

WE HAVE ONLY SEEN THE BEGINNING OF WHAT  
FIBER-BASED MATERIALS AND SOLUTIONS  
CAN BE USED FOR

# Imagine fiber

INVESTOR PRESENTATION

October 2019



AHLSTRÖM  
MUNKSJÖ

# Global leader in sustainable and innovative fiber-based solutions

- Fibers are at the core of what we do and the common denominator for our products and solutions
- Natural fibers represent 94% of our total fiber use
- We offer custom made specialized fiber based materials
- Our value proposition is based on innovation, quality and service
- Our offering contributes to a more sustainable everyday life

## Key facts

- Global network of sales offices and 45 plants in 14 countries
- Approximately 8,000 employees
- More than 7,000 customers in over 100 countries
- Pro forma 2018 net sales of approximately EUR 3 billion
- Shares listed on Nasdaq Helsinki and Stockholm
- Head office in Helsinki

## Key strengths

- Leading positions in chosen segments
- Operating on growing markets
- Balanced geographical exposure to a broad range of end-uses
- Designed sustainable and innovative customer solutions



# Strategy overview

## MISSION

Sustainable and innovative fiber-based solutions

## VISION

Global leader in chosen growth segments

## CORNERSTONES

Local accountability

Efficiency and agility

Customer value

Profitable growth

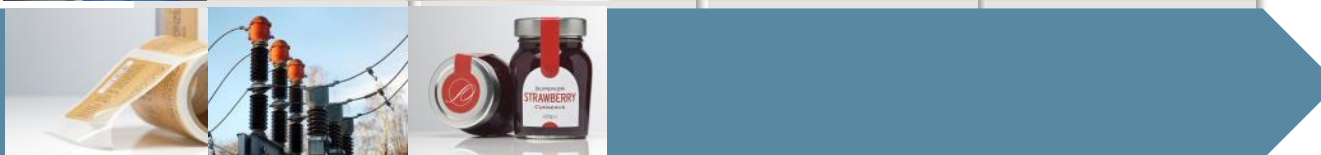
FILTRATION AND PERFORMANCE



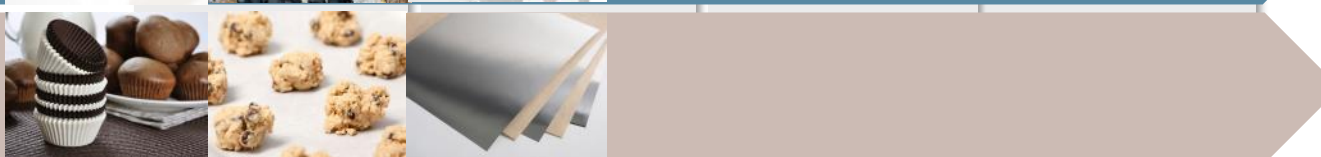
ADVANCED



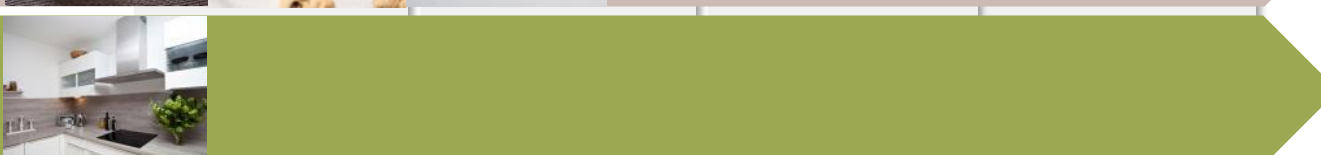
INDUSTRIAL



FOOD AND TECHNICAL



DECOR



## FINANCIAL TARGETS

- EBITDA > 14% over a business cycle
- Net gearing < 100%
- Dividend: stable and annually increasing, paid bi-annually



## VALUES

Long-term commitment | Teamwork | Passion to innovate and improve



# Sustainable everyday life

## MISSION

### Sustainable and innovative fiber-based solutions

#### BETTER PERFORMANCE

Filter materials to purify air and protect people from viruses and bacteria



#### SAFER MATERIALS

Formaldehyde free abrasive backings and fluorfree food packaging materials



#### FEWER RESOURCES

Diagnose diseases and purify polluted drinking water



#### LOWER IMPACT

Plastic free and compostable tea and coffee materials



#### PEOPLE



Human rights



Community engagement



Employee well-being



#### PLANET



Supply chain



Energy, water and waste



Carbon dioxide



#### PROSPERITY



Profitability



Innovation



Business ethics

EcoDesign Tool



Code of Conduct | Sustainability Policy | Sustainable Business Council

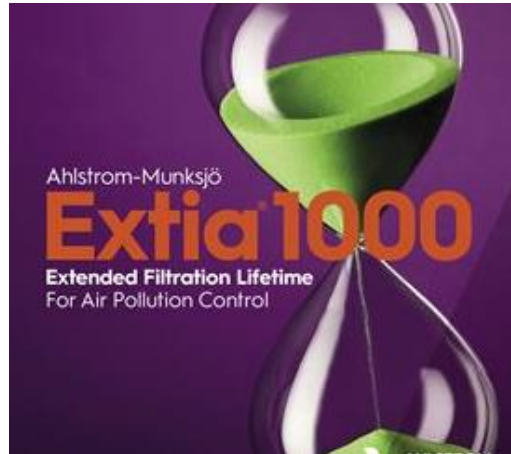


# Better performance

Functioning better than alternative solutions



**Trinitex® Advance W3200** is a unique gas turbine filtration product specifically designed for pulse jet gas turbine applications.



**Extia® 1000** is the first product on the Extia® platform, a range of highly durable filtration media, specifically designed for industrial filtration applications. Extends filtration lifetime by over 40%.



**ViroSēl™** Breathable Viral Barrier fabric is constructed for the most critical areas of a surgical gown designed to keep medical professionals protected and comfortable.



**Optilam™** is an antistatic release material used during the lamination process of RFID prelaminated inlays, improving the final quality of the inlay. It is a sustainable alternative to plastic release films.



# Safer materials

Comprised of safer materials than alternative solutions



**Grease-Gard® FluoroFree®** papers are designed to deliver outstanding grease resistance without the use of fluorochemicals (PFAS).



**TEX-STYLE** – the first product in the RE-VOLUTION range, a new category abrasive backings of paper substituting cloth backings.



Pre-impregnated, formaldehyde-free foil base papers are suitable for furniture, doors, separation walls, ceilings and wall paneling.



**ParaFree™** Wax Alternative Papers are paraffin wax free, reducing the dependency on petroleum-based ingredients.



# Fewer resources

## Consuming fewer resources than alternative solutions



**Specimen collection cards** provide an alternative solution to liquid sampling. By removing the need for cold chain and special transport, they can be used for DNA screening, the diagnosis of genetic diseases, and others.



**Acti-V®** supercalendered release papers for silicone coating play an active role in the silicone curing and anchorage process. Curing is faster and requires less catalyst. Anchorage is stronger and more stable.



**HighFlow Wind Energy** is a platform of reinforcement fabrics for lightweight composite materials, allowing a reduction of about 15% in total cost ownership in wind mill blade manufacturing.



**Disruptor®** – product line of electrodsorptive filter media that improves water quality through a natural positive charge.



# Lower impact

## Lower impact than alternative solutions



**Fiber+** a plastic free, compostable tea bag materials product range, a solution for every application and covers all manufacturing platforms.



**GreenPod™**: compostable plastic free coffee pod material for espresso.



**CelluStraw™ U** is a new fiber-based solution for U-shaped paper drinking straws, enabling the food industry to provide consumers an alternative to single-use plastic straws.



**Coralpack** compostable, grease resistant wrapping papers reduce the environmental impact of packaging waste.





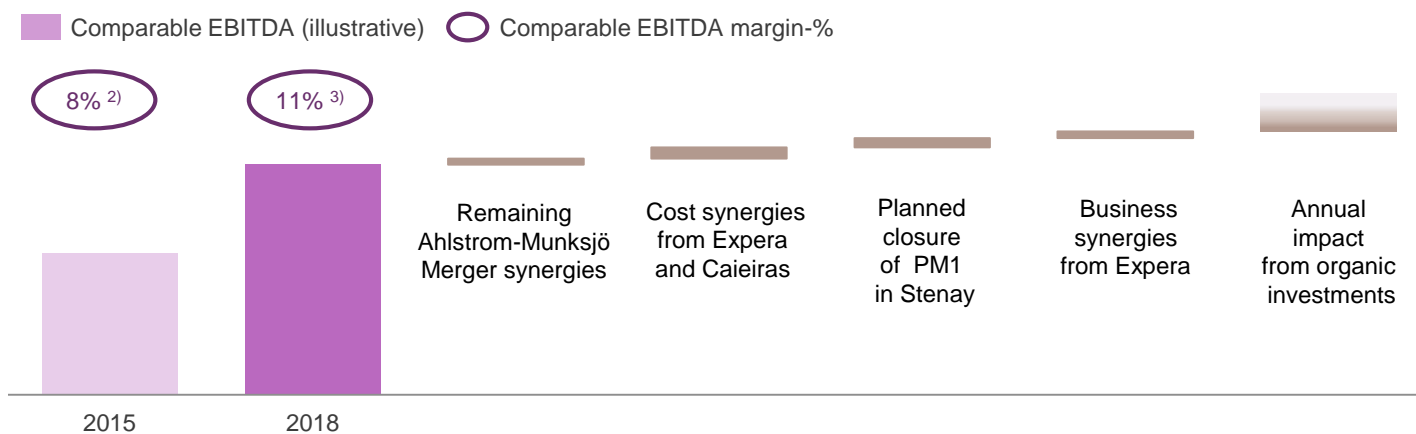
**Profitable growth**



# Strategic transformation supporting profitable growth



## Measures underway to improve competitiveness and drive growth<sup>1)</sup>



1) Illustrative (not necessarily in scale), not to be considered as guidance  
 2) Munksjö's reported adjusted EBITDA margin for 2015  
 3) Pro forma comparable EBITDA margin in 2018



# Delivering promised synergy benefits

## Synergy benefits:

Near-term cost synergies  
**EUR 8m NASS**  
**EUR 8m Caieiras**  
by the end of 2019

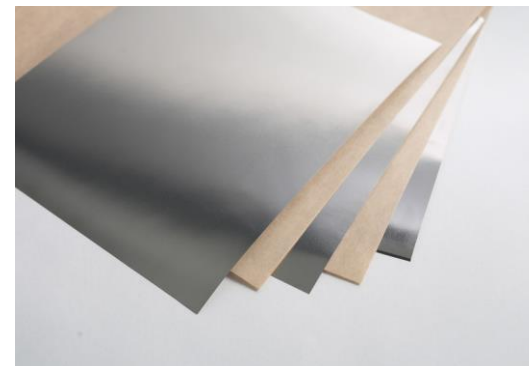
Business synergies  
of at least **EUR 10m**  
with a gradual impact  
from 2020 onwards

SG&A

Sourcing







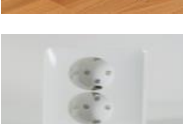
Cross-selling  
Production optimization  
Technology sharing

SG&A = Selling, General and Administrative expenses









# Completed investments driving strategic progress

## Production ramp-up ongoing

		Efficiency and agility	Customer value	Profitable growth		
<b>Abrasive backings, Arches</b> Paper machine rebuild, Q1/18-	EUR 14m	✓	✓	✓		<i>Back of sandpaper</i>
<b>Filtration, Turin</b> Capacity debottlenecking, H1/18-	EUR 3m			✓		<i>Filtration material</i>
<b>Filtration, Madisonville</b> Product offering, H2/18-	EUR 23m	✓	✓	✓		<i>Filtration material</i>
<b>Foodpack, Saint Severin</b> New line installation, Q3/18-	EUR 7m		✓	✓		<i>Baking paper</i>
<b>NASS</b> Coater expansion, Q3/17-	EUR 13m		✓	✓		<i>Fiber composite release liners</i>
<b>Decor, Dettingen</b> Production line upgrade, Q1/19	EUR 5m		✓	✓		<i>Pre-impregnated decor paper</i>
<b>Insulation, Aspa</b> Bailing line modernization, Q2/19-	EUR 4m	✓	✓			<i>Specialty pulp</i>



# New investment decisions driving our strategic progress

		Efficiency and agility	Customer value	Profitable growth	
<b>Medical, Pont Audemer</b> Converting line rebuild, Q3/19-	EUR 4m	✓	✓	✓	 Sterilization wrap
<b>Coated Specialties, Jacarei</b> Coating line upgrade, Q3/19-	EUR 21m	✓	✓	✓	 Coated specialty paper
<b>Insulation, Billingsfors</b> Boiler and pulp line rebuild, Q3/19-	EUR 23m	✓		✓	 Electrotechnical paper
<b>Filtration, Release Liner</b> New co-generation in Turin plant, H1/20-	EUR 15m	✓			 Turin plant
<b>Filtration, Turin</b> Capacity expansion, H2/20-	EUR 28m	✓		✓	 Industrial filter material
<b>Beverage &amp; Casing, Chirside</b> New production line, H2/20	EUR 28m	✓	✓	✓	 Coffee, tea, and casing material



# Recent key product launches

Sales from new products\* was 11% in 2018



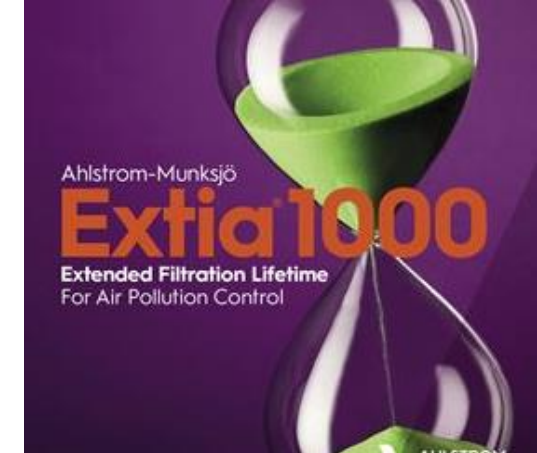
**CelluStraw™ U** is a new fiber-based solution for U-shaped paper drinking straws, enabling the food industry to provide consumers an alternative to single-use plastic straws.



**Optilam™** is a new generation of release materials to optimize RFID inlay lamination. It makes the lamination process easier, more efficient, and improves quality of the inlay.



**ViroSēl™** Breathable Viral Barrier fabric is constructed for the most critical areas of a surgical gown designed to keep medical professionals protected and comfortable.



