European Commission

Databases & Information Services on R&I Programmes

Martin Bohle

RTD. J.5 Common Service for H2020 Information and Data

21/10/2015

Public Sources:

- **CORDIS: COmmunity Research and Development Information Service**
- **EU ODP: EUropean Open Data Portal**

p.m.: *The data warehouse of the research family of DGs.*

- **CORDA: COmmon Research DAta warehouse**
  - **eCORDA**: A snapshot of CORDA for "Comitology Business"

CORDA Content

FP6, FP7 and Horizon 2020

- proposals/applicants
- signed grants/participants

Data available in the form of

- dynamic predefined reports
- 'Google-like' search (iSearch)
- Downloadable content

Content - Reports

Predefined reports provide

overview statistics/reporting
a degree of parametrisation

Predefined Reports | Advanced Search

Proposal Reporting

FP7 List of Concluded Calls (R0a)
FP7 proposals by thematic priority, funding scheme, activity type (R1)
FP7 proposals success rates by country (R3)

H2020 List of Concluded Calls (R0a)
H2020 proposals by thematic priority, funding scheme, activity type (R1)
H2020 proposals sucess rates by country (R3)

Project Reporting

FP6 projects by thematic priority, instrument, activity type (R1)
FP6 project participants by country (R3)
FP6 project participants collaborative links by country (R4)

FP7 projects by thematic priority, funding scheme, activity type (R1)
FP7 project participants by country (R3)
FP7 project participants collaborative links by country (R4)

H2020 projects by thematic priority, funding scheme, activity type (R1)
H2020 project participants organisation list (R2)
H2020 project participants by country (R3)
H2020 project participants collaborative links by country (R4)

Content – Reports (cont.)

Please select Project Signature Year

ALL YEARS

Please select country group, country code or NUTS code

ALL COUNTRIES

ALL COUNTRIES

*Please note that for the sake of this classification CANDIDATE and ASSOCIATED country groups are mutually exclusive.

*For the details on the country eligibility and classification please see the country group reference note here.

*For more information regarding NUTS classification please see information provided by reference note here.

NUTS Reference version: NUTS 2006-2010

ALL COUNTRIES	ALL NUTS (CZ)
AT - Austria	CZ0 - CESKA REPUBLIKA
BE - Belgium	CZ01 - Praha
BG - Bulgaria	CZ010 - Hlavni mesto Praha
CY - Cyprus	CZ02 - Stredni Cechy
CZ - Czech Republic	CZ020 - Stredocesky kraj
DE - Germany	CZ03 - Jihozapad
DK - Denmark	CZ031 - Jihocesky kraj
EE - Estonia	CZ032 - Plzensky kraj
EL - Greece	CZ04 - Severozapad

Content – Reports (cont.)

Links to drill-down reports

Exporting options

Selection Criteria

Country	CZ - Czech Republic
NUTS	CZ01 - Praha
Country Group	ALL
Country Status	ALL

Make another selection | FP7 Grant Agreements by Funding Scheme | FP7 Participant Org. Activity Type | FP7 Participant Org. Legal Status

FP7 Participation Spatial Distribution (GIS)

CZ - Czech Republic
CZ01 - Praha
FP7 Signed Grant Agreements: Participation and Contribution by Priority Area
All Funding Schemes

Specific Programme	Priority Area	Signed grant agreements with at least one participant in the selection	Participations in the selection	All participations in grant agreements	Project cost in grant agreements (euro)	Project cost for all participations in selection (euro)	EU financial contribution to grant agreements (euro)	EU financial contribution to all participations in the selection (euro)
COOPERATION	Health	52	57	789	352,416,423	13,944,836	263,847,164	10,606,555
	Food, Agriculture and Fisheries, and Biotechnology	49	54	907	235,316,814	13,273,648	171,940,685	10,002,510
	Information and Communication Technologies	90	106	1,311	604,935,435	36,671,690	431,758,308	25,969,910
	Nanosciences, Nanotechnologies, Materials and new Production Technologies - NMP	64	71	1,015	431,347,312	19,900,424	301,608,506	14,652,514
	Energy	18	20	276	154,244,979	4,706,211	94,295,639	3,242,786
	Environment (including Climate Change)	41	44	725	202,918,251	7,880,282	152,286,606	5,932,668
	Transport (including Aeronautics)	46	50	909	525,386,933	15,681,616	329,150,712	10,616,831
	Socio-economic sciences and Humanities	19	20	221	57,308,638	2,854,448	45,155,880	2,190,800
	Space	17	19	422	141,117,025	3,543,434	98,377,810	2,710,878
	Security	18	19	285	94,587,115	4,602,925	67,855,838	3,349,763
	General Activities	1	2	22	2,680,934	31,080	2,382,504	27,713
Subtotal: COOPERATION excluding JTI		415	462	6,882	2,802,259,859	123,090,593	1,958,659,651	89,302,927
COOPERATION	JTI-IMI (Innovative Medicines Initiative)	2	2	58	82,857,118	1,359,462	42,169,656	1,094,905
	JTI-ARTEMIS (Embedded Computing Systems)	12	19	512	444,766,602	7,607,517	74,237,946	1,270,455
	JTI-CLEAN SKY (Aeronautics and Air Transport)	2	2	5	599,918	136,653	449,937	102,490

