



# Characterization of community composters

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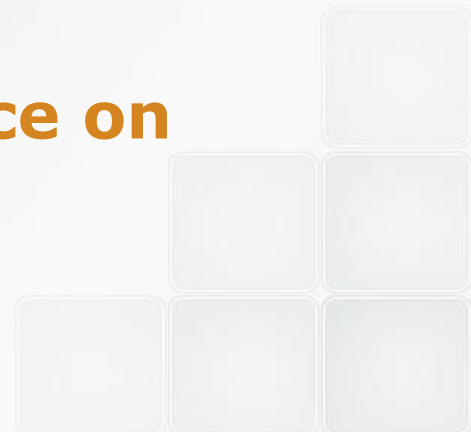
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(1) ENEA: Italian National Agency for new Technologies, Energy and sustainable economic development

(2) Ministry of the Environment

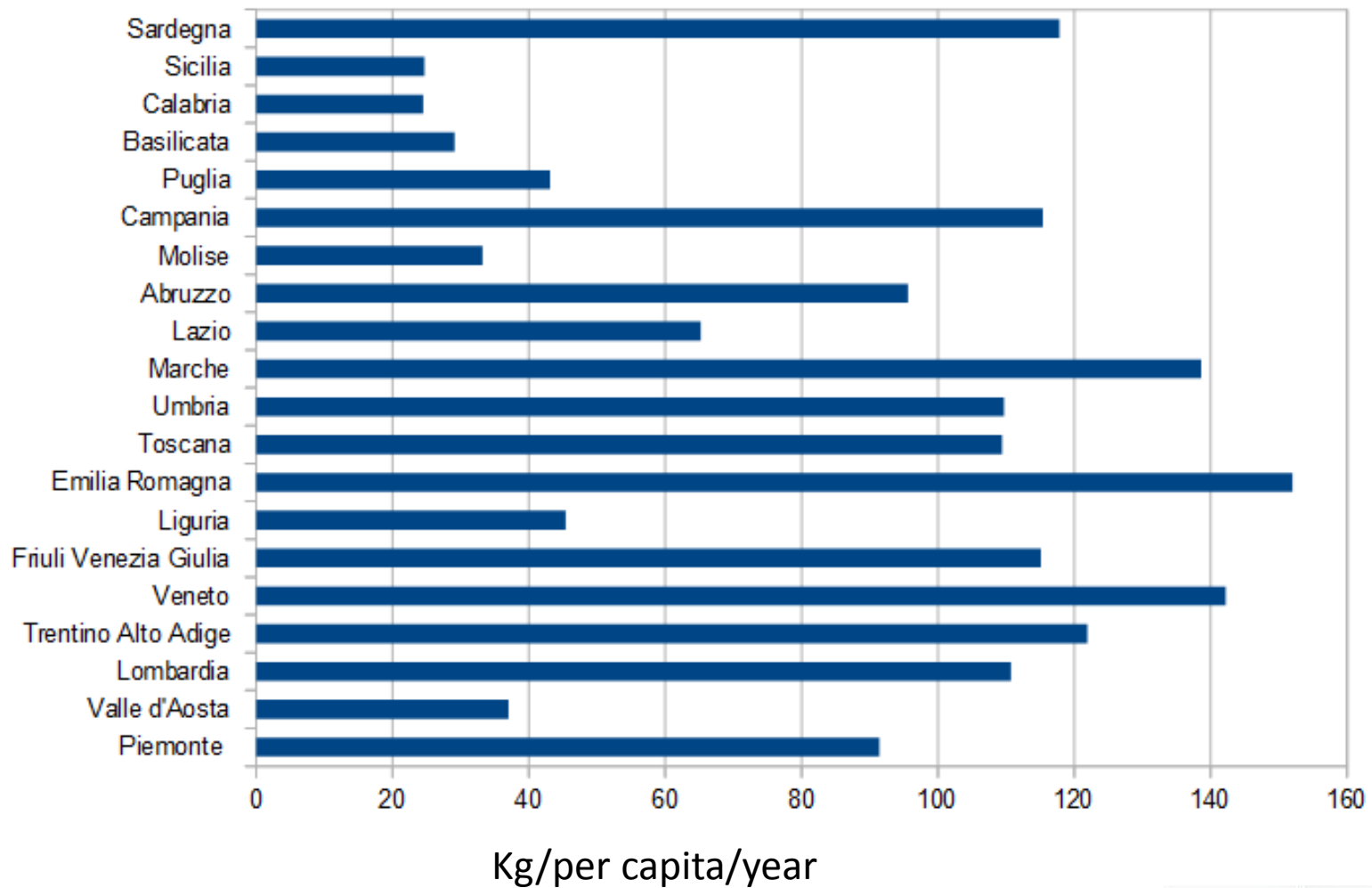
**Cyprus 2016: International Conference on Sustainable Solid Waste Management**

