

# Analyst Briefing ITMA Barcelona

Fira de Barcelona  
Hall 7, A101  
Monday, June 24, 2019



## 1 Introduction

## 2 Flight with the Digital Rollercoaster

## 3 Presentation

### 3.1 Market picture and current business situation

### 3.2 Overview Oerlikon Manmade Fibers Segment

### 3.3 Outlook Oerlikon Manmade Fibers Segment

## 4 Innovations at the ITMA

## 5 Q&A

# Oerlikon Manmade Fibers Segment at the ITMA Barcelona 2019



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# Flight with the Digital Rollercoaster

Boarding: 2.15 pm      Flight at: 2.20 pm

**oerlikon**



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# A leading global presence to serve our customers locally

# oerlikon

CHF 2 609 Million  
sales (2018)

## Surface Solutions Segment CHF 1 511 Million

World market leader with widest ranging portfolio of surface technologies, advanced materials, coating equipment and services

## Manmade Fibers Segment CHF 1 098 Million

From melt to yarn, fibers and nonwovens – world market leader for systems used in the manufacture of manmade fibers

**175 locations**  
in 37 countries

**160**  
Surface Solutions sites

**50**  
Production and R&D sites

**162**  
Sales and service sites

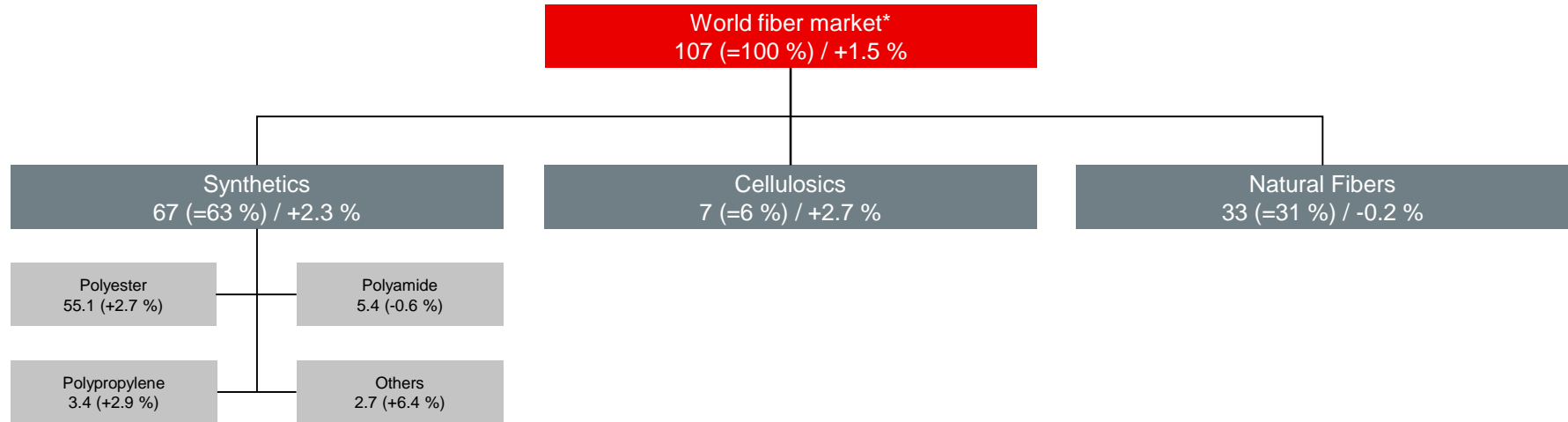
**1 435**  
Employees in North America

**5 973**  
Employees in Europe

**2 945**  
Employees in Asia Pacific

**374**  
Employees in other regions

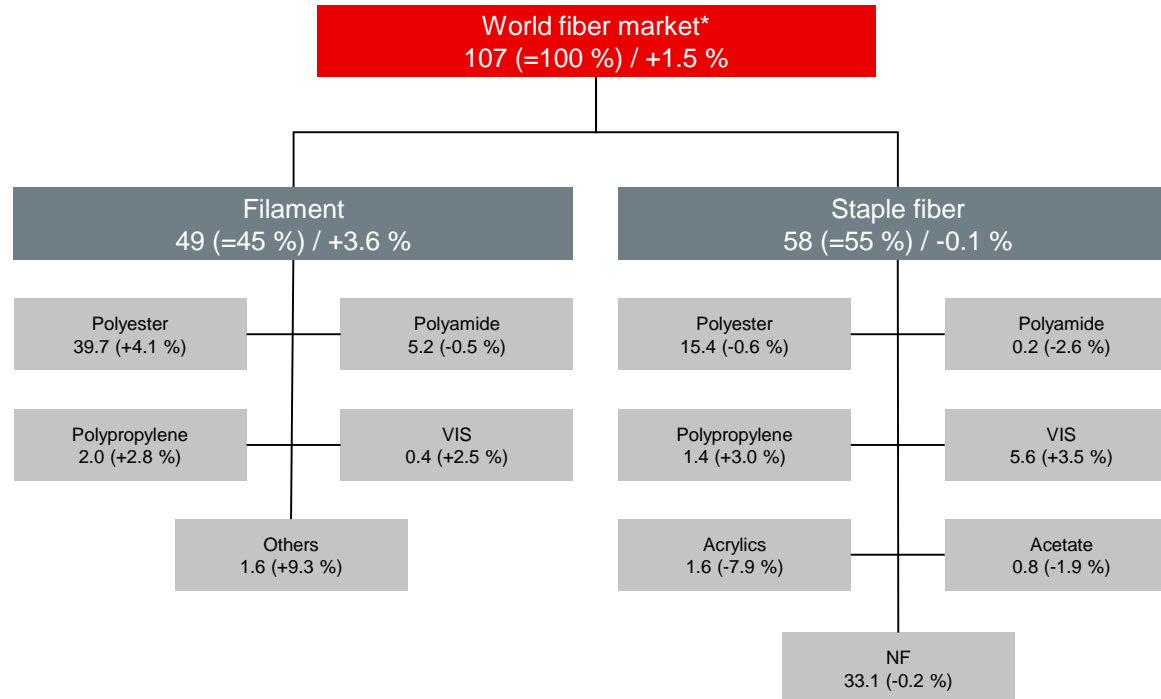
# 2018 world fiber market – Polyester accounts for more than half of the world fiber market (in million tons)



\* World fiber production; excluding nonwovens / Source: The Fiber Year 2019  
Percentage compared to previous year



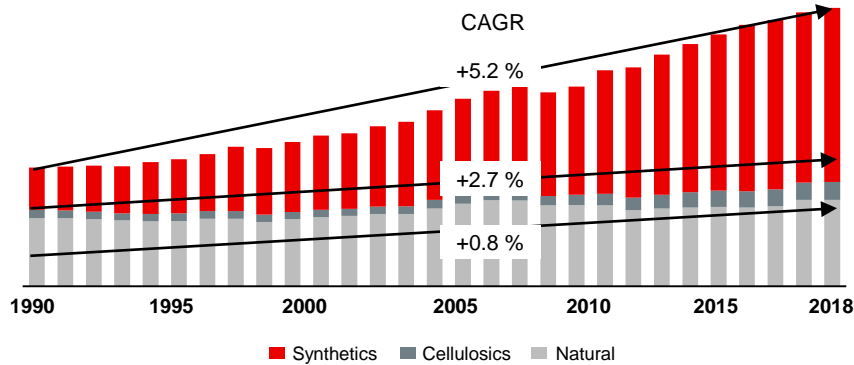
# 2018 world fiber market – Polyester filament market is the fastest growing application



\* World fiber production; excluding nonwovens / Source: The Fiber Year 2019  
Percentage compared to previous year

