

Agriculture, forestry and food in a climate neutral EU

The land use sectors as part of a sustainable food system and bioeconomy

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Objective of the study

Show that agriculture and forestry in the EU can contribute substantially to sustainability objectives such as:

- climate neutrality,
- biodiversity protection in the agricultural landscape and forests,

while:

- allowing a healthy diet for all EU citizens,
- producing more biomass than today for the bioeconomy,
- avoiding leakage to non-EU countries.

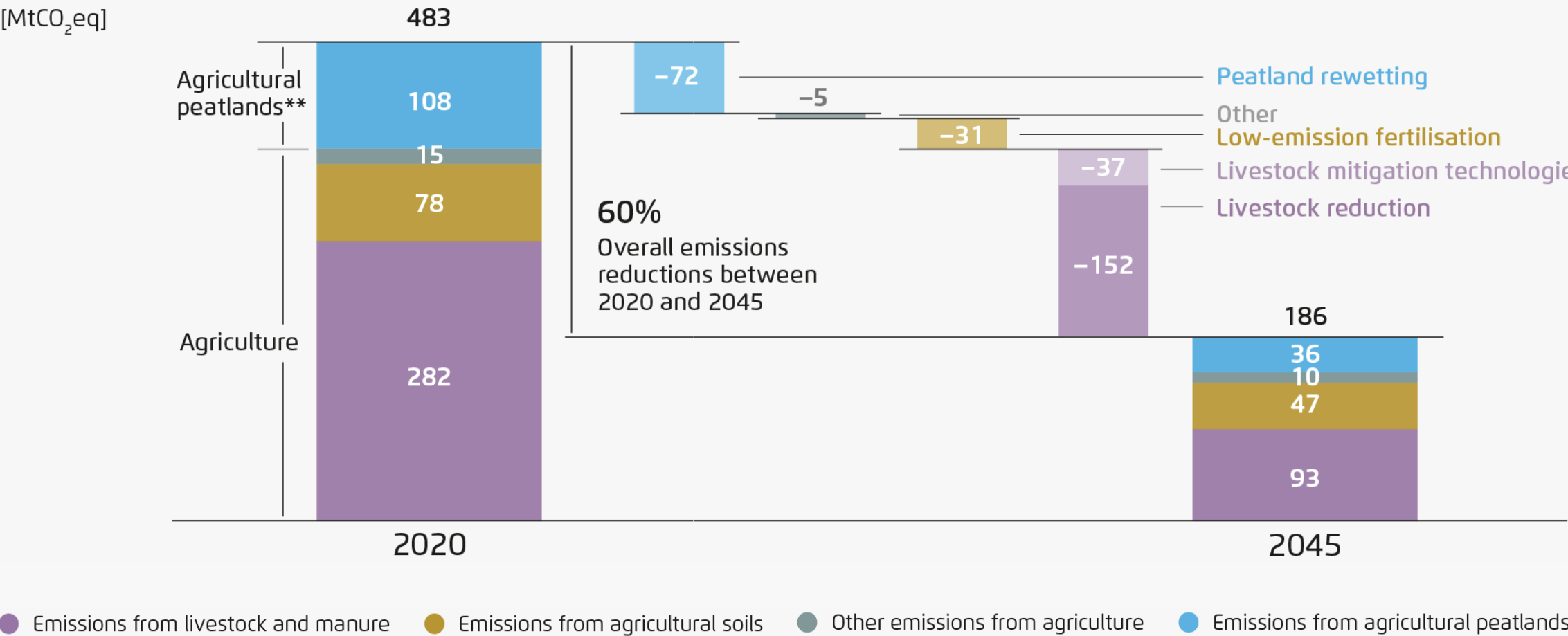
This is feasible, if land is used efficiently and biomass is consumed sustainably.

