

## Intermediate Workshop of the HEGEL project

On **Tuesday 16 October** the Intermediate Workshop of the HEGEL project will take place in Tarragona, Spain. This event consists of a **poster stand** and a **roundtable** discussion between the project partners and stakeholders on micro-cogeneration and cooling technologies for trigeneration.

The Workshop is part of a larger event, the first European Conference on Polygeneration (16-17 October).



# Hegel

The HEGEL project aims to develop, demonstrate and compare high efficiency applications of small-scale and micro-polygeneration for the civil and industrial sectors, based on innovative technologies. The project is supported by the IEE programme of the European Commission.

More information can be found on <http://www.hegelproject.eu/>

During the project period three demonstration plants will be constructed and tested:

- **ICED** : A trigeneration plant will be installed in Torino (Italy), the unit will make use of a reciprocating engine cogenerator (120 kWe) in combination with a thermally activated liquid desiccant cooling system, providing cooling and dehumidification avoiding compression cooling and post-heating.
- **MTA** : A microturbine in trigeneration mode with two air-cooled ammonia-water absorption cooling cycles, installed in a multifunctional building in Sant Cugat del Vallès (Spain). Capacity of 65/110/32 kW (electricity/heat/cooling).
- **CS** : A "Combi System" cogeneration plant consisting of the combination of a reciprocating engine and a Rankine cycle engine (bottoming cycle) operated on the exhaust gases of the reciprocating engine. This unit will be installed in Turkey. The capacity will be of 145 kWe with an electrical efficiency of 40%

For more information and registration, please contact

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# Round Table draft programme

Tuesday 16 October 2007, Tarragona, Spain

14:45 - Participants registration

## 15:00 - OPENING

- Welcome and Opening address by Pasquale Campanile, Centro Ricerche FIAT

## 15:20 - SESSION I: MICRO-COGENERATION

- Introduction to the discussion by Thomas Bouquet, COGEN Europe
- Paolo Lazzeroni, Politecnico di Torino
- Birol Kilkis, UNTES
- Discussion

16:00 - Coffee break

## 16:30 - SESSION II: COOLING TECHNOLOGIES for TRIGENERATION

- Introduction to the discussion by Birol Kilkis, UNTES
- Juancarlos Bruno, Universitat Rovira I Virgili
- Armando Portoraro, Politecnico di Torino
- Discussion

## 17:10 – CONCLUSION

- Conclusions and closing remarks by Pasquale Campanile, Centro Ricerche FIAT

17:30 - end of roundtable

### **SESSION I: MICRO-COGENERATION**

*The recently published action plan for energy efficiency underlines that the European Union is facing a crucial challenge in the energy field. Nevertheless Europe continues to waste at least 20% of its energy due to inefficiency. The perspective for the future is that in 2050 almost three quarters of the world's energy supply will still come from fossil fuels and energy demand as well as CO<sub>2</sub> emissions will more than double. In this scenario one of the most important EU objectives is to lead the way in reducing energy inefficiency, using all available policy tools at all different levels of government and society. Unfortunately policy measures will not be sufficient: research should play a key role in developing new options for limiting CO<sub>2</sub> emissions in a cost effective way and improving the efficiency of existing energy technologies. How should research be addressed when dealing with micro-cogeneration and energy efficiency? Is there a substantial room for technical improvement? Are there still micro-cogeneration related fields worth investing in?*

### **SESSION II: COOLING TECHNOLOGIES for TRIGENERATION**

*In spite of the recognised advantages and significant existing market potential for the implementation of CHCP in the tertiary sector, there are some barriers to a higher penetration in European countries. These obstacles are of different nature: economic, technical and other (legal, administrative, political/institutional, organisational, etc.). According to EU-funded TriGeMed project results, it can be stated that some common measures are of high priority and relate mostly with tackling economic and organisational barriers. If the potential for the implementation of trigeneration (at least in the tertiary sector) is really significant but the results in terms of number of installations are not, should we blame only institutional/financial barriers? What could be done to improve the trigeneration technology and make it really attractive to final users?*