Failures of Common Agricultural and other Union's Policies to increase Supply of Plant Protein in the EU and Possible Solutions

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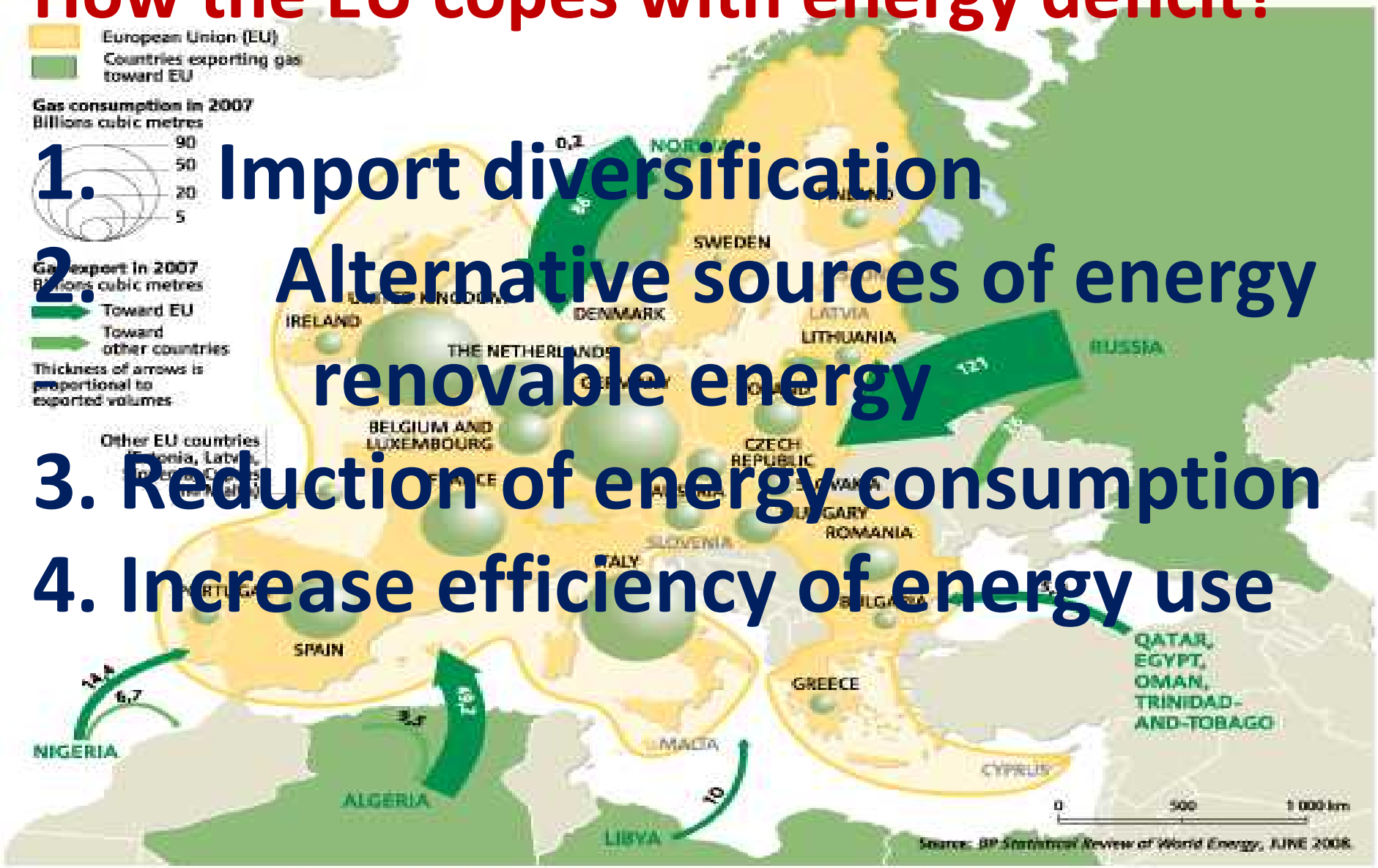
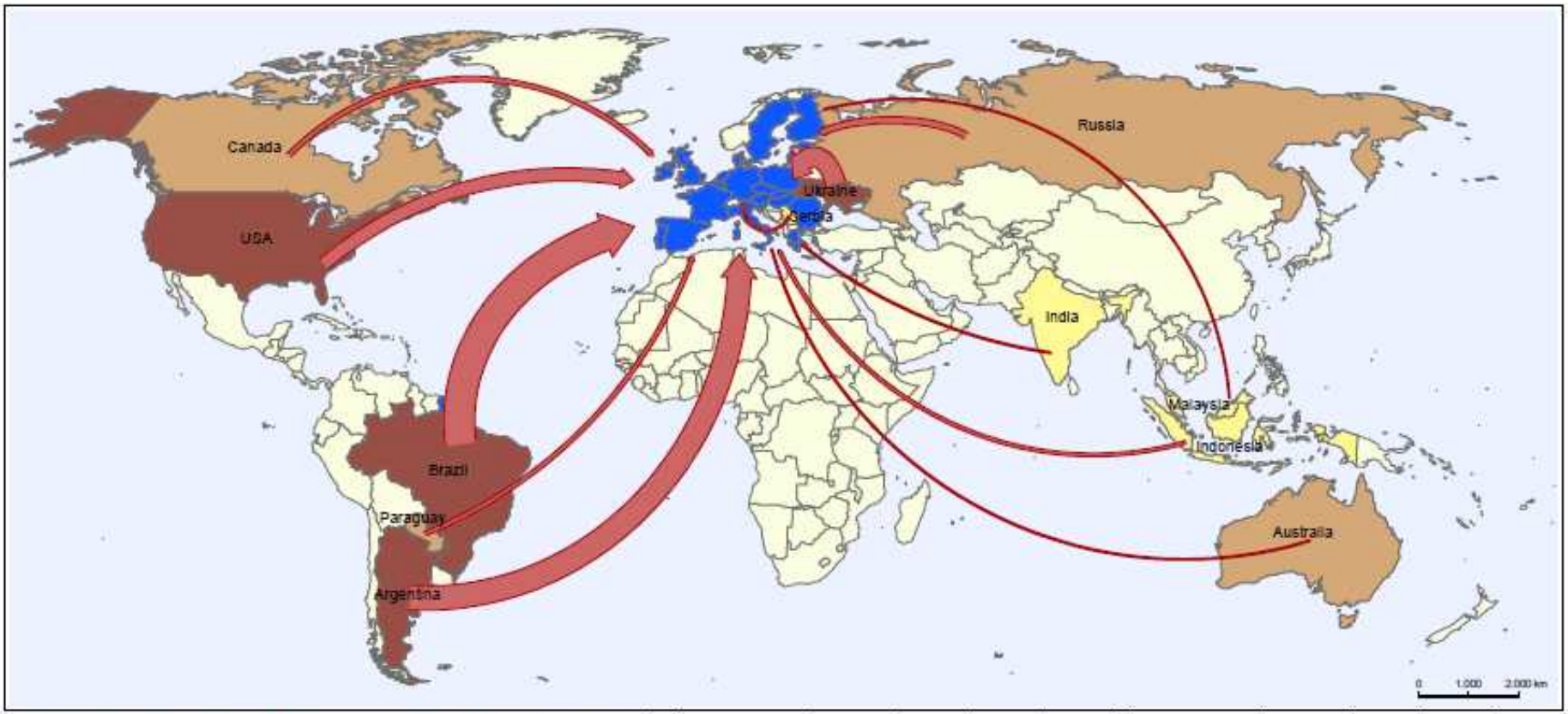
EU Energy dependency on import

How the EU copes with energy deficit?



