

Farming practices and the green transition



RaboResearch Food & Agribusiness

A global network...

One of the **largest** F&A research hubs in the world and the world's **leading** F&A financial services provider

Broad **knowledge** of innovation, strategic development and **risk-reward** balances along the value chain

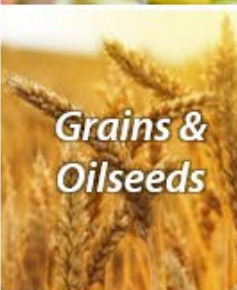
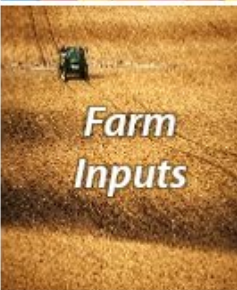
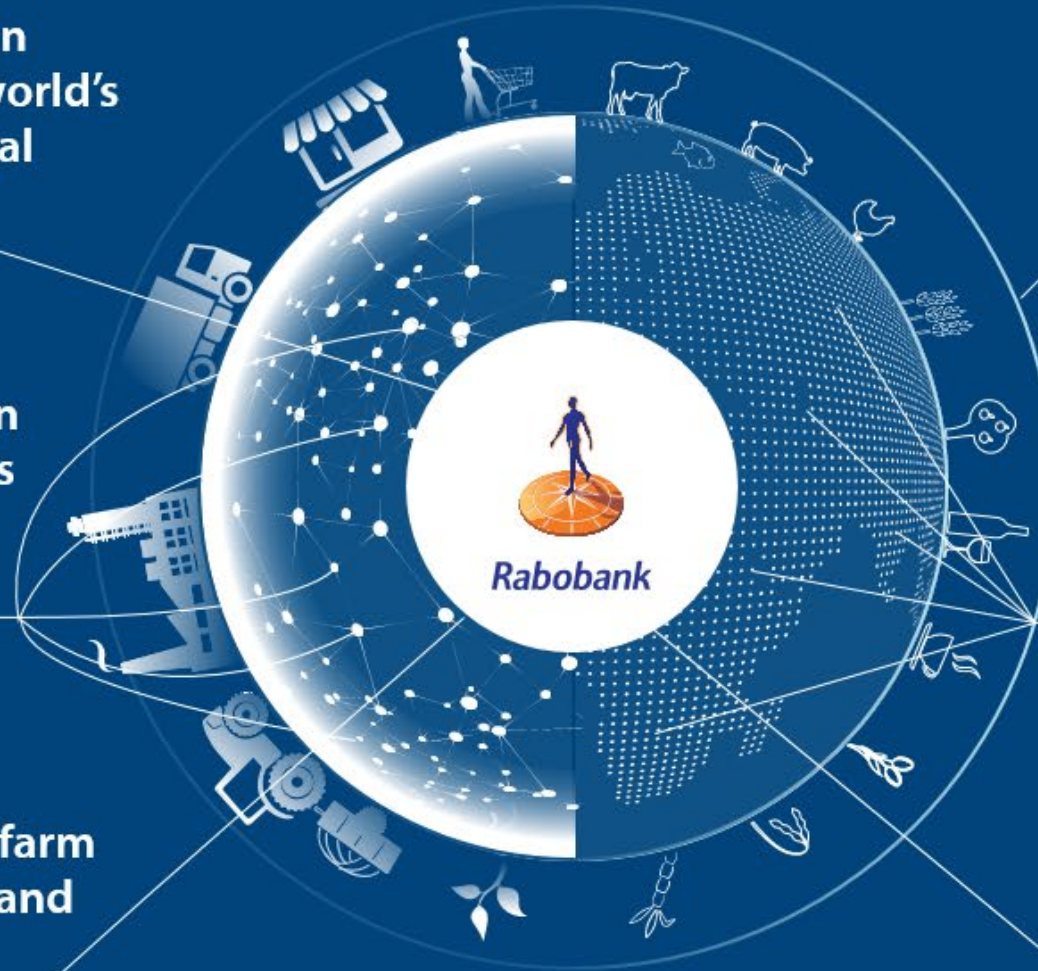
Unique combination of **strategic** business development and in-depth **research**

