



Biogas Process and Technology Development

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The main goals!

Fundamental and applied knowledge for

Optimization:

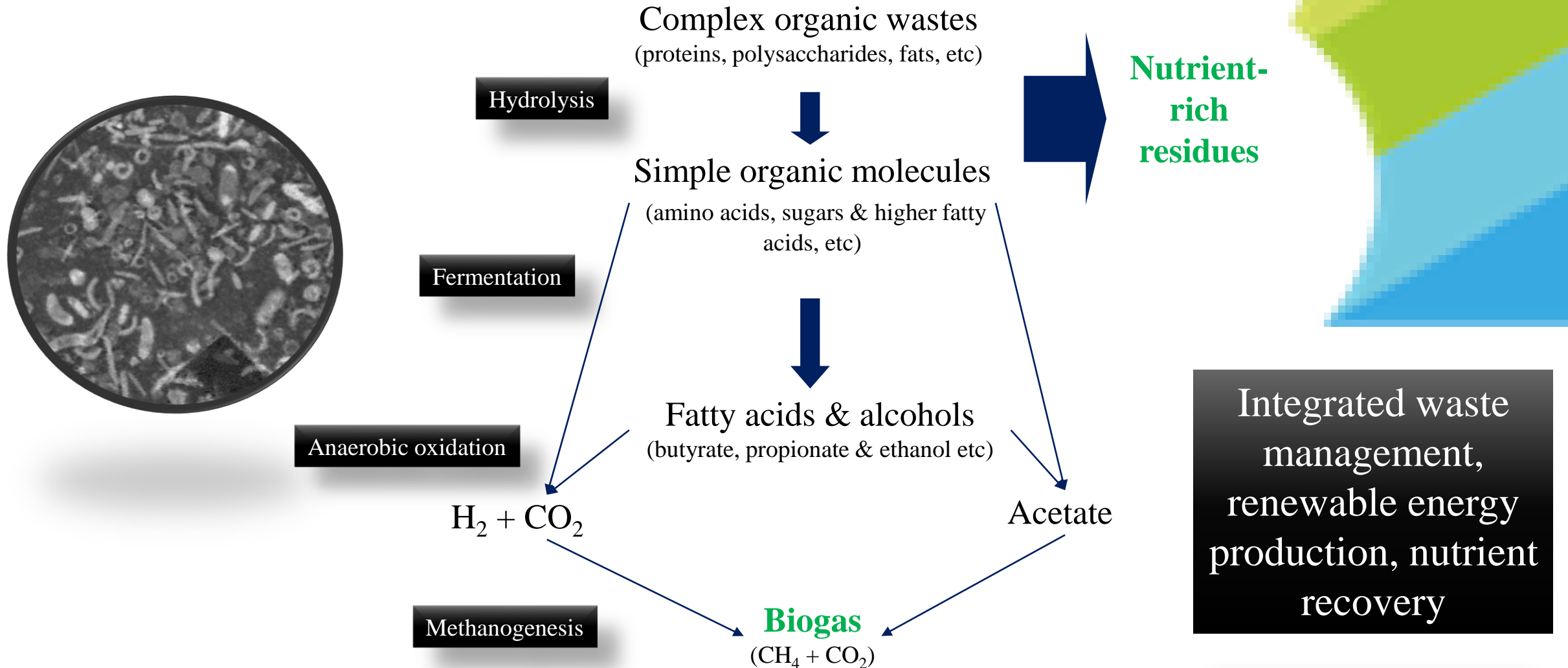
- To maximize stable methane production per reactor volume, time and organic wastes substrate and produce high quality digestate

Application of new substrates:

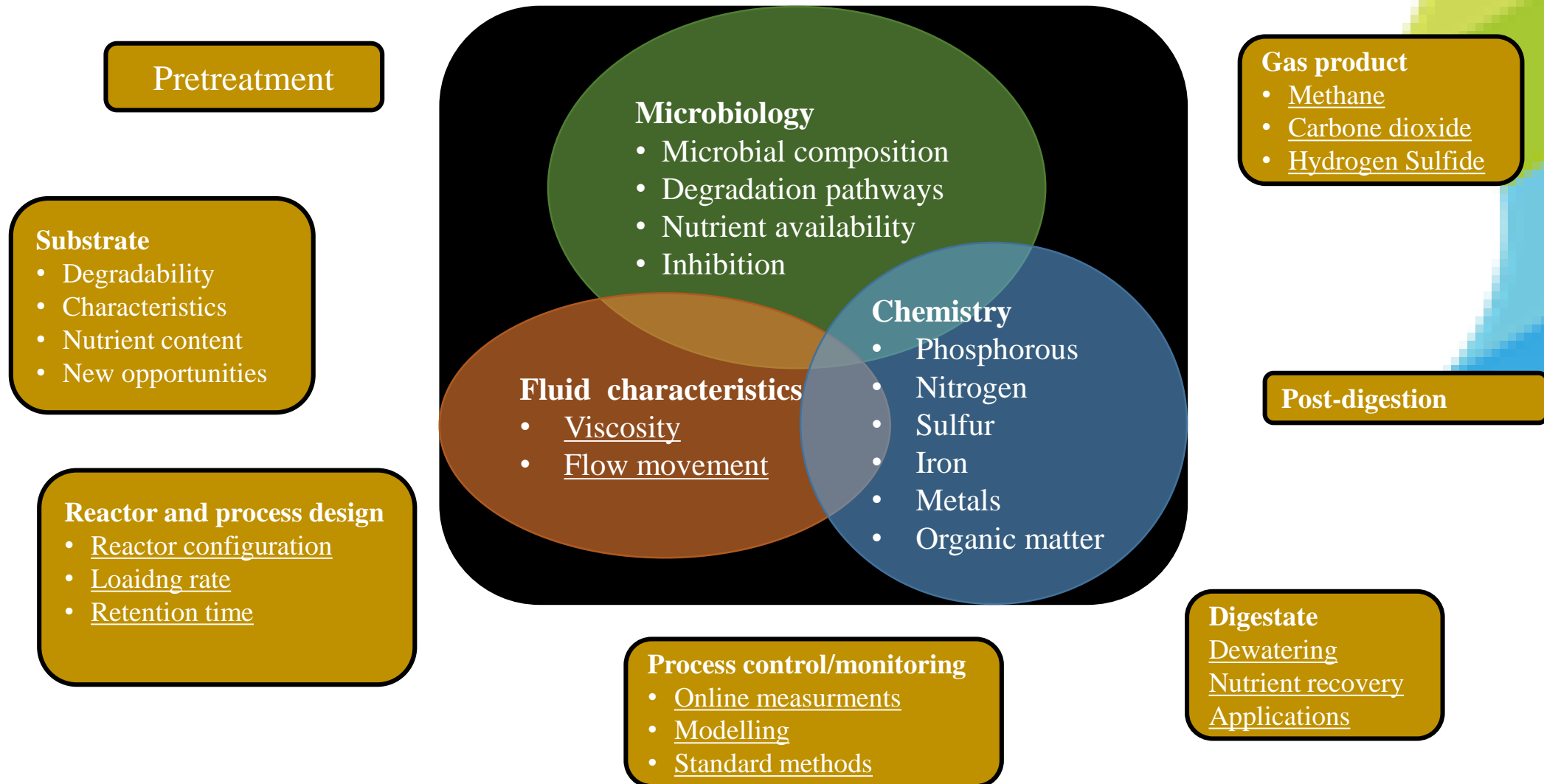
- To establish efficient and stable process for new substrates.



