



ORGANIKO Life

Revamping organic farming and its products in the context of climate change mitigation strategies - LIFE14 CCM/CY/000990

<http://organikolife.com/en/>

Living ORGANIC: A sustainable and conscious approach *Off the beaten track*

**Roma Tre University – Sala Ignazio Ambrogio - Via del Valco di San Paolo, 19 – Roma
Thursday, 11th May 2017 – 9:30-12:30**



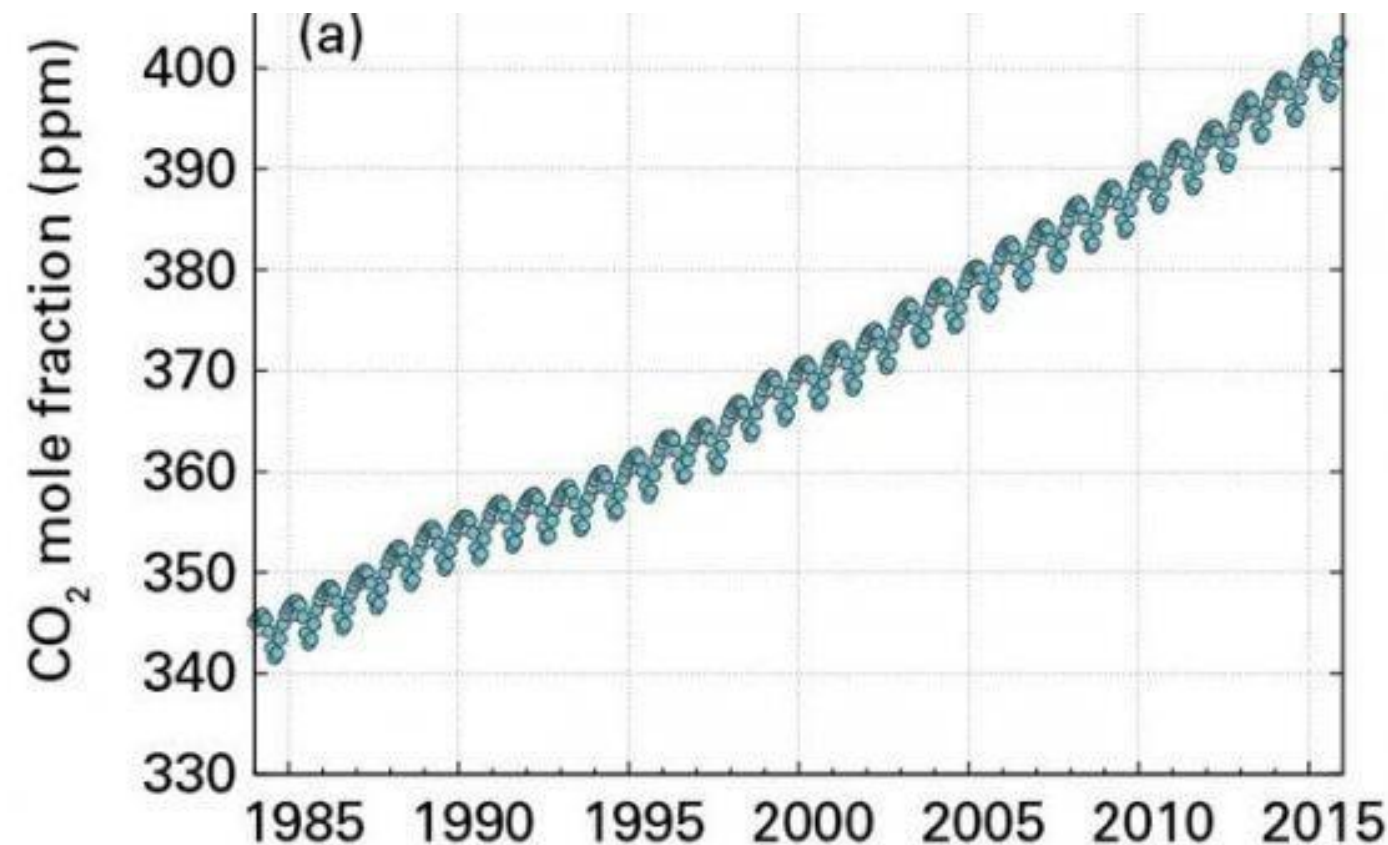
**In collaboration
with**



Kyoto Club

- Kyoto Club is an Italian non-profit organisation created in February 1999. Its members are business companies, associations and local municipalities and governments engaged in reaching the greenhouse gases reduction targets set by Kyoto Protocol, the European Union (EU) 20-20-20 strategy and the EU 2030 energy and climate package.
- To reach its goals Kyoto Club promotes awareness-raising initiatives, information and training to foster energy efficiency, renewable energy sources, waste recovery and recycling and sustainable mobility.
- Towards public decision-makers it puts forward policy proposals to make decisions in the energy field more and more environmentally friendly.

