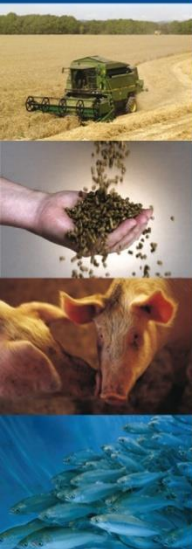


Challenges and future perspectives – Ruminant nutrition and the feed industry



Nicolas MARTIN – Ruminomics workshops
Edinburgh – 10 November 2015

Outline

- FEFAC in a nutshell
- Main drivers
- Challenges for research activities
- How to measure and communicate environmental performance ?



FEFAC in a nutshell

- Created in 1959
- Represents industrial compound feed and premixtures manufacturers
- 33 Members:
 - 24 Member Associations from 23 EU Member States
 - 2 Observer Members (Serbia, Russia)
 - 7 Associate Members (Turkey, Switzerland, Norway (3), EMFEMA, EFFPA)
- 153 mio. t of industrial compound feed in EU-28 in 2013
- 7 Technical Committees to assist the FEFAC Council
 - Animal Nutrition
 - Industrial Compound Feed Production
 - Premix & Mineral Feed
 - Feed Safety Management
 - Fish Feed
 - Milk Replacers
 - Sustainability



Active Members

VFÖ	Austria	1995 (1964)
APFACA/BEMEFA	Belgium	1959
BFMA	Bulgaria	2013
CFIA	Croatia	2013 (2008)
CAFМ	Cyprus	2004 (2003)
SKK	Czech Republic	2004 (2000)
DAKOFO	Denmark	1973
FFDIF	Finland	1995 (1993)
SNIA	France	1959
DVT	Germany	1959
HGFA	Hungary	2012
IGFA	Ireland	1973
ASSALZOO	Italy	1959
LGPA	Lithuania	2005
NEVEDI	The Netherlands	1959
IZP	Poland	2004 (2001)
IACA	Portugal	1986 (1976)
ANFNC	Romania	2014
AFPWTC	Slovakia	2004 (2003)
GZS	Slovenia	2004
CESFAC	Spain	1986
FS	Sweden	1995
LANTMÄNNEN	Sweden	1995
AIC	United Kingdom	1973

[observer as from ...]

Observer Members

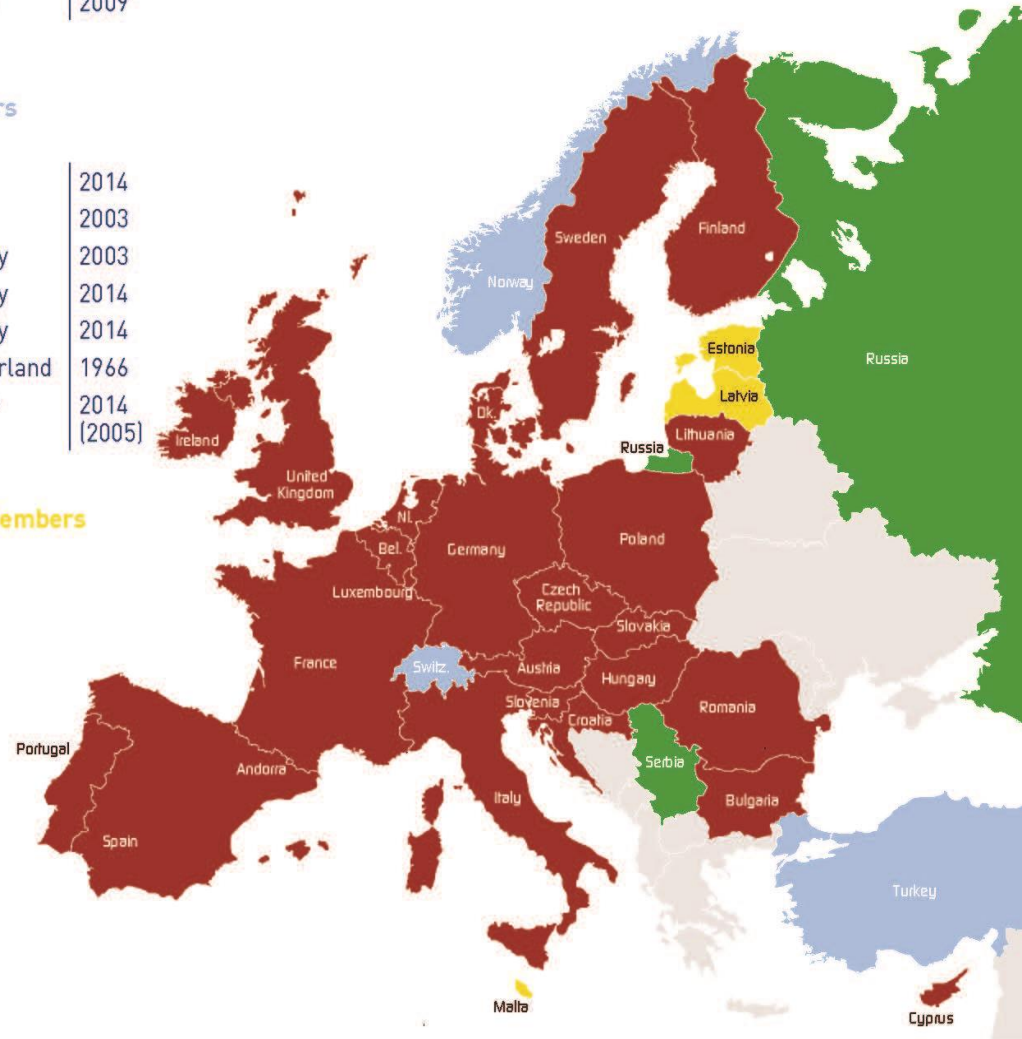
RUFM	Russia	2010
SFMA	Serbia	2009

Associate Members

EFFPA		2014
EMFEMA		2003
NSF	Norway	2003
FKF AS	Norway	2014
Norkorn	Norway	2014
VSF	Switzerland	1966
TURKIYEM	Turkey	2014 (2005)

