Welcome

- to the world's most innovative soil and biochar producer!



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We produce and market:

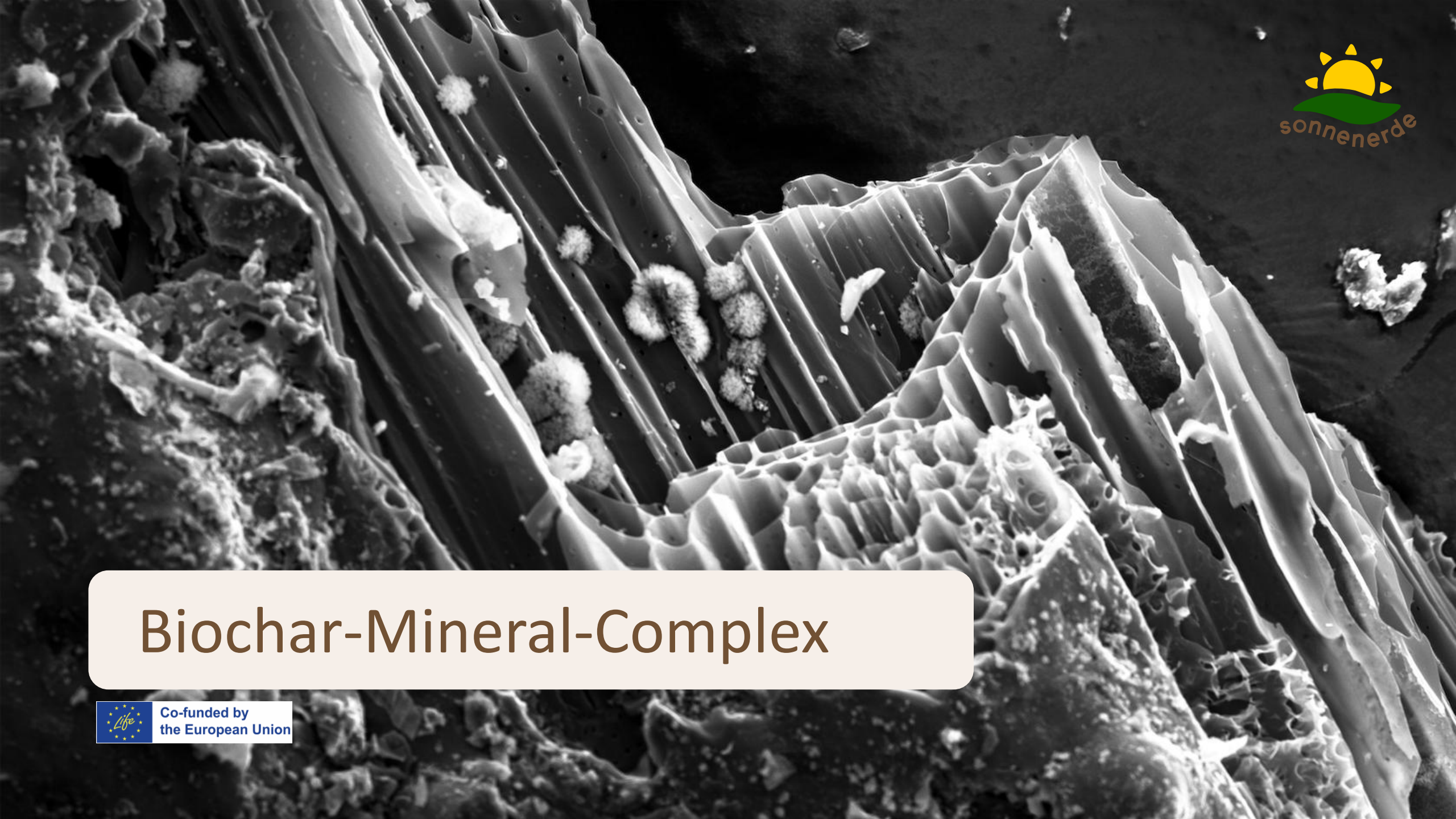
- 4 different composts
- 30 different soils and substrates
- 2 different biochars (development BMA)
- 20 biochar based products
- Heat and electricity
- CO_2-Sink-Certificates

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International Expert meeting 3.-4.Juli 2026



