Hybrid solutions – combining gas turbines with X

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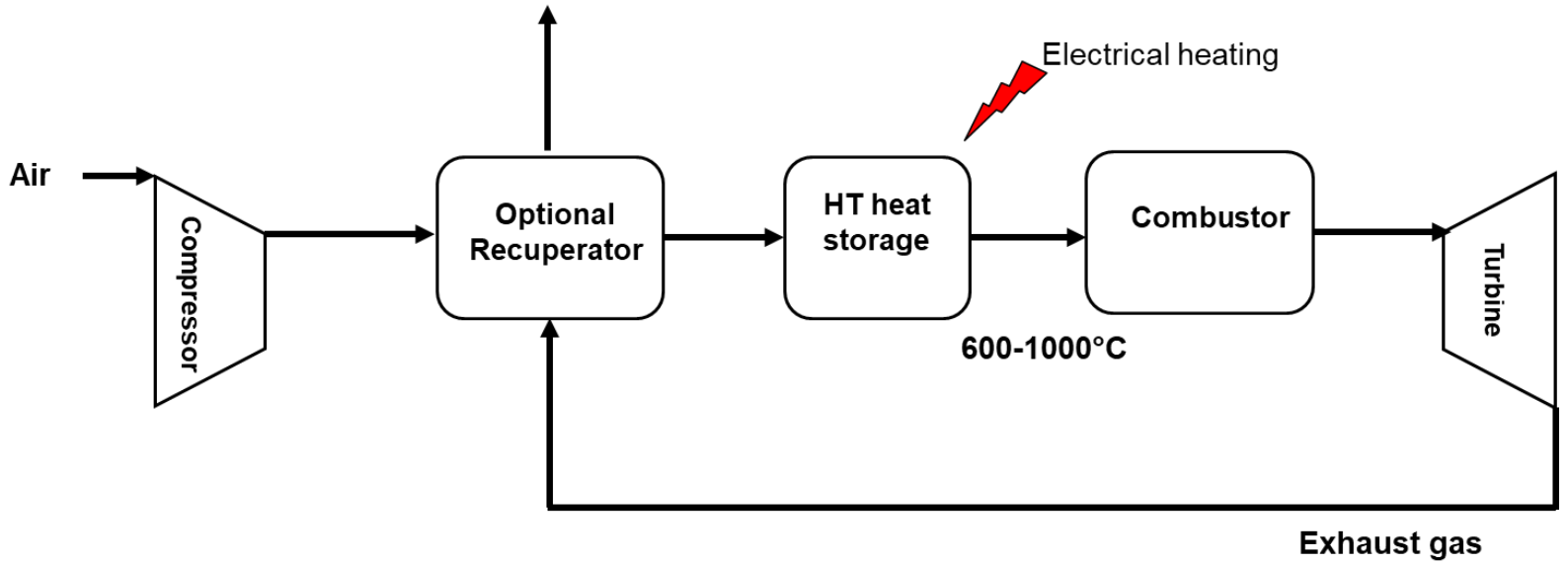
Opportunities of the future energy system

- Compensation of fluctuating renewable energy sources
  - Combination of gas turbines with battery storage
  - Gas turbines with very short ramp up times

- Providing reliable energy for industrial processes
  - Combination with thermal storage



