

# Stakeholder engagement for successful CCS deployment : Considerations and lessons learned

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Presentation to Japan CCS Workshop, 18<sup>th</sup> January 2012

# Overview

- CSIRO and CCS social research
- Why engage and communicate about CCS?
- Findings from case studies
- Best practice - guiding principles
- Suggestions for Japanese projects
- Additional resources
- Questions

# CSIRO's CCS social research

# CSIRO today: a snapshot

**Australia's national science agency**

**One of the largest and diverse in the world**

**Ranked in top 1% in 13 research fields**

**Internationally recognised staff**

**Award winning talent**

**Building national prosperity & wellbeing**



# CSIRO related research portfolios



•Energy Transformed



•Advanced  
•Coal Technology



•Petroleum  
•and  
•Geothermal



•Climate Adaptation



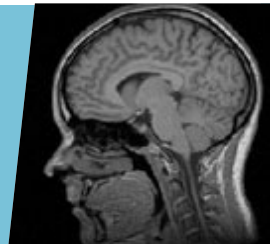
•Minerals Down Under



•Water for a Healthy Country



•Food Futures



•Preventative Health



•Wealth from Oceans



•Future Manufacturing



•Sustainable  
•Agriculture



•Light Metals

# CSIRO's CCS Social Research

## Energy Transformed Flagship

- Social research to understand energy preferences and inform engagement
- Founding partner of Carbon Dioxide Capture and Storage Social Research Network (C2S2RN)
- Followed by IEA Greenhouse Gas Research & Development Social Research Network

## Partnership with Global Carbon Capture and Storage Institute

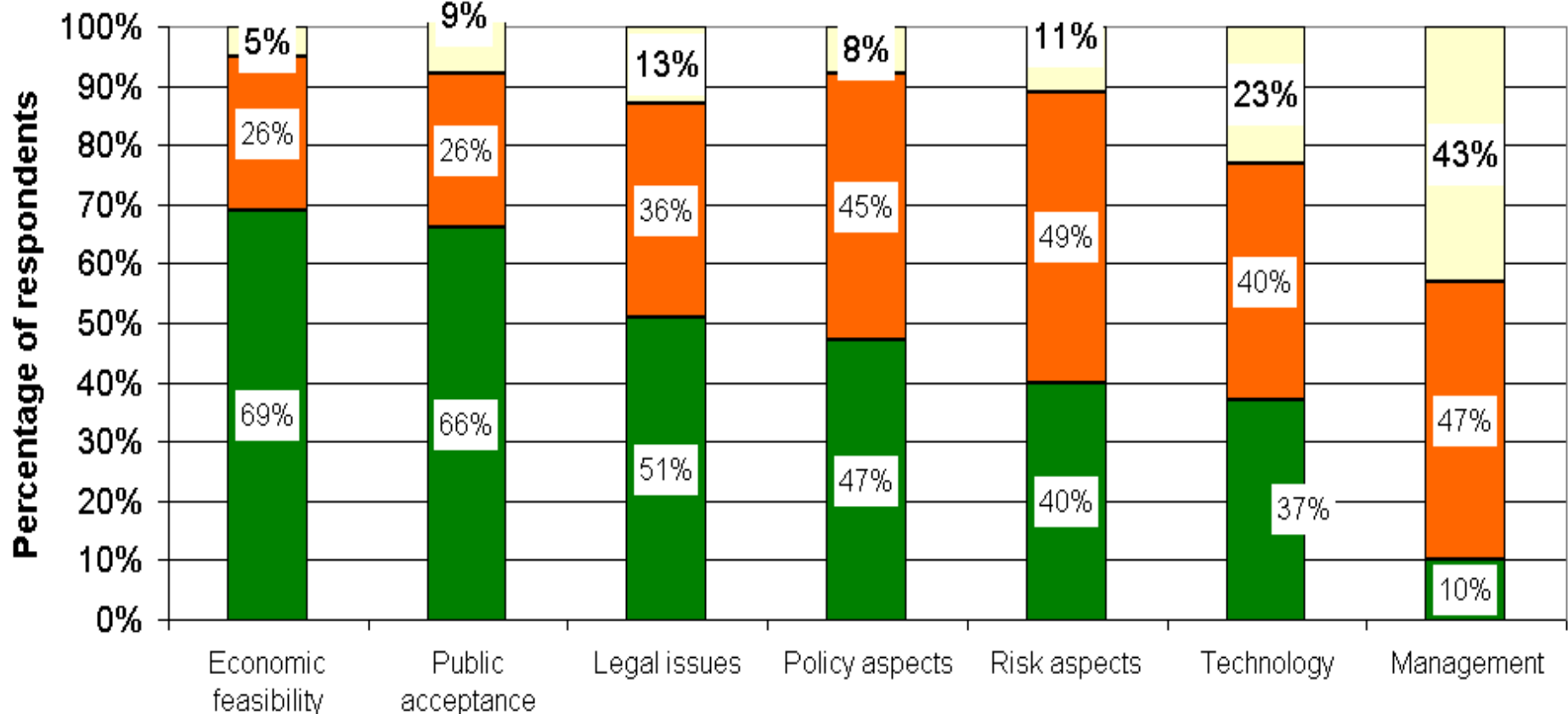
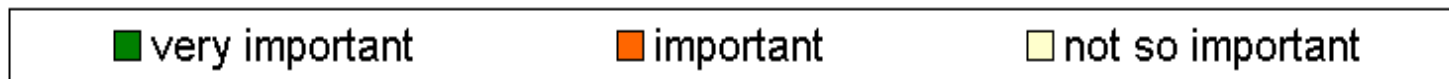
- International collaborations across 13 projects
- Japan Stakeholder Day, 19 November 2010
- Dr Kenshi Itaoka, Mizuho Information and Research Institute
- Dr Makoto Akai, National Institute of Advanced Industrial Science and Technology