Atmospheric CO₂

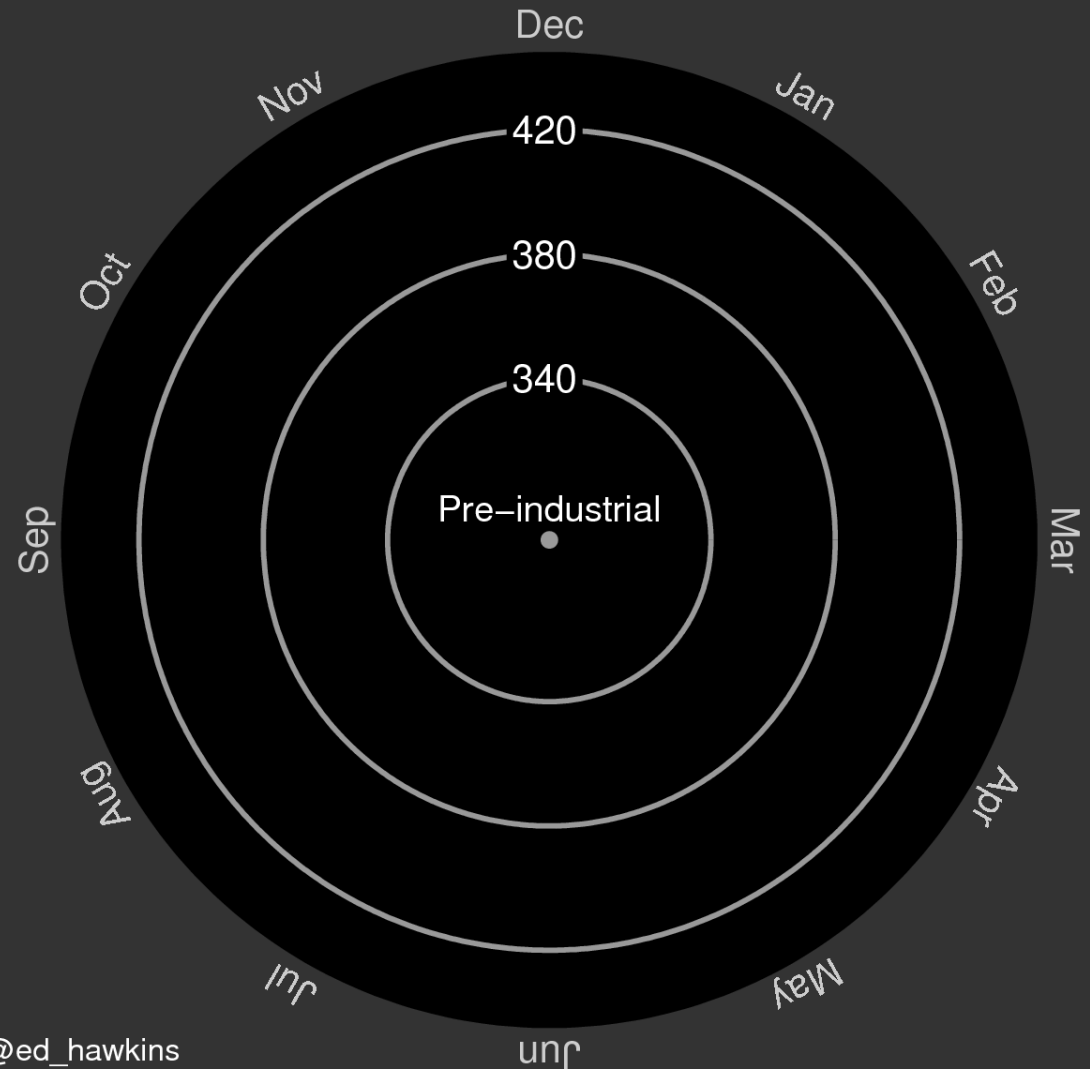


*In 2015 the atmospheric CO₂ concentration, has steadily exceeded for the first time the threshold of **400 parts per million (ppm)**, says the World Meteorological Organization. And the level reached will not come down for many generations.*

Atmospheric CO₂

The new CO₂ concentration record at **412 parts per million** was recorded on **26th April 2017** by the Mauna Loa Observatory in Hawaii, the oldest CO₂ detection station in the world (data released by US Agency 'Atmosphere and the oceans - *Noaa* and *Scripps* oceanographic institute).

Atmospheric CO₂ concentration (1958–2017)