Vast global **network** with access to all players in the market

F&A coverage from farm to fork, across **rural** and **wholesale** sectors

Global team of experts with real-time insights into **local** markets

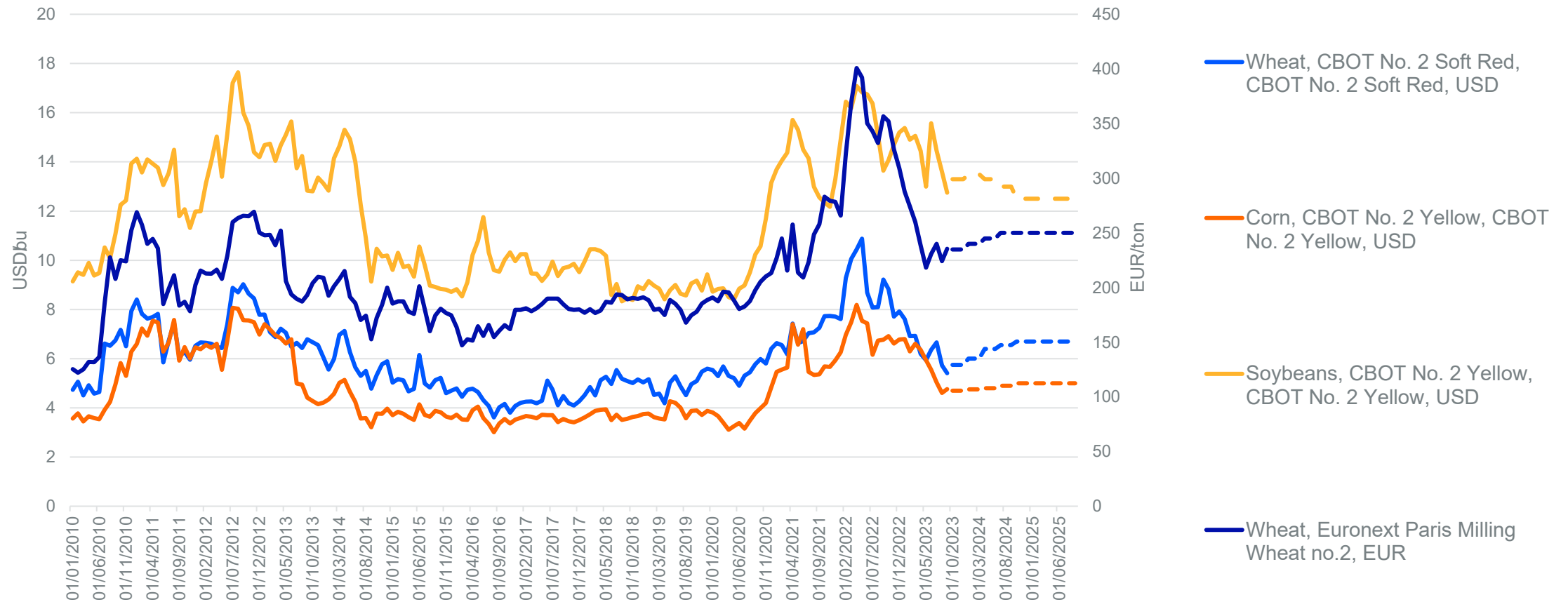
of **local** experts



Today's context



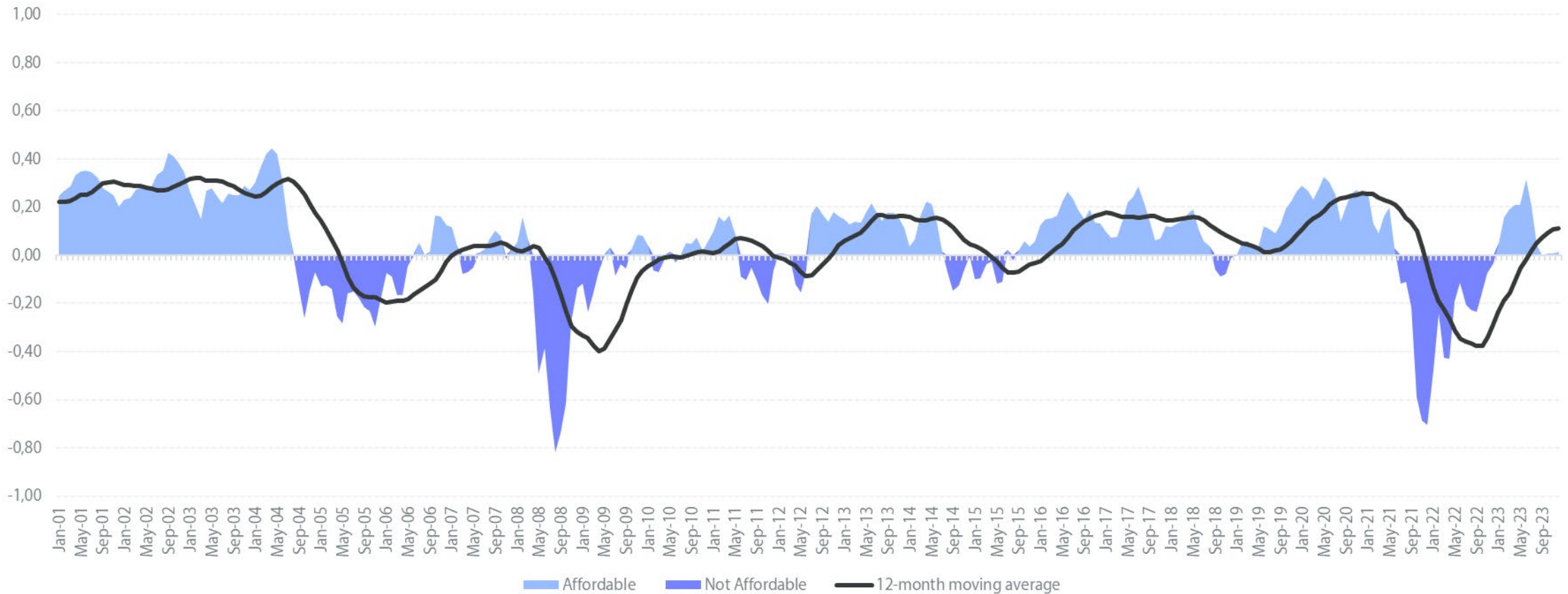
Agri commodity prices are falling but are still elevated



