WORLD BIOGAS ASSOCIATION

Biogas Masterclass with Danish Experts; *Manure & Digestate*

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E*nabling the introduction of Danish biogas and waste solutions into the North American market.*

Biogas Go Global

Food & Bio Cluster Denmark

ROYAL DANISH EMBASSY
The Trade Council

Biogas Go Global

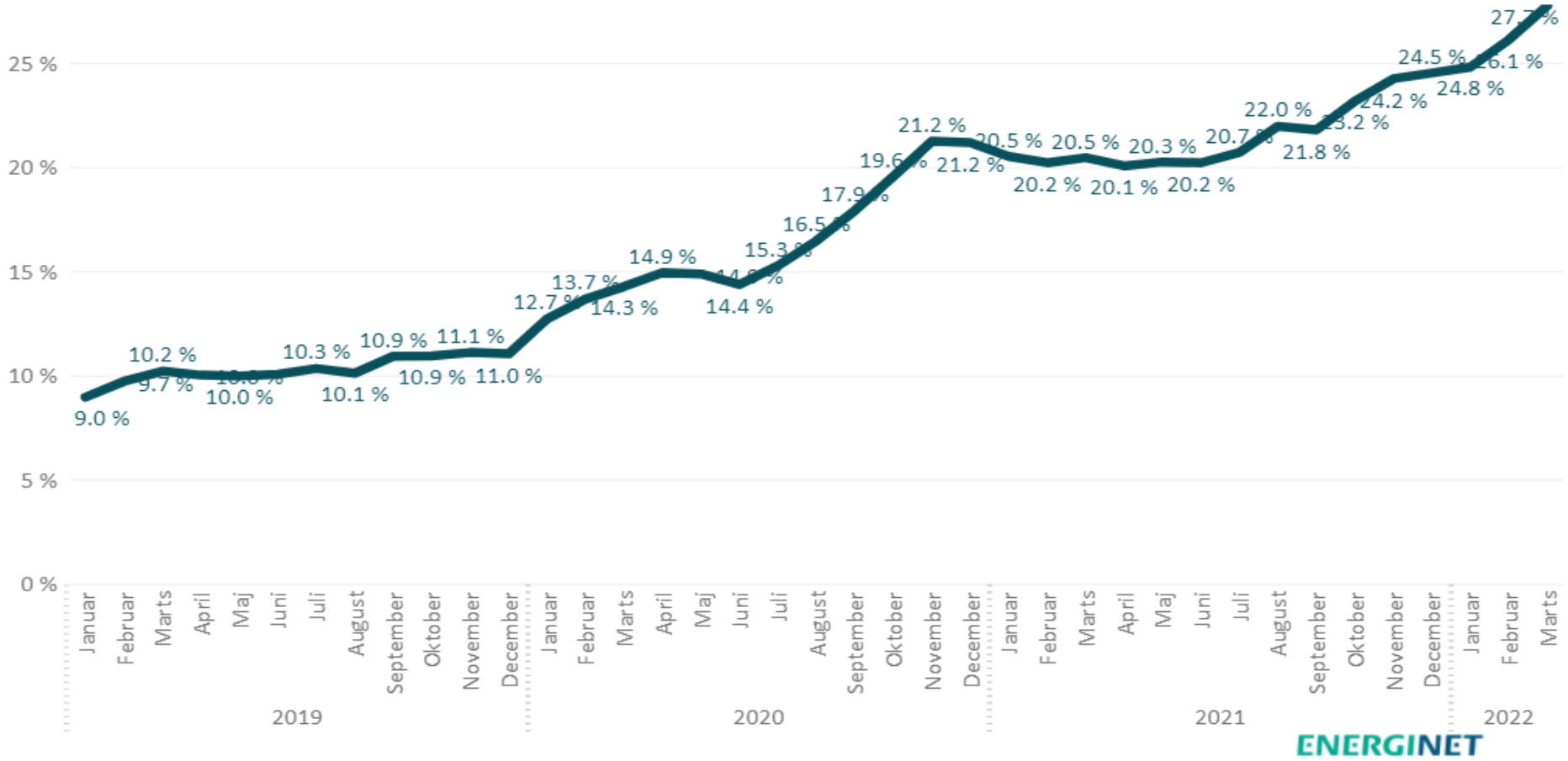
- Biogas Go Global provides a commercial, R&D and policy knowledge sharing platform for the accelerated growth of the biogas industry in the United States, Denmark and other partner countries by establishing collaboration between industry, academia and the private sector.
- The goal of Biogas Go Global is to grow the global biogas sector through partnerships between Danish and partner country stakeholders.
- www.biogasgoglobal.com

