

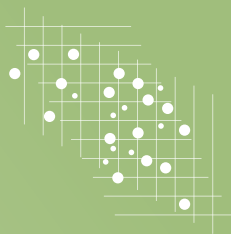
carboner

Tapping into Carbon Markets

Unlocking Financial Pathways for Bioenergy Projects

Webinar – World Bioenergy Association
Hendrik Schuldt, 27.05.2025

Our Services



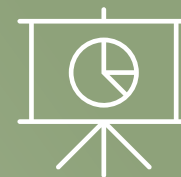
Compliance CO2-markets / CBAM

Compliance strategy
Communication with authorities
Market access



Climate Neutrality & Carbon Removal

Net zero strategy
Carbon removal portfolios
Brokerage

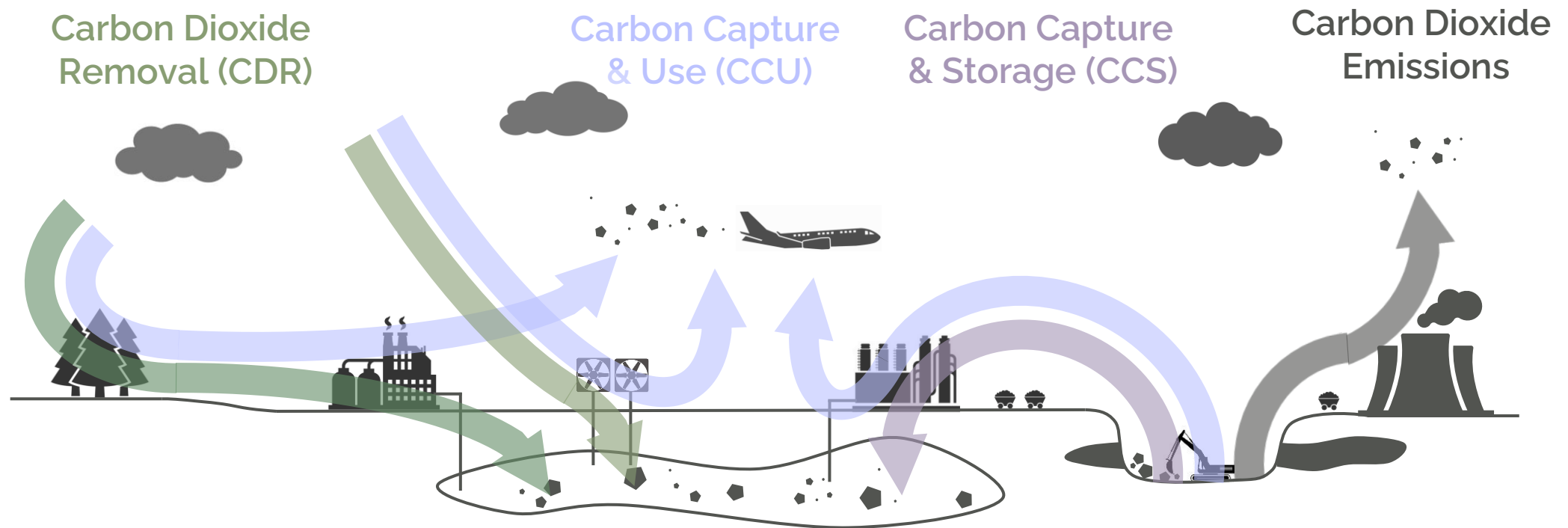


Analysis, Training & Education

Market analysis
Trainings & workshops
Expert speakers

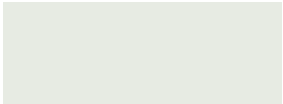
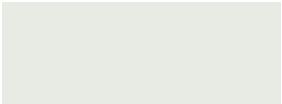
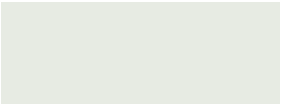





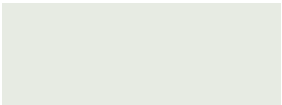
CO2 Markets

What CO2 exactly?



