

Social outreach - introducing CCS to communities



Photo: A Bartlett

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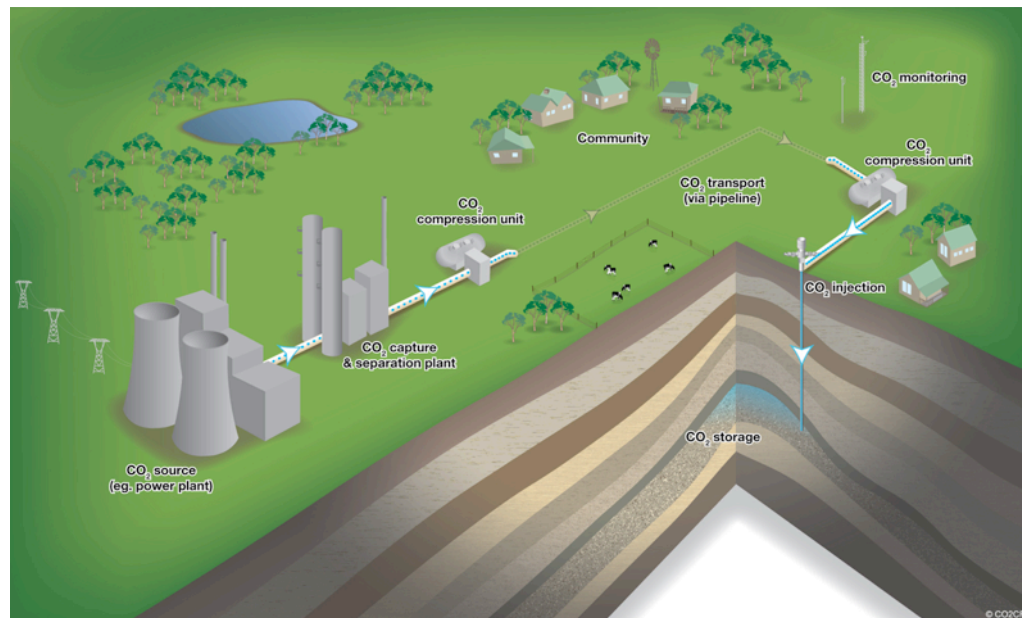


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Outline

- What has been done to guide communicators
- Talking about CCS – challenges and ideas



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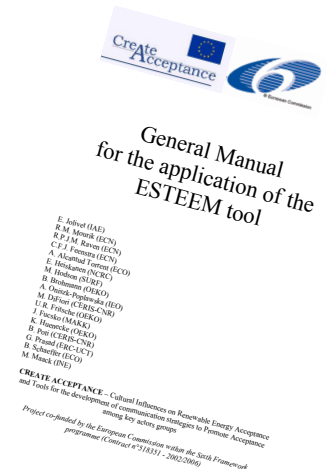
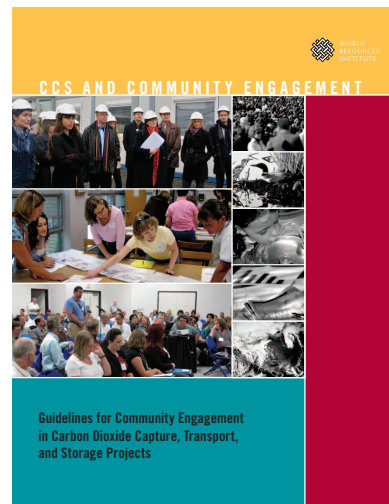
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What has already been done to guide communicators

- Toolkits/guidelines for engaging the community in CCS projects
- Social research into the effectiveness of communication in CCS projects



Toolkits for engagement

- **ESTEEM toolkit:** resulting from the FP6 Create Acceptance Project, available at <http://www.esteem-tool.eu/>.
- **WRI (2010) - CCS and community engagement. Guidelines for Community Engagement in Carbon Dioxide Capture, Transport, and Storage Projects.** World Resources Institute (WRI), Washington, Nov 2010
- **NETL (2009) - Public Outreach and Education for Carbon Storage Projects** DOE/NETL-2009/1391. Dec. 2009. National Energy Technology Laboratory www.netl.doe.gov, 62 pp.
- **CSIRO (2011) - Communication/Engagement. Tool Kit for CCS Projects (2011)** Energy Transformed Flagship, National Flagships Research, Commonwealth Scientific and Industrial Research Organisation (CSIRO) 2011. Ashworth, P., Bradbury, J., Feenstra, C.F.J., Greenberg, S., Hund, G., Mikunda, T., Wade, S. and Shaw, H.(2011) .
- **IISD (2007) Carbon Capture and Storage Communication Workshops.** University of Calgary, International Institute for Sustainable Development (IISD), Climate Change Central (Canada) CCS projects Climate Change Central (2007)
- **Engagement and communication strategies for CCS projects: Gaps between current and desired practices and exemplary strategies (2011)** <http://www.communicationnearco2.eu/documents-and-materials/>