Plans – CORDA / CORDIS:

- An analysis of CORDA regarding its development options is scheduled for 2016
- Making better use of the EU Open Data Portal
- Stabilizing in 2016 the renewed CORDIS focus: "Dissemination Support"

CORDIS in European Union research

- First EU framework programme for research in 1984
- CORDIS launched in 1990 and online in 1994
- CORDIS is the EC's primary public repository and portal for all EU-funded research projects and results
- FP4, FP5, FP6, FP7: web services and applications operated by the Publications Office
- Monitoring: Common Support Centre (RTD J5)

European Commission

Getting started with CORDIS

- Main content via banner tabs
- 6 languages: EN, DE, FR, ES, IT, PL
- Extensive archives: FPs 4/5/6/7

cordis.europa.eu

EU-funded research projects and results

LOVE

Project reference: 256790
Funded under: FP7-ENERGY

Low-temperature heat valorisation towards electricity production

From 2010-10-01 **to** 2014-03-31

Project details

Total cost:	**Subprogramme:**
EUR 5 061 351,8	ENERGY.2010.8.1-1 - Valorisation of low temperature heat
EU contribution:	**Call for proposal:**
EUR 3 299 789	FP7-ENERGY-2010-1
Coordinated in:	**Funding scheme:**
Switzerland	CP - Collaborative project (generic)

Objective

"Low-temperature process waste heat is primarily valorized to provide heat to other applications and, more rarely, to provide cooling or to produce electricity, which is often perceived to be less attractive. However, generating electricity does represent a rational alternative, since it may circumvent drawbacks linked to demand seasonality and location. The LOVE project aims at developing innovative technological solutions to generate electricity from low-temperature (< 120°C) waste heat so...

Related information

Result In Brief
- Electricity from industrial waste heat

Report Summaries (4)
- Periodic Report Summary 2 - LOVE (Low-temperature heat valorisation towards electricity production)
- Periodic Report Summary 1 - LOVE (Low-temperature heat valorisation towards electricity production)
- Final Report Summary - LOVE (Low-temperature heat valorisation towards electricity production)

Documents and Publications
- Periodic Report 2 - LOVE (Low-temperature heat valorisation towards electricity production)

Open Access via OpenAIRE
- "Defining ""Waste Heat"" for industrial processes"
  Bendig, Matthias; Marechal, Francois; Favrat, Daniel
  2013

Coordinator

ECOLE POLYTECHNIQUE FEDERALE DE LAUSANNE — Switzerland

Participants

Holcim Group Support Ltd — Switzerland

ASSOCIATION POUR LA RECHERCHE ET LE DEVELOPPEMENT DES METHODES ET PROCESSUS INDUSTRIELS - ARMINES — France

CEMEX RESEARCH GROUP AG — Switzerland

- Transparent record of over 105 000 EU-funded projects since 1990, up to H2020
- Link to programmes, results, documents, searches, Open Access publications (OpenAIRE)
- Details from grant agreement

cordis.europa.eu/projects

European Commission

Project results: Report Summary

LOVE Report Summary

Project reference: 256790
Funded under: FP7-ENERGY

Final Report Summary - LOVE (Low-temperature heat valorisation towards electricity production)

Executive Summary:
Pressed by increasingly stringent environmental and cost saving requirements, the industry sector is constantly looking for measures to increase energy efficiency. In 2010 an ambitious collaboration between academia and industry was launched in the frame of the EU FP7 project LOVE (LOw temperature heat Valorization towards Electricity production), with the aim to investigate the generation of electricity by recovering waste heat at temperatures below 120°C, focusing on the cement sector as test case.

