

# **Recent Progress in the Development of a Carbon Management Strategy for Germany**

## **Status Quo and Remaining Challenges**

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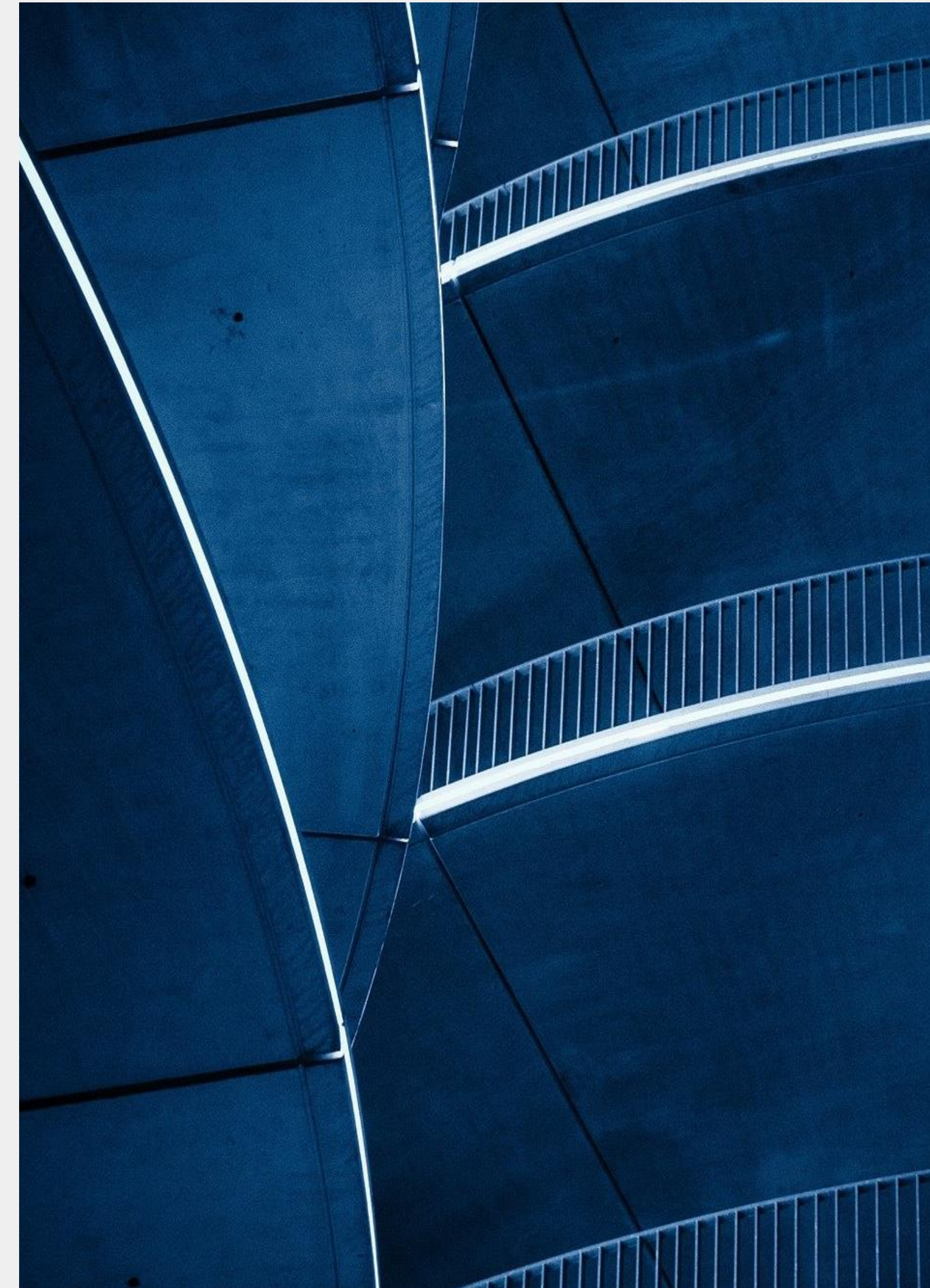
Project Coordinator CCS Forum

Bellona Deutschland

SCCS Annual Conference 2024

## Agenda

1. About Bellona Germany
2. A Brief History of CCS in Germany
3. Recent Progress in Germany's Carbon Management Strategy
4. Remaining Challenges