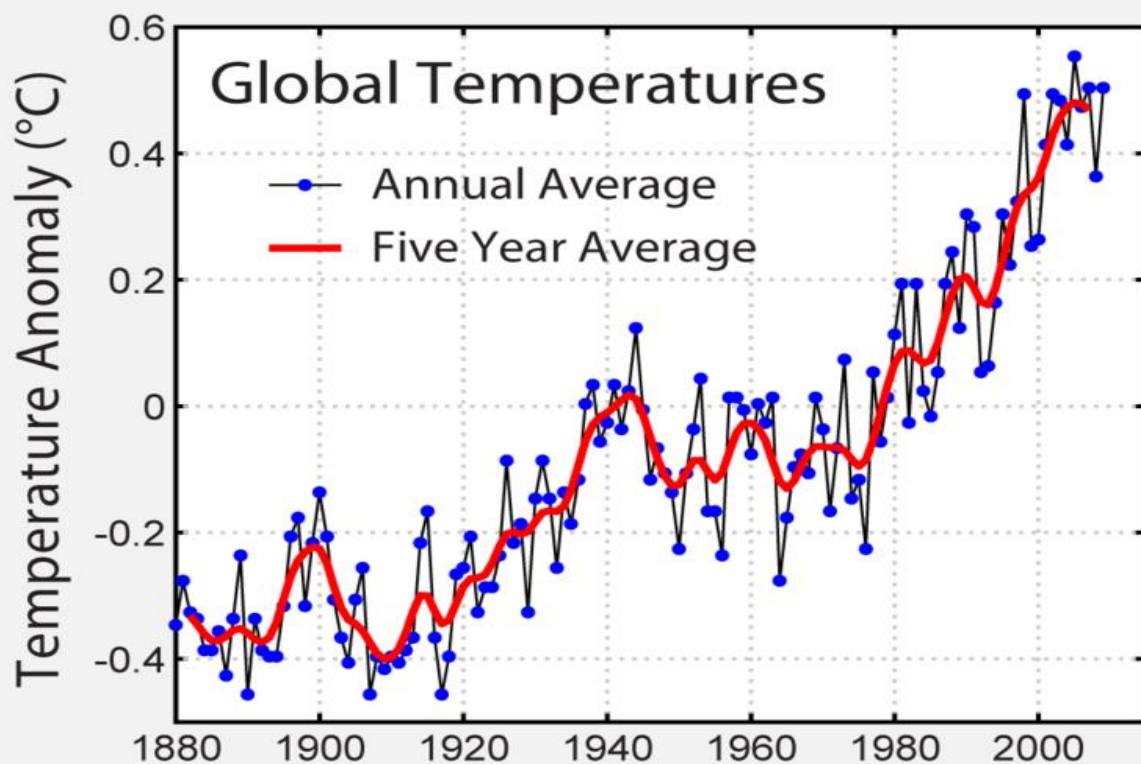


@ed_hawkins

Inspired by @richardabetts

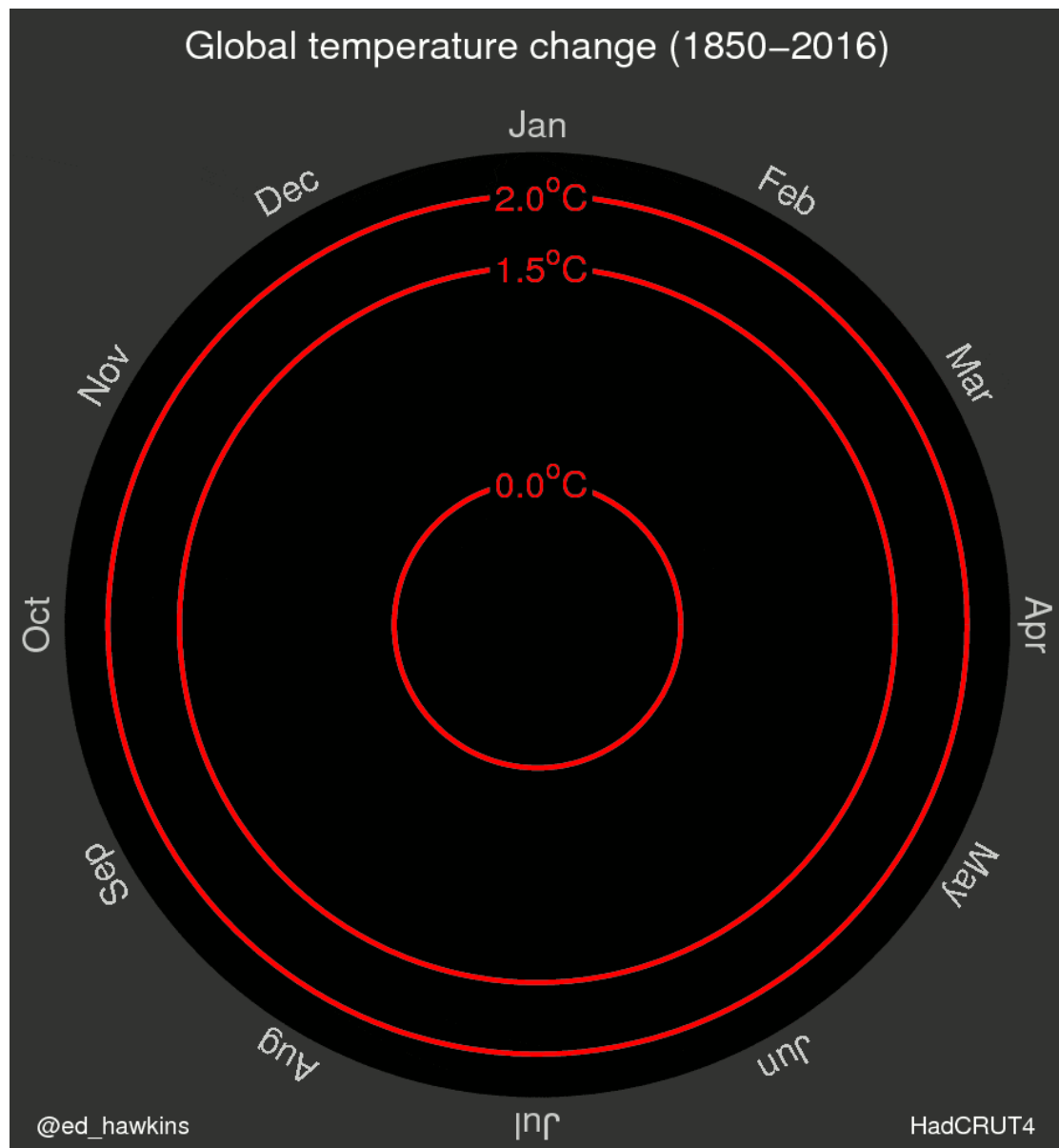
Keeling curve [ppm]

Global Temperatures

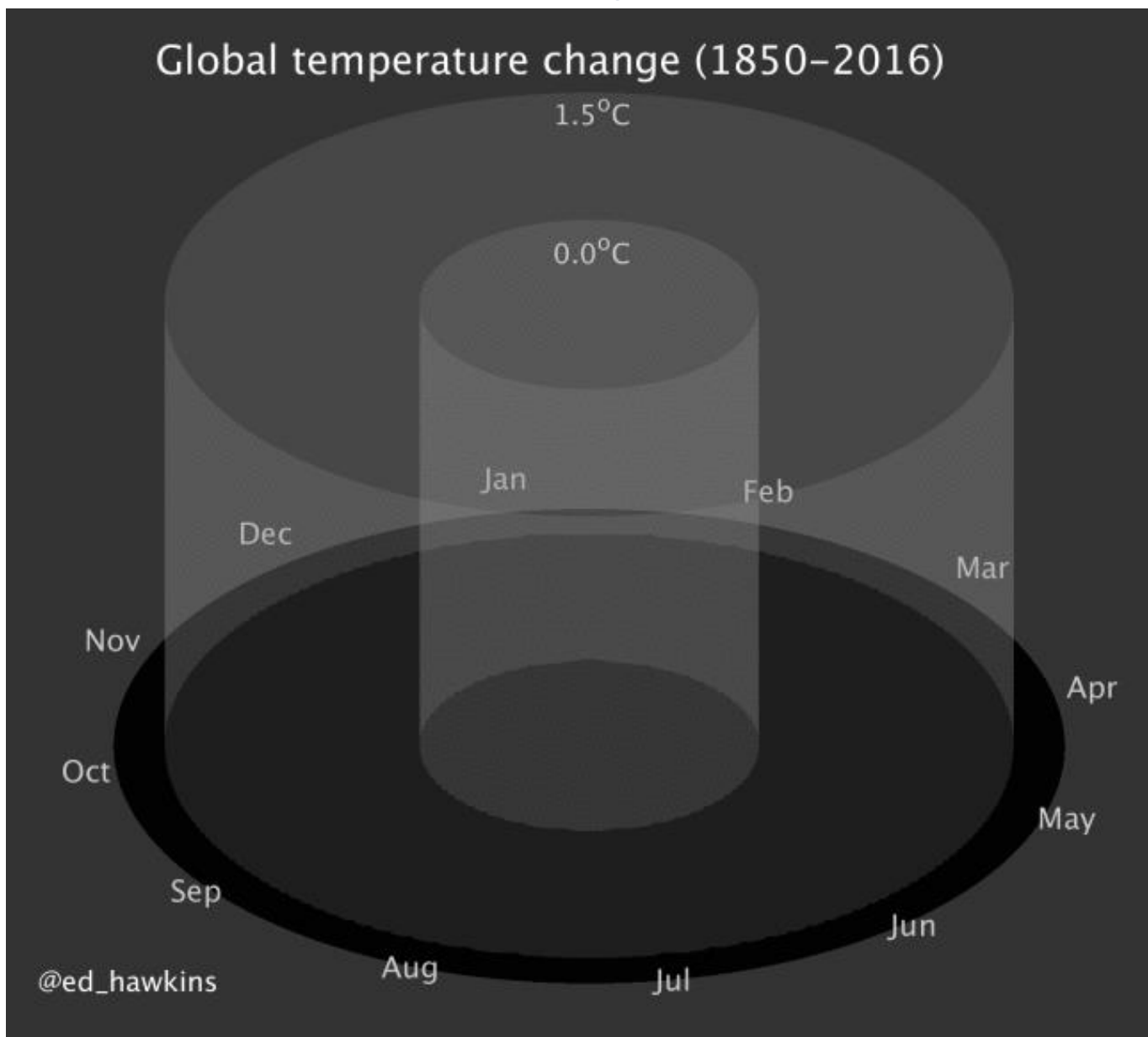


- Measured average temperatures in Europe have increased over 1°C since 1850;
- The limit not to be exceeded with the first mathematical models was 2°C, now the scientists, indicate the limit of 1.5°C;

