



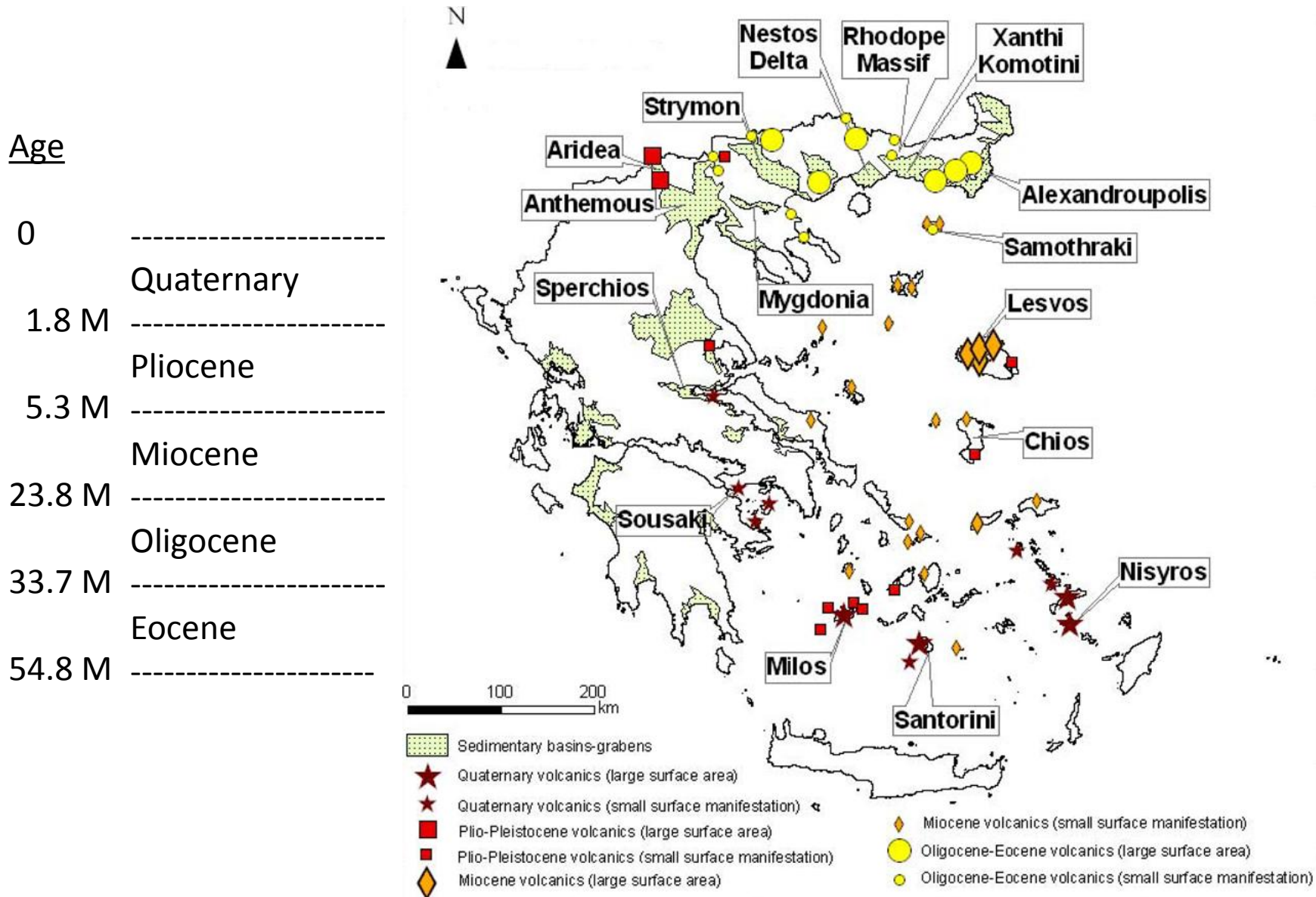
Low temperature geothermal applications in Greece, including water desalination

