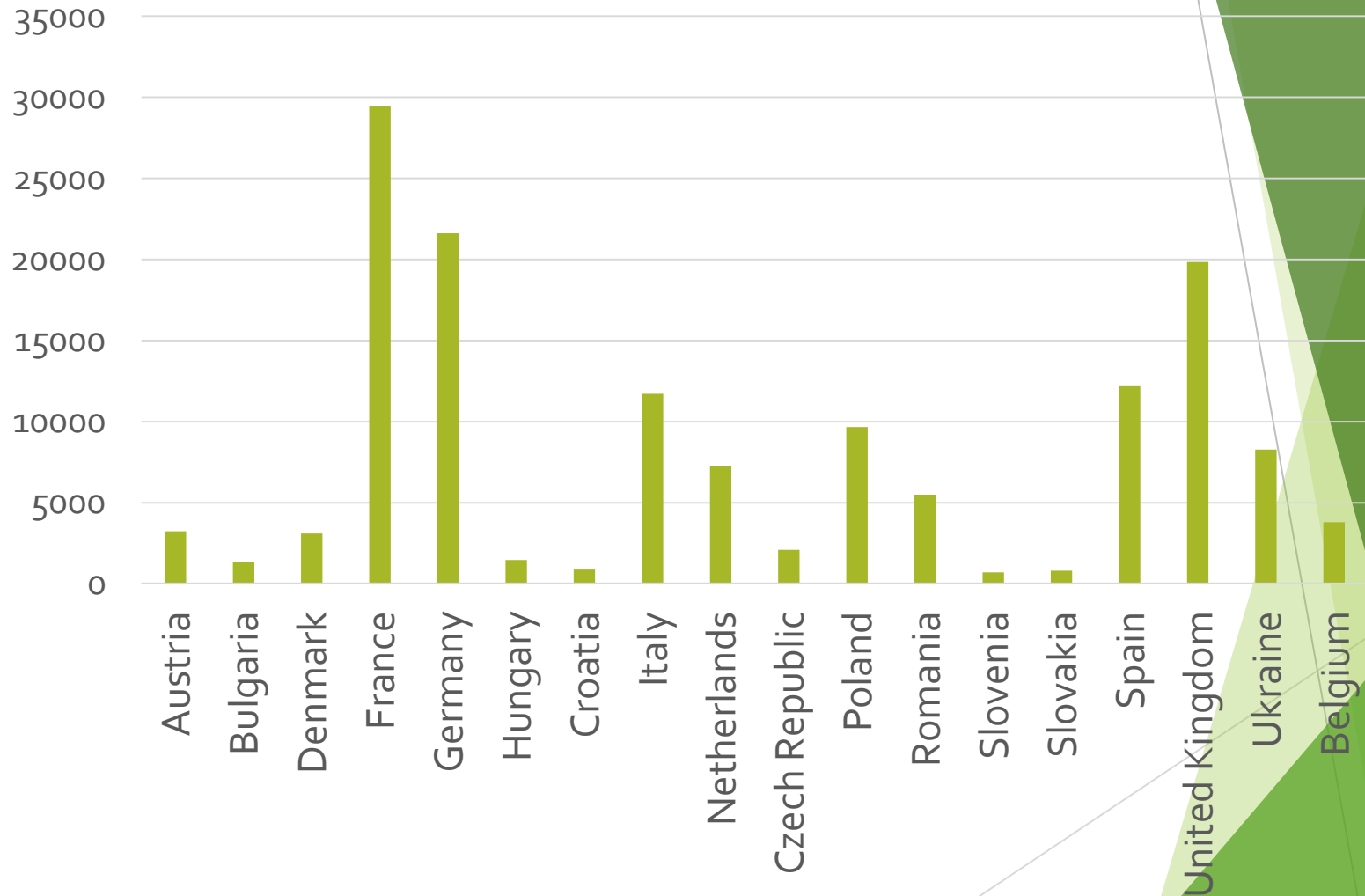
Density of poultries, 2011 (total/ha of agricultural land)



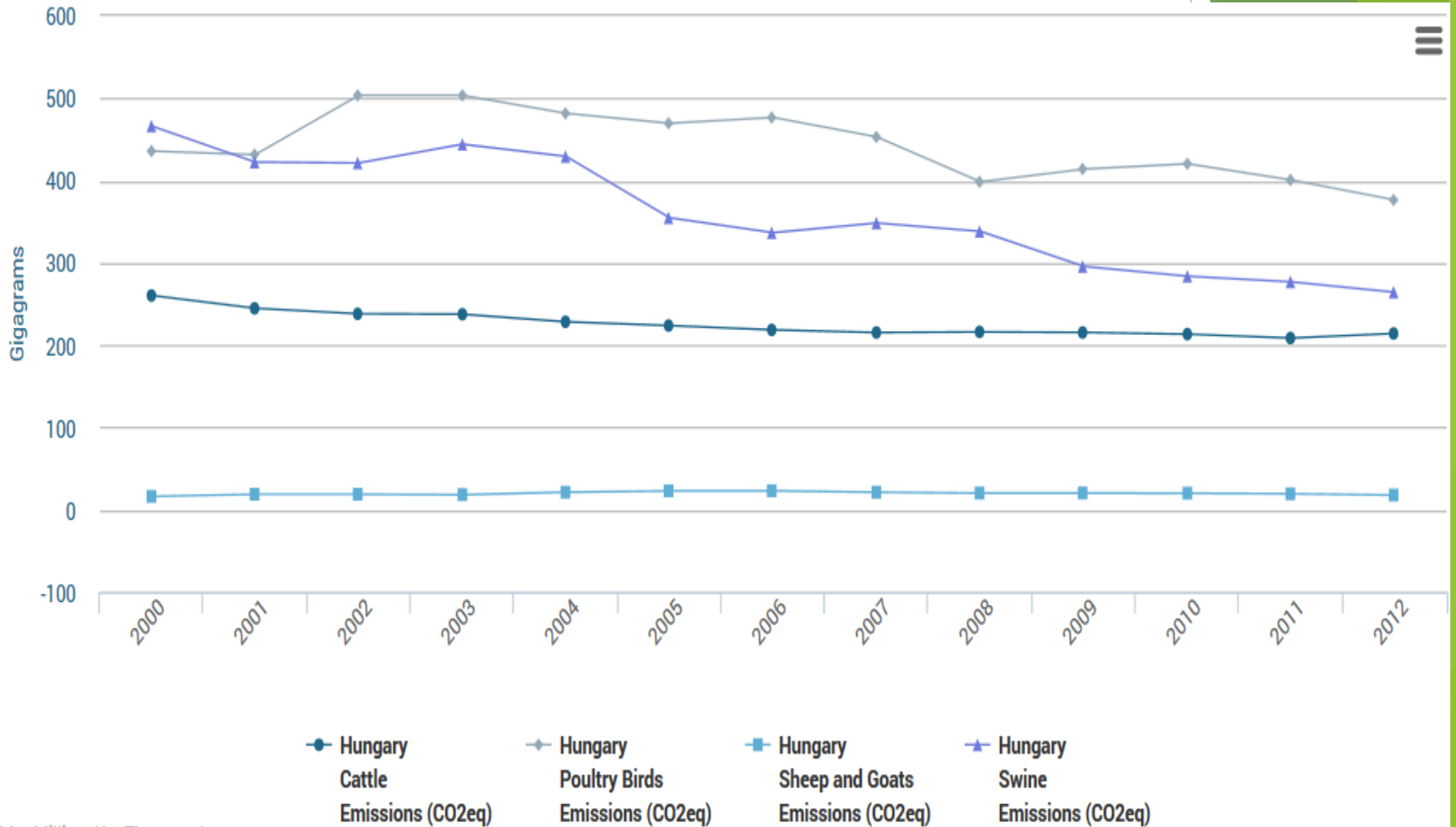
Density of sheep and goats, 2011 (total/ha of agricultural land)



Emission of all farm animals - CO2 equivalent, 2012 (Gigagrams)



Greenhouse gas emission by animal husbandry sector in Hungary, 2000-2012 (1000 tonnes of CO₂ eq.)

