

# EU instruments to finance the green transition of biogas

Biogas PowerON 2023

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## Sabrina Kiss



Senior Consultant with 4+ years experience in the field of sustainable finance

Please feel free to contact me at: [saki@implement.dk](mailto:saki@implement.dk)

## Merle Doliwa



Consultant with 3+ years experience in the field of sustainable strategies

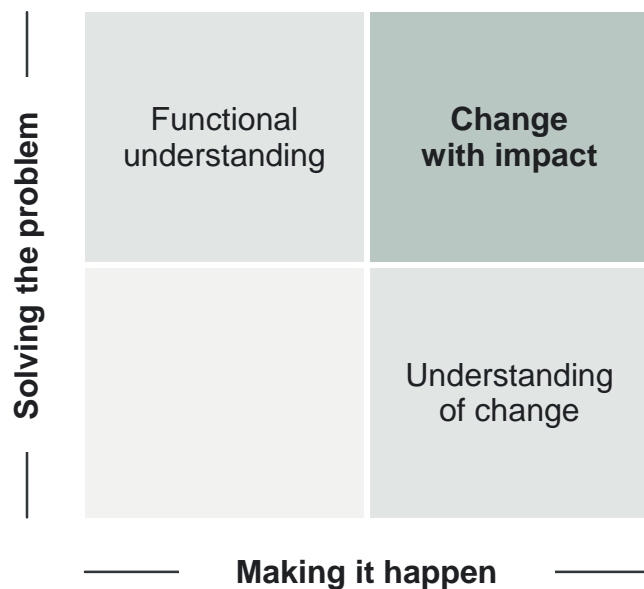
Please feel free to contact me at: [medo@implement.dk](mailto:medo@implement.dk)

# Local roots global perspective

Born in Denmark with offices in Copenhagen, Aarhus, Stockholm, Malmo, Gothenburg, Oslo, Zurich, Munich, Hamburg, Düsseldorf and Raleigh, NC. With 1400+ consultants, multinational clients and worldwide projects, we offer expertise with a global perspective.

We believe that great organisational impact leads to great impact for humanity. Implement was created to help make true expertise turn into real change.

- > Founded in **1996**
- > Average CAGR of **20%**
- > **Employee**-owned
- > Working **globally**



# Financial instruments for the green transition

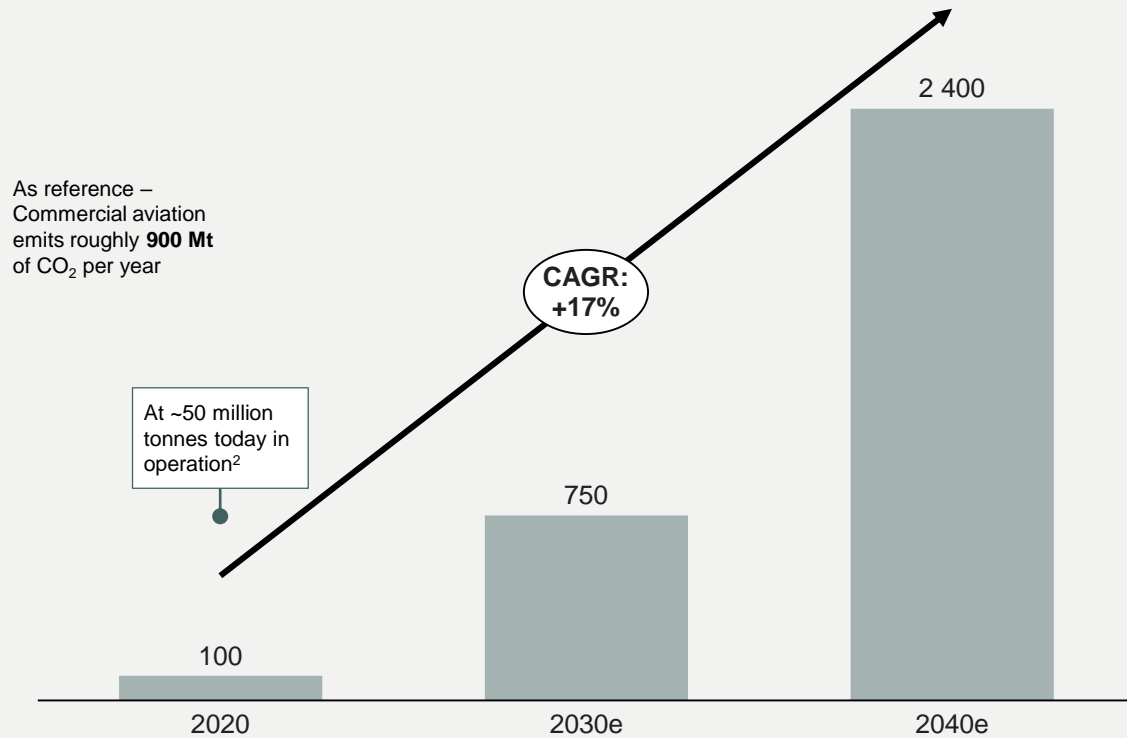


# Carbon capture is indispensable for reaching the Paris Agreement's 1.5°C target

Carbon capture capacity of 2 400 million tonnes / year is needed by 2040 to meet the Paris Agreement target of 1.5 degrees



