



Challenges regarding testing and use of the LCA tool box - the case of MEAT

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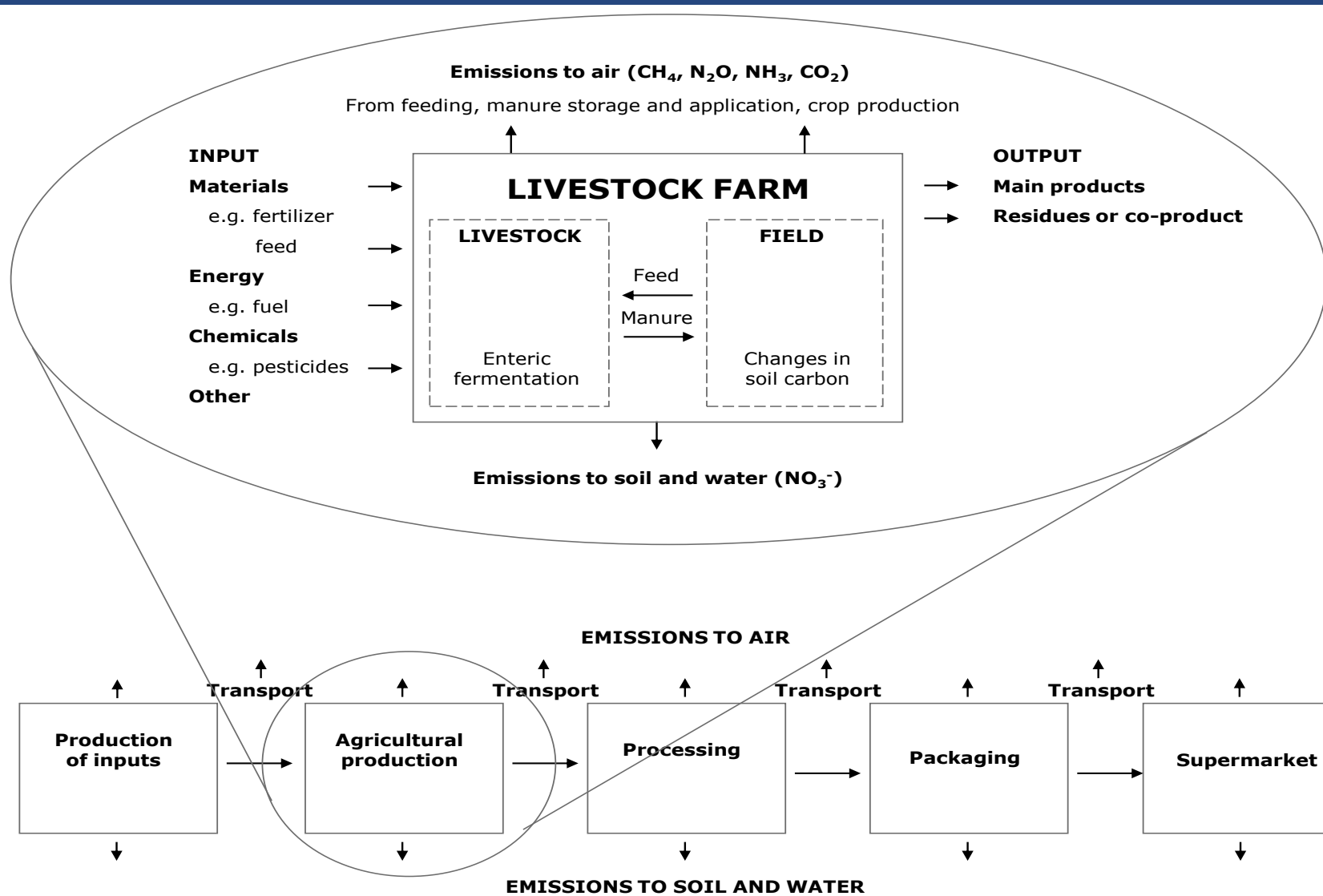


Background/guidelines materiel

Four documents are particular relevant:

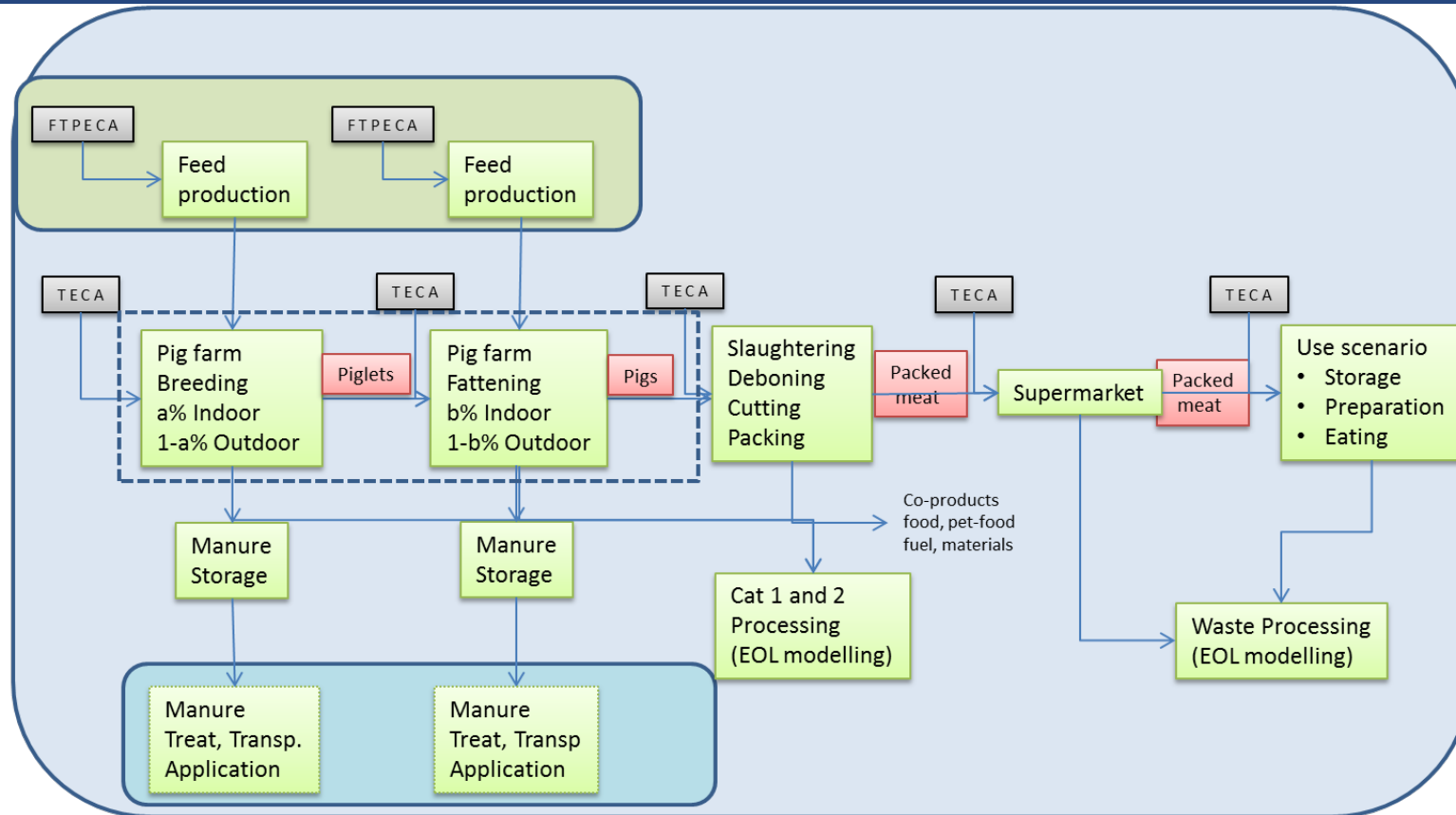
- Final minutes of the Cattle Model working Group *22/1 2015*
- Draft Product Environmental Footprint Category Rules for Dairy Products *31/8 2015*
- PEF screening report – feed for food producing animals *4/9 2015*
- PEF pilot Red Meat; Screening study (Draft, unpublished)

LCA whole farm approach



Example pig meat system (from draft screening report meat)

Pig meat system



F= Fertilizers
 T= Transport
 P= Pesticides
 E = Energy carriers
 C = Capital Goods
 A = Auxiliary materials

 In scope of meat PEFCR

 In scope of feed PEFCR if production takes place outside animal farm

 In scope of meat PEFCR if manure is applied on own farm for feed production or if manure is not considered as residue

Challenges in paradigm for harmonized assessment

Feed and farming practice, including manure management, represent a major impact on the meat environmental profile.

