



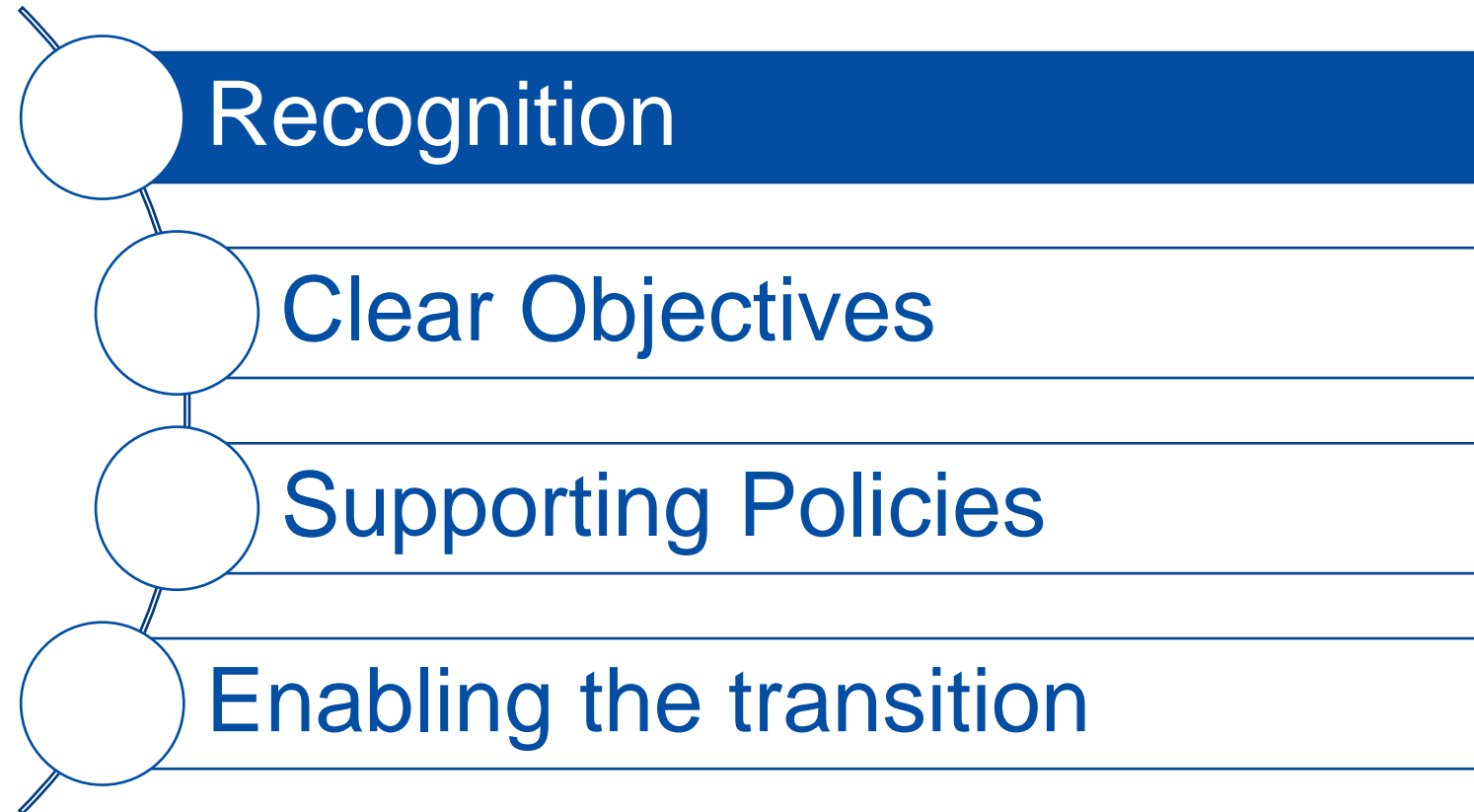
Future steps for CDR in Europe

18 April 2024

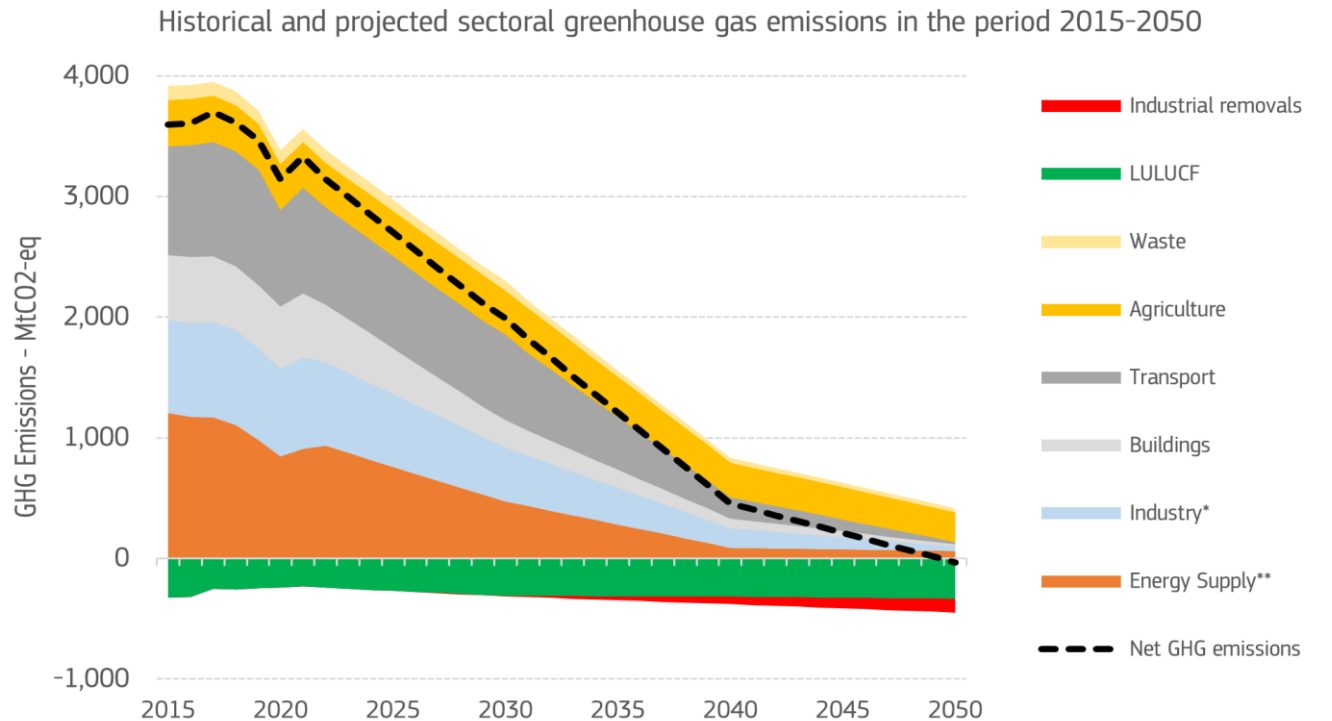
Deploying CDR in the EU



Requirements for CDR developments



To deliver **90%** net emission reduction the level of remaining **emissions** should be **less than 850 MtCO₂eq** and carbon **removals** should reach **up to 400 MtCO₂**.



*Excluding non-BECCS industrial removals
**Including bioenergy with carbon capture and storage (BECCS)

PROJECTED CARBON REMOVALS IN THE EU

	2040			2050
	S1	S2	S3	S3**
Gross GHG emissions (MtCO₂-eq)	1273	943	748	411
Total Removals (MtCO₂-eq)	-222	-365	-391	-447
<i>Industrial Removals (MtCO₂)</i>	-4	-49	-75	-114
<i>LULUCF net removals (MtCO₂-eq)</i>	-218	-316	-317	-333

Source: Impact Assessment report for Europe's 2040 Climate Target (PRIMES, GAINS, GLOBIOM)

Atmosphere

Land

Crops

Agri & forest residues

Trees

Wetlands

Soils

Products

Concentrated CO₂

Fuels & chemicals

Biochar

Aggregates

Wood in construction

Ocean

Dissolved CO₂

Aquatic biomass

Marine sediment

Bicarbonate

Lithosphere

Depleted fossil fuel
reservoirs

Saline aquifers

Minerals

Source: State of CDR
report (2023)