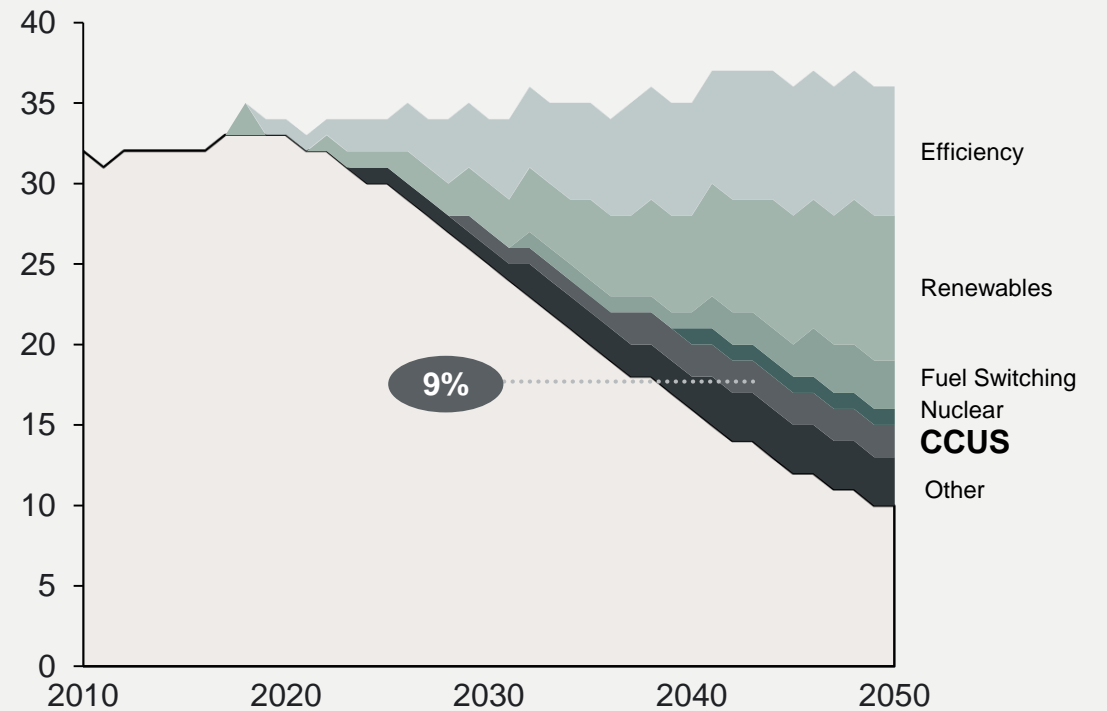
Carbon capture capacity to meet Paris Agreement, *million tonnes*



9% of all CO<sub>2</sub> reductions to reach the Paris Agreement target are expected to come from CCUS according to the IEA<sup>1</sup>



CO<sub>2</sub> emission reductions, *Gt CO<sub>2</sub>*



Source: IEA, ICCT, Implement analysis  
 (1) CO<sub>2</sub> emissions reductions by measure in the Sustainable Development Scenario relative to the Stated Policies Scenario, 2010-2050, 2) Global CCS Institute

