

TAIEX-EIR Multi-country Flagship Workshop on biowaste management

Circular Economy aspects of the European Green Deal and related policies

Viewpoint of European Compost Network

Presented by

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ECN


Compost and Digestate
for a Circular Bioeconomy



@ECNnetwork

European Compost Network





 **Vision** Living well within the limited resources of the planet and respecting the organic cycle


 **Mission** Leading the organic recycling industry through our focus on separate collection of biowaste, quality assurance for compost and digestate and to keep our soils healthy

Values

-  Care
-  Internet & Networking
-  Simplicity

Pillars

-  Quality Assurance
-  Advocacy
-  Market
-  Innovation


Circularity & Sustainability is at the heart of everything we do

66 Members from 28 European Countries

≈ 48 M tpa Treatment Capacity

> 4.500 Composting & Anaerobic Digestion Plants

Biowaste & The Bioeconomy

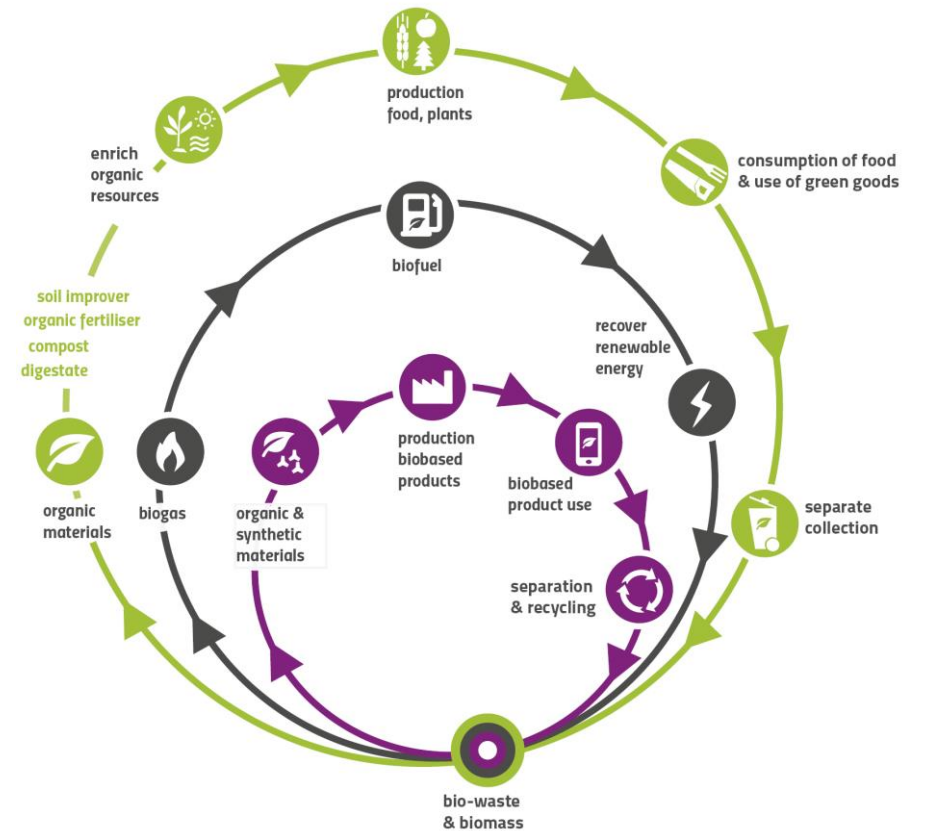
BIOWASTE



A Cross-Cutting Resource



BIOWASTE in the Circular Bioeconomy



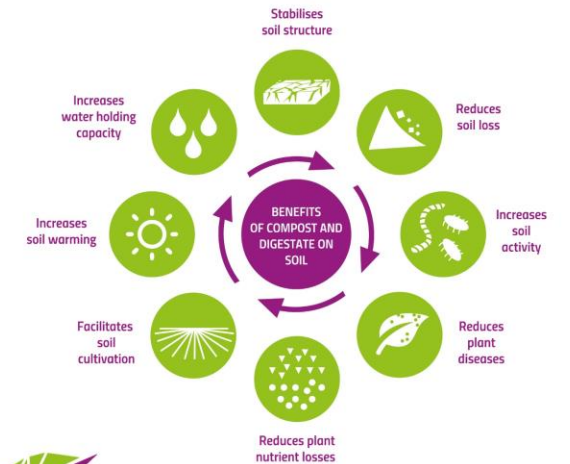
Comprehensive survey in 2021



ECN DATA REPORT 2022

COMPOST AND DIGESTATE FOR A CIRCULAR BIOECONOMY

Overview of Bio-Waste Collection, Treatment & Markets Across Europe

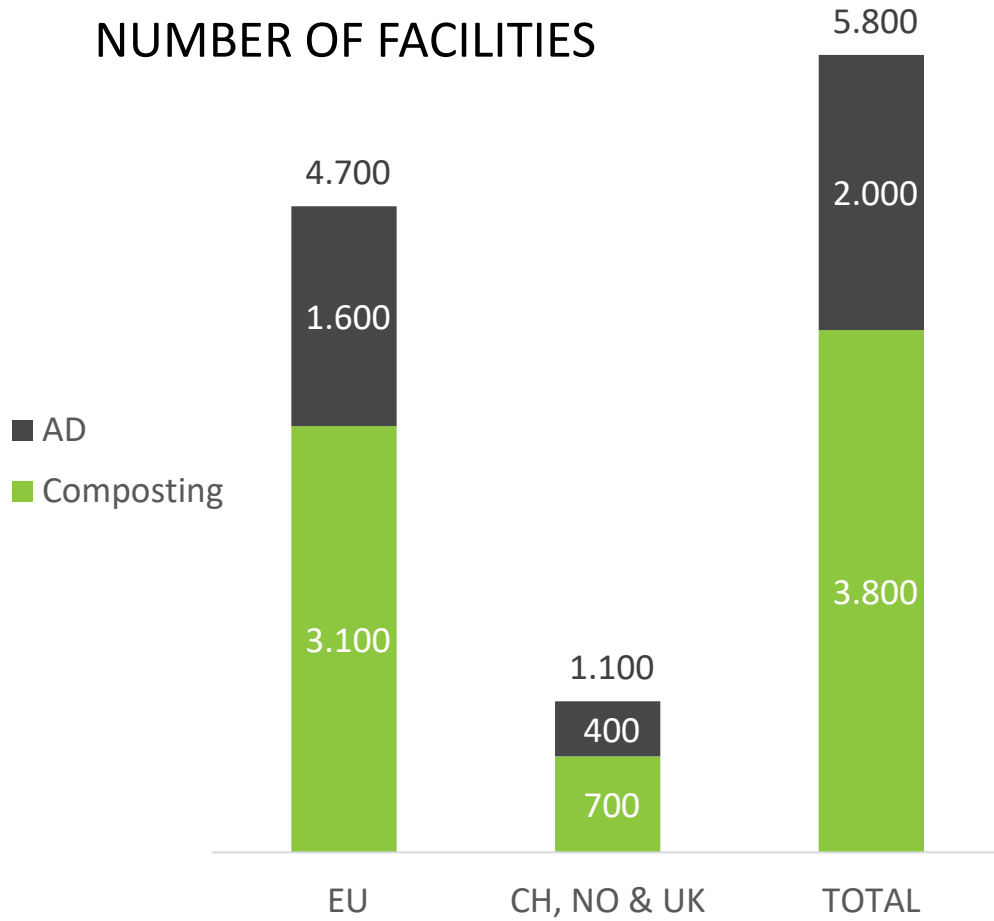


Download:

www.compostnetwork.info

Biowaste Treatment – FOR PEOPLE – JOB CREATION

NUMBER OF FACILITIES



	FTEs PER FACILITY	TONNES PER FTE
COMPOSTING	4.7	4,200
ANAEROBIC DIGESTION	4.9	5,300



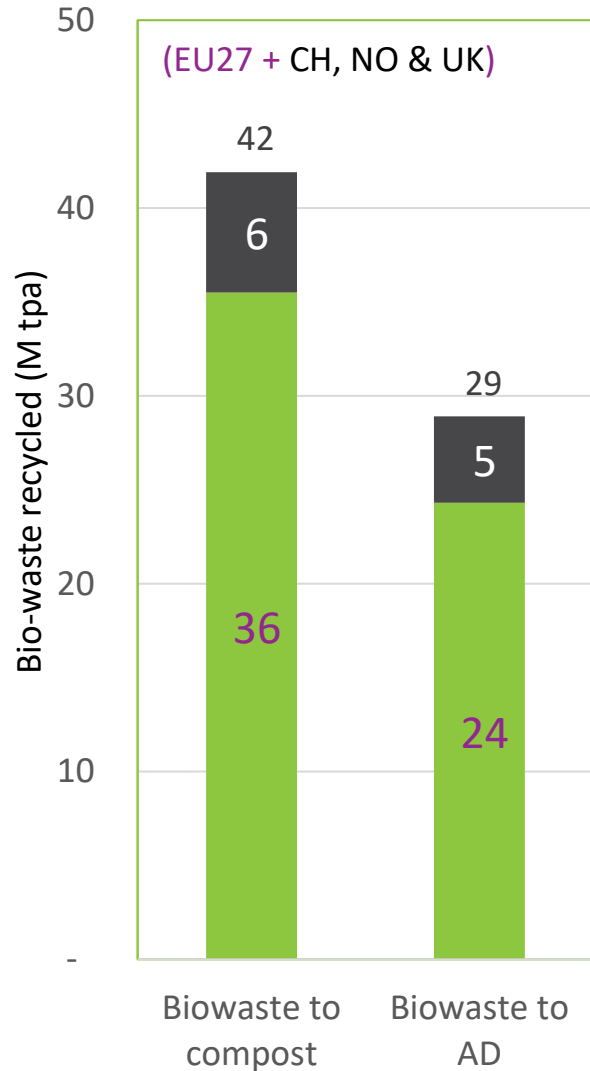
11,000 - 18,000 FTEs
COMPOSTING



2,000 - 5,500 FTEs
ANAEROBIC DIGESTION

FTE – Full Time Equivalent Employees

Biowaste Collection – Compost & Digestate Production



71 M tpa

BIO-WASTE RECYCLED

21 M tpa

COMPOST PRODUCED

Surface area (million ha)	Fraction of Arable Land	Fraction of Mod./ Severely Eroded Land
2.1	2%	16%