- Nature Based vs Technological
- Permanent vs Temporary
- Open systems vs closed systems

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Source: State of CDR
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Requirements for CDR developments



CDR objective(s)

Industrial Carbon Management Communication

The Commission foresees to:

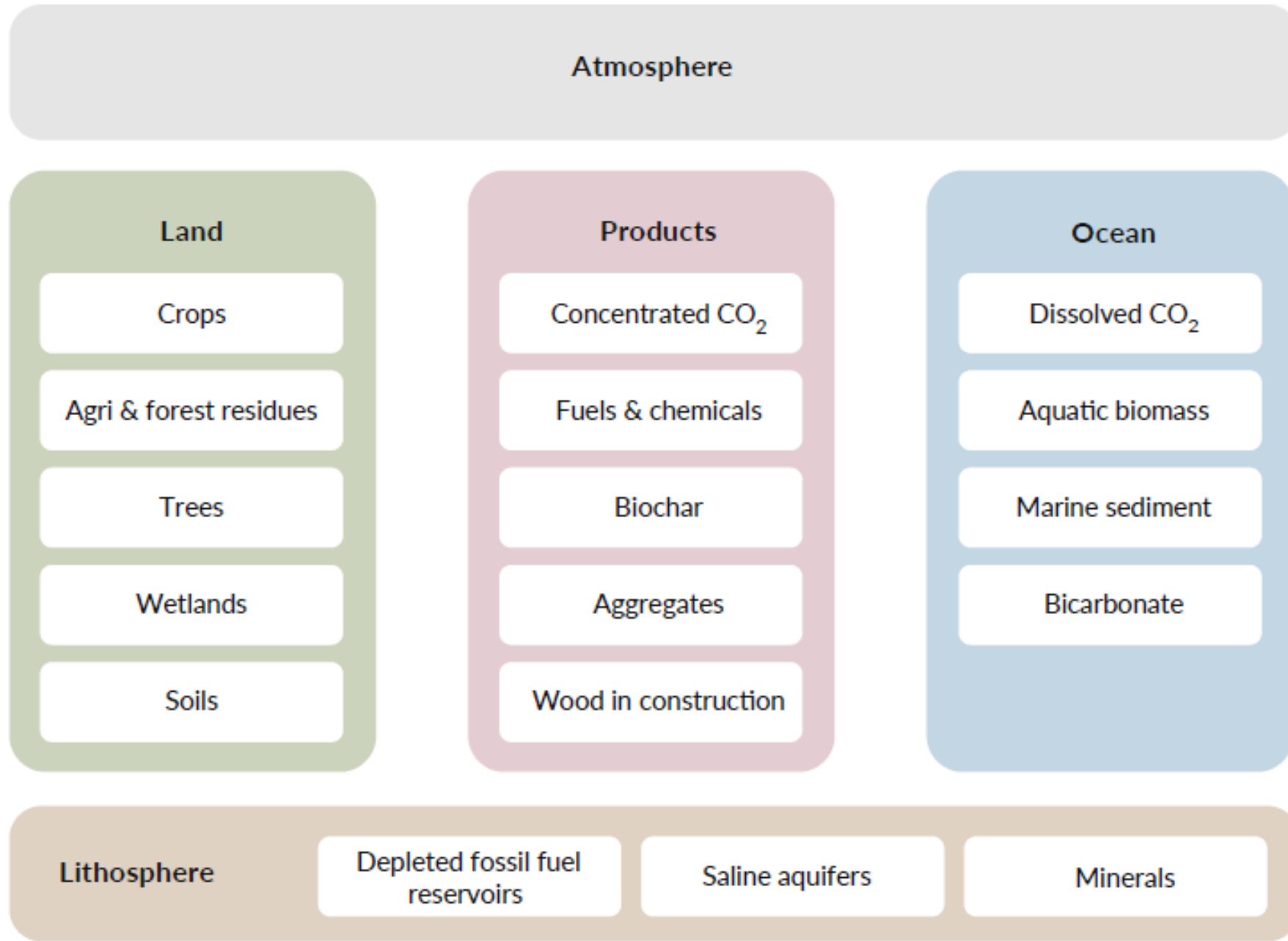
- *assess overall objectives for carbon removals needs in line with the EU's 2040 climate ambition and the goal to reach climate neutrality by 2050 and negative emissions thereafter.*

- Single or differentiated objectives ?
- EU or National objectives ?
- Ambition and allocation rules?
- Governance?