Methodology

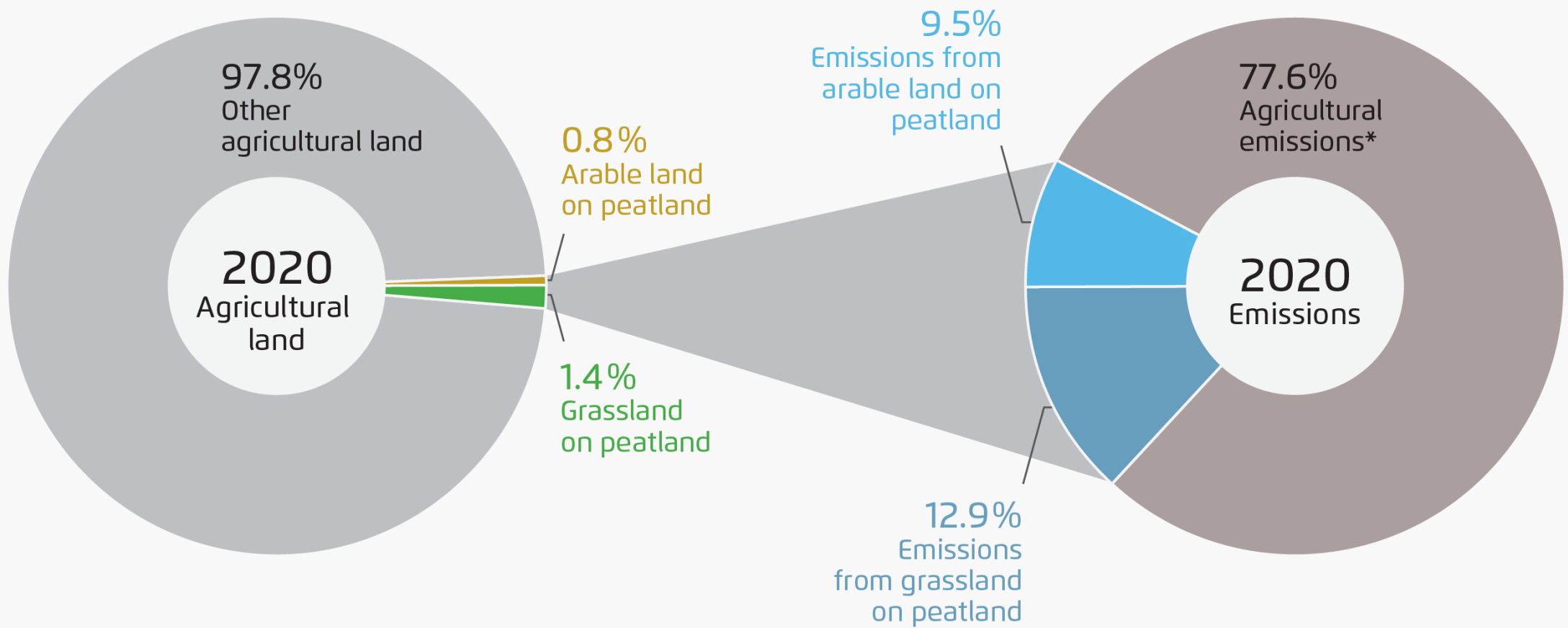
- 1. Sketch a future scenario for agriculture, forestry, food, and biomass demand for the bioeconomy.**
 - biodiversity protection in the agricultural landscape and forests,
- 2. Use of a quantitative model (CAPRI) for agriculture and food demand to:**
 - ensure the consistency of our assumptions.
 - derive economic & environmental results.
- 3. Several side calculations for woody biomass and GHG emissions (e.g. for forests).**

