EUROPEAN GEOTHERMAL CONGRESS 2025

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99.	Elevated Potential for Lithium Extraction in Central Italy: Geological and Geochemical Characterization and Conceptual Model Definition	Paolo Basile, Giorgio Buonasorte, Lorenzo Favaro, Luigi Marini, Daniele Reali, Luca Xodo
100.	A Novel Approach to Modeling Fracture Corridors in Naturally Fractured Reservoirs	Paromita Deb, Carlo Guarnieri Calo' Carducci, Martin O. Saar
101.	Feasibility and Economic Potential of Urban Geothermal District Heating Systems	Patrick Buchenberg, Jaromir Jeßberger, Beneharo Reveron Baecker, Markus Döpfert, Thomas Hamacher, Fabian Uth, Nora Medgyesi
102.	GEONORM: Integrating Geothermal Energy into a District Heating System – A Multidisciplinary Case Study from the UCD Campus, Ireland	Paul Stafford, James McAteer, Prof. John J. Walsh, Dr. Pablo Rodriguez-Salgado , Dr. Srikumar Roy, Prof. Eleni Mangina, Dr. Adamantios Bampoulas, Dr. Mohammad Saffari, Prof. Budi Zhao, Dr. Shuoshuo Xu, Dr. Duygu Kiyan, Dmitry Molodtsov Dr. Simon Todd
103.	A New Correlation For Heat Transfer Between A Wellbore And Surrounding Rock In The Presence Of Fluid Flow In Porous Media	Pietro Ungar, Edgar Hernandez, Edoardo Falchini, Domenico Liotta, Daniele Fiaschi
104.	Spatial Multi-Criteria Play-Based Analysis for HT-ATES Systems Across the Swiss Molasse Plateau	R. Lehu, Luca Guglielmetti, A. Daniilidis,, B. Valley[4], A. Moscariello
105.	Outcrop-based fractures and faults characterization in Carbonate Reservoirs to enhance geo-energy exploration success.	Rémi Lehu, Fiammetta Mondino, Yasin Makhloufi
106.	Risk And Uncertainty Assessment For Geothermal Projects Using Reverse Enthalpy Methodology	Roberto Gambini, Dave Water, Franco Sansone, Valerio Memmo
107.	Utilising geothermal play types to evaluate potential for geothermal supplied district heating in Ireland	Rory Dunphy, Vincent Roche, Pablo Rodriguez Salgado, Koen Torremans, Mattia Coltri, John Walsh, Sarah Blake
108.	A Numerical Modelling Framework for Assessing CO2 Flux from Geothermal Systems	Ryan Tonkin, Michael Gravatt, Abigail Swanepoel, Muhammad Raihannur, Jérémy Riffault, Theo Renaud, John O'Sullivan, and Michael O'Sullivan
109.	Geospatial Analysis for Identifying Suitable Sites for Subsurface Seasonal Thermal Energy Storage: A Case Study of City of Zurich	Sadik Yigit, Luca Baldini

110.	FindHeat - An Innovative Exploration Philosophy and Toolkit for Finding Geothermal Heat Efficiently and Sustainably	Sebastian Geiger, Alexandros Daniilidis, Pierre-Olivier Bruna, Gerdien de Vries, Hester Claridge, Valeria Nogales, Fabiën Dekker, Gary Hampson, Matthew Jackson, Carl Jacquemyn, Thomas Driesner, Benoit Lamy-Chappuis, Alexander Grayver, Josef Vlcek, Lucie Janku, Pablo Hernandez, Axel Garcia Craviotto, Dagrun Arnadottir, Halldora Gudmundsdottir, Lilja Tryggvadottir, Carole Glass, Clement Baujard, Albert Genter, Mark Bentley, Arndt Peterhänsel, Tim Wynn, Panos Doulgeris, Peter Haffinger, Amir Babasafari
111.	A Novel Approach of Pre-Drilling Operational Probability of Success in Geothermal Projects through Monte Carlo Simulations and Geostatistical Modeling	Sepehr Sangin, Dr. Matthias Franz, Prof. Inga Moeck
112.	Redefining Success: A Critical Review of Existing Probability of Success Methodologies in Geothermal Projects	Sepehr Sangin, Prof. Inga Moeck, Dr. Matthias Franz
113.	Benefits and challenges of AI-based multi-physics integration for deep geothermal reservoir exploration	Simon Védrine, Jean-Luc Formento, Carole Glaas, Joshua Pwavodi, Anaïs Montagud, Vincent Maurer, Guy Marquis, Albert Genter, Mathieu Darnet
114.	Benefits and challenges of AI-based multi-physics integration for deep geothermal reservoir exploration	Simon Védrine, Jean-Luc Formento, Carole Glaas, Joshua Pwavodi, Vincent Maurer, Guy Marquis, Albert Genter, Mathieu Darnet
115.	Regional geothermal exploration, example from the Province of Noord- Brabant, the Netherlands	Sjoukje T. de Vries, Henk van Lochem, Milan Brussée and Merel Swart
116.	Heat Flow in Europe: A new quality-controlled resource for geothermal energy exploration	Sven Fuchs, Ben Norden, Florian Neumann, Elif Balkan-Pazvantoğlu
117.	Tectonic Controls and Reservoir Characteristics of Major Geothermal Fields in Western Anatolia: Insights from Fault Zone Analysis and Conceptual Modeling	Taygun Uzelli
118.	Modelling the complex Lithium-Chloride enriched brine in the Salton Sea geothermal system	Theo Renaud, John O'Sullivan, Ken Dekkers, Michael O'Sullivan, Jeremy Riffault, Joris Popineau, Adrian Croucher
119.	Statistical Reservoir Characterization with Different Workflows of Seismic Inversion Including Machine Learning – Examples from the North-West German Basin	Timon Stamatopoulos, Hartwig von Hartmann, Inga Moeck

120.	Inherited structural plays and their reactivation within the recent stress field as a means to predict blind geothermal systems in orogenic belts	Timothy C. Schmid, Marco Herwegh, Alfons Berger, Herfried Madritsch, Tobias Diehl, Daniela B. van den Heuvel, Christoph Wanner, Larryn W. Diamond
121.	Introducing the Central Europe SEEBASE®, a bottom-up basement interpretation and geothermal model of onshore Europe	Timothy Debacker, Lynn Pryer, Phil Henley, Jane Blevin, Marina den Hartog
122.	Quantifying Porosity, Permeability and Reservoir Quality in Geothermal Wells Using a New High Efficiency Nuclear Magnetic Resonance Logging Methodology	Tom Bradley, Elisabeth von Wilamowitz-Moellendorff, Susanne Laumann, Philip J. Vardon, Auke Barnhoorn
123.	Knowing the Basics? Optimising Logging of Geothermal Wells to Efficiently and Safely Determine Essential Subsurface Information	Tom Bradley, Elizabeth Von Wilamowitz-Moellendorff, Auke Barnhoorn, Susanne Laumann, Philip J Vardon
124.	Development of a Decision Support System for the geothermal reservoir of the North Alpine Foreland Basin (NAFB) in Bavaria, Germany	Valerie Ernst, Felix Schölderle, Daniela Pfrang,, Kai Zosseder
125.	Characterisation of deep reservoirs for geothermal application: development of a proof of concept in the Loiret department (Centre-Val de Loire region, France)	Virginie Hamm, Laurent Beccaletto, Aurélien Bordenave, Benoît Issautier, Laure Capar, Stéphane Marc, Alexandre Stopin
126.	Common Risk Segment mapping to de-risk geothermal exploration	Yasin Makhloufi, Silvia Omodeo Sale, Ovie Euretya and Andrea Moscariello
127.	Could gravity data and interpretations support deep geothermal prospection in Switzerland?	Yassine Abdelfettah, Alex Hürlimann, Aline Besson Hürlimann, Chadia Volery, and Niels Giroud
128.	Norway's onshore deep geothermal potential	Yuriy Petrovich Maystrenko, Marco Brönner, Odleiv Olesen, Trond Slagstad and Bjørn Eskil Larsen
129.	Geoloop – a depth-dependent borehole heat exchanger performance model	Zanne Korevaar, Aris Lourens, Jan-Diederik van Wees

R-D 1.2 Resource development (drilling, well construction)

1.	Long-Term Barrier Performance Under Heating and Cooling Cycles: An Experimental Analysis of Grouting and Pellets Behaviour for HT-ATES Systems	Alexis Koulidis, Martin Bloemendal, Philip J. Vardon
2.	Overview of novel drilling technologies to develop medium-deep and deep geothermal resources	Andreas Reinicke and Martin O. Saar
3.	Performance of grouting materials for medium-deep closed-loop wells	Anisa Noor Corina, Cjestmir V. Hockin
4.	Optimizing Cementitious Materials for Geothermal Well Integrity: A challenge for cementing additives	Arnaud Cadix, Mario Hernandez, Dylan Blaizot, KyiPhay Thant
5.	Definition of Stimulation Intervals for Deep Geothermal Operations using Borehole Image Logs	Christian Rambousek
6.	Experimental investigation of hole cleaning conditions of Electro Pulse Power (EPP) drilling technology for geothermal wells	Elisa Battistutta, Vedran Zikovic, Andreas Reinicke, Jens Wollenberg, Arturs Blinovs and Geertjan van Og
7.	Effective thermal conductivity of grout in geothermal systems: A comparative study of steady-state and transient measurement methods	Fabrizia Giordano, Daniel Lager, Edith Haslinger, Robin Friedrich, Julia Hekerle, Anna Novotny, Abdulrahman Dahash
8.	Analytical Model for Assessing the Viability of Repurposing a Horizontal well to Geothermal Heat Production	Goitia Yago, Martinez Iker, Ibáñez Santiago Enrique , Sanz Paula, Mujica Marelys, Van der Geest Charlie
9.	Stability and Controllability of Multi-Leg Closed-Loop Geothermal Systems	H. Murat Panayirci, Ashley Johnson
10.	Influence of Creep and Plastic Behaviour on Thermal Fatigue of High Temperature Geothermal Casings	Hieu-Nguyen Hoang, Steinar Haugland, Terence Coudert, Gaute Gruben, Virgile Delhaye, Terence Coudert, Gunnar Skulason Kaldal, Lilja Tryggvadottir
11.	Modelling of high temperature well cements for geothermal well integrity predictions	Hieu-Nguyen Hoang, Terence Coudert, Gunnar Skulason Kaldal, Lilja Tryggvadottir, Andri Isak Thorhallsson

