



Reducing the “feed versus food” competition: valorising foodchain & biorefinery by-products

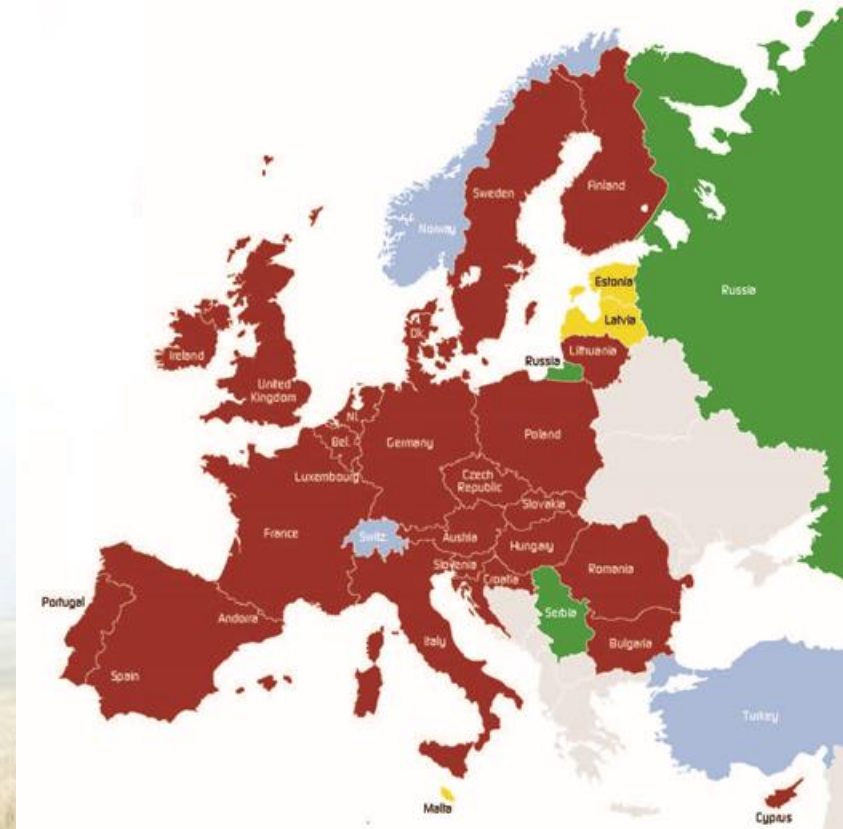
Ruud Tijssens
FEFAC President

16 November 2016
Animal Task Force

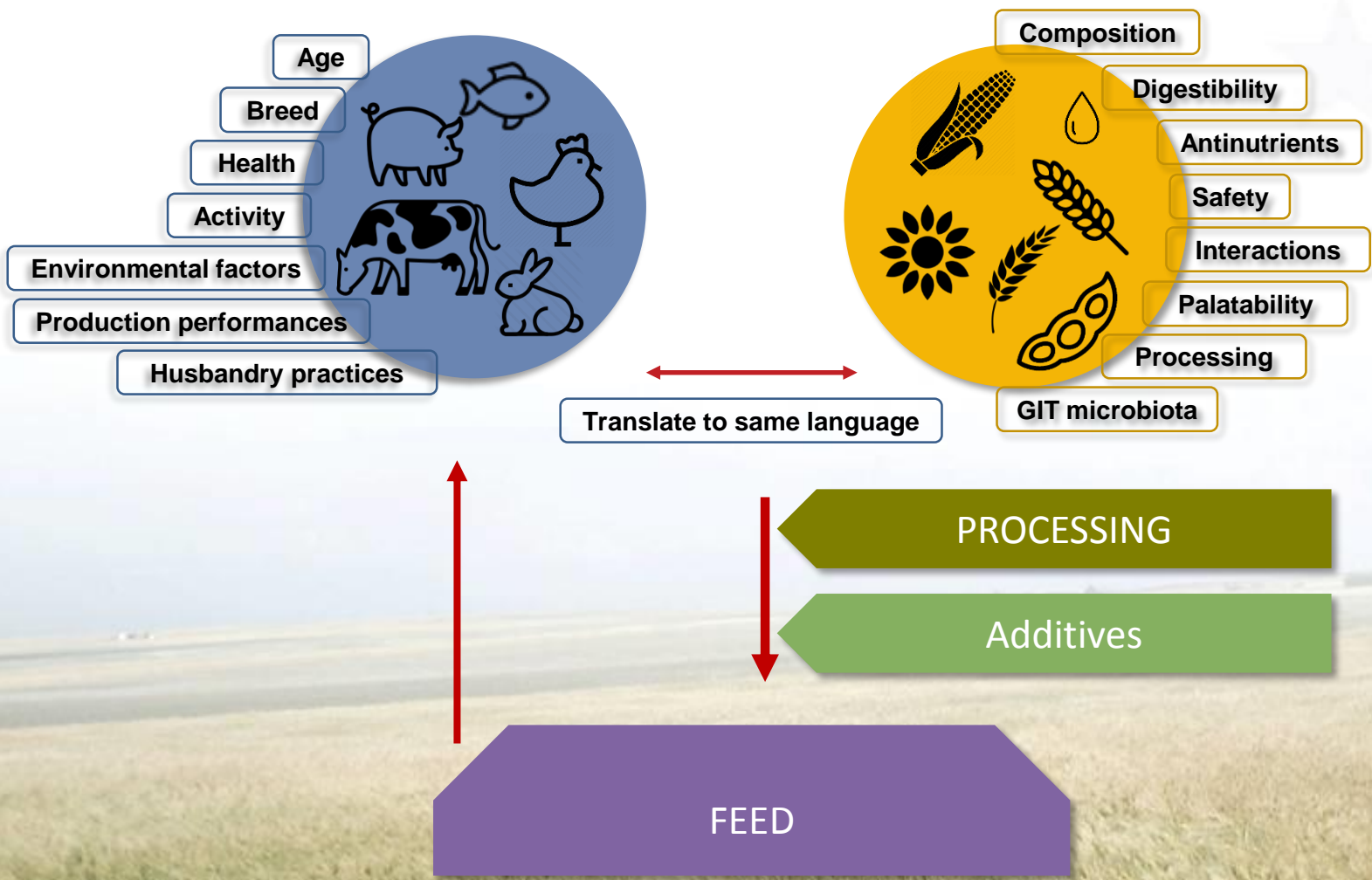


FEFAC in a nutshell

- Created in 1959
- Represents industrial compound feed and premixtures manufacturers
