

The carbon footprint of pork
solutions from a meat producer's perspective

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Oct 12th, 2023

Vion FOOD GROUP

Food that Matters

Life cycle analysis (LCA) based on real data

Animal Registration

Feed supplier

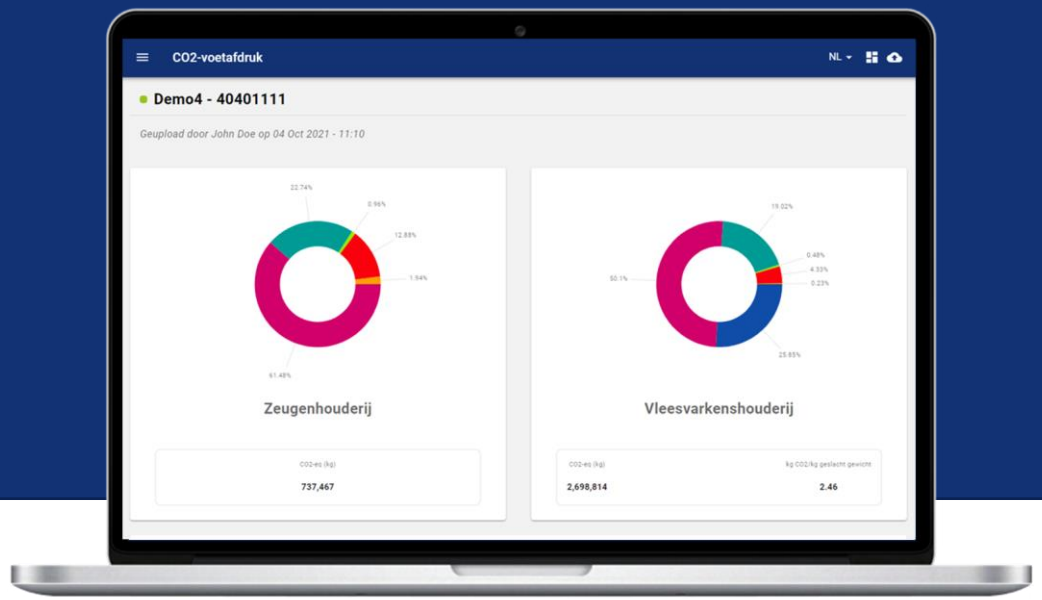
Manure register

Pig farmer

Slaughter and processing

Retailer

European Commission
Product Environmental Footprint
PEF

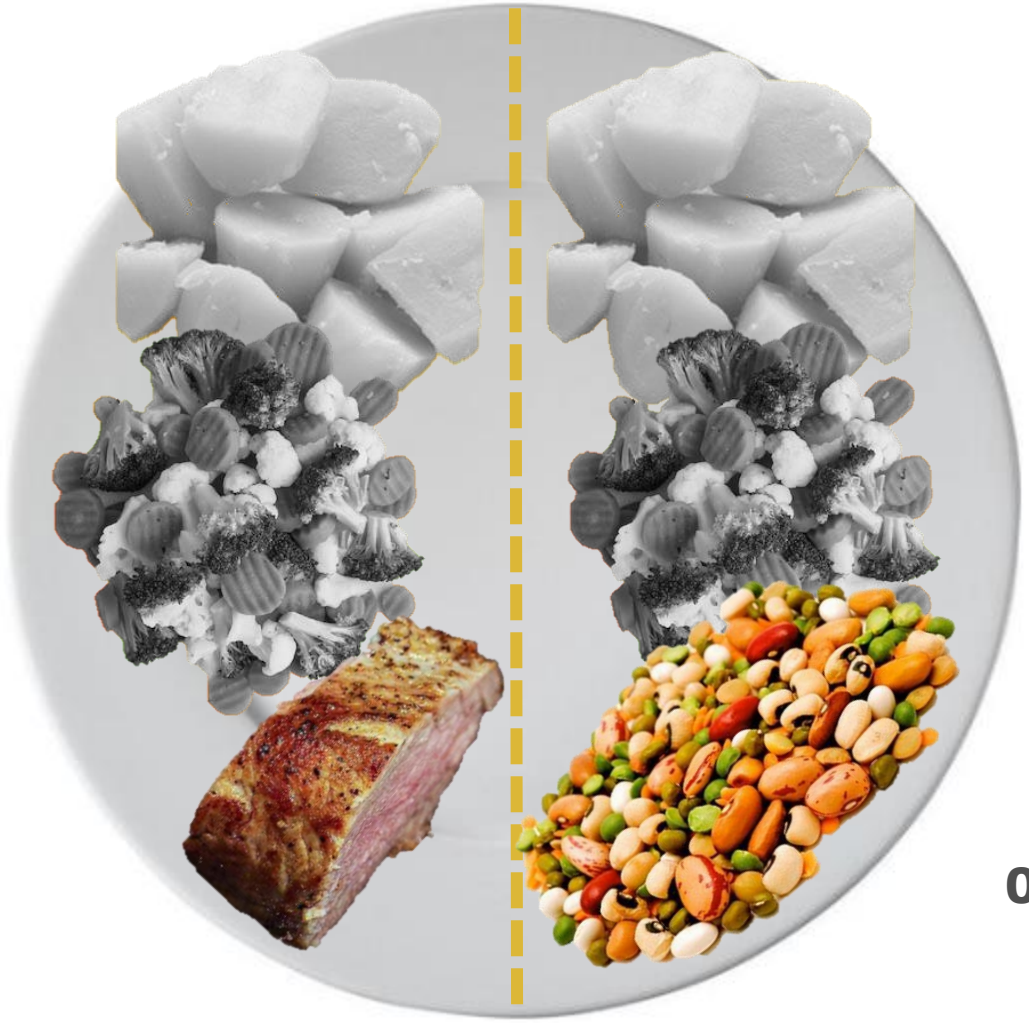