12.	Gaps, challenges, and pathways forward for superhot rock geothermal: summary report	Jenna Hill, Angela Seligman, Terra Rogers, and Megan Sever
13.	Anchoring Downhole Tool And Plasma-assisted Drilling	John Wisinger, William Murray, Liam Lines, Matus Gajdos, Tomas Kristofic, Igor Kocis, Antony Branch
14.	Design and Performance Evaluation of Hybrid Drilling Bits Combining High-Pressure Water Jetting and Percussion for Deep Geothermal Applications	Laurent Gerbaud, Naveen Velmurugan, Emad Jahangir, Hedi Sellami, Florian Cazenave, John-Paul Latham, J. Xiang, Sadjad Naderi, Pascal Alexandre Kane, Stéphane Dumoulin
15.	Enhancing Deep Geothermal Energy Recovery in the South German Molasse Basin by implementing Extended Reach Drilling Concepts	Manuel Fasching, Maximilian Minihold, Daniel Lackner, David Lentsch, Artjom Baydin, Toni Ledig and Clemens Langbauer
16.	Porosity and permeability distribution in the Carboniferous Limestone Group in the Belgian Campine Basin (Mol-Dessel area)	Matsen Broothaers, Edgar Hernandez Acevedo, Ben Laenen, Justin Pogacnik, Bernd Rombaut
17.	Resolved CFD-DEM simulation of irregularly shaped cuttings removal in deep hard-rock drilling	Pasha Piroozmand, Davood Farshi
18.	Advances in laser drilling technology from DeepU Project	Pawel Slupski, Georg Cerwenka, Maciej Chorowski, Eloisa di Sipio, Antonio Galgaro, Kevin Mallin, Adele Manzella, Riccardo Pasquali, Arno Romanowski, Raffaele Sassi, Olaf Steinmeier, Luc Pockele
19.	Foam cement for super-hot geothermal wells	Rym Bouchair, Simon James, Aurélien Bouhours, Sourabh Bhat, Thibault Thonon, Axel Pierre Bois
20.	Numerical analysis of foam cement placement and reverse pumping in geothermal wells	Sourabh Bhat, Axel-Pierre Bois, Manh-Huyen Vu
21.	Wellbore thermal model—Heat moderation for drilling into hot geothermal reservoirs	Thomas Gruner
22.	DEPLOI Development Projects: Catalyzer for Novel Steel Shot Drilling Technology	Vedran Zikovic, Andreas Reinicke, Frank van Bergen, Jan Jette Blangé

R-E 1.3 Subsurface engineering

1.	Injection-induced slip and permeability evolution of different fracture types during laboratory shear-flow experiments	Alireza Kalantar, Hannes Hofmann, Yinlin Ji, Guido Blöcher, Lena Muhl, Arno Zang
2.	Enhancing Seismic Risk Management in Geothermal Projects: The ATLAS Advanced Traffic Light System for Real-Time Monitoring and Forecasting	Andres Alcolea, Falko Bethmann, Benjamin C. Dyer, Dimitrios Karvounis, Rémi Fiori and Peter Meier
3.	Enhanced model for borehole heat exchanger	Andrew Parry, Matthieu Simon, Carlos Merino, Giovanni Sosio
4.	Using FEFLOW for the hydraulic, thermal and reactive transport modelling in deep geothermal reservoirs and for the quantification of the potential scaling	Carlos A. Rivera Villarreyes, Ernesto Meneses Rioseco
5.	Geothermal ground collectors: Efficiency and performance considering cyclic varying freezing and thawing conditions	Carlos A. Rivera Villarreyes, Ernesto Meneses Rioseco
6.	Experimental Evaluation of Roughness Effects on Flow Dynamics in Rock Fractures	Carola M. Buness, Fabian Nitschke, Thomas Kohl
7.	Rapid Multi-Domain Multi-Resolution Simulation of CO_2-based Enhanced Geothermal Systems (CO2-EGS)	Chin-Hsiang Chan, Tsubasa Onishi, Akhil Datta-Gupta, Morteza Esmaeilpour, Martin O. Saar
8.	Modeling of CO2 Injection and Sinking in Supercritical Geothermal Systems	Christoph Scherounigg, Rotman Criollo, Víctor Vilarrasa, Holger Ott, Keita Yoshioka
9.	Real time microseismic monitoring in Utah FORGE Using DAS and High Temperature Sensors	Dimitrios Karvounis, Ben Dyer, Remi Fiori , Peter Meier, Paul Jaques, Julia Heilig, Claire Epiney, Falko Bethmann , Dieter Ollinger , Wayne Fishback, Dana Jurick, Artur Guzik
10.	Lessons from Utah FORGE for Seismic Monitoring of Engineered Geothermal Systems	Dimitrios Karvounis, Kristine Pankow, Ben Dyer, James Rutledge, Peter Niemz, Katherine Whidden, Peter Meier, Paul Jaques, Julie Shemata, David Eaton, Joe Moore
11.	Well Concept Optimization for Marginal Geothermal Reservoir in the Netherlands	E.G.D. Barros, S.P. Szklarz, N. Khoshnevis Gargar, J. Wollenweber1, J.D. van Wees

12.	Effect of rock-fluid interaction and heterogeneities on the tensile, uniaxial strength and elastic behaviour of Dinantian carbonate intact rocks	Entela Kane, Milad Naderloo, Annemarie Muntendam-Bos ,, Auke Barnhoorn, André R. Niemeijer, Matsen Broothaers, Anne M.H. Pluymakers
13.	A new computational framework to study the synergies between geothermal fluid and natural gas production in mature reservoirs – Dual Play	Ernesto Meneses Rioseco, Jürgen Fuhrmann and Gueorgui Lee Exuzian
14.	Advances in Electric Self-Potential Monitoring	Eva Schill, Nadine Haaf
15.	Seismic Risk Mitigation for the Haute-Sorne EGS Pilot Project	F. Bethmann, A. Alcolea, B. Dyer, D. Karvounis, P. Meier, D. Ollinger, O. Zingg
16.	Effect of fluid injection protocol on pore pressure and induced seismicity during hydraulic stimulation in fractured rocks	Fanlin Ling, Lie Kong, Junlong Shang
17.	On converting Injector into Producer Wells in CPG Operations – A Feasibility Study	Flavio Manara, Tsubasa Onishi, Martin O. Saar
18.	Investigating Coupled Physical Processes in Enhanced Geothermal Systems (EGS) through High-Performance Computing	Gaëlle Toussaint, Benoît Valley, Reza Sohrabi
19.	Downhole Fluid Sampling with a Novel Downhole Sampler Developed for Superhot Geothermal Fluids	Gunnar Skúlason Kaldal, Deirdre E. Clark, Sigríður María Aðalsteinsdóttir, Finnbogi Óskarsson, Steinþór Níelson
20.	How to reduce injection-induced seismicity in Enhanced Geothermal Systems	Hannes Hofmann, Yinlin Ji, Arno Zang, Günter Zimmermann, Mauro Cacace, Mohammad Sabah, Supeng Zhang, Gergö Hutka,, Nadja Lindner, Alireza Kalantar
21.	Stochastic Optimization of the Wellbore Exergy Loss in CO2 Plume Geothermal Systems	Hasan Can Turunc, Hakan Alkan, Patrick Kowollik, Oleksandr Burachok, Moh'd Amro
22.	Heat Production from Geothermal Doublet in Caledonian Rocks	Isa Kolo, Chaofan Chen, Christopher S Brown, Wanlong Cai Gioia Falcone
23.	Fracture reactivation in geothermal reservoirs: Strategies for numerical modeling of fracture contact mechanics in thermoporoelastic media	Jakub W. Both, Marius Nevland, Ivar Stefansson, Yury Zabegaev, Eirik Keilegavlen, and Inga Berre

24.	Innovative, coiled tubing / wireline-based intervention module for enhanced geothermal recovery and thermal storage	Julian Hoffmann, Volker Wittig and Fabian Witt
25.	VITO Geothermal Project (Mol, Belgium): Reservoir Conceptual and Numerical Model Update	Justin Pogacnik, Edgar Hernandez, Bernd Rombaut, Matsen Broothaers, Ben Laenen, Virginie Harcouët-Menou, Ilshat Saifullin
26.	Well test evaluation of the Rebstockbad geothermal well in Frankfurt: Assessing well performance and reservoir dynamic behaviour	Mohamed Fadel, John Reinecker, Michael Kraml, Marcel Knebel, Kristian Bär
27.	Mitigating Seismic Risks in Geothermal Reservoirs: A Boundary Integral Modeling Approach for Optimized Injection Protocols	Mohammad Sabah, Hannes Hofmann
28.	Optimizing Advanced Geothermal Systems: Insights from the FlexGeo Project	Morteza Esmaeilpour, Daniel Pokras, Tsubasa Onishi, Jasper de Reus, Martin O. Saar
29.	Estimating Young's Modulus on a reservoir scale using interference tests: A Comparative Case Study	N. Buik, J. Kwee
30.	Mitigating seismicity and enhancing permeability in tight fractured reservoirs through Traffic Light Systems: A numerical study of the VITO geothermal site	Nadja Lindner, , Hannes Hofmann, Guido Blöcher, Mauro Cacace, , Edgar Hernandez Acevedo, Ioannis Stefanou
31.	Geothermal well placement optimization for sustainable energy production: New computational framework for fracture-controlled reservoirs	Ondřej Pártl, Ernesto Meneses Rioseco
32.	A deep monitoring borehole for subsurface processes in low-enthalpy sedimentary geothermal systems	Philip J. Vardon, Hemmo A. Abels, Auke Barnhoorn, Martin Bloemendal, Diederik Boersma, David Bruhn, Alexandros Daniilidis, Guy Drijkoningen, Alexis Koulidis, Susanne Laumann, Paula Rulff; Thorben Schöfisch, Evert Slob, Liliana Vargas Meleza, Leendert-Jan Ursem, Denis Voskov, and the wider team of national and international collaborators
33.	Revisiting the Basel-1 Hydraulic Stimulation Using a 3D Coupled Hydro Mechanical Model	Regina Fakhretdinova, Alexis Sáez, Brice Lecampion and Andrés Alcolea
34.	Live monitoring system for failure prediction of downhole production equipment to enhance efficiency and productivity of geothermal systems	Robert Stockmann, Martin Meyer, Volker Wittig

35.	Implementation of 3D fracture network model to produce a rock mass rapid characterisation tool along geothermal wells, using the example of the United Downs Project, UK	Simran Johal, Ioannis Vazaios, Christian Garvey, Matthew Free, Michael Chendorain, Tom Olver, Ryan Law
36.	Induced seismicity during the multi-year exploitation of the Rittershoffen geothermal field (France)	Vincent Maurer, Francesca De-Santis, Clara Wilmes, Olivier Lengliné, Clément Baujard
37.	Study of hydro-thermal transfer in shallow geothermal system: experimental determination of isothermal moisture diffusivity of soils	W. Zeitoun, J. Lin, V. Le Houerou, M. Siroux
38.	Study of the impact of mineral precipitation on the injectivity of geothermal wells, exemplified by waters from Polish geothermal reservoirs	Wojnarowski Paweł, Pająk Leszek, Tomaszewska Barbara
39.	Hydraulic shearing dynamics in fractured granite and sandstone	Xiang-Zhao Kong, Nikita Bondarenko, Katharina Kuhn, Dominik Mangold