- 33 members
 - 24 Member Associations from 23 EU Member States
 - 2 Observer Members (Russia, Serbia)
 - 7 Associate Members (Turkey, Switzerland, Norway (3) EMFEMA, EFFPA)
- 156 mio. T of industrial compound feed production in 2015



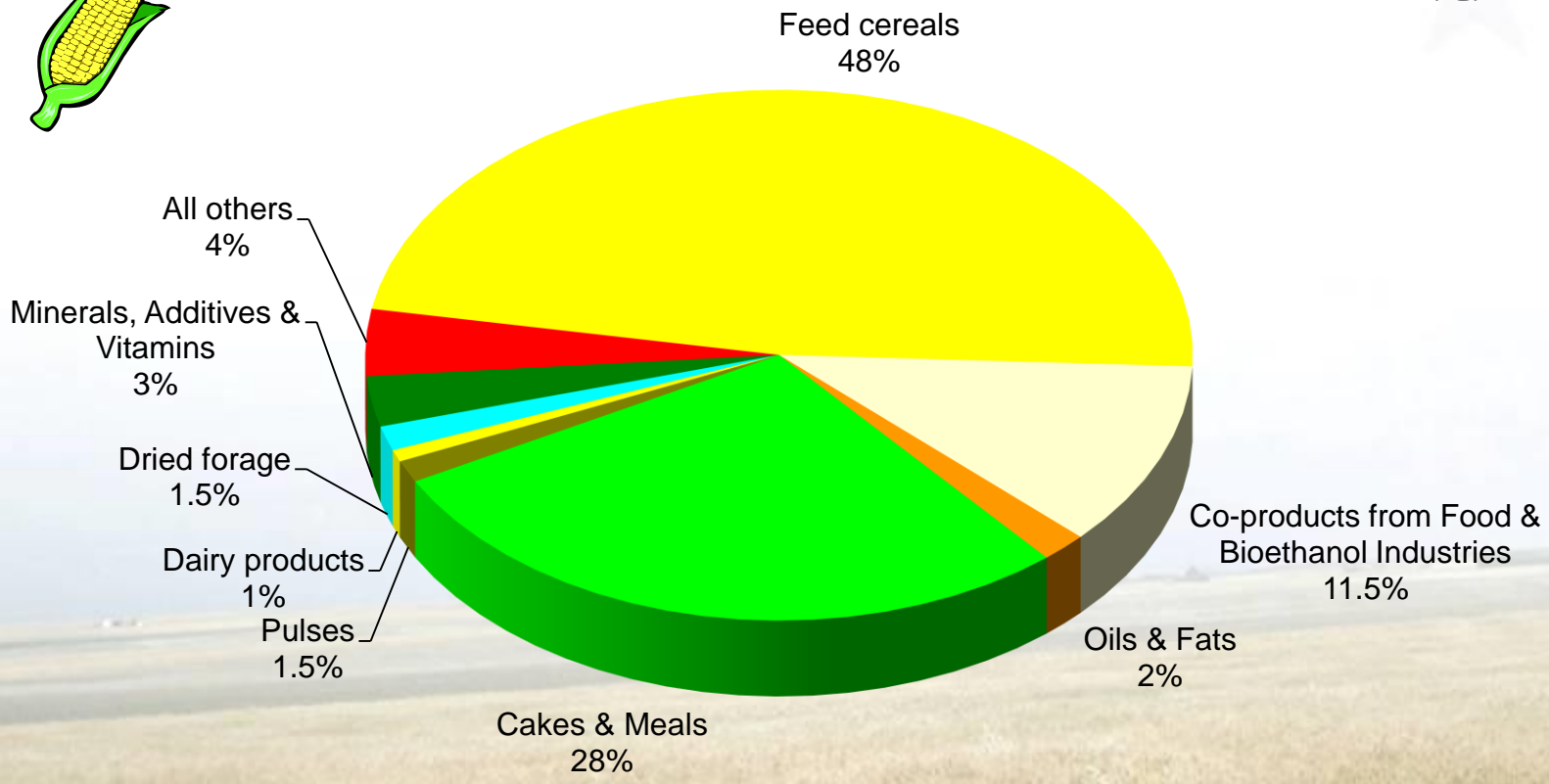
Animal feed industry – the link between ingredients and nutrition



