



ITMF Annual Conference 2018

Nairobi, Kenya - Sep. 7 - 9, 2018

Supply Chains & Business Models in Times of Rapid Change

available Presentations

September 8, 2018

Saturday (September 8)

2nd General Session: Textile & Apparel Industry in Africa

[Textile Industry in Africa - A Contemporary Perspective](#)

Navdeep Sodhi, Gherzi Sub-Sahara

[Doing Business in East Africa](#)

Frank Matsaert, TradeMark East Africa, Kenya

[The Role of Africa in the Global Supply Chain](#)

Sunny Huang, New Wide Group, Chinese Taipei

[Prospects, Opportunities and Challenges of Investing in the Cotton, Textile & Garment Industry in Nigeria](#)

Edet Sunday Akpan, Permanent Secretary Ministry, Nigeria

3rd General Session: Textile Value Chain

[PVH in East Africa: Past, Present and Future](#)

Cen Williams, PVH Far East Limited Africa Hub, Kenya

[China's T&A Supply Chain and its CSR in Times of Rapid Change](#)

Ruizhe Sun, China National Textile & Apparel Council

[Keynote Address](#)

Manuel Moses, Country Manager East Africa

International Finance Corporation

[The Global Textile \(Machinery\) Market Situation](#)

Christian Schindler, ITMF

4th General Session: Technology & Digitalization in the T & A Industry

[Digitalization - to Be or not to Be](#)

Thomas Gries, ITA Aachen, Germany

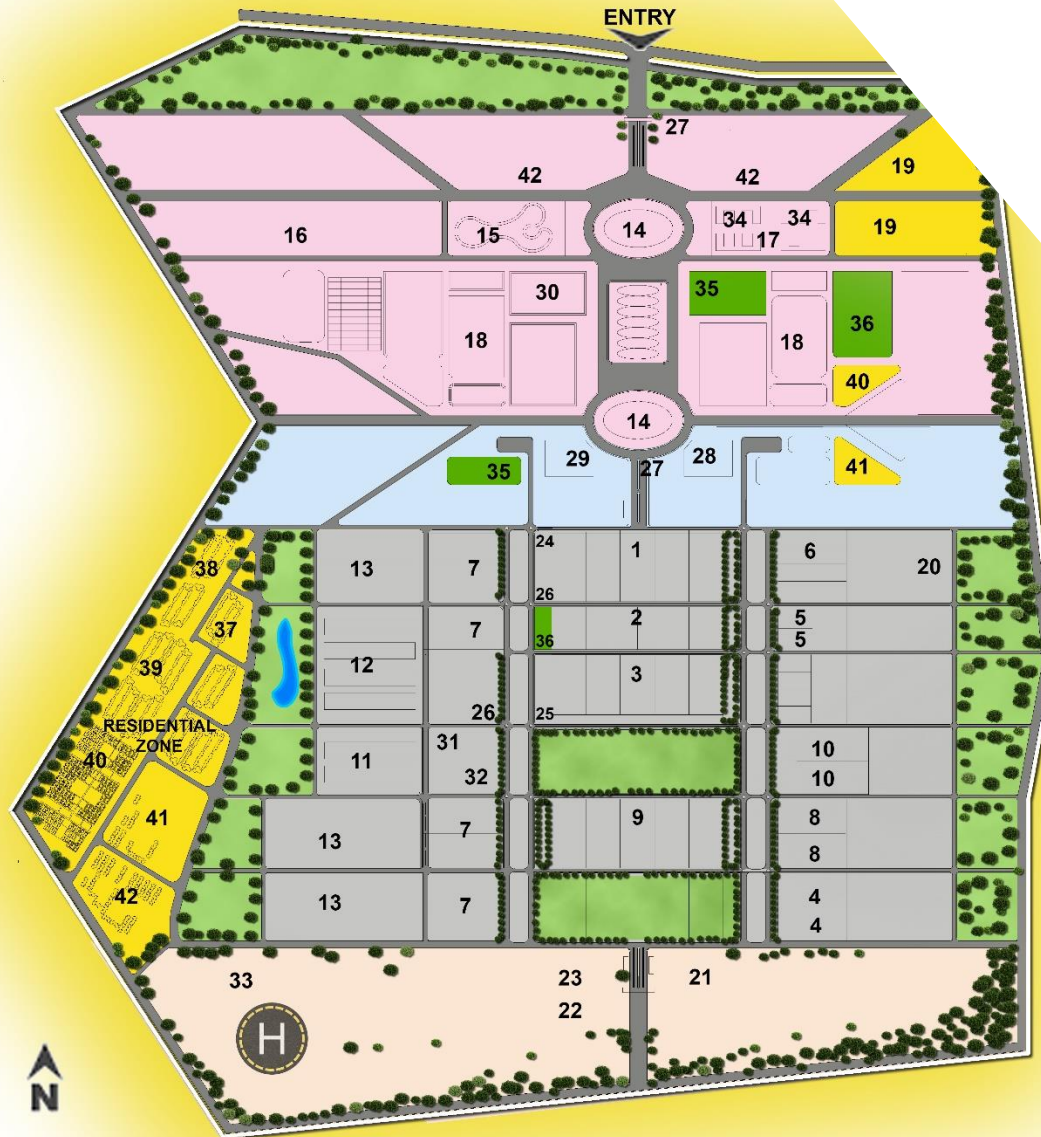
[Design for Automation- Bridging the Gap Between Production Requirements and Automation](#)

Pete Santora, SoftWear Automation, USA

[Digital Transformation of the Textile Value Chain](#)

Mark Jarvis, WTiN, UK

Textile industry in Africa: A contemporary perspective



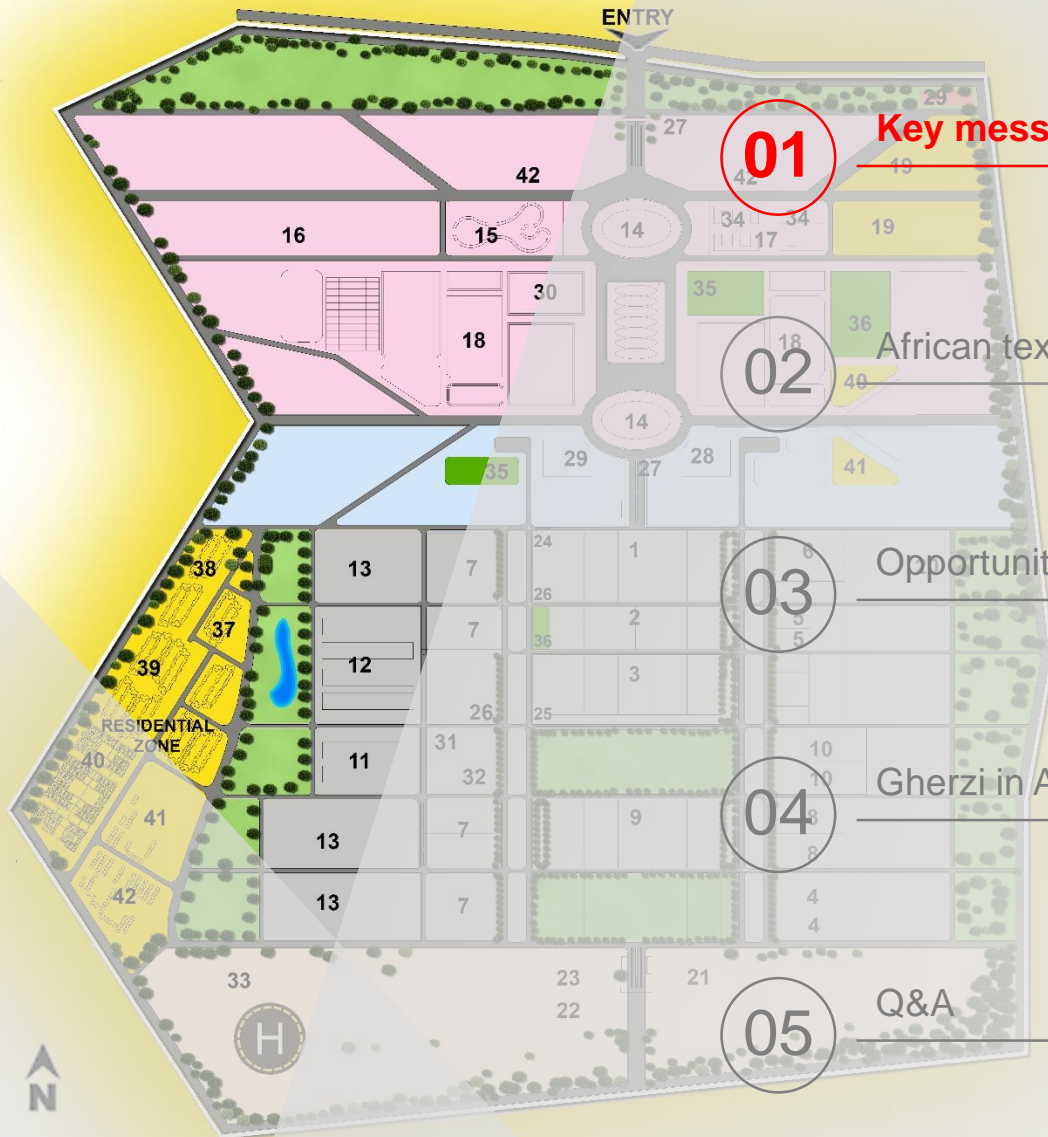
For



31	
32	
33	Re
34	Re
35	Com
36	Hospit.
37	School
38	Staff Resin.
39	Staff Resinde.
40	Worker Resind.
41	Club House
42	Car Parking Area
TOTAL 19 TO 42	
TOTAL 1 TO 43	
ADD FOR ROADS & GREENS	
GRAND TOTAL AREA	

Nairobi
08.09.2018

IMC EGYPT CONTENT



LEGEND

Legend No	Building Name	Bld.no	Length
Industrial & Ancillary			
1	Spinning Unit	5	400
2	Weaving Unit	6	150
3	Processing House	5	250
4	Denim	2	350
5	Yarn Dyeing Unit	2	100
6	Knit processing	8	100
7	Garmenting	8	200
8	weaving + yarn dyeing	2	400
9	Process+weaving+dyeing	5	400
10	Synthetic Fabric Unit	2	200
11	Warehouses	12	600
12	Warehouses	4	300
13	and support Industries	6	600
14	Administratin zone	2	600
15	Recreation zone	1	680
16	Business and exhibition centre	1	680
17	Retail zone	1	480
18	Commercial Zone	2	1600
19	Residential Zone	2	370
TOTAL 1 TO 18			
Utilities			
20	Power Plant	1	366
21	Area for ETP	1	413
22	Over Head Tank	2	35
23	Water Treatment U/G Tank with pump	2	62
24	Staff Canteen	1	60
25	Worker Canteen	1	60
26	Fire Station	1	27
27	Gate House	2	10
28	weigh Bridge	1	80
29	Express Power Feeder	2	75
30	Trading Centre	1	100
31	R & D Centre	2	62
32	Skill devpt. Centre	3	55
33	Helipad Area	1	30
34	Retail Store	4	210
35	Commercial Bank	6	50
36	Hospital	2	120
37	School	2	120
38	Staff Resindential Bldg.	10	163
39	Staff Resindential Bldg.	10	112
40	Worker Resindential Bldg.	25	150
41	Club House	2	100
42	Car Parking Area	2	1250
TOTAL 19 TO 42			
TOTAL 1 TO 43			TOTAL
ADD FOR ROADS & GREENS		25%	
GRAND TOTAL AREA			



GRAND ENTRANCE / GATE HOUSE



MANUFACTURING



RESIDENTIAL



PARKING



TREE LINED ROADS



COMMERCIAL

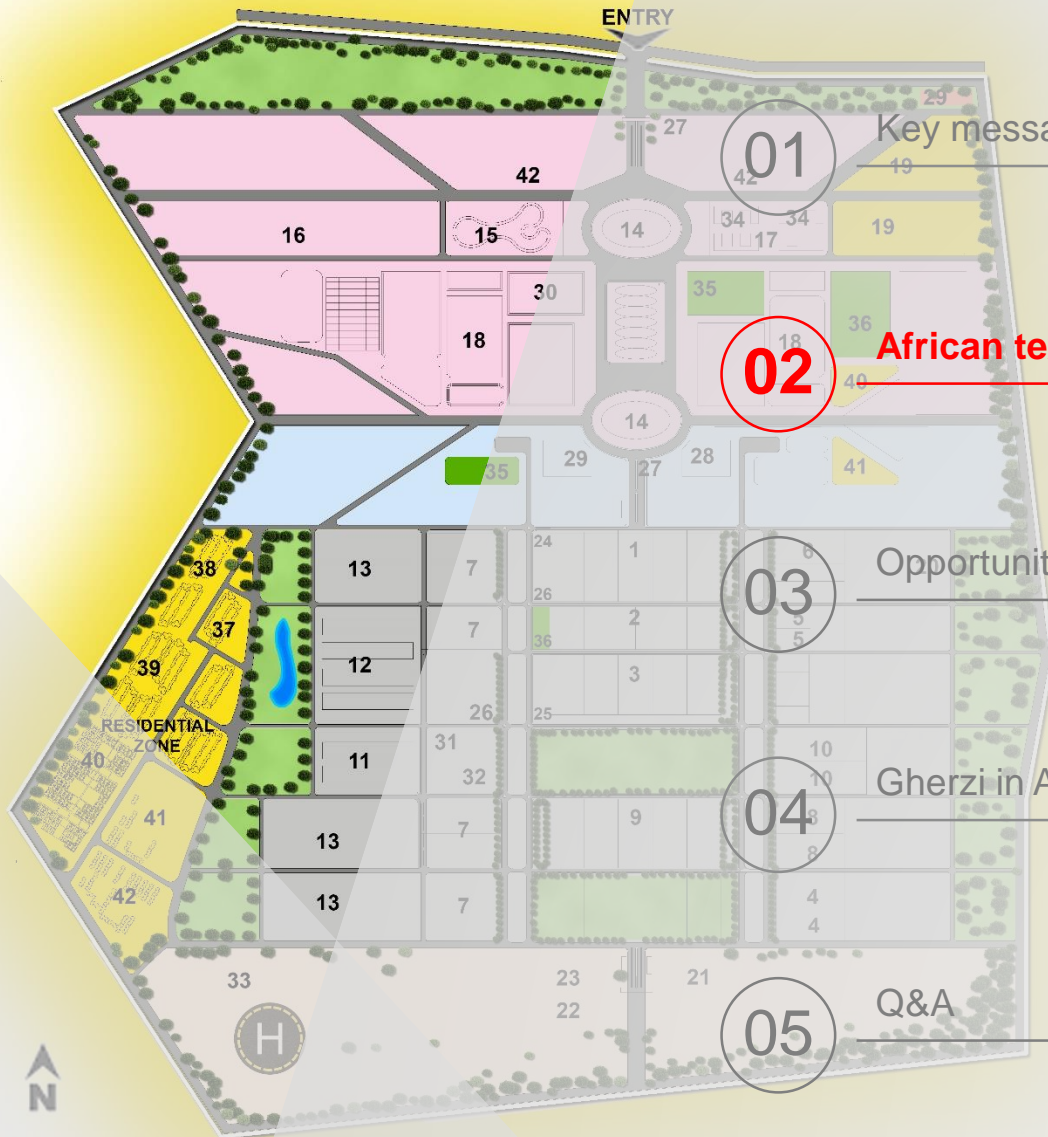


LANDSCAPE IDEAS

Africa offers several opportunities however challenges must be overcome

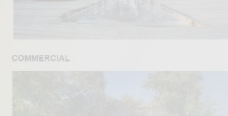
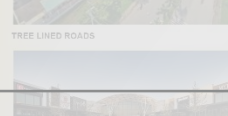
- ❑ Africa is not a single market
- ❑ Africa's textile industry is driven by FDI
- ❑ Preferential market access to EU/US is a key attraction
- ❑and large domestic market (ECOWAS: 350 million)
- ❑ Fragmented value chain
- ❑ Potential for improving the “enabling environment” and “doing business” to capitalize on the willingness of global players to invest across African textile value chain

IMC EGYPT CONTENT



LEGEND

Legend No	Building Name	Bld.no	Length
Industrial & Ancillary			
1	Spinning Unit	5	400
2	Weaving Unit	6	150
3	Processing House	5	250
4	Denim	2	350
5	Yarn Dyeing Unit	2	100
6	Knit processing	8	100
7	Garmenting	8	200
8	weaving + yarn dyeing	2	400
9	Process+weaving+dyeing	5	400
10	Synthetic Fabric Unit	2	200
11	Warehouses	12	600
12	Warehouses	4	300
13	Support Industries	6	600
14	Administratin zone	2	600
15	Recreation zone	1	680
16	Business and exhibition centre	1	680
17	Retail zone	1	480
18	Commercial Zone	2	1600
19	Residential Zone	2	370
TOTAL 1 TO 18			
Utilities			
20	Power Plant	1	366
21	Area for ETP	1	413
22	Over Head Tank	2	35
23	Water Treatment U/G Tank with pump	2	62
24	Staff Canteen	1	60
25	Worker Canteen	1	60
26	Fire Station	1	27
27	Gate House	2	10
28	weigh Bridge	1	80
29	Express Power Feeder	2	75
30	Trading Centre	1	100
31	R & D Centre	2	62
32	Skill devpt. Centre	3	55
33	Helipad Area	1	30
34	Retail Store	4	210
35	Commercial Bank	6	50
36	Hospital	2	120
37	School	2	120
38	Staff Resindential Bldg.	10	163
39	Staff Resindential Bldg.	10	112
40	Worker Resindential Bldg.	25	150
41	Club House	2	100
42	Car Parking Area	2	1250
TOTAL 19 TO 42			
TOTAL 1 TO 43			TOTAL
ADD FOR ROADS & GREENS		25%	
GRAND TOTAL AREA			



01 Key messages

02 African textile & apparel industry - Trends

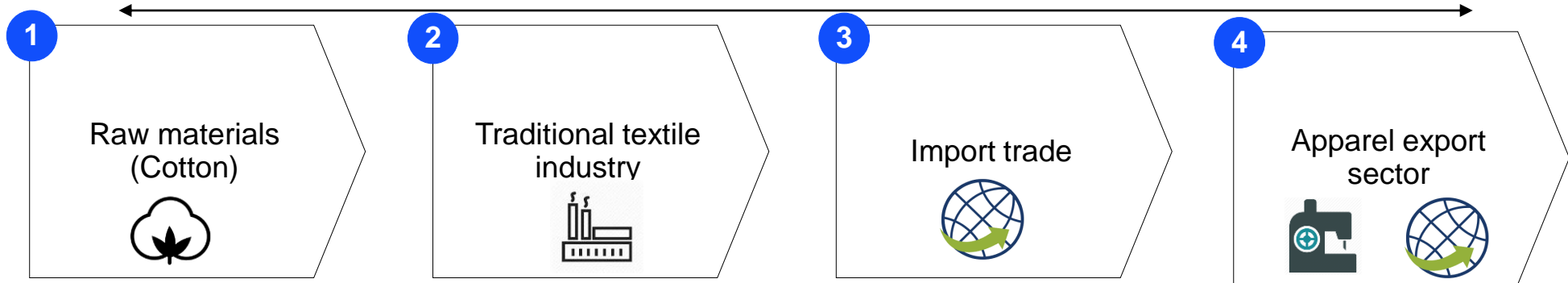
03 Opportunities & challenges

04 Gherzi in Africa

05 Q&A

African textile value chain is highly fragmented

Cotton-Textile-Apparel Value chain



Salient features

- West African Franc zone represents 2/3rd of Cotton pdn
- Increasing production
- Potential to improve productivity

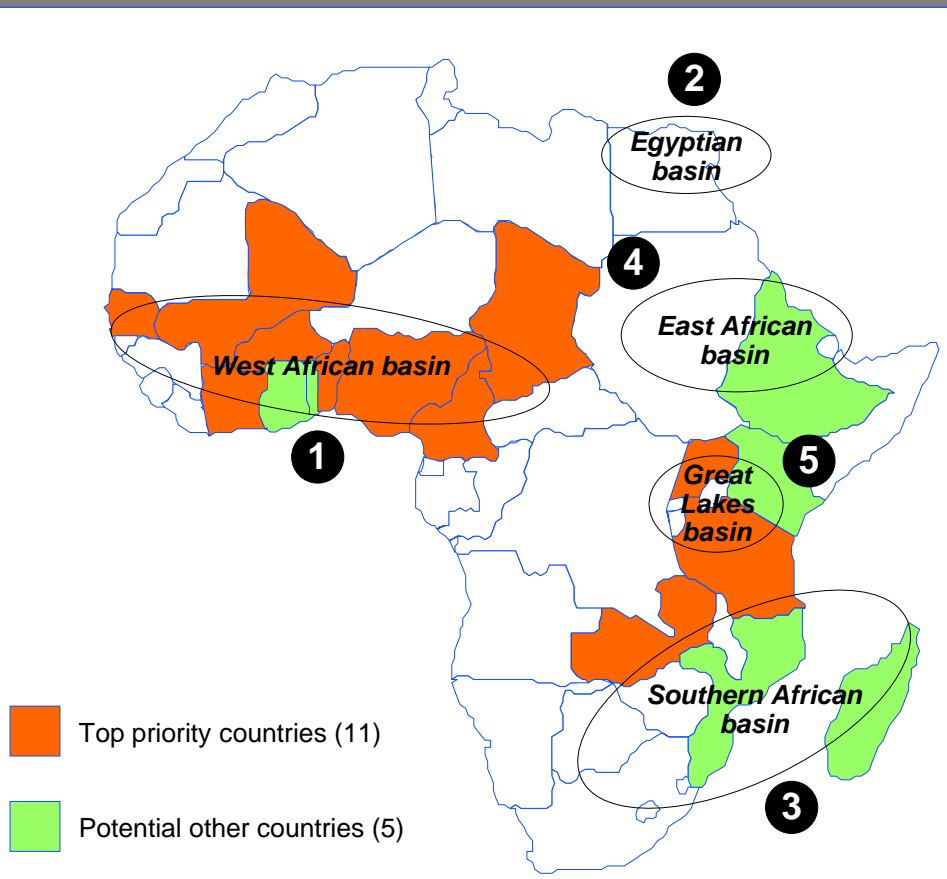
- Established during 1960-90's
- Decline and stagnation since Y2K
- Integrated mills
- Traditional fabrics for local consumption
- Uncompetitive
- Potential for revival

- Growing penetration with 90% market share
- Unorganised ,Grey cross border trade
- Second hand clothing
- Emerging modern retail
- Shift towards readymade garments

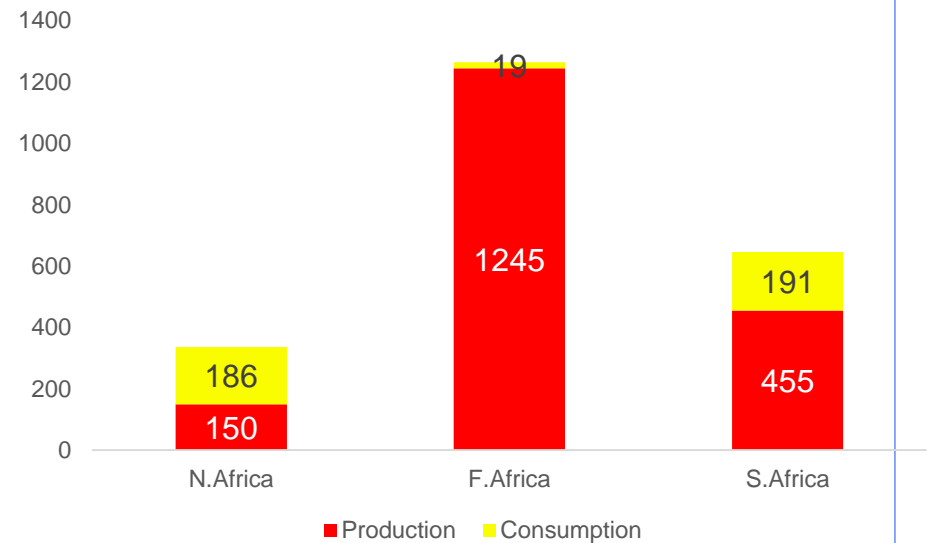
- Driven by preferential market access to EU/US
- FDI driven
- CMT
- Growing interest from international buyers
- Global players enter
- Potential for vertical integration

5 cotton producing basins in Africa with 2/3rd of cotton originating in West Africa

Cotton producing basins in Africa



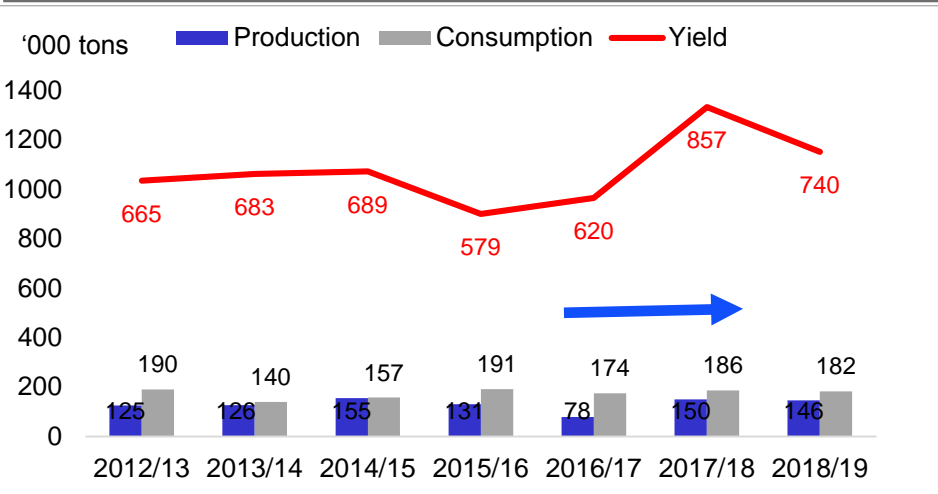
Cotton production & Consumption ('000 MT)
(2017/18)