# Synthetics continue to replace natural fibers and are one of the growth drivers for world fiber use

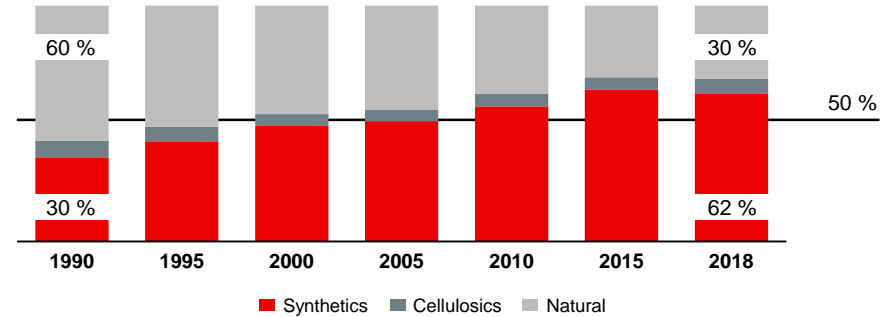
World fiber use – Growth (in million tons)



- Steadily rising textile demand
- Increasing per capita consumption; 107 m tons in 2018 ~14.2 kg per capita (vs. 8.5 kg per capita in 1990; +67 %)
- Strongest growth in synthetics industry (growth p.a. of 5 %)

\* Source: The Fiber Year 2019

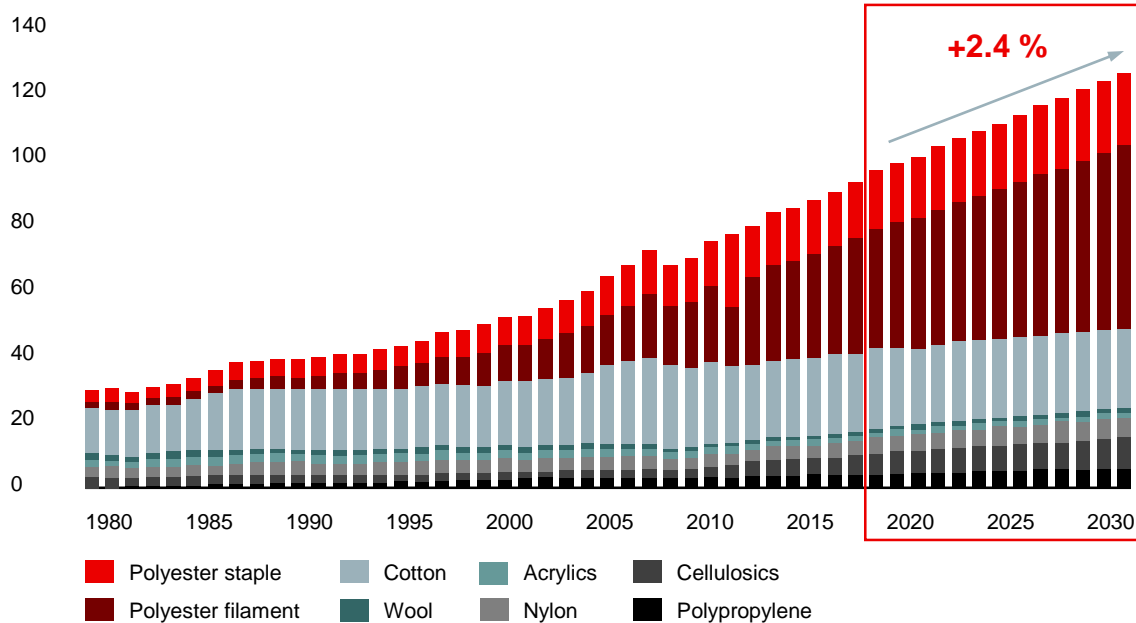
World fiber use – Market share



- Synthetics share continued to increase (30 % in 1990 to 62 % in 2018)
- Synthetics substitute natural fibers because:
  - almost unlimited availability
  - no dependency on weather / climate
  - cost-efficient
  - broader range of applications
  - environmentally friendly (recyclable)

# Polyester growth outperforms other fibers: + 2.4 % (CAGR)

(in million tons)

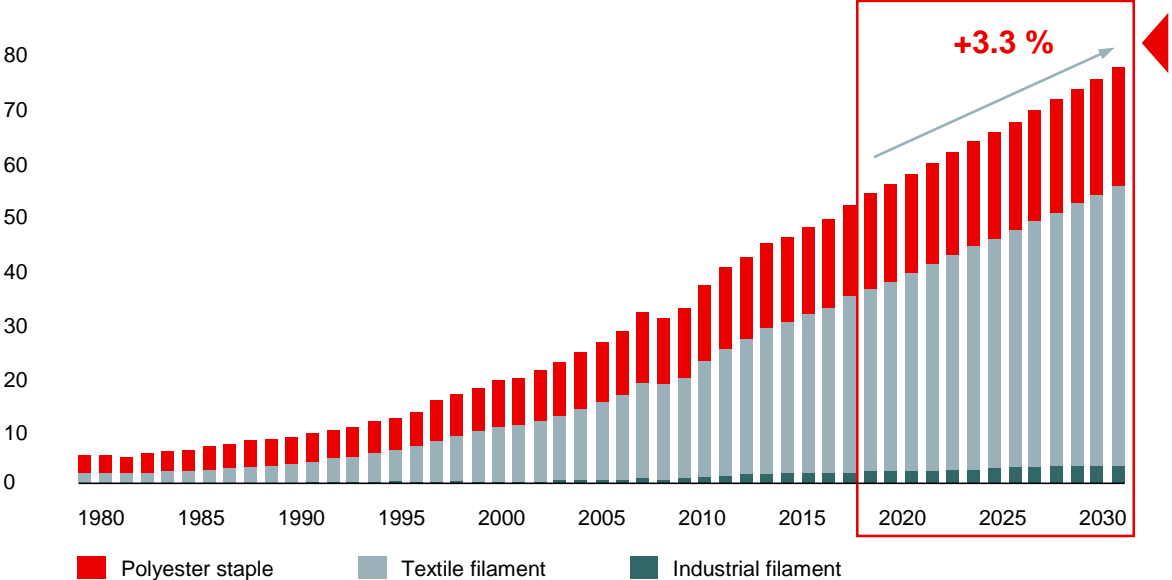


◀ The manmade fiber industry will continue **to benefit above average** from the market growth and the shift of market shares from cotton to manmade fibers in the coming years.



Trusted commercial intelligence [www.pciwoodmac.com](http://www.pciwoodmac.com)

# Textile Filament (PET) is experiencing largest growth (in million tons)



### Growth 2016–2030 (CAGR)

All polyester	+ 3.3 %
Staple	+ 2.1 %
Filament	+ 3.8 %
<ul style="list-style-type: none"> <li>Industrial</li> </ul>	approx. +100 ktpa
<ul style="list-style-type: none"> <li>Textile</li> </ul>	approx. +1 500 ktpa



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# From Melt to Yarn, Fibers and Nonwovens



# Oerlikon serves the need for better Functional Fibers



More than 35 million tons of manmade fibers are produced on Oerlikon solutions per year.

The world's largest textile manufacturers trust in Oerlikon filament spinning, texturing, staple fiber and nonwoven Industry 4.0 plant solutions.