# How can biogenic carbon capture turn into new income streams for biogas operators?

Green CO<sub>2</sub>



Methane

## NEW REVENUE STREAMS FOR BIOGENIC CO<sub>2</sub> CAPTURED

### New commodities



Biogas plants by-products to generate new commodities  
→ CCU  
→ E.g. SAF, PtX

### Voluntary Carbon Market



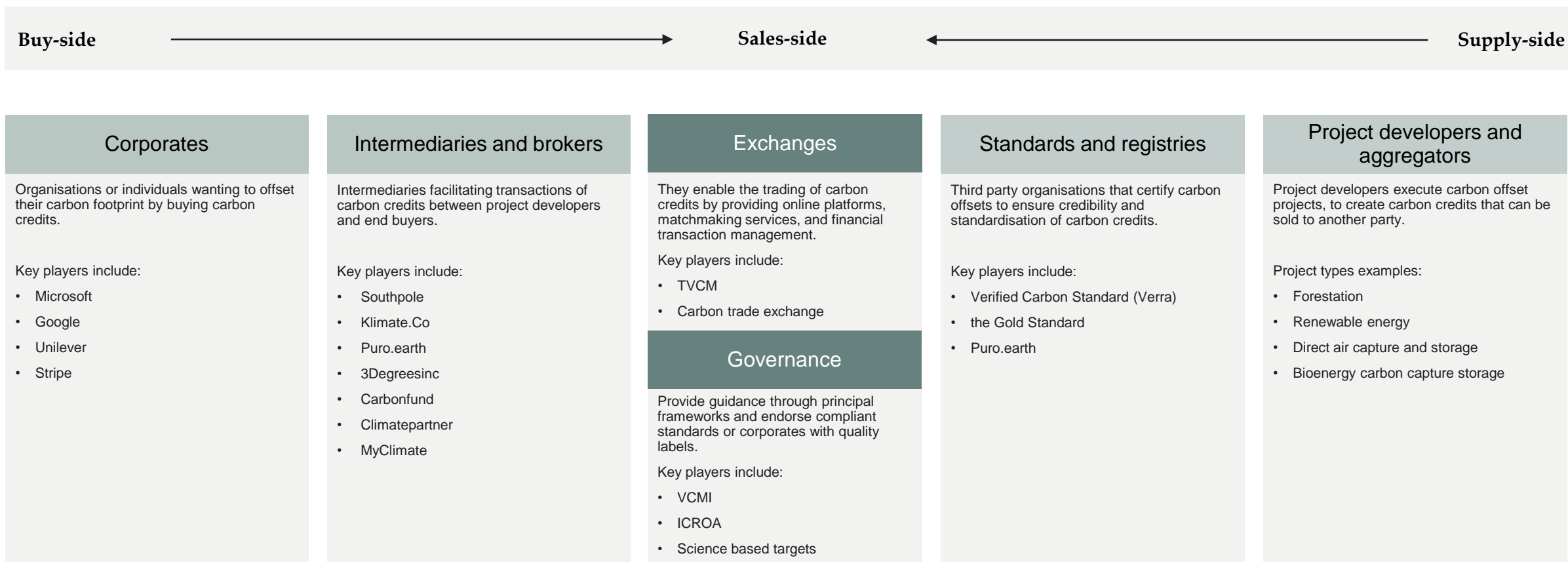
A marketplace for voluntary trades in climate projects  
→ CCS  
→ Certificates

### Public Funding Carbon Capture CAPEX and OPEX



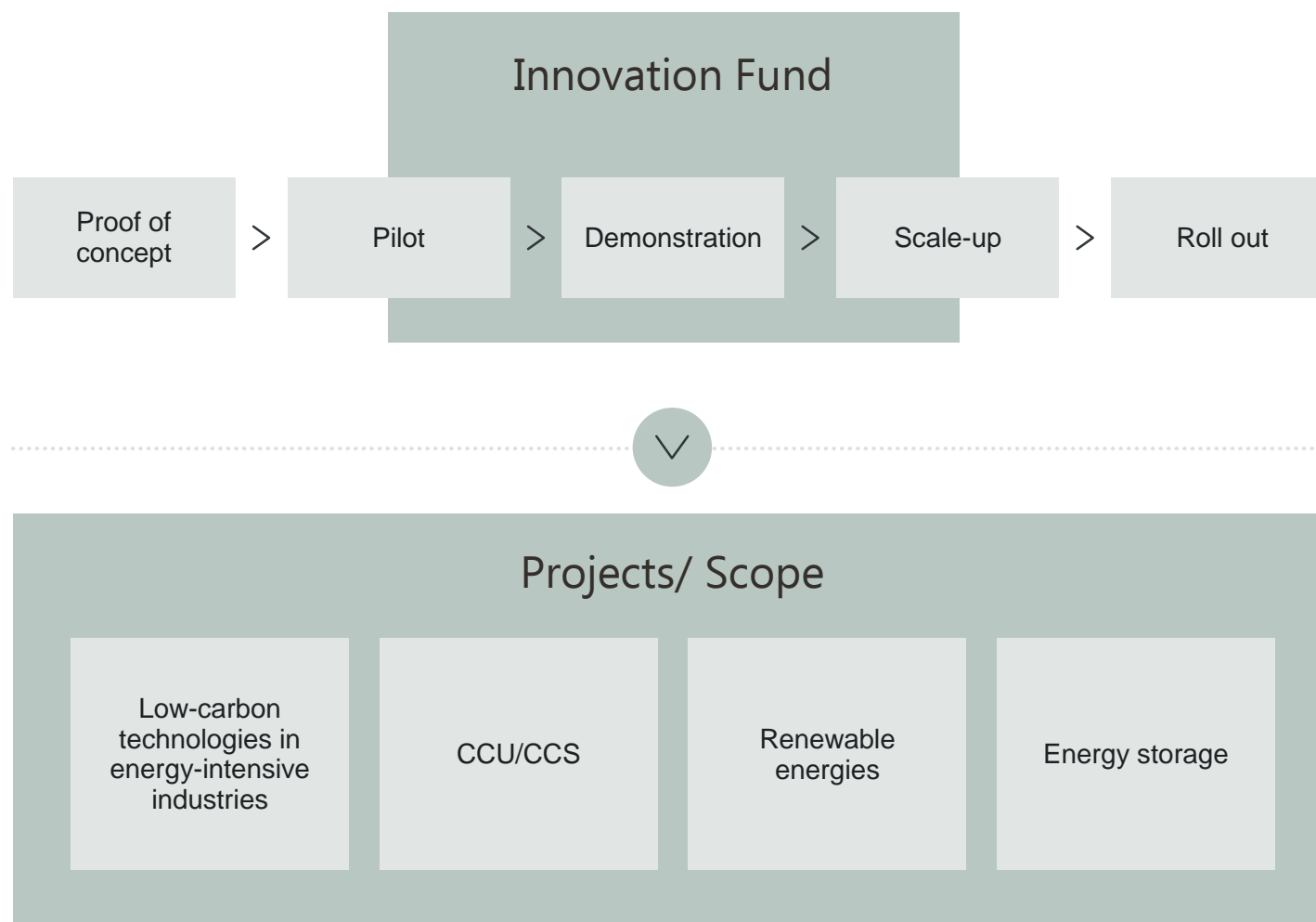
The EU Innovation Fund is the key source of public funding to CCS projects  
National schemes also underway, e.g. in Sweden (reverse auction) and Denmark (direct subsidy).