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Biochar-Mineral-Complex

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#kohloss



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NGE T:CRACKER 5000D

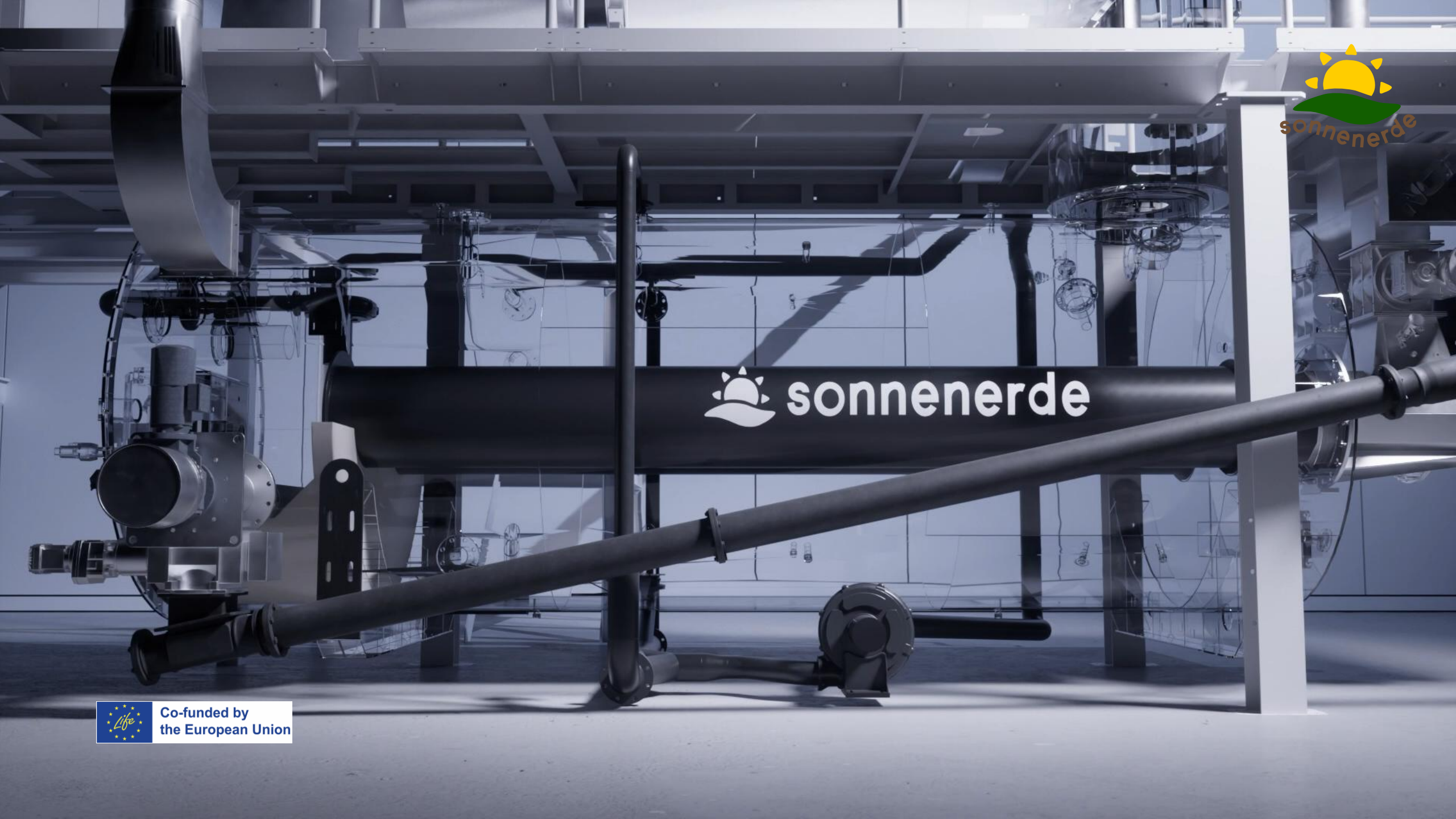


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Biochar for biogas production

- Small amounts (0,5 – 1,0%)
- Increase gas yield: 10-30%
- Increase methan concentration: up to 4%
- Reduction of other additives
- Very economical

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Which Biochar for biogas production?

