

Biocontrol and Organic farming

ABIM
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1. The organic market in the EU

EUROPE: ORGANIC FARMLAND 2017



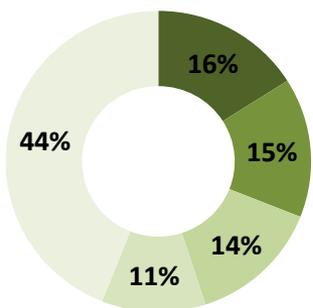
**European Union
12,8
Million ha**

**Spain 2
Million ha**

**7,2%
of EU
farmland
is organic**

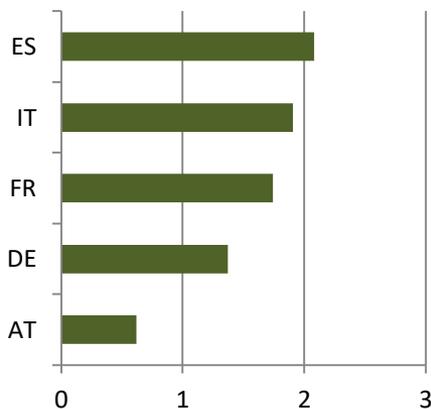
**+67%
in the
decade
2008-2017**

More than half (56%) of EU organic farmland is in 4 countries.

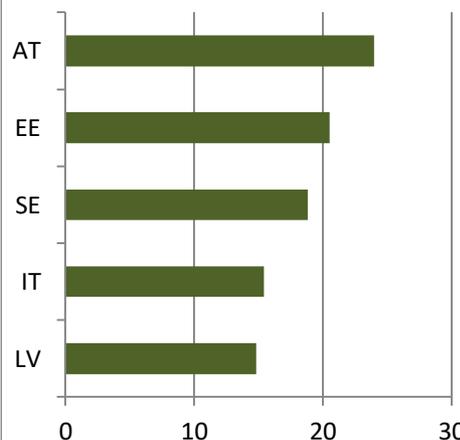


Share of EU organic land 2017

- ES
- IT
- FR
- DE
- Other



Top 5 countries with the largest areas of organic agricultural land 2017



Eight countries have 10% or more of their agricultural land under organic management.

+ 5 million hectares in the decade 2008-2017

In 2017, almost 0.85 million hectares more were reported compared with 2016. (+6,4%)

EUROPE: ORGANIC RETAIL SALES 2016



European Union



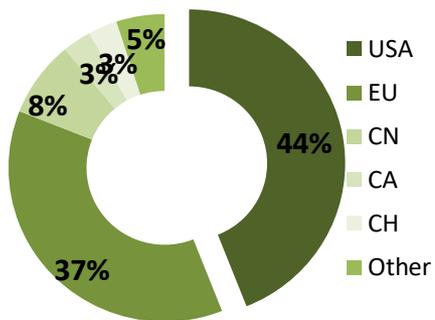
The European Union (34,2 billion €) is the second largest single market after the US (40 billion) and followed by China.



The European countries with the largest markets for organic food are Germany (10 billion €), France (7,9 billion €), **Italy (3,1 billion €)**, and the SE (2,3 billion €).

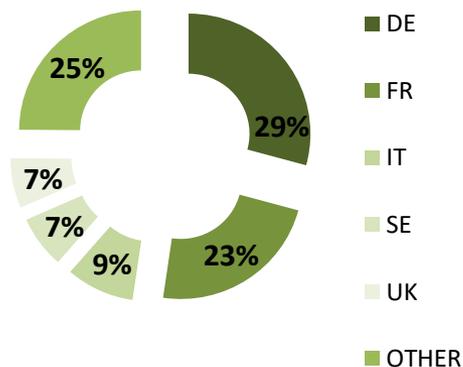


Denmark has the highest per capita consumption of organic food in the EU, followed by Sweden and Luxembourg. 13% of the grocery is organic

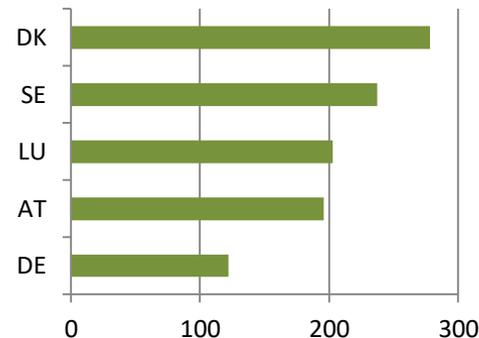


Distribution of retail sales value worldwide by country 2016

In 2000 organic market worthed around 6,5 bio euro



The countries with the largest markets for organic food 2017



The EU countries with the highest per capita consumption of organic food 2017.