Engineered ecosystem

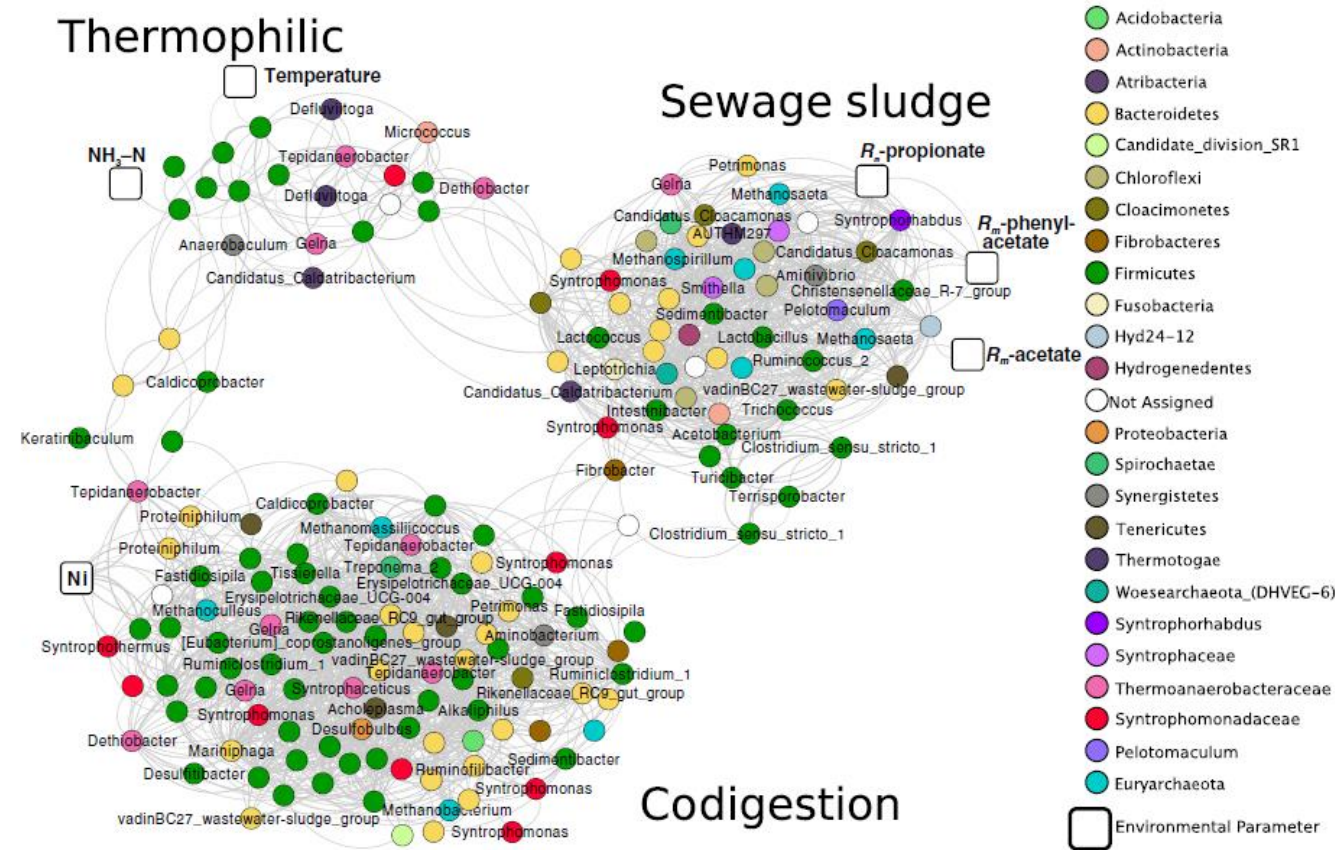


Biogas process engineering



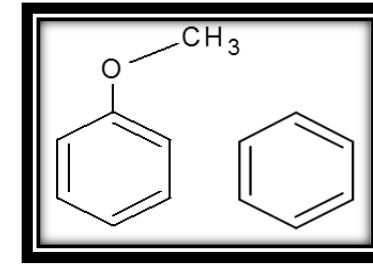
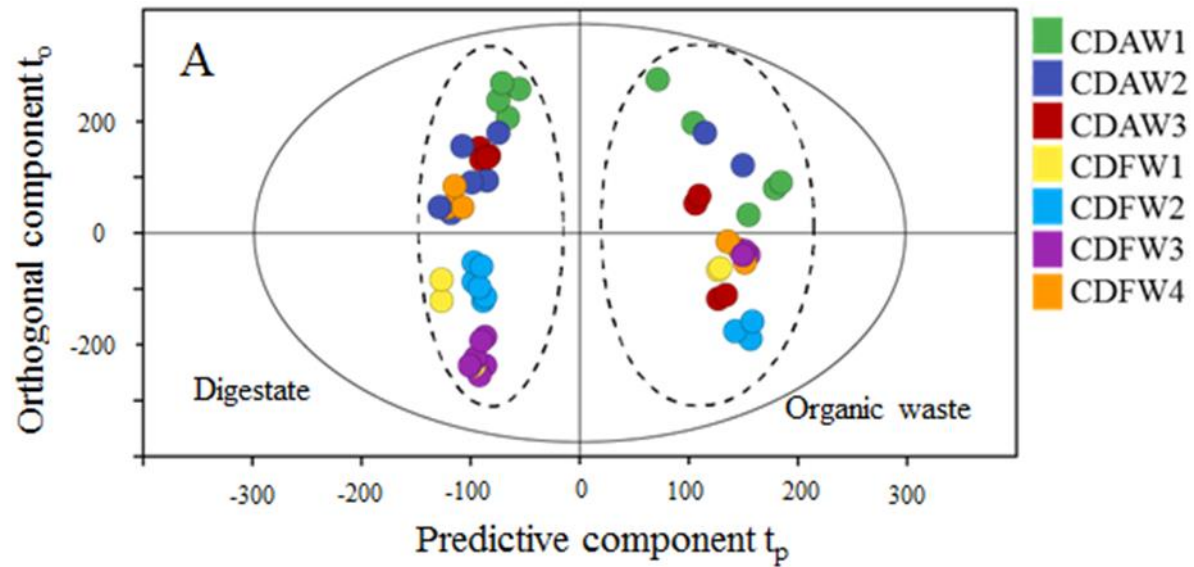
Screening!