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High Enthalpy Resources

Volcanic formations



Concessions



PPC-RENEWABLES
Older concessions

PPC-RENEWABLES
New concessions

To be assigned

Milos island

5 deep exploration wells
 Depth: 1 – 1.4 km
 T = 300-320 °C

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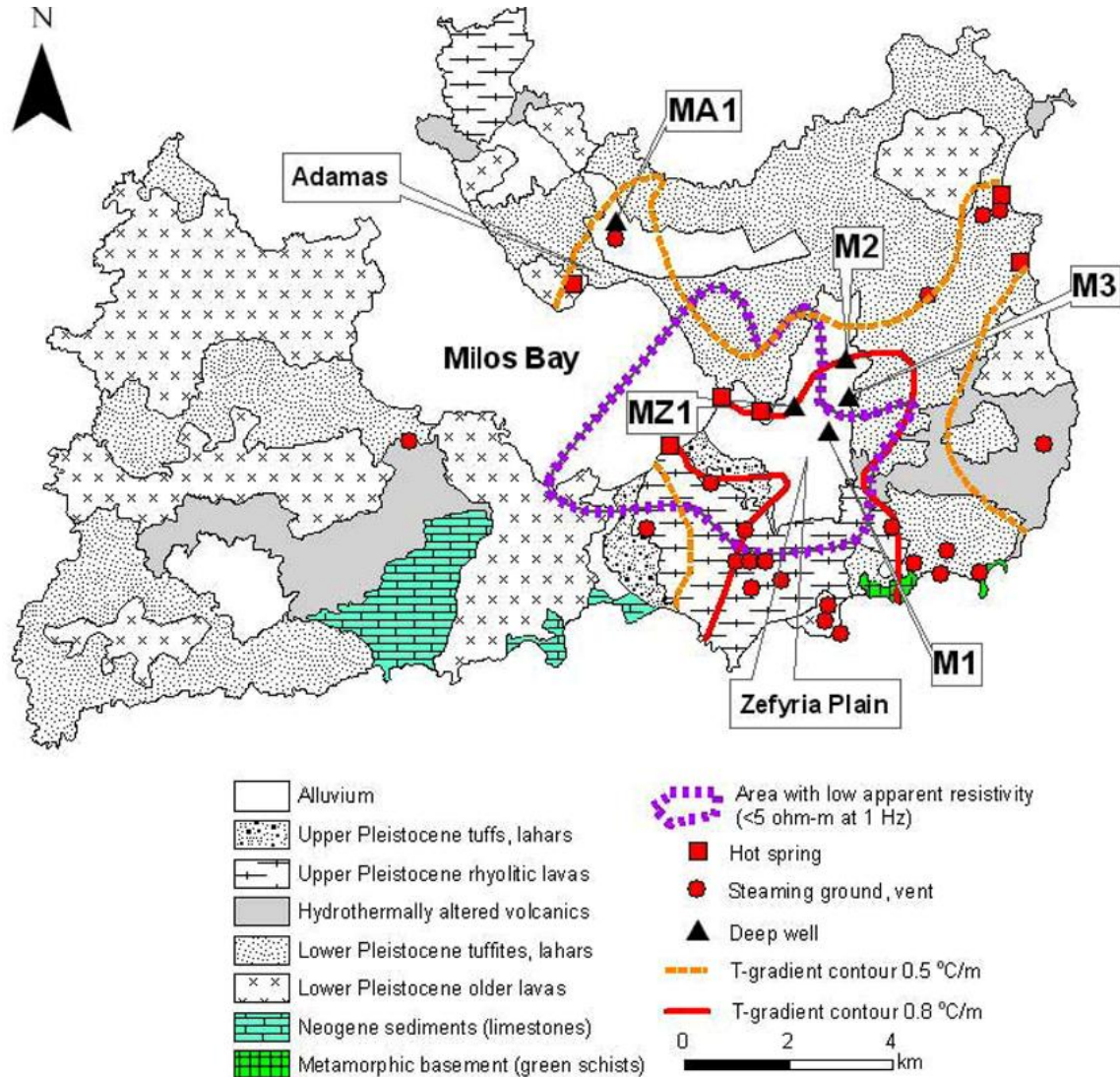
Geophysical exploration
 (gradient boreholes, MT,
 gravity, ...)



Proven geothermal resources
 (reserves)

150 MWe
 Justified for development

Local power demand
 PPC: 7 MWe
 S&B: 7 MWe



Nisyros volcanic island

Deep geothermal wells
Depth: 1.5 – 2 km
T = 250-350 °C

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Geophysical exploration
(MT)