# Why engage and communicate about CCS?

# Public acceptance is important

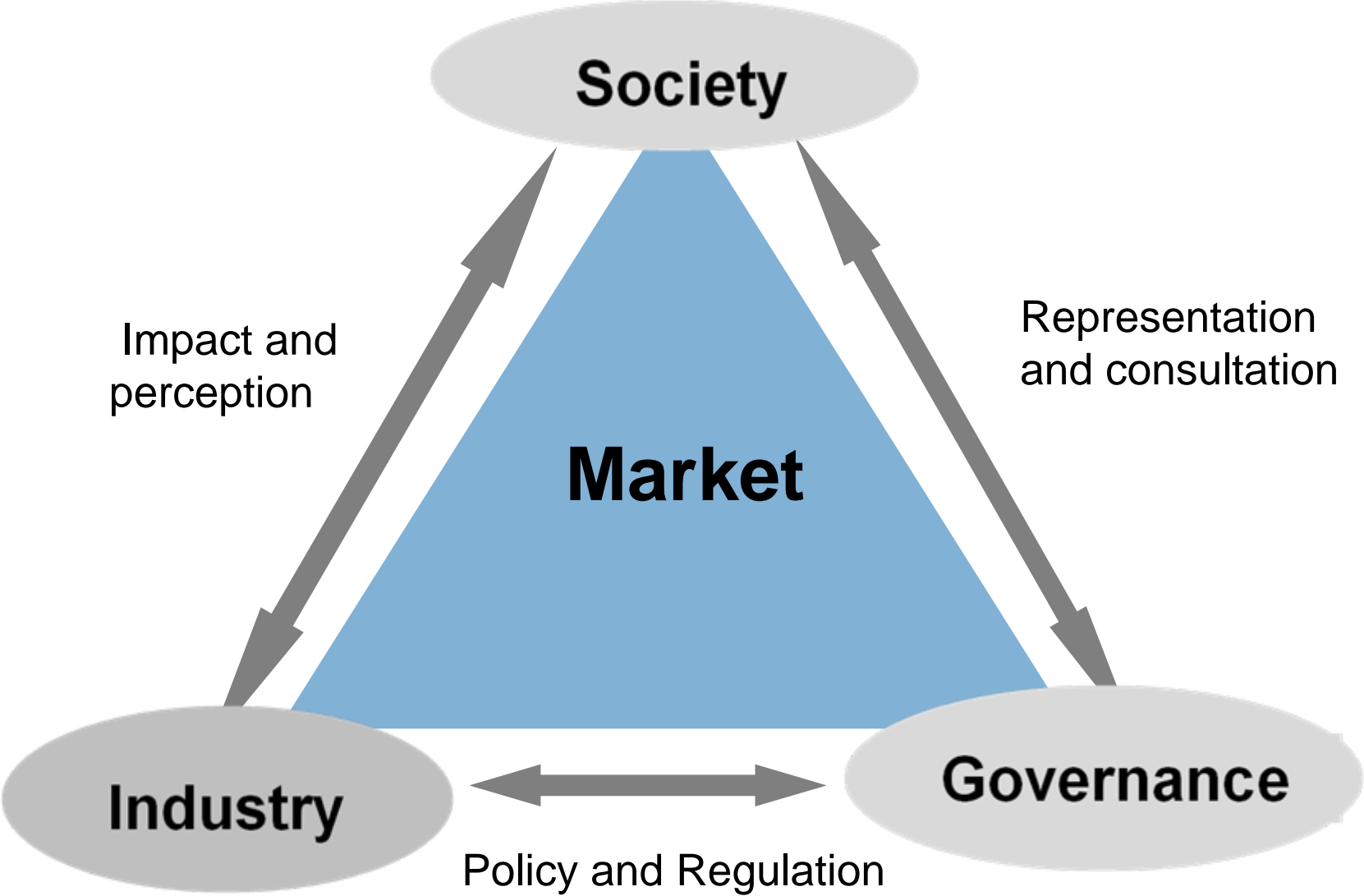
Source: P.Ragden et al. , Fraunhofer

What are the most relevant barriers to the implementation of CCS-technology in the future?





