



International Sulcis CCS Summer School

2016



IN COLLABORATION WITH



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Grande Miniera Serbariu

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For more information:

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THANKS TO



International Sulcis CCS Summer School

Centro Ricerche Sotacarbo Grande Miniera di Serbariu
Carbonia, Italy

4th edition

Tuesday, June 28th, 2016
Introduction

Wednesday, June 29th, 2016
CO₂ capture approaches and technologies

Thursday, June 30th, 2016
CO₂ utilization technologies

Friday, July 1st, 2016
CO₂ storage

The interest in the Sulcis CCS Summer School can easily be explained by the growing worldwide attention for the technologies of separation and containment of carbon dioxide (so called CCS – “Carbon Capture and Storage”). The lectures programme will cover the range of techniques developed for the capture, transport and geological storage of CO₂, for which the Sulcis basin is the ideal laboratory for experiments.

June 28th July 1st 2016



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SULCIS CCS SUMMER SCHOOL



DAILY PROGRAMME

Tuesday, June 28th, 2016 - Introduction

Session chairman: Alessandro Lanza (Sotacarbo, Italy)

10:30 **Open ceremony, welcome and general introduction** Alessandro Lanza (Sotacarbo, Italy)

11:00 **The new strategy of Sardinian Region for technological innovation and dissemination** Delegate from Regional Government of Sardinia, Italy

11:40 **CCS in the European and Italian policies** Delegate from Ministry of Economic Development, Italy

12:20 **Climate changes: the Italian policies** Delegate from Ministry of Environment and Protection of Land and Sea, Italy

13:00 lunch

Session chairman: Giorgio Cau (University of Cagliari, Italy)

14:40 **Sources of CO2 and energy balance** Giorgio Cau (University of Cagliari, Italy)

14:00 **Energy saving, renewable sources and CCS for a sustainable development** Volker Krey (IIASA and IPCC, Austria)

15:20 **CO2-free power generation: economic performance** Matthias Finkenrath (Kempten University of Applied Sciences, Germany)

16:00 Visit to the Sotacarbo pilot platform and laboratories

17:00 Interactive programme (meeting of the workgroups)

18:00 End of day 1

20:00

Social dinner

Wednesday, June 29th, 2016 - CO2 capture approaches and technologies

Session chairman: Toby Lockwood (IEA Clean Coal Centre, UK)

9:00 **CO2 capture: the pre-, post- and oxy-combustion approaches** Vittorio Tola (University of Cagliari, Italy)

9:20 **Pre-combustion CO2 capture: liquid solvents and mineral carbonation** Aimaro Sanna (Heriot-Watt University, United Kingdom)

10:00 **Post-combustion CO2 capture technologies** Paolo Deiana (ENEA, Italy)

10:40 **Power generation through oxy-fuel combustion** Toby Lockwood, IEA Clean Coal Centre, United Kingdom)

11:20 Break

11:40 **CO2 separation technologies by membranes** Maria Grazia De Angelis (University of Bologna, Italy)

12:20 **CO2 capture with membranes in the US: the experience of MTR** Tim Merkel (Membrane Technology and Research, USA)

13:00 lunch

14:00 **Advanced CO2 capture technologies** Bhima Sastri (U.S. Department of Energy, Washington, DC, USA)

14:40 **ECCSEL: the European CO2 Capture and Storage Laboratory Infrastructure** Sverre Quale (Norwegian University of Science and Technology, Norway)

15:20 Visit to the Sotacarbo pilot platform and laboratories

16:20 Interactive programme (meeting of the workgroups)

17:30 End of day 2

CENTRO RICERCHE SOTACARBO

GRANDE MINIERA SERBARIU

CARBONIA - ITALY

CARBON CAPTURE AND STORAGE SUMMER SCHOOL

June 28th - July 1st 2016

DAILY PROGRAMME

Thursday, June 30th, 2016 - CO2 utilization technologies

Session chairman: Serge Perineau (World Coal-To-X, France)

09:00 **CO2 utilization: general introduction and approaches** Simonetta Palmas (University of Cagliari, Italy)

09:20 **Enhanced oil and gas recovery by injecting CO2** Roman Berenblyum (International Research Institute of Stavanger, Norway)

10:00 **CO2 to liquid fuels: hydrogenation processes** Elisabetta Rombi (University of Cagliari, Italy)

10:40 **CO2 to liquid fuels: electrochemical and photo-electrochemical processes** Manuel Alvarez-Guerra (Universidad de Cantabria, Spain)

11:20 Break

11:40 **Syngas enrichment by reacting CO2 with H2S: an innovative approach** Flavio Manenti (Politecnico di Milano, Italy, and Technical University of Berlin, Germany)

12:20 **Coal to X and CCS: a great association** Serge Perineau (World Coal-To-X Association, France)

13:00 lunch

14:00 Interactive programme (meeting of the workgroups)

15:30 Open Workshop on Climate Changes See program below

18:30 End of day 3

Friday, July 1st, 2016 - CO2 storage

Session chairman: Sallie Greenberg (University of Illinois, USA)

9:00 **CO2 storage: where we are and new challenges** Sergio Persoglia (GO2GeoNet, Italy)

9:40 **Cap rock-reservoir hydraulic characterization and test implementation. Experiences of Hontomin site** Carlos de Dios (Ciuden, Spain)

10:20 **Instruments for material characterization and monitoring** Silvana Fais and Francesco Cuccuru (University of Cagliari, Italy)

11:20 Break

11:40 **Site monitoring: Experiences from the USA projects** Sallie E. Greenberg (University of Illinois at Urbana-Champaign, Illinois, USA)

12:20 **Site monitoring** Axel Liebscher (GFZ and CO2GeoNet, Germany)

12:40 **The role of public in CCS projects** Sallie E. Greenberg (University of Illinois at Urbana-Champaign, Illinois, USA)

13:00 lunch

14:00 **The Sulcis coal basin: an Italian and European project for CO2 geological storage** Alberto Plaisant (Sotacarbo, Italy)

14:30 Interactive programme (meeting of the workgroups)

16:00 **Summary and closure of the School** Stefano Giammartini (Sotacarbo/Enea, Italy)

16:30 Visit to the Serbariu Old Mine Museum

18:30 End of day 4

OPEN WORKSHOP ON CLIMATE CHANGES

Thursday, June 30th, 2016

(ITALIAN and ENGLISH Language)

Workshop chairman: to be defined

FOR MORE INFORMATION

WWW.SULCISCGSSSUMMERSCHOOL.IT

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