Source: FiBL survey 2018 www.organic-world.net



European
Commission

2.

What is organic farming?



What is organic production?

(Regulation (EU) 848/2018)

- *(1) Organic production is an overall system of farm management and food production that combines best environmental and climate action practices, a high level of biodiversity, the preservation of natural resources and the application of high animal welfare standards and high production standards in line with the demand of a growing number of consumers for products produced using natural substances and processes. Organic production thus plays a dual societal role, where, on the one hand, it provides for a specific market responding to consumer demand for organic products and, on the other hand, it delivers publicly available goods that contribute to the protection of the environment and animal welfare, as well as to rural development.*
- *(2) The observance of high standards for health, the environment and animal welfare in the production of organic products is intrinsic to the high quality of those products.*



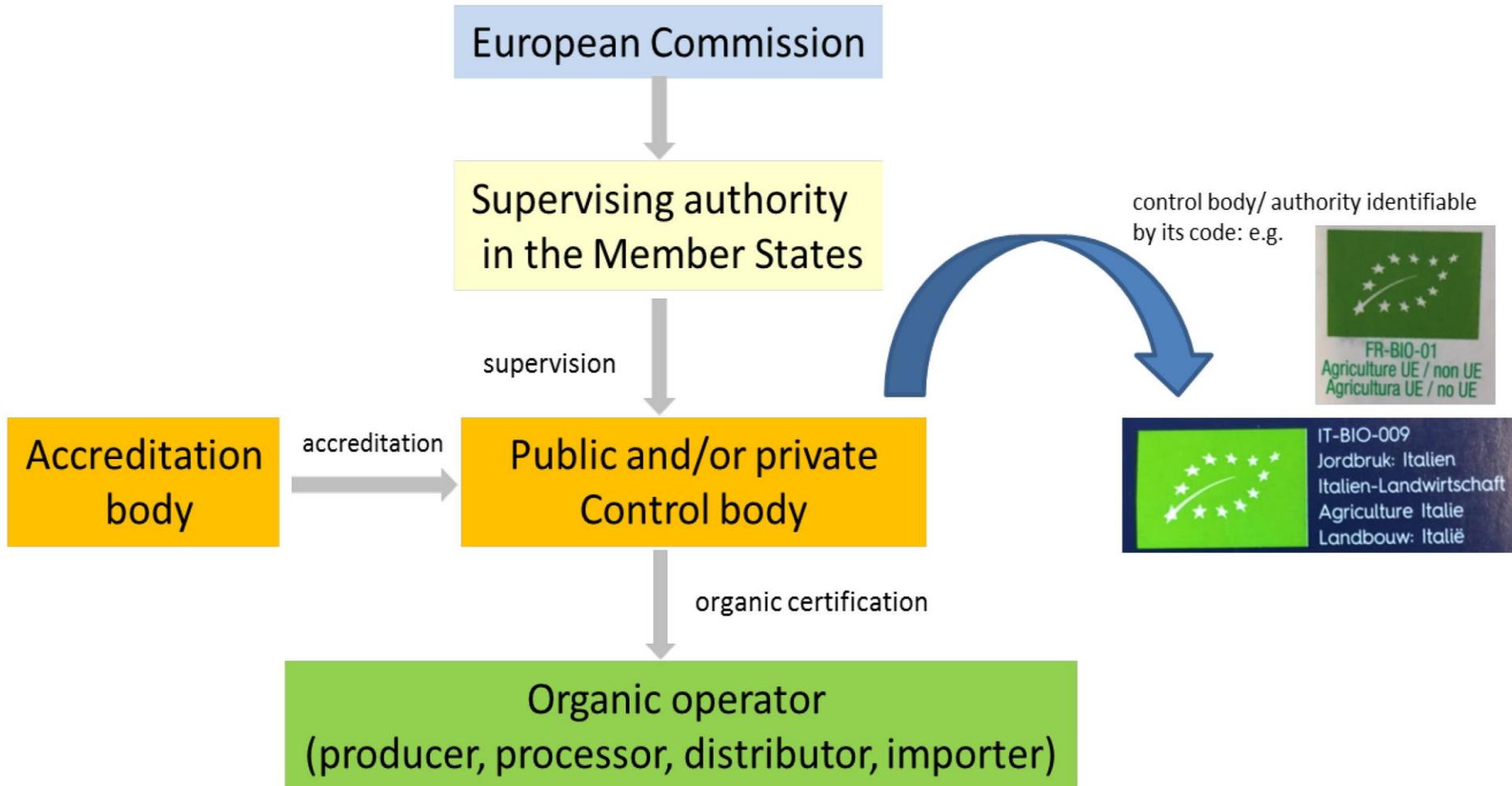
What is organic production?