# Industry does not exist in isolation



# Specific Reasons

## 1. Response to regulation

- Increasingly required by regulation and seen as best practice

## 2. Reduce perceptions of risk and increase support

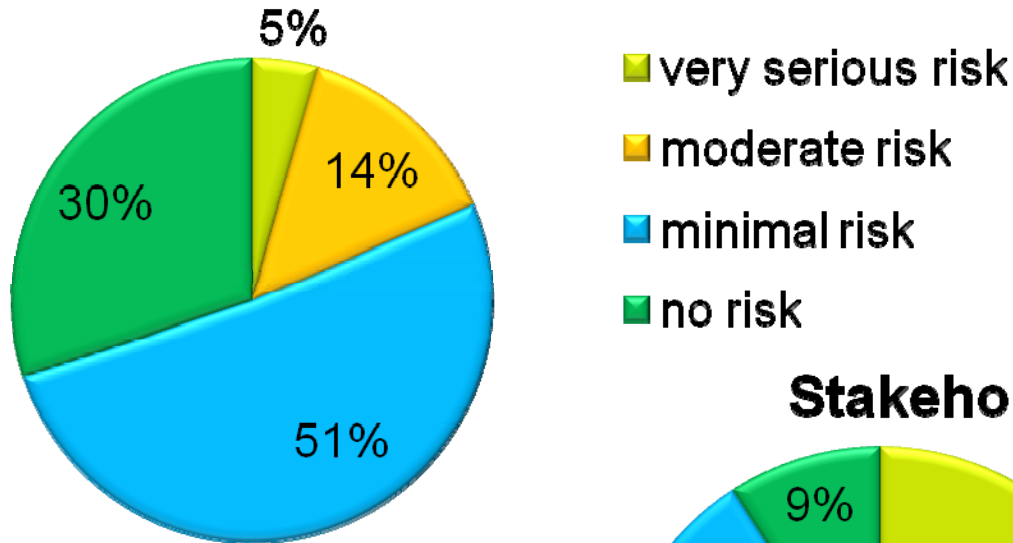
- Once formed public attitudes can be slow to change
- Build trust and facilitate social justice
- The public will accept CCS, but not always. A project's ability to adjust its planning and management to its social context is more likely to ensure a positive outcome for all involved.

## 3. Create and sustain local benefits

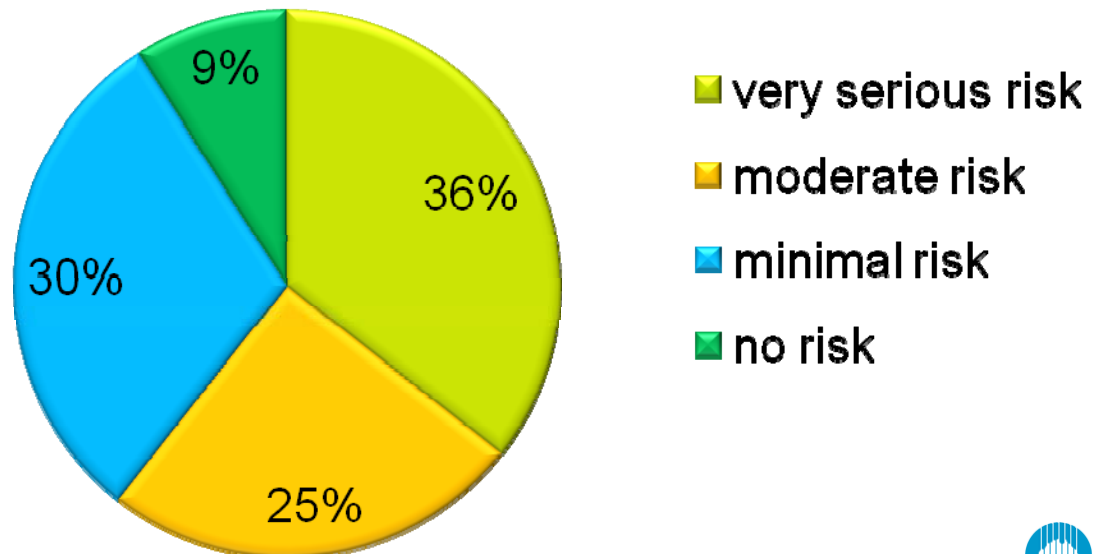
- Message about both global and local benefits
- Identify local benefits and develop - opportunity!

# Perceived risks of CO<sub>2</sub> leakage

## Stakeholders: energy industry



## Stakeholders: NGOs



# Considerations for a risk communication plan

1. Compared to developers other stakeholders will likely view risk in a more expansive way
2. Non-technical risks may provide a greater challenge than technical risks.
3. Project developers should attempt to ascertain how community members view project risk:
  - Be open, respectful and responsive to the public
  - Be proactive in the sense of planning ahead about issues that could arise
  - Prepare for media interactions
  - Use appropriate visual aids and analogies to help communicate concept to the public and keep them simple

# Findings from case studies

# Japanese context

## The importance of cultural identity

- Japan holds very different cultural views to that of other nations.
- These attitudes and views lie deep in the nation's history
- Meaningful social time for engagement – may take longer but is important



# Japanese context

## The importance of cultural identity

- Local pride is very important and communities care a great deal about image and the way they are perceived.
- Sensitivity to environmental issues