1. Import diversification
2. Alternative sources of energy renovable energy
3. Reduction of energy consumption
4. Increase efficiency of energy use

EU27 ANIMAL FEED IMPORT 2010 - 2014



Countries and territories representing 80% of the total quantity of EU exports (minimum 1%)

- 2500 Ktons
- 5000 Ktons
- 10000 Ktons

Value of EU exports for countries

- > 2000 M€
- 500 - 2000 M€
- ≤ 500 M€
- Not Included

Source: Eurostat - COMEXT
Cartography: DG AGRI GIS-Team 06/2015

Map Projection World: Eckert III - Map Scale 1:110.000.000

Note : The borders of the map does not necessarily represent the official position of the EU. The map has only a statistical value.

Imports to	Qty (Ktons)	Qty (%)	Val (M€)	Val (%)
Brazil	14892.35	25.62	5670.28	28.24
Argentina	11538.03	19.85	3919.66	19.52
Ukraine	9589.44	16.5	2555.86	12.73
USA	6429.57	11.06	2304.99	11.48
Russia	3091.74	5.32	775.99	3.86
Canada	2349.55	4.04	927.32	4.62
Paraguay	2034.48	3.5	928.28	4.62
Indonesia	1717.04	2.95	230.56	1.15
Serbia	1144.42	1.97	222.25	1.11
India	909.96	1.57	345.6	1.72
Australia	862.89	1.48	732.56	3.65
Malaysia	706.93	1.22	95.05	0.47

..estimated rise in the world's population would require

increasing food production and supply by

between 60% and 110 %, ……

REPORT on technological solutions *for sustainable agriculture in the EU (2015/2225(INI))*