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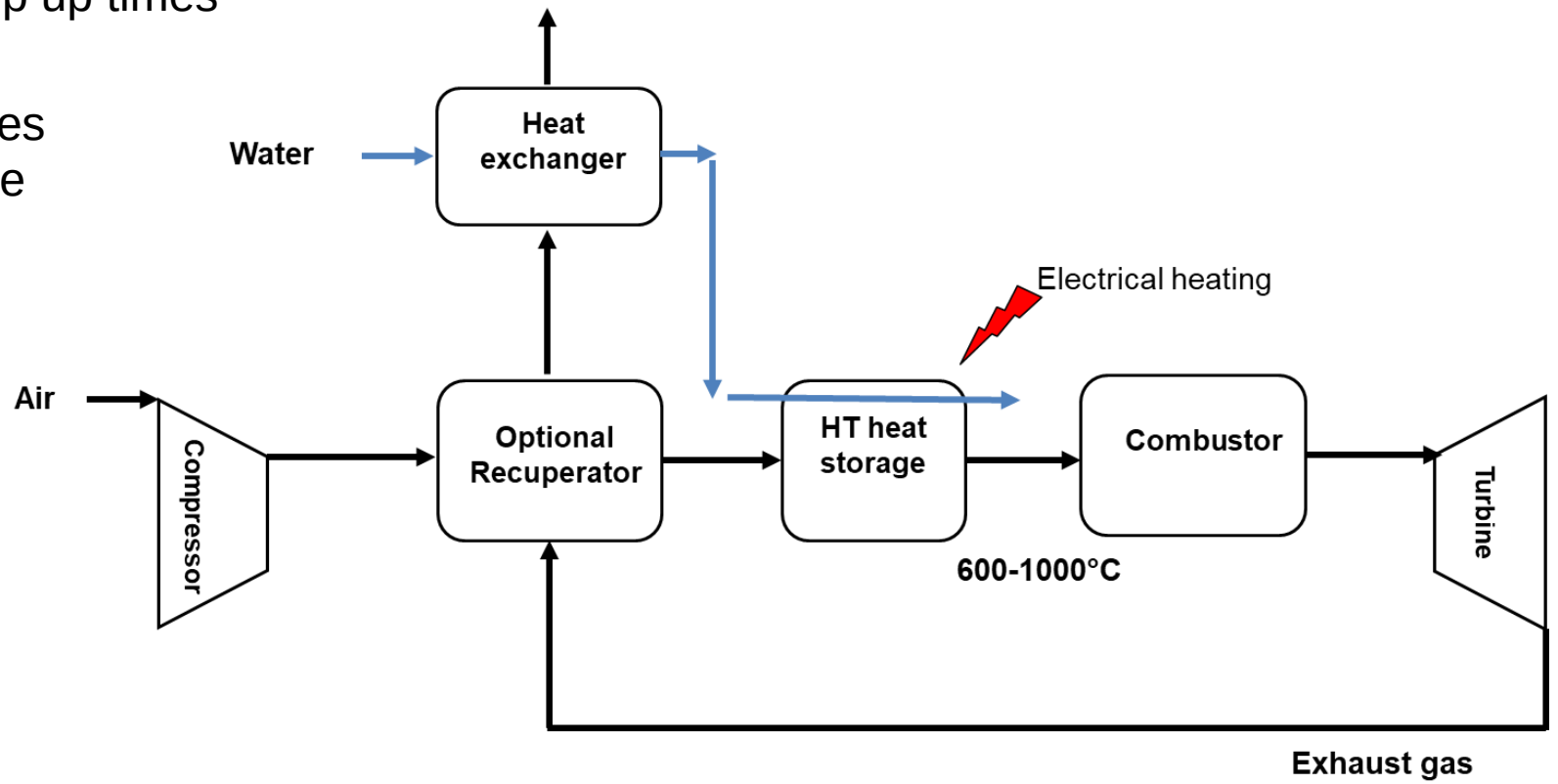