R-EC 1.4 Energy conversion systems and supply

1.	Ultra-Low-Temperature District Heating Systems: Expanding Geothermal Heating and Cooling Opportunities	Bartłomiej Ciapała , Lazaros Aresti, Giorgos S. Georgiou, Georgios A. Florides, Paul Christodoulides
2.	The impact of the ambient conditions and design point on the annual performance profile of CO2-Plume Geothermal Systems	Christopher Schifflechner, Urbano Tataranni and Hartmut Spliethoff
3.	Enhancing Geothermal Energy in Industry: Technical Synergies in Heat and Cooling Systems and Stakeholder Engagement in the Horizon Europe GEOSYN Project	Dario Bonciani, Lorenzo Talluri, Adriano Milazzo, Andrea Rocchetti, Sigurd Sannan, Ole Marius Moen, Vaishak Somasundaram, Gianluca Gasperini, Chiara Pocaterra , Joanne Ahern, Loredana Torsello, Hieu Nguyen Hoang, Yuliia Demchuk, Taras Popadynets, Paride Gullo, Marco Vichi
4.	On The Usage Of A Tesla Turbine For Power Extraction From Closed-loop Geothermal Systems	Federico Gigliottia, Pietro Ungara, Daniele Fiaschia, Giampaolo Manfrida
5.	Innovative GeoController® Surface Package optimizes GeoESP® Pump in real time	Luis Franco, Gregorio Lopez, Brian Sweeney, Frank Corredor, Andres Sanchez, Hans Sjerps, Xunlez Nunez, Juan Atencia, Steven Lizcano
6.	Innovative GeoController® solution optimizes GeoESP systems in real-time	Luis Franco, Gregorio Lopez, Brian Sweeney, Frank Corredor, Andres Sanchez, Hans Sjerps, Xunlez Nunez, Juan Atencia, Steven Lizcano

R-DO 1.5 Development, operation and maintenance of geothermal plants

1.	Corrosion testing of EHLA clad casing material in a single and two-phase, high-temperature geothermal fluids	Andri Isak Thorhallsson, Erfan Abedi Esfahani, Tomaso Maccio, Gunnar Skulason Kaldal, Thorri Jokull Thorsteinsson, Helen Osk Haraldsdottir, Hieu Nguyen Hoang, Rym Bouchair, Sigrun Nanna Karlsdottir, Erlend Oddvin Straume, Lilja Tryggvadottir
2.	Five Years of Permanent Fiber Optic Monitoring in Deep Geothermal Wells in Munich: Lessons, Insights, and Evaluation	Aurelio Andy, Felix Schölderle, Daniela Pfrang, Johannes Hart, Thomas Reinsch, Kai Zosseder

3.	Can FWI be used to monitor geomechanical changes in HT-ATES reservoir?	Clara E. Fraile, Emmanuel Gaucher, Christophe Barnes
4.	Reservoir health monitoring based on ambient seismic noise and microseismicity	Claudia Finger, Giao Vu and Michal Kruszewski
5.	Control and operation optimization of geothermal plants for direct-use application under demand uncertainty with reinforcement learning	Cornelis Wessel Opgenoort, Pejman Shoeibi Omrani, Paul J.P. Egberts, Huub H.M. Rijnaarts, Shahab Shariat Torbaghan
6.	Influence of Geothermal Brine Temperature on Mild Steel Corrosion at Soultz sous-Forêts	David Fries, Corentin Penot, Guillaume Néel, Guillaume Ravier
7.	Testing Chemical Dissolution of Scaling formed in a Geothermal Plant from the Upper Rhine Graben	David Fries, Sudeshna Ghosh, Guillaume Ravier
8.	Long-term analysis of the efficiency development of various low-temperature heat sources	Franziska Bockelmann, Christian Kley and Martin Felder
9.	A look at the long-term production story in geothermal fields with multiple flash power plants	Füsun Tut-Haklıdır, Raziye Şengün-Çetin, Sanem Kılınçarslan, Seray Işık-Tezel
10.	Exploitation of passive seismic data for the characterization of geothermal systems	Ilaria Barone, Valentina Rigoni, Antonio Fuggi, Alessandro Brovelli and Giorgio Cassiani
11.	Exploitation of passive seismic data for the characterization of geothermal systems	Ilaria Barone, Valentina Rigoni, Antonio Fuggi, Alessandro Brovelli and Giorgio Cassiani
12.	The 2019-2022 sequence of induced seismicity below the city of Strasbourg, France: insights from large-scale reservoir modelling	Jean Schmittbuhl, Javier Abreu-Torres, Gergö Hutka, Mauro Cacace, Guido Blöcher, Hannes Hofmann, Vincent Magnenet and Olivier Lengliné
13.	A digital twin for simulating geochemical processes in geothermal power plants	Lars H. Ystroem, Michael Trumpp, Florian Eichinger , Johannes Amtmann, Daniel Winter, Joachim Koschikowski, Fabian Nitschke
14.	PERFORMII: Improving Geothermal System Performance Through Filter Technology Development	Laura Wasch, Jos van ‘t Westende, Laura Precupanu, Simona Regenspurg, Jörg Zotzmann, Elvira Feldbusch, Knud Dideriksen, Case van Genuchten, Stefan van der Sar, Alexander Krupp

15.	Development of a fouling prediction tool and derivation of an effective heat exchanger design for geothermal utilisation of mine water	Lukas Oppelt , Timm Wunderlich, Tom Ebel, Fritz Raithel, Willi Krause, Thomas Grab, Tobias Fieback
16.	Machine Learning for Enhancing Geothermal Energy	Michael Trumpp, Maximilian Schwenn, Lars Ystroem, Johannes Amtmann, Florian Eichinger, Daniel Winter, Joachim Koschikowski, Fabian Nitschke
17.	Experimental study of distributed acoustic sensor to monitor geothermal boreholes	P. Pfeiffer, A. Morsali,, J. Lin, V. Tinard, K. Naili, P. Pelletier, S. Lecler
18.	New Energy, Old Problems – Microbial Control in Geothermal Wells	Renato M. De Paula, Chris Jones, Stephanie Edmunds, Alison Chapman, Arnaud Cadix, Peter Wilkie, Geoff Hughes
19.	The influence of mineral scales on uniform and stress corrosion cracking of steels in artificial geothermal waters	Sabrina Marcelin, Nicolas Mary, Bernard Normand, François Ropital,, François Grosjean, Gaurav Joshi, Jean Kittel, Rita De Cassia Costa Dias, Cedric Bosch, Christophe Liotard
20.	The feasibility of subsea geothermal power plants	Sebastian Köhlert, Hasan Can Turunc, Florian Bauer, Patrick Kowollik, Hakan Alkan
21.	Silicate Scale Prevention in Low Temperature Geothermal Brine Systems: The Mechanism and Performance of a Polymer-Based Inhibitor/Dispersant	Shabnam Mohammadi, Kenneth Stuart Sorbie, Lorraine Scott Boak, Khosro Jarrahian, Eric James Mackay
22.	Seismic Imaging and Monitoring using Distributed Acoustic Sensing on dark fibers in the frame of the DeepStor geothermal project on the KIT Campus	Thomas Proença, Emmanuel Gaucher and Jérôme Azzola
23.	Fully coupled simulations and optimisation of a closed-loop considering the well, the reservoir and the surface equipment	Vlasios Leontidis, Theo Barrail, Olivier Ricois, Veronique Gervais and Christine Souque

R-HP 1.6 Geothermal heat pump technologies

1.	Optimizing Borehole Heat Exchangers with new geometries and materials: A Pareto Analysis Through Analytical Validation	Borja Badenes, Miguel A. Mateo, Hossein Javadi, Álvaro Martínez Ponce, Bruno Armengot and Javier F. Urchueguía
2.	Geothermal Trenches for Utilisation of Shallow Ground Resources	Christoph Bott, David Hoffmann, Adinda Van de Ven, Roland Koenigsdorff, Peter Bayer
3.	Effects of the application of Demand-Side Management to Ground-Source Heat Pumps	Colacino L., Violante A. C., Trinchieri R., Habib E.
4.	First results from a ground source heat pump monitoring project at the British Geological Survey Headquarters in Nottingham, United Kingdom	David Boon , Dan Crow , Gershwyn Soanes , Sami Massum Jon Chambers , Jason Ngui , Jafar Al-Jawad , Joanna Thompson , Oliver Kuras , Mihai Cimpoiasu , Jess Mackie , Judith Porter , Kaye Parker , Magret Damaschke , Elisabeth Steer, Emily Gammon , Rachel Rell , Ross Goodband , Athena Chalari
5.	Lessons learned from analyzing six years of borehole heat exchanger data	Elisa Heim, Phillip Stoffel, Norbert Klitzsch
6.	Comparison between new Enhanced Thermal Response Test methods for thermal properties evaluation in GSHP systems design	Giorgia Dalla Santa, Riccardo Da Re, Antonio Galgaro
7.	Innovative absorption chillers and heat pumps for geothermal heating and cooling applications	Ludwig Irrgang, Hartmut Spliethoff, Christopher Schifflechner
8.	Borehole heat exchanger spacing design optimization to increase the energy performance of a ground source heat pump system	Matteo Antelmi, Daniele Previtali, Sara Barbieri, Luca Alberti
9.	Influence of very hot and cold years on the performance of ground source heat pump systems	Max Jaeschke, Haibing Shao, Anke Bucher and Olaf Kolditz
10.	Field investigation of the thermo-mechanical behavior of geothermal energy micropiles in soft soils in cold climatic regions	Melissa Fabiola Yozy Kepdib, Arvind Kumar Tiwari, Alex Junker, Rao Martand Singh, Johann Antonio Facciorusso, Claudia Madiai
11.	Standing Column Well Modeling for Design and Energy Analysis	Tajwar Haque, Jeffrey D. Spitler