# Japanese Context

- Offshore - onshore storage issues
  - Highly built up infrastructure makes it difficult for pipelines
  - Natural seismic activity that occurs in Japan is a challenge when discussing onshore injection
  - Leakage is seen to be a real threat – hence offshore opportunities have been examined
  - Offshore injection strongly impacts on fishermen who have mixed views
  - Property rights in certain areas





# Japanese Context

- Local benefits of CCS projects
  - Need to closely examine each community
  - May not be many new local benefits for Japan – particularly the fishermen
  - Economic considerations may be important for some communities
  - Precedence with nuclear
- The role of NGO's in the debate
  - Local versus international presence



# Global versus Local Benefits

## *Global picture*

**Build public confidence** in the viability of using fossil fuel resources to meet increasing future energy needs while reducing CO<sub>2</sub> emissions through CCS. **BUT** at the same time there is a need to invest in renewable energy technology development. CCS must be presented as part of a portfolio of solutions to climate change, not seen as the only answer.

## *Local project*

**To assist with planning, building trust and confidence** - an understanding of the technology, social context, ability to be responsive, commitment to transparency, avenue to in-depth knowledge within the community, and create support for future growth.

# How do we define local benefits?

- **Frame discussion** around climate change and the energy portfolio
- **Decisions** are made collectively, NOT by responding to decisions made by others or one-by-one
- **Dialogue** is had with a range of stakeholders across all levels - experts and non-experts
- **What is important** - pros and cons
- **Identify the value** for each community and set of stakeholders
- **Takes time**, not a done deal and commitment needs to be maintained over time

# Trust and procedural justice are critical



## Elements of Trust

- What **information** is offered?
- **Who** is the **messenger**?
- What is the **process** being used?

## Procedural Justice

- Will the process be **fair**?
- Is it **transparent**?
- Will anyone **listen** to us?
- Can we **have a say** in what happens?
- Who can I **call**?

# Best Practice – Guiding Principles

# Guiding principles from best practice reports

**NETL**

the **ENERGY** lab

**BEST PRACTICES for:**

**Public Outreach and Education for Carbon Storage Projects**

*First Edition*

NATIONAL ENERGY TECHNOLOGY LABORATORY

U.S. DEPARTMENT OF **ENERGY**

This cover features the NETL logo and the U.S. Department of Energy logo. It includes several photographs showing people engaged in various activities: a group of people at a table, a woman interacting with children, and a group of people in hard hats at an outdoor site. The text is arranged in a clear, professional layout with orange and blue accents.

**WORLD RESOURCES INSTITUTE**

**CCS AND COMMUNITY ENGAGEMENT**

**Guidelines for Community Engagement in Carbon Dioxide Capture, Transport, and Storage Projects**

This cover has a yellow header with the title 'CCS AND COMMUNITY ENGAGEMENT' in white. Below the header is a collage of images showing people in hard hats, a group of people looking at documents, and a large audience in a meeting. The World Resources Institute logo is in the top right. The bottom section is a solid teal color with the subtitle in white text.

National Research **FLAGSHIPS**  
Energy Transformed

**CSIRO**

[www.csiro.au](http://www.csiro.au)

**Communication/Engagement Toolkit for CCS Projects**

Energy Transformed Flagship

Peta Ashworth, Judith Bradbury, C.F.J. (Ynke) Feenstra, Sallie Greenberg, Gretchen Hund, Thomas Mikunda, Sarah Wade and Hylton Shaw

EP105893

ECN

Pacific Northwest National Laboratory  
Funded through the NREL/EP/0000000000

ILLINOIS UNIVERSITY OF URBANA-CHAMPAIGN

AJW

GLOBAL CCS INSTITUTE

This cover features a large photograph of a group of people sitting around a table in a meeting, looking at documents. The National Research Flagships and CSIRO logos are at the top. The title 'Communication/Engagement Toolkit for CCS Projects' is prominently displayed. Below the title, the authors' names and the report number EP105893 are listed. Logos for ECN, Pacific Northwest National Laboratory, Illinois University of Urbana-Champaign, and the Global CCS Institute are at the bottom.

# DOE, 2009: Public Outreach and Education for Carbon Storage Projects

## Outlines 10 best practices

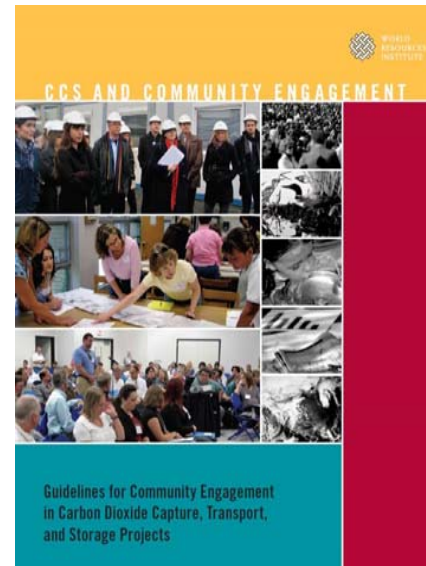
1. Integrate public outreach with **project management**
2. Establish a strong **outreach team**
3. Identify key **stakeholders**
4. Conduct and apply **social site characterization**
5. Develop an outreach **strategy and communication plan**
6. Develop **key messages**
7. Develop outreach **material tailored** to the audiences
8. Actively oversee and manage outreach **through the life of the storage project**
9. Continuously **monitor** the outreach program and changes in perceptions and concerns
10. Be **flexible – refine** the outreach programs as warranted



