Heat recovery within process industry

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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

**Energy share of OPEX**

- ~50%
- ~30%
- ~15%
Drivers for energy efficiency

- Bottom line
- Competitiveness
- Legislation
- Sustainability
Heat recovery
– Our focus in energy efficiency for the industry

- A direct way to increase energy efficiency
- High returns on investment
- Reduced CO₂ emissions
Heat recovery
– High efficiency in compact heat exchangers

Alfa Laval plate heat exchangers

Traditional shell & tube heat exchanger

Heat recovery, %

Cost index

0 1 2 3 4 5

Compact heat exchanger
Shell & tube heat exchanger
Heat recovery
– High efficiency in compact heat exchangers

Heat recovery, %

+20%

Compact heat exchanger

Cost index

Shell & tube heat exchanger
Heat recovery
– 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**

- 1,000 m² = 3 × Compabloc
Petrochemical case, Japan

- Fuel savings 2,000 t/y
- CO\textsubscript{2} reduction 5,000 t/y
- Bottom-line +1.1 MEUR/y
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
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