



The Intelligent Energy Europe program

Putting EU policy objectives into action

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Technical solutions, urban planning and business models
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Scope

- **Introduction to the IEE**
- Overview of EU policy
- Example of projects

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Who are we?

- Executive Agency for Competitiveness and Innovation. The 1st Executive Agency created by the Commission in 2004
- Created by the European Commission to manage EU programmes under Commission control and responsibility



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Intelligent Energy – Europe II: Converting policy into action





IEE Tool Box

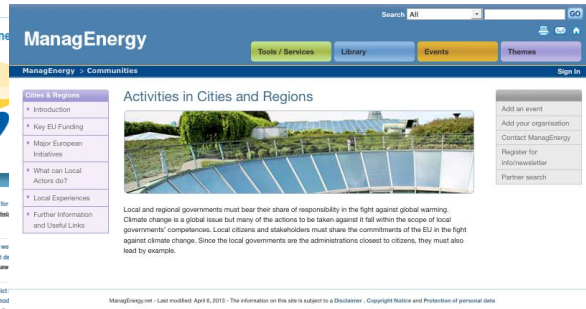
- Multi-national projects (strategic & on-the-ground)
- Concerted actions (Note: CA-RES has already discussed DH)
- **ManagEnergy (local and regional focus)**
- Web portals (EUSEW, Covenant of Mayors, Build up, ELTIS, Clean vehicles)
- Project development assistance ELENA, MLEI
- Tenders (studies, analyses)
- New initiatives (Build up Skills, ...)



www.managenergy.net



Portal for regional and local authorities





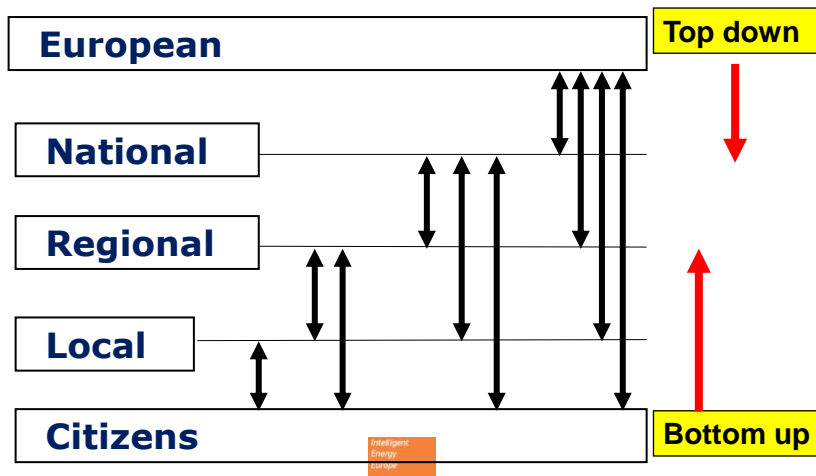
Over 500 IEE-supported projects across Europe, more than 3,000 participants from 30 countries...



→ Important impacts at EU level



Multi-level governance





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- Introduction to the IEE
- **Overview of EU policy**
- Example of projects



EU Directives call for more RES and district heating and cooling

RES Directive

- A 20% RES is requested at EU level which has resulted in national targets by 2020

Article 13 requires MS to ...

- assess the necessity to build new infrastructure for district heating and cooling produced from RES in order to achieve the 2020 national target.
- where relevant, take steps with a view to developing a district heating infrastructure to accommodate the development of heating and cooling production from large biomass, solar and geothermal facilities.





EU Directives call for more district heating and cooling

EPB Directive recast - Article 20 requires MS to ...

enable consideration of the optimal combination of improvements in energy efficiency, use of RES, and use of district heating and cooling when planning, designing, building and renovating industrial or residential areas.

EE Directive – Article 14

defines efficient district heating and cooling, and calls on MS to carry out a comprehensive assessment of the potential for high-efficiency CHP and district heating and cooling, and to promote their use.



RES Directive - Renewable energy progress report COM(2013) 175

- most MS have achieved interim targets and they are on track...BUT further efforts are needed for administrative simplification and clarity of planning and permitting procedures

- the economic conditions today and the changes in policy and support schemes to RES in some MS reduce clarity and certainty for investors

....

this leads to conclude that further measures will be needed at MS level to keep on the trajectory needed to achieve targets

- actions not taken today will have an impact on the capacity installed and in operation on 2020



Scope

- Introduction to the IEE
- Overview of EU policy
- **Example of projects**

On the DH side the IEE has...



- Support policy development on DHC
- European heating and cooling market studies looking at the opportunities for increasing DHC
- Support to LAs for the implementation of DHC using renewables, e.g. geothermal, DC
- Provide project development assistance for LAs willing to initiate district energy infrastructure projects
- Support the development of new markets and business opportunities for RES DHC
- etc.

ECOHEATCOOL
ECOHET4CITIES
ECOHEAT4EU
GEODH, RESCUE
BOWEN,
GEOKEC, E4F
SDHTakeoff,
SDHPLus

<http://eaci-projects.eu/iee>



pro>STO

QAIST
Quality Assurance in
Solar Heating and
Cooling Technology

POLIS
Partnership for
Optimising Local
Innovation Systems



On the solar side the IEE has...