- ✓Feedstock mixture
- ✓Temperature 700°C
- ✓Residence time: long
- ✓BMC: minimum: Si, P, Fe + trace elements Ni, Mo, Co, Se

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How it works

- Surface for microorganisms
- Binding of pollutants
- Binding of ammonium and sulfur
- Trace elements
- Prevention of acidification
- Stabilisation of the microbiology
- DIET (Direct Interspecies Electron Transfer)

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DIET – Direct Interspecies Electron Transfer

Säure



Elektronentransfer

H2 $HCOO^-$

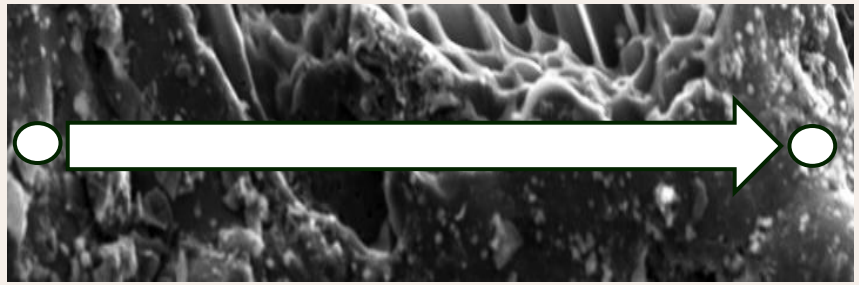
Methan



Säure



DIET



Methan



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Forschungsprojekt - LIFE

- 2,6 Mio €
- Welche Mineralstoffe, welche Konzentrationen?
- Praxisanwendung (Österreich, Ungarn)
- Projektpartner: Sonnenerde, Boku, MOL, Stipits, BFS, Pastu, Publyon, EBA

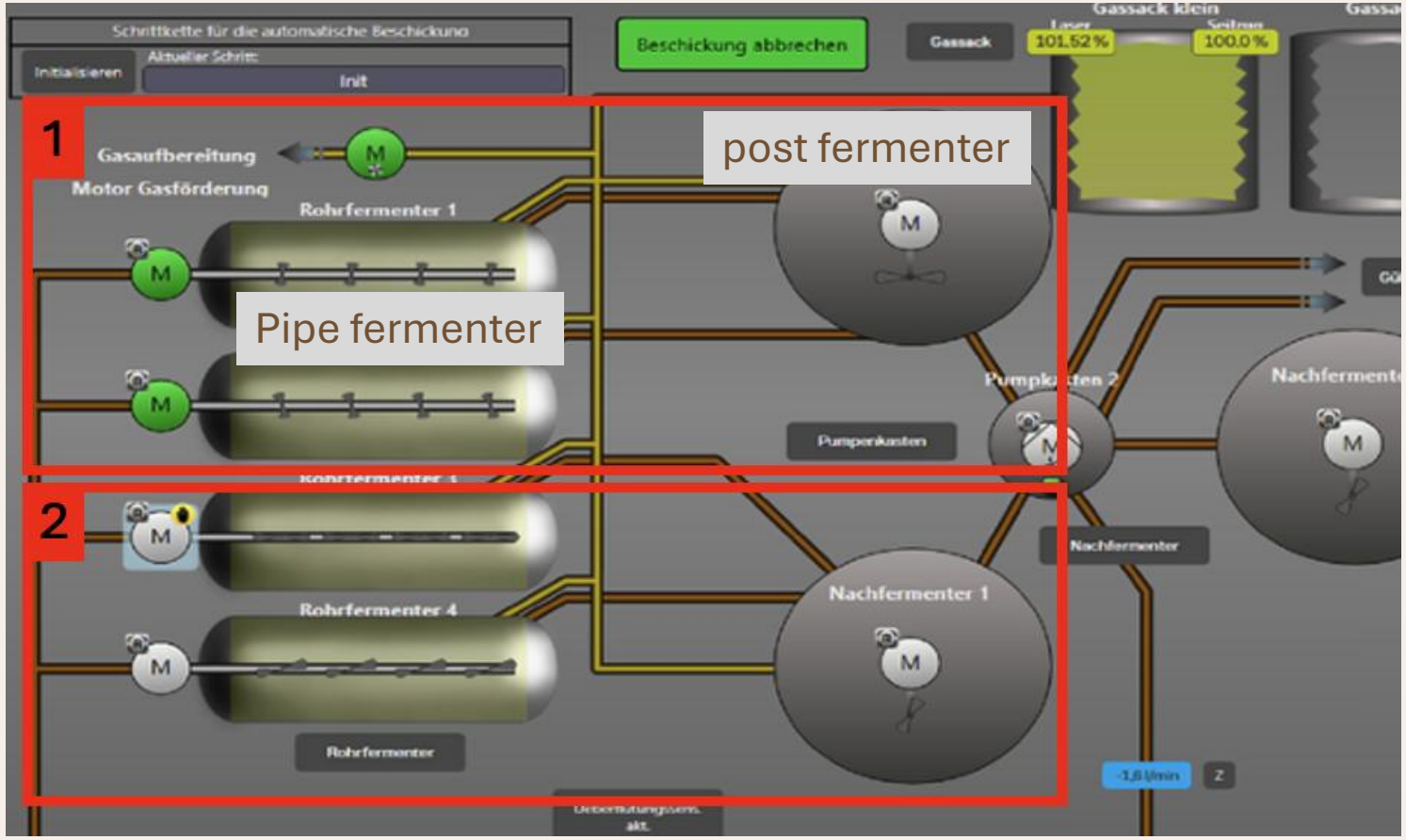
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How it works