# **1. About Bellona Germany**



## About Bellona

- International, independent climate and environmental protection NGO
- Founded in 1986 in Oslo
- In Brussels since 1994 with a focus on EU policy
- Bellona Germany in Berlin since 2021 to promote industrial transformation

CCS

CDR

Hydrogen

Green Lead  
Markets



Green  
cement

Green  
steel

**3.**

**A Brief History of CCS in Germany**

## A Brief History of CCS in Germany



Old poster of a German citizens' initiative; "Endlager" is a term exclusively used for the permanent storage of nuclear waste; source: Bürgerinitiative gegen CO2-Endlager e.V.; 19/11/2024 ([https://keinco2endlager.de/wp-content/uploads/2015/06/newsletter\\_logo.jpg](https://keinco2endlager.de/wp-content/uploads/2015/06/newsletter_logo.jpg))

- **Historical burden:** Discussion about CCS as an option for extending coal-fired power generation in the 00s; connection to extending the use of fossil fuels
- Safety concerns
- **Very low rate of public acceptance;** well organized citizens' initiatives → quick death of CCS Political consensus at the time: **No CCS in Germany**
- 2012: KSpG initially only enabled trial and test applications
- Unviability of the previous (political) consensus in view of the goal of **climate neutrality by 2045**
- New initiative: strategic focus for the use of CCS on **hard- or impossible-to-abate emissions**

## A Brief History of CCS in Germany – The Restart



Federal Minister of Economic Affairs and Climate Protection Dr. Robert Habeck (Alliance 90/The Greens) presenting the Key Points Paper on the Carbon Management Strategy (February 2024); source: Bundesministerium für Wirtschaft und Klimaschutz 26/02/2024 (<https://youtu.be/KBHGv4z-spA?si=fAzPytGWG9Wiqi17>)

- New **focus**: Industry CCS → hard to abate industries
- Climate value + value creation
- Extensive **stakeholder process** with participation of environmental NGOs, Think Tanks as well as industry representatives
- Results:
  - Key Points Paper in February 2024; second iteration in May 2024
  - New KSp(T)G – CO<sub>2</sub>-Transport and -Storage Law
  - Parliamentary process of the KSp(T)G: Lively debate in the German parliament; less heated than in the past



# 4.

## **Recent Progress in Germany's Carbon Management Strategy**

## Features of the CMS / KSpTG – Overview

CCS/CCU is to be made possible in future by means of multimodal transport (preference for pipeline-based transport) and offshore storage in narrowly defined marine areas.

- **Objective** of the new KSpTG / CMS: Enable the development of CO<sub>2</sub> infrastructure for CCU/S → *climate infrastructure*
- **Focus areas** mentioned: cement, lime, waste incineration, parts of the chemical industry (HVCs) → *industry emissions*
- No longer limited to testing and demonstration → *scaling up quickly*
- Enabling **the export of CO<sub>2</sub>** via pipelines and to offshore storage sites & transit of CO<sub>2</sub> across German territory → *transboundary connections*
- key decision **private build-up of pipeline network** → *limiting public subsidies*

## Features of the CMS / KSpTG – Overview

CCS/CCU is to be made possible in future by means of multimodal transport (preference for pipeline-based transport) and offshore storage in narrowly defined marine areas.

- **Expansion of storage capacity** (i.e. injection capacity) is considered a bottleneck; law enables storage development "within" Germany (EEZ); onshore opt-in possible for federal states (Länder) → *technology sovereignty; responsibility*
- **Harmonisation of the regulatory/authorisation framework**; equal treatment of pipelines for CCU and CCS; now all regulated in the extended KSpTG → *one-stop shop law*
- Allowed: **all CO2 quantities that do not originate from domestic coal-fired power plants** (incl. gas-fired CHP, process heat and CHP) → *“technology openness”*

## Features of the CMS / KSpTG – Funding

Technology neutral transition with funding concentrated on applications with the highest climate value.