Meaningful communication to consumers: the importance of functional units

100 g Pork tenderloin
(23% protein)

9 kg CO2-eq per kg meat
On your plate: 0.9 kg of CO2-eq
(0.1 kg × 9 kg CO2)

3.8 kg CO2 per 100 g protein



288 g beans
(8% protein)

1.8 kg CO2-eq per kg beans
On your plate: 0.5 kg of CO2-eq
(0.288 kg × 1.8 kg CO2)

2.3 kg CO2-eq per 100 g protein

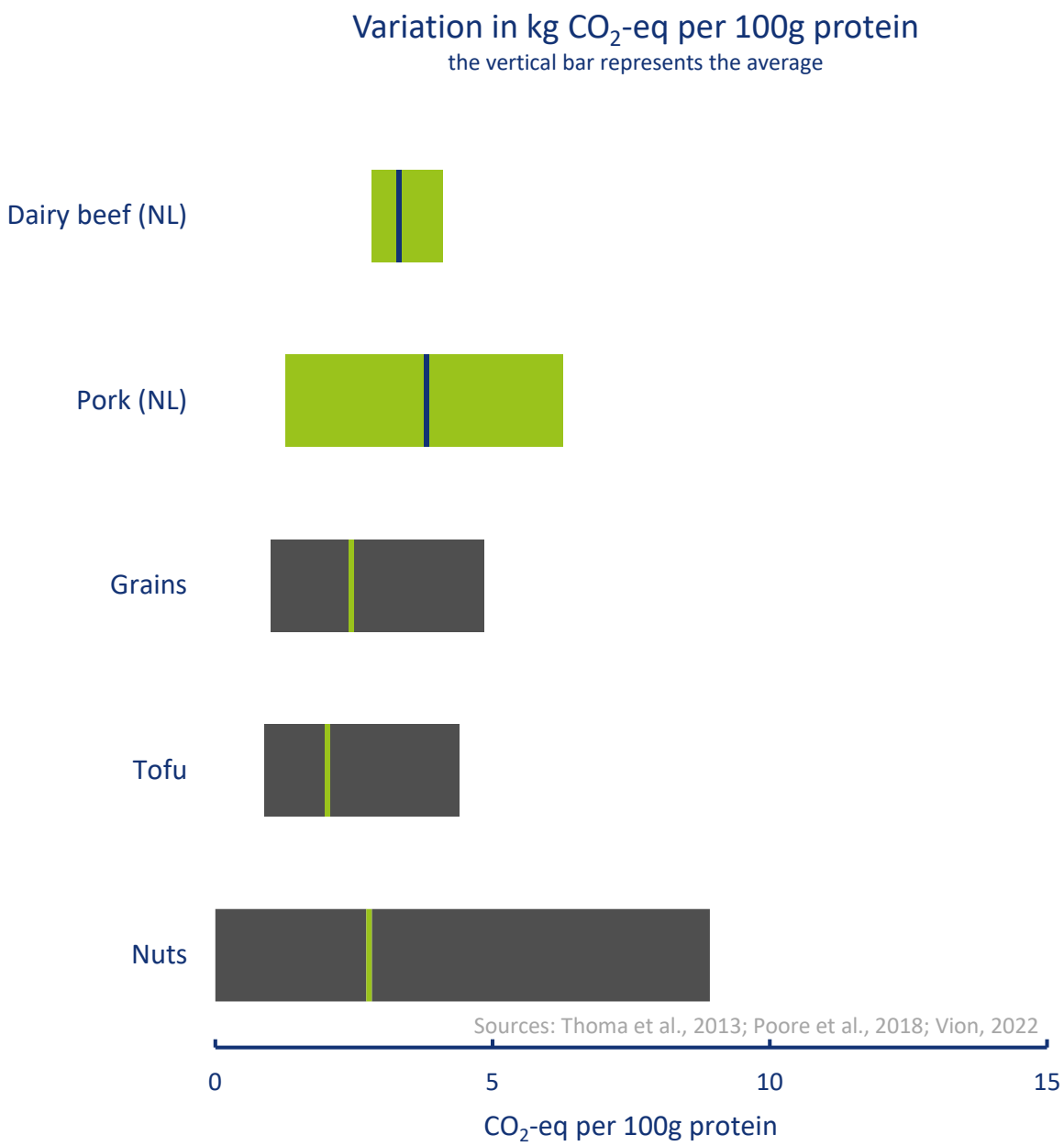
10 kg CO2 vs 1.8 kg CO2?