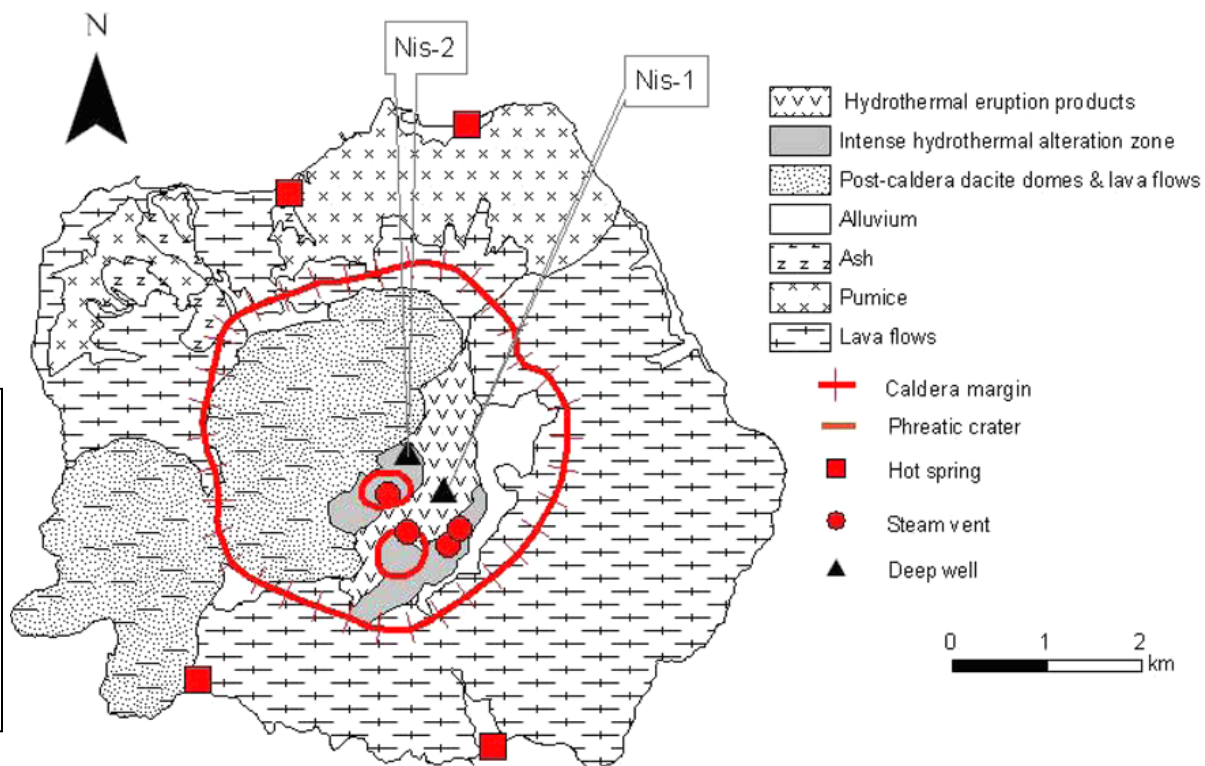


Proven geothermal resources
(reserves)