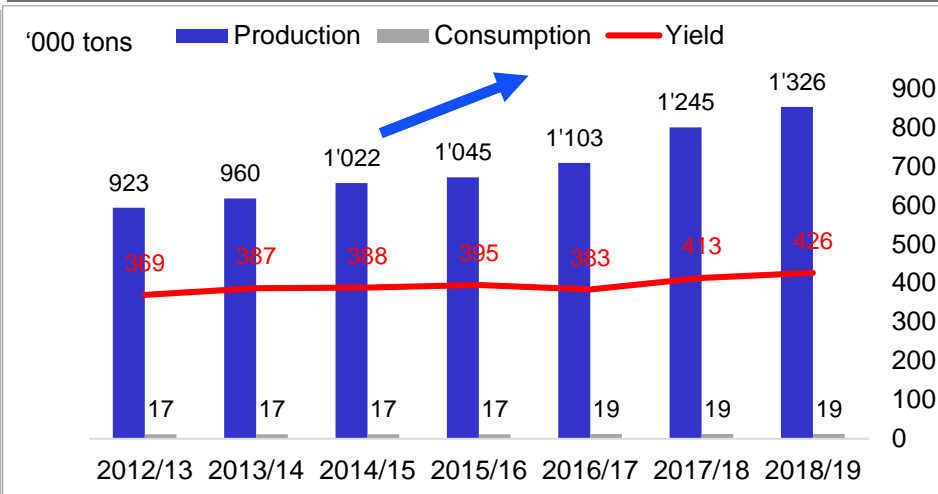
Source : OCDE, ICAC, Club du Sahel

Value chain

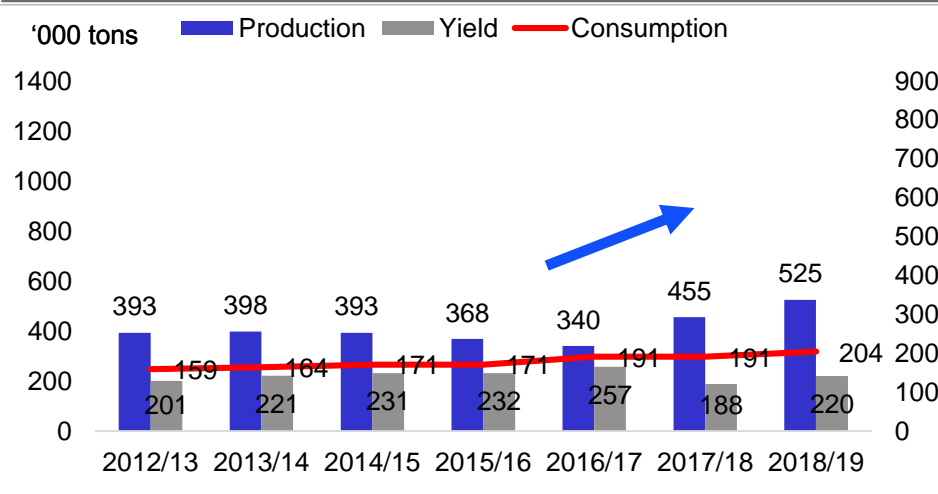
N. Africa cotton production, yield and consumption



F. Africa cotton production, yield and consumption



S. Africa cotton production, yield and consumption



Comments

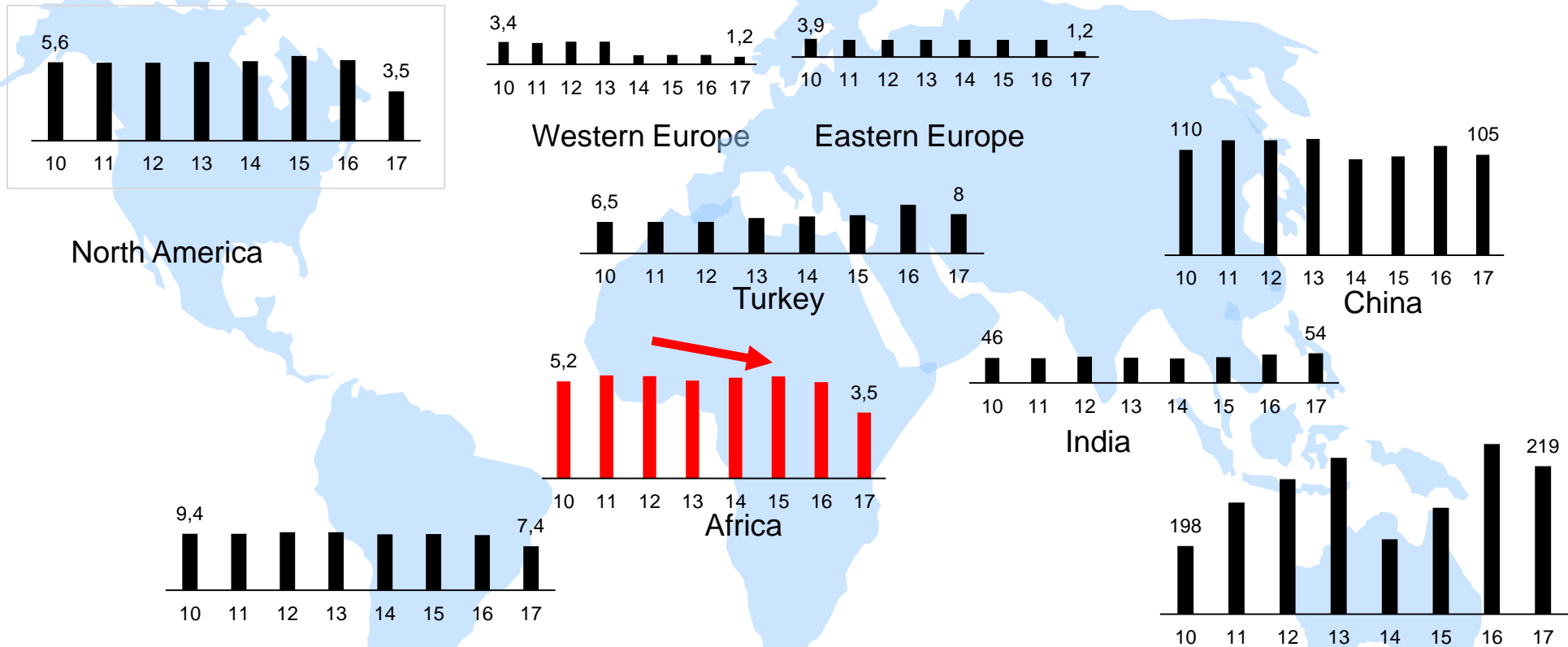
- Cotton production and consumption remained within a narrow band in North Africa, but yield shows an improvement in 2017/18 season
- F. Africa dominates the cotton production in the continent, with potential to increase yield
- Potential for value addition in downstream industry

Source: ICAC

Textile machinery investments

African ring spinning capacity has faced decline and stagnation during 2010-2017

World installed ring spinning capacity [mn spindles]: 2017

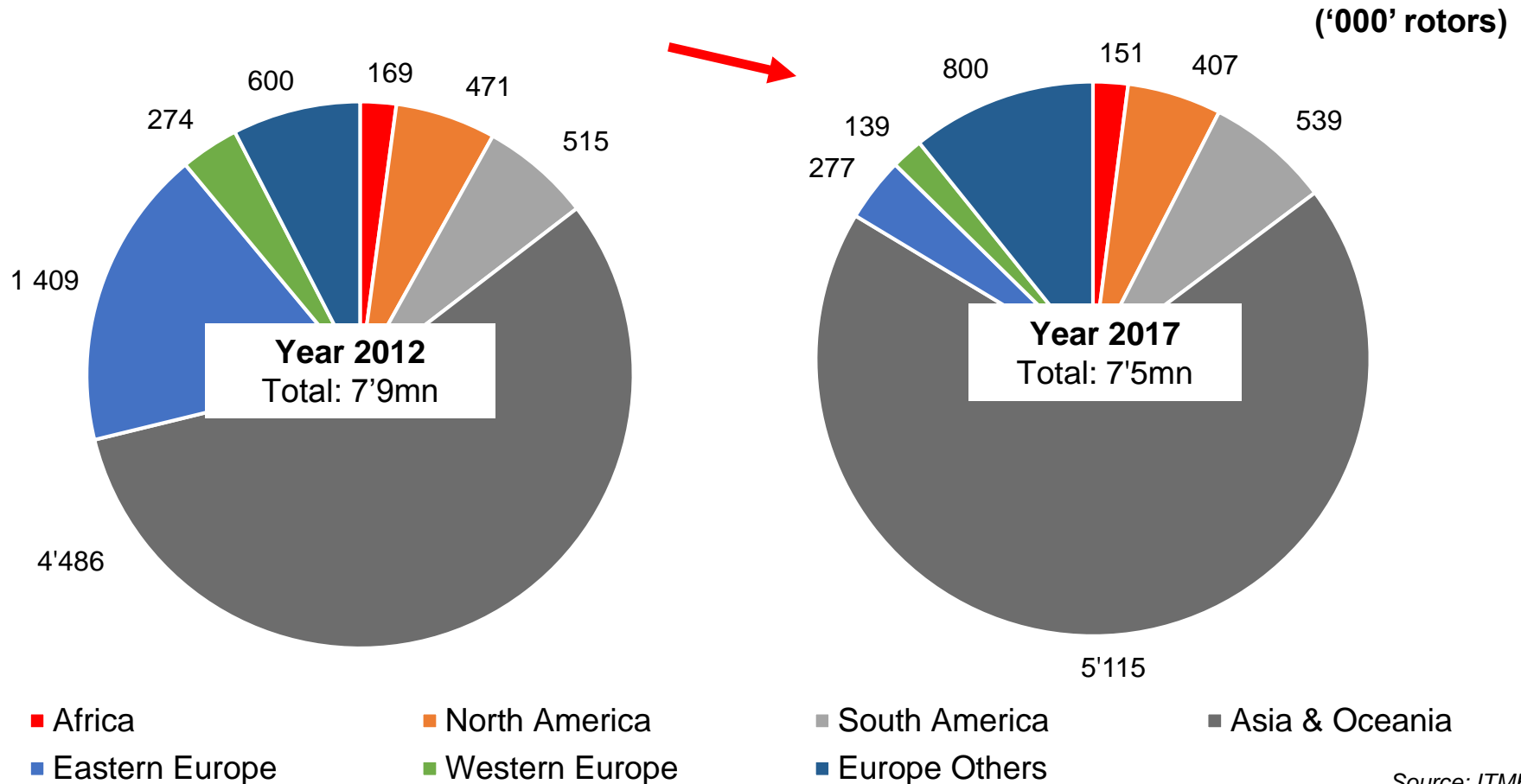


Source: ITMF

Textile machinery investments

.....with similar trend in rotor spinning capacity

World installed open end spinning capacity

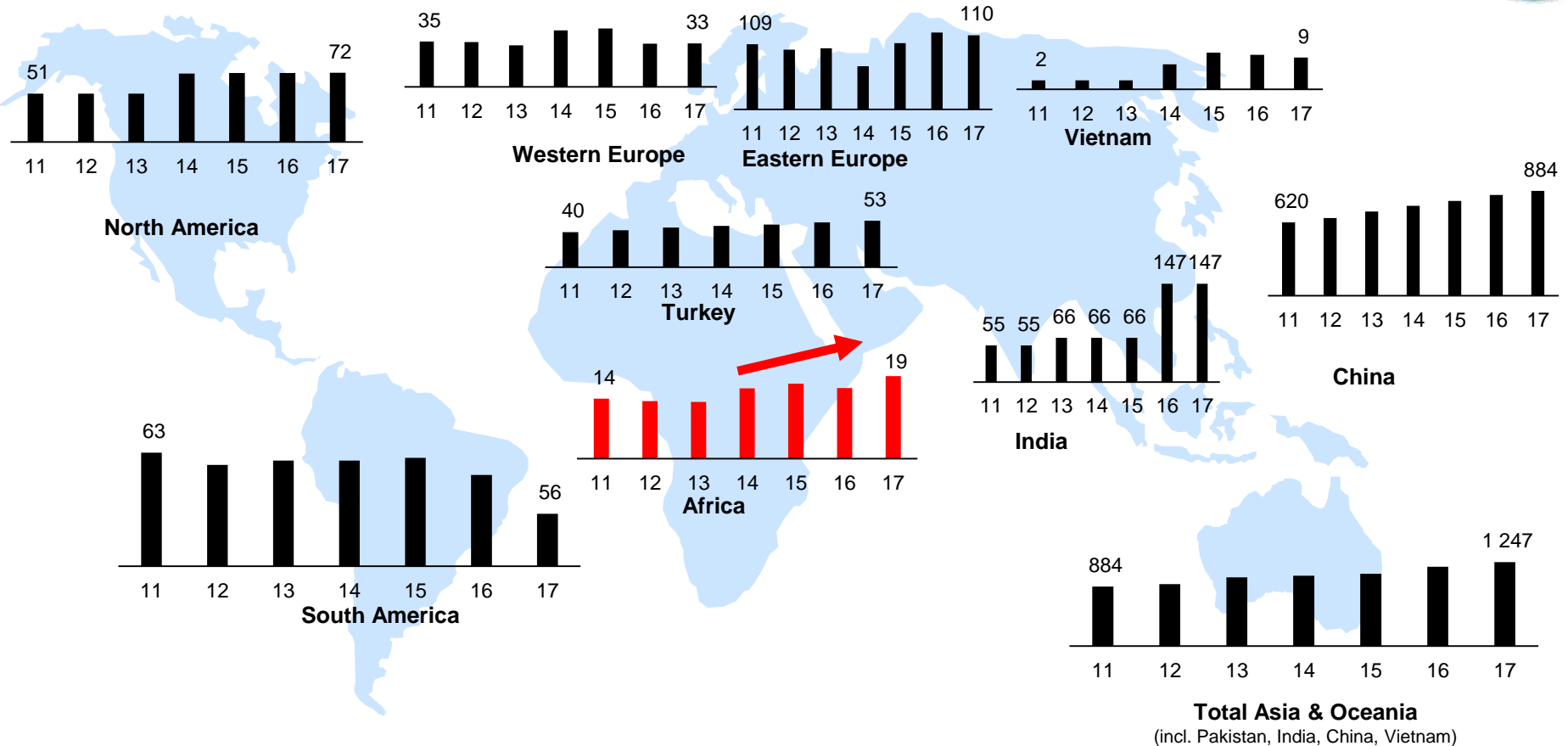


Source: ITMF

Textile machinery investments

Africa's shuttle-less weaving and circular knitting capacity has shown some recovery (1/2)

World installed shuttle-less weaving machines capacity ['000 numbers]

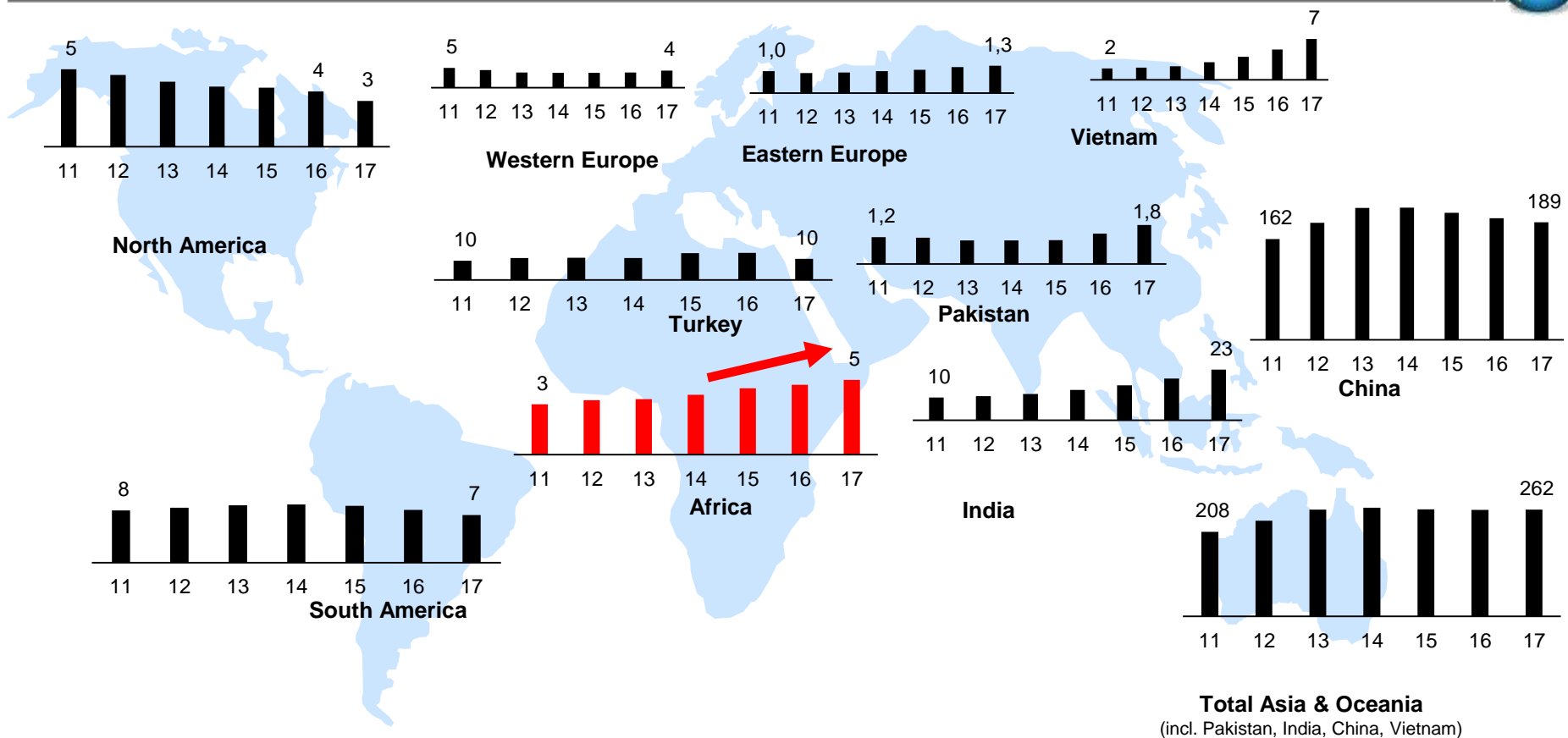


Source: ITMF

Textile machinery investments

Africa's shuttle-less weaving and circular knitting capacity has shown some recovery (2/2)

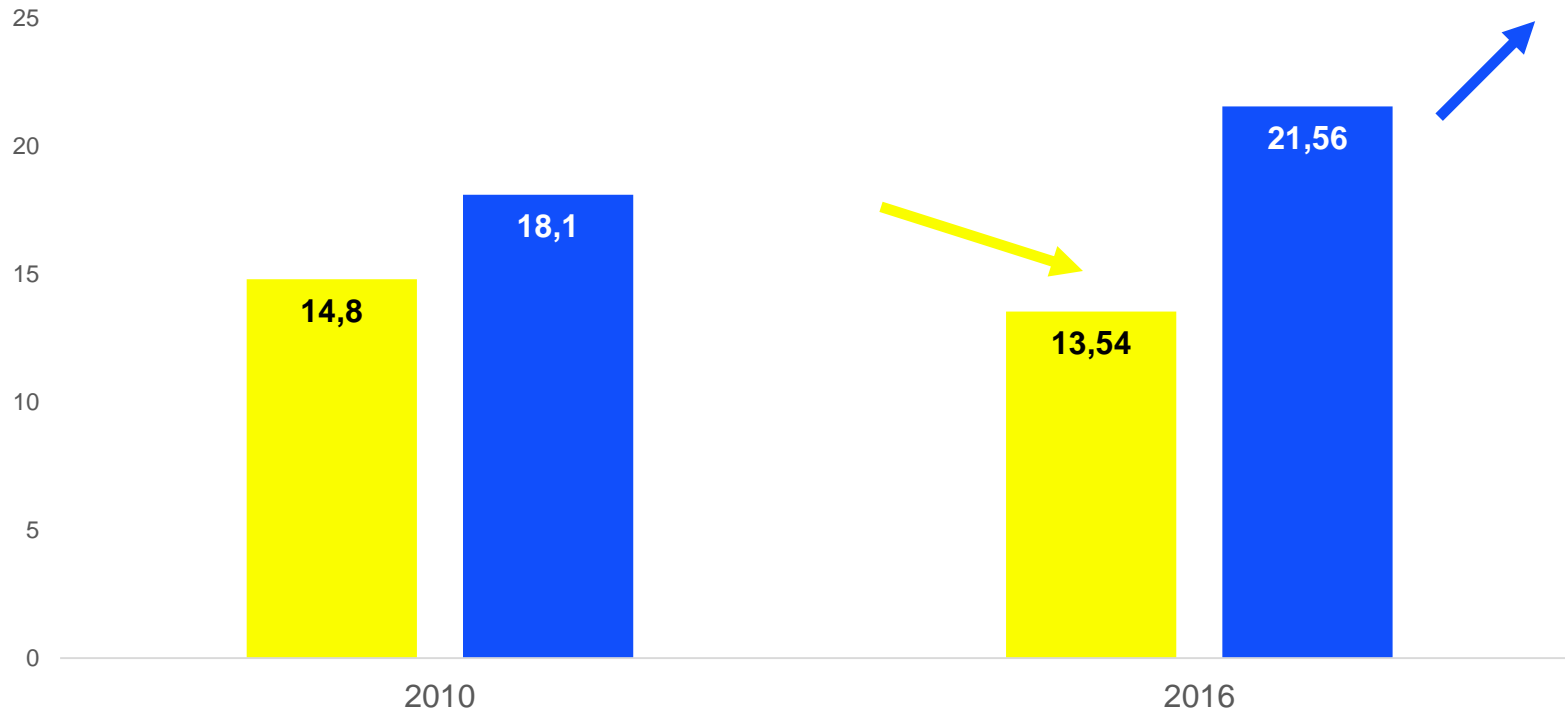
World cumulative shipment (<10 year old) of circular knitting machines ['000 numbers]



Source: ITMF

Africa's global textile & clothing trade at US\$35 bn shows a growing deficit

Africa: Textile & Clothing trade deficit: US\$ Bn



* All 54 countries in Africa Continent
HS Codes: 50 to 63

■ T&C Exports ■ T&C Imports

Source: Comtrade

Africa's T&C Trade

02

Africa's textile & clothing export trade witnessed a slowdown in 2016.



* All 54 countries in African Continent
HS Codes: 50 to 63

Source: Comtrade

Africa's T&C Trade

02

...whereas textile & clothing imports have been growing, especially readymade garments



* All 54 countries in African Continent
HS Codes: 50 to 63

Source: Comtrade

Top 5 countries represent 71% share of textile exports



* All 54 countries in African Continent
HS Codes: 50 to 60 & 63

Source: Comtrade

Africa's T&C trade

3 North African countries account for 70% of total apparel exports from Africa



* All 54 countries in African Continent
HS Codes: 61 & 62

Source: Comtrade

Africa's T&C trade

Nigeria is the No. 1 importer of textiles(US\$ 2.4 bn),mainly for domestic consumption



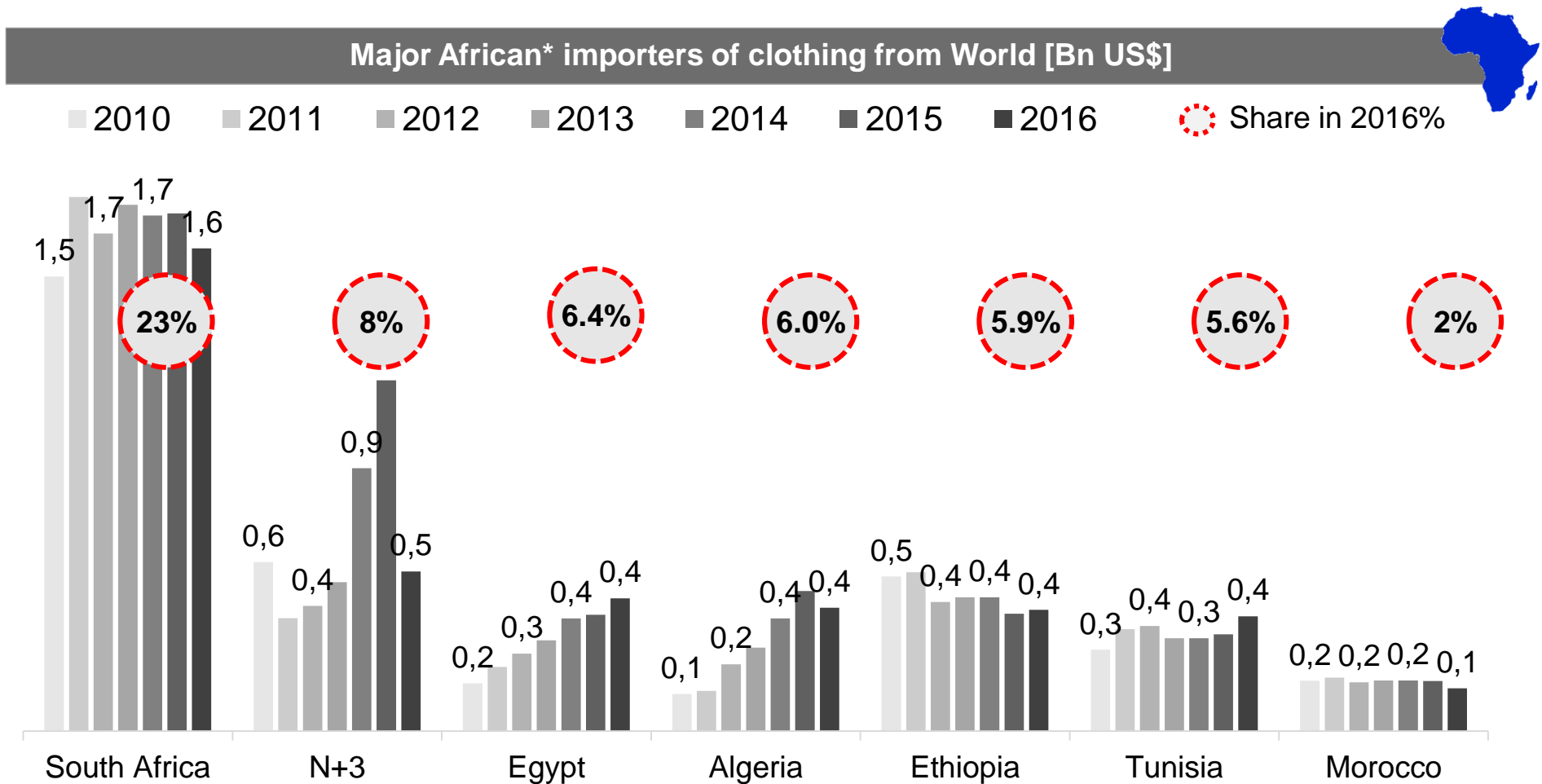
* All 54 countries in African Continent. N+3 = 60% imports of Benin, Togo and Niger are re-exported to Nigeria