Requirements for CDR developments



Source: State of CDR report (2023)



Atmosphere

Source: State of CDR
report (2023)

Land

- CAP
- LULUCF
- CRCF
- NRL
- SML
- FML

Products

- ETS
- IF
- REFueIEU
- RED
- EPBD
- CPR
- ECODESIGN
- CRCF

Ocean

- LOSC
- London Protocol
- NRL
- CRCF

Lithosphere

- CCS Directive, CRCF

Policies

ETS Directive (Article 30)

the Commission shall report (...):

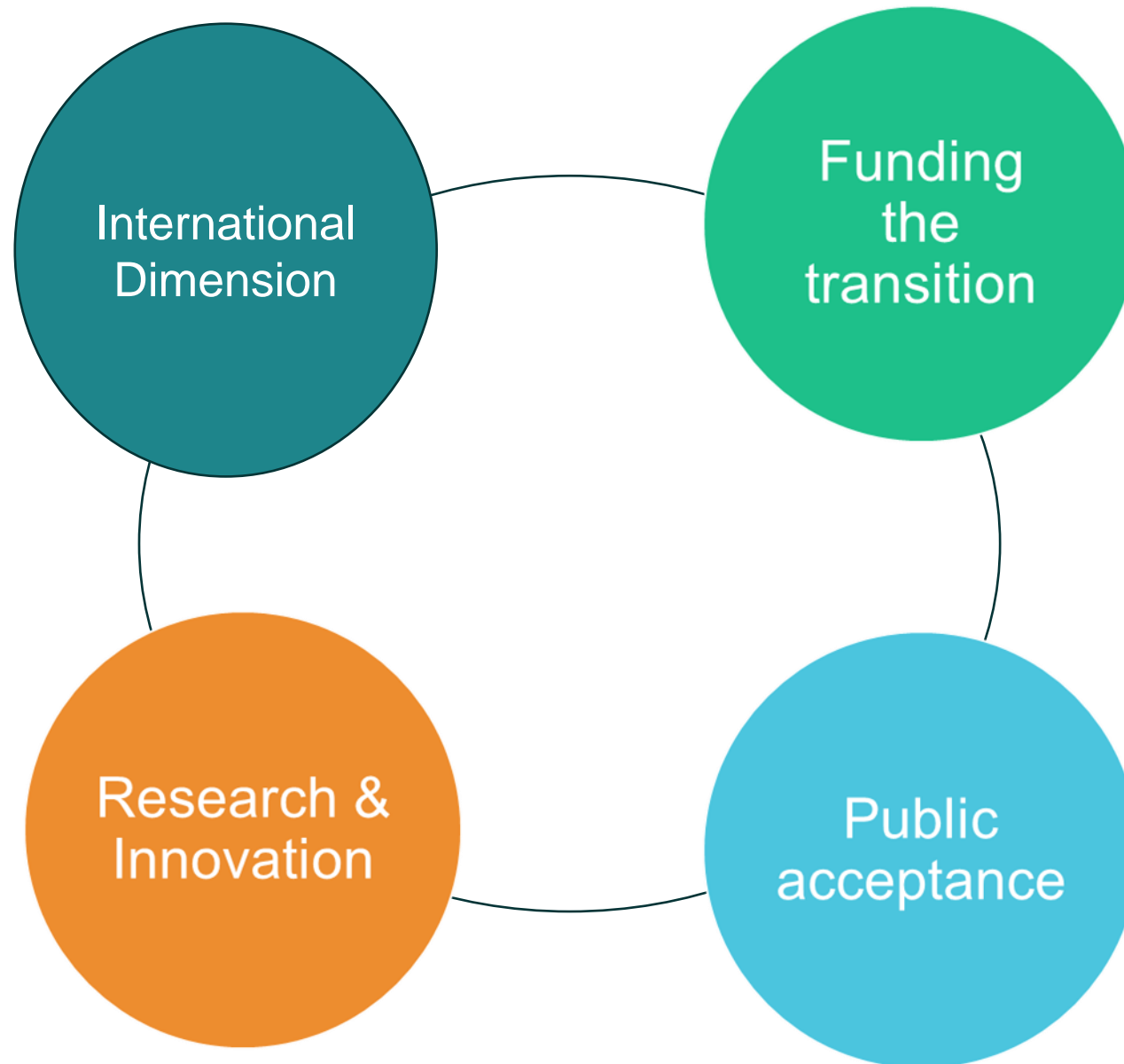
- *how negative emissions resulting from greenhouse gases that are removed from the atmosphere and safely and permanently stored could be accounted for and how these negative emissions could be covered by emissions trading (...)*

