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BUSINESS DEVELOPMENT CONSULT

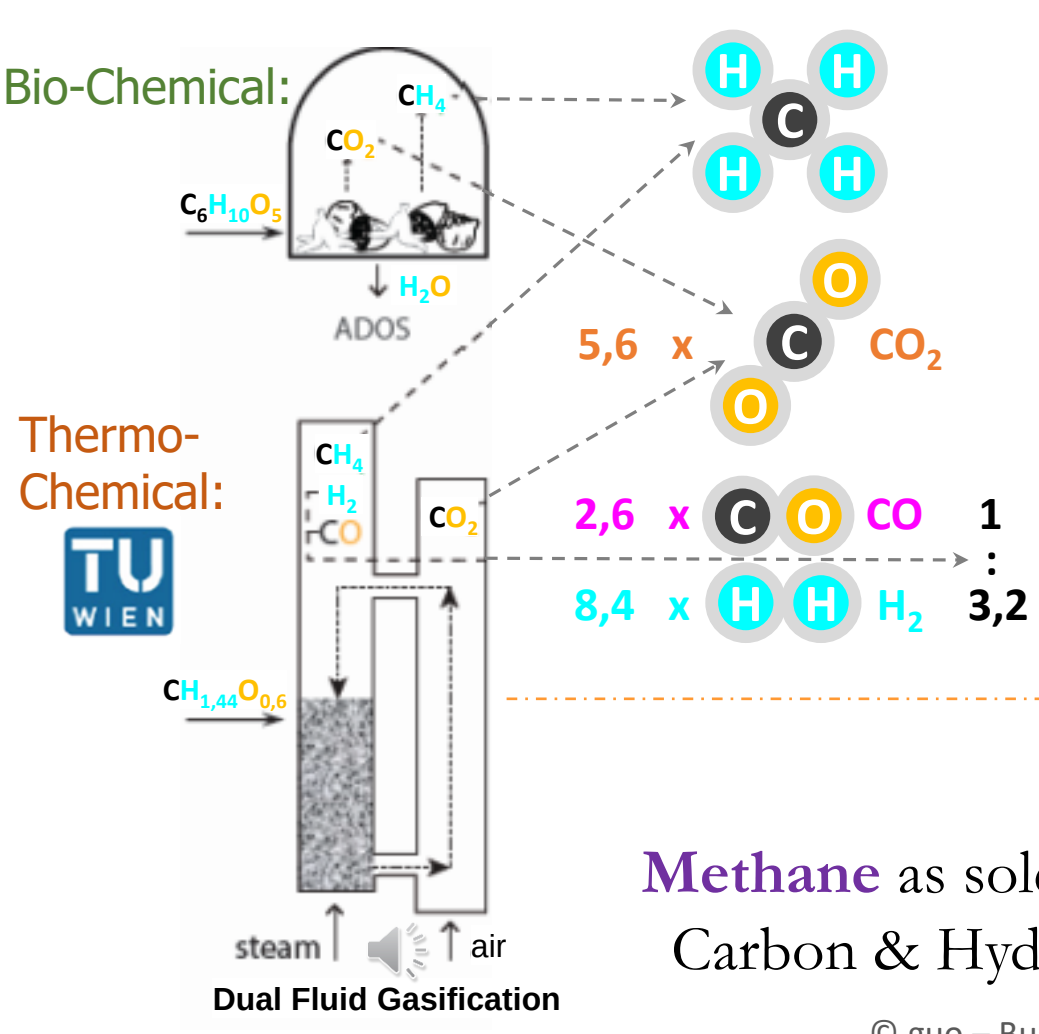
International Innovation Mediation

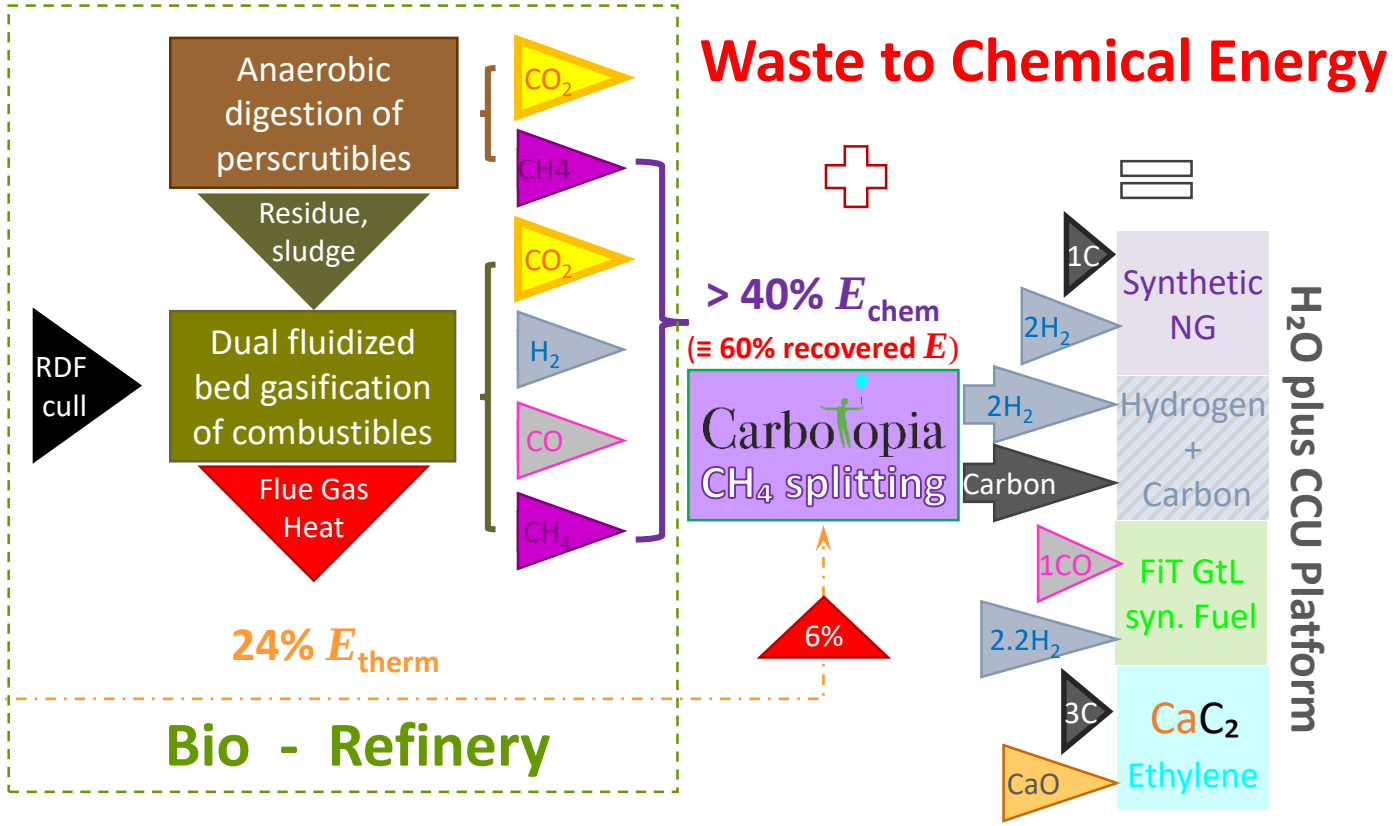
Taking Carbon Circular for "Regenerative" Energy

Managing Carbotopia™ for a

World in Carbon & Water Balance

Transforming carbonaceous residues into Energy-rich gas to build Carbon Circularity





Methane as sole heir of residues' energy content needs splitting in Carbon & Hydrogen to enable efficient Chemical Energy re-Use