# The voluntary carbon market is a bilateral market, where intermediaries typically facilitate transactions of carbon certificates



# The EU Innovation Fund assists decarbonisation projects within the biogas industry with CapEx and OpEx support

- > The EU Innovation Fund supports highly innovative technologies and industrial solutions to the market for **decarbonizing Europe**
- > The focus is on funding the **first industrial implementation of innovative low-carbon technologies** that are not yet commercially available
- > The scheme targets legal entities in Member States, associated countries (incl. Norway and Iceland) and third countries – as long as the project is implemented on **European territory**
- > The maximum budget for this year is of **4 billion euros** for the LS call, with a 20% flexibility clause

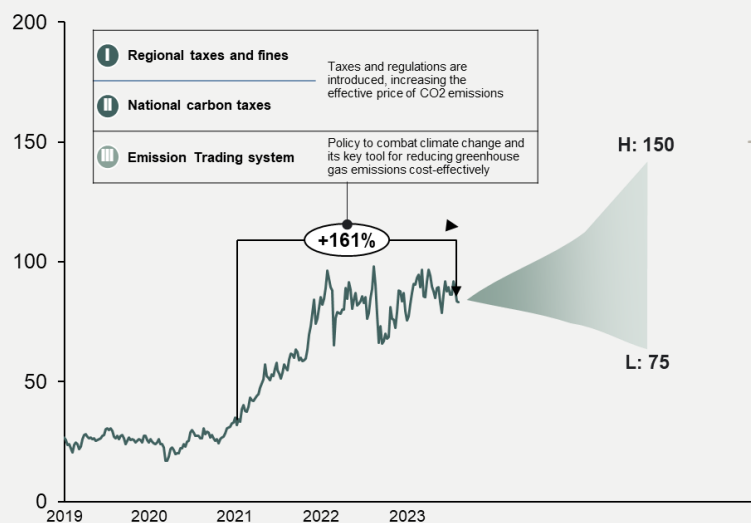




# It is sourced from ETS revenues and increased consistently over the years

- > The EUIF started at a CO<sub>2</sub> price **around EUR 20/ton**
- > Right now, the EUIF has a total committed budget of **EUR 40** with high likelihood to increase further to EUR 50bn

