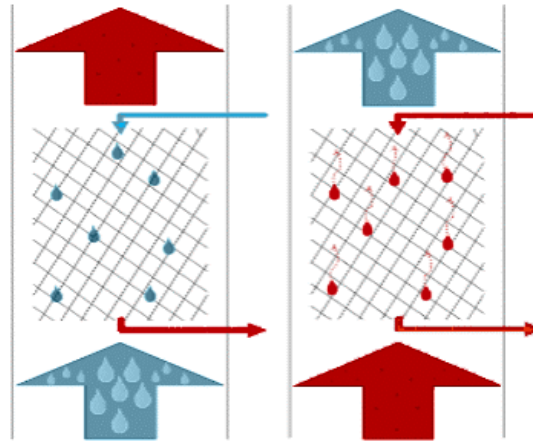


Absorption

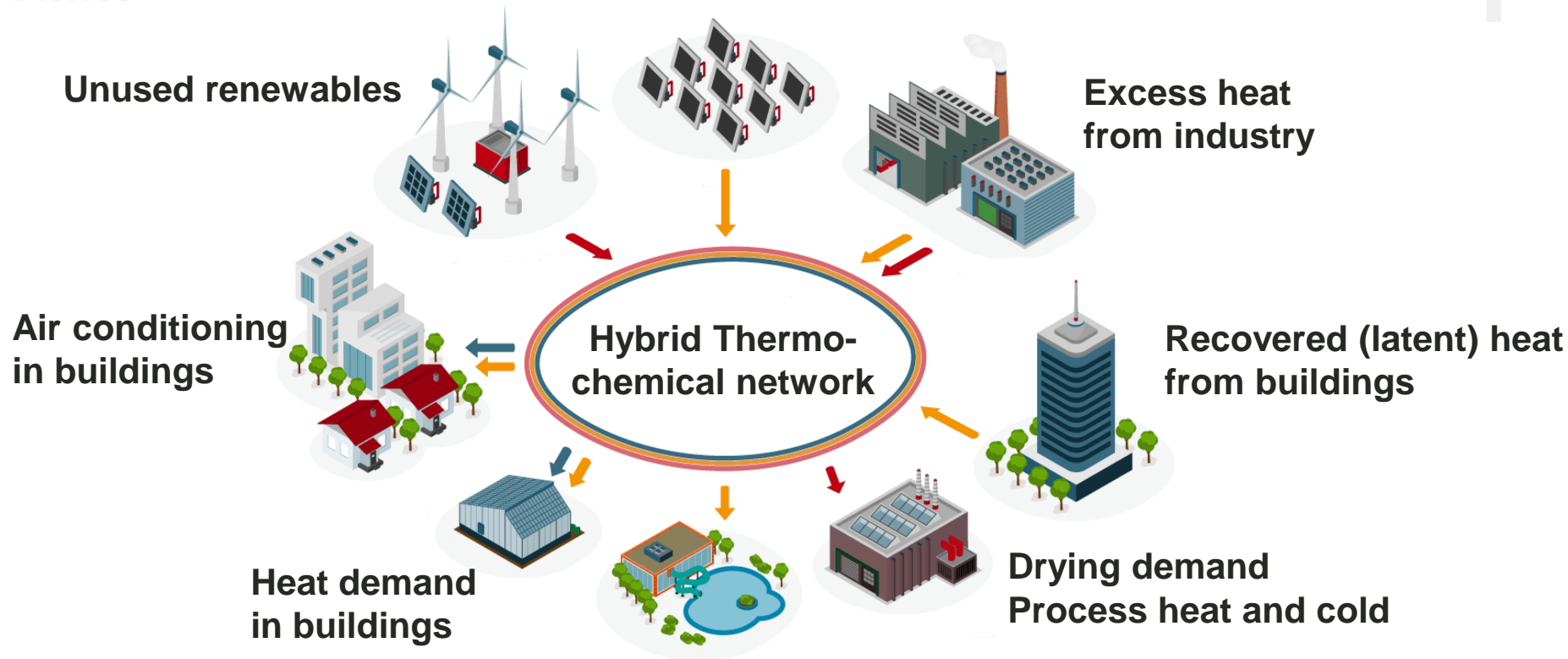
- Humidity uptake
- Heat generation
- Dehumidification
- Cooling supply
- Heat recovery / latent energy recovery



Desorption

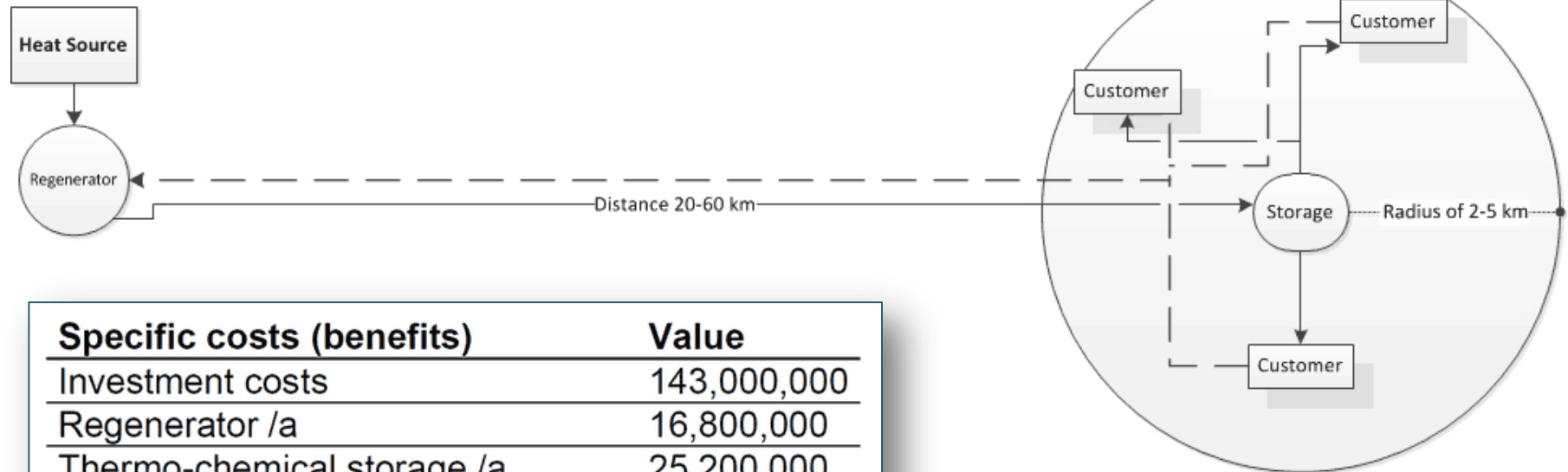
- Regeneration by excess heat / renewables
- Air humidification

Thermo-chemical district networks



- Multifunctional smart network
- Low-grade heat utilization (30 to 60 °C) → Heat cascading
- No thermal losses
→ Long-distance transport (> 50km) and Short and medium term storage
- Higher energy density (3 to 8 times)
- Different temperature levels

Economic benefit: Large Network



Specific costs (benefits)	Value
Investment costs	143,000,000
Regenerator /a	16,800,000
Thermo-chemical storage /a	25,200,000
Running costs / a	
Transport costs	56,800,000
Cost of waste heat (0,008 €/kWh)	61,500,000
Electricity and Maintenance	30,000,000
Total annual costs	190,000,000
Income from product (0,017 €/kWh)	204,000,000
Annual net income	13,600,000
Return of Investment (years)	10.5