Committee on Agriculture and Rural Development

Rapporteur: ***Anthea McIntyre***

European Parliament 2014-2019 Plenary sitting A8-0174/2016

Presentation

1. Significance of Agricultural Policies in solving plant protein deficit

2. Why the UE has the problem with plant protein supply?

3.Sugested solutions

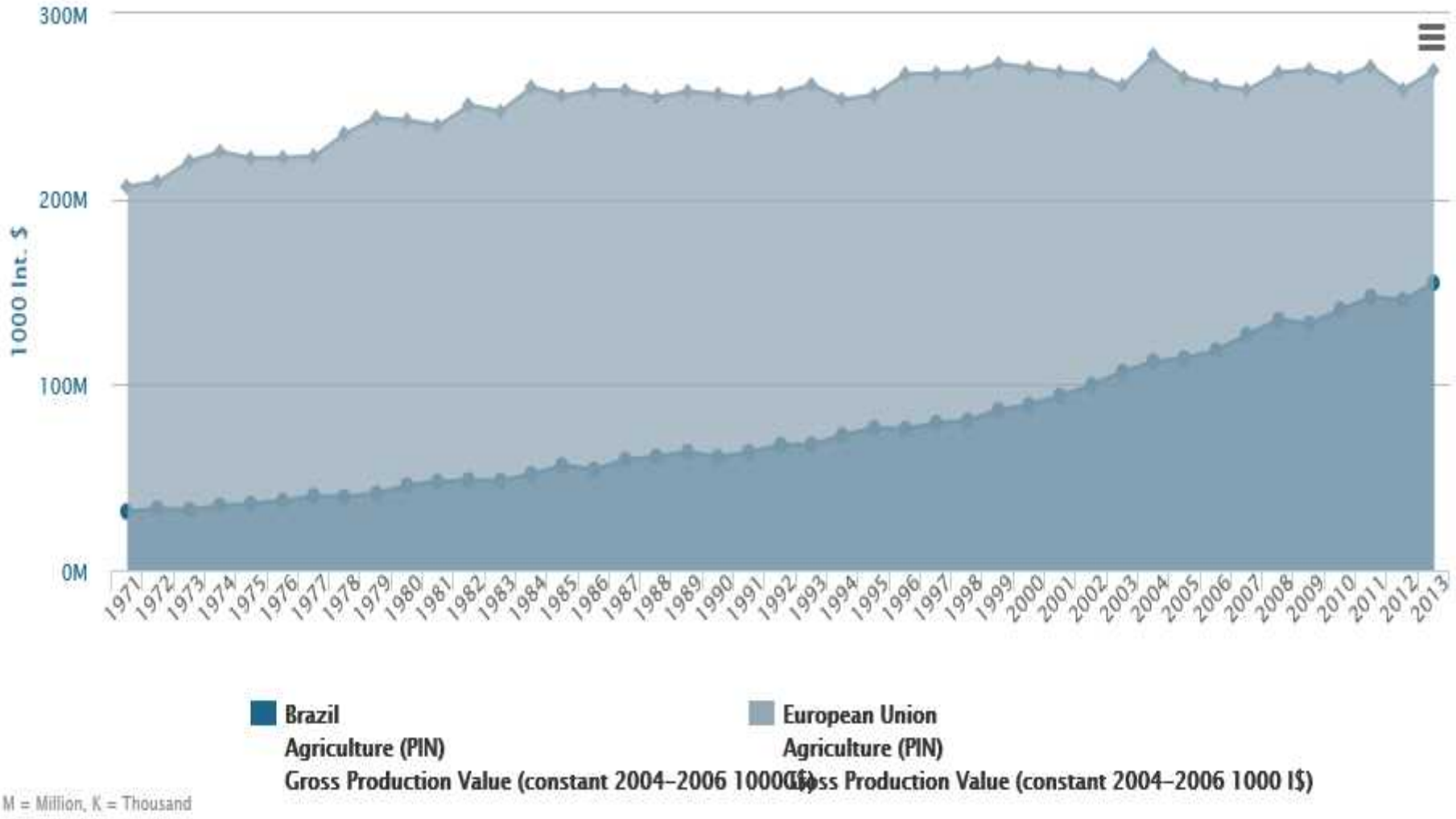
4.Conclusions

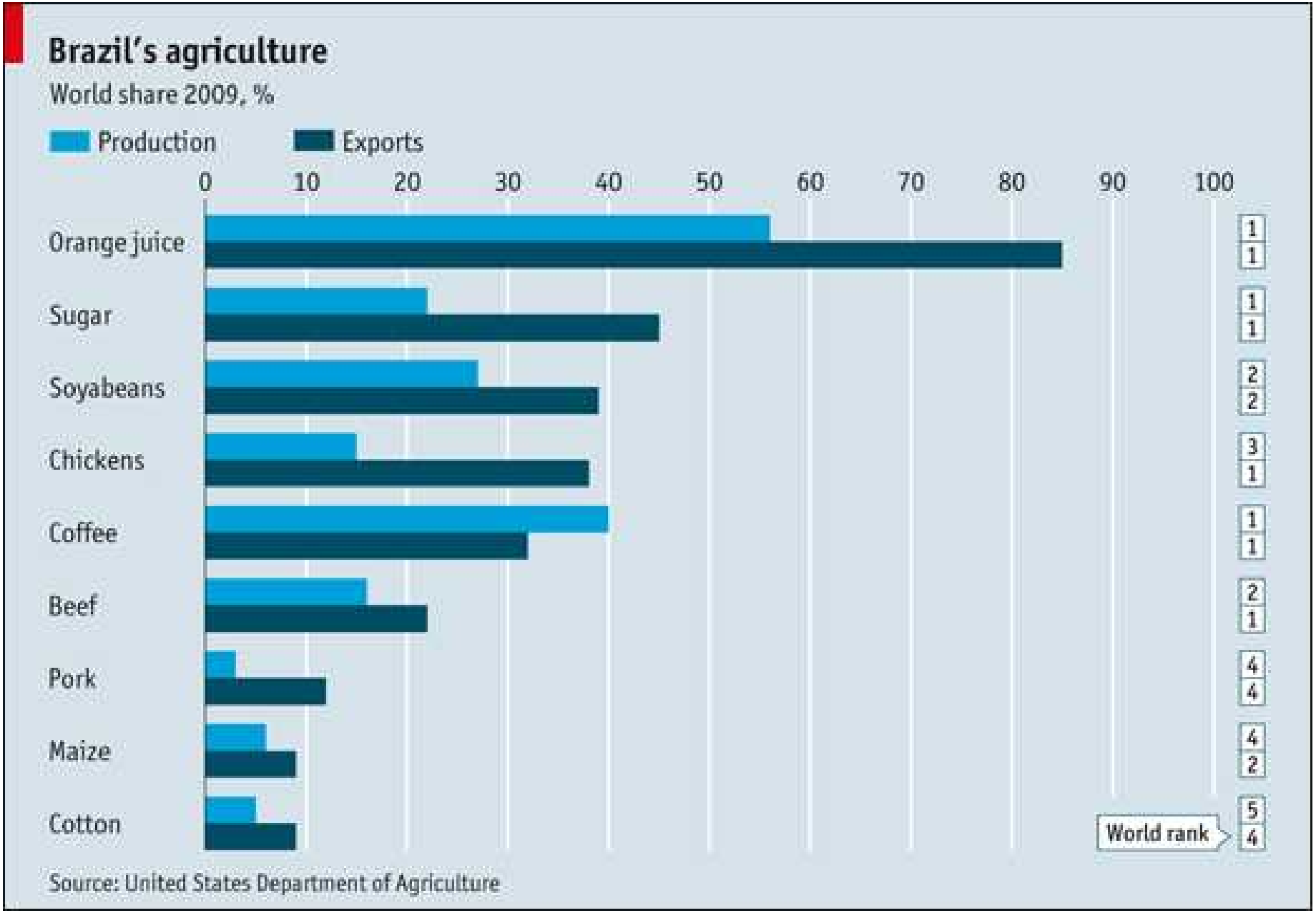
Agricultural Policies

EU vs Brazilian

Agriculture Gross Production Value

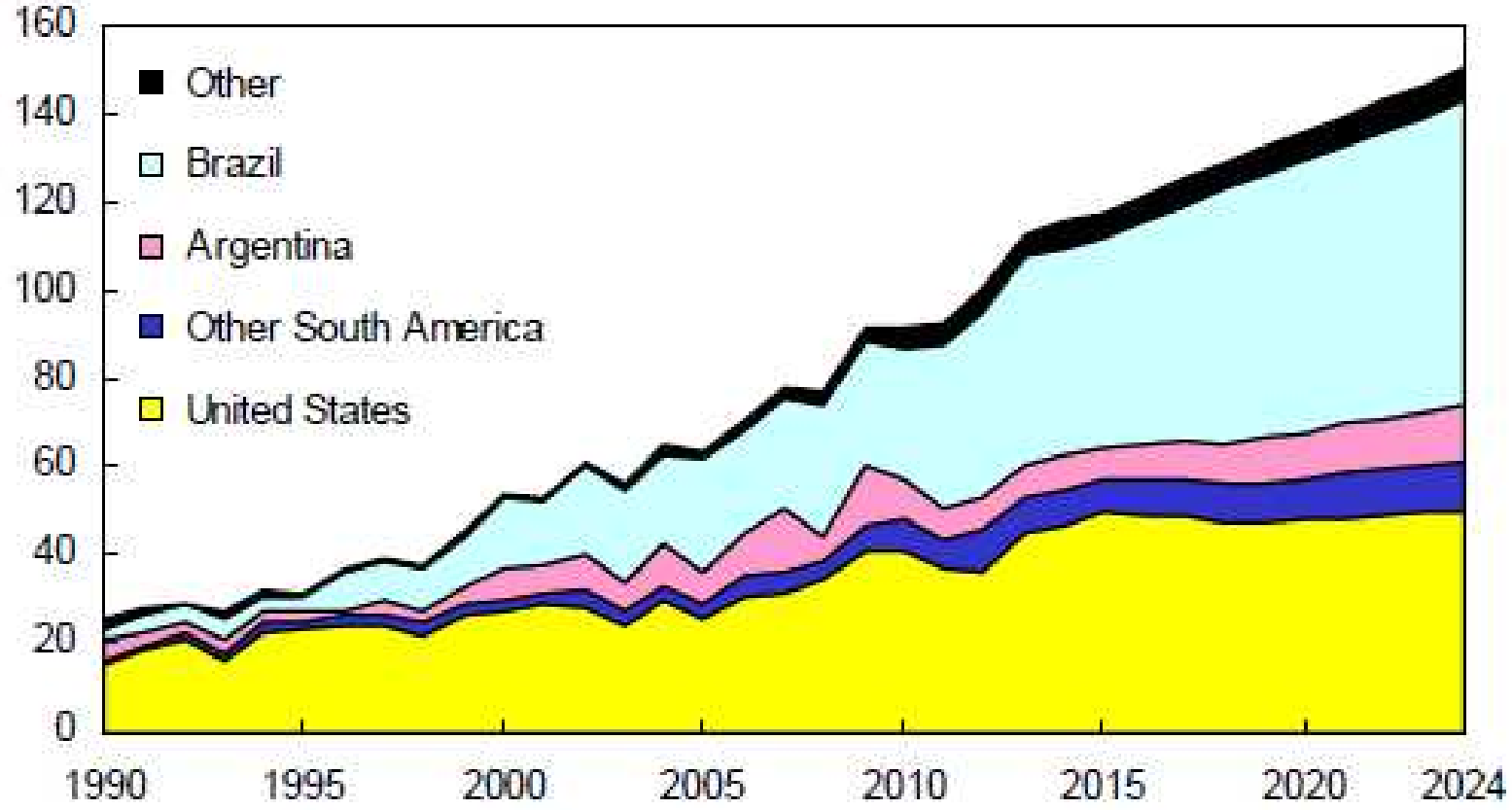
EU vs Brazil




Brazil's agriculture
World share 2009, %
Production
Exports
0
10
20
30
40
50
60
70
80
90
100
Orange juice
Sugar
Soyabeans
Chickens
Coffee
Beef
Pork
Maize
Cotton
1
1
1
1
2
2
3
1
1
1
2
1
4
4
4
2
5
4
World rank
Source: United States Department of Agriculture