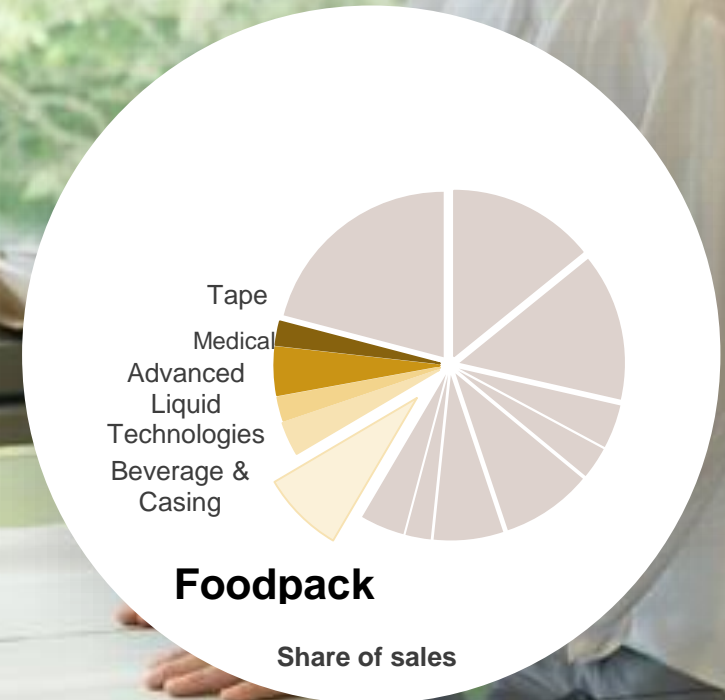
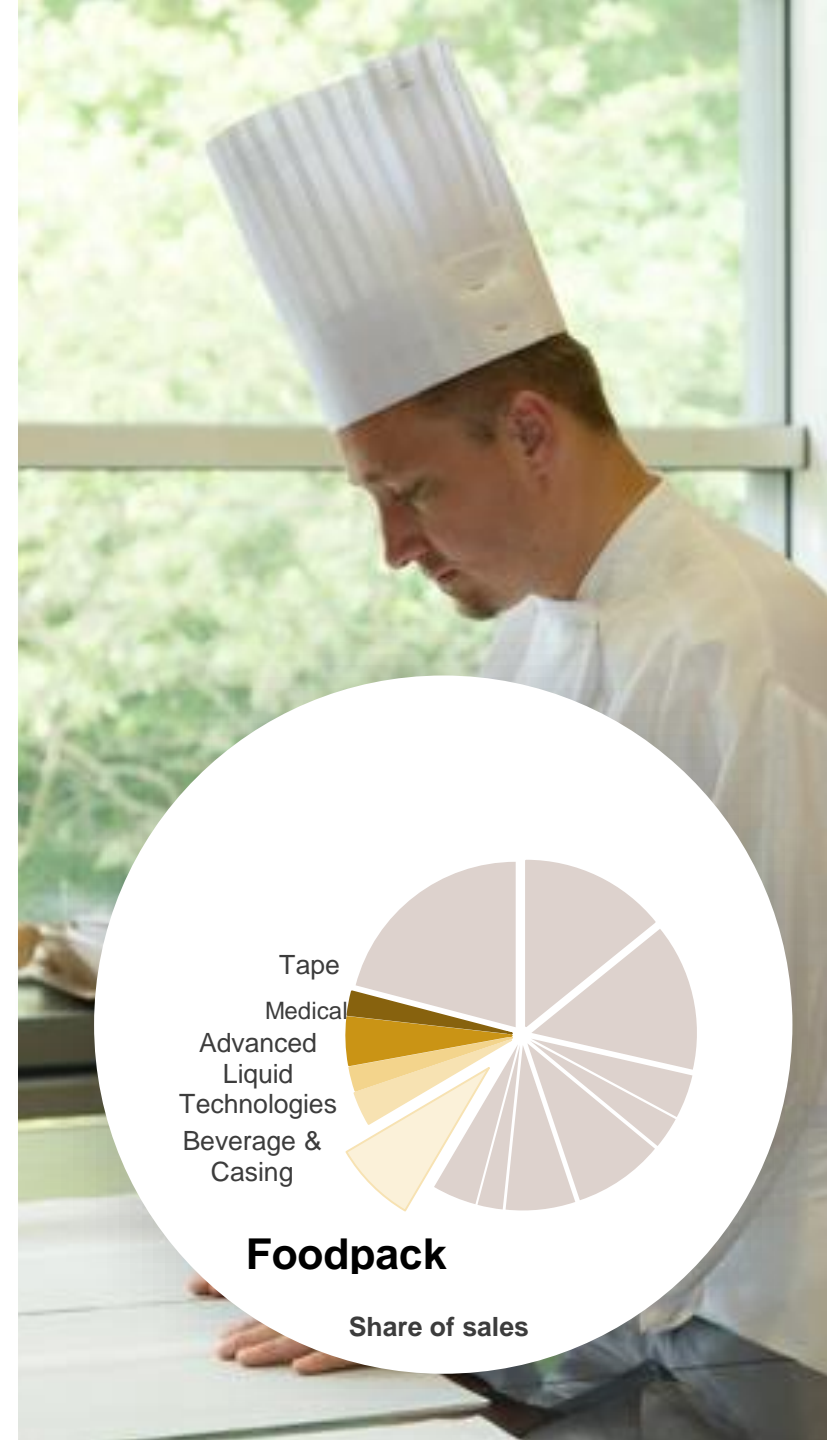
**Extia® 1000** is a range of highly durable filtration media, specifically designed for industrial filtration applications.

\*Products launched in the past three years



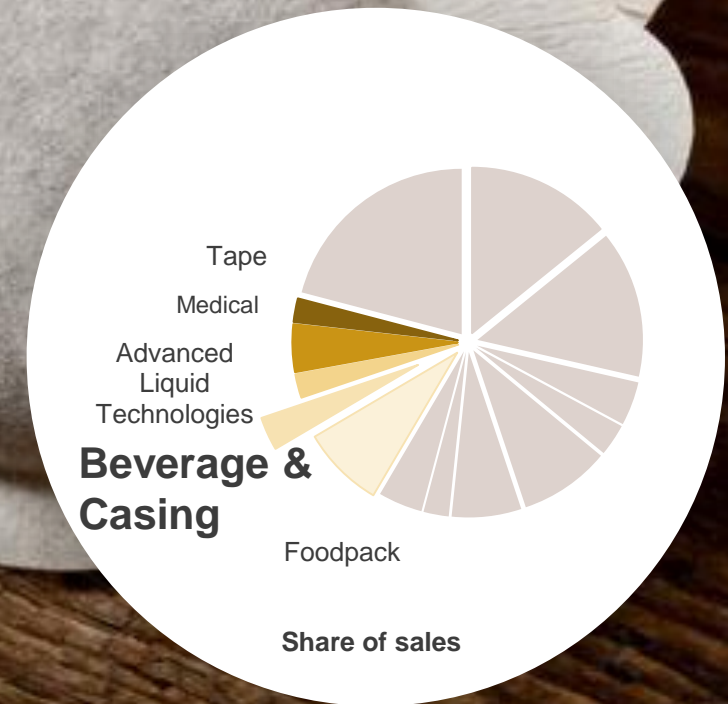
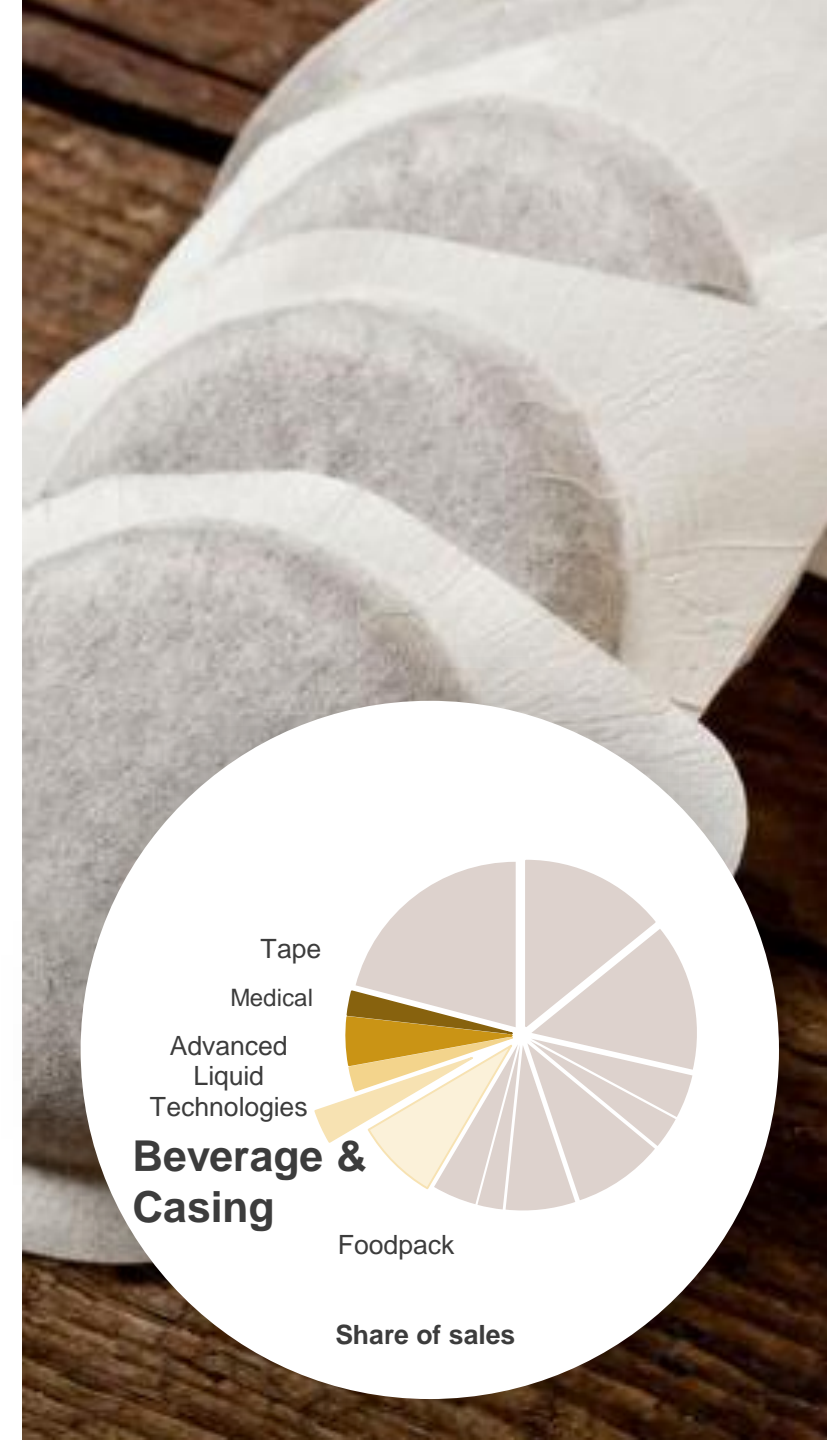
# Measures to significantly improve competitiveness in coated one-side products (C1S)

- Operating environment for C1S has further deteriorated, mainly due to increased raw material costs
- Ahlstrom-Munksjö's C1S offering and position not optimally aligned with strategy of niche orientation into customized solutions
- Production was permanently ceased in March 2019. The closure will result in the termination of 77 jobs.
- Concentrating orders to the other paper machine (PM3) also generates cost savings from higher raw material, energy and waste efficiency as well as improves inventory management
- Actions estimated to yield annual impact of EUR 13m
- Restructuring costs provision of EUR 11m and an impairment loss of EUR 8m were booked in Q4 2018, an incremental expense of EUR 2m was booked in Q1 2019



# Investment in biodegradable and compostable tea bag, coffee and meat casing materials

- Investing EUR 28m in near state-of-the-art paper making line to be dismantled and transferred to the Chirnside site, UK
- Combining Ahlstrom-Munksjö's extensive offering of biodegradable and compostable solutions, the new line enables:
  - Growth in tea and coffee filter paper and fibrous meat casing materials
  - Improved product capabilities in coffee and tea
  - Increased production efficiency
  - Differentiation from competition
  - Machine transfer, civil engineering and infrastructure building in progress, final commissioning by the end 2020





# Profitability improvement in Decor

## Year 2017 –

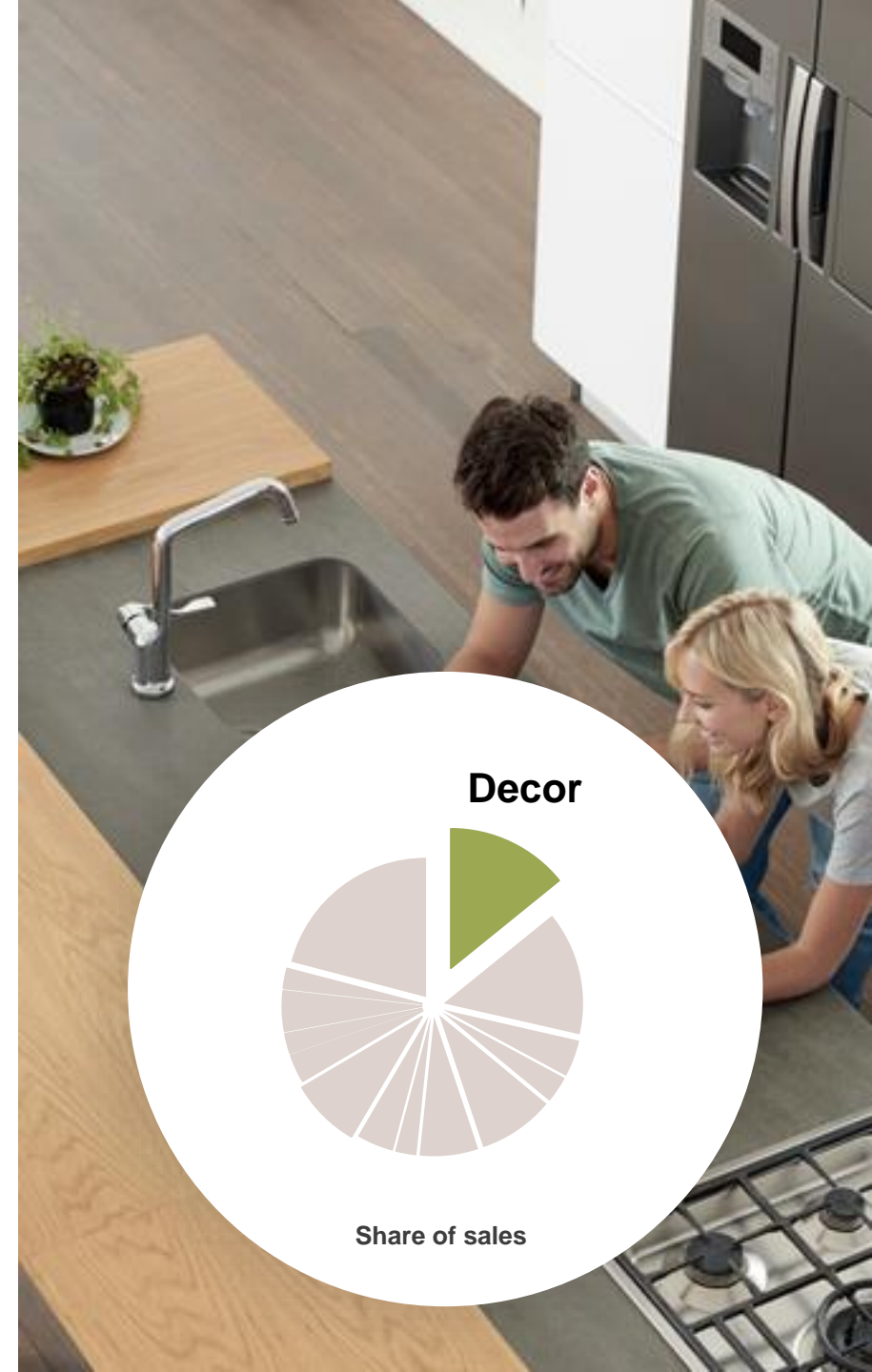
- Escalating raw material costs and build up of inventory levels in the industry

## Year 2018 –

- Gross margin improvement thanks to successful price increases
- Volume losses in oversea markets due to price increases and new competition
- Market environment increasingly volatile, reduction of inventories throughout the supply chain

## Medium term profitability improvement plan

- **Continue optimization of product and customer mix**
  - Further enhance capabilities in the most attractive segments
- **Maintain leadership in quality, service and innovation to deliver best customer value**
  - Investment at the Dettingen plant, Germany, to enhance the quality of pre-impregnated decor papers
- **Improve cost competitiveness and production efficiency**
  - Reduction in energy costs at the Dettingen plant through power plant buyout
- **Caieiras - integrate and realize synergies**



# Global leader in sustainable and innovative fiber-based solutions

**1**

**Leading position in its chosen growth segments**

**2**

**Balanced exposure to growing markets with cycle-resilient demand characteristics**

**3**

**Innovative value-add solutions designed for the customers**

**4**

**Our offering contributes to a more sustainable everyday life by providing renewable materials that are alternatives to non-renewables, and solutions that make the end product more sustainable**

**5**

**Efficient global operating platform based on local accountability**

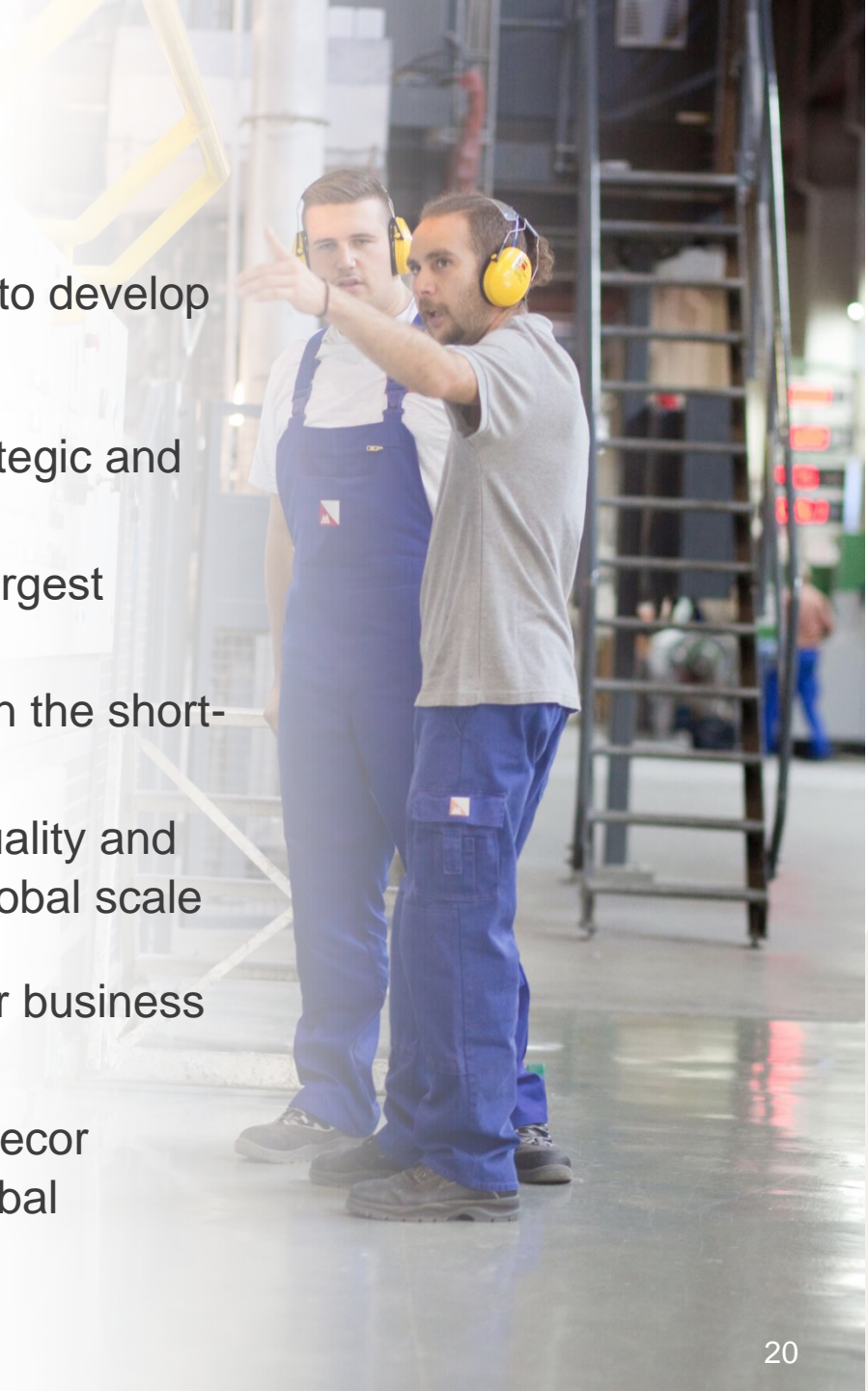


# Exploring strategic alternatives for Decor business



# Exploring strategic opportunities for Decor business with suppliers in China

- Ahlstrom-Munksjö is committed to the Decor business and wants to develop and grow the business in a sustainable manner
- Partnering with a Chinese supplier would be based on strong strategic and financial rationale
  - Create global leader with strong presence in the world's two largest markets
  - Strengthen the business and abilities to serve our customers in the short- and long-term
  - Allow leveraging from industry leading brand, with premium quality and service, and the state-of-the-art production capabilities on a global scale
- Investigating the possibility to attract outside capital into the Decor business
  - Speed up the execution of strategy
  - Outside capital will enable investments to grow and develop Decor business and strengthen our operations into a stand-alone global operation



