

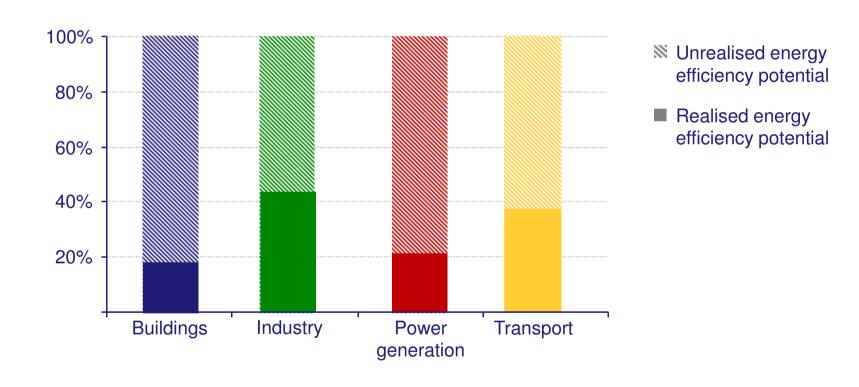


Heat recovery within process industry

Mats Skogman Segment Manager Process Industry

Industry

Huge potential for energy efficiency

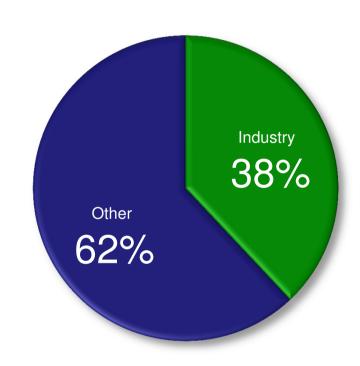


Source: IEA. Possible scenario in 2035 if we act on both implemented and announced policies.

Industry

- Consumes almost 40% of global energy



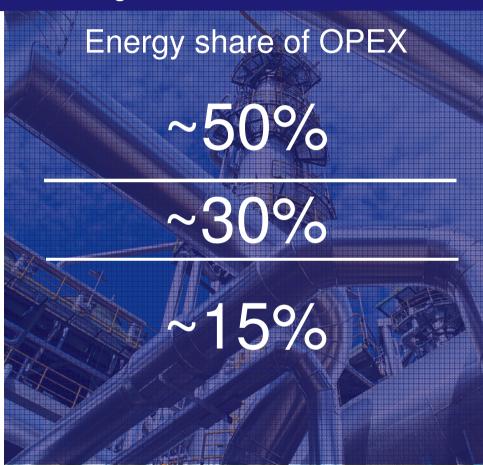


Source: IEA, International energy outlook 2013

Industry

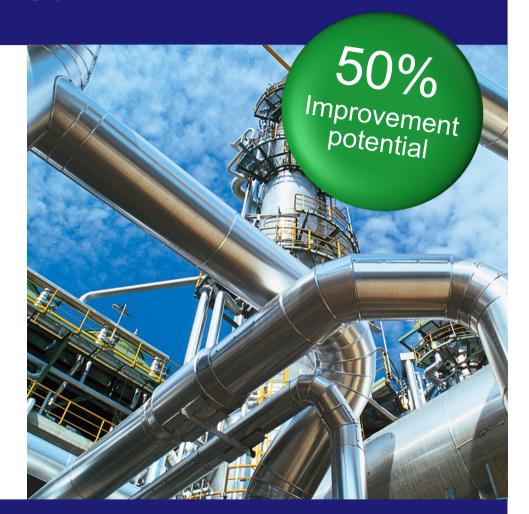
- Energy-intensive sectors with much to gain

- * Oil refining
- * Petrochemicals
- * Steel
- * Mineral processing
- * Pulp & Paper