R-S 1.7 Storage technologies

1.	Multi-scale thermal property characterisation of a UK Triassic sandstone aquifer with relevance to ATES	David Boon, Edward Hough, Joanna Thompson, Jafar Al-Jawad, Andres Gonzalez Quiros, Richard Haslam, Rob Raine, Cath Cripps, Mike Spence, David Hetherington, Jack Croft, Helen Smith, Stephen Cresswell, Lawrence Scott, John Findlay, Kevin Taylor, Lin Ma, Jingyue Hao, Matthew Jackson
2.	Techno-economic analysis of seasonal thermal energy storage dimensioning in district heating networks: Tool development and a case study in the Netherlands	David Geerts, Wen Liu, Alexandros Daniilidis, Gert Jan Kramer
3.	A numerical study of improving the recovery efficiency in high-temperature aquifer thermal energy storage by adjusting the salinity of the working fluid	H. Gao, D. Zhou, K. Li, A. Tatomir, L. Ganzer, P. Jaeger, G. Brenner, M. Sauter,
4.	Rapid simulation of Aquifer Thermal Energy Storage using Machine Learning	Hadrian Fung, Issac Ju, Carl Jacquemyn, Meissam Bahlali, Gege Wen, and Matthew Jackson
5.	Modelling Complex Processes in HT-ATES: An Integrated Approach for Generic and Site-Specific Insights from the VESTA Project	Judith Bremer, Lars Ystrom, Andres Alcolea, Trevor A. Atkinson, Florian Bauer, Guido Blöcher, Patrick Dobson, Florian Hahn, Thorsten Hörbrand, Thomas Koelbel, Ram Kumar, Travis McLing, Fabian Nitschke, Dieter Ollinger, Liang Pei, Jonny Rutqvist, Yangyang Qiao, Guoqiang Yan, Eva Schill, Robin Seithel, Yingqi Zhang, Thomas Kohl
6.	Characterization of Aquifer Thermal Energy Storage with Hot Push Pull Test: what can be learnt from geochemical / reactive transport modelling? (PUSH-IT project)	Kevins Rhino, Laurent André,, Arnault Lassin,, Annick Loschetter, Lioba Virchow, Stefan Kranz, Liang Pei, Martin van der Schans, Phil Vardon, Martin Bloemendal
7.	Single-well hot push-pull testing for efficient and reliable high temperature ATES operation	Lioba Virchow, Stefan Kranz, Simona Regenspurg, Guido Blöcher, Ben Norden, Liang Pei, Cornelius O. Schwarze, Elena Petrova, Christian Cunow, Lukas Knüttel, Katrin Kieling

8.	High-Temperature Aquifer Thermal Energy Storage (HT-ATES) system for research development and demonstration on the TU Delft campus	M. Bloemendal, A. Koulidis, A. Hashemi, M. v.d. Schans, T.M. Grubben, S.T.W. Beernink,, E. Kukrer, T. Akin,, A. Daniilidis, P.J. Vardon
9.	CO2 as a Subsurface Working Fluid for Seasonal Thermal Energy Storage in Fractured Reservoirs: Sensitivity Analysis	Mahmoud Hefny, Maren Brehme, Martin O. Saar
10.	Characterisation of a Medium-Deep Geothermal Storage System - Preliminary Results from a One-Year Heating and Cooling Test Phase at a Demonstration site in Darmstadt, Germany	Matthias Krusemark, Lukas Seib, Clemens Lehr, Hung Pham, Ingo Sass
11.	Healing and damage of saturated sandstone due to temperature and confinement: An experimental study	Mikkel Smaadahl, Antonio F. Salazar Vásquez and Carlo Rabaiotti
12.	ATESref - Early Insights and First Results on Aquifer Thermal Energy Storage in Fürstenfeld	Nikolaus Petschacher,, Vilmos Vasvári, Marcellus Schreilechner, David Muhr, Jakob Huetter, Michael Brunneder, Moritz Reiser, Heinz Binder, Christoph Eichkitz, Bernd Boechzelt & Franz Hengel
13.	Assessing Aquifer groundwater level trends for ATES Deployment in Drought Prone Regions: The Case Study of Spain	Ramos-Escudero, A. ; Pulido-Velázquez, D; Collados-Lara, A.J. ; Bloemendal, M
14.	Assessment of scaling processes in deep aquifer thermal energy storage (ATES) systems based on laboratory experiments and modelling	Robin Friedrich, Julia Hekerle, Edith Haslinger, Renate Auer, Anna Novotny
15.	Modeling of Borehole Thermal Energy Storage (BTES) Systems for integration in grid simulations to investigate flexibility options	Timea Kostner, Kai Zosseder
16.	Optimization of Wellbore Parameters for High-Temperature Aquifer Thermal Energy Storage Systems	Yangyang Qiao, Guoqiang Yan and Thomas Kohl

R-O 1.9 Other

1.	GEM: Geo-Energy Magnetic Resonance Imaging – a Facility to Investigate Geothermal/Geologic Reservoir Applications at Lab Scale	Adam Altenhof, Anke Wohlers, Xiang-Zhao Kong, Nils Knornschild, Martin O. Saar
2.	Development of the Interpretable Deep Neural Network models for Imbalanced Geochemical Data Distributions	Ali Dashti, Michael Trumpp, Lars H. Ystroem, Valentin Goldberg, Nancy Seimetz, Fabian Nitschke
3.	Seismic Velocity as an Indicator of Rock Property Alteration: Effects of Mineral Precipitation and Fluid Saturation	Anna Kottsova, Nikita Bondarenko, Xiang-Zhao Kong, Martin O. Saar, Maren Brehme
4.	Evidence Of Localized Groundwater Flow During Thermal Response Test Using Distributed Thermal Sensing	Antoine Voirand, Charles Maragna
5.	Accelerated Implementation with a European Centre of Excellence	David F. Bruhn, Adele Manzella, Virginie Harcouet-Menou, Frank van Bergen, Phil Vardon, Maren Brehme, Florian Hahn and the EERA Joint Programme Geothermal Energy
6.	Minimizing induced seismicity while maximizing energy production: Using control theory in deep geothermal reservoirs	Diego Gutierrez-Oribio, Auregan Boyet, Ioannis Stefanou
7.	Subsurface heat loss from geothermal wells: field monitoring and modelling of the thermal impact on surrounding shallow subsurface	Enno T. de Vries, Niels Hartog,, Henk van Lochem
8.	Testing advanced seismic monitoring workflows at the Utah FORGE EGS site	Federica Lanza, Peidong Shi, Laura Ermert, Luigi Passarelli, Ryan Schultz, Katinka Tuinstra, Pascal Edme, Vanille A. Ritz, Antonio P. Rinaldi, Ben Dyer, Kris Pankow, Stefan Wiemer, and the DEEP team
9.	French guidelines for geothermal-induced seismicity hazard assessment and mitigation strategies	Francesca De Santis, Julie Maury, Emmanuelle Klein, Mariane Peter-Borie,, Isabelle Contrucci, Pascal Dominique
10.	Research and innovation trends in the European geothermal energy sector	Giulia Cittadini and Philippe Dumas, Luca Xodo, Javier Urchueguia
11.	Dependency of Heat Transport on Sedimentary Heterogeneity in Low-Enthalpy Geothermal Reservoirs: The Roles of Hierarchy and Resolution	Hamed Aghaei, Luca Colombera, Na Yan, Nigel P. Mountney, Andrea Di Giulio

12.	Effect of salinity on corrosion product characteristics and chemical inhibitor performance for carbon steel in geothermal environments	Harry Tookey, Richard Barker, Robert Kay, Peter Wilkie, Alistair Kirkpatrick, Geoff Hughes, Joshua Owen
13.	Influence of Rebar Density on the Thermal Conductivity of Reinforced Concrete for Geothermal Applications	Ida Shafagh, Aakash Gupta, Fleur Loveridge and Simon Rees
14.	A comparative environmental investigation between Air Source Heat Pumps and Ground Source Heat pumps: cases with high and low insulation	Lazaros Aresti, Christiana Filippou, Georgios Florides, Paul Christodoulides
15.	Evaluation of retaining walls as Ground Heat Exchangers and Energy Geo Structures for multi-storey buildings in moderate climates	Lazaros Aresti, Christiana Filippou, Georgios Florides, Paul Christodoulides
16.	Heterogeneous geomechanical properties and cooling in a sandstone reservoir exploited for geothermal production	Loes Buijze, Angela Pascarella, Elisa Calignano, Henk van Oeveren and Andrea Vondrak
17.	Effect of elastoplastic reservoir behavior on stress changes and fault stability in shallow geothermal reservoirs	Loes Buijze, Frans Aben, Milan Brussée, Peter Fokker, Maartje Koning, Henk van Lochem, Hans Veldkamp and Sjoukje de Vries
18.	Borehole Networks Simulator.jl: a flexible tool for simulations of borehole networks with variable operations	Marc Basquens, Alberto Lazzarotto
19.	Geothermal energy impact on building Energy Performance Certificate in Poland	Michał Kaczmarczyk, Barbara Tomaszewska
20.	Developing an Interactive Scientific Installation to Promote and Discover Geothermal Energy	Monia Procesi, Corrado Castellano, Gregorio Comandini, Saverio Villirillo, Federico Varazi
21.	Density of Natural Fracturation in Fault Zones Affects Induced Seismicity	Nicolas Wynants-Morel, Jeanne Vidal, Ricardo Perez
22.	Geothermal-Alliance Bavaria – past and future interdisciplinary research	Nora Medgyesi, Anastasia Sidorova & Fabian Uth, etc.
23.	On The Behaviour Of Working Fluid In Geothermal Systems	Pietro Ungar, Daniele Fiaschi, Giampaolo Manfrida
24.	Contribution of a 2052m Deep Borehole Seismometer to Event Detection and Spatio-Temporal Characterization of Induced Seismicity at the Balmatt Geothermal Site	Rachit Gautam, Jannes L. Kinscher, Jean Schmittbuhl, Matsen Broothaers, and Ben Laenen

25.	From Failure Thresholds to Magnitude Predictions: Assessing Mohr Circles and Earthquake Potential	Rahim Habibi, Thomas Ulrich, Alice Gabriel, Emmanuel Gaucher
26.	CDGP data center, a gateway to cutting-edge deep geothermal datav	Salsabyl Benlalam, Benoit Derode, Fabien Engels, Jean Schmittbuhl and Aude Chambodut
27.	Coupling GOLEM, PHREEQC, and Reaktoro for enhanced simulation of reactive processes in geothermal systems	Samuele Frigo,, Mauro Cacace, Marco De Lucia, Guido Blöcher,, Elena Petrova, Allan M. M. Leal,, Martin O. Saar & Hannes Hofmann
28.	Using waveform similarity to enhance the long-term analysis of a Swiss geothermal project	Tania Toledo, Verena Simon, Toni Kraft, Tobias Diehl, Verónica Antunes
29.	Integrated decision-support system for reliable geothermal project assessment	Terence Coudert, Hieu-Nguyen Hoang, Steinar Haugland, Torgeir Ustad, Alexandre Morin, M.A.H. Chowdhury, Ebrahim Mohammad Saleh, Lilja Tryggvadóttir, Gunnar Kaldal, Steinthór Níelsson
30.	Evaluating Hydrochemical Impacts of Well Reassignments in Multi-Well Geothermal Systems	Theis Winter and Kai Zosseder
31.	Towards real-time forecasting of induced seismicity: demonstration at the Utah FORGE site	Vanille A. Ritz, Federica Lanza, Antonio P. Rinaldi, Nicolas Schmid, Victor Clasen Repollés, Stefan Wiemer, and the DEEP team
32.	Optimising Seismic Networks for Enhanced Monitoring of Deep Geothermal Projects in Switzerland	Verónica Antunes, Toni Kraft, Tania Toledo, Celso Reyes, Tobias Megies, Stefan Wiemer
33.	Modelling heat transport and thermosiphon flow in closed-loop deep geothermal systems	Vlasios Leontidis, Pietro Ungar, Paweł Wojnarowski, Thibaud Chevalier, Daniele Fiaschi, Leszek Pająk, Magnus Wangen, Christine Souque

