POLICY BRIEF 2

Reality check on the feasibility of circularity in the food system

Key challenges

- Bio-based fertilisers have high production and transportation costs.
- Bio-based fertilisers may contain impurities and contaminants.
- Sustainable solutions in the bioeconomy are region-specific.

CURRENT CONTEXT

Farm to Fork strategy

✓ Europe emphasises the role of circular biobased fertilisers in achieving sustainable food systems by reducing nutrient losses and promoting bioeconomy potential.

Ambitious targets

✓ Europe aims to reduce mineral fertiliser use by 2030, highlighting the need for effective alternatives like biobased fertilisers.

Demonstrated potential

✓ EU projects, including RUSTICA, show that circular bio-based fertilisers can effectively replace mineral fertilisers, supporting the EU's environmental and agricultural goals.



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

POLICY BRIEF 2

Reality check on the feasibility of circularity in the food system

PROBLEMS ENCOUNTERED

HIGH PRODUCTION COSTS - Bio-based fertilisers have higher production costs than mineral fertilisers, requiring economic support to compete in the market.

TRANSPORTATION CHALLENGES - Transporting large volumes of feedstocks for bio-based fertilisers increases costs and limits profitable business opportunities.

IMPURITIES AND CONTAMINANTS - Bio-based fertilisers may contain impurities; clear guidelines and safety standards are needed to manage potential risks.

CULTURAL RESISTENCE - Concerns about using residues in food production require transparent communication to overcome cultural aversions.

REGIONAL VARIABILITY - Circularity depends on regional feedstock availability, technical resources, and local policy support, affecting scalability across different areas.



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RECOMMENDATIONS TO POLICY MAKERS



Align investment, regulation, and support mechanisms with the Farm to Fork Strategy and Green Deal to foster **circular food systems**.



Overcome **economic and legislative barriers** that hinder circular innovation and provide **incentives** to make bio-based fertilisers competitive in the market.



Develop consistent, **EU-wide guidelines and standards** for bio-based fertilisers to ensure safety, support market integration, and simplify compliance.



Increase **stakeholder understanding and acceptance** of circular bio-based fertilisers through effective communication and awareness initiatives.



Recognise and account for **regional differences** by supporting locally adapted policies and hybrid solutions, acknowledging that circularity's feasibility varies by location.



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