

ALFA
LAW



Innovation

Capital Markets Day
November 24, 2015

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Alfa Laval Group

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Product Centre Decanters

Why innovation?

- * Stay competitive
- * Increase market share
- * Improve profitability

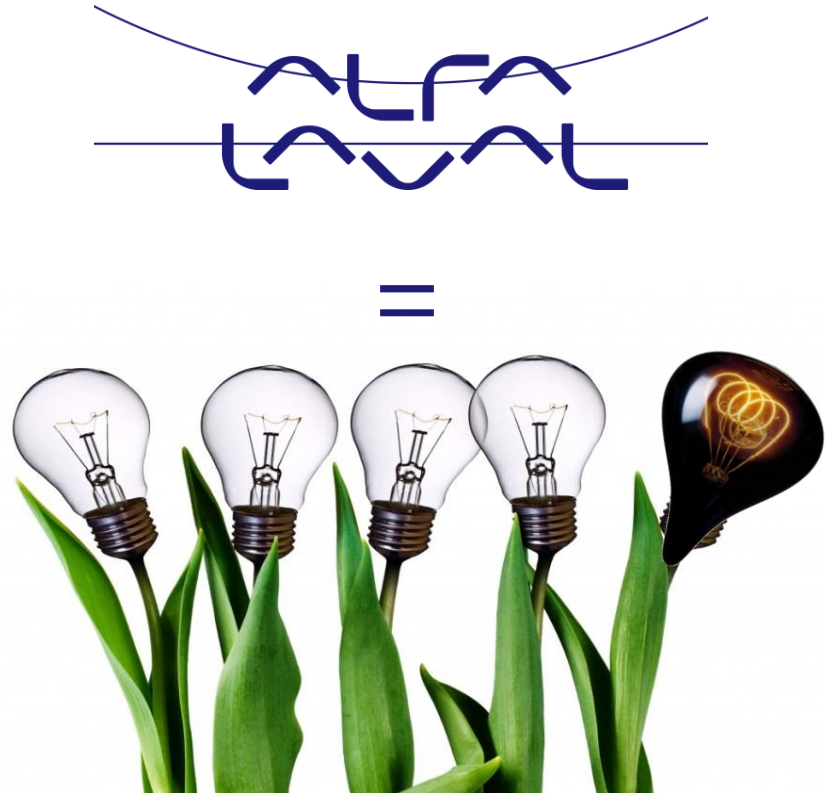


Alfa Laval and innovation

– Part of our culture since 1883



Gustaf de Laval
The man of high speed



Alfa Laval and innovation

– our definition

“People creating and implementing new ideas that create value”