Microbial community and function!

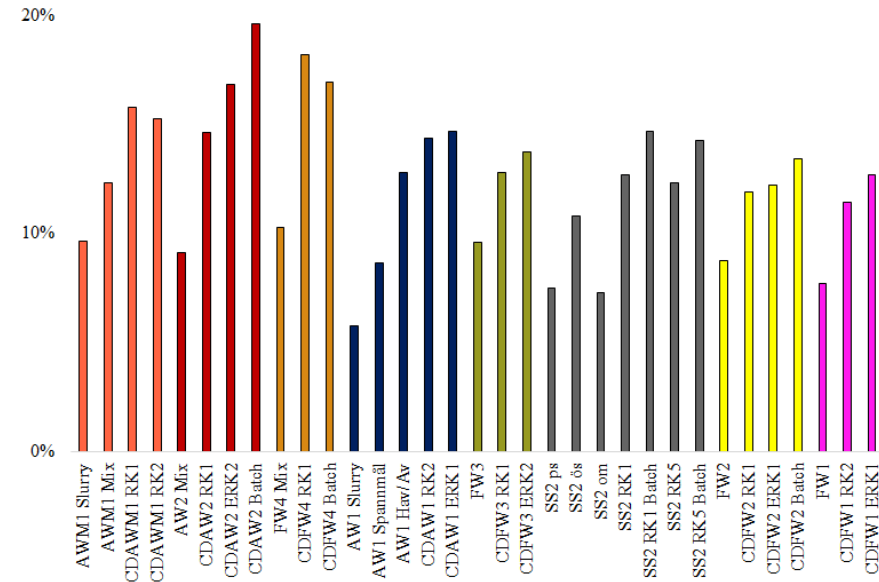


Screening!

Organic matter characteristics and degradability

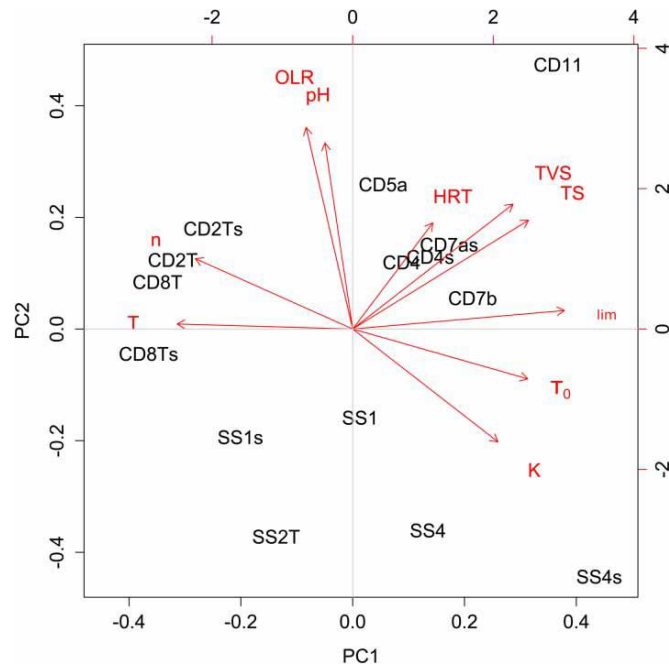


Aromaticity index (% of total integrals)

