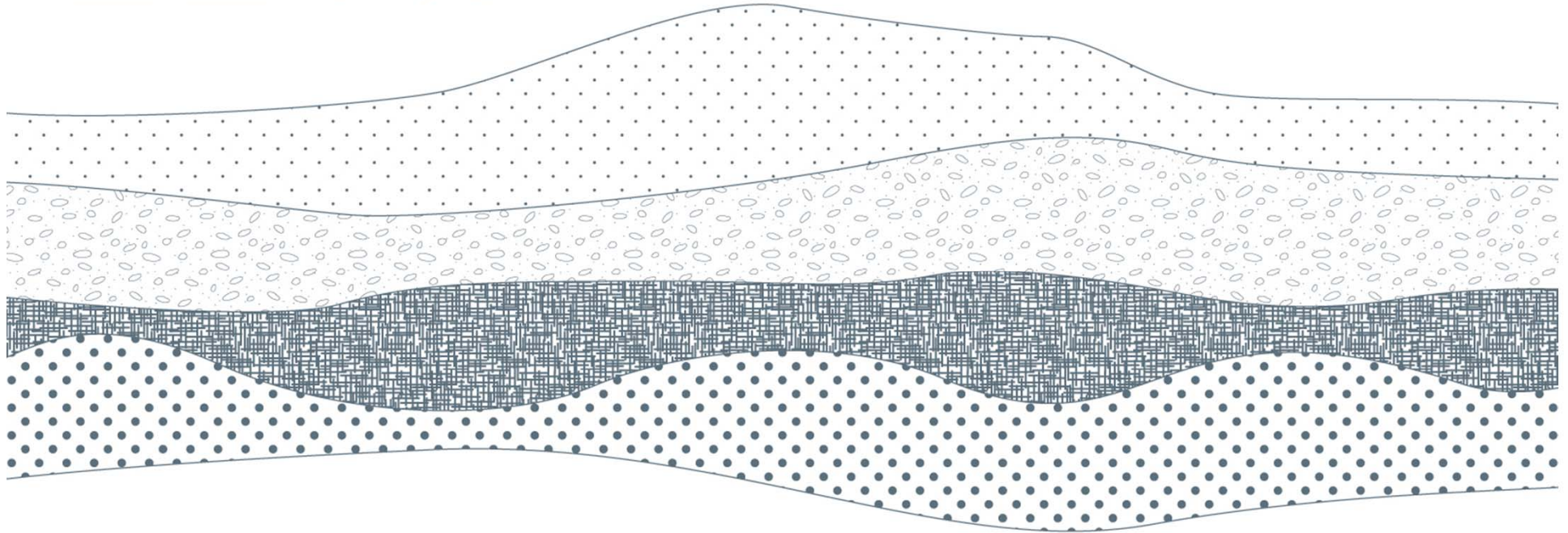




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# CCS Regulatory Test Toolkit