Ecological potentials

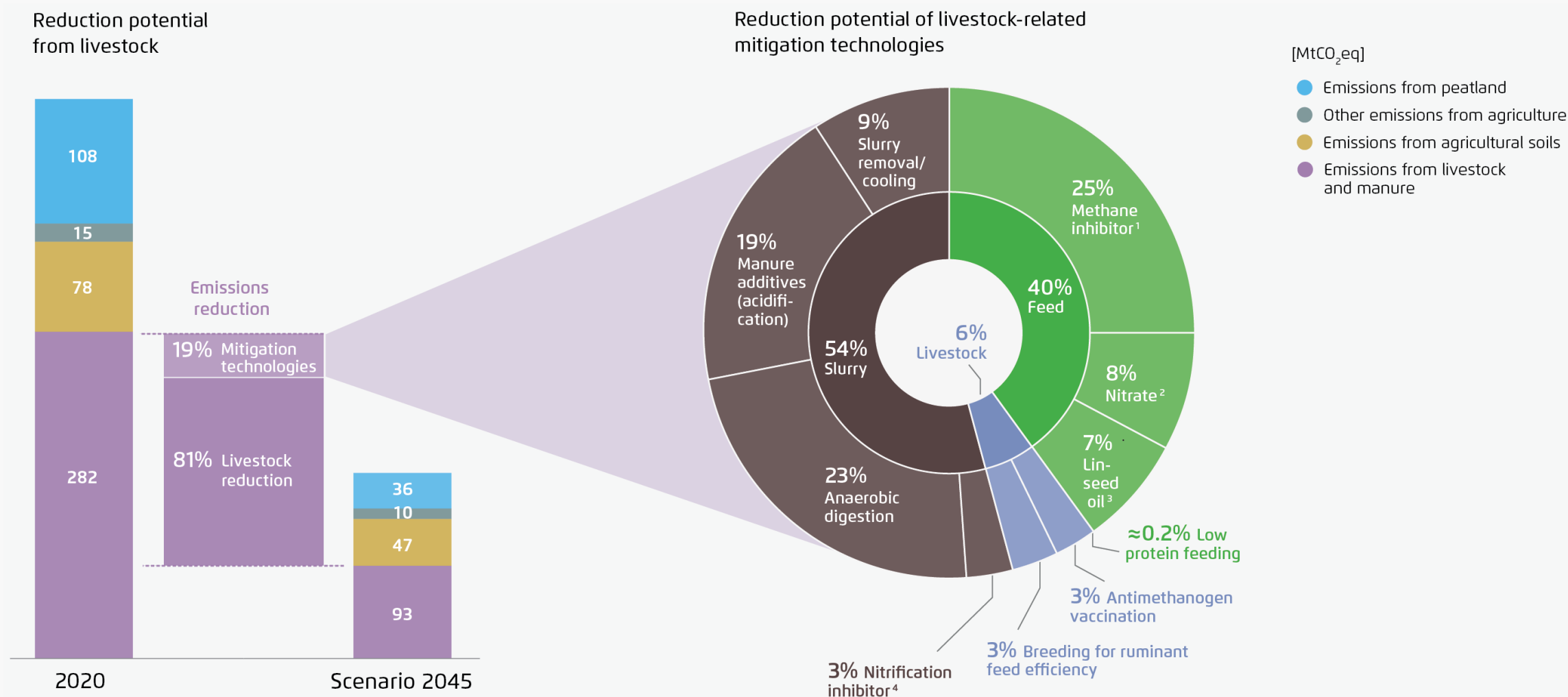
Greenhouse gas emissions reductions from EU agriculture and agricultural