

# **Organic protein production in Europe:** State of play and future prospects

Workshop on "Market Segments in the EU Protein Sector"  
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Adrian Steele – IFOAM EU (UK Soil Association)

# Who does IFOAM EU represent?

Representing the organic movement and sector with 190 members in all 28 EU member states, EFTA and EU candidate countries:

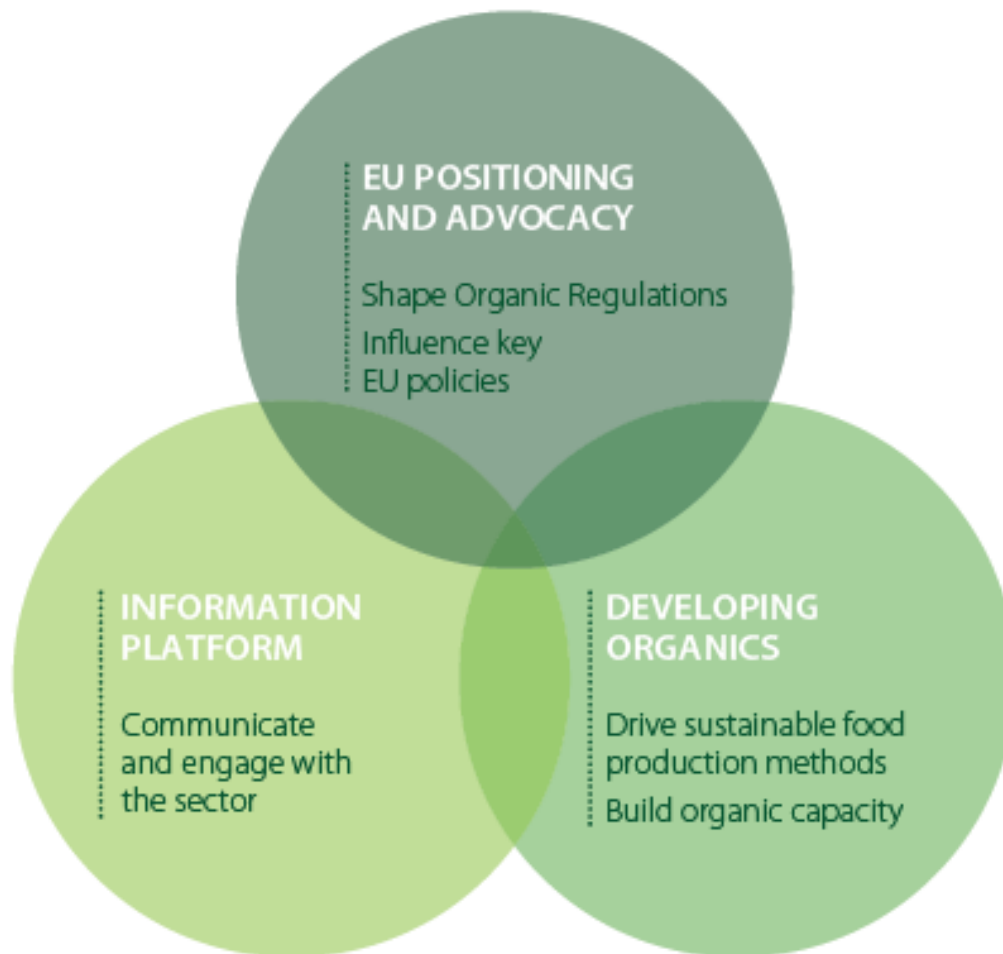
- Organic farming associations
- Organic food processors, retailers, traders
- Organic food and farming advisors and researchers
- Organic certifiers

Based on the IFOAM principles of organic agriculture :

- Health, Ecology, Fairness & Care.