0.9 kg CO2 vs 0.5 kg CO2!
Based on protein intake

CFP of meat products
benchmarking with other products

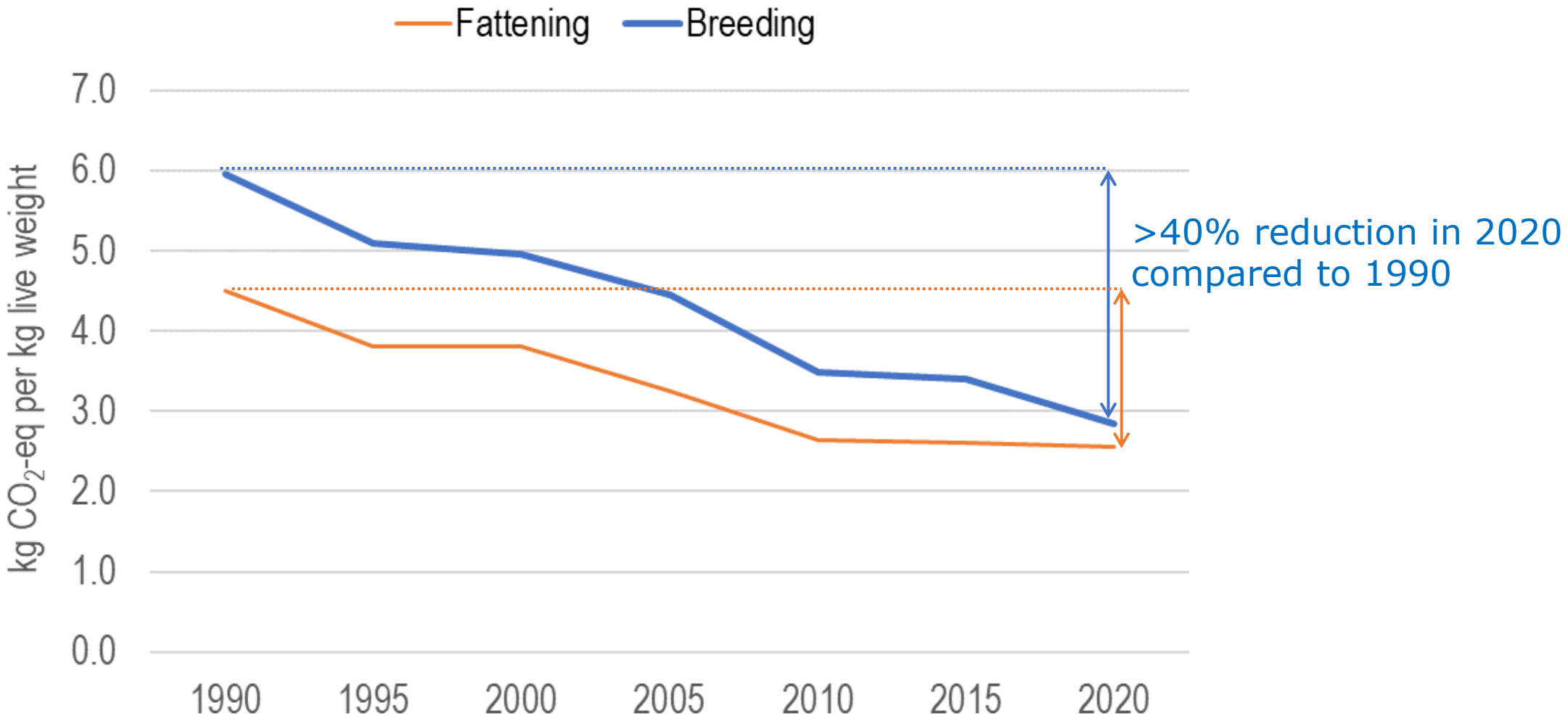
- EU pork and dairy beef are comparable to various plant-based protein sources, including tofu

