



**EiiF-Ecofys study researches insulation potential**  
45% heat loss savings possible

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## EiiF-Ecofys study researches insulation potential 45% heat loss savings possible

In 2007, EU leaders endorsed the climate and energy 20-20-20 target:

- Reduction of greenhouse gas emissions by 20% or more
- 20% of energy consumption from renewable sources
- 20% reduction in primary energy consumption

This policy lead to significant attention for measures that reduce energy demand and CO<sub>2</sub> mitigation.

We, the insulation industry, know from experience that there is a great potential in improving thermal insulation systems. Therefore EiiF has commissioned Ecofys to study this potential for the industry within the EU-27 member states.

With support of our technical insulation experts Ecofys researches on the savings potential looking into the following questions:

What is the typical cost-effective level of thermal insulation in industry and how does this level compare to current practice?

First findings: The current level is far away from being cost-effective as most often it is specified regarding process control and safety only, or with the traditional heat loss target value of 150 W/m<sup>2</sup>.

# ECOFYS

<http://www.ecofys.com>



Preliminary findings show that about 45% heat loss savings are possible if an existing system being designed with current specifications would instead be insulated cost-effectively.

### Consequences

1. As a matter of course any new build project should be built with at least a cost-effective insulation level.
2. All existing insulation systems should be rebuilt with at least a cost-effective insulation level whenever retrofit or maintenance work is carried out and wherever the old insulation has been torn off.



The second question to be answered by the study is:

**What is the energy savings and CO<sub>2</sub> mitigation potential resulting from better maintenance of insulation systems and from consistently insulating currently uninsulated parts?**

The causes of uninsulated parts identified by the research are either

- a. Damaged or missing insulation after repair
- b. There has never been any insulation  
(very often flanges, valves, connections, etc. are not insulated)
- a. Technical reasons or missing space.

First findings in literature as well as insulation experience show that more than 10% of all exposed mechanical insulation becomes damaged or missing within 1 to 3 years of installation and that uninsulated parts bear even a bigger potential than the calculated differences between existing and cost-effective insulation.

The next steps of the study are to further refine the results, to identify how big these savings potentials of industrial insulation are in total, and to translate these findings to the equivalent of Megatons of CO<sub>2</sub> and PJ (PetaJoules) of energy.

Don't miss the next issue of this newsletter to find out more about the savings potential of industrial insulation.

[info@eif.org](mailto:info@eif.org)

## Communication campaign soon to be released

### Watch out for THE INSULATOR

Communication Campaign soon to be released

- Watch out for THE INSULATOR
- Visit the EiiF website in July
- Ask for our new EiiF Membership brochure
- Send this first EiiF newsletter to a colleague or friend

The EiiF Communication Team met in Brussels during the eeglobalforum conference. The next meeting will take place during working week 36.

If you are an EiiF member don't miss to take part in our coming actions. We need to join forces to communicate the benefits of industrial insulation to make it known as the first step to energy efficiency in industry.



Please contact the EiiF office for more information and to get involved.

## EiiF presents insulation potential in Europe

### Presentations in Stuttgart and Brussels piqued high interest



EiiF Presentation in Stuttgart at the FDBR conference for plant and pipe building engineers in Stuttgart on 22 March.

Foundation Manager Andreas Gürtler accompanied by the insulation engineers Stefan Debold from Wendt-SIT, Dr. Martin Zeitler from FIW München, Jürgen Schmoltdt from KAEFER and Thomas Ortlieb from Lindner Isoliertechnik presented best practice examples of sustainable insulation.

The obvious savings potential of industrial insulation and rapid payback times of less than half a year in the presented best practice examples convinced FDBR director Dr.-Ing. Reinhard Maß and the participating 350 engineers. After the presentation EiiF was invited to speak also in Bremen in June on the next FDBR membership convention.

More information about FDBR: <http://www.fdbr.de>

EiiF was invited to act as an endorsed organisation at this year's eeglobalforum in Brussels from 12-14 April. EiiF Foundation Manager Andreas Gürtler was invited to speak about industrial insulation being the first step to energy efficiency in industries.



Furthermore the EiiF took the chance to organise combined to the energy efficiency event its first communication meeting of 2011 to discuss the co-ordination of communication actions of the EiiF network. In a fruitful meeting with ten communication experts from seven countries the next steps of the communication campaign were discussed and defined.

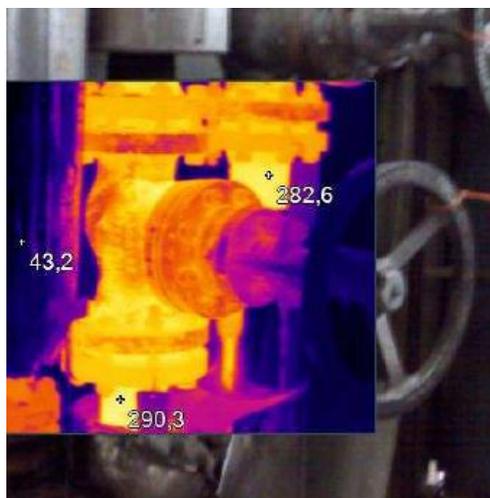
More information about EEGLOBAL:  
<http://www.eeglobalforum.org>