50 MWe

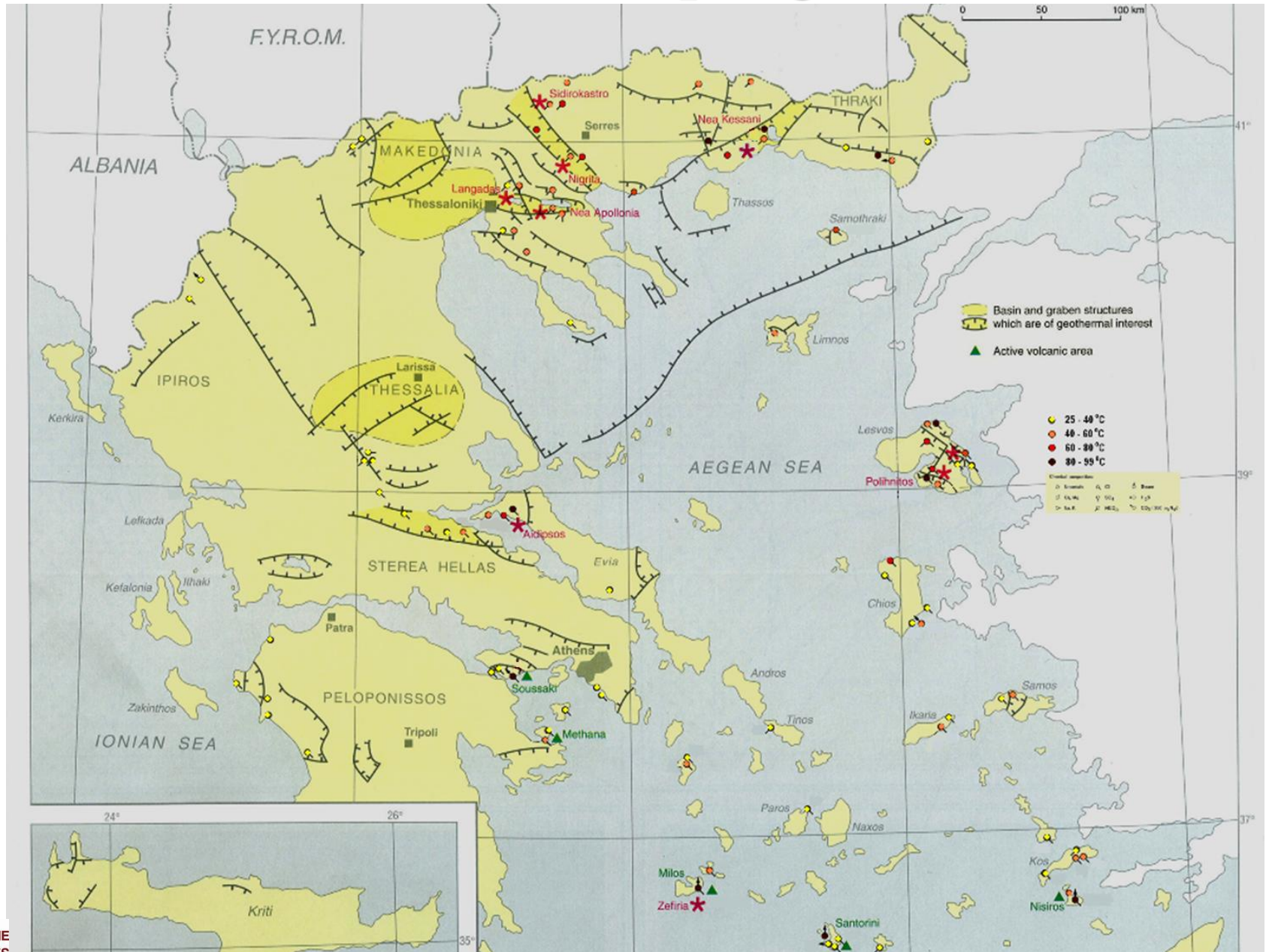
Justified for development

Local Power Demand
Nisyros island: 5 MWe