**Session V: Composting**

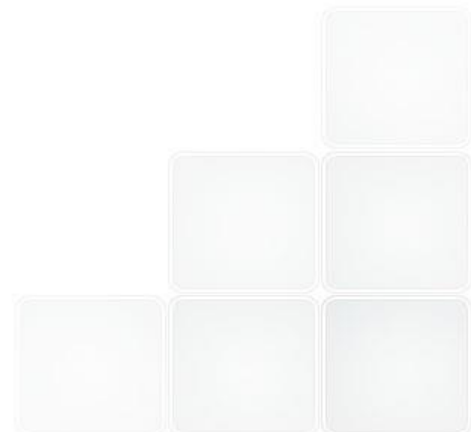
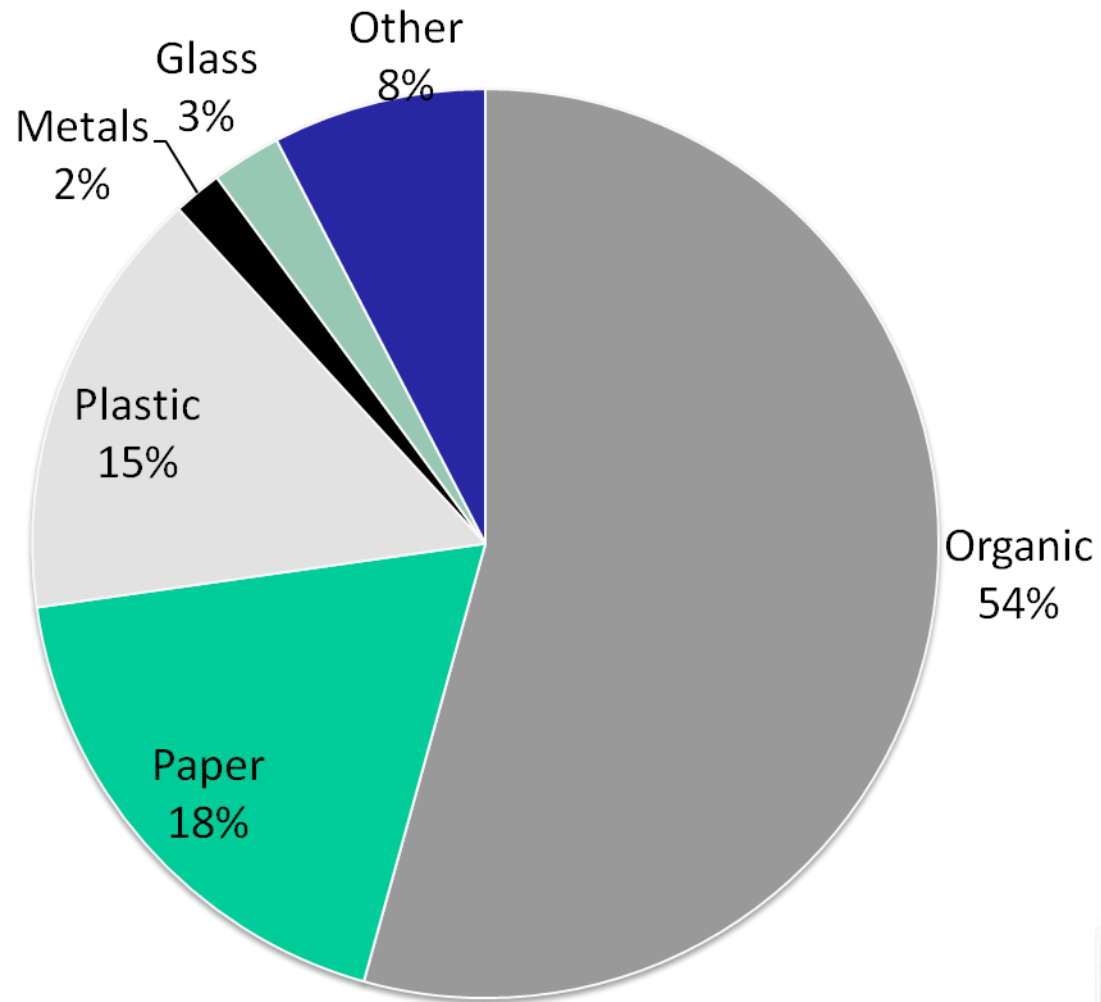