Potential Active Members

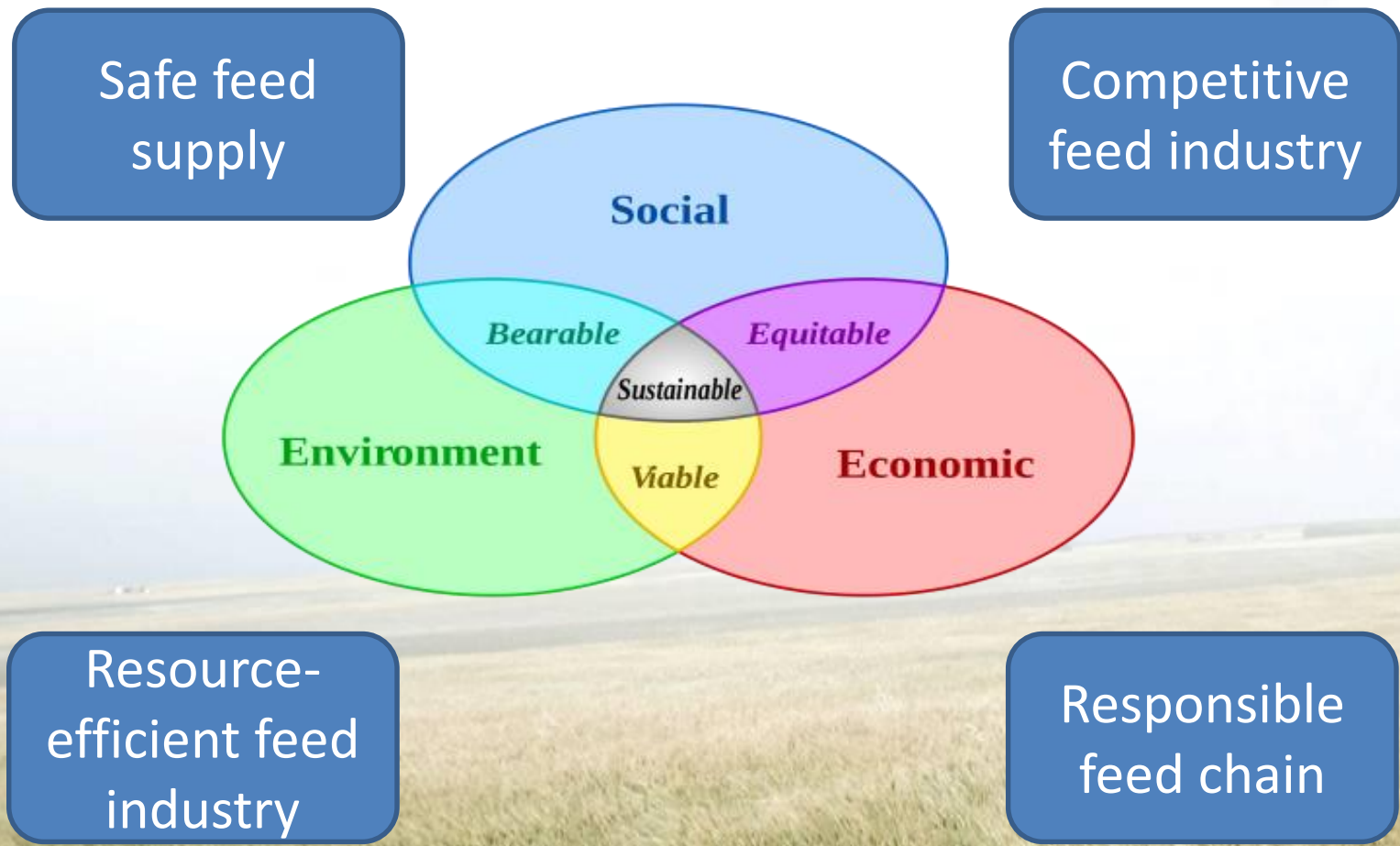
Estonia
Latvia
Malta



The FEFAC mission

- **represent, defend** and **promote** the interests of the European compound feed industry to the European Institutions;
- lobby for a legislative framework and its implementation, **without discrimination** in EU Member States so as to maximise market opportunities for EU compound feed companies;
- safeguard conditions of **free access to raw materials**, the proper functioning of their markets and the definition of their quality;
- **develop professional rules** and **good manufacturing practices including the sourcing of feed materials** that ensure the quality and the safety of compound feed;
- **encourage the sustainable development of livestock production** responding to the market requirements, so as to maximise market opportunities for EU compound feed companies;
- **encourage the development of precompetitive European feed-related Research & Development projects** seeking to enhance the EU feed & livestock sectors competitiveness and capacity to innovate in and/or transfer science and technology based solutions **to improve the sustainability of resource efficient livestock production systems.**

Sustainability for the feed industry



Vision

- The focus of the EU feed industry is based on further increase of resource efficiency
- The feed industry needs to take care of its impact on the environment (social and environmental impacts)



The FEFAC « Credo »

- Products of animal origin from an integral part of the European diet providing key nutritional benefits.
- Nutritionally optimised feed is essential to mitigate the environmental impact of animal products
- Pro-active attitude of the EU compound feed industry



The FEFAC « Credo »

- Promotion of ecologically intensive production systems, resource efficiency
- Changes in diet patterns and composition to reduce emissions
- Improvement of feed efficiency
- Further optimisation of use of co-products
- Harmonization of environmental footprinting methodology
- Facilitation of cross-sector initiatives



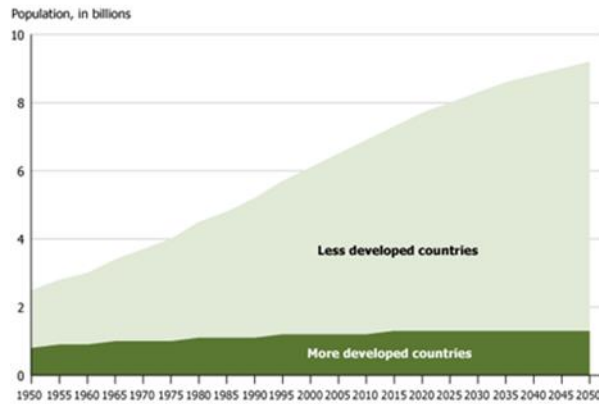
Ambition

- Communicate the contribution of the EU feed industry using reliable figures
- Contribute or take the lead in the development of
 - Criteria defining sustainable supply
 - Environmental footprinting
- Coordinated action towards more sustainable production



The Agricultural business: unprecedented growth potential

World Population Growth, 1950–2050



Source: United Nations Population Division, *World Population Prospects, The 2008 Revision*.