- Develop and roll out quality standards
- Handholding support to LAs for integration of ST into spatial planning, development and implementation of solar thermal ordinances
- Training for installers
- etc.

SOLARKEYMARK II (2006/2007)
QAIST (2009/2012)

PROSTO (2008-2010)
POLIS (2009, 2012),
URBANSOL PLUS (2011-2014)

INSTALL+RES (2010-2013)

<http://eaci-projects.eu/iee>

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SDH-TakeOff (2009/2012)



Background

SDH is a mature technology but with limited market uptake in few EU northern countries



Aim

Improve the market conditions for solar district heating -> trigger new capacity and activities in the sector

SDH
solar district heating

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<http://www.solar-district-heating.eu/>
Project CO: SOLITES



EU collaboration

Frontrunners
DE, AT, DK and SE

Know-how
transfer,
coaching,
site visits

1

Newcomers
IT, CZ

**Beyond consortium
partners**
FR, ES

1

National collaboration

**District
heating
suppliers**

Dedicated
trainings in
each
country,
national
helpdesk,
workshops

2

**Solar
experts**

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**Realisation of
new plant
capacity**

*180 MWth new
capacity installed
since project
beginning*

*300 MWth of
planned capacity
(also in
newcomers
countries)*

**Initiation of
SDH activities**



SDHPlus (2012/2015)



Background

To continue and expand the activities initiated under SDHTakeOff

Aim

Create new business opportunities for solar DHC by know how transfer from experienced to newcomer countries and by developing and pilot implementing new business and marketing models



Total budget: 1,88 Mio EUR

SDH
solar district heating

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<http://www.solar-district-heating.eu/>

Project CO: SOLITES



SDHPlus (2012/2015)

Consortium composition

18 partners

6 countries (DE, SE, IT, CZ, DK and AT) as in SDHTakeOff

6 new countries (ES, FR, HR, LT, PL, SI)

*DH associations,
consultants,
ESCOs and operators,
technical experts*



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	Partners in SDHTakeOff and SDHPlus						New partners in SDHPlus					
	AT	DE	DK	SE	IT	CZ	ES	FR	HR	LT	PL	SI
SDHTakeOff	SDHPlus	x	x	x	x	x						
	SDHPlus	x	x	x	x	x						
	SDHPlus	x	x	x	x	x						
	SDHPlus	x	x	x	x	x						
	SDHPlus	x	x	x	x	x						
	SDHPlus	x	x	x	x	x						
SDHPlus	SDHPlus	x	x	x	x	x						
	SDHPlus	x	x	x	x	x						
	SDHPlus	x	x	x	x	x						
	SDHPlus	x	x	x	x	x						
	SDHPlus	x	x	x	x	x						
	SDHPlus	x	x	x	x	x						



SDHPlus (2012/2015)

Expected impacts

6 pilot implementation of innovative business models in 4 experienced countries

12 pilot implementation of innovative market strategies in 6 countries

39 case studies in collaboration with DH market actors

6 newcomers countries start developing new SDH activities

Capacity building of market actors

New SDH of 700 MW built or in planning until the end of the project



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www.solar-district-heating.eu





“MLEI” Mobilising Local Energy Investments



- Project Development Assistance for public authorities to prepare, mobilise and launch investments in EE and RES
- Bridge the gap between planning and implementation of bankable actions
- Actions should demonstrate that investment have been launched at the end of projects
- Leverage factor > 15

Examples of DHC projects

- “BOWEN” - BiO and Waste district heating Network in "Hengelo" (NL) (2012 / 2013)
- “Energy4Flexibility” – Sustainable Energy Infrastructure for Greenport Venlo (NL) (2013/2015)
- “GeoKec” Geothermal district heating in the city of Kecskemét (2013/2015)





Symbiotic bio-energy port integration with Cities by 2020 (EPIC 2020)

- promoting the use of **untapped bioenergy resource potential of ports and surrounding areas**
- five ports, including the **city of Malmo**, from northern to southern Europe are participating in EPIC 2020 together with a number of expert organisations and energy companies
- It aims to create platforms for the transformation of port areas to urban-integrated energy systems, where local bioenergy resources are utilized sustainably.

<http://eaci-projects.eu/iee>



Future looks good !

- EU Directives call for it
- IEE programme is showing how to do it
- IEE – MLEI and ELENA help public authorities to prepare bankable DHC projects
- EIB and other banks are committed to supporting EE and RES
- Proposed new ERDF and Cohesion funds will prioritise EE and RES.



Intelligent Energy Europe III as proposed by EC

- To form part of HORIZON 2020, the future EU framework programme for research and innovation (2014-2020)

Increasing
skills

Facilitating
investments

Supporting
policies

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Need more information?

- <http://ec.europa.eu/research/horizon2020>
- <http://ec.europa.eu/intelligentenergy>
- <http://eaci-projects.eu/iee>