Kos island: 60 MWe

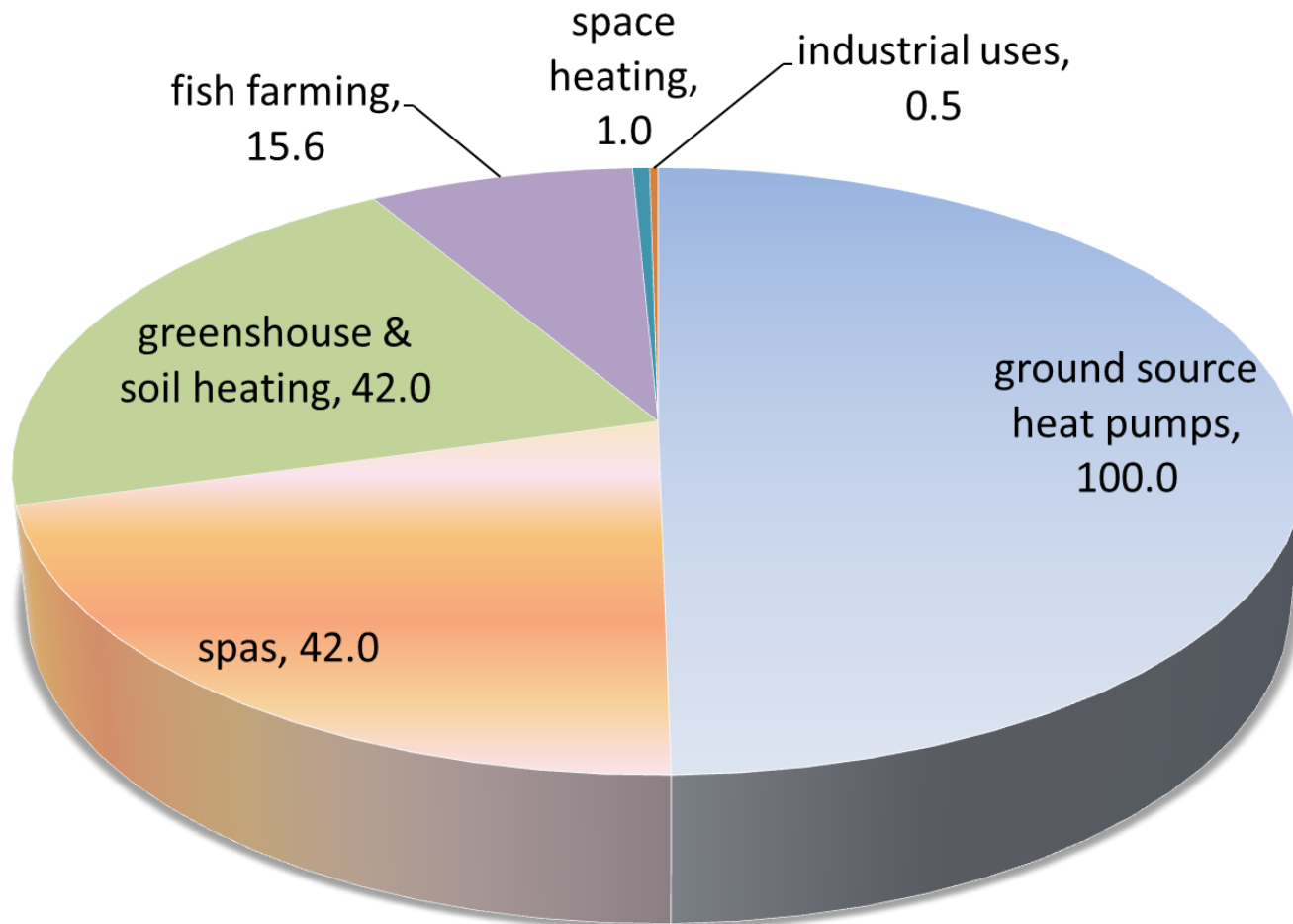


Low Enthalpy Resources & Use

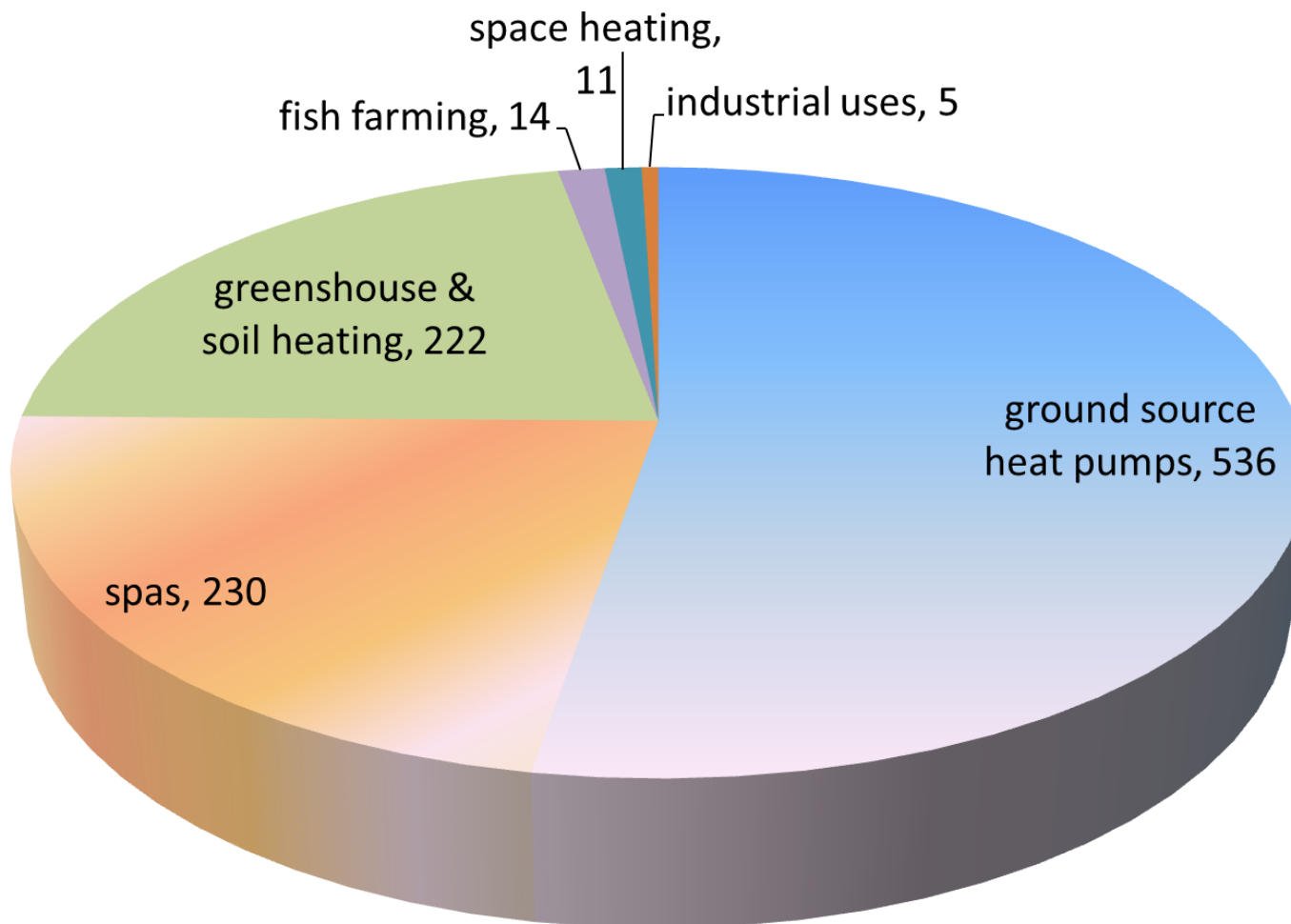