Medical and filters



Infrastructure



Apparel and functional wear



Flooring

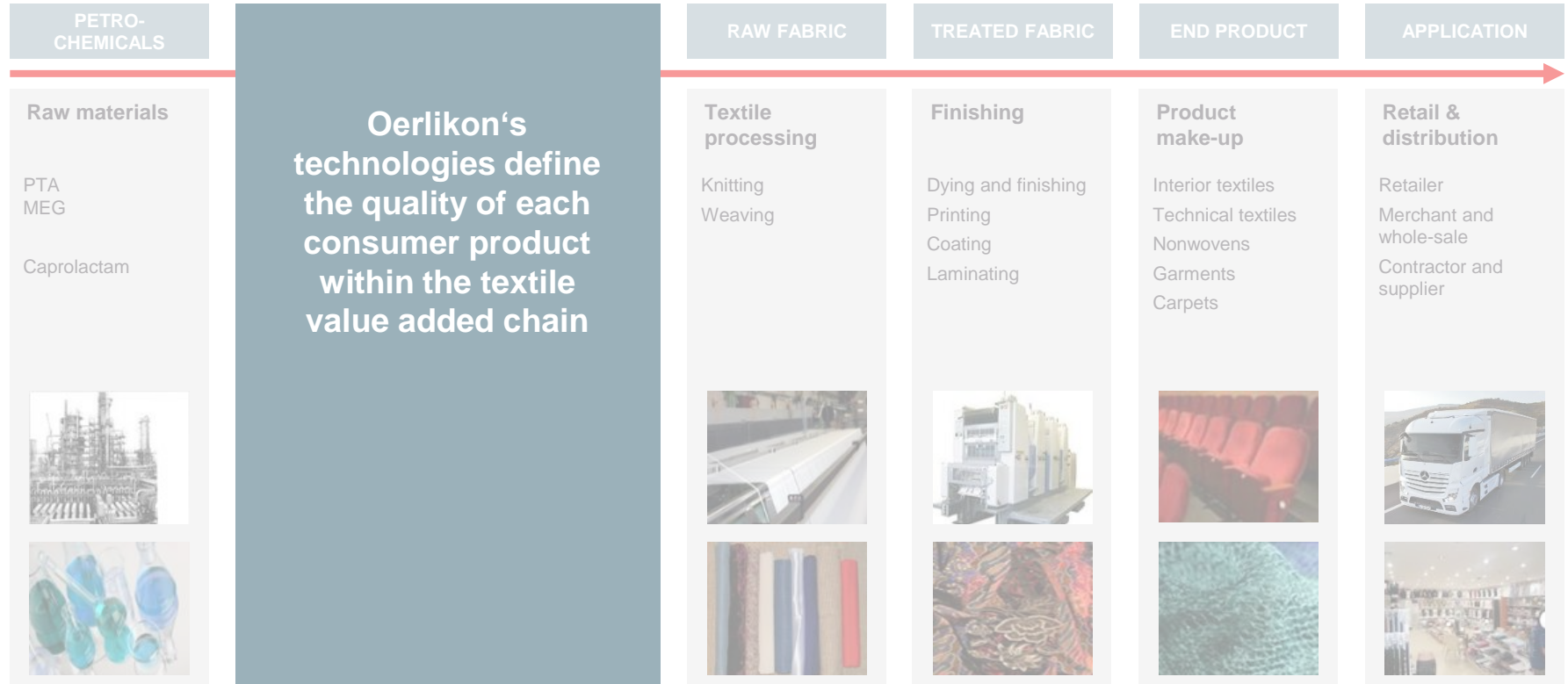


Transportation



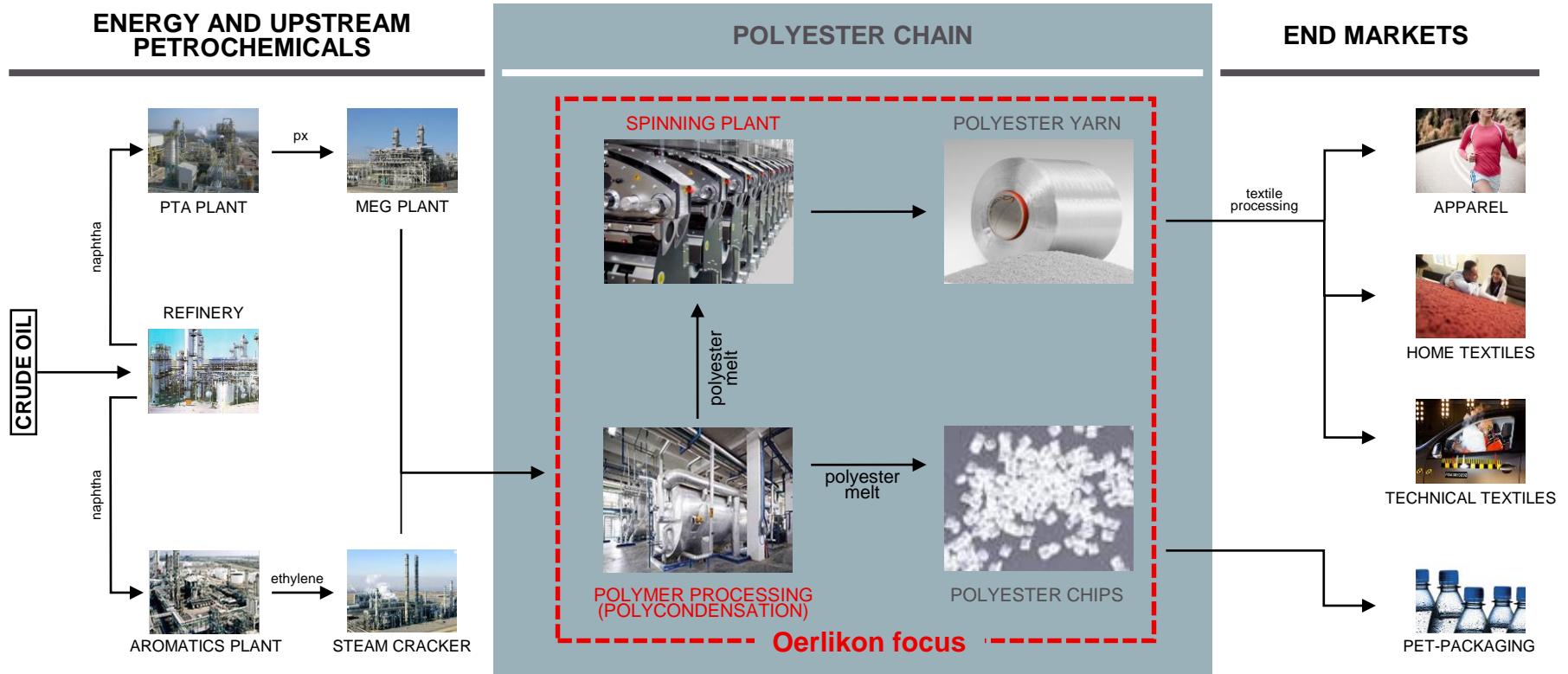
Packaging

# Oerlikon Solutions guarantee Quality of Consumer Products





# Oerlikon in the middle of the polyester value chain

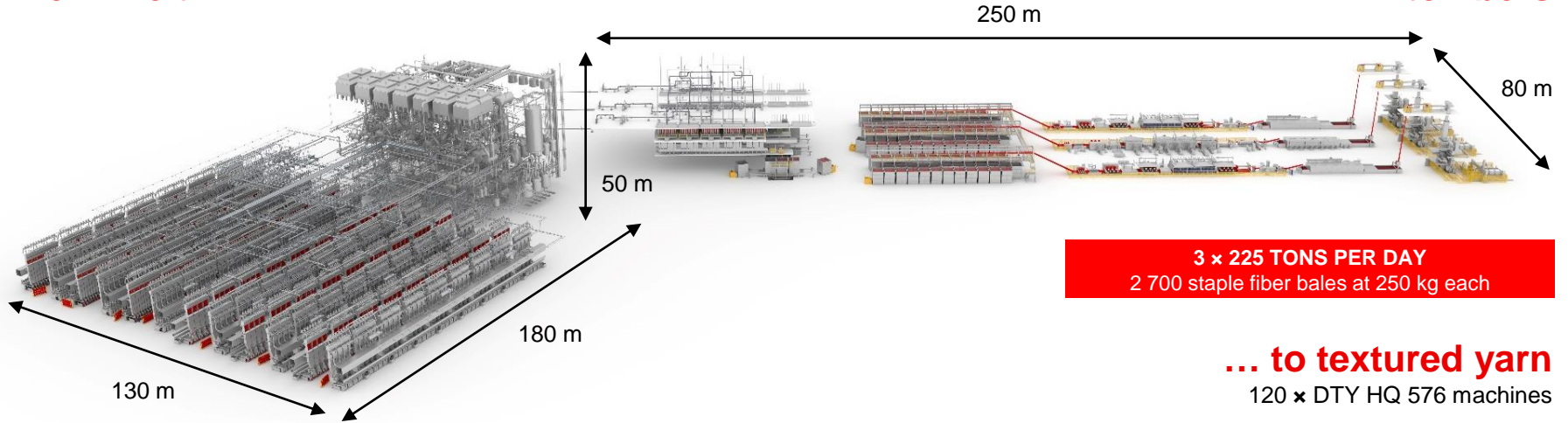


PX = paraxylene; PTA = purified terephthalic acid; MEG = monoethylene glycol; PET = polyethylene terephthalate.