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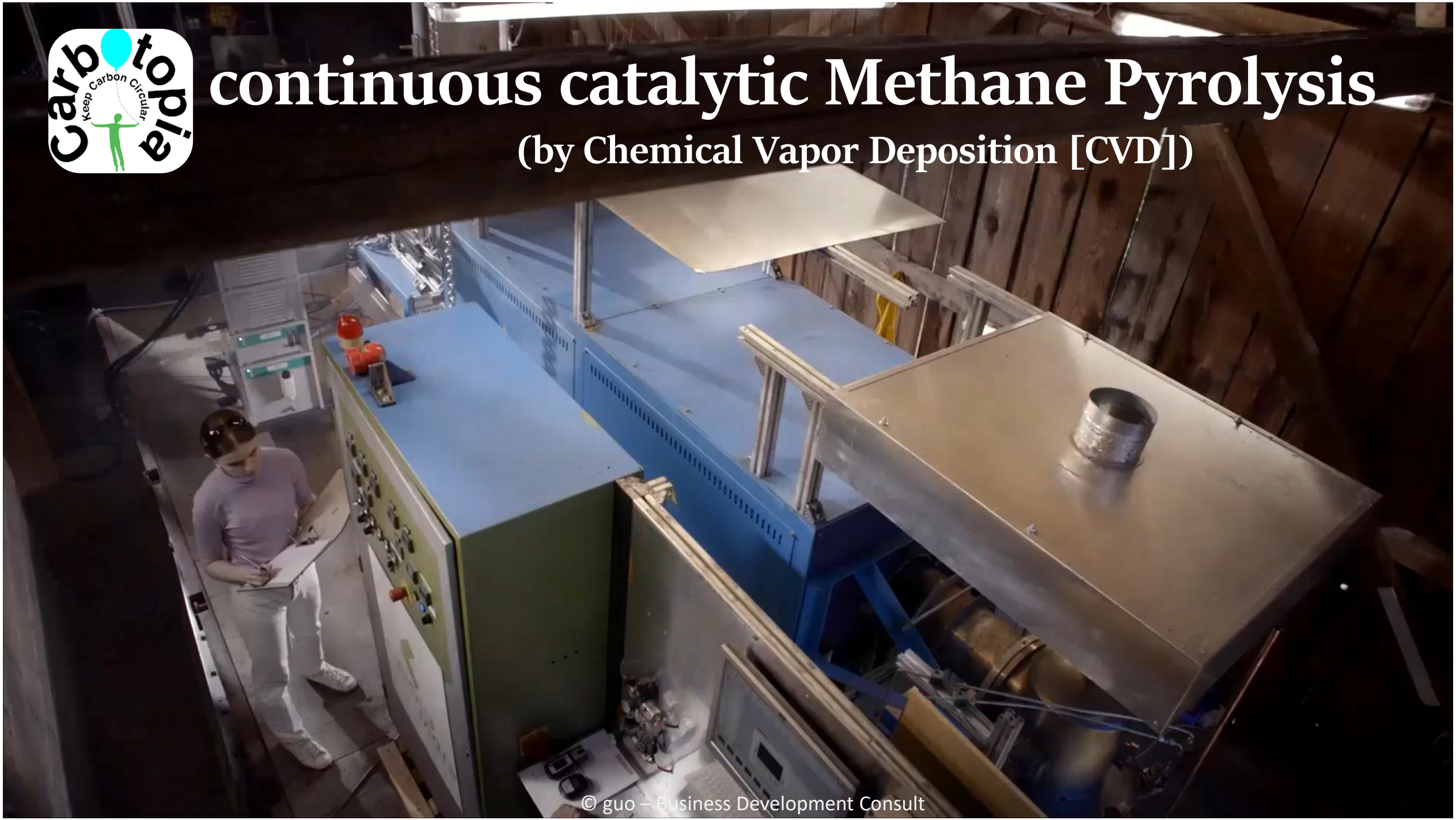
continuous catalytic Methane Pyrolysis

(by Chemical Vapor Deposition [CVD])



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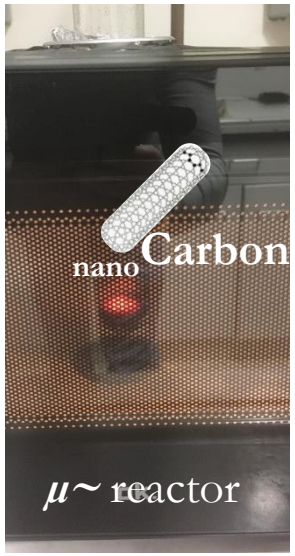
Captured $_{CVD}$Carbon $\mu\sim$ Refining

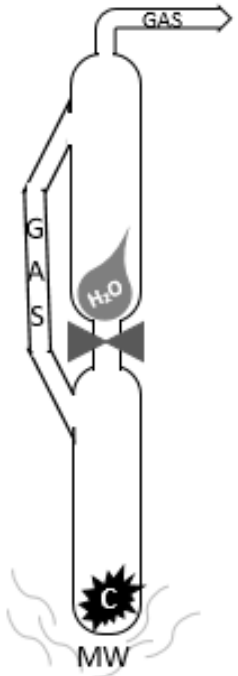
mitigating rebound reactions by low reaction-temperature regimes

validated in Laboratory



✓ **TRL 3**

kJ / mol	kJ	+ kJ $\mu\sim_E$	°C gas
CH_4 = C + $2H_2$	880	94.5	**350**
C + CO_2 = 2CO	384	38.5	**280**
C + H_2O = H_2 + CO	384	15.2	**< 100**
CO + H_2O = H_2 + CO_2	280	-11.4	**< 100**
CO + $2H_2$ = CH_3OH	840	n.a.	250 ≡90.8kJ