*Derek M. Taylor*

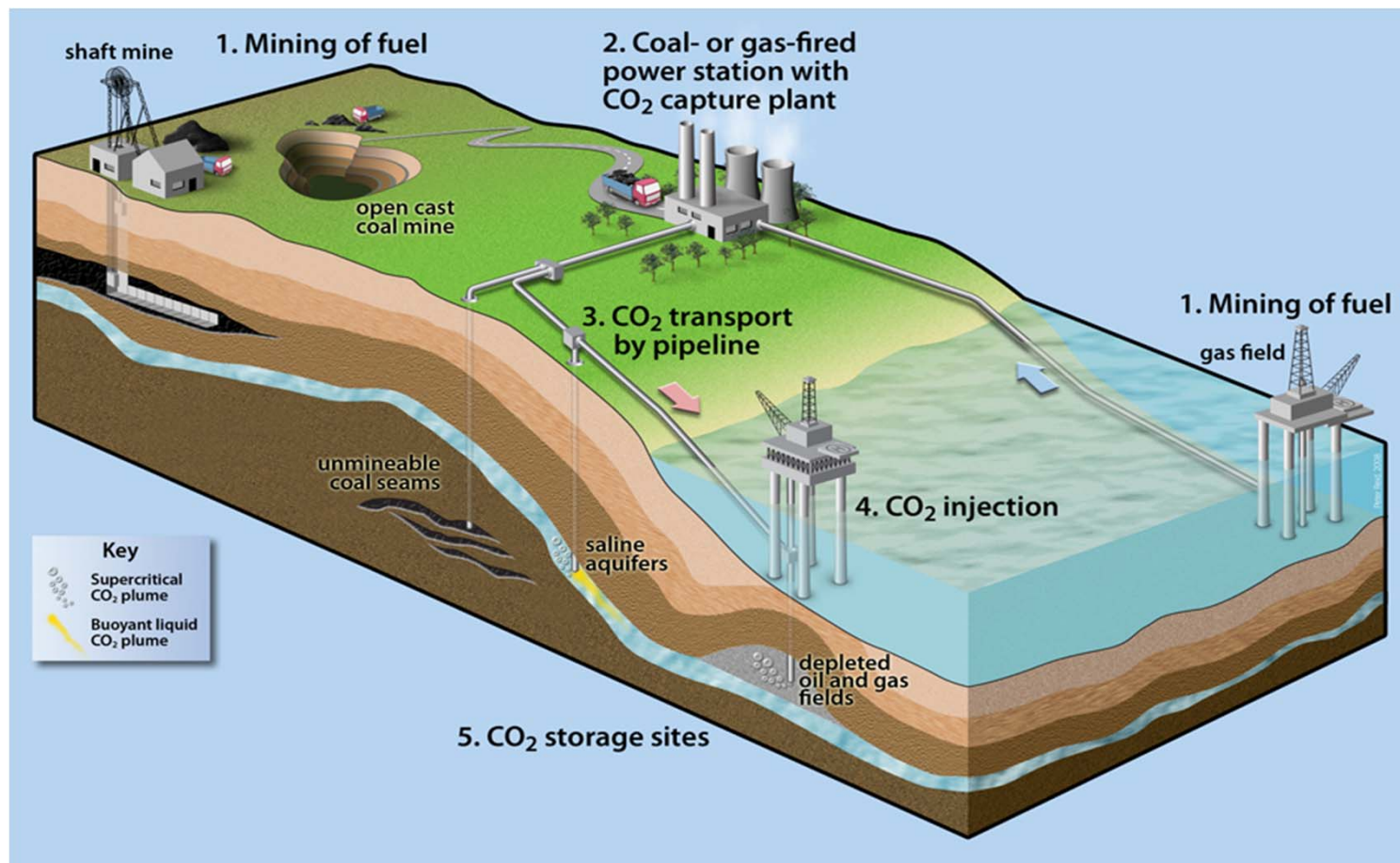
*Regional Representative - Europe*

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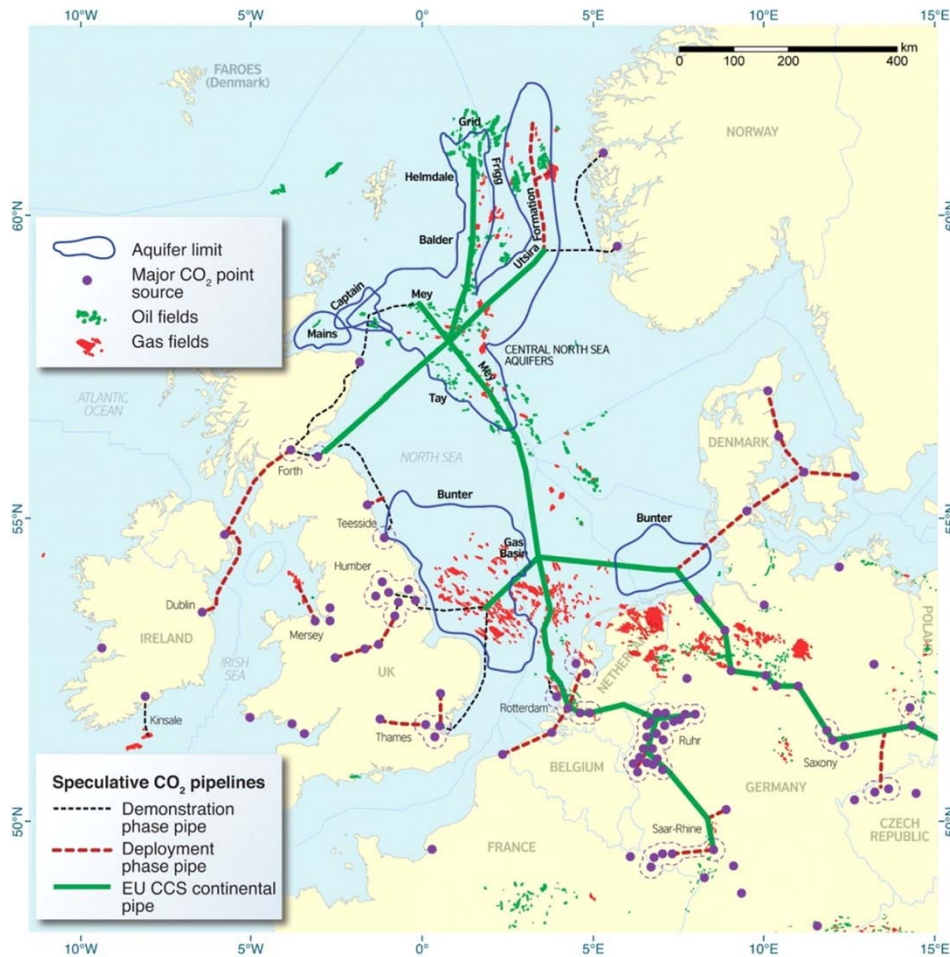


# THE POTENTIAL FOR CCS

CCS could make a significant contribution to reducing global greenhouse gas emissions. Lack of experience of how regulatory systems would apply to CCS projects increases risk.