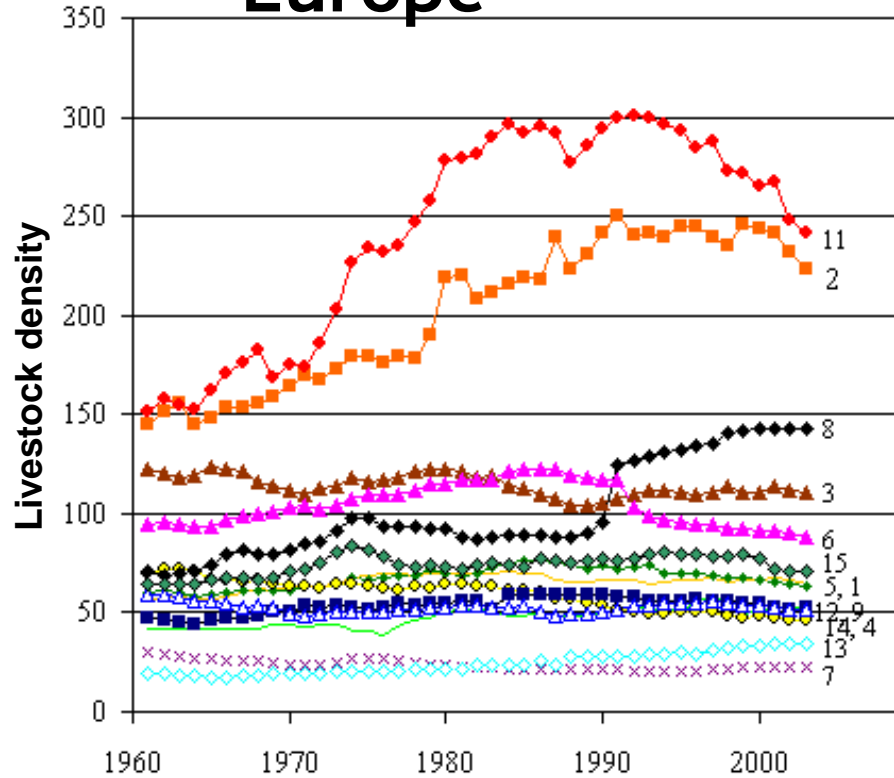


M = Million, K = Thousand

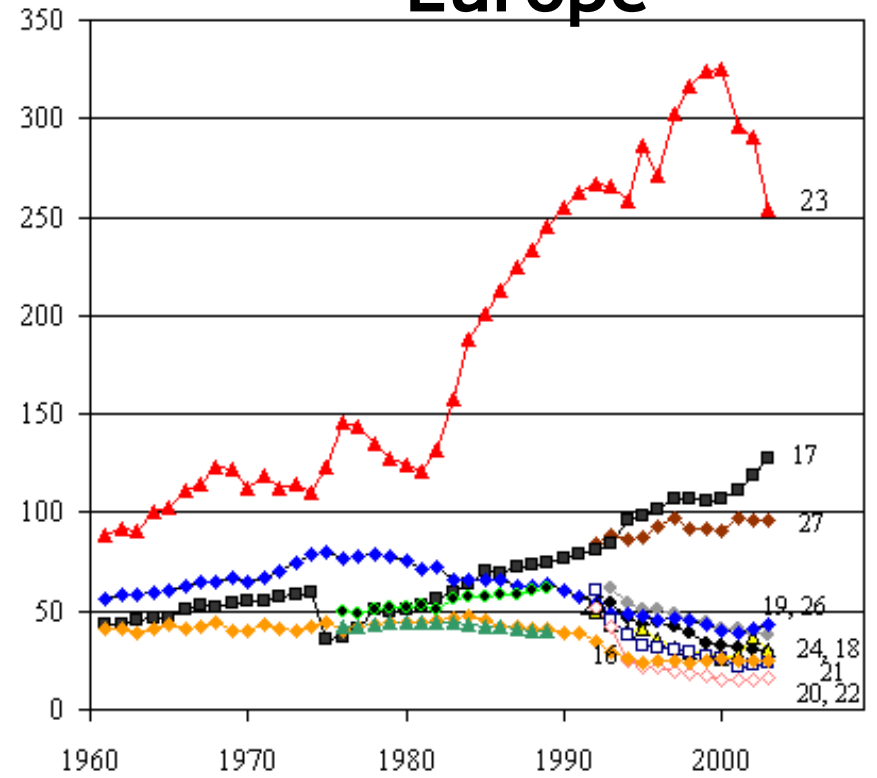
Source: FAO

Livestock density (heads/100 ha) in... Western and Eastern Europe

Europe

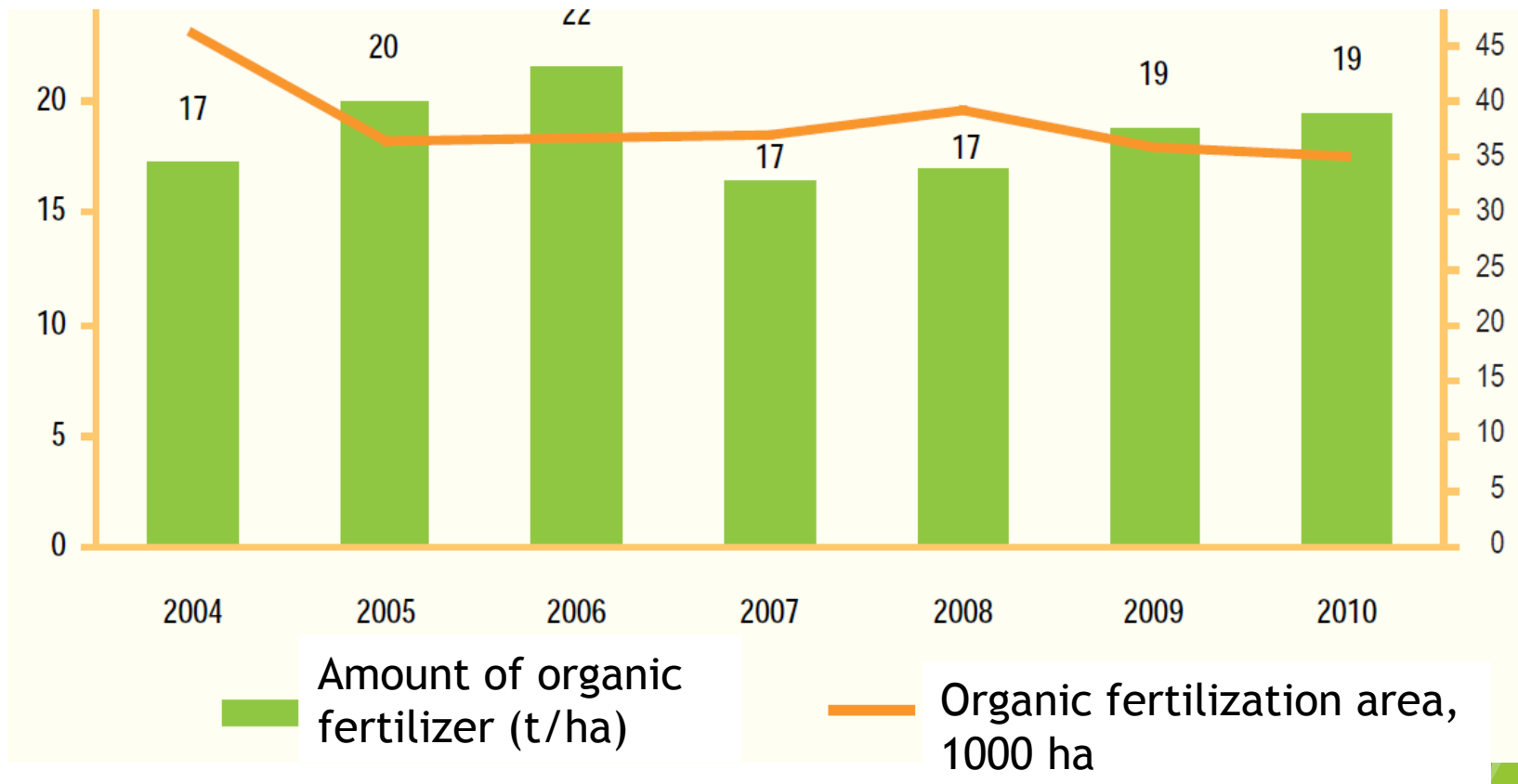


Europe



- | | | | | | |
|------------------|---------------------|-------------|---------------------|---------------------|---------------------|
| ◆ 1 Austria | ■ 2 Belgium-Lux. | ▲ 3 Denmark | ▲ 16 Bulgaria | ■ 17 Cyprus | ● 18 Czech Republic |