peatlands between 2020 and 2045



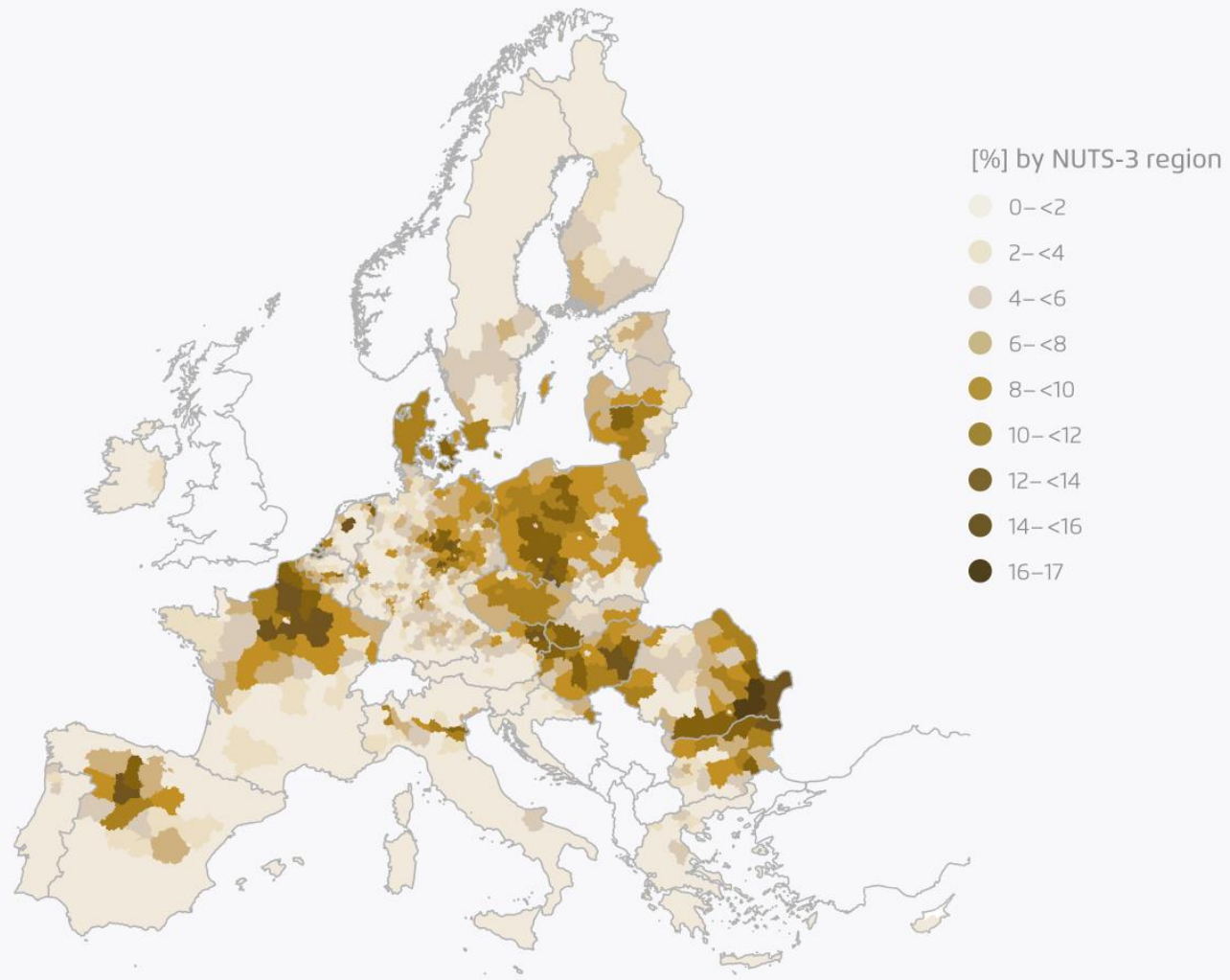
Peatland – land use and greenhouse gas emissions in the EU in 2020



