

Digestate as a sustainable source of nutrients for large-scale algal cultivation

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SEMPRE-BIO

Fostering circular economy in Europe

We will demonstrate new cost-effective ways to produce biomethane

SEcuring doMestic PProduction of cost-Effective BIOMethane



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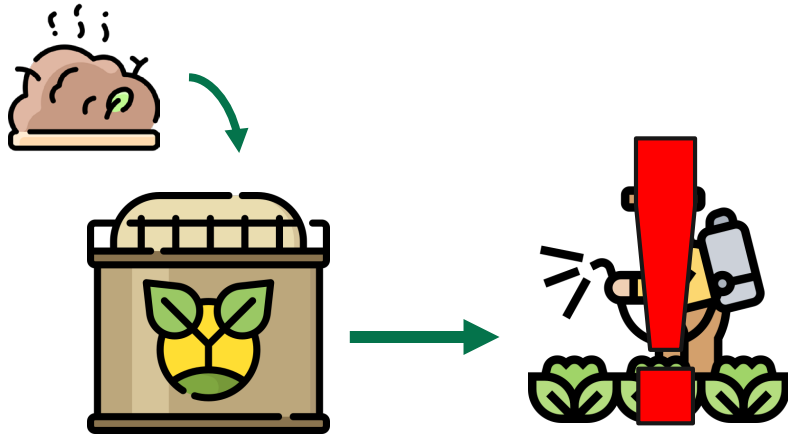


REPowerEU: A plan to rapidly reduce dependence on Russian fossil fuels and fast forward the green transition*

- A [Biomethane Action Plan](#) sets out tools including a new biomethane industrial partnership and financial incentives to increase production to 35bcm by 2030, including through the Common Agricultural Policy.



