

Carbon Capture and Storage

Legal Perspective of CCS in Europe and Germany

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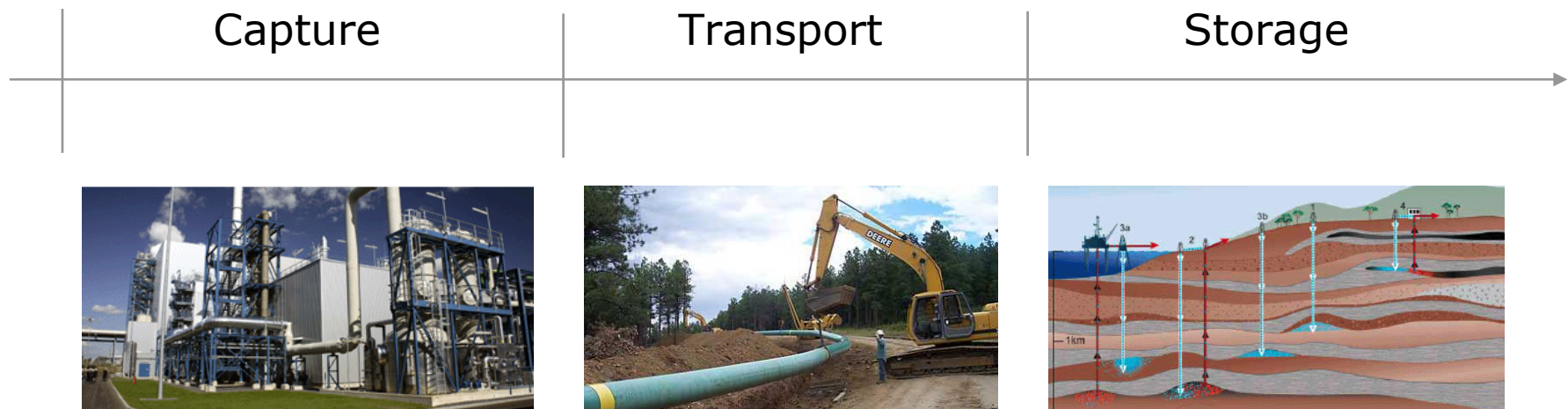
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Agenda

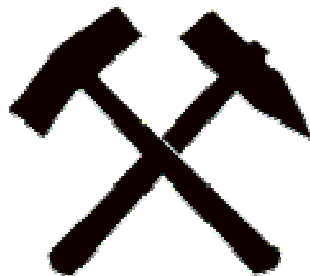
- Why is there a need for a CCS Act?
- Until when do we have to implement a CCS Act?
- Which provisions should a CCS Act contain?
- What is in the current discussion?



Why is there a need for a CCS Act?

■ Current environmental law covers CCS only rudimentary

- National and European waste, mining and water law apply
- if waste law applies to CO₂ underground storage is prohibited
- under mining law CCS may be permitted when CO₂ is used for enhancing oil or gas drilling („enhanced oil/gas recovery“)
- according to water law storage of CO₂ should be prohibited in aquifers but may be permitted in oil and gas fields



Why is there a need for a CCS Act?

■ Current law as basis for investments?