Technology and Innovation

T-GP 2.1. Geothermal electricity in Europe – projects, ideas, experiences

1.	Hot dry granite drilling optimization through iterative bit selection and mechanical specific energy management	Alexis Garcia, Andre El-Alfy, S. Noynaert, Prabhakaran Centala, Dawid Wojaczek, Stefan Moldoveanu
2.	Introducing Geoheat: Georadar-aided High-resolution Exploration For Advancing Geothermal Energy Usage	Alexis Shakas, Linus Villiger, Edoardo Pezzulli,, Matthew Schubert, Johan Friborg, Anton Nordenstam, Arnaud Mignan, Paul Lehmann, Dieter Werthmüller, Maren Breme, Michèle Marti, Stefan Wiemer, Geneviève Savard, Francisco Munoz Burbano, Matteo Lupi, Christin Bobe, Florian Wellmann,, Ezgi Satiroglu, Tabea Kautz, Kavan Khaledi, Francesco Grigoli, , Claudia Finger, Erik Saenger, Evert Slob, Katrin Loer
3.	Maximizing Cost Efficiency in Geothermal Drilling: A Case Study on Conventional Technology and Smart Engineering in The Netherlands	Andrew Hardaway, Pedro Garcia and Diana Tronco.
4.	Technical challenges in deep superhot geothermal – perspectives from Orkuveitan	Arna Pálsdóttir, Andri Ísak Þórhallsson, Sigurður H. Markússon, Pálmar Sigurðsson and Lilja Tryggvadóttir
5.	Why Does Cementing Geothermal Wells Often Fails and How to Succeed	Axel-Pierre Bois, Anthony Badalamenti
6.	Reversible high-temperature heat pumps/ORCs for flexible and economical geothermal projects: Bringing academic activities into the market via the FlexGeo project	Christopher Schifflechner, Jannik von Zabienski, Aaron Wesemann, Florian Kaufmann, Dominik Geymann, Julius Sanders, Andreas Schuster, Tryfonas Roumpedakis, Hartmut Spliethoff
7.	The United Downs Project: The UK's First Integrated Deep Geothermal System Harnessing an EGS Reservoir with advanced Organic Rankine Cycle	Giacomo Rufo Menghetti, Marta Giudici
8.	Deep Single Well EGS Method for 100 MWt Power Capacity	Jeffery A. Spray, Shailesh Gupta

9.	Optimised Geothermal Development Planning with Uncertainty Workflows: Economic Evaluation of Potential Geothermal Developments	Maria G. Mendez, James R. Mullins and Bastian Steffens
10.	Stress-strain evaluation around western Saxony fault network using COULOMB3D: a geothermal resource perspective	Nicolas Dall'Asta, Mathieu Bellanger, Bastien Hermant
11.	First results from the exploration phase of the Haute-Sorne EGS project in Canton Jura, Switzerland	Peter Meier, Olivier Zingg, Andre El-Alfy, Falko Bethmann, Raymi Castilla, Benjamin Lübbers, Fabien Christe, Claire Epiney, Julia Heilig, Andres Alcolea, Ben Dyer, Dimitrios Karvounis, Dieter Ollinger, Rémi Fiori, Robin Allenbach, Waleed Saati, Marie-Anne Etter, Yvette Allimann
12.	Advancing Geothermal Energy in Ukraine: Economic Viability and Strategic Repurposing of Abandoned Oil and Gas Wells for Sustainable Power and Heat Production	R. Nye, M. Yan ,C. Mejia, T. Popadynets, Y. Demchuk
13.	Ultra-High Temperature Underground Thermal Energy Storage (UHT-UTES) for Electricity Generation: Analysis of Potential Storage Efficiency	Ruixiao Liu, Matthew D. Jackson, Gary J. Hampson, Carl Jacquemyn, Meissam L. Bahlali
14.	The United Downs Geothermal Project: Learnings from the Development of the UK's first Geothermal Power Plant	Thomas Olver, Ryan Law, Poppy Edgecombe

T-GHC. 2.2 Geothermal heating and cooling technologies for buildings, services, agriculture and industries

1.	Installation of a 1800m deep heat probe in an old well followed by heat production of the system. Geneva, Switzerland.	Carole Nawratil de Bono, François Martin, Michel Meyer
2.	Mine Water Geothermal District Heating Hybridised with Biomass: The DH Pozo Fondon Project (Spain)	Pablo Fernández Martínez, Yago Somoano Rodríguez, Teresa Alonso-Sánchez, María Lorenzo Conto
3.	Advantages and Disadvantages of Avoiding Antifreeze Additives in Shallow Geothermal Energy	Norbert Klitzsch, Mathis van Wickeren, Larissa Kühn, Sebastian Borges, Thomas Demmel, Thomas R. Rüde, Christian Vering, Dirk Müller
4.	TRANSGEO: Knowledge and Tools to Promote Reuse of Hydrocarbon Wells for Geothermal Energy Production	Julie Friddell, Hannes Hofmann,, Sabine Appelt, Klára Bödi, Balázs Borkovits, Catarina Castro, Lingkan Finna Christi,, Werner Donke, Ferenc Fedor,, Thomas Höding, Monika Hölzel, Stefan Hoyer, János Kovacs, Tomislav Kurevija, Piotr Lipiarski, Yuxuan Liu,, Marija Macenić, György Márton, Ema Novak, Jasmina Perkič, Luka Perković, Matej Prkič, Doris Rupprecht, Ingo Sass,, Judit Schäffer, Roland Schön, Katrin Sieron, Max Svetina, Alen Višnjić
5.	Fibre optic distributed sensing of geothermal reservoirs: first results from the University of Leeds Geothermal Campus boreholes	Adam D. Booth, Ravi Myanger, Roger A. Clark, Sjoerd de Ridder, Andy Nowacki, Joseph Kelly, Arka Dyuti Sarkar, Emma Bramham, Fleur Loveridge and David Healy
6.	Design of a hybrid deep coaxial heat-exchangers with hydrothermal component using numerical simulations and analytical solutions	Vincent Badoux, Emanuel Huber, Carole Nawratil de Bono, François Martin, Pierre Perrochet
7.	Scaling risks and hydrochemical assessment of drainage waters in the largest underground railway tunnel in the world – the Brenner Base Tunnel	Edith Haslinger, Renate Auer, Robin Friedrich
8.	Adaptation of sizing equations for standing column wells	Gabriel Dion, Pasquier Philippe
9.	Approximation of short-term transfer functions for standing column well using wavelet decomposition and artificial neural networks	Christopher Rose, Philippe Pasquier, Alain Nguyen and Richard Labib

10.	A Semi-Analytical Model of the Energy Output of Curved Borehole Heat Exchangers	Diederik Wawoe, Borja Badenes Badenes Jan Jette Blangé, Marlies Creyghton, Bas Godschalk, Santiago Enrique Ibanez, Yago Goitia, Bastiaan Rus; Iker Martinez Zuazo, Jan-Diederik van Wees
11.	Coating Applications of EHLA high speed laser cladding in Corrosion protection for geothermal environments	Tomaso Maccio, Erfan Abedi Esfahani
12.	Evaluation of the Potential for District Heating in Germany using Enhanced Geothermal Systems (EGS)	Fabian Uth, Nora Medgyesi, Anastasia Sidorova
13.	Monitoring Corrosion and Injectivity in Geothermal Plants with Digital Twin Technology	Pejman Shoeibi Omrani, Leila Hashemi, Arturs Blinovs, Jonah Poort, Demetris Palochis, Ryvo Octaviano, Floris Degener
14.	A geothermal ground source heat pump in an arid climate: first year of operation	Khaled Abdelghafar, Francesco Tinti, Mohamed Elkarmoty, Hany Helal, Mohamed Ismael
15.	Thermal response of geothermal boreholes to strong groundwater flows	Miguel Hermanns & Javier Rico
16.	Diverse energy applications of a closed-loop horizontal vacuumized co-axial deep geothermal well solution	Kim Gunn Maver

T-GHP 2.3 Geothermal heat pumps in Europe – heating and cooling, and domestic hot water

1.	Analysis of almost one thousand Thermal Response Tests in France and estimation of the energy potential of Borehole Heat Exchangers	Charles Maragna, Vivien Baudouin, Anne-Gaëlle Bader
2.	Assessment of a Residential Energy Pile System in Lisbon, Portugal	Diogo Venâncio, Nuno R. Martins, Teresa Maria Bodas Freitas, Peter Bourne-Webb
3.	First-Year Outcomes and Research Insights from the UiS Geothermal Energy Plant and Semi-Deep Borehole Initiative	Fredrik Skaug Fadnes, Adib Kalantar, Mohsen Assadi

T-U 2.4 Underground thermal energy storage – design, system integration and operation

1.	Performance analysis and evaluation of 2 operational ATES systems	Amirhossein Hashemi, Anne Medema, Phil vardon, Martin Bloemendal
2.	Thermal and Technical performance HT-ATES Middenmeer - Results from the first three cycles	Benno Drijver, Peter Oerlemans, Boris Boulenger, Mariëlle Koenen, Eva van der Voet
3.	Optimal energy production and density for ATES and open-loop geothermal systems	Carl Jacquemyn and Matthew Jackson
4.	Well layout optimization of high-temperature aquifer thermal energy storage system, a comparison between single- and double-hot well systems	Dejian Zhou, Ke Li, Huhao Gao, Alexandru Tatomir, Leonhard Ganzer, Gunther Brenner, Philip Jaeger, Martin Sauter,
5.	Lessons learnt from integrating building demand and geothermal thermal energy storage systems	E. Kukrer, T. Akin,, M. Bloemendal,, A. Daniilidis, P.J. Vardon
6.	Possibilities for Aquifer Thermal Energy Storage (ATES) in main Polish cities.	Elzbieta Halaj, Martin Bloemendal
7.	A borehole solar heat storage system with double circuit and dual source for a swine farm: first year of operation	Francesco Tinti, Carlos Alejandro Perez Garcia, Panteleimon Bakalis, George Meramveliotakis, Alexander Loris, Iván Acosta-Pazmiño, Stefano Benni
8.	Energy balances and induced environmental impacts of a Geological Ice Thermal Storage (GITS) plant during seasonal field operation at the “TestUM” test site	Götz Hornbruch, Ralf Köber, Klas Lüders, Sebastian Bauer, Markus Ebert, Kerstin Meier zu Beerentrup, Matthias Walder, Ulrike Werban, Carsten Vogt, Bernd Schwarzfeld3 & Andreas Dahmke
9.	History Matching an operating Aquifer Thermal Energy Storage Installation in London's Heterogenous Chalk Aquifer	Hayley T. Firth, Carl Jacquemyn, Gary J. Hampson, Matthew D. Jackson
10.	Influence of an ATES field test with injection temperatures of 70 °C on the behaviour of chlorinated hydrocarbons in a contaminated aquifer	Jan Voß, Mahdi Miri, Markus Ebert, Diana Altendorf, Ralf Köber