CO2 Markets

What markets exactly?

	CO2-Removal (CDR)	Carbon Capture & Use (CCU)	Carbon Capture & Storage (CCS)	Emitted CO2 (atmosphere)	Goals
Compliance Markets					Achieving national climate targets (e.g., EU ETS)
Voluntary Markets (VCM)					Compensation for unavoidable corporate residual emissions (e.g., SBTi)
Markets for molecular C					Closing carbon cycles



Tapping into the European Emission Trading System

EU ETS - Essentials

Cap-and-Trade System

fixed cap on emissions from covered sectors, cap decreases annually aligned with long-term climate targets

Scope

emissions from large industrial emitters (e.g. power plants, steel, cement)

Compliance

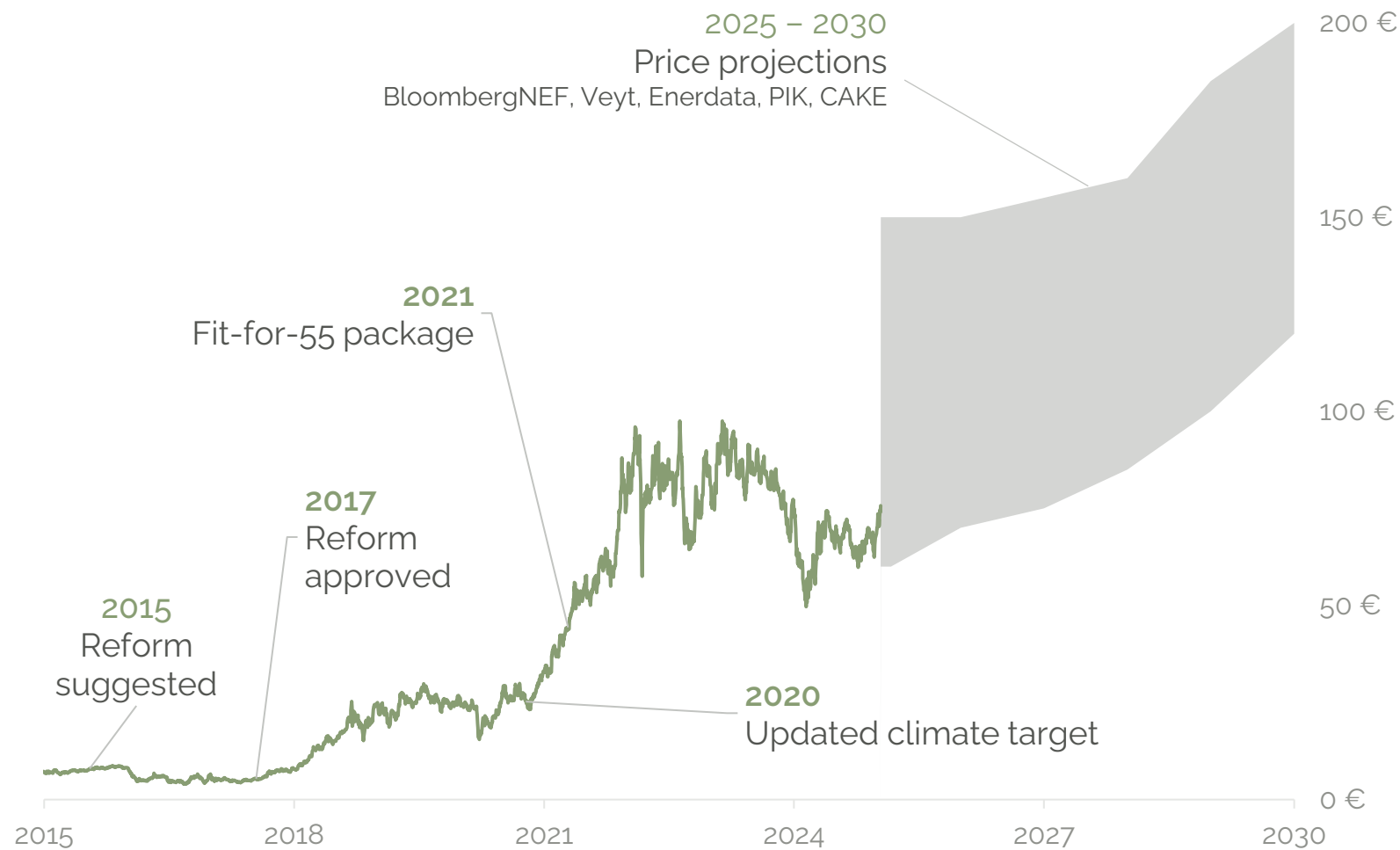
Companies must surrender one allowance for each ton CO₂ emitted