Source: Macrobond Agri Commodity Markets Research September 2023: Falling in the Fall, Rabobank Research 2023
 Note 1. Spain farmer income not available before 2017

Farm input costs as key factor of farmers' incomes

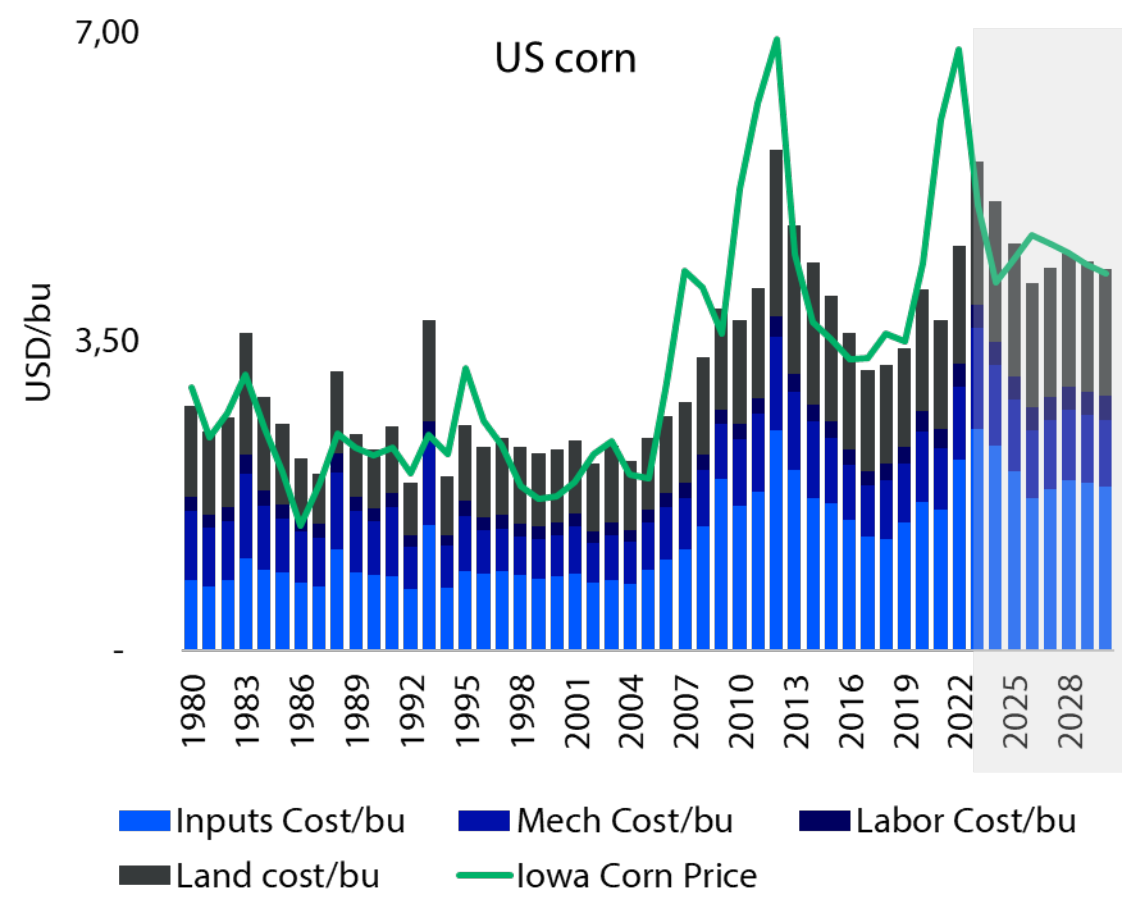
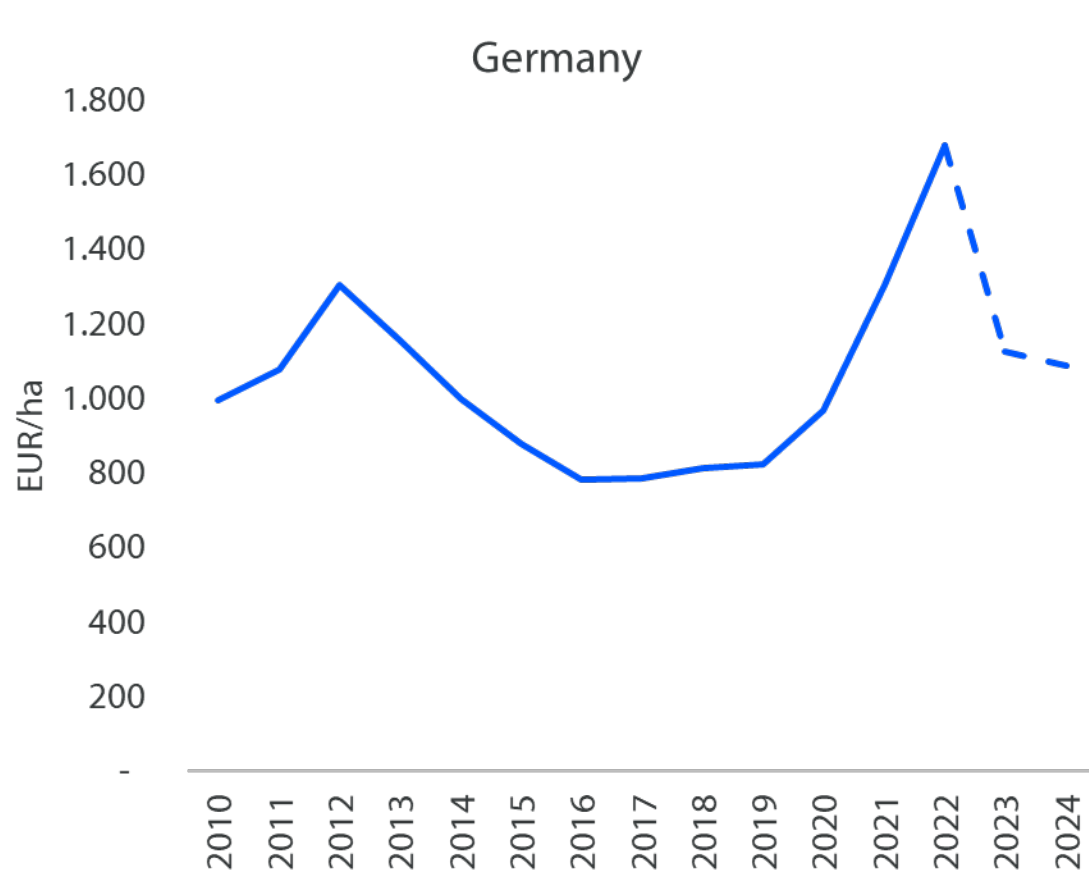
Global fertilizer affordability index dropped, but remains positive