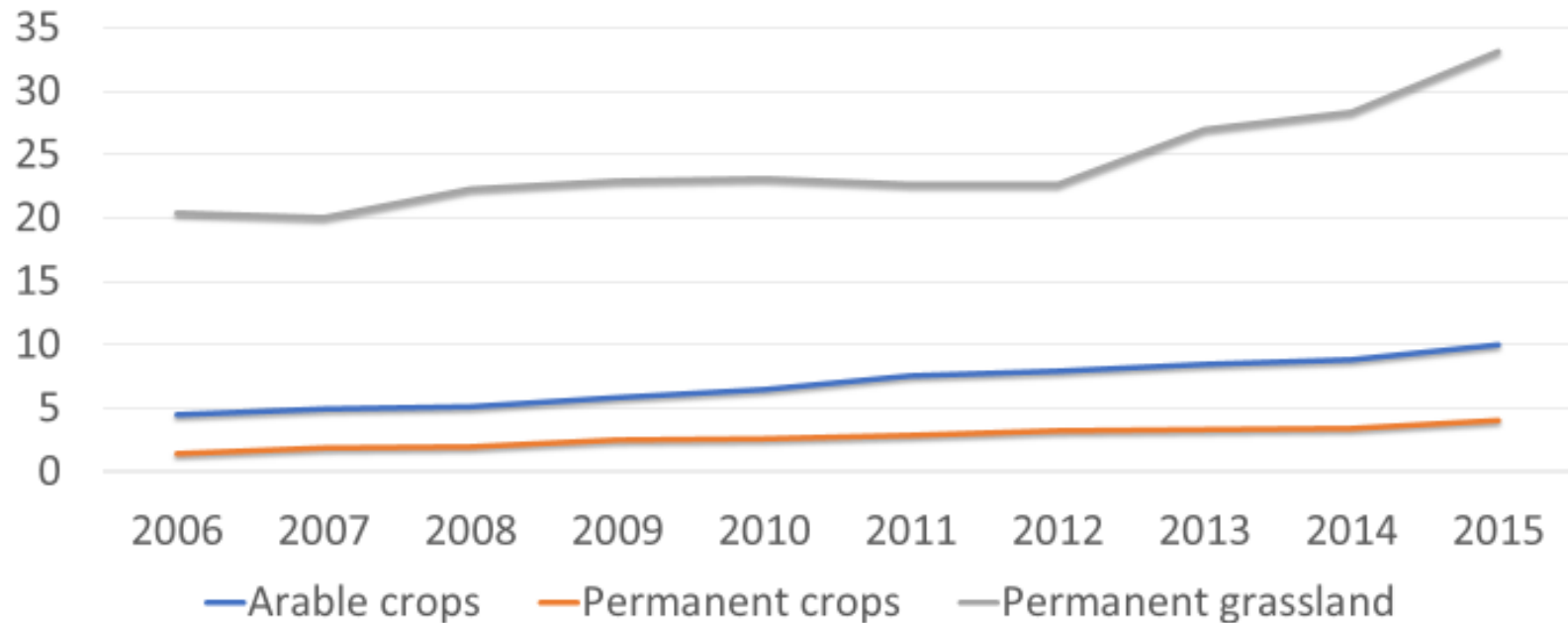


# IFOAM EU's strategic pillars



# Global imbalance

## Trends in world areas of organic land 2006 – 2015 by land use (million hectares)



# UK trends in organic area and land use for 2002-16 ('000 ha)

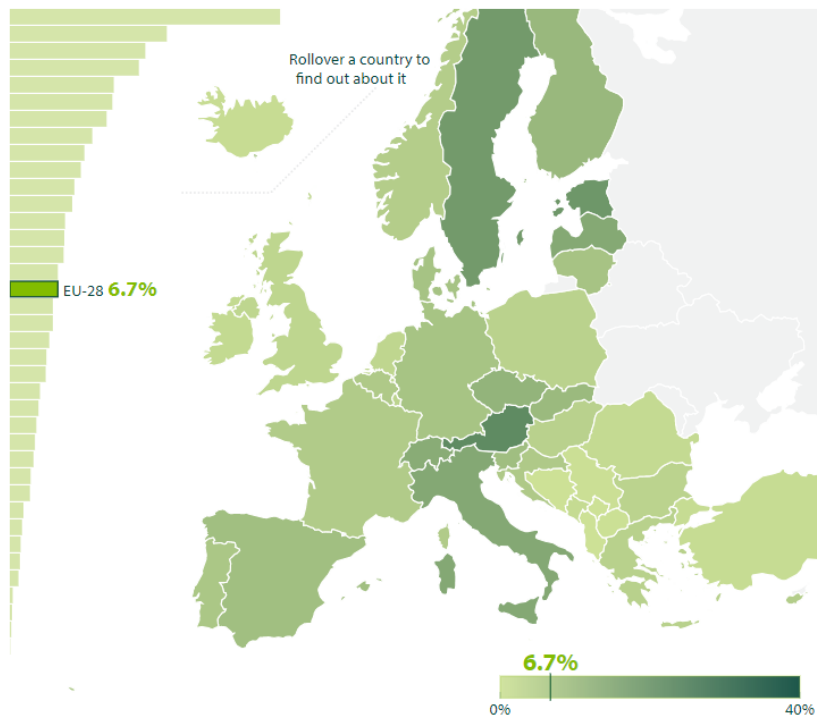
	2003	2007	2014	2015	2016	2017
<b>In-conversion area</b>						
Cereals	7.0	13.2	1.0	1.0	1.6	1.9
Other crops	1.9	3.5	0.3	0.4	0.6	0.8
Temporary pasture	12.7	34.2	3.2	3.1	6.2	7.4
Permanent pasture	38.1	93.6	13.5	15.1	15.3	17.4
<b>Total</b>	<b>66.0</b>	<b>157.9</b>	<b>19.7</b>	<b>20.6</b>	<b>25.2</b>	<b>32.6</b>
<b>Fully organic area</b>						