Greenhouse gas emissions from livestock in 2020 and 2045

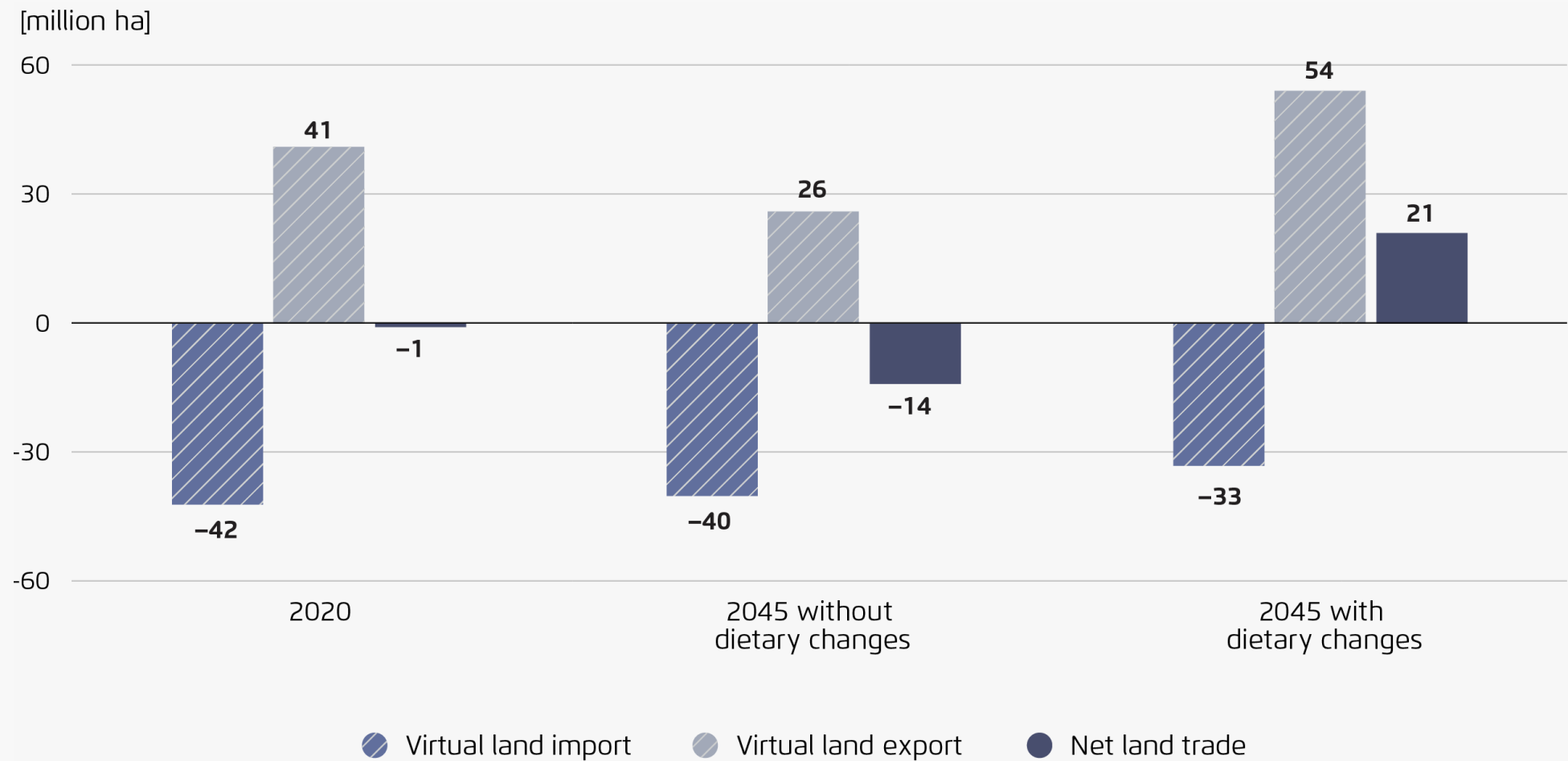


Share of arable land allocated for semi-natural landscape features



→ On average,
about 5% of
arable land in
the EU in 2045

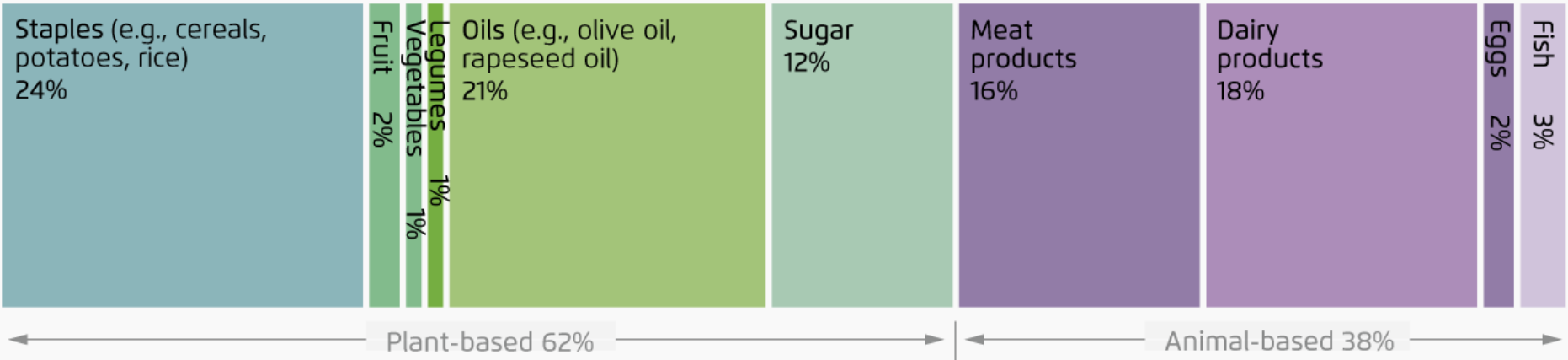
EU net virtual land trade based on world average yields