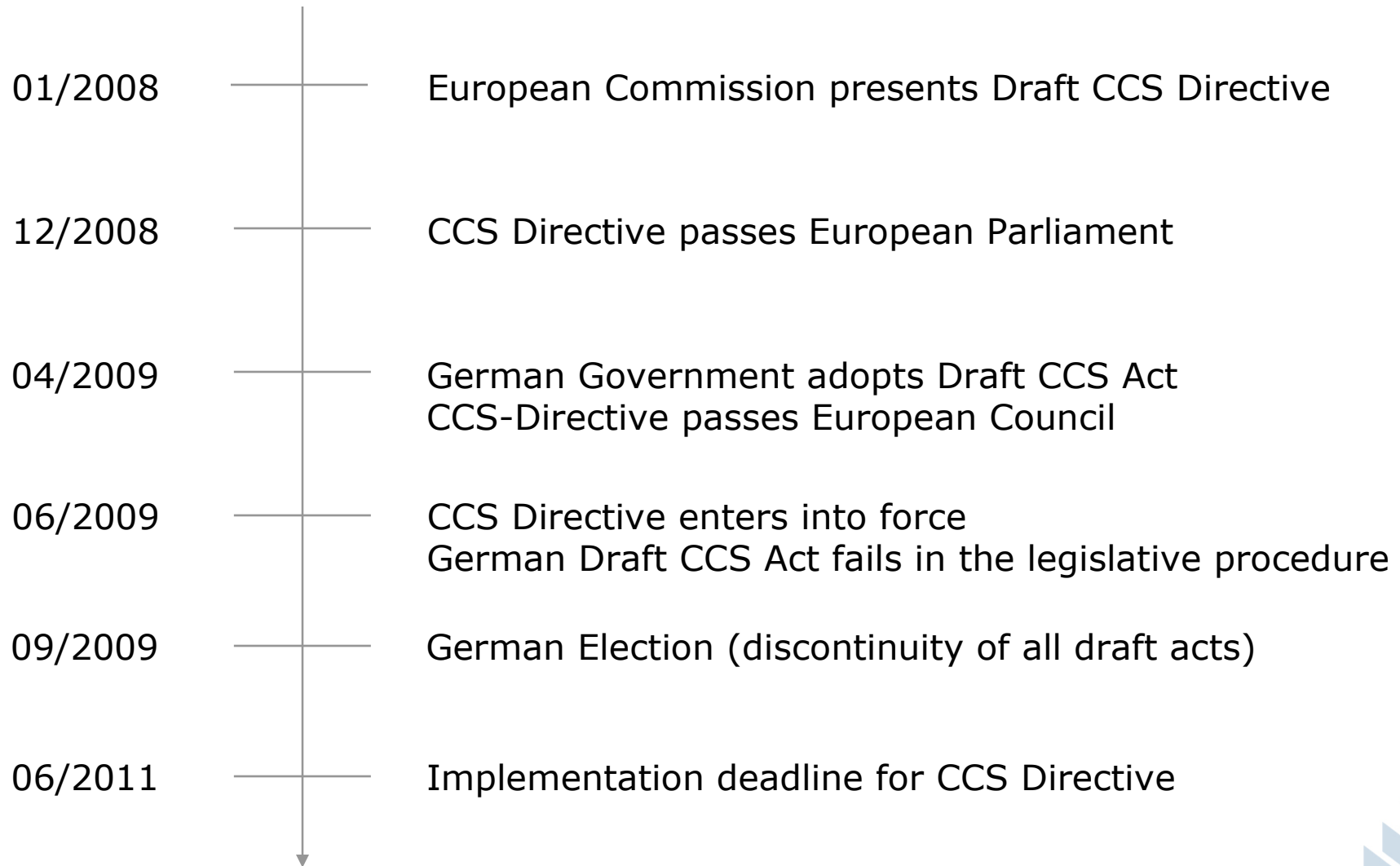
- current law is sufficient for pilot installations (Vattenfall/Schwarze Pumpe) as well as for research and development projects (CO2Sink/Ketzin)
- however, current environmental law does not cover the specific CCS technology and is therefore only rudimentary

■ Conclusion

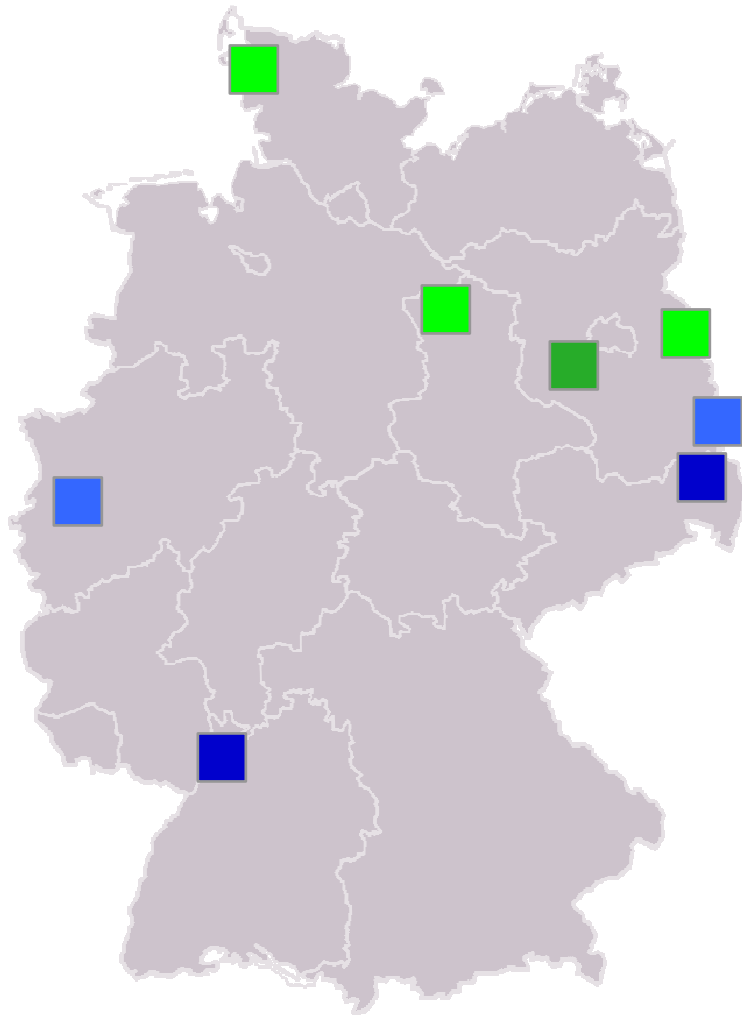
- for industrial use of CCS a specific legal framework is needed to provide legal certainty and investment security as well as to ensure a high environmental status



