

# Online Workshop | Advancing nutrient recovery and bio-based fertilisers: Overview and selection of value chains

Long list screening methodology

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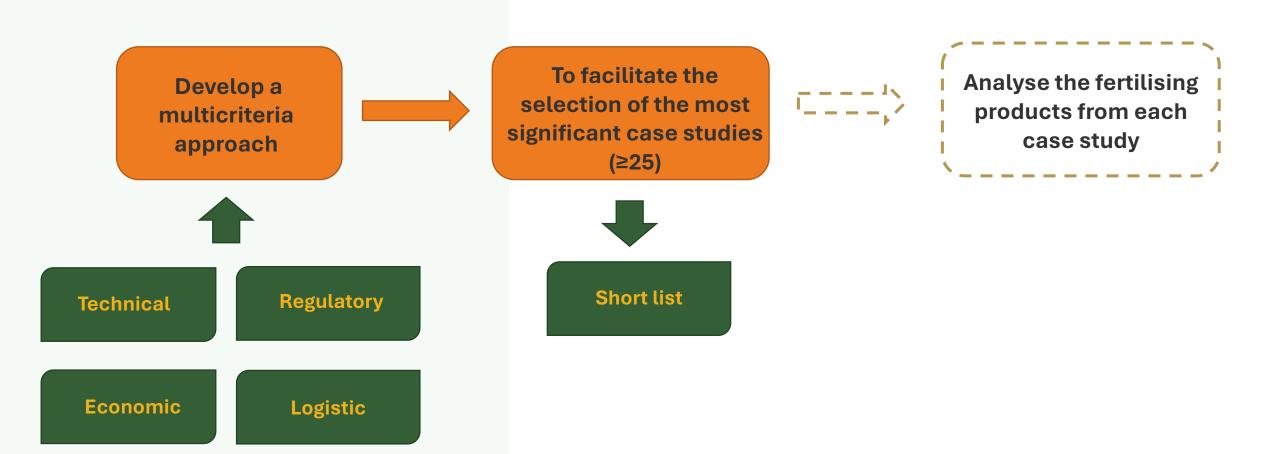
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#### Objective and expected results





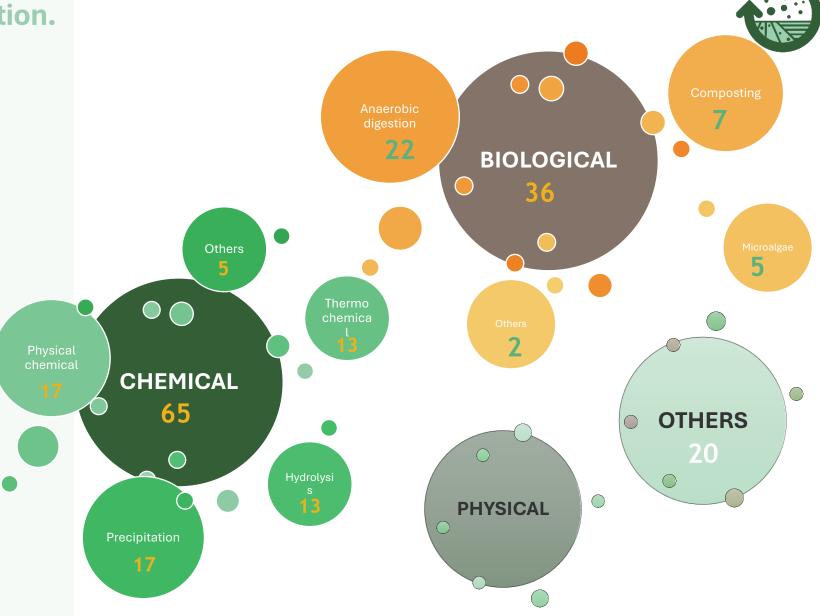
# Step 1. Long list classification

Long list



### Long list classification

Technologies in the long list were grouped by **process type** to facilitate structured evaluation.







# Step 2. Definition of indicators

Long list classification

### Definition of indicators

Parallelly, a set of 6 indicator were defined in order to scores the technologies

### Availability of Feedstock Supply

Evaluates the accessibility, stability, and regional availability of the primary raw materials required for the technology

### **Efficiency and Applicability of BBFs**

Evaluates the agronomic performance considering both, nutrient recovery efficiency and the effectiveness of the BBFs

# Maturity, Availability, and Cost of the Technology

Evaluates the technological readiness (based on TRL), market penetration, scalability, and associated costs

### Contribution to EU Strategic Objectives

Evaluates the alignment of the technology and its outputs with the European Union's environmental, circular economy, and zeropollution goals

#### Regulatory and Market Framework, and Implementation Potential

Evaluates the technology's compliance with existing EU and national regulations, as well as its current or anticipated market uptake.

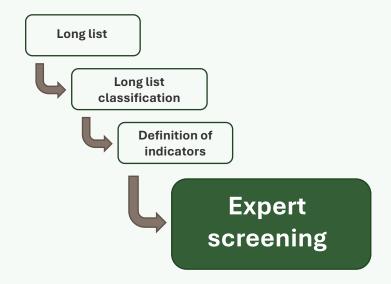
#### Distribution of Value Chains Across the EU

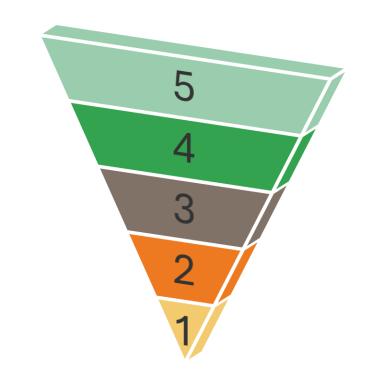
Evaluates the replicability of the technology and its integration into broader European value chains





#### Step 3. Expert screening



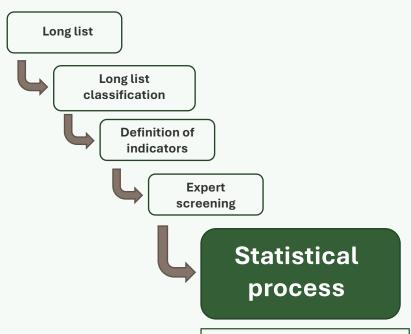


FERTICOVERY experts evaluated each technology using the defined indicators, scoring from 1 to 5.

