

ELIQUO | WATER & ENERGY



ENERGY & NUTRIENT FACTORY

Amersfoort wwtp (NL)

07.10.2019



OBJECTIVES

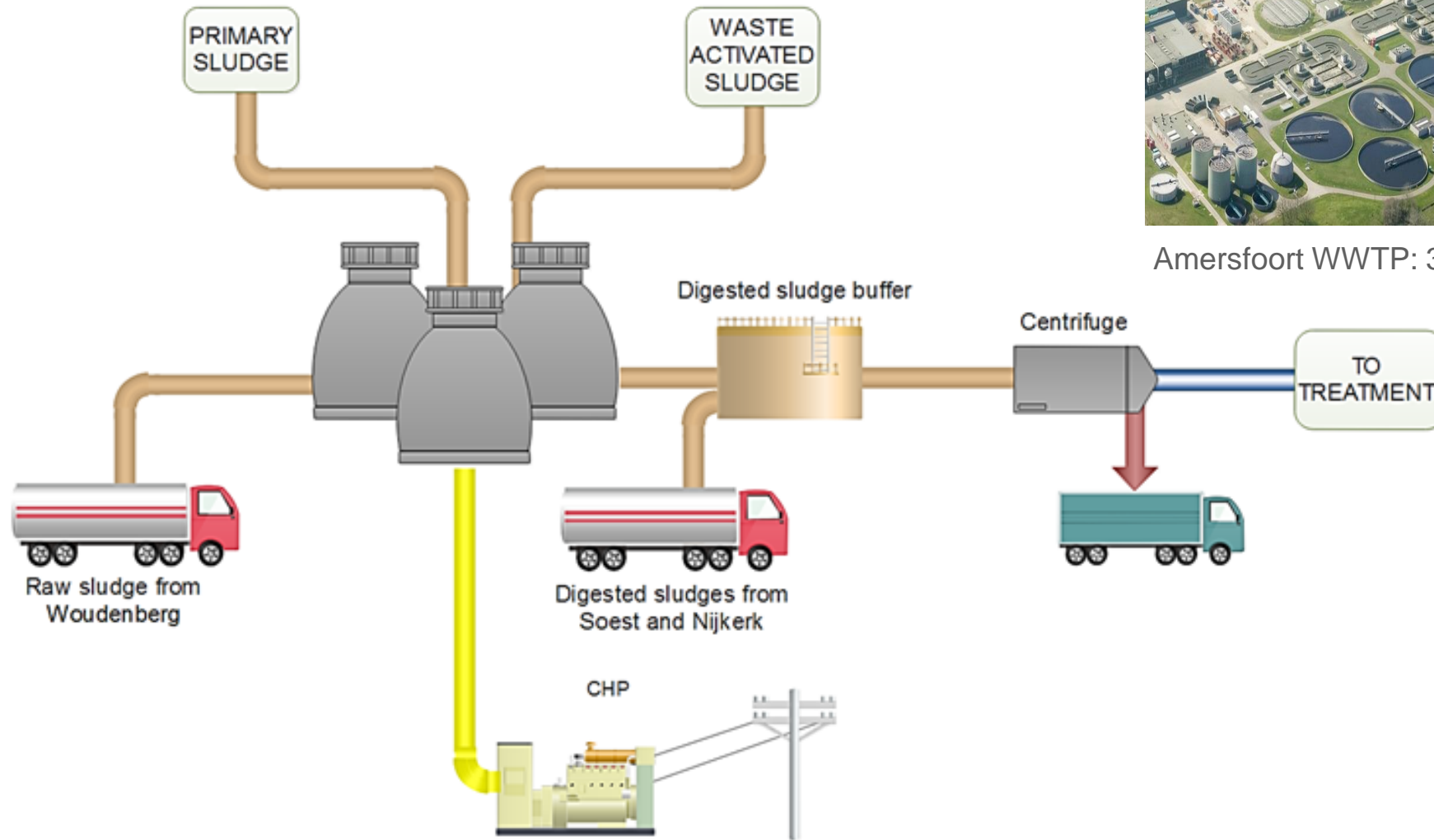
PROJECT “OMZET.AMERSFOORT”