Biomethane = Digestate



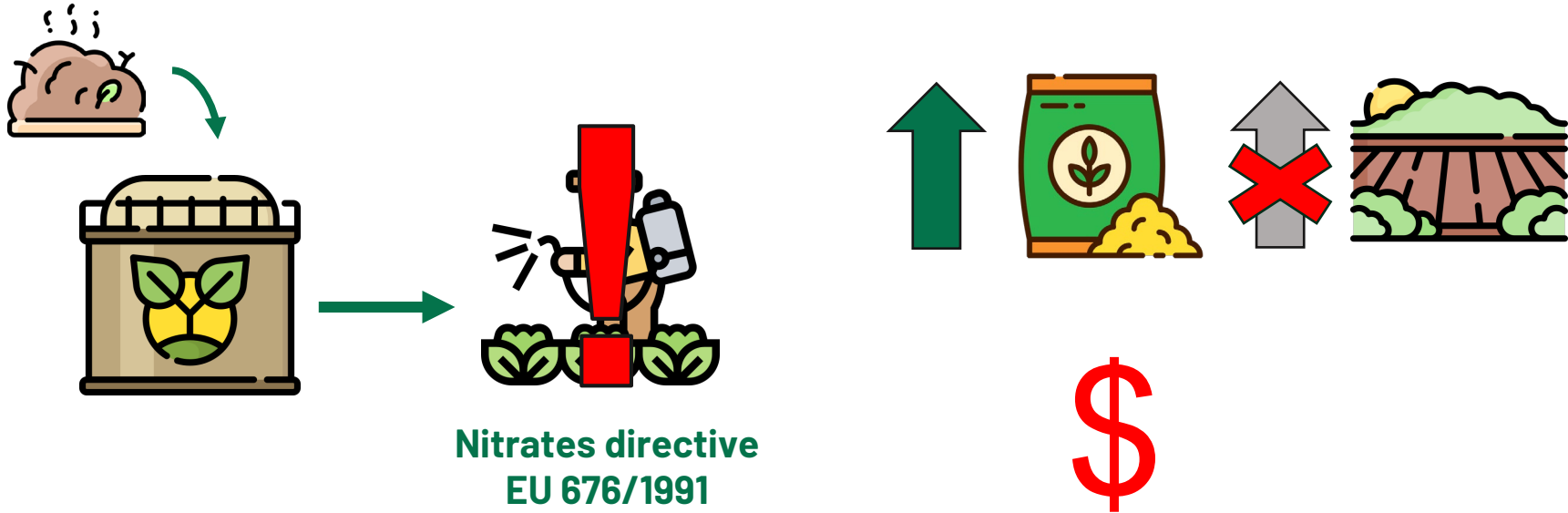
**Nitrates directive
EU 676/1991**



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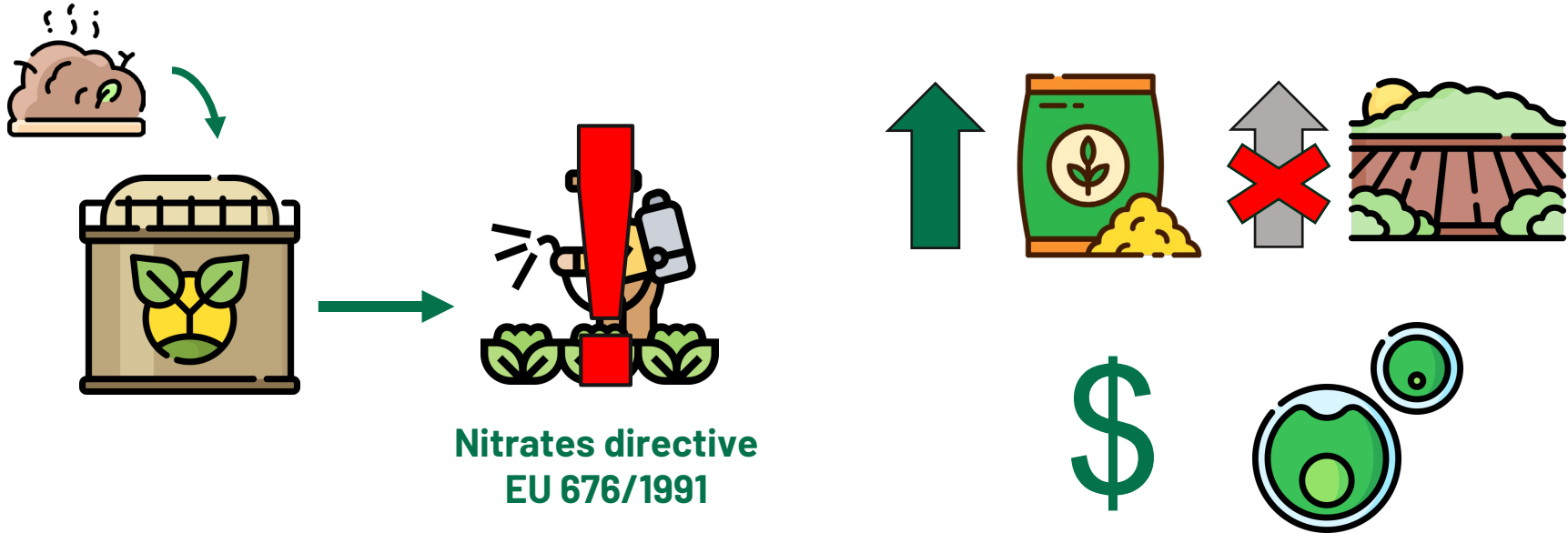


