

Steering Committee I.P.H.E.

Rome, 15-16 Nov. 2007

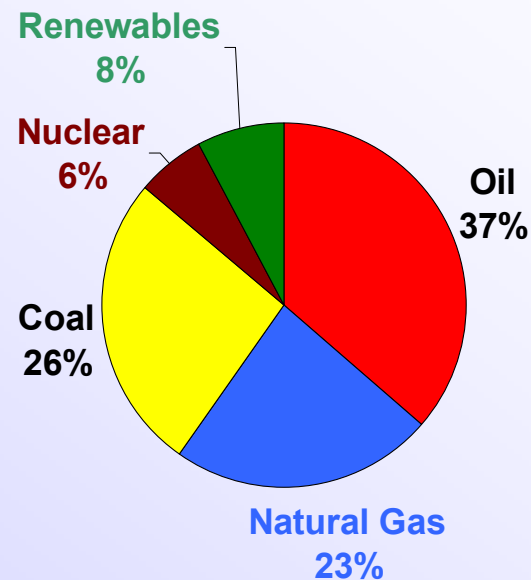
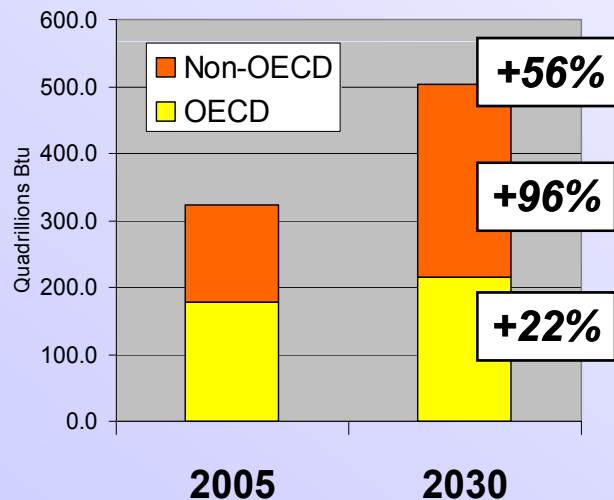
SOFCPOWER:

Fuel cell generators for micro-CHP systems

THE NEW GENERATION OF ENERGY

the future of energy: why are we concerned?

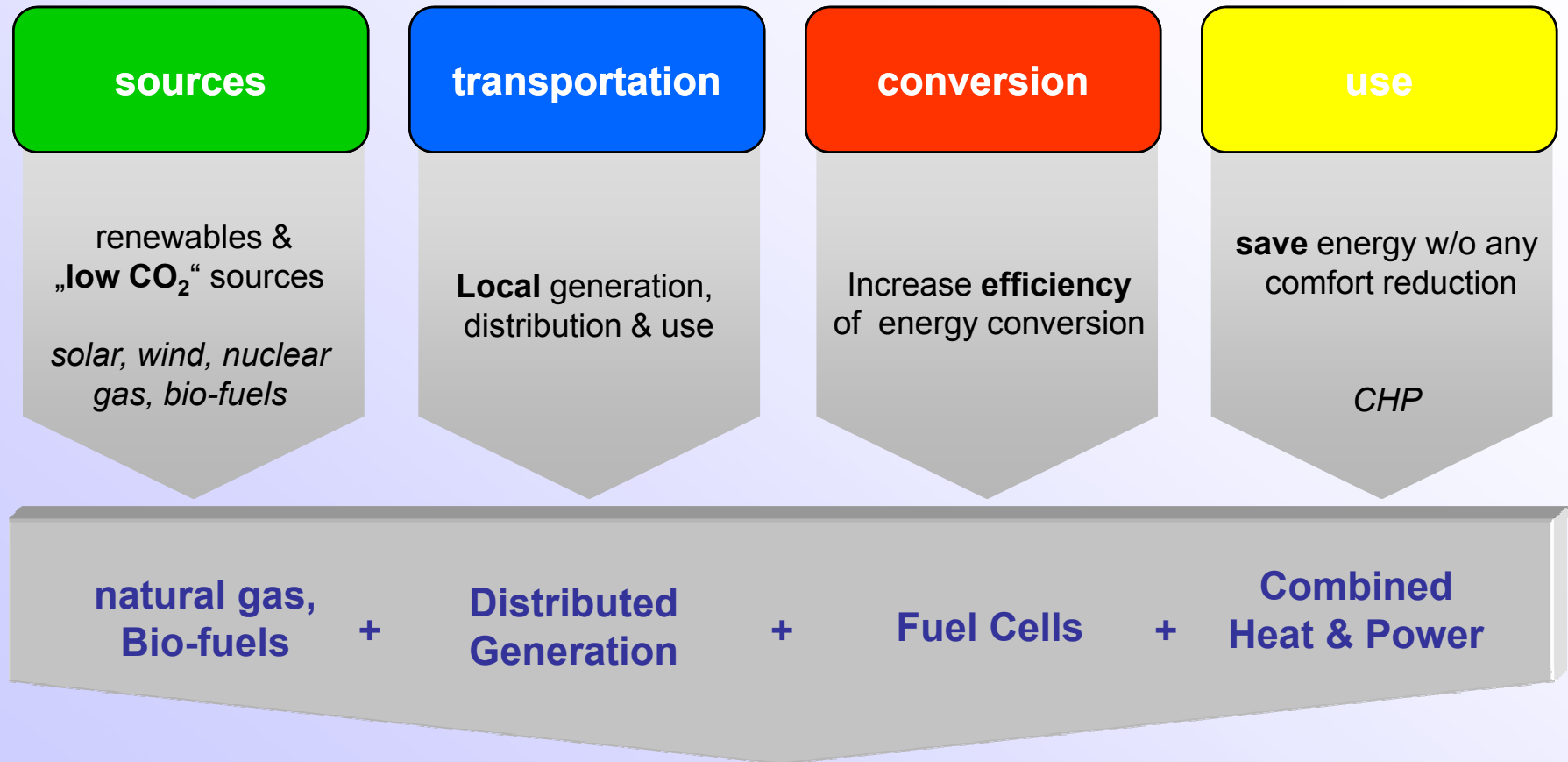
- *Security of Supply*
- *Environmental impact*
- *Economical competitiveness*