- Why?
  - Efficient production systems (*e.g.* low feed-conversion ratio)
  - Use of by-products from the food industry
  - Manure storage and treatment



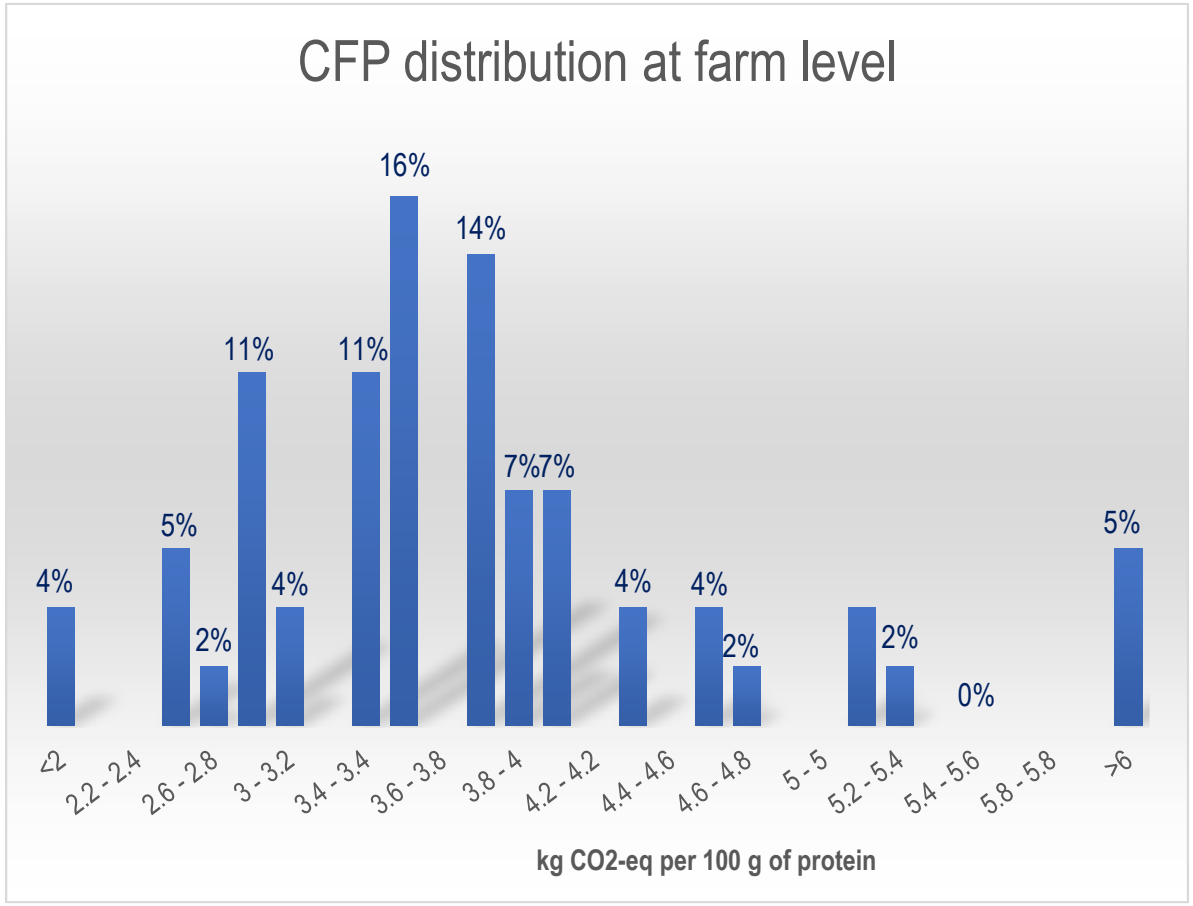
Big steps are already taken since 1990 in the Netherlands