1.2 million tonnes CO₂-eq
sequestered on agricultural
soils every year

=

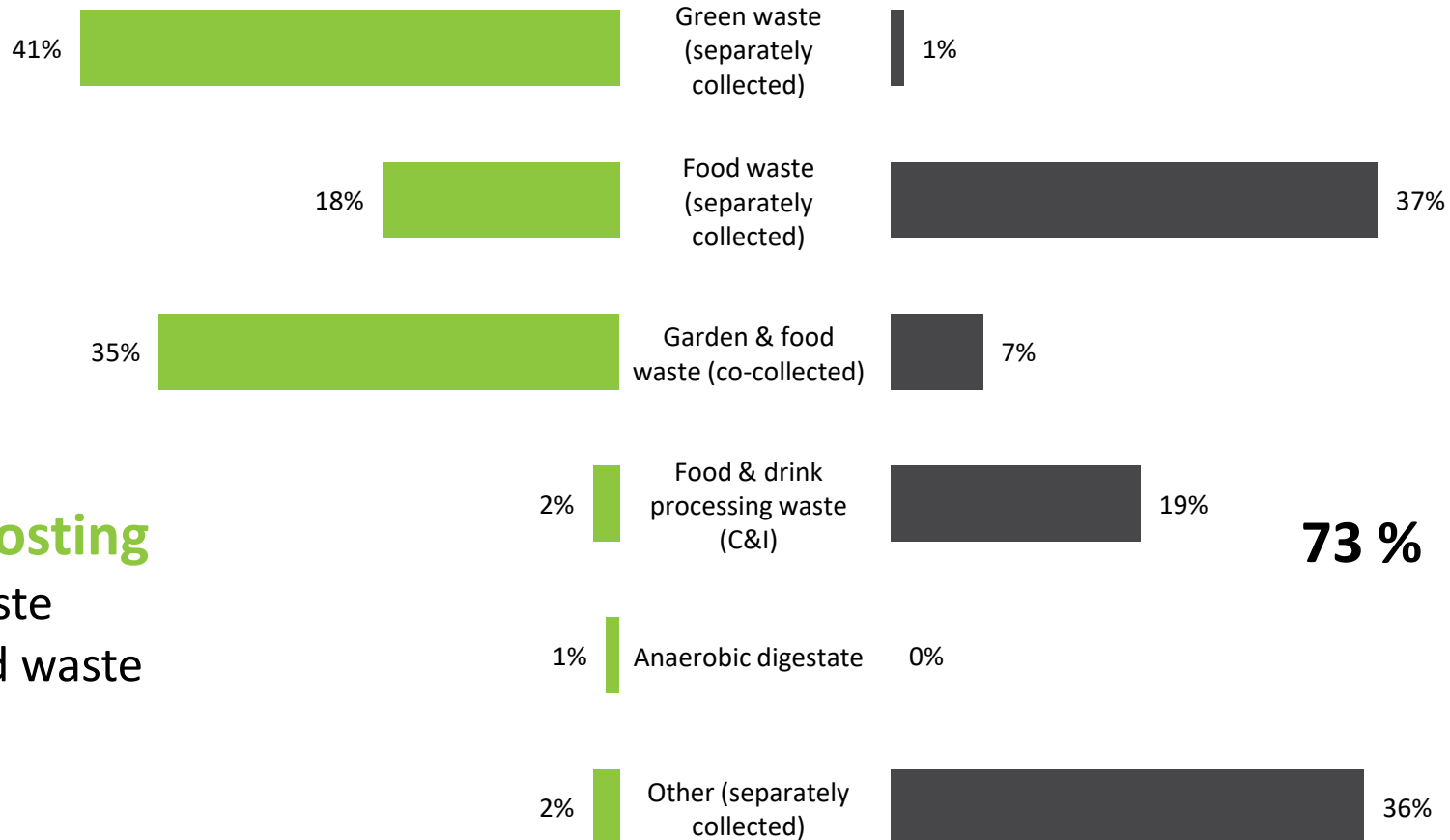


19.1 million
urban tree
seedlings grown
for 10 years

Biowaste – TYPES COMPOST & DIGESTATE PRODUCTION

Composting

Anaerobic Digestion



76 % Composting

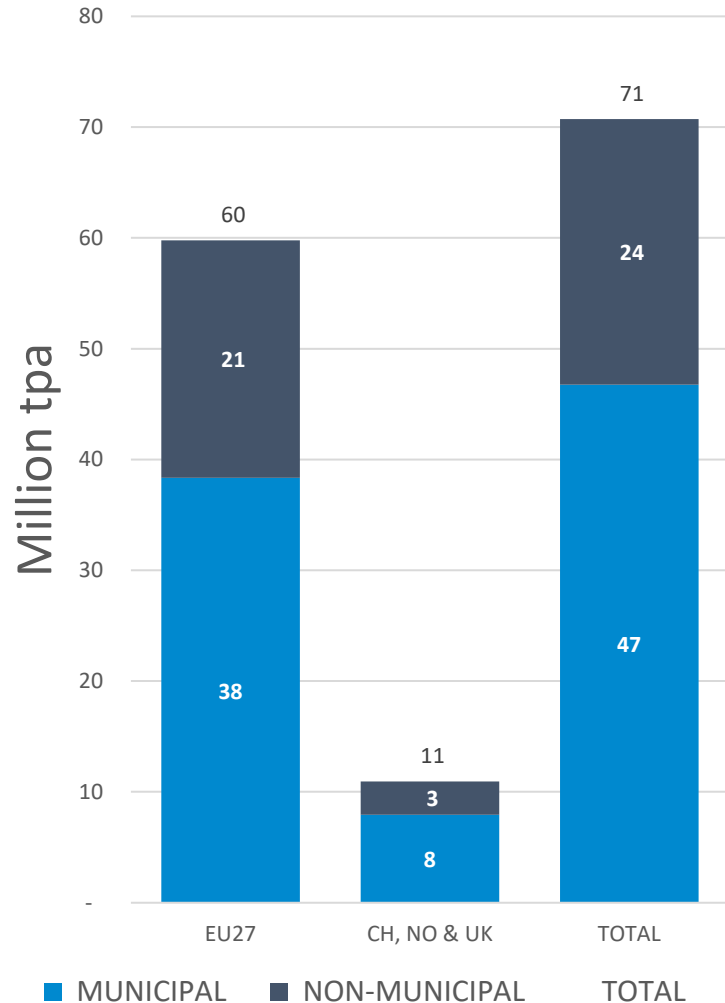
Green waste
Garden & food waste



73 % Anaerobic Digestion

Food waste
Other

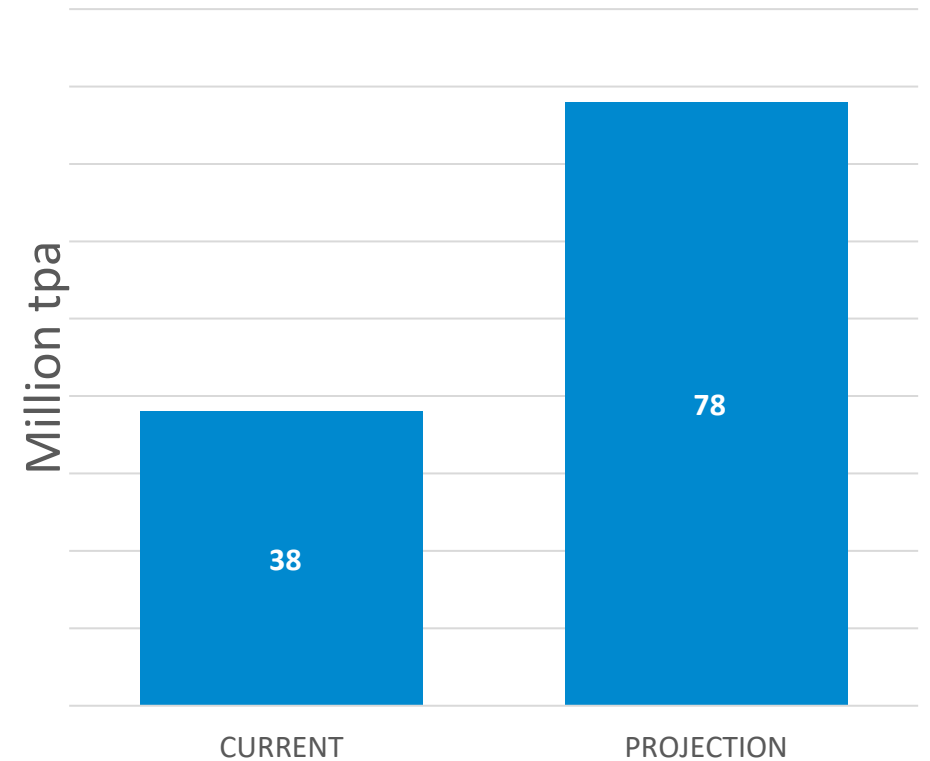
