

HORIZON
2020

Fifth generation, Low temperature, high EXergY district heating and cooling NETworkS

Ergebnisse

Projektinformationen

FLEXYNETS

ID Finanzhilfvereinbarung: 649820

[Projektwebsite](#) 

DOI

[10.3030/649820](#) 

Projekt abgeschlossen

EK-Unterschriftsdatum

10 April 2015

Startdatum

1 Juli 2015

Enddatum

31 Dezember 2018

Finanziert unter

SOCIETAL CHALLENGES - Secure, clean and efficient energy

Gesamtkosten

€ 1 999 363,75

EU-Beitrag

€ 1 999 363,75

Koordiniert durch

ACCADEMIA EUROPEA DI
BOLZANO



Italien

CORDIS bietet Links zu öffentlichen Ergebnissen und Veröffentlichungen von HORIZONT-Projekten.

Links zu Ergebnissen und Veröffentlichungen von RP7-Projekten sowie Links zu einigen Typen spezifischer Ergebnisse wie Datensätzen und Software werden dynamisch von [OpenAIRE](#)  abgerufen.

Leistungen

[Experts Webinars](#)

Draft M24

[Project Flyer](#)

Flyer prepared to make public aware of the project and project's objectives.

[Project Booklet](#)

FLEXYNETS Booklet (10 pages), containing the main project achievements.
Draft M30

[Public Workshops](#)

Drafts M21, 33

[Project Branding and Website](#)

Draft M3 - maintenance all along the projects life

[Newsletter publication](#)

Drafts M6, 18

[Video News Release](#)

Film reporting on the main outcomes of the project.

[Educational Kit](#)

Higher education (university) and vocational training material elaborated.

[Guide Book](#)

Guide Book of FLEXYNETS-CONTROL and -PLANNING integrated solutions, devoted to address experts in the sector. Draft M27

[Press releases](#)

Draft M6

[Scientific Publications](#)

At least 5 publications will be sent by partners to conferences and sectorial magazines and at least 3 publications to peer-reviewed journals will be published. Open Access publications in peer-reviewed journals will be guaranteed. Draft M18

[Pre-design support online tool](#)

Online pre-design tool, which will guide experts on selecting appropriate sizes and distributions of energy sources and sinks. The tool will be made public

available. The source code will be protected.

[Experts Workshops](#) 

Draft M18

Dokumente, Berichte (8)

[FLEXYNETS-TRADING policies](#) 

Report on technical challenges, policies and trading models elaborated as part of the FLEXYNETS TRADING. Draft M18

[Integration of substations into DHC networks](#) 

Report on the on simulations at full DHC network level to elaborate solution for the integration of FLEXYNETS Substations into the DHC solutions. Draft M18

[FLEXYNETS-SUBSTATIONS](#) 

Report on Energy sources and sinks with short term local storages. Draft M9

[Strategies for the integration of DHC networks with the electric and gas grids](#) 

Report on the control strategies elaborated for the interaction between DHC network and the grids. Draft M12

[Large storage systems for DHC networks](#) 

Report on the utilization of large/seasonal storages in relation to the FLEXYNETS DHC solutions. Draft M12

[Report on Early Adopters case studies](#) 

Report on the FLEXYNETS DHC solutions elaborated for three early adopter cities.

[Analysis of network layouts in selected urban contexts](#) 

Report on the assessed topologies for FLEXYNETS DHC networks.

[Low- and high-level controls for low temperature DHC networks](#) 

Report on the control strategies elaborated at SUBSTATIONS and DHC network levels. Draft M18

Veröffentlichungen

Potential study on demand side management in district heating and cooling networks with decentralised heat pumps

Autoren: S. Buffa, M. Cozzini, G. P. Henze, C. Dipasquale, M. Baratieri, R. Fedrizzi

Veröffentlicht in: Proceedings of the International Sustainable Energy Conference - ISEC 2018, Graz, 2018, Ausgabe once every two years, 2018, Seite(n) 92-100

Herausgeber: Organisation committee of the ISEC 2018 Conference

Smart control of a district heating network with high share of low temperature waste heat

Autoren: Vivian Jacopo, Jobard Xavier, Ben Hassine Ilyes, Pietruschka Dirk, Hurink Johann L.