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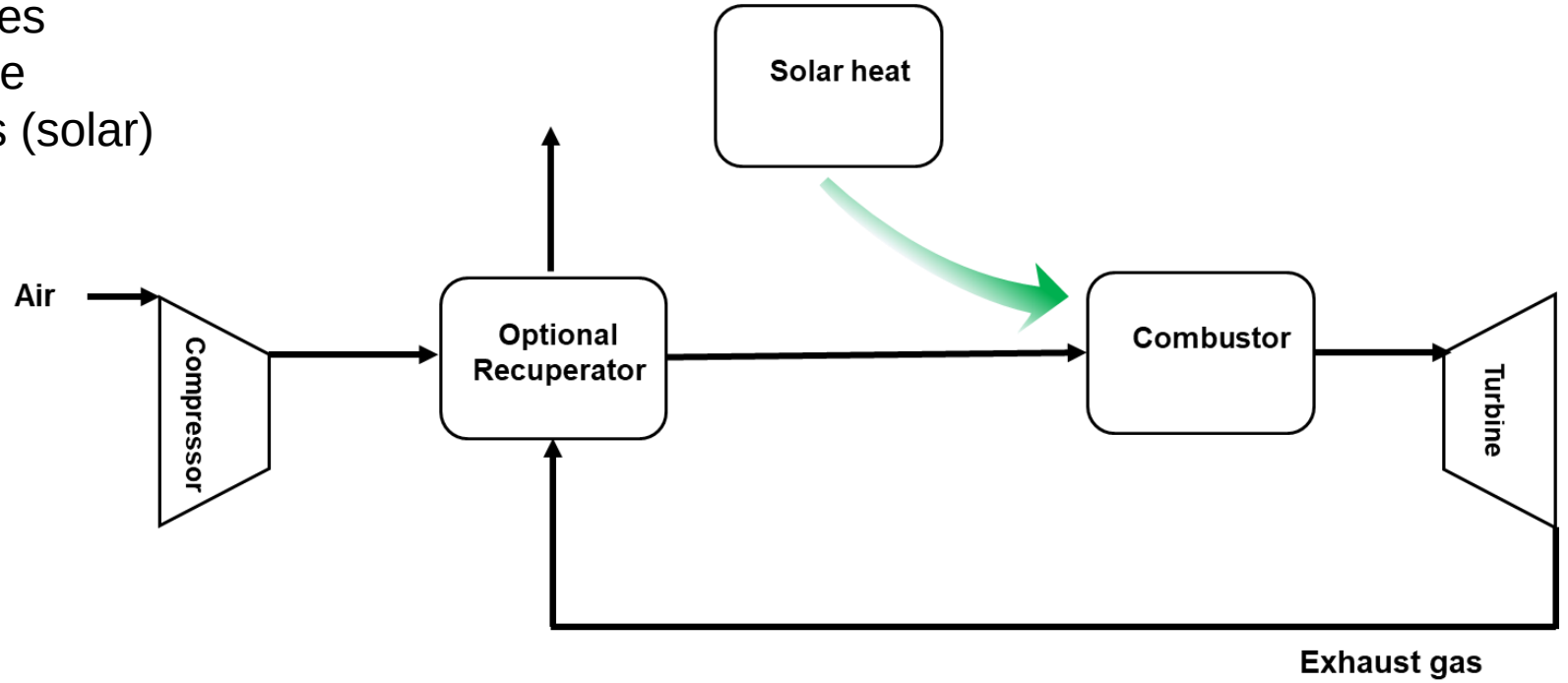