- 📍 Centralised sludge treatment facility
 - 11,8 kton dry-solids/year
 - 40% import sludge
- 📍 Re-use of existing assets
- 📍 Energy positive site
- 📍 Commercial phosphorus recovery
- 📍 Reduction of sludge processing costs



WWTP Amersfoort: 315,000 PE

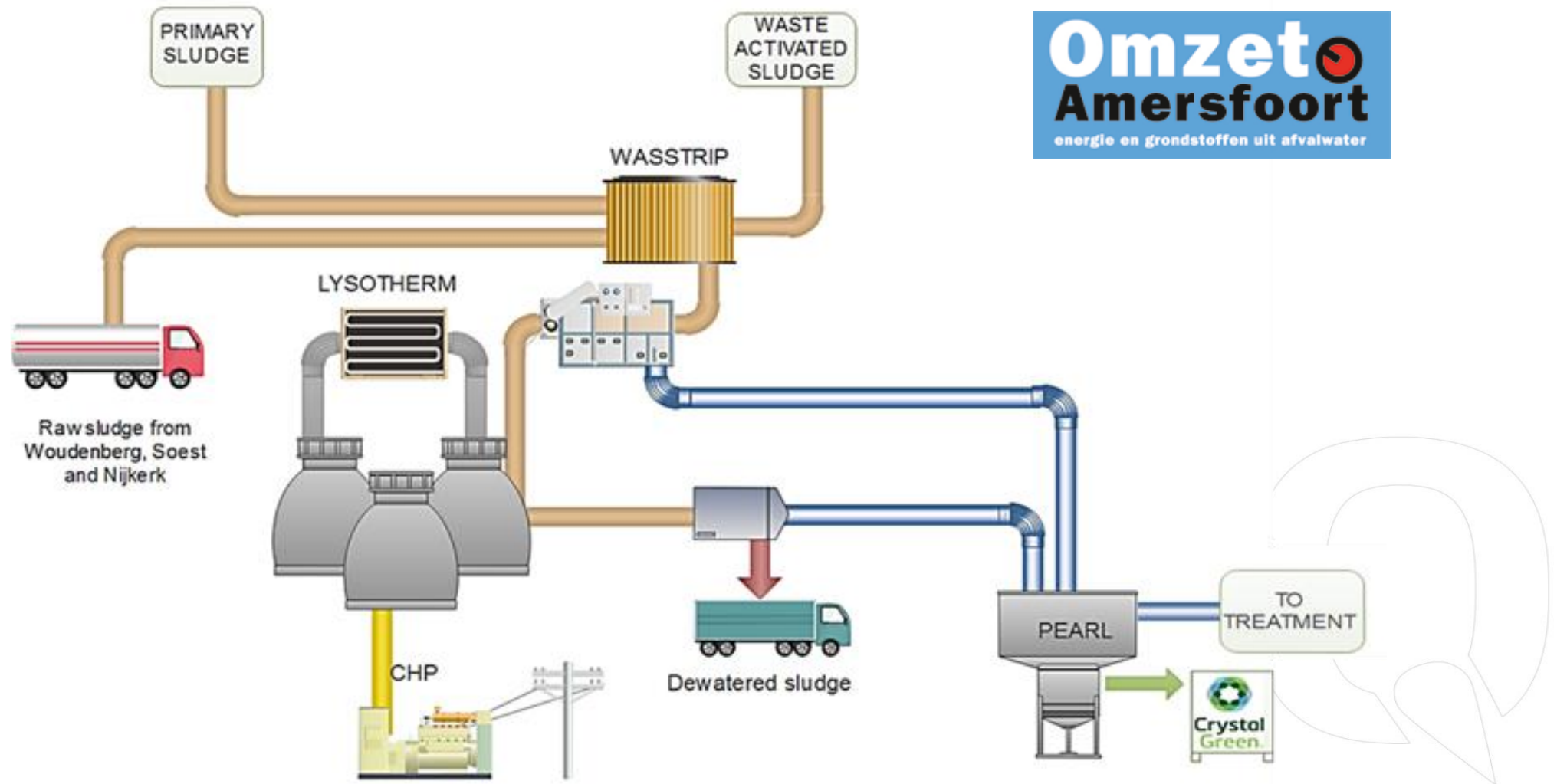
FORMER SITUATION



Amersfoort WWTP: 315,000 PE



CURRENT SITUATION



KEY BUILDING BLOCKS APPLIED

- 📍 Full scale application of **LysoTherm®** for sludge hydrolysis

 - Increase of biogas yield from sludge digestion