Internal
technology base

Current market



Sources of inspiration



Innovation

– about products and beyond



The offering

Product performance
Functionality

**Features and
benefits**



Configuration

Business model
Network
Structure
Processes

**How we do
business**



The experience

Service
Channels
Brand
Engagement

**The customer
experience**

Innovation

– the offering



An example from history

– the journey from milk and cream

Product
Development



A modern milk separator



A modern brewery and yeast separator



2012
Pure Dry



2002
Alfalex



2010
OFX 40



2008
Culturefuge



1998
The S-series



1974
SX320 Tar Sand



1983
BTPX



1933
Hermetic milk separator



1921
Vegetable oil refining



1953
Self-cleaning separator



1916
First oil purification



Breakthrough



1898
Electric driven



1898
First yeast separator



New
generation



1890
Alfa Baby



1889
Alfa disc



Upgrade



1878
Original milk separator

Dairy

Food & Beverage

Marine

Oil & Gas

Life Science

Applications

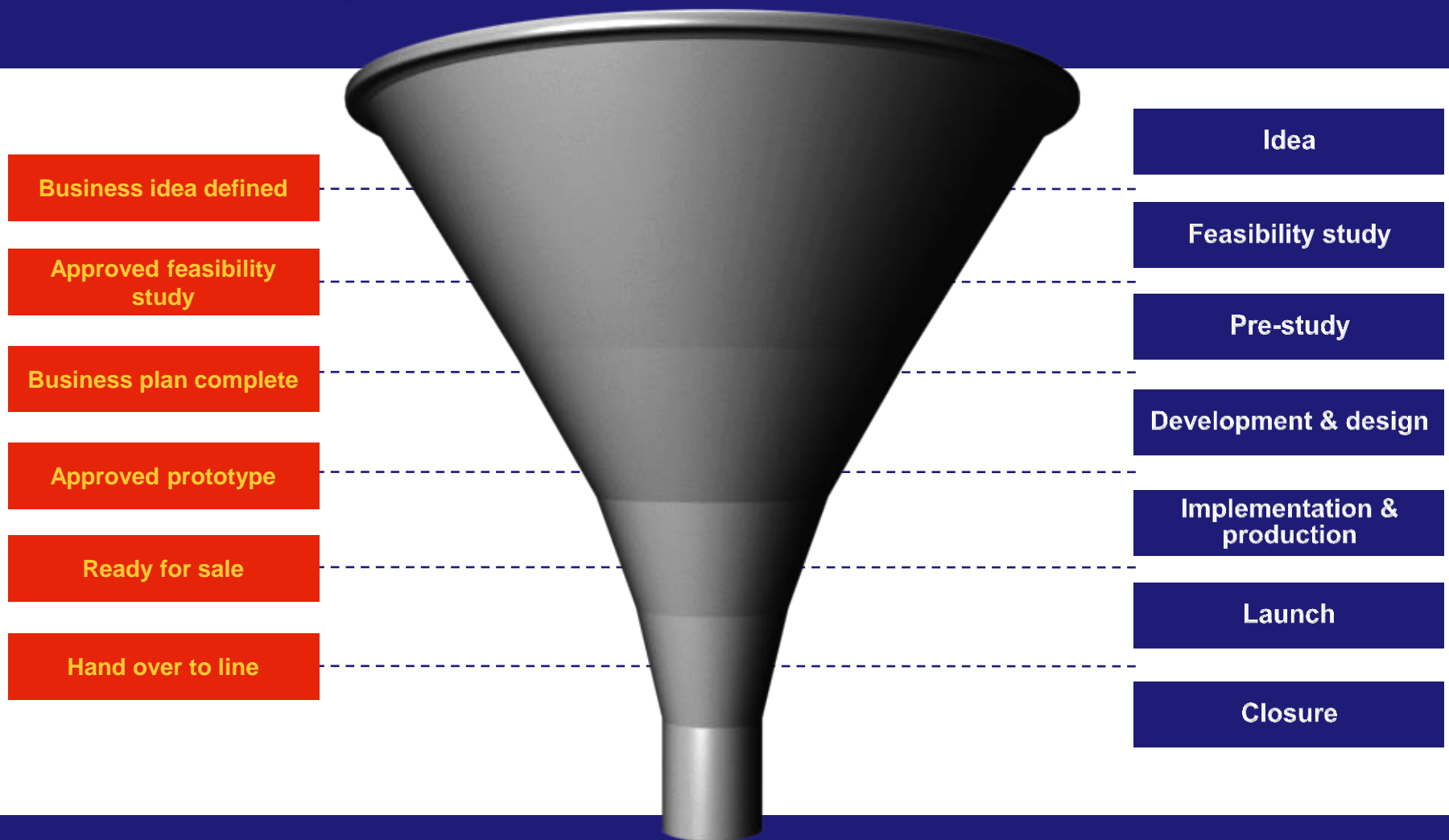
R&D footprint

R&D in numbers

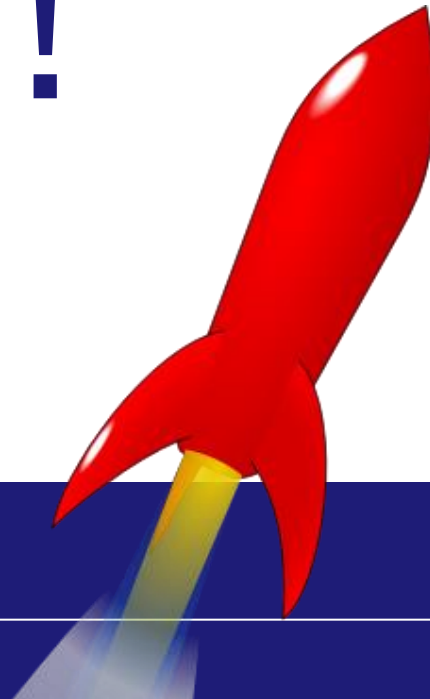
- * 2.0-2.5 % of sales
- * 500+ employees in R&D
- * 20+ product centers for new product development
- * 35-40 new products/year



R&D process



Launch!



