

DTU



Marie Münster, Professor WSR, DTU MAN - Sustainability
Methane emission workshop 22/10 2019

FutureGas



Goals: - to facilitate the integration of the gas system
 - to facilitate a cost-efficient uptake of renewable gases

Budget: 33 MDKK

Period: 2016-2020

www.futuregas.dk

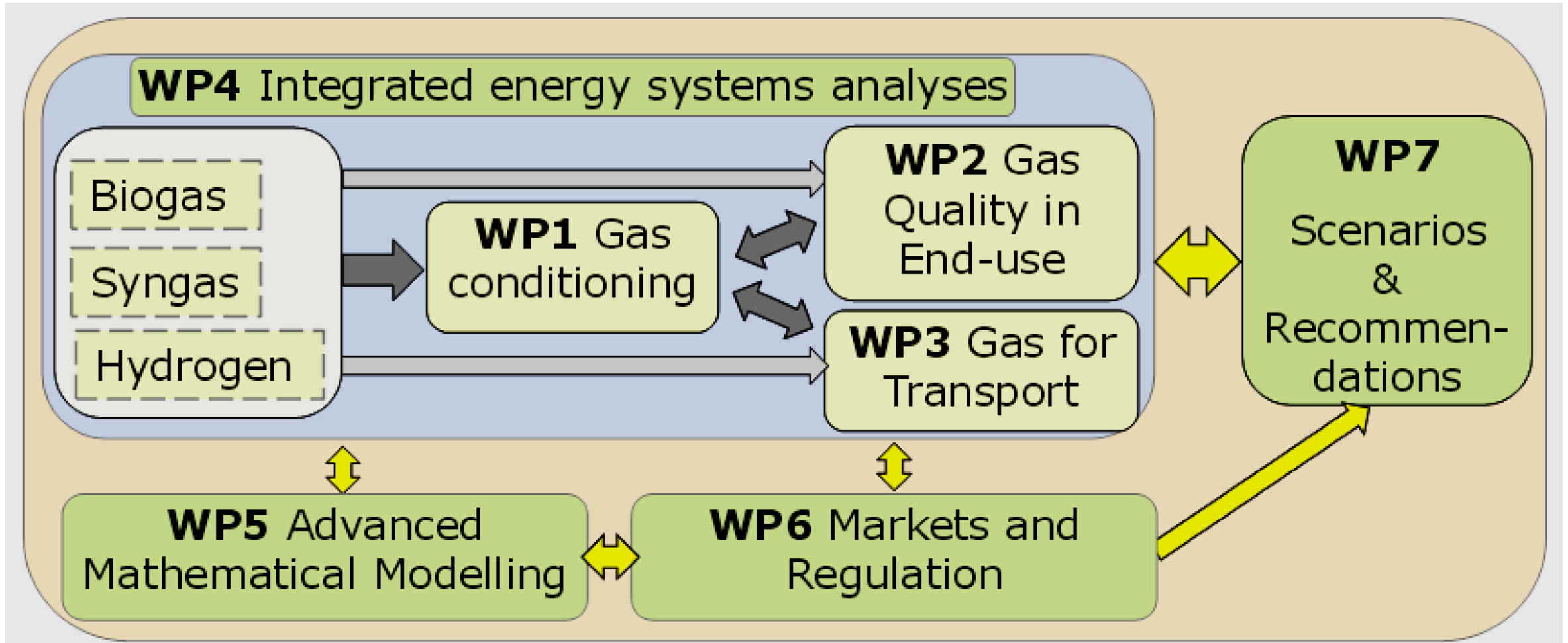
Role:

project lead

WP lead on modeling WP

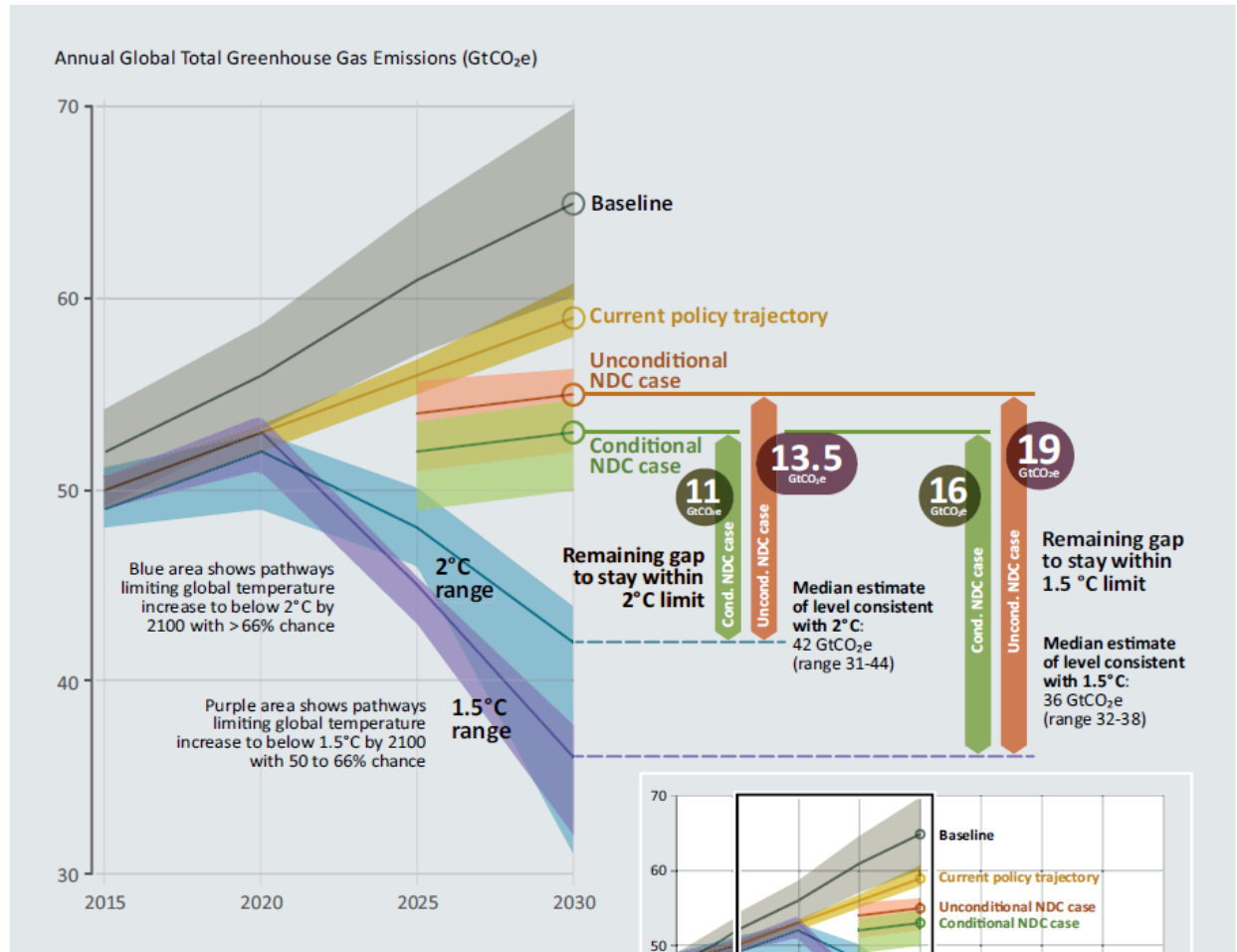


Structure of the FutureGas project



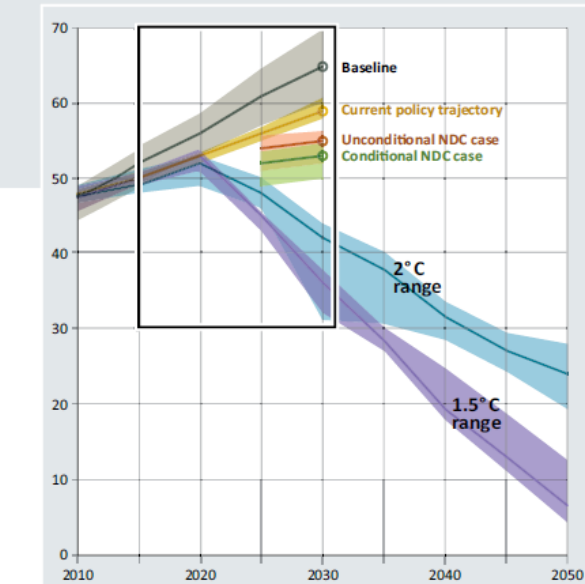
Emission gap

Figure ES.2: Global greenhouse gas emissions under different scenarios and the emissions gap in 2030 (median estimate and 10th to 90th percentile range).