GLOBAL MEAT DEMAND GROWTH ESTIMATES 2010 – 2030

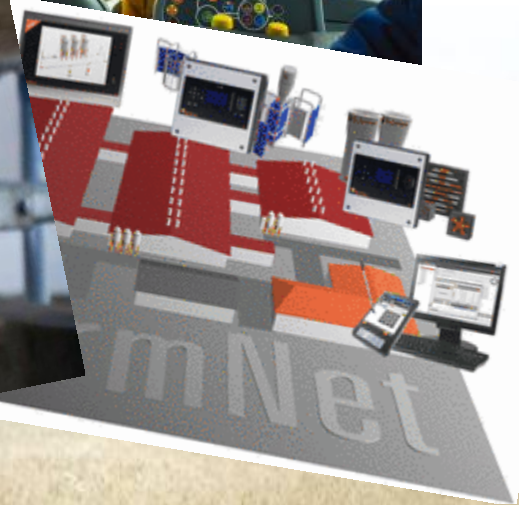


Source: Rabobank (2011)

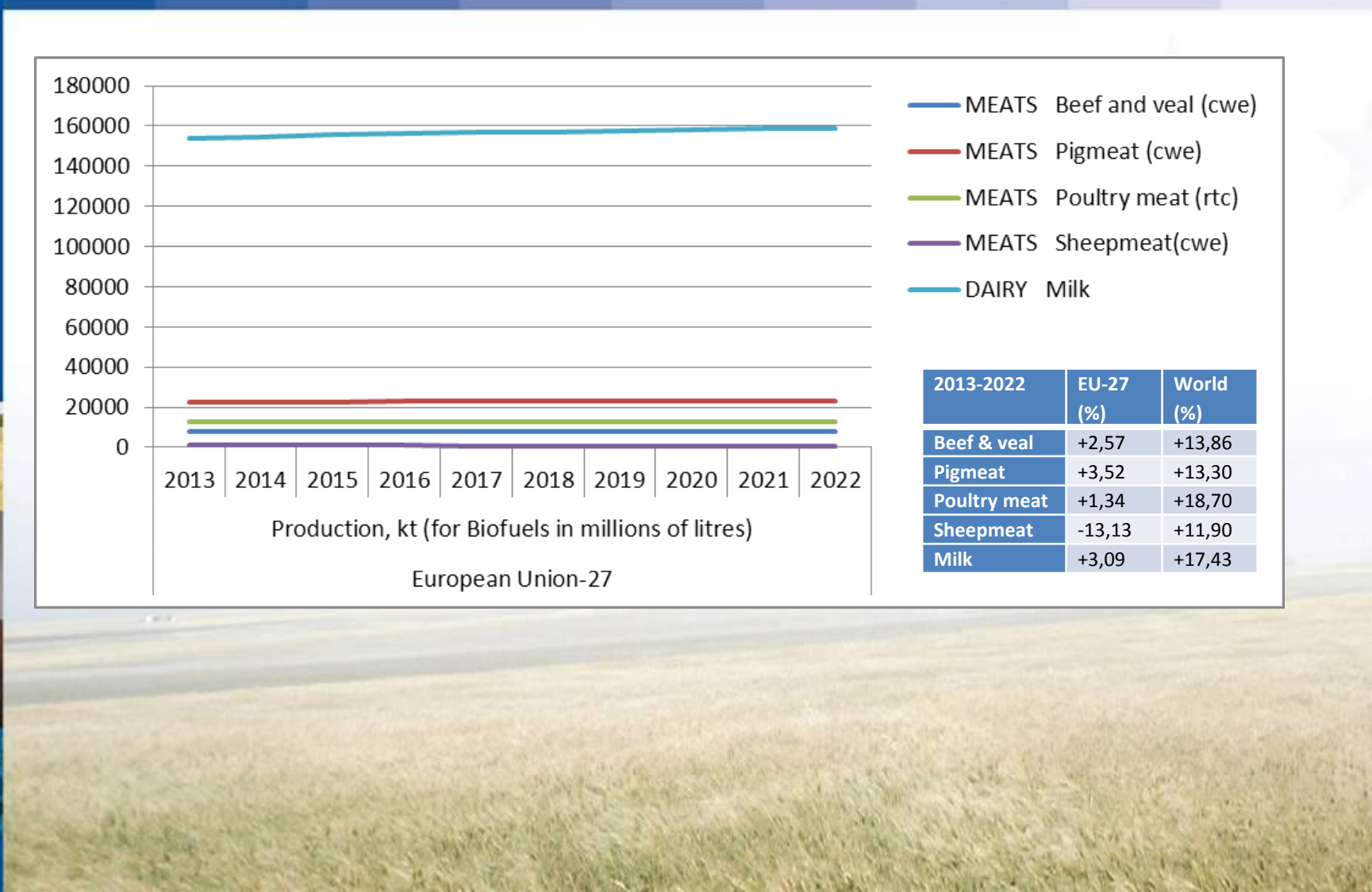
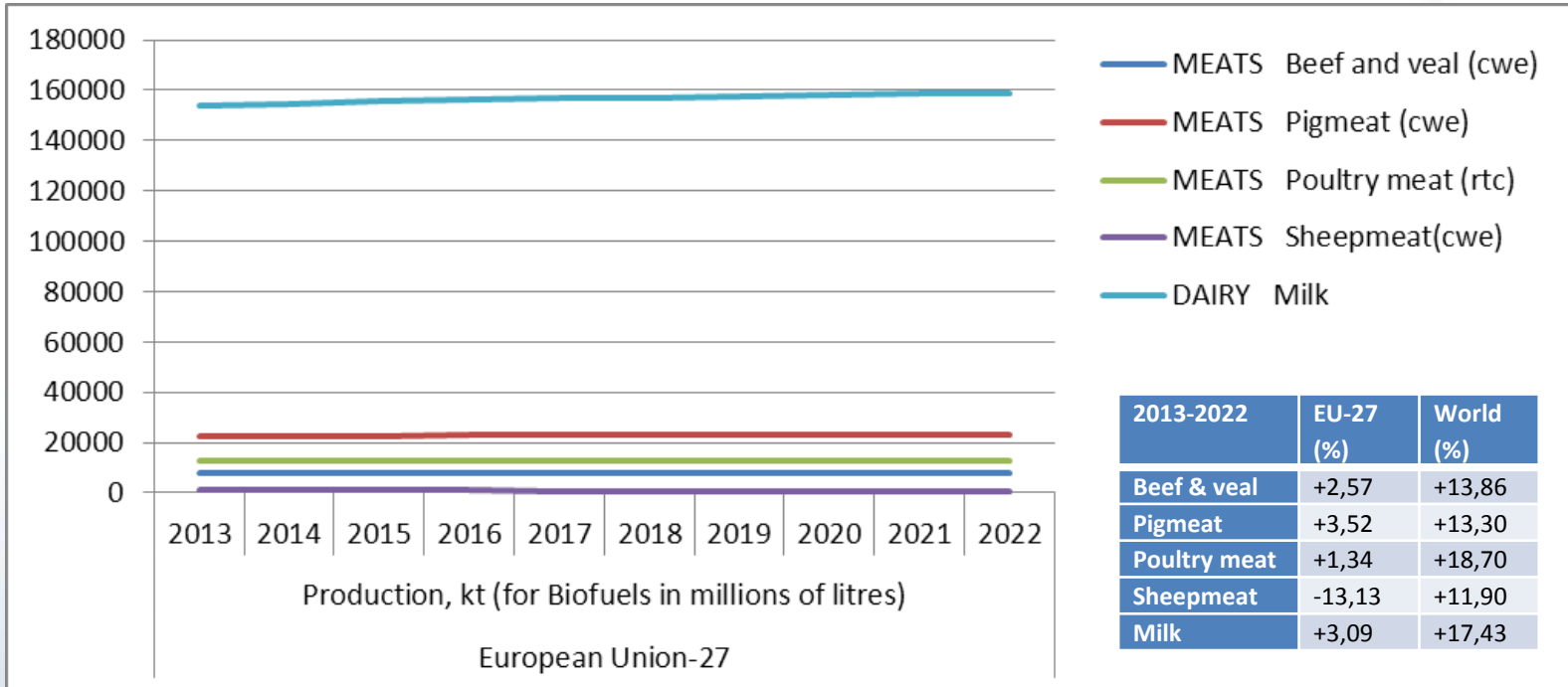