Yet, no clear picture on how to obtain relevant farm data

FADN data in general does not deliver sufficient details to perform a valid LCA

Red Meat Screening study uses farm model data (based on a limited number of systems) in lack of relevant statistics

PEFCR Dairy suggest primary data to be collected for the farming stage (or use worst case- semi specific data)

Challenges in paradigm for harmonized assessment – cont.

Some feed is produced at the farm and some are bought in

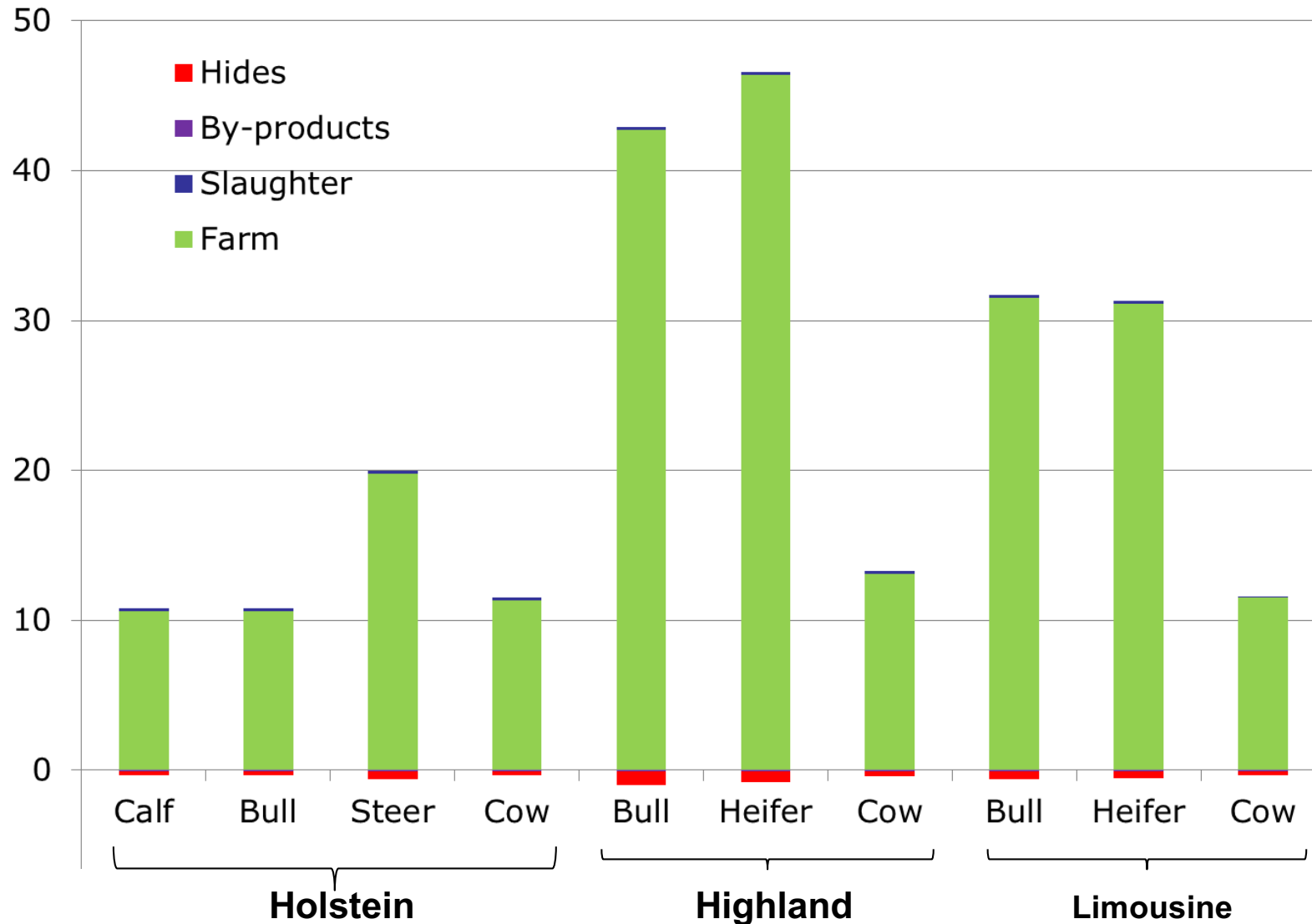
In order to estimate environmental impact of home produced feed the necessary input in terms of fertilizer, energy etc. is required

Also there is need to quantify the consumption of home produced feed in order to estimate e.g. the contribution of enteric fermentation to GWP

