

CO₂GeoNet highlights

Ceri Vincent, CO₂GeoNet & BGS

CSLF Technical Group Meeting

4 – 5 November, Chatou, France



THE EUROPEAN NETWORK OF EXCELLENCE ON CO₂ STORAGE

CO₂GeoNet celebrates 11th 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 CO₂ storage



CO₂GeoNet mission: support the safe and efficient deployment of CO₂ storage

Disseminate integrated research results, including via training courses

Provide impartial, evidence-based scientific advice

Undertake joint scientific research activities

Provide information for and communicate with key stakeholders



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



Enabling C
R. Berenblyu
Pouls



ENOS has received 12.5 M€ funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No. 653718

SCIENTIFIC RESEARCH

ENOS – a few points of recent progress



GeoEnergy Test Bed

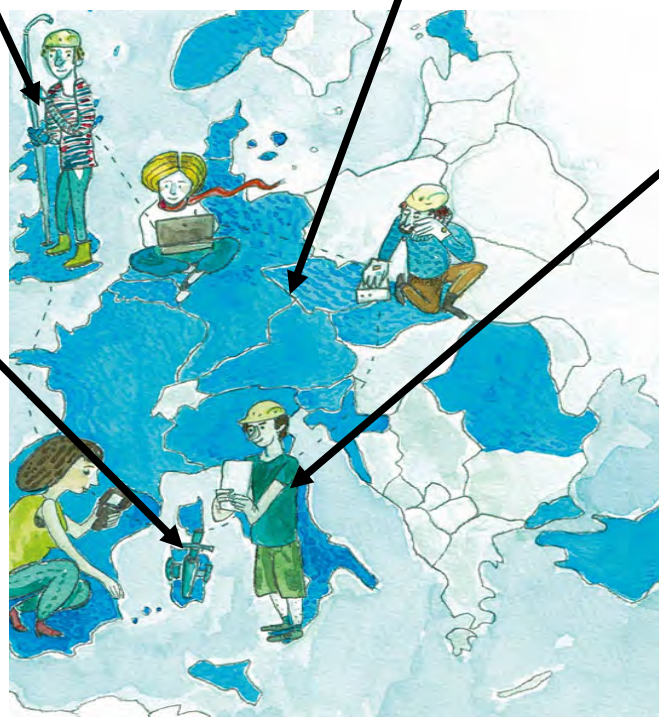
Contract for CO₂ injection kit signed

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



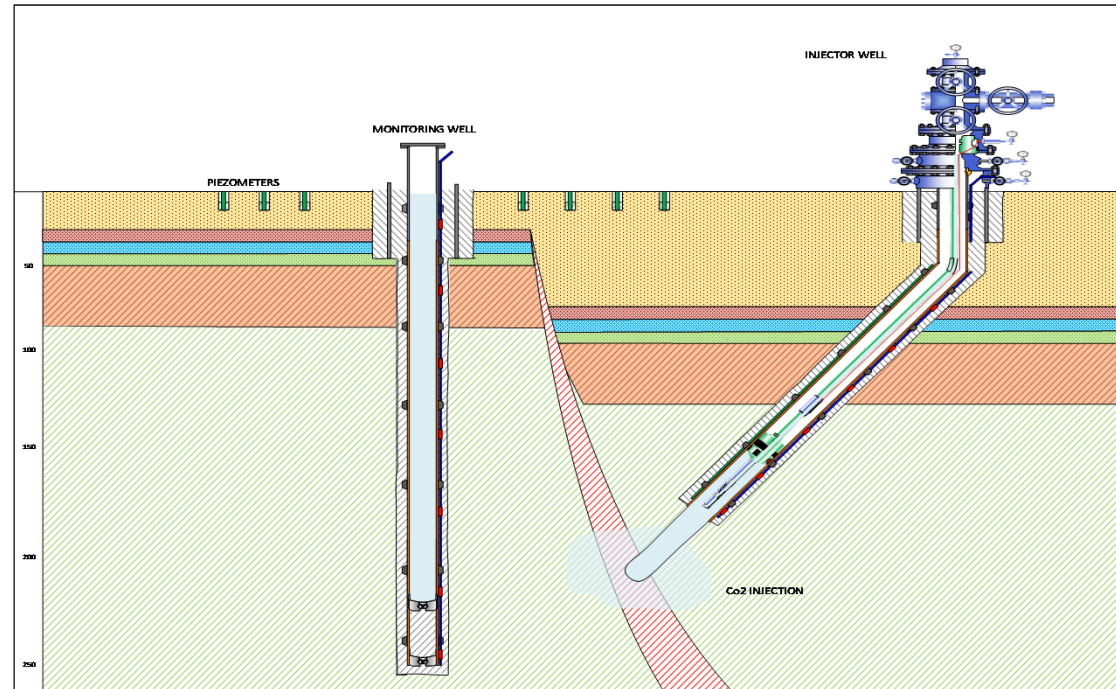
Sotacarbo Fault Lab – planned wells



ENOS
Enabling Onshore CO₂ Storage



- 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**

Training – ENOS project



HOME PROGRAM NEWS

Home / Notizie / **News for students**



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



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/>

http://www.co2geonet.com/media/63402/key-messages-co2geonet-of_2019_final_lr.pdf

KNOWLEDGE SHARING

2019 Open Forum workshops - highlights



CO₂ storage stories; learning by doing (CO₂GeoNet-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>

KNOWLEDGE SHARING

11th World Conference of Scientific Journalists



- Lausanne, 1 – 5 July 2019
- Joint CO₂GeoNet – 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 CO₂GeoNet 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)
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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
- CO₂GeoNet 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** - CO₂GeoNet will continue to contribute to ongoing work
- **Will the CSLF regional champion exercise be repeated?**

Training and capacity building

- **ENOS MSc** course on CO₂ storage
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COP25 - Communicating the role for CCS



(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 CO₂ 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 CO₂ 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 CO₂GeoNet – CSLF workshop? Possible themes?



THANK YOU FOR YOUR TIME

www.co2geonet.com

info@co2geonet.com