Municipal Biowaste – RECYCLING POTENTIAL



**EU TARGET TO
RECYCLE 65% MSW
BY 2035**

**17% to 35%
needed through
bio-waste**

**Extra 40 M tpa
MUNICIPAL
BIOWASTE has to
be separately
collected!**



Biowaste – GUIDANCE ON SEPARATE COLLECTION

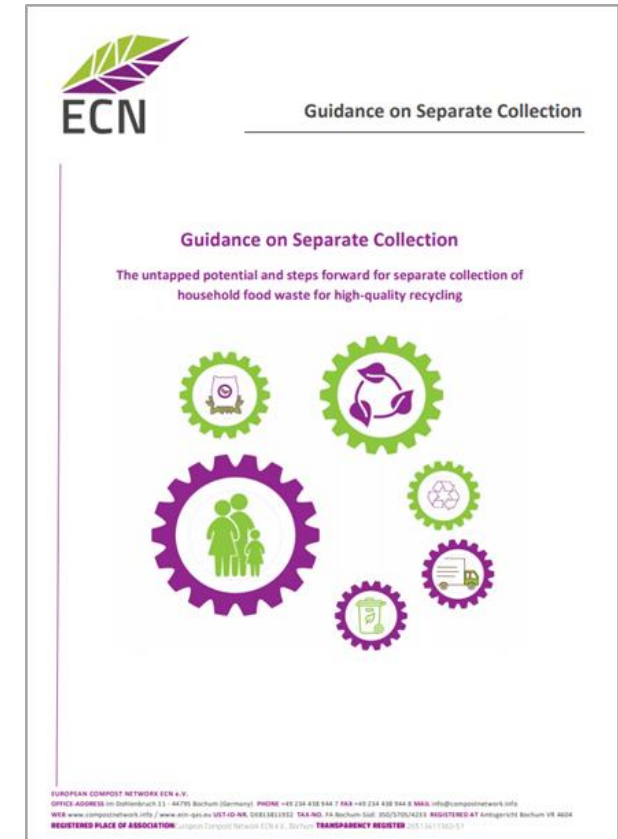
The guidance focuses on setting **indicators to evaluate the effectiveness of separate collection of bio-waste and**