# WRI, 2010: CCS and Community Engagement

## 7 principles of effective community engagement

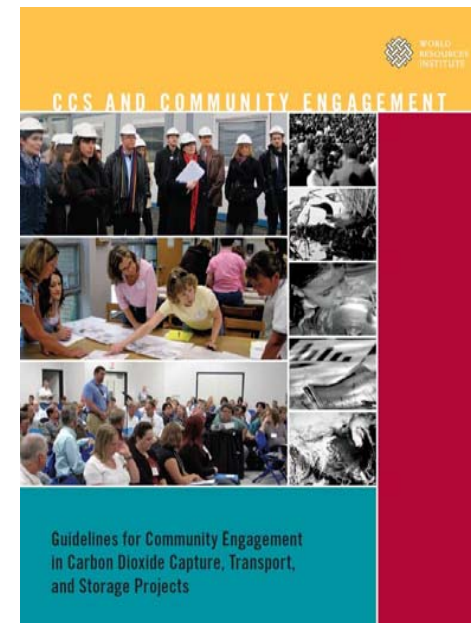
1. Prepare communities before engaging
2. Determine what level of engagement is needed
3. Integrate community engagement into each phase of the project cycle
4. Include traditionally excluded stakeholders
5. Gain free, prior and informed consent
6. Resolve community grievances through dialogue
7. Promote participatory monitoring by local communities





# WRI, 2010: Requirements of the engagement process

1. Understand local community context
2. Exchange information about the project
3. Identify appropriate level of engagement
4. Discuss risks and benefits of the project
5. Continue engagement through time



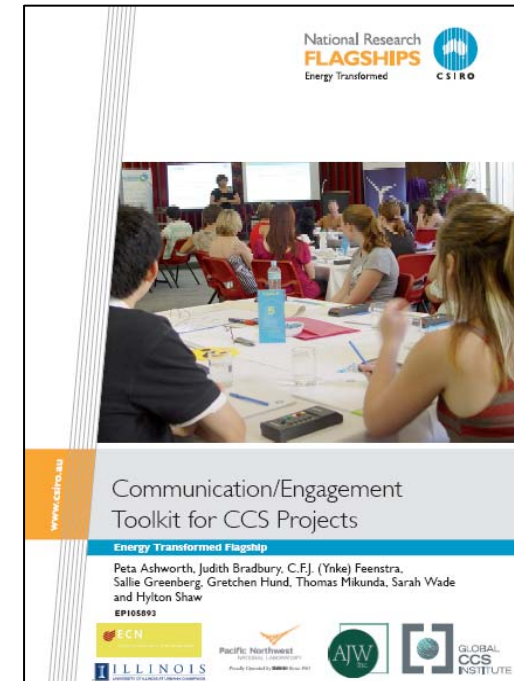
# Requirements of the engagement process.

Key Principles in CCS Community Engagement and Roles for Each Party in the Process

	Understand Local Community Context	Exchange Information about the Project	Identify Appropriate Level of Engagement	Discuss Risks and Benefits of Project	Continue Engagement through Time
REGULATORS	Learn community concerns. Determine, meet, and possibly improve public participation requirements.	Educate, respond to, and provide information to the public.	Establish a multistakeholder engagement process.	Require communication and contingency measures and regular updates during life cycle. Evaluate environmental and other impacts.	Require public participation at key stages and increase engagement in the process.
LOCAL DECISIONMAKERS	Understand community interests, identify leaders, and establish a dialogue early.	Contact developers early. Ask questions. Identify, seek, and publicize pertinent information about the project.	Determine engagement level and establish a transparent process.	Ask questions. Identify and communicate concerns and clarify follow-up process. Insist on full disclosure.	Establish institutional memory, possibly a taskforce. Consider participating in monitoring and reporting. Regularly update the community.
PROJECT DEVELOPERS	Assess community dynamics and your historical presence. Weigh participatory engagement.	Engage early and develop a relationship with the community. Answer questions. Seek input, and provide information openly and transparently.	Foster two-way engagement; consult and negotiate with communities. Address concerns. Convey feasible level of engagement.	Answer questions. Discuss with community risks, benefits, uncertainties, and mitigation and contingency plans. Consider benefit sharing.	Engage community at each step of project schedule. Consider informal, long-term relationship to ease stewardship transition.