Report #:DOE/EIA-0484 (2007)

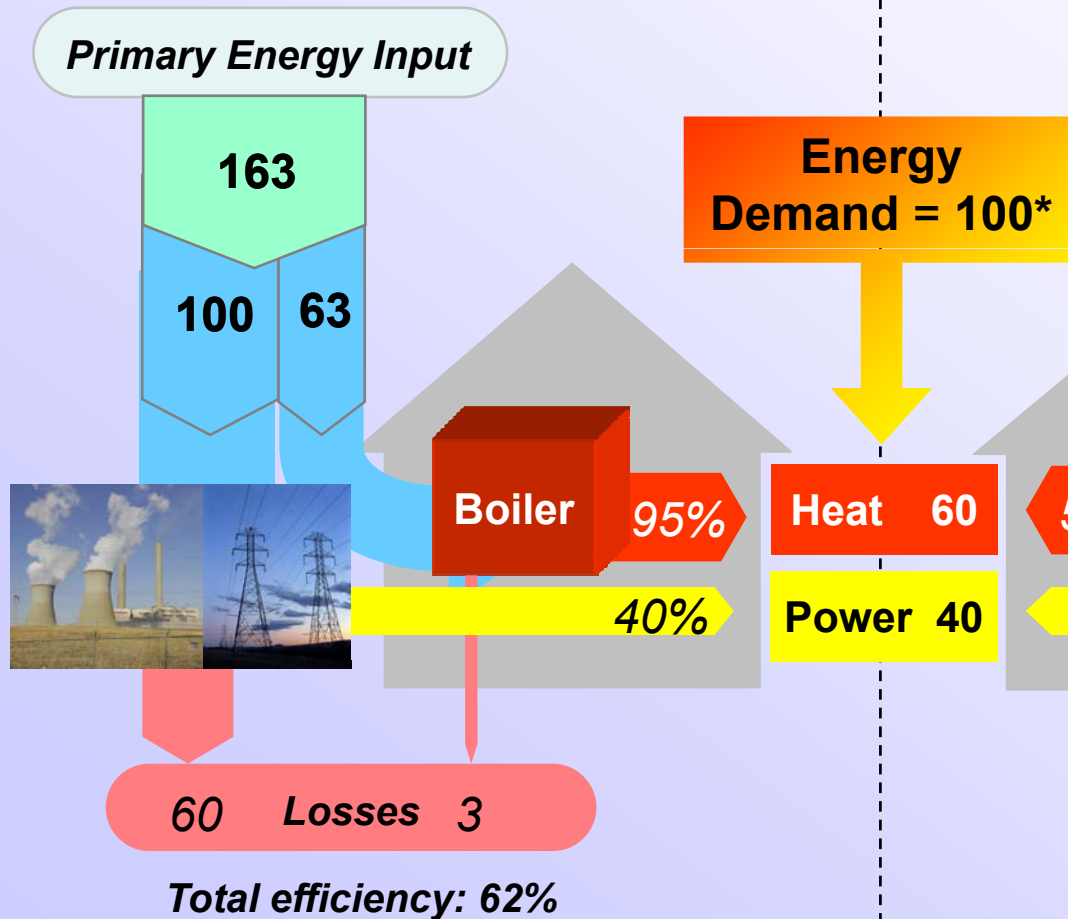
RATIONAL (better) USE of fossil fuels is mandatory and impellent