The agricultural business: unprecedented technologies

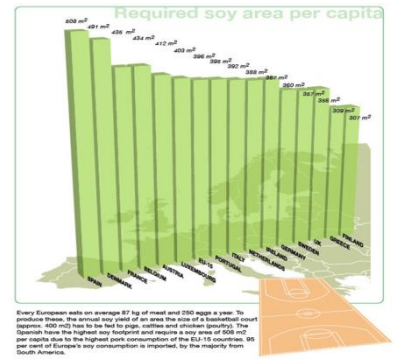


But, in Europe growth expectations are limited



Market drivers: the pressure is growing

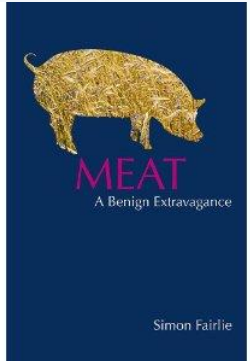
livestock's long shadow
environmental issues and options



Danger CO₂W

Climate change is a real problem and airlines are partly responsible. An average passenger 7% of global CO₂ emissions. But a night's flight is actually less than the CO₂ produced worldwide by coffee.

Nevertheless, we're working hard to limit the environmental impact of flying by investing in more, more fuel-efficient aircraft and pushing for shorter routes and improved air traffic control.



The Cost of Meat

Vegan dish vs. Steak

<p>1 cup broccoli, 1 cup eggplant, 4 oz. cauliflower, and 8 oz. rice Calories: 320</p>	=	<p>0.0098 gallons of gasoline equivalent</p>
<p>6 oz. beef steak Calories: 320</p>	=	<p>0.1587 gallons of gasoline, 16 times as much as the vegan dish</p>