Innovation metrics

Time to Market

The time to launch
from the start of
the pre-study

Newness

Share of capital sales
orders in last 12M
from products younger
than five years



Time to Profit

The time it takes
to recuperate the
total project cost
and make the
same amount in
profit based on
Consolidated
Gross Margin
(CGM)

Goal of 25-30% newness in sales

Patents

– Key to ensure protection of products and investments

- * High focus on IP Rights
- * Protection with patents, trademarks and design rights
- * 2,400 patents
- * 35-70 new applications annually
- * Aggressively protect our rights



“If you are going to copy then copy somebody else”

Three successful innovations

– Recent innovations in our three key technologies

Separators

* Decanter:
LYNX 1000



- Customer cooperation
- Legislation driven
- Performance innovation

Heat exchangers

* T8/T35
Gasketed PHE



- Next generation
- Performance step change
- Innovation in a crowd

Fluid handling

* i-range pumps



- Market positioning
- Sufficient functionality
- Cost innovation

Separation

LYNX1000 decanter



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Directive 074

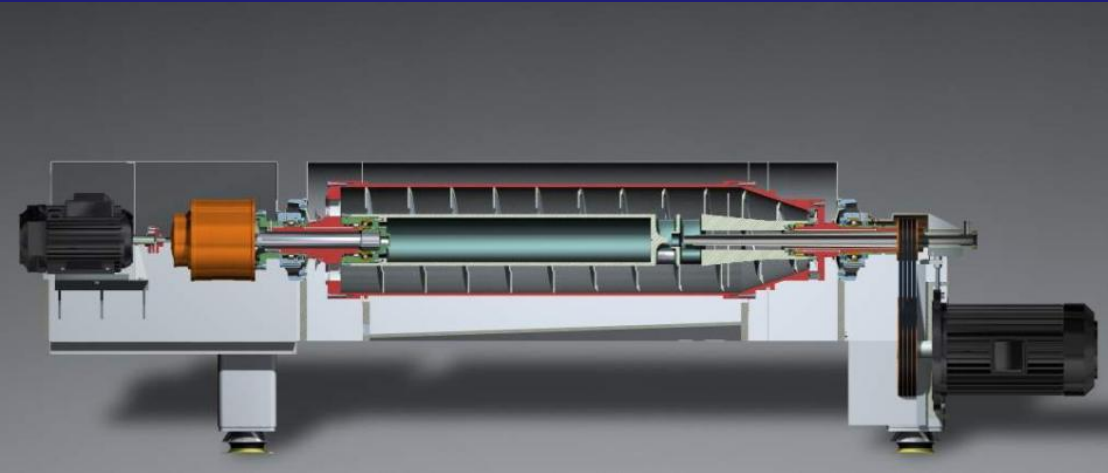
February 3, 2009

Tailings Performance Criteria and Requirements for Oil Sands Mining Schemes

Picture: oil sands tailing pond

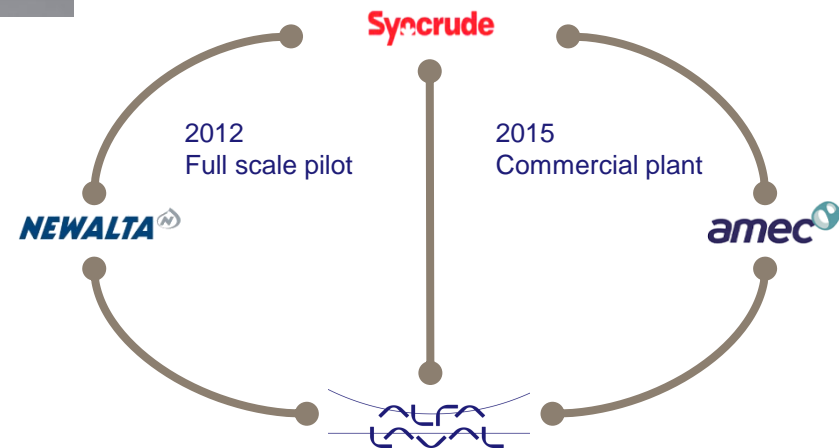
www.alfalaval.com

LYNX 1000 decanter



Step by step optimisation

- * Test
- * Pilot
- * Full scale



Path to success

LYNX1000 decanter

- * Environmental laws drive demand.
- * We adapt our technologies to new applications. In this case, decanters to treat tailings.
- * Liquid waste is common in other industries as well, creating opportunities ahead.