# Decor

## Demand drivers

- Population and GDP growth
- Rapidly growing middle class in D&E markets driving construction and furniture demand
- Substitution from solid wood, veneer and plastic foils

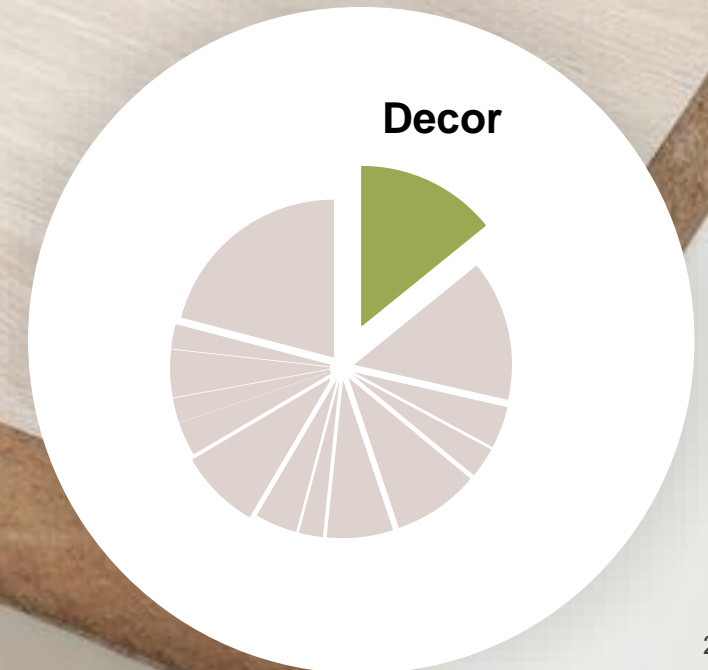
## Key strengths

- Industry leading brand – well established supplier with leading capabilities and reputation in service and quality
- Strong positions in Europe and North America
- Diverse, high quality product and service offering
- Global leader in solid colors and pre-impregnated papers

## Ahlstrom-Munksjö Decor Business Area

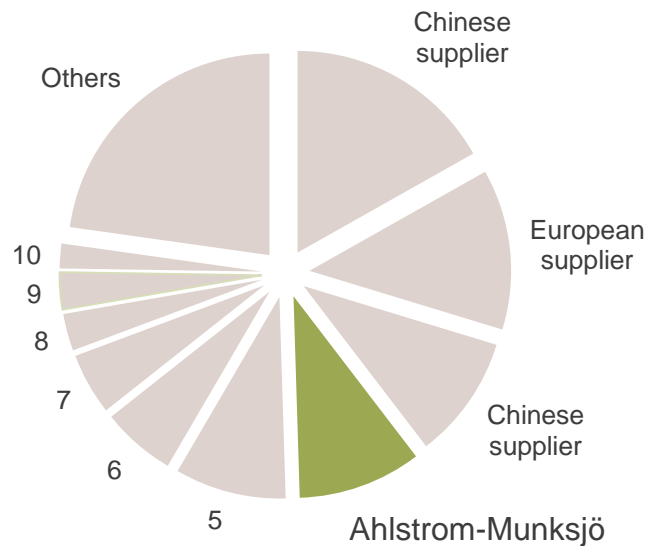
- **Market position:** #2–4
- **Key markets:** Europe and selected export markets
- **Average market growth:** 3% p.a.
- **Annual net sales in 2018:** EUR 452 million
- **Decor production platform**
  - **Dedicated plants:** Unterkochen (DE), Dettingen (DE) and Tolosa (SP)
  - **Shared plants:** Arches (FR) and Caieiras (BR)

### Sales breakdown by business in 2018



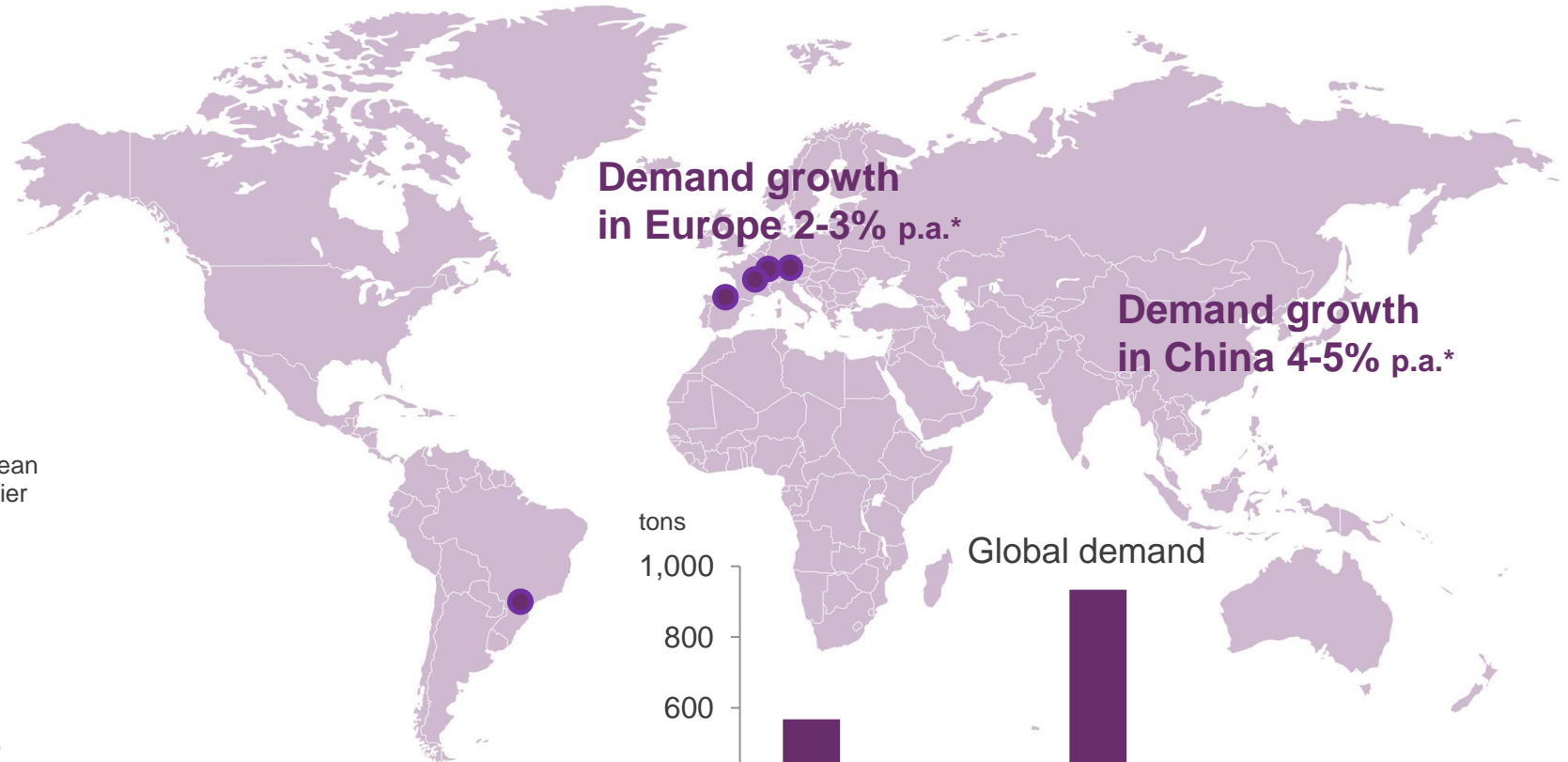
# Strong in Europe and Americas, leading brand globally

Share of global capacity



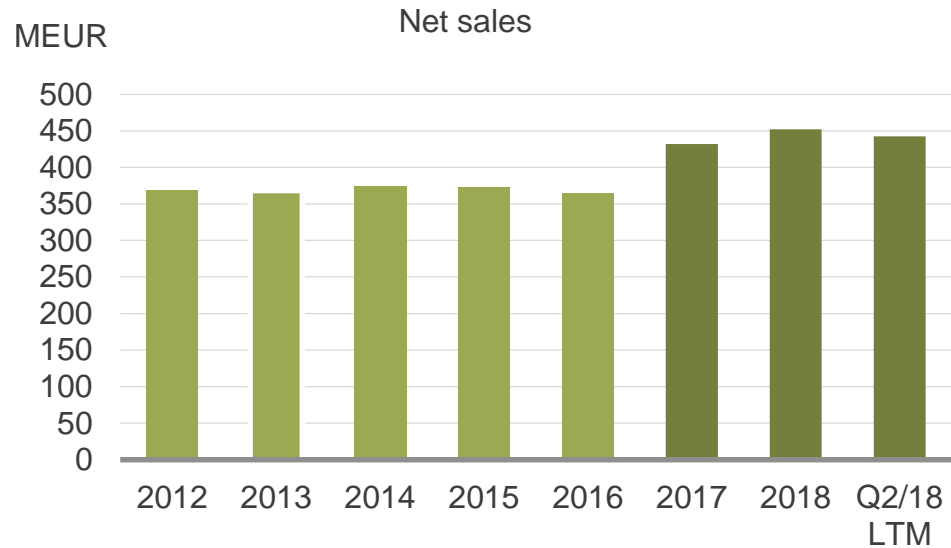
● Ahlstrom-Munksjö's manufacturing site

\* Estimated market growth



# Financial background

## Volatility in profitability driven by fluctuating raw material costs and market demand



### 2012- 2016

- Strong underlying market growth
- Price and mix management driving margin improvement

### 2017

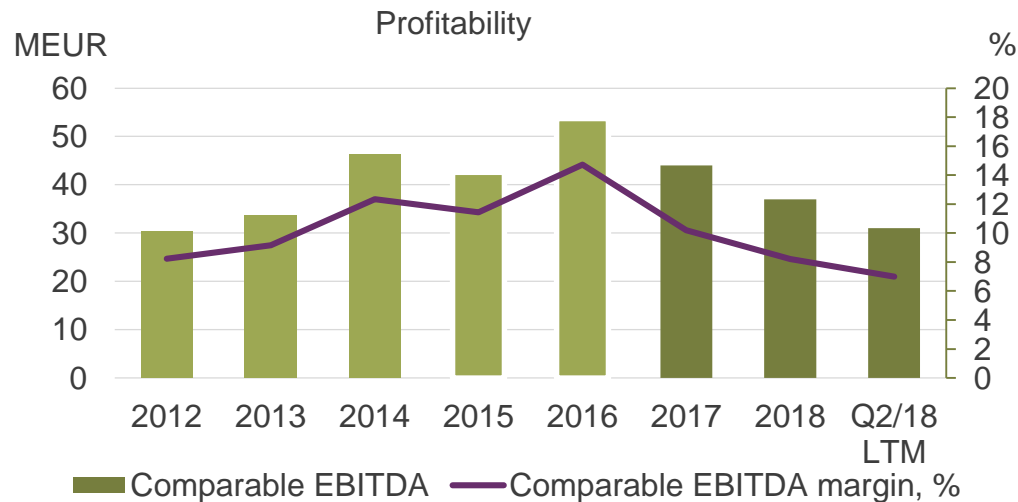
- Rapidly escalating raw material costs driving price increases, margin erosion and inventory build-up across the industry

### 2018

- Volume losses in oversea markets due to price increases and new competition, impacting sales and EBITDA
- Gross margins per ton restored through successful price increases
- Industry-wide de-stocking following the peak of TiO<sub>2</sub> prices in the summer adding further negative impact on sales in the second half of the year
- Sharp decline in market demand

### 2019-

- Continued weak and volatile demand, causing price pressure
- Gross margin per ton maintained on a good level through successful price management



## Strategic Priorities – the way forward

- **Defend and grow leading positions in Europe and North America**
- **Establish a strong growth platform in South America**
- **Entry to China**





# Defend and grow leading positions in Europe and North America

- **Continue optimization of product and customer mix**
  - Further enhance capabilities in the most attractive segments
  - Colors and pre-impregnated papers
- **Maintain leadership in quality, service and innovation to deliver the best customer value**
  - Investment at the Dettingen plant, Germany, to enhance the quality of pre-impregnated decor papers
- **Improve cost competitiveness and production efficiency**
  - Enhanced raw material and energy efficiency (best practice implementation)
  - Harmonization of colors and product line optimization
  - Optimize supply footprint and long-term investment strategy
- **Continue to be a forerunner in sustainability**

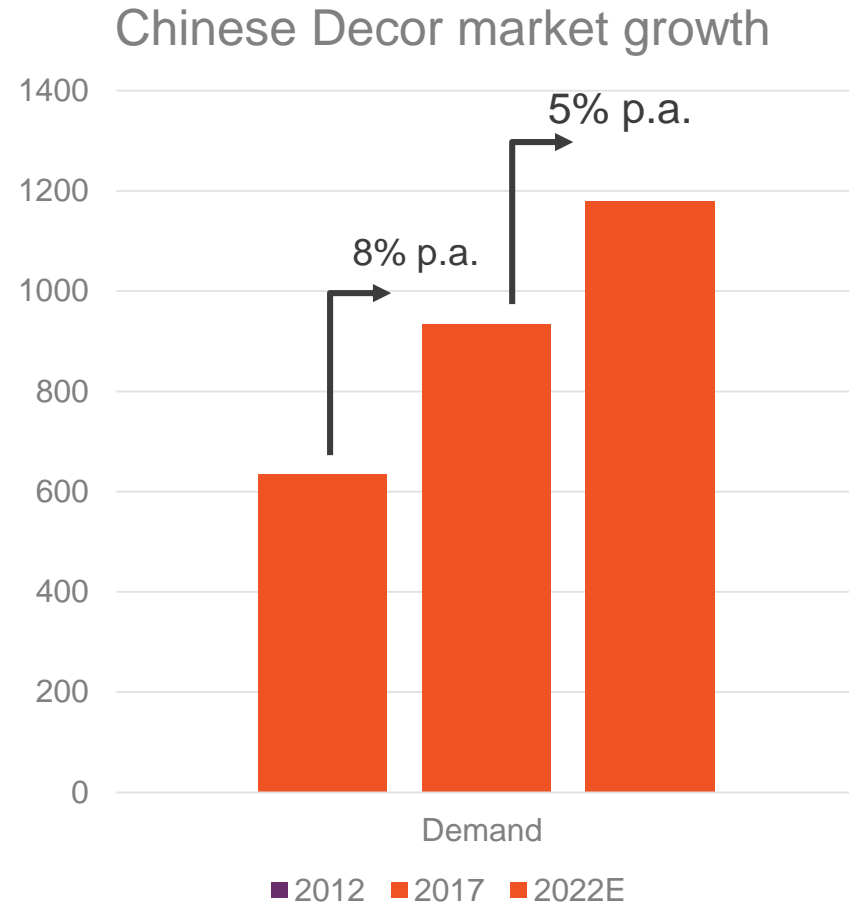


# Establish a strong growth platform in South America

- **As the only decor producer in South America, Caieiras offers a unique platform to grow in Latin American markets**
- **A program to realize Caieiras full potential is being implemented**
  - Sourcing
  - Optimization of recipes
  - Claim reduction program
  - Product line optimization
  - Trainings and best practice transfer
- **Sales and technical customer service being integrated step by step**
- **Investment program to enable Caieiras to grow and qualify as print based paper supplier is being developed and finalized**