# SCOTLAND'S CO2 STORAGE POTENTIAL



**LONGANNET - LEADING CONTENDER IN UK DEMO COMPETITION**

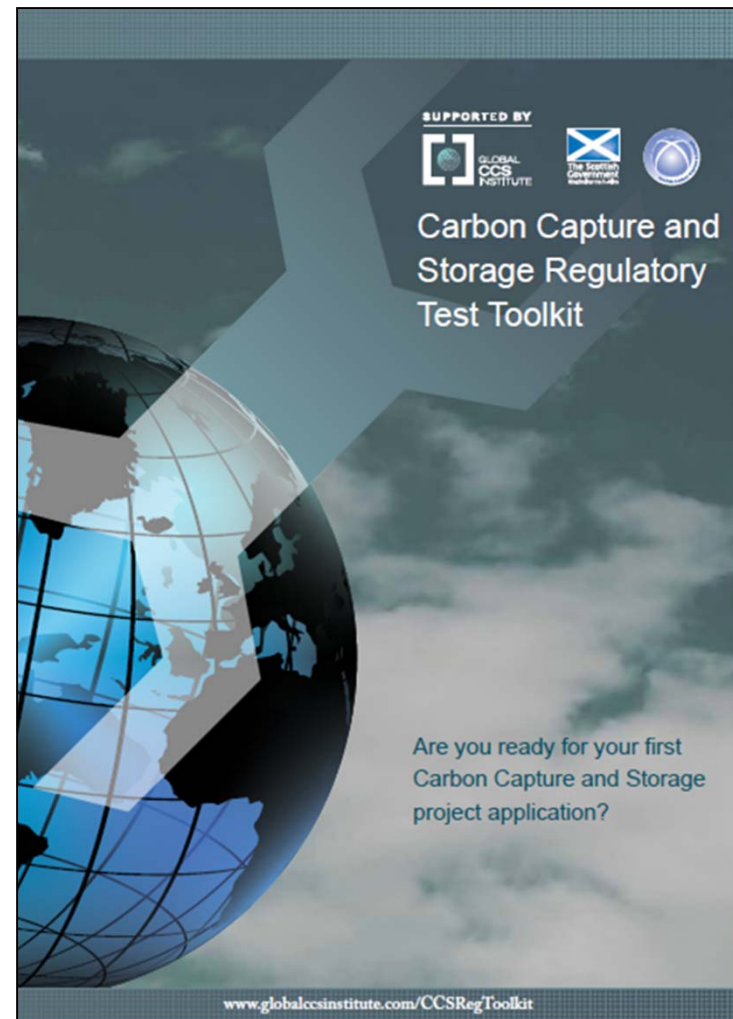
# REGULATORY TEST PROJECT

## *Project Aims*

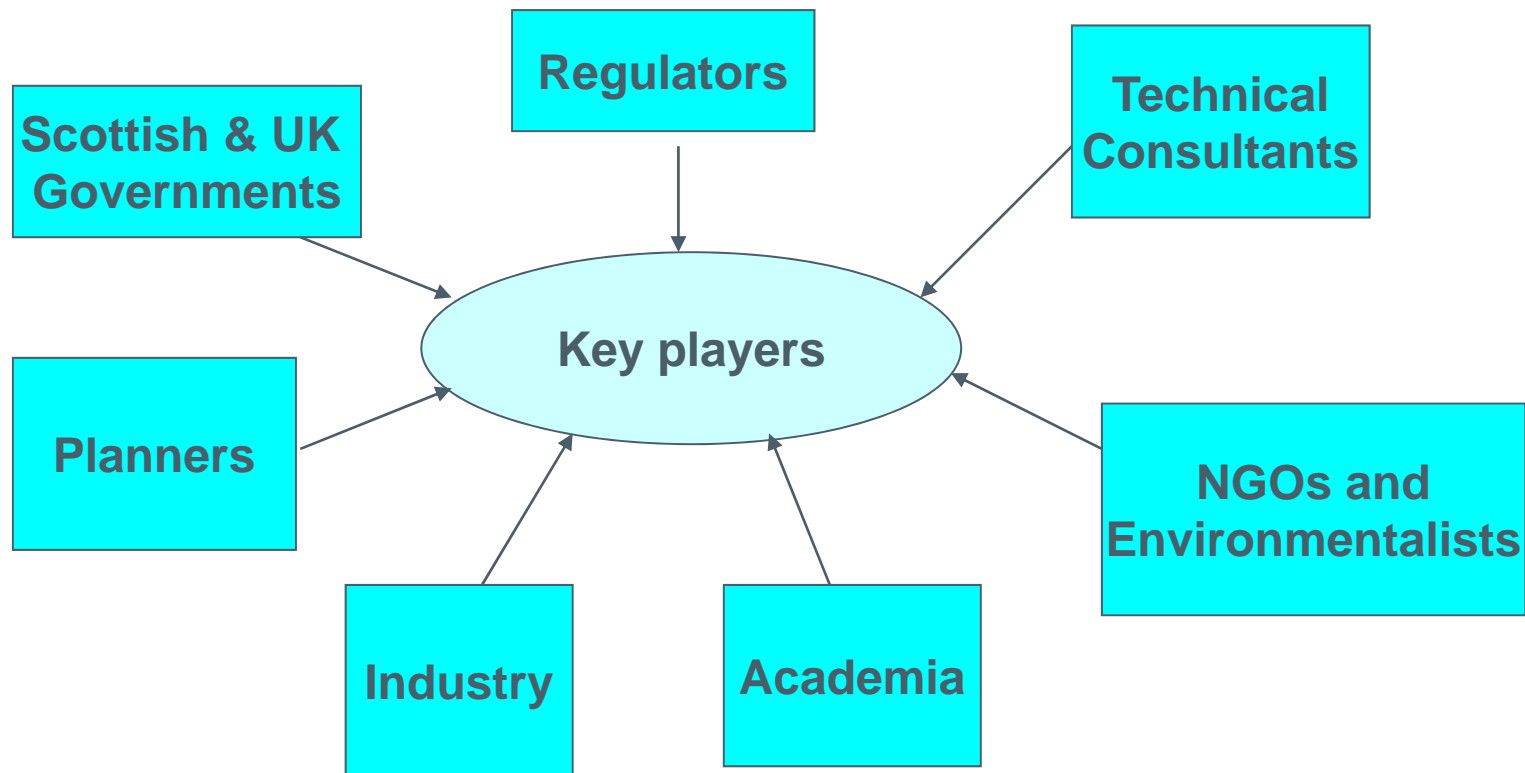
- To assess the regulatory framework for CCS.
- To identify regulatory gaps, overlaps & challenges.
- To identify streamlining opportunities and evaluate the information required.
- To raise awareness of the stakeholders of their roles and responsibilities in processing the CCS chain.
- To prepare for consenting of demonstrators

# CARBON CAPTURE AND STORAGE REGULATORY TEST TOOLKIT

- Best practice guide to testing regulatory systems for CCS
- Take a CCS project application through the approval process in a regulatory test exercise
- Focus on preparation and follow-up
- Suitable for national and regional governments
- Produced by SCCS researchers on behalf of the Scottish Government and supported by GCCSI



# REGULATORY TEST - STAKEHOLDERS



## BE READY

Implementing this toolkit will help government, regulators and industry to work together quickly to map, test, and understand regulatory processes for CCS including

- who needs to be involved
- resource requirements
- the permits required
- the information and analysis required
- likely timescales for decisions
- how to follow-up on lessons learned

## IMPLEMENTING THIS TOOLKIT WILL

- improve understanding of your national regulatory process
- identify gaps, contradictions, and potential revisions to regulatory systems
- identify gaps in the legislation, knowledge and resources
- ensure a viable regulatory process is in place for potential CCS projects
- help to speed up the management of projects to meet demanding timescales
- raise awareness amongst organisations of their role in the regulatory process