Heat exchangers

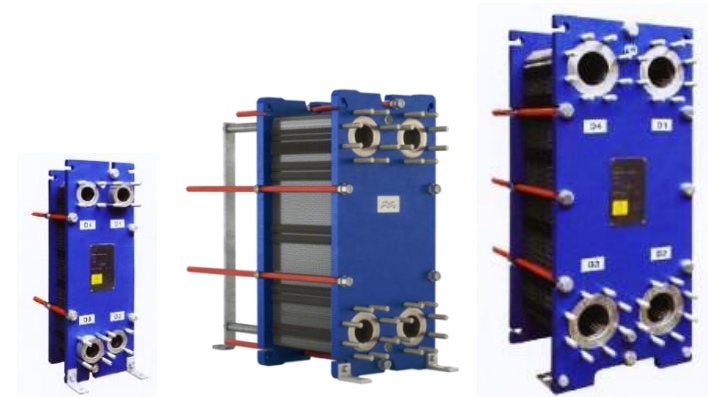
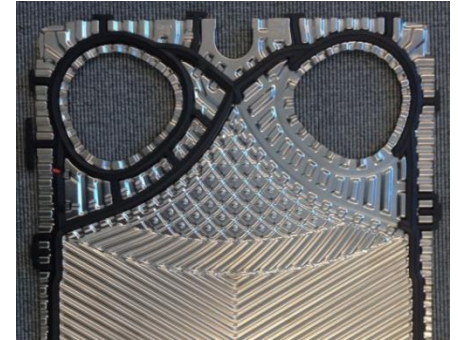
Alfa Laval T8 and T35 plate heat exchangers

Alfa Laval T35

- * First model in next generation
- * Replacement
- * Performance innovation

Alfa Laval T8

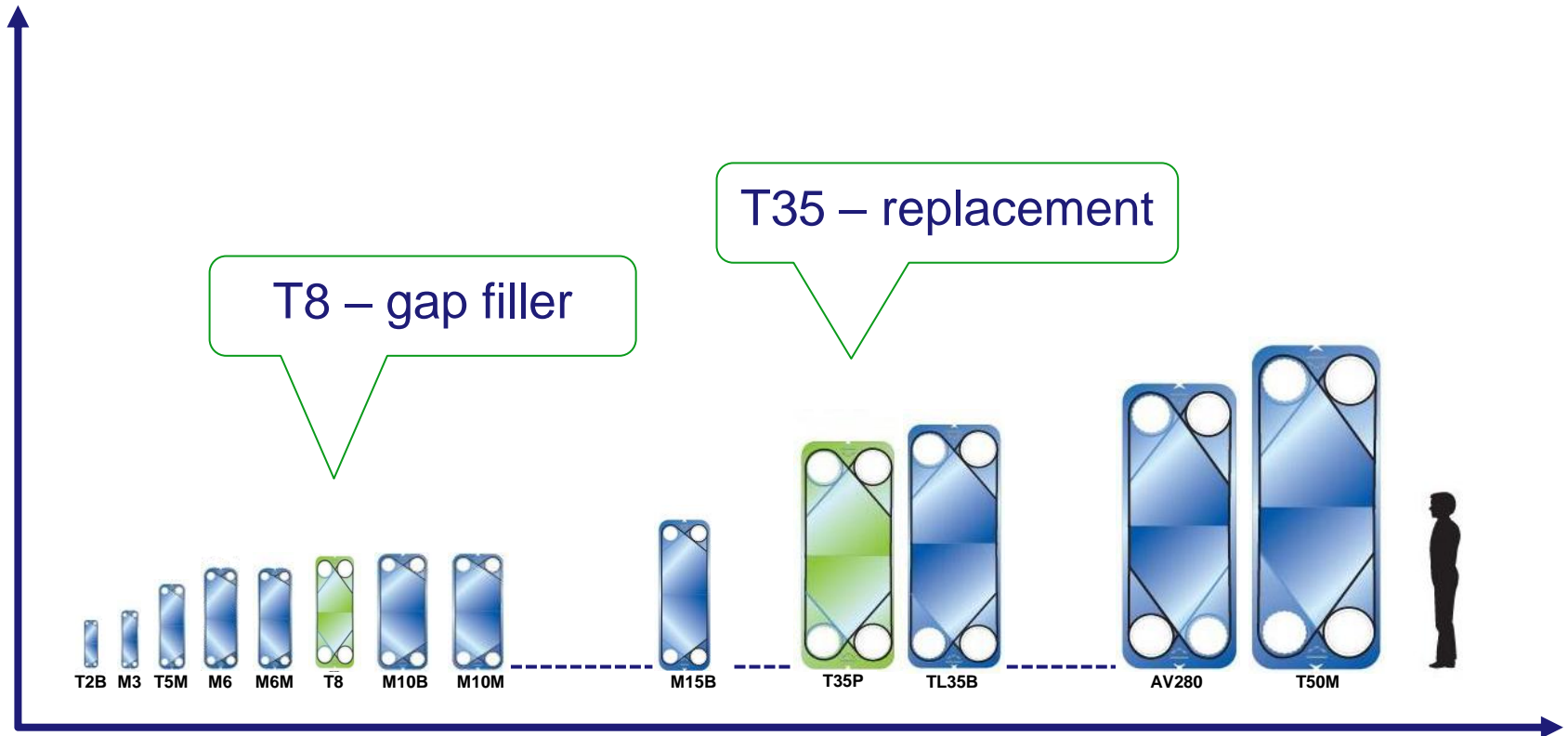
- * Innovation in a crowd
- * Gap filler
- * Cost innovation, energy efficiency, improved performance



