The Role of Bio-Waste in EU Circular Economy

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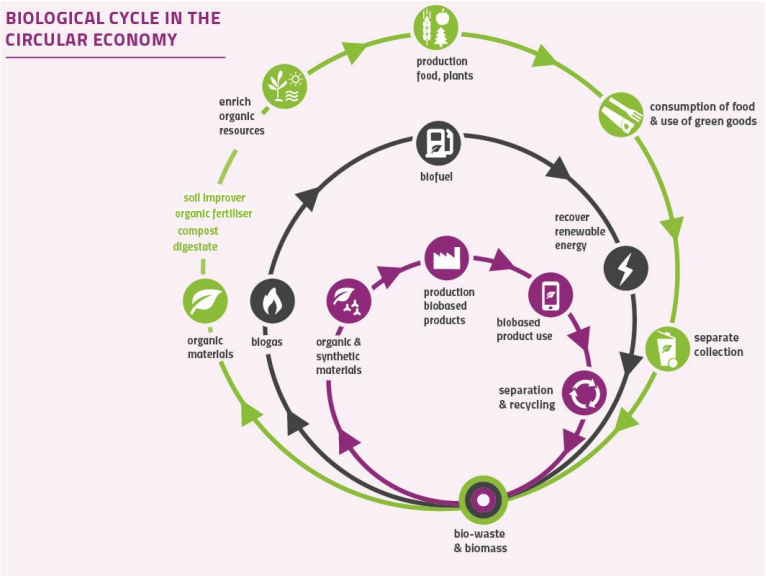
European Compost Network

ECN's Vision

"Living well within the limited resources of the planet respecting the organic cycle"



- ECN is the leading European membership organization
- Promoting sustainable recycling practices of organic resources: composting, anaerobic digestion…

65 members from 27 European countries

48 M tpa treatment capacities

4.500 treatment plants (composting & AD)

ECN

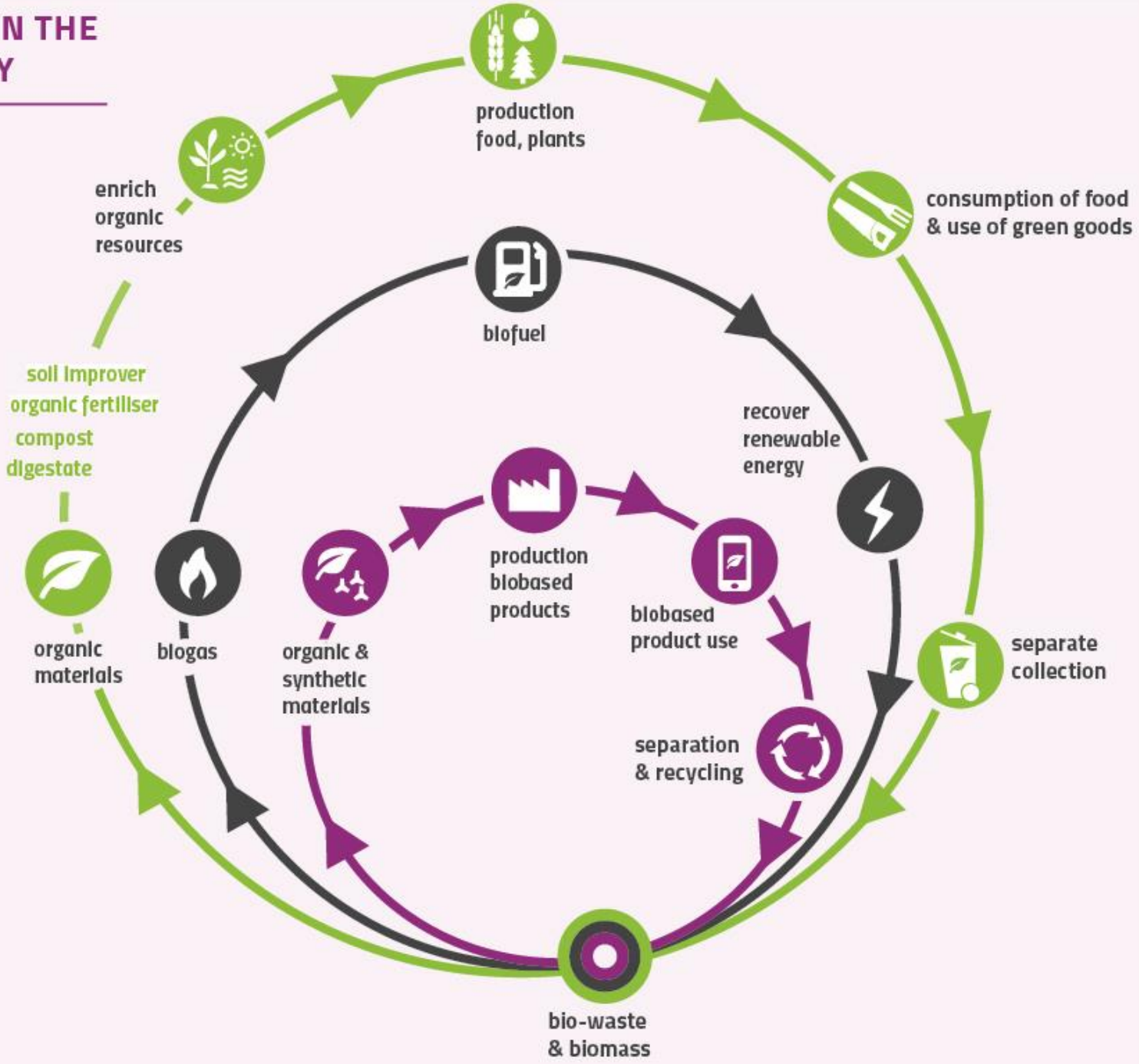
BIOLOGICAL CYCLE IN THE CIRCULAR ECONOMY