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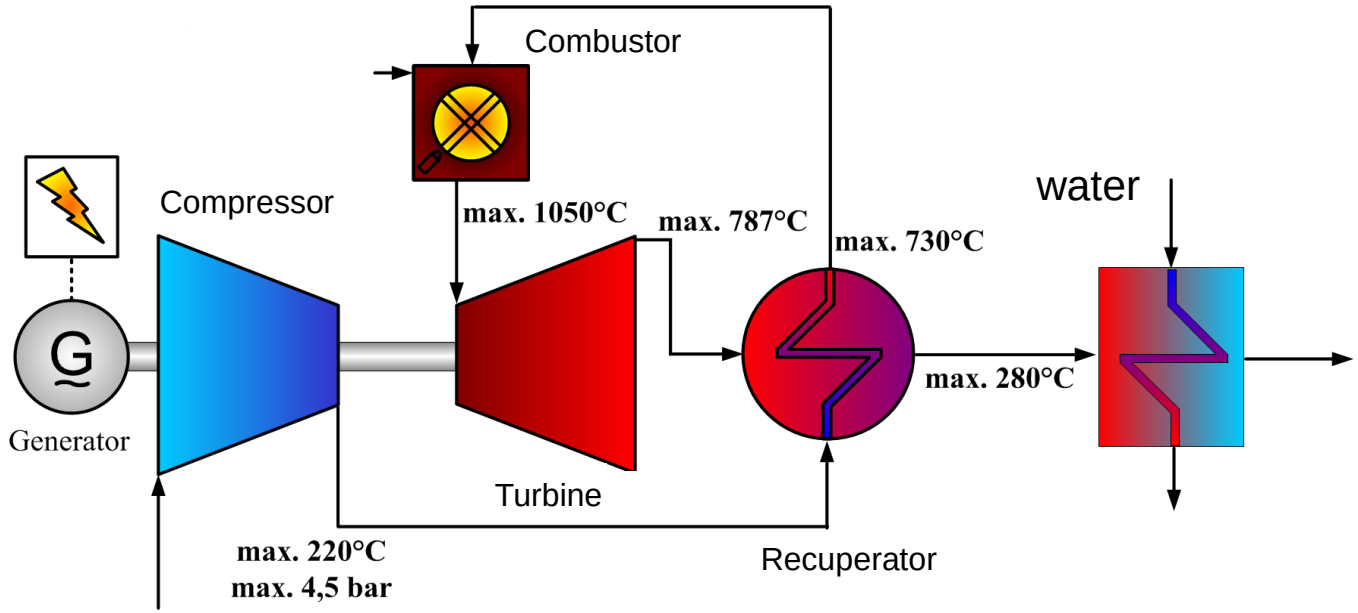
  - Increased process integration
  - More intense use of CHP applications



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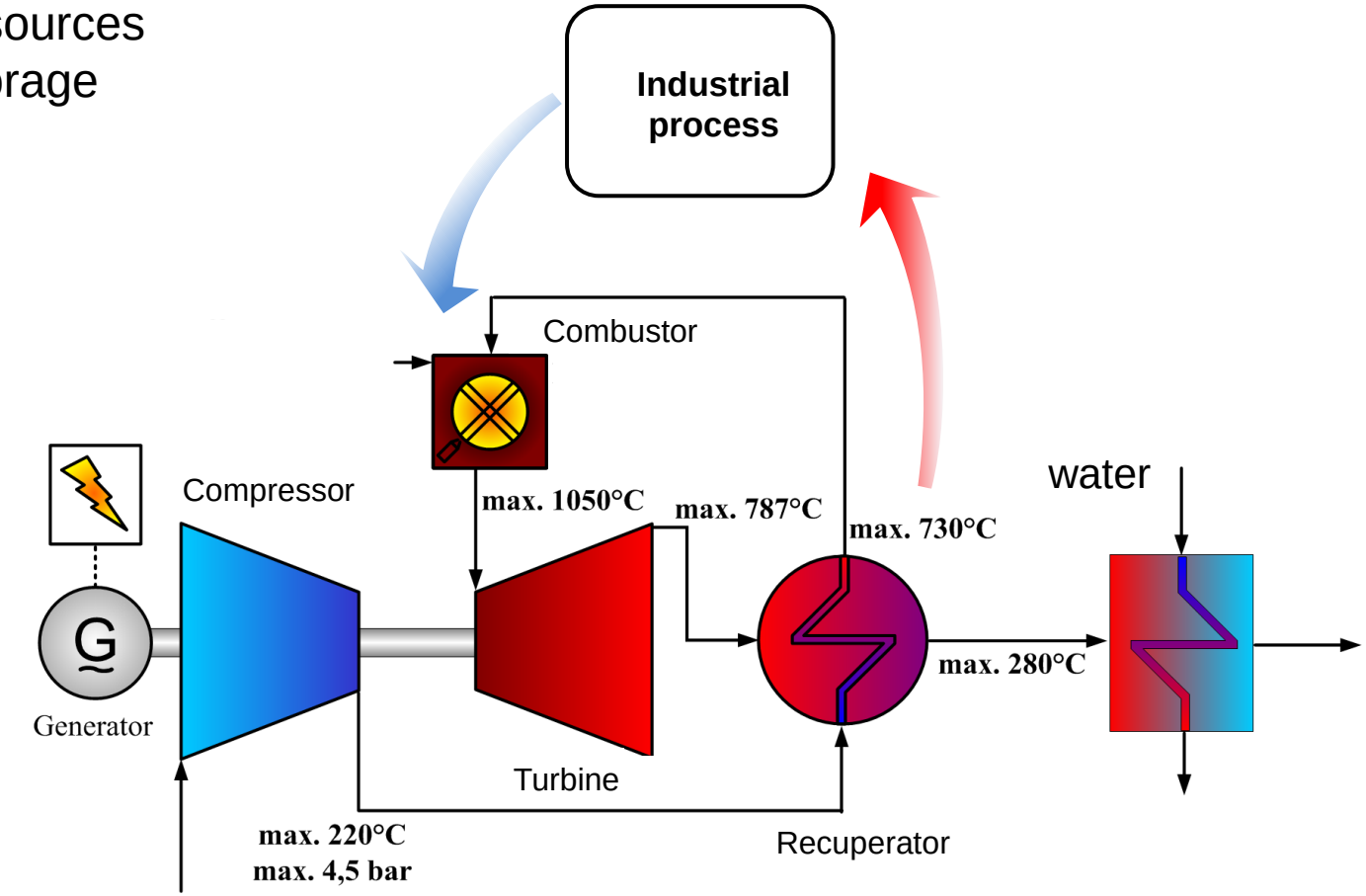