Feed material consumption by the EU-28 feed industry in 2015



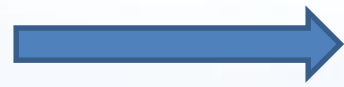
Source: FEFAC



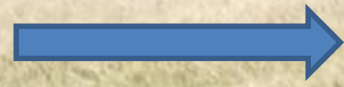
Animal Nutrition Science – Discovering feed value in the unconventional



Brewer's grains



DDGs

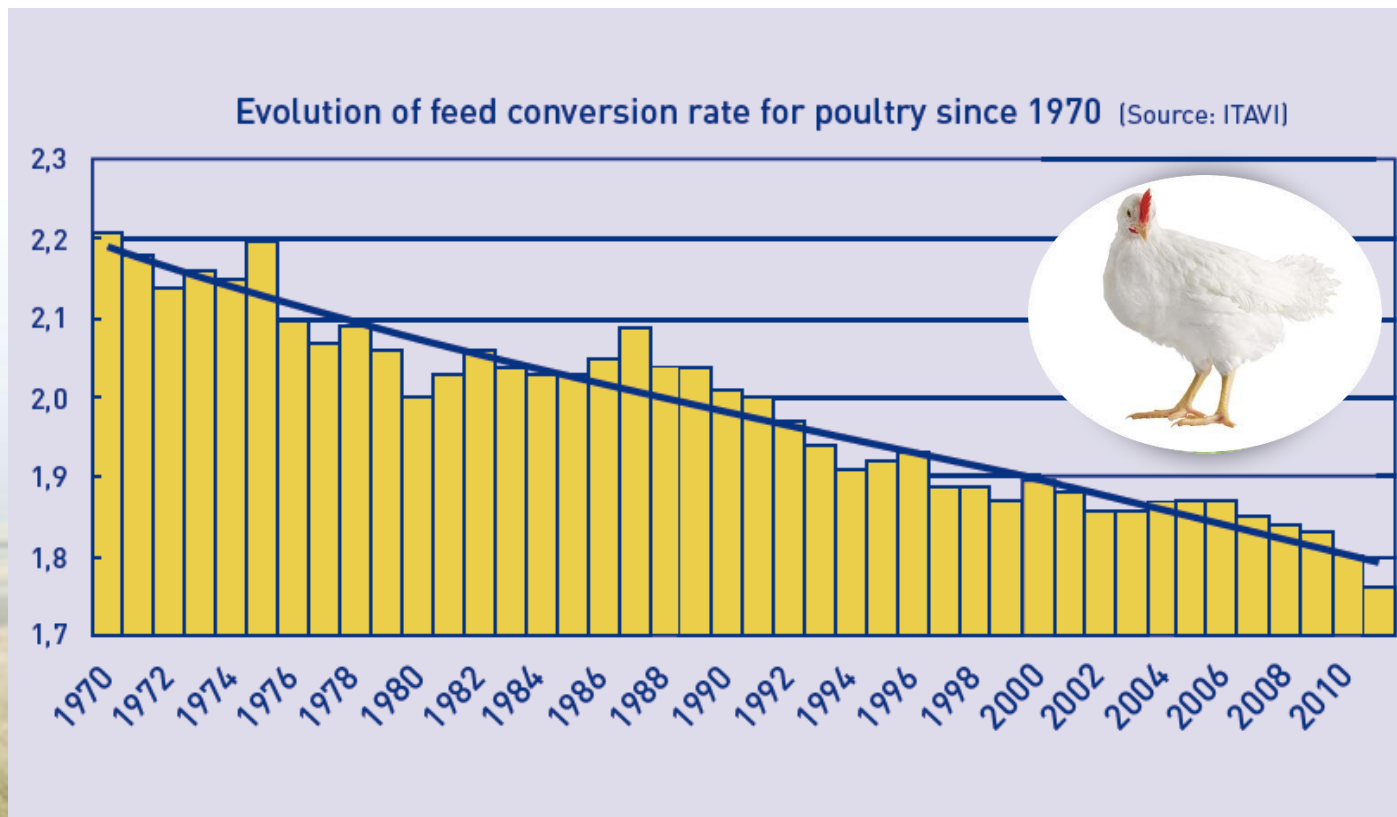


Citrus Pulp



Animal Nutrition Science – Constantly reducing the feed conversion rate

- Increase nutrient efficiency – reduce the losses
- More resource efficiency means a more sustainable livestock sector



Former foodstuffs – the new frontier

- Unintentional/unavoidable food losses
 - Intermediate or incorrectly packed/shaped/flavoured/labelled
 - Seasonal products (sports events, easter, christmas, halloween)
 - Removed from the human consumption market for commercial reasons
- Not “waste/rubbish” – high value feed ingredient
- High energy content (sugar, fats/oils, starch)



Former foodstuffs: Food industry by-products



What aren't former foodstuffs?



Animal By-Products (EU Regulation 1069/2009): Former foodstuffs with **animal protein are not allowed in feed** for food-producing animals, with the exception of **milk, eggs, honey and porcine gelatine**

The Finished Product: A Feed Ingredient



**Safety &
Traceability!**
General Food Law;
REG 178/2002

Lawful!
Feed Marketing;
REG 767/2009

Hygiene!
Feed Hygiene;
REG 183/2005

Controls!
Official Controls;
REG 882/2004