| ◆ 4 Finland | ■ 5 France | ▲ 6 Germany | ▲ 19 Estonia | ■ 20 Hungary | ● 21 Latvia |
| ◆ 7 Greece | ■ 8 Ireland | ▲ 9 Italy | ■ 22 Lithuania | ▲ 23 Malta | ● 24 Poland |
| ◆ 11 Netherlands | ■ 12 Portugal | ▲ 13 Spain | ■ 25 Romania | ■ 26 Slovakia | ● 27 Slovenia |
| ◆ 14 Sweden | ■ 15 United Kingdom | | ■ 28 Czechoslovakia | ■ 29 Yugoslavia SFR | |

Organic fertilization area and the amount of applied organic fertilizer in Hungary

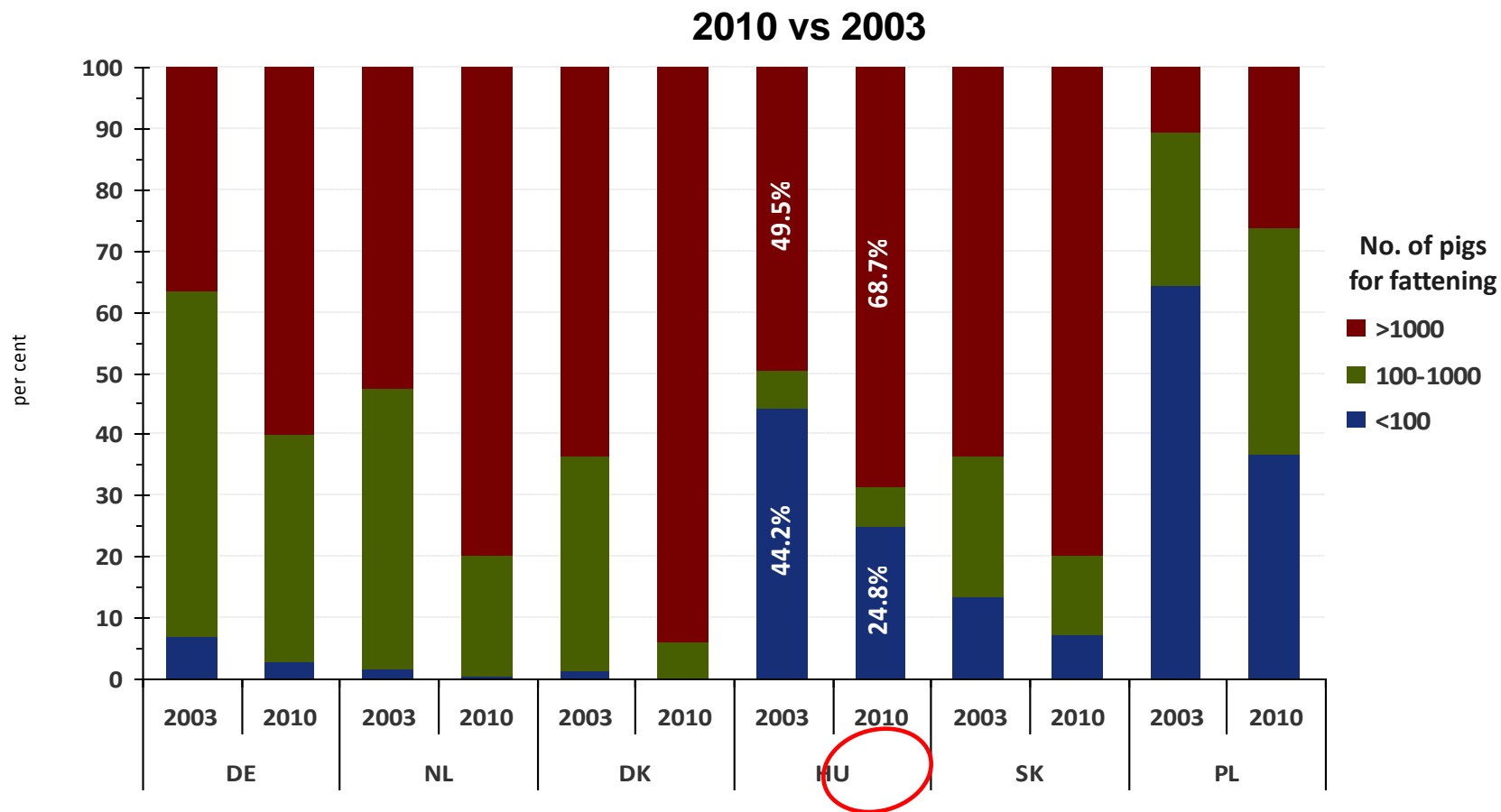


What are the consequences?

