

Carbon Dioxide Removal – The Outlook in Europe

Investment Bank Perspective on
CDR in Europe

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Capital
Markets



RBC is One of the Largest, Strongest and Fastest-Growing Global Full-Service Investment Banks

Today's Speaker




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Royal Bank of Canada ("RBC") in a Snapshot

One of world's largest banks

> EUR 1bn of energy transition capital raised in last 6 months

Leading Renewables and Energy Transition advisor in Europe

Numerous banking relationship in Finland and Nordics

Market Capitalisation (USD bn)									
\$376	\$221	\$141	\$139	\$134	\$113	\$89	\$64	\$29	\$21
J.P.Morgan	BANK OF AMERICA	Morgan Stanley	WELLS FARGO	RBC	Goldman Sachs	citi	UBS	BARCLAYS	Deutsche Bank
Moody's Rating									
A1	A2	A1	A1	Aa1	A2	A3	NR	Baa1	A1
S&P Rating									
A-	A-	A-	BBB+	AA-	BBB+	BBB+	A-	BBB	BBB-



Develops carbon capture and removal technology using structured adsorbent beds (filters)

\$318,000,000

Series E



Tech-enabled developer, owner and operator of distributed solar and battery storage for C&I properties

~\$300,000,000

Growth Equity Facility



Largest dedicated residential solar company in the United States

\$235,000,000

Non-Recourse Subordinated Debt



Acquires, develops, and builds RNG and clean bio-energy projects

C\$545,000,000

Project-Level Equity

   
€1,300,000,000
 Acquisition of a 49.9% of He Dreiht Offshore Wind Farm
 Financial Adviser to ACP, AIP & NBIM Announced

 
£1,600,000,000
 Acquisition of a 25% stake in the Burbo Bank Extension Offshore Wind Farm
 Financial Advisor November 2021

  
£9,000,000,000
 Acquisition of a 20% stake in Dogger Bank A, B and C Offshore Wind Farms
 Financial Adviser to Eni S.p.A. November 2021

 
€3,200,000,000
 Sale of a 49.5% stake in Hollandse Kust Zuid Offshore Wind Farm
 Financial Advisor September 2021

  
£3,000,000,000
 Acquisition of a 51% stake in Seagreen 1 Offshore Wind Farm
 Financial Advisor July 2020