Source: Rabobank Research 2023

Note 1. The affordability index is the relative price of a basket of commodities in comparison to the price of oil basket. When it drops below zero, fertilisers are not so affordable anymore for farmers

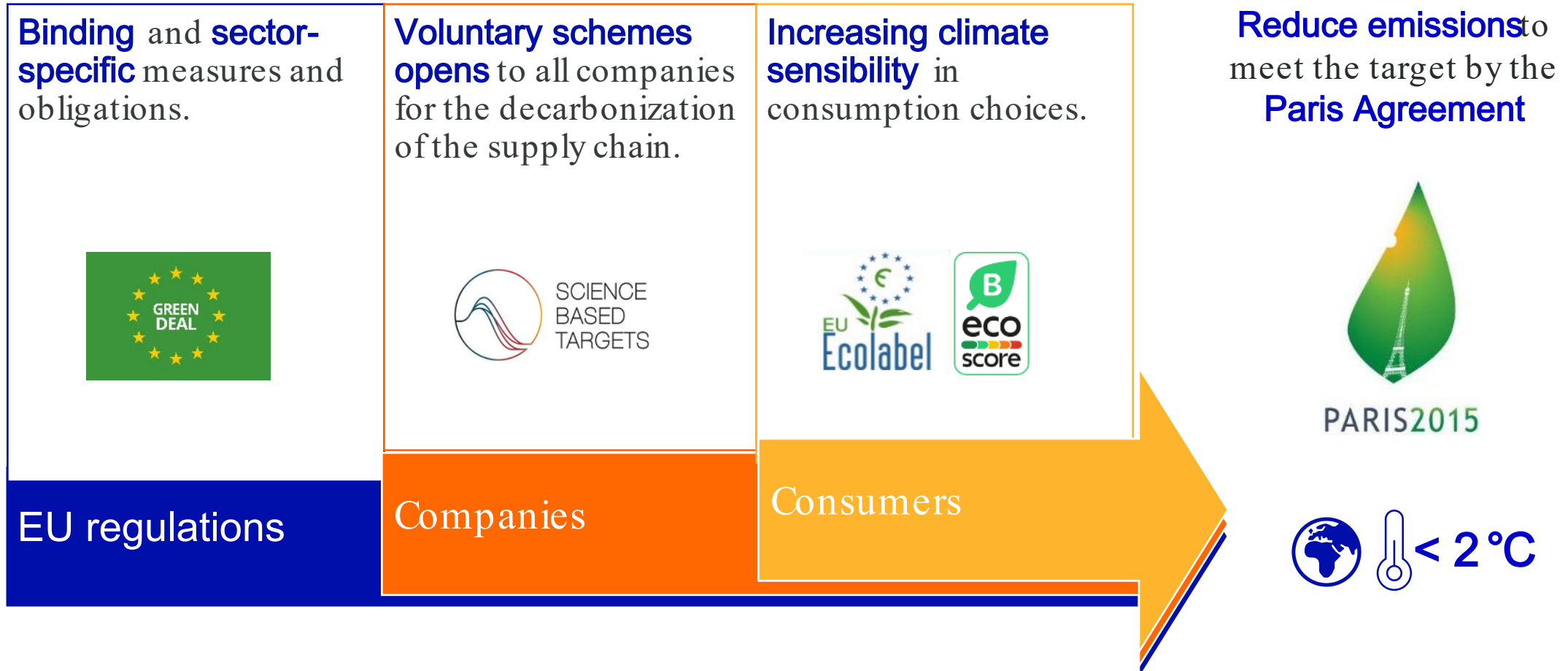
Farm & crop margins are decreasing from recent years' peaks, but still above average



