



EUROPEAN POWER SYSTEMS

EPS microCHP field experience

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THE COMPANY

Established: June 2000

**A NEW ITALIAN COMPANY
DEDICATED EXCLUSIVELY TO ENERGY**

MISSION

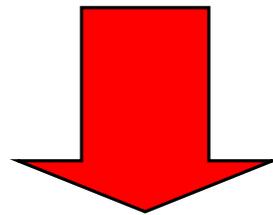
**RESEARCH AND DISTRIBUTION OF
MICROTURBINES AND DISTRIBUTED
GENERATION IN ITALY AND OTHER
EUROPEAN COUNTRIES**



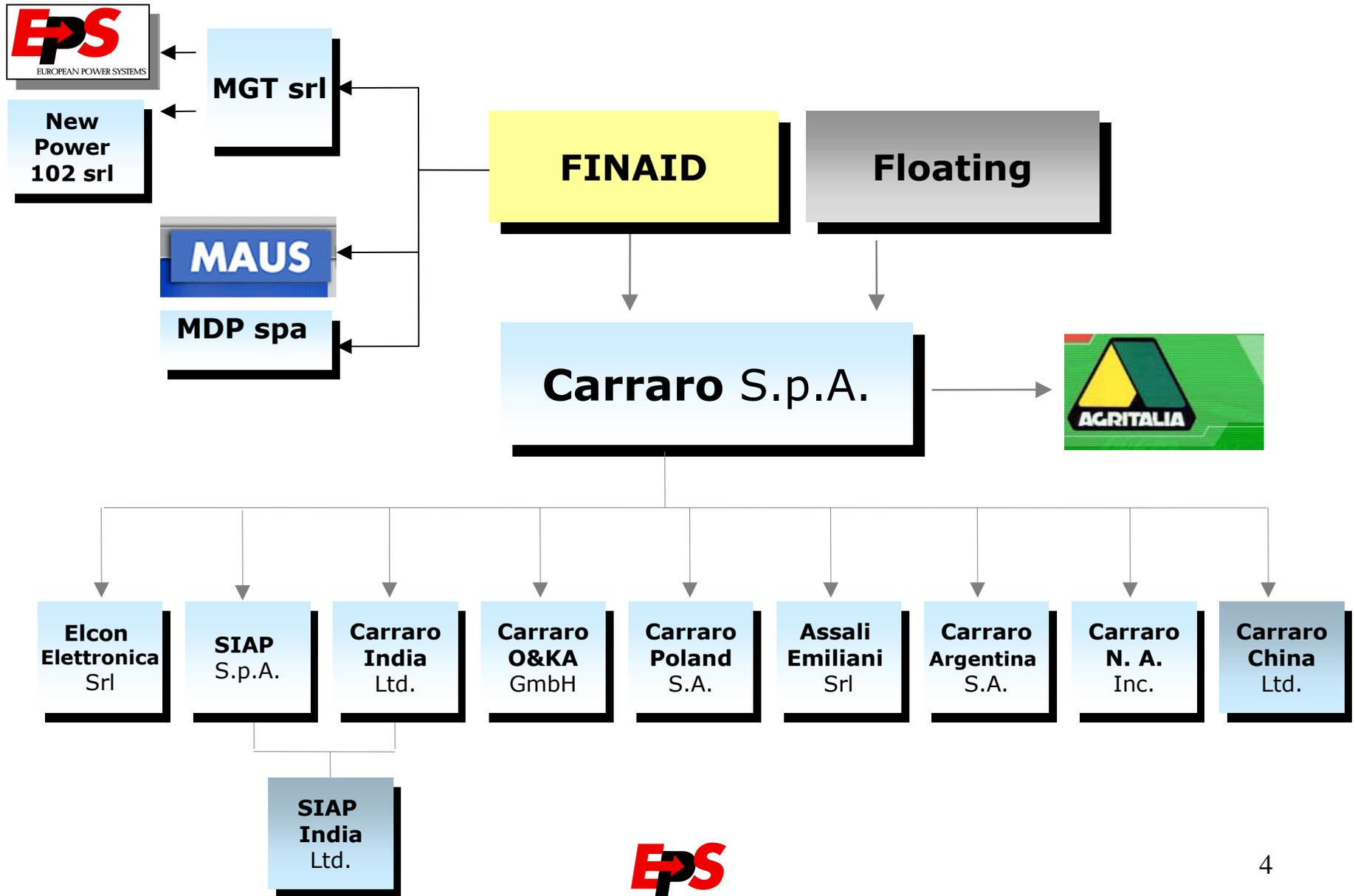
THE COMPANY

FINAID GROUP (holding company)