- Power generation facilities using **gaseous fuels** or biomass: application of CCS/CCU will continue to be legally possible with a view to a **technology-neutral transition to a climate-neutral electricity system**; but: **no funding** – no business case (?)
- Federal funding for industry and climate protection (**BIK**) [small and medium-sized companies]:
  - Admission criteria: Sectors with predominantly unavoidable CO2 emissions
  - Cover the entire process chain from capture to utilisation or storage
- **CCfDs** [large companies] [unsure if program will be continued under a new government (!)]:
  - Second round with CCU/S
  - Pending due to collapse of traffic lights coalition

## Features of the CMS / KSpTG – Funding

Technology neutral transition with funding concentrated on applications with the highest climate value.

### Funding for:

1. Sectors or facilities with **predominantly unavoidable emissions** → cement plants with clinker production and lime kilns; thermal waste treatment plants (only BIK); other Industrial plants whose emissions have been reduced by other measures...
2. Sectors or installations with **predominantly hard to abate emissions** → steamcrackers
3. Other sectors or installations with a **predominant share of emissions that are hard to abate (BIK)** → e.g. glass / ceramics, especially in R&D settings

# Challenges

- Some **environmental NGOs** are concerned because they think the already overused German North Sea is not suitable to storing CO<sub>2</sub>; “CCS on gas” remains an important issue → ***trust erosion***
- Current public opinion on CCS is difficult to assess → ***fragile status of the whole project***
- significant number of **sceptics** in the Green Party and SPD → ***no consensus***
- **Collapse of Germany’s traffic lights coalition** (SPD – Social Democrats, B90/Grüne – Greens, FDP – (Right Wing) Liberals); now: minority government; CDU/CSU (Conservatives) will almost certainly not cooperate on CMS/KSpTG
- The principle of discontinuity means that everything discussed in this legislature is obsolete; elections on 23 February 2025 → ***unclear directions***

**KSpTG parliamentary process stopped.  
CMS release pending.**

## Challenges

- But: CDU/CSU (currently leading the polls) are more **enthusiastic** about CCS/CCU
    - **Less willingness to pay for it:** dislike for CCfDs (vacuum: What other instruments to fund CCS?)
    - **Scale it up:** biomass (questionable sustainability)
    - More focus on **CCU** (questionable climate value)
  - CDU/CSU-led government will probably come up with their **own CMS / KSpTG** perhaps in summer (2025)
  - Most likely effect of government collapse: unnecessary **delay** of at least 6 months
- **Nobody wants to take the rap for CCS.**

