



Scandinavian Biogas

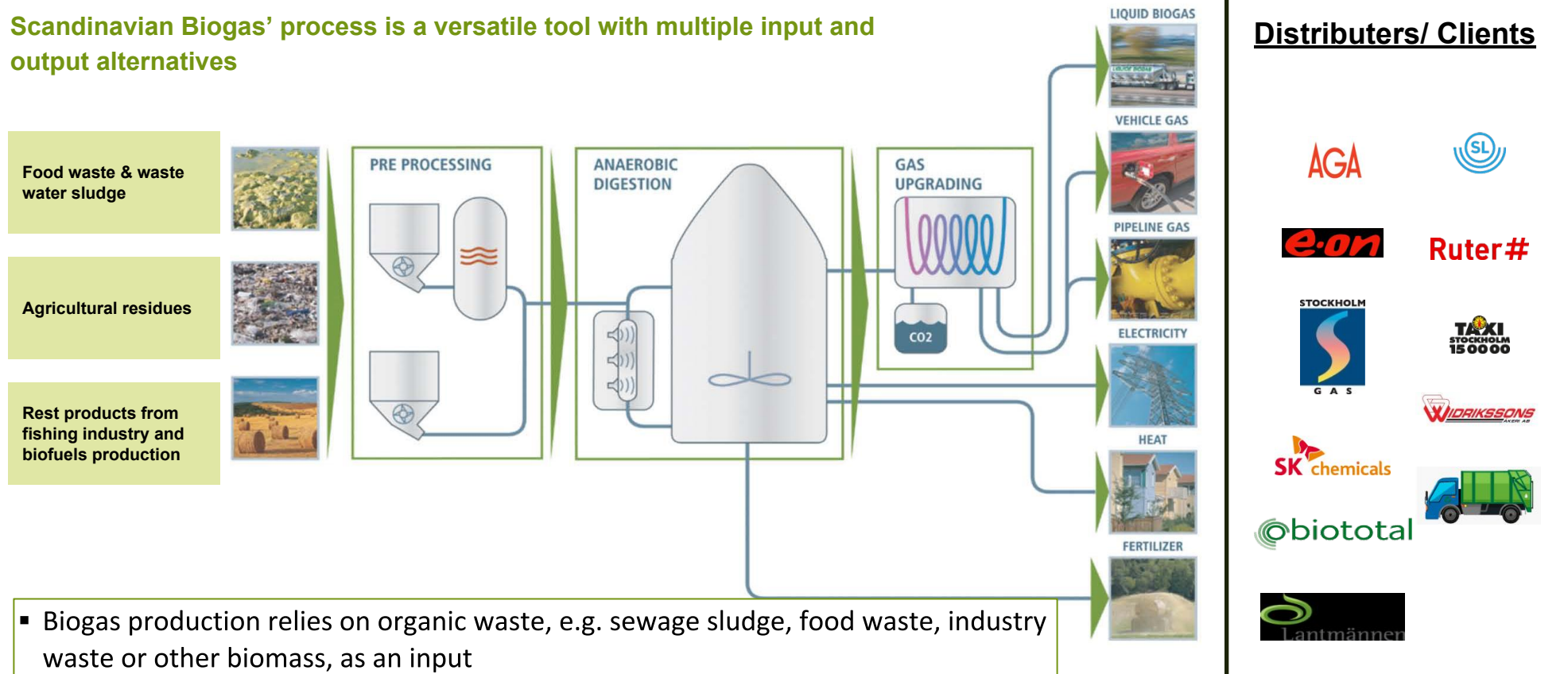
Leading W2E biogas process optimization

Smart & Sustainable Cities, 9th April 2019



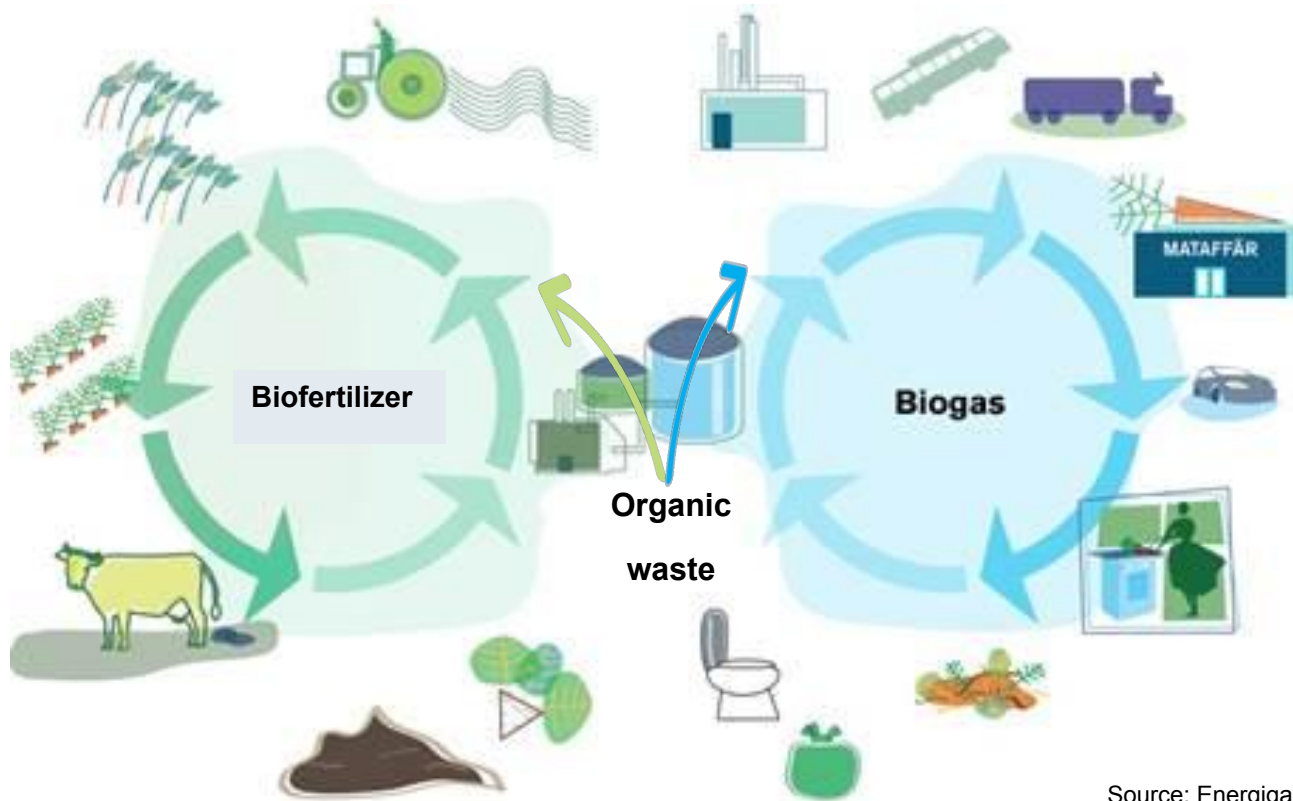
Biogas – production process and value chain

Scandinavian Biogas' process is a versatile tool with multiple input and output alternatives

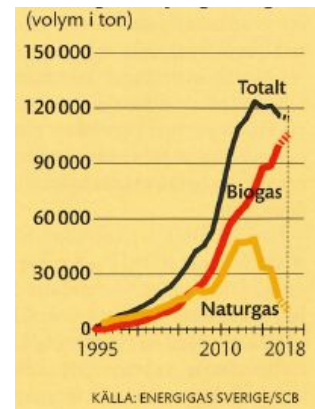


- Biogas production relies on organic waste, e.g. sewage sludge, food waste, industry waste or other biomass, as an input
- During the anaerobic digestion the biomass is converted to raw biogas
 - 1 kg of dry biomass give 0.5 - 1.0 cubic metre (Nm³) of raw biogas
 - 1.0 Nm³ raw biogas corresponds to 6 to 7 kWh of energy
- Scandinavian Biogas is active in the whole production process and has longstanding and long-term relationships with suppliers, distributors and end customers