Cereals	35.4	38.4	41.2	38.6	36.8	37.4
Other crops	7.5	7.8	7.0	6.6	6.7	7.4
Temporary pasture	77.3	90.9	90.5	89.1	85.9	92.3
Permanent pasture	481.3	358.4	356.1	332.0	319.7	333.3
<b>Total</b>	<b>629.0</b>	<b>524.3</b>	<b>529.0</b>	<b>500.8</b>	<b>482.7</b>	<b>484.8</b>

Source: Defra Organic Statistics



# Organic farming in the EU

Percentage of agricultural land which is organic



## EU-28

**12.1**  
million  
hectares of  
organic land  
in 2016

### Organic land use\*

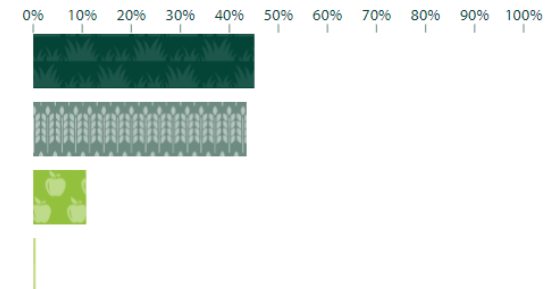
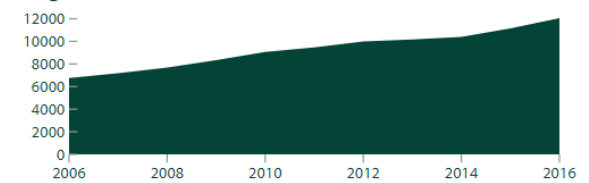
**45.1%** Grassland  
5,434,061 hectares