- *Food quality system defined by EU legislation*
- *Complemented by national and private rules*
- *Detailed production rules*
- *Restricted inputs: general rules with extra restrictions*
- *Control system*
- *Logo and name organic/bio/eco protected*



Organic production rules

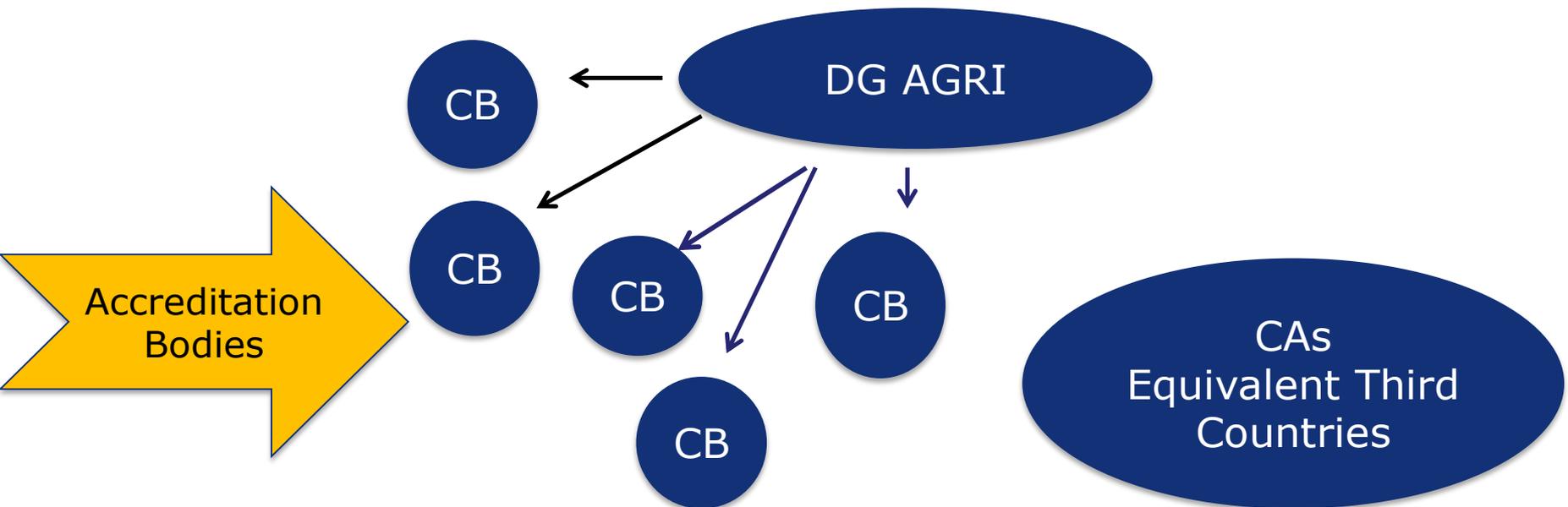
- *Plant production: soil fertility, natural resistance, crop rotation, nutrient recycling, cultivation techniques*
 - Restricted list of fertilisers and pesticides/biocides
 - Precautionary measures to avoid contamination
- *Animal production: rules on housing, welfare*
 - Restricted list of feed/additives, cleaning and disinfectant, limited use of vet. medicines
- *Processing, wine making:*
 - Restricted list of additives, processing aids
- *Basic rule: all products also allowed in conventional production*



Source: ECA Background paper 2018 Organic Food in the EU

ECA Report: https://www.eca.europa.eu/Lists/ECADocuments/INSR19_04/INSR_organic-food_EN.pdf

EU Commission (DG AGRI) as Competent Authority of CBs in Third Countries



Control & enforcement: Use vs Presence

- *Conventional products: presence immediate link to enforcement:*
 - **MRLs for pesticides, contaminants, vet. medicines**
 - **Exceedence MRL: product taken from the market**
- *Organic products: much lower presence expected*
 - **presence leads to suspicion but no proof of non compliance**
 - **illegal use, conmixing, but also contamination soil, spray drift, natural compounds, metabolites;**
 - **burden of proof is with control; irregularity leads to investigation by CB**
 - **Some mss zero tolerance: automatic decertification**
 - **Others apply thresholds for further investigation**

What is allowed in organics?