- Full integration ?
- Keep ETS and Removal market disconnected?
- Separate but connected markets?

Requirements for CDR developments

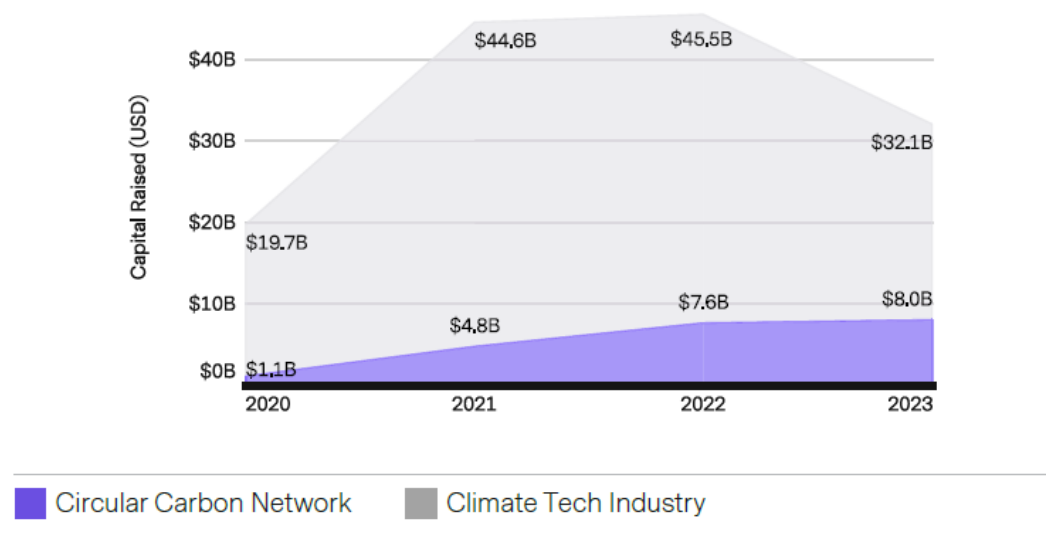


Enabling the transition

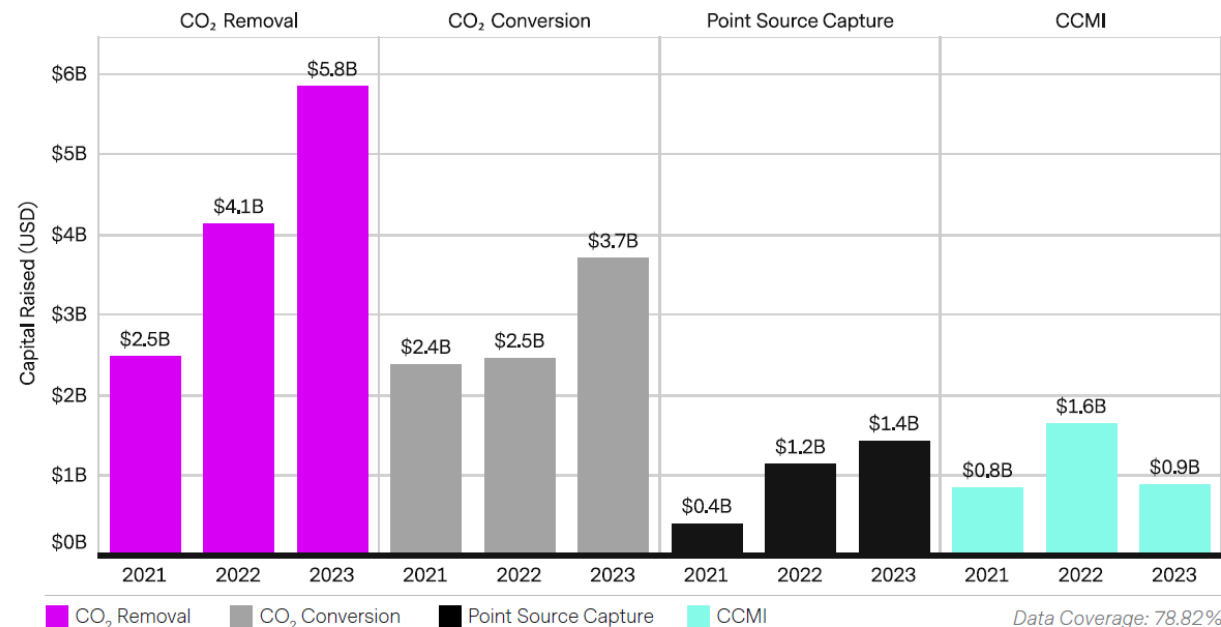


Funding Carbon Management