Italy average : 94 Kg/per capita/year

### Biowaste Separate Collection in different Italian regions



# % cost



# Composting scale

Large plants

Small plants

Local composting

Community plants

Domestic composters



**Up to the end of 2015:  
Same legislation and requirements as  
the larger plants**

# Visiting small composting plants



# Fabriano: Loccioni Group



# Cuccaro Vetere



# Praticanat, Fenestrelle (TO)

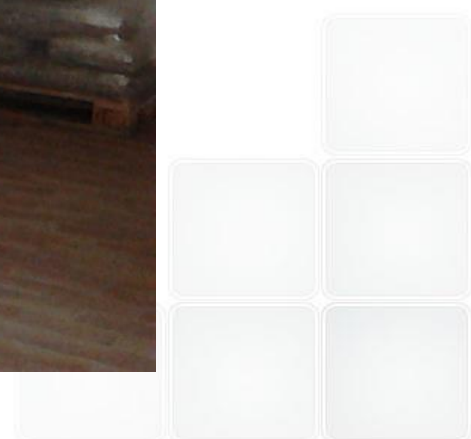




# ENEA ASTRO Project



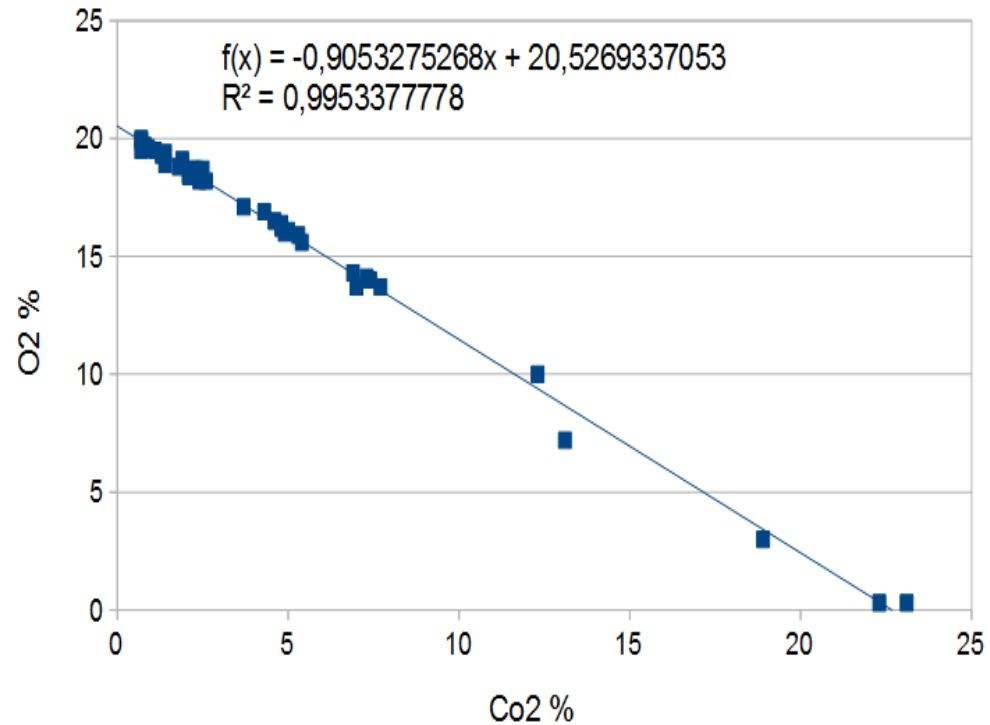
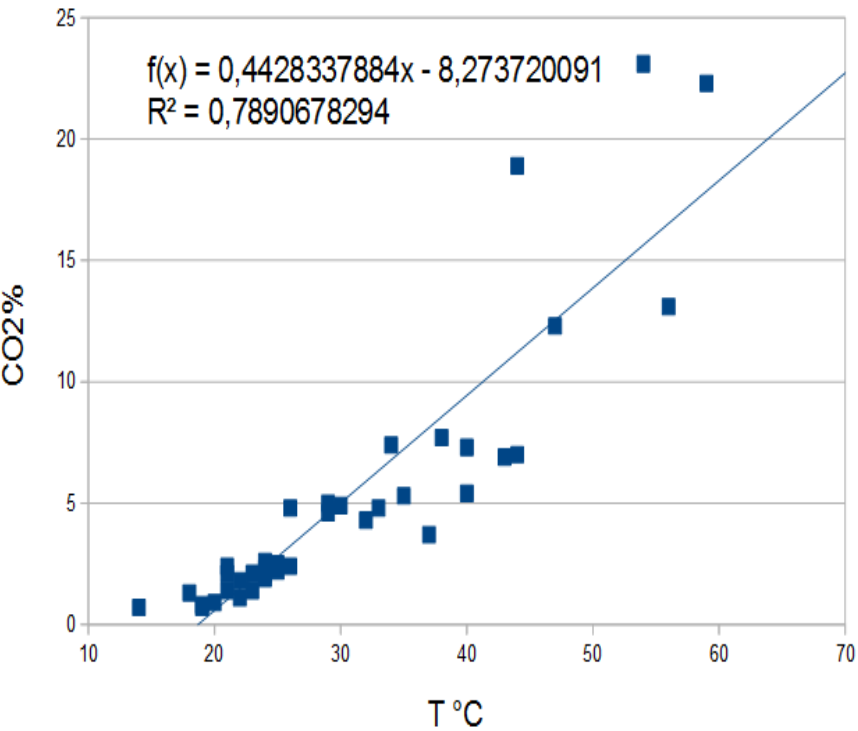
# SANTAS (CRTech)