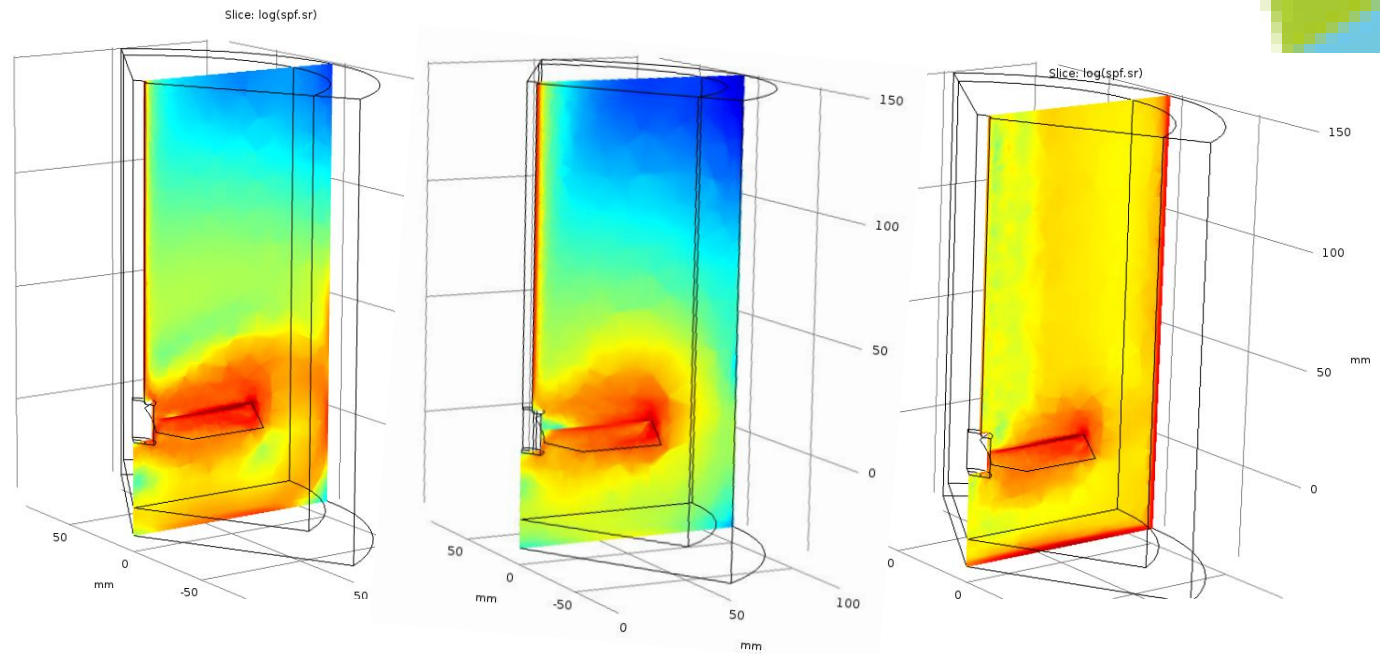


Screening!