# Communication and Engagement Toolkit

- To assist in the design and management of communication and engagement activities around CCS projects worldwide
- Universal guide for CCS implementors:
  - To use at different stages & in various ways
  - Including methods & examples
  - Practical and informative
- Content:
  - Gathering social data
  - Stakeholder engagement
  - Communication plan



# Communication and Engagement Toolkit



1. Otway Basin Project
2. ZeroGen Project
3. Barendrecht Project
4. FutureGen Project
5. Carson Project



# Suggestions for Japan CCS projects

# Opportunities for Japan CCS projects

- Make use of these existing reports on best practice
  - Similar messages, instructions and principles in each
  - Process features and activities also apply BUT
  - Modify as required e.g. informal networks
  - Capture your process and lessons to inform your project overtime and other projects
- Share lessons and access support through the existing CCS social research network
- Design CCS projects to sustain and create local benefits

# Opportunities for Japan CCS projects

## Project Timeline for CCS

Regional site studies

Examine potential sites

In-depth assessment of potential site

Form groups and elect representatives

Identify stakeholders

Establish a communication plan for stakeholders

Ongoing monitoring and evaluation of project

Identify storage areas

Identify specific sites within the area

Social and technical characterisation of potential site

Implement steering groups and representatives

Examine your stakeholders

Seek community consultation through public engagement and communication activities

Continue to work with key stakeholders, local community and internal stakeholders

- Review literature
- Estimate capacities

- Specific desktop research in relation to locations
- Examine approvals and feasibility studies that would be required
- Examine ways in which you can present information to the public to inform them of findings in relation to the site i.e. Media releases, websites etc.

- Seismic testing
- Risk assessments
- Examine pre-existing infrastructure
- Baseline surveying
- identify critical issues, impacts and benefits to the community through the collection of social data
- Examine fundamental views of the community looking at local empowerment and trust

- Establish an independent steering group with varied representatives
- Advertise and employ a client liaison officer to establish and maintain an effective relationship between the community and the project developers

- Identify your stakeholders through a stakeholder map examining the level of influence and interest in the project at hand.
- Perform a SWOT analysis of each of your stakeholders

- Develop a communication plan that includes dates and activities.
- Include briefings to key politicians and government, public displays of information, public meetings, newsletters, open days, workshops

- Revisit communication plan and amend according to feedback
- Continue to hold meetings/forums within community
- Provide regular updates on project
- Host open days to provide access and transparency to ongoing process of monitoring

# Project timeline for Japan CCS projects

1. Regional site studies
2. Examine potential sites
3. In-depth social and technical assessment of potential site
4. Implement steering groups and representatives
5. Identify stakeholders
6. Seek communication consultation through engagement
7. Ongoing monitoring and evaluation of project



# Step 3:

## In-depth social (and technical) assessment of site

- Seismic testing
- Risk assessments
- Examine pre-existing infrastructure
- Baseline surveying
- Identify critical issues, impacts and benefits to the community through the collection of social data
- Examine fundamental views of the community looking at local empowerment and trust

### WORKSHEET 1: LOCAL ATTITUDES TO PROJECTS

Has the community been subjected to large project proposals in the past?

CCS PROJECTS	YES ✓	NO ✓	LIST
Power plants (Coal, gas, nuclear)			
Wind farms			
Enhanced oil recovery			
Geothermal			
Solar farms			
Biofuels			
Other			

Have any surveys or research been done previously in the community in regard to a large planned project?

YES  NO

Have any local groups, websites or blogs been set up opposing or favouring a project in the past or presently?

LOCAL GROUPS	YES ✓	NO ✓	LIST
Websites			
Blogs			
Other			

## Step 3:

# In-depth social (and technical) assessment of site

- How has the community been subjected to large project proposals in the past?
- Have engagement activities been done with the community previously in regard to large planned projects?
- Have any locals or groups, websites, media or others demonstrated strong opposition or favouring of projects in the past or present?
  - Fishing and tourism industry, other petroleum developments
- Trust, empowerment, procedural justice?
  - Respect for local leaders
  - Organisational capacity of local leaders
- What do the community value – what are or could be local benefits?
  - Jobs through fishing and tourism industry
  - Protective sense of place

# Step 4: Establish an independent steering group

## 4.a. Establish an independent steering group with

### Land owners



- Farmers
- Fisherman
- Holders of exploration and mining leases
- Business owners e.g. hotels

### Educational



- School principals
- Science teachers
- University representatives

### Community groups



- Indigenous leaders
- Religious leaders
- Environmental groups
- Local leaders for minority groups

### Professional service providers



- Health professionals e.g. doctor or pharmacist
- Emergency service representatives

# Step 4: Community liaison officer

## 4.b. Advertise and employ a liaison officer to establish and maintain effective relationships between the community and the project

### COMMUNITY LIASON OFFICER

This is a diverse role and requires demonstrated experience in community consultation.