Thermal springs



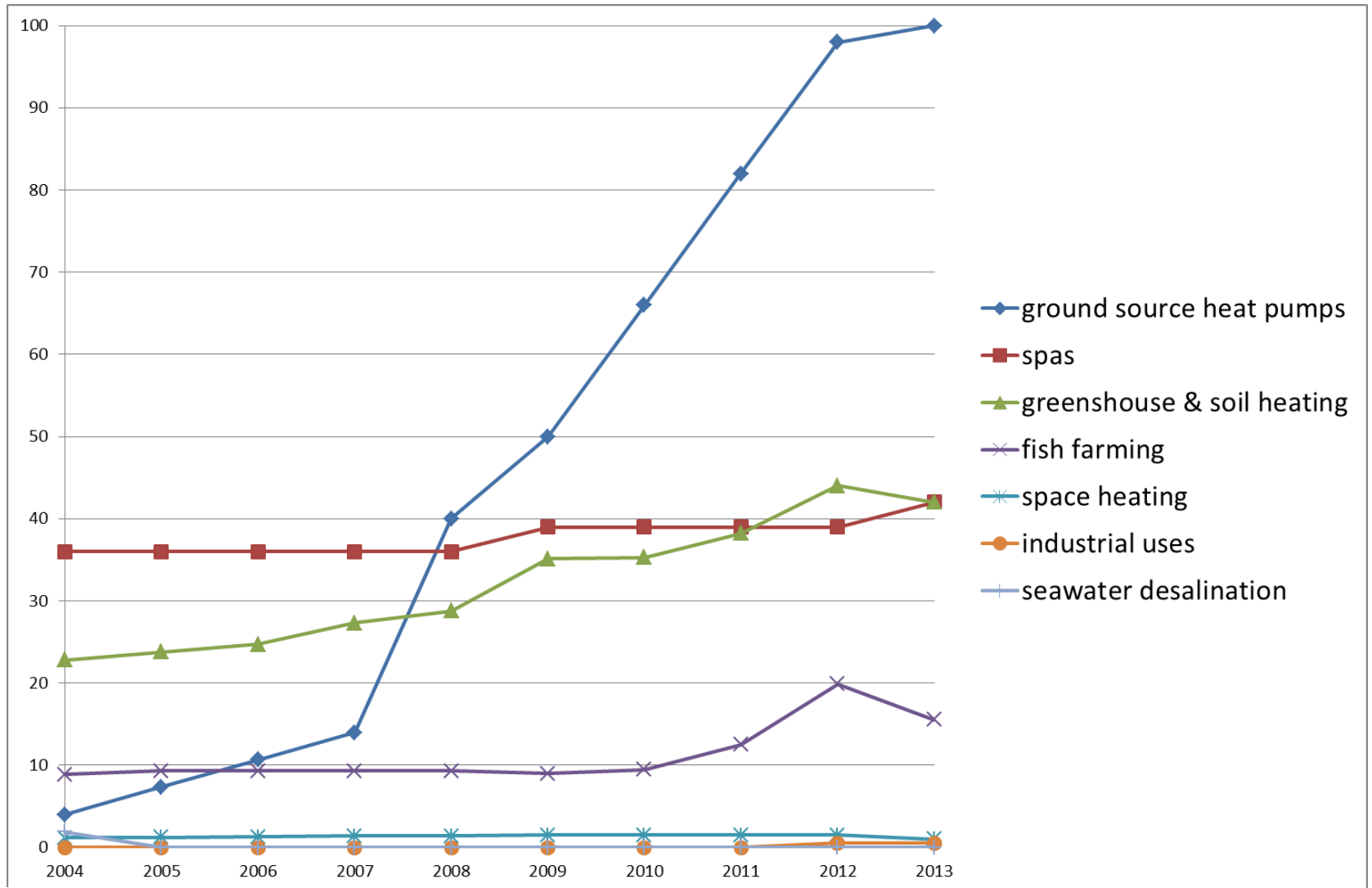
Geothermal applications: installed capacity, MWth