Biomethane = Digestate





Biomethane = Digestate





Algae in the European Green Deal

The European Green Deal

Striving to be the first climate-neutral continent



**Do not require
arable land**



**Do not require
freshwater**



Capture CO₂



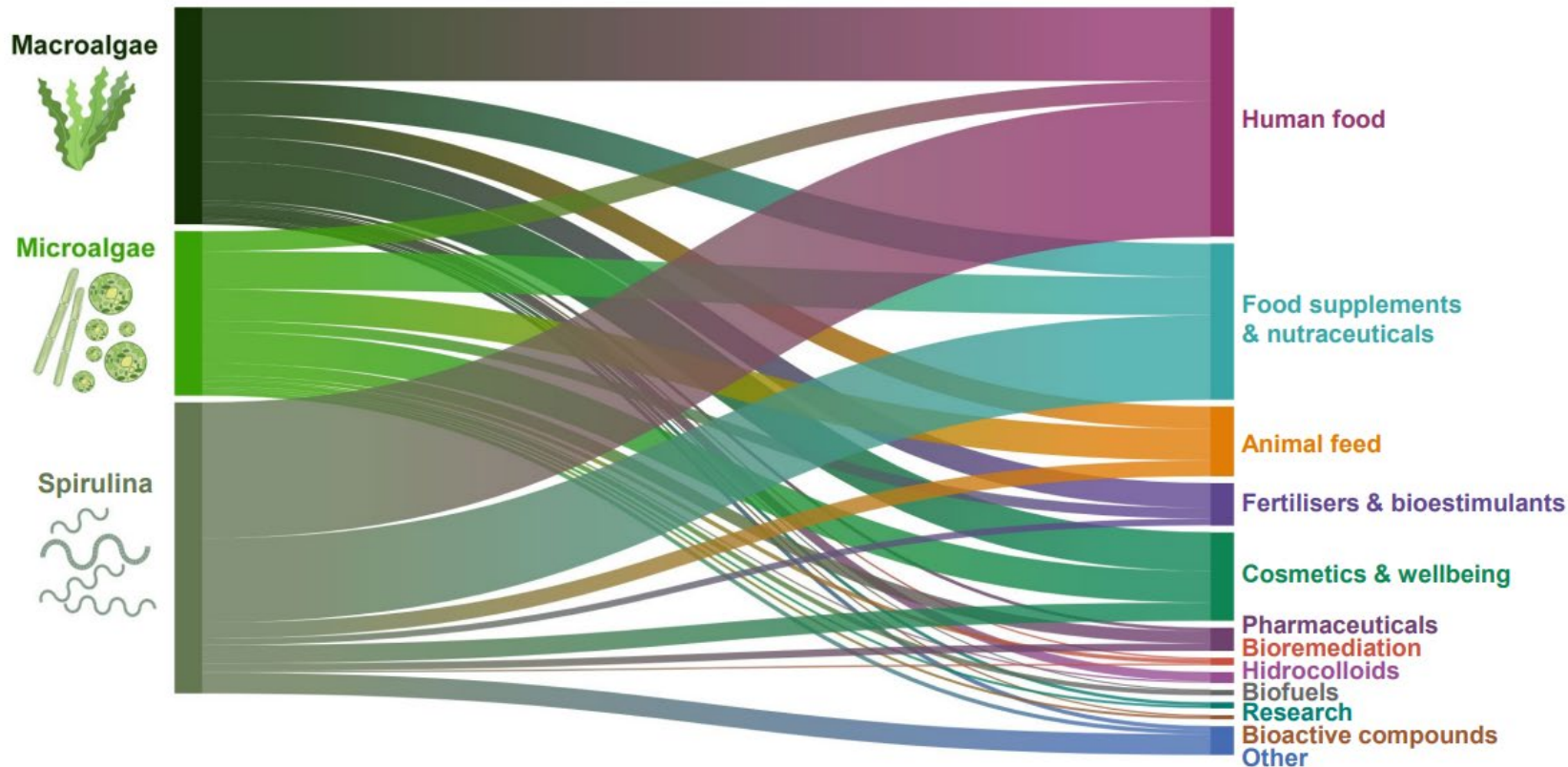
**Reduced
seasonality**



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Algae in the Bioeconomy



Sustainability



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Challenges in using digestate