Competitor's units

Heat exchangers

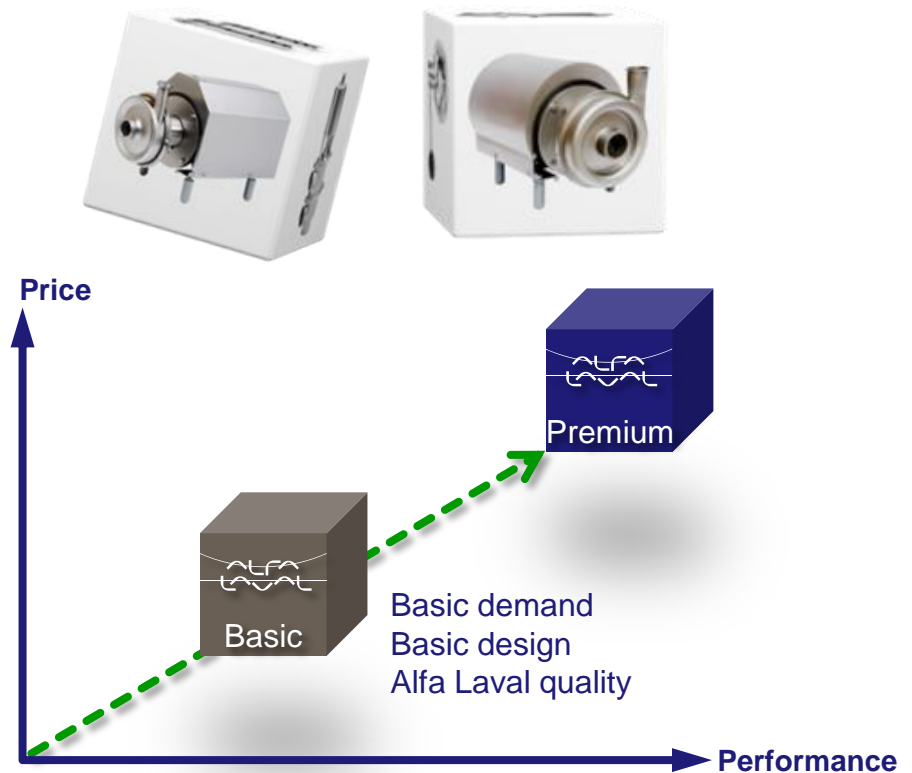
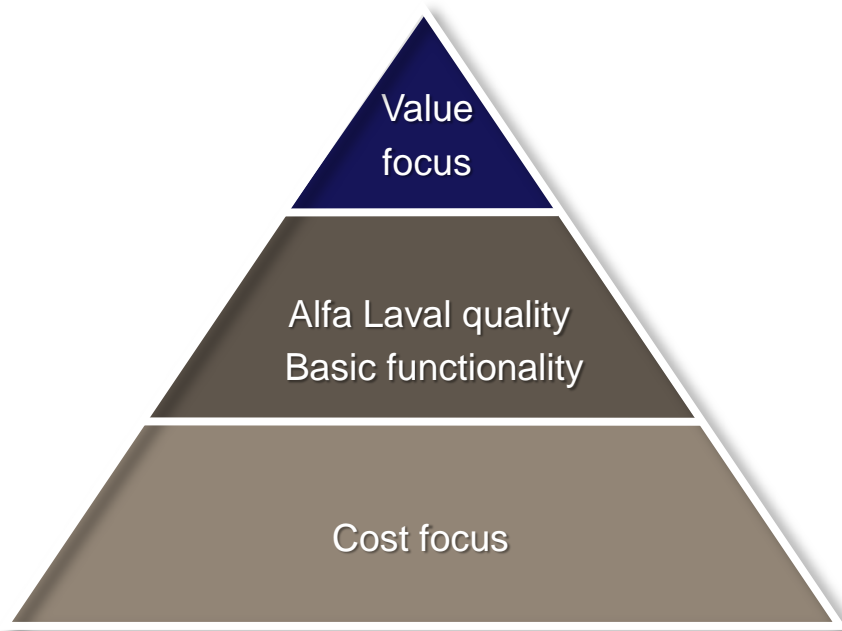
Alfa Laval T8 and T35 plate heat exchangers