HS Code: 50 to 60 & 63

Source: Comtrade

Africa's T&C trade

.....Whereas South Africa is the major importer of clothing in Africa

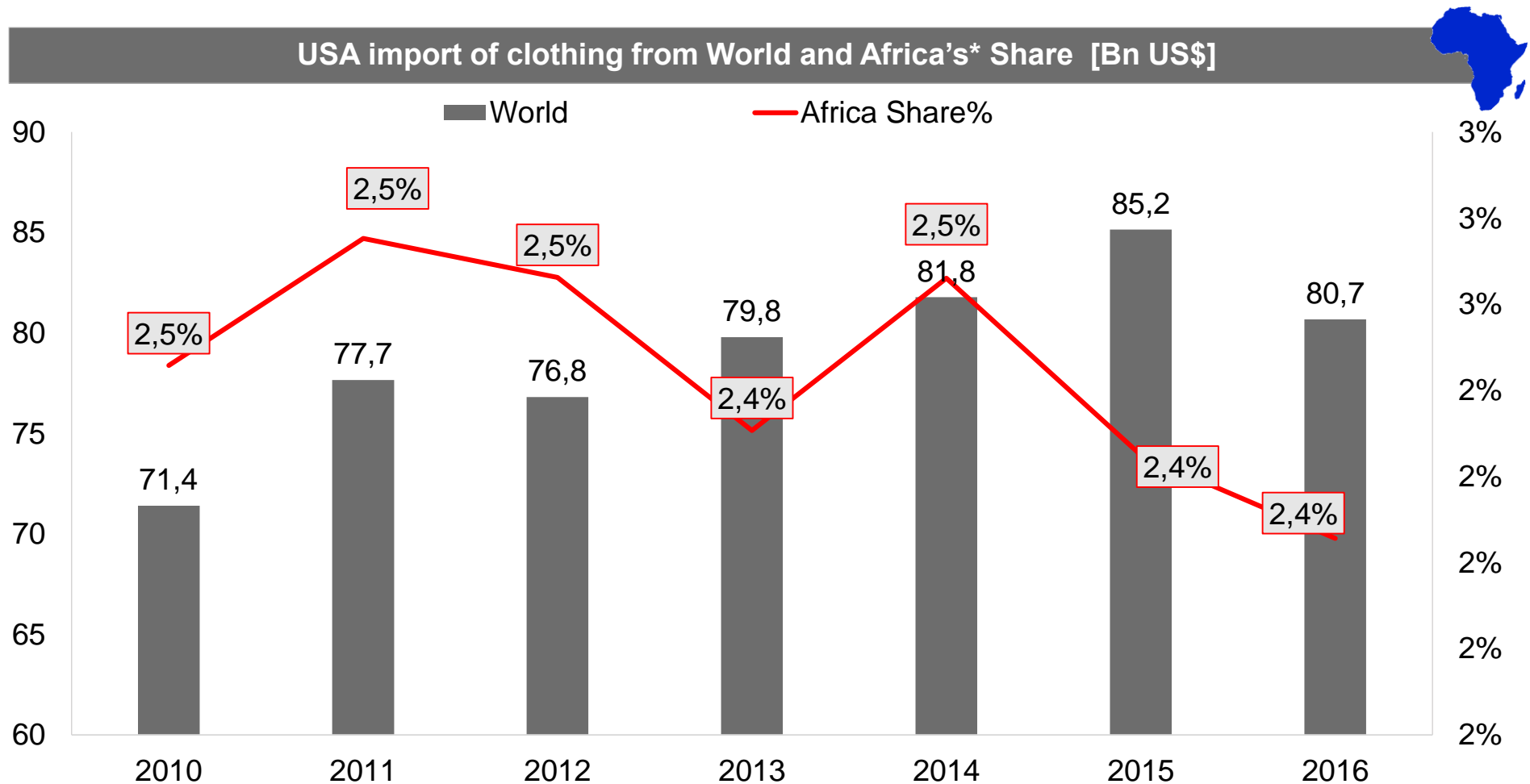


* All 54 countries in African Continent. N+3 = 60% imports of Benin, Togo and Niger are re-exported to Nigeria

Africa's T&C trade

02

Africa's market share in the US imports has been stagnant around 2.5% with further potential to grow to leverage preferential market access



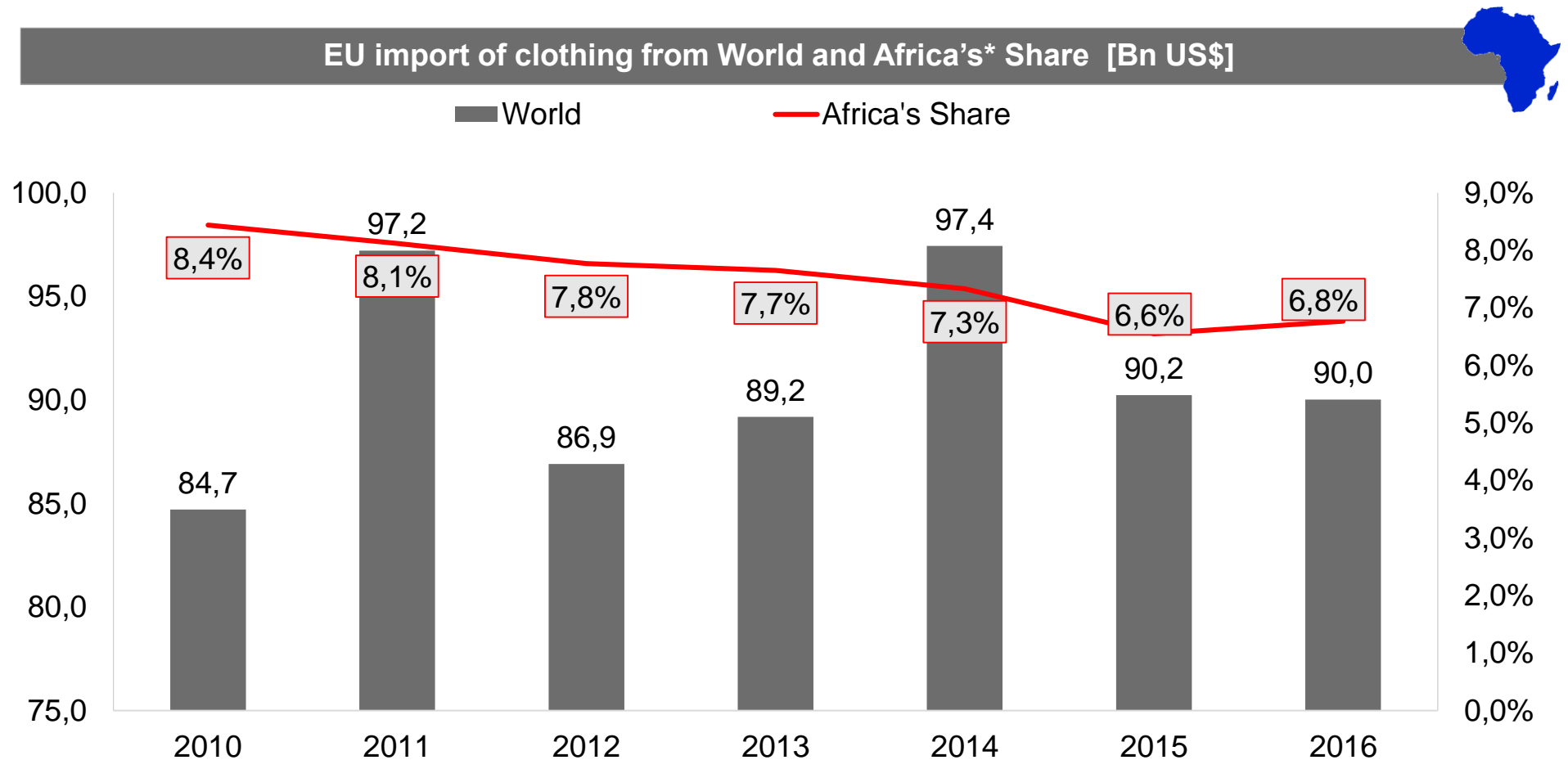
* All 54 countries in African Continent
HS Codes: 61 & 62

Source: Comtrade

Africa's T&C trade

02

EU imports of clothing from Africa have been stagnant around 7% with further potential to grow



* All 54 countries in African Continent
HS Codes: 61 & 62

Source:EUROSTAT

Competitiveness

African countries have competitive wages however many countries face cost disadvantage, especially power

	Asian					African							
Cost parameters													
	China	India	Vn	B'desh	IDN	Kenya	ET	Mada	Nig	EGY	UG	BF	CI
Wages													
Monthly wages USD	600	175	275	130	300	150	75	100	150	125	150	75	125
Electricity													
Electricity tariff (US\$ per kWh)	13	10	7.5	10	9	15	3.5	12.00	12	6.5	12	23	12
Finance cost													
Interest % pa	6	7*	8	10	12	12	10	10	7*	6	7*	11	10

* Concessional interest rate for textile industry under special programme

Source: Gherzi database

The Pioneers (First generation)

1930-60's



Source: Gherzi database

African Textile Industry > 4G

Integrated companies (2nd generation)

1970-90'S



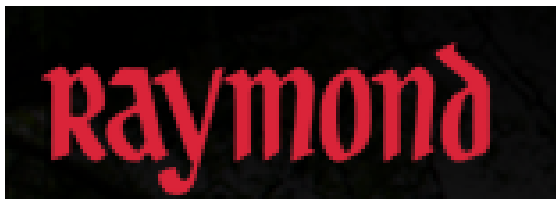
Modern companies (3rd generation)



Source: Gherzi database

A. New Wave Co's(Apparels)

2000-2018

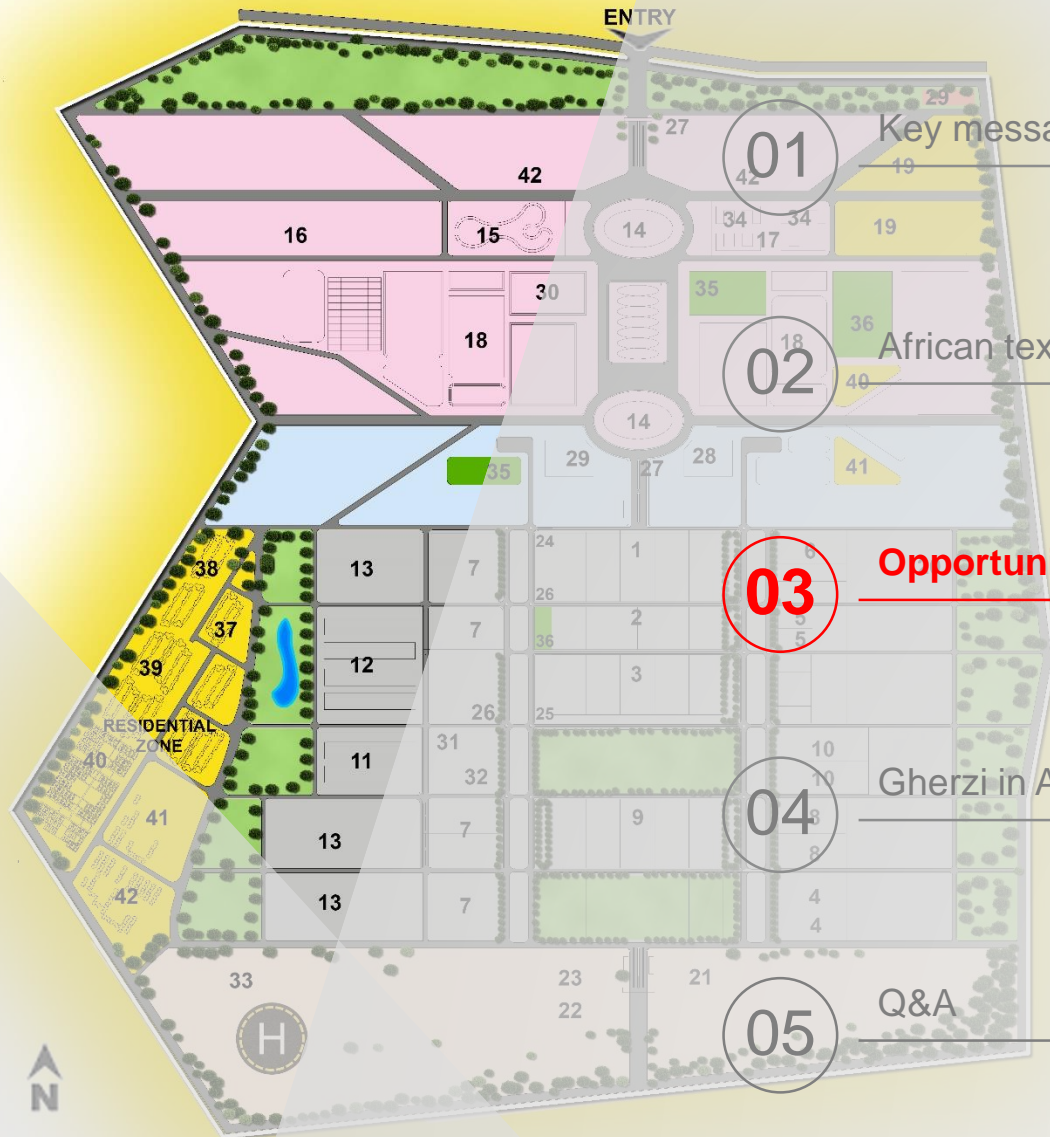


Ashton Apparel EPZ



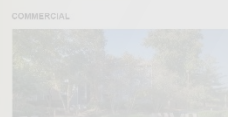
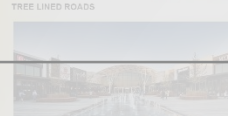
Source: Gherzi database

IMC EGYPT CONTENT



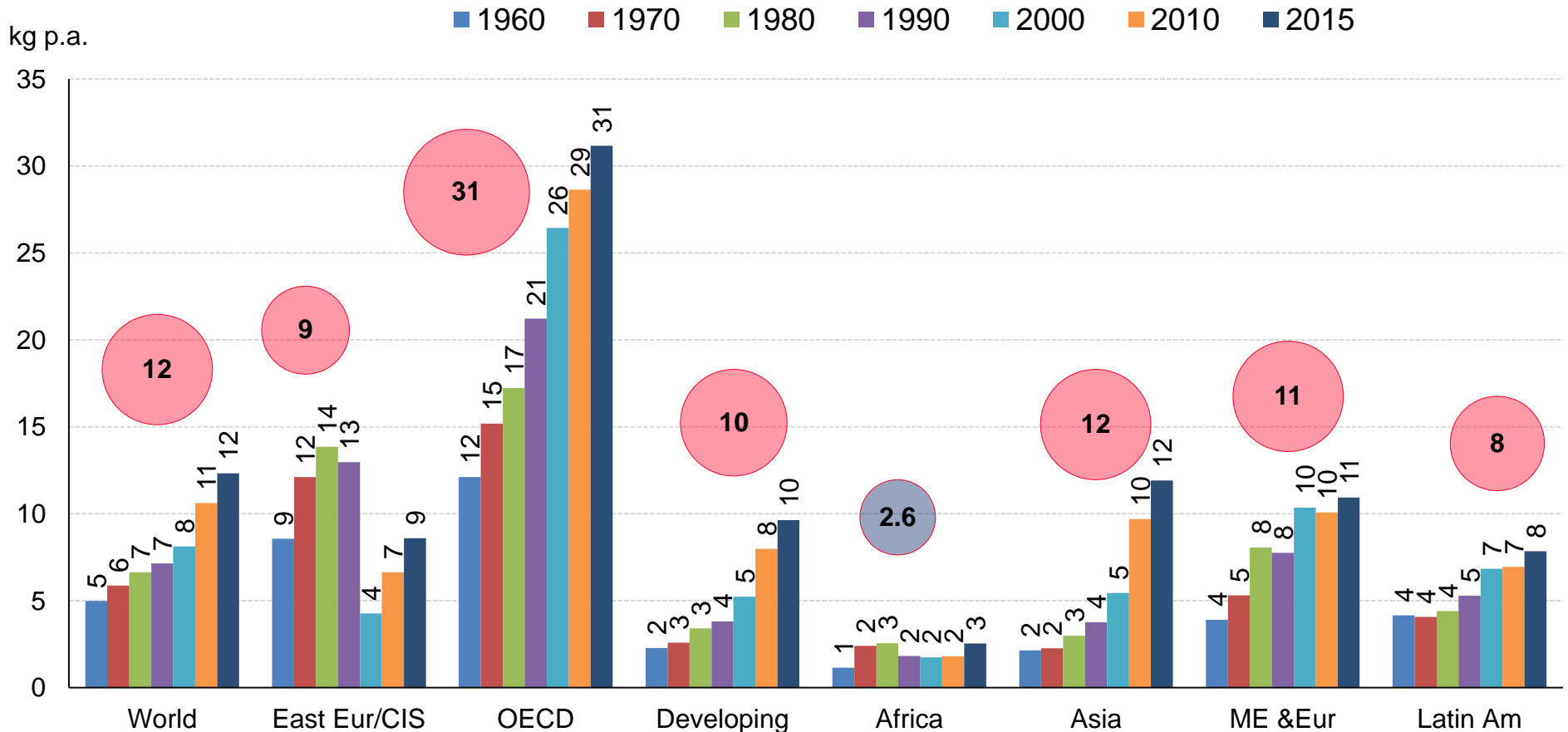
LEGEND

Legend No	Building Name	Bld.no	Length
Industrial & Ancillary			
1	Spinning Unit	5	400
2	Weaving Unit	6	150
3	Processing House	5	250
4	Denim	2	350
5	Yarn Dyeing Unit	2	100
6	Knit processing	8	100
7	Garmenting	8	200
8	weaving + yarn dyeing	2	400
9	Process+weaving+dyeing	5	400
10	Synthetic Fabric Unit	2	200
11	Warehouses	12	600
12	Warehouses	4	300
13	Warehouses and support Industries	6	600
14	Administratin zone	2	600
15	Recreation zone	1	680
16	Business and exhibition centre	1	680
17	Retail zone	1	480
18	Commercial Zone	2	1600
19	Residential Zone	2	370
TOTAL 1 TO 18			
Utilities			
20	Power Plant	1	366
21	Area for ETP	1	413
22	Over Head Tank	2	35
23	Water Treatment U/G Tank with pump	2	62
24	Staff Canteen	1	60
25	Worker Canteen	1	60
26	Fire Station	1	27
27	Gate House	2	10
28	weigh Bridge	1	80
29	Express Power Feeder	2	75
30	Trading Centre	1	100
31	R & D Centre	2	62
32	Skill devpt. Centre	3	55
33	Helipad Area	1	30
34	Retail Store	4	210
35	Commercial Bank	6	50
36	Hospital	2	120
37	School	2	120
38	Staff Resindential Bldg.	10	163
39	Staff Resindential Bldg.	10	112
40	Worker Resindential Bldg.	25	150
41	Club House	2	100
42	Car Parking Area	2	1250
TOTAL 19 TO 42			
TOTAL 1 TO 43			TOTAL
ADD FOR ROADS & GREENS		25%	
GRAND TOTAL AREA			






Africa with a per capita textile consumption of 2.6 kg has huge growth potential

Textile fiber consumption per capita (end-use) by developing countries - kg p.a.



Source: ICAC

6 key regulations govern trade & investment in African countries (1/2)

<p>1</p> <p>Regional market</p>	<ul style="list-style-type: none"> ❑ Free movement of goods within the common market : <ul style="list-style-type: none"> • EAC (6 countries) • ECOWAS (15 countries) • SACU(5 contries) <div style="display: flex; justify-content: space-around; align-items: center;">    </div>								
<p>2</p> <p>CET</p>	<ul style="list-style-type: none"> ❑ A uniform, Common External Tariff applicable to all imports into the common market ❑ 4 tariff slabs for customs duty <table border="0" style="margin-left: 20px;"> <tr> <td>• Essential items(Machinery)</td> <td style="text-align: right;">0%</td> </tr> <tr> <td>• Raw materials(Fiber)</td> <td style="text-align: right;">5%</td> </tr> <tr> <td>• Intermediates(Yarn,Griege)</td> <td style="text-align: right;">10%</td> </tr> <tr> <td>• Finished fabrics & apparels</td> <td style="text-align: right;">25%</td> </tr> </table> 	• Essential items(Machinery)	0%	• Raw materials(Fiber)	5%	• Intermediates(Yarn,Griege)	10%	• Finished fabrics & apparels	25%
• Essential items(Machinery)	0%								
• Raw materials(Fiber)	5%								
• Intermediates(Yarn,Griege)	10%								
• Finished fabrics & apparels	25%								
<p>3</p> <p>Incentives</p>	<ul style="list-style-type: none"> • Export incentives : Export grant/Duty draw back • Fiscal/Investment incentives: Tax holiday(5-7 years)/ VAT exemption • Sectoral incentives : Concessional funding/Special energy tariff • Others : Negotiable 								

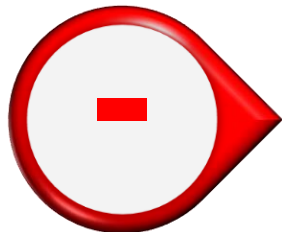
6 key regulations govern trade & investment in African countries (2/2)

4 Forex Controls	<ul style="list-style-type: none">• Generally,foreign exchange can be freely exchanged via banks• Dual exchange rate mechanism prevalent in some countries• A few countries require 100% forex proceeds repatriated against exports to be converted into local currency within stipulated period
5 Ownership	<ul style="list-style-type: none">• 100% FDI is allowed in most countries
6 Preferential Market Access	<ul style="list-style-type: none">❑ 5 regimes to gain duty free market access to developed/developing countries<ul style="list-style-type: none">a) GSP (EBA provision for LDC's allows duty free access to EU)b) AGOA (Applicable to eligible sub Saharan African countries) for exports to USA; Rules of origin allow use of third country fabric)c) QIZ Initiative allows exports of apparels from Egypt & Jordan subject to 35% value addition in the regiond) EPA (EU & individual sub Saharan African) countries allows duty free accesse) Euromed- EU/Tunisia FTA

Opportunities in Africa are apparent however challenges must be understood



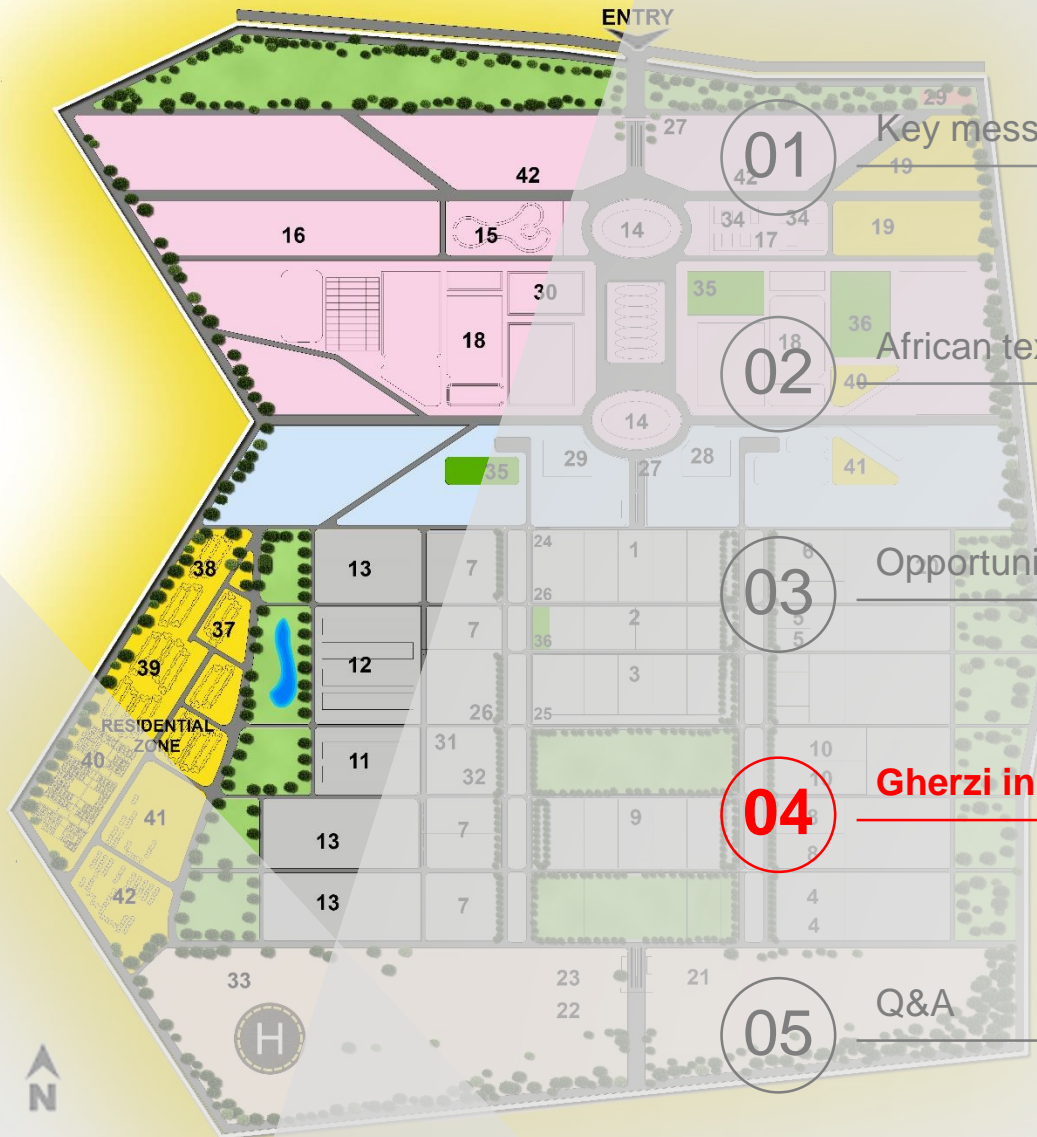
Trend



- Preferential market access to US/EU
- Interest of international buyers to diversify sourcing
- Large regional/domestic market
- Abundant manpower and land
- Raw material supply(Cotton) availability
- Incentives
- Upcoming industrial zones

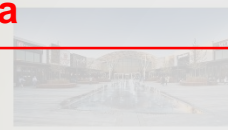
- Enabling environment
- Cost of doing business
- Infrastructure
- Logistics
- Skills & Productivity
- Socio-cultural issues

IMC EGYPT CONTENT



LEGEND

Legend No	Building Name	Bld.no	Length
Industrial & Ancillary			
1	Spinning Unit	5	400
2	Weaving Unit	6	150
3	Processing House	5	250
4	Denim	2	350
5	Yarn Dyeing Unit	2	100
6	Knit processing	8	100
7	Garmenting	8	200
8	weaving + yarn dyeing	2	400
9	Process+weaving+dyeing	5	400
10	Synthetic Fabric Unit	2	200
11	Warehouses	12	600
12	Warehouses	4	300
13	Warehouses and support Industries	6	600
14	Administratin zone	2	600
15	Recreation zone	1	680
16	Business and exhibition centre	1	680
17	Retail zone	1	480
18	Commercial Zone	2	1600
19	Residential Zone	2	370
TOTAL 1 TO 18			
Utilities			
20	Power Plant	1	366
21	Area for ETP	1	413
22	Over Head Tank	2	35
23	Water Treatment U/G Tank with pump	2	62
24	Staff Canteen	1	60
25	Worker Canteen	1	60
26	Fire Station	1	27
27	Gate House	2	10
28	weigh Bridge	1	80
29	Express Power Feeder	2	75
30	Trading Centre	1	100
31	R & D Centre	2	62
32	Skill devpt. Centre	3	55
33	Helipad Area	1	30
34	Retail Store	4	210
35	Commercial Bldg	6	50
36	Hospital	2	120
37	School	2	120
38	Staff Resindential Bldg.	10	163
39	Staff Resindential Bldg.	10	112
40	Worker Resindential Bldg.	25	150
41	Club House	2	100
42	Car Parking Area	2	1250
TOTAL 19 TO 42			
TOTAL 1 TO 43			TOTAL
ADD FOR ROADS & GREENS		25%	
GRAND TOTAL AREA			



Gherzi has accumulated a very strong experience in Africa with over 100 successful projects with presence through 2 offices