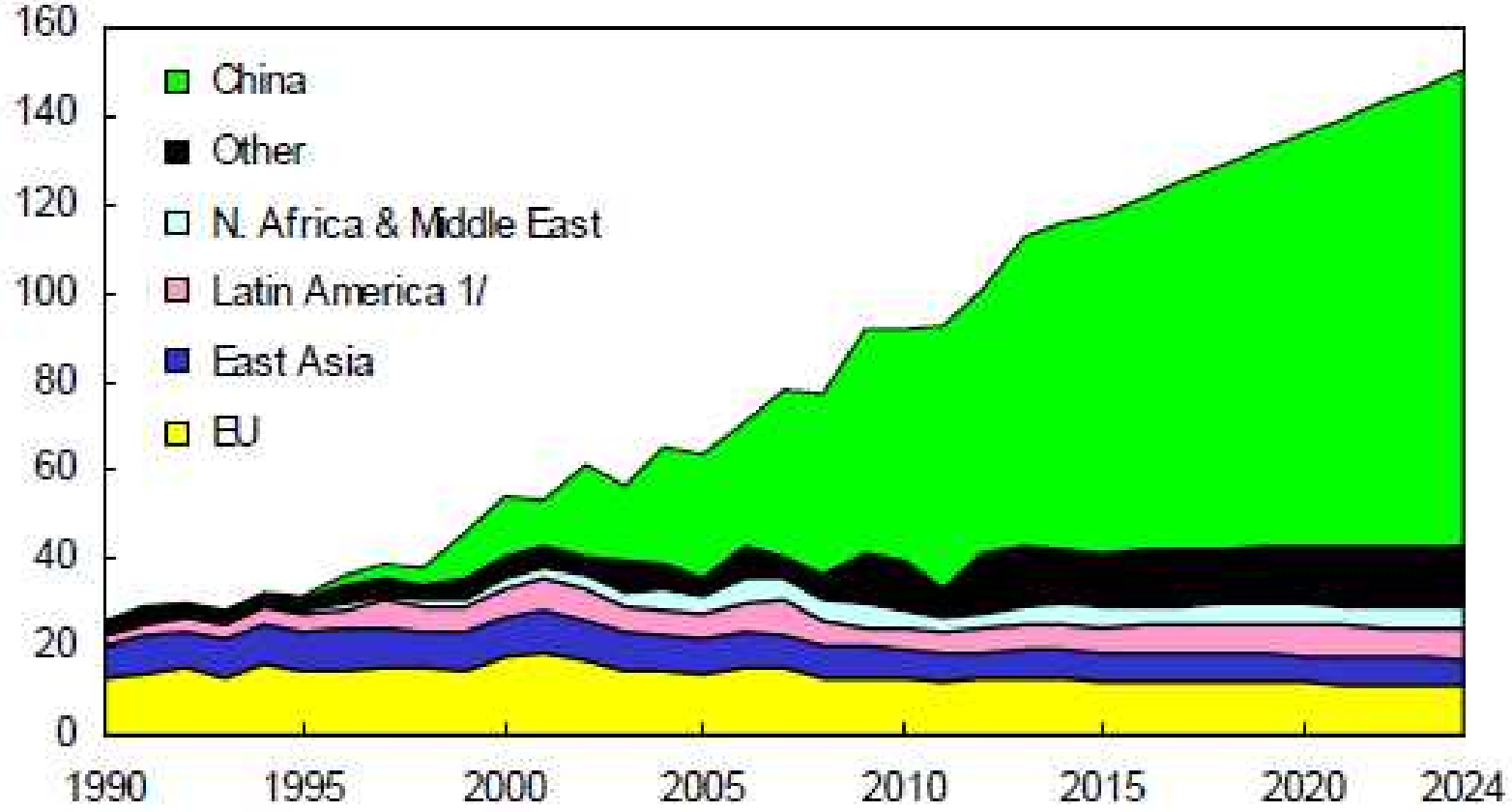
Global soybean exports

Million metric tons



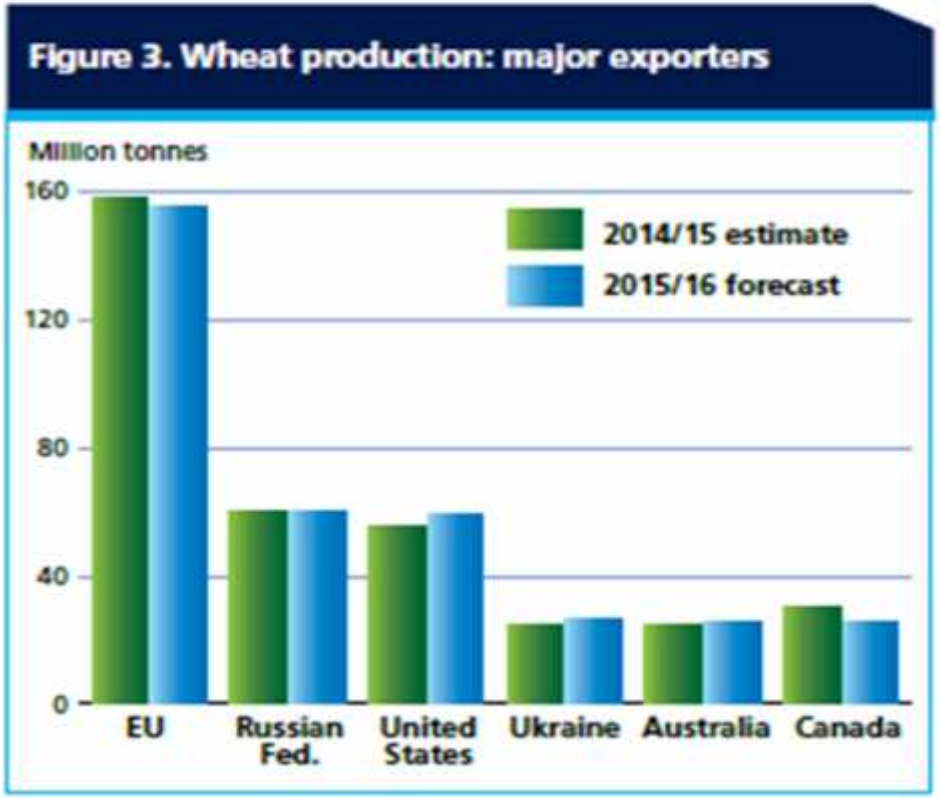
Global soybean imports

Million metric tons



1/ Includes Mexico.

…..why the UE has the problem with plant protein supply?