HAS MORE THAN 50 YEARS OF
EXPERIENCE IN THE DEVELOPMENT OF
INDUSTRIAL PRODUCTS AND
ACTIVITIES



OWNERSHIP STRUCTURE

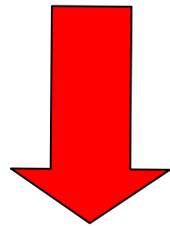


BUSINESS ACTIVITIES

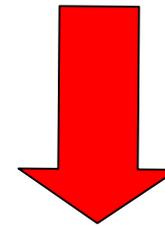
DISTRIBUTOR AND PACKAGER OF



TURBO ALTERNATOR

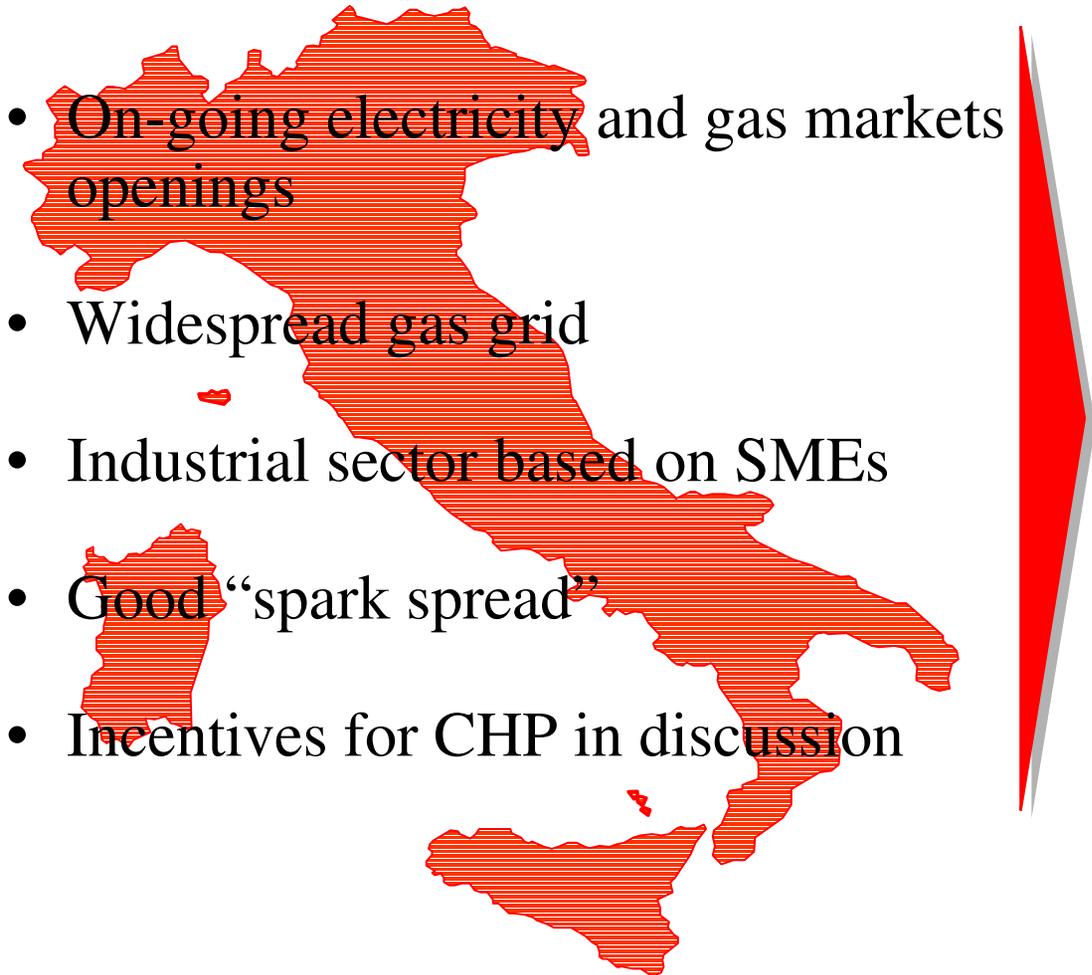


**SALES OF
SMALL CHP
POWER PLANTS**



**ENERGY
SERVICE
PROVIDER**

THE MARKET

- 
- On-going electricity and gas markets openings
 - Widespread gas grid
 - Industrial sector based on SMEs
 - Good “spark spread”
 - Incentives for CHP in discussion