Farming practice in transition

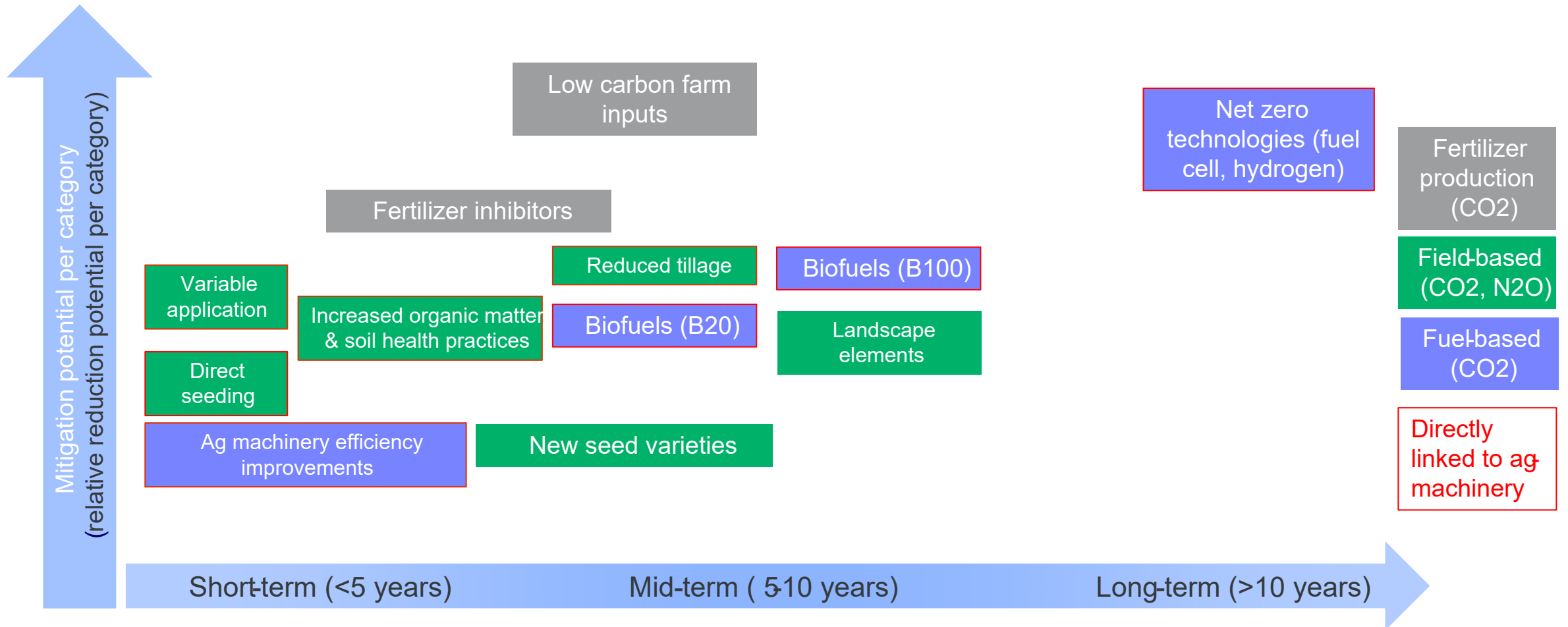


EU regulation, investor, retailers and society put pressure food-value chain and farmers



Farming practices supporting the green transition

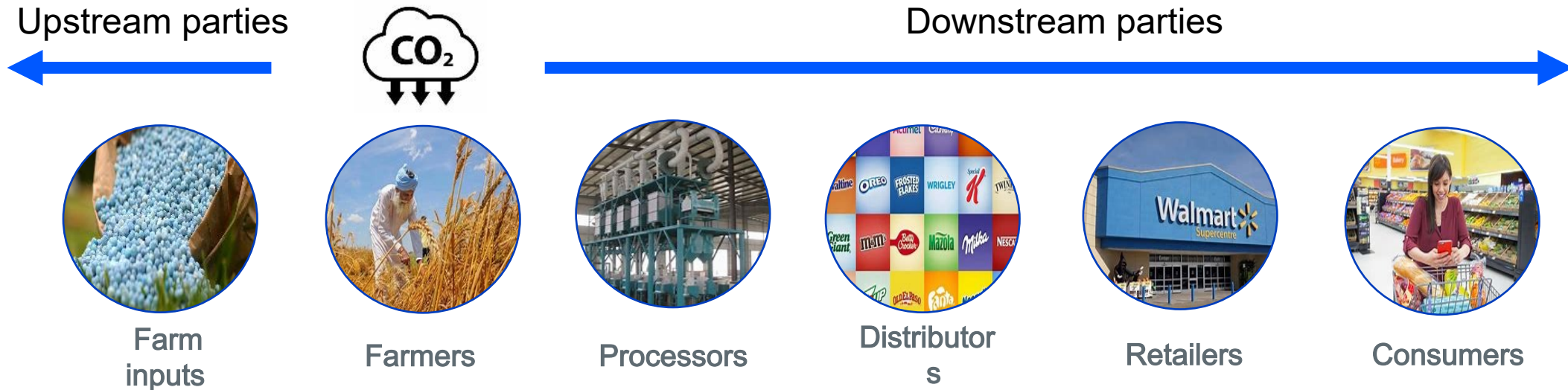
On-farm GHG mitigation measures today and the next decade