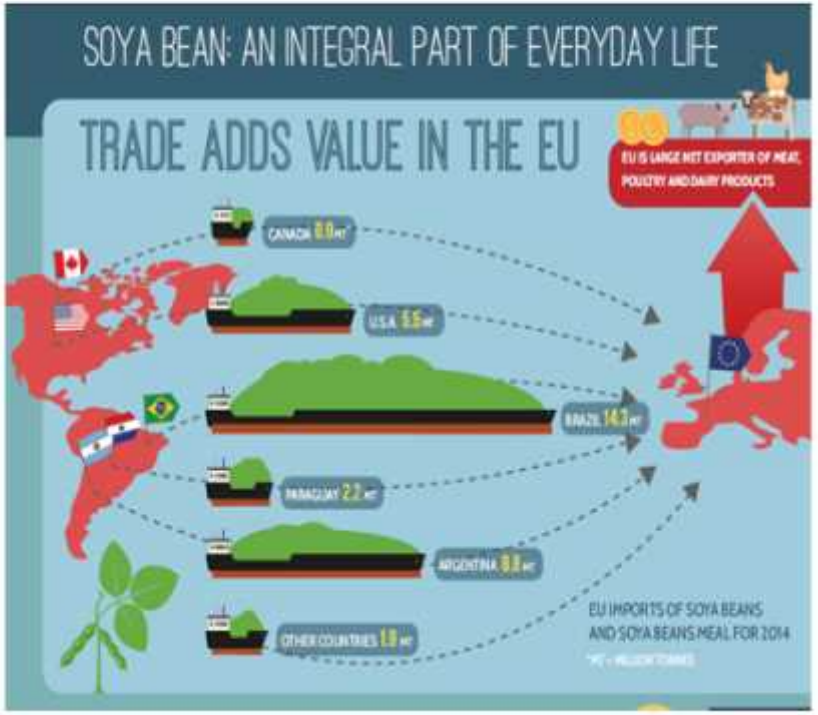
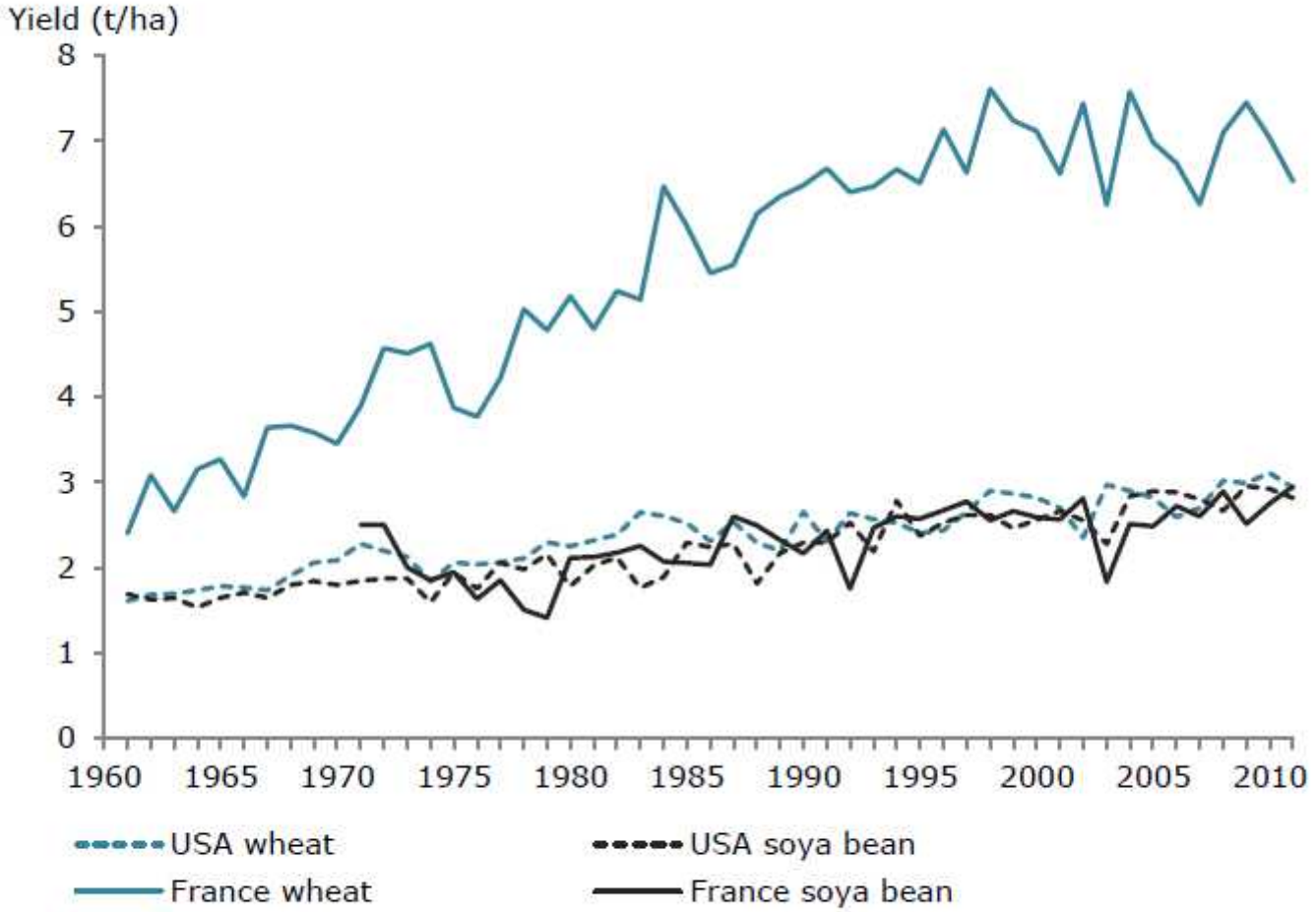
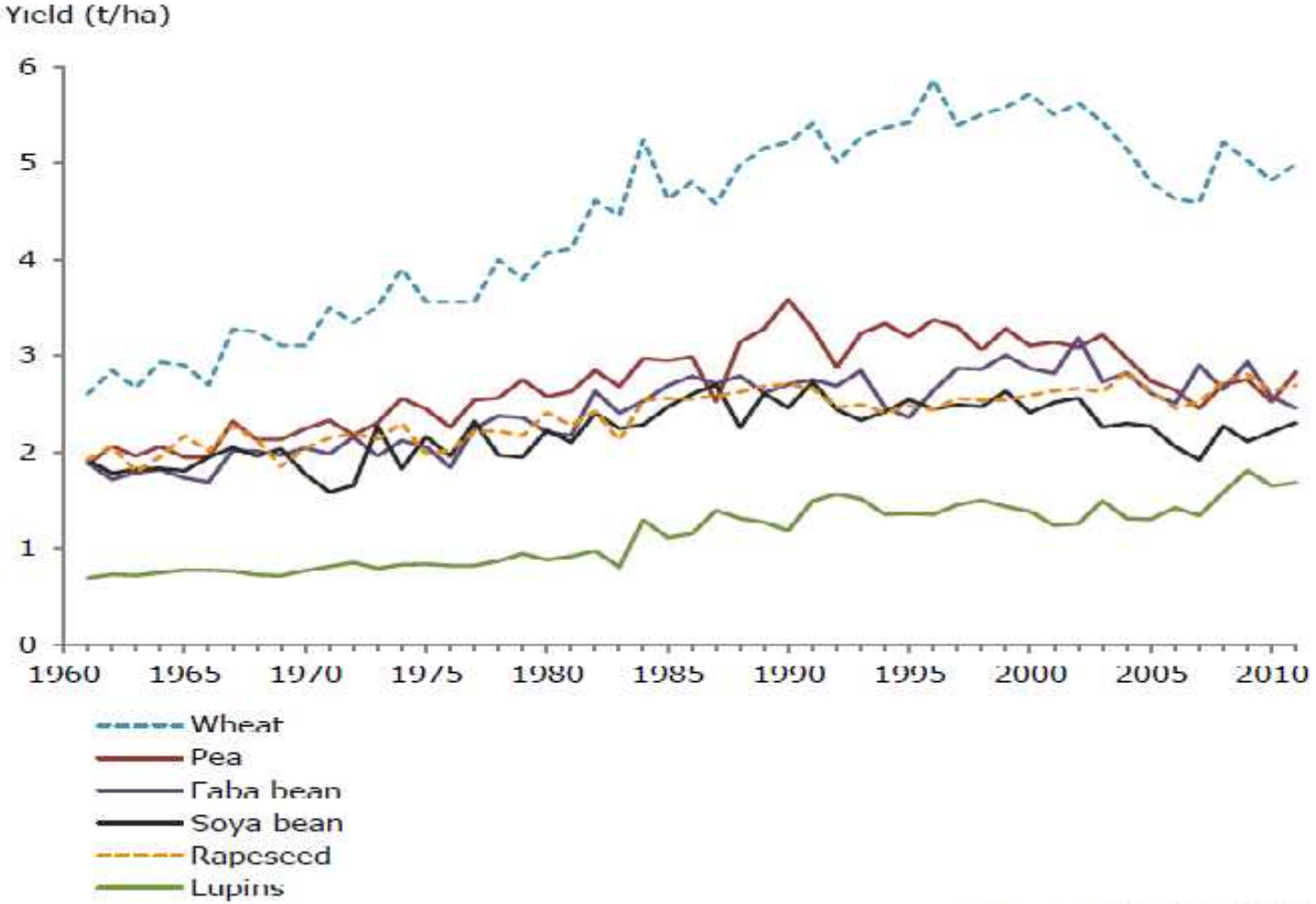


Figure 6: Yields of wheat and soya bean in the USA and France (1961 – 2011)



Source: USDA National Agricultural Statistics Service (2013), and EUROSTAT (2013)
France represents an example of EU production.