GHG-emission and productivity

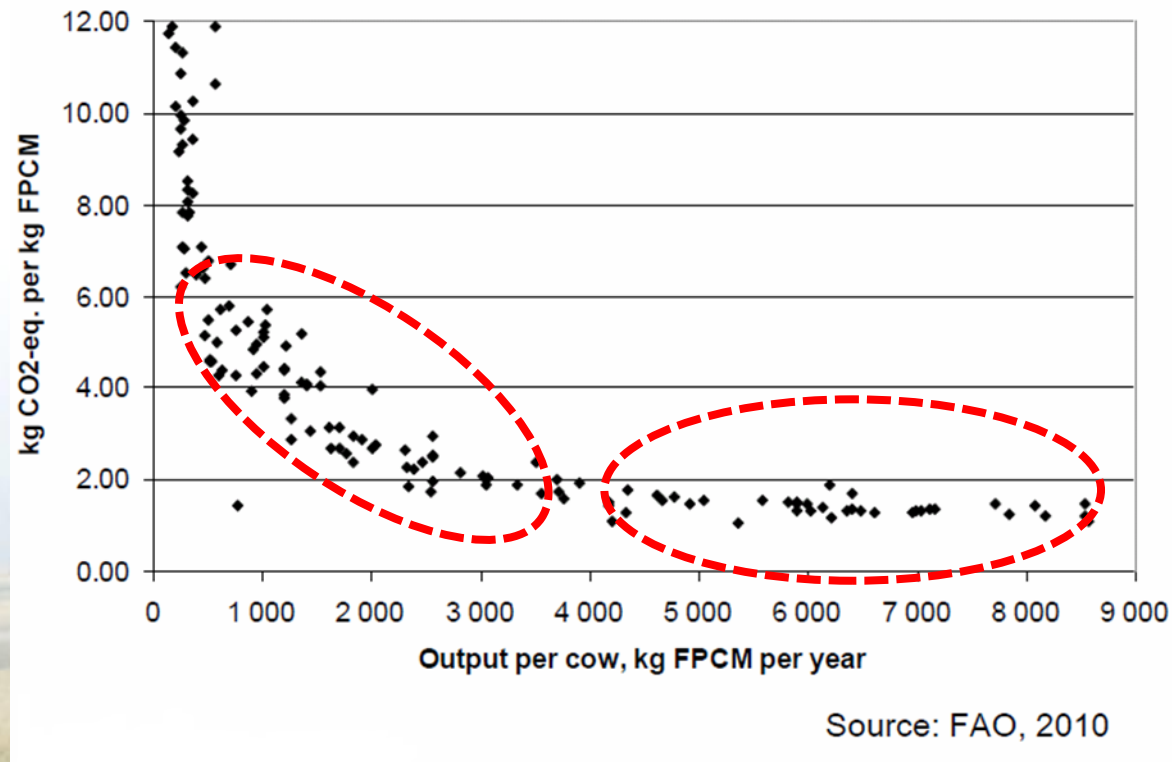




Image gap and relationship with progress



Societal acceptance will lead to new production chains ...

Vitrine

Nummer 3 • november 2012



2 'De buitenlandse markt voor duurzaamheid is nog klein'

3 'Schaalvergroting is de opening naar de toekomst'

4 'Niemand kan zonder techniek'

De kip van morgen komt eraan

Voor hoerastemming is het nog te vroeg, maar het initiatief van de pluimvee- en de supermarkten om in gezamenlijkheid te komen tot een heldere definitie en afspraken over de duurzaamheid van pluimveevlees, wordt breed toegejuicht. De eerste oriënterende besprekingen zijn inmiddels gevoerd. 'De Kip van Morgen' is een kwestie van tijd.

'De Kip van Morgen' is in zekere zin een voortzetting van het convenant Tussensegment Pluimveevlees, waarin de pluimvee- en de supermarkten de retail afgesproken hebben om het tussensegment tussen gangbaar en biologisch te vergroten. In dat tussensegment van vlees met een dierenwelzijn-plus is inmiddels voorzien met producten als de Volwaardkip en het Gildehoen. De consument kan kiezen. De supermarktketens hebben nu uitgesproken dat ze in 2020



in beweging komen', tekent Dellaert hierbij aan. Resultaat voor de Nederlandse markt is snel te boeken. Zelfs zonder extra investeringen. 'De bezettingsgraad bijvoorbeeld zou zo naar beneden kunnen. Nu gebeurt dat niet, omdat retailers niet aangeven dat ze dat willen. Alleen komt dan wel het bedrijfseconomisch rekenmodel er heel anders uit te zien. De pluimveehouder

Innoveren in duurzaamheid

Een begrip als duurzaamheid is een mooie prikkel tot vernieuwing. Duurzaamheid is een uitdaging. Een doel om na te streven. Een uitnodiging tot innovatie. Dat geldt in zekere zin ook voor de uitspraak van onze retailers, dat in 2020 alle vlees in het schap duurzaam moet zijn. Duurzaamheid is een complex begrip. Zeker in de veehouderij. Het gaat hierbij in essentie immers om de borging van dierenwelzijn, een voedselveilig eindproduct én een rendabele productiewijze met een lage milieudruk. De combinatie dierenwelzijn-milieu is een moeilijke. Klezen voor het ene, is (een beetje) verliezen op het andere.



Hoe krijg je een kip die maximaal scoort op alle aspecten van duurzaamheid? Dat is een vraag aan de sector die alleen met een geïntegreerde aanpak te beantwoorden is. Innovaties zijn daarbij onontbeerlijk. Vanuit die doelstelling zal uitgezocht moeten worden wat precies nodig is. Ander voer? Andere stalssystemen? Andere ras-

- New sustainable chicken:
- 25% Dutch market
 - Slow growth
 - Low in antibiotics
 - Responsible Soya
 - Long term: increase European raw materials





Institutional drivers

- EU 2020 strategy
- International negotiations on climate change



EUROPE 2020 Strategy

key priorities

- **Smart growth** – developing an economy based on knowledge and innovation
- **Sustainable growth** – promoting a more resource-efficient, greener and more competitive economy
- **Inclusive growth** – fostering a high-employment economy delivering economic, social and territorial cohesion



EUROPE 2020 Strategy - Flagship initiative “Resource efficient Europe”

- Boost economic performance while reducing resource use
- Identify and create new opportunities for economic growth and greater innovation and boost the EU competitiveness
- Ensure security of supply of essential resources
- Fight against climate change and limit the environmental impacts of resource use



EUROPE 2020 Strategy

Delivering more sustainable consumption and production

- By 2020, right incentives for citizens to choose the most resource efficient products and services, through appropriate price signals and clear environmental information
 - Product Environmental Footprint (PEF) published in April 2013
- Ensure more environmental friendly products on the EU market
- Promote sustainable consumption



Building the Single Market for Green Products

- General objective: improve the availability of reliable information on the environmental performance of products and organisations
- Specific objective: promote the use of a common methodology to assess and communicate the environmental performance of products and organisations
- Operational objectives
 - Launch 2 methodologies, simple but also robust, one for products, one for organisations
 - Encourage the take-up of the methodologies in MS and by private sector
 - Develop PCR through an open, transparent, multi-stakeholder process



Main proposals

- Two methods to measure environmental performance throughout the life cycle: the PEF and the OEF
- Recommendation of a voluntary use of these methods by MS and companies
- Three-year testing period to develop product and sector-specific rules aligned with these methods
- Principles for communicating environmental performance
- Comparability as important objective
- Support for international efforts towards more coordination in methodological developments and data availability



Climate negotiations



CAIT Paris Contributions | x
 cait.wri.org/indc/#/map

CAIT Climate Data Explorer
 Paris Contributions Map

Dashboard Map Detailed View **View Pre-2020 Map**

Search for a country...