Global Temperatures

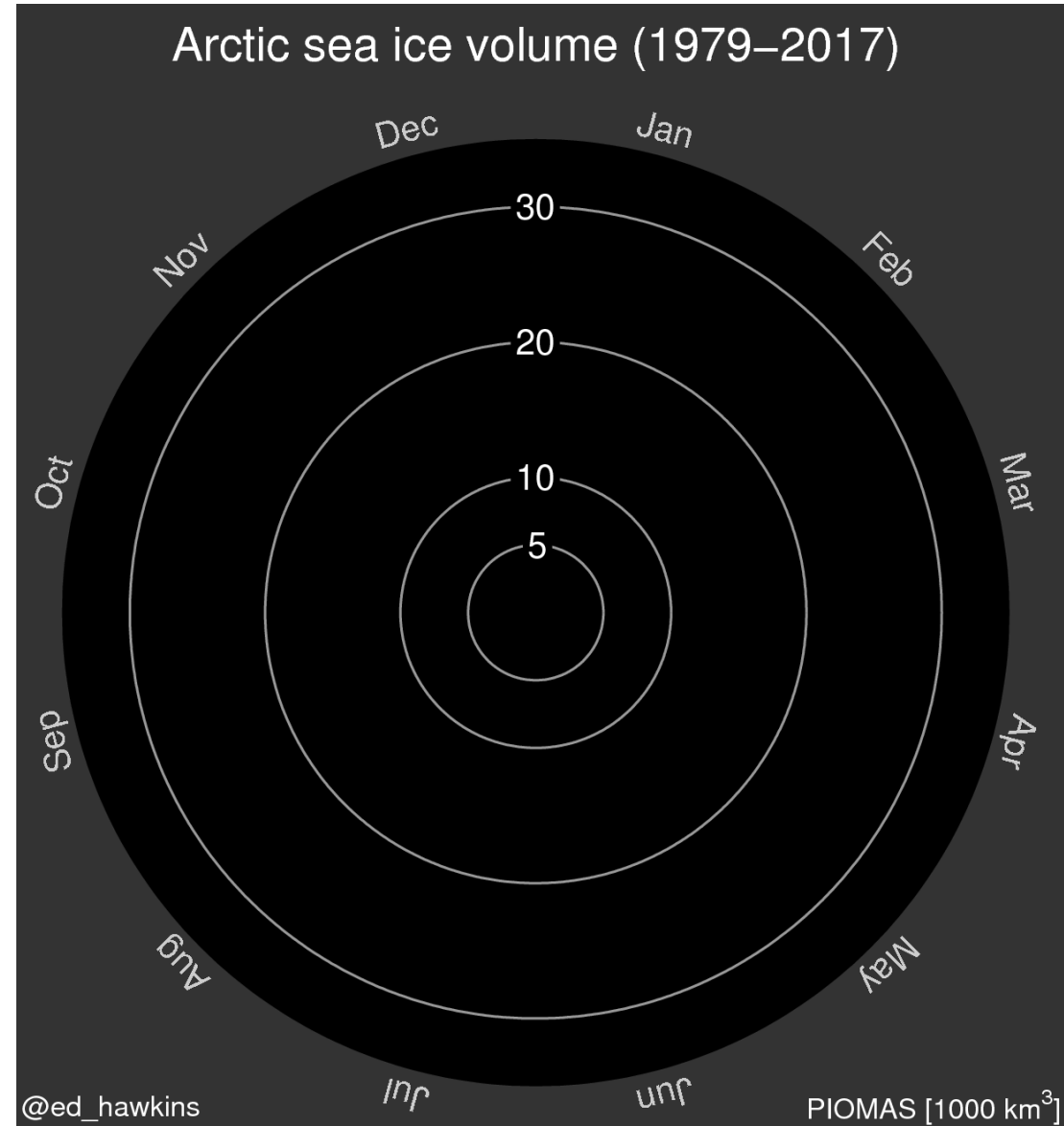


Global Temperatures



Arctic Sea Ice Volume Variation

- With the rise in global temperatures, **Arctic ice is melting faster**, in the animation you can see a reduction in ice volume over the years 1979-2017