Until when do we have to implement a CCS Act?



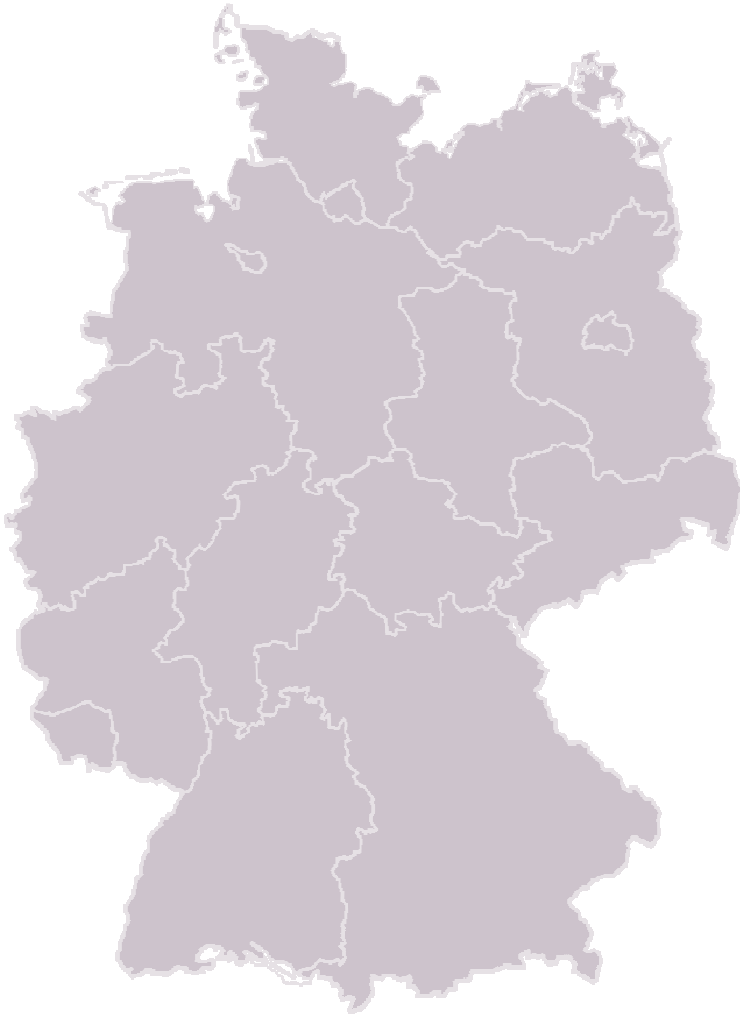
Until when do we have to implement a CCS Act?



- CCS plants in operation
- CCS plants planned
- CO2-SINK at Ketzin
- CO2 storage projects



Until when do we have to implement a CCS Act?



„We will implement the CCS Directive, shortly, providing for capture, transport, and storage of CO₂“



Until when do we have to implement a CCS Act?