# Chinese decor paper market – rapidly growing big market



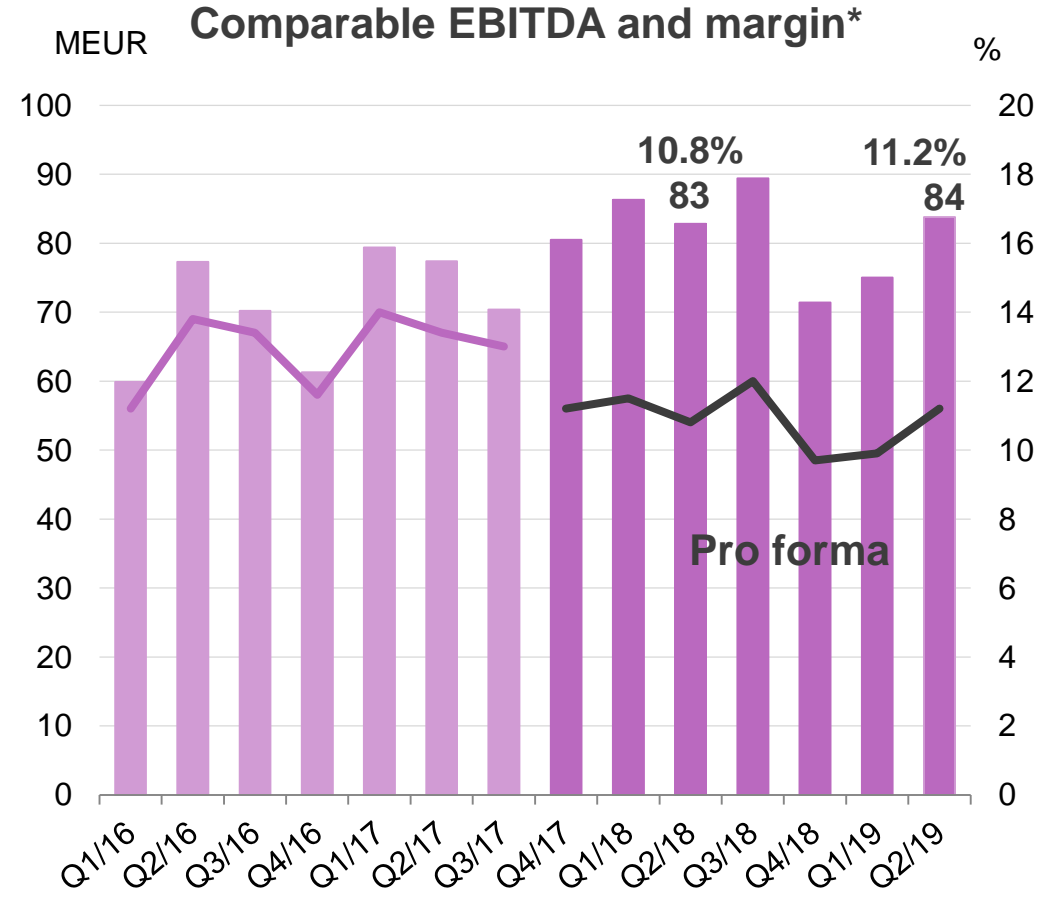
- After two decades of rapid growth, China is currently the world's largest decor paper market
- In 2018, annual demand increased by 7% compared to 2017
- Two-third of global demand growth is expected to come from China
- High-quality segment growing significantly faster than the market

# Highlights Q2/2019



# Highlights Q2/2019

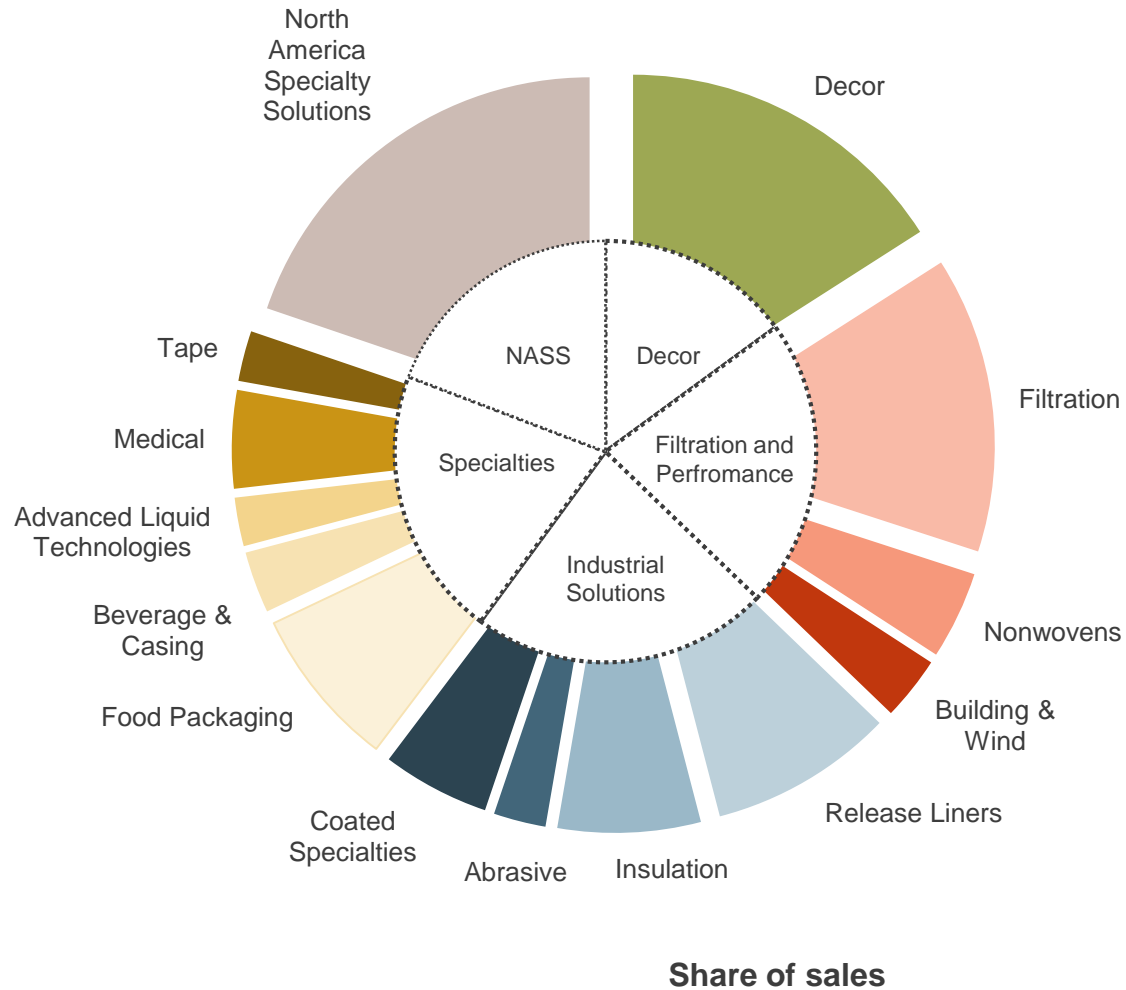
- 25% increase in actual comparable EBITDA, supported by the Expera and Caieiras acquisitions
  - Comparable EBITDA increased to EUR 84 million from EUR 83m (pro forma) in Q2/18 and EUR 75m in Q1/19
- Profitability continued to improve, fueled by further increase in gross margin for products
  - Volumes remained low
- Cash flow improved
- The market environment remained uncertain with fluctuating demand
- Sustainability work awarded with third consecutive EcoVadis Gold rating



\*Years 2016-Q3/2017 Ahlstrom-Munksjö excluding NASS and Caieiras



# Uncertain market environment in Q2/2019



- **Filtration and Performance**

- Demand for filtration products slowed
- Growth remained solid in glass fiber tissue and industrial filtration applications

- **Decor**

- Demand for decor paper weakened, markets remained competitive

- **Industrial Solutions**

- Demand for abrasive backings, coated products and specialty pulp was weak
- Demand for release liners improved, markets remained competitive
- Demand for electrotechnical insulation papers improved

- **Specialties**

- Demand for food processing and packaging papers as well as beverage materials weakened, growth continued in fibrous casing materials
- Growth remained solid in life science, water purification and healthcare materials
- Demand weakened for tape backing in Europe and Americas, remained strong in Asia

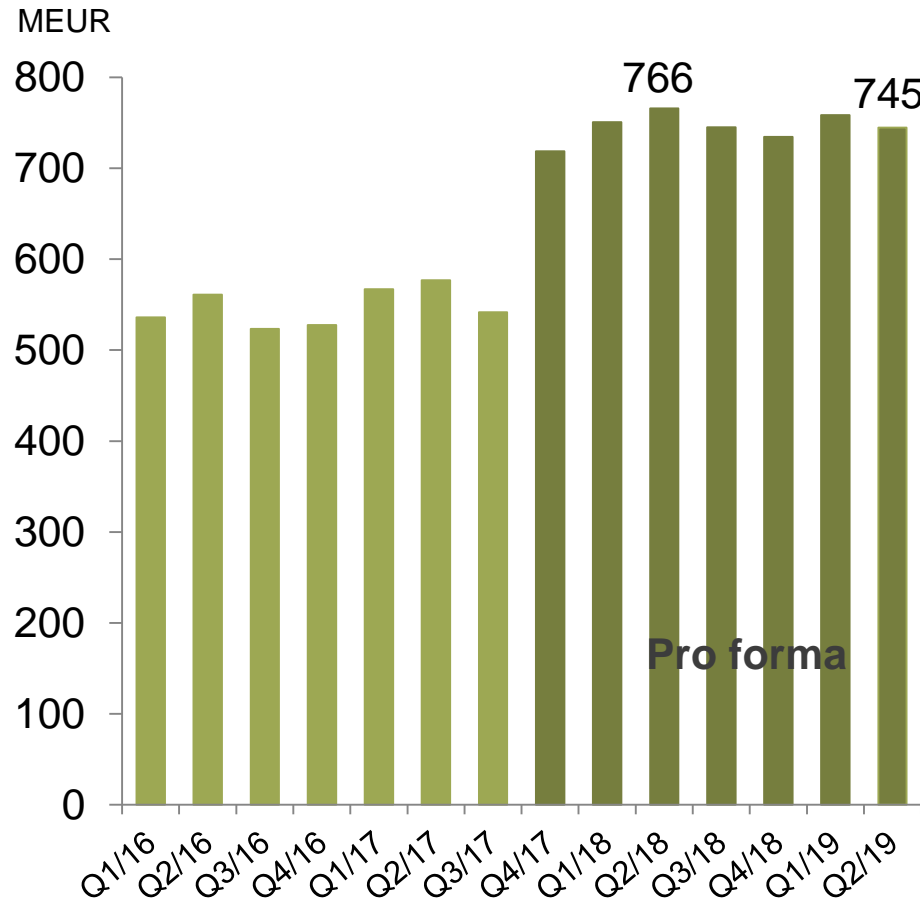
- **North America Specialty Solutions**

- Stable demand in food processing and packaging papers
- Soft demand for industrial and technical papers
- Weak demand for commodity release liners
- Strong demand for coated products