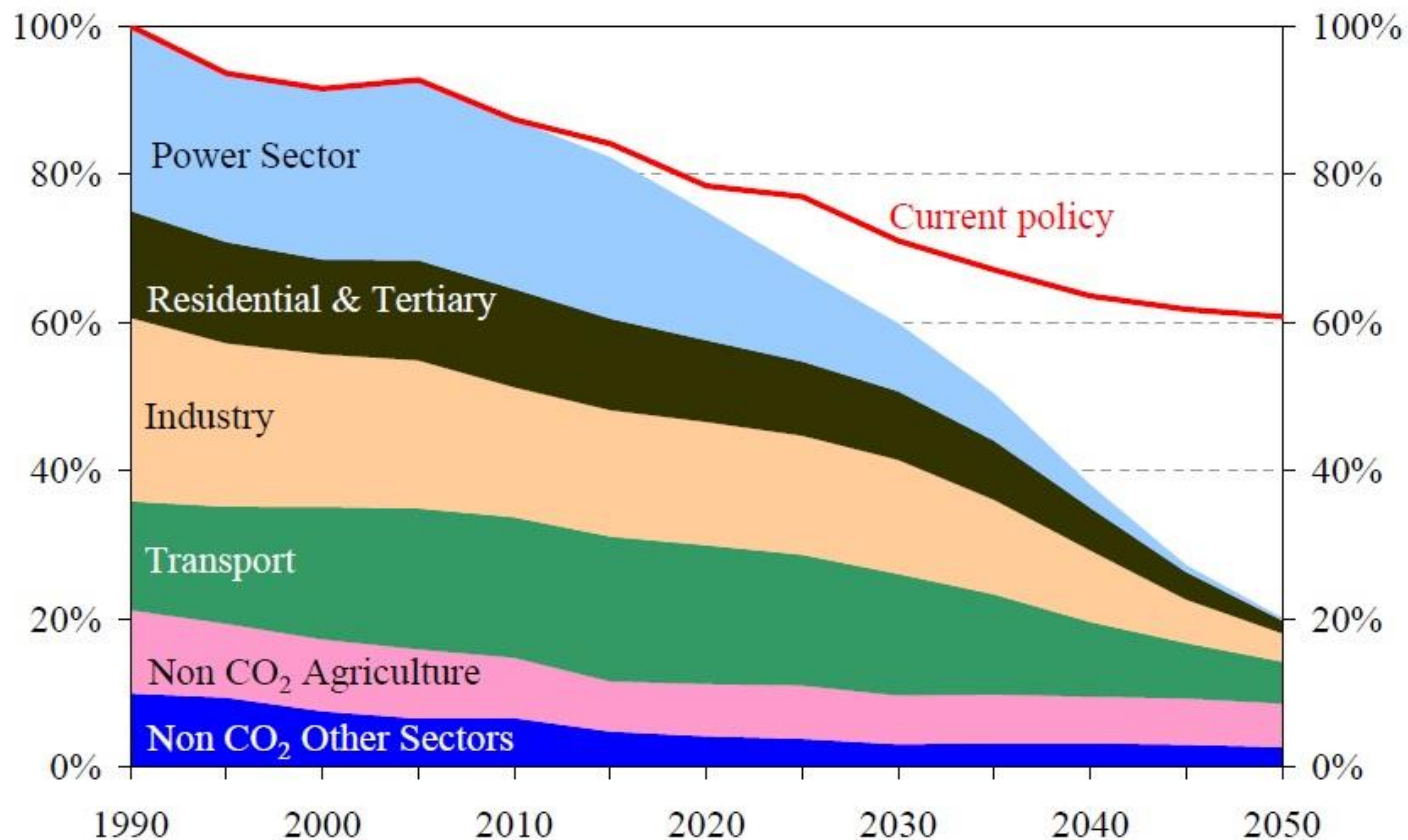
A bit of history....

- **Since 1992** - UN Framework Convention on Climate Change (UNFCCC).
- **2005/12** - **The Kyoto Protocol** (COP3-1997), sets binding emission targets for industrialized countries participating: - 6.5% Italy, -8% EU by 2012.
- Many of the non-member countries to the Kyoto Protocol have **set their goals** for reducing emissions.
- **2008/20** - The Europe adopts its own emission reduction plan with the EU **Directive 20-20-20**: by 2020 and 2030.
- **2011/12** - The **European Roadmap to 2050** for the climate: -40% in 2030, -60% to -80% in 2040 by 2050. Maximum Temperature Target **2.0°C**
- **2014/30** - EU adopts an emissions reduction plan: **-40% greenhouse gas emissions, 27% RES share, + 27% Energy Efficiency by 2030**. Maximum Temperature Target 2.0°C
- **2015** - **Paris COP21 increment of the Kyoto Protocol commitments with the new climate agreement**, Maximum Temperature Target **+ 2.0°C** goal tending to maximum **1.5°C** (2018 IPCC report)

The EU Roadmap to 2050

CO2 target emissions reduction compared to 1990 levels: **-40% by 2030, -60% by 2040 and -80% by 2050**

Figure 1: EU GHG emissions towards an 80% domestic reduction (100% = 1990)



We can do more....

The COP21 Paris Commitments in 2015

- Maximum increase temperatures **<2°C to 1.5°C**;
- Emission peak to be reached "**as soon as possible**";
- Confirmed targets: **-40%** in **2030**, **-80 / 95%** in **2050** compared to 1990;
- at EU level: **RES + 27%** and **fuel consumption savings (EE) 30%** by 2030;
- More signals:....
- multi-level governance - the role of cities;
- Ratification of the Paris agreement very fast!! (8 months);
- Laudato SI, encyclical of Pope Francis on the common home security;
- UN 2030 Agenda for Sustainable Development.

How? Mitigation!

All actions that reduce the greenhouse gases concentration in the atmosphere: 1) reduction of emission sources (the CAUSES of climate change) and 2) increase the storage of atmospheric CO₂ through the Carbon sinks(natural or man-made systems that absorb and retain CO₂ , removing it from the atmosphere). Forestation is an example of mitigation intervention which aims to increase CO₂ storage. The Kyoto Protocol is an example of mitigation policy.



Source: www.liferaces.eu

What Advantages from organic Crops?