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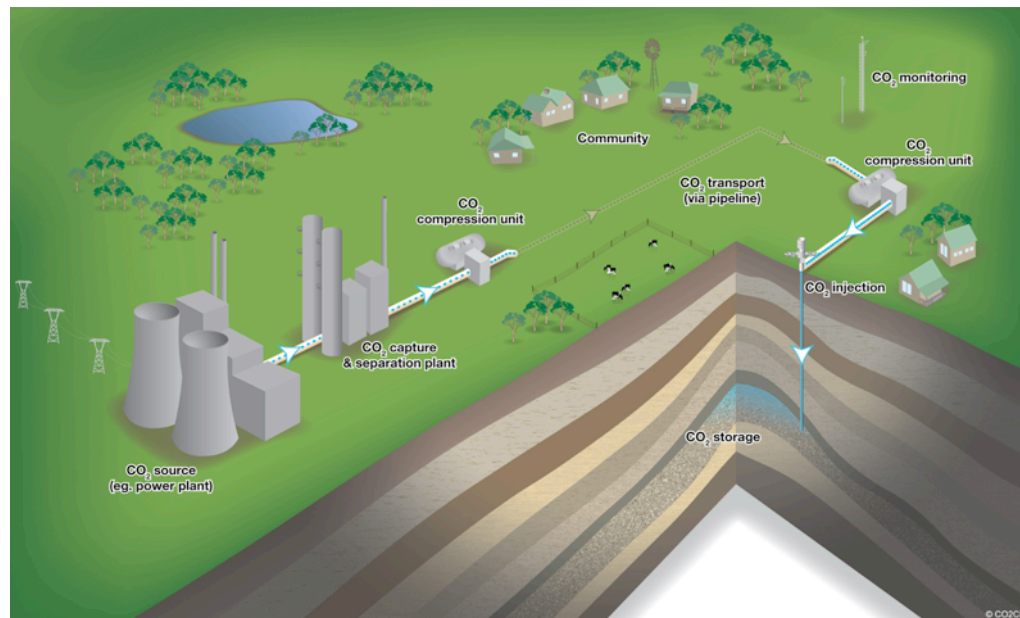


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Before talking about CCS

- Who is the target group?
- Listen
 - What do they already know?
 - What are they interested in finding out?
 - What are their concerns?



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The challenge of introducing CCS

- The problem does not have major consequences now but in the future
- The problem concerns an invisible gas (carbon dioxide)
- Carbon Capture and geological Storage (CCS), stores the gas deep underground – but it cannot be seen, so how do we know it stays there?

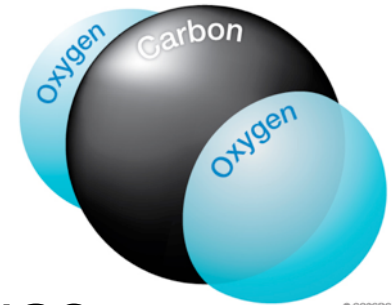


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Challenges for new technology in general

- Lack of trust for the technology
- Cost of the technology
- Change needed for the technology
- Do the benefits of the technology outweigh the disadvantages?



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The importance of context

- Social research has shown that CCS needs to be introduced in the context of delivering energy and reducing carbon dioxide emissions



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Major ideas

- Portfolio or range of solutions – wedges
- Need fossil fuel for energy security in near-term
- Geological storage of carbon dioxide mimics nature

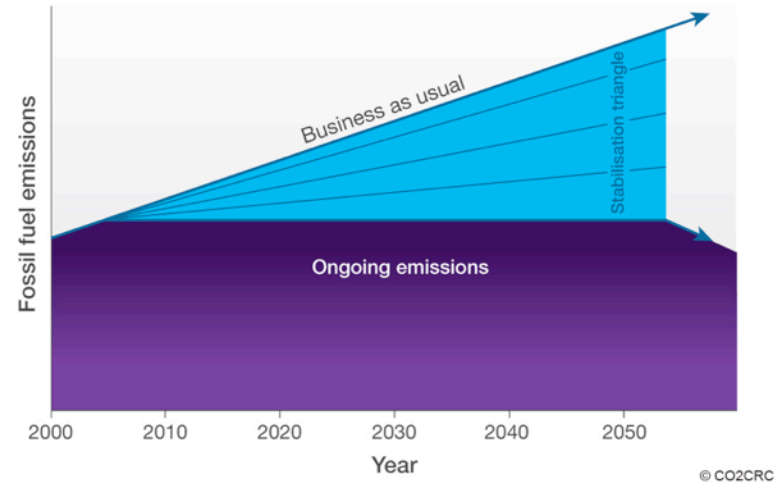


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Talking about CCS

Where:

- Face to face meetings
- Television, newspapers
- Online

With:

- Diagrams/text
- Videos
- Physical props (rocks/core, carbonated water/balloons etc)