European Union (28) INDC submitted

INDC summary "The EU and its Member States are committed to a binding target of at least 40% domestic reduction in greenhouse gas emissions by 2030 compared to 1990, to be fulfilled jointly, as set out in the conclusions by the European Council of October 2014."

INDC type GHG target

GHG target type Base year target ("Absolute reduction from base year emissions")

Non-GHG target type Not Applicable

Scope and coverage

Sectors covered Energy, Industrial processes and product use, Agriculture, Waste, Land Use, Land-Use Change and Forestry (set out in [Decision 529/2013/EU](#))

Greenhouse gases covered All greenhouse gases not controlled by the Montreal Protocol: Carbon Dioxide (CO₂), Methane (CH₄), Nitrous Oxide (N₂O), Hydrofluorocarbons (HFCs), Perfluorocarbons (PFCs), Sulphur hexafluoride (SF₆), Nitrogen trifluoride (NF₃)

Link to the submission [View the submission](#)

Show More & Compare

Click on a country

17:47
6/11/2015

Resource efficiency indicators

- Resource efficiency roadmap
 - Food and drink value chain in the EU causes 17% of the GHG emissions and 28% of material resource use
 - Consumption patterns have global impact, in particular related to the consumption of animal proteins
- Indicators are needed to monitor progress

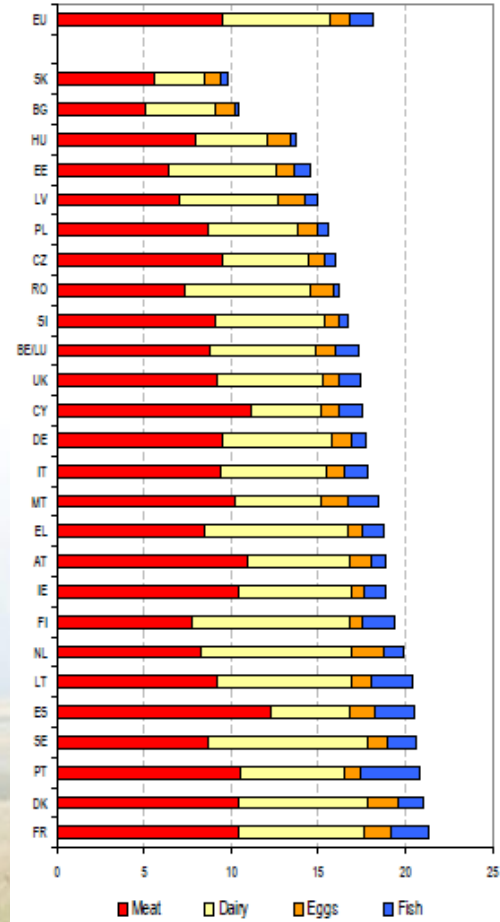




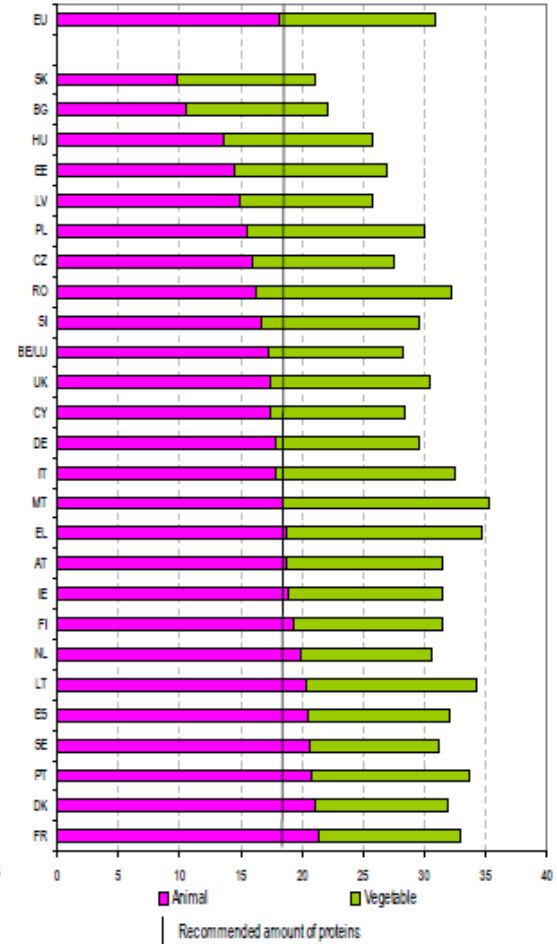
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Food: consumption of meat and dairy products

Intake of animal proteins



Intake of animal and vegetable proteins



Source: PBL Netherlands Environmental Assessment Agency, report "The protein puzzle. The consumption and production of meat, dairy and fish in the European Union", 2011, based on FAO.