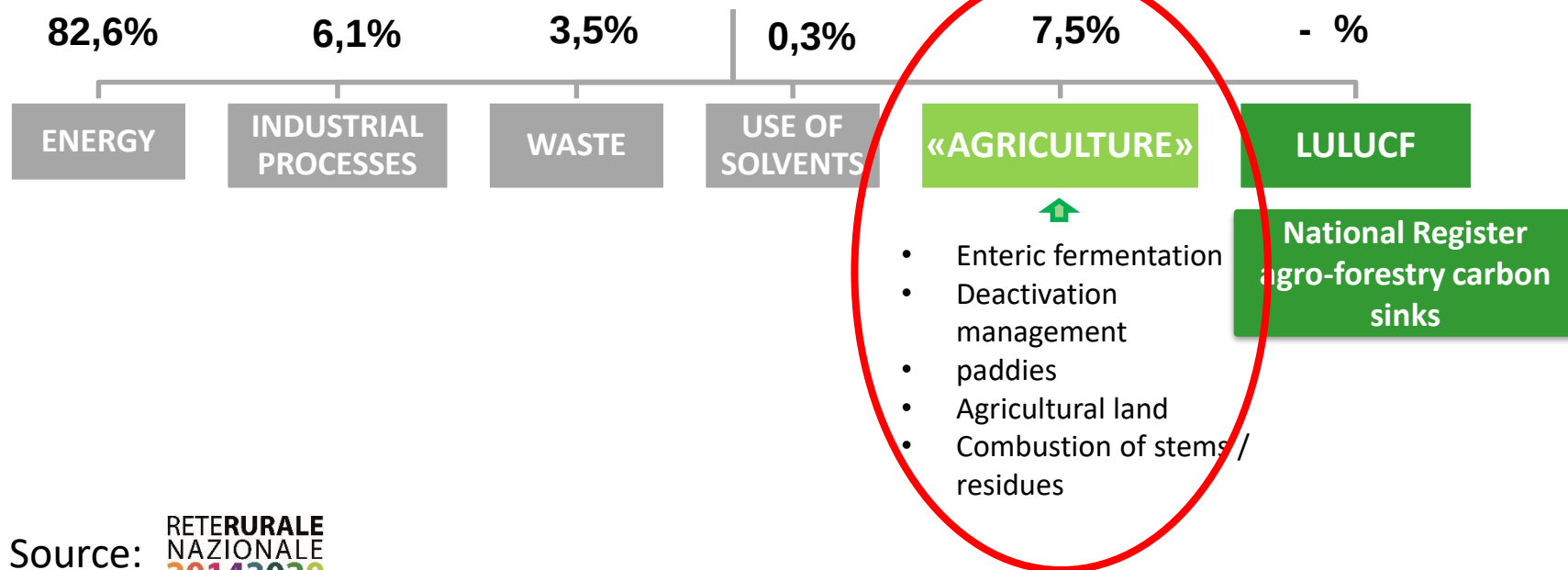
- An example: The "*4 % Initiative: Soils for Food Security and Climate*" project (4p1000.org) - an increase of 4x1000 atmospheric carbon in the soil every year could be enough to hold global warming below 1.5-2 °C.

There is a direct relationship between the amount of organic matter (carbon) in the soil and fertility: **the same as other conditions, the greater the organic matter in the soil and the greater the fertility.** Organic cultivation involves the use of organic fertilizers, crop rotations with different crops and associated with cultivation techniques such as no-tillage, strip tillage, drop irrigation, cover crops, residual digging, etc., to maintain a balance and maintain And increase the amount of organic matter in the soil.

The National Inventory

NATIONAL INVENTORY OF SERRA GAS EMISSIONS (INVENTORY)

Net greenhouse gas emissions generated by
(total emission share in 2012)



Source:

RETERURALE
NAZIONALE
20142020

National inventory emission 2008-2012: non-ETS sector

(+ for emissions; – for Carbon sinks)

Sectors and subsectors		Greenhouse gas emissions (thousands of tonnes CO ₂)	
		Average	Var. 08-12
		2008-2012	on 1990
1. Energy		410.444	-1,7%
2. Industrial processes		31.236	-18,6%
3. Use of solvents and other products		1.72	-29,9%
4. Agriculture		34.517	-15,5%
	- Enteric fermentation	10.831	-11,8%
	- Excreta management	6.197	-16,3%
	- paddies	1.52	-3,6%
	- Agricultural land	15.951	-18,4%
	- Combustion of stems / Agriculture residues	18	8,2%
6. Waste		17.439	-11,3%
Total without LULUCF		495.355	-4,6%

Source: RETERURALE
NAZIONALE
20142020

Il Biologico EU

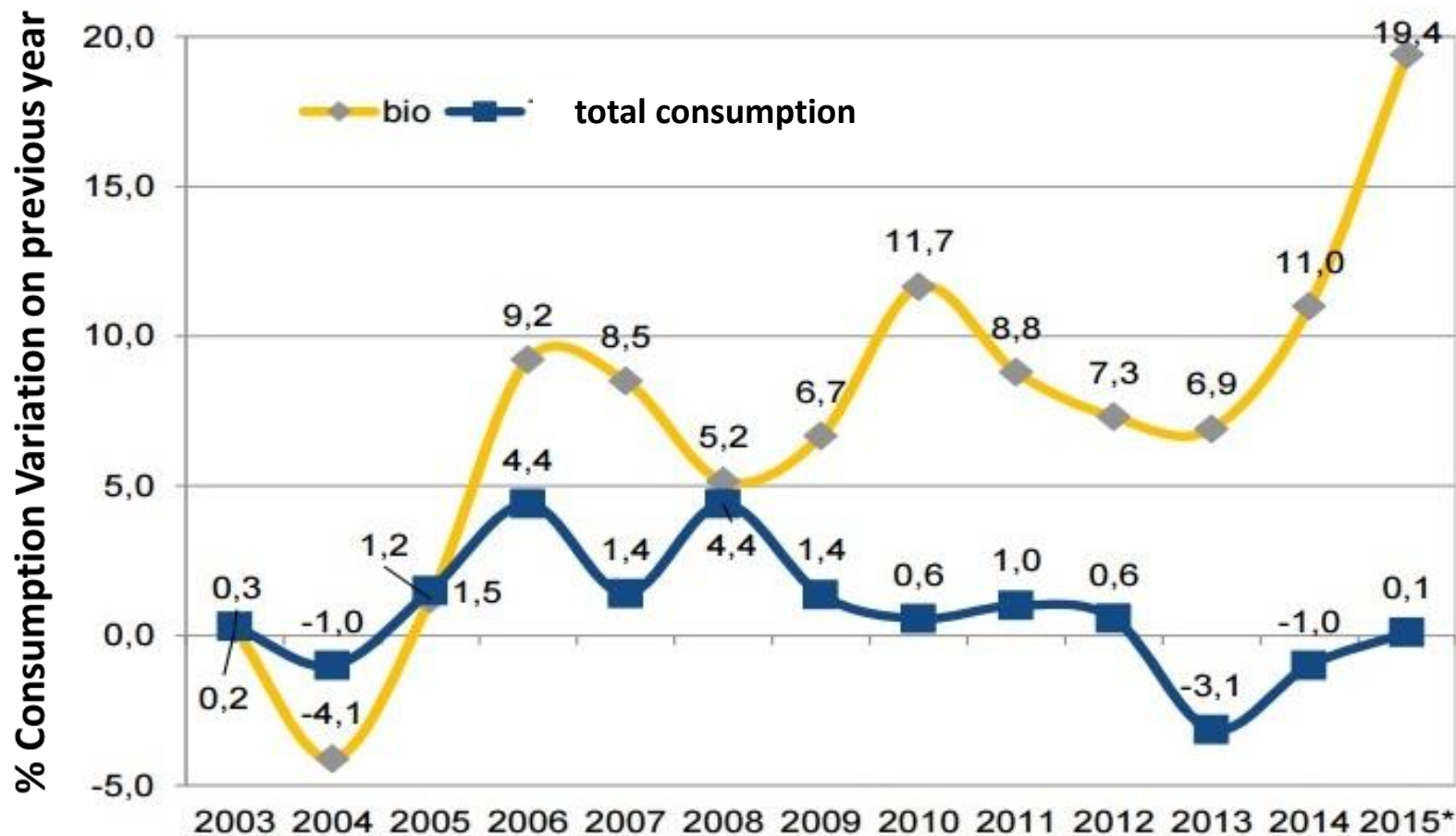
- In **EU**, le aree coltivate a biologico sono raddoppiate tra il 2005 e il 2011, nel 2012 l'agricoltura biologica è praticata su circa il **6%** della SAU.
- Circa il **65%** delle persone impiegate nel settore agricolo biologico sono giovani.
- Nonostante la crisi, il mercato biologico europeo è aumentato del **170%** dal 2002 al 2012.