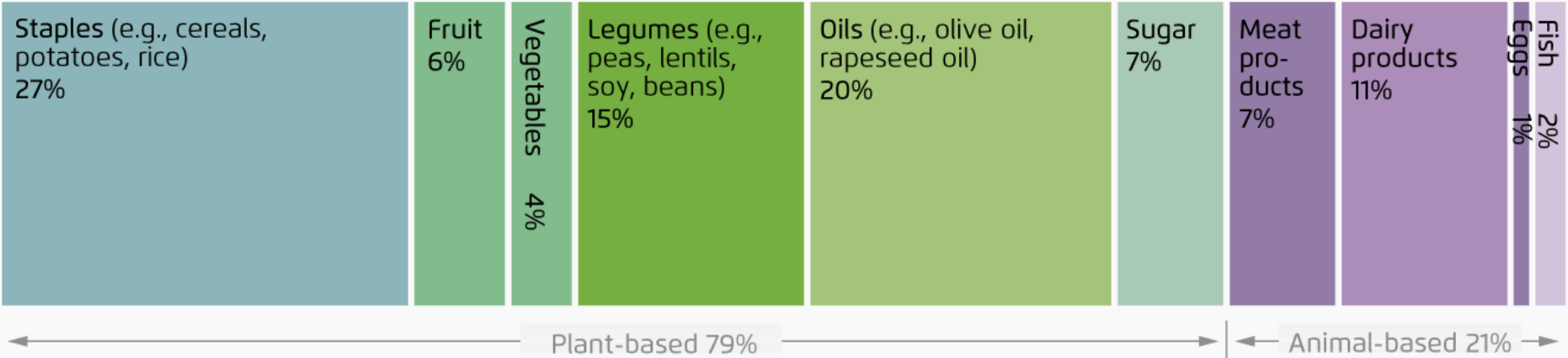
Realising the potential – key elements

Food groups in average EU food consumption in 2020 and 2045

2020



2045

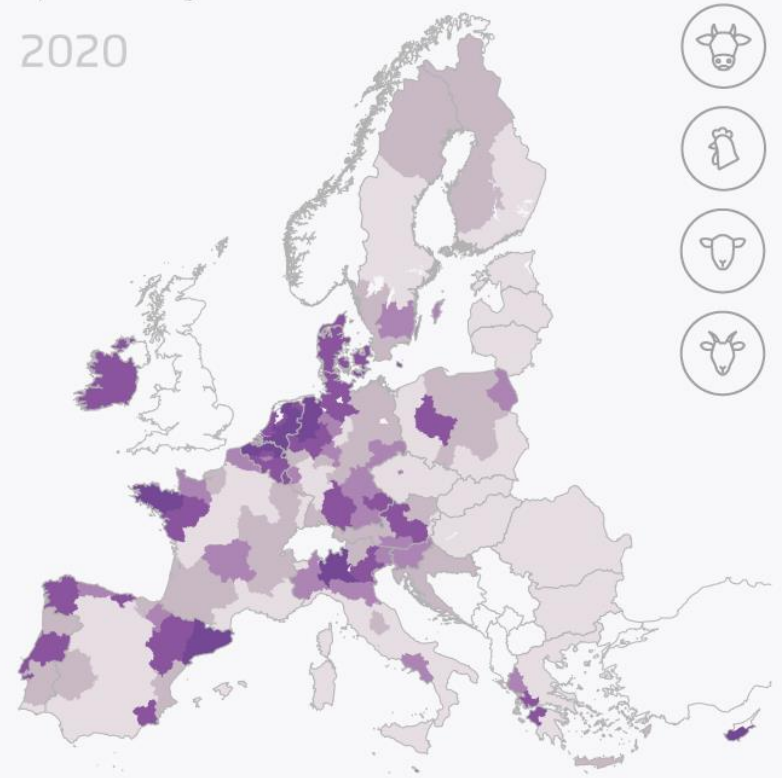


- Food group shares based on calories.
- Average daily intake per capita: 2 140 kcal

EU livestock densities 2020 and 2045

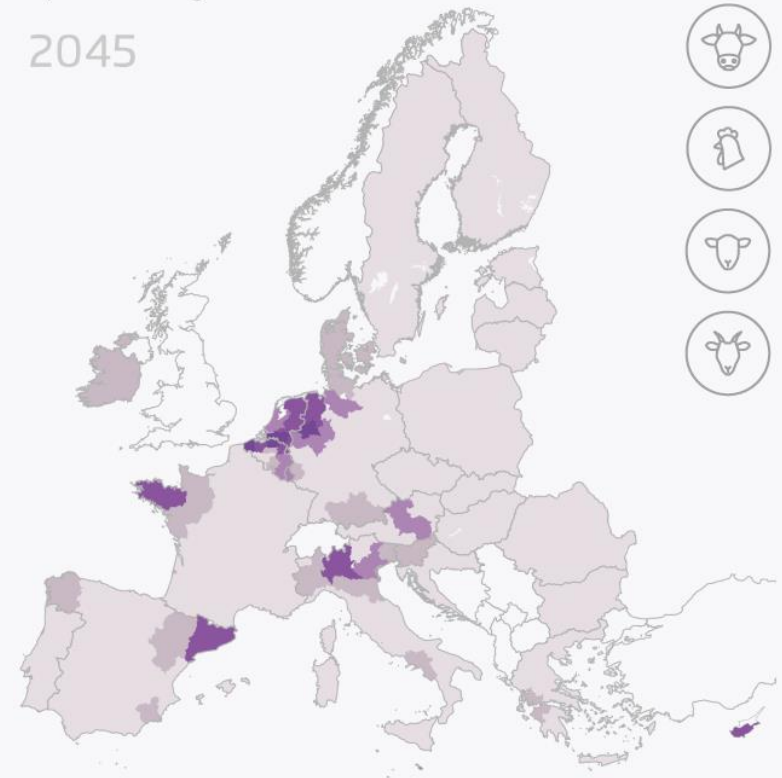
Livestock density
LSU¹ per hectare UAA²
by NUTS-2 region