Pricing

Supply and demand at auctions and secondary markets

Trading

Market actors can trade and bank allowances



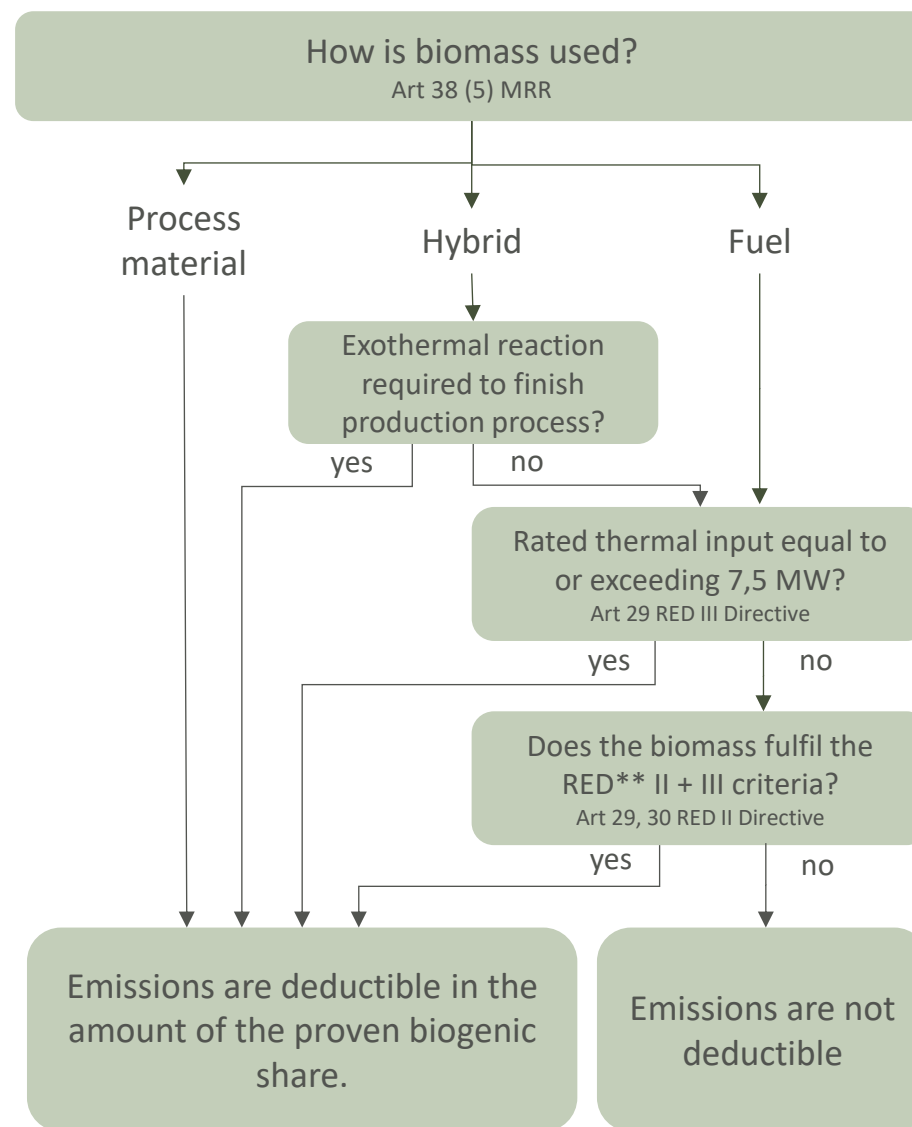
Tapping into the European Emission Trading System