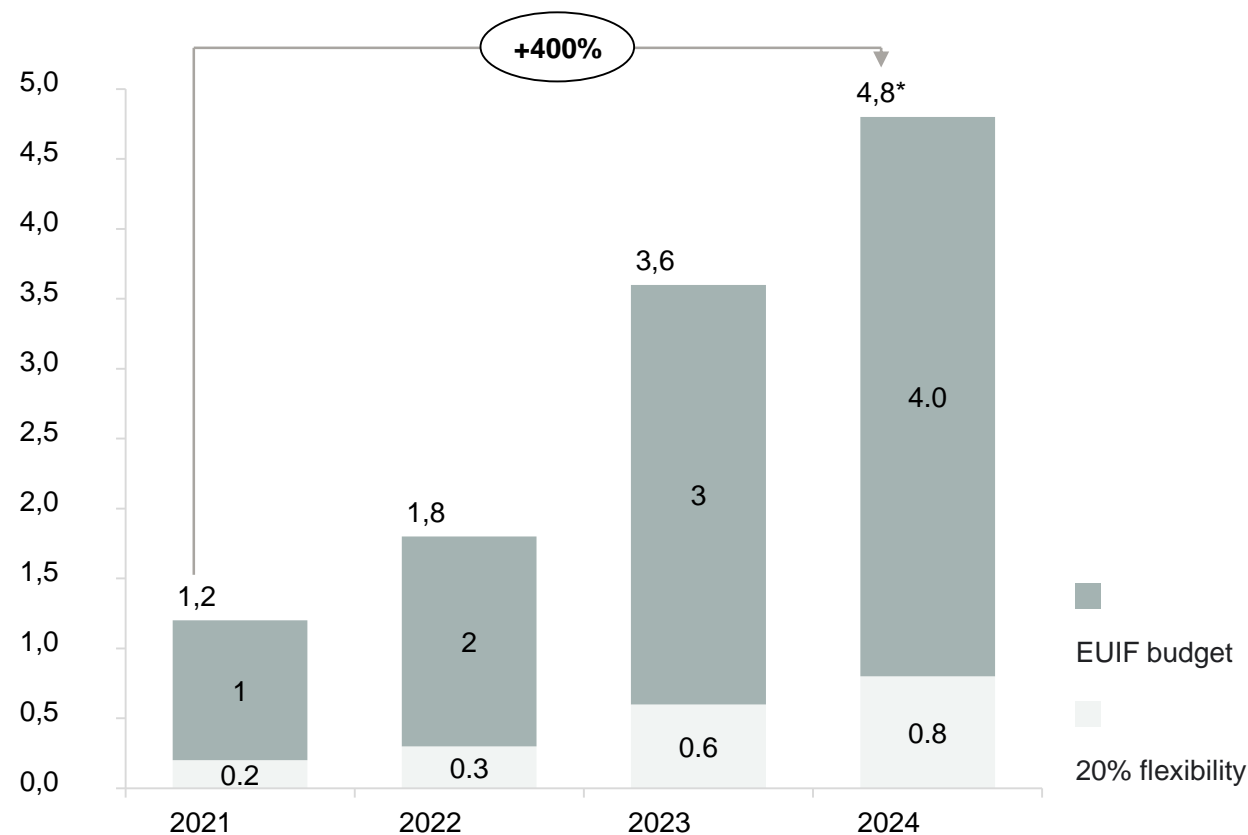
EUA futures prices, EUR/tonnes



## > Key hypotheses:


- The budget will keep expanding
- There will be room for bigger projects

EUIF budget evolutions (2020-2023) (b€)

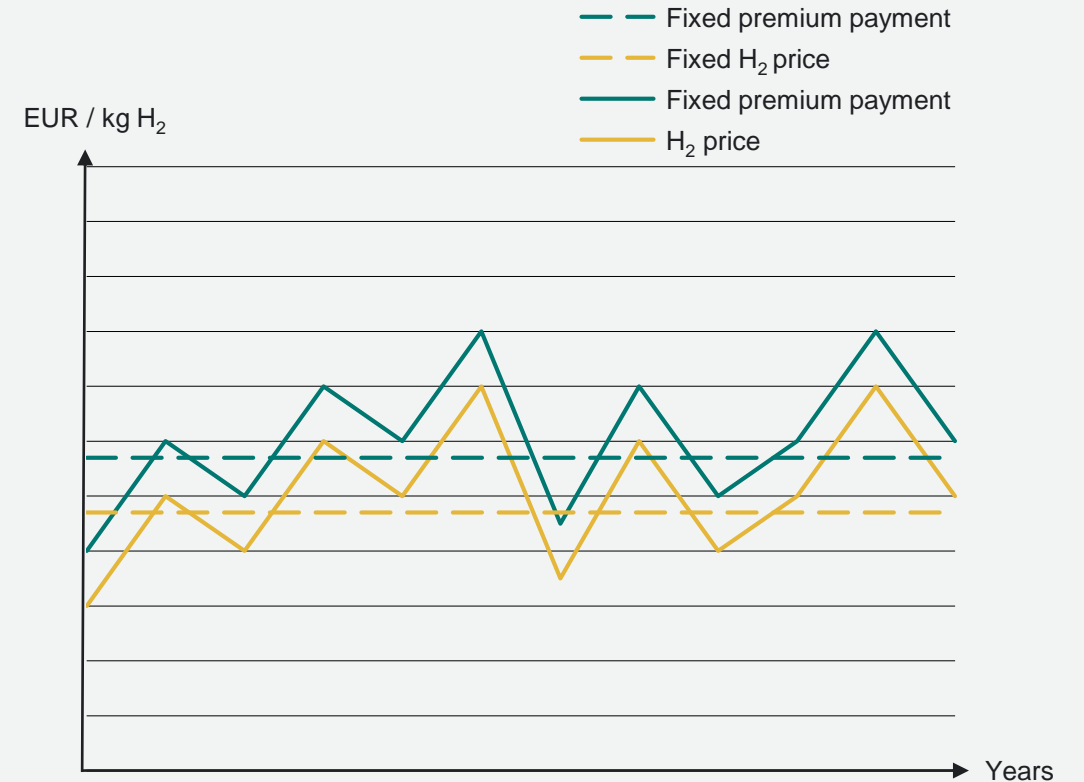


# In addition to the existing grants programme, the European Commission launched a new support mechanism of competitive bidding

The ETS Directive put forward a proposal that foresees the introduction of competitive bidding mechanisms to award funding. The objectives of the competitive bidding mechanism are four-folded.