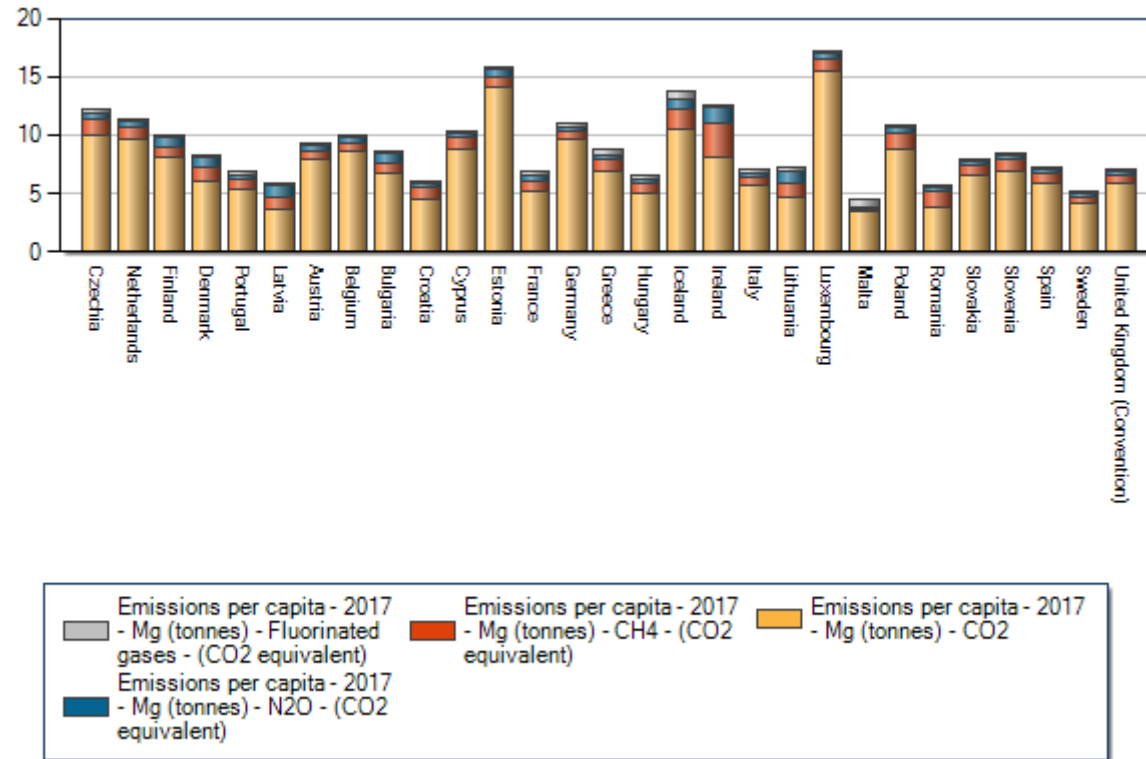


Note: the emissions range for 1.5°C is smaller than for 2°C, as a smaller number of studies for 1.5°C are available. For current policy, the minimum–maximum across all assessed studies are provided.