It can be expected that the environmental impact of meat will be highly influenced by assumptions regarding system boundaries (in- or excluded at farm level) and assumptions regarding consumption of home produced feed

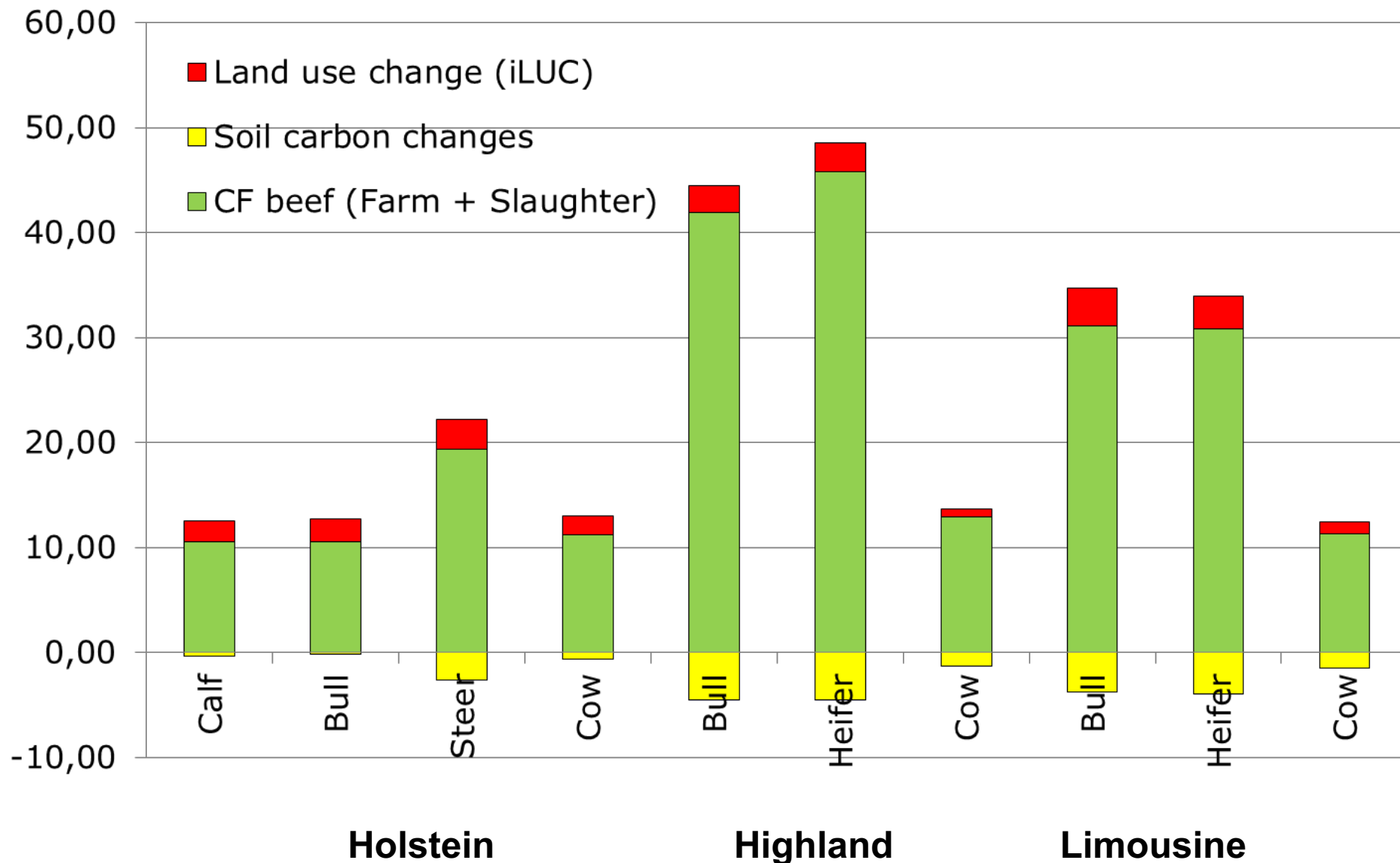
Carbon footprint of beef – from farm to fork