11.	High-temperature aquifer thermal energy storage integration into a geothermal-powered district heating system: a case study from the German Molasse Basin	Kalliopi Tzoufka, Kevin Bock, Guido Blöcher, Laura Lehmann, Mauro Cacace, Daniela Pfrang,, Clemens Felsmann, Kai Zosseder
12.	Revitalization of Mature Oil Fields as an Aquifer Thermal Energy Storage Systems (ATES) in Republic of Croatia - Production and Reservoir Engineering Aspects	Katarina Marojević, Marija Macenić, Tomislav Kurevija
13.	Enhancing HT-ATES System Performance through Data Assimilation: Integration of WANDA-SEAWAT and OpenDA	Kelbij Star, Julius Sumihar, Sam van der Zwan, Erik Pelgrim, and Johan Valstar
14.	Scale up of a HT-ATES field test from fortnight-long to seasonal (dis)charging periods at the “TestUM” test site	Klas Lüders, Götz Hornbruch, Ralf Köber, Stefan Heldt & Andreas Dahmke
15.	Predicting Temperature-Dependent Geochemical Effects of a HT-ATES Simulating Field Tests by Laboratory Experiment: A Comparative Analysis	Mahdi Miri, Jan Voß, Markus Ebert, Bruno Engelbrecht, Ralf Köber
16.	BEACH - Bedretto Energy Storage and Circulation of Geothermal Energy	Maren Brehme,Tsubasa Onishi, Nima Gholizadeh,, Andres Alcolea, Marian Hertrich, Mahmoud Hefny, Martin O. Saar., Filippo L. Schenker, Simone Zavattoni, Marco Belliardi, Maurizio Barbato, Domenico Giardini
17.	Feasibility Assessment of Aquifer Thermal Energy Storage: A Case Study in Riva del Garda, Italy	Masoud Manafi, Vaiva Cypaite, Ehsan Ranaee, Fabio Inzoli, Rodolfo Perego, Bas Godschalk, Nico Franco Pinto, Peter Oerlemans, Frederik Jansen, Diego Viesi
18.	Considerations for placement of ATES Triplet wells.	Matthijs van Esch, Martin Bloemendal,, Niels Hartog,, Phil Vardon
19.	Model facilitated design of a pilot-scale ATES System with constraints in an urban environment	Maximilian Dörnbrack, Diana Altendorf, Holger Weiß, Haibing Shao
20.	Numerical Modelling of Highly Instrumented Thermal Response and Thermal Tracer Tests in the UK Chalk Aquifer	Meissam L. Bahlali, Carl Jacquemyn, Matthew D. Jackson, Adrian Butler, Joseph Kelly, Fleur Loveridge, Dave Boon, Jason Ngui, Ed Hough, Oliver Kuras, Jonathan Chambers, Katerina Kyrkou, Adam Booth
21.	Feasibility Assessment of Aquifer Thermal Energy Storage in the Southern Vienna Basin through Design of Experiment	Mohammad Khasheei, Jakob Kulich, Richard Scholey, Gregor Götzl, Keita Yoshioka

22.	Development of the HT-ATES heat storage reservoir at Bern Forsthaus, Switzerland	Peter Meier, Christoph Wanner, Nathan Dutler, Francisco Serbeto, Niklas Geissler, Andre ElAlfy, Andres Alcolea, Larryn Diamond, Florian Garsche, Jörn Schlüsener, Timo König, Artur Guzik, Urs Spring, David Da Silva, Charlotte Wilke, Annika Sager
23.	The Coaxial Reversable Medium-Deep Geothermal Heat Well Technology: An Innovative Approach to Sustainable Heating	Rami Niemi, Harun Bitlis, Erika Salmenvaara
24.	Characterizing the subsurface for HT-ATES well design and thermal impact analysis: a case study	Stijn Beernink, Martin Bloemendal,, Niels Hartog, Philip J. Vardon
25.	BEACH - Bedretto Energy Storage and Circulation of Geothermal Energy	Tsubasa Onishi, Serhat Küçük, Maren Brehme, Nima Gholizadeh, Andres Alcolea, Marian Hertrich, Mahmoud Hefny, Martin O. Saar, Filippo L. Schenker, Simone Zavattoni, Marco Belliardi, Maurizio Barbato, Domenico Giardini

T-EM 2.5 Exploiting mineral production from geothermal sources

1.	Seismic monitoring deployment and learning period results on “Les Sources” geothermal site	Eric Fortier, Clara Duverger, Michaël Henriquel, Jérémy Barnavol, Matthieu Branellec, Pierre-Henri Roche
2.	Main outcomes of the Ageli project aiming to produce lithium carbonate battery grade with low environmental impacts from deep geothermal brine in the French Upper Rhine Graben	Guillaume Ravier, Dr. Clément Baujard, Dr. David Fries, Dr. Gaël Cherrier, Dr. Ludovic Donati, Joanne Jung, Olivier Michelon, Jonathan Joseph, Maxime Requillart, Dr. Kateryna Omelchuk
3.	A Unified Reykjavík District Heating System Enabled by Magnesium Silicate Extraction Using Novel FBR Design	Haukur Darri Hauksson, Baldur Brynjarsson, Taylor Alexandra Martin and Arna Pálsdóttir
4.	Shape Memory Alloys for near well-bore fracture stimulation: A novel approach for directional fracture initiation and actuation.	Radhika de Silva and Jordan Aaron
5.	Co-production of Geothermal Energy and Lithium in Cornwall, UK: Continued Development of the United Downs Geothermal Project	Thomas Olver, Ryan Law, Poppy Edgecombe

6.	ThermIon - Extraction of Lithium from geothermal brines	Valentin Goldberg, Fabian Nitschke, Florian Eichinger, Paul-Louis Wöhrlin, Sebastian Homuth, Fabio La Mantia , Tim Weber, Florencia Saravia, Norman Dietrich

T-SM 2.6 Resource sustainable management (circularity, life cycle, materials)

1.	eVala – A web application for the assessment of the thermal effect of borehole fields in Helsinki, Finland	Kimmo Korhonen and Nina Leppäharju
2.	Spillover Effects and Circularity within Deep Geothermal Well research	Lilja Tryggvadóttir, Andri Ísak Þórhallsson, Ásdís Benediktsdóttir, Arna Pálsdóttir, Dario Ingi Di Rienzo, Pálmar Sigurðsson, Helen Ósk Haraldsdóttir, Gunnar Skúlason Kaldal, Steinþór Níelsson, Hieu Nguyen Hoang, Dario Bonciani, Marco Vichi, Tomaso Maccio, Rym Bouchair, Sourabh Bhat, Jelmer Brugman
3.	Development of a planning computational tool for optimizing heating strategies of clustered borehole heat exchanger systems	Quan Liu, Ernesto Meneses Rioseco,, Thomas Ptak, and Inga Moeck

T-EI 2.7 Environmental impacts and solutions

1.	Towards the energy transition: understanding aquifer reaction to underground energy storage	Andrés Velásquez-Parra, Roman Alther, Reto Britt, Megan Lee, Christian Moeck, Numa Pfenninger, Serina Robinson, Kim Schlegel, Giulia Zecchin, Florian Altermatt, Michael Berg, Matthias Brennwald, Rolf Kipfer, Lawrence Och, Mario Schirmer, Olga T. Schubert, Andreas Voegelin, Robert Weber, Lenny Winkel, Matthias Sulzer, Joaquín Jiménez-Martínez
2.	Life-Cycle Assessment of Geothermal Heating for District and Industrial Applications: A Comparative Analysis in the Southern German Molasse Basin	Hannah Uhrmann, Florian Heberle and Dieter Brüggemann

3.	Combined geothermal energy and lithium extraction: Ensuring smooth operation via large-scale environmental monitoring in the Upper Rhine Graben, Rhineland Palatinate, Germany	Michael Kraml, Henrik Stang, Ezgi Keskin, Kenneth Reid, John Reinecker, Tobias Hochschild
4.	ECOPID Project: Scale Inhibitors in Geothermal Applications	Pablo González, Florian Landry, Argyro Spinthaki, Hande Sile, Guillaume Ravier and David Fries
5.	Monitoring strategy and results on thermal, chemical and microbial effects of HT-ATES on the subsurface after three years of full-scale operation in Middenmeer, the Netherlands	Peter Oerlemans, Benno Drijver, Mariëlle Koenen, Dorien Dinkelman, Boris Boullenger, Eva van der Voet

T-0 2.8 Other

1.	Innovative Diagonal Coaxial Large Diameter Borehole Heat Exchanger Array	Amirhossein Hashemi, Martin Bloemendal, Pieter Goverse, Guus De Rechter, Philip J Vardon
2.	IBO-EGS: Innovation booster for advanced seismic risk mitigation measures supporting the EGS multi-stage stimulation at Haute-Sorne	Andres Alcolea, Peter Meier, Olivier Zingg
3.	Key lessons and characterization for deep geothermal well exploitation: insights from the COMPASS project	Ásdís Benediktsdóttir, Gunnar Gunnarsson*, Lilja Tryggvadóttir, Þráinn Friðriksson, Arna Pálsdóttir, Helen Ósk Haraldsdóttir, Tomaso Maccio, Emily Davison, Erfan Abedi Esfahani, Gunnar Skúlason Kaldal, Finnbogi Óskarsson, Steinþór Níelsson, Manh Huyen Vu, Rym Bouchair, Hieu Nguyen Hoang
4.	Elastic full-wave inversion results of a 3C-VSP dataset recorded in a deviated geothermal well in Grigny, France	Christophe Barnes and Charles Naville
5.	Performance Drilling In The Utah Geothermal Application	Evan Cripps, Roger Lee, Michael Savage
6.	Historical and future cost dynamics of geothermal power	Florian Müller, Bjarne Steffen , Tobias S. Schmidt
7.	Scale Prediction Solutions for Geothermal Operations	Giulia Ness

8.	Novel Technology for Improved Casing Integrity of Wells in High-Temperature to Superhot Conditions	Gunnar Skúlason Kaldal, Steinþór Níelson, Þorri Jökull Þorsteinsson
9.	Effective non-frac stimulation of deep geothermal reservoirs using the Fishbones completion reservoir stimulation system	J. A.Okkerman
10.	Comparison of CO2 Wellbore Flow Models Against CO2 Injection Field Data: Implications for CO2-based Geothermal Energy Extraction	Kevin P. Hau, Maren Brehme, Alireza Rangriz Shokri, Reza Malakooti, Erik Nickel, Rick J. Chalaturnyk, Martin O. Saar
11.	Advanced Closed Loop Geothermal Energy Solution for Longyearbyen Svalbard, Arctic Norway	Malte Jochmann, Ola Vestavik, Magnus Wangen, Anders Helstrup
12.	Status of the VITO geothermal project in the Carboniferous Limestone Group in the Belgian Campine Basin (Mol-Dessel area)	Matsen Broothaers, Kevin Cox, Virginie Harcouët-Menou, Edgar Hernandez Acevedo, Ben Laenen, Justin Pogacnik, Bernd Rombaut
13.	New chemistry development to address stibnite scale inhibition in geothermal plants	Parravicini Davide, Guidetti Alessandro, Zambolin Daniele
14.	Well architectures to maximise heat extraction in areas with low transmissivity and/or in areas with a high density of operations. A review of Paris Basin well design achievements	Pierre Ungemach, Miklos Antics and Gillian Bethune
15.	Outperforming Rotary Steerable System with PDM, bent sub and revolutionary customized bit design in deep geothermal directional well	Sébastian Desmette, Malek Ben Hamida, Arjan Bakker, Andrew Hardaway