2020



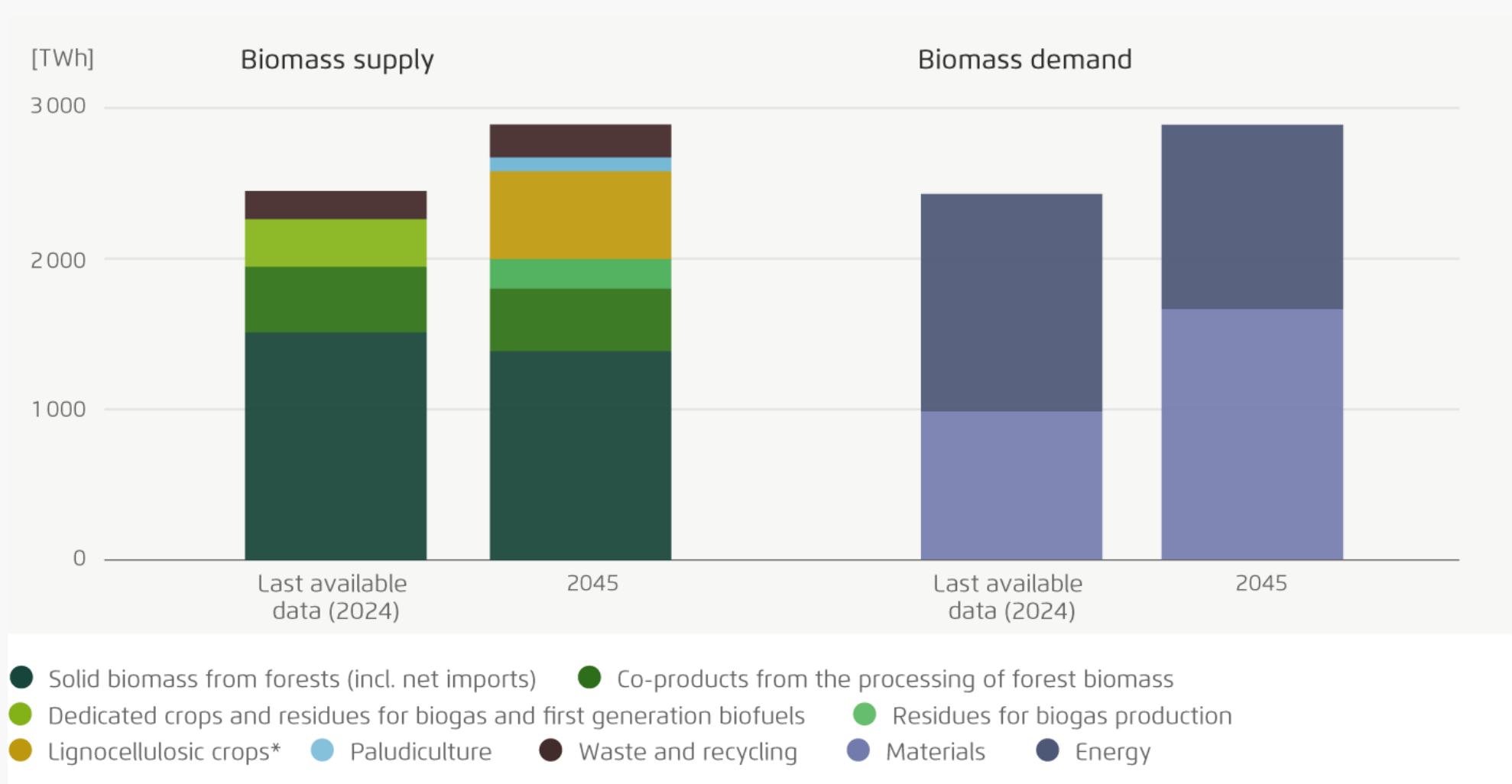
Livestock density
LSU¹ per hectare UAA²
by NUTS-2 region