BioEnergo

Flexens

fortum

Horisont energi

Hydrogen pro

nel

NESTE

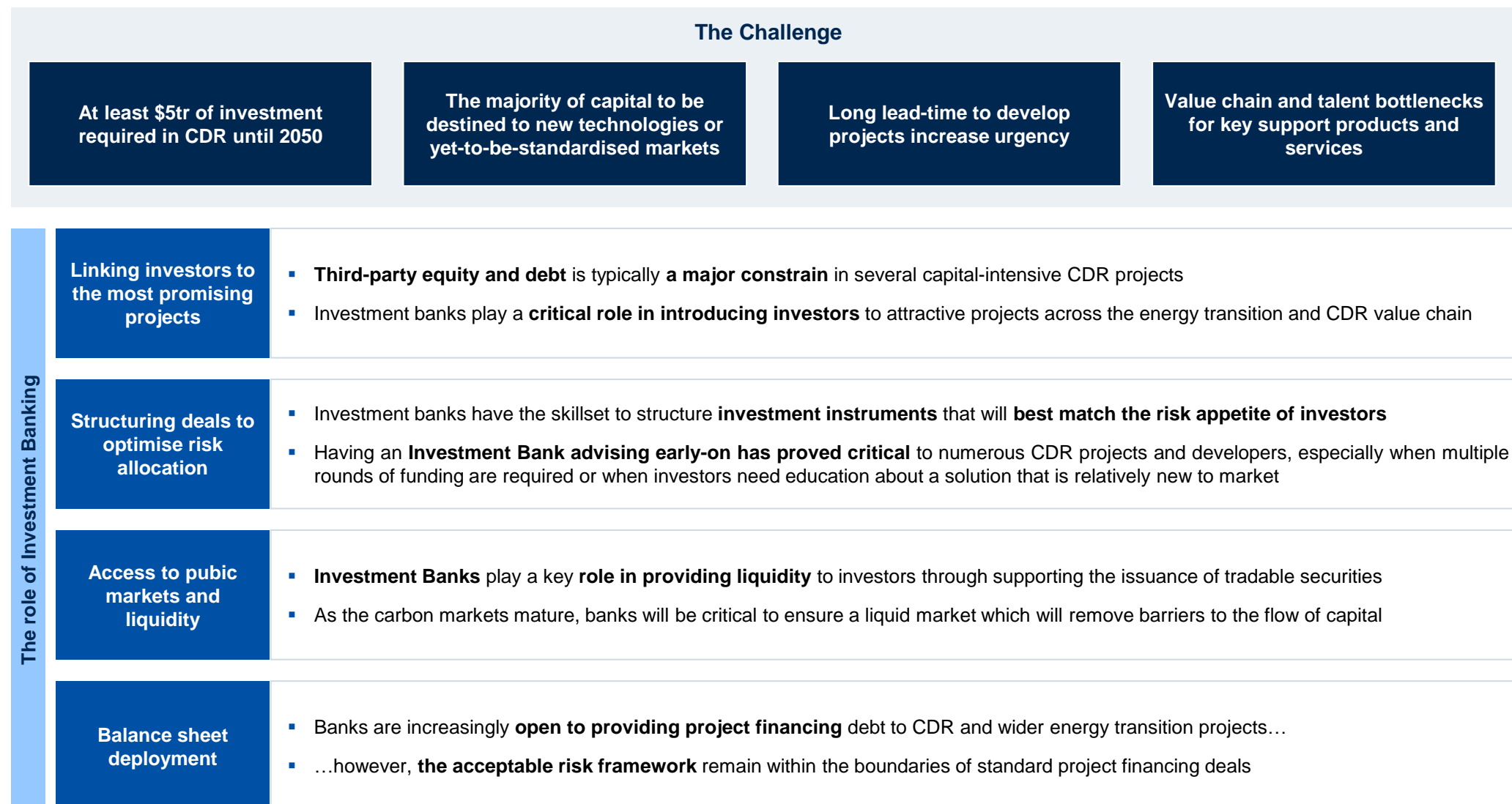
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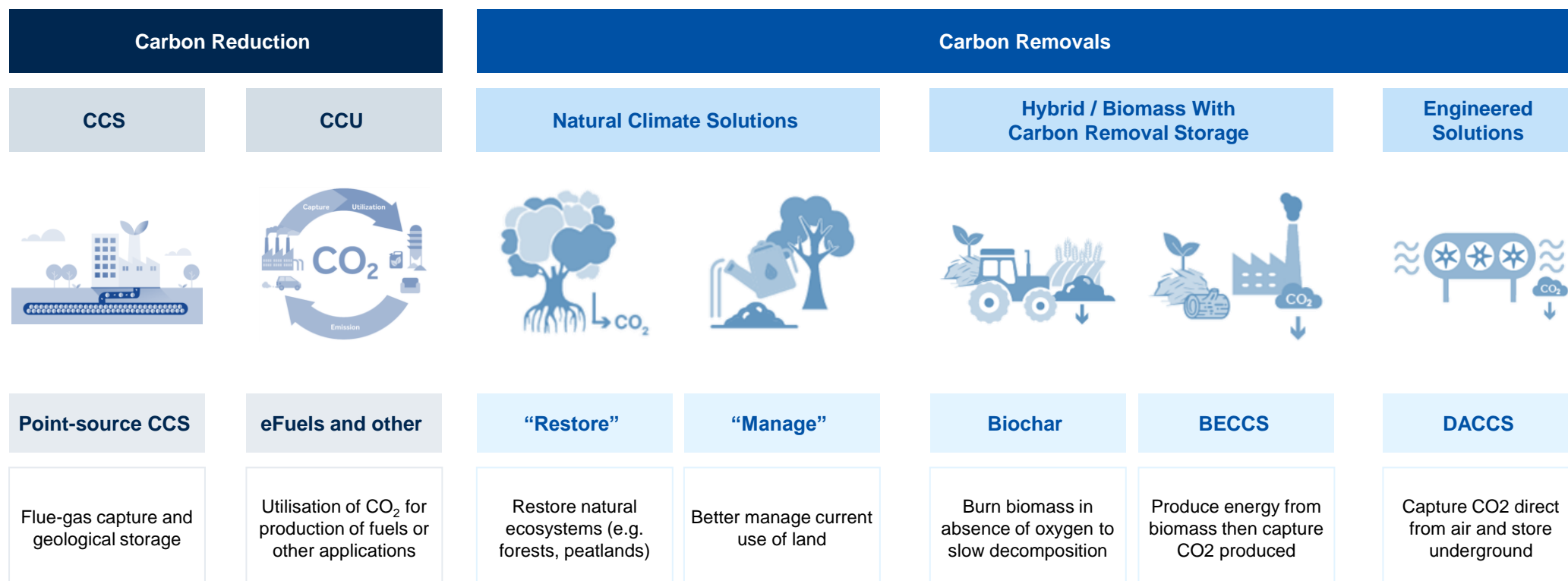
Statkraft

WÄRTSILÄ

The Key Role of Investment Banking Is To Facilitate Investment, Which Will Be Required To Bridge the “Multi-Trillion-Euro” Funding Gap in CDR for a Paris Compliant Emission Scenario



Investment Approach: No In-principle CDR Technology Preference, as Long as the Risk Framework To Enable Investment Is in Place



- The majority of large investors will likely classify carbon reductions and removals within the same umbrella and will be agnostic on what to invest
- Key filters / barriers to investment typically include: (i) size of the project or developer, (ii) technology maturity, (iii) track record of management, (iv) contractual framework, in particular feedstock supply and product offtake and (v) regulatory and commercial framework for the specific solution
- Given the above filters, Carbon Reduction has attracted more investment appetite than Carbon Removals... except for biomass/biofuel solutions, which are established and can be ramped up more rapidly than other energy transition solutions

Thoughts and Considerations to Key Stakeholders in CDR

Governments	<ul style="list-style-type: none">▪ Governments will play a key role to enable large scale investment in CDR, either by supporting developers (e.g. with grants) or backstopping the contractual revenues to enable private capital▪ Governments and multilateral organizations can also play a key role in the creation and definition of common standards, which is currently a major barrier to investment
Developers	<ul style="list-style-type: none">▪ Timing is key: given the demand for cleaner energy and industrial solutions, first movers are likely to enjoy significant advantage▪ However, raising capital requires preparation and addressing of key risks prior to approaching investors; this is because investors are currently bombarded by a high number of investment propositions and will not have time to review them all▪ Sacrificing returns to make a project “bankable” can and normally does pay off!
Equity Investors	<ul style="list-style-type: none">▪ A very substantial amount of capital has been raised in funds which are solely dedicated to energy transition investments▪ Investors will be sensitive to key risks and will only support the best prepared developers, where key risks are addressed
Lenders	<ul style="list-style-type: none">▪ Most of large lenders are also in a path to decarbonize, and will seek to reduce net financed emissions; therefore, CDRs could be particularly attractive▪ However, balance sheet constraints and enhanced risks inherent to energy transition projects mean lenders will be very selective on which project to support

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