- Separate collection schemes mainly rely on the collection of green waste
➔ 39 % of biowaste remains in residual waste (UBA 2020)

Recommendations

- Monitoring of the bio-waste composition (green waste and food waste)
- Minimizing the amount of food waste (kg/capita/year) in the residual waste
- Reducing impurities in the collected bio-waste

- ECN Online map with good practices on separate collection
<https://www.compostnetwork.info/policy/biowaste-in-europe/separate-collection/>



<https://www.compostnetwork.info/download/ecn-guidance-on-separate-collection/>

Biowaste – HIGH QUALITY RECYCLING

PRECONDITION FOR HIGH QUALITY RECYCLING

- Separate Collection of Biowaste
- Quality Assurance of Processes and Products
- End-of-Waste Criteria

25 % Quality Compost

produced in the EU 27, CH, NO; UK
was certified to the ECN-QAS

=

5.3 Million tpa out of 21,7 Million tpa

FROM WASTE TO PRODUCT

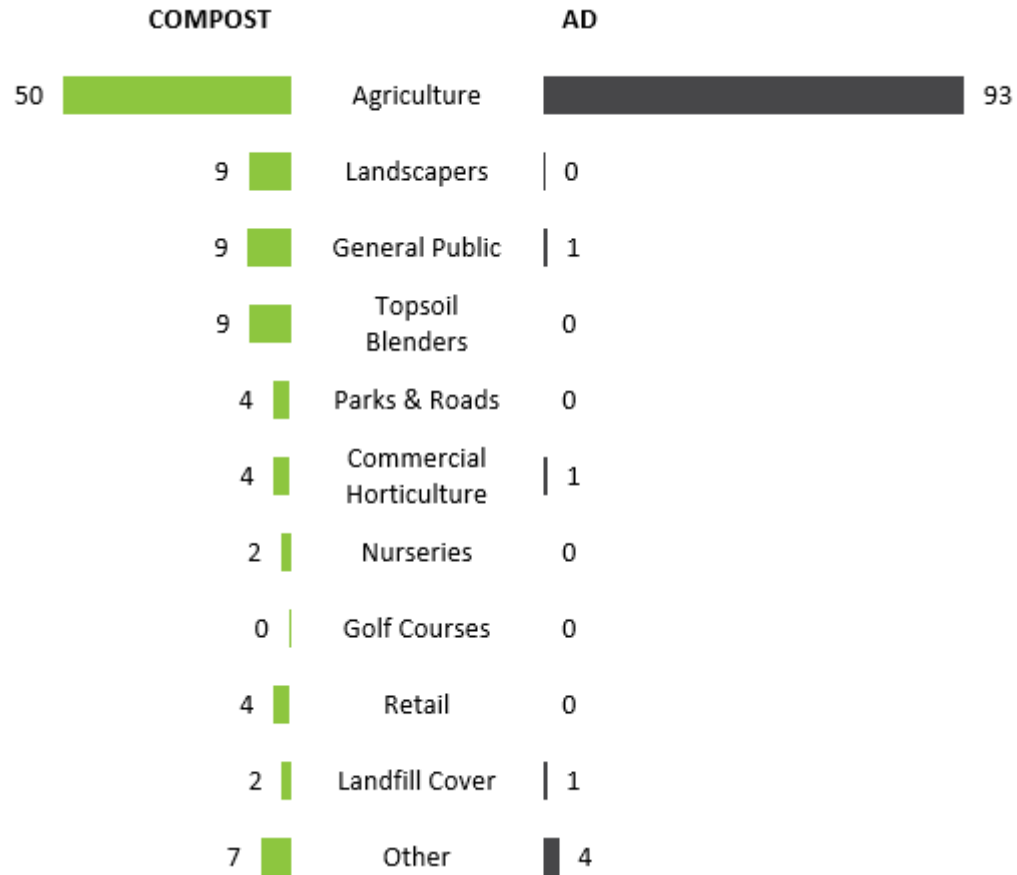


Nutrient value