Thermodynamic cycles, and especially the Organic Rankine Cycle (ORC), make it possible to recover low-temperature waste heat to generate electricity. The development of ORC technology is nowadays considerably advanced and there exist many providers of commercial solutions for heat recovery applications. However, little or no industrial experience exists on heat recovery at temperatures below 250 °C, due to the low thermal efficiency at these temperatures and the high investment cost required. The overall goal of LOVE was to evaluate possibilities and limits for power generation in this challenging low temperature range. In particular, LOVE aimed to demonstrate the technical feasibility for one of the most energy-intensive industrial sectors with several instances of non-recovered low temperature heat sources: the cement sector.

To guarantee the successful execution of the project, a consortium consisting of strategic partners from academia and industry has been created. The consortium combined the strengths of leading players in their fields: global cement producers (Holcim, Cemex), major European utilities (EDF, EnBW), innovative equipment manufacturers (Makatec, Cryostar), and academic institutions with active research efforts in the field (MINES ParisTech/ARMINES, Swiss Federal Institute of Technology/EPFL).

Different waste heat source and technical solutions for their valorization were thoroughly investigated. Two demonstrators were designed, built and tested in two different cement factories. The project proved the technical feasibility of power generation by using low-temperature waste heat in real industrial environments. Advantages and limits of different technologies have been highlighted, as well as their exploitation potential in other sector. Continuing collaboration between industry and academia can help enhance technical development and achieve large scale industrial implementation of waste heat energy recovery systems.

The total budget invested on the project was approximately 5 Million Euro, more than 60% funded by the European Commission.

Project Context and Objectives:
In the EU 27, the industry sector represents nearly one quarter of the final energy consumption and one fifth of the GHG emissions. Industries can reduce these losses by improving equipment efficiency or by installing heat recovery technologies (exchangers, heat pumps) to make use of the waste heat inside the plant or exchange it with surrounding factories or residential communities. In the absence of any such re-use, conversion into electricity becomes an attractive solution, but one which still needs development. The aim of the LOVE project (LOw temperature heat Valorization towards Electricity production) was to drive this development, with investigation on available low-temperature (T<120°C) waste heat sources in industrial operations, and development and demonstration of cost efficient innovative technologies for electricity production.

Overall, the project consisted of four parallel research activities organized in several work packages:

1. Development of a methodology for the identification of waste heat sources in an industrial process and for the optimal integration of thermodynamic cycles (WP1).
2. Definition of key performance indicators (economic, sustainability and technical) for the proposed technologies and the evaluation of their market potential (WP3).
3. Manufacturing of two 100 kWe demonstration units to be installed in two cement factories, one of Holcim and one of Cemex (WP2 and WP4).
4. Research on innovative heat exchangers and thermodynamic cycles (WP1, WP2 and WP5).

WP6 regulated management and dissemination activities.

- "Publishable summary" of periodic or final reports
- Provided by project participants to EC
- Only in English

European Commission

Project results: "Result in Brief"

LOVE Result In Brief

Project reference: 256790
Funded under: FP7-ENERGY
Country: Switzerland

Electricity from industrial waste heat

In the EU-28, the industry sector accounts for nearly one quarter of total energy consumption and one fifth of greenhouse gas emissions. An EU-funded project worked on technologies for more effectively using the generated waste heat.

The organic Rankine cycle (ORC) technology — which recovers surplus low-grade heat — has major potential to help fulfil EU 20-20-20 targets. However, existing technology does not address small temperature differences compared to the ambient air. The 'Low temperature heat valorisation towards electricity production' (LOVE) project sought to identify low-temperature (less than 120 degrees Celsius) waste heat sources and develop cost-effective technologies for converting them into electricity.

Project partners defined a methodology for optimal integration of thermodynamic cycles that was based on pinch analysis and process integration. This was mainly applied to the test cases identified in the cement sector. Two 100 kWel ORC prototypes were integrated into 2 pilot study cement plants for waste heat recovery and power generation. Components that include a radial inflow turbine, finned tube heat and packed column heat exchanger were designed and sized for these pilot studies. Theoretical studies for a 1 MWe ORC system were also conducted.