 - Improved dewatering

- 📍 All biogas converted to energy with 3x 500 kW_e **CHP**

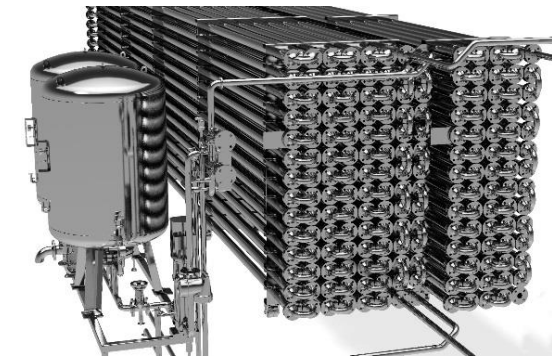
 - Heat supply to LysoTherm®

- 📍 Application of **Wasstrip®**

 - Increase of P-recovery
 - Prevent uncontrolled struvite precipitation

- 📍 Production of **Crystal Green®** fertilizer using **Pearl®** technology

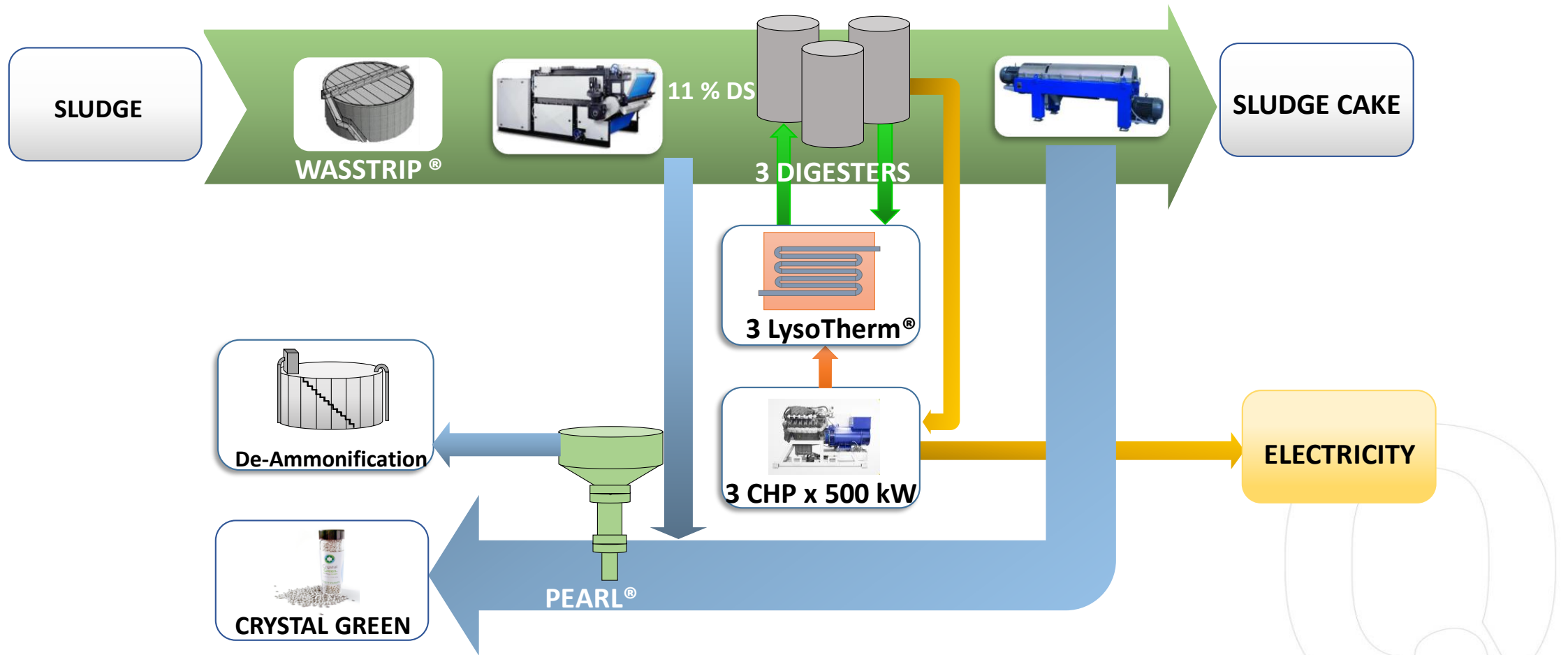
 - High quality Magnesium Ammonium Phosphate pellets
 - Guaranteed off-take agreement