Example: Potential for biomass application in steelmaking

Sinter
Coke (fossil)
Biomass



Molten iron
(hot metal)



RED Sustainability criteria

- › Source country regulations: Forest protection, ecosystem conservation, etc.
- › Domestic management systems for regulatory goals
- › Paris Agreement: NDC content, implementation strategies.
- › Emission savings from biomass application compared to fossil fuel

**RED – Renewable Energy Directive

CO2 Markets

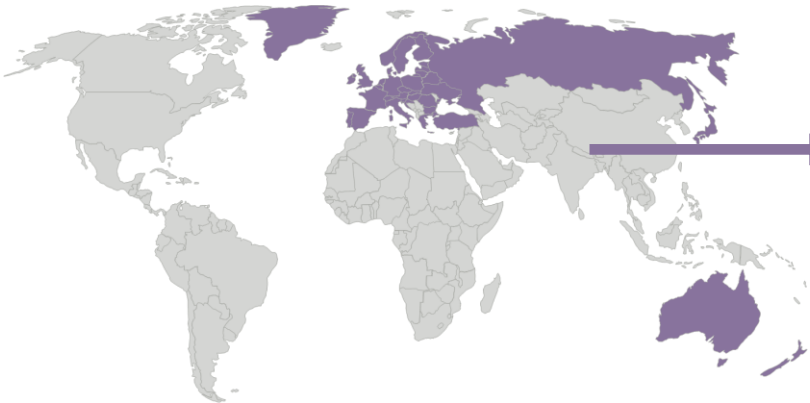
What markets exactly?

	CO2-Removal (CDR)	Carbon Capture & Use (CCU)	Carbon Capture & Storage (CCS)	Emitted CO2 (atmosphere)	Goals
Compliance Markets	<div></div>	<div></div>	<div></div>	<div><div>Biomass in the EU ETS</div></div>	Achieving national climate targets (e.g., EU ETS)
Voluntary Markets (VCM)	<div><div>VCM & BECCS</div></div>	<div></div>	<div></div>	<div></div>	Compensation for unavoidable corporate residual emissions (e.g., SBTi)
Markets for molecular C		<div></div>			Closing carbon cycles

Tapping into Voluntary Carbon Markets

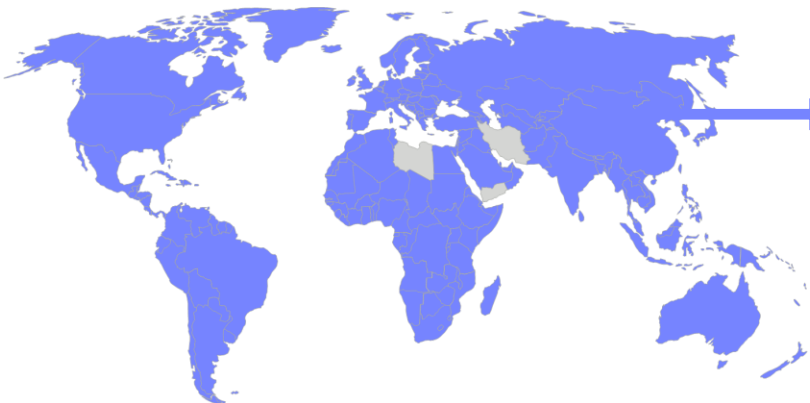
Double counting - A global challenge for offsets