Specific responsibilities of the role include, but are not limited to:

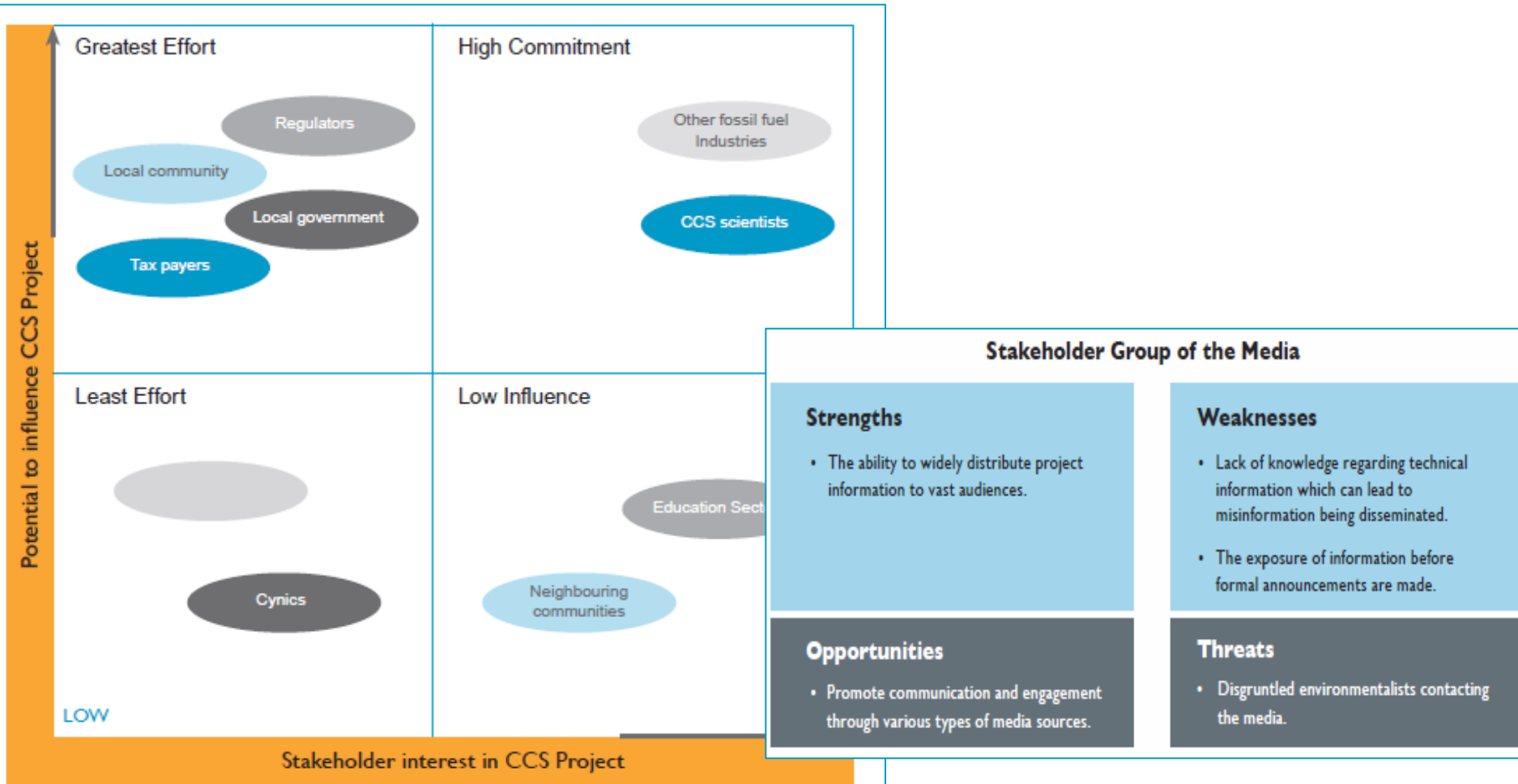
- Liaise with a variety of stakeholders
- Organising and facilitating community meetings
- The handling of community enquiries
- Provide information and feedback for stakeholders
- Effectively identify and communicate grievances or issues
- Communication skills in both English and Japanese
- Existing ties to local community

To succeed in this role you will likely have experience or qualifications in Communication, Education or Community Services.

Other relevant areas of experience will also be considered such as working with international aid organisations and developers.

# Step 5: Stakeholder identification

## 5. Perform a SWOT analysis of each of your stakeholders



# Step 6: Seek input through community consultation

6. Develop a communication plan that includes dates and activities.  
 Include briefings to key politicians and government, public displays of information, public meetings, newsletters, open days, workshops

## Communication and engagement Plan – Example

		To Note	Suggested Activities	YEAR 1				YEAR 2				YEAR 3				YEAR 4				YEAR 5				YEAR 6				YEAR 7				YEAR 8			
				1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
<b>Influential Others</b>																																			
Policy Makers	Federal; State	Includes environmental, health, minerals, energy, science, technology and innovation portfolios	Presentations to Government Departments – understanding by key government figures is integral to the success of the project and this group will need to be proactively target	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Politicians		Should be extended to all parties	Workshops for politicians and their researchers - Politicians have expressed an appetite for information on the topic of climate change and energy technologies. Need to run short sharp workshops to allow them time to ask questions and understand complexity of carbon issue			✓	✓			✓	✓			✓	✓							✓				✓	✓			✓	✓				
Financial, Insurance, Legal	International; National		Personal invitations CEO breakfast meetings – host a series of breakfast meetings to target key stakeholders in this group. Small groups will allow for more interactive discussion and dialogue	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
			Individual presentations to stakeholder group - similar to government these groups will require specific information around which to base their decisions	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
			Keynote speaker roles at international conferences - interest in the development of these technologies is global and therefore investment should not be limited to Australian waters	GHGT9				As Appropriate				GHGT10				As Appropriate				GHGT11				As Appropriate				As Appropriate				As Appropriate			
Media	National; State; Local		Workshops for journalists across Australia - proactive communication with this group is essential to ward against opportunities for misinformation. Small groups will be more effective and offers to transport them to the site while it is being developed will be essential	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Environmental NGOs	International; National; State;	New Zealand and nearby Asian countries should	Workshops for ENGO's across Australia - proactive communication with this group is essential to ward																																