Crystal Green® 5-28-0+10% Mg



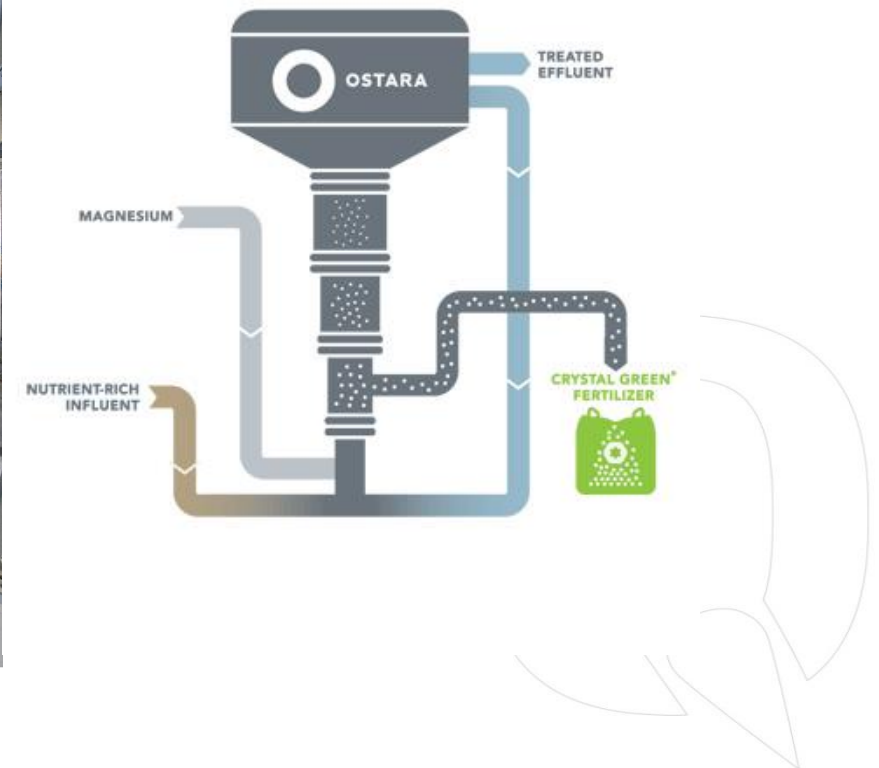
INTEGRATED SOLUTION



LYSOTHERM® SLUDGE HYDROLYSIS



PEARL[®] PHOSPHATE RECOVERY



PEARL® PHOSPHATE RECOVERY



Crystal Green® 5-28-0+10% Mg

TIME LINE



LysoTherm

Pearl

Optimisation

Digester
cleaning

Fine tuning

Import sludge
digestion