Statistics and explications

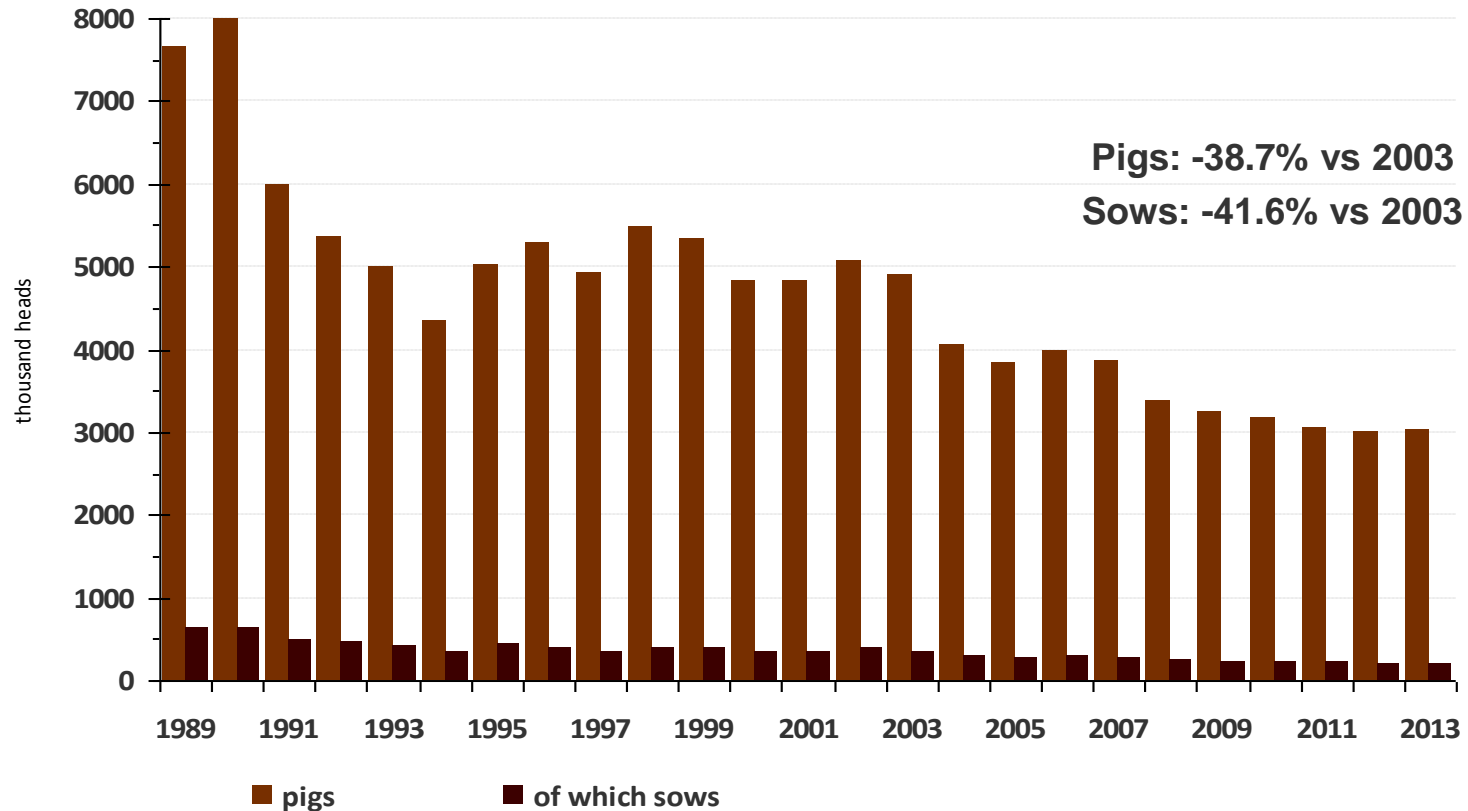


Changes in the structure of pig fattening farms in Hungary & other EU Member States



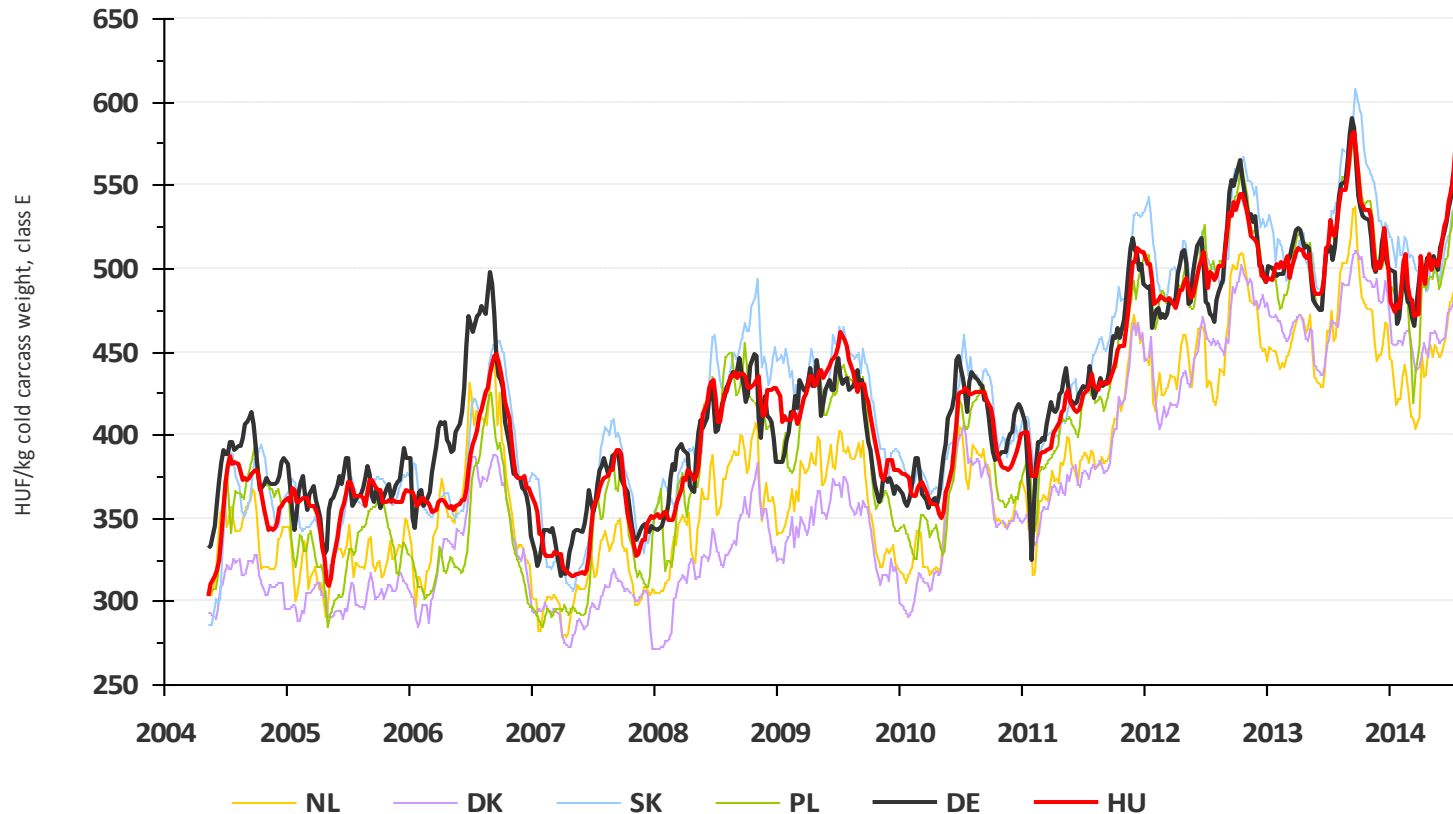
The development of pig numbers in Hungary since transition