the pillars of a „Sustainable“ Energy

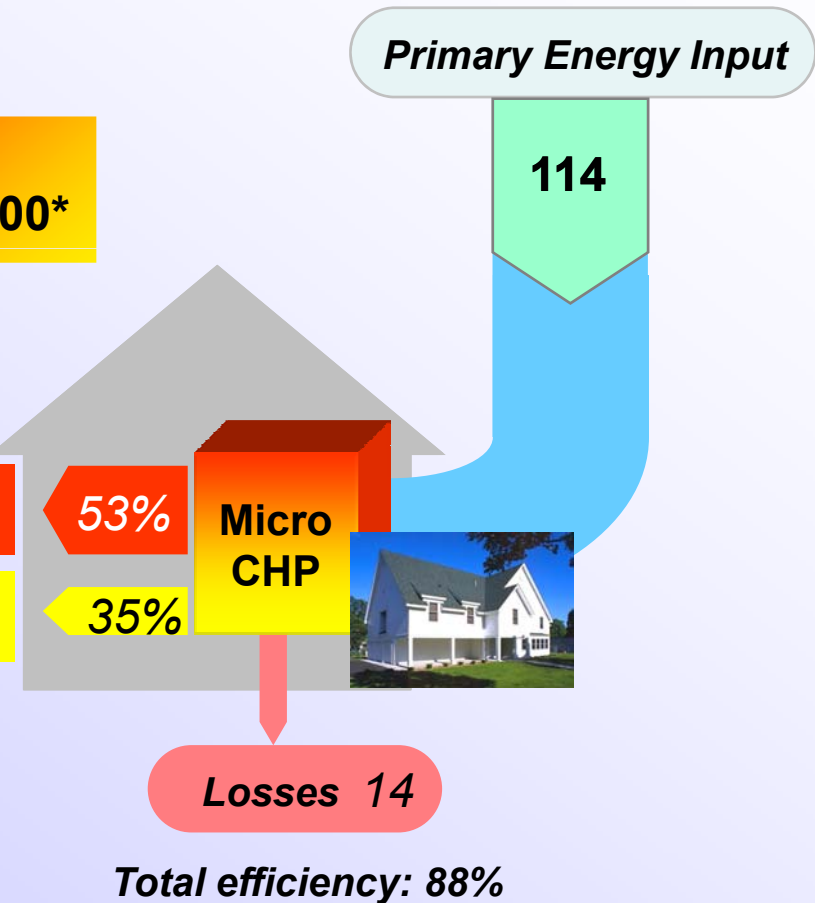


the Cogeneration Advantage

current scenario CENTRALISED POWER



new scenario DISTRIBUTED COGENERATION



*Energy as arbitrary unit (e.g. kWh)



- 30-years expertise traced back to **Flametal** and then to **Turbocoating** and **Eurocoating** (IT)



