

Updating the Guidance Documents @ CCS Directive

- **Goal: Best possible support** for operators and Competent Authorities in the practical implementation of permitting procedures in line with the Directive.
- Addressing **technical and market developments**:
 - CO₂ storage in mafic/basalt rocks / mineralisation (e.g. Carbfix); CO₂ storage in depleted hydro-carbon reservoirs
 - CO₂ specifications: e.g. including aspects of the CCS value chain, corrosion and safety issues
 - Transition from hydro-carbon production to CO₂ storage including overlap of regulatory requirements, e.g. permits, information sharing, etc.
- **Documenting best practices**:
 - Transparency about current operator intentions/plans for CO₂ storage
 - Access to existing geological information to future storage operators
 - Financial Security in practice, e.g. hydro-carbon insurances (private, public)
- **Remove ambiguities** identified by stakeholders and Member States.

The GD updating process: bottom up!

(Consultant: DNV Netherlands – CLIMA/2022/OP/0010)

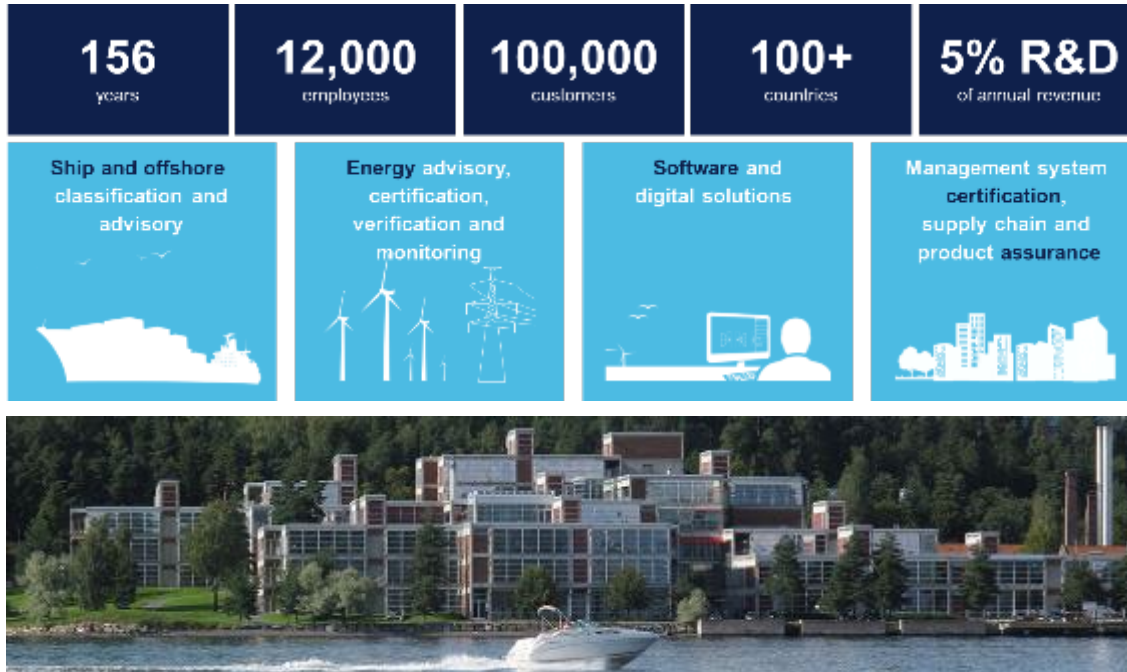
- 01/23-04/23 -> **Taking stock of the current use** of the GDs by Competent authorities (CAs) and storage operators & assess the needs/scope for the update of the GDs.
- 06/2023 -> **Public stakeholder workshop** to consult on the draft list and the additional bottlenecks/guidance needs identified.

End 2023 - > Adoption of revised GDs by Commission

- 02-04/2024 -> **Capacity building workshops** for competent authorities and potential storage site operators & including on remaining guidance needs/bottlenecks outside of the scope of the revised GDs.
- *Summer 2024*: **Consultant will provide a Final Report** with recommendations for additional guidance.

Review of CCS Directive Guidance Documents

DNV: global assurance and risk management company



- DNV helping to scale CCS – 200+ projects in past 10 years
- DNV is translating industry practice to standards
- DNV is independent reviewer and certifier of storage projects

DG CLIMA has asked DNV to:

1. Support the **technical update of the four Guidance Documents** to reflect the global state of the art of CCS and removing ambiguities identified by stakeholders and Member States during the implementation of the first CCS deployments in the European Economic Area (EEA).
2. Help build **capacity for competent authorities and applicants** on the basis of the updated Guidance Documents and identifying additional guidance needs if any to support the operational deployment of CO₂ storage in the European Economic Area (EEA).

Timeline for the work



- Between now and mid 2023
 - Technical update of the four Guidance Documents to reflect the global state of the art of CCS and removing ambiguities identified by stakeholders and Member States
- First half of 2024
 - Capacity building for competent authorities and applicants on the basis of the updated Guidance Documents and identifying additional guidance needs if any

Handling change suggestions

- DNV will maintain a clear line of sight between suggested changes, rationale for change, stakeholder views and acceptance/rejection of change
- DNV will consider content changes (focus on technical update) as well as structural changes (focus on usability)

No.	GD No.	Section in GD	Type of comment ge = general te = technical ed = editorial	Change suggestion	Rationale for change	Commenter/source for suggestion	DNV comment	Stakeholder views	Accept/reject decision
	1		ge	More emphasis should be placed on the flow of information between operator and supervisor		GD review inputs			
	1		ge	Risk management methods should be discussed upfront with a clarification on the risk criteria (i.e. level of acceptable risks) that will be used in the process.		GD review inputs			
	1		ge	More emphasis in how to build trust with risk management.		GD review inputs			

How can you be involved?

- We have a core team of experts managing the update process
- We will actively reach out to industrial as well as government stakeholders
 - Interviews
 - Information sessions
 - On-line survey
 - Stakeholder consultation workshop
- Contact:
 - E-mail: ccs-guidance-update@dnv.com
 - Web: <http://ccsguidanceupdate.dnv.com/>



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