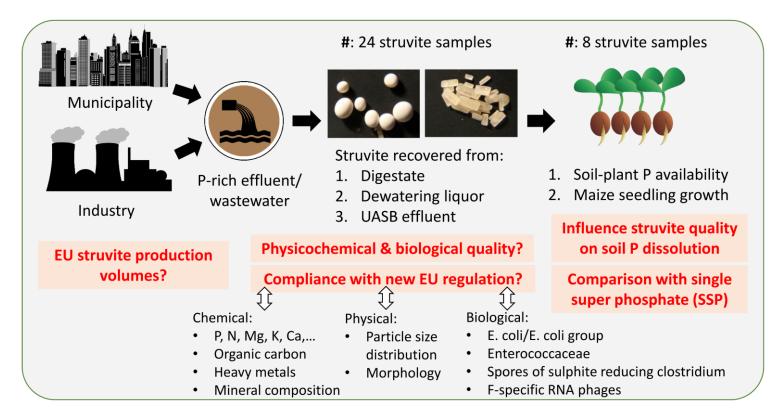
A systematic comparison of commercially produced struvite: Quantities, qualities and soil-maize phosphorus availability

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Graphical abstract



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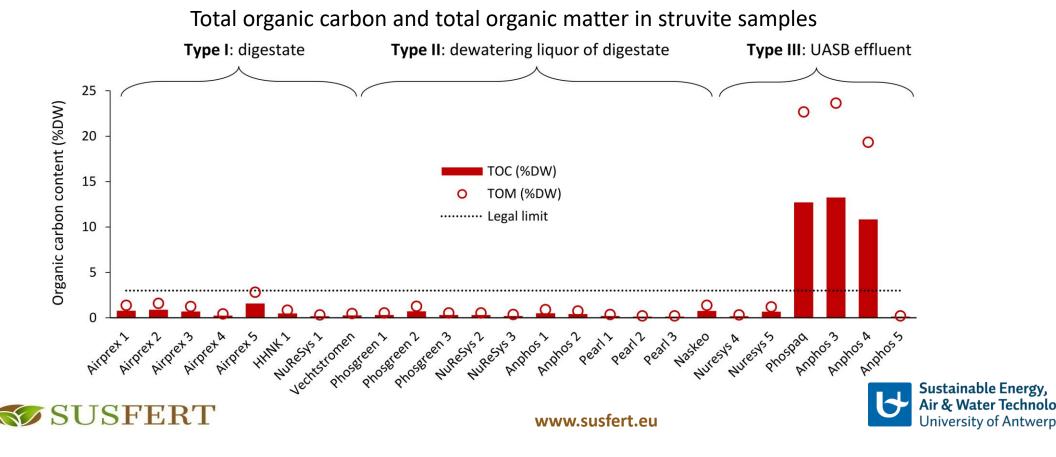
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Chemical quality

- 12 out of 24 samples deviate not more than 3% from the theoretical 12.6% P (DW) in struvite
- One sample fails the proposed legal limit for P of min. 7%
- For organic carbon content three samples fail the legal limit of 3%
- All heavy metals are below the prescribed legal limits
- 1250-1350 ton EU struvite/ year meet legal limits and can be used as secondary raw material



Particle size distribution

- Three struvite samples exceeded the limit for particle size distribution (i.e. max 10% < 0.1mm not in fertilizer regulation but in earlier STRUBIAS proposal)
- Implications for use as fertilizer: larger spherical granules can be used for blending into NPK fertilizer (i.e. from digestate, dewatering liquor) other struvite (from UASB effluent) better suitable for other applications

