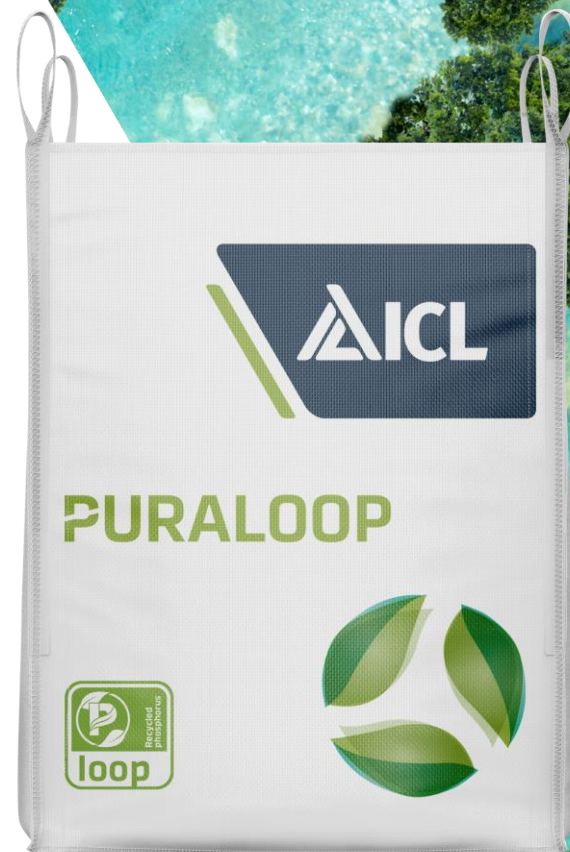


PURALOOP

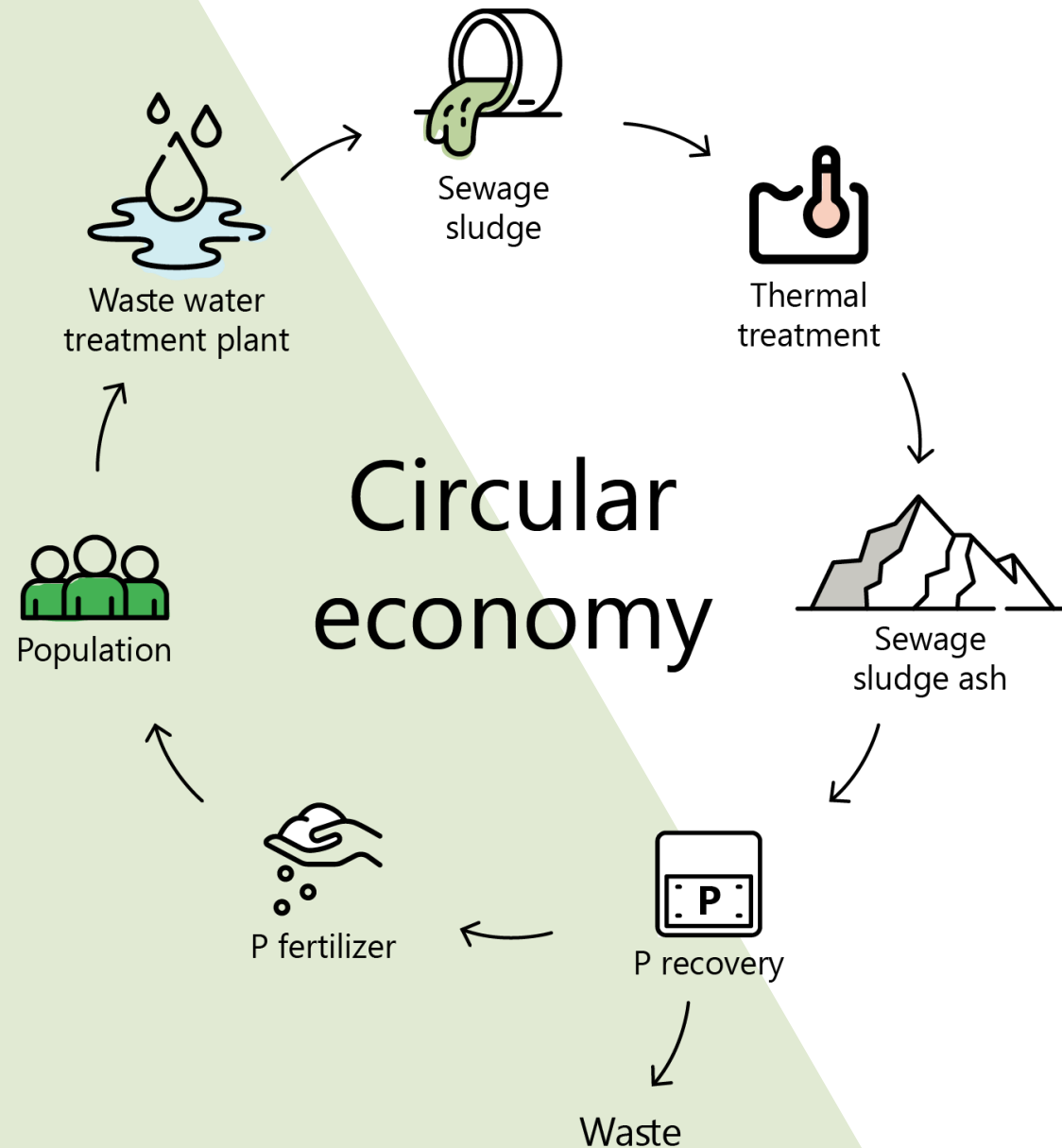
Closing the loop on recycled P



Sewage sludge ashes

Raw material

1. Phosphorus (P), recovered from sewage treatment plants
2. Sewage sludge ashes (SSA) exists after combustion sewage sludge in an incinerator
3. Sewage sludge ashes are rich in phosphorus content, ranging between 4 to 9%
4. From SSA, plants are not able to make much use of the P in it (bad availability)
5. By acidulating the SSA with P-acid in Amfert, the P becomes in available form like in TSP fertilizer



PURALOOP

Agronomic Value



Essential nutrient phosphorus (P) source for all crops



P in phosphate form as taken up by plants



High P-bioavailability



Granular product, easy and uniform spread on the fields



Contains some macronutrients (like K, Mg, Ca, S), and small amounts of micronutrients



In agronomic trials, PURALOOP shows similar performance to conventional P fertilizers

PURALOOP

Marketing Value



Recycled P: alternative to P fertilizers produced from non-renewable resources



Circular economy approach for phosphorus