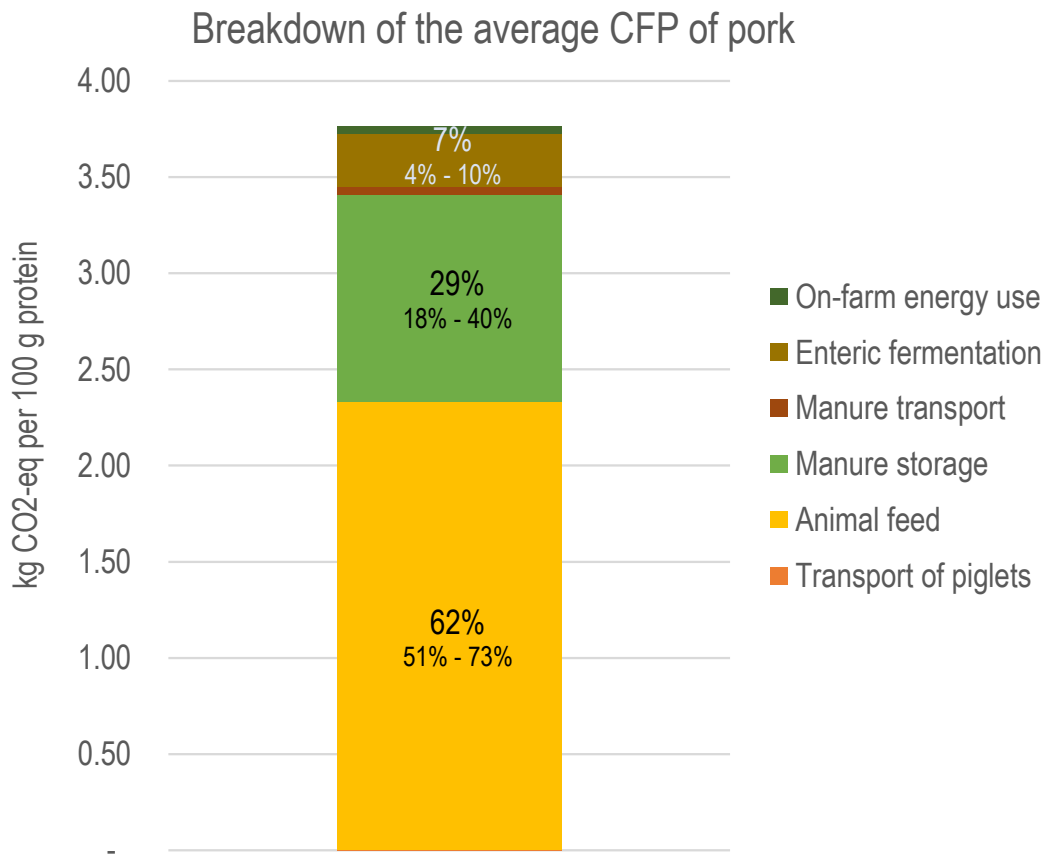
Wageningen Universiteit was asked to calculate the CFP reduction since 1990



Mosterd et al., 2023

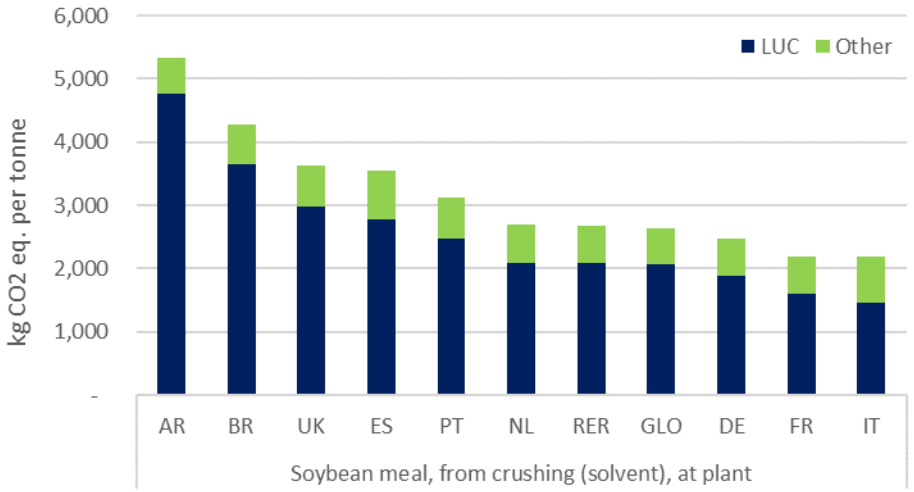
The CFP composition of pork based on real data

