

MicroCHeaP First annual meeting
FORCE Technology, Lyngby, Denmark
28th and 29th September 2005

IUAV University activities on CHP

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EU funded project SOSYEM

Developing an optimized control system for CHP

IUAV University of Venice

global model of building and plants

University of Trieste

optimization model

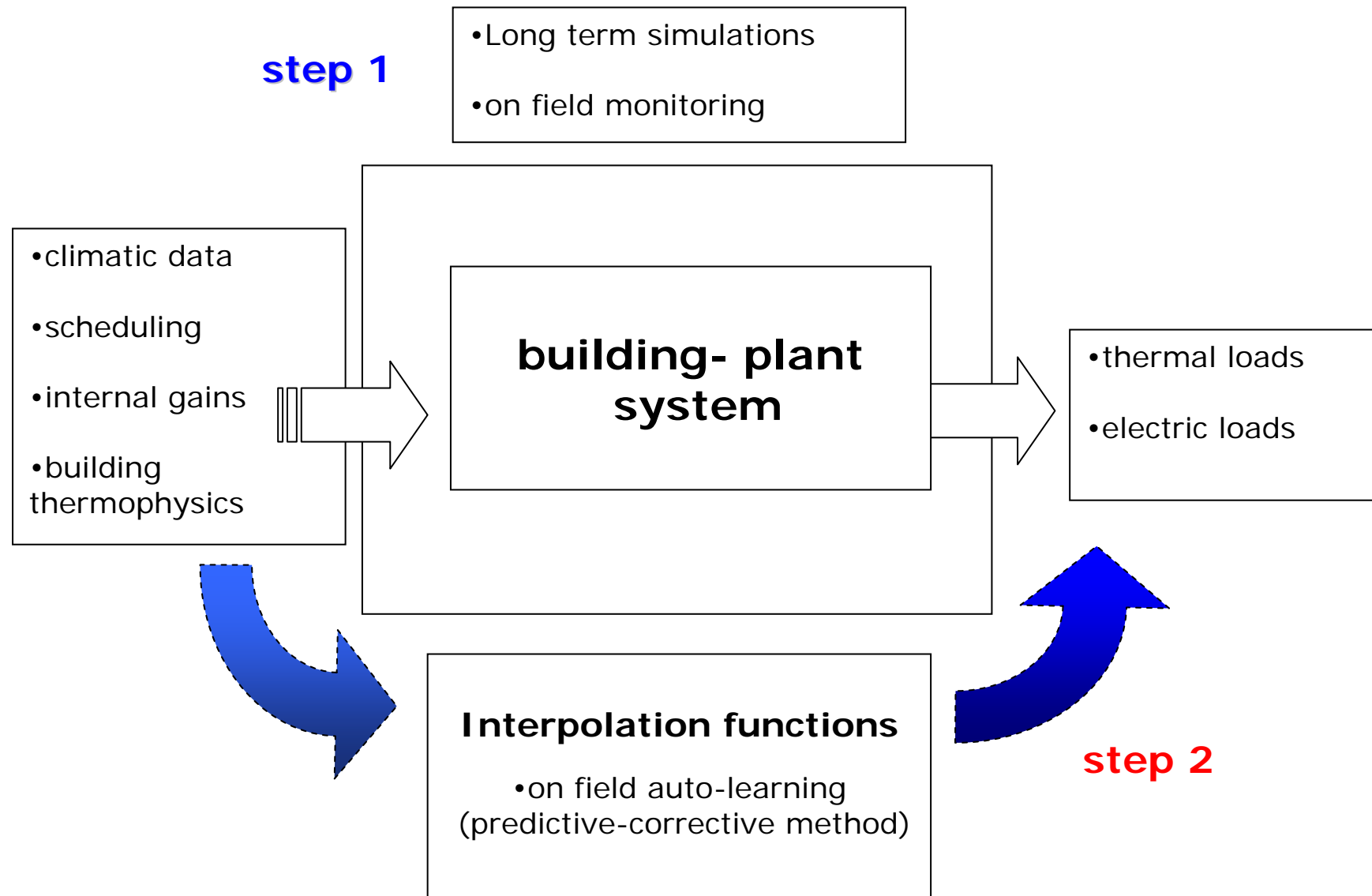
Aitemin - Madrid

software and hardware control system development

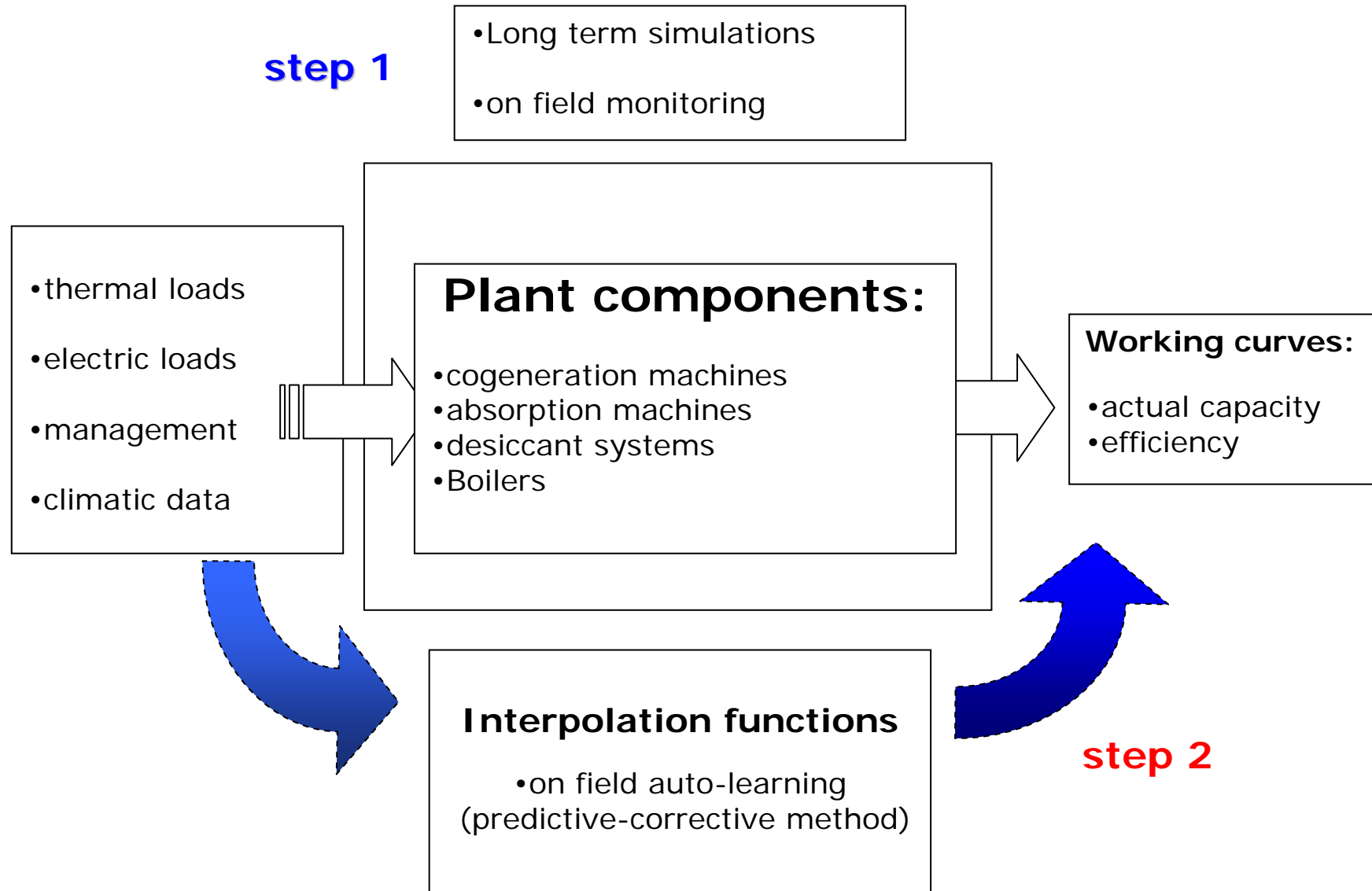
