

Completed Innovation and Research Projects

Projects completed in 2018

Project	Description	Funded by	Duration	DMT contact
BioMore	New Mining Concept for Extracting Metals from Deep Ore Deposits using Biotechnology	HORIZON 2020	01.02.2015 – 31.07.2018	Knut Hirsch
GeoHazCoal	Geohazard Assessment in European and Asian Mining	EUREKA	01.05.2017 – 30.04.2018	Thomas Imgrund

Projects completed in 2017

Project	Description	Funded by	Duration	DMT contact
Coal2Gas	Enhanced Coal Exploitation through Underground Coal Gasification (UCG) in European Lignite Mines	RFCS	01.07.2014 – 30.06.2017	Stephan Peters
LayTerm	Layman courses for the Transfer of Expertise on Raw Materials	EIT Raw Materials	01.01.2016 – 31.12.2017	Knut Hirsch

Projects completed in 2016

Project	Description	Funded by	Duration	DMT contact
AMSSTED	Advancing Mining Support Systems to Enhance the Control of Highly Stressed Ground	RFCS	01.07.2013 – 30.06.2016	Torsten Gorka, Stephan Peters
ArchHUB I	Arctic Network Hub Pilot	EIT	01.01.2016 – 31.12.2016	Norbert Benecke
COGAR	Underground Coal Gasification in Operating Mine and Areas of High Vulnerability	RFCS	01.07.2013 – 30.06.2016	Torsten Gorka
COWEST	Coal Weathering Study to Predict Oxidation, Improve Coke Properties and Protect Coke Oven Operation	RFCS	01.07.2013 – 30.06.2016	Drazen Gajic
HEATFLOW	Development of a Numerical Model based on the finite Volume Method for Modelling Thermo-hydraulic Processes in Fault-related Geothermal Reservoirs – Subproject A: Focus on Practicality of the Procedure and Application in the Field, Project Coordination	BMBF	01.04.2013 – 31.03.2016	Michael Eckart
MANAGER	Management of Mine Water Discharges to Mitigate Environmental Risks for Post-Mining Period	RFCS	01.07.2013 – 30.06.2016	Christoph Klinger
M SmartGrid	Mining Smart Electrical Grids	RFCS	01.07.2013 – 30.06.2016	Rainer Rellecke

Projects completed in 2015

Project	Description	Funded by	Duration	DMT contact
AVENTO	Advance tools for ventilation and methane emissions control	RFCS	01.07.2012 – 30.06.2015	Rainer Rellecke
COMEX	Complex mining exploitation: optimizing mine design and reducing the impact on human environment	RFCS	01.07.2012 – 30.06.2015	Stephan Peters
I2Mine	Innovative Technologies and Concepts for the Intelligent Deep Mine of the Future	FP7	01.11.2011 – 31.10.2015	Axel Studeny, Rainer Rellecke, Christian Hartmann, Jörg Niese
INREQ	Enhanced effectiveness and safety of rescuers involved in high risk activities by designing innovative rescue equipment systems	RFCS	01.07.2012 – 30.06.2015	Rainer Rellecke
WTZ China Yangtze GEO II	Land Use Change, Soil Erosion, Mass Movements, and Diffuse Matter Inputs at the Yangtze River in the Three-Gorges Region; Focus: Subproject 3 - Quantification of Geogenic Structures and Processes by way of Geophysical and Geodetic Monitoring	BMBF	01.06.2012 – 31.12.2015	Paul Althaus

Projects completed in 2014

Project	Description	Funded by	Duration	DMT contact
CO2RINA	CO2RINA – Integrated risk assessment of CO2 storage in deep geological formations	BMBF	01.09.2011 – 31.08.2014	Ralph Schlueter
GMES4 Mining	GMES4 Mining: GMES-based Geoservices for Mining Areas in Support of Processes in Prospection, Exploration and Monitoring for Environmental Protection and Operational Safety	Land NRW	15.08.2011 – 14.08.2014	Karsten Zimmermann
Unterirdische Pump-speicher-kraftwerke	Development of a Realization Concept for the Utilization of Facilities of Coal Mining as an underground Pumped-Storage Power Plant	Land NRW	15.10.2012 – 30.04.2014	Jens-Peter Lux

Projects completed in 2013

Project	Description	Funded by	Duration	DMT contact
CoGasOut	Development of novel technologies for predicting and combating gas outbursts and uncontrolled emissions in thick seam coal mining	RFCS	01.07.2010 – 30.06.2013	Ulrich Brandt
DENSI-CHARGE	Improving the use of alternative raw materials in coking blends through charge densification	RFCS	01.07.2010 – 30.06.2013	Drazen Gajic, Friedhelm Strelow
MISSTER	Mine shafts: improving security and new tools for the evaluation of risks	RFCS	01.07.2010 – 30.06.2013	Rainer Kuchenbecker, Martin Weber
MINFIREX	Minimising risk for and reducing impact of fire and explosion hazards in underground coal mining	RFCS	01.07.2010 – 30.06.2013	Heinrich Petersmann

Projects completed in 2012

Project	Description	Funded by	Duration	DMT contact
EMIMSAR 11500	Enhanced miner-information interaction to improve maintenance and safety with augmented reality technologies and new sensors	RFCS	01.07.2009 – 30.06.2012	Dietmar Plum
IMPACTMIN	Impact Monitoring of Mineral Resources Exploitation	RFCS	01.01.2010 – 31.12.2012	Dieter Wittenberg, Gregor Hannsmann
UCG CO₂-Storage	Study of deep underground coal gasification and the permanent storage of CO ₂ in the affected areas	RFCS	01.07.2010 – 31.12.2012	Ralph Schlüter

Projects completed in 2011

Project	Description	Funded by	Duration	DMT contact
CLEAN CO2 Altmark	Design and development of an Optimal Seismological Monitoring Network for the Monitoring of Reservoir Overburden and Cap Rock (TV IV, CO2 MONITOR) – Special GEOTECHNOLOGIES Program	BMBF	01.07.2008 – 30.06.2011	Ralf Fritschen
COALSWAD	Investigation of adsorption and swelling behaviour of coal to determine the feasibility of CO2 sequestration and CH4 production enhancement	RFCS	01.07.2008 – 30.06.2011	Ralph Schlueter
EDAFFIC	Early Detection and Fighting of Fires in belt Conveyors	RFCS	01.07.2008 – 30.06.2011	Heinrich Petersmann
EMTECH	Fires, Evacuation, Refuge and Rescue Support	RFCS	01.07.2008 – 30.06.2011	Rainer Rellecke
FLOMINET	Flooding Management for underground coal mines considering regional mining networks	RFCS	01.07.2008 – 30.06.2011	Christoph Klinger
IMPRES	Improved Extraction Ratios for Deep Coal Mines	RFCS	01.07.2008 – 30.06.2011	Hans-Werner Huwe, Jürgen te Kook

Projects completed in 2010

Project	Description	Funded by	Duration	DMT contact
CO2 SINUS	Evaluation of the Efficiency and Sustainability of CO2 Storage in "in situ" Converted Coal Seams - Special GEOTECHNOLOGIES Program	BMBF	01.06.2008 – 30.11.2010	Ralph Schlueter