# Engineered Plant Solutions as a one-stop service

From melt ...

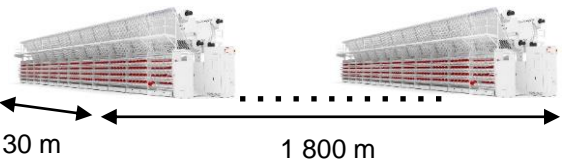
... to fibers



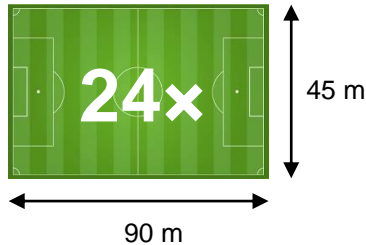
**600 TONS PER DAY**  
40 000 bobbins at 15 kg each

**3 × 225 TONS PER DAY**  
2 700 staple fiber bales at 250 kg each

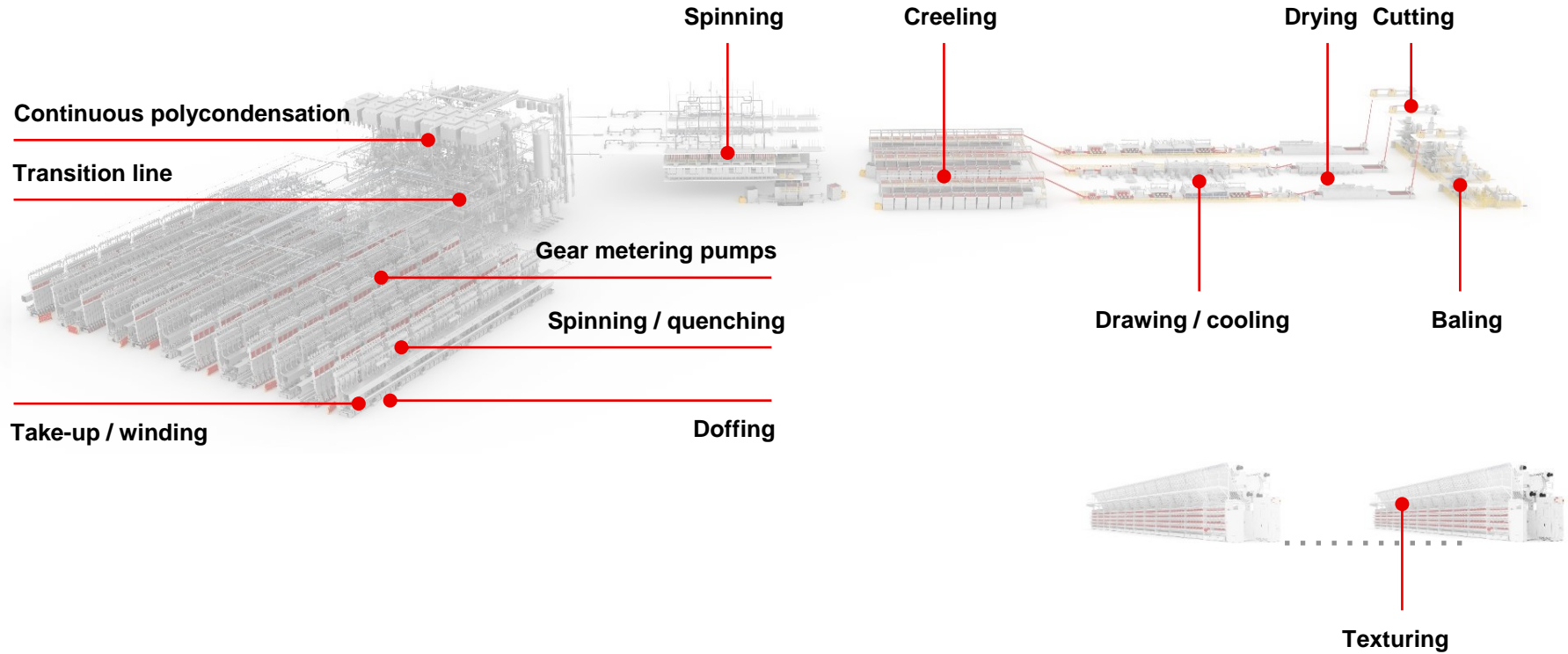
**... to textured yarn**  
120 × DTY HQ 576 machines