Geothermal Solutions for Energy System Integration

G-SC 3.1 Sector coupling: electricity, heat and transport

1.	Flexible Digital Solution for Thermodynamics, and Environmental Evaluation of a Binary Geothermal Power Plant Integrated with Hydrogen Production	Angela Solano, Arash Behrang, Juan Montelongo, Jordan Mitchell Mangold, and Raul Cota
2.	Recharging Ground Source Heat Pump Systems with District Heat in Stockholm, Sweden	Elin Svensson, Willem Mazzotti Pallard, Justin Chiu

G-T 3.2 Transformation pathways for the energy transition

1.	Unlocking Germany's Near Surface and Deep Geothermal Potential - the GRETA Project	Aline Ploetz, Gerlinde Schaumann, Myrjam Klemt, Anna Lena Lesch, Kilian Bizer, Thorsten Agemar
2.	Lessons learnt from 40 years of deep geothermal E&P activity in Switzerland, with a look into the future.	Andrea Moscariello and Ladislaus Rybach
3.	Environmental impact and optimisation potential of the construction phase of seasonal underground thermal energy storage systems	Jenny Weise, Christoph Bott, Kathrin Menberg, Peter Bayer
4.	Engineering and social values of fiber optics monitoring in geothermal applications	Kinzo Kishida, Dana Jurick, Kan Wu, Martin Rutschi and Artur Guzik
5.	Pathways to national-scale adoption of CO2-based Advanced Geothermal Systems (AGS) – A Techno-Economic Assessment Example in Switzerland	Mahmoud Hefny, Martin O. Saar
6.	Decision-making Support Tool for Assessment of Enhanced Geothermal Projects and Long-term Usage Plans	Sara Raos, Josipa Hranić, and Claire Bossennec

7.	Parameters and Information Needed for a Geothermal Energy Feasibility Study or Potential Assessment Linked to Defined Scenarios on a pan-European Scale	Titus Seeger, Jacques Brives, Stefan Hoyer, Marek Hajto, Nicolo Giordano, Jakob Kulich, Kai Zosseder

G-F 3.3 Geothermal flexibility

1.	Finite element thermal analysis of energy piles in a real-scale foundation: a case study from a university campus laboratory	Arianna Lupattelli, Giulia Capati, Diana Salciarini
2.	Medium depth closed loop geothermal systems based on the thermosyphon principle	Carlos Paz, Wolfgang Hollstein, Charalampos Soilemezidis, Emmanuel Jituboh, Qiaoleiyue Wang Gunther Brenner, Janine Teelen, Lars Kühl, Helen Werner, Philip Jaeger
3.	The Application Of Innovative Closed Loop Heat Exchanger System In High Temperature Environment Such As Vulcano Island In Italy.	Dan Azimi Mohaman, Monia Procesi, Eloisa Disipio, Giorgia Dalla Santa, Antonio Galgaro, Maria Giulia Di Giuseppe, Roberto Isaia, Claudio De Paola
4.	Integration of an Electro-Thermal Energy Storage (ETES) System in a Geothermal Power Plant	Dario Alfani, Paola Bombarda, Matteo D'Incalci, Elie Ganathos, Ural Halacoglu, Tugrul Hazar, Feride İrem Eren, Basile Chaudoir, Titouan Janod, Vincent Lemort, Tristan Merbecks, Mattia Piazza
5.	Strengths and gaps for the market uptake of smart and flexible technologies for geothermal energy: outcomes from the Horizon 2020 GeoSmart Project	Dario Bonciani, Marco Vichi, Paolo Taddei Pardelli, Per Kjellgren, Loredana Torsello, Helen Ósk Haraldsdóttir
6.	Lessons Learned from Two Open-Loop Geothermal Systems Using Shallow Aquifers for Heating and Cooling in Geneva, Switzerland	Faÿ Sylvie, Bernard Brixel, Loïc Quiquerez, Nicolas Soureillat, Alexandra Bel
7.	Best Practices for Harnessing Energy from Geothermal Wastewater	Horia Ban, Iulia Prodan, Alexandra Ban and Doinita - Iuliana Cucueteanu
8.	Dublin Airport Zones 1 & 3 Renewable Heating and Cooling Solution: Integrating Large-Scale Geothermal Systems into Complex Infrastructure	Jeremy Carkner, Joseph Ireland

9.	Decarbonizing Heating and Cooling Systems via a 5GDHC Network Powered by Shallow Geothermal Energy: A Case Study from the Catalan Pyrenees in the FlexGeo Project	Jordi García-Céspedes, Ignasi Herms, Guillem Piris, Georgina Arnó, Víctor Camps, Montse Colomer, Sandra Armengol, Anna Gabas, Albert Macau, Fabian Bellmunt, José Juan De Felipe
10.	Risk Assessment in Geothermal Energy Projects: Insights from the Literature	Mukhtar A. Kassem , Andrea Moscariello , Pierre Hollmuller
11.	Assessing Borehole Thermal Energy Storage Patterns for Renewable Heating Solutions	Sandeep Bandarwadkar, Lazaros Aresti, Rokas Valancius

G-RS 3.4 Regional solutions, local economic development

1.	Assessment of Medium to Deep Geothermal Potential in the WEIZplus region (Styrian Basin, Austria)	David Muhr, Nikolaus Petschacher, , Marcellus Schreilechner, Christoph Eichkitz, Heinz Binder, Vilmos Vasvári, Bernd Böchzelt, Martina Hölbling, Ewald Selvicka, , Rafael Bramreiter & Joachim Kelz
2.	Deep geothermal for integration in industry and cascade use of heat for commercial and housing use in Upper Austria	Edith Haslinger, Johannes Riedl, Robin Friedrich, Julia Hekerle, Anna Novotny, Ahmed A. Serageldin, Andreas Hammer; Sirius: Alexander Buchner, Roland Faschingbauer; RED: Heimo Heinzle, Michael Brunneder, Oliver Tausch, Moritz Reiser; RAG: Gerhard Wiesmayr, Wilma Troiss; Energie AG: Markus Puelzl
3.	Decarbonisation of military infrastructure in Austria with geothermal energy	Edith Haslinger, Johann Renner, Robin Friedrich, Jerik Catal, Julia Hekerle, Anna Novotny, Mario Peka, Nina Unterreiner
4.	Utilizing geothermal waste heat for district cooling using absorption chillers: a pilot project in Szeged, Hungary	Emese Tóth, Tamás Medgyes, Gábor Bozsó, Balázs Kóbor, László Kalmár
5.	MTU geothermal project (Munich, Germany) - example of the implementation of a deep geothermal project in the aviation industry	Klaus Dorsch, Stefan Lange, Hans-Peter Pratscher, Karl Seyberth, Fabian Hakspiel
6.	Geneva's First Geothermal Plant in Development - A Pathway to Integrate Sustainable Heat into the District Heating System	Loïc Quiquerez, Frédéric Mirjolet, François Martin and Carole Nawratil de Bono

7.	Leveraging Geothermal Energy for Sustainable Agricultural Growth: A Pathway to Regional Economic Revitalization through Heated Greenhouse Systems	Öyküm Berfin Gülergül, Alper Baba

G-H 3.5 Hybrid systems

1.	Analysis of the characteristics of geothermal and multi-source systems through monitoring data	Irene Manara , Gabriele Cesari, Andrea Moscariello, Rémi Lehu, Gabriele Ponzoni

G-0 3.6 Other

1.	Optimizing High-Temperature Borehole Thermal Energy Storage (HT-BTES) Systems, a case study from Trondheim, Norway	Alessandro Berta, Arvind Kumar Tiwari, Glenda Taddia, Rao Martand Singh
2.	Numerical modeling of soil-pile interaction through coupled thermo mechanical modeling of energy pile	Andrej Stojkoski, Josif Josifovski
3.	On the development of a geothermal energy strategy in Sweden: Opportunities and barriers	Maria Ask, Signhild Gehlin, Charlotta Möller, Karin Thomas, Maria Jontén
4.	Sensitivity and uncertainty assessment of shallow geothermal energy systems as basis for an improvement of planning procedures	Muhammad Asad, Kai Zosseder
5.	Sustainable Geothermal Solutions for District Heating and Cooling: A Comprehensive Review	Mukhtar A. Kassem , Andrea Moscariello
6.	Impact of Groundwater flow on U-shaped Closed-Loop Geothermal Systems	Omar Alobaid, Justin Ezekiel, P. Martin Mai
7.	Modelling system integrated borehole heat exchanger fields – a comparison of simplified models and co-simulation	Xenia Kirschstein, Max Ohagen, Joscha Reber, Ingo Sass, Clemens Hübler

Financing, Regulations, Policy, Communications, and Market

P-H 4.1 Heat market at city level and in rural areas

1.	Analyzing Cost Drivers of Geothermal Heat Production for Sustainable Economic Solutions in District Heating Systems	Loïc Quiquerez, Michel Meyer

P-P 4.2 Policy -frame conditions and incentives

1.	Hungarian Geothermal Cluster – a good practice in stakeholder engagement	Ábel Markó, Gábor Kisvárdai
2.	Lessons Learnt after 8 Years of the Federal Geothermal Subsidy Program in Switzerland	Christian Minnig, Nicole Lupi
3.	Stimulating Geothermal Energy Development by Incentives: European and International Current Status and Experience	Dimitrios Mendrinos, Constantine Karytsas
4.	Geothermal district heating in the Paris Basin: policies and territorial dynamics	Ekkaphol Suphanvorranop
5.	EU funding instruments for resources assessment, drilling and geothermal project development	Emil Martin
6.	The Role of Policy in Accelerating Geothermal Energy Development in Geneva	Feng Yun, Savary Marie, Brixel Bernard, Quiquerez Loïc
7.	An Economic, Policy and Regulatory Assessment of Repurposing Oil and Gas Wells for Geothermal Energy Applications	Georgia Caruso Carter, Gabriel Eckstein, Taha Yehia, Moamen Gasser, Esuru Rita Okoroafor and Roman J. Shor
8.	Why should Oil and Gas go Geothermal? A Risk assessment	Henning von Zanthier
9.	Geothermal Energy as an Ecosystem – A Cantonal Administrative Perspective	Kurt Eggenberger, Sebastian Deininger, Delia Lendenmann, Adrian Fahrni