**43.5%** Arable crops  
5,237,178 hectares

**10.8%** Permanent crops  
1,303,298 hectares

**0.5%** Other  
66,143 hectares

Organic land area in 1000 hectares



**Producers**  
**295,123**

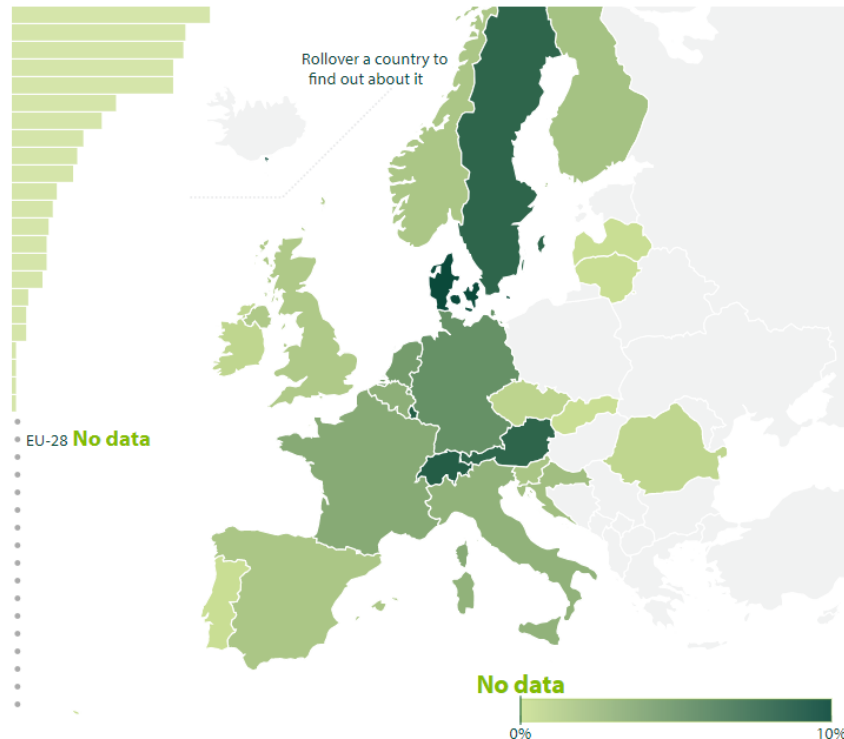
EU average 10,540

**Processors**  
**62,652**

EU average 2,238

# Organic retail market in EU

Percentage of retail sales that are organic



EU-28

**€30.7**  
billion  
organic retail  
sales in 2016

Retail sales growth

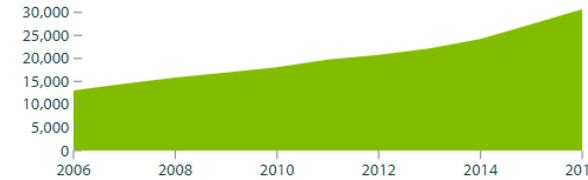
Annual growth  
**12%**

Growth over time  
**112%**

Equivalent spend per capita

**€60.5** EU equivalent €60.5

Organic retail sales in million euro



0% 10% 20% 30% 40% 50% 60% 70% 80% 90% 100% 110%



## Organic certification – A strong basis for feed standards and livestock rearing

**Organic regulation** - Current 834/2007 has requirements that boost domestic protein production. They will get stricter from 2021 under new regulation 2018/848.