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First results in real biogas plants



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First results in real biogas plants

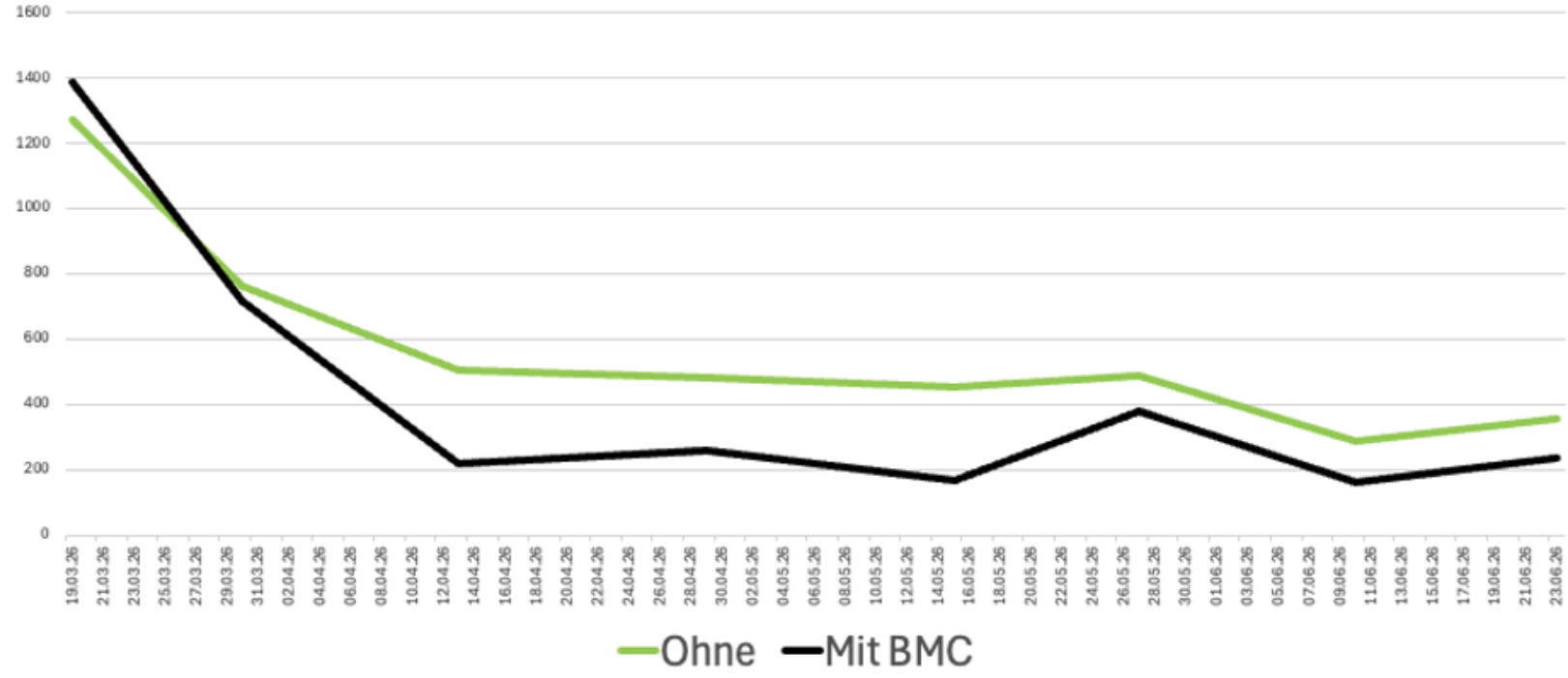


Abbildung 2: Vergleich freie flüchtige Fettsäuren mit Güllekohle (schwarze Linie) und ohne Güllekohle (grüne Linie)

