

Innovation Centre  
for Organic Farming

# Organic agriculture as a climate mitigation strategy

Majken Husted

Researcher

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STØTTET AF

**Promille**afgiftsfonden for landbrug

# A strategy to mitigate climate change

- Denmark – 7% of reductions in agriculture
- Lower animal density
- Lower N input per hectare
  
- Which N<sub>2</sub>O emission factors?

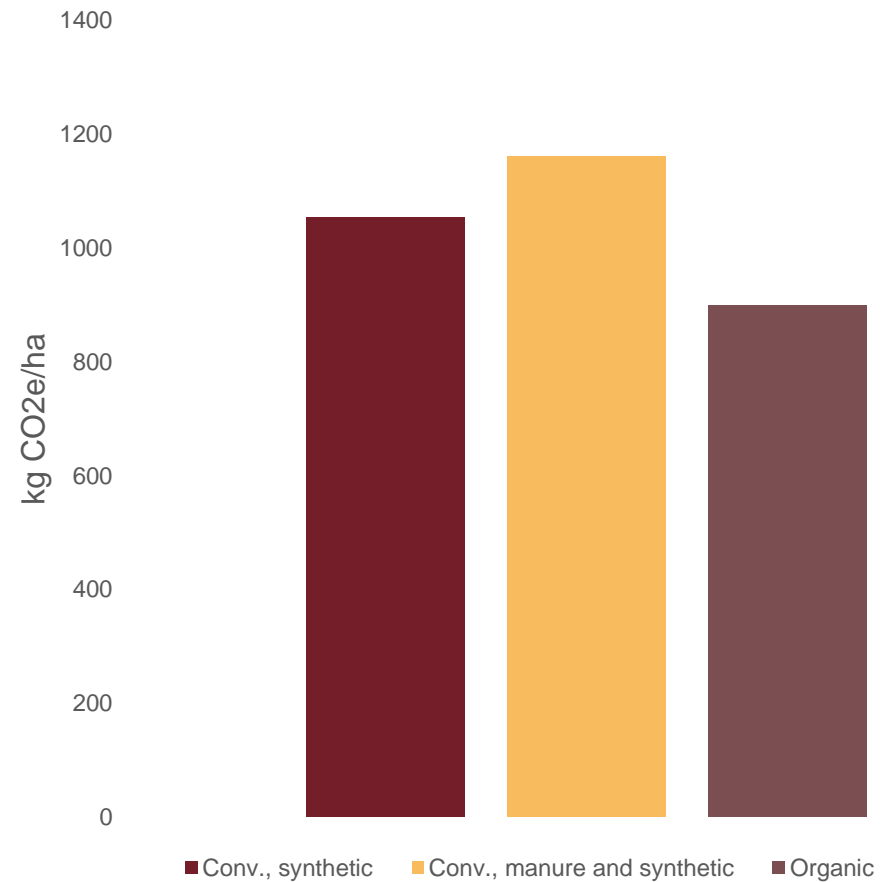
Can we assume that the EF is the same for all types of manure?