**KSpTG parliamentary process stopped.  
CMS release pending.**

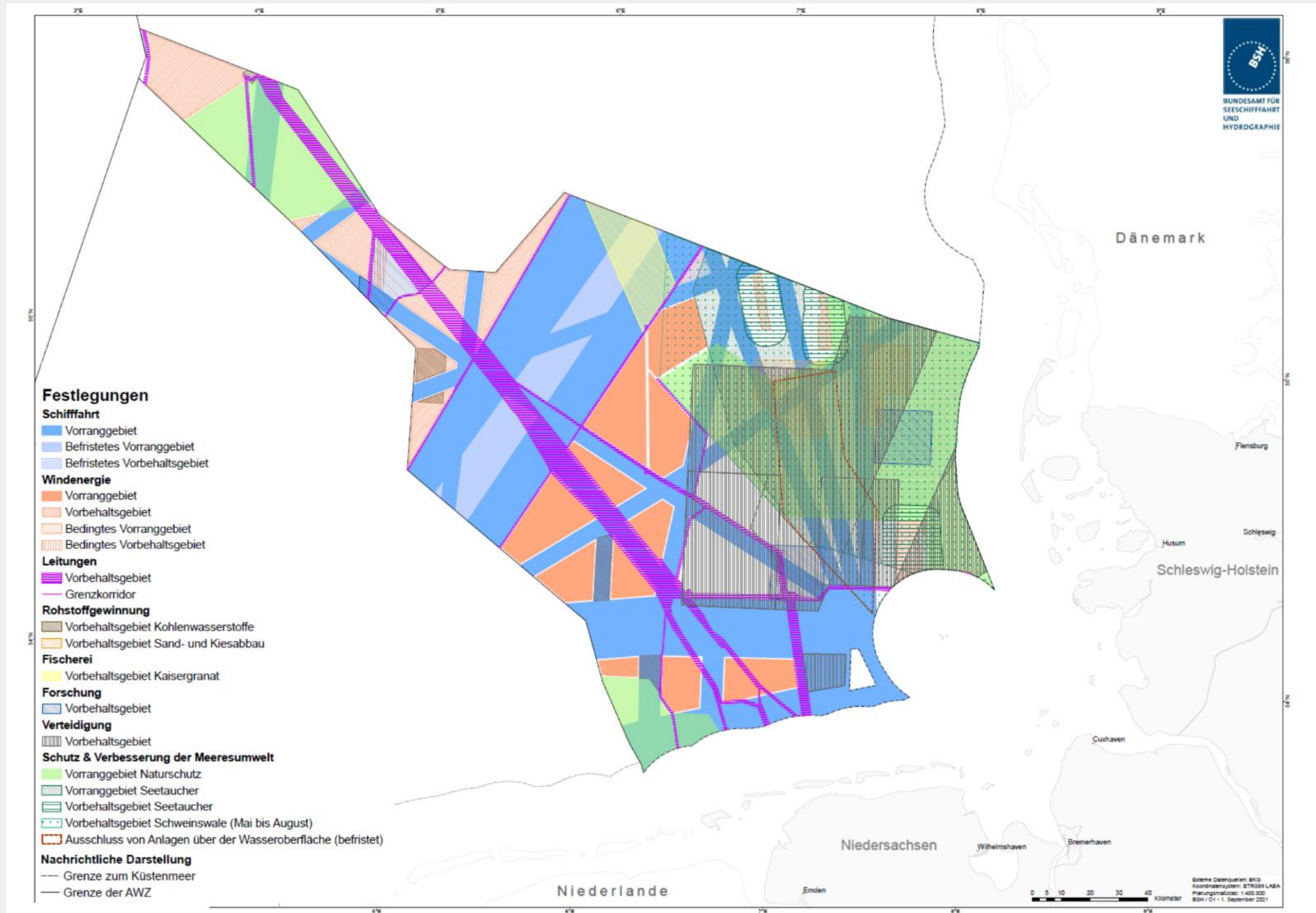
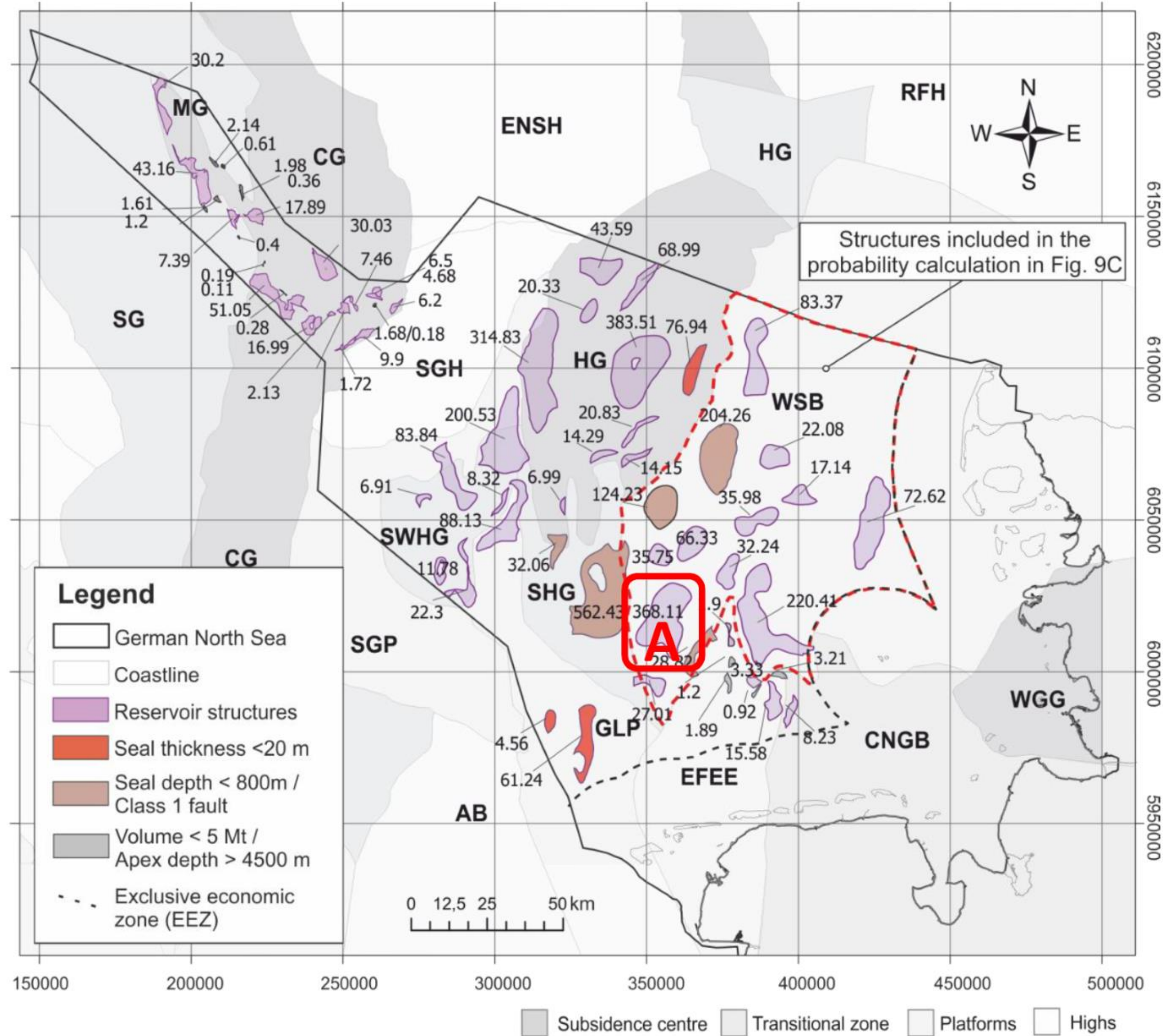