Figure 5: Average yields of wheat and the main grain legumes in the EU-27 (1961 – 2011)



Source: FAOstat (2013)

are protein crops in the EU
the orphant crops?

EU Agricultural Outlook.
Prospects for EU agricultural markets and income 2015-2025. Report.
Agriculture and Rural Development, December 2015, page 30.

While popular in the past, **protein crop production**

has decreased considerably in the last two decades (- 1,4% of total crop area),
mainly because of:

- **economic unattractiveness**
and comparatively low yields,

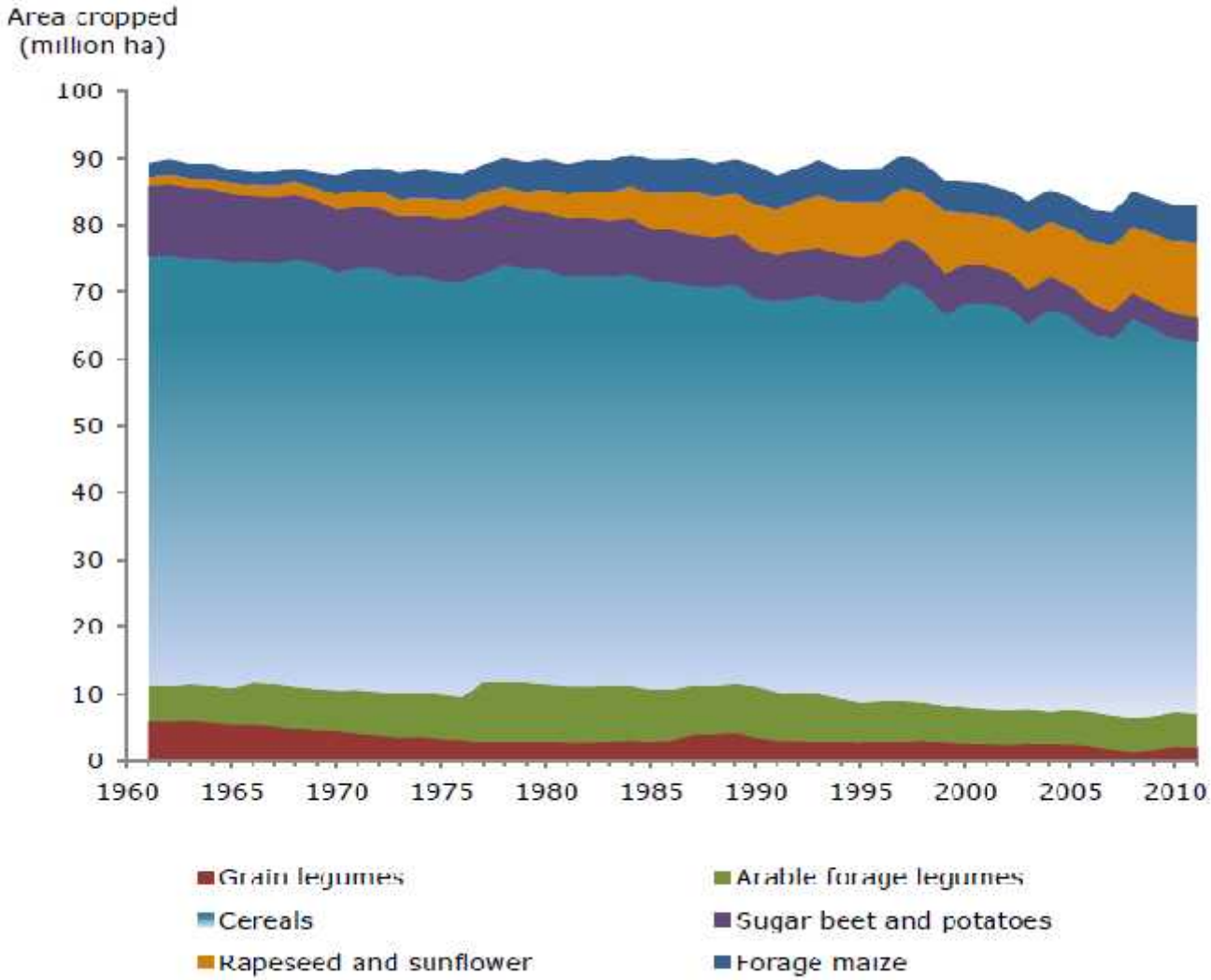
but also duty-free imports of protein crops and oilseeds,
mandatory set-aside and other policy changes,

and a **lack of research and extension projects**.

Protein crops production

has decreased considerable in the last two decades in terms of a % of production area

Figure 2: Change in areas of production of key arable crops in the EU-27 (1961 – 2011)



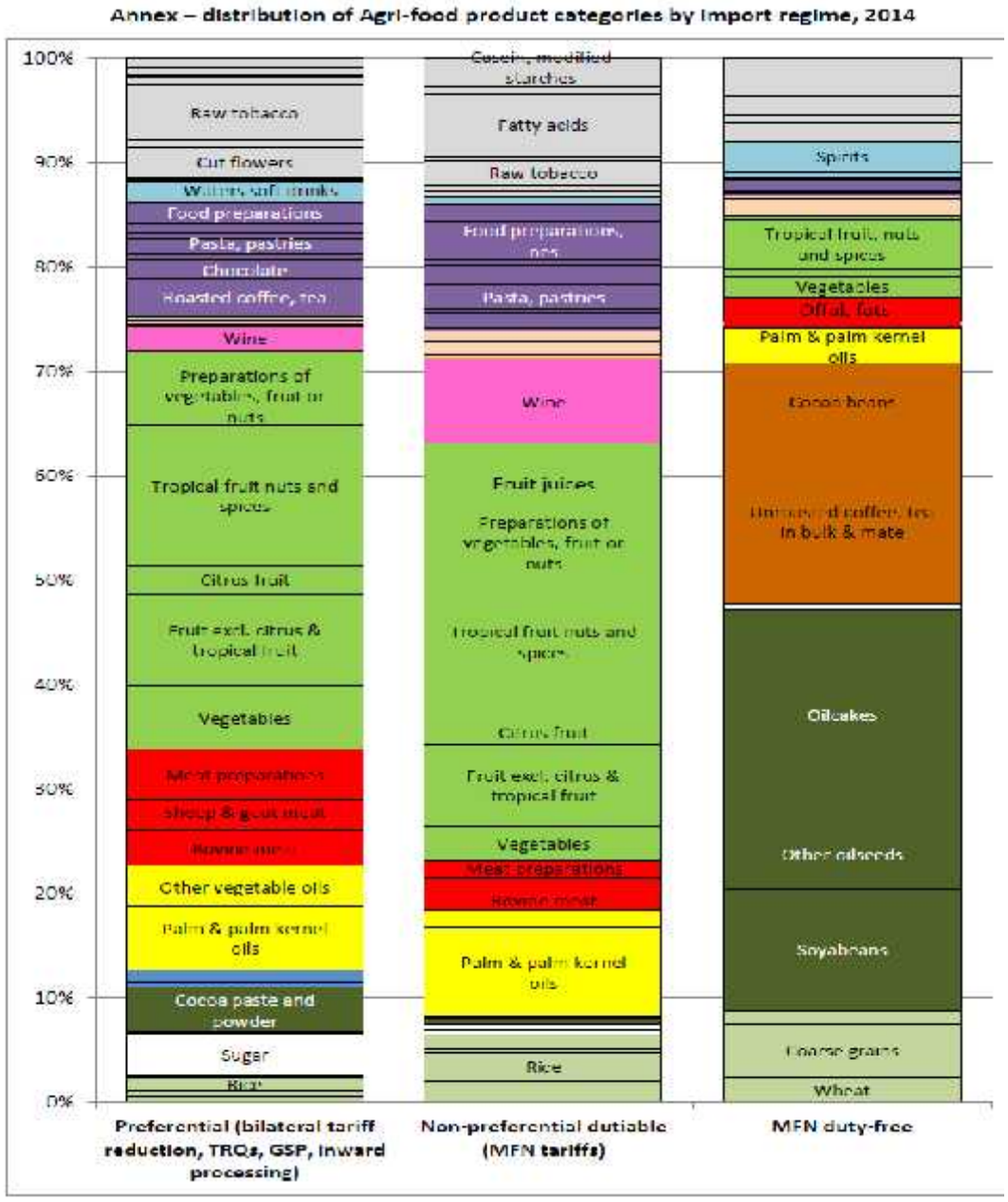
Source: FAOstat (2013). Pre-1992 data do not include data on crops grown in the Czech Republic, Estonia, Latvia, Lithuania, Slovakia, and Slovenia.