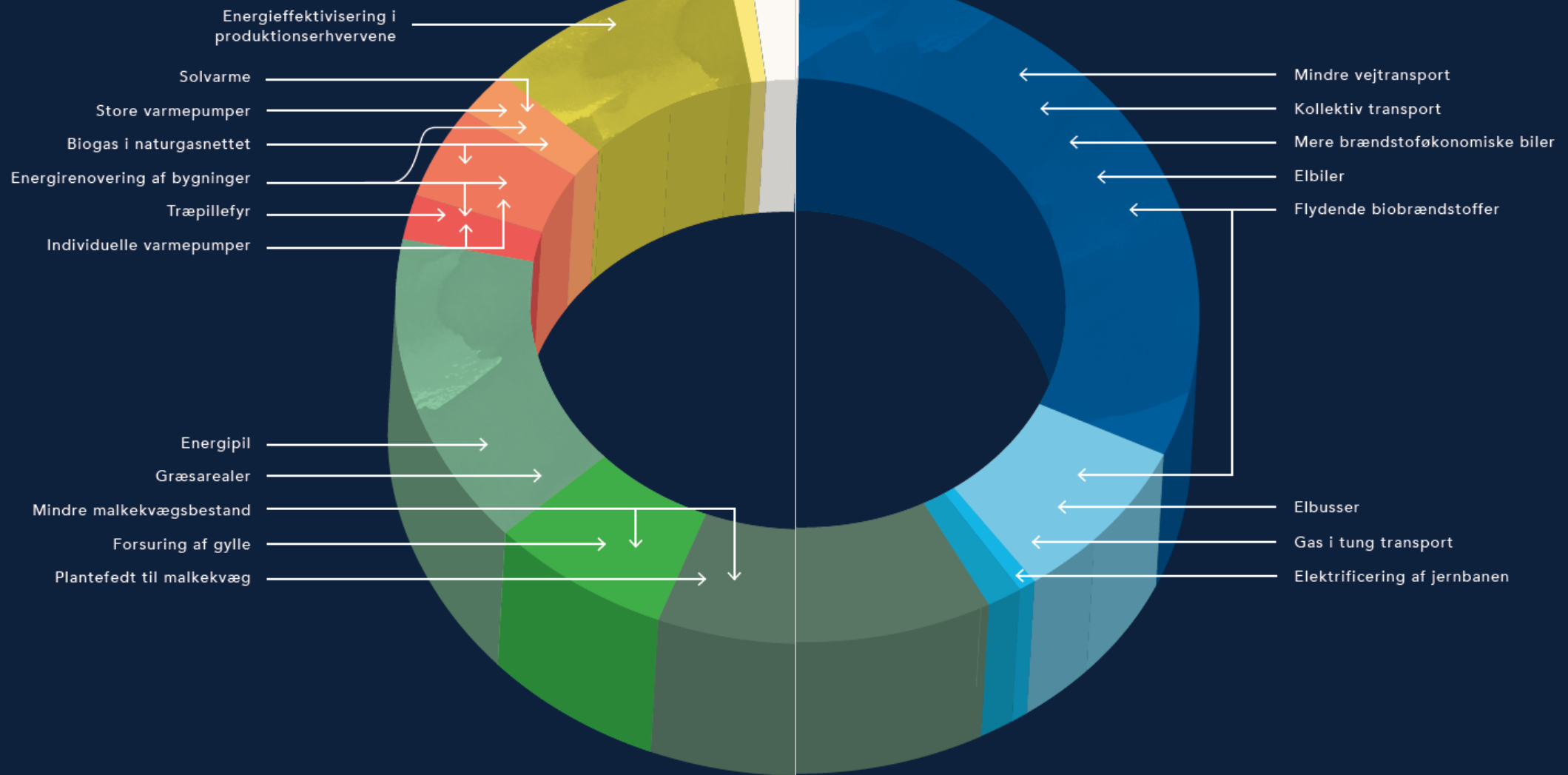
https://wedocs.unep.org/bitstream/handle/20.500.11822/22101/EGR_2017_ES.pdf?isAllowed=y&sequence=1



GHG emissions



<https://www.eea.europa.eu/data-and-maps/data/data-viewers/greenhouse-gases-viewer>



Cirken illustrerer de samlede udledninger mellem 2021-2030 på 308 mio. ton CO₂e. Klimarådet har analyseret 20 omstillingselementer, der kan hjælpe med at reducere disse.

Global warming potential (GWP) values relative to CO₂

Industrial designation or common name	Chemical formula	GWP values for 100-year time horizon		
		Second Assessment Report (SAR)	Fourth Assessment Report (AR4)	Fifth Assessment Report (AR5)
Carbon dioxide	CO ₂	1	1	1
Methane *	CH ₄	21	25	28
Nitrous oxide	N ₂ O	310	298	265

*Methane 20 years: around 2.5 times higher

Agenda

- 13:00 - 13:10 Velkomst
v. Marie Münster, DTU MAN
- 13:10 - 13:40 Metantab fra produktion af biogas
v. Torben Kvist, DGC
- 13:40 - 14:10 Emissioner fra transportsektoren
v. Jesper Schramm, DTU MEK
- 14:10 - 14:40 Emissioner fra skibsfart
v. Sergej Ushakov, NTNU
- 14:40 - 15:10 kaffepause
- 15:10 - 15:40 Tab ved transmission og distribution af gas
v. Per G. Kristensen, DGC
- 15:40 - 16:10 Emissioner ved gasanvendelse i gasturbiner, gasmotorer, var-
mepumper og kedler
v. Jan de Wit, DGC
- 16:10 - 16:15 Afslutning
v. Marie Münster, DTU MAN