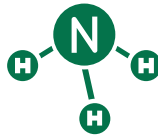
Suspended
particles



High
viscosity



Dark color



High ammonia



5%

10%

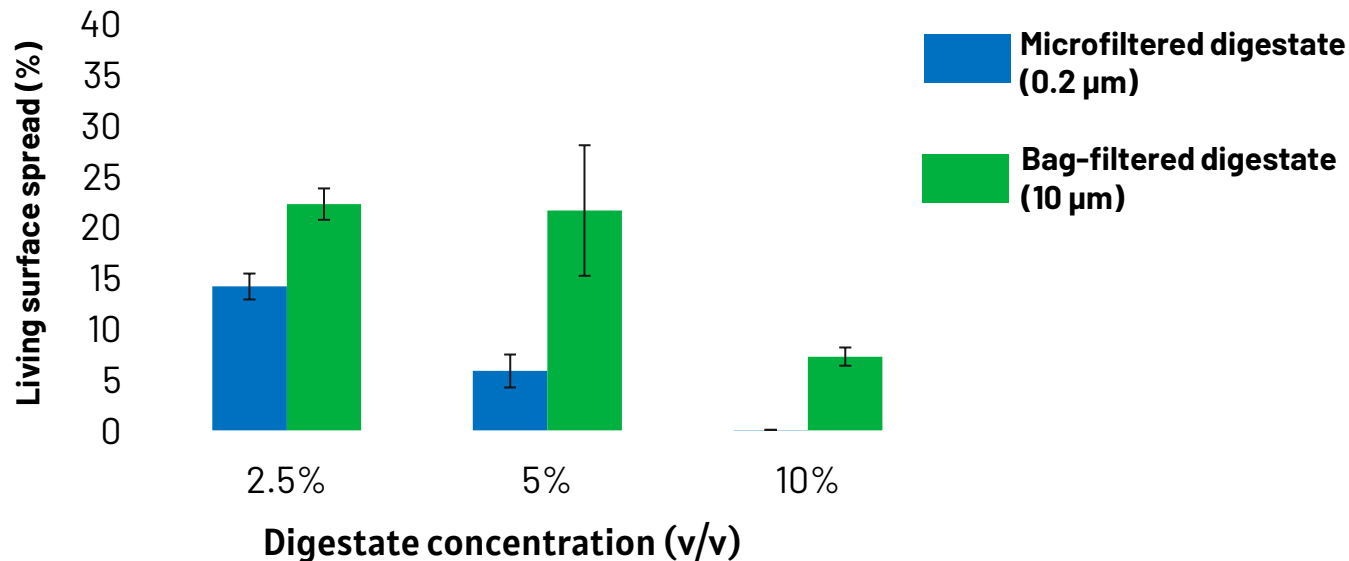
20%



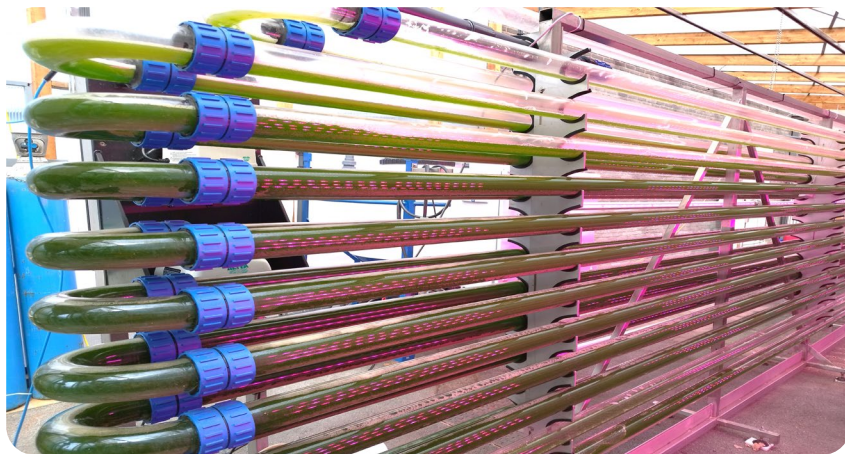
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Pretreatment: coarse filtration