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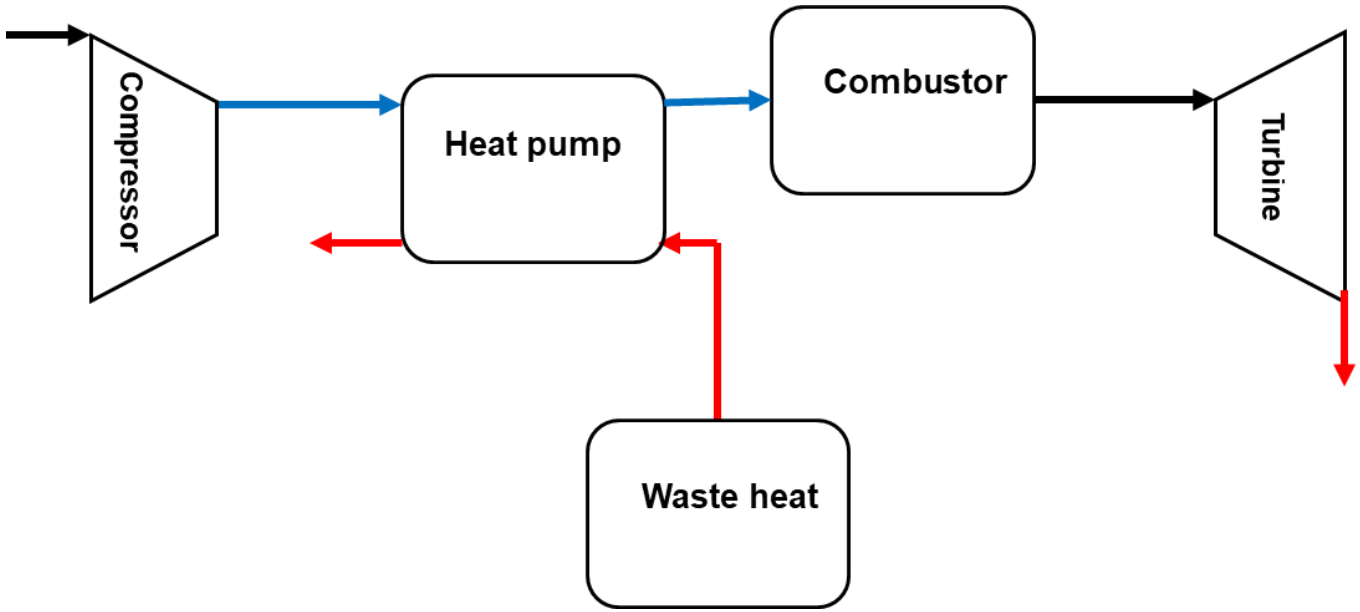
  - Use of waste energy streams
  - Combination with heat pumps