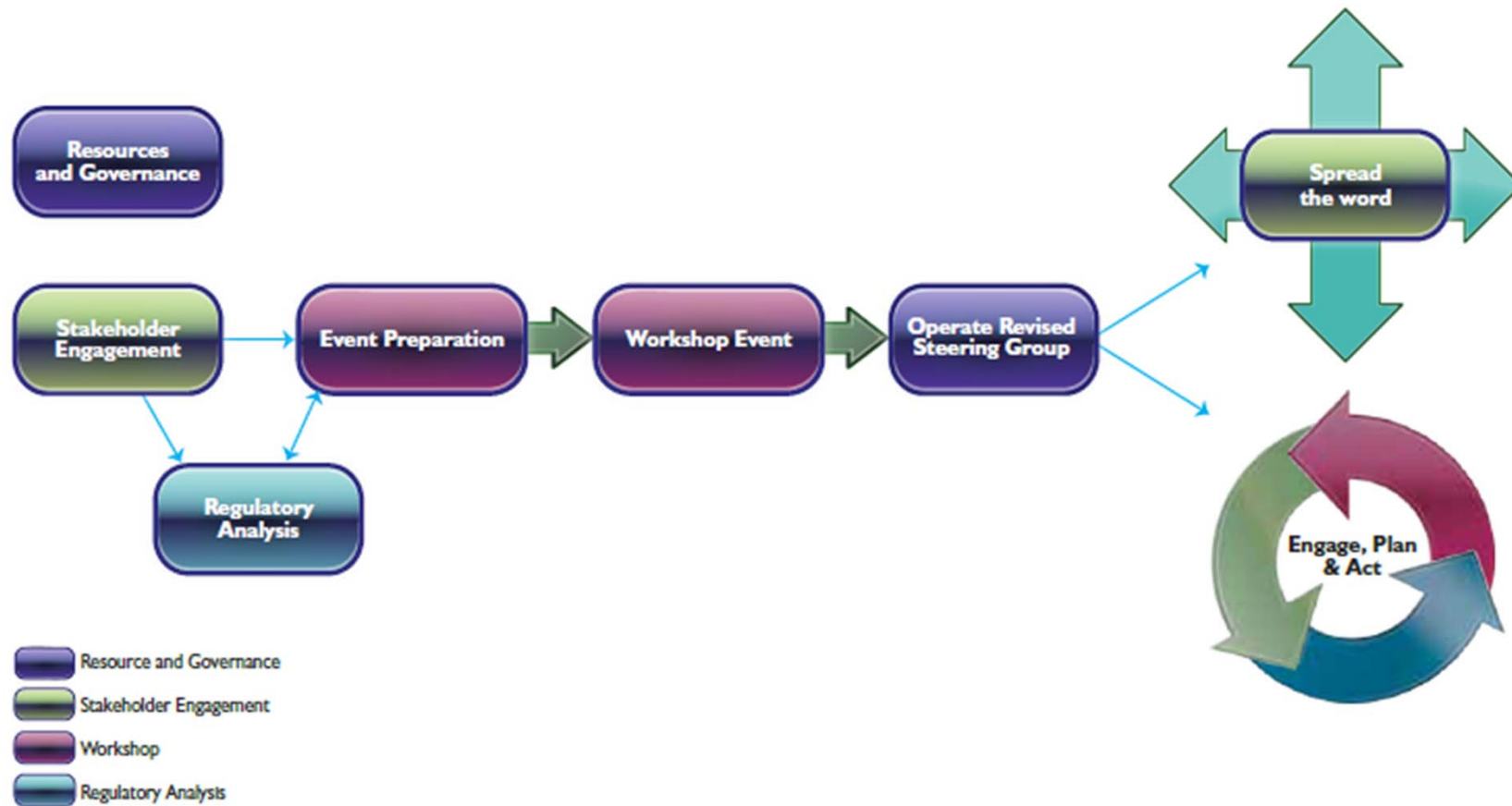


# REGULATORY TEST - FORMAT

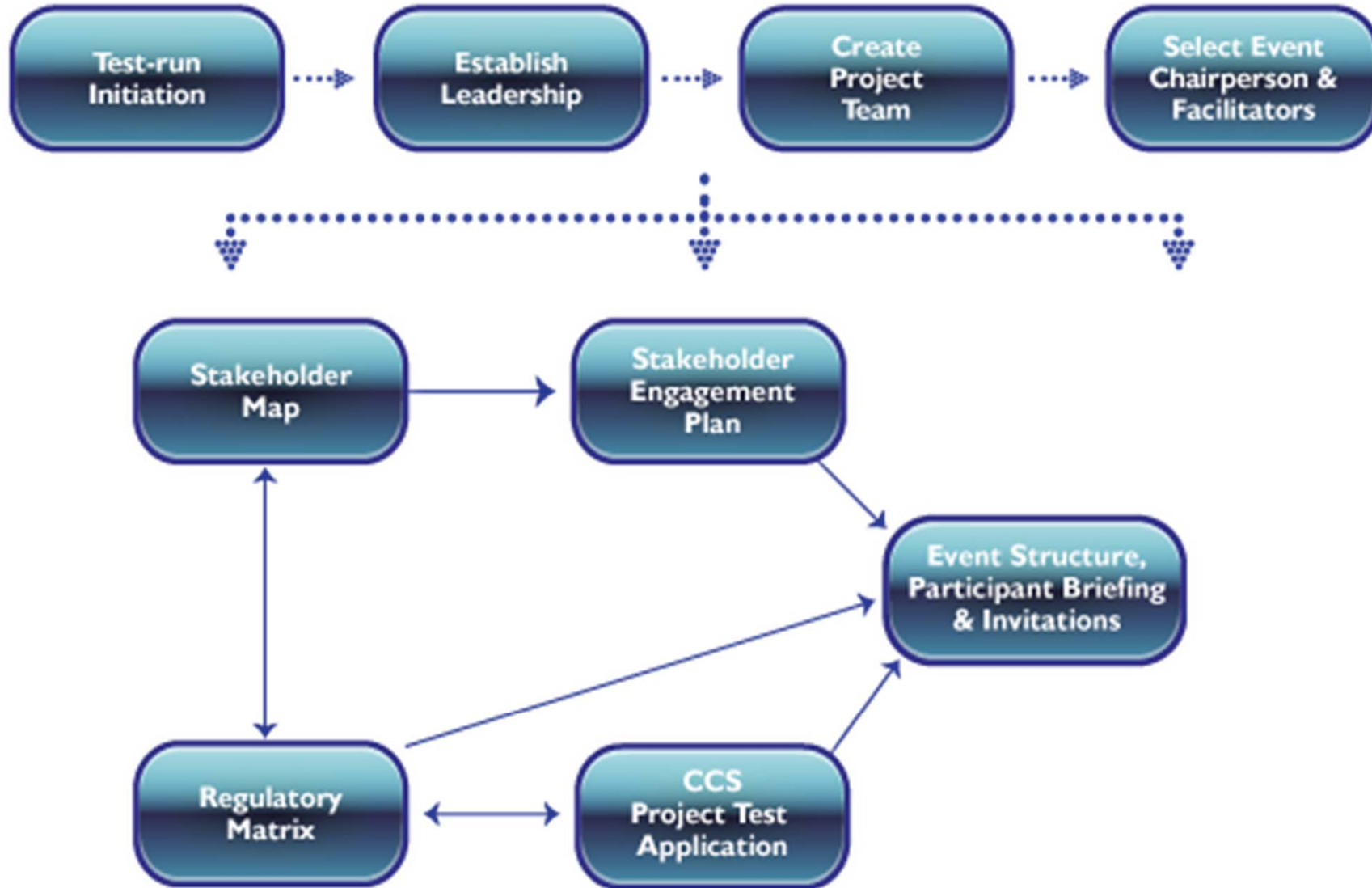
- 2 day workshop –over 70 stakeholders.
- 3 workshops + plenary session.
- Regulatory table covering CCS permits.
- Mock project used to test regulations.
- Independent chairperson and facilitators.
- Government & developer presentations.
- Open & frank discussion at each workshop.

# CCS REGULATORY TEST EXERCISE OVERVIEW

- Stage 1: Exercise Preparation
- Stage 2: Workshop Delivery
- Stage 3: Exercise Findings and Benefits



# STAGE 1: EXERCISE PREPARATION



## EXERCISE PREPARATION

### **Resources and governance**

- Gain support for the exercise (lead organisation and key stakeholders)
- Establish leadership and allocate skilled staff for a project team

### **Stakeholder engagement**

- Support from key organisations is critical
- Develop a stakeholder map and possibly a steering group