1989 – 2013



The development of slaughter pig prices in Hungary & other EU Member States

May 2004 – July 2014

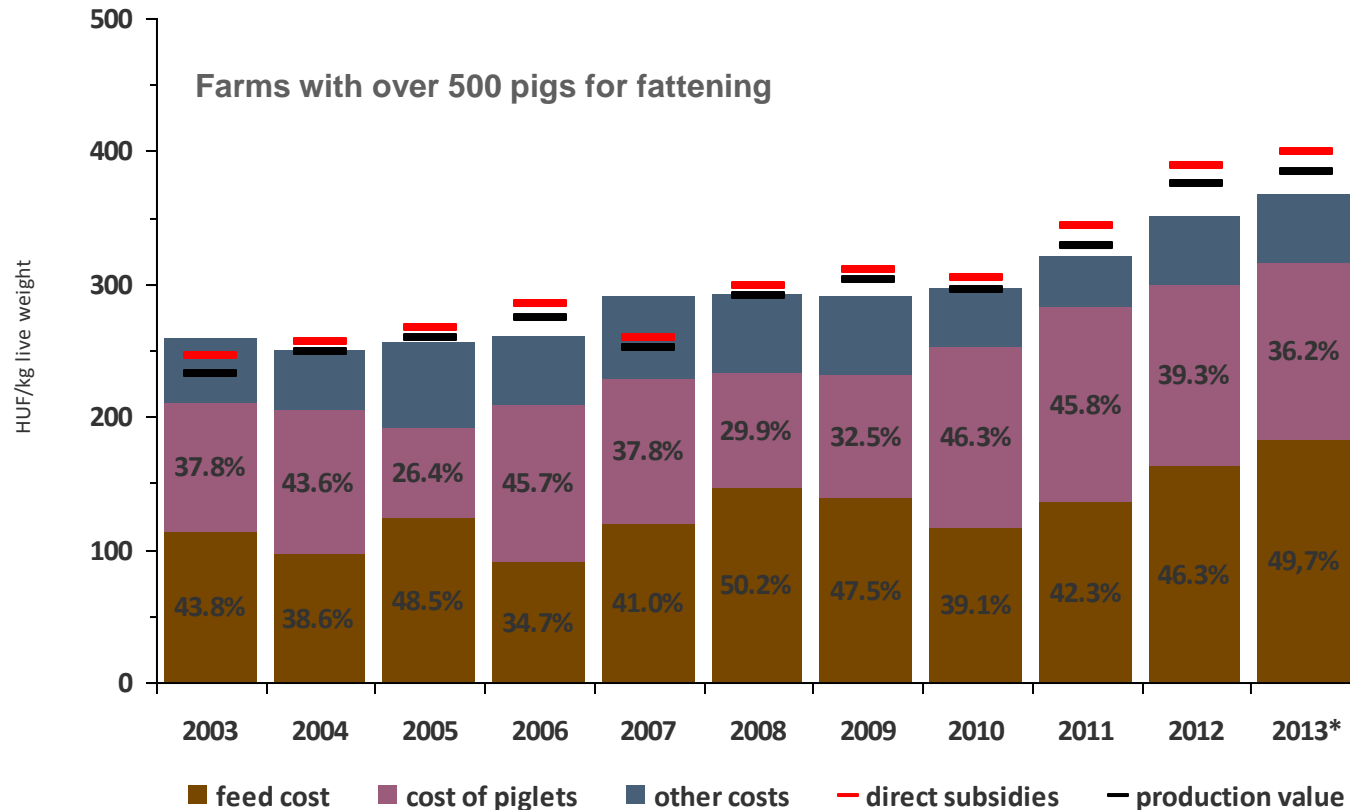


👉 **Johansen test results: prices are cointegrated**

👉 **local S & D factors are negligible in HU pricing**

Production cost and revenue of pig fattening in Hungary

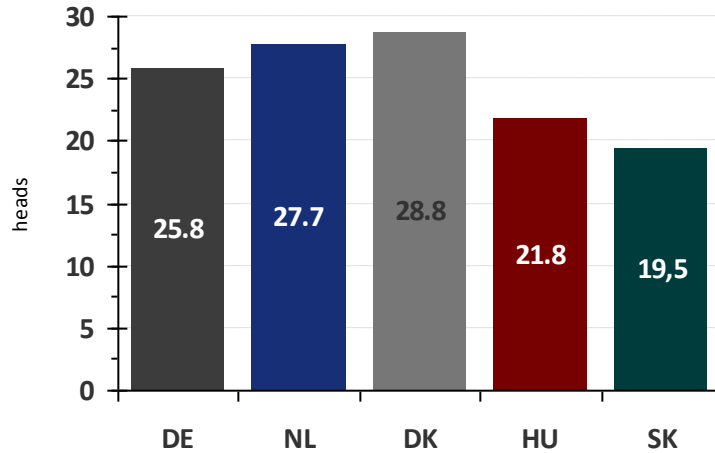
2003 – 2013



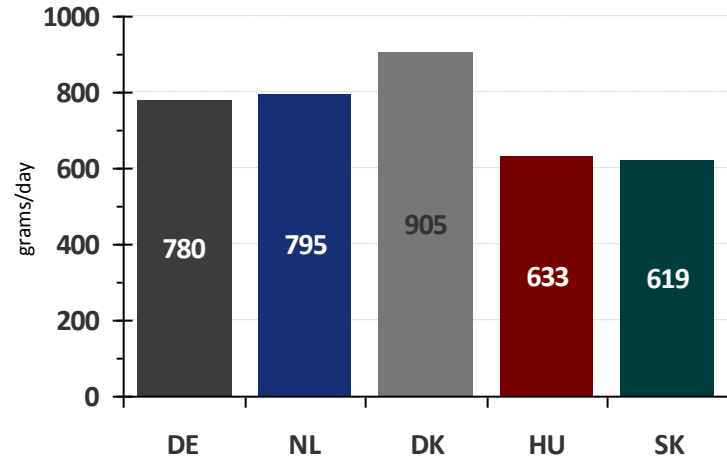
* Preliminary

The efficiency of pig farming in Hungary & in other EU Member States in 2012

Pigs reared / sow

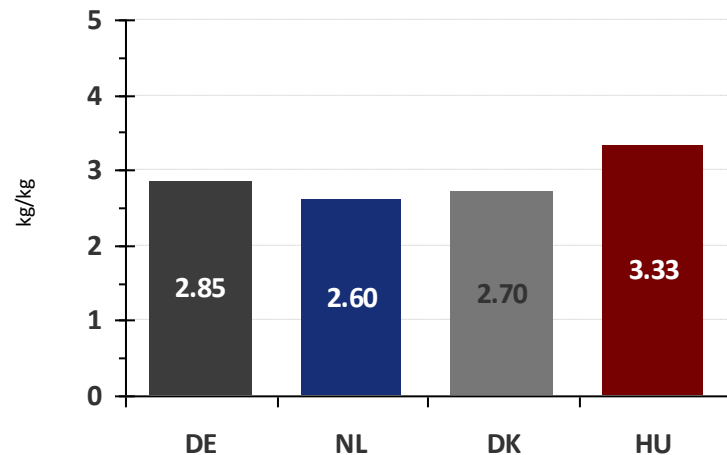


Daily live weight gain



- 👉 **Genetics and raising technology**
- 👉 **Feed cost and feed quality**
- 👉 **Climate conditions**

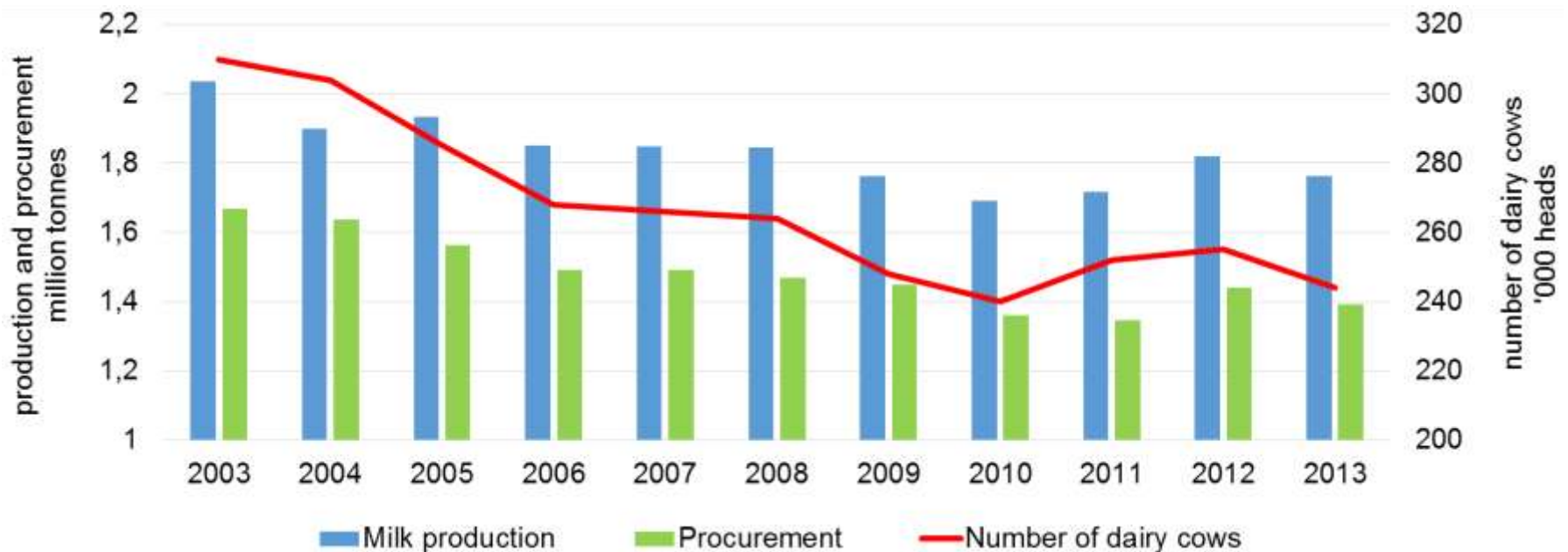
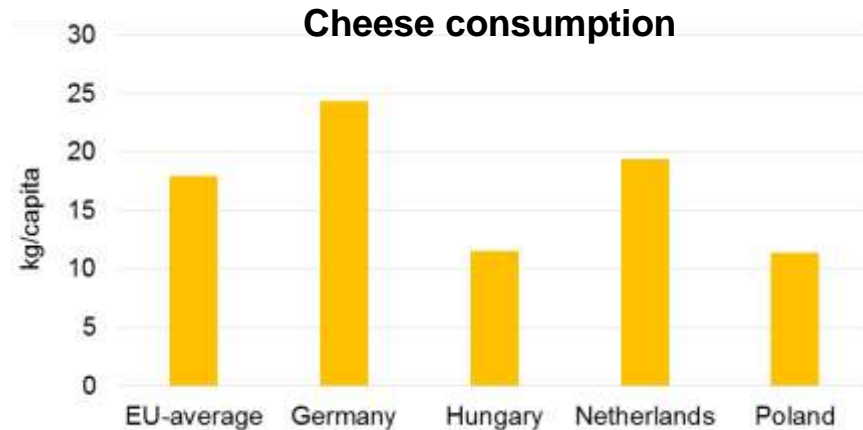
Feed conversion ratio