**600 TONS PER DAY**  
120 000 bobbins at 5 kg each



# Quality influencing technologies – all controlled by Oerlikon



# Sales Force serving 80 countries worldwide – Close to customers with global production sites

## Germany:

- Remscheid
- Neumünster

### New in 2018:

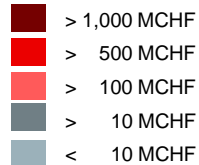
- Mühlheim/Mosel
- Augsburg

### Sold in 2018:

- Chemnitz

## USA:

- Charlotte
- Dalton



## China:

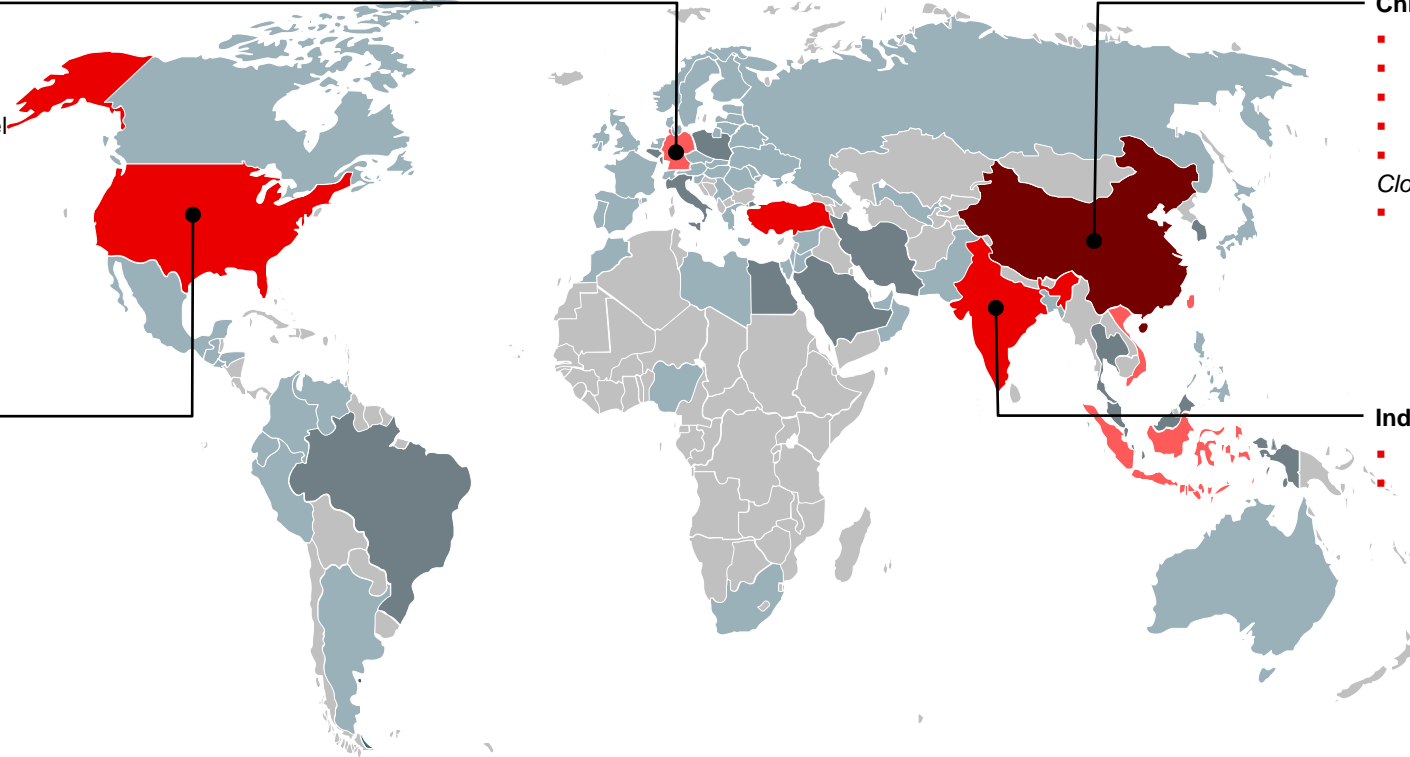
- Beijing
- Suzhou
- Shanghai
- Wuxi
- Yangzhou (JV)

### Closed in 2018:

- HongKong

## India:

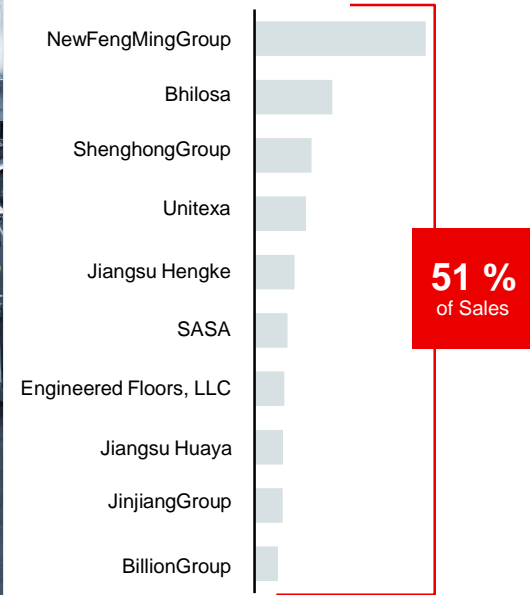
- Mumbai
- Vadodara



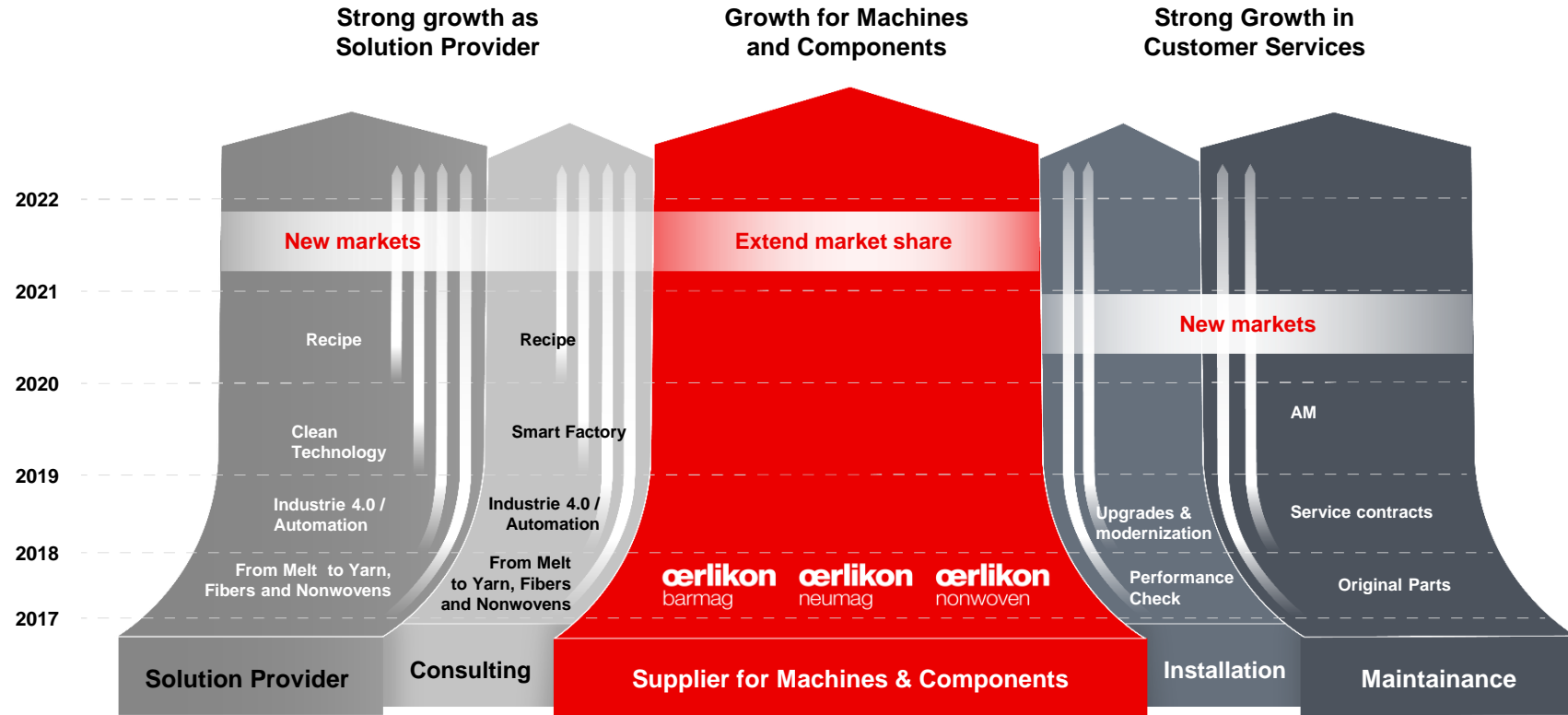
# Strong customer base – top 10 customers make over half of 2018 sales



## Top 10 customer sales split (FY 2018)



# Extend our core business, develop solutions and improve customers services for growth



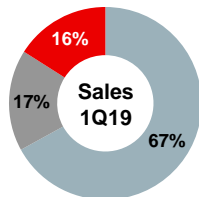
# Reflecting the positioning of the Segment in the new business split