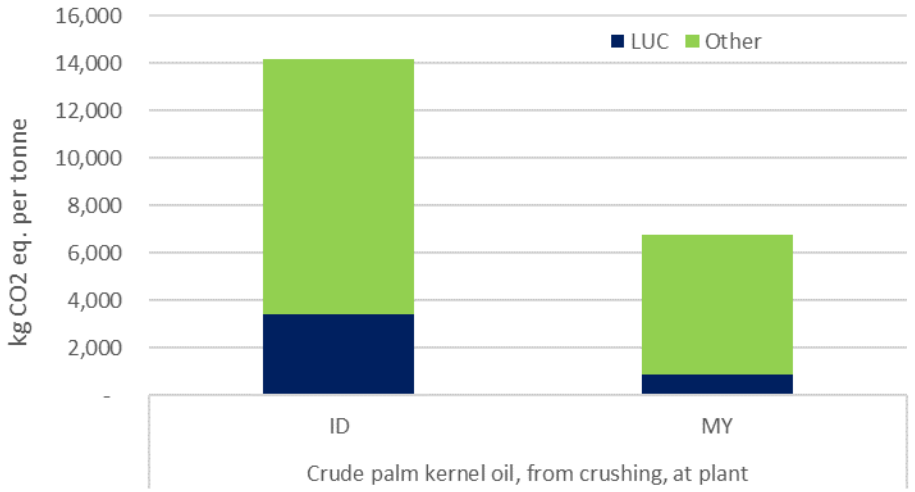


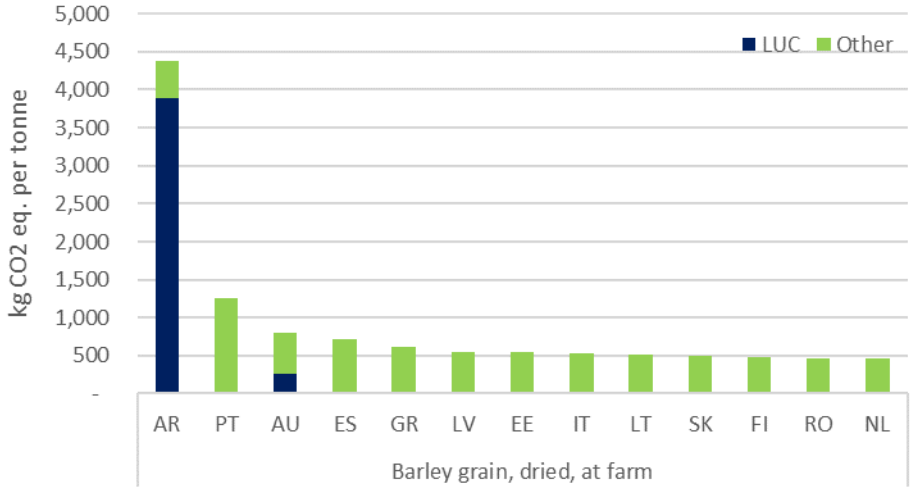


>50% difference among farms:
even more room for further improvement

Example for further reduction: feed ingrediënt replacement

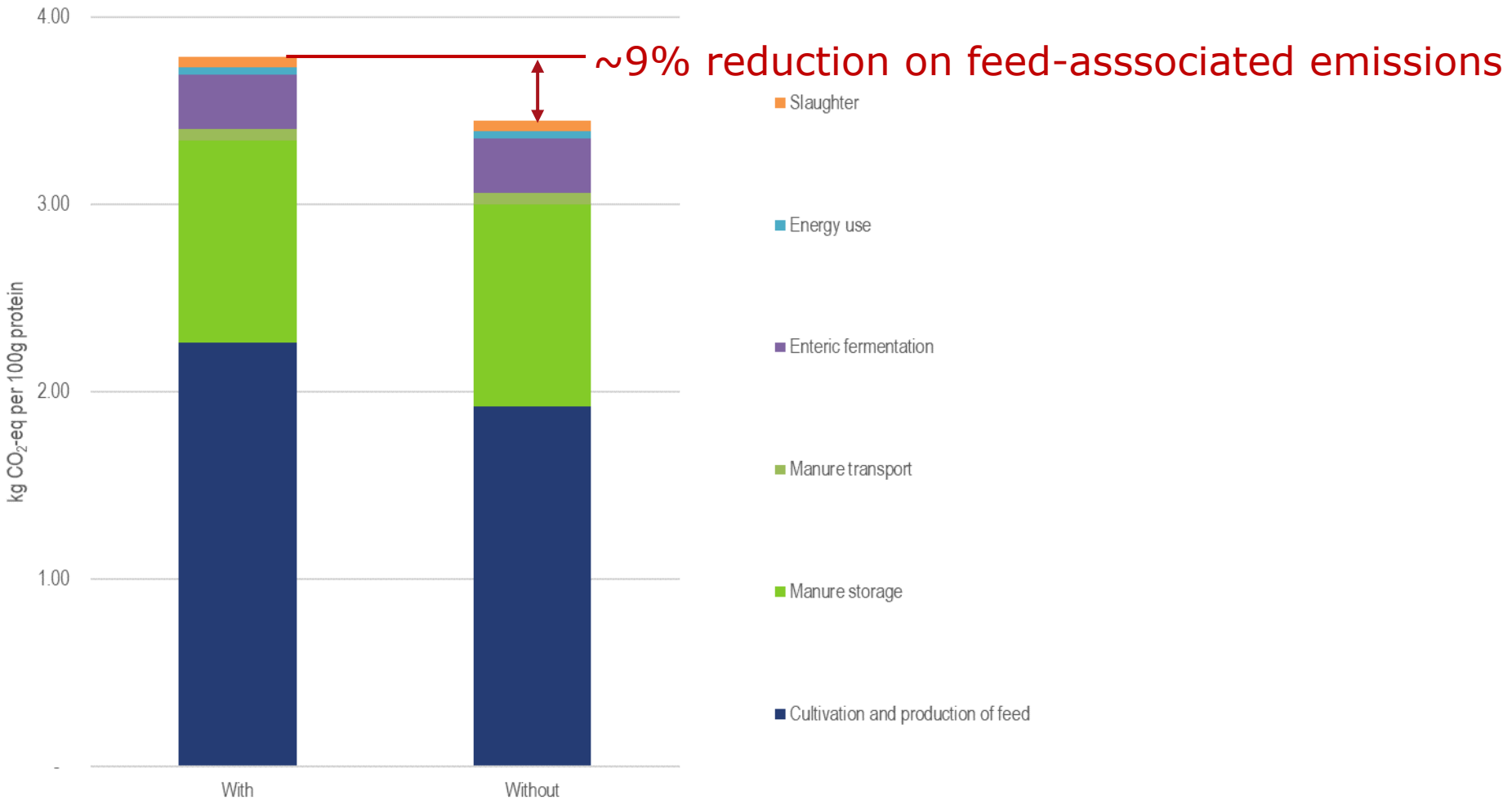




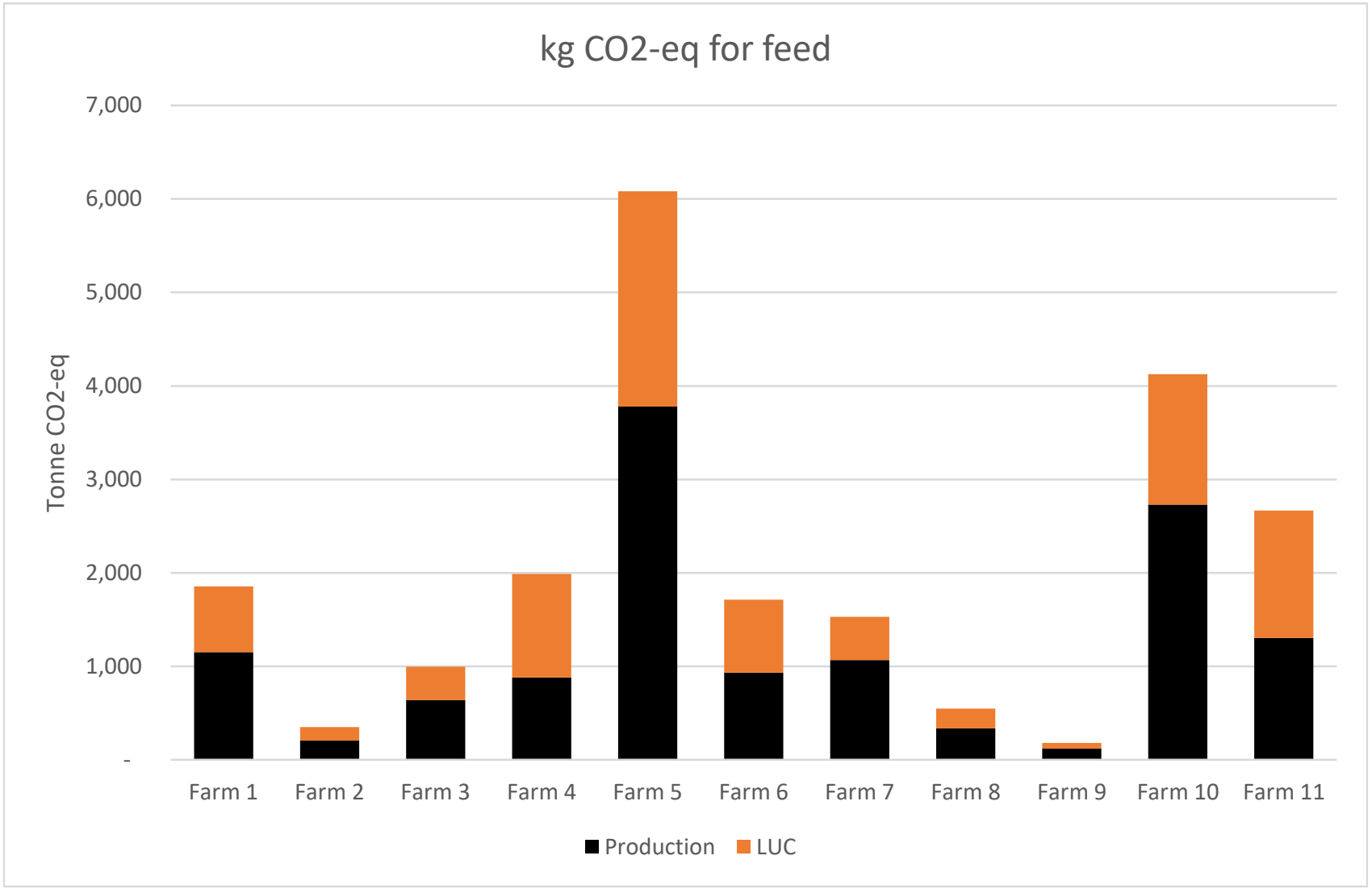


Source: GFLI

