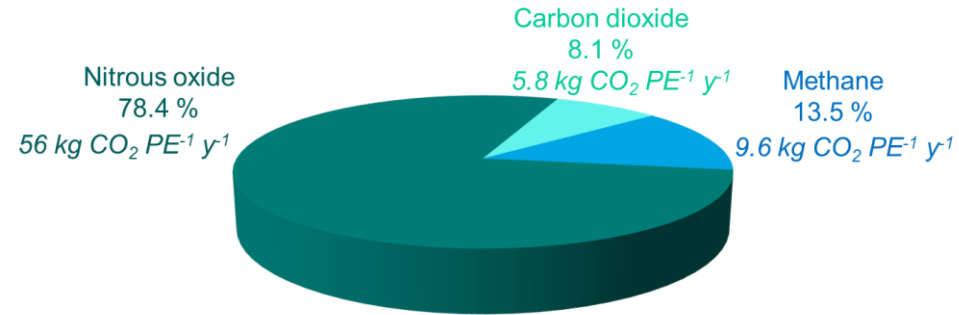
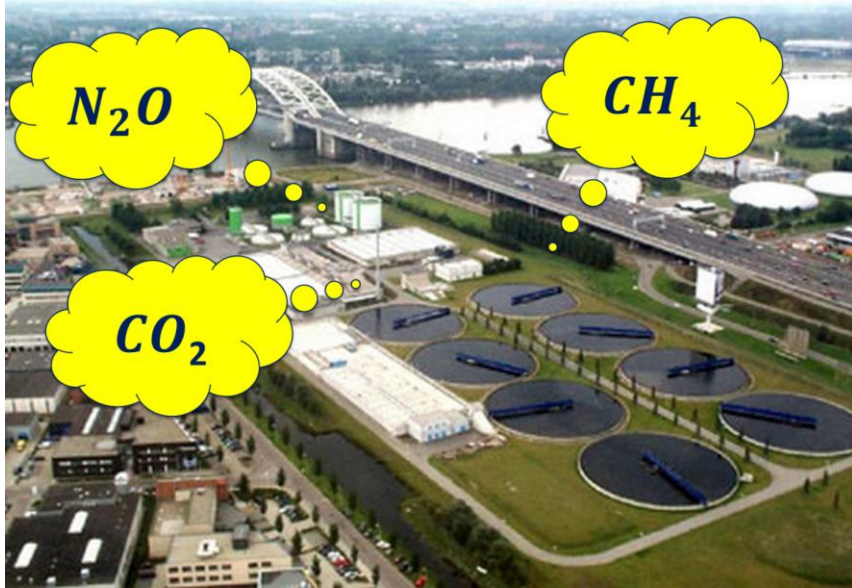