Veröffentlicht in: Proceedings of the 4.1.3 12th Conference on Sustainable Development of Energy, Water, and Environment Systems, Dubrovnik, Croatia, Ausgabe Proceedings of the 4.1.3 12th Conference on Sustainable Development of Energy, Water, and Environment Systems, Dubrovnik, Croatia, 2017

Herausgeber: Conference on Sustainable Development of Energy, Water and Environment Systems – SDEWES Conference

FLEXYNETS – A new district heating network concept for higher renewable and waste heat share

Autoren: Ilyes Ben Hassine, Xavier Jobard, Linn Laurberg Jensen

Veröffentlicht in: Proceedings of the conference 4.1.2 ISES Solar World Congress 2017 – IEA SHC International Conference on Solar Heating and Cooling for Buildings and Industry, Abu Dhabi, UAE, Ausgabe Proceedings of the Conference, 2017

Herausgeber: "The International Solar Energy Society (ISES) ""Solar World Congress"""

Sector coupling and distributed energy storages for the integration of renewable energy sources

Autoren: Trier Daniel

Veröffentlicht in: Proceedings of the 4th International Conference on Smart Energy Systems and 4th Generation District Heating – Aalborg, Denmark, Ausgabe Proceedings of the 4th International Conference on Smart Energy Systems and 4th Generation District Heating – Aalborg, Denmark, 2018, Seite(n) 141-142

Herausgeber: Conference on Smart Energy Systems and 4th Generation District Heating

Solar CHP systems for low-temperature district heating networks

Autoren: D'Antoni Matteo, Cozzini Marco, Fedrizzi Roberto

Veröffentlicht in: Proceedings of 5th International Solar District Heating

Conference Graz, Austria, Ausgabe Proceedings of 5th International Solar District Heating Conference Graz, Austria, 2018, Seite(n) 48-55

Herausgeber: International Solar District Heating Conference

Flexynets – Optionen für die kalte Nahwärme auf EU Ebene (Flexynets - options for cold district heating at EU level)

Autoren: Pietruschka Dirk

Veröffentlicht in: Proceedings of 4th Praxis- und Wissensforum Fernwärme & Fernkälte- AIT, Ausgabe Proceedings of 4th Praxis- und Wissensforum Fernwärme & Fernkälte- AIT, 2018

Herausgeber: AIT- Austrian Institute of Technology

FLEXYNETS - A NEW GENERATION OF INTELLIGENT LOW EXERGY DISTRICT HEATING AND COOLING NETWORKS

Autoren: Dirk Pietruschka, Ilyes Ben Hassine, Marcus Brennenstuhl, Roberto Fedrizzi, Marco Cozzini, Simone Buffa

Veröffentlicht in: Proceedings of the DHC2016 conference, 2017

Herausgeber: Organization committee of the DHC2016 conference

Pricing strategies for neutral temperature district heating and cooling networks based on heat pumps

Autoren: M. Cozzini, M. D'Antoni, S. Buffa, R. Fedrizzi

Veröffentlicht in: Proceedings of the HPC 2017, 2017

Herausgeber: Organisation committee of the HPC 2017

Fachlich begutachtete Artikel (1)



[5th generation district heating and cooling systems: A review of existing cases in Europe](#)

Autoren: Simone Buffa, Marco Cozzini, Matteo D'Antoni, Marco Baratieri, Roberto Fedrizzi

Veröffentlicht in: Renewable and Sustainable Energy Reviews, Ausgabe 104, 2019, Seite(n) 504-522, ISSN 1364-0321

Herausgeber: Elsevier BV

DOI: 10.1016/j.rser.2018.12.059

Sonstiges (7)