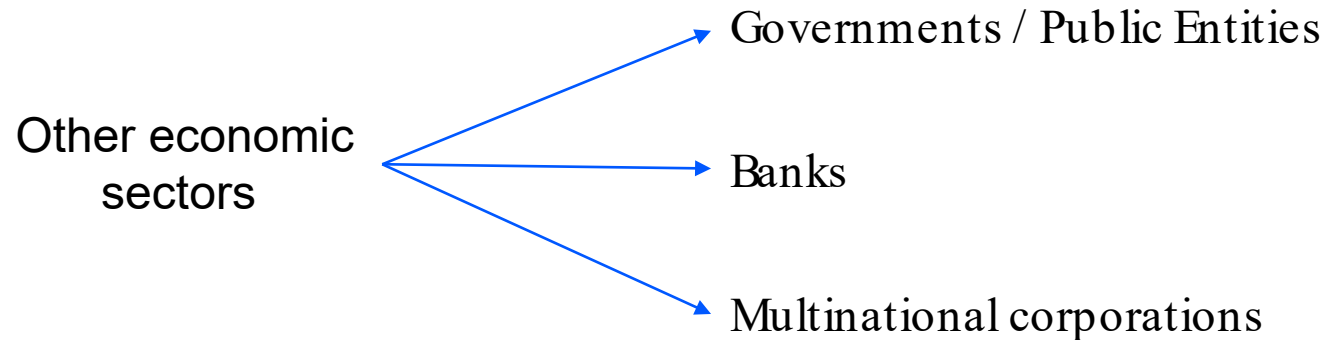
Note: The y-axis shows the different levers relative to their impact on total farm-related emissions, including upstream fertilizer emissions to farm-level and on-farm fuel use. Relative emissions reduction potential (in black) are compared to their replacement/status quo and not the total farm-related emissions. E.g. Biofuels are compared to 100% mineral oil. Fuel efficiency improvements vary by engine size, local fuel efficiency regulation for ag machinery, etc. Low carbon nitrogen fertilizer is compared to natural gas based ammonia. Biofuels refers to all types of crop-based biodiesel, biomass, recycled hydrogenated vegetable oils, and FAME.

The green transition bring extra risks and costs for farmer

Cost- and risk-sharing among the value chain is needed



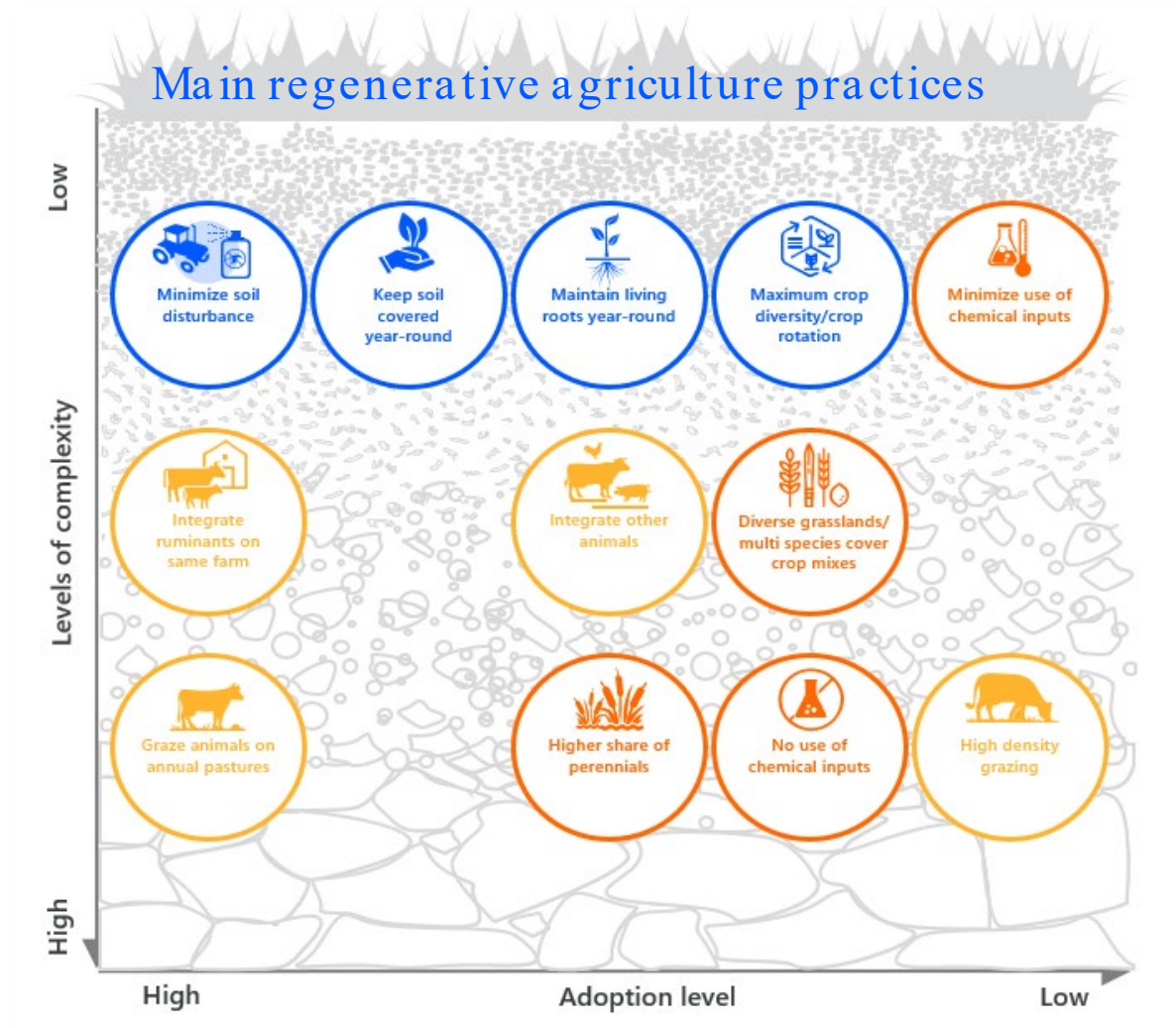
But also...