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First results in real biogas plants

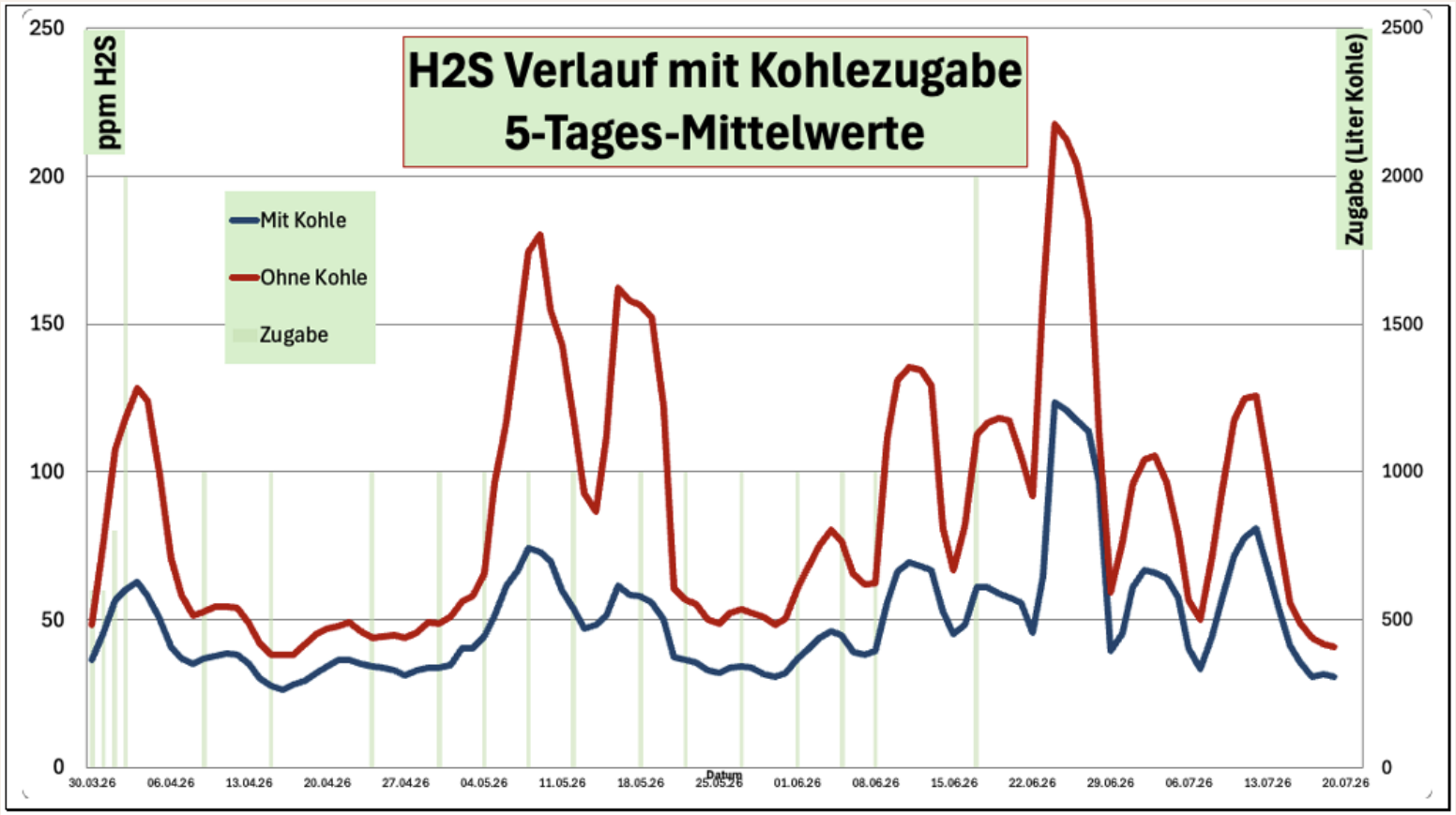


Abbildung 6: Verlauf Schwefelwasserstoff (H2S) über Versuchszeitraum – 5-Tages-Mittelwert

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First results in real biogas plants