The next generation of energy networks

Autoren: Fedrizzi Roberto

Veröffentlicht in: EU research, Ausgabe four times a year, 2016, Seite(n) 58-59

Herausgeber: EU Research- Blazon Publishing and Media Ltd

District Heating and Cooling Networks Based on Decentralized Heat Pumps: Energy Efficiency and Reversibility at Affordable Costs

Autoren: Cozzini Marco, D'Antoni Matteo, Buffa Simone, Fedrizzi Roberto, Bava Federico

Veröffentlicht in: HPT MAGAZINE, Ausgabe VOL. 36 NO 2/2018, 2018, Seite(n) 26-29, ISSN 2002-018X

Herausgeber: Heat Pump Centre

Teleriscaldamento, si lavora alla quarta generazione (District heating, working on the fourth generation)

Autoren: Fedrizzi Roberto, Cozzini Marco, Marchetti Riccardo

Veröffentlicht in: Servizi a rete, Ausgabe November-December 2015, 2015, Seite(n) 9-10

Herausgeber: Tecnedit Srl

Driving Research in Innovation

Autoren: Fedrizzi Roberto

Veröffentlicht in: DHC+ Newsletter, Ausgabe monthly, 2015

Herausgeber: Euroheat & Power

Bolzano: un laboratorio per testare il teleriscaldamento del futuro (Bolzano: a laboratory to test the district heating of the future)

Autoren: Cozzini Marco

Veröffentlicht in: Servizi a rete, Ausgabe November- December 2017, 2017, Seite(n) 19-20

Herausgeber: Tecnedit Srl

Niedrige Temperaturen sollen im Wärmenetz die Verluste senken

Autoren: ZAFH

Veröffentlicht in: GRÜNES BUCH VDI nachrichten, Ausgabe 42, 2015, Seite(n) 22

Herausgeber: VDI Verlag GmbH

Teleriscaldamento e teleraffrescamento a bassa temperatura: efficienza energetica e reversibilità a costi accessibili (Low-temperature district heating and cooling: energy efficiency and reversibility at accessible costs)

Autoren: Cozzini Marco

Veröffentlicht in: Servizi a rete, Ausgabe December 2018, 2018, Seite(n) not available

Herausgeber: Tecnedit Srl

Modeling and performance analysis of alternative solar-field configurations for parabolic trough 5.2
Master's Degree in Energy Engineering (SOLTIGUA)

Autoren: Vivian Jacopo

Veröffentlicht in: 2018

Herausgeber: University of Pisa

Direct Use of Low Temperature Heat in District Heating Networks with Booster Heat Pumps 5.3 PhD
in Industrial Energetic Engineering (ZAFH)

Autoren: Vivian Jacopo

Veröffentlicht in: 2018

Herausgeber: University of Padua

Advanced control strategies for district heating and cooling systems PhD in Sustainable Energy and
Technologies (EURAC)

Autoren: Buffa Simone

Veröffentlicht in: 2018

Herausgeber: Free University of Bolzano

Nicht von unabhängiger Seite geprüfte Artikel (1)

[District Energy Systems: A Collaborative Exchange of Results on Planning, Operation and Modelling for Energy Efficiency](#) 

Autoren: Tatiana Loureiro, Miika Rämä, Raymond Sterling, Marco Cozzini, Meritxell Vinyals, Michael Descamps, Wolfgang Birk, Gozde Unkaya, Federica Fuligni, Borna Doračić, Marin Petrovic, Dominik Rutz, Inés Arias, Sofia Lettenbichler, Ioannis Meintanis, Serafeim Moustakidis, Martin Buchholz, Reiner Buchholz, Mathieu Provost, Philipp Geyer

Veröffentlicht in: Proceedings, Ausgabe 2/15, 2018, Seite(n) 1127, ISSN 2504-3900

Herausgeber: Sustainable Places 2018 (SP2018), Aix-les Bains, France, 27–29 June 2018

DOI: 10.3390/proceedings2151127

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