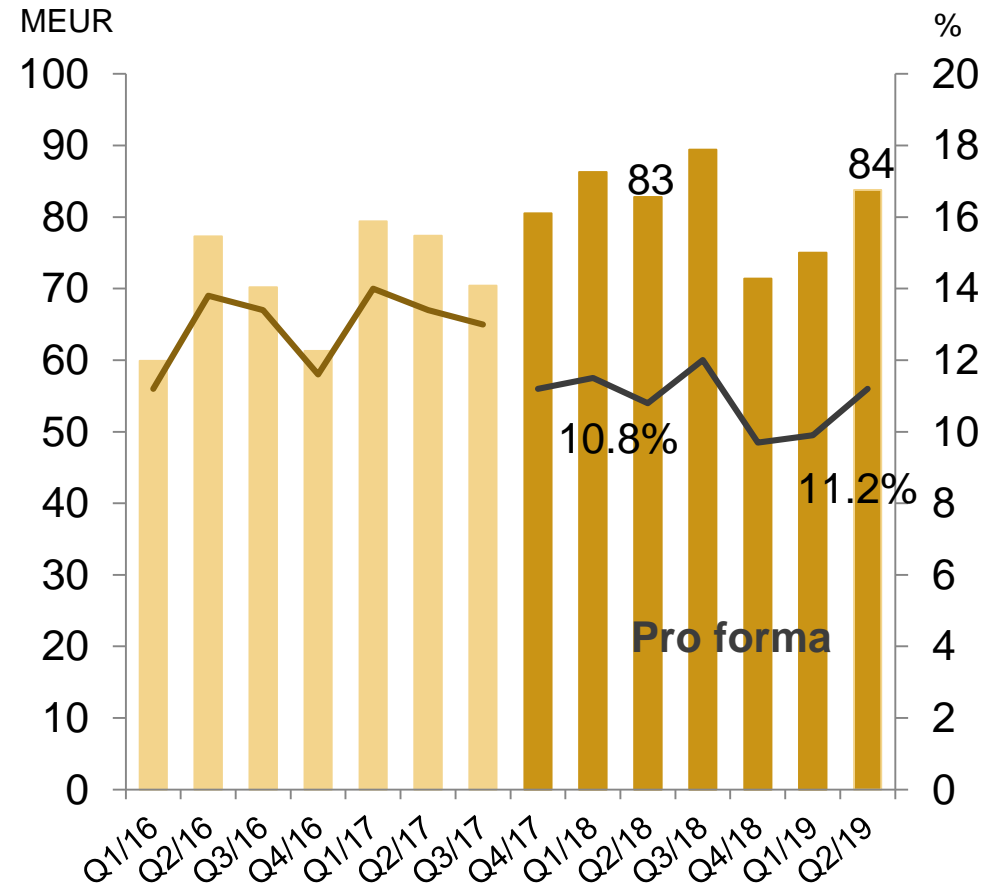


# Net sales impacted by lower volumes, selling prices increased

## Sales\*



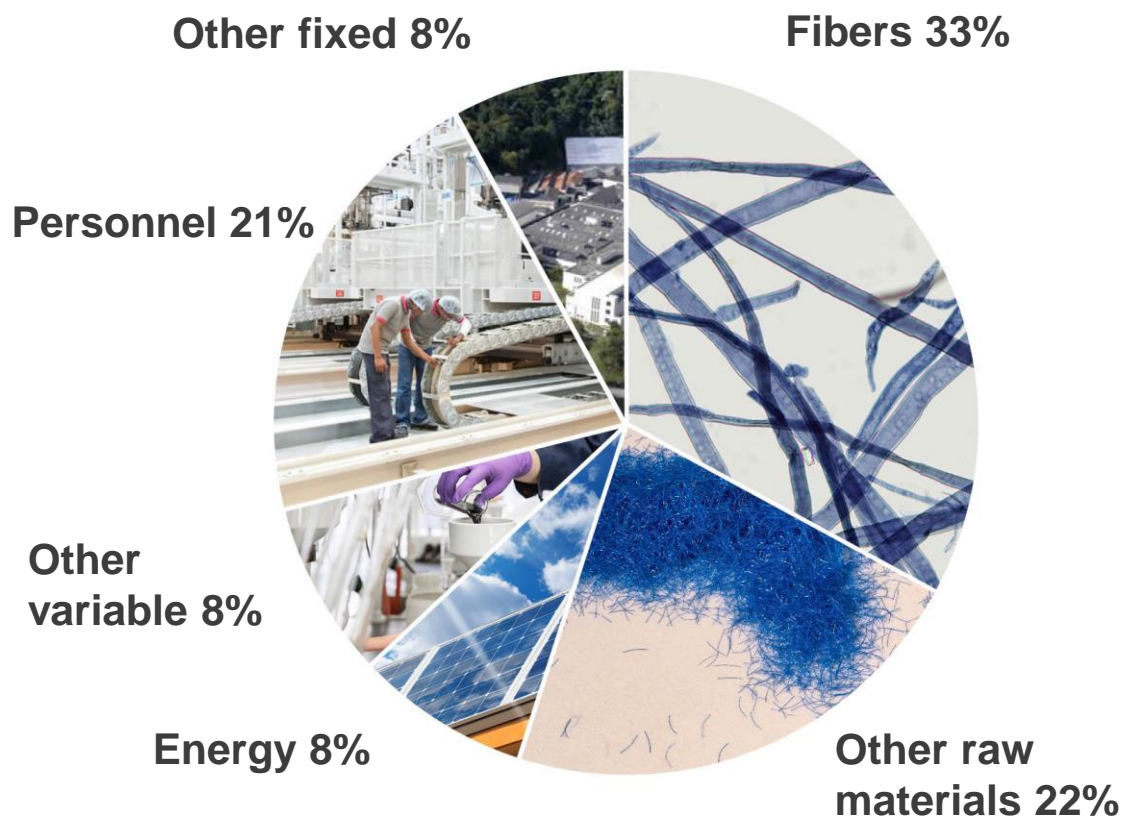
## Comparable EBITDA and margin\*



\*Years 2016-Q3/2017 Ahlstrom-Munksjö excluding NASS and Caieiras



# Raw material cost increase of EUR 23 million successfully compensated (Q2/19 vs Q2/18)



## Snapshot of market reference prices in Europe, Q2/19 vs Q2/18

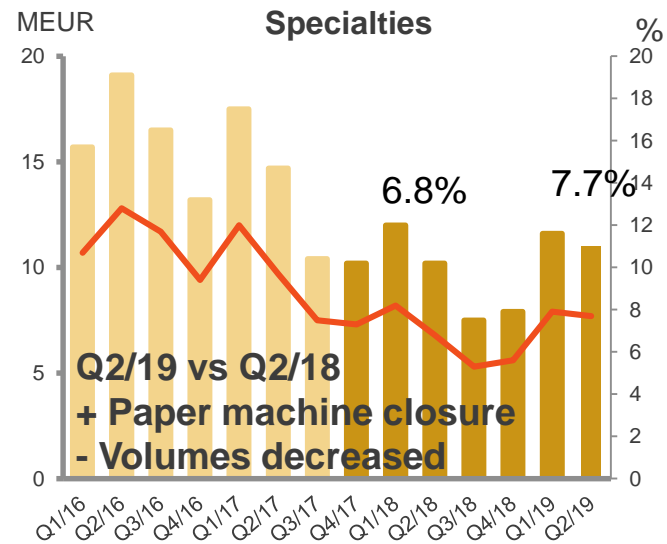
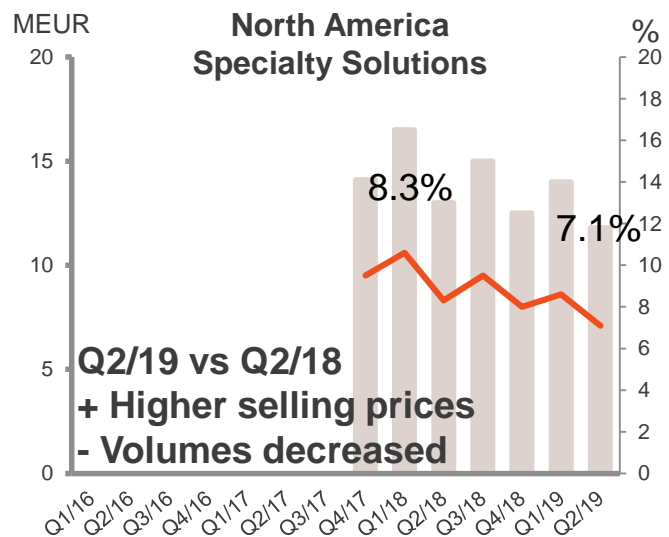
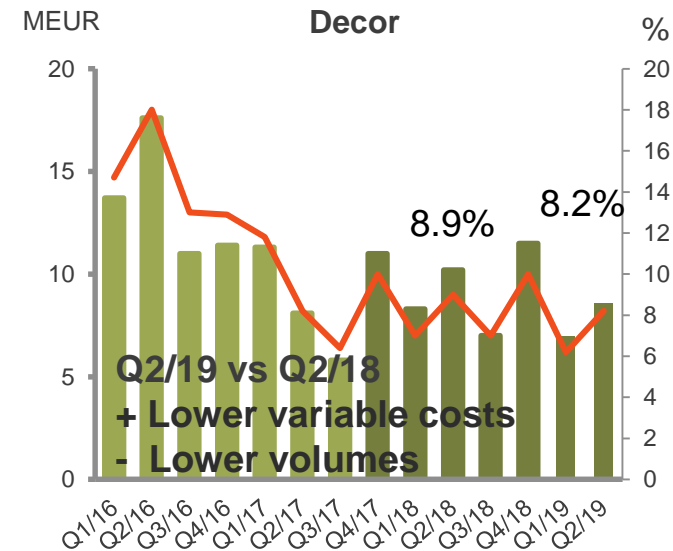
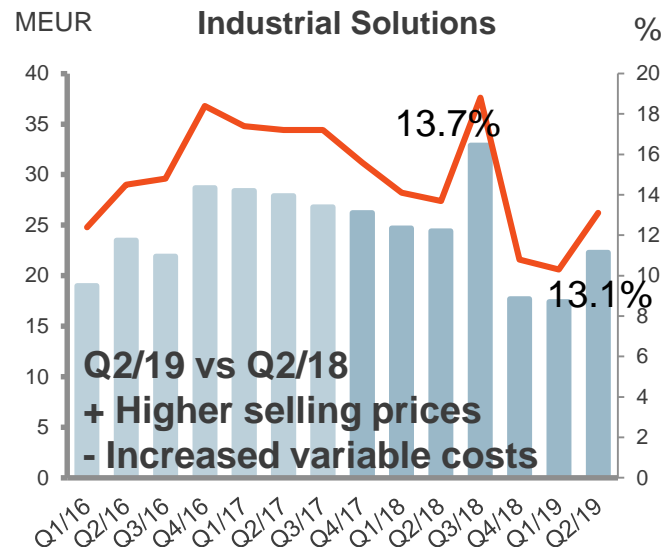
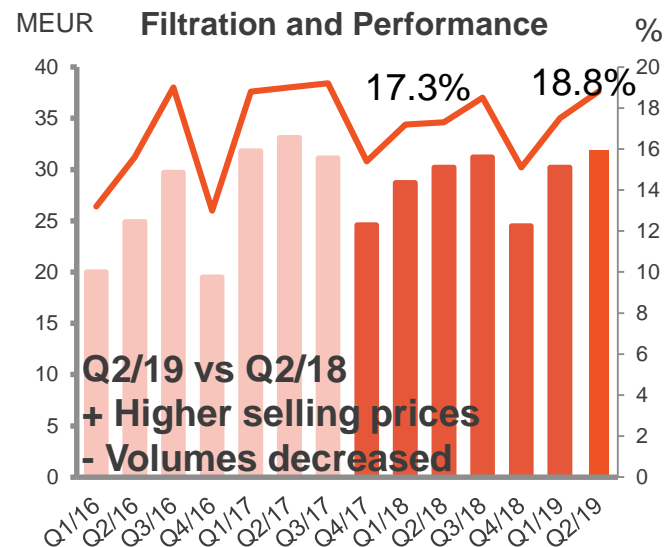
– Hardwood pulp	-10%
– Softwood pulp	-10%
– Tio2	-11%
– Natural gas	-3%
– Electricity	+21%

Note pulp prices in USD, market prices tend to impact the company's profitability with a lag of about three months





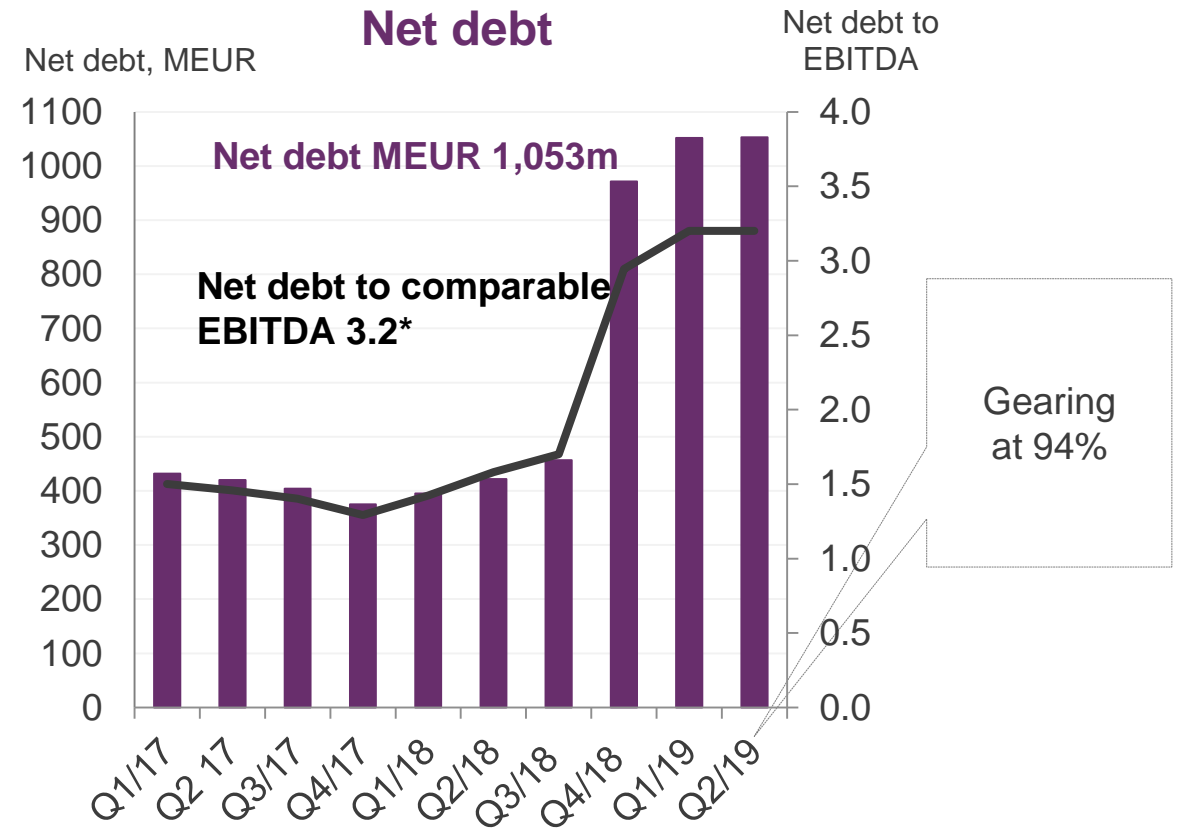
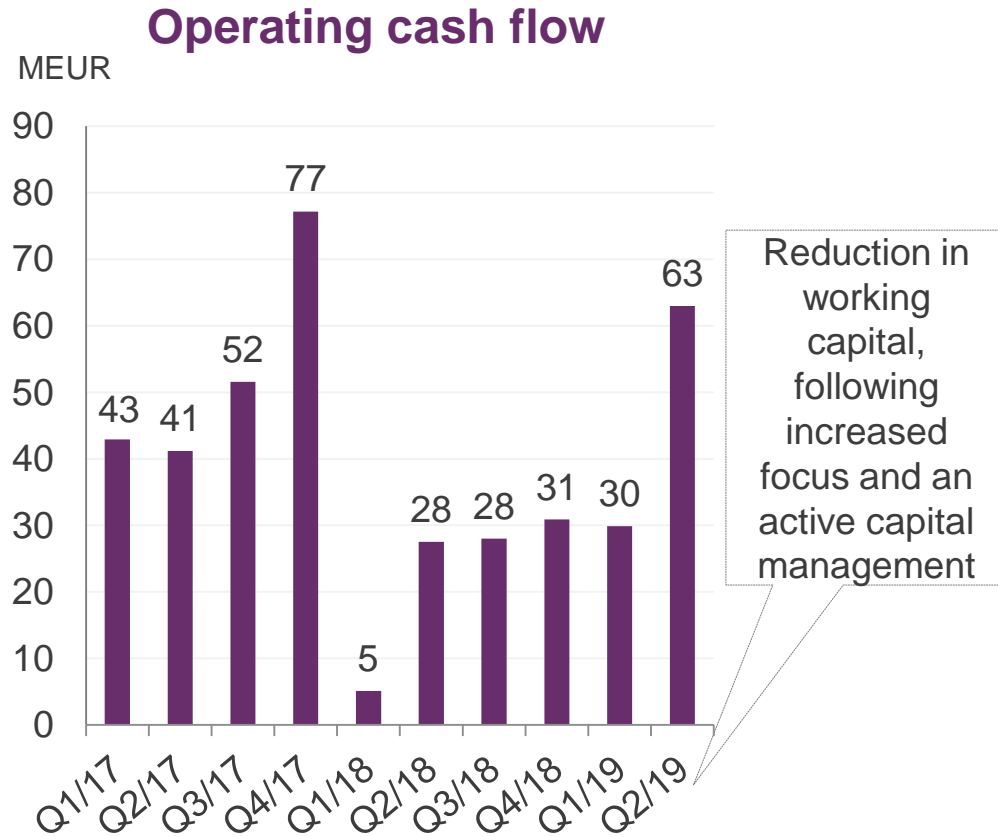
# Comparable EBITDA and margin by business area\*



\*Years 2016-Q3/2017 Ahlstrom-Munksjö excluding NASS and Caieiras



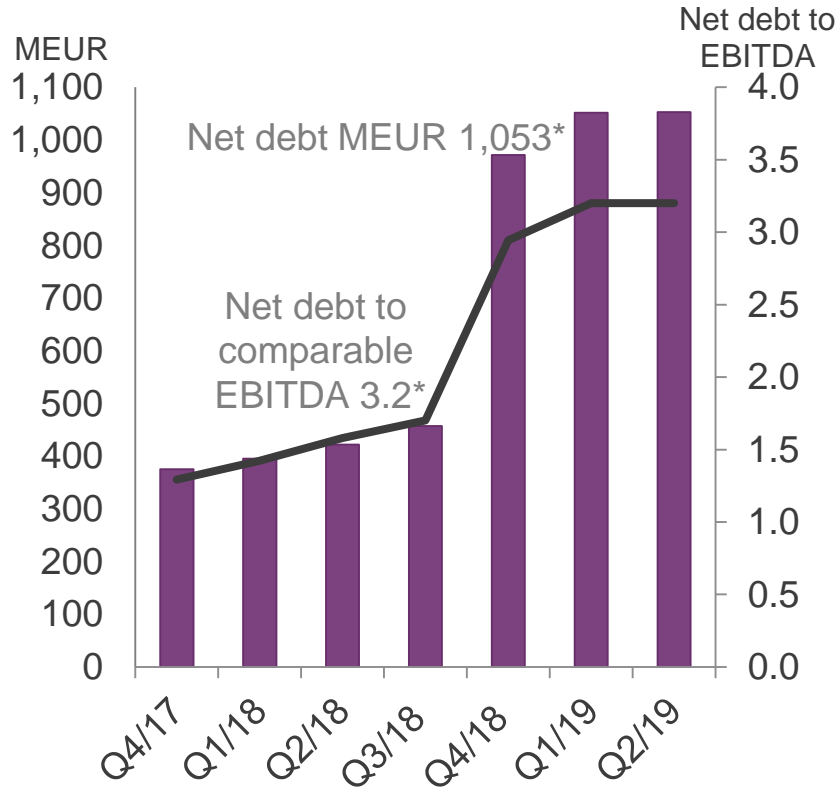
# Cash flow impacted by a reduction in working capital



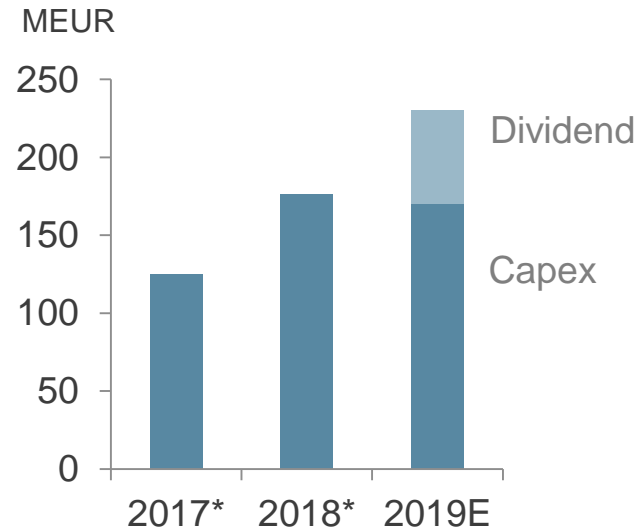
\* The implementation of the new IFRS 16 standard, which is excluded from debt covenant calculations, increased net debt by EUR 55 million and EBITDA by EUR 8.0 million in 1-6/19