Organic Farming in EU

- In the **EU**, organic farming surfaces have doubled between 2005 and 2011, in 2012 organic farming is implemented on around 6% of the Utilised Agricultural Area(U.A.A).
- About 65% of the persons working in organic farming are young people.
- In spite of the economic crisis the European organic farming market has increased of 170% between 2002 and 2012.

Organic Farming in ITALY

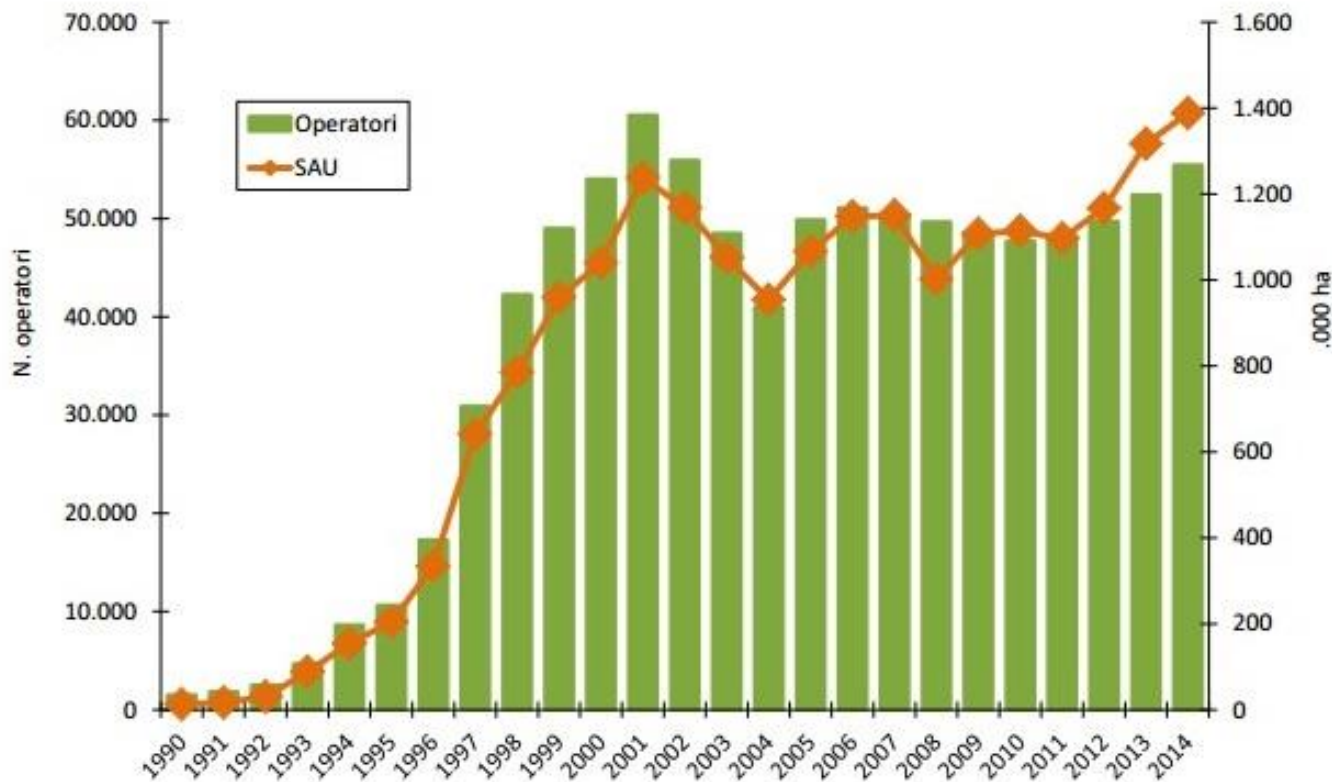
Organic production consumption evolution in Italy