WASTE, RECYCLING AND BIOGAS ADVISORY

Food & Bio Cluster Denmark

Danish Energy Agency

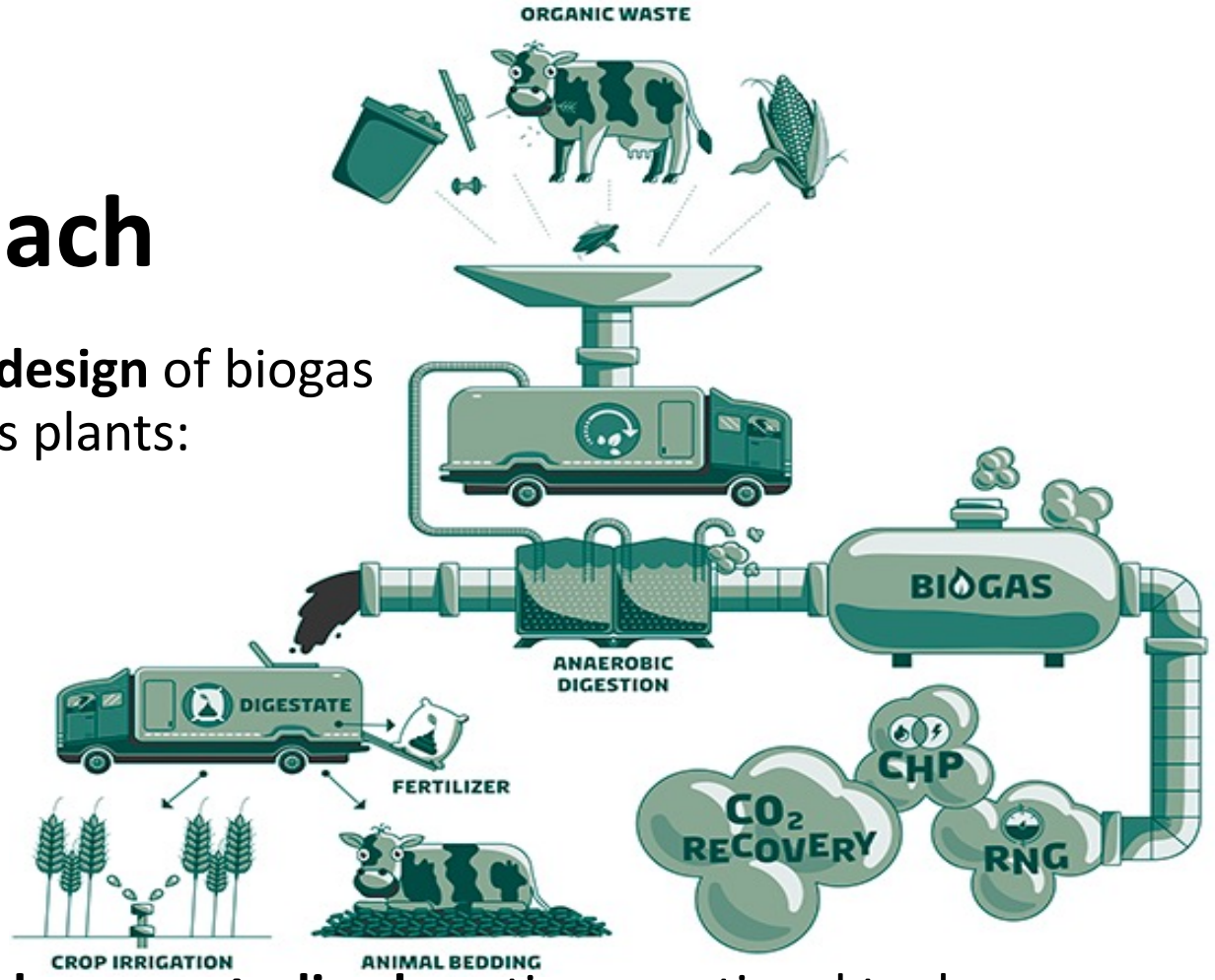
Share of RNG in the Danish gas system



Denmark is the country in the world with the highest share of renewable natural gas in the gas grid!

The Danish Biogas Approach

- The Danish biogas sector has **specialized in the design** of biogas plants and **production of components** for biogas plants:
  - Biomass pre-treatment solutions
  - Digester tanks
  - Mixer for the digester tanks
  - Upgrading equipment



- Most of the biogas production in DK is based on **large centralized** continuous stirred tank reactor plants with **co-digestion** and own **upgrading** facilities with direct injection of the RNG into the natural gas grid

Biogas Alliance – Danish Technology Solutions

- Sand/grit separation from manure & biosolids
- Food waste pre-treatment to biopulp
- AD system design and optimization
- Fertilizer production
- Food waste/high solids pumping and mixing
- Enzyme use to enhance digester performance
- Hydrogen sulfide and CO2 removal from biogas for RNG
- Biogas system ownership and operation
- Power to X technology for expanded biogas benefits

THE WASTE , RECYCLING & BIOGAS ADVISORY PROUDLY PRESENTS

BIOGAS ALLIANCE

GEMIDAN ECOGI

Qenew energy

novozymes

ISN • PUMPS USA Inc.

Ammongas

nature energy

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