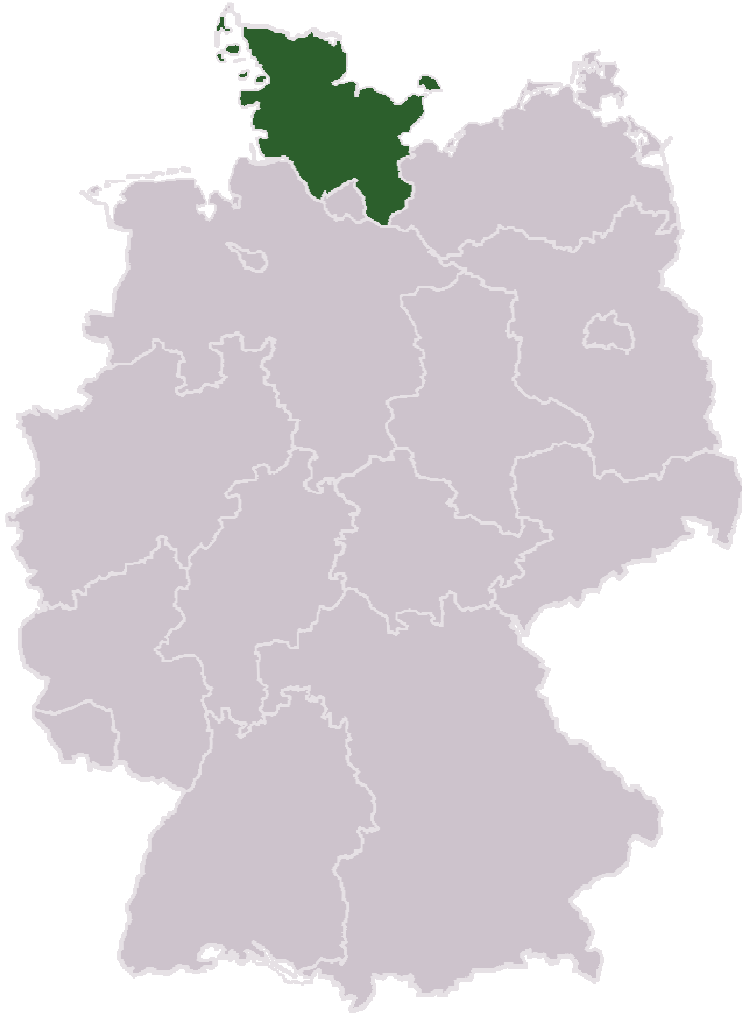
„... the state government advocates for the gradual conversion to CO₂ low power plants

... new lignite power plants shall from 2020 on only be permitted with significantly reduced CO₂ emissions ...

The coalition supports CCS research and development projects in Brandenburg.“



Until when do we have to implement a CCS Act?

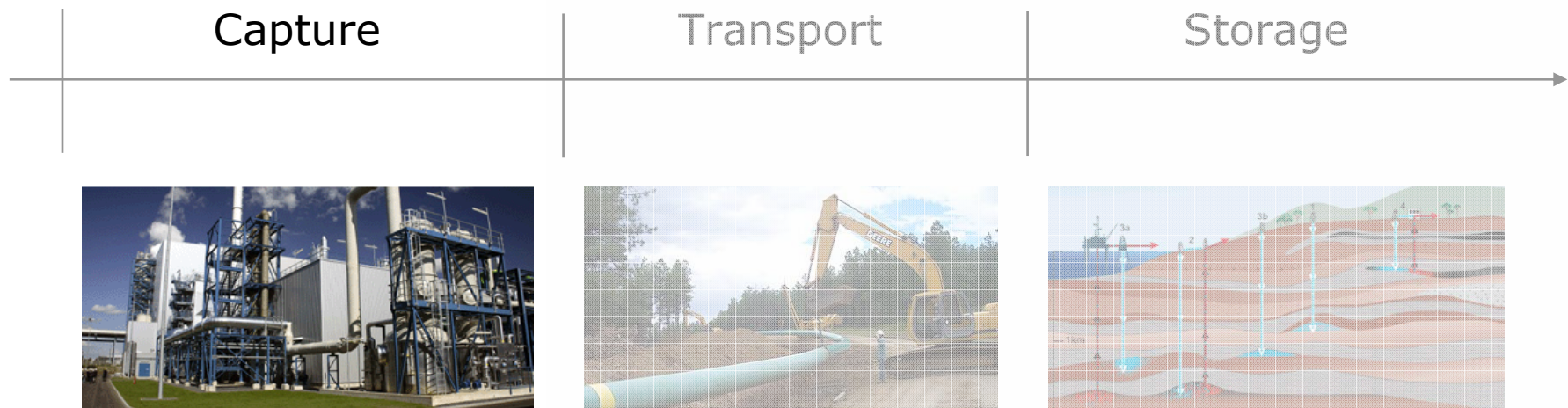


„Christan Democrats and Liberals object to CO2 storage in Schleswig-Holstein. ...

Schleswig-Holstein should be empowered to decline storage permits.“



Which provisions should a CCS Act contain?



Which parts of the CCS Act contain?