### **Main requirements:**

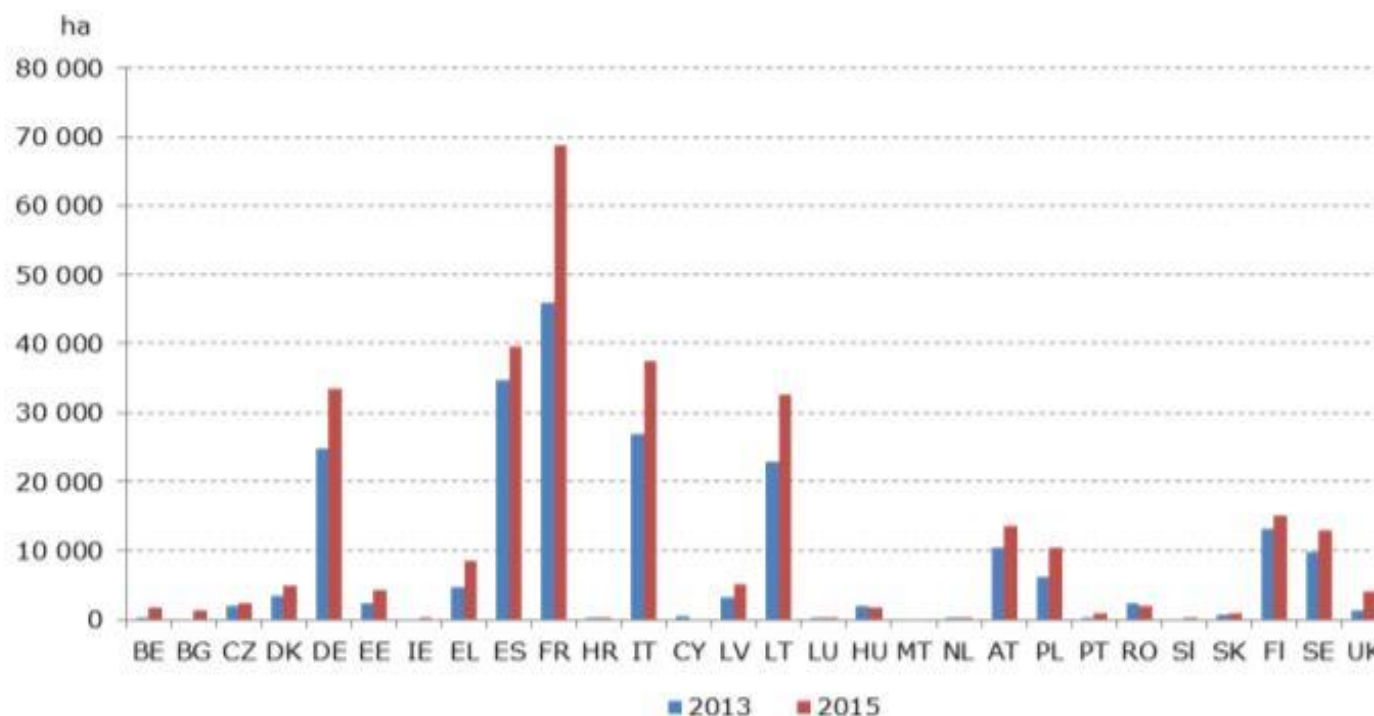
- Large share of feed must come from farm and surroundings
- Compulsory Crop rotation including nitrogen fixing plants
  - Pulses fit well in organic farms and are great protein source.
- Support outdoor grazing and natural livestock rearing

**Beyond the Regulation** – Organic farming is more than a certification system, it is a set of principles. Many farmers go beyond minimum requirements and aim to source locally





# Organic dried pulses area in the EU



Source: Eurostat data on the basis of Council Regulation (EC) No 834/2007 on organic production (online data code: [org\\_cropar](#)).

301 461 ha of organic dried pulses were cultivated in 2015 in EU-28, 80% in EU-15. In 2015 France was the largest producer (68 000 ha), then Spain (39 000 ha), Italy (37 000 ha) and Germany (33 000 ha).



## *SUPPLY CHAIN CO-OPERATION UK*

*WAITROSE SUPERMARKET*

*BRITISH QUALITY PORK*

*ORGANIC ARABLE .*

# Best practice –Organic value chain Vendée, France

<b>LegValue Partner involved</b>	TERRES UNIVIA
<b>WP(s) involved</b>	WP2
<input type="checkbox"/> On-farm-network <input type="checkbox"/> Pilot-Case <input type="checkbox"/> Case study	
<p><b>Summary:</b> Legume crops have a determining position in the development of organic sectors in France, providing animal feed mainly but also human food. One of the great challenges is to develop / organize organic based-legume value chains to achieve self-sufficiency. Currently, organic animal feed and human food rely on imports which respond to the needs of the operators in terms of volume and quality (especially for soybean grains and meals).</p> <p>The case study will focus on pea, fababean, soybean, lentil and chick pea 'value chains. We will take CAVAC in example, a grains collector of the northwest of France. As a collector, CAVAC makes the link between farmers who bring organic legume grains and feed and food primary users / processors. The features of CAVAC in these different value chains will be evaluated and reviewed using surveys and interviews to include food primary user / processor and feed primary user / processor who are involved in legume sector and will aim to establish their benefits and constraints experienced.</p>	



About the value chain	
<b>Initial goal of the value chain</b>	to have and develop an organic value chain in the area
<b>Current barriers of the value chain development</b>	Insufficient legume's prices ; lack of financial means ; lack of availability ; importations (imbalance the market)
<b>Current levers of the value chain development</b>	Good upstream and downstream relationships ; increasing demand for (organics) legumes ; consumer's growing interest for organic food and legume-based products

