CO$_2$GeoNet highlights

Ceri Vincent, CO$_2$GeoNet & BGS

CSLF Technical Group Meeting
4 – 5 November, Chatou, France
CO$_2$GeoNet celebrates 11$^{th}$ anniversary as a legal entity in 2019!

- Created as EU FP6 **Network of Excellence** in 2004,
- Became a not for profit **Association** under French law in 2008
- **Now has Pan European coverage**; comprises **30** research institutes from **21** countries
- **Draws together over 300** researchers with the multidisciplinary expertise needed to address all aspects of CO$_2$ storage

www.co2geonet.com
CO$_2$GeoNet mission: support the safe and efficient deployment of CO$_2$ storage

- Disseminate integrated research results, including via training courses
- Undertake joint scientific research activities
- Provide impartial, evidence-based scientific advice
- Provide information for and communicate with key stakeholders

www.co2geonet.com
ENOS project

- ENOS project; 29 partners from 17 countries, 5 field laboratories/pilot sites, Sept. 2016 – Aug. 2020

- ENOS papers from GHGT-14 now available
  - Overview poster – ENOS; the story so far
  - Innovative tools for quantification of CO₂
  - Seasonal CO₂ storage at Q16-Maas
  - Linking monitoring and risk assessment at Hontomin

ENOS has received 12.5 M€ funding from the European Union’s Horizon 2020 research and innovation programme under grant agreement No. 653718
ENOS – a few points of recent progress

GeoEnergy Test Bed
Contract for CO₂ injection kit signed

Risk assessment framework report
Report on assessing potential risks from boreholes

Sotacarbo Fault Lab
Drilling of vertical monitoring complete

Monitoring tool development:
Mobile gas detector improved

http://www.enos-project.eu/
Sotacarbo Fault Lab – planned wells

- Permits for drilling and CO₂ injection already in place
- Drilling of vertical monitoring well completed in October 2019 (well has optic fibre and Electrical Resistivity Tomography ERT)
- Next – geophysical logs and drilling of injection well with fibreglass casing with the ERT and fibre optic cables soon

Activities funded by the Regional Government of Sardinia and by the Italian Ministry of Economic Development

http://www.enos-project.eu/
Training – ENOS project

- MSc in CO₂ storage
- Call for students open (deadline 15 Jan 2020)
- Course starts Feb 2020

https://web.uniroma1.it/masterco2
Act now for zero emissions: the role for CCUS
key messages from 2019 Open Forum

• Society reasonably demands a **just transition to a low-emission future**
• Everyone – citizens, politicians, industry – has a **shared responsibility** towards climate sustainability
• The **cost** for mitigating climate change will be dramatically higher without CCS. Implementing large scale CCS is a challenge, but more dramatic changes to large scale infrastructure have been made in the past
• Clear, consistent and long-term policy and regulatory measures are needed to **provide a predictable business landscape that will attract investment**
• CCS is an **opportunity for economic growth and job creation**
• **Establishing and maintaining a dialogue** on CCS is essential, both in terms of international actions to drive CCUS forward, but also on a local level

http://conference2019.co2geonet.com/
2019 Open Forum workshops - highlights

CO\textsubscript{2} storage stories; learning by doing (CO\textsubscript{2}GeoNet-CSLF workshop)

- Topics: seismicity, injectivity and monitoring CO2 storage sites.
- Experience from projects in US, Canada, Norway, Japan, Iceland and Algeria were presented
- Highlighted the value of sharing lessons learned, not just on science, but on practical aspects

Towards commercialisation; insights from US and Norway (CLIMIT and ARI)

- facilitated knowledge sharing on establishing industrial-scale CCS worldwide
  - Successful business cases and experience from US (EOR)
  - Northern Lights project – key issues from storage operators

http://conference2019.co2geonet.com/
http://www.co2geonet.com/resources/#1379
Lausanne, 1 – 5 July 2019

Joint CO$_2$GeoNet – ENOS activity – recognise importance of engaging with civil society and media

Objective of booth was to interest journalists in CCS

Organised ‘coffee and cake’ event – attended by around 100 journalists

Half of the attendees signed up for the ENOS and CO$_2$GeoNet newsletters – hope this is a sign they want to know more about CCS!

Coffee & cake” event at WCSJ (photo courtesy N. Poulsen)
Selection of actions since previous CSLF TG meeting

- Interview of CO₂GeoNet ExCo Chair for educational program about Northern Lights CCS project (program coming soon)
- ENOS Spring school hosted at Hontomin pilot site (May 2019)
- Sulcis Summer School (June 2019)
- Scientific Diving School at NATLAB, Panarea (an ECCSEL facility) - CO₂GeoNet will be a co-organiser of the 4th school (September 2019)
- Comments on EU Sustainable Taxonomy via ZEP
- Presentation at 10th International CCS Forum in South Korea & seminar (July 2019)
CO₂GeoNet news

CO₂GeoNet President Emeritus awarded Chevalier de la Légion d'honneur medal, the highest French recognition for her scientific activities and merits (October 2019)
Some upcoming actions (1)

Joint research activities

• **ENOS project** continues – advancing monitoring tools and techniques etc

• **CO$_2$GeoNet** members participated in **H2020 proposal** 'low carbon industrial production using CCS', to support an industrial driven full chain project (submitted)
Some upcoming actions (2)

Scientific Advice

- **ZEP Implementation Working Group** on Action 9 of the SET Plan (‘renewing efforts to demonstrate CCS in the EU….’ ) in collaboration with EERA

- **ISO standards** - CO$_2$GeoNet will continue to contribute to ongoing work

- **Will the CSLF regional champion exercise be repeated?**

Training and capacity building

- **ENOS MSc** course on CO$_2$ storage
(possibly) confirmed event at COP25

*Pathways to a sustainable future; governance of CO2 removal & mitigation strategies for industry* - in collaboration with Carnegie Climate Governance Initiative and ImplementaSur – was confirmed for 11th December in EC Pavilion but now waiting for update after confirmation of new venue

Proposed actions at COP:

**Booth:** We need CO$_2$ capture and storage (CCS & CCUS) to meet the Paris Agreement targets

**Side event:** Meeting the climate sustainability challenge with ready-to-go technologies

**Joint press release** with national CO$_2$ Clubs (a follow-up action from Open Forum workshop)
Save the date – Open Forum & workshops 2020

11 - 14 May 2020

Themes

• CCS is essential, not an option
• National strategies toward CCUS
• ENOS results
• Success stories from around the world
• Emerging technologies/added value through utilisation
• Workshop themes *tbc*

Do we want to hold another joint CO$_2$GeoNet – CSLF workshop? Possible themes?
THANK YOU FOR YOUR TIME

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