Different prototypes of polymeric gas–liquid heat exchangers were manufactured and tested under laboratory conditions. Capillary-tube heat exchangers were easily produced with promising results concerning heat transfer and pressure drop. Designs based on a polymeric film showed very good heat transfer performance but challenging manufacturing.

The potential to extract waste heat from solid material was also studied by using the cement cooler as a test case. Modelling and simulation of heat and mass transfer phenomena allowed identifying possible modifications for the cement cooler design to enhance heat recovery.

Based on the prototypes, project partners performed a detailed techno-economic assessment for low-temperature waste heat recovery. Results indicated payback times higher than those generally accepted by industry for off-production investments. Safety and environmental hazards of ORC installations were also evaluated, including a full life-cycle assessment analysis regarding the carbon dioxide footprint.

Project dissemination activities included publications in journals, presentations and conferences. A patent application was also filed for waste heat recovery from rawmill flue gasses.

DE ES FR IT PL

Related information

Report Summary

- Periodic Report Summary 3 - LOVE (Low-temperature heat valorisation towards electricity production)

Subjects

- Rewritten for broader public and users of results
- Support innovation and exploitation
- Available in 6 languages

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News and events

CORDIS Express

Theme of the week:

CORDIS Express: The value of nature

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Advanced search

Latest CORDIS news

CORDIS Express: The value of nature

2015-07-17

This edition of CORDIS Express takes a look at the EU-funded research projects exploring the value of ecosystems and the policies and initiatives needed to protect them.

Research and tools to engage with statistics 'beyond GDP'

2015-07-17

The EU-funded WEB-COSI project has delivered a host of tools and research results to support engagement with statistics for societal progress.

See all CORDIS news

Latest news from Wire contributors

Call for Presentations for EPoSS Annual Forum 2015 'State of the (Sm)Art: Smart Systems Responding to Demand Side Requirements'

2015-07-17

The Annual Conference of EPoSS, the European Technology Platform on Smart Systems Integration, will be held at imec Belgium in Leuven on 13 October 2015. The Call for Presentations invites submissions on: demand side requirements for Smart Systems; Smart Systems showcases: Tur...

Improving cancer diagnosis and treatment monitoring with GLAM project

2015-07-16

There is nothing very glamorous about cancer, but now a new EU-funded project – GLAM – aims to help make monitoring and diagnosis a bit less intrusive and unpleasant.

See all Wire news

Events

Upcoming

12th International Conference on e-Commerce and Digital Marketing
[Date: 2015-07-21]

Latest published

Joint Event 'EPoSS Annual Forum 2015 & MNBS 2015'
[Date: 2015-10-12]

- Multilingual daily news
- Focus on projects and funding
- EU-related events
- Contributions via Wire application

cordis.europa.eu/news

Search and reuse

Horizon 2020 project information is now available on CORDIS and the EU Open Data Portal.

Country:
Uzbekistan

Content Type:
Project

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Saved searches in Notifier

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Search projects and results

Free text

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1. [PROJECT] INCONET CA - STI International Cooperation Network for Central Asian Countries
Ref.: 609508
Start date: 2013-09-11, **End date:** 2016-09-10
"The project aims to support the advancement of the bi-regional STI policy dialogue between the EU MS/AC and the Central Asian countries, with an explicit focus on the Societal Challenges that have been identified to be of mutual interest for the two regions, namely Climate C...
Programme: FP7-INCO
Record Number: 110258
Last updated on: 2015-07-15

2. [PROJECT] EXCHARGEHYD - The origin of excess charge at the water/hydrophobic interfaces
Ref.: 909181
Start date: 2013-12-20, **End date:** 2014-12-19
"The main purpose of this proposal is the theoretical investigation of salt adsorption process at the interface of water/hydrophobic substrates taking into account impurities, dissolved gases using thermodynamically consistent force fields for ions by molecular dynamics metho...
Programme: FP7-PEOPLE
Record Number: 102339
Last updated on: 2015-03-12

3. [PROJECT] INTERPREGGEN - Genetic studies of pre-eclampsia in Central Asian and European populations
Ref.: 282540
Start date: 2011-11-01, **End date:** 2016-04-30
"Pre-eclampsia, one of the most dangerous cardiometabolic complications of pregnancy, claims the lives of 50,000 mothers and almost one million babies annually. Pre-eclampsia and other hypertensive disorders of pregnancy remain the second most common cause of maternal death. ...
Programme: FP7-HEALTH
Record Number: 101106
Last updated on: 2015-03-10