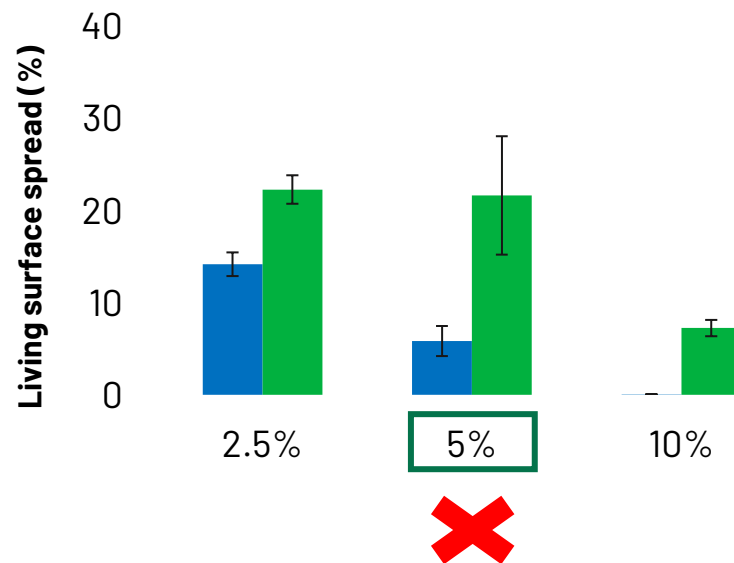


Upscaling



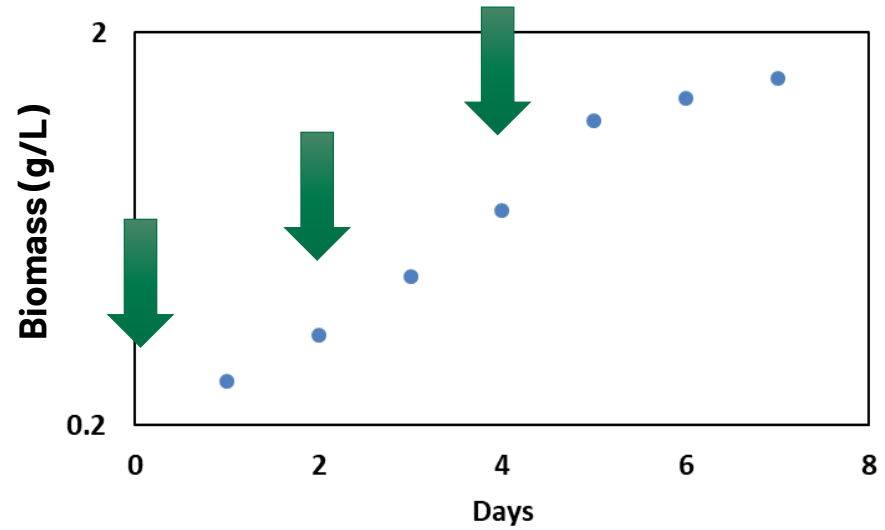
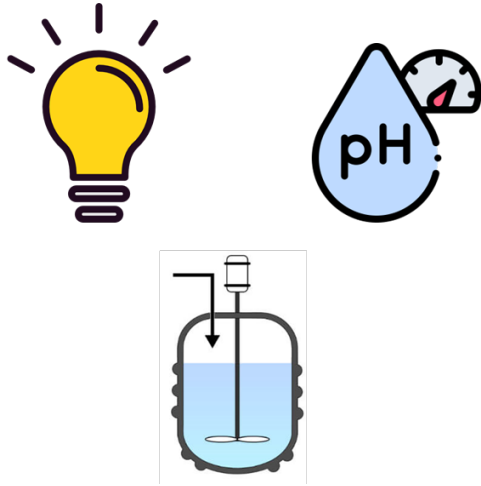
Interreg
North-West Europe
ALG-AD
European Regional Development Fund

Innolab



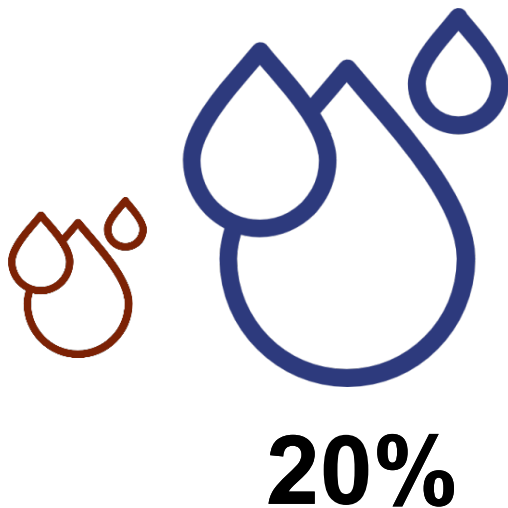
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Upscaling





The way forward



- Acclimation of algae to digestate
- Process intensification
- Digestate pre-treatment



Thank you!

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sempre-bio.com

Disclaimer



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