Morocco

- Gromatex
- COTEF
- BAW
- ICOZ SA
- Texnord
- AMITH
- Lamatem

Senegal

- ONUDI
- CDE / OPICT
- SOTIBA

Cameroon

- CICAM
- Ministère de l'industrie

Sudan

- Sharat
- Ministère de l'Industrie
- Banque Mondiale
- SUR

South Africa

- Atraco
- Gulf Denim
- SACU Secretariat
- Standerton Mills

Algeria

- SONITEX

Tunisia

- Textiles en Biais
- CETTEX
- Ministère de l'Industrie
- Filtiss

Ivory Coast

- Banque Mondiale
- IPS West Africa

Burkina Faso

- Filsah
- Alok Textiles

Ethiopia

- KWA
- Ministry of Industry
- UNIDO
- Raymond
- Kanoria Group
- Sutlej Group

Botswana

- CNUCED
- BEDIA

Kenya

- EADB
- BAW
- DEG
- Bedi Textiles
- EPZA

Nigeria

- Banque Mondiale
- Chanrai Group
- Bhojsons
- Sunflag
- CHA Group
- UNIDO
- VLISCO
- NNDC
- Bua Group

Ghana

- Akosombo Textiles
- Banque Mondiale
- Ministère de l'Industrie

Zimbabwe

- BAW

Madagascar

- Banque Mondiale
- IFC
- EDBM

Egypt

- Bank Misr
- Spaltenstein Holding
- Banque Mondiale
- Agico
- BAW
- IFC
- Gulf Denim
- STIA
- Santamora
- SOFI
- IMC
- Shamsi Group
- Nile Holdings

Zambia

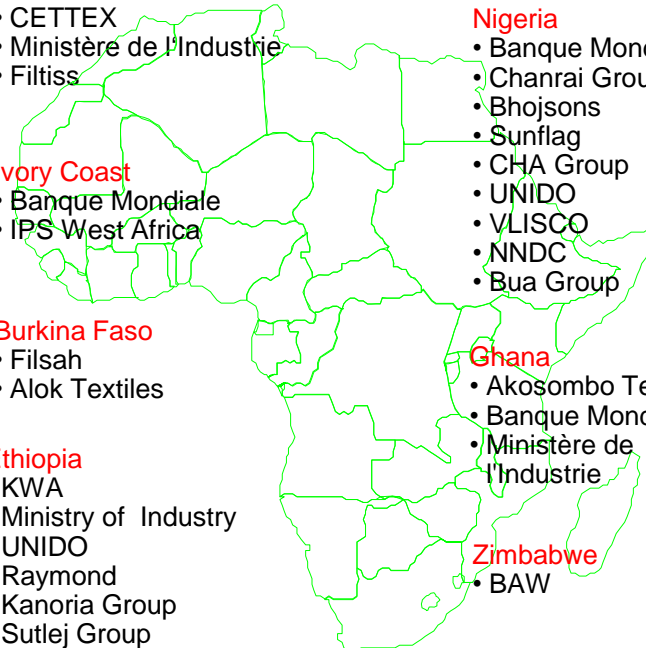
- Smith & Nephew
- BMD
- Tolaram
- UNIDO

Uganda

- IFC
- Ministère de l'industrie
- Fine Spinners

Mauritius

- Vossen
- Arvind Mills
- UNIDO

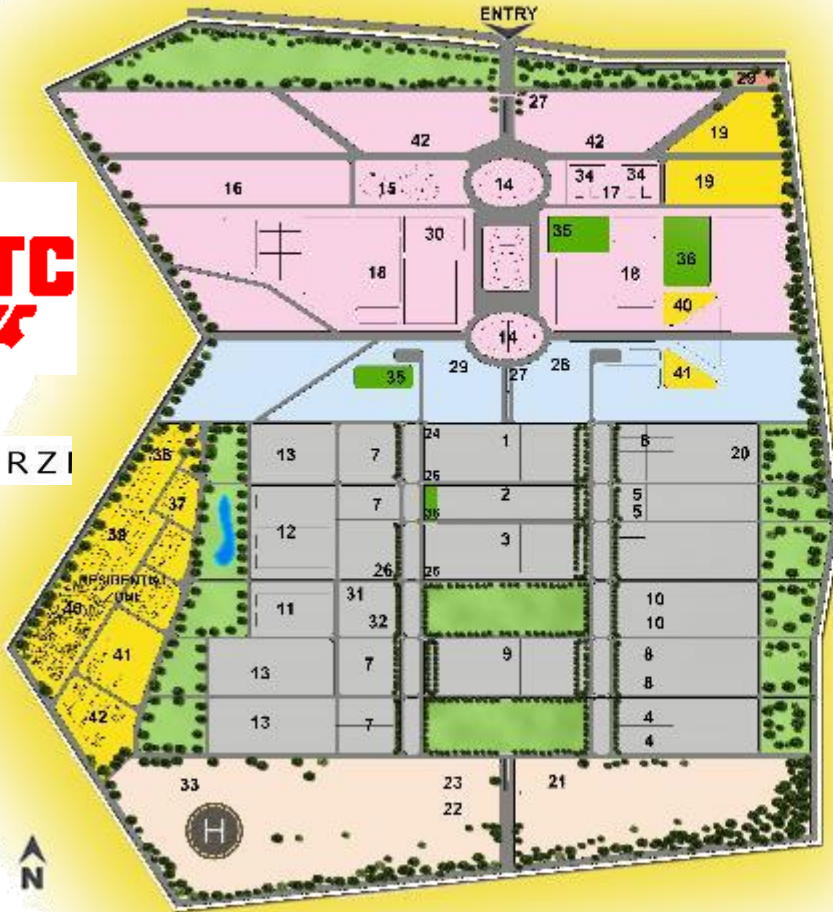


Gherzi in Africa

Egypt Textile City Master Plan

Projects

IMC EGYPT



LEGEND

Legend No	Building Name	Old no	Length in Mb.	Width in fms.	Area in Sq. Met.	
Industrial & Ancillary						
1	Spinning Unit	2	400	50	1,90,000.00	0.05%
2	Woolen Mill	2	400	50	2,10,000.00	0.06%
3	Processing House	2	250	50	1,25,000.00	0.04%
4	Form	2	350	50	1,75,000.00	0.05%
5	Yarn Dyeing Unit	2	150	25	50,000.00	0.01%
6	Knit processing	3	30	50	1,50,000.00	0.04%
7	Knit processing	2	200	50	1,00,000.00	0.03%
8	Knitting - yarn dyeing	2	100	50	50,000.00	0.01%
9	Processing - yarn dyeing	3	100	25	2,50,000.00	0.07%
10	Woolen Mill	2	250	50	1,25,000.00	0.04%
11	Woolen Mill	10	50	50	2,50,000.00	0.07%
12	Woolen Mill	3	300	50	1,50,000.00	0.04%
13	Auxiliary and Support Industries	2	500	50	2,50,000.00	0.07%
14	Auxiliary and Support Industries	2	400	50	2,00,000.00	0.06%
15	Industrial Zone	2	600	50	3,00,000.00	0.09%
16	Business & residential zone	2	300	50	1,50,000.00	0.04%
17	Residential	2	400	50	2,00,000.00	0.06%
18	Commercial Zone	3	1000	50	50,00,000.00	14.12%
19	Residential	2	400	50	2,00,000.00	0.06%
TOTAL INDUSTRIAL					1,12,36,000.00	32.03%
Utilities						
20	Power Plant		160	50	7,70,000.00	0.23%
21	Water Treatment		200	50	10,00,000.00	0.29%
22	Water Treatment	2	35	30	1,05,000.00	0.03%
23	Water Treatment	2	60	70	4,20,000.00	0.12%
24	Water Treatment	1	60	70	4,20,000.00	0.12%
25	Water Treatment		60	70	4,20,000.00	0.12%
26	Water Treatment		60	70	4,20,000.00	0.12%
27	Water Treatment		60	70	4,20,000.00	0.12%
28	Water Treatment		60	70	4,20,000.00	0.12%
29	Water Treatment		60	70	4,20,000.00	0.12%
30	Water Treatment		60	70	4,20,000.00	0.12%
31	Water Treatment		60	70	4,20,000.00	0.12%
32	Water Treatment		60	70	4,20,000.00	0.12%
33	Water Treatment		60	70	4,20,000.00	0.12%
34	Water Treatment		60	70	4,20,000.00	0.12%
35	Water Treatment		60	70	4,20,000.00	0.12%
36	Water Treatment		60	70	4,20,000.00	0.12%
37	Water Treatment		60	70	4,20,000.00	0.12%
38	Water Treatment		60	70	4,20,000.00	0.12%
39	Water Treatment		60	70	4,20,000.00	0.12%
40	Water Treatment		60	70	4,20,000.00	0.12%
41	Water Treatment		60	70	4,20,000.00	0.12%
42	Water Treatment		60	70	4,20,000.00	0.12%
TOTAL UTILITIES					1,26,63,000.00	37.67%
TOTAL					3,45,19,000.00	100.00%
Other Data						
Water Treatment Area					14	0.04%
Green Space Area					14	0.04%



Source: Gherzi projects database

Gherzi in Africa

04

Projects



Gherzi in Africa

Capacity Building



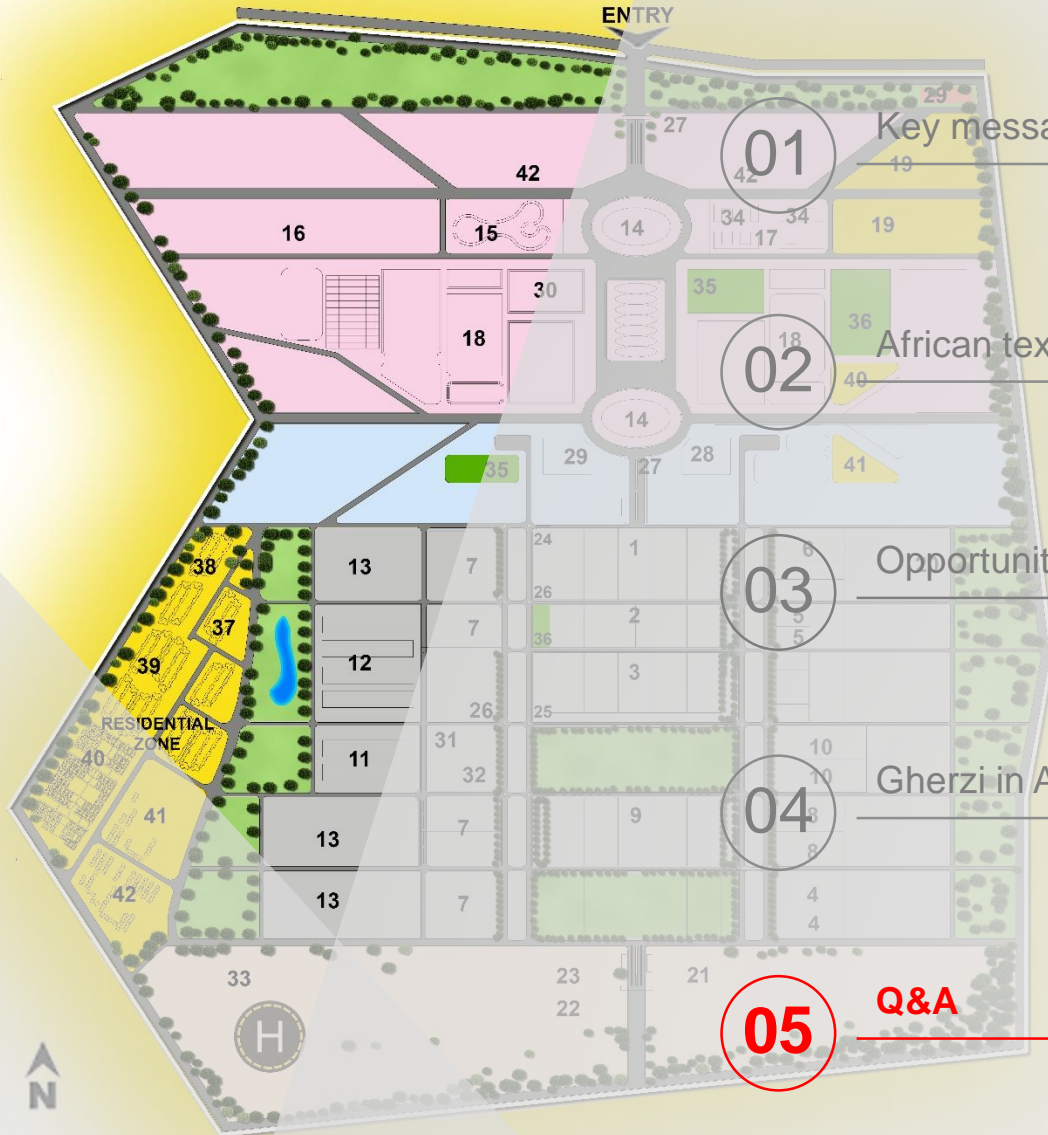
Morocco site under construction

Projects



Source: Gherzi projects database

IMC EGYPT CONTENT



LEGEND

Legend No	Building Name	Bld.no	Length
Industrial & Ancillary			
1	Spinning Unit	5	400
2	Weaving Unit	6	150
3	Processing House	5	250
4	Denim	2	350
5	Yarn Dyeing Unit	2	100
6	Knit processing	8	100
7	Garmenting	8	200
8	weaving + yarn dyeing	2	400
9	Process+weaving+dyeing	5	400
10	Synthetic Fabric Unit	2	200
11	Warehouses	12	600
12	Warehouses	4	300
13	Warehouses and support Industries	6	600
14	Administratin zone	2	600
15	Recreation zone	1	680
16	Business and exhibition centre	1	680
17	Retail zone	1	480
18	Commercial Zone	2	1600
19	Residential Zone	2	370
TOTAL 1 TO 18			
Utilities			
20	Power Plant	1	366
21	Area for ETP	1	413
22	Over Head Tank	2	35
23	Water Treatment U/G Tank with pump	2	62
24	Staff Canteen	1	60
25	Worker Canteen	1	60
26	Fire Station	1	27
27	Gate House	2	10
28	weigh Bridge	1	80
29	Express Power Feeder	2	75
30	Trading Centre	1	100
31	R & D Centre	2	62
32	Skill devpt. Centre	3	55
33	Helipad Area	1	30
34	Retail Store	4	210
35	Commercial Bank	6	50
36	Hospital	2	120
37	School	2	120
38	Staff Resindential Bldg.	10	163
39	Staff Resindential Bldg.	10	112
40	Worker Resindential Bldg.	25	150
41	Club House	2	100
42	Car Parking Area	2	1250
TOTAL 19 TO 42			
TOTAL 1 TO 43			TOTAL
ADD FOR ROADS & GREENS		25%	
GRAND TOTAL AREA			



GRAND ENTRANCE / GATE HOUSE



MANUFACTURING



RESIDENTIAL



PARKING



TREE LINED ROADS



COMMERCIAL



LANDSCAPE IDEAS

01 Key messages

02 African textile & apparel industry - Trends

03 Opportunities & challenges

04 Gherzi in Africa

05 Q&A





GHERZI

Consultants to the Industry since 1929





PARTNERING FOR PROSPERITY IN EAST AFRICA



TRADE
MARK
EAST AFRICA

Growing Prosperity Through Trade



Reducing transit times and costs
Improving port efficiency
Constructing trade infrastructure

ITMF Annual Conference 2018

Presentation by
Frank Matsaert
Chief Executive Officer,
TradeMark East Africa



Eliminating Non Tarriff Barriers to Trade
Upgrading customs management
Harmonising standards



Increasing smallholder incomes
Facilitating cross border trade for small businesses
Upgrading exports to meet standards



EAST AFRICA



- Fastest growing economic bloc in Africa and second in the world. - **Your gateway to Africa**
- GDP Growth: 5.3% (**Above-average GDP growth**)
- World's **fastest-reforming** region
- The **largest single market in Africa** with a population of 150+m.
- **Diversified economy/business and investment opportunities** in the textile and apparel Sector
- Growing middle class (Ready Market)
- **Preferential market access** to the U.S, E.U amongst others.
- **Harmonized tariffs** within the EAC – Customs Union and Single Customs Territory
- **Improved political environments**

Population 150+ Million

GDP \$146 billion

GDP Growth 5.3% (Above-average GDP)

Inflation 6.2%

EAC PARTNER STATE'S CONTEXT

- Partner States have individually taken **positive steps towards creating an enabling environment** for trade and investment.
- EAC Countries **implemented that highest number of reforms in Sub-Saharan Africa** in 2017. Kenya (6) & Rwanda (5).
- **Political goodwill** high to address the cost of doing business in EAC Partner States
- Improving the trade and investment climate at the National Level is an essential ingredient for successful regional integration



DOING BUSINESS IN EAST AFRICA - THE OPPORTUNITIES



- **Cotton and Textile is a key priority sector** for the EAC Partner States **(Strong political goodwill)**
- **Cotton production** in Uganda, Tanzania and Kenya is growing rapidly, and Governments are investing heavily in cotton farming and reviving the value chain. Pilot projects on cotton production using BT technology are underway in Kenya.
- All EAC States are expanding **Export processing and Special Economic Zones** (Textile cities) – Tanzania, Rwanda and Kenya Leading
- Ports of Dar and Mombasa being upgraded to **enhance turnaround time**

DOING BUSINESS IN EAST AFRICA - THE OPPORTUNITIES

- All Partner States are **expanding Energy production and have tax incentives for Green Energy production**- The focus is to bring down the cost of Energy
- **All Partner States have One Stop Shops to support Investors**
- **AGOA status** for the EAC States and local demand driving demand for Textiles and apparel
- **Numerous tax incentives** for investors – Corporate tax relief
- **Relatively cheap, skilled and productive labour**



BOTTLENECKS & RISKS OF DOING BUSINESS IN EAST AFRICA ("WORK IN PROGRESS"):

- **Poor Transport infrastructure and intermodal connectivity:** regional rail and road network connectivity relatively poor
- **Ports and inter-agency inefficiency**
- **Cost and supply of energy**, particularly in Uganda and Tanzania. Uganda, manufacturers pay \$0.10 per kWh, Tanzania \$0.14 per kWh, Rwanda \$0.12 per kWh and Kenya \$0.15 per kWh
- **Inefficiency in the local transport and logistics** sector (road transport services).
- **Tax administration** is "perceived" as burdensome
- **Harmonization of standards and enforcement of regulation around standards, transit and counterfeit goods.**
- **Incentives:** sufficient but could be improved
- The **EAC Customs Union and Common Market** not fully implemented
- **Corruption**

HOW THESE CHALLENGES ARE BEING ADDRESSED

- **Poor infrastructure-** Mega infrastructure & energy projects: Mega-Regional roads, Ports and Power projects ongoing
- Development of **Logistics Hubs, EPZs & SEZs**
- Public-Private Sector Dialogue frequent
- **Trade Facilitation** improvements- Shortening lead-times, - green channel, Port upgrading, digital corridors, RECTs, IBM, E-Government
- **Port productivity** enhancements



TMEA has supported:

- ✓ Single Customs Territory clearance that provides for customs clearances to be made for Northern Corridor countries at Mombasa port
- ✓ Regional Electronic Cargo Tracking & Customs Management System in Uganda-75% reduction in transit & clearance times
- ✓ Various initiatives in East Africa to address NTBs, resulting in reduction in NTBs in the region

HOW THESE CHALLENGES ARE BEING ADDRESSED

- **Tax incentives-** Import and Export duties in the Cotton and Textile Sector conducive and annually review to catalyse growth
- Ongoing policy reforms as evidence in the improved ranking of EAC Partner States on Ease of Doing Business, Global Competitiveness and Logistics Performance Index reports
- **Skills gap-** Revival of Technical Institutes and Youth Training Programmes to enhance skills and increase availability.
- **Corruption:** Heads of States addressing corruption- unprecedented arrests have been made in the last few months



SOME OF THE RESULTS ATTRIBUTABLE TO TMEA WORK

IMPROVED PHYSICAL ACCESS TO MARKETS

CONTAINER TRANSPORT TO A LANDLOCKED COUNTRY



AS AT JUNE 2017

Reduced average time taken to transport a container from Mombasa or Dar es Salaam ports to a landlocked Country by **16.5%** as at June 2017.

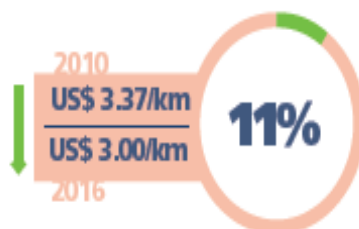
AVERAGE TRANSPORT COST



2010 VS 2017

Reduced average transport costs from Mombasa to Kampala by **48%** from US\$4.06/Km in 2010 to US\$2.1/Km in 2017.

AVERAGE TRANSPORT COST



2010 VS 2017

Reduced average cost of transporting a container from Dar es Salaam Port to Burundi by **11%** from US\$3.37/km in 2010 to US\$3.00/km in 2016.

SOME OF THE RESULTS ATTRIBUTABLE TO TMEA WORK

ENHANCED TRADE ENVIRONMENT & IMPROVED BUSINESS COMPETITIVENESS

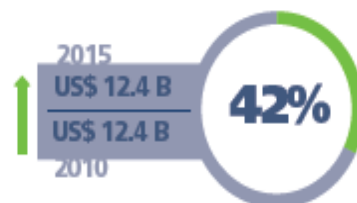
OPERATIONALISED ONE STOP BORDER POSTS
REDUCE BORDER CROSSING TIME



AS AT JUNE 2017

Reduced average time a truck takes to cross the borders by over 70% leading to annual savings of USD 62.8 million.

REMOVAL OF KEY NON-TARRIF TRADE BARRIERS



2010 VS 2015

Elimination of key trade barriers, building export capability and improving competitiveness contributed to a 42% increase in the total value of exports from the EAC region to the world from a 2010 baseline of \$ 9.03 billion to \$12.4 billion in Dec 2015.

CONTRIBUTE TO INCREASING INTRA-REGIONAL EXPORTS



DECEMBER 2015

Increase in intra-regional exports from a 2010 baseline of \$2.1 billion to \$ 3.1 billion by Dec 2015.

TMEA PLANS AND OPPORTUNITIES UNDER TRADE LOGISTIC CLUSTERS



- Several regions in EAC identified & TMEA plans to **catalyse growth** in these pilot regions through partnership with government and private sector.
- Textiles and Apparel, Agro-processing (cotton) – Mombasa, Dar and Rwanda
- We are looking to Partner with potential investors in the Textile and Apparel Sector to enhance trade and Investments in EAC. Connect with us

www.trademarkea.com



THE BELGIAN
DEVELOPMENT COOPERATION



Global Affairs
Canada
Affaires Mondiales
Canada



MINISTRY OF FOREIGN AFFAIRS
OF DENMARK
Danida



Ministry for Foreign
Affairs of Finland



Ministry of Foreign Affairs of the
Netherlands



NORWEGIAN MINISTRY
OF FOREIGN AFFAIRS



USAID
FROM THE AMERICAN PEOPLE

The Role of Africa in the Global Supply Chain

Sunny Huang



Fabric Production

AGOA

ETHIOPIA 衣索比亞

衣索比亞旭榮製衣廠
New Wide Garment
(Ethiopian Branch)

KENYA 肯亞

肯亞旭榮製衣廠(一廠)
New Wide Kenya
Garment Co., Ltd. I

肯亞旭榮製衣廠(二廠)
New Wide Kenya
Garment Co., Ltd. II

肯亞旭榮製衣廠(三廠)
New Wide Kenya
Garment Co., Ltd. III

肯亞旭榮製衣廠(四廠)
New Wide Kenya
Garment Co., Ltd. IV

肯亞旭榮製衣廠(五廠)
New Wide Kenya
Garment Co., Ltd. V

肯亞旭榮製衣廠(六廠)
New Wide Kenya
Garment Co., Ltd. VI

LESOTHO 賴索托

賴索托EUG廠
Ever Union Garments
Lesotho (PTY) Ltd.

CHINA 中國

Changzhou · 常州

常州旭榮針織印染·設計研發中心
Changzhou New Wide - Design Center

常州旭榮針織印染·織廠區
Changzhou New Wide - Knitting Factory

常州旭榮針織印染·染整區
Changzhou New Wide - Dyeing Factory

常州旭榮針織印染有限公司
Changzhou New Wide Knitting & Dyeing Co., Ltd.

Kunshan · 昆山

昆山立榮針織有限公司
Kunshan Leadrong Knitting Co., Ltd.

昆山旭榮製衣企業有限公司
Kunshan New Wide Garment Co., Ltd.

昆山旭榮紡織企業有限公司
Kunshan New Wide Textile Co., Ltd.

Shanghai · 上海

旭榮集團上海管理總部
New Wide Group Shanghai Office

Hong Kong · 香港

旭榮(香港)國際有限公司
New Wide (H.K.) International Co., Ltd.

VIETNAM 越南

旭榮(越南)企業責任有限公司
New Wide (Vietnam) Enterprise Co., Ltd.

旭榮製衣(越南)責任有限公司
New Wide Garment (Vietnam) Co., Ltd.

越南巨竹染整廠
New Wide Huge Bamboo Enterprise Co., Ltd.

CAMBODIA 柬埔寨

旭榮製衣(柬埔寨)有限公司
New Wide (Cambodia) Garment Co., Ltd.

穗德國際(柬埔寨)有限公司
Grand Textiles (Cambodia) Co., Ltd.

TAIWAN 台灣

台北旭寬企業股份有限公司
New Wide Enterprise Co., Ltd.

旭榮製衣股份有限公司
New Wide Garment Co., Ltd.

旭榮集團設計研發中心
New Wide Taipei Design Center

旭榮集團全球佈局 NEW WIDE GROUP GLOBAL SETTING

U.S.A. 美國

J.J.'s Mae, Inc.

旭榮美國達拉斯分公司
New Wide Industrial (USA) Co., Ltd.

旭榮美國紐約辦事處
New Wide New York Branch Office

Customer

Service Center

旭榮集團
NEW WIDE GROUP
www.newwide.com

Quick Response Area

► Why Africa?