**Contact:** Charlotte Canale  
(TERRES UNIVIA)  
c.canale@terresunivia.fr



<b>Value chain launcher</b>	CAVAC (collector)
<b>Crop involved</b>	Lentil, chickpea, soybean, fababean, peas
<b>Farming system</b>	organic
<b>Number of farmers involved</b>	400 organics members
<b>Tons collected in 2017</b>	Around 2500 tons
<b>Geographical area of production</b>	Regional (Vendée, Deux-Sèvres)
<b>End use</b>	Feed and food
<b>Geographical area of marketing</b>	Regional (northwest of France : mainly Pays de la Loire)
<b>Downstream companies involved</b>	Processors (for feed and food)



# Protein alternatives available for feed

Table 2 The substitution ratio for alternative protein feeds compared to Hipro soybean meal for poultry and the net change in metabolisable energy as a result.

Feed	Energy ME/MJ/kg/DM	Protein % DCP	Hipro Soybean meal substitution ratio	Net change in ME
Hipro soybean meal	12.0	52	1	0
Lopro soybean meal	10.7	47	1.1	-0.23
Full fat soy	16.9	38	1.37	11.15
Field beans	13.5	26	2	15.0
Dried Peas	13.0	23	2.26	17.38
Lupin (white)	11	28	1.86	8.46
Oilseed rape meal	10.5	32	1.63	5.12
Sunflower	7.1	28	1.86	1.21
Linseed	20.5	18.5	2.81	45.61
Dried Lucerne	6.0	12	4.33	13.98
Dried Grass	6.0	17	3.06	6.36
Naked oats	12.5	9.4	5.53	54.63

Adapted from Ewing 1997<sup>2011</sup>

# Challenges for organic sector and its feed supply

- **Imbalanced use of land** –UK organic land mostly grassland, <10% cropped. Grazing important, but need better balance with crops to match demand
- **Practical problems** - Pulses are less profitable to grow than most crops(**Show margins**) . They often have variable yields, higher weed burdens and lack compatible farming equipment. Main cause is lack of investment and research on pulses.
- **Problems from raising imports:**
  - **Food security** - Cereal and alternatives are imported in large quantities from the Black Sea region. Due to conflict, exchange rates make these sources competitive compared to EU production. Risk of supply disruption.
  - **Competition from overseas** - Shipping rates have fallen considerably opening up global cheap feed imports, particularly soya from Americas. EU has organic products agreements with large exporters (e.g. Argentina, US). **UK figures livestock feed ingredients (slide)**.

**Summary:** Current model not working, high on imports and neglect of domestic potential. Meanwhile, European consumers want shorter supply chains that are more sustainable, efficient and resilient.

# Overcoming challenges - IFOAM EU recommendations

- **Better organic data:** Information is patchy, no distinction of production systems. Regular data needed for consumption, production of products and trade; differentiate organic and conventional.
  - Eurostat and EU Market Observatory to be enhanced from protein perspective
- **More public research:** Focus on agronomic problems (e.g. equipment), organic plant breeding, knowledge transfer (e.g. Innovative Farmers scheme on lupins) and alternatives to soya for monogastrics (reduce GHG emissions).
  - Horizon Europe to emphasise on proteins, particularly organic.
  - Encourage private sector to invest more on legumes and machinery.
- **Public financial reward:** Support of protein production (particularly organic) has public benefits, including reduced GHG emissions, increased soil fertility (crop rotation), decreased eutrophication.
  - CAP to go beyond the proposed measures, mandatory support protein production and research.
  - Protein Strategy to encourage countries to implement national protein strategies, while guaranteeing fair conditions for competition in EU single market.
- **Local supply chain cooperation:** Support creation of cooperatives and help establish links between farmers, food processors and the retailers. Enable knowledge transfer and share best practices across Europe. Long-term commitment on min/max pricing.





**Thank you**

[www.ifoam-eu.org](http://www.ifoam-eu.org)

+32 2 280 12 23 | [info@ifoam-eu.org](mailto:info@ifoam-eu.org) s