($\mu\sim$ reactor)

530Mt → **non-combustion Oil applications** scope 1 & 2 **-80Mt CO_2**

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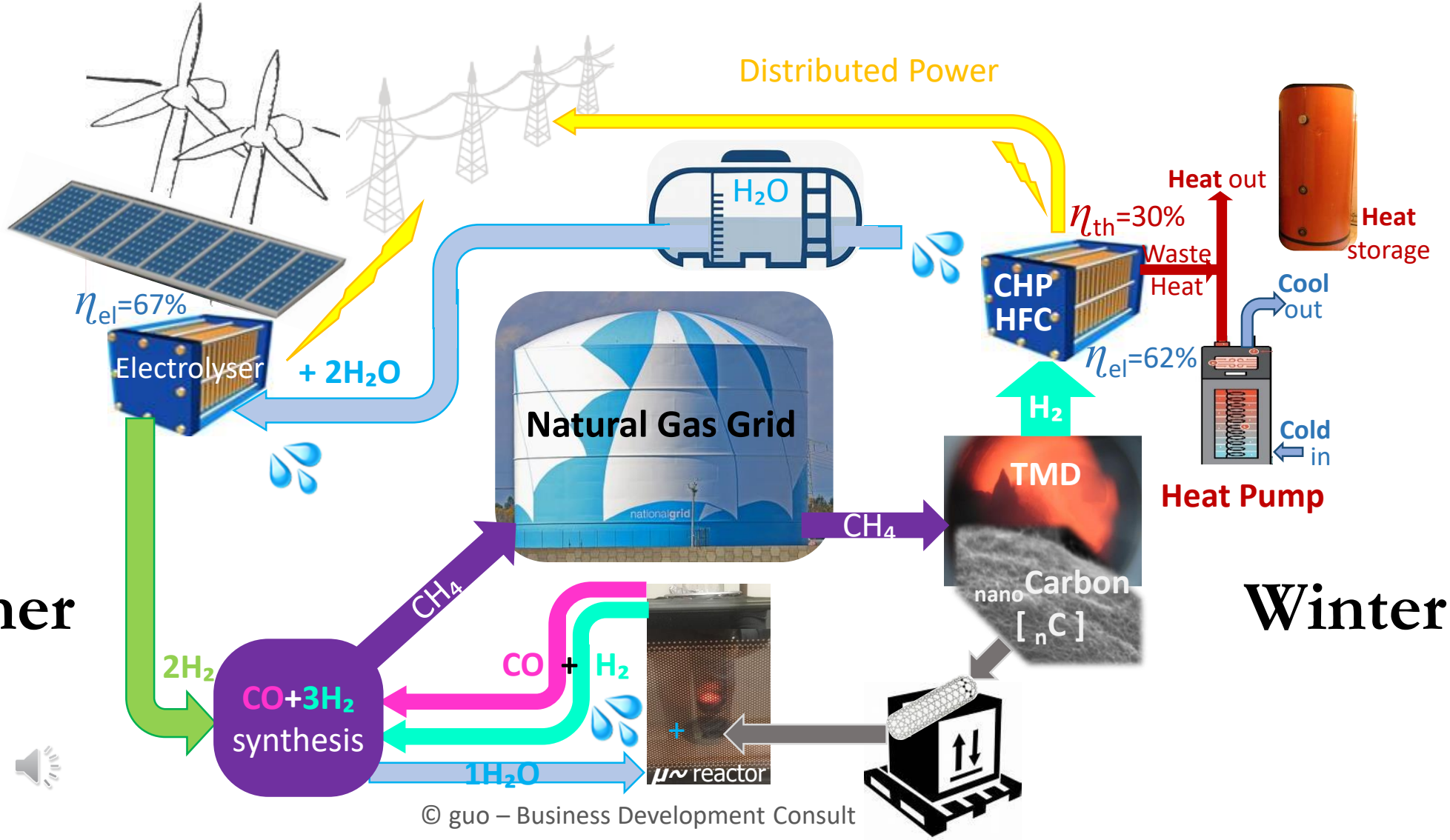
$_{CVD}$Carbon with Green Hydrogen enables seasonal domestic circular Methane use