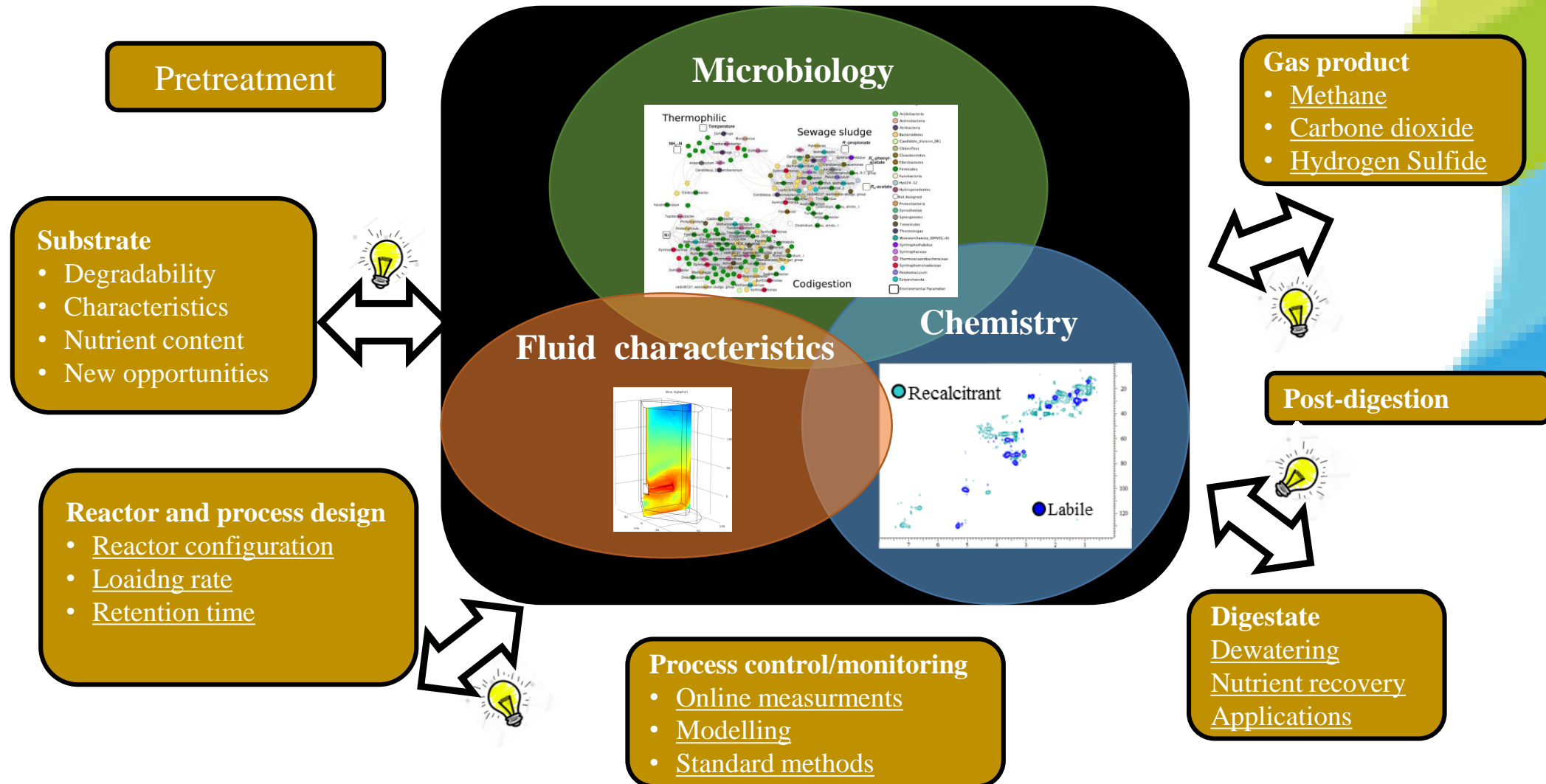
Fluid characteristics



Björn et al. 2018



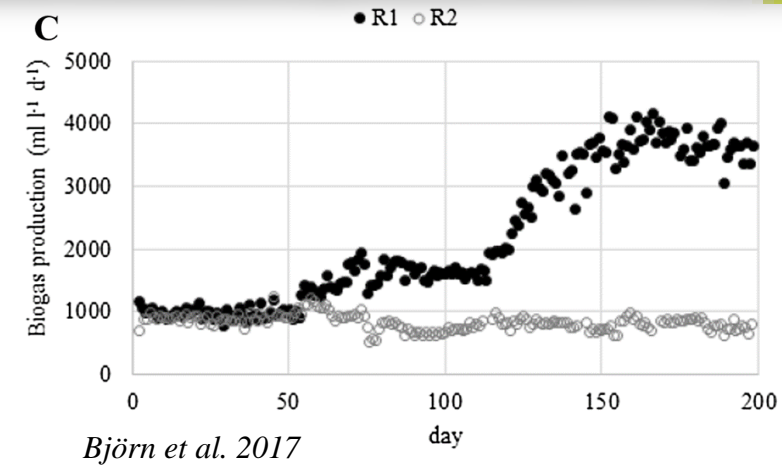
Biogas process engineering



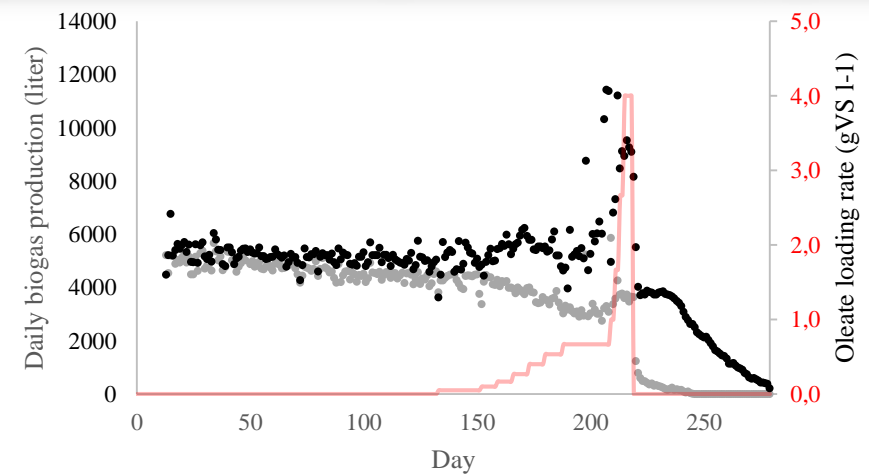
Laboratory trials!



Food waste co-digestion with Sewage sludge