## Old business split

Filament spinning /  
Texturing

BCF<sup>1</sup> / CP<sup>2</sup>

Staple Fibers /  
Nonwovens



## New business split

Textile Applications

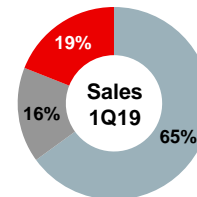
Special Filament

Plant Engineering

Filament spinning /  
Texturing

BCF<sup>1</sup> / IDY<sup>2</sup> /  
Extruder

CP<sup>3</sup> / Staple Fibers /  
Nonwovens



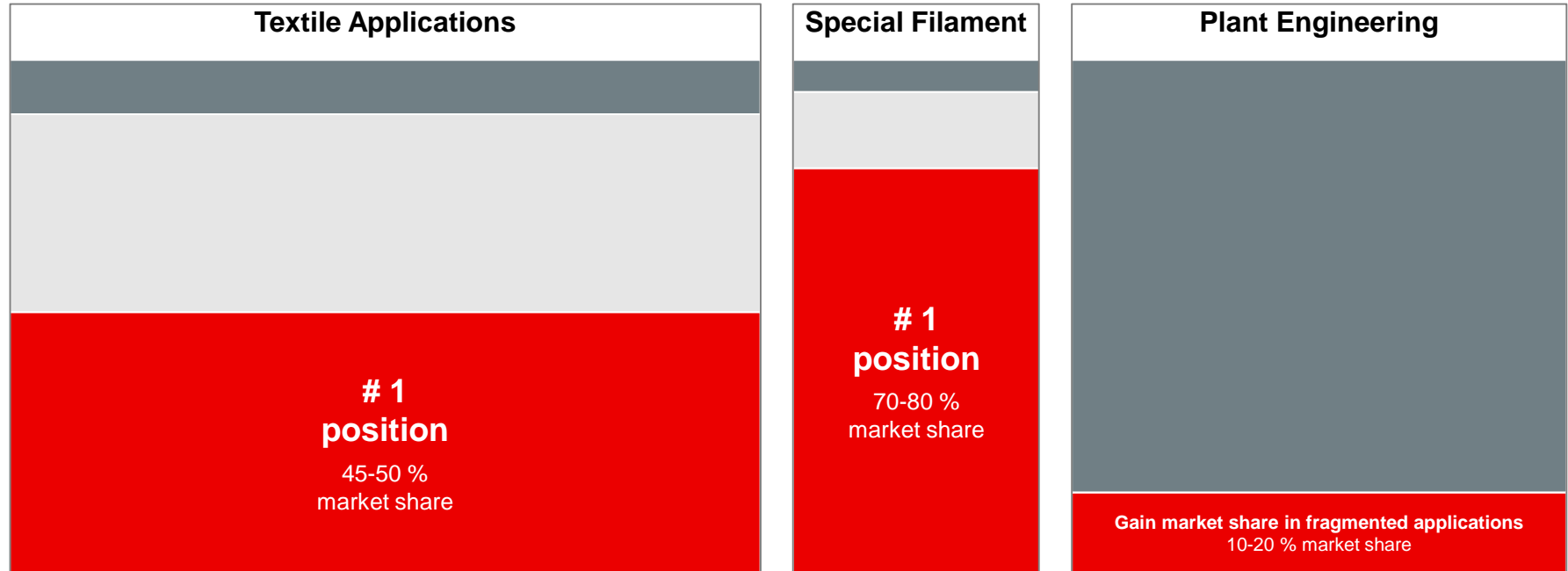
Order Intake	Q1 2018	Q2 2018	Q3 2018	Q4 2018	FY 2018	Q1 2019
Textile Applications	254	187	129	183	753	222
Special Filament	87	81	76	24	268	32
Plant Engineering	32	13	55	34	134	42
<b>Total</b>	<b>373</b>	<b>282</b>	<b>260</b>	<b>241</b>	<b>1'157</b>	<b>296</b>

Sales	Q1 2018	Q2 2018	Q3 2018	Q4 2018	FY 2018	Q1 2019
Textile Applications	178	177	202	148	705	164
Special Filament	35	67	68	78	248	42
Plant Engineering	30	27	44	45	146	48
<b>Total</b>	<b>243</b>	<b>271</b>	<b>314</b>	<b>270</b>	<b>1'098</b>	<b>254</b>

<sup>1</sup> Bulked continuous filament (carpet yarn); <sup>2</sup> Industrial Yarn; <sup>3</sup> Continuous Polymerization  
Differences due to rounding

# Competitive landscape

## Market share by application



■ Oerlikon Manmade Fibers   ■ TMT Machinery   ■ Others



# Extend our core business, develop solutions and improve customers services for growth

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**Industrie 4.0 / Digitization**



**Products and Engineering (incl. Recycling)**



**Customer Services**



**Automation**



**Corporate Social Responsibility (e-save)**



**Yarn / Material**

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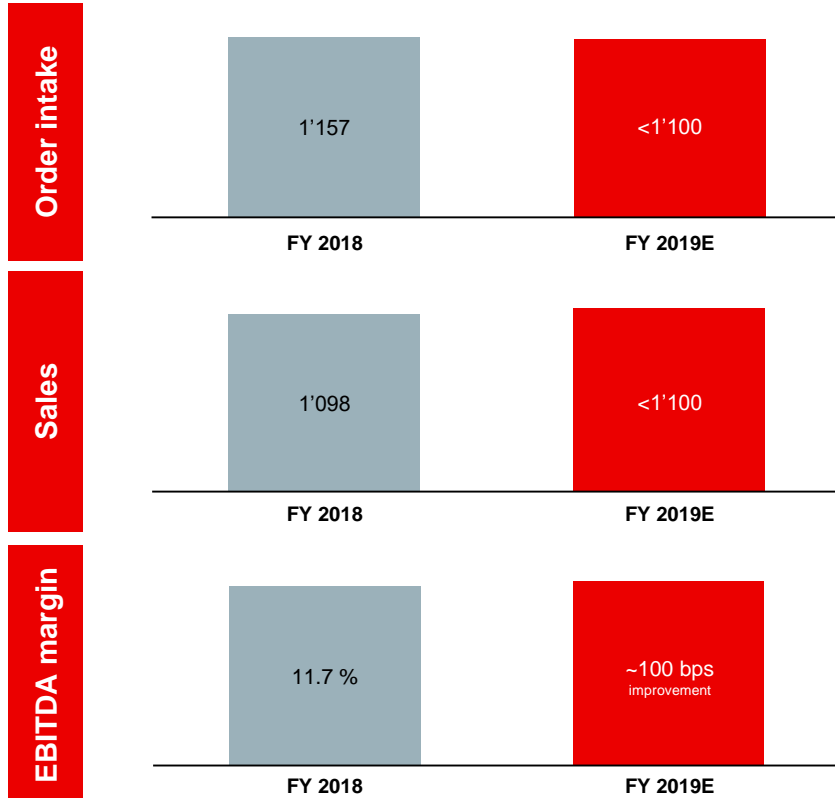
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# 2019 outlook confirmed – Strong project pipeline and improving profitability level



## Full Year 2019 guidance

- Order intake up to CHF 1.1 bn due to ongoing strong project pipeline
- Sales expected around prior year's level due to cap of capacity
- EBITDA margin to improve by around 100 bps

## Q1 2019 results confirming path to guidance

- Strong order intake of CHF 296 m sustained across all product lines (2<sup>nd</sup> highest since Q4 2011)
- Sales growth of ~5 % (CHF 254 m) led by business wins in Asia
- Strong EBITDA margin of 13.2 % due to project mix