CO2 capture part of the permission process of **power plants**, according to the Federal Immission Control Act

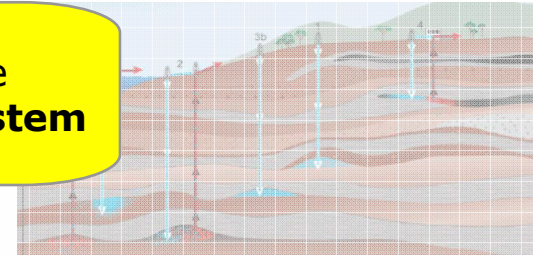
Capture

Transport

Storage



Integration into the **Emission Trading System**

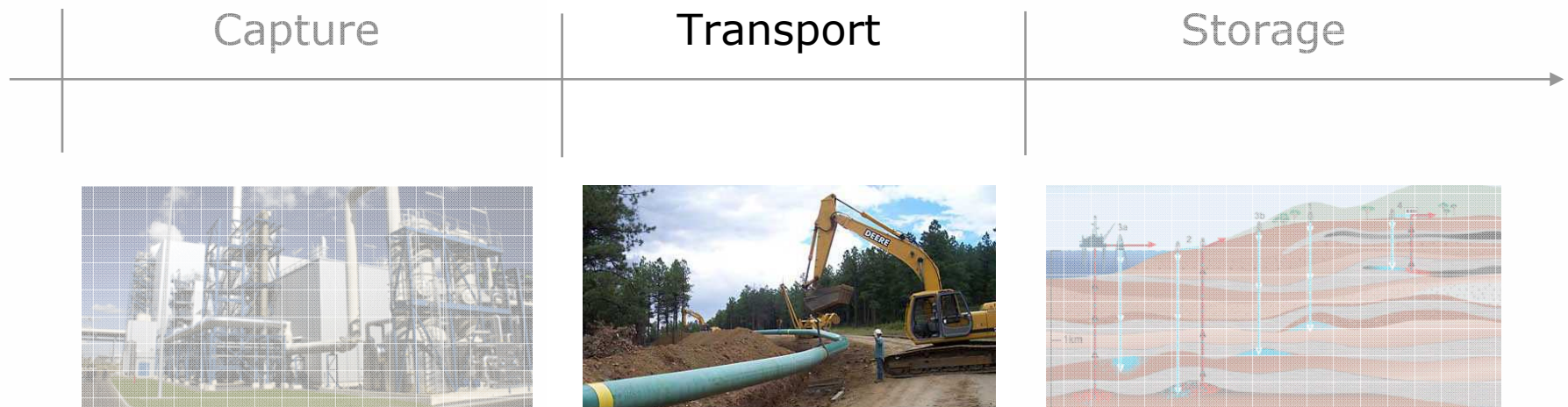


Capture-Readiness

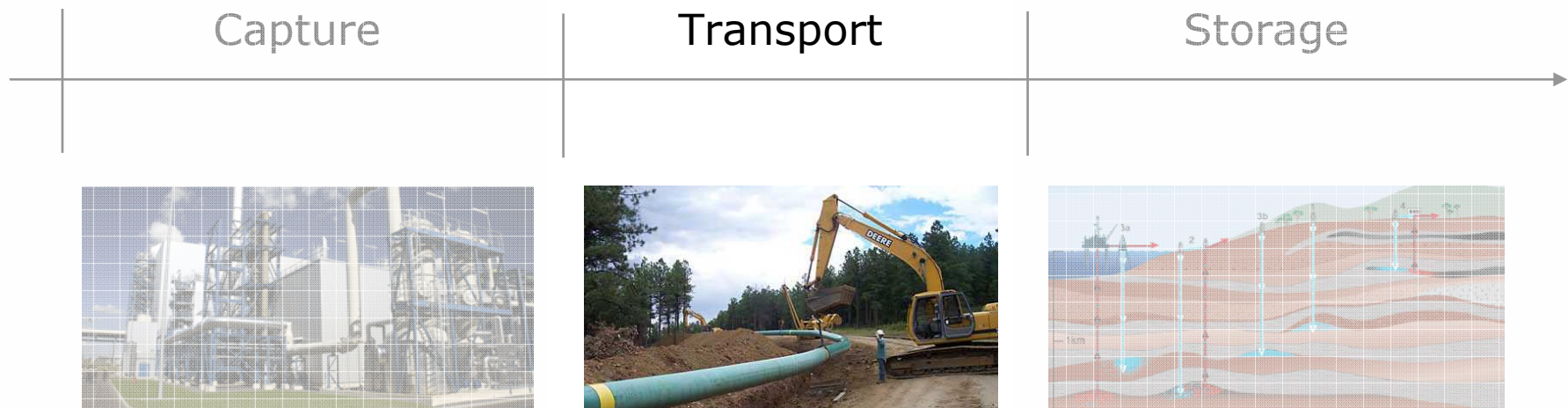
new large combustion plants (> 300 MW) must have suitable space for capture equipment and must have assessed availability and feasibility of CCS-retrofitting



Which provisions should a CCS Act contain?