Italy has all the requirements to be an “ideal” market for MicroCHP

MARKET DRIVERS

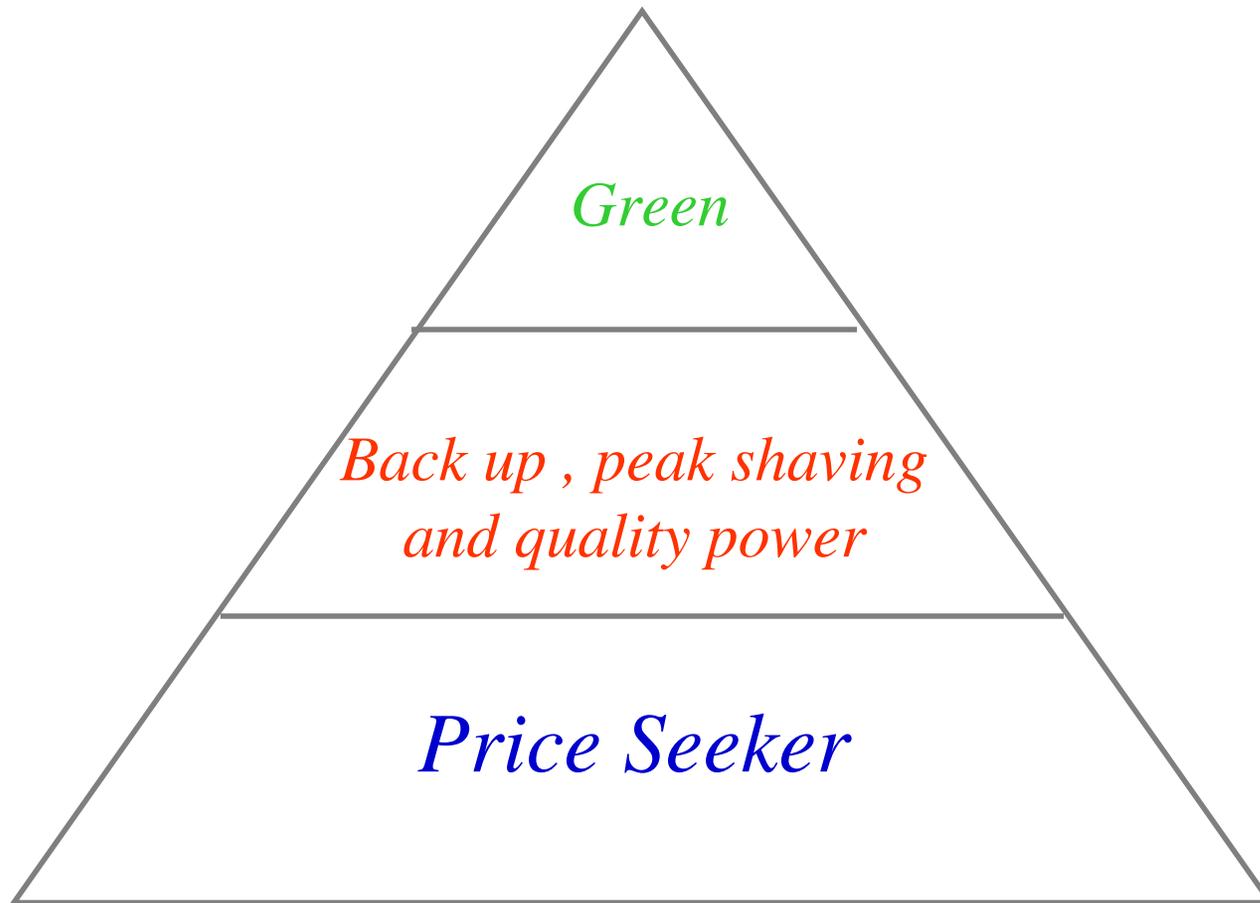
- Liberalization of the electrical & gas markets for all the customers
- European, Italian and local rules allows DG
- Funds availability for the distributed power
- Increasing level of competition in the gas market
- Monopolist under antitrust pressure

MARKET DRIVERS

more...