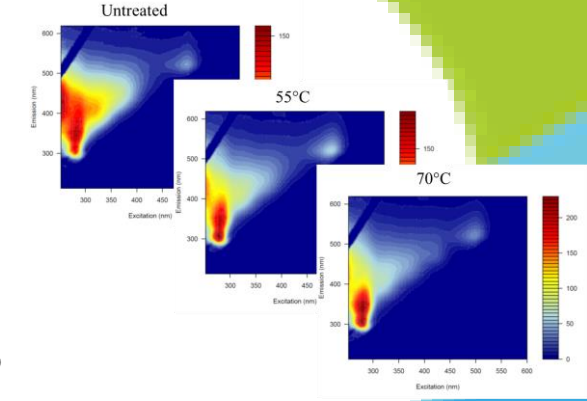
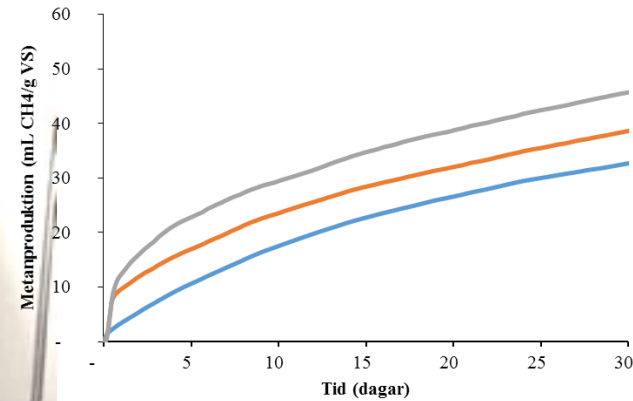
Lipids and fat co-digestion with Sewage sludge



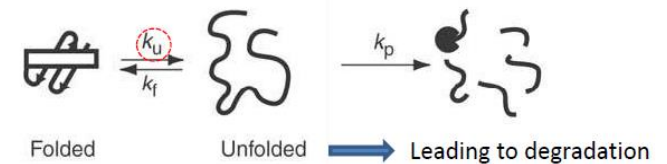
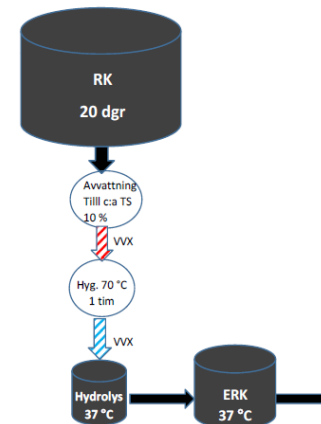
Laboratory trials!