- a competitive and proprietary SOFC technology from **HTceramix** (CH)

a unique combination of industrial expertise and innovation capability

Network of Competences

Swiss quality

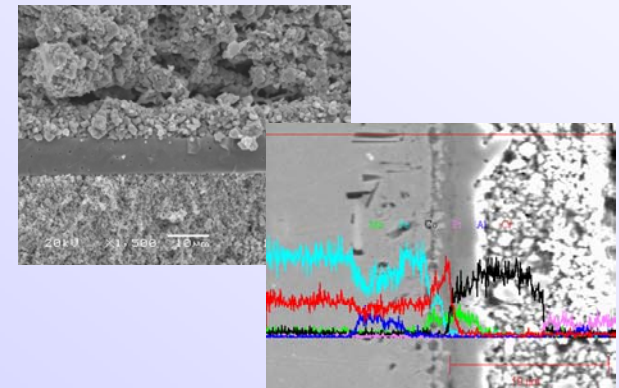
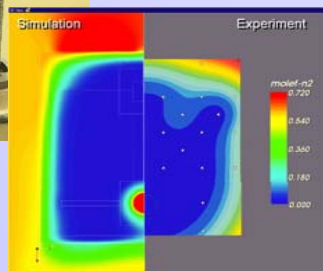


Italian style

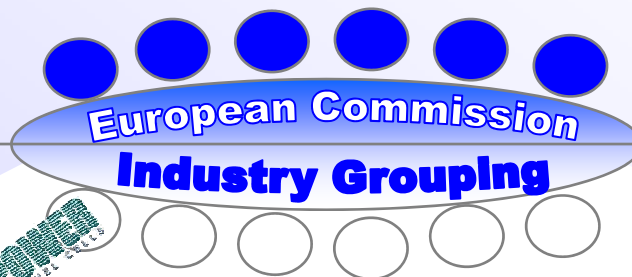


**engineering, prototyping,
sales & marketing**

**material and process dvp.,
pilot manufacturing**



JTI Fuel Cells and Hydrogen



470 Mio. € EC
+
470 Mio. € IG

committed



to become a leader in the development, manufacturing and commercialisation of stacks and energy generating units for SOFC-based systems.

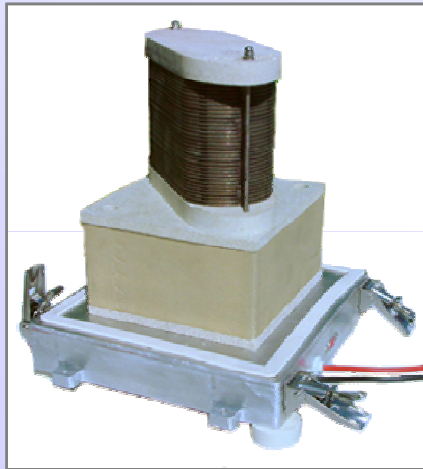
focus is on domestic μ -CHP appliances and remote UPS units

- technology transfer from HTceramix
- **pilot production** operational by Q2-2008
- joined European **JTI H₂&FC**
- extending alliances with OEM/utilities

new site in Mezzolombardo (Italy)