Biogas – a major contributor to the circular economy

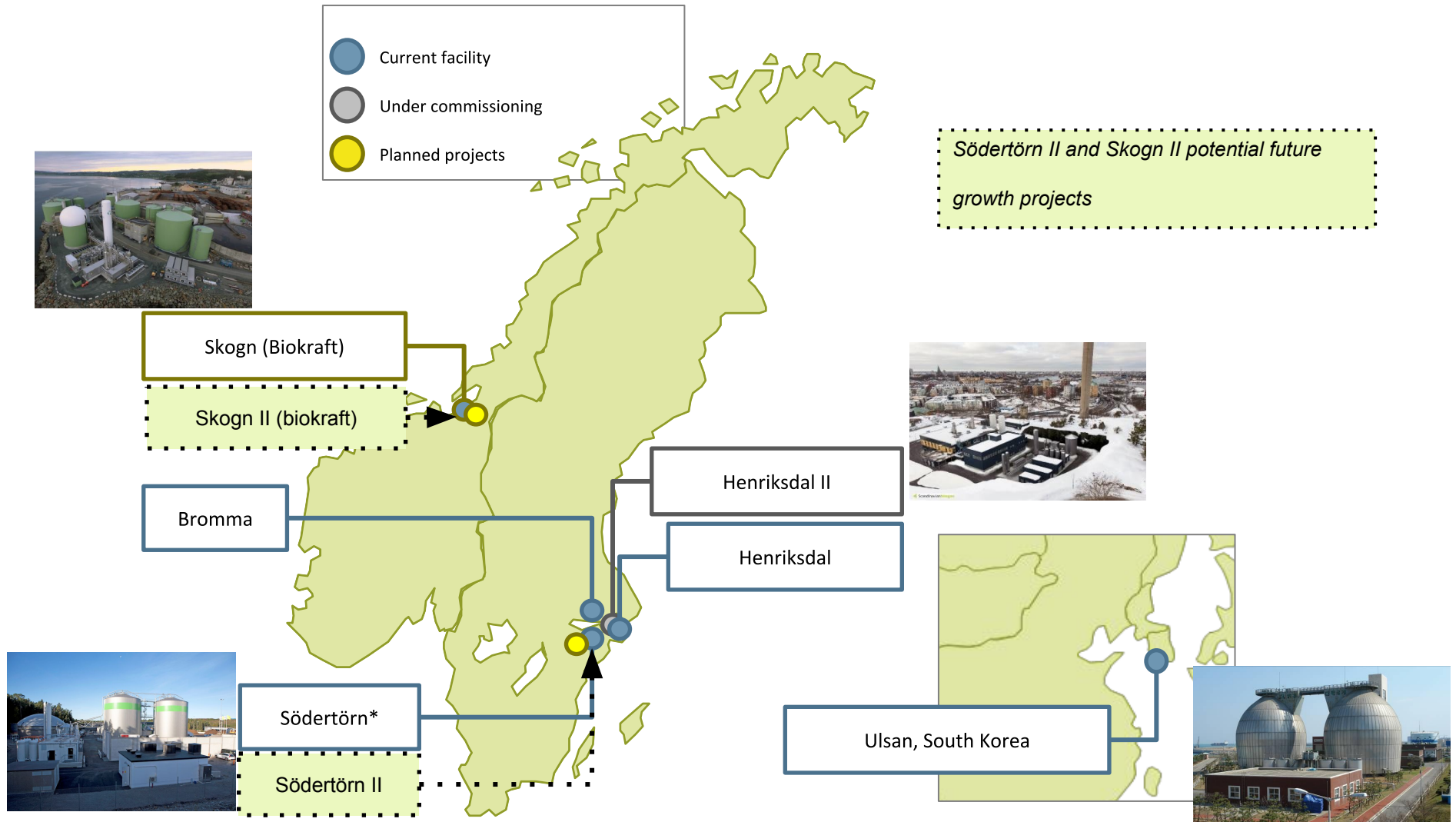


2018: biogas is 90% of vehicle gas



Source: Energigas Sverige

Scandinavian Biogas - sites operational and planned



*The Södertörn site consists of a pre-treatment facility and a biogas facility

Biogas potential (City with 1 million persons)

Category	Methane Mm ³ /year	Methane GWh/year	Electricity GWh/year	Heat GWh/year
Sewage sludge	8	80	32	40
Food waste, Households	8	80	32	40
Restaurant waste	3-5	30-50	12-20	15-25
Bazaars/supermarkets /fat recovery/ etc	5-10	50-100	20-40	25-50
Total	24-31	240-310	96-124	120-155

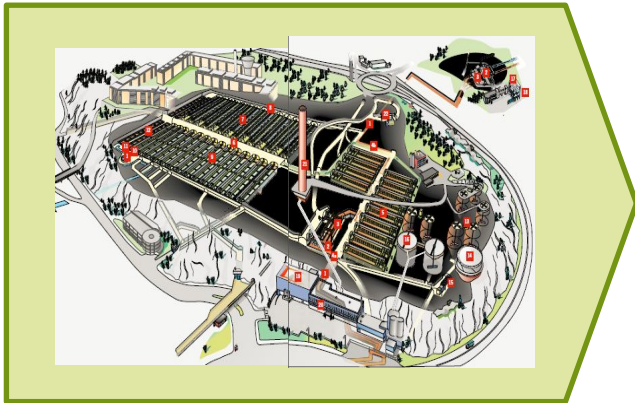
Source: Scandinavian Biogas Fuels

... and 8.000 cars driving each 15.000 km /y will need ~8,0 Mio. Nm³ methane

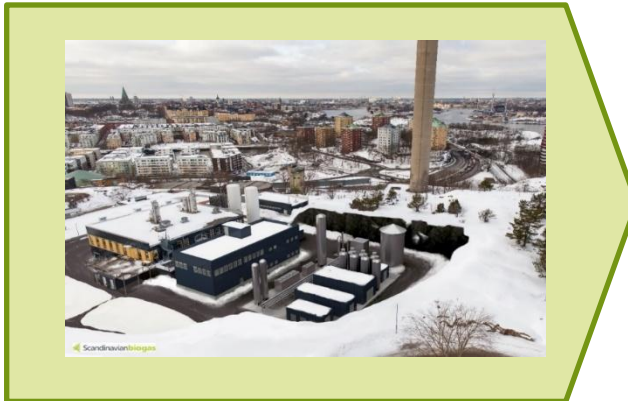
Success of co-operation between Scandinavian Biogas and Stockholm City and the region



Waste Water treatment



Biogas production and upgrading



Local bus services



In close and integrated co-operation:



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