**More and more brands have
sourcing offices or manufacturing
bases in Africa**

- Competitive labor cost
 - Ethiopia: USD 43/m, Lesotho: USD 102/m, Kenya: USD 170/m
 - Bangladesh: USD70/m, Cambodia: USD170/m, Vietnam: USD250/m
- Free trade agreements
 - AGOA extension to 2025 (18%~30% cost difference)



New Wide Africa Setting



Ethiopia
New Wide Garment
Ethiopia
Since 2015



Kenya
New Wide Garment
Kenya
(5 factories)
Since 2010



Lesotho
Ever Unison Garments
Lesotho
(2 factories)
Since 2002



► Challenges For Production Conditions

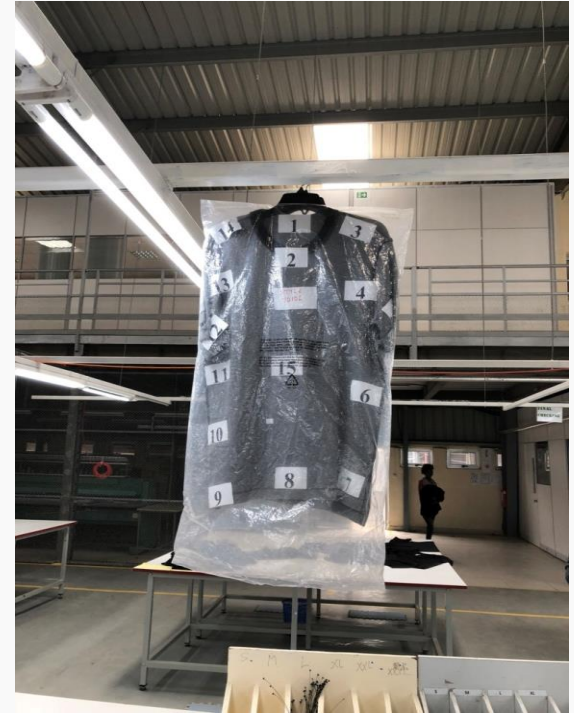
- Longer lead time
 - Long shipping days for fabrics
 - Shipping from Asia: 30 days
 - No direct ships. High risk of delay
 - Cumbersome custom process
 - 7-10 days for custom clearance
- Mainly supplying high-volume bulk basics for US/ Canada buyers

New Wide Kenya



► Challenges For Production Conditions

- Inadequate infrastructure
 - Lagging transport system
 - Spotty power/ internet supply
 - Lack of water supply
- Concerns of political/ social status
- Lack of local experienced labors



► Challenges For Production Conditions

- Fast increasing labor cost
 - Kenya: 18% increase in 2017
 - Lesotho: 37% increase in 2018
- Uncertain global trading/ political relations



The Opportunities in Africa

- Huge labor pool
 - Sub-Saharan Africa will have the highest growth in working-age population anywhere over the next 20 years, more than 900 million people
- Strong purchasing power for domestic markets
 - Fastest growing middle class in the world. African consumer spending will hit US1.4 trillion by 2020.
- More trade agreements
 - AfCFTA (Africa continent free trade areas)
 - SADCFTA(Southern Africa Development Community)
- Massive lands for the sources of raw materials

▶ To Move Forward...

Governments

- Regional vertical supply chain integration
- Provide market-oriented educations
- Improve infrastructure
- Diversified free-trade agreements

Manufacturers

- Performance improvements and management training
- Diverse markets
- Automation/ intelligence manufacturing

New Wide Big Data center



New Wide Vietnam automated warehouse



CSR- Last But Not the Least

CSR White Paper announcement conference



New Wide CSR White Paper, in Chinese and English, complied with **both GRI G4 and CSR-GATEs** standards

CSR- Water Resource Management

New Wide Changzhou, China

Wastewater recycle system



New Wide Kenya

Boiler in place to provide steam for ironing machines



Tanks for harvesting rain water



New Wide Lesotho

Recycling water process

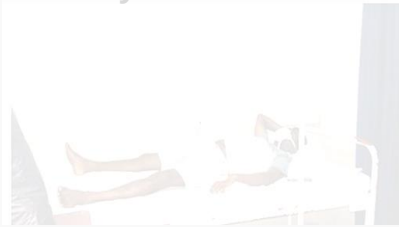


Green lands



CSR- Employees Management and Factories Communities

Donation campaign for a worker's medical treatments in Kenya



Blankets donations to the poor in winter



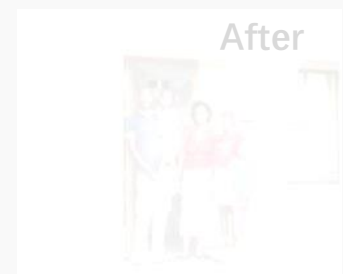
Annual rewards for the outstanding employees



Financial support to worker's house in Lesotho



Before



After

Executive meeting in Africa



Global managers at 2018 New Wide Group Kick-off Meeting



CSR- Employees Management and Factories Communities

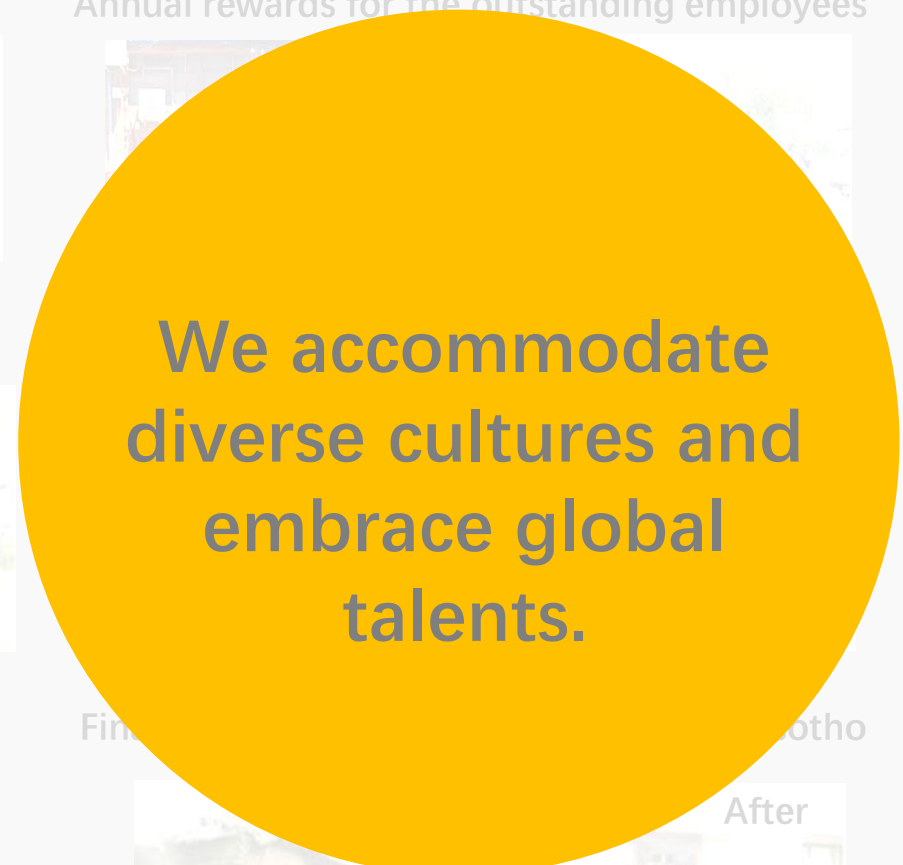
Donation campaign for a worker's medical treatments in Kenya

Annual rewards for the outstanding employees

Executive conference in Africa



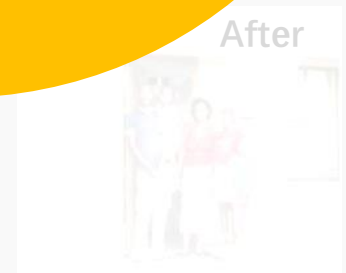
ket donations
e poor in winter



Global managers at 2018 New Wide Group Kick-off Meeting



Fin... otho



CSR- Employees Management and Factories Communities

Donation campaign for a worker's medical treatments in Kenya

Executive meeting in Africa



Annual rewards for the outstanding employees



Blankets donations to the poor in winter



Global managers at 2018 New Wide Group Kick-off Meeting



Financial performance



CSR- Employees Management and Factories Communities

Donation campaign for a worker's medical treatments in Kenya

Annual rewards for the outstanding employees

We care about employees' safety and security needs



Financial support to worker's house in Lesotho



Global 2018 N



CSR- Employees Management and Factories Communities

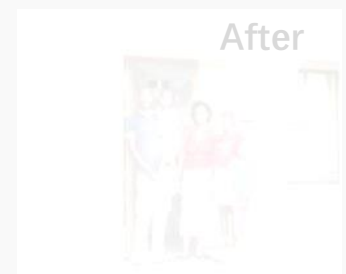
Recognize and reward employees 'efforts

Annual rewards for the outstanding employees

Guess their prize??!



Financial support to worker's house in Lesotho



Global New Wide Group 2018 New Year Meeting



CSR- Employees Management and Factories Communities

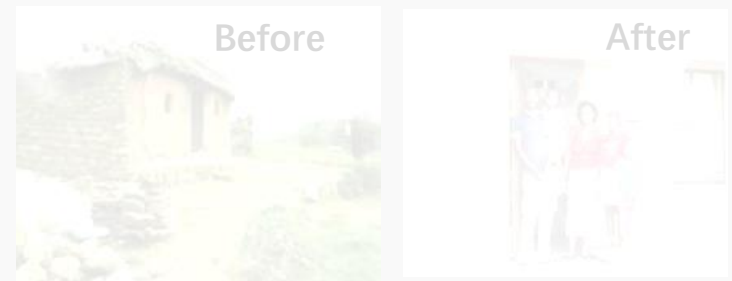
Executive

...nation campaign for a
... medical treatments

Annual rewards for the outstanding employees



Financial support to worker's house in Lesotho



Recognize and reward employees' efforts

Global
2018 New W



നന്ദി **Gracias** Благодаря **Danke** Todah **Asante** Nagode
 Dziekuje **Gracias** მადლობა **Danke** **Hvala** Imeela Zikomo **Dzięk**
 Urakoze **Gracias** Ευχαριστώ **Danke** 谢谢 **Enkosi** **Dank U** Kealeboga
 Maita Basa **Спасибо** **Thank** ありがとう ክመሰግናለሁ
 Shnorhakalutyun **Takk** **Thank** **Gracias** Kiitos شكرا
 Teşekkür ederim **Tak** **Merci** **Grazie** **You** Diolch مر از گس ايس
 ചെച്ചെചെ **Salamat** **Obrigado** **Grazie** **You** Terima Kasih धन्यवाद
 Multumesc **Salamat** Dhonnobad Köszönöm **Diolch** **Ese Tack** বাংলা
 Ma'rsi **Farsi** 고맙습니다 ಧನ್ಯವಾದಗಳು **Tak** תודה **Todah** நன்றி
 @InspiringThinkn

**PAPER BY MR. EDET SUNDAY AKPAN, PERMANENT SECRETARY
AND HEAD OF THE NIGERIAN DELEGATION TO AFRICAN
COTTON & TEXTILE INDUSTRIES FEDERATION SCHEDULED FOR
THE 9TH – 11TH SEPTEMBER, 2018 AT THE VISA OSHWAL
CENTRE, WESTLANDS, NAIROBI, KENYA**

PAPER TITLE: PROSPECTS, OPPORTUNITIES AND CHALLENGES OF
INVESTING IN THE COTTON, TEXTILE AND GARMENT
(CTG) INDUSTRY IN NIGERIA

1. I am delighted to lead the Nigerian delegation to the Origin Africa 2018 where two important conferences are taking place in sequence. It is great to note the contributions of Origin Africa in the development of the cotton, textile and garment industry in Africa, which has afforded Nigeria the opportunity to showcase its potentials in the sector. We want to thank Ms. Belinda Edmonds and her team for the great work of organising this yearly event and for always inviting Nigeria to participate.

2. It is important for us in Nigeria that we attend conferences like this where we can showcase the status of the Cotton, Textile and Garment industry in Nigeria in a bid to woo investors. Therefore, I am excited to inform this gathering that delegates attending this conference from Nigeria include members of the Nigerian Textile Manufacturers, fashion designers, garment makers, government officials and other stakeholders in the sector. The idea is to present to investors the prospects and opportunities available in investing in the cotton, textile and garment (CTG) industry in Nigeria.

3. Your Excellencies, Distinguished Ladies and Gentlemen, I want to present synopsis of the development of the CTG in Nigeria, which started since 1957 with the establishment of the first textile company in Northern Nigeria, where most of the cotton in the country is grown. By 1980s Nigeria had no less than 175 thriving textile companies with specialised fabrics being exported to mostly the West and Central African regions and outside of Africa. Nigerian designs became the hallmarks of African Prints. At its peak in the late 1980s, the textile industry, in particular, became the highest employer of labour after government employing over 700,000 direct workers

4. The textile industry witnessed a decline in the 1990s, which affected the entire value chain of the CTG. Cotton production dropped to less than 100,000 tons per annum and this equally affected the textile mills operating far less than optimal installed capacities. Employment also dropped to less than 50,000. This resulted in massive imports of textile materials to meet the need of our people.

5. In 2014 the Nigerian Government in collaboration with all stakeholders developed a National Cotton, Textile and Garment Policy to address identified challenges and to attract investments into the industry. This provided the much needed platform for already existing textile mills to retool and modernize their facilities. However, the prolonged huge imports of textile material coupled with high cost of manufacturing due to

inadequate infrastructural facilities, posed renewed challenges to some of the revitalized textile mills.

6. In this regard, the Government of Nigeria in partnership with the private sector is reviewing the National Cotton, Textile and Garment Policy to address all impediments to industrial development in the CTG sector. Furthermore, the reviewed policy is expected to address cotton seeds sourcing, production as well as ginning. In same vein, Government has recognised the CTG sector as strategic industry, which implies that investors in the industry will be provided with gas at concessionary rate.

7. It is important to emphasise that Nigeria is blessed with vast arable land for cotton cultivation and production of staples (short, medium and long) cotton fibres. Therefore, there is an intervention fund set aside for the growth and development of the industry.

8. In order to ensure continued production along the value chain, Government has issued an Executive Order, which has tilted Government procurement towards locally produced textile materials.

9. Ladies and Gentlemen, I want to use this forum to inform you that the Government of Nigeria has approved and is building six special economic zones to enhance the prospects of industrial development in Nigeria. Two of the zones are dedicated to the CTG sector. In this regard, I wish to invite investors to come

to Nigeria and invest in these zones. We are available to provide any assistance needed by any investor. I must state that Nigeria has very huge and cheap labour available for use.

8. Your Excellencies, Distinguished Ladies and Gentlemen, I want to once again thank the organisers for the opportunity to participate in this conference. We look forward to collaborating with African Cotton and Textile Industries Federation to plan and host Origin Africa in Nigeria in the very near future.

9. Thank you and enjoy the deliberations.



PVH in East Africa: Past, Present and the Future

Cen Williams, Hub Leader.
Africa and Middle East.



Outline

- **The Past:** who is PVH and what brought us to East Africa.
- **The Present:** how far we have come.
- **The Future:** what's next and how can we work together,

The past



Who is PVH?

- Established in 1881, we are one of the world's largest clothing companies with a turnover of \$9bn.
- Nearly 1m workers in our supply chain.
- Source from over 40 countries.
- Globally recognised brands.
- Industry leader on corporate responsibility.



CR

MAKE POSITIVE IMPACTS

Corporate Responsibility (“CR”) is central to how we conduct business, as we recognize both the opportunity and the responsibility for business to take a lead role in addressing pressing global issues. We believe CR helps strengthen our organization by managing risk, maximizing efficiencies and driving value in a rapidly changing world. Through our collective efforts, we seek to create value for both society and our business.



PEOPLE

DEVELOP & EMPOWER

Our people are our most valuable asset. We aim to protect the human rights of every worker.



ENVIRONMENT

NURTURE & PRESERVE

We are committed to reducing our impact on the environment & sustainably managing resources.



COMMUNITIES

INVEST & ENGAGE

We are engaged in the communities where we work & live with a focus on women & children.



CR 10

OUR COMMITMENTS



1 HUMAN RIGHTS



6 WATER



2 SAFE WORKPLACES



7 SUSTAINABLE PACKAGING



3 INCLUSION & DIVERSITY



8 SUSTAINABLE MATERIALS



4 OUR ASSOCIATES



9 GREENHOUSE GASES



5 RESPONSIBLE CHEMICAL MANAGEMENT



10 COMMUNITIES

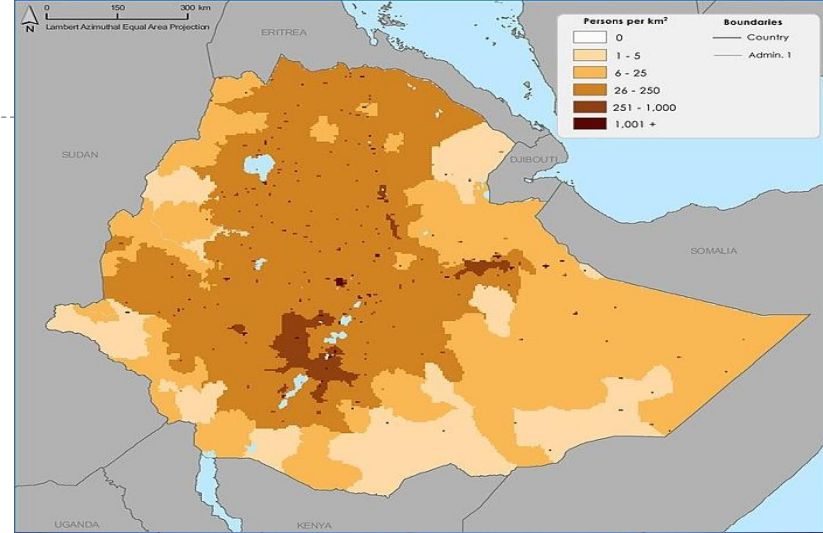
Industry Leadership in Transparency & Accountability:

Our 2015 Materiality Assessment partners:



Why Ethiopia? Why Hawassa?

- Corporate ambition to shift 20% of global supply to East Africa.
- In 2014 Ethiopia chosen to spearhead drive into the continent.
- Decision driven by three factors:
 - Cost advantages
 - Scope to fully integrate the supply chain.
 - Ability to lock in global lessons on social and environmental issues.



Why Ethiopia: Cost

- Rising cost base in existing supply locations, e.g. Asia
- Trade deals already in place (AGOA and Everything But Arms)
- Young and increasingly well educated workforce.
- Cheapest energy in the world – on track to be 100% renewable.



Why Ethiopia: Going Vertical

- Ability to go from farm to fashion in one location:
 - Cost savings
 - Speed to market
 - Reduced carbon footprint and energy use
- Maximising local value added and ensuring the long term sustainability of the sector



Why Ethiopia 3: Doing it Right

- Learning lessons from elsewhere, e.g. social and environmental issues.
- Zero Liquid Discharge (ZLD) facility to protect environment
- World class social safeguards for workplaces, park, community
- Working with government to take best practice country wide



The present



Hawassa: Basic Facts

- 52 factory sheds, 20 investors from over 15 countries
- Integrated fabric and garment manufacturing, multiple product lines (shirts, underwear, suits)
- One Stop Shop (OSS), clinic, fire station, banks, etc
- Discounted bakery & supermarket
- Zero Liquid Discharge technology operational from day one



Employment and Output

- Current employment approx. 17,000
 - 85% women
- \$100m in exports for 2018: doubling Ethiopia's garment forex earnings
- In Feb 2018 a consignment of shirts with 82% Ethiopian content
- Best in class technology driving towards global productivity levels



Social Investments

- Women's empowerment and health training (BSR/HER)
- Worker management committees in partnership with ILO/Better Work
- Tailored skills training for all staff, working with universities & TVET
- \$1m youth empowerment partnership with Save the Children
- Worker counselling and support services
- Independent audits of all factories



Environmental Safeguards

- Set of global commitments on water, energy & chemical use
- Significant investment in Zero Liquid Discharge facility
- ‘Protecting Lake Hawassa’ projects:
 - Solid waste management and trash traps
 - Afforestation and erosion control
 - Public awareness creation and education
- Partnerships on plastics and paper recycling, rainwater harvesting, etc.



The future



What the Future Holds:

1. Going to Scale

1. Grow workforce to 60,000 – doubling number of jobs in Hawassa city
2. Exports to reach \$500m (almost as much as coffee!)
3. Where next?



2. Deepening the Value Chain

3. Expanding Partnerships



Thank you!

Cen Williams.

China's Textile Supply Chain and Social Responsibility in a Fast-changing Era

快速变化时代下的中国纺织供应链及其社会责任

Sun Ruizhe

孙瑞哲

China National Textile & Apparel Council

中国纺织工业联合会

2018-9-8

**Development of China's Textile Industry
after 40 Years of Reform and Opening-up**

改革开放40年，中国纺织工业的发展



- China's textile industry is one of the key players in the world
中国纺织工业是世界纺织工业的中坚力量

Man-made fiber output (10,000 tons)

化学纤维产量 (万吨)

73.5% of the world total

世界占比73.5%

Textiles & apparel exports (billion US dollars)

纺织品服装出口额 (十亿美元)

36.8% of the world total

世界占比36.8%

2017

4919.6

5237.2

5430

274.51

Spun-yarn & filament output in 2016 (10,000 tons)

2016年纱及长丝产量 (万吨)

66.62%* of the world total

世界占比66.62%*

Mill fiber consumption (10,000 tons)

纤维加工量 (万吨)

More than 50% of the world total

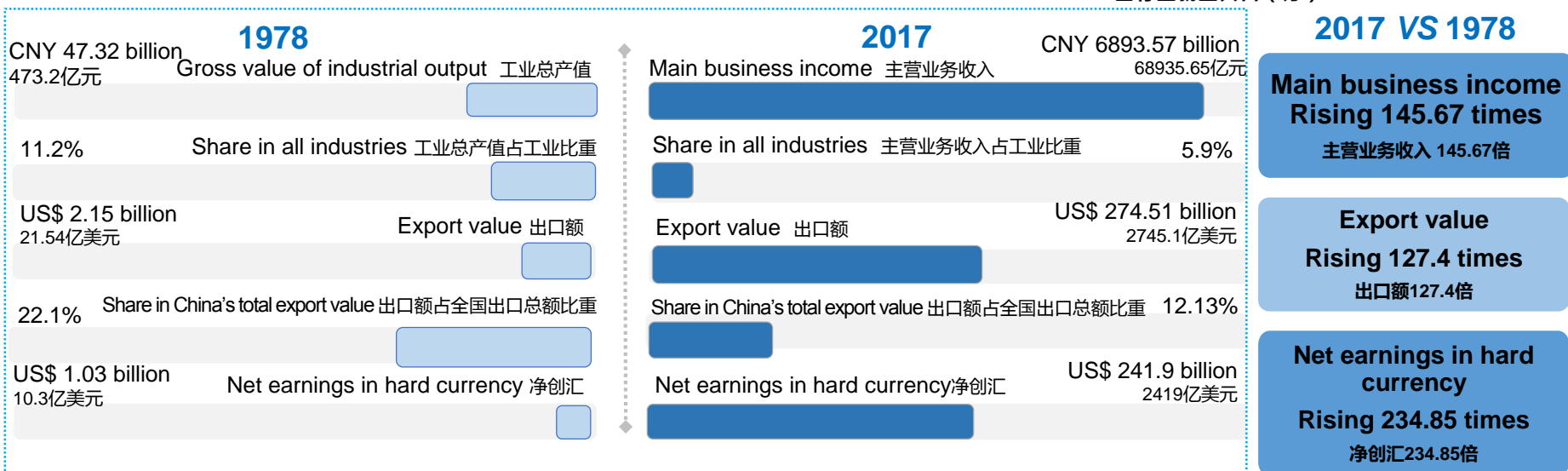
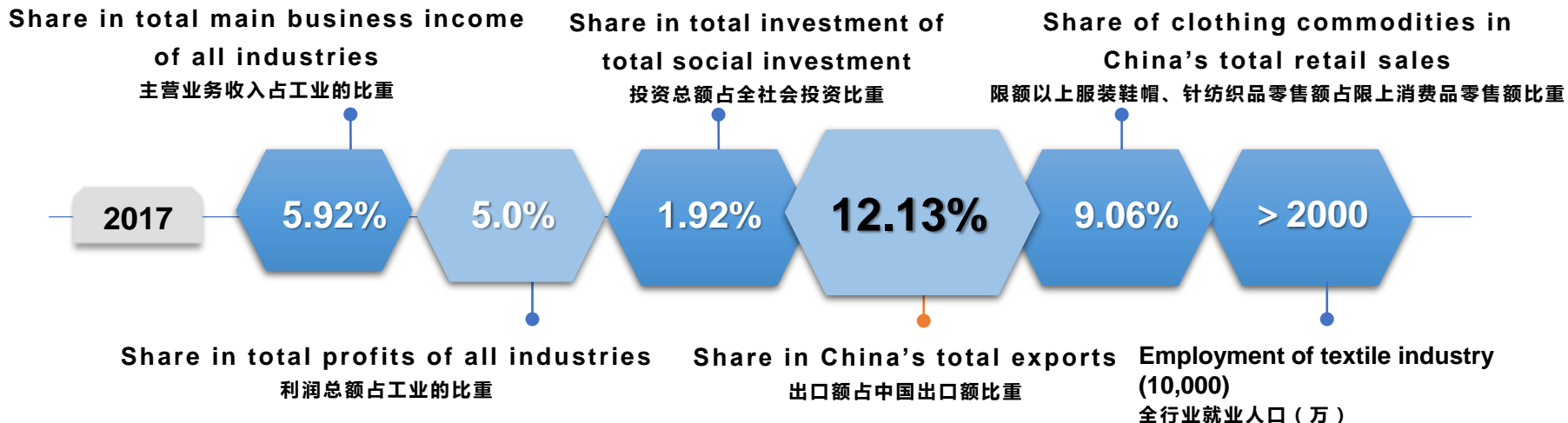
世界占比 > 50%

Note: The data with * is the proportion of China's yarn production in the world's major countries. 注: 带*数据为中国纱产量占世界主要国家比重

Development of China's Textile Industry 中国纺织工业的发展



China's textile industry is an important pillar industry and livelihood industry in China
中国纺织工业是中国的重要支柱产业和民生产业



□ Thanks to market competition, textile industry has realized more efficient resource allocation and gained stronger vitality 市场化竞争，行业具有更高的资源配置效率和发展活力

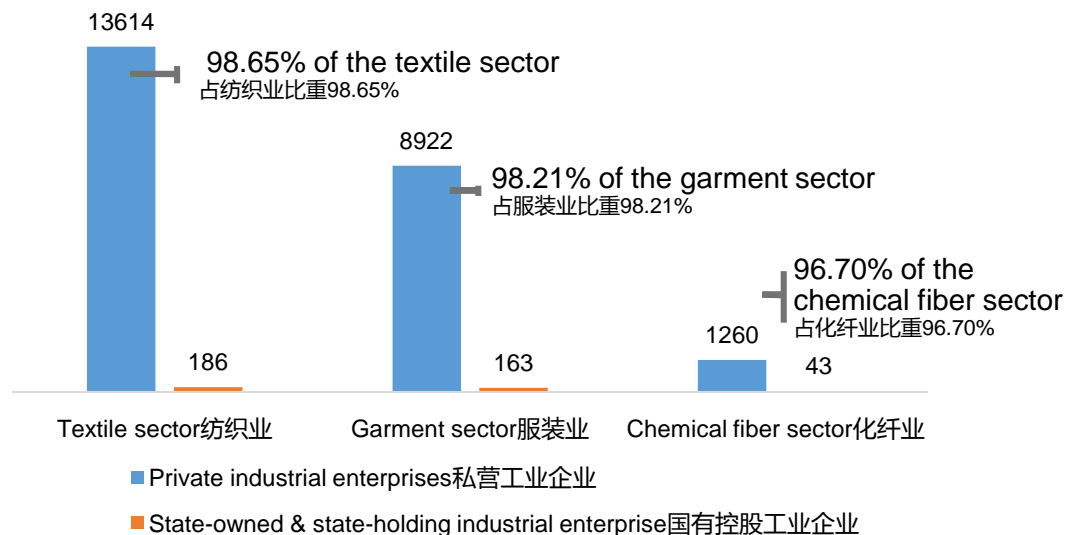
✓ In 2017, the exports of Chinese private textile enterprises amounted to US\$ 185.95 billion, accounting for 67.7% of the textile industry's total