10.	The French national geothermal plan: a public private model of industry's' structuration	Philippe Laplaige, Astrid Cardona Maestro, Norbert Bommensatt, Virginie Schmidlé-Bloc
11.	Buildings blocks for geothermal development, case examples from The Netherlands	Pijnenburg, Vera Elena, Evers, Ton
12.	Geothermal now: The role of the EU Green Deal in scaling up investments	Sanjeev Kumar, Giulia Cittadini and Leonie Kulmann
13.	Optimizing geothermal production licensing: an evaluation of alternative geometries for enhanced geothermal efficiency in the Netherlands	T.E. Bosch, B.M.M. van Kempen, J. van der Molen
14.	The Swiss Good-Practice Guideline for Managing Induced Seismicity	Toni Kraft, Philippe Roth, Vanille A. Ritz, Verónica Antunes, Tania Toledo, Stefan Wiemer

P-L 4.3 Legal aspects and regulations

1.	Untangling the Regulatory Barriers for High-Temperature Underground Thermal Energy Storage within the PUSH-IT Project	Andres Gonzalez Quiros, Margaret Stewart, Corinna Abesser
2.	The geothermal grow path in Hungary - experiences of the new licensing system	Annamária Nádor
3.	Geothermal potentials in underexplored Carboniferous Limestones, Hauts de France Region: exploration, development and integration workflows	Claire Bossennec, Aurore Laurent, Fabien Graveleau, Olivier Averbuch, Hussein Mroueh, Alain Trentesaux, Olivier Louart, Lionel Genetelli, Laurent Beccaletto, Fréderic Lacquement, Hugo Duwiquet, Thomas Guéant, Christine Souque, Adriana Lemgruber-Traby , Renaud Divies , Cyril Durand, Franck Bourdelle
4.	Legal Regulation and Investments Form of Geothermal Energy in Hungary	Henrietta Csécsei
5.	Overcoming Licensing Obstacles for Geothermal Heat Pumps	J. Chocobar, K. Zosseder, C. Steiner, R. Pasquali, A. Cunningham, H.J.L. Witte, J. Koczorowski, B. Thelin, B. Badenes, Phillip Dumas

6.	GeoBOOST: Towards an Efficient and Sustainable Adoption of Pioneering Geothermal Solutions	J. Chocobar, K. Zosseder, P. Schnabl, R. Pasquali, M. Brancher , H.J.L. Witte, J. Ozimek i, B. Thelin, B. Badenes, Phillipe Dumas
7.	Italian Geotechnical Association's recommendations for the design and construction of energy geostructures	Marco Barla, Francesco Cecinato, Giorgia Dalla Santa, Alessio Ferrari, Alessandra Insana, Gianpiero Russo, Diana Salciarini, Donatella Sterpi, Sebastiano Rampello
8.	Induced seismicity: a collaborative approach to safe geothermal energy development in Switzerland	Nicole Lupi, Sandrine Ortet, and Vanille A. Ritz
9.	Integrating Geothermal Resources and Energy Geostructures in Heating Systems: Market Potential, Challenges, and Strategic Pathways in Lithuania	Rokas Valančius, Rolandas Jonynas, Lina Murauskaitė and Sandeep Bandarwadkar
10.	The Haute-Sorne EGS pilot project, Switzerland: management framework by the main regulatory authority	Sylvain Rigaud, Jean Fernex, Camille Guittard, Quentin Theiler and Pierre Brulhart

P-S 4.4 Socio-economic aspects of geothermal energy

1.	Quick screening approach of shallow geothermal energy installation for heating and cooling	Irene Manara, Rémi Lehu, Gabriele Cesari, Andrea Moscariello, Gabriele Ponzoni
2.	Unlocking the geothermal potential for mine water heating: overcoming barriers with targeted policy solutions	Jingyi Li, Cathy Hollis, Alejandro Gallego Schmid
3.	Energy-Environment-Social Balance of Deep Geothermal Systems	Naomi Vouillamoz and Geertjan van Og
4.	Sustainable Finance for (Geothermal) Energy as a Common Good	Patrick Scherrer, Naomi Vouillamoz
5.	Geothermal Energy in Local Communities: Challenges and Opportunities in City of Karlovac	Vlatko Kovačić
6.	What if Roma, Bucharest, and Paris were cooled with geothermal energy?	Xavier Moch, Virginie Schmidle-Bloch

P-F 4.5 Financing, Business Models

1.	Citizen-led geothermal energy projects: a novel approach to spread district heating and cooling	Dalmais Eléonore, Chloé Lesage, Noé Impéradori, Didier Kahn
2.	Public Risk Funds – design, chances and challenges	Maria Ueltzen and Kai Imolauer
3.	SwissDGS: Breaking the Ice - Bringing Circular Deep Geothermal Systems to reality in Switzerland	Naomi Vouillamoz, Jon Mengiardi, Benoît Garitte, and Michael Kompatscher
4.	Integrating Real Options Analysis in Geothermal Project Valuation	Olubunmi Frank Folorunso
5.	Business models for geothermal projects in green fields	Philippe Dumas, Giulia Cittadini
6.	Risk Sharing Mechanism (RSM) for Geothermal Resource Validation in Türkiye - Experiences from the Consultant's Perspective	Ralf Brauchler, Hansruedi Fisch, Bjarni Richter, Dadi Thorbjörnssen, Can Ural, Derya Erika, Wietze Lise, Fatih Saltuk, Hilal Kıvanç Ateş
7.	Geothermal energy and the heat transition: An outline for roadmaps to unlock their potential and accelerate investments	Sander de Jong, Leonora Heijnen, Jan Diederik van Wees, Hans Veldkamp, Martijn Clarijs, Wouter van den Wildenberg, Barbara Cox
8.	The SFOE's Geoenergy Research Programme: Supporting Swiss Innovation in Geothermal Energy	Stefano Benato and Florence Bégué
9.	SEC reserves quantitative evaluation under Geothermal Resource Management System framework (GRMS)	Vladimir M. Stroganov, Dr. Philip J. Ball, Dr. Graham J. Banks,

P-A 4.6 Public acceptance and engagement, public relations

1.	Developing Effective Communication Guidelines for Geothermal Energy Projects – Lessons from the COMPASS Project	
2.	Tackling the social acceptance in deep geothermal projects: best practices and lessons learned	

3.	Involving Schools and Local Communities in Participatory Monitoring of Geothermal Projects	
4.	Communication in a Large-Scale Research Infrastructure – Concept and Insights from the GeoLaB Project	
5.	Exploring project partners' initial understandings of societal engagement: learning from the UTES project PUSH-IT	
6.	Developing communications and engagement strategies for complex, cross border geothermal energy projects; an example from the island of Ireland	
7.	Leveraging Virtual Reality for Citizen Engagement in Geothermal Heat Storage Projects: First Concepts and Project Results from the Karlsruhe Area	

P-ET 4.7 Education and training

1.	GEMINI: An example of cross-border geothermal energy education and training on the island of Ireland	Aoife K. Braiden, Ken Russell
2.	New European guidelines to unlock shallow geothermal energy resources via energy geostructures	Fleur Loveridge, Marco Barla,, Sondre Gjengedal, Alessandra Insana,, Primoz Jelusic, Jean de Sauvage, Iulia Prodan, Grzegorz Ryzynski, Marta Szlasa,, Ana Vieira, and Bojan Zlender
3.	Building a Fairer Future: Survey Insights from Women in Geothermal French Chapter	Jeanne Vidal, Quentin Barral, Emma Barsellotti, Julie Cazal, Marine Collignon, Eléonore Dalmais, Albert Genter, Caroline Guion, Morgane Lebrun, Adèle Martin, Xavier Moch, Mariane Peter-Borie, Virginie Schmidlé-Bloch

P-DK 4.8 Data and knowledge sharing

1.	The challenges of geothermal production data reporting and visualisation from a worldwide perspective	Adele Manzella, Elisa Cannone, Martina Rosa Galione, Eugenio Trumpy
2.	A Journey Through the New Interactive Geothermal Atlas for Vienna (Austria) – Looking for Sustainable Heating and cooling	Cornelia Steiner, Martin Fuchsluger and Thomas Fuhrmann
3.	Transfer program to facilitate the integration of geothermal energy into the Swiss energy mix	Faessler Jérôme
4.	IADC's Geothermal Well Drilling Guideline	Florian Mercier
5.	Geothermal exploration in Switzerland from a national geological perspective: review and outlook towards a future play-based approach	Herfried Madritsch, Andreas Ebert Laurent Scheurer, Laurent Thum, Stefano Fabbri, Lance Reynolds, Philip Wehrens, Milan Beres, Jérémy Gonus, Daniel Traber, Michael Gysi, Andreas Möri, Christian Minnig
6.	Deep geothermal resources in the Pan-European Atlas of Sustainable GeoEnergy Capacities (GSEU project): The Play-based Exploration Pyramid concept	Herms, I. ; Caldera, N. ; Arnó, I. ; Fernández-Canteli, P. ; García-Crespo, J. ; Carrión-Ocaña, E.; Ramalho, E. ; Carvalho, J.; Nádor, A.; Steiner, C.; Janků, L.; Koevoets, M.J. and rest of GSEU-WP Team
7.	Reducing Levelised Cost of geothermal Heat in the Netherlands	Leonora Heijnen, Corné van Langen, Marianne Leewis, Pieter Bruijnen, Eveline Rosendaal, Maarten Middelburg
8.	BVEG/DGMK Guidelines on risk management for drilling deep geothermal projects	Meirich, Marco, Andre El-Alfy, Matthias Reich, Sebastian Homuth; Uhde, Jörg Albrecht Möhring, Uwe Balasus-Lange , Jörg Schönebeck, Jung, Sebastian Jung , Horst Christofzik, Susanne Kuchling,, Gesa Netzeband, Ingo Forstner, Helen Werner, Nicole Grobys
9.	International Collaboration through the IEA Geothermal Technology Collaboration Programme	Samantha Alcaraz, Brian Carey and Kasumi Yasukawa
10.	Beyond data: designing Ireland's new National Geothermal Database	Sarah Blake Rory Dunphy, Taly Hunter Williams, Riccardo Pasquali, Mark Muller

P-O 4.9 Other

1.	Shallow Geothermal Energy – the Past, the Current Status, and a Future Outlook	Burkhard Sanner, Walter J. Eugster, Göran Hellström
2.	A lingering cold – Thermal recharge of geothermal systems after production stop	Carolin Wallmeier, Philip J. Vardon and Alexandros Daniilidis
3.	Geothermal energy in the Netherlands: current state, challenges and future prospects	J. van der Molen, S.P. Tolsma, B. Davids, H.F. Mijnlieff
4.	A Giant Market for European Companies in the Geothermal Sector: East Africa	Kai Imolauer, Maria Ueltzen
5.	the GEothermies program: how to successfully deploy geothermal energy in Geneva	Marie Lecompte, Nathalie Andenmatten-Berthoud
6.	Navigating the growing geothermal market: the European story	Shruti Raghuram