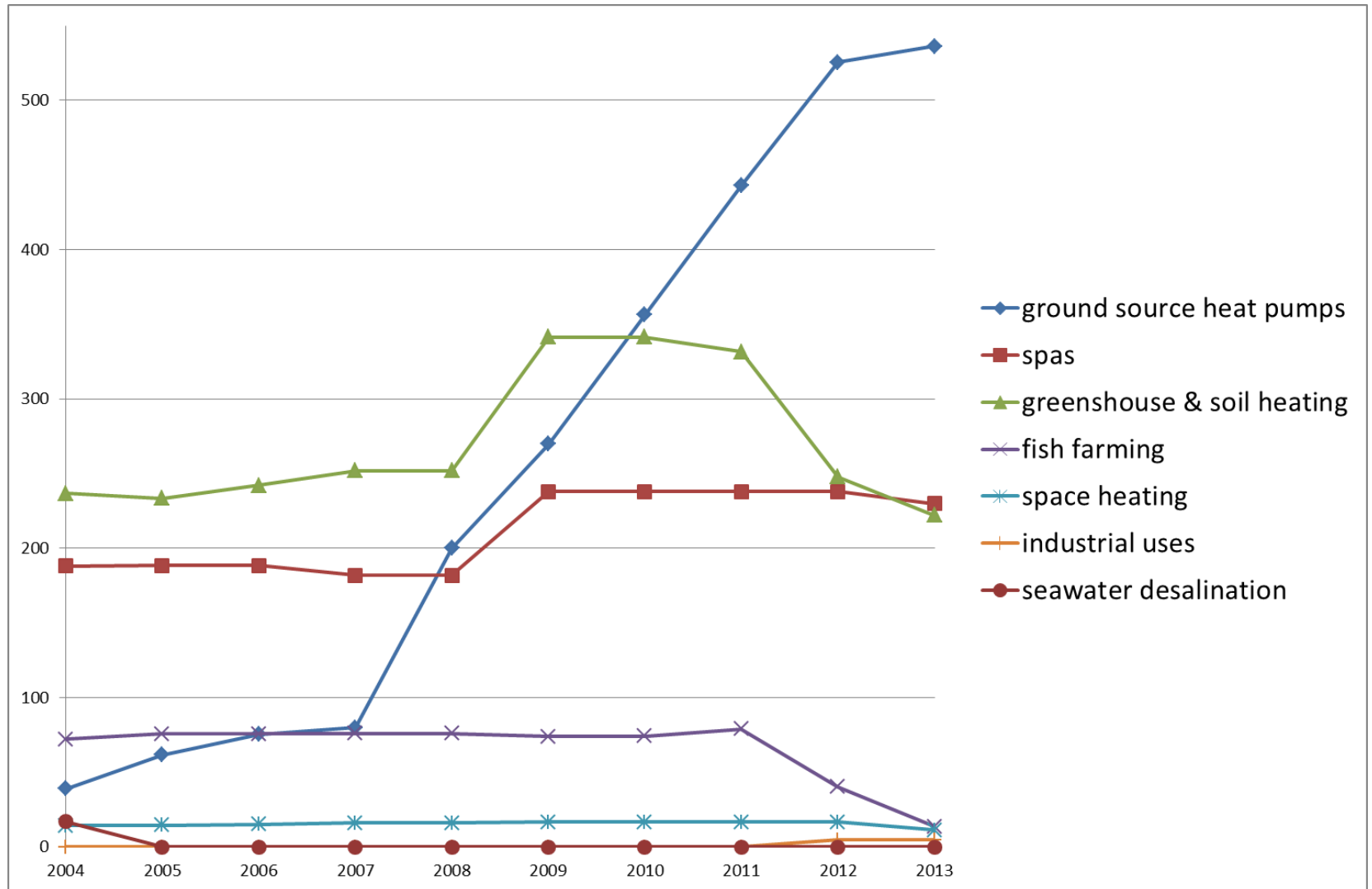
Geothermal applications: annual energy use, TJ



Geothermal market evolution: installed capacity, MWth



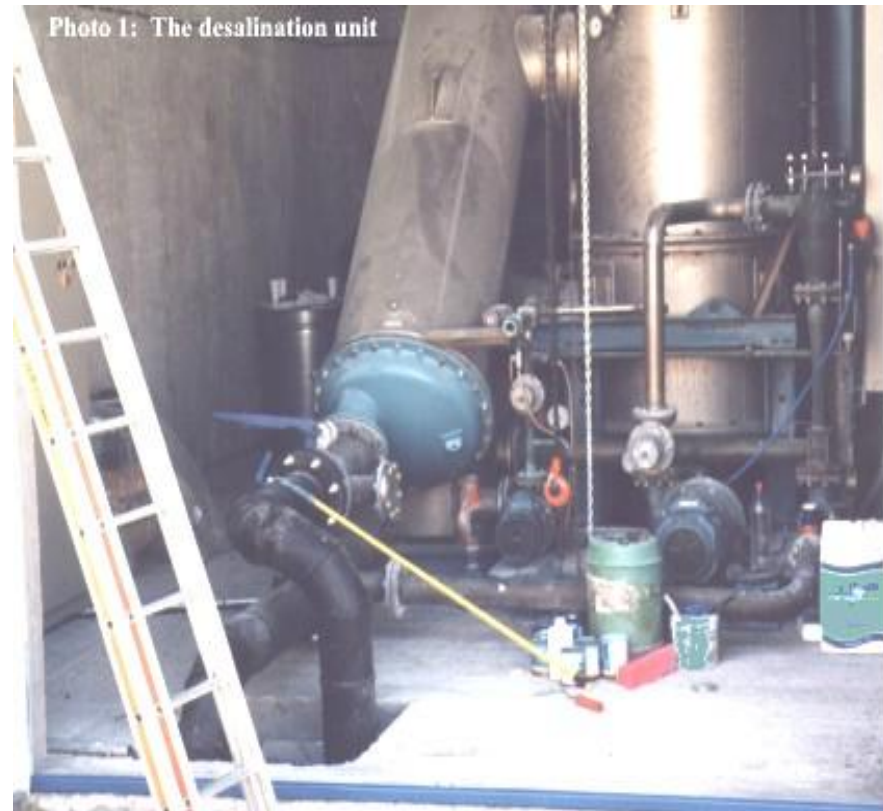
Geothermal market evolution: annual energy use, TJ