2017年，中国纺织行业民营企业出口金额为1859.47亿美元，占行业出口总额比重达67.7%

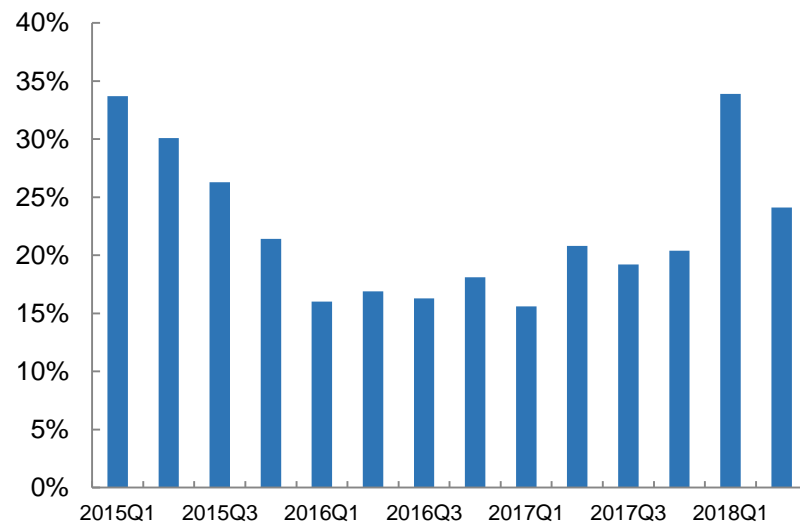
✓ By 2017, the number of major textile industrial clusters in China had reached 209, and they are distributed in 21 provinces/autonomous regions cross the country

截至2017年，中国主要纺织产业集群已达209家，分布在全国21个省区

• In 2016, private enterprises are main players on textile market 2016年，民营企业占中国纺织工业市场主体的绝大部分



Growth of Online Retail Sales of Clothing Commodities, Q1.2015 – Q2.2018 中国网上穿着类商品网络销售额增长情况

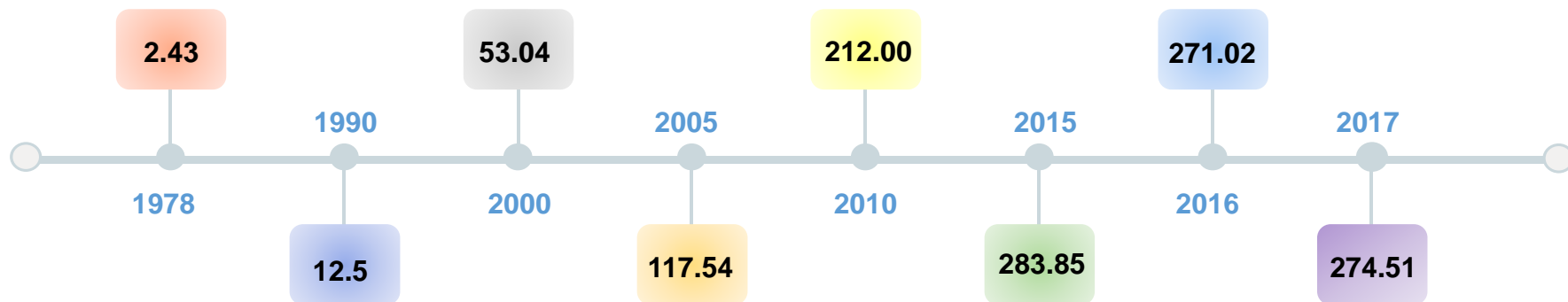


□ Thanks to opening-up, textile industry can take full advantage of domestic and international markets and resources 对外开放，充分利用国际国内两个市场两种资源

- In 2017, China's exports of textiles & apparel totaled US\$ 274.51 billion, accounting for 12.13% of China's total exports
2017年，中国纺织品服装出口额2745.05亿美元，占中国对外出口总额比重为12.13%
- In 2017, the outbound investment of China's textile industry amounted to US\$ 1.18 billion, accounting for 7.61% of the total outbound investment of China's manufacturing industries
2017年，中国纺织产业对外投资总额为11.8亿美元，占中国制造业对外投资比重为7.61%
- By the end of 2017, there were 322 chemical fiber, textile, apparel as well as hat & shoe-making enterprises listed on global major stock markets
截至2017年底，在全球主要证券市场上市的中国化纤、纺织、服装鞋帽类企业共322家

China's exports of textiles and apparel, 1978-2017 (Billion US dollars)

1978-2017年，中国纺织品服装出口额（十亿美元）



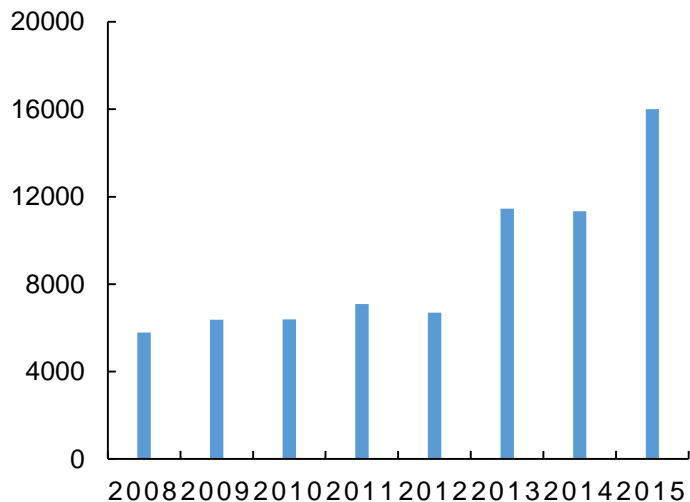
Outbound investment of China's textile industry 中国纺织工业对外投资情况	2013	2014	2015	2016	2017
Textile sector (100 million US dollars) 纺织产业（亿美元）	5.18	9.5	14.05	26.6	11.8
Share in manufacturing industries (%) 纺织产业在制造业中占比（%）	7.26	9.76	7.03	8.97	7.61

Development of China's Textile Industry 中国纺织工业的发展



Thanks to innovation-driven development, textile industry has achieved remarkable results in technological innovation and transformation of sci-tech achievements
 创新发展，科技创新与成果转化成效显著

Invention patent filings of China's textile industry, 2008-2015
 2008-2015年中国纺织行业发明专利申请情况 (件)



Source: China Statistical Yearbook on Science and Technology
 数据来源：中国科技统计年鉴2017

✓ Labor productivity of producing 32s pure cotton yarn(tons/person-year) 生产纯棉32支纱的劳动生产率 (吨/人年)

- 5.6 , in 2000
- 27 , in 2015

✓ Labor per 10,000 cotton spindles (workers/10,000 spindles) 棉纺万锭用工人数(人/万锭)

- 250, in 2000
- 60, in 2015

Labor productivity of textile industry (ten thousand/labor)
 纺织行业劳动生产率 (万元/人)

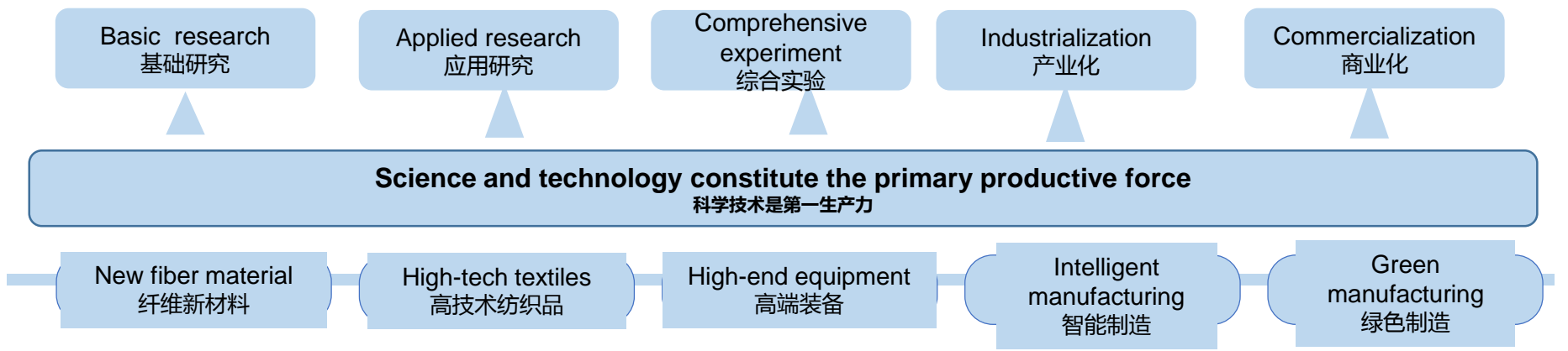
- 792,200, in 2016
- 17,800, in 1978

✓ Share of shuttleless looms in cotton textile sector 棉纺无梭织机占比

- About 7.69% in 2000
- 68.64% in 2015

✓ High-performance fibers 高性能纤维

- The most versatile fiber producer in the world 可生产品种全球第一
- Accounting for 1/3 of the world production for carbon fiber, aramid fiber and UHMWPE 碳纤维、芳纶和超高分子量聚乙烯三大品种产量占全球的三分之一



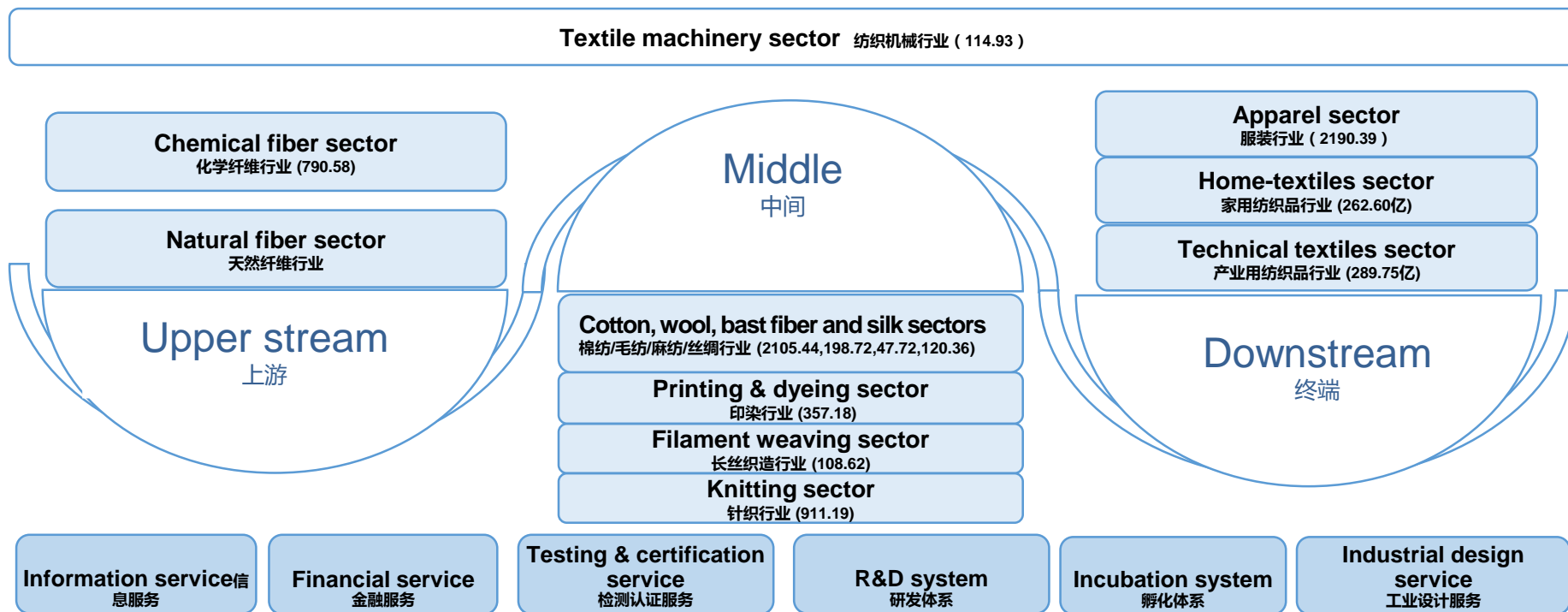
Development of China's Textile Industry 中国纺织工业的发展



Thanks to systematic development, textile industry has established a more perfect industrial ecosystem and more competitive industrial scale

体系化发展，使中国纺织工业的产业生态体系更加完善，产业规模更具优势

Main business income in 2017, Unit : CNY billion
2017年主营业务收入，单位：十亿元



	1978	2000	2001	2005	2010	2015	2016	2017
China's Mill Fiber Consumption (excluding fiberglass, ten thousand tons) 中国纤维加工量（不含玻璃纤维，万吨）	276	1360	1500	2690	4130	5300	5420	5430
% of the global 占世界纤维加工总量比重	<10%	23.70%	25.64%	37.53	49.96%	53.01%	53.47%	>50%

Textile Industry is in a Fast-changing Era 纺织行业正处在一个快速变化的时代

Fast-changing trade pattern: new economies are emerging, trade relations become more complicated

贸易格局的快速变化：新兴经济体崛起，贸易关系更加复杂

Fast-changing consumer needs: lack of patience and brief attention constitute a consumption trend

消费需求的快速变化：缺少耐心与短暂关注正形成一种消费趋势

Fast-changing industrial ecosystem: cross-boundary, cross-disciplinary and cross-regional cooperation has become the norm

产业生态的快速变化：跨界、跨领域、跨区域合作成为常态

Fast-changing Trade Pattern 贸易格局的快速变化



- Structural changes have taken place in the global value-added chain: The centers of production capacity and consumer markets are transferring to emerging economies
全球价值链发生结构性变化：生产能力和消费市场重心正在向新兴国家转移
- Trade relations become more complicated: Trade frictions are increasingly frequent, trade complexity further intensified, and trade disputes become more strategic
贸易关系更加复杂：贸易摩擦渐趋频繁、贸易复杂程度不断加深、贸易争端更具战略高度

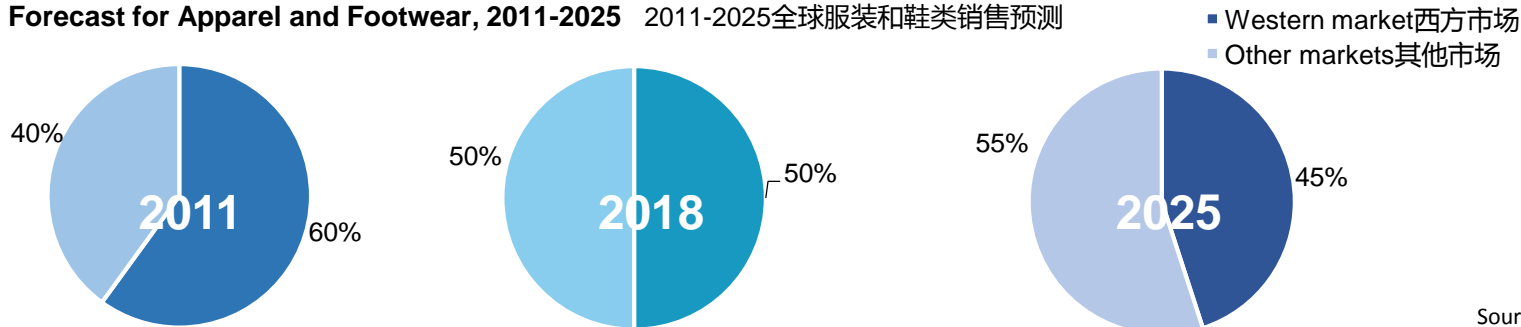
Top Ten Textiles and Apparel Exporters in the World (2017) 全球纺织品和服装出口排名前十位的国家/地区 (2017)

Textiles 纺织品			Apparel 服装		
Exporter 国家/地区	Export (billion US dollars) 出口额 (十亿美元)	Share in global total (%) 全球占比 (%)	Exporter 国家/地区	Export (billion US dollars) 出口额 (十亿美元)	Share in global total (%) 全球占比 (%)
China 中国	110	37.1 ↓	China 中国	158	34.9 ↓
EU 欧盟	69	23.4 ↑	EU 欧盟	130	28.6 ↑
India 印度	17	5.8 ↑	Bangladesh 孟加拉	29	6.5 ↑
USA 美国	14	4.6 —	Vietnam 越南	27	5.9 ↑
Turkey 土耳其	11	3.9 ↑	India 印度	18	4.1 ↑
ROK 韩国	10	3.3 ↓	Turkey 土耳其	15	3.3 ↓
Taiwan,China 中国台湾	9	3.1 —	Hong Kong,China 中国香港	14	
Pakistan 巴基斯坦	8	2.7 ↓	Indonesia 印尼	8	1.8 ↑
Hong Kong,China 中国香港	8		Cambodia 柬埔寨	7	1.6 ↑
Vietnam 越南	7	2.5 ↑	USA 美国	6	1.2 ↓

Source: WTO

- ◆ In 2018, over half of the global apparel and footwear sales will take place outside Europe and North America
到2018年，将有超过一半的服装和鞋类销售将来自欧洲和北美以外地区

Global Sales Forecast for Apparel and Footwear, 2011-2025 2011-2025全球服装和鞋类销售预测



Source: McKinsey

Fast-changing Consumer Needs 消费需求的快速变化



❑ Lack of patience and brief attention constitute a consumption trend, **quick changes and uncertainties** have become core features of current market.

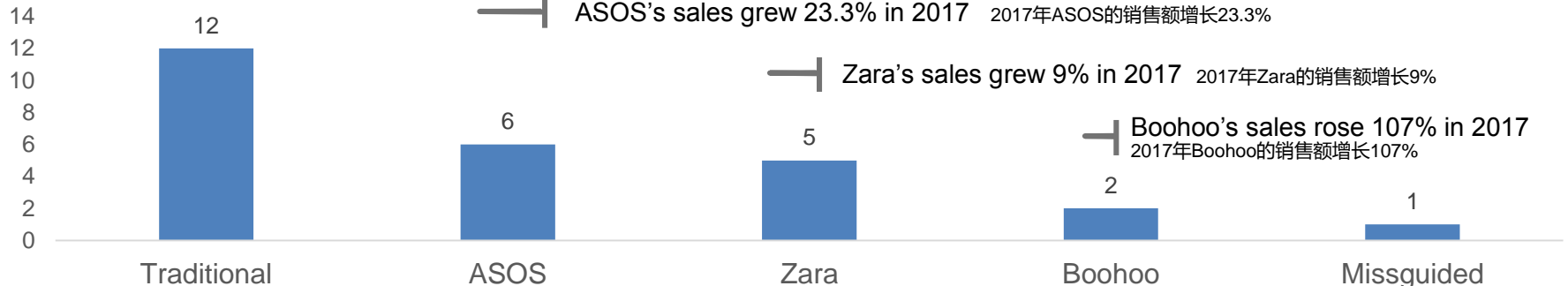
缺少耐心与短暂关注正形成一种消费趋势，快速变化与不稳定成为当前市场的核心特征



- **Community has brought up more independent, more powerful and fast-growing consumer groups**
社群使消费群体变得更有主见、更有力量、更快成长
- **Fragmented emotions can be accumulated rapidly via Internet and turned into commercial value. Content platforms such as Douyin are becoming new traffic inlet**
碎片化的情绪可以通过网络快速积聚进而转化为商业价值。抖音等内容平台正成为流量新入口
- **Niche products can directly meet individual need. Products with good sense of design and tailor-made products have become consumers' favorites**
利基产品能与个性需求直接对接。有设计感的产品、定制化产品开始成为消费偏好

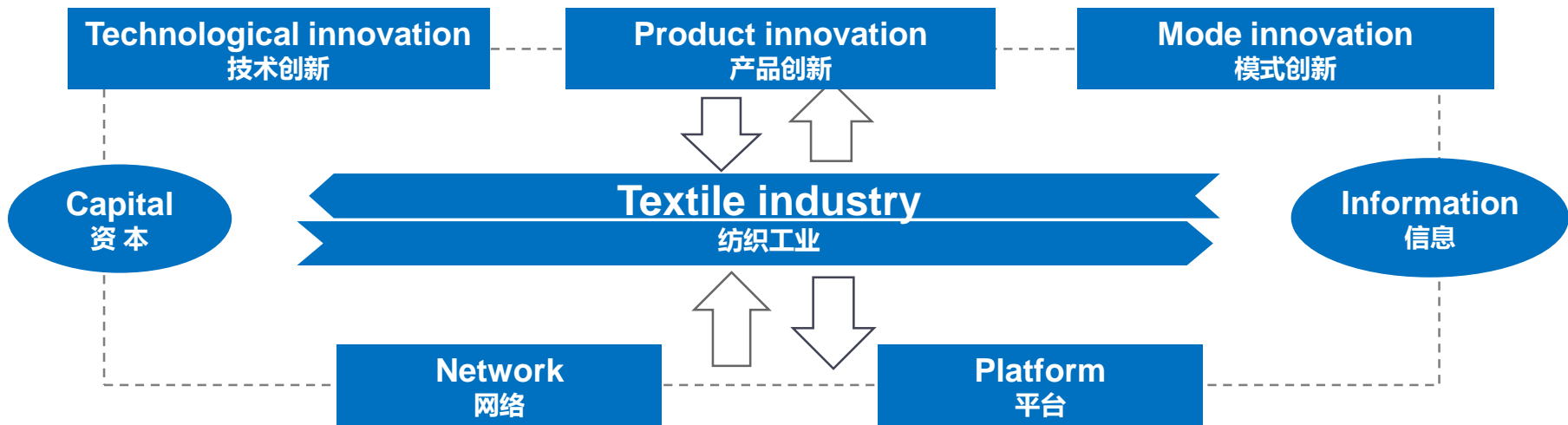
❑ **Enterprises that can quickly meet consumer needs are gaining competitive advantages**
能更快满足消费需求的企业正获得竞争优势

Average time to shelf (in weeks) 平均上架时间 (周数)



A study of McKinsey shows, fast fashion brands including Forever 21, H&M, Inditex and Primark saw their revenues rising 8.2% in 2017 overall, but overall apparel retail grew only about 3.5% in that same period.
麦肯锡报告显示，2017年，Forever 21, H&M, Inditex, and Primark等快时尚品牌收益整体增长8.2%，而整个服装零售同期增长3.5%。

Fast-changing Industrial Ecosystem 产业生态的快速变化



Bigger market 更大的市场

- Global online sales reached US\$ 2.30 trillion, up 24.8% year-on-year; and 60% of the online sales made on mobile 2017年全球网络零售交易额达到2.30万亿美元,同比增长24.8%;其中,移动网络零售额占比达60%

Different technologies integrate together, new products and new applications are emerging 技术交融,新产品、新应用不断涌现

- Wearable smart products 可穿戴智能产品
- Medical textiles 医用纺织品
- Aerospace textiles 航天用纺织品



More diversified service scenarios 服务场景更加丰富

- Stitch Fix:** Based on AI technology and part-time stylist, select pieces of clothing for subscribers and deliver them to their doors periodically 依托AI和兼职造型师为订阅用户搭配服装,按周期寄送
- Le Tote:** Using technical intelligence, recommend clothing and accessories for different scenarios 利用技术智能推荐适用不同场景的服装及配饰

More diverse competitors 竞争主体更加多元

- Amazon:** launched over 60 independent brands in 2017, most are clothing brands 2017年,推出60多个自有品牌,主要集中在服装等领域
- Myntra:** launched several independent clothing brands including HRX, Moda Rapido, All About You 推出了HRX、Moda Rapido、All About You等服装自主品牌

New Countermeasures of China's Textile Supply Chain

中国纺织供应链的新应对

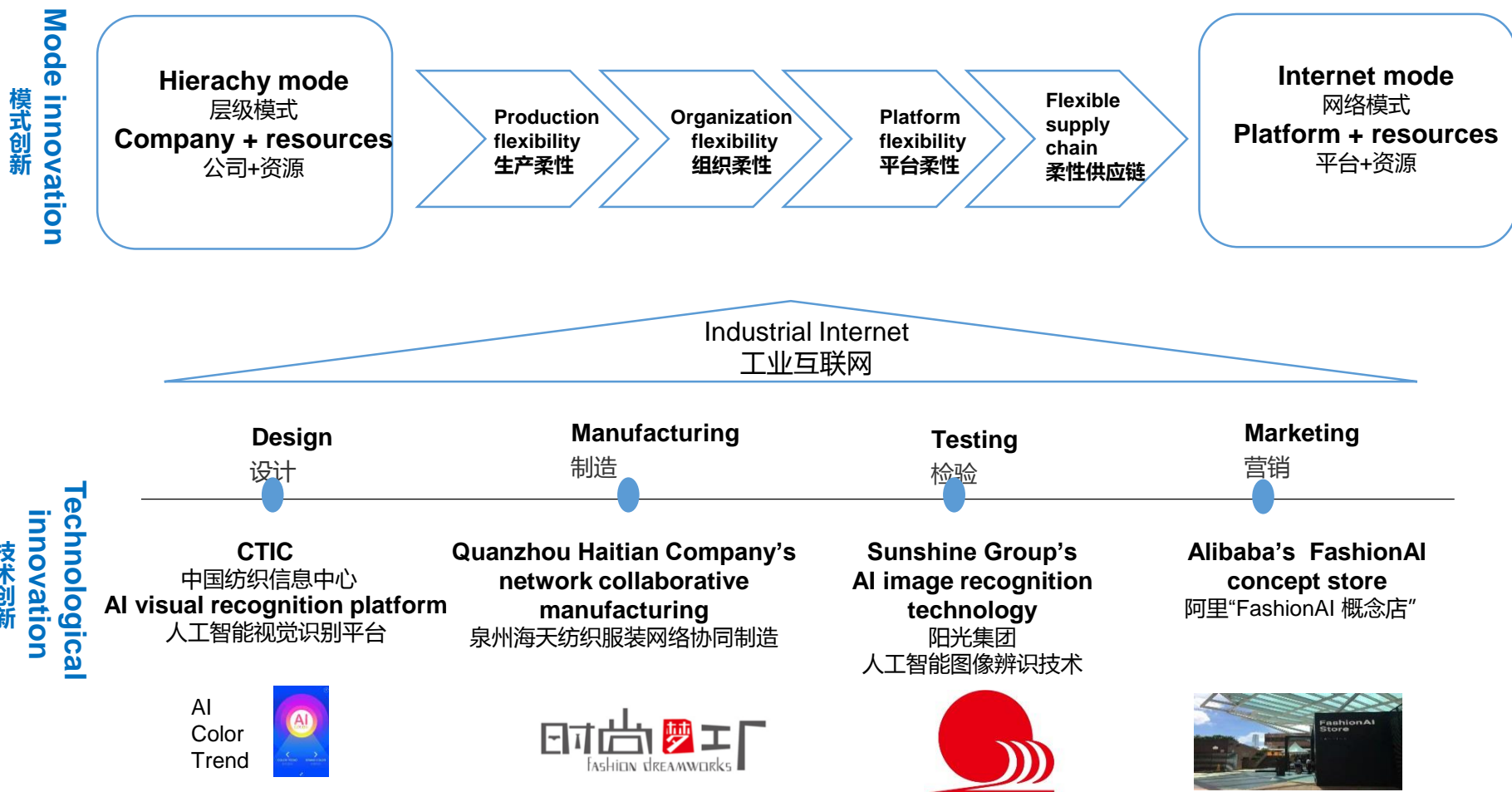


Supply Chain Flexibility 供应链柔性



Information technology have penetrated into every stage of the textile supply chain including design, R&D, production, marketing and service. They have brought profound changes to the organizational mode, production mode and management mode of the textile industry and significantly improved the ability of textile supply chain to respond to the changing needs of consumers.