# Capital generation and allocation

## Net debt

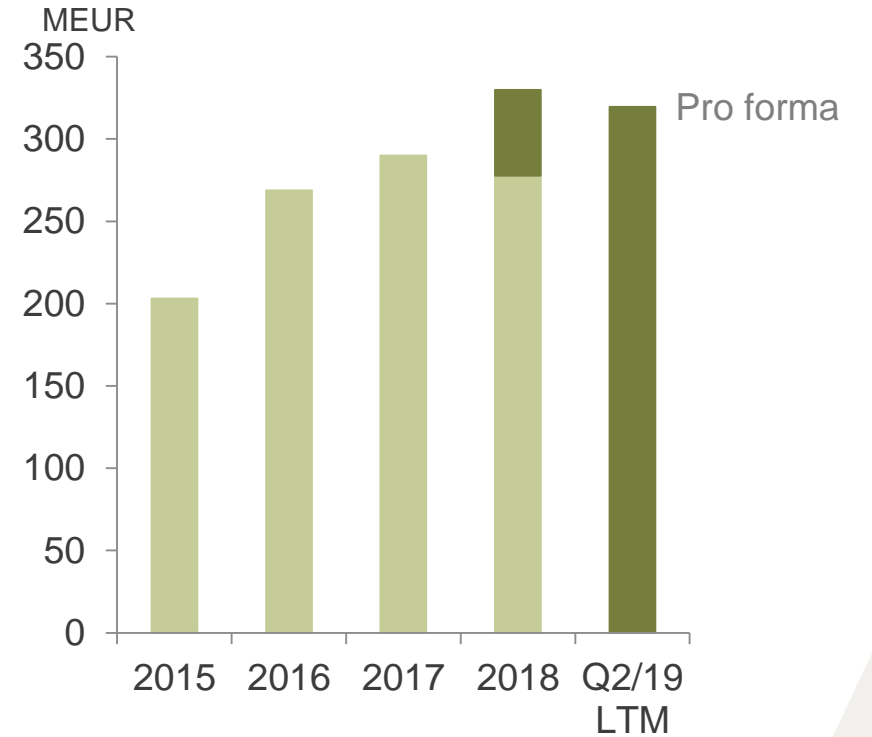


## Capital allocation



\* Pro forma

## Comparable EBITDA\*\*



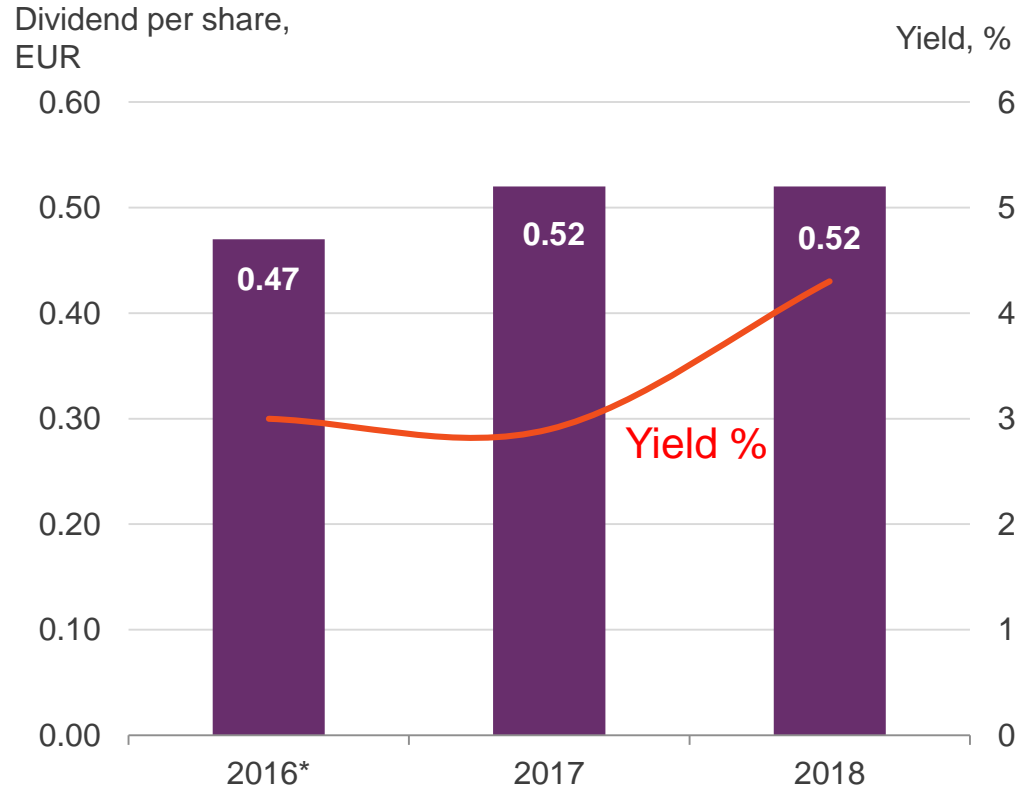
\*\*Years 2015-2017 Ahlstrom-Munksjö excluding NASS and Caieiras

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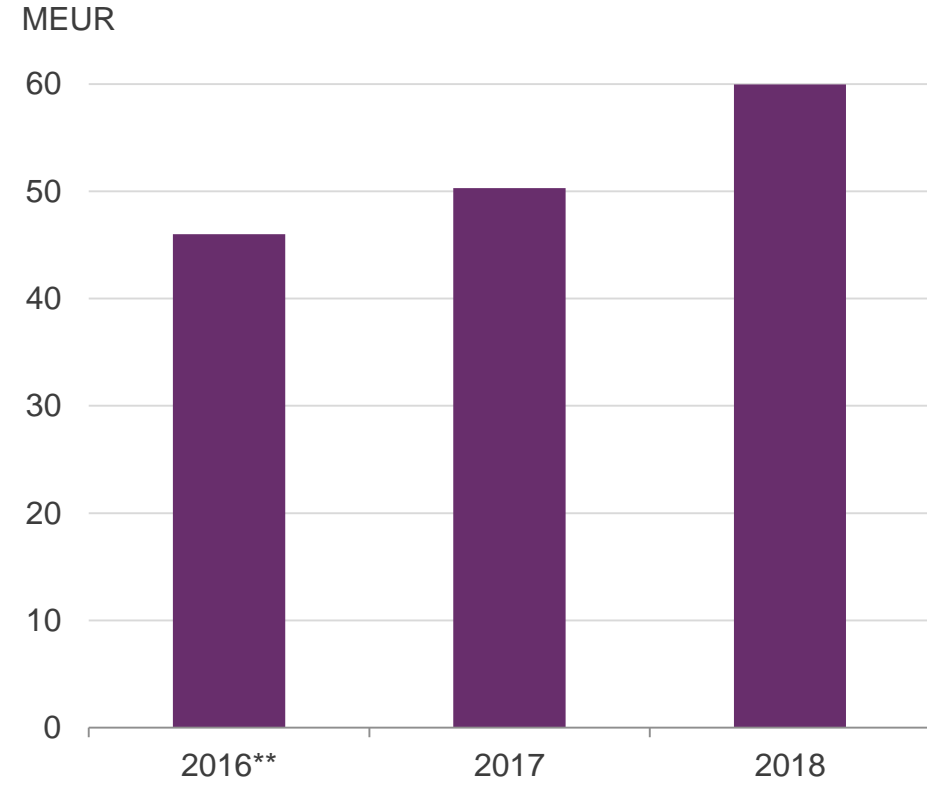
# Dividend: EUR 0.52 per share for 2018

## Dividend per share and yield %



\* Converted by using the same number of shares as in 2017

## Dividend



\*\* Total dividend of Ahlstrom and Munksjö



## Outlook for 2019

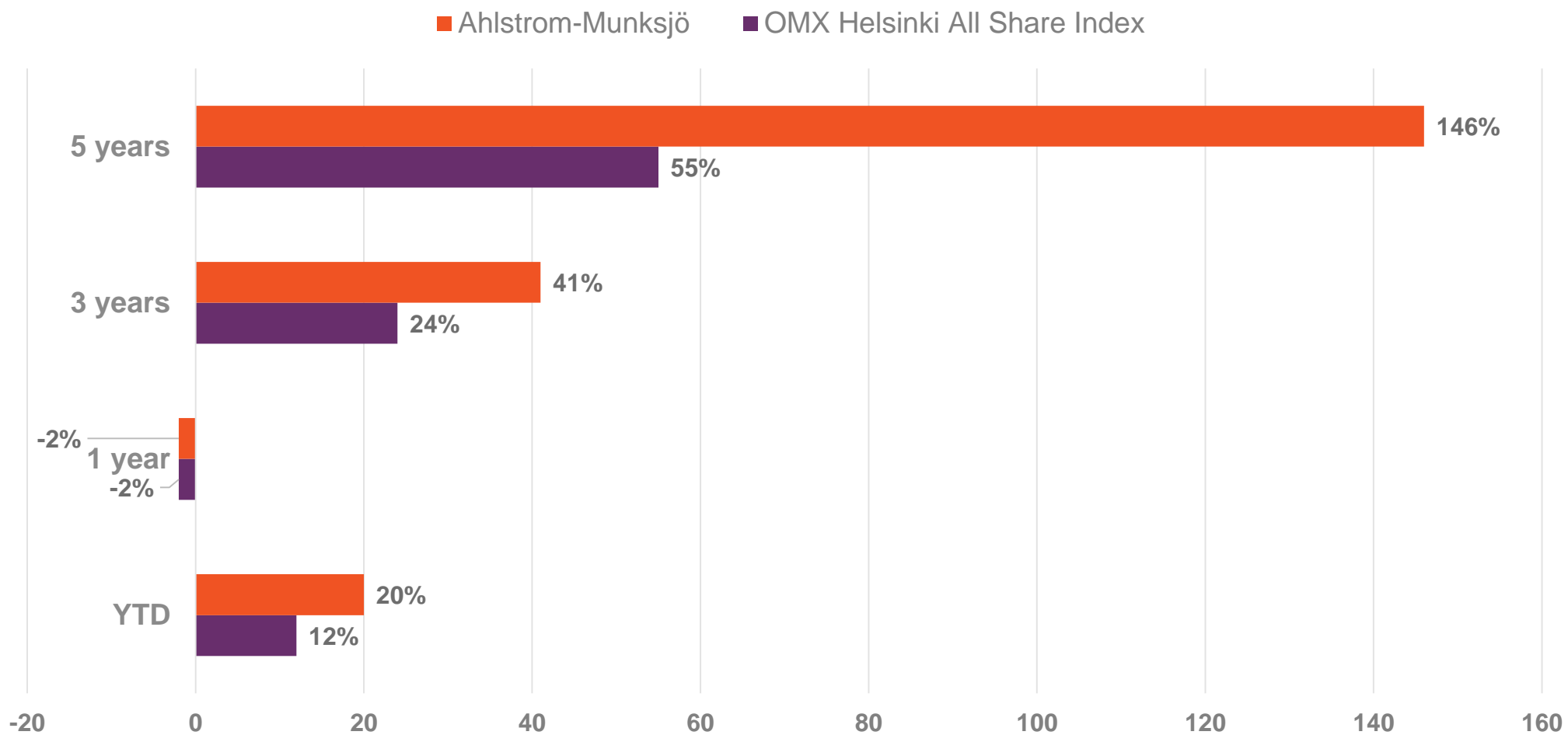
“Ahlstrom-Munksjö’s pro forma comparable EBITDA reached EUR 330 million in 2018.

At the beginning of 2019, customers reacted to signs of slowing economic growth. Demand has slowed somewhat in certain product segments and customers have reduced inventories. The overall market environment remains uncertain and demand continues to fluctuate.

Ahlstrom-Munksjö will continue its efforts to improve performance and competitiveness. The gross margin for products continued to increase in the first half of 2019 and the targeted synergy benefits and cost reduction measures are expected to contribute positively to earnings for the full year.”



# We have created value\*



\*Total shareholder return at September 30, 2019



# Executive Management Team



**Hans Sohlström**  
President and CEO



**Sakari Ahdekivi**  
Deputy CEO and CFO



**Tarja Takko**  
Acting Executive Vice  
President of People and  
Safety



**Andreas Elving**  
Executive Vice President  
Legal and General Counsel



**Daniele Borlatto**  
Executive Vice President of  
Filtration and Performance



**Omar Hoek**  
Executive Vice President of  
Specialties



**Dan Adrianzon**  
Executive Vice President of  
Industrial Solutions



**Robyn Buss**  
Executive Vice President of  
North America Specialty  
Solutions, as of October 1



**Tomas Wulkan**  
Executive Vice President  
of Decor



# Global leader in sustainable and innovative fiber-based solutions

*BA structure based on core capabilities and business characteristics as of Jan. 1, 2020.*

## **“Product excellence”**

*New product development and technologies  
Mainly global customers and business*

## **“Performance excellence”**

*Product quality development, efficiency and continuous improvement  
Mainly regional customers and business with regional PM optimization*

EVP Daniele Borlatto

EVP Omar Hoek

EVP Dan Adrianzon

EVP Robyn Buss

EVP Tomas Wulkan

**Filtration and  
Performance  
Solutions**

**Advanced  
Solutions**

**Industrial  
Solutions**

**Food and  
Technical  
Solutions**

**Decor  
Solutions**





# Appendix



# History of Ahlstrom-Munksjö

Over 160 years of industrial leadership

**1851**

Antti Ahlström starts his business



**1862**

The first Munksjö paper mill is established in Jönköping by Johan Edvard Lundström och Lars Johan Hierta



**1896**

After Antti's death, his wife Eva Ahlström becomes one of the first female industrialists in Finland



**1908**

A. Ahlström Osakeyhtiö is established



**1919**

The first listing of Munksjö AB shares on the Stockholm Stock Exchange

**1960's**

Ahlström's internationalization starts through acquisition in Turin, Italy



**1987-2000**

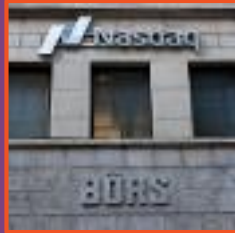
Ahlström focuses on specialty papers and fiber solutions by divesting fine paper and paper machinery businesses and acquiring e.g. Sibille-Dalle and Dexter businesses

# History of Ahlstrom-Munksjö

Constantly re-imagining fiber

**2006**

Ahlstrom Corporation listed on Nasdaq Helsinki



**2001**

Ahlström demerges into Ahlstrom Corporation, Ahlström Capital Oy and A. Ahlström Osakeyhtiö

**2011**

Munksjö purchases ArjoWiggins' decor, thin print and fine art paper, and abrasive backings businesses in France and Germany



**2013**

Ahlstrom's label and processing business merges with Munksjö

**2017**

Ahlstrom and Munksjö merge into Ahlstrom-Munksjö

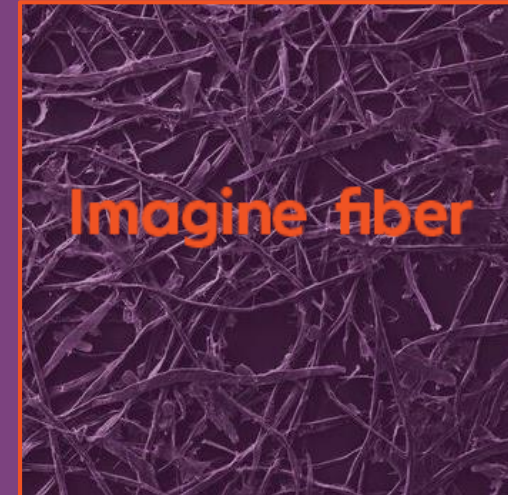


**2019**

Expéra and Caieiras acquired to strengthen regional growth in North and South America

**2019-**

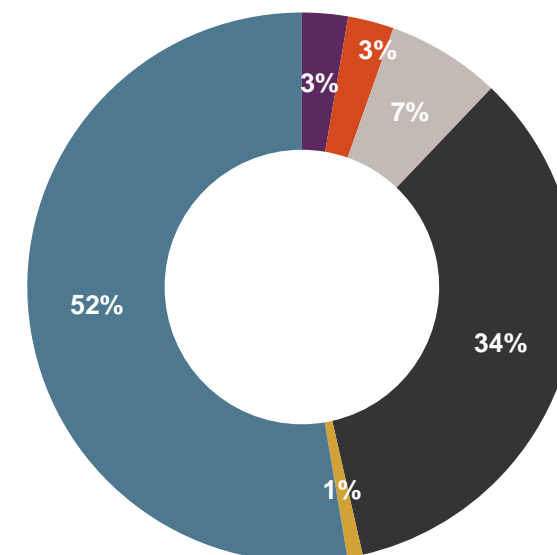
We continue to imagine fiber in a sustainable manner



# We have over 13,000 shareholders

Shareholders	Shares	% of shares
1 Ahlström Capital Oy	21,618,957	18,69
2 Viknum AB	14,048,006	12,15
3 Ilmarinen Mutual Pension Insurance Company	4,095,593	3,54
4 Odin Funds	2,588,280	2,24
5 Huber Mona Lilly	2,294,006	1,98
6 Varma Mutual Pension Insurance Company	2,089,532	1,81
7 Tracewski Jacqueline	1,512,926	1,31
8 Nahi Kai Anders Bertel	1,478,950	1,28
9 Studer Anneli	1,235,653	1,07
10 Gullichsen Johan Erik	1,171,068	1,01
11 Huber Karin	1,170,553	1,01
12 Sumelius John Michael	1,154,388	1,00
13 Emmett Linda-Maria	1,137,627	0,98
14 Kylmälä Kim	1,128,888	0,98
15 Elo Mutual Pension Insurance Company	1,090,434	0,94
16 Seligson Peter	1,074,576	0,93
17 Huber Samuel	1,041,307	0,90
18 Lund Niklas Roland	1,034,920	0,89
19 Nordea Funds	988,508	0,85
20 Koivulehto Monica	981,690	0,85
<b>20 largest shareholders total</b>	<b>62,935,862</b>	<b>54,42</b>
<b>Nominee registered</b>	<b>16,158,105</b>	<b>13,97</b>
<b>Other shares</b>	<b>36,559,348</b>	<b>31,61</b>
<b>Total</b>	<b>115,653,315</b>	<b>100</b>

## Shareholders by sector\*



- Private companies
- Fin. and ins. Institutions
- Public sector (incl. mutual pensions)
- Households in Finland
- Non-profit org.
- Foreigners (outside Finland and nominee registered)

\*According to Euroclear Finland

The table is compiled by Ahlstrom-Munksjö by using the Information based on Euroclear Finland and Euroclear Sweden. Ownership as of September 30, 2019.