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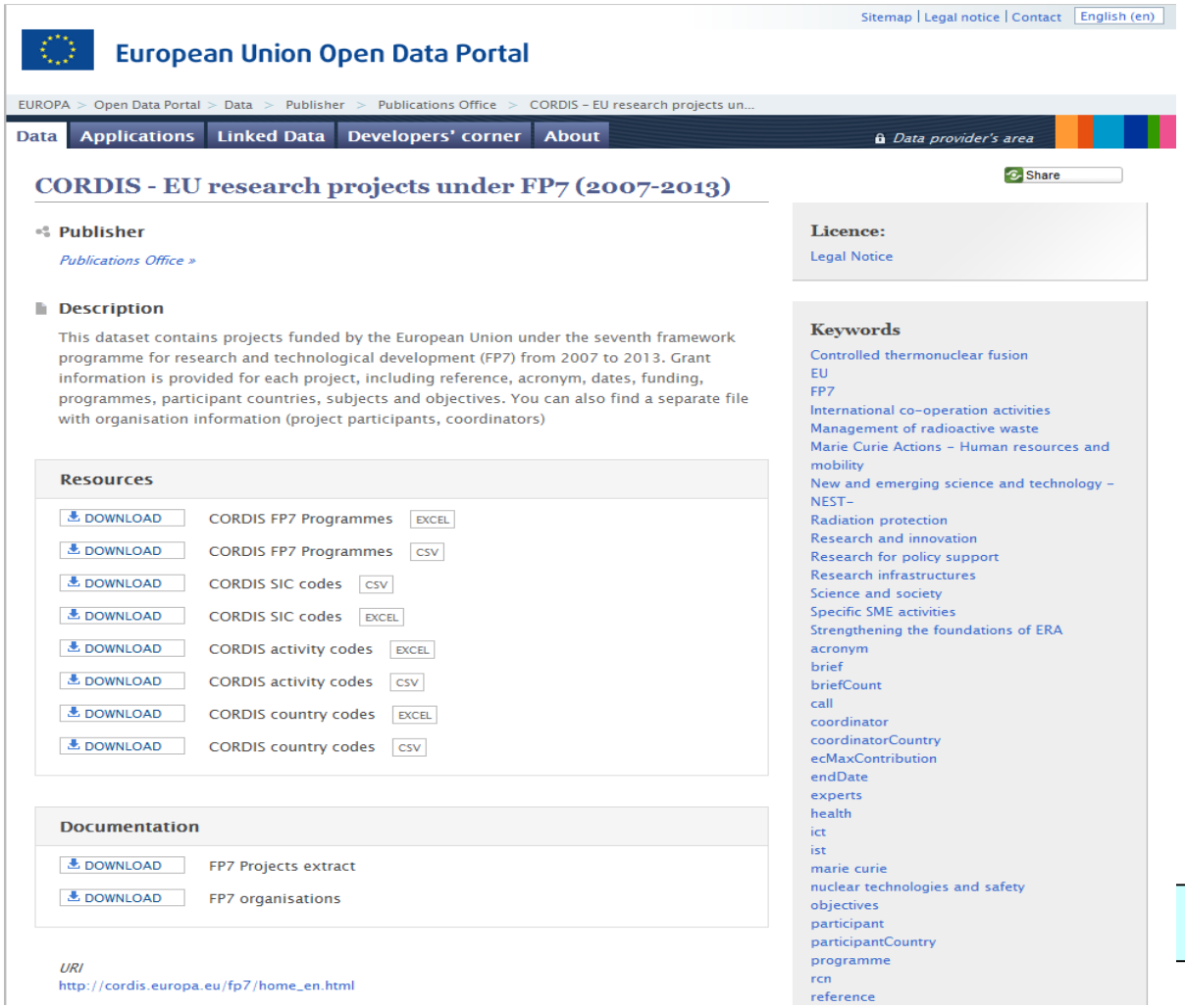
Open Data on EU research projects



- Full extraction of H2020, FP7, FP6, FP5, FP4
- Reuse for analysis or systems

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Thank you!