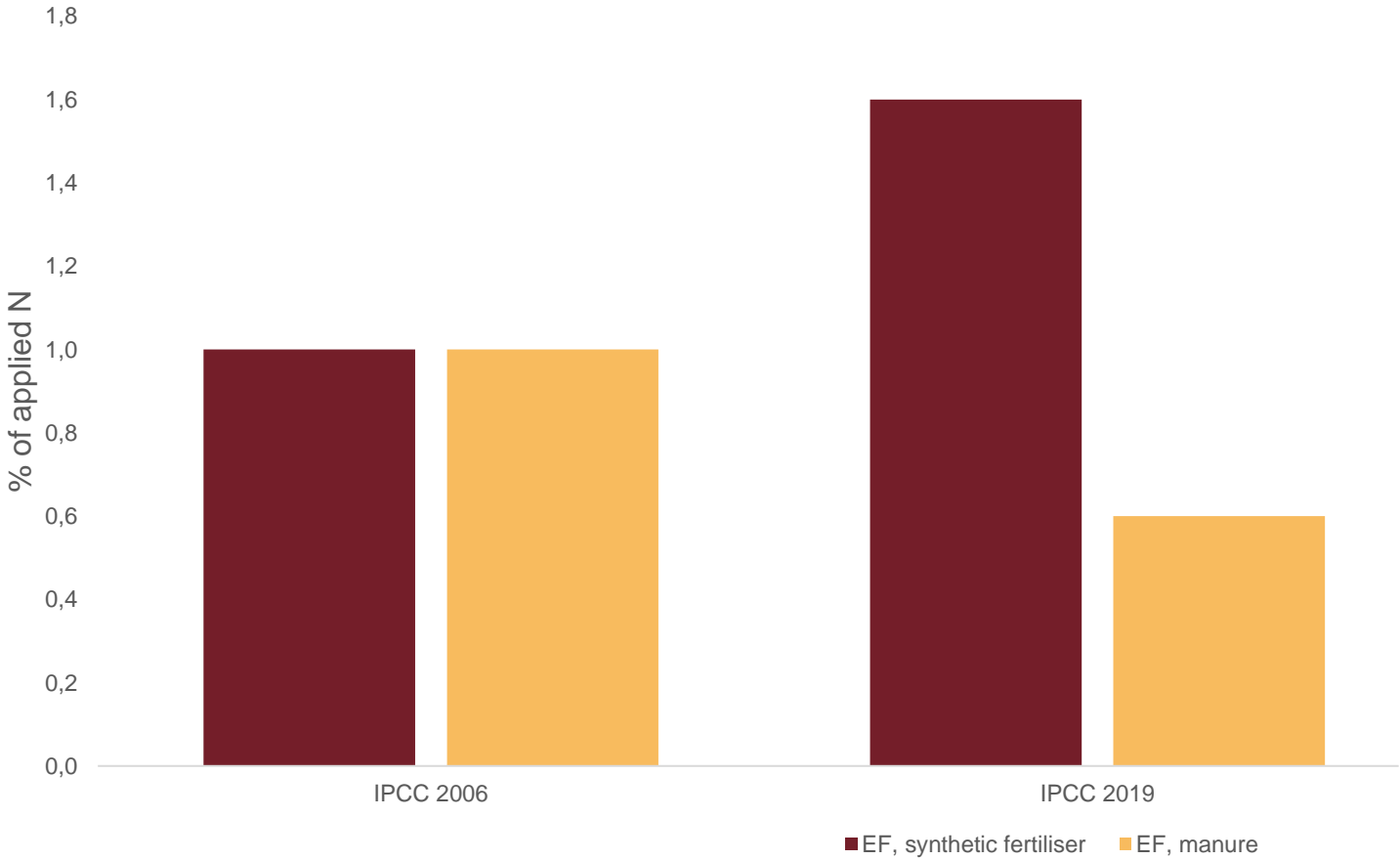
Photo: Lars Egelund Olsen

# Calculation of climate potential

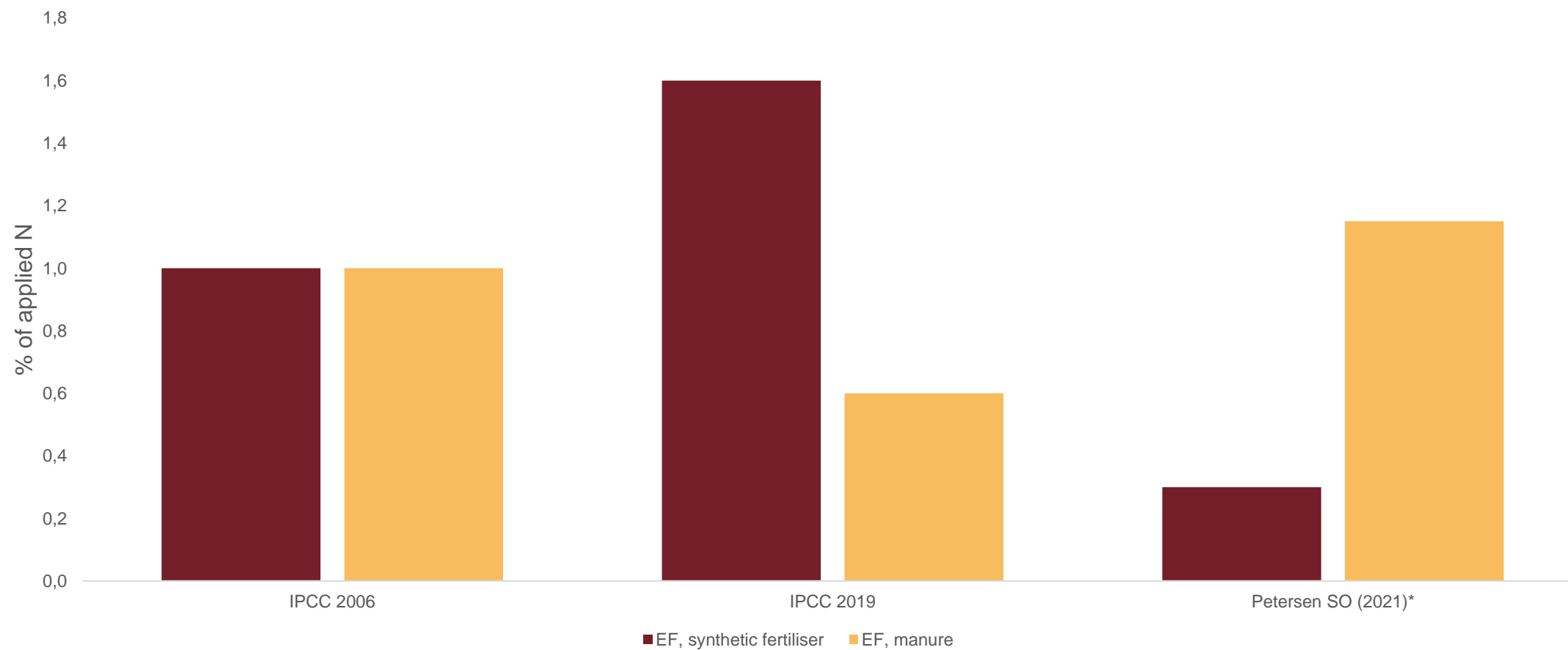
- Organic arable crop rotation
  - Manure
- Conventional arable crop rotation
  - Synthetic fertiliser
- Conventional arable crop rotation
  - Synthetic fertiliser
  - Manure