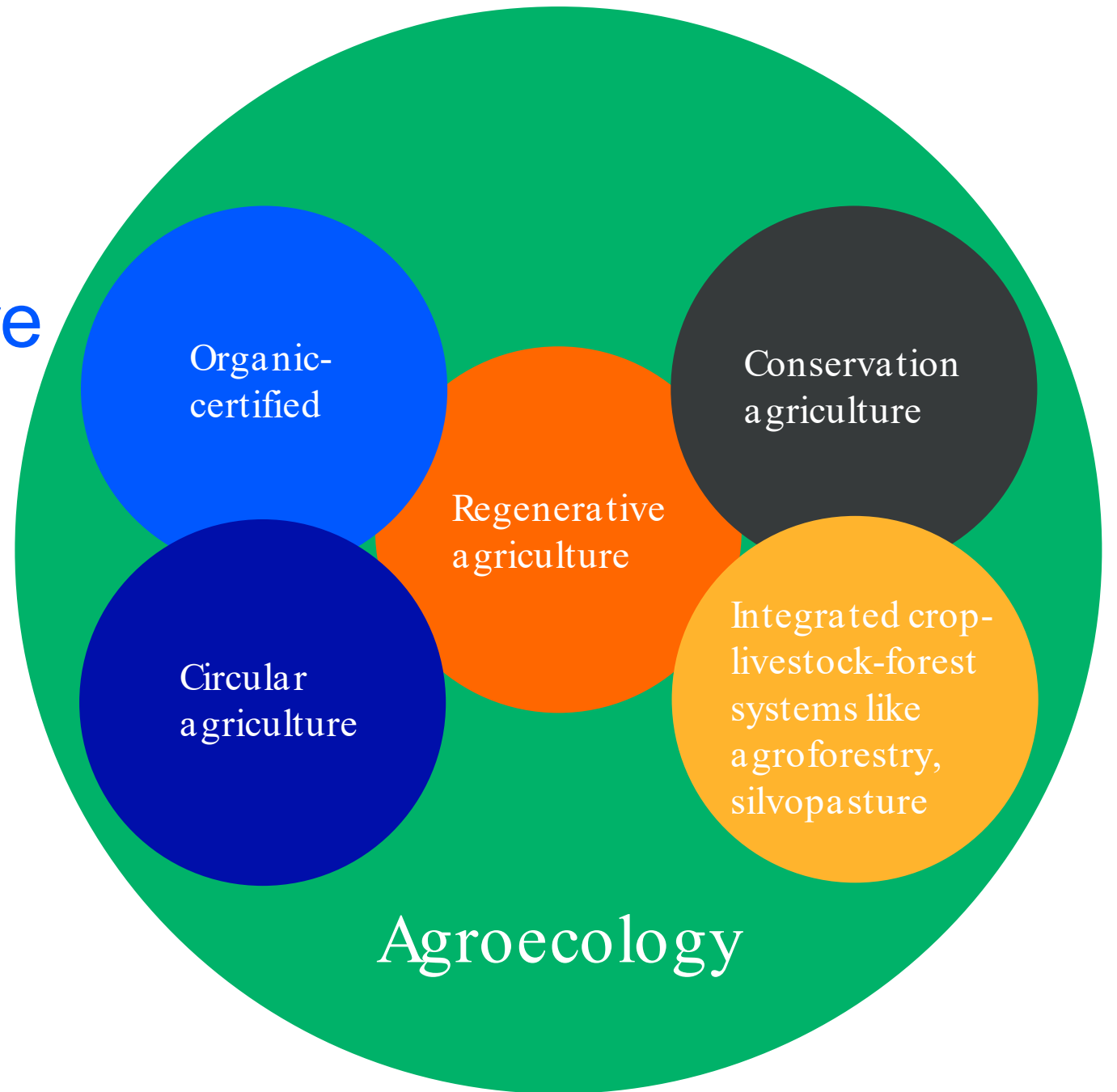
Is regenerative
agriculture a
promising green
transition
pathway?