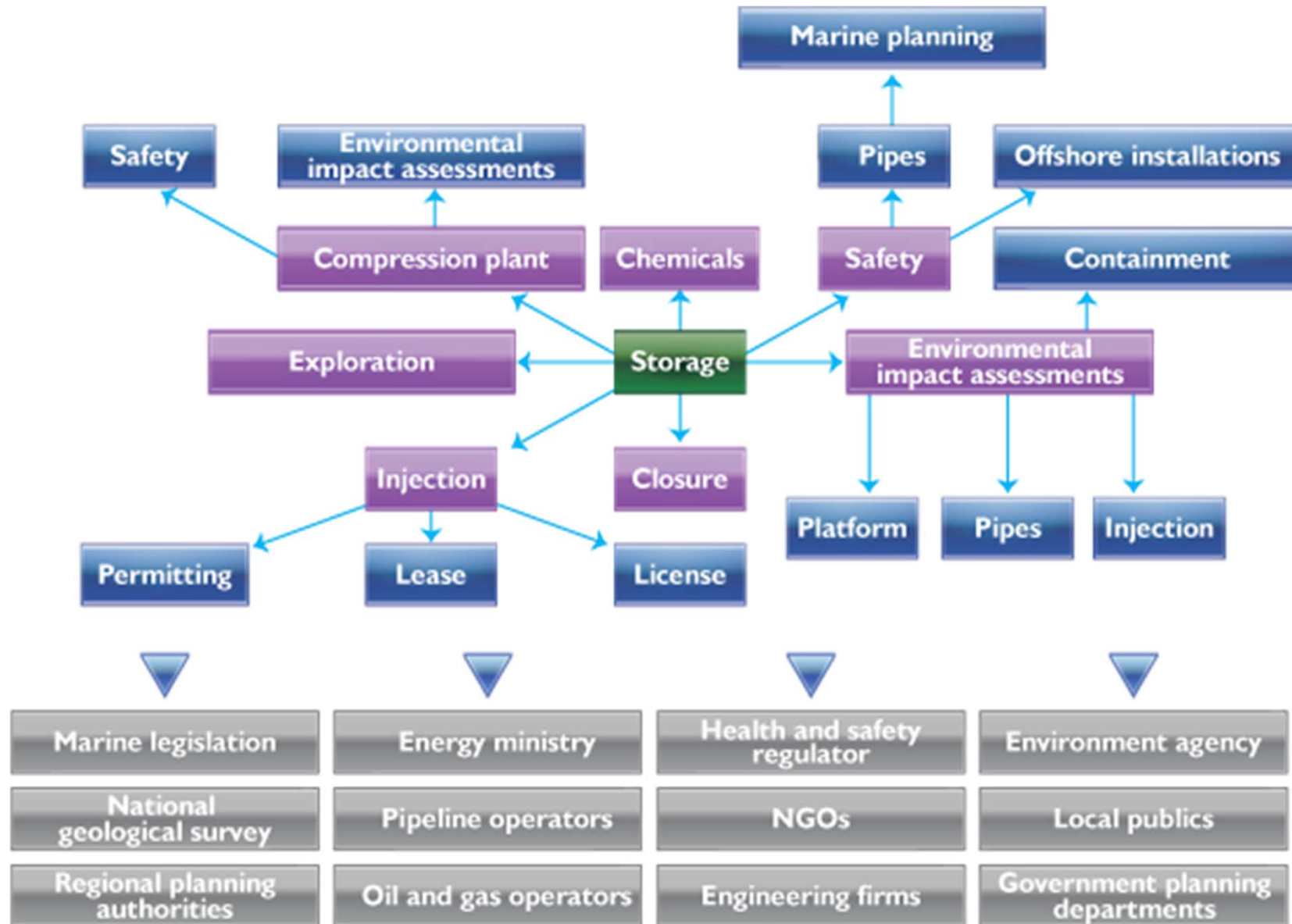
### **Regulatory analysis**

- Ensure understanding of the existing regulatory process
- Create a summary table and consult widely

### **Preparation for the event**

- Determine structure, duration and objectives
- Select chairperson and facilitators as early as possible

# MAPPING INTERESTS AND STAKEHOLDERS

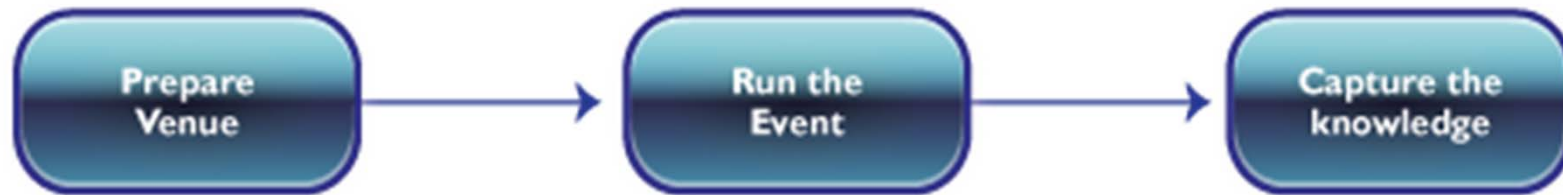


## DEVELOPING A REGULATORY TABLE

The regulatory table is an evolving document developed by government departments, regulatory agencies and other stakeholders together.

Place in CCS Chain	Permit Type	Title	Area Covered	Granting Authority	Timing	Work needed to complete submission	Guidance from Published Material	Comments on Emerging Legislation
Capture	Approver	Plant Planning Permission	Power and Capture Plants	Energy Ministry	12 months	Site Layouts, case for new Plant, Risk Assessment etc	<a href="#">web links added in here</a>	No New Legislation
Transport	Environmental	Consent for Pipeline Works	New Pipelines	Planning Ministries Local Government	12 months	Consultation with Environmental Agency and Local Public, Environmental Impact Assessment	<a href="#">web links added in here</a>	New Legislation expected from...
Storage	Approver	Offshore Petroleum Activities	Survey	Energy Ministry	3 months	Survey Data, Risk Assessment, etc	<a href="#">web links added in here</a>	No New Legislation
Decommissioning	Approver	Energy Act	Handover of Facilities	Energy Ministry	9 months	Financial Security Plan in place, etc	<a href="#">web links added in here</a>	New Legislation expected from...