# Big Hanna T60



# Example: data from a Big Hanna Composting plant



## Changing the Environmental Act

### Art 37: *“treatment of organic waste through composting”*

Home composting is extended to economical activities (on site composting)

A discount is mandatory on the waste fee/tax

Simple statement for login of small plants (up to 80 t/y) local composting

### Art. 38: *“provisions for promoting the composting of organic waste”*

Community composting: collective composting by many which are also the users of the compost

A discount is *“possible”* on the waste fee/tax for local and community composting

**A Decree must be published** by the Ministry of the Environment for the authorization of the community composting plant

# Questions..

Who is the waste producer?

Who is managing the plant?

Who is using the compost?

If the answers are the same user then

**ON SITE COMPOSTING**

**AND**

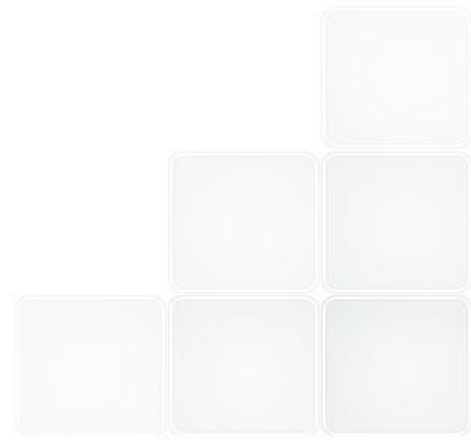
**WE DON'T NEED AUTHORIZATIONS**



# Questions on community composting:



- How small a plant should be not to have the need for an authorization?
- What kind of characteristics should have the compost?
- What kind of sensors we need to monitor the process?
- Can the plant be operated by an external agent?
- Can the waste be collected by an external agent?
- What define “collective”?



# Ad hoc working group

- Ministry of the Environment
- ENEA (National Agency for new Technologies, Energy and sustainable development)
- Ispra: National Environmental Protection Agency
- CIC: Italian Composting and Biogas Association
- Several stakeholders





# The draft

## **3 thresholds (t/y):**

- 1)10 (quantities are estimated)
- 2)60 (a register must be kept with the quantities)
- 3)130 (data also on a web site)

Temperature  $> 55^{\circ}$  C during 3 days

Same analysis the industrial composting when ONLY compost is used in agriculture for food production

The process must last for at least 90 days

The “collective” must have a legal representative

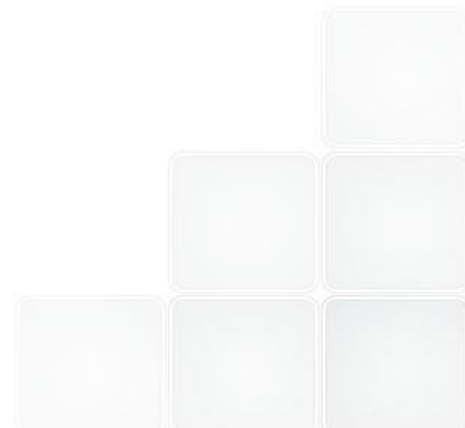
## **In any case the compost should have:**

Umidity 30-50 %

Temperatue  $<$  environmental  $+ 2^{\circ}$  C

pH 6 – 8.5

**Compost can not be sold or given free**



# Legislation after law 221/2015

User	Settlement	Compost usage	Definition	Limits	Examples
Unique	Same user	Same user	Home/on site composting	none	Homes, schools, Hotels with garden
Multiple	Same municipality	Any	Local composting	<80 t/year+ statement from the Regional Environmental Agency (ARPA)	Municipal plants
Unique	Same user	Any	Local composting	<80 t/year + statement from the Regional Environmental Agency (ARPA)	Hotels without a garden, local markets
Multiple	One of the users	At least one of the users	Community composting	Ministerial Decree (to be publish) by the Ministry of the environment	Blocks of flats
Multiple	Any	Any	Industrial composting plant	authorization under the 152/2006 Act. Compost with given specifications	Industrial composting plant

# Thanks



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