Industrial scale production of a whole range of recycled P products



Safe product: heavy metal contents below EU limit



Premium and consistent fertilizer quality



Environment friendly product



Dust-free, compact, free-flowing granules



Integrated solution from a single source



Sustainable product

PRODUCT ANALYSIS



PURALOOP

Chemical Analysis (~)

Sample	P ₂ O ₅ WS	P ₂ O ₅ NAC	P ₂ O ₅ Tot	K ₂ O	MgO	CaO	SO ₃	Free acid	Cl	pH	H ₂ O
	%								%		%
PURALOOP 38	20.0	37.7	38	1.2	2.0	10.5	5.8	2.4	0.6	3.3	6.8

PURALOOP

Particle size

> 5 mm	1%
1-5 mm	97%
<1 mm	2%
D50	3.0-3.5 mm

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Heavy Metal Analysis

PURALOOP heavy metals content are below EU limit, so it is completely safe product, while SSA does not comply with EU limits



Sample	Al (%)	Fe (%)	MgO (%)	As (ppm)	Cd (ppm)	Cd (ppm/P ₂ O ₅)	Cr (ppm)	Cu (ppm)	Hg (ppm)	Mn (ppm)	Ni (ppm)	Pb (ppm)	Zn (ppm)
EU-limit	N.A.	N.A.	N.A.	40	N.A.	60 ppm Cd/P ₂ O ₅	N.A.	600	1	N.A.	100	120	1,500
PURALOOP 38	2.0	2.5	1.9	12	11	28 ppm Cd/P ₂ O ₅	99	400	0	466	49	92	1,338
SSA	5.24	10.4	2.7	17.3	2		69	894	< 1	782	63	247	2,432



Thanks for the attention