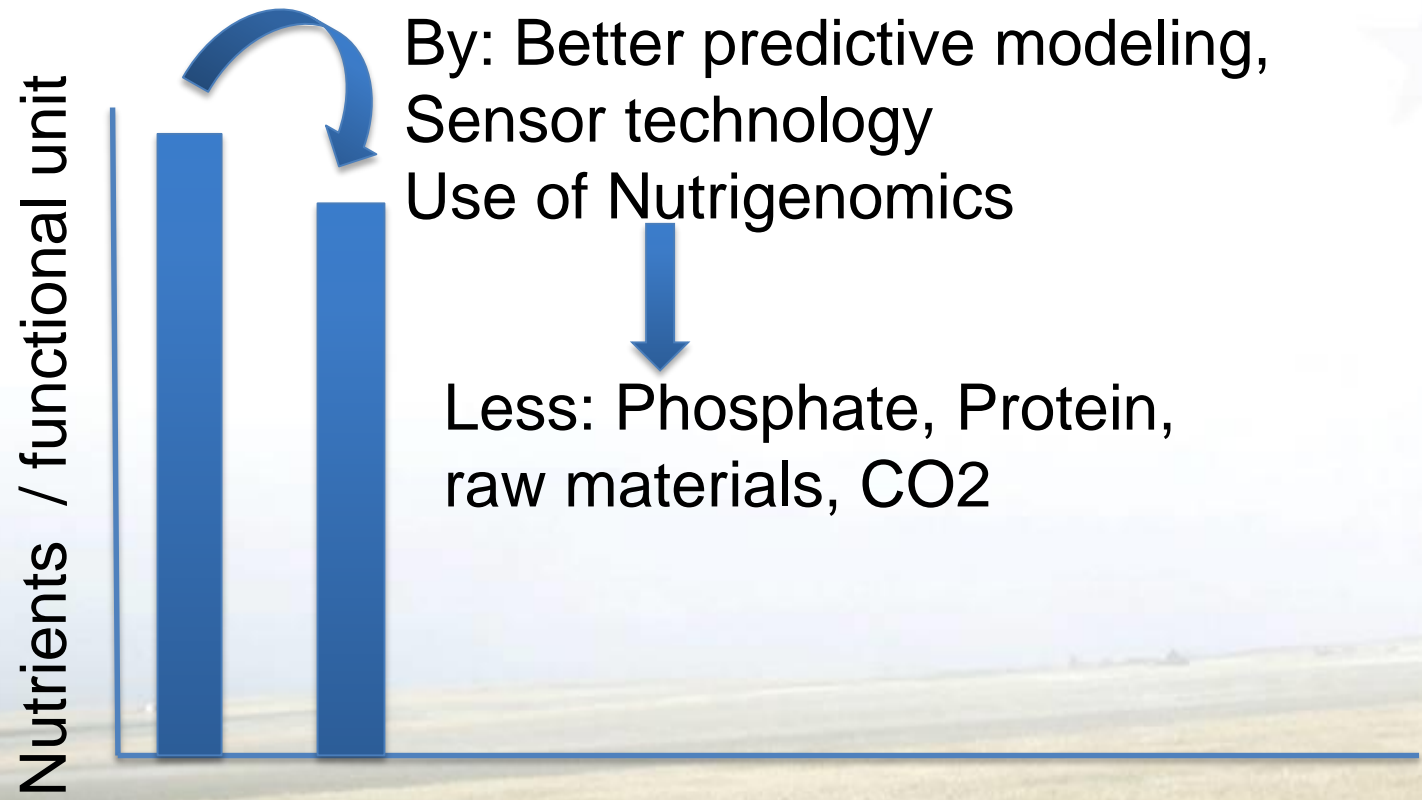


European Feed Research agenda

- Multifunctionality of animal nutrition
 - Optimizing resource efficiency by using nutrients efficiently
 - Healthy animals for healthy people
 - Social responsible livestock farming



- Optimizing resource efficiency by using nutrients efficiently
- Healthy animals for healthy consumers
- Social responsible livestock farming



- Optimizing resource efficiency by using nutrients efficiently
- Healthy animals for healthy consumers
- Social responsible livestock farming

Nutrients / functional unit



Increased resistance, tolerance, health,
Reduced antibiotics

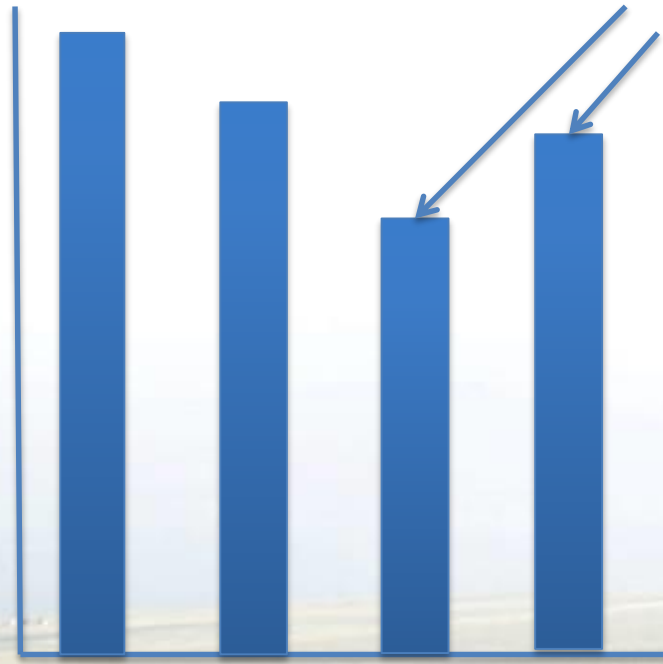
↓
Less energy for maintenance =
More energy for growth =
Increased efficiency

↓
Less: Phosphate, Protein,
raw materials, CO2



- Optimizing resource efficiency by using nutrients efficiently
- Healthy animals for healthy consumers
- Social responsible livestock farming

