Food & Water Division

Nish Patel
Alfa Laval Group
Food & Water Division by numbers

- Order intake (OI) based on LTM September 30, 2018,

Order intake:
SEK Bn 13.3 (+5%*)

Sales:
SEK Bn 13.0 (+7%*)

*) Compared with WY 2017, fixed rates
Market drivers and trends

- Safety & quality
- Healthy & affordable
- Changing consumer behaviour
- Environmental & resource efficiency

Food and beverage market

- Billion USD, 2017
  - Food: 6300 USD
  - Beverage: 4000 USD
  - CAGR %, 2017-2021
  - Food: 5.2%
  - Beverage: 5.8%

Source: Euromonitor (2018)
Biotech & Pharmaceuticals

Market drivers and trends

✓ Urbanization ✓ Aging population – high-cost healthcare ✓ Environmental regulations ✓ Growing middle class

Production turnover 2017 & forecast 2020, EurBn (CAGR% 2017-2022)

- Western Europe: 2,4%
- North America: 4,1%
- Middle East and Africa: 7,7%
- Latin America: 7,7%
- Eastern Europe: 5,7%
- Australasia: 3,1%
- Asia Pacific: 8,8%

Source: Frost & Sullivan

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Market drivers and trends

Water Scarcity
Environmental Legislation
Urbanization
Ageing infrastructure

Water and waste treatment equipment market

<table>
<thead>
<tr>
<th>Billion Euro, 2015</th>
<th>CAGR %, 2015-2020</th>
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<tbody>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td>Industrial</td>
<td>42%</td>
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<tr>
<td>Municipal</td>
<td>58%</td>
</tr>
<tr>
<td>Total</td>
<td>9,1%</td>
</tr>
<tr>
<td>Industrial</td>
<td>8,0%</td>
</tr>
<tr>
<td>Municipal</td>
<td>9,9%</td>
</tr>
</tbody>
</table>

Source: Frost & Sullivan
Innovation - Food & Water Division

- High speed separators
- Decanters
- Food systems
- Hygienic fluid handling
- Food heat transfer
Industry focus...
- What does this mean in the Food & Water Division

**Food & Beverages**

**Pharma & Bio**

**Brewery**

**Protein**

**Dairy**

**Sugar, Starch, Ethanol**

**Edible oil**

**Water & Waste Treatment**
Food and Beverage case
- Food & Water Division

- Natural product without preservatives
- Increases shelf lifetime with pasteurization
- Increases production capacity with 25-30% through Contherm system and continuous optimization

Alfa Laval Contherm
Food and Beverage case
- Food & Water Division

Sustainability enabler

- Optimize resource use & increase yield
- Energy savings

Innovation

- 25-30% increased capacity
- 25% power savings

Contherm
Waste water case story
- Food & Water Division

Sustainability enabler

- Water treatment and re-use
- Energy savings

Innovation

- Decanter
- MBR
- Energy reduction: Up to 50%
- Energy reduction: Up to 20%
- Polymer reduction: Up to 25%

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Brewery case story
- Food & Water Division

Sustainability enabler

• Energy efficiency
• Optimize resource use

Innovation

Brew 701 eMotion

Flexitherm

40% energy reduction

Up to 94% heat recovery

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In summary...
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* Food & Water outlook positive
* High pace of innovation
* Customer experience
* Sustainability enabler
  - Optimize resource use & increase yield
  - Water re-use
  - Energy Savings

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