Bio-waste

- 20-60 % of municipal solid waste
- average 37 %

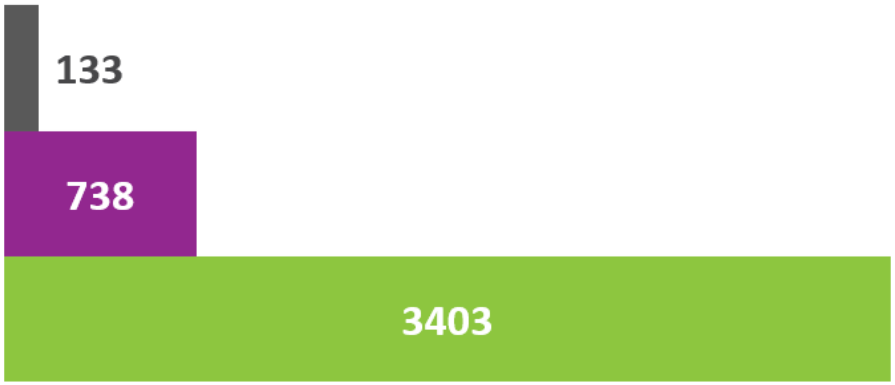
CE Objectives

- Reduction of waste production in Europe
- Promoting recycling
- Saving primary resources
- Establishing of markets for secondary products