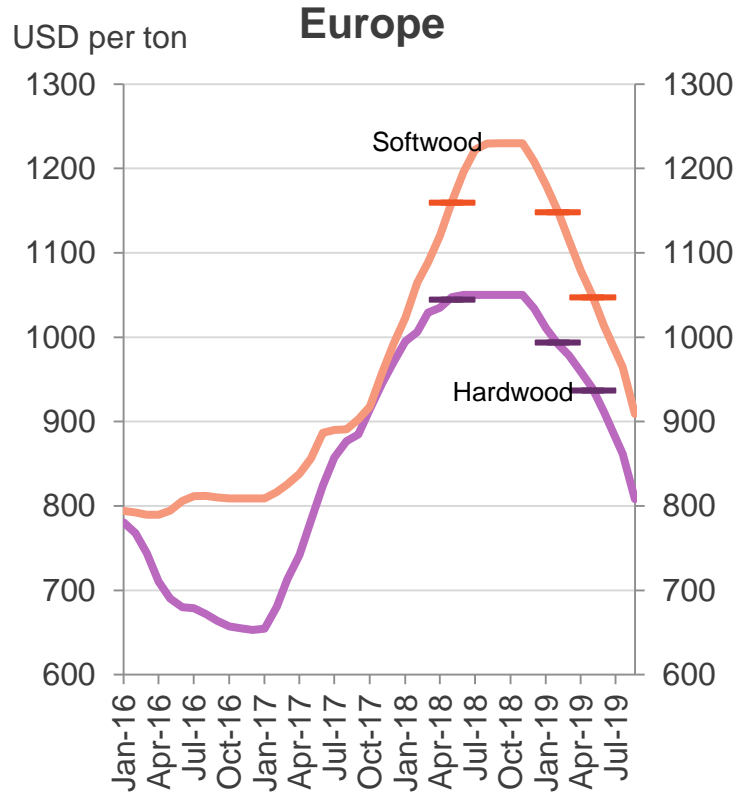
# Peer group valuation

Company	P/E	P/E 2019	P/E 2020	EV/EBITDA	EV/EBITDA 2019	EV/EBITDA 2020	P/B	ROE
<b>Median</b>	<b>18,7</b>	<b>15,5</b>	<b>13,7</b>	<b>9,5</b>	<b>8,3</b>	<b>7,7</b>	<b>1,5</b>	<b>12.1%</b>
AHLSTROM-MUNKSJÖ	94,6	15,4	10,5	11,2	8,4	6,8	1,4	1.6%
UPM-KYMMENE	9,9	13,3	13,7	6,5	8,2	8,4	1,5	16.1%
STORA ENSO	10,7	11,7	11,2	9,2	8,3	8,1	1,3	12.7%
METSA BOARD	9,3	13,4	12,4	9,7	7,8	7,7	1,5	16.5%
GLATFELTER	39,3	20,8	14,2	--	8,7	7,3	1,2	-26.8%
NEENAH PAPER	21,0	18,6	15,9	11,4	10,6	9,3	2,6	12.6%
OWENS CORNING	12,0	13,2	11,5	7,7	8,0	7,5	1,5	12.1%
LYDALL	28,4	15,5	10,7	7,3	7,1	6,3	1,1	2.7%
SUOMINEN	--	28,1	13,7	7,8	6,2	5,5	1,0	-1.2%
BILLERUDKORSNÄS	16,4	20,0	14,4	11,5	12,0	9,6	1,6	9.6%
ESSITY	23,9	19,9	17,7	14,6	12,3	11,1	4,2	18.0%

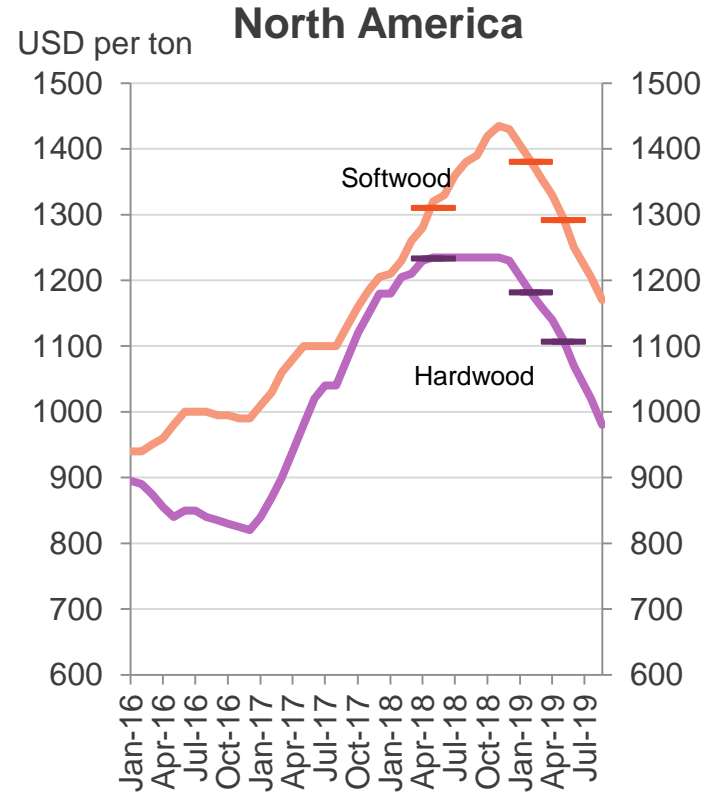
Source: Bloomberg October 2, 2019



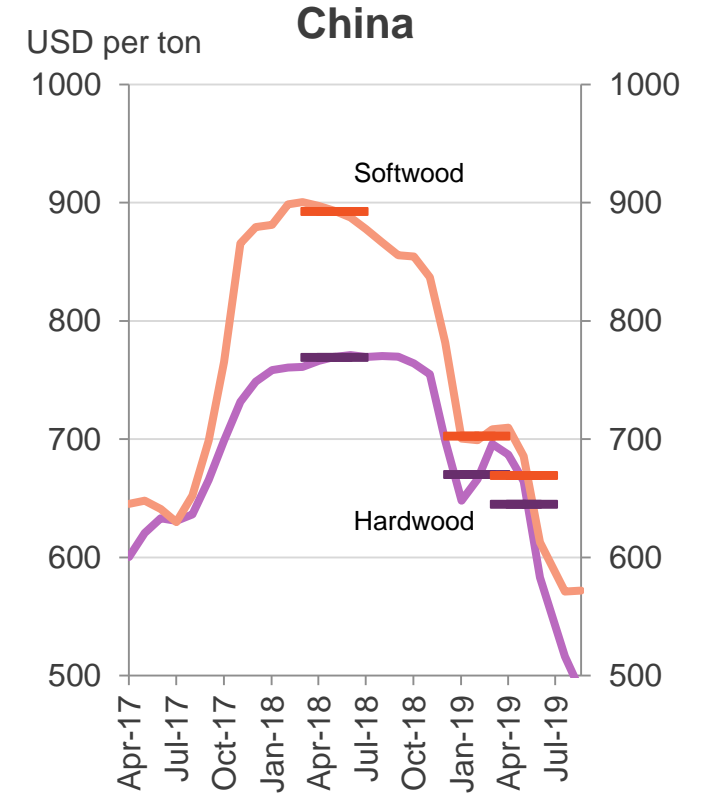
# Key raw materials price development



Europe		
Price change, %	Q2/Q2	Q2/Q1
Hardwood	-10	-6
Softwood	-10	-9



North America		
Price change, %	Q2/Q2	Q2/Q1
Hardwood	-10	-6
Softwood	-1	-6



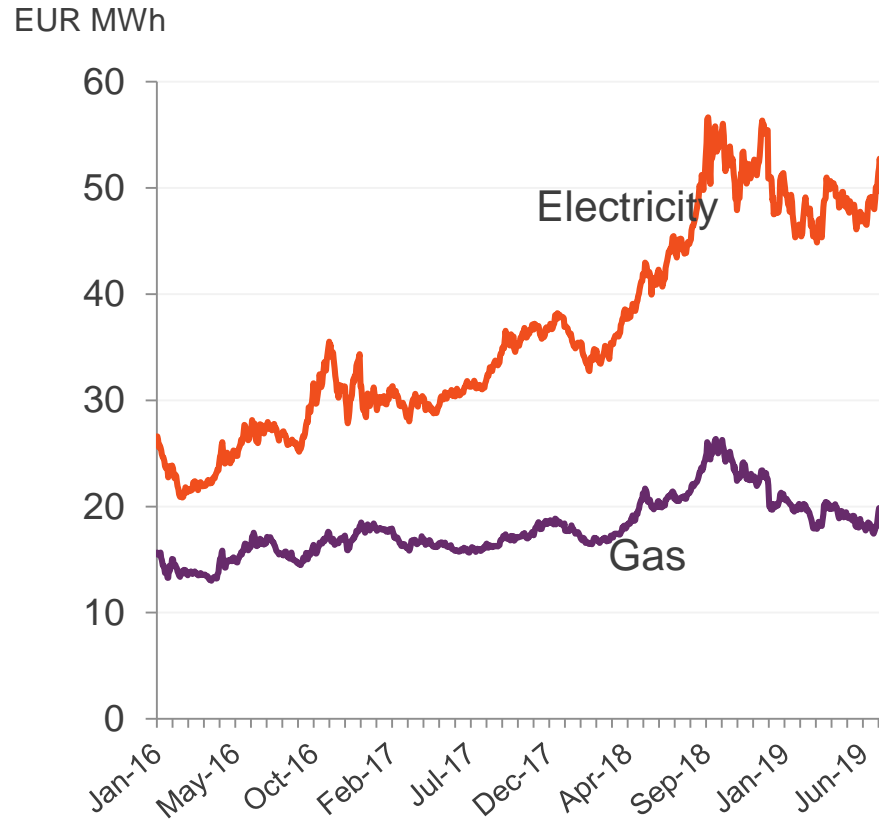
China		
Price change, %	Q2/Q2	Q2/Q1
Hardwood	-16	-4
Softwood	-25	-5

Source: RISI



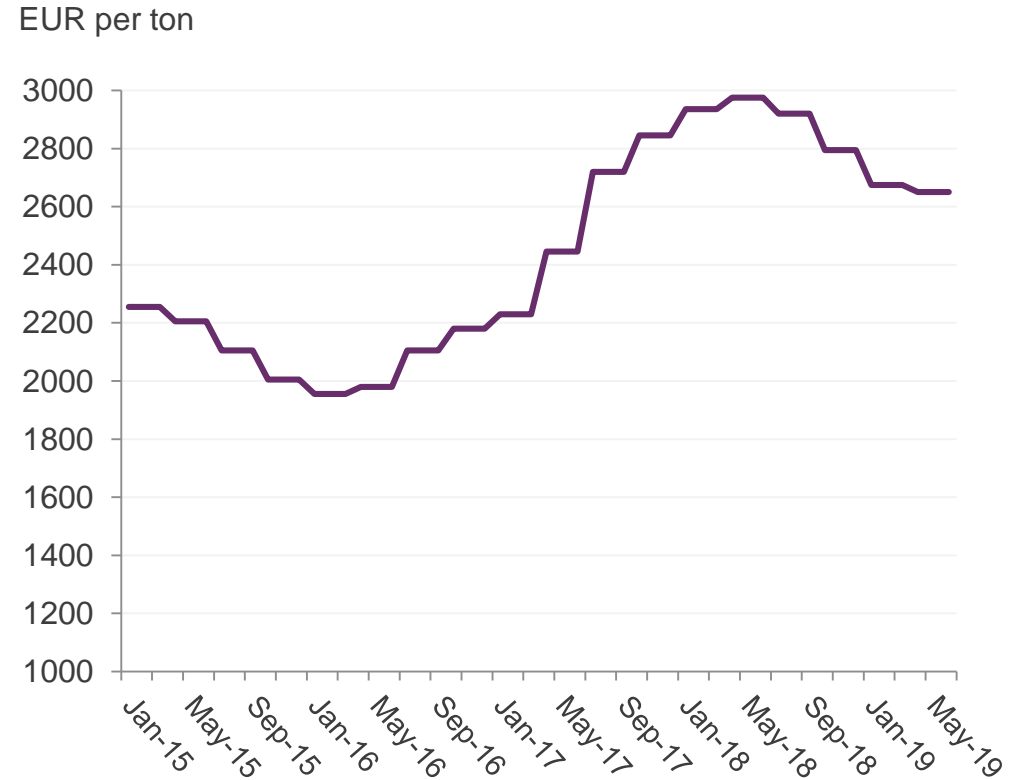
# Key raw materials

## European forward electricity and gas prices



Source: E&C consultants

## Titanium dioxide



Source: ICIS Europe FD



## Cash flows by currency before financing (pro forma)

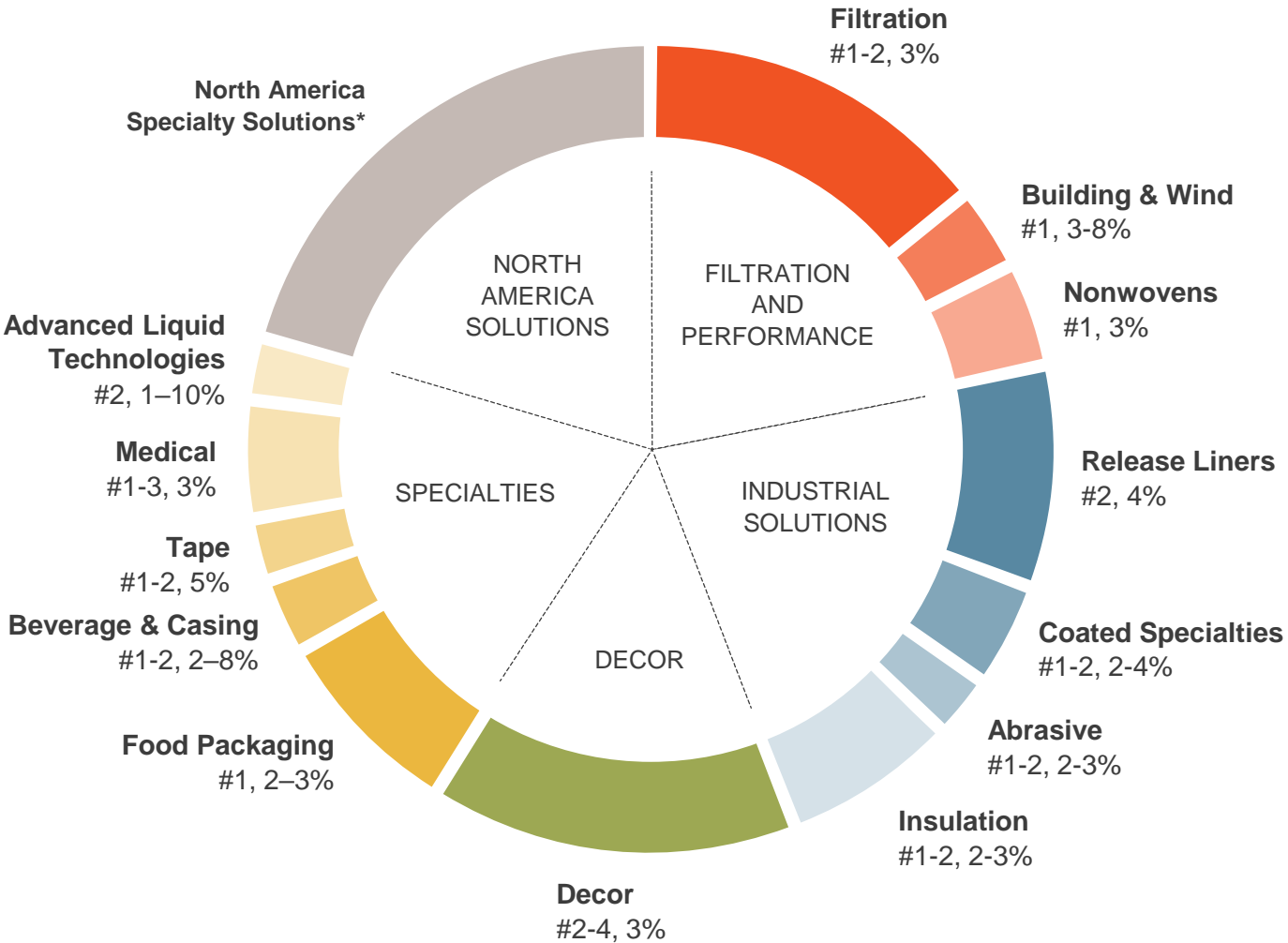
EUR million in 2018	EUR	SEK	USD	BRL	CNY	KRW	Other
Net sales	1,210	55	1,440	145	65	20	62
Operating costs	-1,315	-195	-1,240	-145	-50	-45	-57
Net cash flow	-105	-140	200	0	15	-25	5