<p>1</p> <p>Cost efficient way of distributing financial support. Auctions have been a major success story in the power sector in many Member States, bringing down the funding needs for renewable power by magnitudes.</p> 	<p>2</p> <p>Price discovery and market formation. If there is sufficient competition, auctions reveal the “real” price of the private sector for a given good</p> 
<p>3</p> <p>De-risking projects and leveraging private capital into them.</p> 	<p>4</p> <p>Reducing administrative burden.</p> 









EUIF Auction selected remuneration type: Fixed premium payment



# Evaluating your projects



# The calls have thematic windows with specific budget allocation and different success rates depending on the competition

	Windows			
	General decarbonisation 	Electrification & Hydrogen 	Manufacturing 	Pilots 
Activity	<ul style="list-style-type: none"> <li>Low-carbon technologies in ETS sectors</li> <li>CCU</li> <li>CCS</li> <li>Construction and operation of innovation RE and ES technologies</li> </ul>     <p>Low-carbon technologies in energy-intensive industries    CCU/CCS    Energy storage    Renewable energies</p>	<ul style="list-style-type: none"> <li>Innovative direct electrification of industry</li> <li>Innovative hydrogen production combined with application or storage</li> </ul>	<ul style="list-style-type: none"> <li>Production of components for RE installations</li> <li>Production of components for electrolyzers and fuel cells</li> <li>Production of components for energy storage solutions</li> <li>Heat pumps</li> </ul>	<ul style="list-style-type: none"> <li>Construction and operation of pilot projects to validate disruptive or breakthrough technologies</li> <li>Across all EUIF sectors</li> </ul>
Rate of success	8%	19%	28%	29%
Grant size	Average 100-150M€			Max. 40 M€
Example	Carbon Capture and sequestration	Production of green hydrogen and hydrogen storage	Electrolyser manufacturing	Novel electrolysis process technologies (e.g. super critical water gasification)

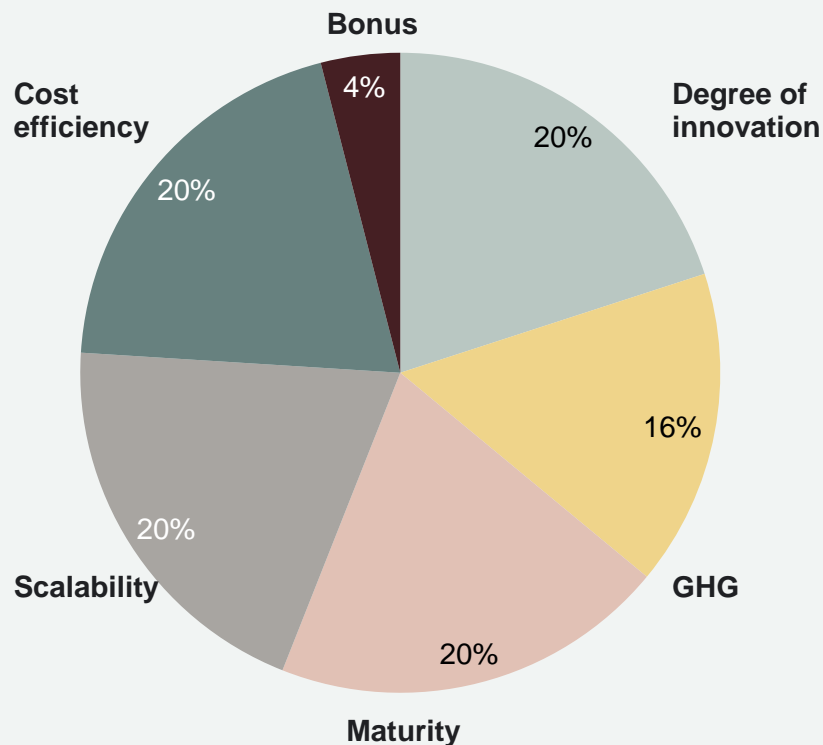
- The above table speaks for 2023 -

## Information about the upcoming call for action:

Due to the *revision of the ETS* new sectors (e.g., maritime, aviation) will be part of the scope of the upcoming calls. In addition, the mechanism of competitive bidding is introduced for H<sub>2</sub> pilot auction.

# There are five award winning criteria, and the scoring depends on the window of application chosen

## Overview of the scoring weighting for the general window



To be in a striking range, you need to aim to get 90% points, i.e. a score of 67,5 points out of 75

<b>Degree of innovation</b> [15 pts]	Innovation in relation to the state-of-the-art [9/15]		
<b>GHG emissions avoidance</b> [12 pts]	Absolute GHG [2]	Relative GHG [5]	Quality of calculations, min. requirements [3/5]
<b>Maturity</b> [15 pts]	Technical [3/5]	Operational [3/5]	Financial [3/5]
<b>Scalability</b> [9/15 pts]	Efficiency gains	Further technology or solutions deployment	Quality of KSP
<b>Cost efficiency</b> [15 pts]	Cost efficiency ratio [12]	Quality and credibility of cost calculation [3]	
<b>Bonus points</b> [3 pts]	Net carbon removals [1]	Other GHG savings [1]	Additional RE [1]

Max of 75 points

# The effort to write the application requires high efforts, because the evaluation criteria require different deliverables