## STAGE 2: WORKSHOP DELIVERY



Test the regulatory system using the selected CCS project

Brief participants on their roles to focus discussion

Include external observers for a more credible review of the event

Record and use feedback forms to increase insights gained and gauge success of the event

Identify scope for improvement in the existing process – including gaps in legislation and knowledge

# KEY WORKSHOP AREAS



**Carbon Capture**



**Transport**



**Storage**

**Plenary discussions  
and actions**



# KEY FINDINGS

- Regulatory framework is generally fit-for-purpose
- Effective management of the regulatory framework will be crucial to handling of demonstration projects globally
- Co-operation and joint working across Government departments and regulators will be essential
- Early stakeholders engagement is key to streamlining the regulatory process and improving design
- Public engagement across whole project is a key issue

# BENEFITS GAINED

- Creates and builds trust between participants.
- Develops a shared understanding of the roles and timelines of the whole CCS project chain.
- Informs the public: demonstrates regulations in place to protect environment and comply with planning and H&S obligations.
- Can raise public awareness and encourage shared understanding.

# PROJECT MONITORING (BOARD)

Overall objective to facilitate the consenting of the full CCS chain for the specified project by:

- bringing together the project developer and regulators across the full chain
- raising awareness, monitoring progress and identifying means to resolve issues (technical, environmental, legal or planning)
- working to help consenting decisions to be delivered in a timely manner to meet the defined project timeline.

## STAGE 3: EXERCISE FINDINGS AND BENEFITS

Use press releases and targeted briefing to communicate with the wider stakeholder community



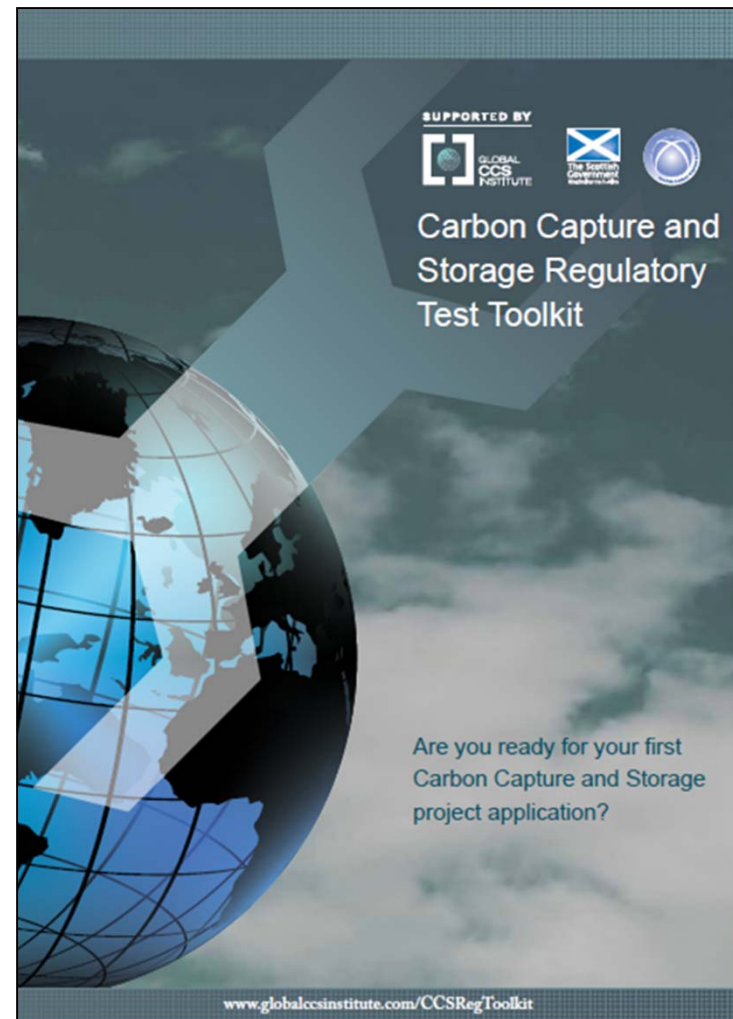
Ensure the lead organisation keeps tools up-to-date and implements key lessons / actions

Identify and agree actions that should be taken forward to ensure efficient processing of CCS projects now and in the future



# CARBON CAPTURE AND STORAGE REGULATORY TEST TOOLKIT - REMINDER

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- Take a CCS project application through the approval process in a regulatory test exercise
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## SUMMARY

Lack of experience of how regulatory systems would apply to CCS projects increases risk

Implementing this toolkit will help government, regulators and industry to work together quickly to mitigate this risk effectively

Exercise preparation requires

- Resources and governance
- Stakeholder engagement
- Regulatory analysis
- Preparation for the event

A 1-day workshop allows stakeholders to test the regulatory system using a selected CCS project (real or simulated)

Managed follow-up to communicate exercise findings, agree actions and deliver benefits is critical



## CONTACTS

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- Meade Harris, Global CCS Institute;
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In no event will the Scottish Carbon Capture and Storage, the Global CCS Institute or the Scottish Government be liable for any consequences or unintended implications resulting from the use of this toolkit.



The image features a dark blue background with four thin, white, wavy lines that flow horizontally across the upper portion of the frame. These lines vary in amplitude and frequency, creating a subtle, organic pattern.

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