(From left to right) Dr. Massimiliano Colombini, L'Isolante K-Flex, Italy; Jeroen Ebus, Paul Mc Nicol, Rockwool, The Netherlands; Matt O'Connor, Hertel, The Netherlands; Andreas Gürtler, EiiF, Switzerland; Pierre Moesen, Kaimann, Belgium; Achim Aulke, Paroc, Germany; Nikki Gahunia, Cape plc, Great Britain; Jean-Eric Neidhardt, Isover, Switzerland; Miruna Bucurescu, EiiF, Romania

## What is a TIPCHECK?

### First engineers will be certified at the end of 2011



The name TIPCHECK is a combination of Technical Insulation Performance and Quick-Check. A TIPCHECK is a tool and method to quantify the amount of energy and actual euros a facility is losing with the current in-place insulation system and demonstrates how a more efficient system could:

- Save energy
- Improve process control and efficiency
- Reduce fuel bills
- Contribute to a cleaner environment through reduced emissions

Because it is virtually impossible to inventory all process piping in a facility due to the complexity of some systems and quite often insufficient information, the scope of a typical TIPCHECK usually includes insulated lines, un-insulated lines and equipment only.

A TIPCHECK is not intended to be a total system analysis. But a TIPCHECK always tends to identify the spots bearing the highest saving potential and offering a rapid payback time of not more than 2-3 years.

At the end of May a group of 11 insulation experts from 6 nations from EiiF partner and member companies worked out the basic elements of the EiiF TIPCHECK Programme. In vivid and high-quality discussions the first step to develop the curriculum was done with the following result:

The training will be organised in a six days course.

The objectives of the training are:

- **To refresh:**  
The theory of Insulation based on VDI 2055/EN ISO 12241 + EN ISO 23993 Insulation material & equipment
- **To learn:**  
The theory of the new VDI 4610  
How to execute the appraisal  
How to calculate cost-effective and ecological insulation systems  
How to collect needed data  
How to measure and evaluate existing insulation  
Process technology basics  
Professional behaviour  
Communication: How to present the results

The **qualifications** needed to become a TIPCHECK certified engineer are: an Engineering Qualification or similar combined with at least four years of experience in industrial insulation projects.



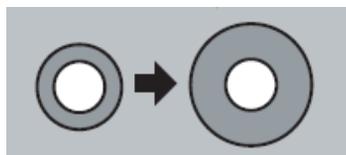
The TIPCHECK working group worked out the curriculum in Munich at Bilfinger Berger Industrial Services Group headquarters end of March 2011 in a four days compact meeting: (From left to right) Andreas Regel, BIS Group, Germany; Luk Smout, PCE, Belgium; Peter Stulen, Hertel, The Netherlands; Lasse Satka, Paroc, Finland; Dr. Martin Zeitler, FIW München, Germany; Frank Baur, L'Isolante K-Flex, Germany; Stefan Debold, Wendt-SIT, Germany; Andreas Gürtler, EiiF, Switzerland (back); Alfred Henning, G+H Isolierung, Germany; Michele Mannucci, Termisol Termica, Italy; Dr. Günther Kasparek, EiiF, Germany

## Example: TIPCHECK by Termisol Termica in Italy: Refinery tower

### Doubling the insulation thickness cuts the heat loss in half

Due to an accident, the tower of a refinery in Italy burned down and needed to be rebuilt. In the following discussions with the owners, the insulation engineers from EiiF Founding Partner Termisol Termica convinced them to take this as an opportunity to improve their insulation system by bringing it to a cost-effective level:

The result was that by doubling the insulation thickness the heat loss via the insulated surfaces could be cut in half. The new system now is not only the most cost-effective one but also saving energy and therefore reducing CO<sub>2</sub> emissions:



Total *annual* savings:  
Energy: 2'021'958 kWh  
Money: ca. 75'000 EUR

Information about Termisol Termica: <http://www.termisol.it>

**Industrial Insulation: Protect the environment with rapid payback.**

Read more best practice examples in the next issue of the EiiF newsletter.



## EiiF welcomes its two newest members

Welcome the Suisse association and Turkish manufacturer

### ISOLSUISSE

The Swiss association of insulation companies, founded in 1946, represents the interests of the profession of technical insulation in Switzerland.

<http://www.isolsuisse.ch>



### ODE

Ode is based in Turkey and a manufacturer of insulation solutions on the international market.

<http://www.ode.com.tr>



## New operations assistant

Sustainability architect Maarten Hermans joins EiiF team



### Maarten Hermans

is 27-year old an architect, originally from Mechelen, Belgium. He performed his master studies in Sustainable Development at Chalmers University in Gothenburg, Sweden.

Since June he supports the EiiF team with his dedication towards sustainability. He is now based at the EiiF-offices in Gland, Switzerland.

Contact: [maarten.hermans@eiiif.org](mailto:maarten.hermans@eiiif.org)

The EiiF newsletter is primarily circulated to EiiF Partners & Members.

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# We Power Sustainability

European Industrial Insulation Foundation



[www.eiiif.org](http://www.eiiif.org)