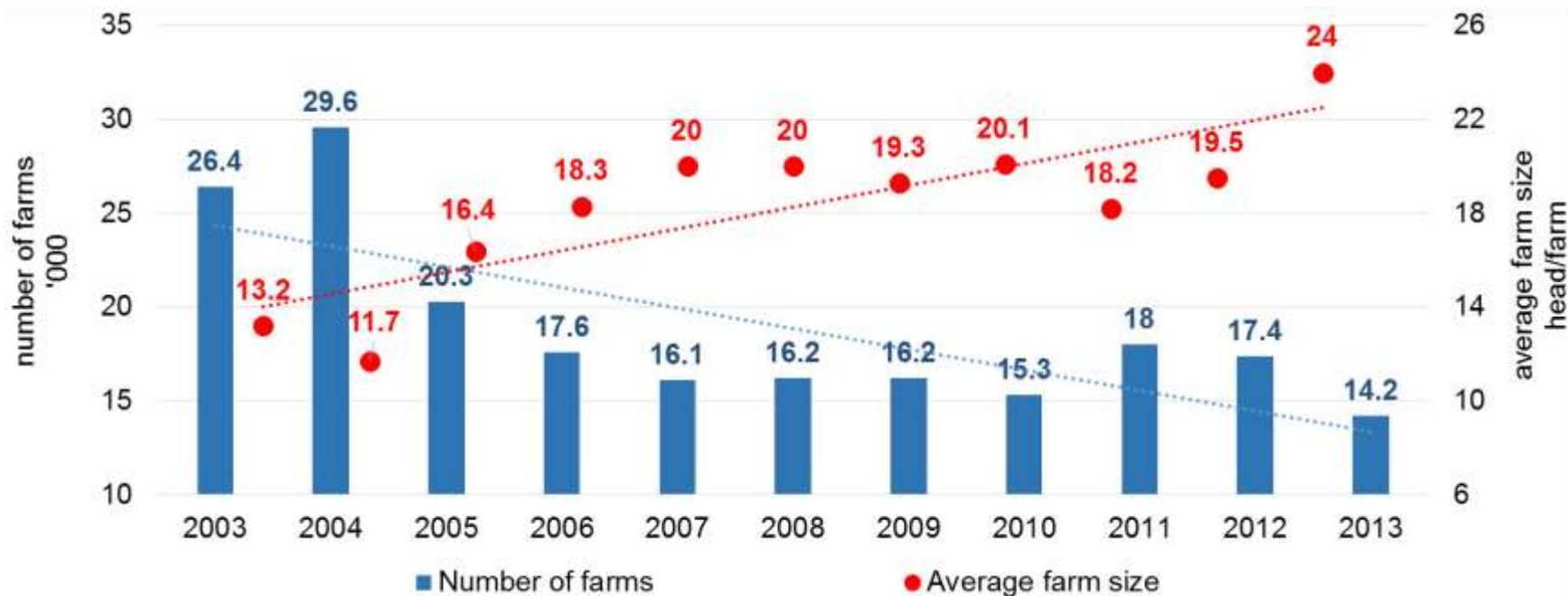
The dairy sector in Hungary

- ❑ Share in total agricultural output: **7%**
- ❑ Share in agricultural export: **4%**
- ❑ Number of employees: **26 000** (milk production) + **6400** (dairy industry)
- ❑ Consumption of milk and dairy products: **175 kg/capita**
- ❑ Share in food expenditures: **14.3%**