信息技术已经渗透到设计、研发、生产、营销、服务等纺织供应链的各个环节，深刻改变了行业的组织模式、生产模式、管理模式，极大增强了纺织供应链应对需求端变化的响应能力。



◆ **The practice of enterprises shows : the implementation of social responsibility can create added value 实践证明：履行社会责任能将责任转化为价值**

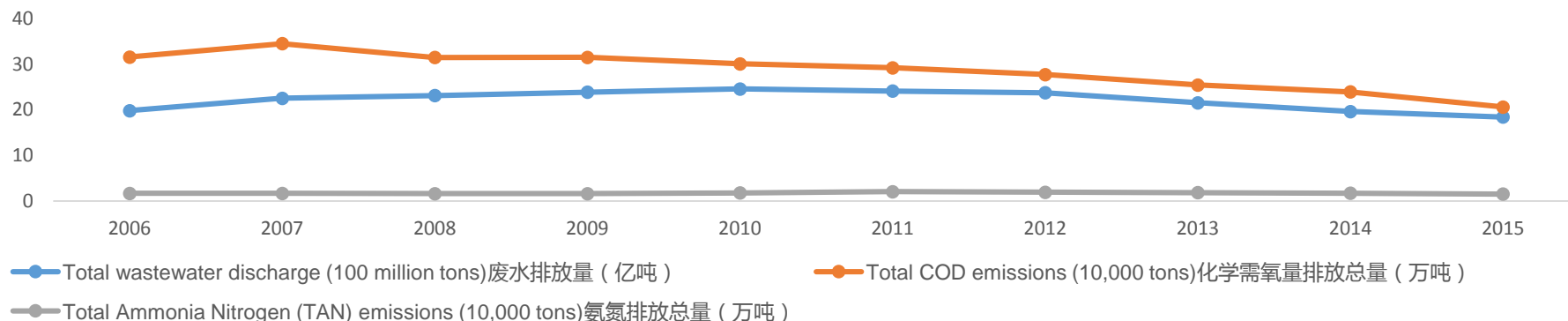
◆ Green and environmental protection are being constantly incorporated into each stage of textile supply chain and profound adjustment is taking place in the development pattern of supply chain
绿色与环保要素不断纳入纺织供应链各环节，供应链发展模式正在发生深刻调整

◆ **Enterprises that implement green development strategy are gaining competitive advantages 布局绿色发展的企业正获得竞争优势**

- For example, Hangmin Stock Co., Ltd., a flagship enterprise in the printing and dyeing sector, takes the lead in implementing green development strategy. In the first half of 2018, the company realized main business income of more than CNY 1.65 billion, up 22.44% year-on-year
以印染龙头企业航民股份为例，提前布局绿色发展，2018年H1，企业印染主业实现收入16.54亿元，同比增长22.44%
- The “Opinions on Accelerating the Development of Renewable Resources Industry” jointly released by the Ministry of Industry and Information Technology, the Ministry of Commerce and the Ministry of Science and Technology proposes that the comprehensive use of waste textiles will reach 9 million tons by the year of 2020
工信部、商务部、科技部发布《关于加快推进再生资源产业发展的指导意见》提出，到2020年，废旧纺织品综合利用总量达到900万吨

Reduced Wastewater Discharge, COD and TAN Emissions of Textile Industry, 2006-2015

2006-2015年，纺织业废水排放总量、化学需氧量及氨氮排放总量降低



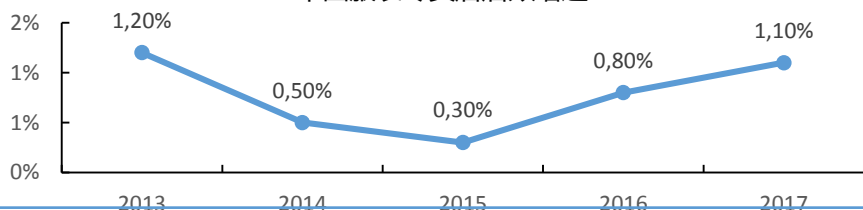
In order to quickly capture the changes on market and satisfy consumer needs, the integration of online and offline channels, different platforms and different models is accelerating.

为更快捕捉市场变化，满足消费需求，线上与线下渠道、不同平台、不同模式之间正加速融合。

- Hongdou's "unbounded retail" stores: using technology to provide consumers with offline recommendations of apparel collection and consumers can try on the apparel virtually 红豆无界零售店：利用技术为用户提供线下服装搭配指导并展示虚拟效果
- HLN enters Meituan online food ordering platform 海澜之家入驻美团外卖
- Taobao's global buyers can be found in more than 70 countries and regions cross the five continents; Alibaba's Aliexpress is spread over 230 countries and regions all over the world
淘宝全球购买手遍布五大洲，覆盖超过70个国家和地区；阿里全球速卖通已覆盖全球230个国家

- Since 2015, the average monthly sales of apparel franchise stores in China have been increasing significantly
2015年以来，中国服装专卖店店效显著提升

Growth Rate of Average Monthly Sales of Chinese Apparel Franchise Stores
中国服装专卖店店效增速



Year	Share of franchise stores in total sales 专卖店销售金额占比	Area per store 单店面积 (m ²)	Average monthly sales (CNY /store) 店效 (万元/个)	Sales per square meter (CNY /m ²) 坪效 (万元/m ²)
2017			10,000/store	
China 中国	25.9%	141.4	109.3	0.8

- Some competent enterprises are improving their offline channels, as a result, the efficiency of supply chain has been substantially improved
一些优质企业完善线下渠道，供应链效率显著提升

Anta Group
安踏集团

Number of stores
门店数 (家)
9,650, in 2017;
9,467, in 2016.

Senma Group
森马集团

Balabala巴拉巴拉
Number of stores
门店数 (家)
4,795, in 2017;
4,578, in 2016.

HLN
海澜之家

Number of stores
门店数 (家)
4,503, in 2017;
4,237, in 2016.

China's Opportunities in a Fast-changing Era

快速变化时代下的中国机遇



China's Opportunities in a Fast-changing Era 快速变化时代下的中国机遇



◆ The Opening-up Development Pattern 开放的发展格局

With a more positive attitude, China is building an open-oriented economy, and both the coverage and depth of “bringing in” and “going global” are expanding.

中国正在以更加积极的姿态构建开放型经济，“引进来”和“走出去”的广度和深度在不断扩大。

There are 16 FTAs signed between China and other countries, 11 bilateral and 2 multi-lateral FTAs are under negotiation; China has set up 11 pilot free trade zones, 2 free trade ports (including Hong Kong); and there are 219 China's State-level Economic and Technological Development Zones and 19 China's Border (Cross-border) Economic Cooperation Zones.

中国与世界其他国家已签订协议的自贸区共16个，正在谈判的双边自贸区11个、多边自贸区2个；中国自由贸易试验区共11个，自由贸易港2个（含香港）；中国国家级经济技术开发区219个，中国边（跨）境经济合作区19个。

Recent policies on deepening opening-up in China

近期中国深化对外开放的主要政策

2018/8/7	State Council's "Approval of Setting up Cross-border E-commerce Comprehensive Pilot Zone in 22 Cities Incl. Beijing" 关于同意在北京等22个城市设立跨境电子商务综合试验区的批复
2018/6/23	Opinion Concerning the Establishment of the Belt And Road International Commercial Dispute Resolution Mechanism and Institutions 《关于建立“一带一路”国际商事争端解决机制和机构的意见》
2018/3/5	Circular: "Measures for Improving the Convenience of Cross-border Trade (Trial)" 关于印发《提升跨境贸易便利化水平的措施（试行）》的通知
2018/2/28	The "single-window and single-form" system for the business record and registration of foreign-funded enterprises 关于实行外商投资企业商务备案与工商登记“单一窗口、单一表格”受理有关工作的通知
2017/9/20	"Action Plan for Protecting the Intellectual Property Rights of Foreign-funded Enterprises" 《外商投资企业知识产权保护行动方案》

China's Opportunities in a Fast-changing Era

快速变化时代下的中国机遇

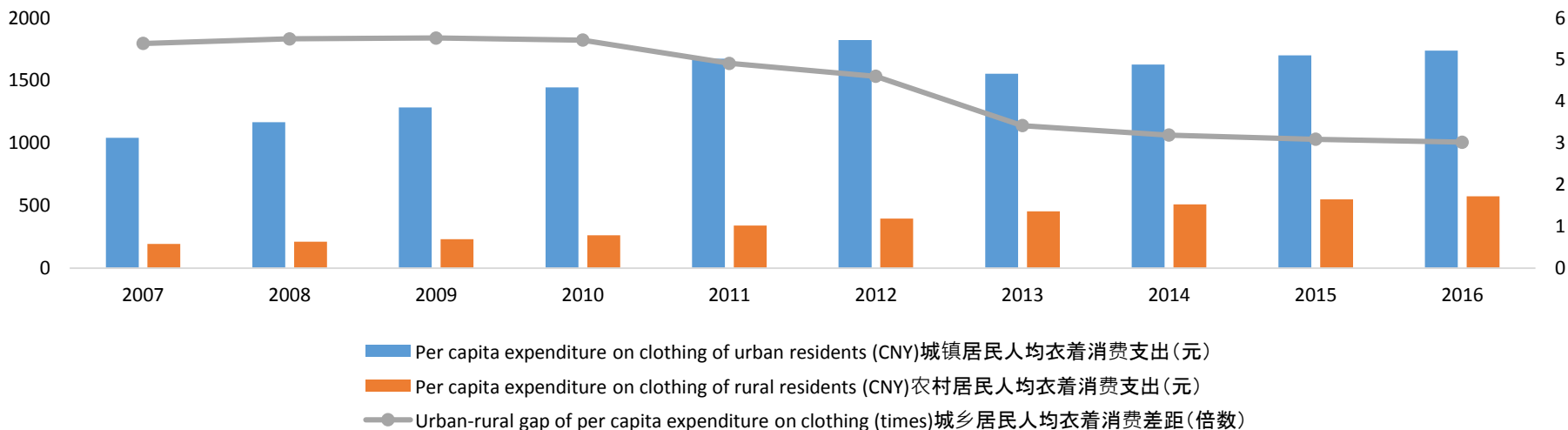


◆ Great market potential 巨大的市场空间

The rising consumption capacity and increasingly diversified consumer needs will greatly extend the market space. 不断提升的消费能力和更多层次的消费需求将极大地扩展市场空间。

- The middle-income group is emerging quickly in China, forming a growing force on consumer market
中国中等收入群体正快速崛起，不断壮大消费生力军
- The sustained progress of coordinated regional development has accelerated the consumption upgrading of the third- and fourth-tier cities
区域协调发展持续推进，带动三四线城市消费加快升级
- With the advancement of new urbanization and targeted poverty alleviation, the urban-rural income gap is getting narrowed and rural consumption sees robust growth
新型城镇化和精准脱贫攻坚战深入开展，缩小城乡收入差距，农村消费增长势头强劲

• Urban-rural gap of clothing consumption is getting narrowed, and rural market has great potential 城乡衣着消费差距持续收窄，市场潜力巨大



China's Opportunities in a Fast-changing Era 快速变化时代下的中国机遇

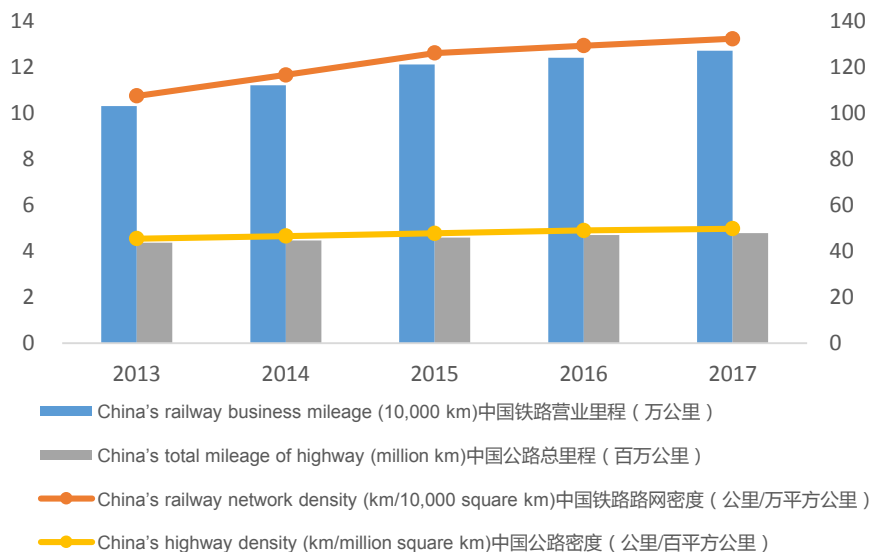


◆ Complete industrial system and supporting systems 完善的产业配套

- A complete supply chain:** China has established a complete and independent textile chain with a complete range of production 完整的产业链：中国纺织工业已形成门类齐全、独立完整的产业链
- Logistics infrastructure:** In World Bank's Global Rankings 2018 of Logistics Performance Index, China ranked the 26th place. China has advantages in the time efficiency of logistics service and the quality of logistics infrastructure 物流基础设施：世界银行集团2018物流绩效指数显示，中国位列第26位。其中，物流服务的时效性和物流基础设施质量是核心优势
- IT infrastructure:** China's Internet penetration rate reached 55.8% in 2017, and it reached 35.4% in rural area 信息技术设施：2017年中国互联网普及率达55.8%。其中农村地区互联网普及率达到35.4%

Construction of Logistics Infrastructure in China, 2013-2017

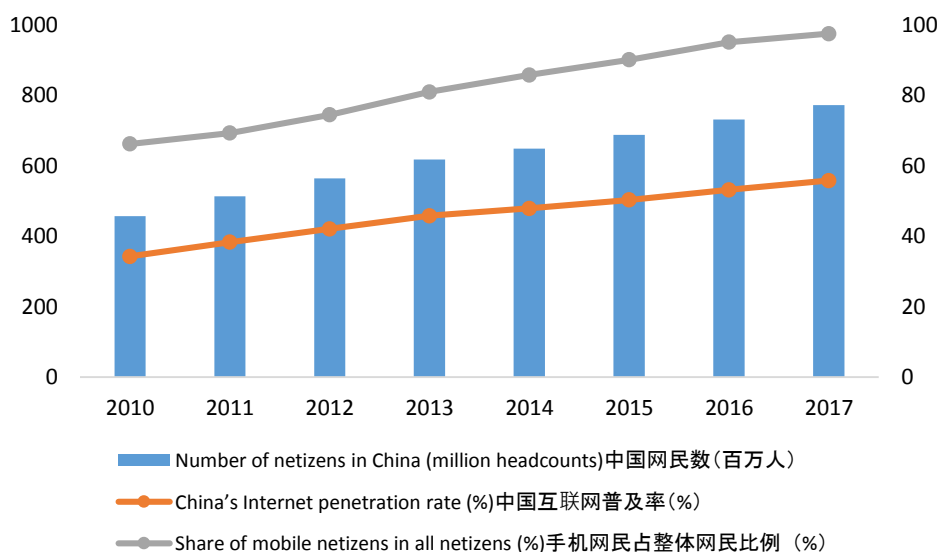
2013-2017年中国物流基础设施建设情况



Source: Ministry of Transport 数据来源：中国交通运输部

China's Internet Penetration Rate, 2013-2017

2013-2017年中国互联网普及状况



Source: China Internet Network Information Center 数据来源：中国互联网络信息中心

Follow the New Vision of Development, Promote Responsible Development of China's Textile Supply Chain

践行新发展理念，推进中国纺织供应链责任发展



New Position and New Concepts of China's Textile Industry

中国纺织工业新定位、新理念



An innovation-driven sci-tech industry
创新驱动的科技产业

A culture-led fashion industry
文化引领的时尚产业

A responsibility-oriented green industry
责任导向的绿色产业

Open development 开放发展

Pay equal attention to “bringing in” and “going global”, shift the foreign trade pattern to “quality imports and quality outputs”, so as to form a new pattern of opening up to the outside world.

“引进来”与“走出去”协调推进，优进优出，形成对外开放新格局。

Balanced development 平衡发展

Rebalance the structure of supply and demand, regional development and industry revenue.

促进供需结构、区域发展、产业收益再平衡。



Sufficient development 充分发展

Increase the degree and efficiency of development, promote innovative applications and strengthen environment construction to the full.

提高发展程度与效率，使创新应用、环境建设更充分。

Multi-dimensional development 多维发展

Extend the boundary of textile industry, promote industry-finance integration, industrialization-information technology integration, civil-military integration and technology-art integration.

拓宽行业边界，推进产融合作、两化融合、军民融合、技艺融合。

Safe development 安全发展

Focus on the ability of developing core innovative technologies, ensure the safety of resources, quality and trade of textile industry.

聚焦关键核心技术创新能力，保障行业资源、质量和贸易安全。

□ Science and technology is the core 科技是核心

Based on the supply chain, improve the industry's independent innovation ability and develop crucial technology.
围绕行业供应链，提升产业自主创新能力，提升核心关键技术。

Speed up the R&D of key generic textile technologies 加快行业重大关键共性技术研发

- Key production and equipment technology 生产与装备关键技术
- Green manufacturing technology 绿色制造技术
- Manufacturing technology for high-performance technical textiles 高性能产业用纺织品加工技术

Intensify the integration of modern information technology and textile technology 强化现代信息技术与纺织技术相融合

- Carry out the research on Internet-based manufacturing mode centered around textile chain collaboration, the research on the application of modern information technology such as Internet of things, artificial intelligence and big data in the textile industry 开展以产业链协同为核心的网络制造模式研究，研究物联网、人工智能、大数据等现代信息技术在纺织行业的创新应用

Strengthen the basic research of textile science and technology 加强纺织科学基础研究

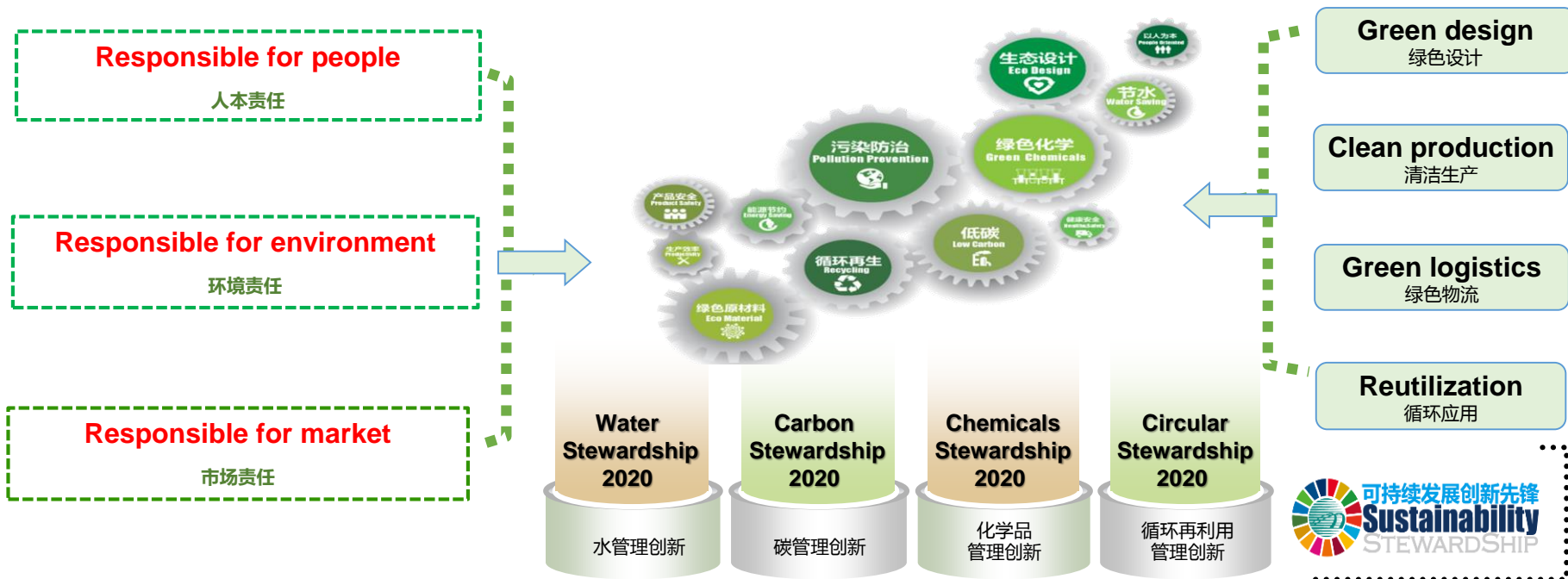
- Research of key basic materials, advanced basic processes, etc 关键基础材料、先进基础工艺等研究
- Theoretical research of cross-discipline intelligent, green and functional cutting-edge technologies 智能化、绿色化、功能性为方向，进行学科交叉融合前沿技术理论研究

Improve innovation system 完善创新体系

- Speed up the construction of main players of independent innovation and public service systems including state-level engineering research center and enterprises' in-house technical center 加快国家级工程研究中心、企业技术中心等创新主体以及公共服务体系建设
- Integrate various resources, promote the construction of knowledge innovation alliance, technological innovation alliance and product innovation alliance 整合多方资源，推动知识创新联盟、技术创新联盟和产品创新联盟建设

□ Green throughout the supply chain 绿色是底色

- **Upgrade green design.** Develop green technology and green products, set up green design pilot enterprises and green design platforms 提升绿色设计。绿色技术研发、绿色产品、绿色设计示范企业、绿色设计平台
- **Improve green production.** Set up green pilot factories, green industrial parks and green supply chain management pilot enterprises 完善绿色生产。绿色示范工厂、绿色工业园区、绿色供应链管理示范企业
- **Strengthen green standards.** Establish and revise key standards and set up a perfect green standards system 健全绿色标准。重点标准制修订，建立健全绿色标准体系



Promote Responsible Development of China's Textile Supply Chain



推进中国纺织供应链责任发展

□ Win-win is the cornerstone 共赢是基石

With a positive attitude and practical actions, China's textile industry is trying to get everyone in the industry involved in responsibility-based governance, so as to effectively promote win-win cooperation and sustainable development of global textile industry.

中国纺织正以积极的态度和落实的行动，推动行业多维责任共治，有力促进全球纺织行业合作共赢和可持续发展。

Responsible Development Goals 2025

中国纺织行业责任与可持续发展目标2025

Decent Work
体面劳动

Social Dialogue
社会对话

Gender Equality
性别平等

Youth Development
青年发展

Green Manufacturing
绿色制造

Eco-friendly
环境友好

Sustainable Innovation
可持续创新

Responsible Supply Chain
负责任供应链

Responsible Investment
负责任投资

Responsible Consumption
负责任的消费

Respect Property
尊重产权

Integrity Competition
诚信竞争

1

Promote the construction of **trade platforms**

推进贸易平台建设

- International exhibitions; cross-border e-commerce 国际展会；跨境电子商务

2

Promote the construction of **co-operation platforms on production capacity**

推进产能合作平台建设

- Industrial parks; cooperation on production capacity 园区；产能合作

3

Promote the construction of **the mechanism for economic and trade cooperation**

推进经贸合作机制建设

- Align our policies with international economic and trading rules; strategic cooperation 政策对接、战略合作：

4

Strengthen economic and trade cooperation in **major fields**

加快重点领域经贸合作

Sino-Africa Cooperation on Textile Industry Goes Well and Has Broad Prospects

中非纺织工业合作进展良好，前景广阔



Sino-Africa Cooperation on Textile Industry

中非纺织工业合作



□ Sino-Africa economic and trade cooperation is the key direction and important component of China's opening-up to the outside world 中非经贸合作是中国对外开放发展的重点方向和重要组成

- According to the General Administration of Customs (GAC), the trade between China and Africa rose 17.3% year-on-year to US\$ 99.84 billion in the first six months of 2018. In this period, China's exports to Africa grew 8.1% to US\$ 50.37 billion and imports rose 28.6% to US\$ 48.47 billion, with a trade surplus of US\$ 1.9 billion, down 78.6% from a year earlier
据中国海关统计，2018年1-6月，中国与非洲进出口总额998.4亿美元，同比增长17.3%。其中，中国对非出口503.7亿美元，增长8.1%，自非进口484.7亿美元，增长28.6%；顺差19亿美元，同比降低78.6%

□ Textile industry is a key industry in Sino-Africa cooperation 纺织产业是中非合作的关键产业之一

- In 2017, the textiles and apparel trade between China and Africa amounted to US\$ 18.22 billion, accounting for 10.73% of the total Sino-Africa trade
2017年，中非纺织品服装贸易进出口总额为18.22亿美元，占中非进出口贸易总额比重为10.73%

• Sino-Africa Textile Trade in 2017 2017年中国对非洲纺织业贸易情况

Unit: 100 million US dollars
单位：亿美元

Product 品类	Export 出口金额	Share in total 占比 (%)	Import 进口金额	Share in total 占比 (%)
Textiles & apparel 纺织品服装	179.57	6.69	2.63	1.07
Apparel (including accessories 服装 (含衣着附件))	77.71	4.91	2.35	3.27
Yarn & fabric 纱线面料	77.92	11.69	0.14	0.10
Textile machinery 纺织机械	1.48	4.26	0.0053	0.02

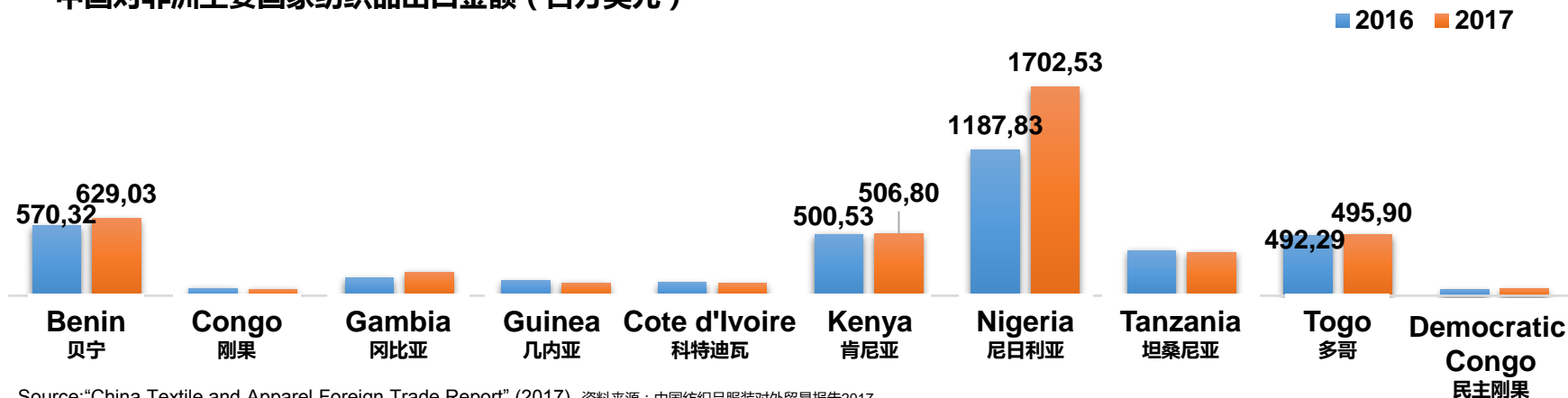
Sino-Africa Cooperation on Textile Industry

中非纺织工业合作



China's Textile Exports to Major African Countries (100 million US dollars)

中国对非洲主要国家纺织品出口金额 (百万美元)



Source: "China Textile and Apparel Foreign Trade Report" (2017) 资料来源: 中国纺织品服装对外贸易报告2017

Industry cooperation in some Sino-Africa Economic and Trade Cooperation Zones

部分中非经贸合作区产业合作情况

Cooperation Zone 合作区名称	Major Investment and Cooperation Industries 主要投资合作产业
China-Egypt Suez Economic and Trade Cooperation Zone 埃及苏伊士经贸合作区	Textiles & apparel, universal machinery, automobile, high- and low-voltage electrical appliances 纺织服装、通用机械、汽车、高低压电器
Oriental Industrial Park in Ethiopia 埃塞俄比亚东方工业园	Light industry, textile, metallurgy, building materials, electromechanical, etc. 轻工、纺织、冶金、建材、机电等
Zambia China Economic and Trade Cooperation Zone 赞比亚—中国经贸合作区	Light industry, textile, building materials, food, etc. 轻工、纺织、建材、食品等
Mauritius Tianli Economic and Trade Cooperation Zone 毛里求斯天利经济贸易合作区	Textiles and apparel, electromechanical 纺织服装、机电
Pearl River Special Economic Zone in Kenya (under construction) 肯尼亚珠江经济特区 (在建)	Electronic information, medical & hygiene, building materials and machinery, apparel, textiles, etc. 电子信息、医药卫生、建材与机械、服装纺织等

Source: www.yidaiyiyu.gov.cn 资料来源: 一带一路网

Invitation 邀请

World Textile Merchandising Conference 2018

世界布商大会

Organizer: China National Textile & Apparel Council

主办：中国纺织工业联合会

Supporter: ITMF

支持：国际纺联

Venue: Keqiao, Shaoxing City, Zhejiang Prov.

