POLICY BRIEF 3

Bio-based fertilisers as a piece of the puzzle in the transition towards more sustainable food systems

Key challenges

- > Sustainable farming requires the integration of diverse agricultural practices.
- Profitable business models are essential to support sustainable farming systems.
- Research on BBFs should be conducted through inter- and transdisciplinary collaboration.

CURRENT CONTEXT

Farm to Fork strategy

✓ Europe aims for a comprehensive shift toward sustainability across the entire food chain to minimise environmental impact.

Reducing synthetic fertilisers

✓ Europe's key goal is to reduce synthetic fertiliser use by advancing bio-based alternatives and valorising residual streams.

Untapped potential

✓ EC highlights bio-based fertilisers as a largely untapped resource for enhancing sustainability in European agriculture.



Demonstration of circular bio-based fertilisers and implementation of optimize fertiliser strategies and valu chains in rural communities

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PROBLEMS ENCOUNTERED

DIVERSE SUSTAINABLE APPROACHES - Sustainable farming includes various practices like organic, regenerative, and agroecological farming, which must coexist and adapt to different constraints.

COMBINED FERTILISER USE - Combining mineral and bio-based fertilisers often enhances soil biodiversity and resilience.

NEED FOR BUSINESS MODELS - Viable business models are essential to support sustainable investments, considering both environmental and socio-economic diversity across regions.

INTERDISCIPLINARY RESEARCH - Interdisciplinary collaboration is crucial for addressing the broad impacts of sustainability, from agronomic to socio-economic factors.

STAKEHOLDER COOPERATION - Early cross-sector cooperation is key to developing marketable biobased fertilisers to maximise product viability and impact.



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RECOMMENDATIONS TO POLICY MAKERS



Encourage international recognition and **coexistence of diverse sustainable farming practices**, allowing bio-based and conventional methods to complement each other.



Promote bio-based fertilisers as a sustainable option across all farming systems, recognising their contribution to overall agricultural resilience.



Develop **market-aligned policies** that consider the economic realities of the global food system and regional differences in agricultural practices.



Foster **stakeholder dialogue** to ensure that policy goals are realistic, regionally adaptable, and support both sustainability and economic viability.



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