Capital Raised by Circular Carbon Companies vs. All of Climate Tech



Deals Closed by Solution Type by Year



*Sum adds up to more than totals because companies are classified as more than one solution type.

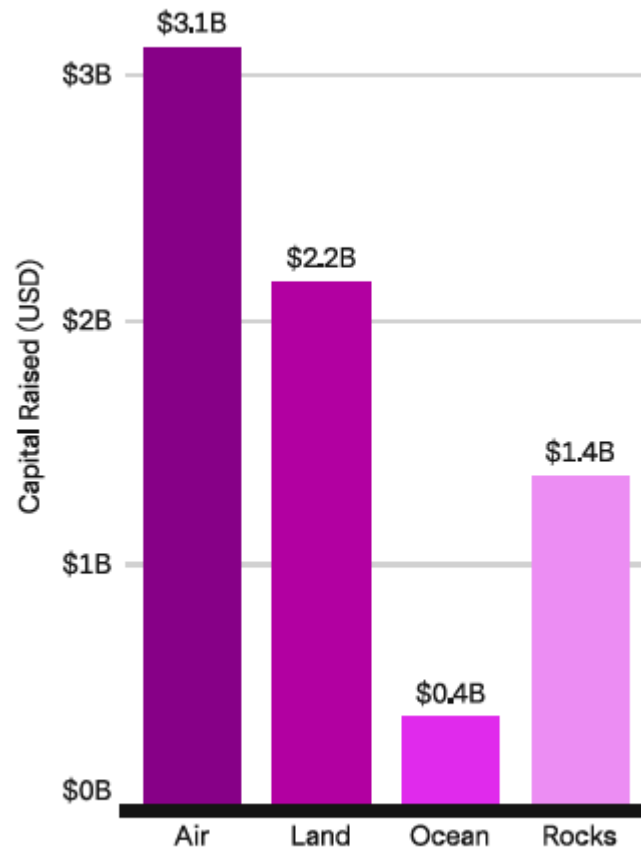
2023 CIRCULAR CARBON MARKET REPORT

Source: 2023 Circular Carbon Market report (XPRIZE)