# Step 6: Seek input through community consultation

## Public meetings and workshops

- Where to be held?
- Who to invite?
- How should information be shared?
- What experts should be present?
- What questions and discussion points should be prepared?



## Informal networks and communications

- Identify and cultivate e.g. word of mouth between local business owners

# Additional resources that may be helpful





# Conducting social site characterisation

- What are the information needs?
  - If missing information will seek from those around them, particularly those with similar views or those they trust
  - Frequent misconceptions : understanding of scale, pressure effects, nature of storage space
- What are the concerns and perceptions?
  - Not always technical risks but broader social factors
- What are the best options for outreach and engagement?

# Communicating the risks of CCS

## COMMUNICATING THE RISKS OF CCS

JULY 2011

Judith Bradbury  
Sallie Greenberg  
Sarah Wade, WADE, LLC



SUPPORTED BY



**Figure 1. Factors Considered in Assessment of "Riskiness"**

- Top-Right (Light Blue):**
  - Not observable
  - Unknown to those exposed
  - Effect delayed
  - New risk
  - Risks unknown to science
- Top-Left (Yellow):**
  - Controllable
  - Not direct
  - Not global catastrophic
  - Consequences not fatal
  - Equitable
  - Individual
  - Low risk to future generations
  - Easily reduced
  - Risk decreasing
  - Voluntary
- Bottom-Left (Dark Grey):**
  - Observable
  - Known to those exposed
  - Effect immediate
  - Old risk
  - Risks known to science
- Bottom-Right (Orange):**
  - Uncontrollable
  - Dread
  - Global catastrophic
  - Consequences fatal
  - Not equitable
  - Catastrophic
  - High risk to future generations
  - Not easily reduced
  - Risk increasing
  - Involuntary

The essential conclusion of this work was that whereas technical experts tend to measure risk in terms of quantitative impacts such as mortality, lay people tend to consider additional factors, such as those in Figure 1, in their assessment of risk.<sup>11</sup>

Initially presented and interpreted, these technical assessments treated risk as an objective reality against which "fairly" accurate public perceptions could be measured.<sup>12</sup> Further, the "fact that perceptions of risk are often inaccurate, to the need for warnings and educational programs."<sup>13</sup> The early work of the psychometric school was enormously influential and congruent with the thought processes of the public. Accordingly, risk communication was seen as the need to address the apparent misunderstandings of the public. Further, Slovic acknowledged the inherently subjective nature of many thorny problems – most notably as a means to bridge the gap between expert views and public perceptions:

"...an approach evolved over time to take into account broader issues such as trust and equity and to recognize the role of experts as well as the lay public may be subject to bias. In particular, recognition was given that communication efforts are structured as a two-way process."<sup>14</sup> Further, Slovic acknowledged the inherently subjective nature of risk as evidenced in his statement that:

... Rating the Risk, *Environment* 21(3), 14-22 (1979).

the Public About Risk," *Risk Analysis* 6: 403-415, 1986, p. 405.

"A Social and Programmatic History of Risk Research," in *Social Theories of Risk*, Westport, Connecticut.



## Key findings:

- Recognise the risks to the project are likely broader than the technical risks and commit, up front, to a comprehensive plan to address them
- Be open respectful and responsive to the public
- Be proactive in the sense of planning ahead about issues that could potentially arise
- Prepare for media interactions
- Use appropriate visual aids and analogies to help communicate concepts to the public and keep them simple



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#### Development of a Knowledge-Sharing Test Bed for CCS in Japan

Date published: 02 Oct 2011

In partnership with the Institute, JGC Corporation, Quintessa, National Institute of Advanced Industrial Science and Technology (AIST) and McKinley Consulting established and...

Topics: Community Engagement, Information Dissemination

#### Utilising a Large Group Research Process to Understand and Compare Public Perceptions on Climate Change and Energy Technologies in Canada and Netherlands

Date published: 17 Aug 2011

The overall Large Group Process project encompasses workshops from Canada, Netherlands and Scotland, and will also incorporate some of the



### Featured publications

#### Development of a Knowledge-Sharing Test Bed for CCS in Japan

In partnership with the Institute, JGC Corporation, Quintessa, National Institute of Advanced Industrial Science and Technology (AIST) and McKinley Consulting established and...

#### IEA CCS Legal & Regulatory Review



The International Energy Agency (IEA) considers carbon capture and storage (CCS) a crucial part of worldwide efforts to limit global warming by reducing greenhouse-gas...

## Science into Society Group

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# Thank you

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