Fluid handling

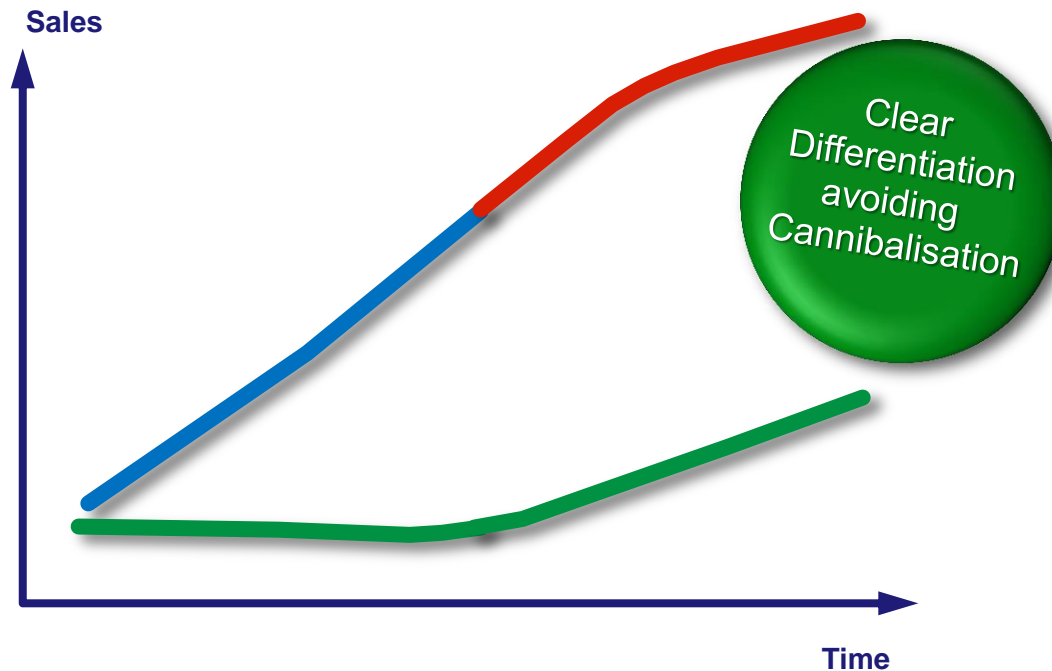
i-range pumps

Market positioning



Our experience

- Premium range
- Premium range variant
- i- range



- * All regions
- * New business
- * Solid margins

Conclusions

- * Innovation is part of our culture, how we are perceived and what we stand for
- * Strict processes ensure timely launches of the right products with good returns
- * Patent protection is vital
- * High focus on innovation to maintain leading market positions and deliver profitable growth

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