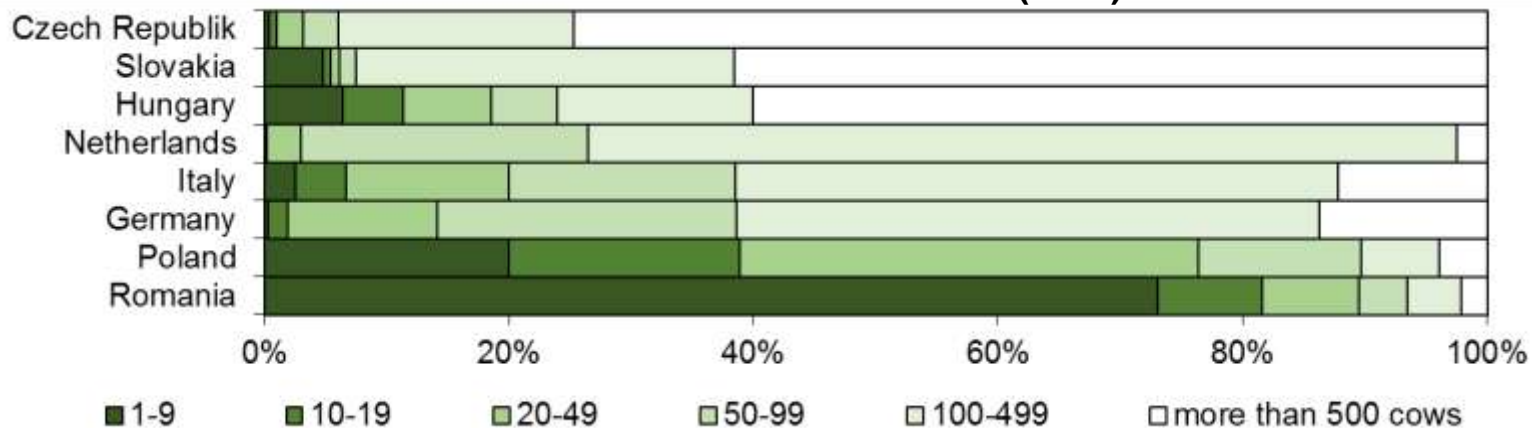
2012



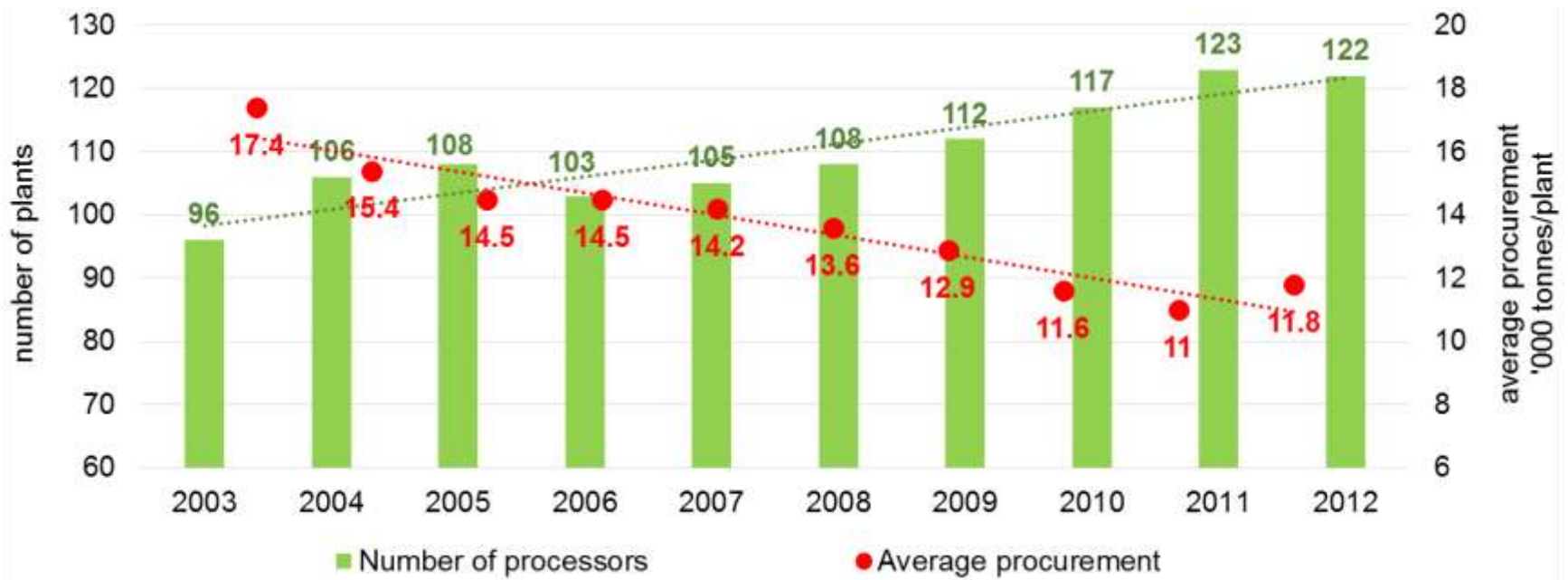
Structural changes of milk production in Hungary



Cow herd concentration (2010)

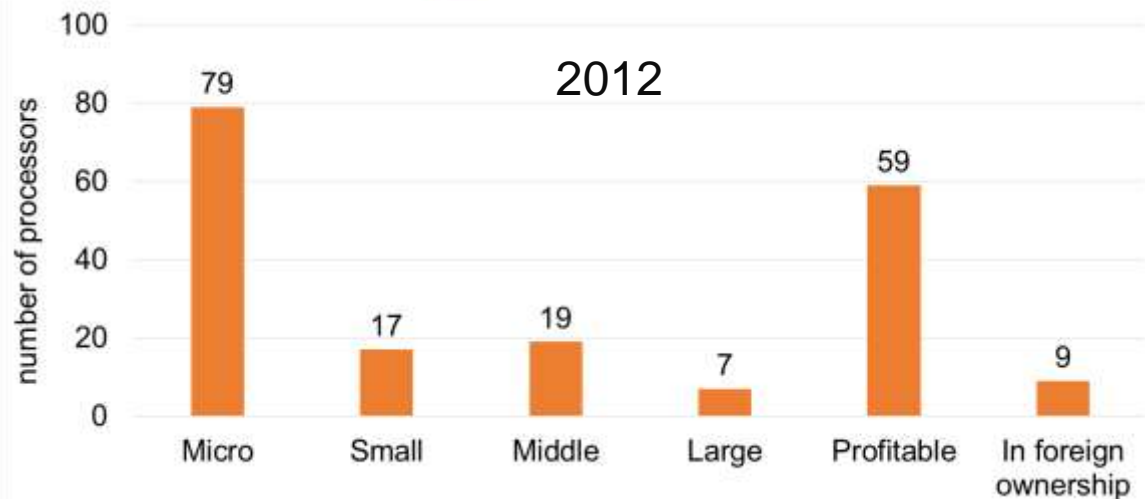


Structural changes of milk processing in Hungary

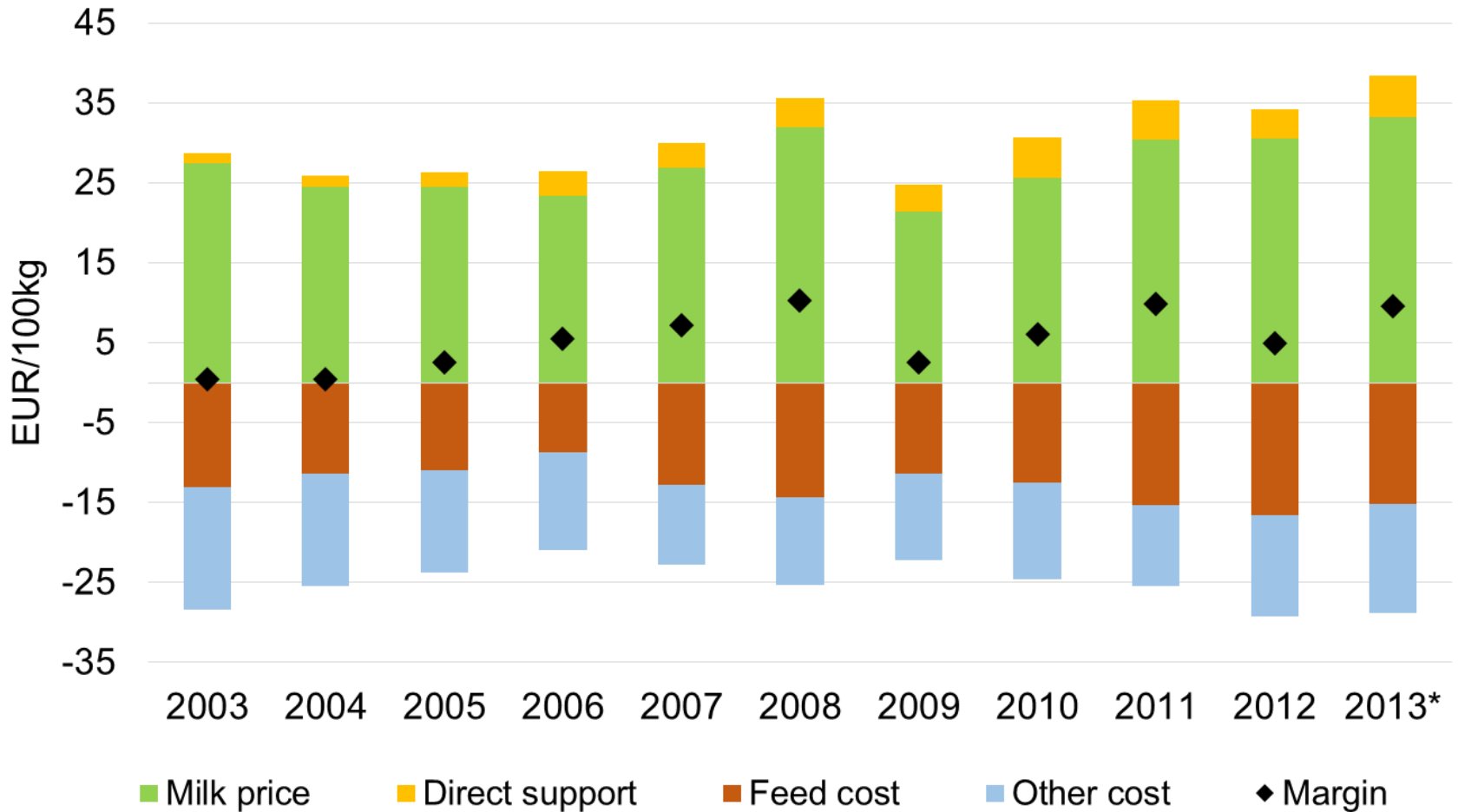


Market share (2012):