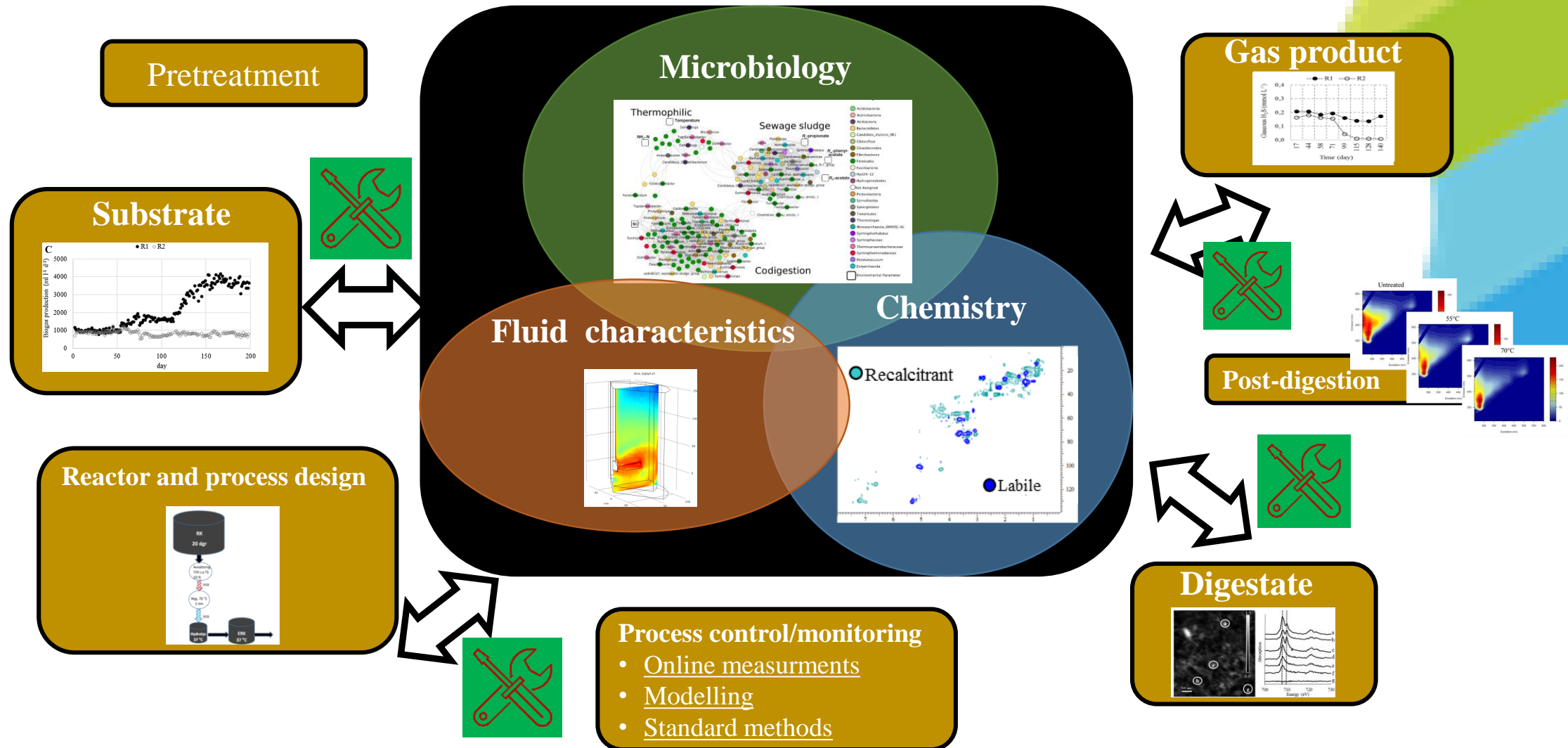
Post-treatment for improving biogas production



Application of enzymes for improving biogas production



Biogas (technical) solutions



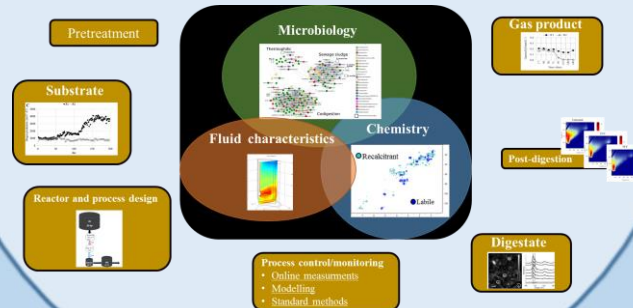
FO6 Nationell och
internationell policy

FO5 Regional och lokal
utveckling

FO3 Värdekedjor
FO4 Bioekonomi

FO7 Internationalisering

FO1 Rötningsprocesser
FO2 Digestat



*Thank you
for your
attention!*