Holistic concept with simple principles, where soil conservation is key



Regenerative agriculture
is compatible with other
sustainability concepts
and the EU Green Deal
goals



Supply chain commits to regen ag, offering premiums to farmers

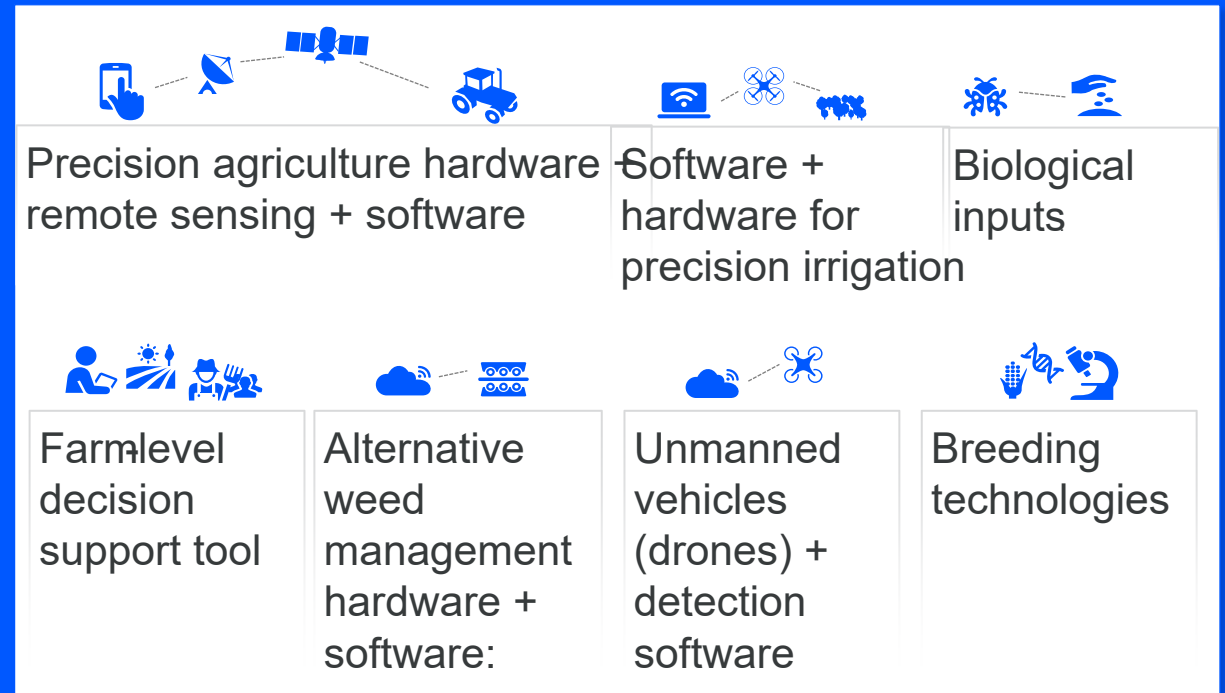


Sample of
regenerative
certifications

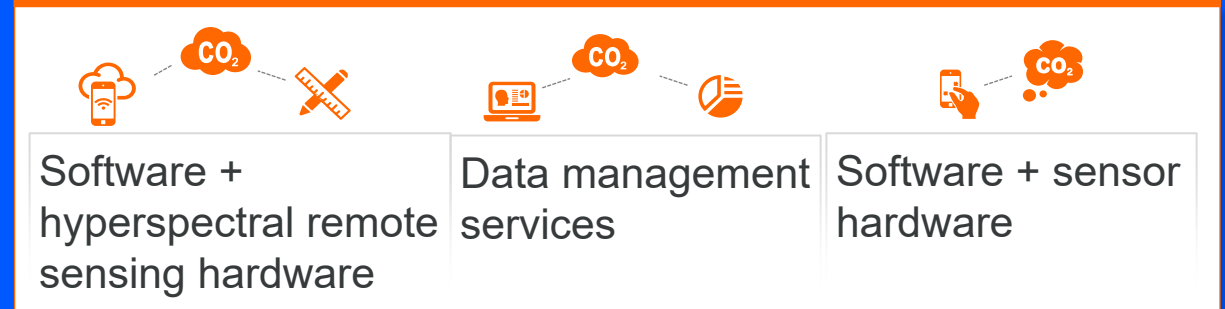


Technology is key

Technologies that enable more sustainable practices:



Technologies that enable measuring outcomes





Thanks for your attention!



Rabobank

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