- Top 3: 37%
- Top 5: 55%
- Top 10: 78%

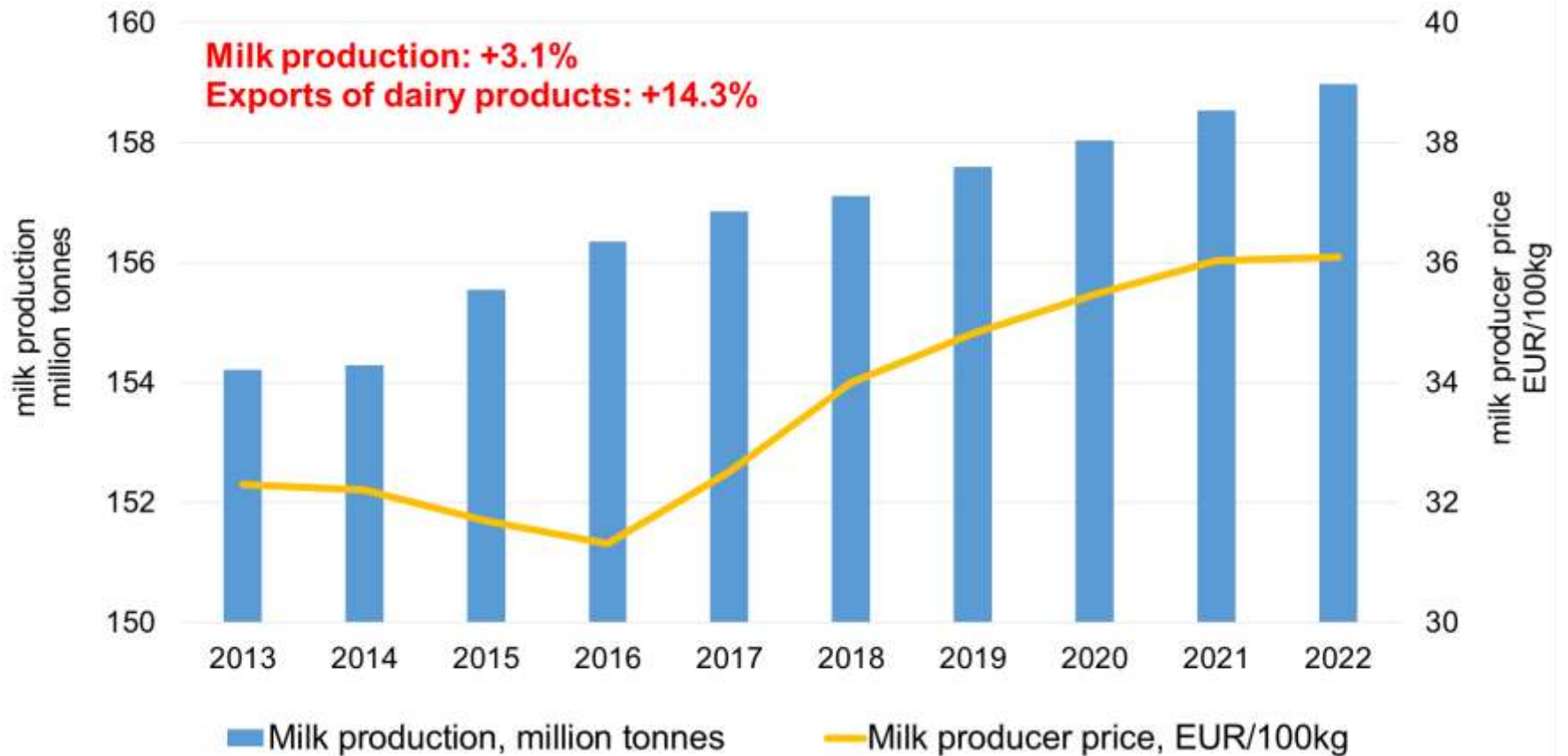


Cost and revenue of milk production in Hungary



* Previous data

Dairy outlook of the EU-28 2013-2022



General problems in the livestock production

- ❑ Inherited history and dependency of state (government), missing relevant innovation and advisory services),
- ❑ Export subsidies on pig and poultry meat phased out before accession
- ❑ Due to substantial excess capacities, structural changes in the processing industry after accession
- ❑ Dynamic growth of imports of live animals as well as high value-added products since accession
- ❑ High feed grain prices since 2005/06 which are likely to persist in the mid-term
- ❑ Due to climatic conditions, cattle farming is not pasture based
- ❑ Outbreaks of animal diseases
- ❑ Increasing pressure on intra and extra EU markets by third countries
- ❑ Low and fluctuated producer prices
- ❑ Full or partial decoupling of direct payments
- ❑ Lack of capital for modernization to comply with EU environmental, animal-health and welfare requirements
- ❑ Due to demographic reasons, no increase in consumption expected, 27% VAT
- ❑ Less interest among the farmers producing animal products, no cooperation
- ❑ Stronger advisory and transparent product chains accountancy systems are needed

Conclusions and lessons to learn

Level of competitiveness! Innovation! Knowledge transfer-advisory services! Cooperation in the product chain?

Scale of economic ? Process of concentration.

Less consumption of meat ?

Decrease food losses?

Greener CAP based on producers and consumer consensus

Tailor made regulation is needed by countries

Different ways of thinking about environment?

Some ideas! (insects, vegetarian, biodiversity, ect.)

Which is easier to reduce?

Beef & Dairy
vital
CO₂ emission



CO₂ emission of raw milk
transport and dairy product
distribution



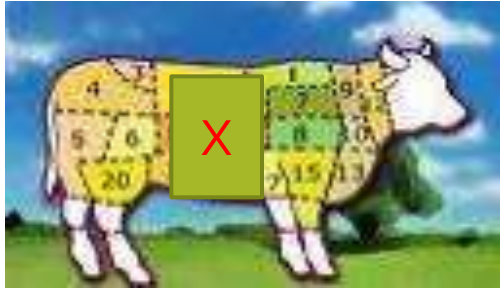
86% of milk is water!

Entomology? Is a solution?

- Entomofágia = „rovarevés”” **eating insects**”,(entomology)
- Increasing demand
- 2 billion people, source of protein
- 113 countries
- More than 2000 species



Sustainable food supply: less products of animal origin



Type	Total calorie	Animal origin calorie	%
Western	3500	1400	40
Mediterranean	3400	900	26
Poor	2000	80	4

Type of diet	Necessary land
Vegetarian	500 m ²
Dominant vegetarian	700 m ²
Western	4000 m ²
Riche in meat	7000 m ²

FAO

Source: Martine Padilla IAMM

Some important indigenous breeds

Hungarian grey cattle

- Excellent meat quality
- Perfectly adopted to the extensive cattle farming in Hungarian climate



Mangalica pig

- Special quality meat
- Almost extincted in the 70's
- 3 types:
 - Blond
 - Red
 - Swallow-bellied



Sheeps

- Racka - most ancient
2 types:
 - Hortobágy racka sheep
 - Gyimes racka sheep
- Cikta sheep
- Tsigai (Cigája) sheep

Almost extincted, but survived due to the state gene conservation program



Looking towards the future

Besides state subsidy, private cooperation is necessary because these breeds are essential in:

- Keeping national identity
- Economic value laid in those genetic potential
- Education
- Arts
- Providing aesthetic value

Summary

Why to insist indigenous breeds in 21st century?

- One reason is the same why we protect old buildings, folklore, old artifacts
- From another point of view human kind is curious about the past
- It also has practical benefits
- Last but not least: We are proud of them

***Biodiversity:
our food supply depends on it ?***





Thanks for your
attention!