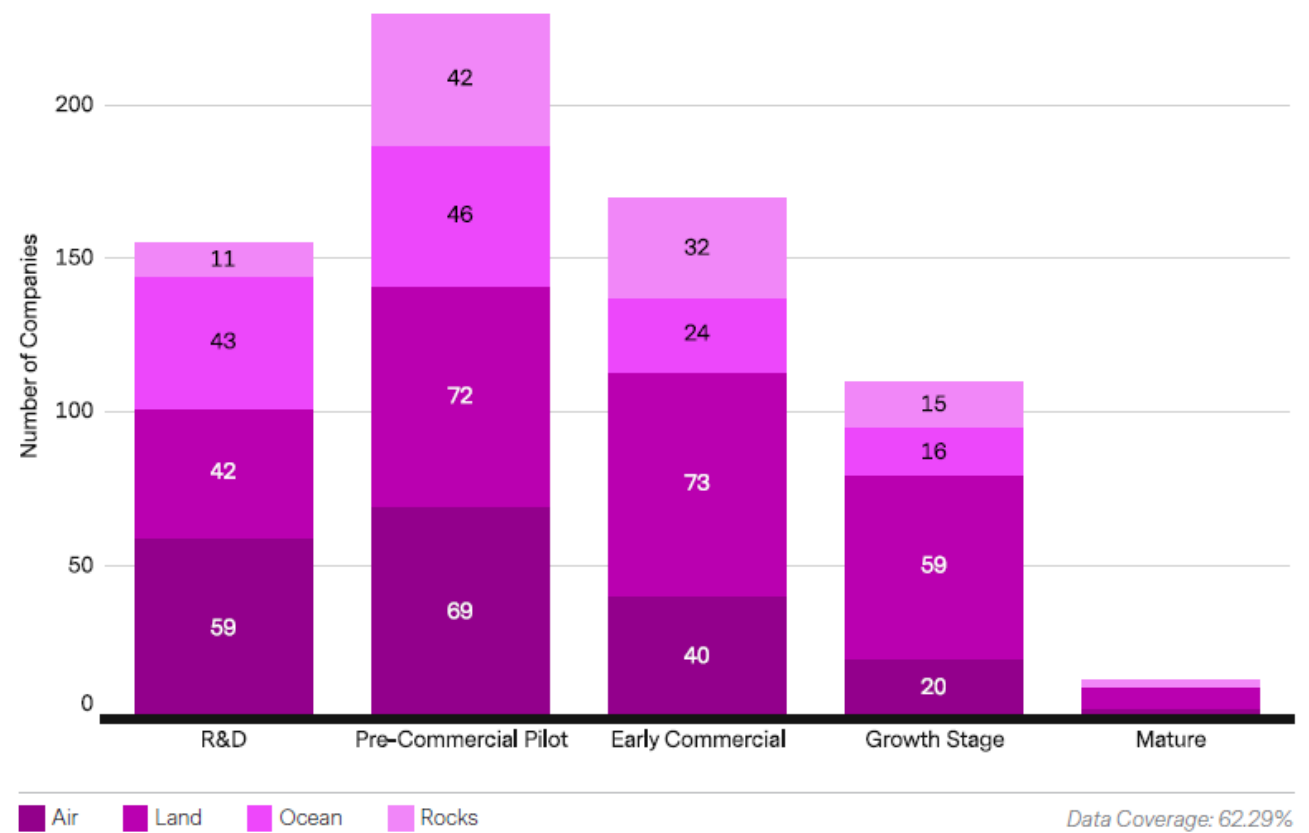
Funding Carbon Removals

2023 Deals Closed by Carbon Removal Pathway*



Data Coverage: 67.48%

Number of Removal Companies In Each Commercial Stage by Solution Type

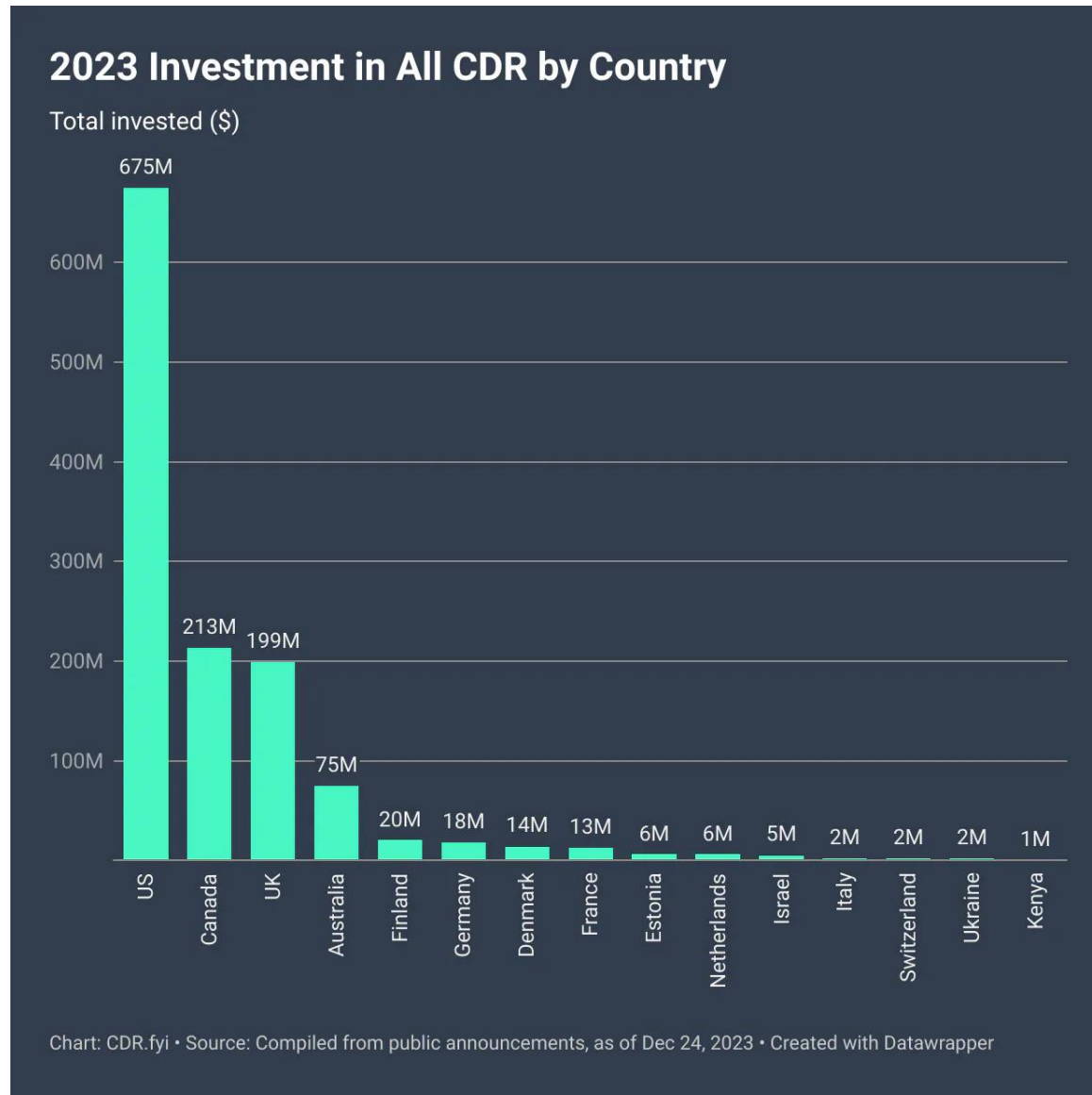


Data Coverage: 62.29%

Source: 2023 Circular Carbon Market report (XPRIZE)



Funding Carbon Removals



Source: CDR.FYI



Funding Carbon Removals

17. APRIL 2024 •  [Hent PDF](#)



Danish Energy Agency

The fund for negative CO₂ emissions (NECCS fund) has been completed, and the Danish Energy Agency has awarded contracts to three companies for new CCS projects. Together, the projects will ensure the capture and storage of 160,350 tonnes of CO₂ annually during the period 2026 to 2032. This corresponds to the annual CO₂ absorption from approximately 16,000 hectares of forest.

Company	Support level (per tonne of CO ₂)	Tonnes CO ₂ captured and storage (annually)	Total support level (annually)	<i>1 DKK = 0.13 Euro</i>
BioCirc CO ₂ ApS	968.5 DKK	130,700	126,582,950 DKK	
Bioman ApS	1,117.5 DKK	25,000	27,937,500 DKK	
Carbon Capture Scotland Limited	2,600.0 DKK	4,650	12,090,000 DKK	



Thank you