Nutrients / functional unit

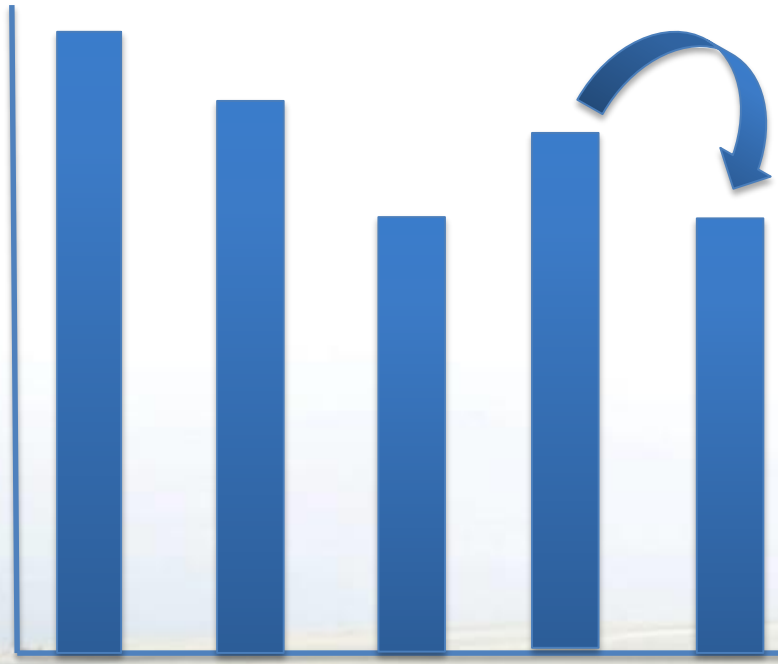


Increased welfare
Outdoor farming
Societal concerns



- Optimizing resource efficiency by using nutrients efficiently
- Healthy animals for healthy consumers
- Social responsible livestock farming

Nutrients / functional unit



Sensor technology
Prediction of nutrient utilization
Grassland management

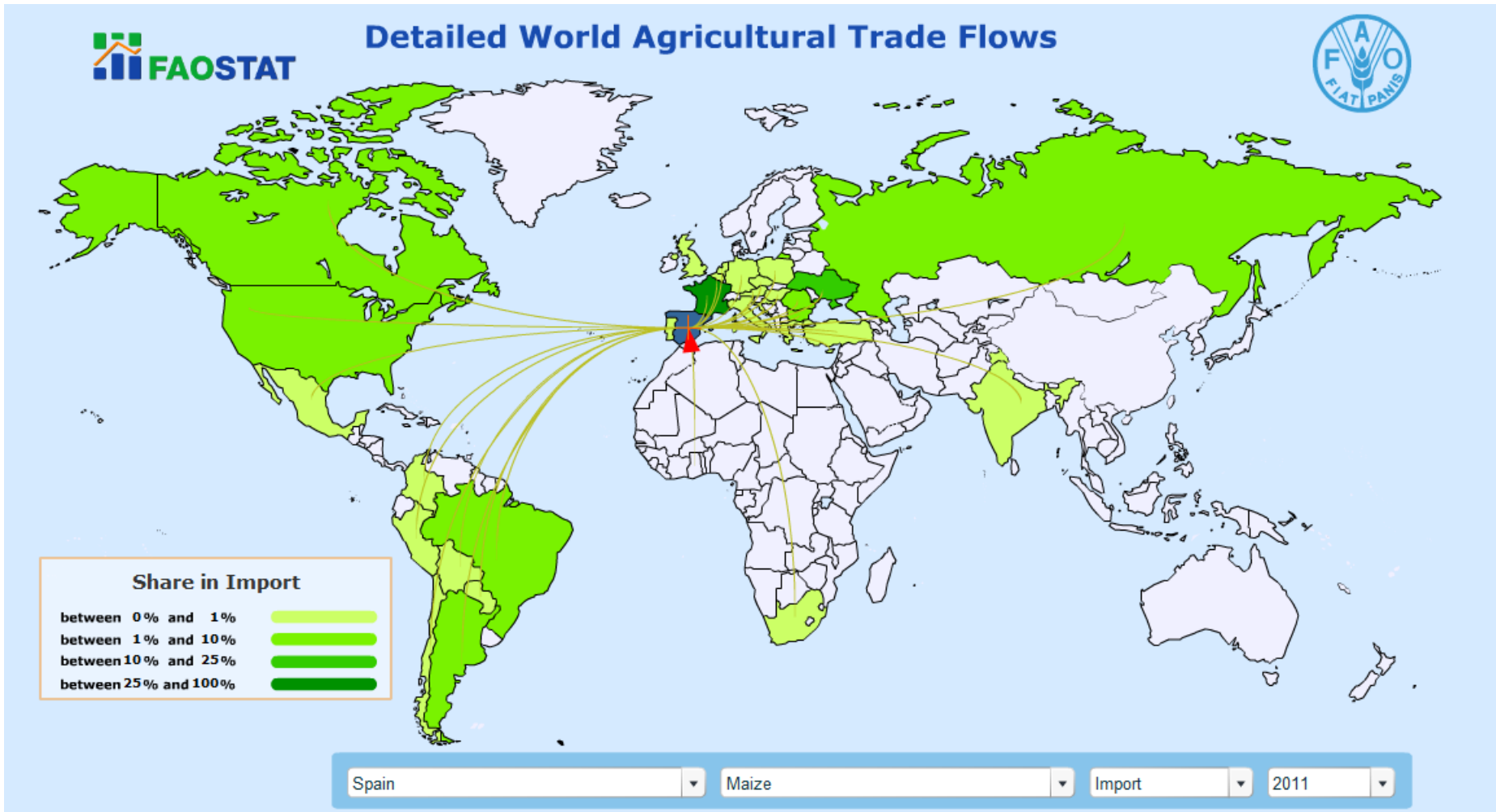


The need to measure the impact on the environment

- Feed and livestock industry under pressure
- Need to communicate on reliable figures
- No green washing
- Common methodology is a pre-competitive issue and is part of consumers' expectations



Feed supply chains are global and complex (example of Spain maize imports)



Source: FAOSTAT <http://faostat.fao.org/DesktopModules/Faostat/WATFDetailed2/watf.aspx?PageID=536>

Communication is a challenge

- Mitigation options require on-farm strategies
- Reliable communication requires aggregated figures



Walking on the road to sustainable feed for sustainable food



Thank you for your attention

Questions?

nmartin@fefac.eu

FEFAC

Fédération Européenne des
Fabricants d'Aliments Composés

Europäischer Verband
der Mischfutterindustrie

European Feed
Manufacturers' Federation