- economic unattractiveness

as Nobel Prize Laureate in Economics in 1979 – Theodor William Schultz used to say

- farmers are able to convert sand into the gold if economic conditions are right

Duty free imports - the single most important impediment



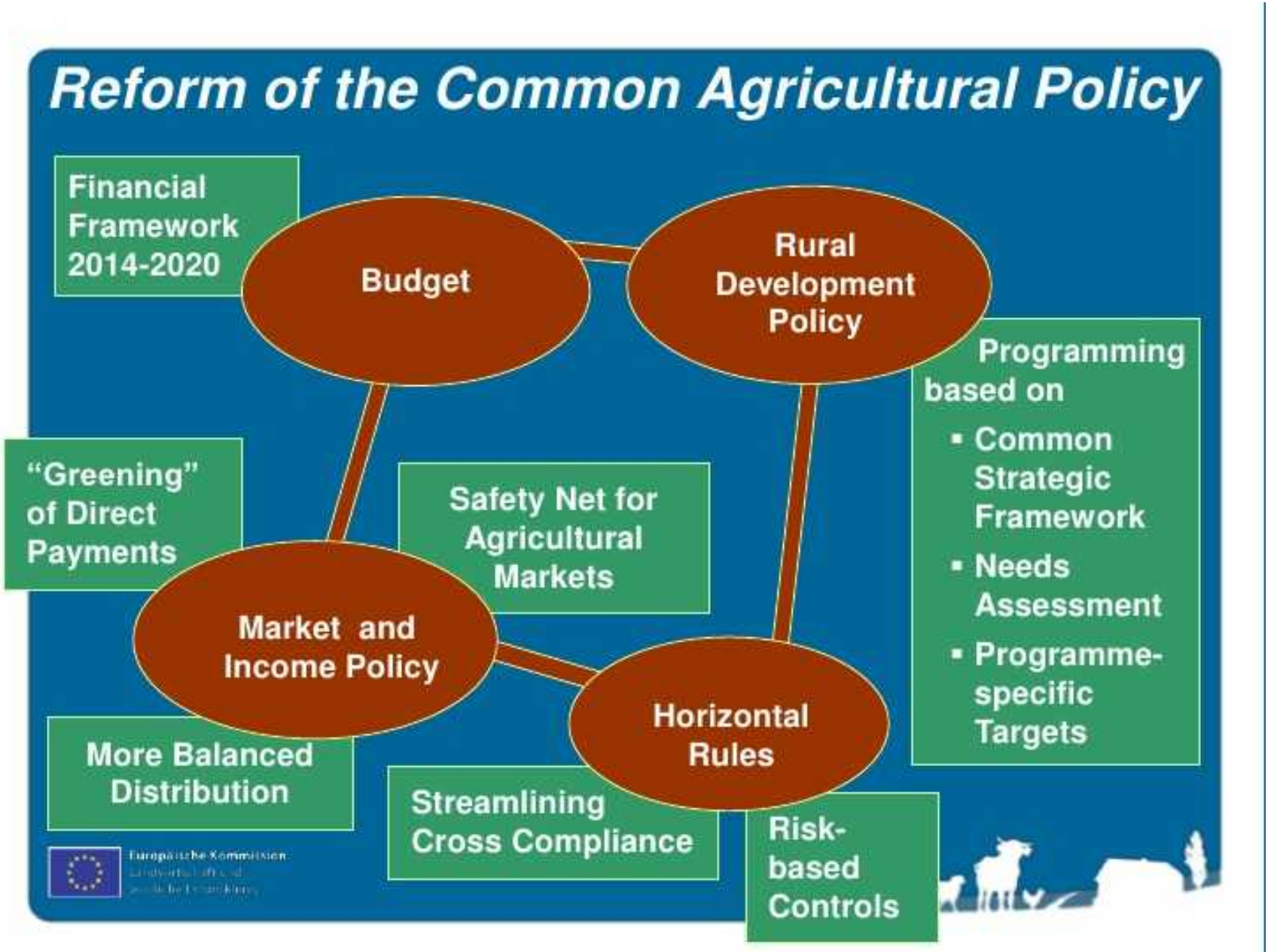
The bulk (65%) of **EU duty-free imports** in 2014 (in value) were following commodities:

oilcakes essentially from Brazil and Argentina (two thirds of EU imports) but also from Ukraine, Russia, the US and Paraguay;

soybeans from Brazil and the US and other

oilseeds from Australia, Ukraine, Argentina, the US and China

Mandatory set-aside and other policy changes




EIP-AGRI Network
2015
research and extension projects

Most relevant programmes/projects related to protein crop production

Project	Period	Sum
PROTEIN2FOOD: "Development of high quality food protein through sustainable production and processing" (project number 635727)	March 2015 – February 2020 (project ongoing)	8, 817,637,5 Euros
SFS-26-2016: Legumes – transition paths to sustainable legume-based farming systems and agri-feed and food chains	Budget year 2016	5,000,000,0 Euros
SFS-44-2016: A joint plant breeding programme to decrease the EU's and China's dependency on protein imports.	Budget year 2016	5,000,000,0 Euros

Some of suggested solutions on how to increase supply of plant protein in the EU by:

1. Incresed plant protein production through:

a/ biological diversification
b/ novel economic incentives

2. Futher diversification of import

RANGES OF SEED PROTEIN CONTENT (% d.m.) IN LEGUME SPECIES

Species	Protein content	
	Minimum	Maximum
Cicer arietinum	14.9	29.6
Glycine max	34.8	40.5
Lens esculenta	25.0	29.3
Lupinus albus	17.0	38.7
Phaseolus vulgaris	17.0	39.4
Pisum sativum	15.5	39.7
Vicia faba	22.0	37.0