1-on-1 exchange of palmpit oil from ID with rapeseadoil from CZ

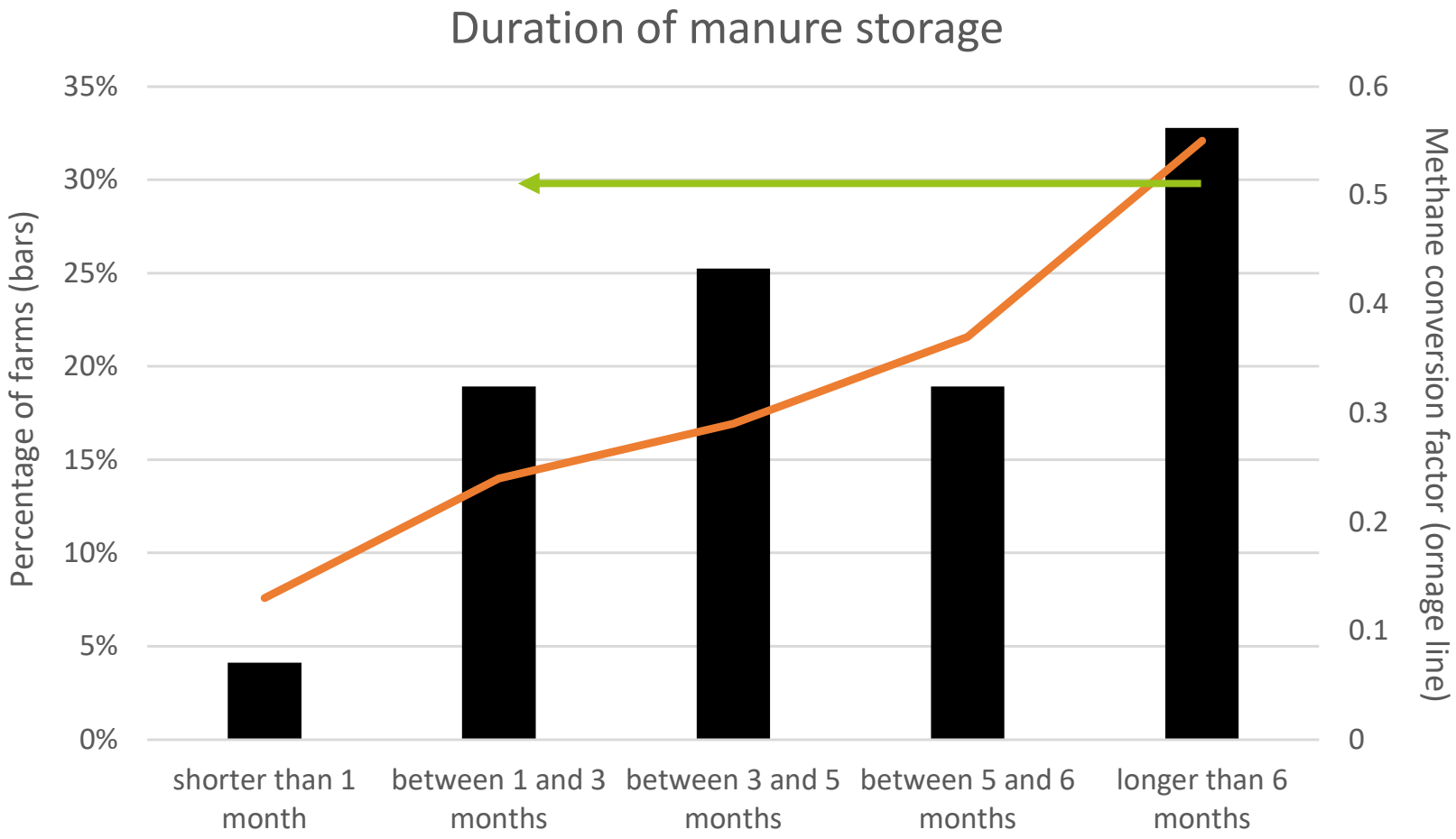


Example: fasing-out Land Use Change (LUC)



On average 20% of the CFP of these farms is due to LUC

Example: duration of manure storage



In conclusion

1. Climate targets for 2030 are within reach (already up to 50% CFP reduction per produced unit)

2. High resolution in real data offers insight in management options for farmers

3. Communication to consumers needed in a realistic and meaningful way

   per protein unit, as suggested by FAO and science

4. Meat is not only a wholesome food item, but can also be produced very sustainably