- Energy saving
- Emission reduction
- Secure power & energy reliability

MARKET DRIVERS COMPLIANCE

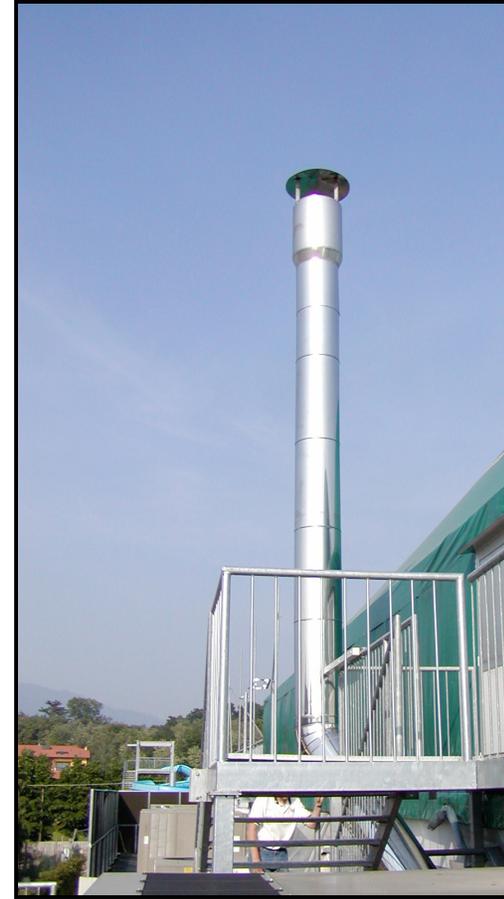


POWER PLANTS GENERATING

About 40 MGT installed and operating in Italy

1- SPORT AND FITNESS CENTRE

EPS PACKAGE	1 EPS-80R
CHP TYPE	Hot water
START UP	May 2004
RUNNING HOURS	About 9.600
FUEL	Methane
LOCATION	North-west Italy
NOTE	Low noise fireplace



An image with the low noise fireplace

2 - FITNESS CENTRE

EPS PACKAGE	4 TA-100R
CHP TYPE	Hot water
START UP	May 2005
RUNNING HOURS	About 1.100
FUEL	Methane
LOCATION	North-west Italy
NOTE	New plant Owner: gas utility Outdoor installation in container



3 - FOOD - HAM FACTORY

EPS PACKAGE	2 TA-100R
CHP TYPE	Hot water
START UP	February 2006
RUNNING HOURS	
FUEL	Methane
LOCATION	Middle Italy
NOTE	New plant Under installation



4 - FOOD - HAM FACTORY

EPS PACKAGE	2 old EPS-80R 3 new TA-100R
CHP TYPE	Hot water
START UP	July 2003
RUNNING HOURS	About 18.000
FUEL	Methane
LOCATION	North-east Italy
NOTE	



5 - AIRPORT

EPS PACKAGE	4 TA-80R
CHP TYPE	Overheated water
START UP	January 2004
RUNNING HOURS	About 10.000
FUEL	Methane
LOCATION	North-east Italy
NOTE	



6 - ENGINEERING INDUSTRY

EPS PACKAGE	3 EPS-80R
CHP TYPE	Steam
START UP	March 2004
RUNNING HOURS	About 8.700
FUEL	Methane
LOCATION	North-east Italy
NOTE	



7 - SHOPPING CENTRE

EPS PACKAGE	1 EPS-80R
CHP TYPE	Hot water
START UP	June 2004
RUNNING HOURS	About 11.000
FUEL	Methane
LOCATION	North-west Italy
NOTE	Heat district Owner: ESCOs company



8 - ENGINEERING INDUSTRY

EPS PACKAGE	2 EPS-80R
CHP TYPE	Hot water
START UP	July 2004
RUNNING HOURS	About 4.600
FUEL	Methane
LOCATION	North-west Italy
NOTE	Owner: gas utility





