

**PPP: FoF**

**Topic FoF.NMP.2011-1**

## **Improving Energy and Auxiliary Material Efficiency**

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### Objectives and expected results

- developing new manufacturing technologies and strategies to increase energy and resource efficiency,
- integrating of ubiquitous sensor networks for metering of energy and resource flows,
- identifying and predicting consumption patterns for deriving improved production parameters,
- developing an energy and resource-oriented simulation suite to support multi-objective decision making.

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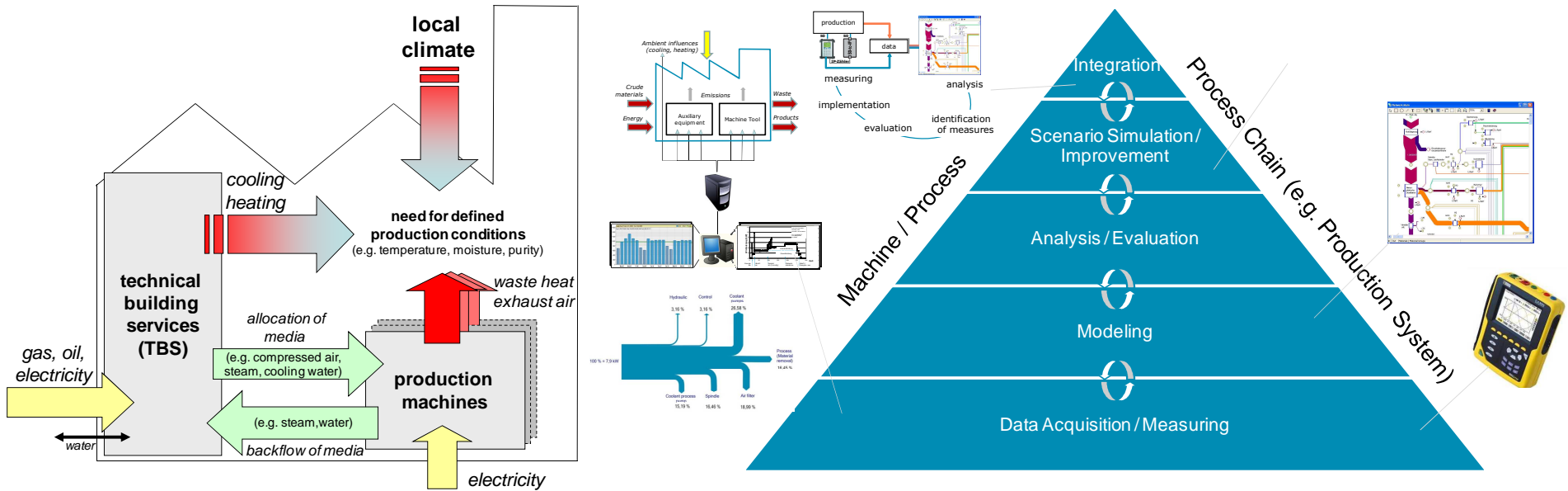
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## Improving Energy and Auxiliary Material Efficiency



### Holistic factory understanding

- consideration of all energy-related flows in factories (e.g. compressed air, process heat)
- factories as complex and dynamic control system consisting of production machines/system, technical building services and building shell
- development and implementation of methods and tools on different levels

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## **Improving Energy and Auxiliary Material Efficiency**

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### **Current partners**

- TU Braunschweig (PD Dr.-Ing. Christoph Herrmann)
- KU Leuven (Prof. Joost Duflou)

*diverse funded projects in the field of energy and resource efficiency and effectiveness (e.g. EUREKA, officers of CIRP CWG EREE, CO2PE! initiative – [www.mech.kuleuven.be/co2pe](http://www.mech.kuleuven.be/co2pe))*

### **Required partners**

- application partners – e.g. from automotive component industry
- specialized partners – e.g. experts from machine tool industry, technical building services, sensor and control systems as well as design support and automation software developers

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## Topic FoF.NMP.2011-1

### Improving Energy and Auxiliary Material Efficiency

**CO<sub>2</sub>PE! - Initiative**  
Cooperative Effort on Process Emissions in Manufacturing

EFRO  
VIA Voordeelen in Actie met steun van het Agentschap Ondernemen

CO<sub>2</sub>PE! (Cooperative Effort on Process Emissions in Manufacturing)

**CO<sub>2</sub>PE! - Information**

- Goal of the CO<sub>2</sub>PE! - initiative:** Join and coordinate international efforts to document, analyse and improve the environmental footprint for a wide range of available and emerging manufacturing processes with respect to their direct and indirect emissions.
- The initiative is operating in a CIRP Collaborative Working-Group EREE - Energy and Resource Efficiency and Effectiveness and as an IMS Manufacturing Technology Platform (MTP) Theme.
- An overview of the involved CO<sub>2</sub>PE! - Partners
- Overview of the public documents
- Overview of the references

**CO<sub>2</sub>PE! - Workspace**

- Members Log In for the CO<sub>2</sub>PE! - Workspace.

**Username**

**Password**

- Forgot your password? Retrieve Password.
- Not a member yet? Register and join the CO<sub>2</sub>PE! - initiative.

**CO<sub>2</sub>PE! - Agenda**

- Workshop during CIRP meeting in Paris (21 January 2010)
- Workshop during LCE2010 conference (19-21 May 2010)

**CO<sub>2</sub>PE! - Contact information**

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**LATEST DOCUMENTS**

- Documents
- References

**EVENTS**

- Workshop during CIRP meeting in Paris, 21 January 2010.

**EXTERNAL LINKS**

CIRP-EREE

IMS

co2pe-ims-mtp-initiative-2008

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Realization: Karel Kellens | Most recent update: 01/19/2010  
URL: <http://www.mech.kuleuven.be/co2pe/index.php>



CO<sub>2</sub>PE! initiative – [www.mech.kuleuven.be/co2pe](http://www.mech.kuleuven.be/co2pe)

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