SMEs from Italy, Germany, Austria

from field informations and experiences

Developing a model to evaluate the loads

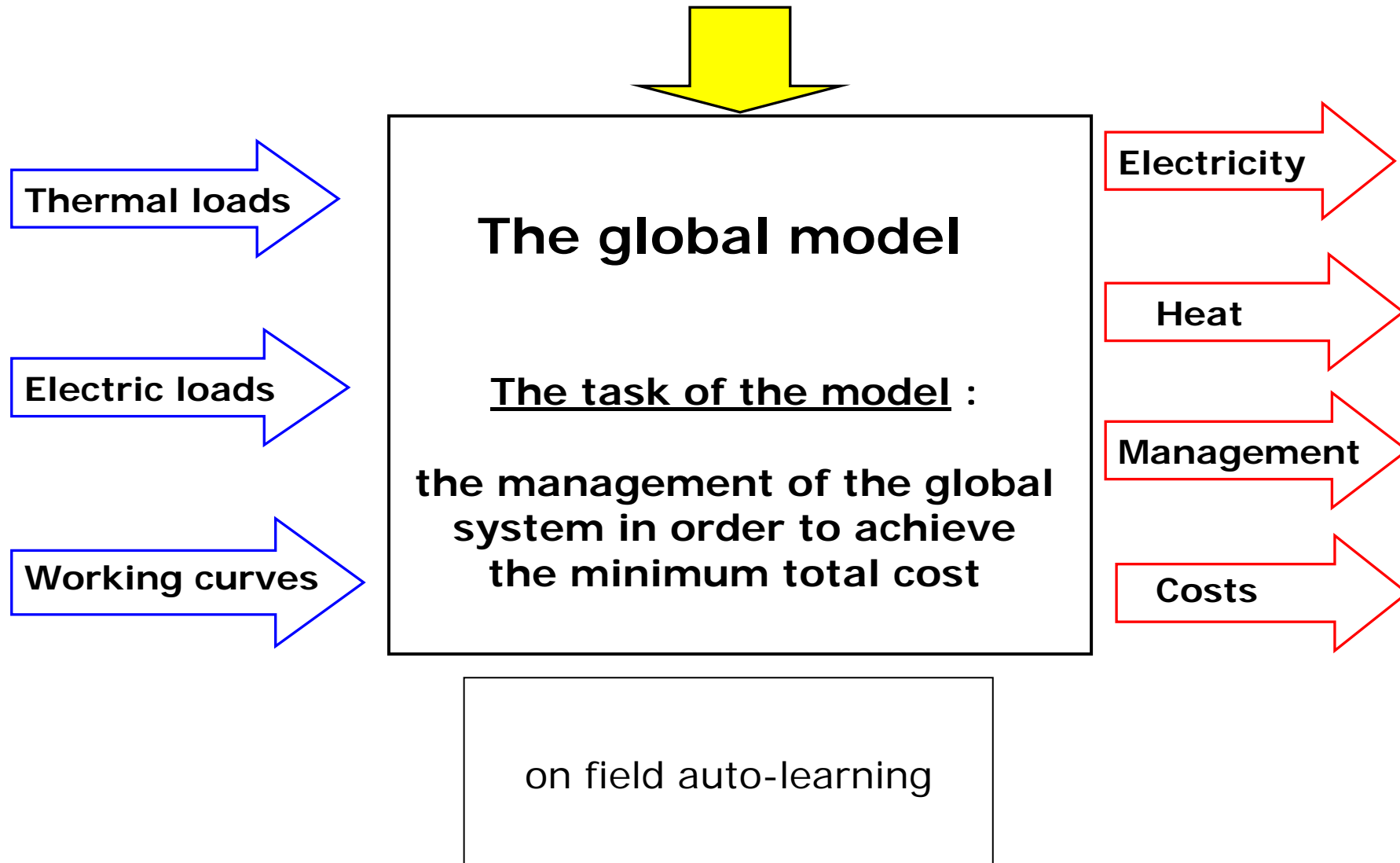


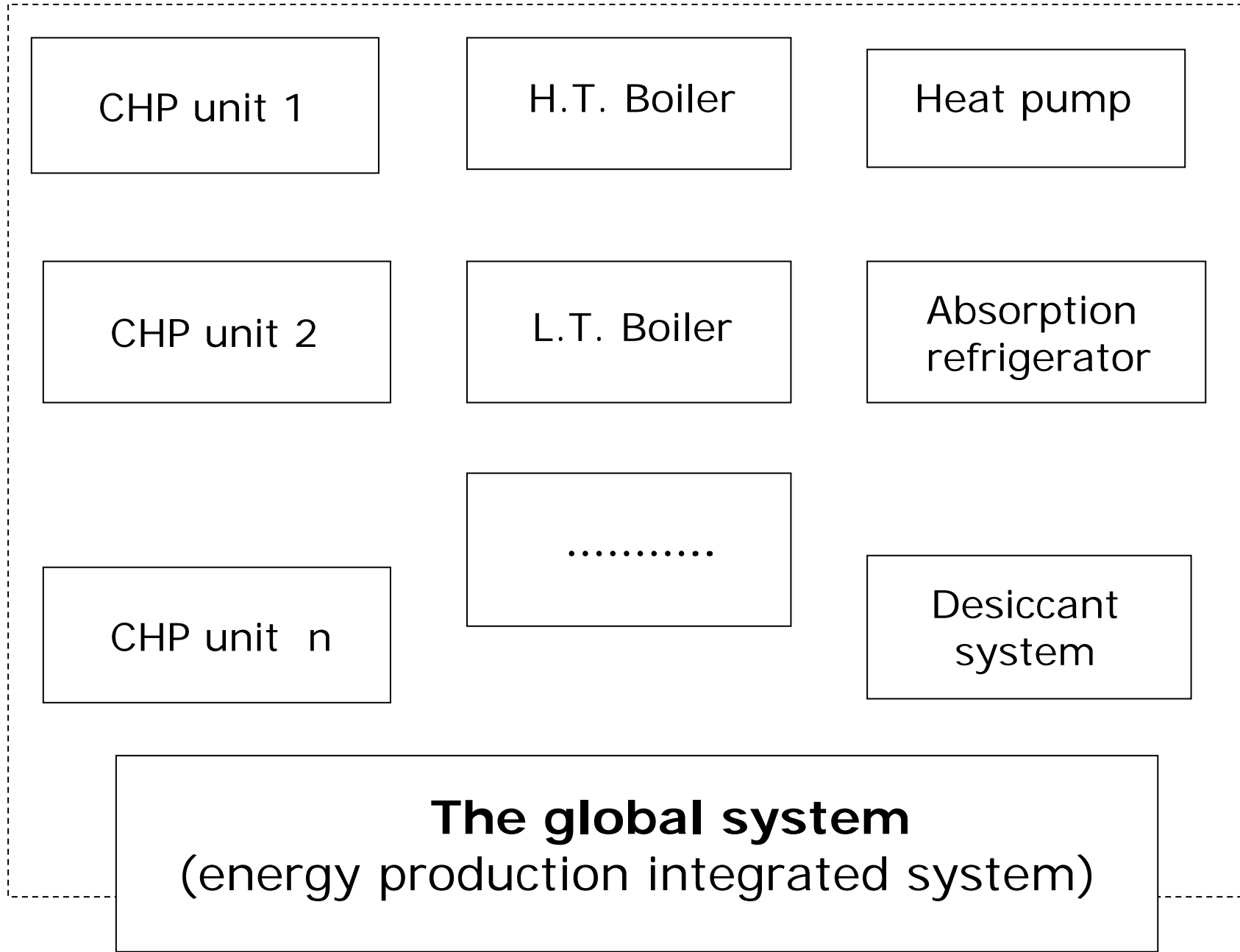
Developing a model of the plant behaviour



Economical environmental model:

(Electric rates and fuel costs, maintenance charges)





Testing the model

A real energy test where performed at Bassano Hospital (near Venice) from the 1st of January 2005 to the 30th of April 2005.