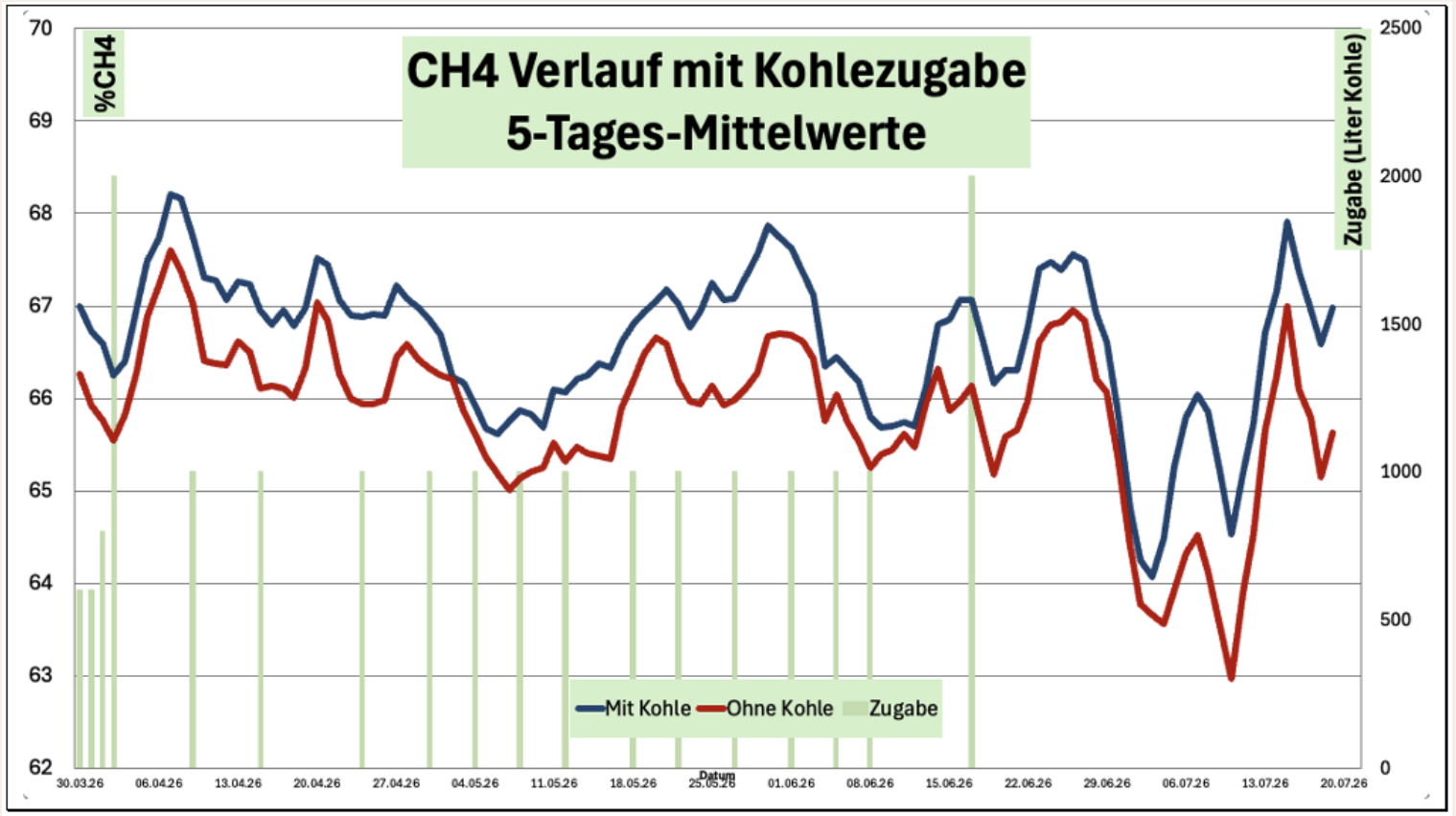


Abbildung 8: Methankonzentrationen (CH4) über Versuchszeitraum – im 5-Tages-Mittelwert

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Cost-Effectivness

Stipits pro Linie			Steigerung %	Menge
Inputmenge pro Tag	35	to FM	0	35
Gasmenge pro to FM	200	m3	10	220
Methangehalt	66,21	%	0,63	66,84
produzierte kWh pro Tag	46.207,96		11,05	51.312,40
Kosten der Pflanzenkohle	600	€/m3		
Dosierung	0,5	%		
Kosten pro Tag	105	€/Tag		105
Preis pro kWh durchschnittlich	0,1	€/kWh		
Zusätzlicher Umsatz pro Tag				510,44
Zusätzlicher Gewinn pro Tag				405,44
Zusätzlicher Gewinn pro Jahr				129.742,10

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Thank you!



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