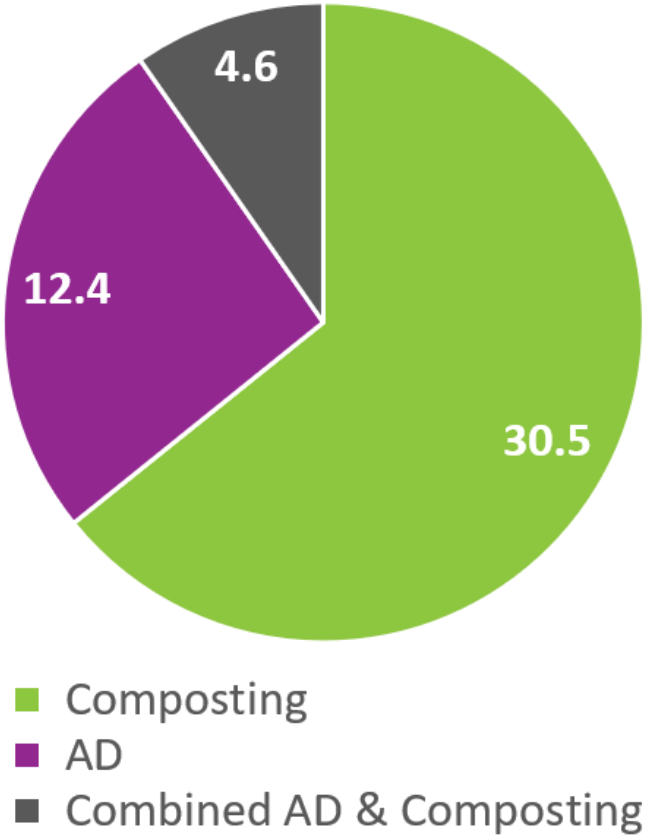


State on Bio-Waste Management in Europe

4274
Composting & AD bio-waste processing plants



47,5 million tonnes
bio-waste composted / digested



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Source: ECN Status Report 2019, based on data from 18 European countries (AT, BE, CH, DE, EE, FI, FR, HU, IE, IT, LT, NL, NO, PL, PT, SE, SI, UK)

Compost and Digestate Production

11.7
Million tonnes of compost

4.1
Million tonnes of digestate

Nutrients

129
Thousand tonnes of **NITROGEN RECYCLED**

42
Thousand tonnes of **PHOSPHATE RECYCLED**

(Theoretical estimates)

Carbon

3.5
Million tonnes (dry mass) organic carbon recycled

1.8
Million tonnes (dry mass) humic substances recycled

15,7 Mio. t of Compost and Digestate can replace

- **1.5 % of Total Inorganic Nitrogen**
- **4.3 % of Total Inorganic Phosphorus**

Application of 30 tonnes of compost (f.m. per ha)

- **9 t Organic Matter is added to the soil**

ECN

Source: ECN Status Report 2019, based on data from 18 European countries (AT, BE, CH, DE, EE, FI, FR, HU, IE, IT, LT, NL, NO, PL, PT, SE, SI, UK)

Compost Stores Carbon in the Soil

Soils can be improved by regular applications of quality compost.

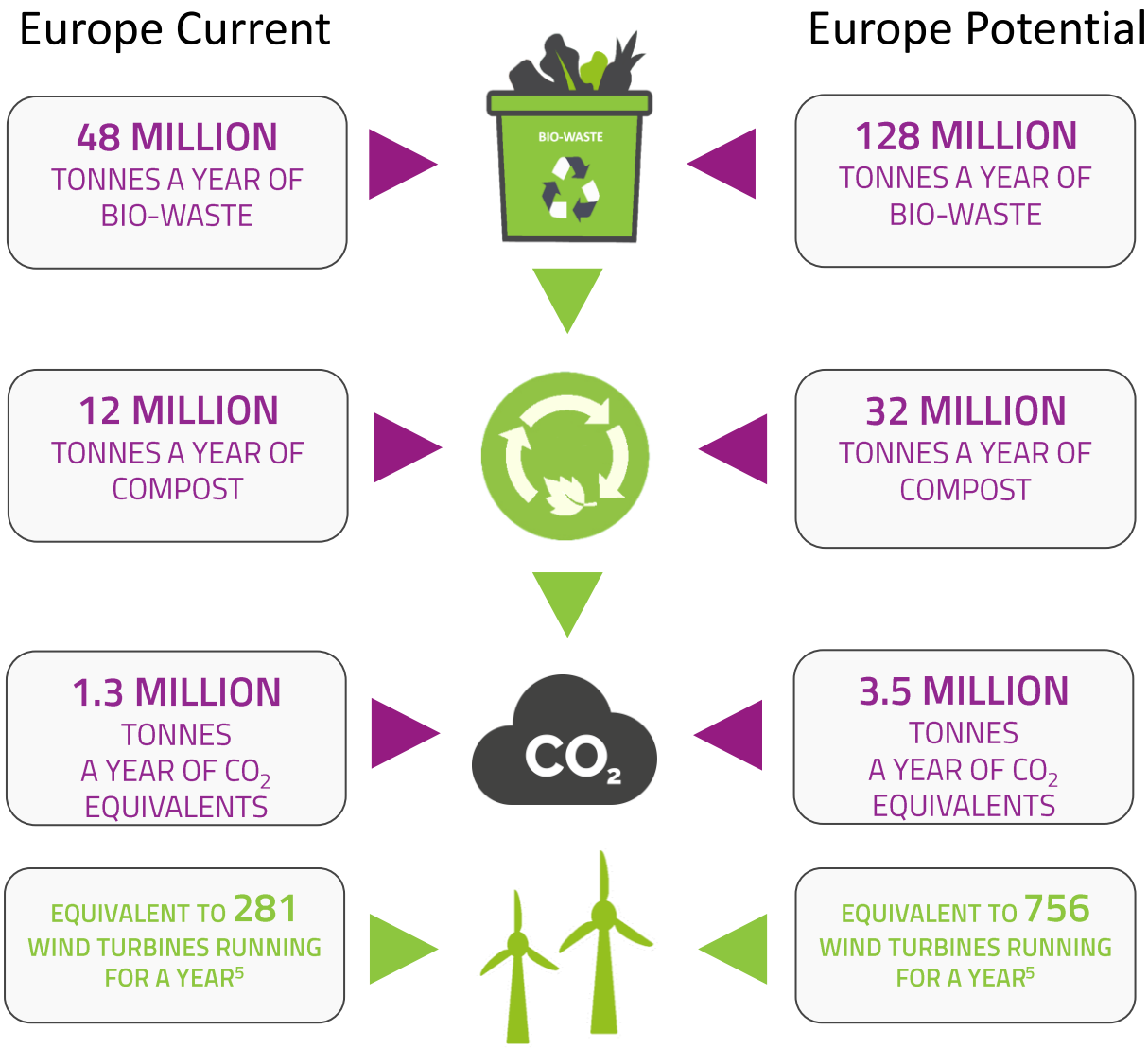
- A fraction of the organic matter in compost is converted into a stable form called **'humus'** - this remains in soil for many years.