The model has been tested by using the real data coming from the monitoring system.



2 i.c. cogenerator (JENBACHER 320 GS-N.LC):
Nominal electric capacity: 1048 kW
Recovering heat power at full load: 1315 kW
Electrical efficiency at full load: 0.389

2 Boiler (BIASI TERMOTECNICA, CV-8000/17):
Nominal heat capacity: 5256 kW
Efficiency at full load: 0.92

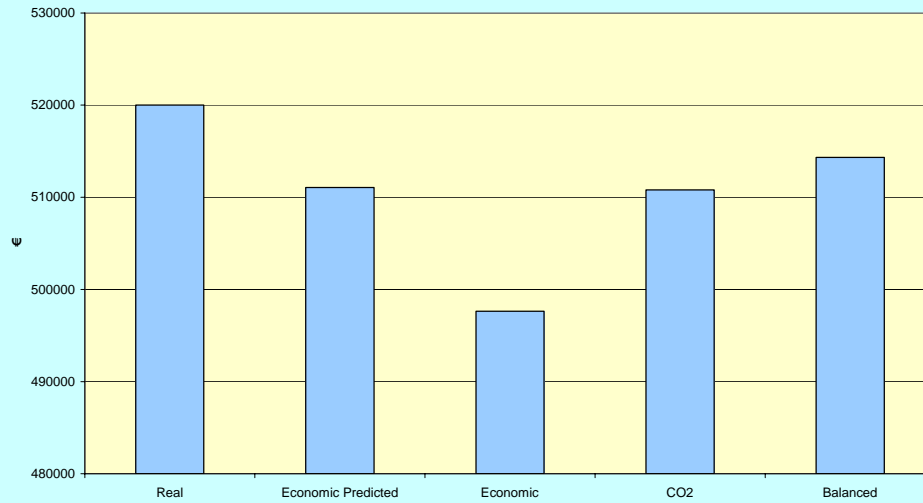
1 Boiler (BIASI TERMOTECNICA, CV-5000/17):
Nominal heat capacity: 3290 kW
COP at full load: 0.92

2 Chiller (YORK, YKDDDBH05CND):
Nominal cool capacity: 1814 kW
COP at full load at 32.5 °C: 5.11

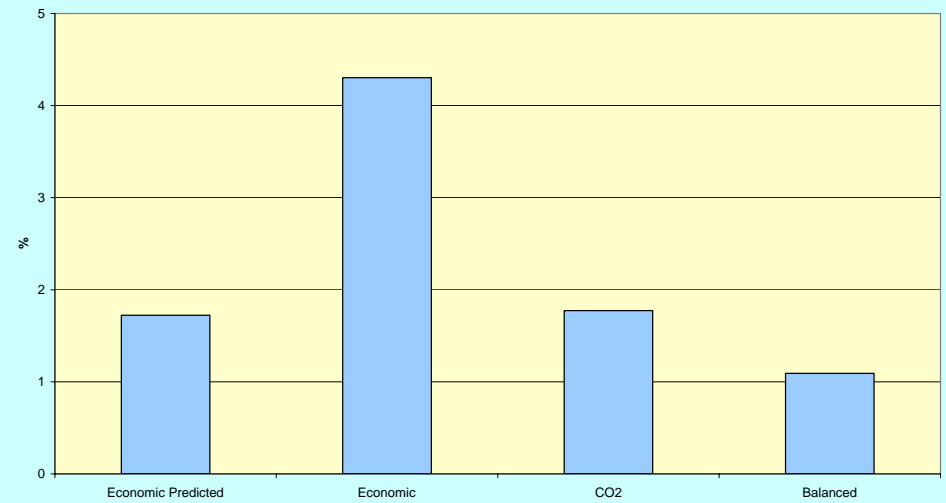


Results

Global Energy Cost



Economic Saving



Carbon Dioxide Saving



Carbon Dioxide Production