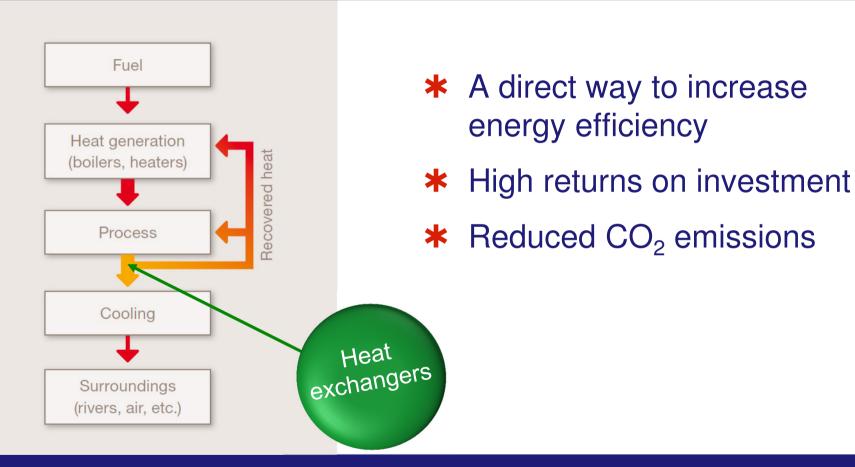


Drivers for energy efficiency

- * Bottom line
- * Competitiveness
- * Legislation
- * Sustainability



Our focus in energy efficiency for the industry



- High efficiency in compact heat exchangers



heat exchangers

Heat recovery, %

100

95

Compact heat exchanger

Shell & tube heat exchanger

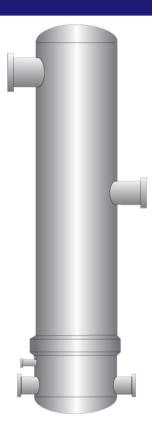
85

80

75

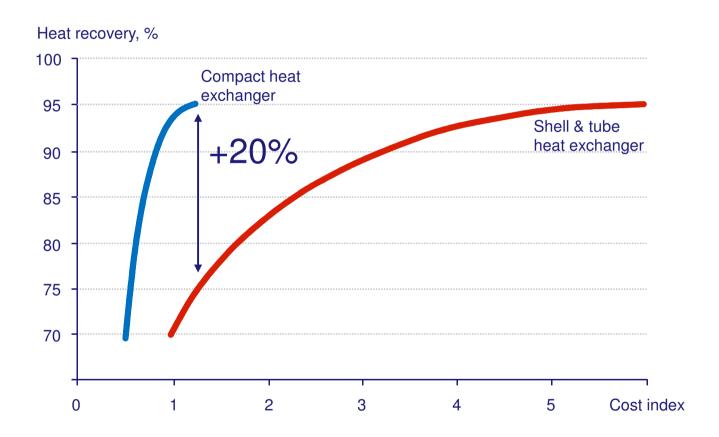
70

0 1 2 3 4 5 Cost index



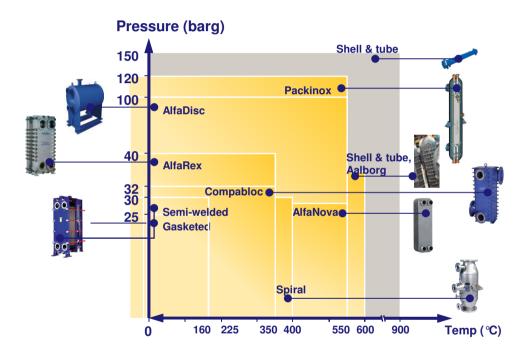
Traditional shell & tube heat exchanger

- High efficiency in compact heat exchangers



- Reasons to choose Alfa Laval

- * Process know-how
- * References



Petrochemical case, Japan

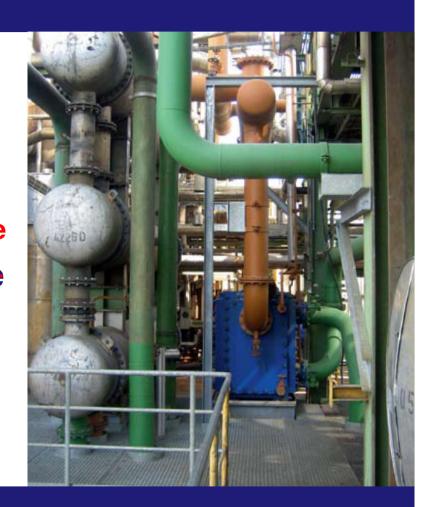
- * Capacity increase
- * More heat recovery

Planned solution Not possible

* 5,000 m² = 4 × Shell & Tube

Alfa Laval solution

 \star 1,000 m² = 3 × Compabloc



Petrochemical case, Japan

- **★** Fuel savings 2,000 t/y
- * CO₂ reduction 5,000 t/y



★ Bottom-line +1.1 MEUR/y



Heat recovery market

- * Continued growth seen in the global industrial heat transfer market from today's estimated 8 BEUR
- * Heat recovery will grow even faster and we estimate that it today makes up approximately 30% of the total



Summary

- Cost focus, competitiveness and legislation all push the industry
- The demand for heat recovery solutions is growing in a growing market
- * Alfa Laval has a unique position through a combination of product range, know-how and references