Kyoto Protocol: Countries with commitments to reduce emissions

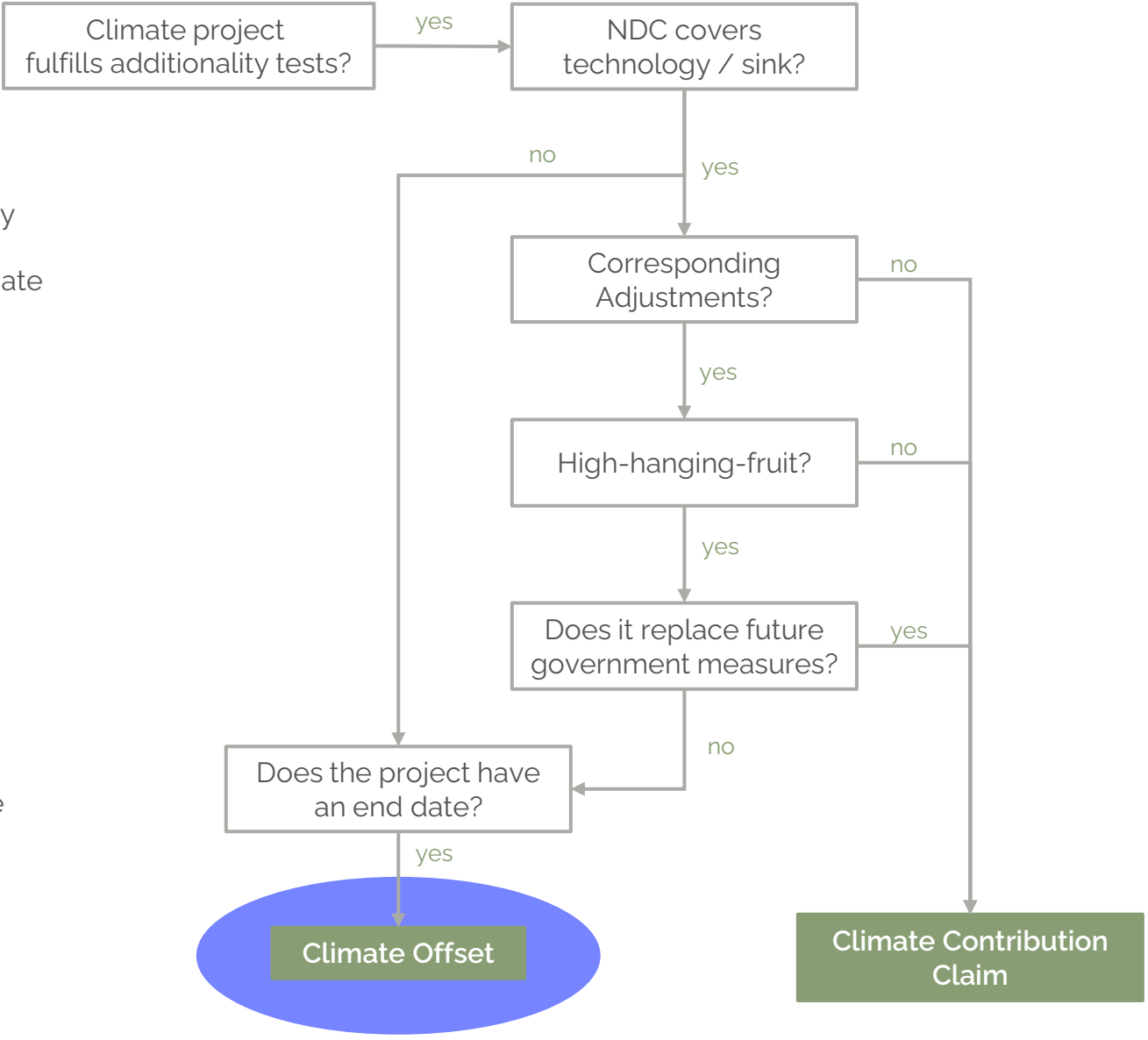


Reductions in grey countries are **additional** to climate targets

Paris Agreement: Countries with voluntary commitments to reduce emissions (NDC – Nationally Determined Contribution)