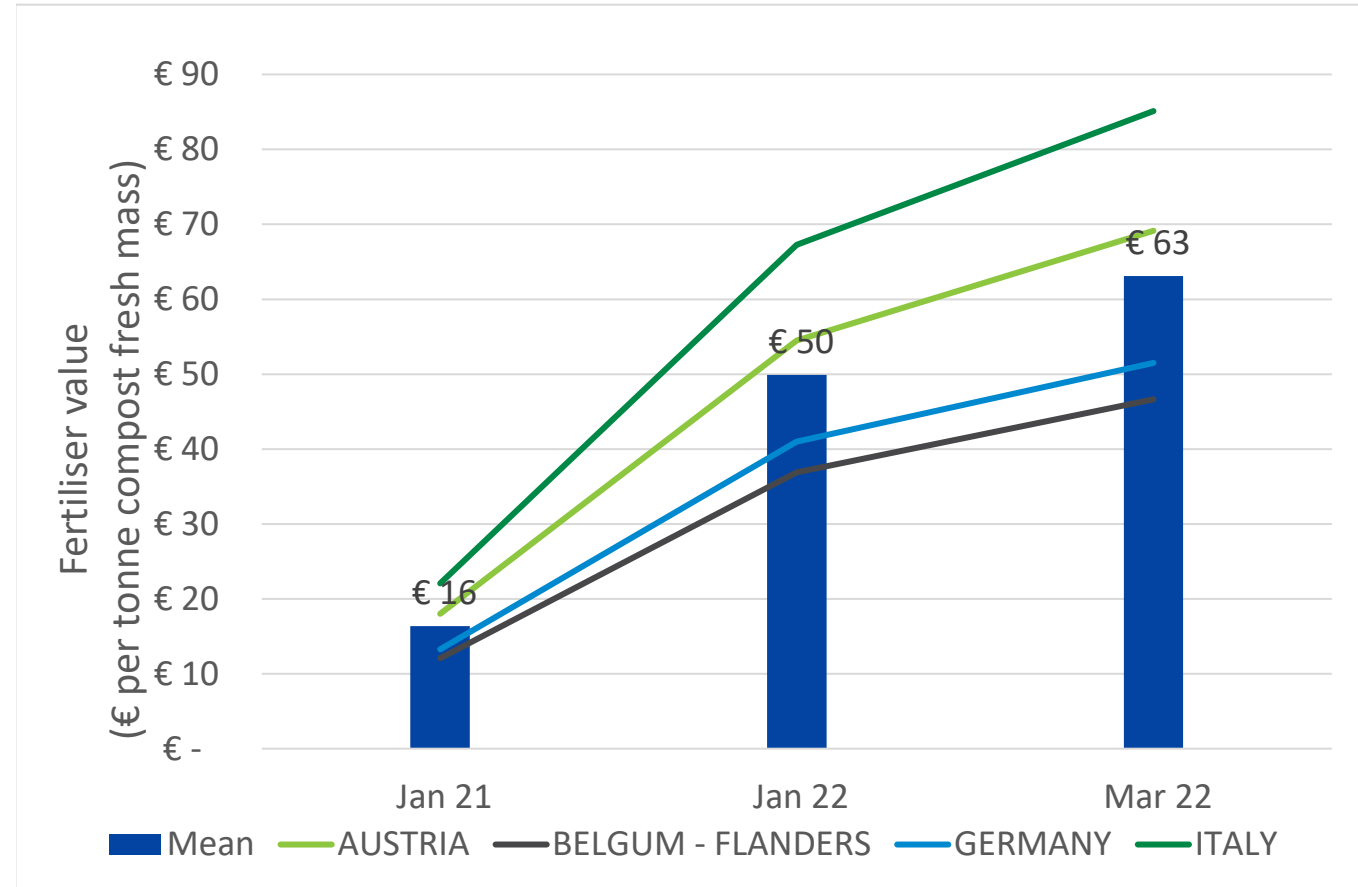
**41 € per tonne compost
(FM)**

Compost & Digestate – MARKETS & FERTILISER VALUE

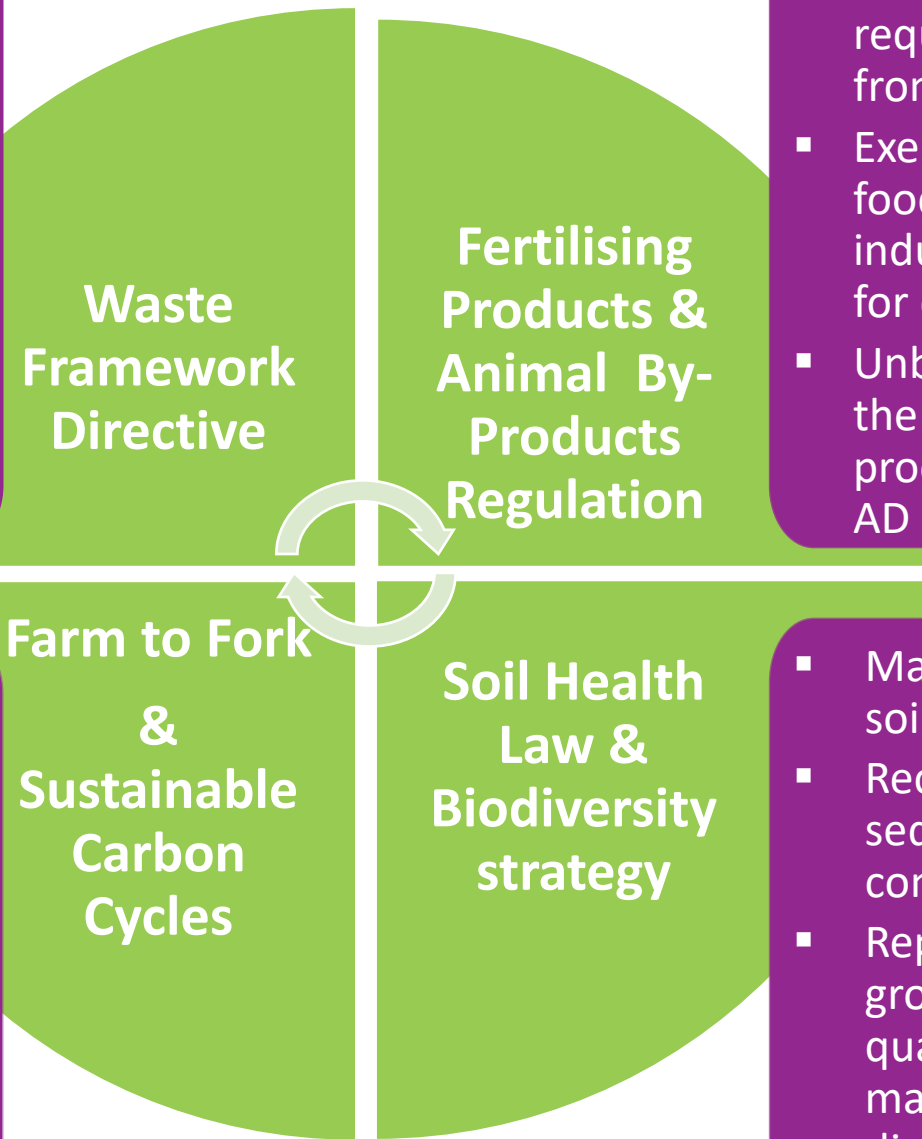
Markets (%)



Fertiliser Value



KEY MESSAGES



- Enforcement: implementation of biowaste separate collection (esp. food waste)
- Binding recycling target for separate collected /source separated municipal biowaste
- Separate collection/recycling target for commercial and industrial biowaste

- Unsuitable ABPR treatment requirements for food waste from kitchen (Cat. 3)
- Exemption of sludges from food & feed processing industries as input material for composting & AD
- Unbalanced requirements in the conformity assessment procedures for compost & AD

- Including compost & digestate from biowaste in carbon farming practises, carbon removal schemes
- Replacement of mineral fertilisers with high-quality recycled organic materials
- Recognition of soil organic matter in the Integrated Nutrient Management Action Plan

- Maintaining & improving soil organic matter
- Recognition of carbon sequestration potential of compost and solid digestate
- Replacement of peat in growing media with high-quality recycled organic materials (compost & solid digestate)

Further information

Sign the manifesto
'Save Organics in Soil':

www.saveorganicsinsoil.org



ECN DATA REPORT 2022

**COMPOST AND DIGESTATE FOR
A CIRCULAR BIOECONOMY**

Overview of Bio-Waste Collection,
Treatment & Markets Across Europe



**BENEFITS
OF COMPOST AND
DIGESTATE ON
SOIL**

- Stabilises soil structure
- Reduces soil loss
- Increases soil activity
- Reduces plant diseases
- Reduces plant nutrient losses
- Facilitates soil cultivation
- Increases soil warming
- Increases water holding capacity



ECN
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Visit ECN Homepage:

www.compostnetwork.info



<https://www.compostnetwork.info/download/ecn-status-report-2022/>