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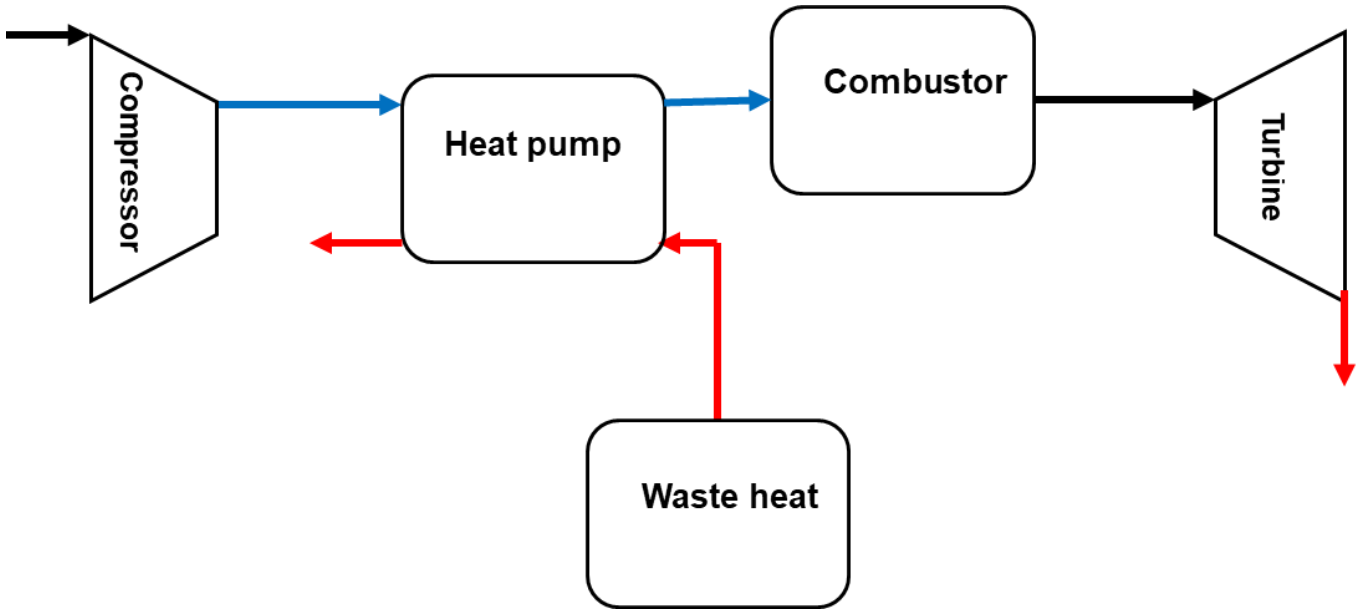
  - Combination with heat pumps
  - Combination with fuel cells



Questions for further discussion

- Gas turbines are very flexible and allow for a large number of system combinations and integrations
- The future energy systems provides new opportunities, which could be used by the gas turbine sector

- Where do you see the most interesting new application fields for gas turbines in the changing environment?
- What information would be needed to evaluate such ideas?
- How can we bring theses ideas forward?