kg CO₂/kg edible products

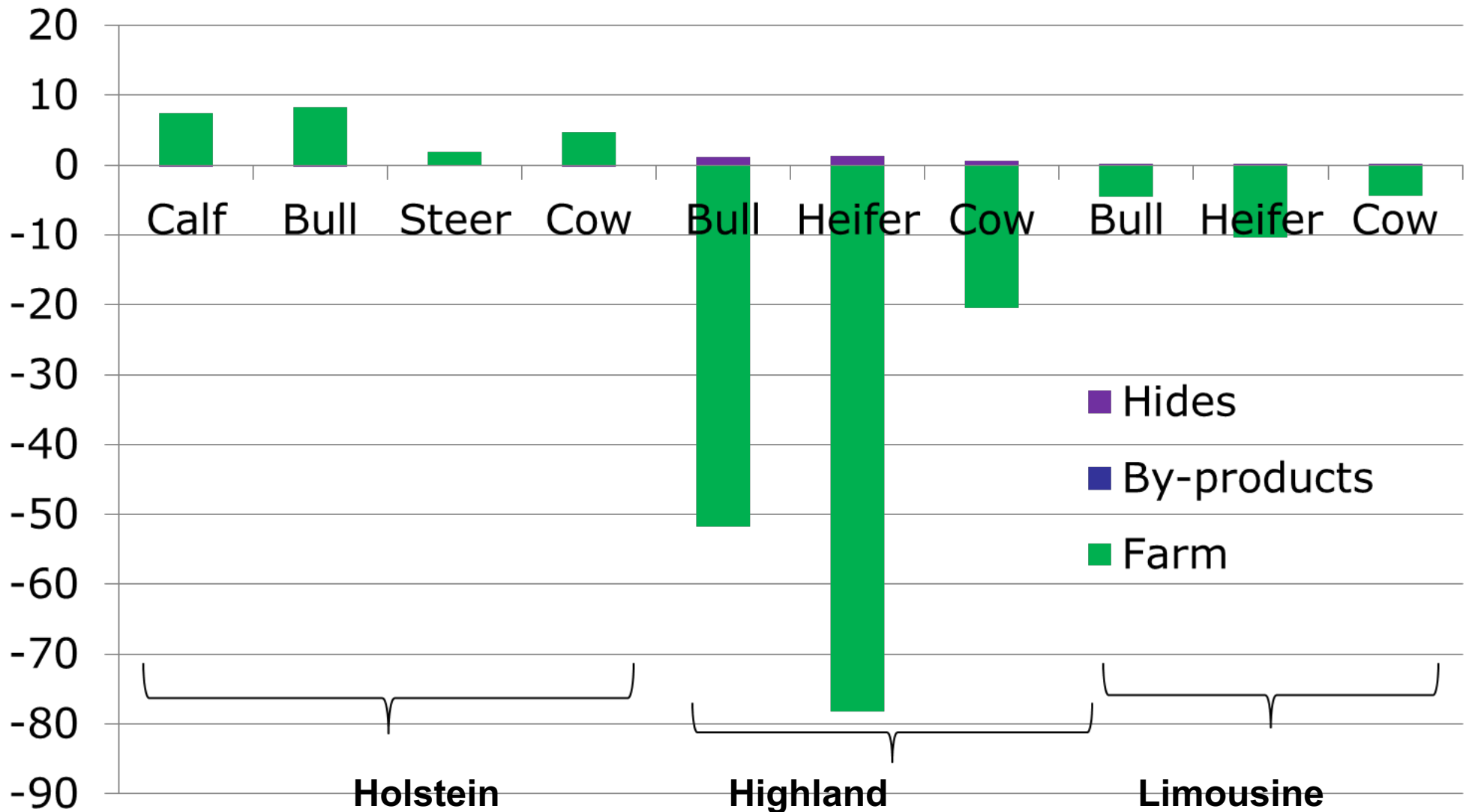


Carbon footprint of beef – SOIL C and iLUC

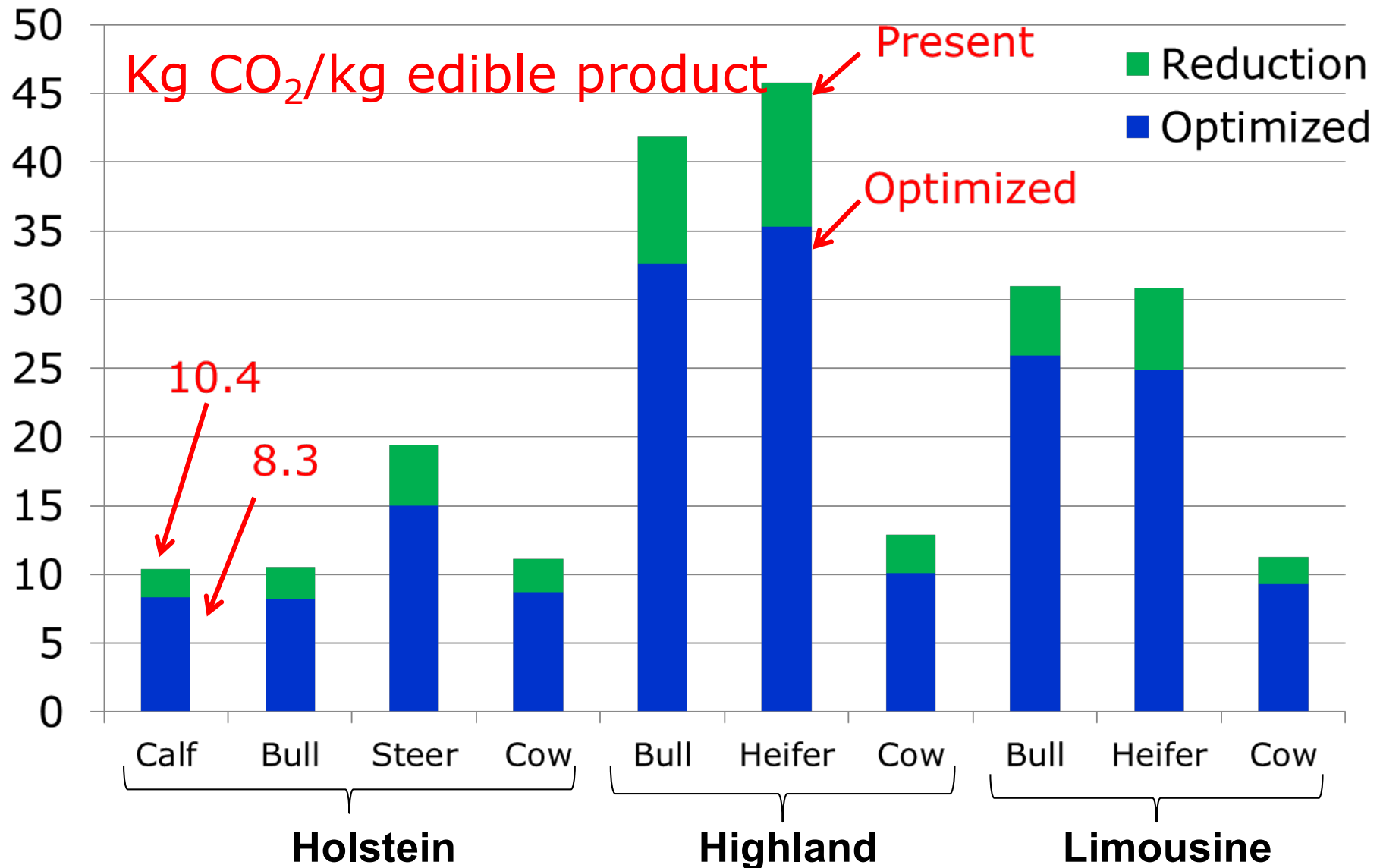
kg CO₂/kg edible products



Biodiversity loss, PDF index per kg edible products



Increased utilization of the slaughtered animal decrease carbon footprint by 17-23%



Conclusion

While guidelines exist to perform an LCA at farm level, it is not clear how this can be scaled up in case of a slaughterhouse with many suppliers taken into account the huge variety of farming systems in practice

The meat sector needs better (harmonized) guidelines to

- Define data input required from suppliers (farms)
- Appropriate # of sample farms under different conditions

Conclusion – cont.

These reservations being said

- The framework is promising for the meat sector
- Accounting for biodiversity impact should be further developed and included in the assessment
- It is important that side-streams at the slaughterhouse is appropriately accounted for - to stimulate improvement initiatives also at the slaughterhouse

Direct highlights from Danish Crown

Challenges around the meat PEF

- Only few national meat organisations and slaughterhouses and meat companies participate in developing the meat PEF
- The PEF project was the starting point for international corporation regarding environmental issues related to meat and meat production in general
- We have to discuss farming practices, but meat companies do not in all respects have the necessary knowledge about primary production
- It takes a long time to get everybody up to speed, to have the necessary dialogue and share knowledge and viewpoints
- The EU process doesn't really take this into account – the lack of time means the outcome gets driven by the consultant
- We are unsure what the consequences might be in the long term