Each technology was
assessed by at least two
experts, and discrepancy
rules were applied to ensure
consistency



#### Step 4. Statistical process



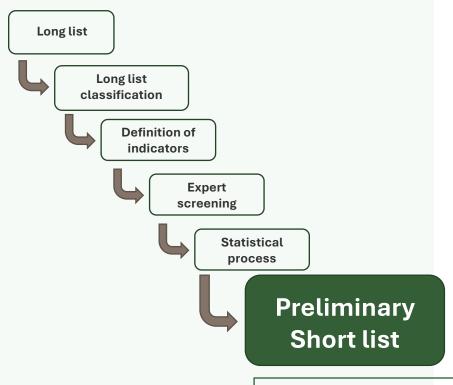
To ensure an objective selection, a statistical process based on percentile distribution was applied to rank all technologies.

### Based on percentile distribution, four percentile has been considered for normalisation

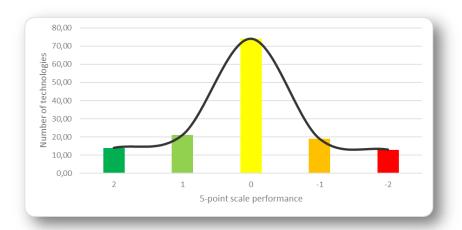
Percentile	Percentile value	Tech score range	5 point scale score	Description
P1	0.9	Score ≥ 4.40	2	<b>High performance</b> . The technology demonstrates excellent performance across relevant parameters.
P2	0.75	4.40 > Score ≤ 4.02	1	<b>Good performance</b> . The technology performs well in most aspects, showing good alignment with the indicators.
P3		4.02 > Score ≤ 2.83	0	Moderate performance. The technology shows acceptable performance, with some limitations or uncertainties.
P4	0.25	2.83 > Score ≤ 2.50	-1	Limited advantage. The technology remains promising, but in the current evaluation context, it shows relatively lower competitiveness or broader applicability than other options
P5	0.1	Score < 2.50	-2	<b>Lower priority</b> . The technology is developed and viable, but presents a narrower scope or less strategic fit in this phase.



# Step 5. Preliminary short list



Based on the percentile results, a preliminary shortlist of technologies was created for further evaluation.





High performance

Physical

Good performance Moderate performance

9%

Limited advantage 19

Lower priority

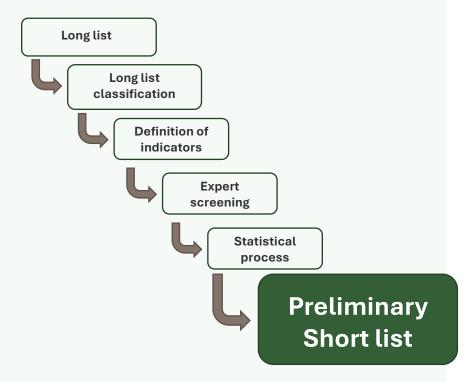
Type of technology	Amount	%
Physical chemical	4	11%
Thermo chemical	2	6%
Hydrolysis	4	11%
Precipitation	1	3%
Others	8	23%
Anaerobic digestion	10	29%
Composting	3	9%
Microalgae	0	0%

3

TRL	Amount	%
9	34	97%
8	0	0%
7	1	3%



# Step 5. Preliminary short list



### Physical Chemical

Detricon WasStrip H2-VOLAZ Biogas Bree PHOSPHIX CarbonFX™ AgroAmerica

#### **Hydrolysis**

Anuvia re-NEW LYSTEC technology POIG

## Anaerobic digestion

RETERRA (LUNEN)
ECOSON
BTS Biogas Srl/GmbH
NITROStrip
Evergaz
SUEZ- Anaerobic digestion
Revis Bioenergy
DigestMix®
OrganiQ
ProCycla
SFP Sustainable fuel Plant SFP

Zeeland B.V.

#### Composting

LIPOR
RETERRA (WANLO)
Abfallwirtschaft Neckar-OdenwaldKreis

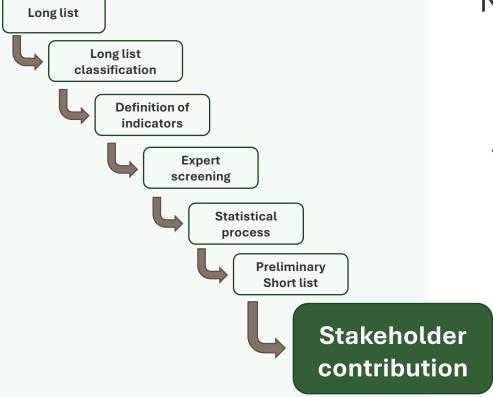
#### Others

OMEX
BioHumate
N2 Applied
YaraSuna™
NSAFE
Wrote BEF
Organomex 6 2 4
ReNu2Cycle
Biomex Plus

#### **Physical**

NuReSys Pearl® process Waterleau New Energy

# Step 6. Stakeholder contribution





Now it's your turn to **share your experience and preferences** on key technical aspects of the technologies and products.

Your input will **help us refine the shortlist** and enhance the final evaluation





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