

THERMOPHILIC AEROBIC MEMBRANE REACTOR (TAMR) FOR HIGH STRENGTH WASTEWATER TREATMENT AND BIOLOGICAL SLUDGE MINIMIZATION

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What is TAMR?

Termophilic Aerobic Membrane Reactor

T Thermophilic

It is a process that operates at temperatures between 50-55 °C

A Aerobic/Anaerobic

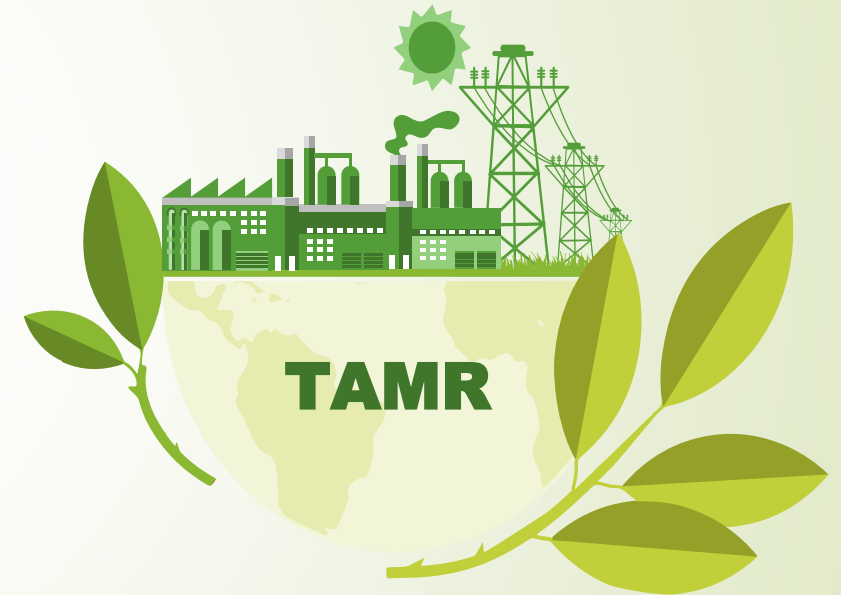
It is a process that operates with pure oxygen (in the case of liquid waste) and in alternating cycles (in the case of sludge)

M Membrane

It is a process that uses ultrafiltration membranes

R bioReactor

It is a process that uses a reactor in which there is thermophilic biomass



Advantages

- 01** **High removal yields** even for slowly biodegradable compounds
- 02** Compact system
- 03** **Greater flexibility** in the event of organic overload
- 04** Heat recovery
- 05** Inhibition of pathogens
- 06** **Low impact system** because it is a biological system
- 07** **Management simplicity** because it is a membrane system
- 08** **Easy insertion into already defined treatment chains**



Applications of technology



1

LIQUID WASTE

On REAL scale

2

BIOLOGICAL SLUDGE

On REAL scale

Applications on liquid waste



TAMR performance

Up to:



COD



TAS



MBAS

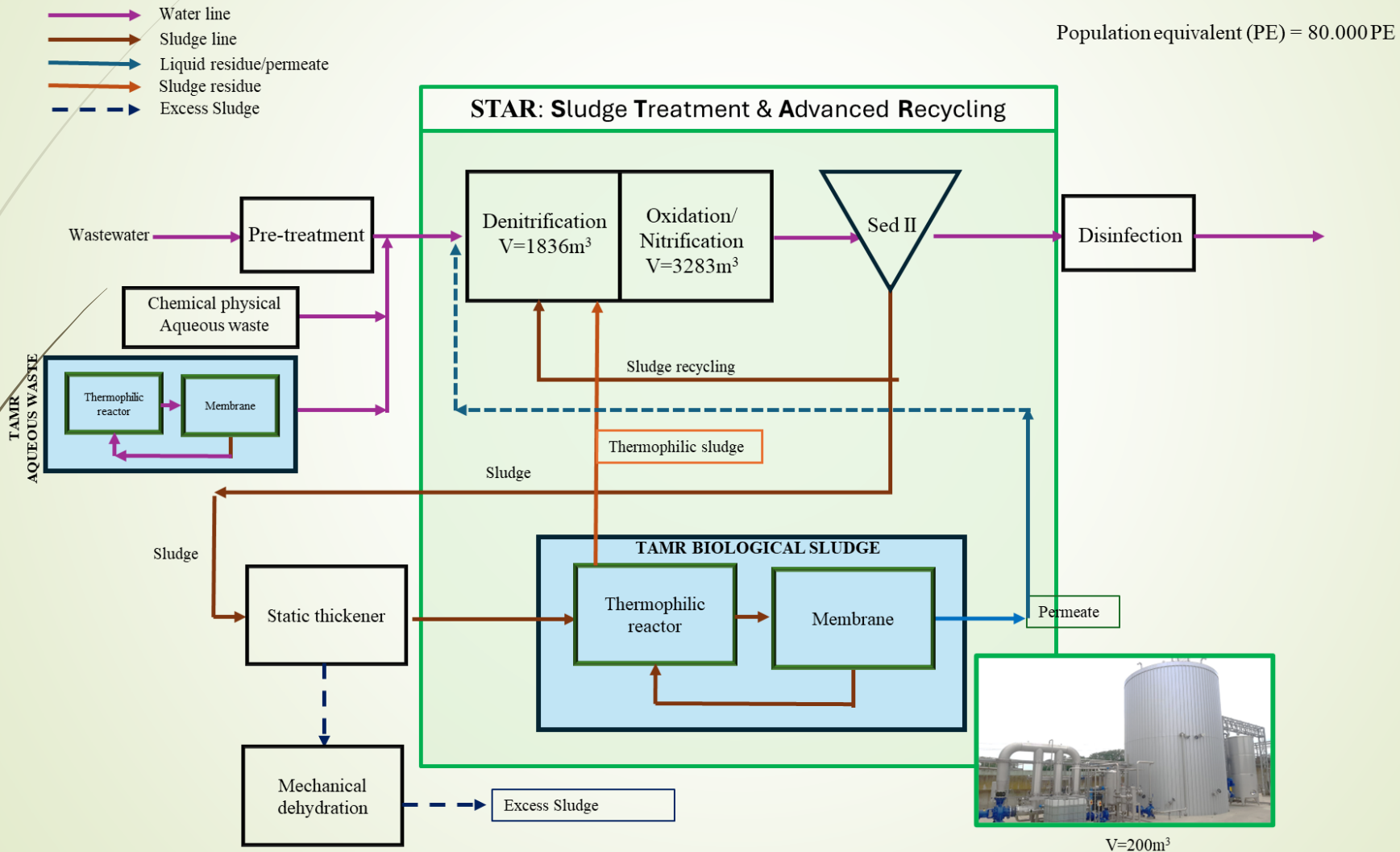


TP

Applications on biological sludge



TAMR insertion



TAMR performance



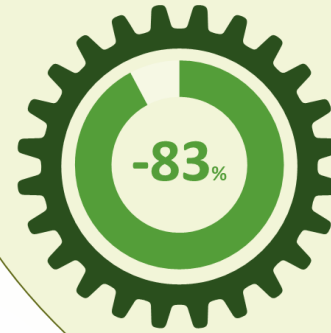
Up to:



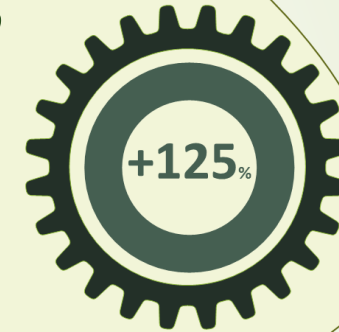
VS



COD

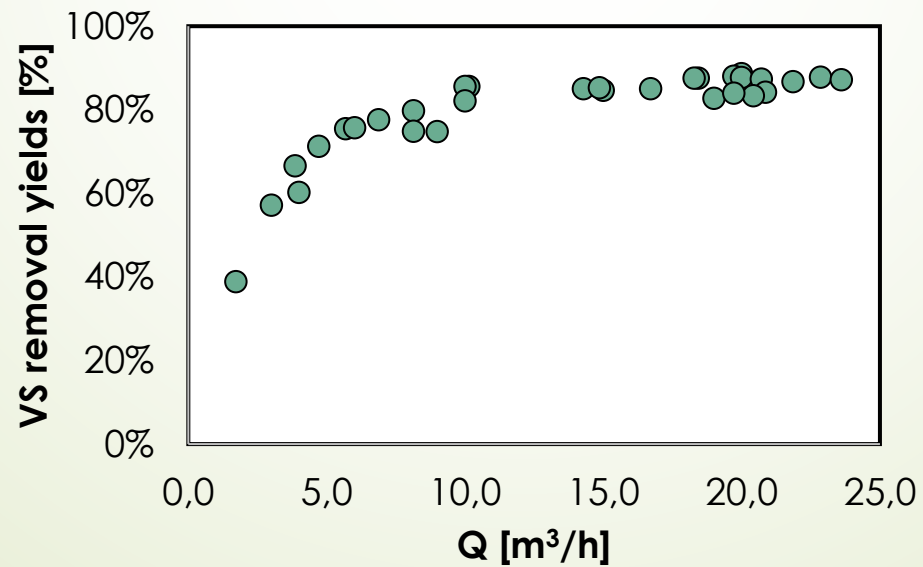


N_{organic}

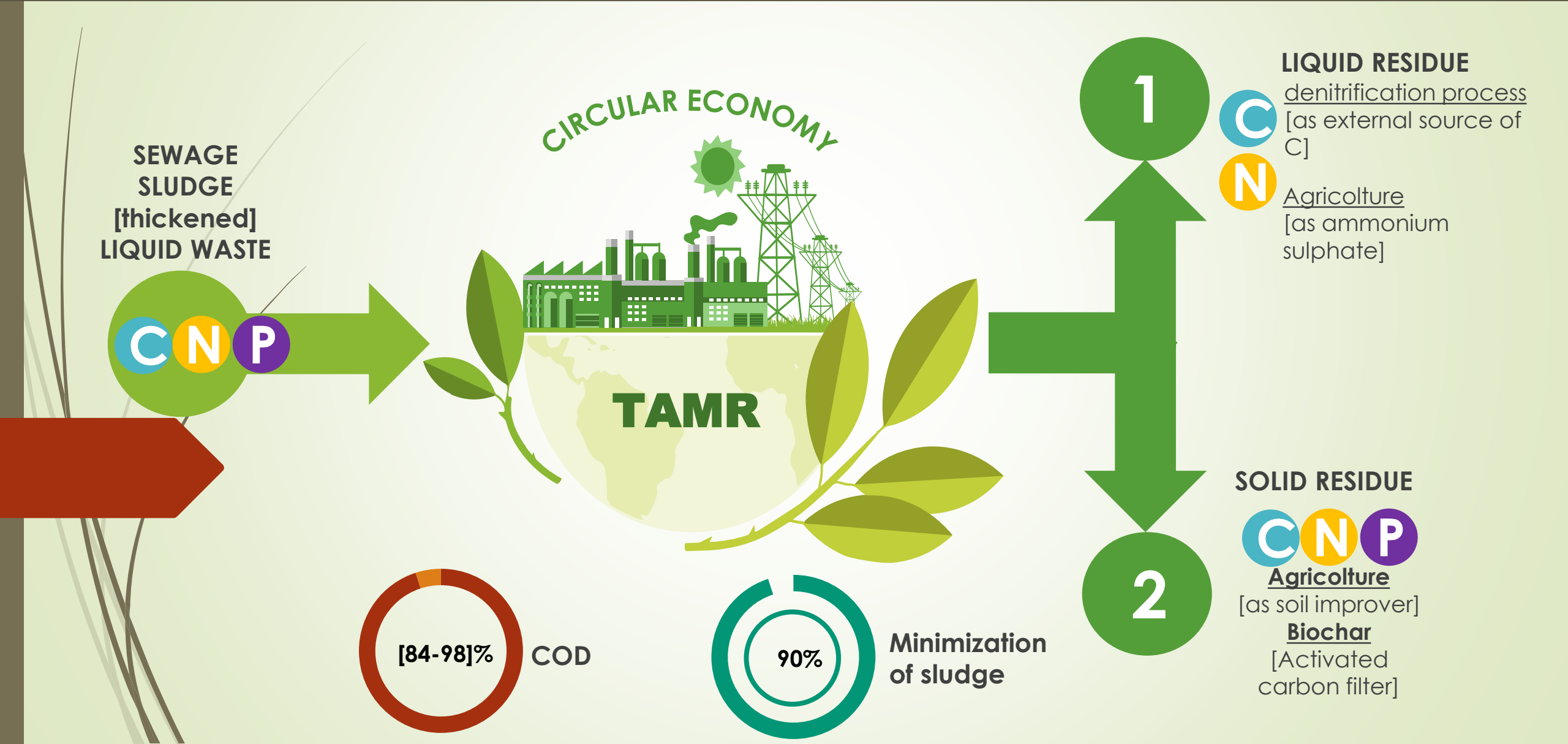


N-NH₄⁺

AMMONIFICATION



Summing up...





PER SAPERNE DI PIU' CONSULTA

- **DTA S.r.l.** ([DTA | Tecnologia Biorime e innovazioni per l'industria](#))
- **A.S.Mortara S.p.A.** (www.asmortara.eu)
- **CosmoCaos** ([Studio e Soluzioni per l'Inquinamento dell'Aria, Acqua e Suolo](#))