Geothermal sea water desalination projects

Geothermal pilot desalination unit in Kimolos

- Demonstration of thermal sea water desalination with 80 m³/h of 61 °C geothermal water as energy source, using the Multiple Effect Distillation (MED) method
- 6+ year project: 1994-2000
- Co-financed by THERMIE-A European programme
- Budget ~1 million €
- EU support ~40%
- Partners:
 - CRES
 - ALPHA LAVAL
 - KIMOLOS COMMUNITY



- Production of desalinated water
- 80-120 m³/day

MIDES project

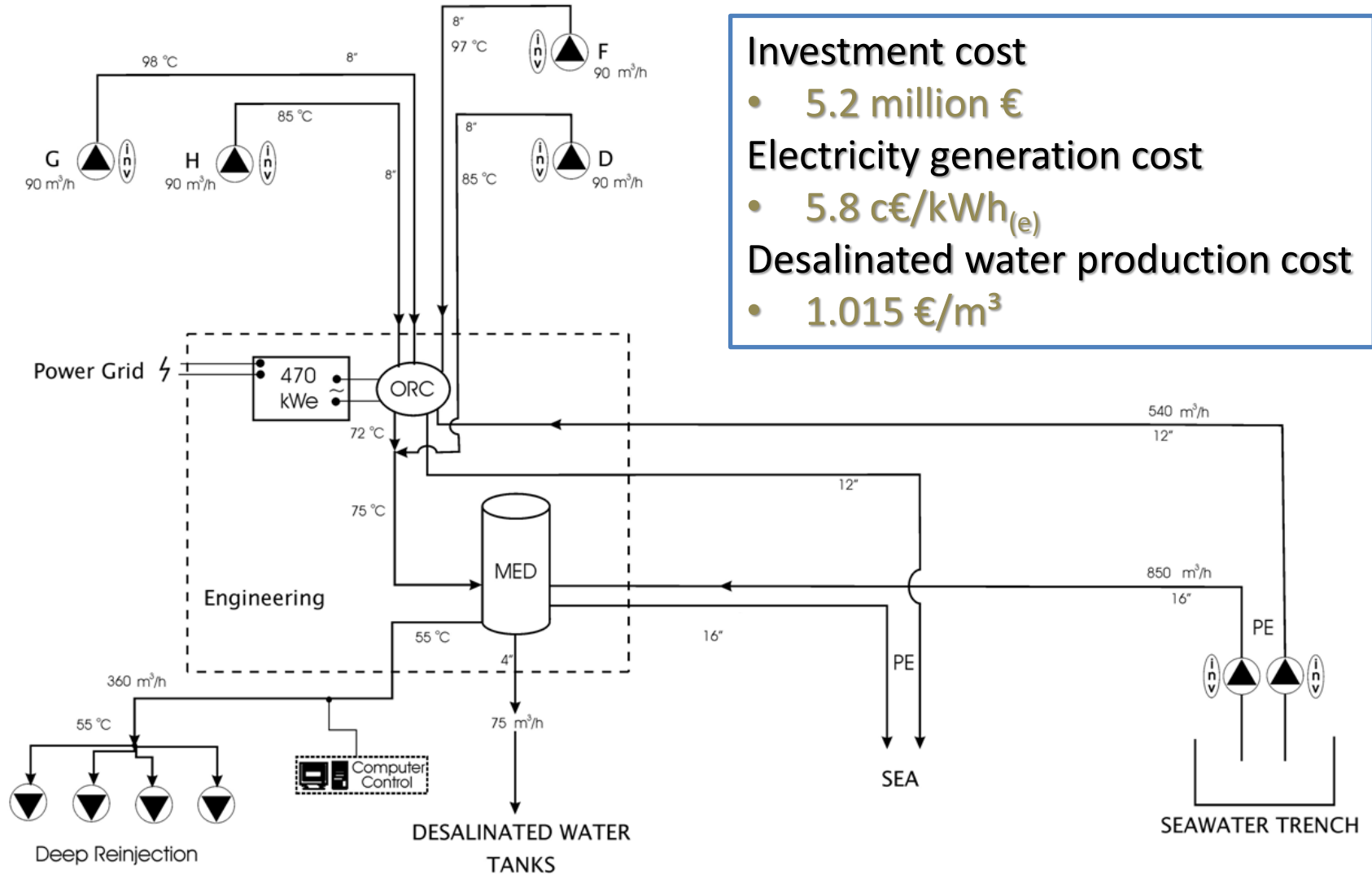
- Geothermal exploration tapping a shallow geothermal reservoir of 80-100°C, drilling production & reinjection wells, feasibility analysis and design of a cascade ORC power generation & thermal seawater desalination plant
- 4-year project: 2000-2004
- Co-financed by ENERGIE European programme
- Budget ~4.4 million €
- EU support ~35%

Project partners:

- Gerling SDP
- CRES
- NCSR
- A. U. OF THESSALONIKI
- MILOS MUNICIPALITY



MIDES plant



*Looking forward to
further geothermal development,*

I thank you for your attention