- *Annex I fertilisers (not chemical). Condition: only if soil fertility measures and manure from farm not sufficient*
- *Annex II pesticides (not synthetic). Condition: only if preventive measures not sufficient*
- *Annex III minimum surface area livestock/poultry*
- *Annex IV maximum nr of animals per hectare*
- *Annex V, VI feed, feed additives*
- *Annex V, VI feed, feed additives*
- *Annex VII: cleaning & disinfectants (detergents, biocides)*

Is biocontrol allowed in organics?

- *Possible applications:*
 - **Plant protection products (against pest and diseases, pollination),**
 - **biocides (against pest and diseases),**
 - **veterinary medicines(against parasites).**

Is biocontrol allowed in organics?

- *Are uses more restricted?*
 - **Macro-organisms: no restrictions: horizontal legislation applies (biodiversity, invasive species)**
 - **Micro-organisms: for ppps (Annex II) generic authorisation: all strains authorised in general agriculture also authorised in organics by default. Currently problem for 3rd countries: different strains.**
 - **Other « biocontrol » products if the effect is not based on living organism itself (Bt, plant extracts, semiochemicals): to follow the procedure for authorisation as for other ppps**

Is biocontrol allowed in organics?

- *Procedure for authorisation*
 - **Request to be submitted via Member State (template)**
 - **Condition: authorised/approved in general agriculture**
 - **Commission asks EGTOP for advice**
 - **If in line principles and objectives of organic farming: Commission to authorise use in organics**
 - **Timeline: 1-2 years from first request to final OJ publication**
 - **Some groups of substances generic approach: microbials, basic substances (food), Pheromones, plant oils, fatty acids.**

Is biocontrol allowed in organics?

- *Procedure for autorisation (ctnd)*
 - **Authorisation subject to the organic principles and following criteria:**
 - (a) essential for sustained production;
 - (b) of plant, algal, animal, microbial or mineral origin, except when not sufficiently available;
 - (c) for ppps:
 - (i) use essential for control of pest for which other biological, physical or breeding alternatives, cultivation practices or other effective management practices are not available;
 - (ii) if not of plant, algal, animal, microbial or mineral origin (or identical) no direct contact with edible parts of the crop;

Is biocontrol favoured in organics?

- **In R848/2018, Pest and weed management:**
- **Primarily to rely on:**
 - **Natural enemies**
 - Choice of species, varieties, HPRM
 - Crop rotation
 - Cultivation techniques, biofumigation, mechanical and physical methods
 - Thermal processes
- **If that is not adequate:**
 - only products authorised in organics may be used
 - Only to the extent necessary
 - records to be kept

What is allowed in Organics: *ANNEX I (Regulation (EC) No 889/2008)* Fertilisers, soil conditioners and nutrients (37)

Authorisation	Name Compound products or products containing only materials listed hereunder	Description, compositional requirements, conditions for use
A	Farmyard manure	Products comprising a mixture of animal excrements and vegetable matter (animal bedding) Factory farming origin forbidden
A	Dried farmyard manure and dehydrated poultry manure	Factory farming origin forbidden
A	Composted animal excrements, including poultry manure and composted farmyard manure included	Factory farming origin forbidden
A	Liquid animal excrements	Use after controlled fermentation and/or appropriate dilution Factory farming origin forbidden

What is allowed in Organics: **ANNEX II (Regulation (EC) No 889/2008)** **Pesticides – PPPs (11 of plant/animal origin, 2 microbials, 13 others: copper/sulphur; cf 1100 conventional agriculture)**

Name	Description, compositional requirement, conditions for use
Azadirachtin extracted from Azadirachta indica (Neem tree)	
Basic substances	Only those basic substances within the meaning of Article 23(1) of Regulation (EC) No 1107/2009 of the European Parliament and of the Council ⁽¹⁾ that are covered by the definition of 'foodstuff' in Article 2 of Regulation (EC) No 178/2002 of the European Parliament and of the Council ⁽²⁾ and have plant or animal origin.
	Substances not to be used as herbicides, but only for the control of pests and diseases.
Beeswax	Only as pruning agent/wood protectant.
Hydrolysed proteins excluding gelatine	
Laminarin	Kelp shall be either grown organically in accordance with Article 6d or harvested in a sustainable way in accordance with Article 6c.
Pheromones	Only in traps and dispensers.



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