		EVALUATION CRITERIA						
		GHG emissions avoidance potential	Degree of innovation	Maturity			Scalability	Cost efficiency
				Technical	Financial	Operational		
DELIVERABLES	Part B (80 pages)	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
	Knowledge Sharing Plan (60 pages)							
	Business Plan (60 pages)				<input checked="" type="checkbox"/>			
	Detailed budget table / relevant cost calculator + detailed financial model sheets							<input checked="" type="checkbox"/>
	Participant information (incl. CVs and previous projects)					<input checked="" type="checkbox"/>		
	Feasibility Study (60 pages)	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>				
	GHG emissions calculator	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>				<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
	Timetable / GANTT chart					<input checked="" type="checkbox"/>		
	Existing due diligence reports, permits, licenses, authorisations, agreements and LOIs/LOSs	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	

**Keep in mind**

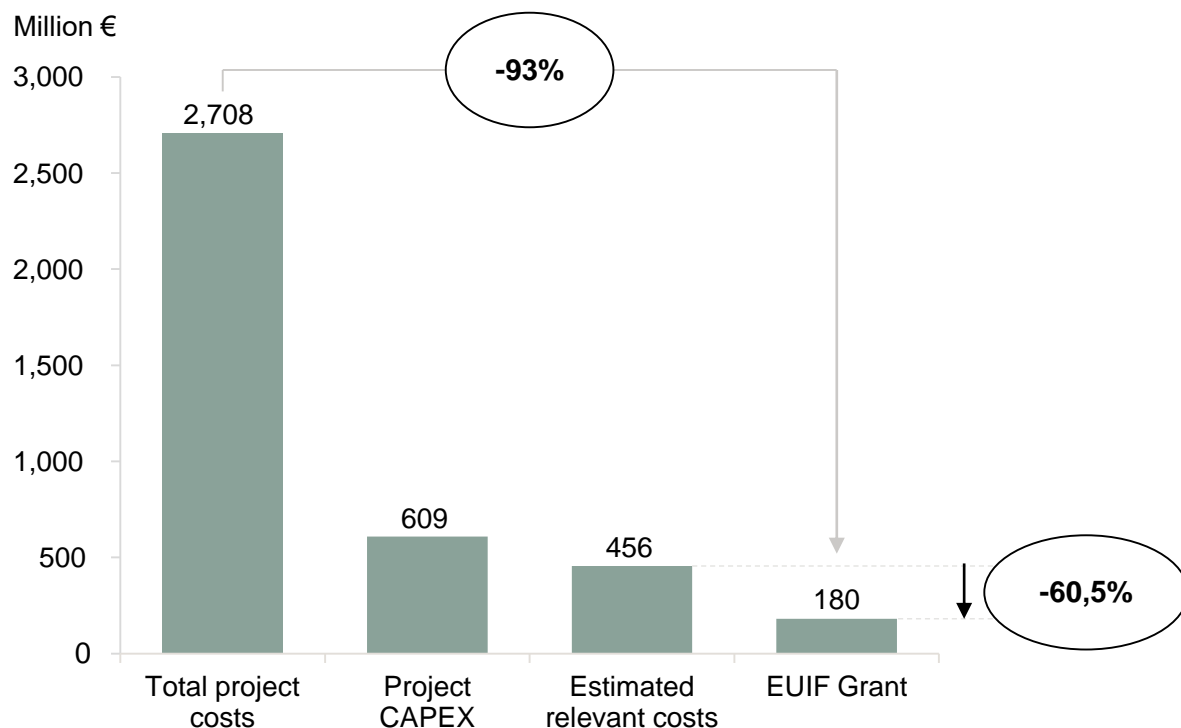
- The total required documentation is **well above 300 pages**
- Maturity only represents **20% of the score** but is split across three demanding sub-criteria, each of which require extensive documentation
- The audits requirements are gone (at application stage!)

# The grant covers the additional costs associated with the highly innovative and risky nature of the project investments

The grant covers only a fraction of the total project costs...

...and is defined based on the relevant cost basis

## Breakdown of the funding structure for project BECCS



“The relevant costs shall be the additional costs that are borne by the applicant as a result of the application of the innovative technology related to GHG emissions avoidance.

They shall be calculated as the difference between the best estimate of the total CAPEX, the NPV of OPEX and benefits arising during 10 years after the entry of operation of the project compared to the result of the same calculation for a conventional production with the same capacity in terms of effective production of the respective final product.”

- Grant paid in **lump sum** > Payments depend on achievement of the results and completion of WPs
- The Innovation Fund supports **up to 60% of the relevant costs** of projects. > Your need other financial instruments, equity or debt
- The EU Innovation Fund can be combined with **additional public financing** > Depending on the instrument and applicable state aid rules

Let's wrap up and clarify  
what can maximise  
chances of success?