1 tonne of compost (fresh mass) sequesters
30 kg soil organic carbon
110 kg CO_2 equivalents
(equivalent to 11% of its mass)

ECN

Source: ECN Factsheet 1: Soil Structure & Carbon Storage. www.compostnetwork.info

Soil Carbon Sequestration – Potential from Bio-Waste



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Source: ECN Factsheet 1: Soil Structure & Carbon Storage. www.compostnetwork.info

EU Green Deal

Carbon Neutral Economy 2050

Climate law Proposal (10/03/2020)

- GHG emissions reduction from source
- GHG emissions removal from the atmosphere in natural sinks – e.g. in soil

Farm to Fork Strategy 2020

- **Reducing mineral fertilisers and pesticides; increasing organic farming**

Biodiversity Strategy 2030

- **30 % restoring land and increasing organic farming**

CE Action Plan

2020

- New **chemicals strategy** for sustainability

2021

- **Green Public Procurement (GPP) criteria and targets** in sectoral legislation with **mandatory reporting**
- **Industrial Emission Directive: Revision**
- **Unintentional release of microplastics: labelling, standardisation, certification and regulatory measures**
- **Waste Shipment** Regulation: Revision

2022

- Harmonised model for **separate collection and labelling** of waste

2023

- Regulatory framework for **certification of carbon removals**

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Perspectives for the bio-waste industry

- Sustainable bio-waste management will play a key role in **Europe's circular economy.**
- **Member states** have to start with **implementation of separate collection and treatment of bio-waste.**
- High quality recycling is a pre-condition for **placing compost- and digestate-products on the European Markets**

- **Sustainable agriculture** by using recycled nutrients from bio-waste **and maintaining/increasing organic matter in soils have to be promoted in Europe**

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Main Priority Goals

to encourage policy makers to develop instruments to move Europe towards implementing sustainable, climate-proof land management practices:

- **Increasing Soil Organic Matter** in arable soils
- **Encouraging** the use of **recycled nutrients** and a **more efficient management of nutrients on agricultural land.**
- **Ensuring** that the European Commission adopts the Mission on Soil Health and Food **'Caring for soil is caring for Life'**
- **Protecting** the existing **stock of carbon in soils**
- **Maintaining** a high level of **organic fertility in soil** by applying **stable organic matter** (e.g. compost) **from biomass** (e.g. bio-waste)
- **Minimizing** further **losses of carbon** from carbon rich soils

Please sign the Manifesto here:

https://www.saveorganicsinsoil.org/

European Parliament Online Debate

Organics in Soil –

Biological Cycle and Sustainable Agriculture

Hosted by

MEP Franc Bogovic and MEP Elsi Katainen

Date: 13 October 2020

Time: 9:00 am – 10:30 am