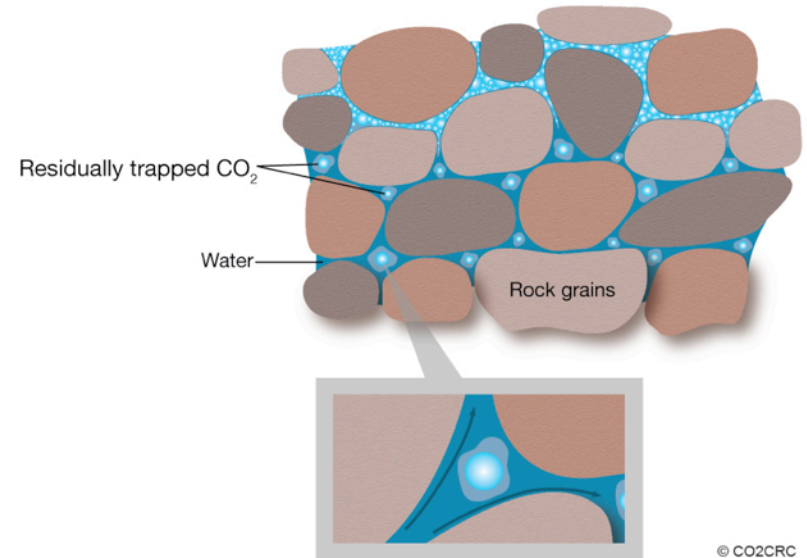


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Keeping it simple

- No need for detailed understanding of science
- The earth as a “container”
- Rocks can store gases/liquids
- Depth for effective storage
- Isolation from ground water
- Testing for possible leaks



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Who should talk about CCS?

“The CCS communicator needs ...to **have adequate understanding** of and be able to **communicate in multiple ways** about geologic concepts such as permeability, porosity, fluid movement, rock composition, and earthquakes. These concepts should **be presented in simple, informative, and interesting ways** that provide **visual, aural, and textural** ways of understanding CCS and these common questions.”

In Communication of carbon capture and storage: Outcomes from an international workshop to summarise the current global position, CSIRO 2010



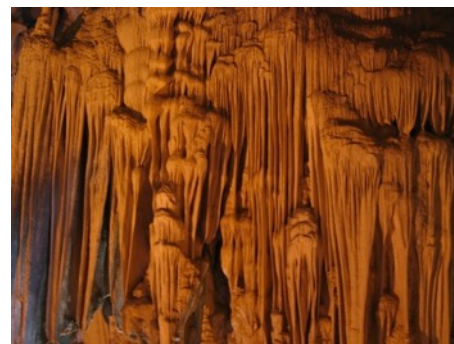
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Points of misunderstanding

- Where electricity comes from
- Carbon, carbon dioxide and methane
- Time need for transition to renewables
- Underground storage
- Depth of storage
- Coal seam gas operations



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Videos

Big CCS – excellent animation of the contribution of CCS to emission reduction

<http://www.sintef.no/Projectweb/BIGCCS/Animation/>

CCS in five minutes - Bellona

<http://bellona.org/ccs/bellona-and-ccs/bellona-studies/why-do-we-need-ccs.html>

ZEP (Zero emissions platform) - The Hard Facts behind Carbon Capture and Storage – CCSa

<http://www.zeroemissionsplatform.eu/>



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Videos

Australian Coal Association, why we can't just stop using coal. Middle of the video 1:27 to 2:05

<http://www.newgencoal.com.au/videos.aspx?video=vE2oP489BSM>

Australian Coal Association 1st minute

<http://www.youtube.com/watch?v=ROEFaHKVmSs>

Construction of capture facilities

<http://www.youtube.com/watch?v=KDtC5DCA4Bg&feature=related>



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Videos

CCUS from the energy institute.

<http://www.youtube.com/watch?v=3dm1esCpzR0>

LBNL animated video

<http://www.youtube.com/watch?v=gr9cznZFulc&feature=related>

NETL – animation of storage

<http://www.youtube.com/watch?v=svAHlYdkoks&feature=related>



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Videos

Alberta CCS

<http://www.youtube.com/watch?v=R0i6dhEPSwU>

CCS by Atticus (10 minutes)

<http://www.youtube.com/watch?v=3hdghPdYEyo&feature=endscreen>

CO2CRC – subsurface trapping

http://www.co2crc.com.au/imagelibrary2/vid_otway_leading_storage_research.html

CO2CRC – storage rocks and sealing rocks

http://www.co2crc.com.au/imagelibrary2/vid_chocolate_ccs.html



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Images

CO2CRC

<http://www.co2crc.com.au/imagelibrary/>

Scottish Carbon Capture & Storage

<http://www.geos.ed.ac.uk/sccs/public/teachers/>

CO₂ Capture Project

[http://www.co2captureproject.org/
image_library.html](http://www.co2captureproject.org/image_library.html)



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Conclusion

- There are many resources available now
- Resources should be tested to see if they are effective
- Know your audience
- Start simply – visual, tactile
- Be ready to listen to concerns and be prepared to answer questions
- The communications team should understand CCS and have access to technical information



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谢谢

Thank you