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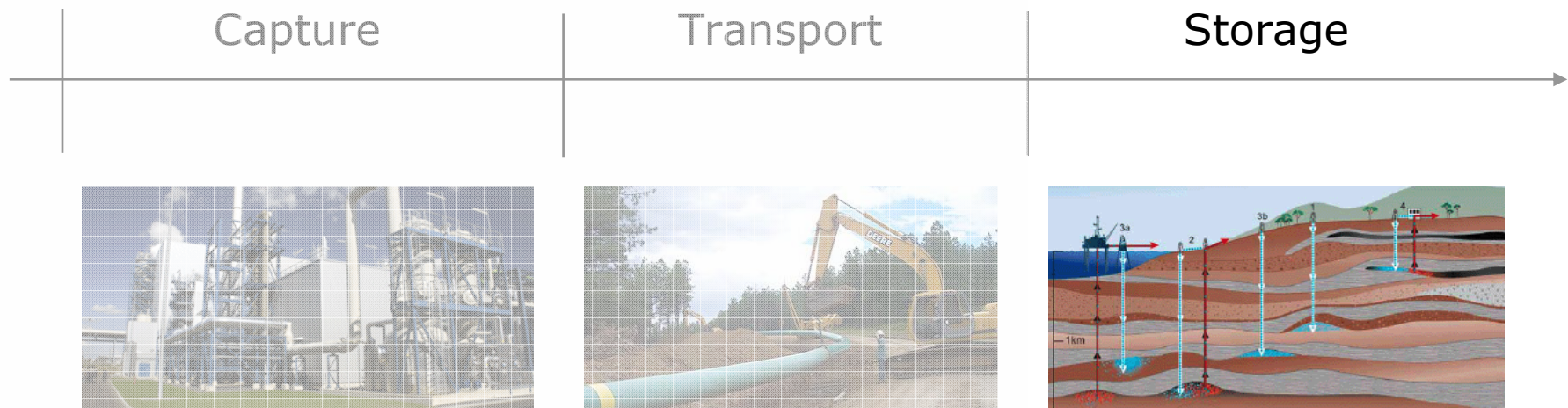


Permission

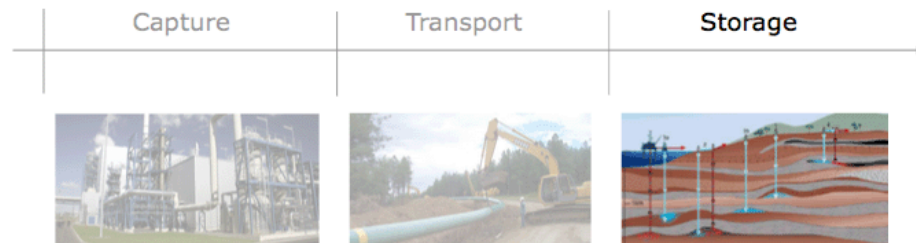
fast track procedure following the permission process for gas pipelines according to the law on the energy industry