# Emission factors for N<sub>2</sub>O

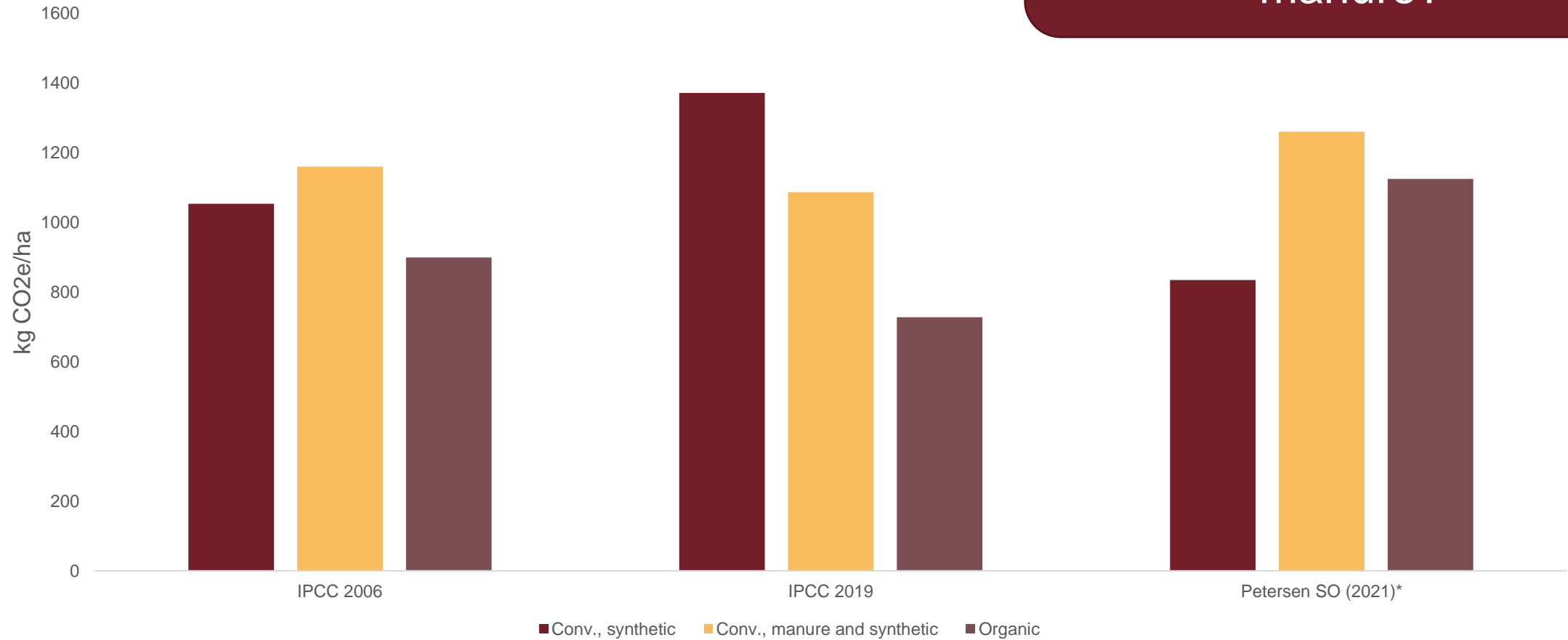


# Emission factors for N<sub>2</sub>O



# Impact of different emission factors

Can we assume that the EF is the same for all types of manure?



# Take home messages

- $\text{N}_2\text{O}$  from fertilisation is a key emission source in agriculture  
...but not the only one
- Choice of  $\text{N}_2\text{O}$  emission factor greatly affects calculated emissions from fertiliser application