Fisheries

Regional Development

Transport and Tourism

THE ENVIRONMENTAL ROLE OF PROTEIN CROPS IN THE NEW COMMON AGRICULTURAL POLICY

STUDY

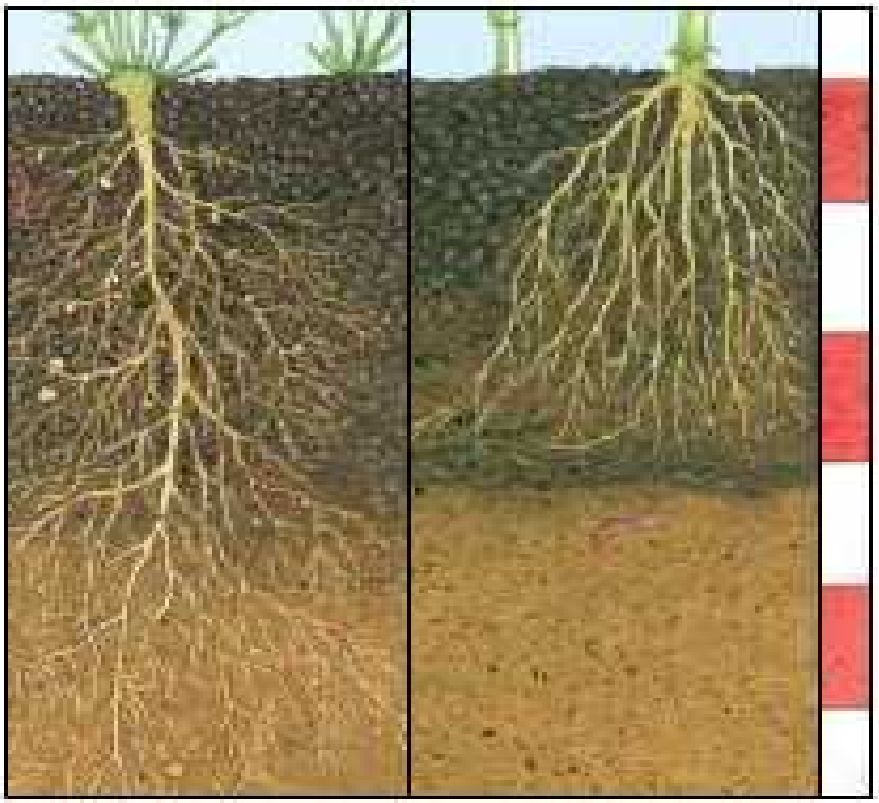
EN FR

2013

b/ novel economic incentives

- **nitrogen fixation compensation scheme**
- **import duties on soybean import**

Figure 14: Root systems of lucerne and maize



Source: Slightly modified from DAFA (2012)

Nitrogen fixation vs nitrogen fertilizer production

Proposition - nitrogen fixation compensation scheme

G. whereas nitrogen fertilisers drive high yields,

but their manufacture accounts for about 50 % of the fossil fuel energy consumed by agricultural production systems;

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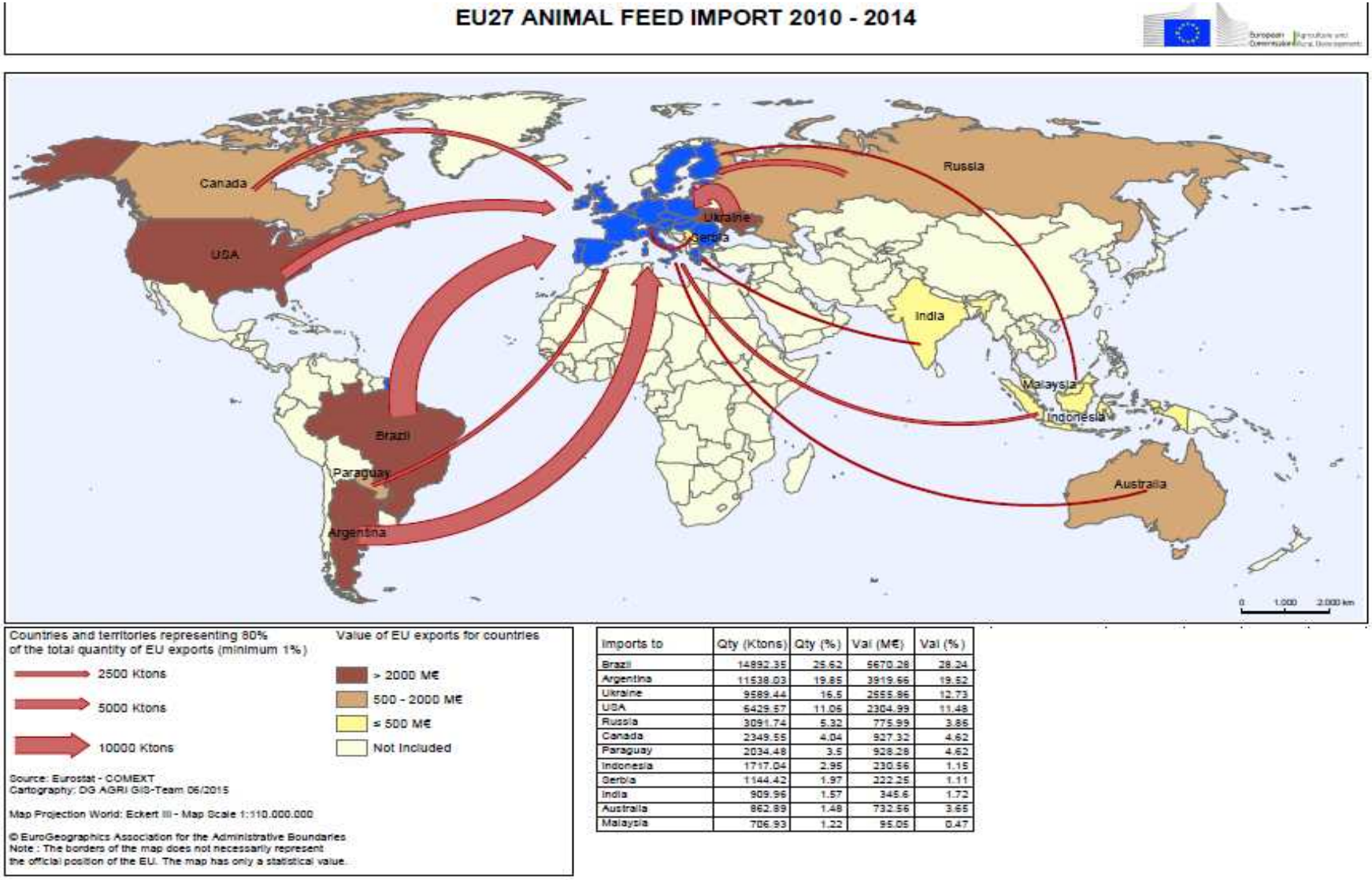
Imposing duties on import of soyabeans/oilcakes

under - „novel industry” case

2. futher diversification of import



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Conclusions

1. Technologicaly
   wheat cultivation = soybean cultivation
2. Main rasons of an unacceptable high level of soybean import by the UE have been identified:
   - duty free import of plant protein
   - realtive low yields of protein crops in the EU
   - lack of adequate research and extension
   - inadequate diversification of import
   - lack of clear political decisions

2. Tools for facing indicated above challenges are available:

but

Is there the enough strong political willingness to solve the problem of high plant protein import dependency in the EU???