9 - UNIVERSITY

EPS PACKAGE

1 EPS-80R

CHP TYPE

Hot water

START UP

December 2005

RUNNING HOURS

About 40

FUEL

Methane

LOCATION

North Italy

NOTE

Heat district

Noise emissions level < 56dBa@ 1m





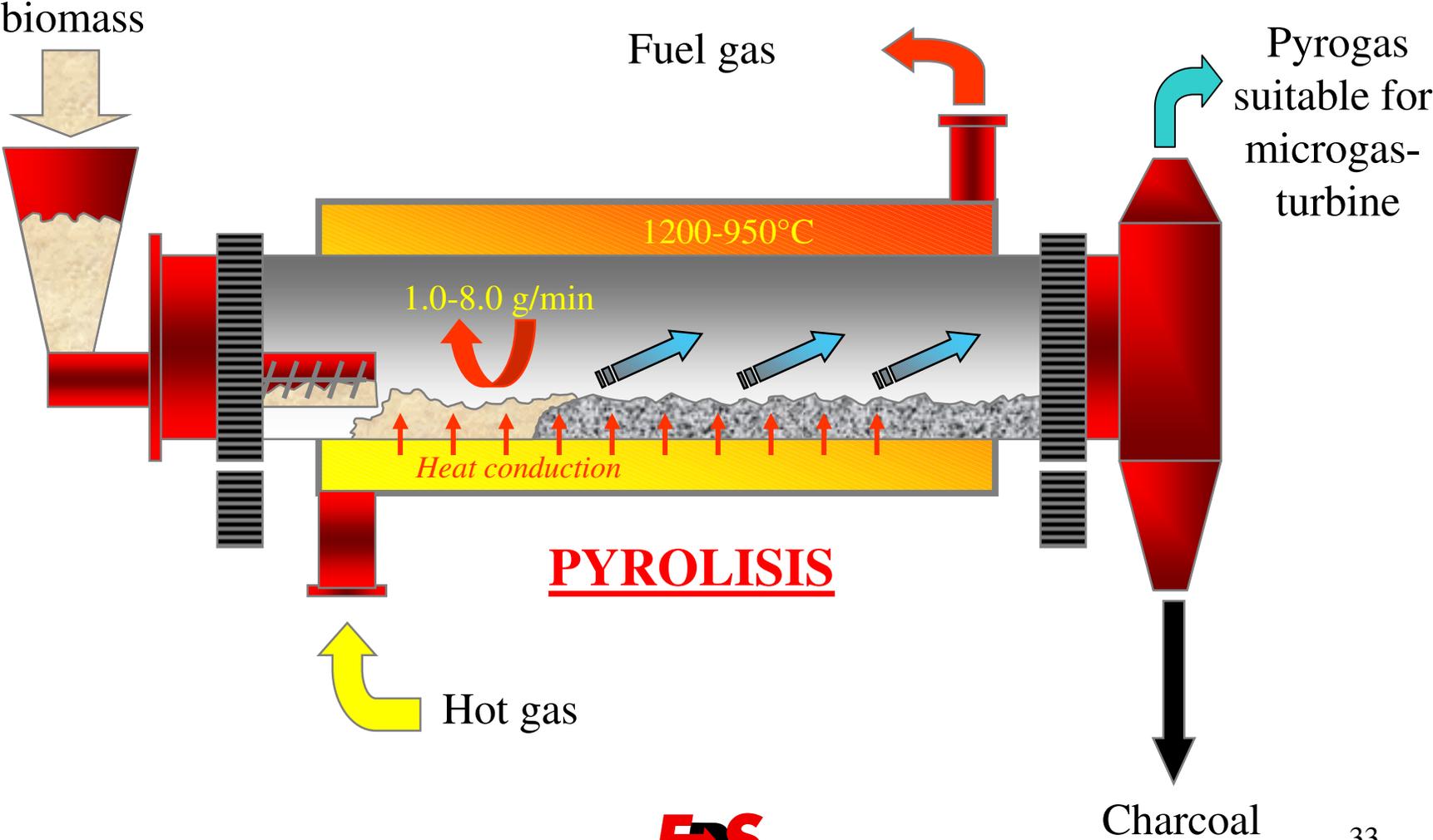
10 - WASTE TREATMENT PLANT

EPS PACKAGE	3 EPS-80R Pyrogas
CHP TYPE	Air for preheating of the pyrolizer
START UP	
RUNNING HOURS	
FUEL	Pyrogas from biomass
LOCATION	North-east Italy
NOTE	New plant



WASTE TO ENERGY PLANTS

Ta-pyro Project: Pyrolysis And Microgasturbines Integrated System



CONCLUSIONS

- **MGTs costs are still too high**
- **High costs is a serious limit to their potential**
- **Technology efficiency and availability to be consolidated**
- **MicroCHP Business can not be further delayed**