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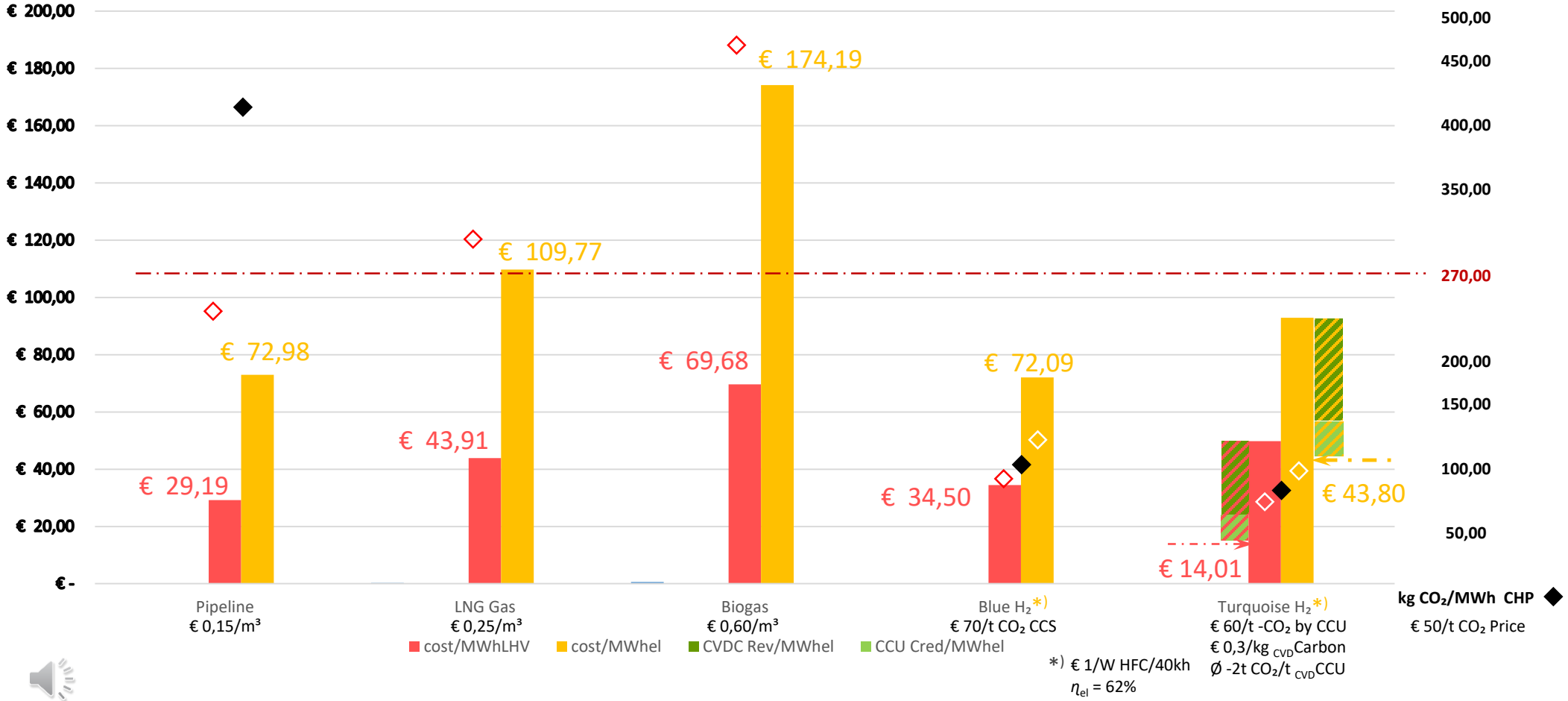
Decarbonized NG's cost & taxonomy

Cost & kg CO_2/MWh (incl. scope 1-3)



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1-decade brothers in arms

University Institute Partners

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Keep Carbon Circular

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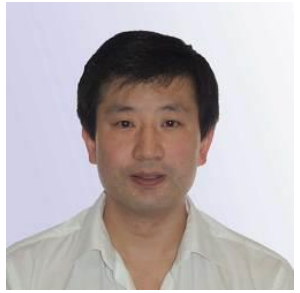
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+ 9 scientists familiar by Technology- feasibilities performed for

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