# Businesses

# Leading positions in growing markets



**Share of sales**

# Market position in strategic segments

% Market growth in percentage

\* One of the leading suppliers in the relevant product segments



## Filtration

### Demand drivers

- Growing truck and passenger fleet
- More stringent emission regulation, new filter applications in electrical mobility
- Higher air quality standards

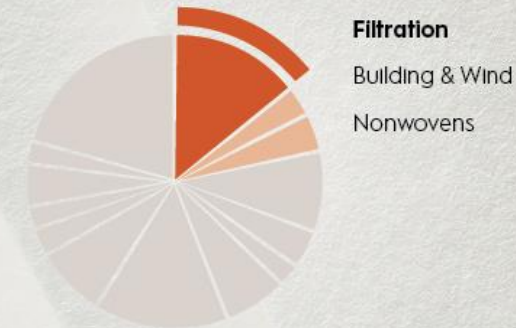
### Strengths

- Global leadership engine filtration
- Leading in industrial air filtration
- Unique know-how enabling tailor-made developments for engine filtration customers
- Wide and unique technology platform and strong R&D capabilities in industrial filtration

### Going forward

- Filtration seeks to further reinforce its global leadership in engine filtration and grow in China and elsewhere
- The industrial filtration will be expanded, and new filtration applications developed to capitalize from the electrification of mobility

SALES BREAKDOWN BY BUSINESS, 2018



- **Market position #1-2**
- **Average market growth 2-5% p.a.**



## Filtration and Performance

# Building & Wind

### Demand drivers

- Building, construction and renovation activity
- Substitution from other flooring reinforcements such as mineral felt in North America
- Energy saving regulations and need for lighter building and transportation materials
- New and upgrade investments in wind turbines

### Strengths

- Agile customer service, and close customer relationships for all products
- Unique glass fiber tissue production technology

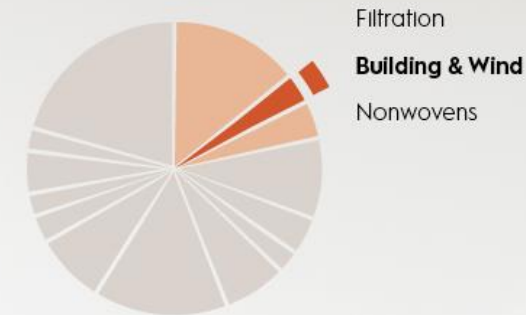
### Weak position in Fabrics

- Focus on quality and delivery flexibility

### Going forward

- Defend global leadership in glass fiber tissue for flooring applications and expand portfolio of applications for glass fiber tissue. In fabrics, seek product differentiation, e.g. through the launch of HighFlow reinforcement for wind mill blades, and increased customization.

SALES BREAKDOWN BY BUSINESS, 2018



- **Market position #1** in flooring
- **Average market growth 3-8% p.a.**



# Nonwovens

## Demand drivers

- Construction and consumer spending
- Shift from paper to nonwoven wallcoverings
- Need for energy efficient construction materials

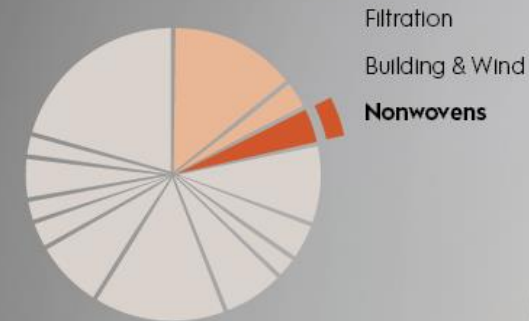
## Strengths

- In specialty materials: flexible and adaptable solutions with proven performance
- In wallcover: EMEA & Asian high-end supplier
- Superior customer relationships
  - Quality and service
  - Sustainable products

## Going forward

- Grow significantly in the plasterboard segment and explore new niches in for example furniture laminates
- To further strengthen the position in high-end and digital wallcoverings materials

SALES BREAKDOWN BY BUSINESS, 2018



- **Market position #1** in high-end wallcoverings
- **Average market growth 2-3% p.a.**

# Release Liners

## Demand drivers

- Economic growth, growing middle class
- E-commerce drives logistics and need for labels in tracking and identification
- In industrial segments growth is driven by tapes, medical and composites

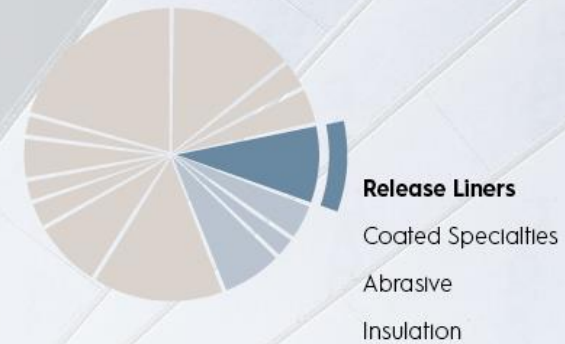
## Strengths

- Superior customer relationships
- Quality and service
- Sustainable products

## Going forward

- Focus is on operational excellence and continuous improvement in performance
- Build on Ahlstrom-Munksjö's strong global platform, particularly in technical release liners for specialty industrial applications, will be leveraged to seize attractive opportunities
- Expand geographically outside of Europe

SALES BREAKDOWN BY BUSINESS, 2018



- **Market position #2**
- **Average market growth 4% p.a.**



# Coated Specialties

## Demand drivers

- Demographic and purchasing power development in Brazil and South America
- Growing middle class with an urban life style
- Increasing need of packaging, tracking and identification in supply chains

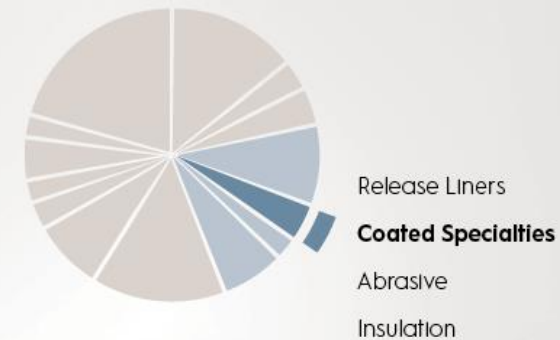
## Strengths

- Strong local platform in the South American market
- Customer relations with both regional and global players
- Product range and development

## Going forward

- Further increase efficiency by continuous improvement and key investments supporting product mix strategy, capturing a larger part of the high-value coated specialties segment
- To secure benefits from Caieiras integration in terms of market, operations, and competence sharing

SALES BREAKDOWN BY BUSINESS, 2018



- **Market position** #1-2 in coated specialty papers
- **Average market growth** 2-4% p.a.



# Abrasive

## Demand drivers

- Demand is driven by automotive, wood, furniture and construction industries

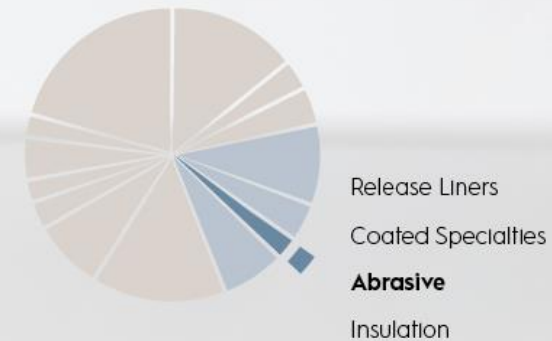
## Strengths

- Only supplier offering full range of paper and composite backings for the production of abrasive shapes in do-it-yourself or industrial channels
- 100% formaldehyde free offering
- Innovative paper backings in Light Weight latex paper segment and in Heavy Weight paper segment

## Going forward

- Profitable growth through innovative product differentiation and mix improvement as well as continuous improvement in production and value based pricing

SALES BREAKDOWN BY BUSINESS, 2018



- **Market position #1-2**
- **Average market growth 2-3% p.a.**





# Insulation

## Demand drivers

- Extension and upgrade of power distribution networks
- Decentralization of power generation and power grids
- Urbanization and construction activity drives power equipment investments

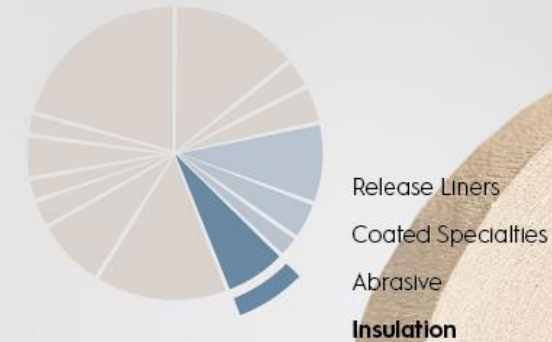
## Strengths

- Broad portfolio of electrotechnical papers
- Internally sourced high quality, pure and clean pulp
- Technical knowledge of power equipment end-uses

## Going forward

- In electrotechnical insulation papers, converting capability and overall capacity will be expanded to drive profitable growth. In addition, continuous improvement for operational efficiency and value-based price management is pursued.

SALES BREAKDOWN BY BUSINESS, 2018



- **Market position** #1-2 in electrotechnical papers
- **Average market growth** 2-3% p.a.



Decor

## Decor

### Demand drivers

- Population and GDP growth.
- Rapidly growing middle class in developing markets driving construction and furniture demand
- Substitution from solid wood, veneer and plastic foils

### Strengths

- Industry leading brand with capabilities in service and quality
- Strong positions in Europe and North and South America
- Diverse, high-quality product and service offering
- Global leader in solid colors and pre-impregnated papers

### The way forward

- The strong positions in Europe and North America will be maintained and strengthened
- Decor has the ambition to be a forerunner in sustainability
- To leverage benefits from the strong platform in South America and develop an entry plan for China

SALES BREAKDOWN BY BUSINESS, 2018



Decor

- **Market position #2-4**
- **Average market growth 3% p.a.**



## Specialties

# Food Packaging

### Demand drivers

- Private consumption, push towards sustainable alternatives
- Stricter food safety and chemical regulations
- Packaging functionality, innovations

### Strengths

- Capabilities helping customers to differentiate
- Leading brand and broad product portfolio
- Unique technical characteristics of parchment paper

### Challenges in coated one-sided product segment

- Limited customization and product differentiation in coated one-side products, competitive operating environment
- Measures underway to improve profitability

### Going forward

- To leverage on the technical characteristics of parchment paper and consolidate and expand leadership in baking and cooking
- Focus on adjacencies, adding customer value with the non-parchment platform

SALES BREAKDOWN BY BUSINESS, 2018



- **Market position #1** in baking and cooking
- **Average market growth 2-3% p.a.**



Specialties

## Beverage & Casing

### Demand drivers

- Consumers increasingly seek sustainable alternatives
- Stricter food safety and chemical regulations
- More demanding packaging functionality and barrier properties

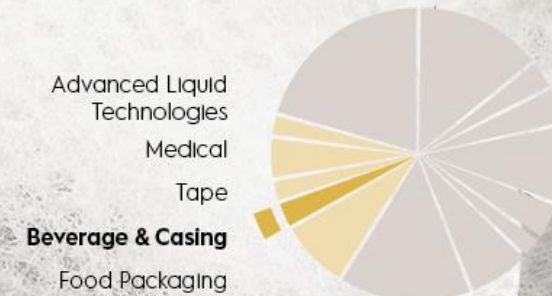
### Strengths

- Unique plastic-free biodegradable and compostable offering
- Forerunner in plastic-free coffee materials
- Unique viscose technology in casing materials

### Going forward

- To continue to differentiate with an unique plastic-free, biodegradable and compostable tea bag materials and single-serve coffee solutions offering
- To further develop and grow in the fibrous casing material segment
- Invest to improve manufacturing capability and efficiency in tea and coffee filter materials as well as in increased capacity

SALES BREAKDOWN BY BUSINESS, 2018



- **Market position #1-2**
- **Average market growth 2-8% p.a.**



## Specialties

# Tape

### Demand drivers

- Home construction and renovation activity
- Growth in automotive and electronics industries

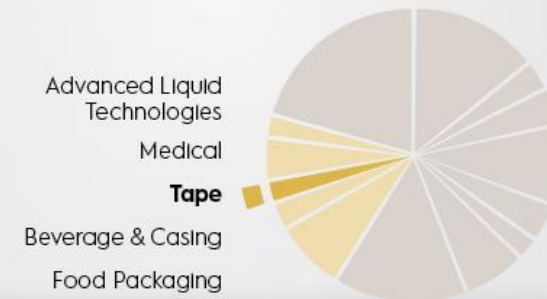
### Strengths

- Close customer relationships
- High and consistent quality in products and services
- Strong brand and comprehensive product range
- Cost competitive

### Going forward

- Grow in masking tape and expand global manufacturing footprint
- Leverage the competitive manufacturing in China in general purpose masking tape segment globally
- Continue product mix improvement with existing customers through a comprehensive offering in both general purpose and specialty masking tape

SALES BREAKDOWN BY BUSINESS, 2018



- **Market position #1-2**
- **Average market growth 5% p.a.**



## Specialties

# Medical

### Demand drivers

- High-risk surgeries increasing
- Liabilities around infections and contamination
- Rigorous regulatory requirements
- Increasing use of single-use protection

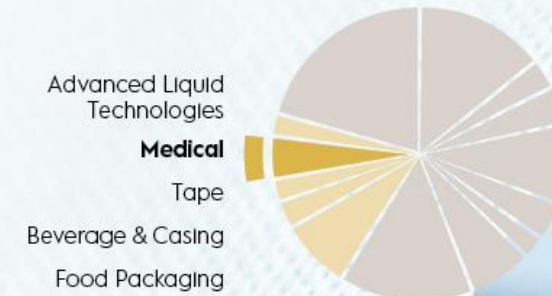
### Strengths

- Leading in high protective fabrics for high risk surgeries
- Leading position in sterilization wrap market in Europe
- Experienced team and strong product development capabilities
- Multi-technology platform approach

### Going forward

- Expand in drapes and gowns in Europe and Asia, and in industrial end-uses such as laboratories and clean rooms
- Strengthen leading position in Europe in sterile wraps and grow as a solutions provider through an enhanced service offering
- Grow in Asia through improved customer service and local converting footprint

SALES BREAKDOWN BY BUSINESS, 2018



- **Market position #1-3**
- **Average market growth 3% p.a.**



Specialties

# Advanced Liquid Technologies

## Demand drivers

- Increase in testing for environmental and health monitoring.
- Patient-friendly procedures, performed at home
- Quick, cost-effective solutions for healthcare
- Safer drinking water, rising quality standards for food and liquids

## Strengths

- Disruptor proprietary technology in water purification
- Alternative solution to liquid sampling by avoiding cold chain and special transport of specimen to be used for i.e. diagnosis of genetic diseases and DNA screening. New components for rapid test kits that extend this technology into pregnancy tests, infectious diseases and drug monitoring.
- Full range service for laboratory filters; cost-effective solution to increase hot cooking oil quality

## Going forward

- Market position in life science and laboratory product segment will be strengthened through further product development and partnerships with e.g. kit assemblers. In liquid purification the business will continue to penetrate the water purification market with its Disruptor technology through more end-use applications.

SALES BREAKDOWN BY BUSINESS, 2018

Advanced Liquid Technologies  
Medical  
Tape  
Beverage & Casing  
Food Packaging

- **Market position #2**
- **Average market growth 1-10% p.a.**



# North America Specialty Solutions

## Demand drivers

- Sustainable and safe food packaging
- Increasing use of composite materials in the aerospace industry
- U.S. construction activity, particularly homebuilding
- Increased use of electronic displays as a communication medium.
- E-commerce drives demand for packaging tapes and labels
- Need for surface protection in technical glass screen manufacturing

## Strengths

- Leading North American market position.
- High degree of technical complexity and customization
- Strong innovation and product development capabilities

## Going forward

- Work proactively with customers, focus on brand owner and end-user collaborative innovation.
- Realize identified synergies, while continuing to strengthen the position in targeted growth markets

SALES BREAKDOWN BY BUSINESS, 2018



- **One of the leading suppliers** in the relevant product segments
- **Average market growth 1-8% p.a.**





## UPCOMING EVENTS IN 2019

- Interim report January-September 2019 to be published on October 30
- Capital Markets Day on November 12, 2019 in Helsinki



Further information, please contact

### **Johan Lindh**

Vice President, Group Communications  
and Investor Relations

Tel: +358 40 837 3994

[joan.lindh@ahlstrom-munksjo.com](mailto:joan.lindh@ahlstrom-munksjo.com)

### **Juho Erkheikki**

Investor Relations Manager

Tel: +358 50 413 4583

[juho.erkheikki@ahlstrom-munksjo.com](mailto:juho.erkheikki@ahlstrom-munksjo.com)