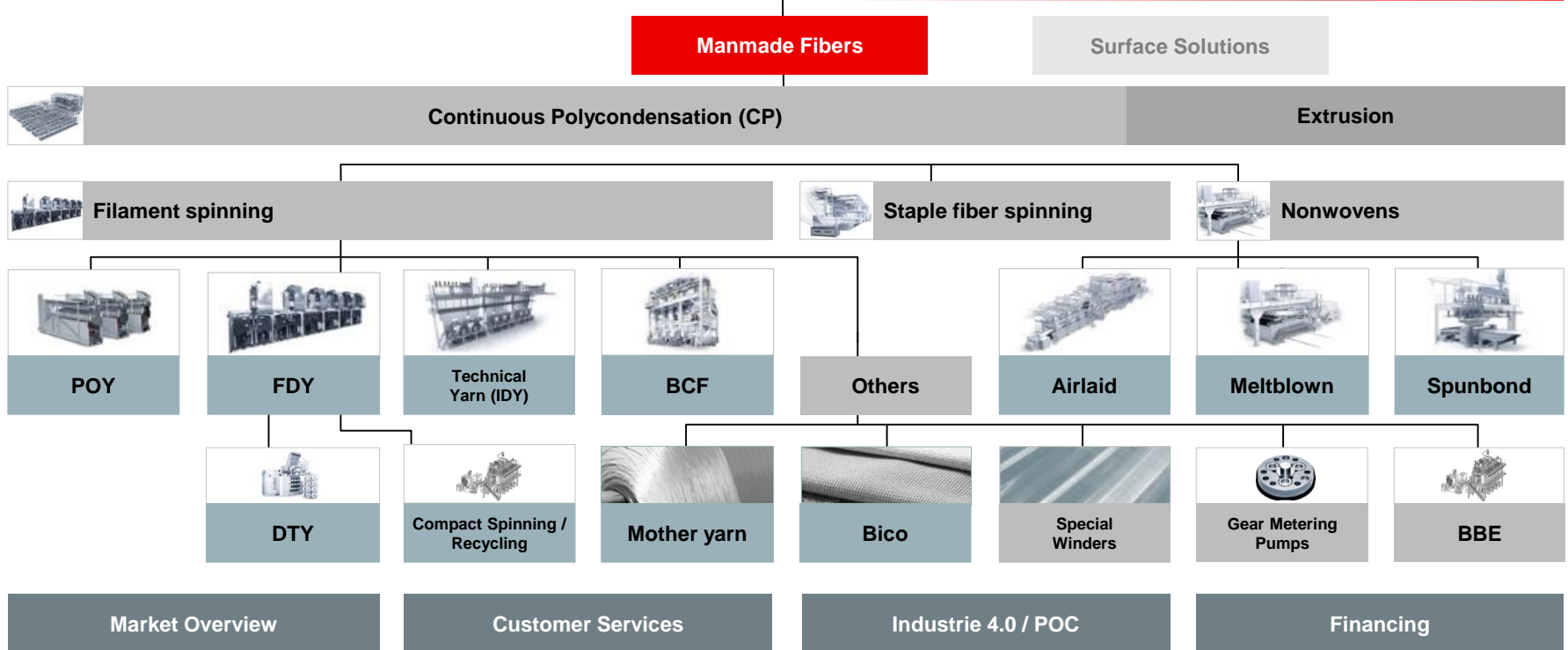
## Long term expectations

- Continued high level of order intake
- Capacity cap resulting in delivery lead times reaching into 2022
- EBITDA margin to improve towards mid-teens levels

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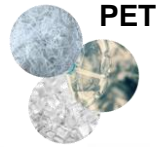
e-save  
comprehensive efficiency



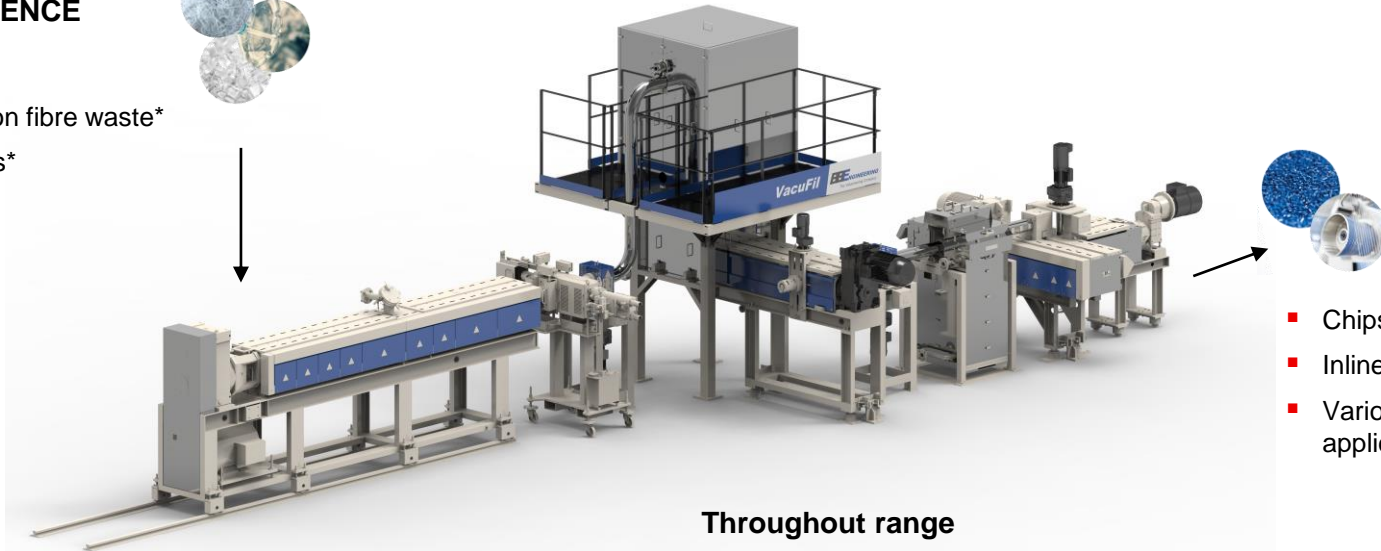
# VacuFil® Recycling Line

## BBE COMPONENTS BBE COMPETENCE

- Bottle flakes
- Post-production fibre waste\*
- Start-up lumps\*
- Film\*
- Chips, pellets



PET



- Chips
- Inline spinning
- Various melt applications

### Throughout range

**VacuFil® 300** (150-300 kg/h)

**VacuFil® 500** (250-500 kg/h)

**VacuFil® 1000** (500-1000 kg/h)

\*pre-processing of inhouse waste with cooperation partner

# VacuFil® Recycling Line

## VacuFil® Recycling Line BBE Valueneering



### Unique features

- **Multi-step** melt filtration
- large filter surface
- Minimum pressure difference
- Maximum filtration
- Excellent melt degassing due to large degassing area and permanent surface renewal
- Online IV measuring unit
- Easy integration into existing plants
- Modular and flexible
- Additional features available

### BBE Valueneering

- Engineering and process know-how
- From individual consulting all the way through to start-up
- Custom-made design
- Worldwide customer service

# eAFK Evo – Texturing at its coolest

## Production cost decides on your success in DTY

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### What's new?