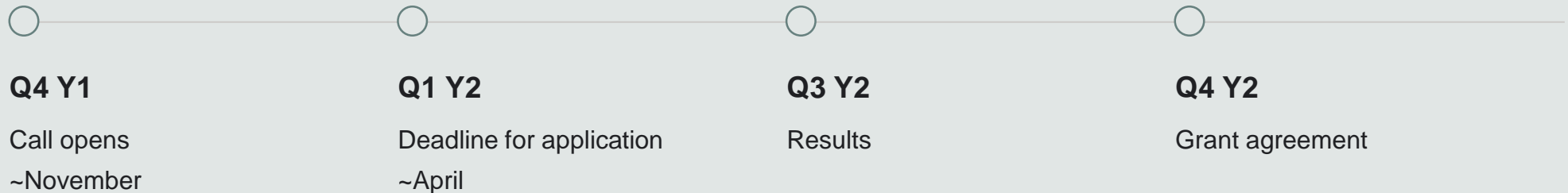


# Before you engage with the EU Innovation Fund, be aware that...

## Remember

- > The total required documentation ranges between **300 – 500 pages**
- > Compare with benchmarks, specifically on funding efficiency
- > Technical and financial **maturity** of the project are key to success
- > Ensure financial security of the project and income streams
- > **Allocate resources and budget** to the project and start early
- > Find the “**sweet spot**” between innovation and maturity
- > Identify **critical deal breakers** in the project
- > Get **board/CEO** approval early on

## Timeline



# Thank you.

Implement Consulting Group



# Sabrina kiss



## Experience

Implement Consulting Group, Management Consultant (2021-) // UniCredit Bank, Business Analyst (2021) // Skipsolabs, Account Manager for International clients (2020-2021) // The European House Ambrosetti, Consulting Intern (2019) // 180 Degrees Consulting, Student Consultant (2018-2019) // Federazione Italiana Badminton, Math Tutor (2015-2016)

## Education

Master's Degree in Global Management, London School of Economics (2020) // CEMS Masters Degree in International Strategy, Tsinghua University (2020) // Bachelor's Degree in International Economics and Management, Bocconi University (2018)

## Selected projects

- Retail (2023 - ): Track lead on a climate target setting strategy and roadmap design for a multinational Swedish retailer's investment unit.
- Financial services (2023 -): Sustainability Operating Model.
- Industrial goods and services (2022-2023): EU Sustainability Funding Application
- Professional and technical services (2022): EcoVadis certification
- Industrial goods and services (2021-2022): E2E transformation for a better customer experience
- Financial services (2021): Group-wide Data Quality Management and transformation project
- Financial services (2021): Climate Risk Action Plan
- Financial services (2021): Relaunching the retail-corporate collaboration model
- Financial services (2020-2021): Tailoring an Open Innovation platform to the client's needs and goals
- Technology, media and telecom (2020): New revenue generation models
- Consumer goods and services (2019): Optimizing SKU allocations and boosting the customer experience



Sabrina works as a consultant in the Energy and Climate practice at Implement Consulting Group. Her passion is helping organizations play a relevant role in driving the transition to a more sustainable world. Sabrina is specialized in working at the intersection of sustainability and financial services both as a consultant and from her previous work in a pan-European bank. However, she has worked across multiple industries with projects ranging from ESG strategy, governance, operating models, regulatory implementation and funding.

She has helped companies apply to and win across different buckets of the EUIF, where she has been particularly passionate about identifying opportunities to scale impact across different stakeholders, value chains and industries in Europe.



# Merle doliwa



## Experience

Implement Consulting Group Germany GmbH, Management Consultant (2022-) // K.D. Feddersen Holding GmbH (port F), Sustainability Manager at port F (2021-2022) // Institute of Technology & Innovation Management, Student Assistant (2018-2021) // Mercedes-Benz Group AG, Internship (2018) // Nordex Energy GmbH, Internship & Working student (2016)

## Education

Master of Science, Hamburg University of Technology (2020) // Semester Abroad (Singapore), National University of Singapore (2019) // Bachelor of Engineering, University of Applied Science Flensburg (2017) // Semester Abroad (Indonesia), Universitas Gadjah Mada (2017)

## Selected projects

- Industrial goods and services (2023): Circular Business Model Fact Pack
- Industrial goods and services (2022-2023): Assessment of EU Funding Opportunities & EU LIFE Application
- Energy and climate (2022): Market analysis for floating offshore wind turbines
- Consumer goods and services (2023): Development of Sustainable Strategy incl. Reporting, Carbon Abatement Roadmap, Supplier Management
- Industrial goods and services (2022): Strategic Foresight
- Industrial goods and services (2021): Business model transformation through servitization
- Transport and logistics (2018): Design Thinking Workshop
- Industrial goods and services (2016): Process optimization to reduce time-to-market



Merle works as a consultant in the Energy and Climate practice at Implement Consulting Group. She is passionate about sustainable strategies and helping organization in making change happen. With her generalist knowledge of sustainability ranging from energy to environmental matters, Merle helps companies to transform themselves and to look at things in an interconnected way. As an industrial engineer, she enjoys tackling technical challenges that need to be solved and linking them to economic feasibility.

She has helped companies identify the right funding program, apply to and win the EU LIFE program, where she has been particularly passionate about identifying and assessing the impacts for her clients.