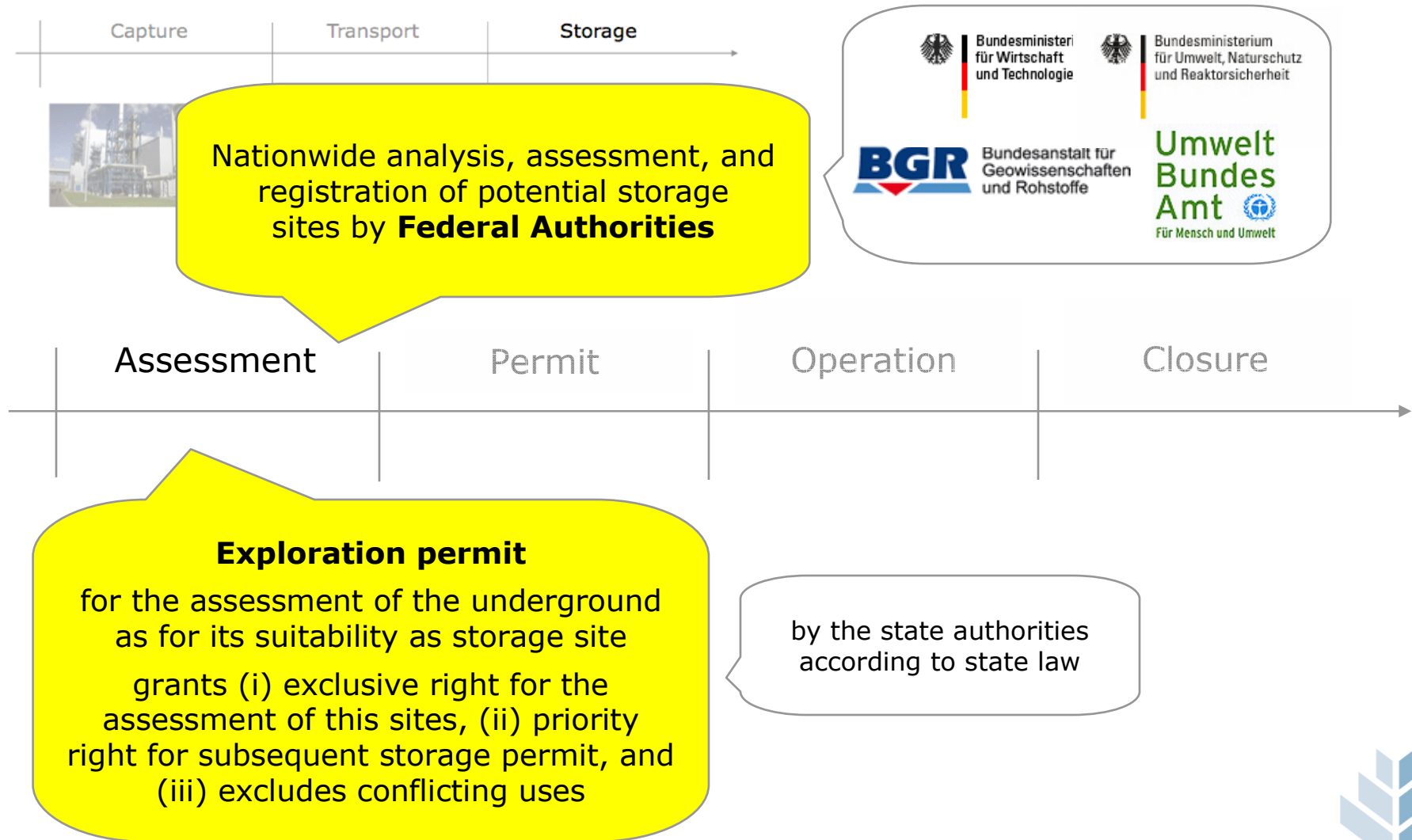
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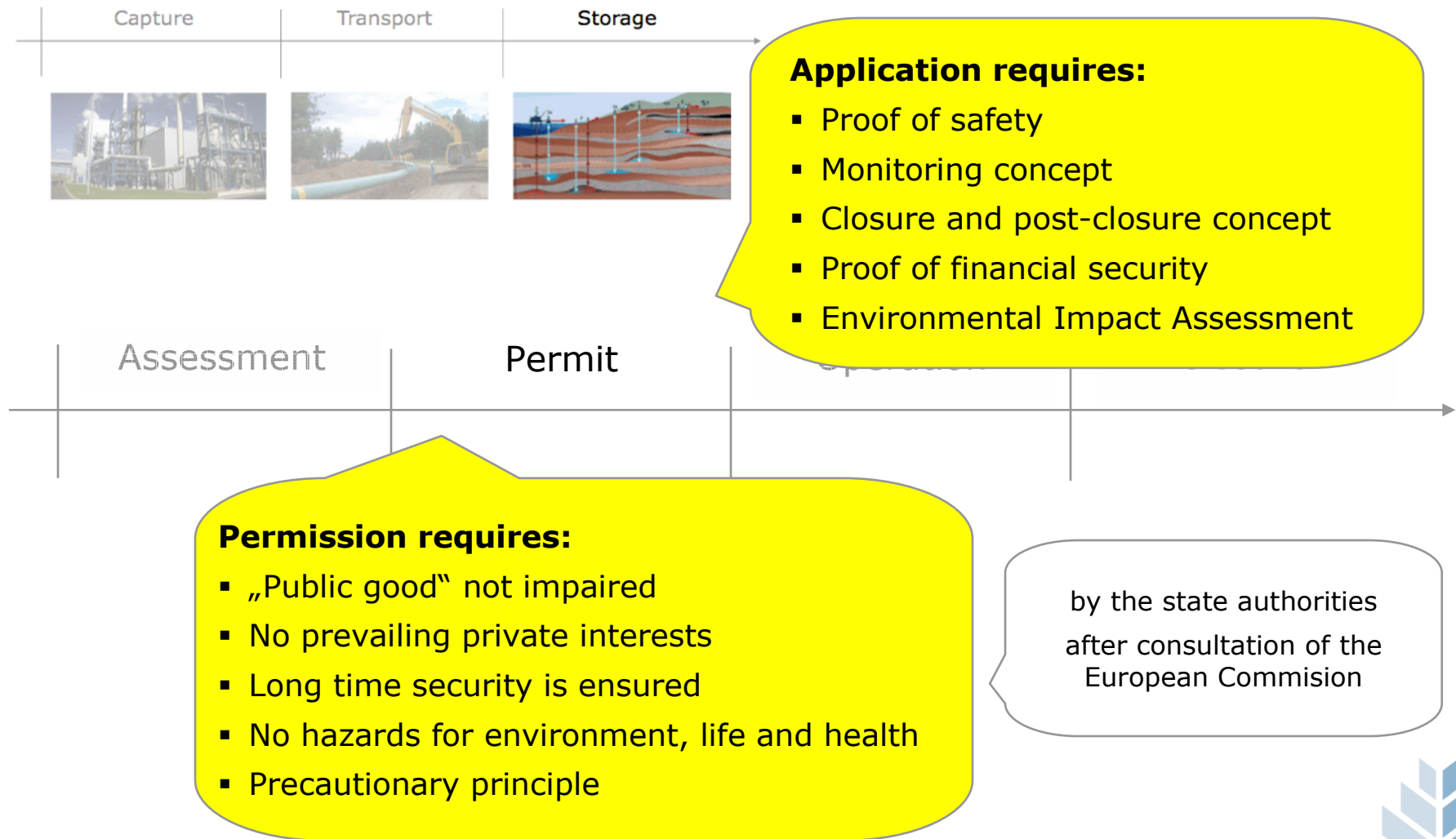
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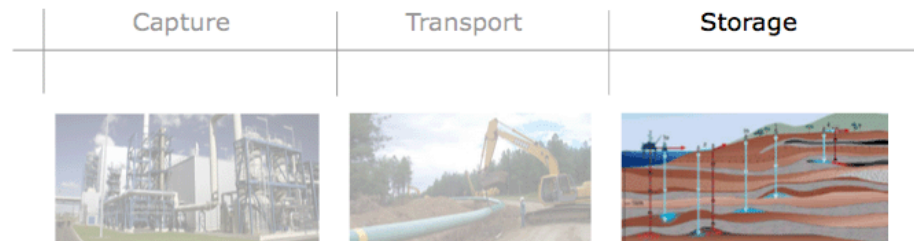
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Which provisions should a CCS Act contain?