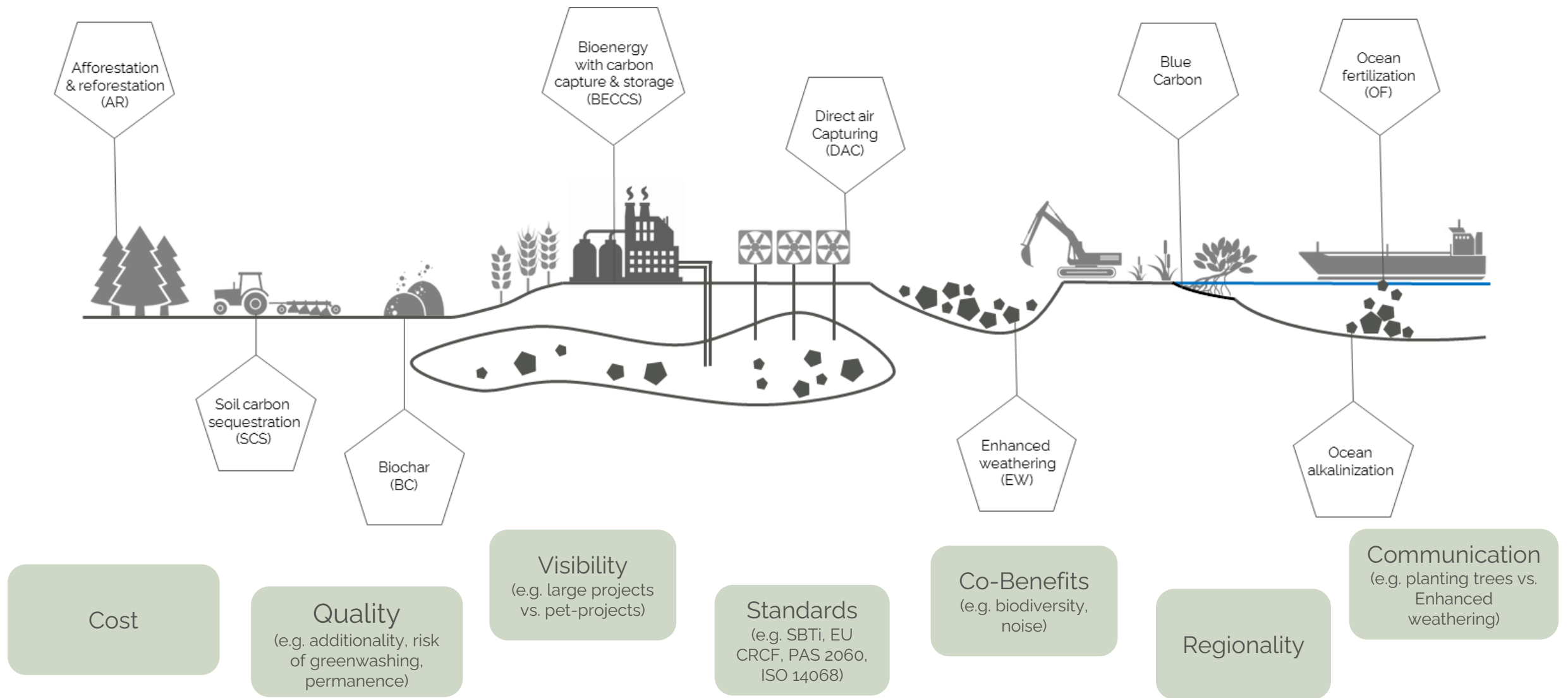


Severely limited possibilities for additional climate protection



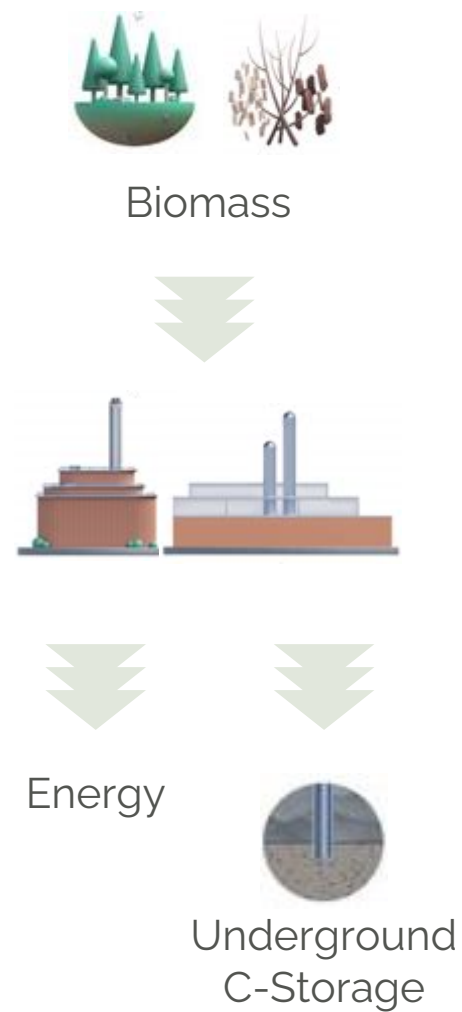
Tapping into Voluntary Carbon Markets

CDR – a broad technological spectrum being more robust to double counting

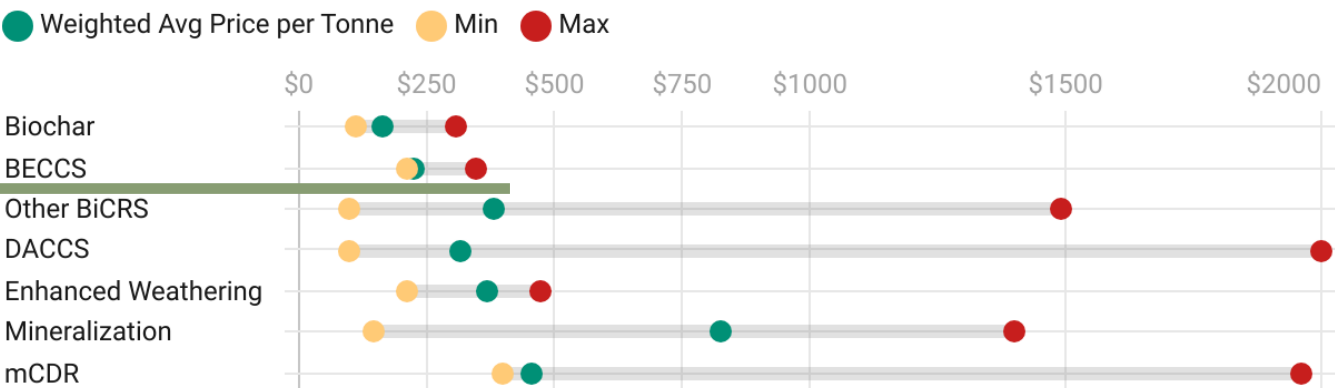


Carbon Dioxide Removal

Example: BECCS - Bioenergy with Carbon Capture and Storage



CDR Price Ranges by Method (2024). Source: cdr.fyi



Cumulative Supply (until 2024). Source: cdr.fyi

	Name	Method	Total Sales
1	Stockholm Exergi	BECCS	3,330,000
2	Ørsted	BECCS	1,330,000
3	1PointFive	DACCS	566,177
4	Exomad Green	BCR	331,831
5	Terradot	Enhanced Weathering	290,000
6	CO280	BECCS	224,500

Summary

Opportunities

- › Rising CO₂ prices improve bioenergy business cases
- › New business models emerge

Challenges

- › Strict biomass monitoring under EU ETS
- › Limited sustainable biomass for scaling

Thank you for your attention!

Reach out

- Strategic consulting and operational support on carbon markets, climate strategies, and net-zero
- Tailored offset and neutralization portfolio design
- Data collection, reporting, and cost management for CBAM
- Trainings & workshops



Hendrik Schuldt
Managing Director
schuldt@carboneer.earth
www.carboneer.earth