

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 bio-based 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 bio-based 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.

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 resistance

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.

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.