2045



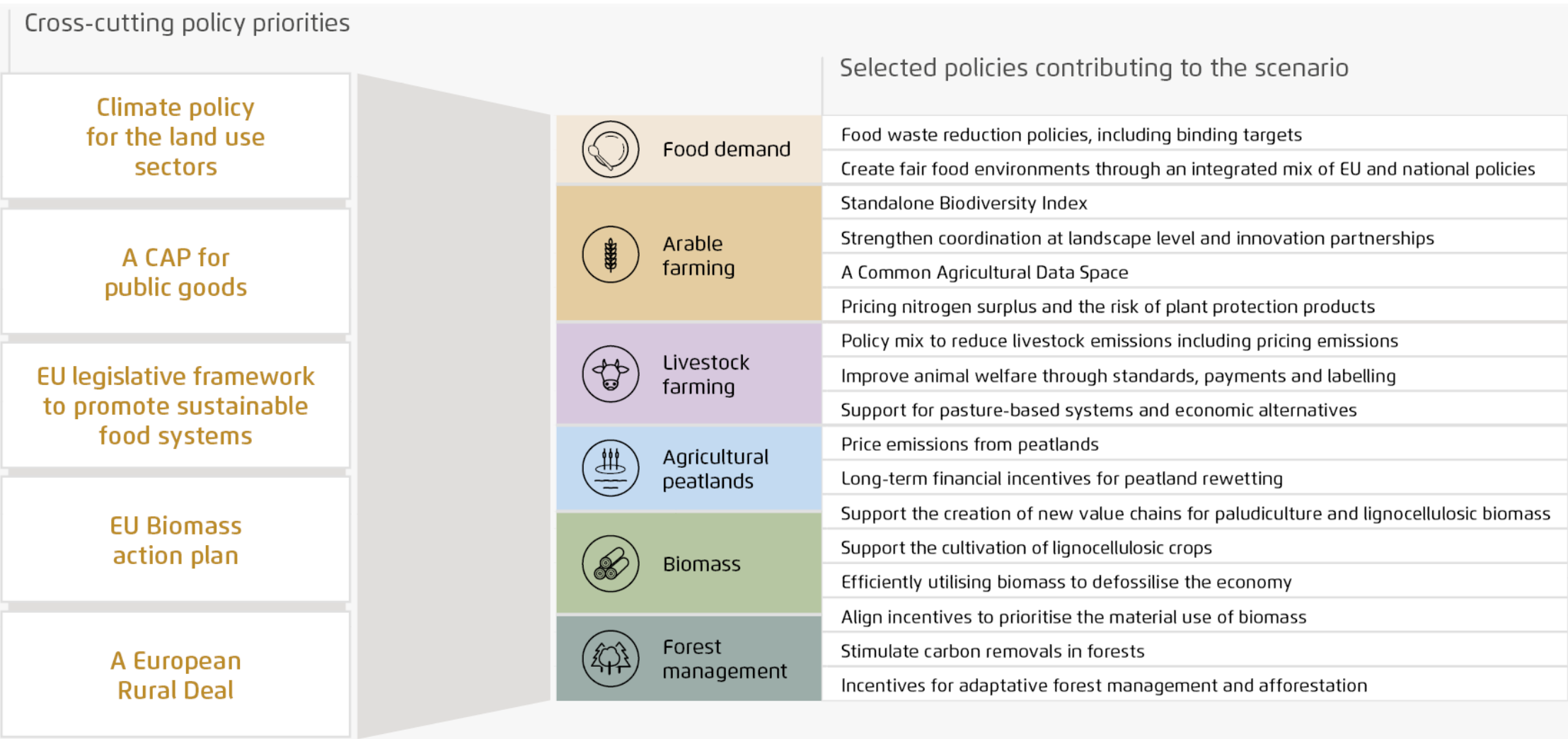
0.0–<0.5 0.5–<0.7 0.7–<1.0 1.0–<2.0 2.0–9.0

Demand and supply of biomass in the bioeconomy in the EU



The way forward – most important
policy levers at EU level

Key policy measures



Thank you for your attention!

Do you have any questions or comments?

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