# Greenhouse gas emissions at WWTPs

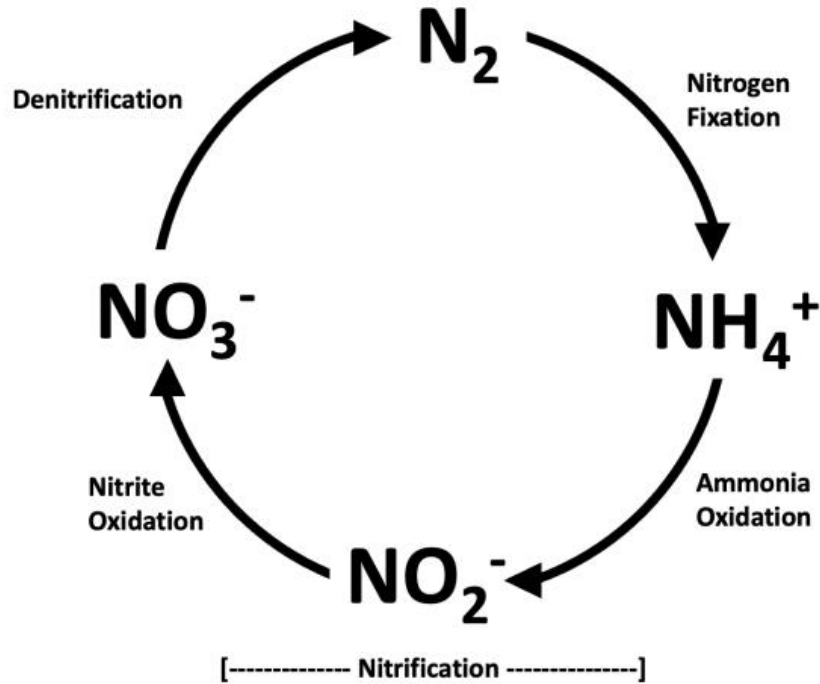


*Daelman et al., 2013*

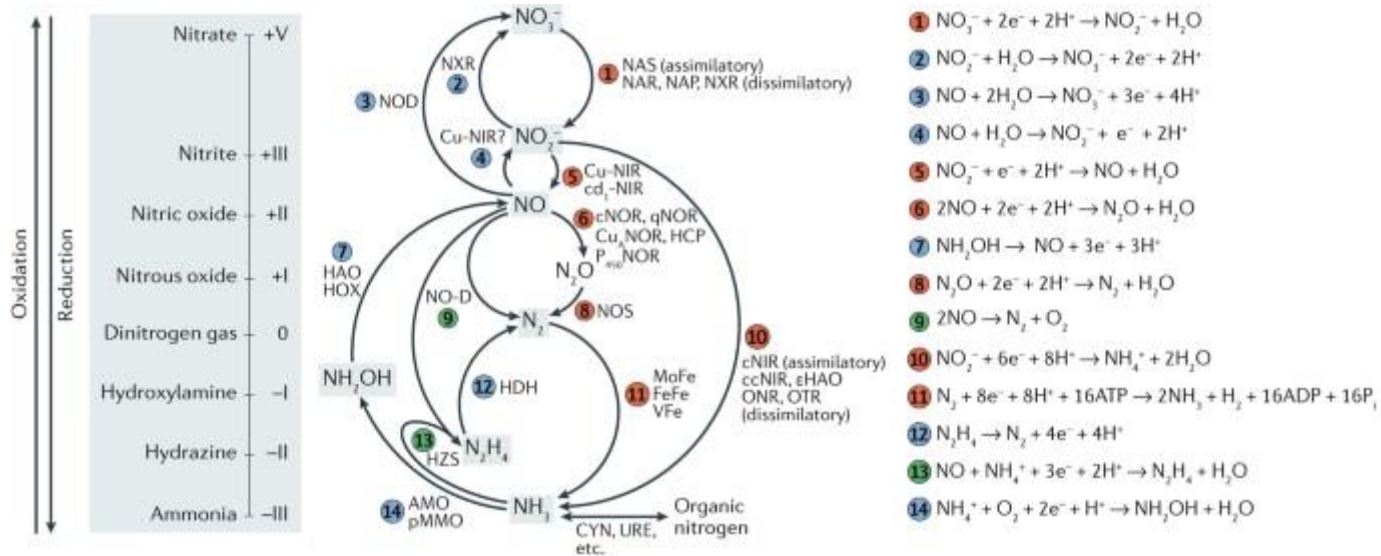
	This study	IPCC (2006)
Methane (kg CH <sub>4</sub> (kg COD <sub>influent</sub> ) <sup>-1</sup> )	1.1 %	0.85 %
Nitrous oxide (kg N <sub>2</sub> O-N (kg TKN <sub>influent</sub> ) <sup>-1</sup> )	2.8 %	0.035 %

MJA UVW 2010: 30 % reductive N<sub>2</sub>O 1990-2020

# Tekstboek Stikstofcyclus



# Complexiteit Stikstofcyclus



Kuypers, Marcel MM, Hannah K. Marchant, and Boran Kartal. "The microbial nitrogen-cycling network." *Nature Reviews Microbiology* 16.5 (2018): 263-276.

## Stikstofbalans RWZI:

In: 100  
Slib: 20  
Effluent: 15  
N<sub>2</sub>O: 1  
N<sub>2</sub>: 64

Voorspellen N<sub>2</sub>O:  $100 - 64 - 15 - 20 = 1$