- Very compact design
- Low height of < 4.5 m
- 4-deck take-up
- Ready for automation

### Your benefit!

- Less building height required
- Less air conditioning
- All components are easily reachable
- Easy maintenance
- Easy string up





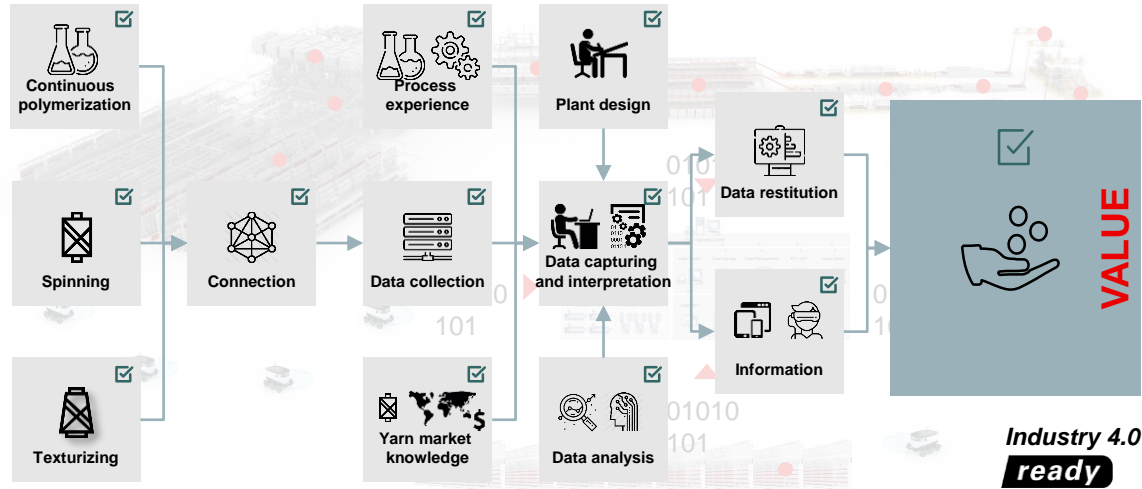
# eAFK Evo – Texturing at its coolest

## Production cost decides on your success in DTY

<b>Quality</b>	<ul style="list-style-type: none"><li>▪ Consistent yarn quality for best downstream</li><li>▪ Best unwinding properties</li><li>▪ Best dyeing and consistency</li></ul>
<b>Cost-efficient manufacturing</b>	<ul style="list-style-type: none"><li>▪ Up to 20 % increased production speed</li><li>▪ Energy savings of up to 25 % per kg/yarn</li></ul>
<b>Efficiency / productivity</b>	<ul style="list-style-type: none"><li>▪ Fastest string-up</li><li>▪ Highest doff efficiency</li><li>▪ Easy and efficient maintenance</li></ul>
<b>Reliability</b>	<ul style="list-style-type: none"><li>▪ Long machine life-cycle</li><li>▪ High machine availability</li><li>▪ Single driven godets</li></ul>
<b>Service</b>	<ul style="list-style-type: none"><li>▪ Lifecycle management</li><li>▪ Technical services</li><li>▪ Advanced services</li></ul>



# Smart Innovation Oerlikon Smart Plant Technology

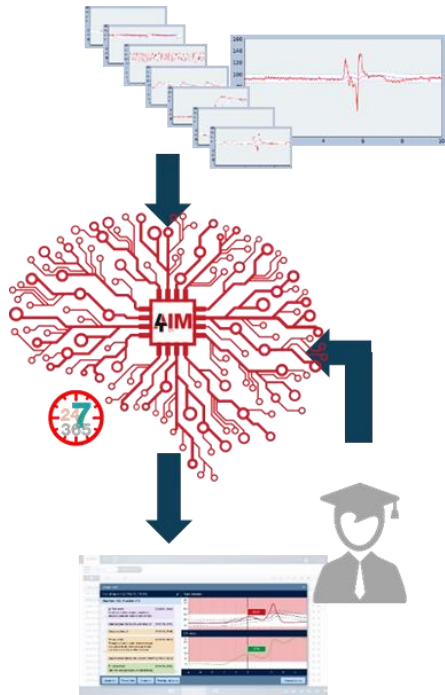


## eAFK Evo: ready for Smart Plant technology

- Rewriting the future of digitalized production
- Ready for automated operations in yarn supply and doffing
- Ready for improving quality with online monitoring as part of the Oerlikon Smart Melt to Yarn Plant concept
- Ready for optimum production control with the Oerlikon Plant Operation Center (POC)
- AIM<sup>4</sup>DTY ready: AI based fault detection and root cause analysis

# Oerlikon Smart Plant Technology

## eAFK Evo is ready for AIM<sup>4</sup>DTY



### **AIM<sup>4</sup>DTY** What's new?

- Automatic analysis of UNITENS®<sup>1</sup> faultgraphs
- Faults are detected and categorized automatically
- Learning software with AI (Artificial Intelligence)

### **Your benefit!**

- Speed up the quality deviation analysis
- Ensure availability of expert know how
- Improve reaction time to quality deviation
- Reduced labor costs
- Optimize quality / increase margin

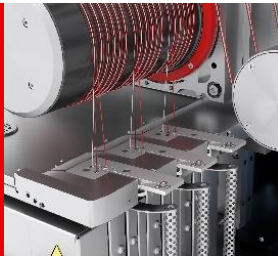
<sup>1</sup> UNITENS is an internationally registered trademark exclusively owned by Saurer Fibrevison Ltd., Macclesfield, UK

## The idea



A new platform to meet markets demand seeking a wide spectrum of color separations in tricolor yarns

## The concept



A sequential straight yarn path for 3 ends from spinning to winding combined with a new designed CPC-T unit

## The benefits



The ability to produce the most diverse color separations, from melange to strongly separated colors

# BCF S8 Tricolor with new CPC-T

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More than 200,000 different color shades with three colors



Separate pressure control for each color



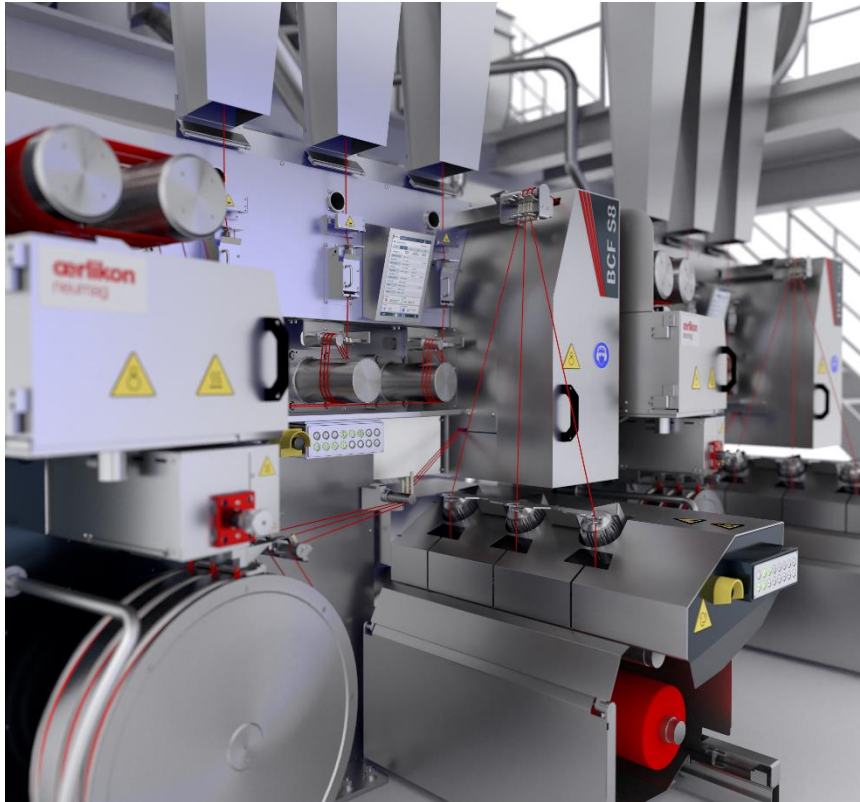
Higher process stability and reliability



Easy thread-up and handling

# Be one step ahead of your competition

**œrlikon**



Up to 700 filaments



2.5 dpf - guaranteed



Up to 15 % higher throughput



Easy thread-up  
and handling

# Polyamide FDY production with WINGS

**œrlikon**



## The idea



Efficiently producing  
high quality polyamide FDY yarns

## The concept



Extending the WINGS family  
to the FDY polyamide process

## The benefits



- Cost efficient yarn production
- High yarn quality
- Compact design
- Proven WINGS concept
- Easy handling, installation and maintenance



# Clean Technology. Smart Factory. Bring it to Life.

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**Thank you.**