Fonte: ISMEA

Organic Farming in ITALY

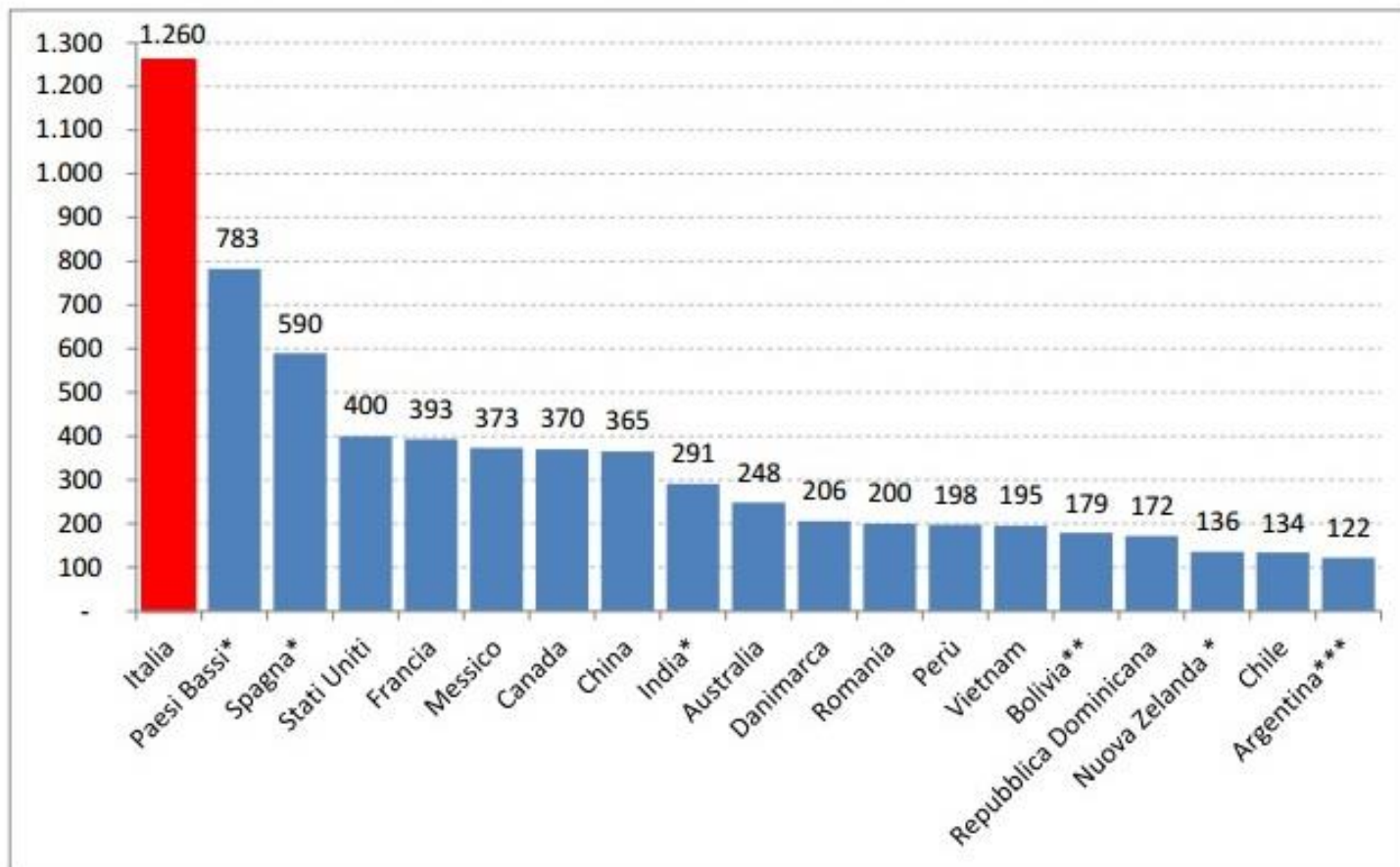
Italian OF operators and organically UAA in Italy



Fonte: SINAB

Organic Farming in ITALY

Value of the OF products exports in the world (2013 data – billion €)



* Dato al 2012; ** Dato al 2011; *** Dato al 2009

Organic Farming in ITALY

- Since 1990 in Italy, the sector grew at a very fast rate.
- In 2014, the cultivated areas with organic methods have reached an extension of 1,387,912 hectares, or 11.2% of the Italian total UAA (Utilised/Usable Agricultural Area), with an increase of + 5.4% compared to 2013.
- In the meantime, the number of operators increased of 5.8% more than the previous year, reaching the 55,433 units. The figure confirms Italy still leading in the relative ranking of operators in European countries (SINAB, 2015).
- The Organic National Strategic Plan, was adopted at the State-Regions Conference on 24/03/2016, in 10 specific actions.

Organic farming in EU, Cyprus, Italy

Table 1. Total area (ha) of cultivated land for each type of organic production and % of land covered by organic crops in Cyprus.

The total area cultivated with organic method in Cyprus in 2012 was 2,022 ha, 3.0% of the SAU.

Cultivated area ha	Grapes	vegetables	Beans	aromatic plants	orchard	Olive trees	Grazing	Other
2022	244	49	5.9	47	241	1183	282	41
%	5.7%	1.1%	0.14%	1.1%	8.7%	28%	6.7%	1%

In Italy, in 2012, the cultivated area was 1.167.362 hectares (12.9 million hectares of UAA - utilized agricultural area), about 9% of the UAA; By 2014 there was an increase in the organic area of around 19% (1,387,912 ha), covering about 10.7% of the UAA.

In the EU, organic areas are growing despite the crisis, in 2012 organic farming is practiced on about 6% of the UAA.

Source: Cyprus Department of Agriculture, 2012; SINAB – *Bio in cifre 2012, 2014*

Sustainable Tourism

www.tourism4development2017.org



2017
INTERNATIONAL YEAR
OF SUSTAINABLE TOURISM
FOR DEVELOPMENT

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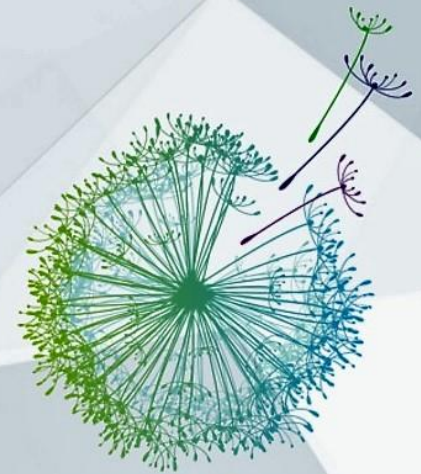
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INTERNATIONAL YEAR 2017



2017
INTERNATIONAL YEAR
OF SUSTAINABLE TOURISM
FOR DEVELOPMENT

2017 - UN International Year of Sustainable Tourism

2017 is the International Year of Sustainable Tourism, launched by the 70th UN General Assembly, to promote sustainable tourism and the key role to play in:

- **Sustainable and inclusive economic growth;**
- **Social inclusion, work and poverty reduction;**
- **Resource efficiency, environmental protection and fight against climate change;**
- **Awareness of the heritage of the various civilizations and values of other cultures;**
- **Mutual understanding, strengthening of peace and security.**

Sustainable Tourism

- The concept of **sustainable tourism** was introduced at the end of the 1980s to indicate a travel way respectful of the planet, which does not alter the environment – artistic, natural and social - and does not interfere the development of other social and economic activities;
- Recognizing its role to "foster a better understanding between countries, promote greater awareness of the wealth of heritage of different civilizations and bring about a better appreciation of values inherent in different cultures, thus contributing to the consolidation of peace in the world."

Link e info

- <http://organikolife.com/en/>
- <https://www.kyotoclub.org/progetti/organiko>
- <http://www.sinab.it/>
- <http://www.feder.bio/>
- <http://www.aiab.it/>
- <http://www.suoloesalute.it/>

Some interesting organic projects

- <Http://4p1000.org/>
- <http://farmknowledge.org/>

Thanks for your attention!!



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Kyoto Club

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