CO2 streams:

- Consists overwhelmingly of CO2
- Only inevitable additives
- Compatibility with storage site
- No waste added



(Dynamic) Operation Duties

- Operator must monitor injection and storage
- Operator must immediately notify the authority and take corrective measures in case of leakage
- Authority may take corrective measures itself and recover the costs incurred
- Regular reporting and inspection duties and continuous revision and updating of all concepts
- Environmental Liability Directive applies for „local“ damage; Emissions Trading Scheme for „global“



Which provisions should a CCS Act contain?



- **Close down** as soon as permitted amount of CO2 has been injected
- Close down has to be permitted itself and is followed by the **post-closure regime**
- Closure and post-closure have to be carried out according to updated closure concepts

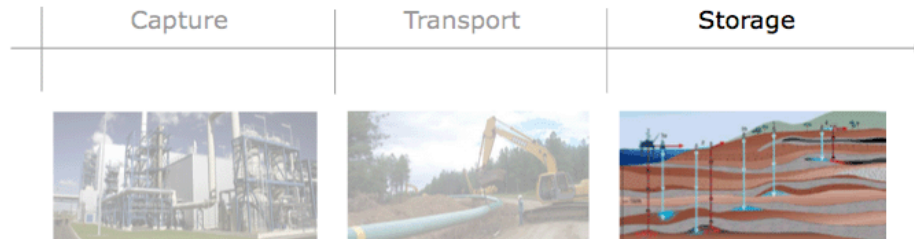


Transfer of liability

- to the state after 30 years (EU: 20 years)
- closure plan has been fulfilled
- all evidence indicates complete containment
- financial security for aftercare



Which provisions should a CCS Act contain?



Fair and open access to transport networks and storage sites

- according to objective criteria
- fair, non-discriminatory, and transparent conditions
- mandatory cooperation for efficient connection and access
- obligation to provide sufficient information

Grounds for refusal

- lack of capacity or lack of connection (but obligation to make the necessary enhancements)
- impossible for legal reasons
- unreasonable disadvantages for the operator



What is in the current discussion?

- When will the new government present a draft CCS Act?
- Best available technology vs. state of the scientific and technical knowledge
- Financial compensation for states/local authority storing CO2?
- CCS Act vs. CCS Demonstration Act vs. Lex Vattenfall vs. CCS Directive?
- Veto rights for states for CO2 storage?



Thank you very much!



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Rechtsanwälte

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