Abb. 5: Raumordnungsplan für die deutsche Ausschließliche Wirtschaftszone (2021) – Kartendarstellung, Teil Nordsee (Quelle: [BSH 2021](#))



## Potential storage formations



Potentielle Speicherformationen in der Deutschen AWZ (BGR, 2024)

# 5. Recommendations and Key Asks

# Recommendations and Key Asks for the Ongoing Political Process

1. Clear rules for environmentally compatible land management and ways of compensating for adverse effects needed (**marine spatial planning**)
2. Clear **rules for CCS use cases** and **reflection of the systemic conditions** of these application scenarios, including the availability of alternatives; make sure alternative solutions are funded
3. Concrete governance solutions must be developed for **complex economic problems**; state has an important coordinating role to play in preparing the market
4. Meaningful links to the **negative emissions strategy** and **circular economy strategy**
5. **Funding: If you don't like CCfDs, you have to come up with something else!** There will be no CCS just based on ETS costs in the foreseeable future.

1. The early-stage regulatory framework **shows the government's understanding of targeted CCS applications**
2. The devil is in the detail: The future of climate-positive CCS will be determined by the **funding scheme** and accompanying **governance mechanisms**
3. Keep it **simple** and try to build a **societal consensus!**
4. Rapid **ramp-up of CCS is crucial for climate protection** (Hierarchy ≠ Chronology)

- Bellona / E3G **Carbon Capture and Storage Ladder**:  
<https://bellona.org/news/industry/2023-07-carbon-capture-and-storage-ladder-assessing-the-climate-value-of-ccs-applications-in-europe>
- Discussion paper on the **status of the CCS discourse in Germany** (in German): <https://de.bellona.org/publication/die-rolle-von-ccs-als-ein-baustein-fuer-den-klimaschutz-in-deutschland/>
- Introductory **Conflation of Terms** paper in the field of “Carbon Capture Technologies”: <https://eu.bellona.org/publication/clearing-conflations-on-carbon-capture-terminologies/>
- Detailed **statement by Bellona Germany on the key points of the CMS / draft KSp(T)G** (in German):  
<https://de.bellona.org/publication/verbaendeanhoerung-cms/>
- The challenges of “**first-mover projects**” in the CCS sector : [First foot forward: The importance of CCS first-mover projects for accelerating the industrial green transition - Bellona EU](#)
- Upcoming: Discussion paper on concerns about the impact of CCS on the transformation of industry + extended commentary on the Carbon Management Strategy (in German)



**Thank you!**



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