Nutritional Value of Processed Former Foodstuffs

(Source: NRG, VDLUFA, INRA)

	Processed former foodstuffs	Barley	Wheat
Dry matter	88.0%	88.0%	88.0%
Crude protein	10.9%	11.0%	12.4%
Lysine	0.26%	0.38%	0.34%
Crude fat	9.8%	2.8%	2.1%
Crude fiber	2.2%	5.5%	2.7%
Starch	41.9%	51.6%	59.2%
Sugar	14.0%	2.2%	2.4%
Metabolisable energy pig (ME)	15.48 MJ/kg	12.95 MJ/kg	14.43 MJ/kg

Main targets: young animals (e.g. piglets)

Food and drink material hierarchy

Most preferable option



Source: WRAP

Least preferable option



Research agenda

- Identifying nutritional & risk profiles of potential new feed ingredients
 - Insects, algae, single cell proteins, former foodstuff
- Increasing the efficiency & effectiveness of feed ingredients use
 - Reduction of GHG emissions livestock sector through improved feed conversion rate
 - Reduction of nitrogen and phosphates
 - Reduction of veterinary medication through animal nutrition strategies



Take home messages

- Food and feed production: Complementary to each other, not competitors!
- Feed outlet is a solution to reduce food waste, but safety above all
- Feed outlet should never be 'disposal route', out of environmental or economic reasons
- Innovation





FEFAC

Thank you for your attention

Contact

FEFAC A.I.S.B.L.

Rue de la Loi 223

1040 Bruxelles

fefac@fefac.eu



@FEFAC_EU

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