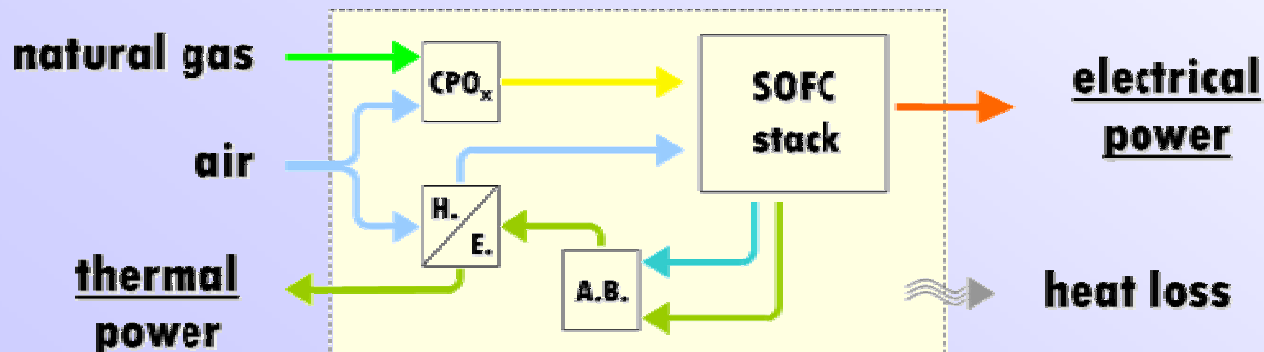
prototype of a compact SOFC generator



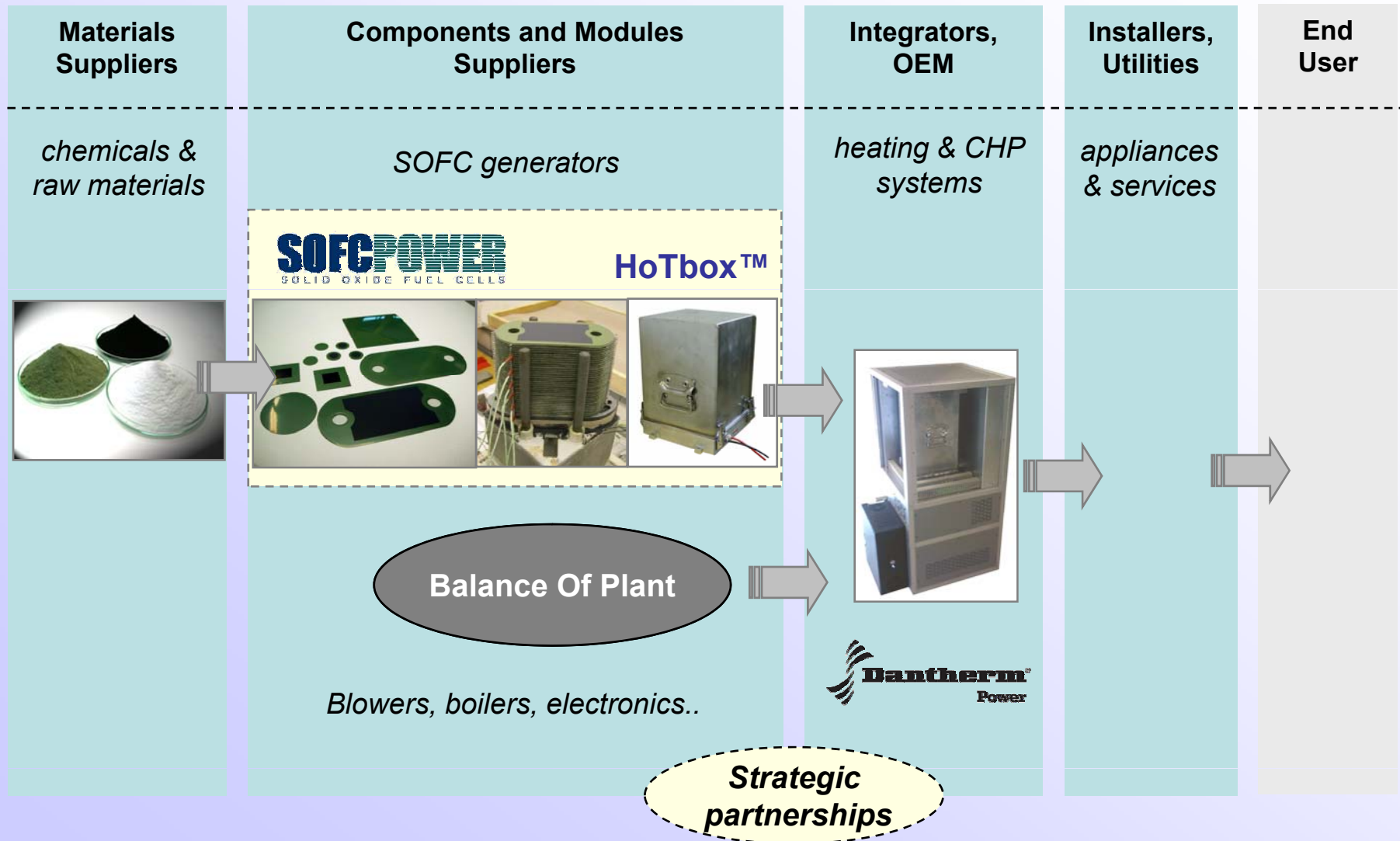
hot components integrated within module:

- 0.5-1 kW S-design **SOFC stack**
- CPO_x reformer for natural gas from grid
- after-burner & air heat exchanger
- aspirated operation (safety)
- standard interfaces

Easy-to-integrate in CHP



positioning in supply chain



- rational use of low-CO₂ fossil fuels is needed
- distributed (co-)generation will play an important role in energy market
- SOFC-based generators can offer
 - *high efficiency*
 - *fuel flexibility*
 - *large cost-reduction potential*
- SOFCPOWER is among the TOP 3 SOFC companies in Europe (m-CHP)
- supporting of fuel cells related industry on European, National and Local level is needed