地点：浙江省绍兴市柯桥区

Date: Sep. 20-21, 2018

时间：2018年9月20-21日

Thank you !

谢谢 !

Sun Ruizhe 孙瑞哲

CNTAC 中国纺织工业联合会

Christian Schindler, Director General
International Textile Manufacturers Federation (ITMF)
christian.schindler@itmf.org

«The development pattern of the global textile industry»

ITMF 2018 Annual Conference
September 9th, 2018
Nairobi, Kenya

Contents

World textile/apparel industry

New disruptive technologies

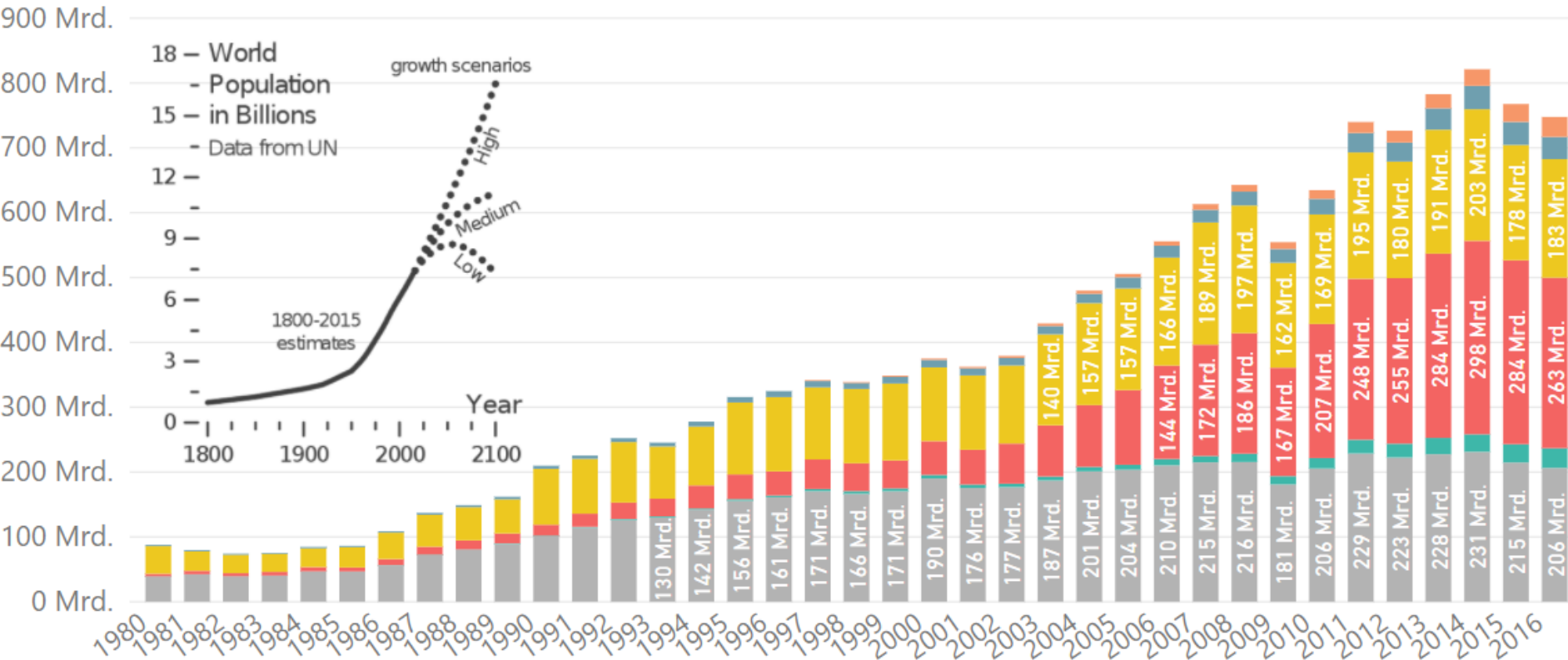
Geographical re/distribution across the industry

Implications for the global textile industry

Situation & outlook for the global textile/apparel industry for manufacturing

Apparel and Clothing Exports (1980-2016)

● Other ● Bangladesh ● China ● EU28 ● India ● Vietnam



Growth (00-16)

<u>Vietnam</u>	<u>China</u>	<u>Bangladesh</u>	<u>India</u>	<u>EU28</u>
x 14	x 5	x 5.5	x 3	x 1.6

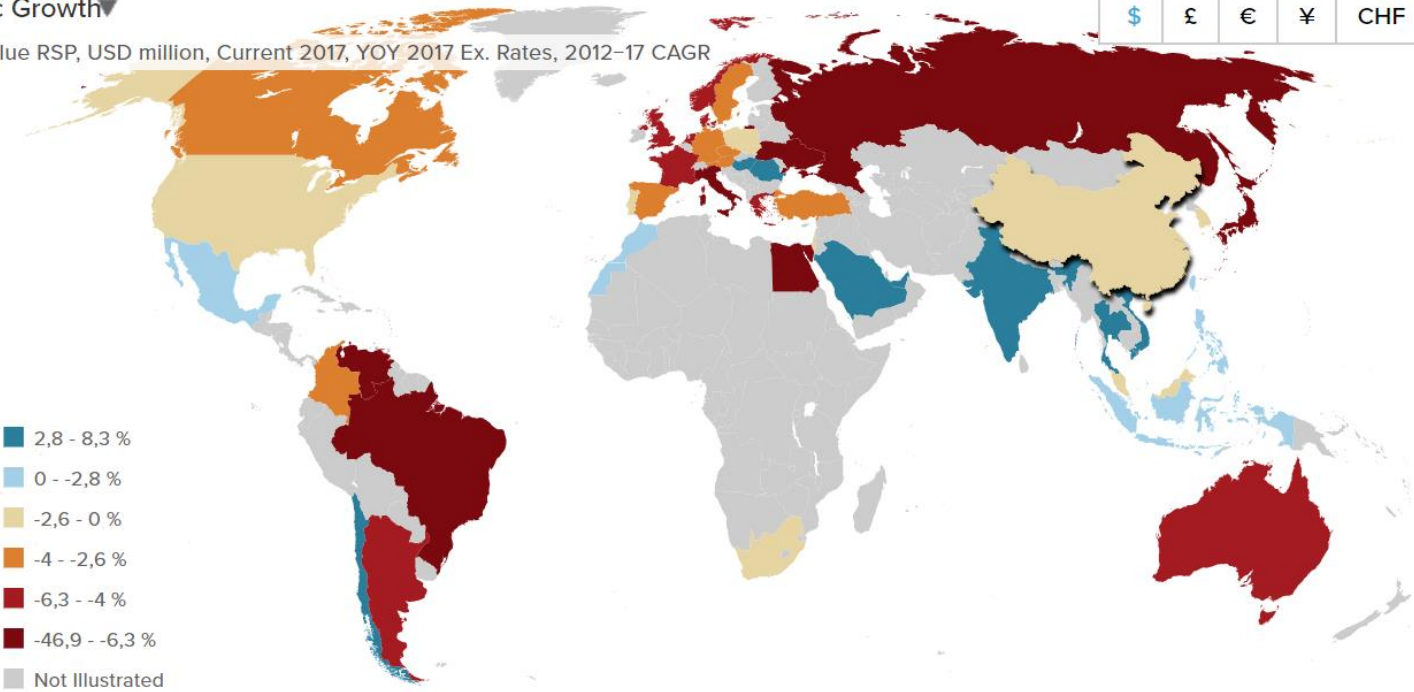
Store-based retailing is shrinking...

Apparel and Footwear Store-Based Retailing

Historic Growth ▾

Retail Value RSP, USD million, Current 2017, YOY 2017 Ex. Rates, 2012-17 CAGR

\$
 £
 €
 ¥
 CHF



Global Figure

2012-2017 CAGR

-2,0

Regional Comparison

2012-2017 CAGR



World

Channel Sales

2017, USD million **1.399.726,5**

Source : Euromonitor 2018

Store-based retailing is shrinking...

Deep Discount Has Become a Norm

APPAREL OFFERED ON SALE AT KEY U.S. RETAILERS IN 2016



Source: Cotton Incorporated 2016 Retail Monitor™ Survey

... internet retailing grew strongly since 2010.

Apparel and Footwear Internet Retailing

Historic Growth ▾

Retail Value RSP, USD million, Current 2017, YOY 2017 Ex. Rates, 2012-17 CAGR

\$	£	€	¥	CHF
----	---	---	---	-----

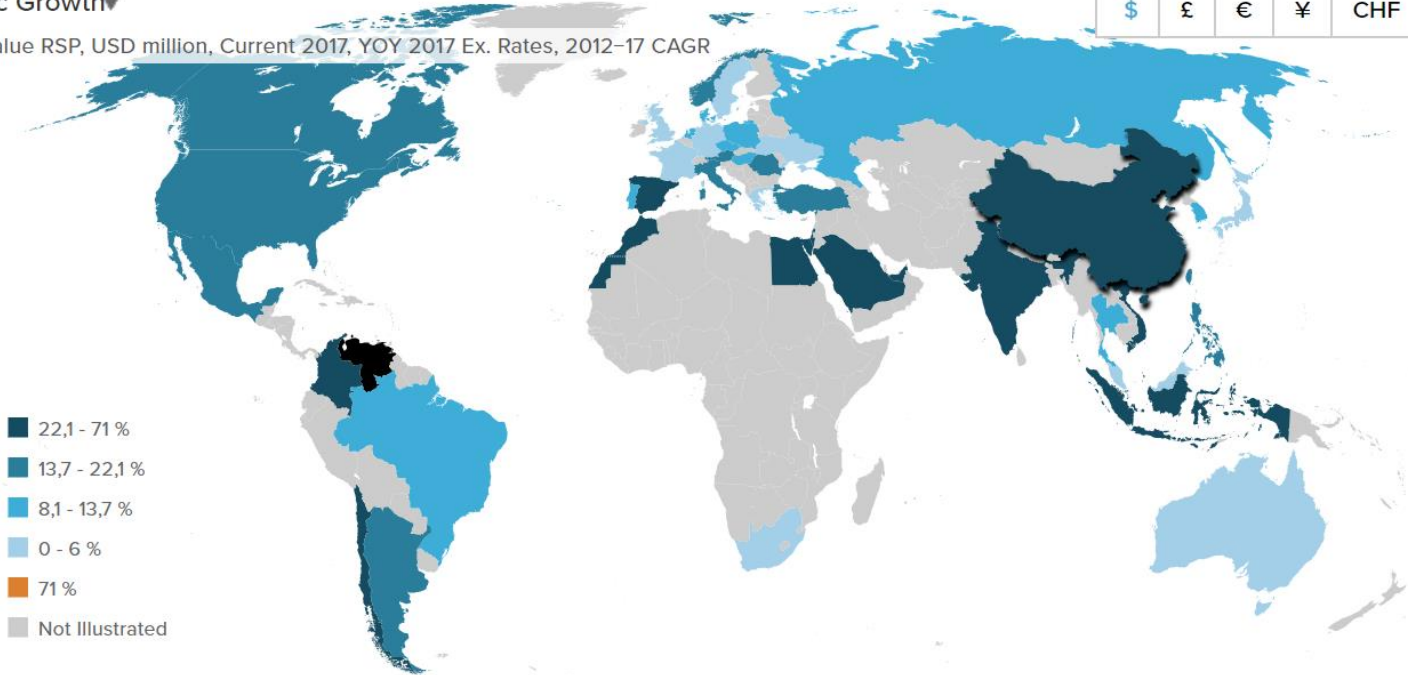
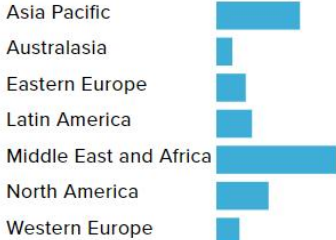
Global Figure

2012-2017 CAGR

19,4

Regional Comparison

2012-2017 CAGR



World

Channel Sales

2017, USD million **274.430,6**

Source : Euromonitor 2018

Apparel sales will grow strongest in Asia and Latin America

Apparel

Forecast Growth ▾

Retail Value RSP, USD million, Constant 2017, Fixed 2017 Ex. Rates, 2017-22 CAGR

\$
 £
 €
 ¥
 CHF

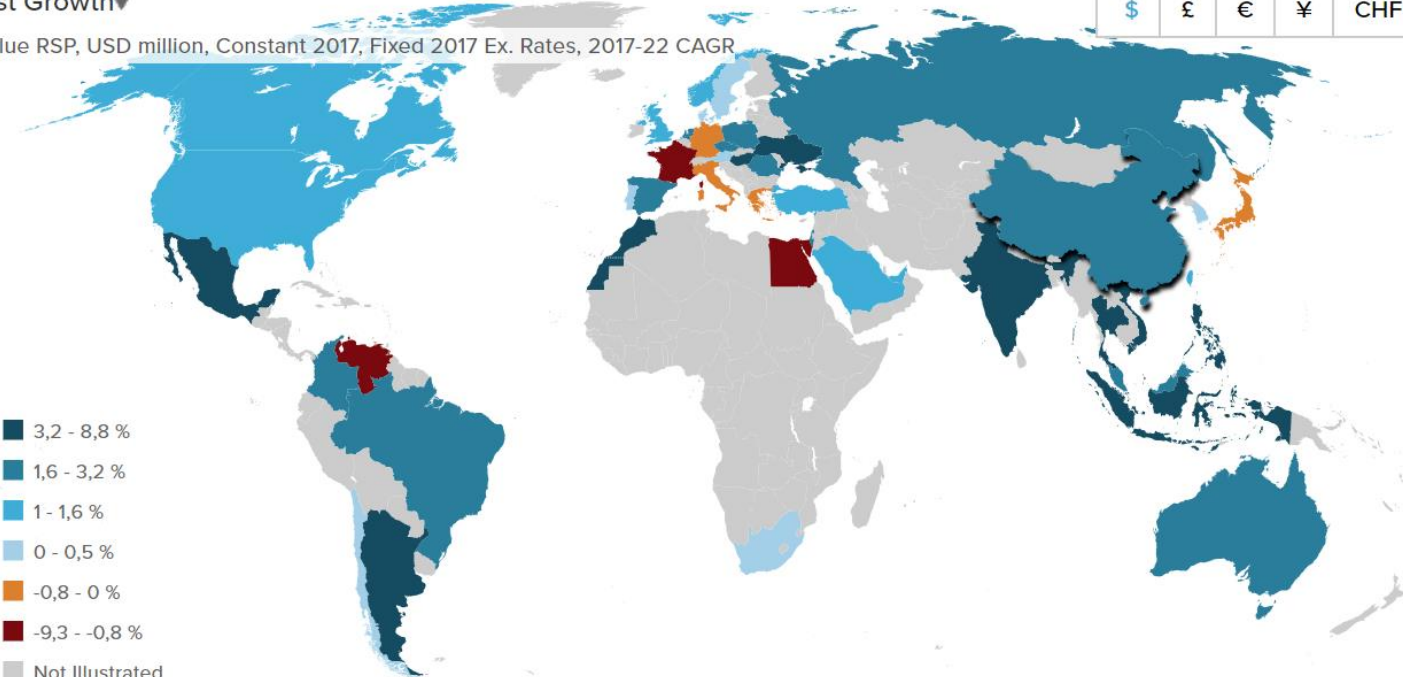
Global Figure

2017-2022 CAGR

1,9

Regional Comparison

2017-2022 CAGR



World

Market Size

2017, USD million **1.344.333,5**

Source : Euromonitor 2018

New disruptive technologies and innovation in textile manufacturing

High demand for ever more automated and ever more energy- and water-efficient textile machines



Faster



Less labor-intensive



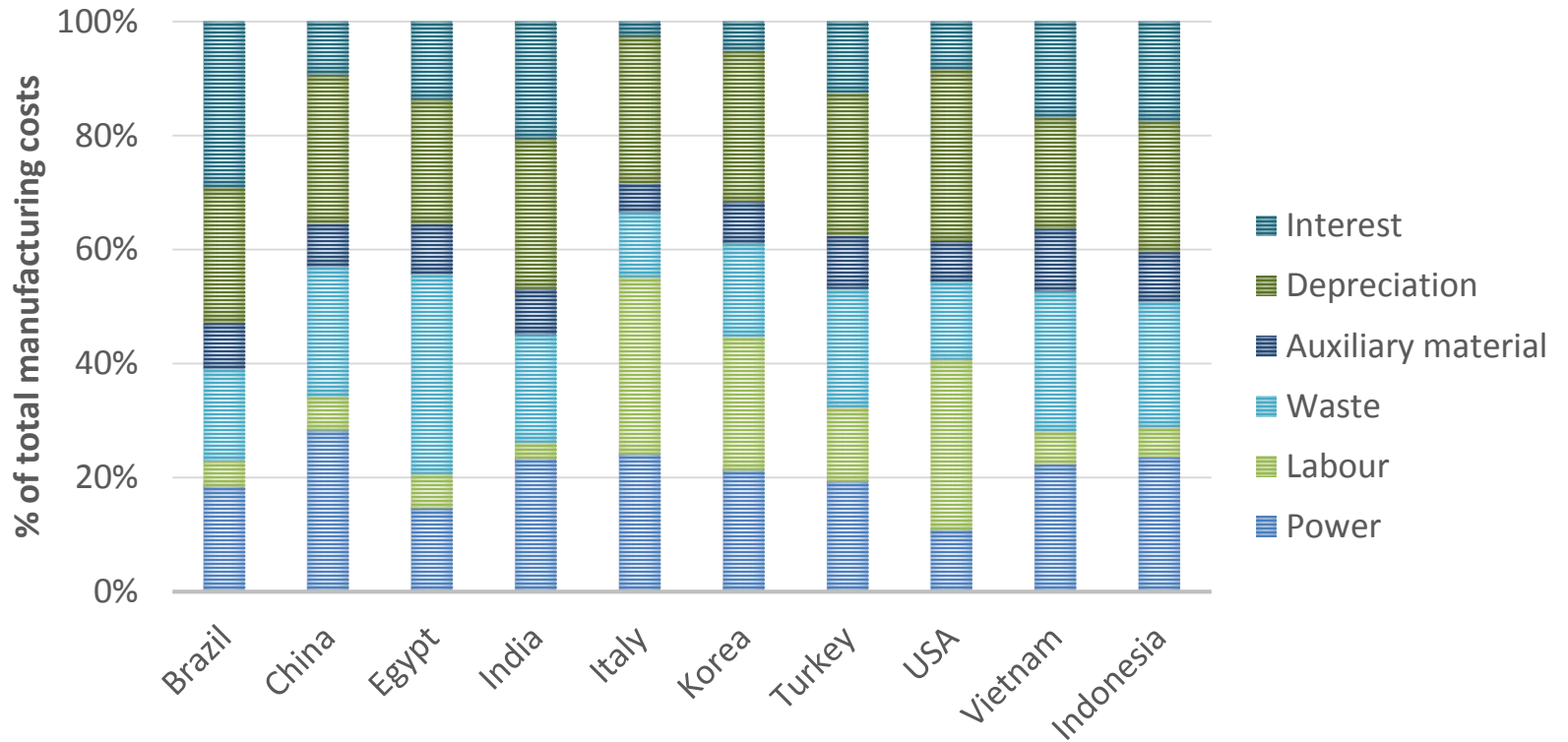
Less energy-intensive



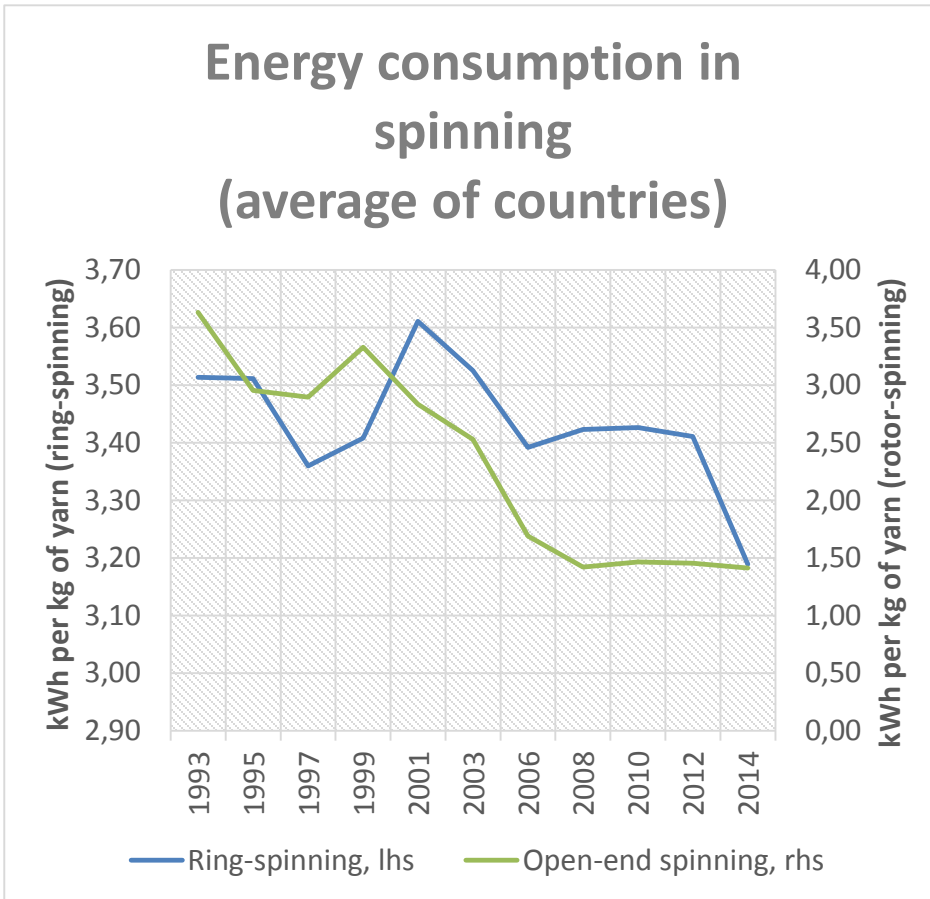
Less water-intensive

Power Costs: A Relevant Cost Factor

Manufacturing costs for ring-spinning in 2016

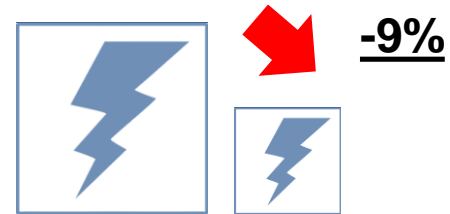


Energy efficiency has improved constantly

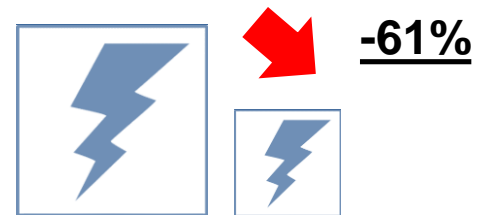


Source: ITMF

ring-spinning



rotor-spinning



Industrial trends



Mass customization



Industry 4.0



Environmental sustainability



Infrastructure projects

Industrial trends:

Mass customization



Digital printing & finishing

“Producing goods and services to meet individual customer's needs with near mass production efficiency.” (Tseng, M.M.; Jiao, J. (2001)



Fully automated machinery

Industrial trends:

Environmental sustainability



Circular economy



Recycling



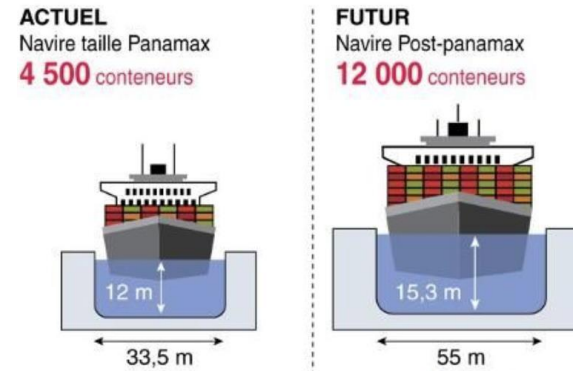
Bio-based textiles

Industrial trends:

Infrastructure



One Road one Belt Initiative



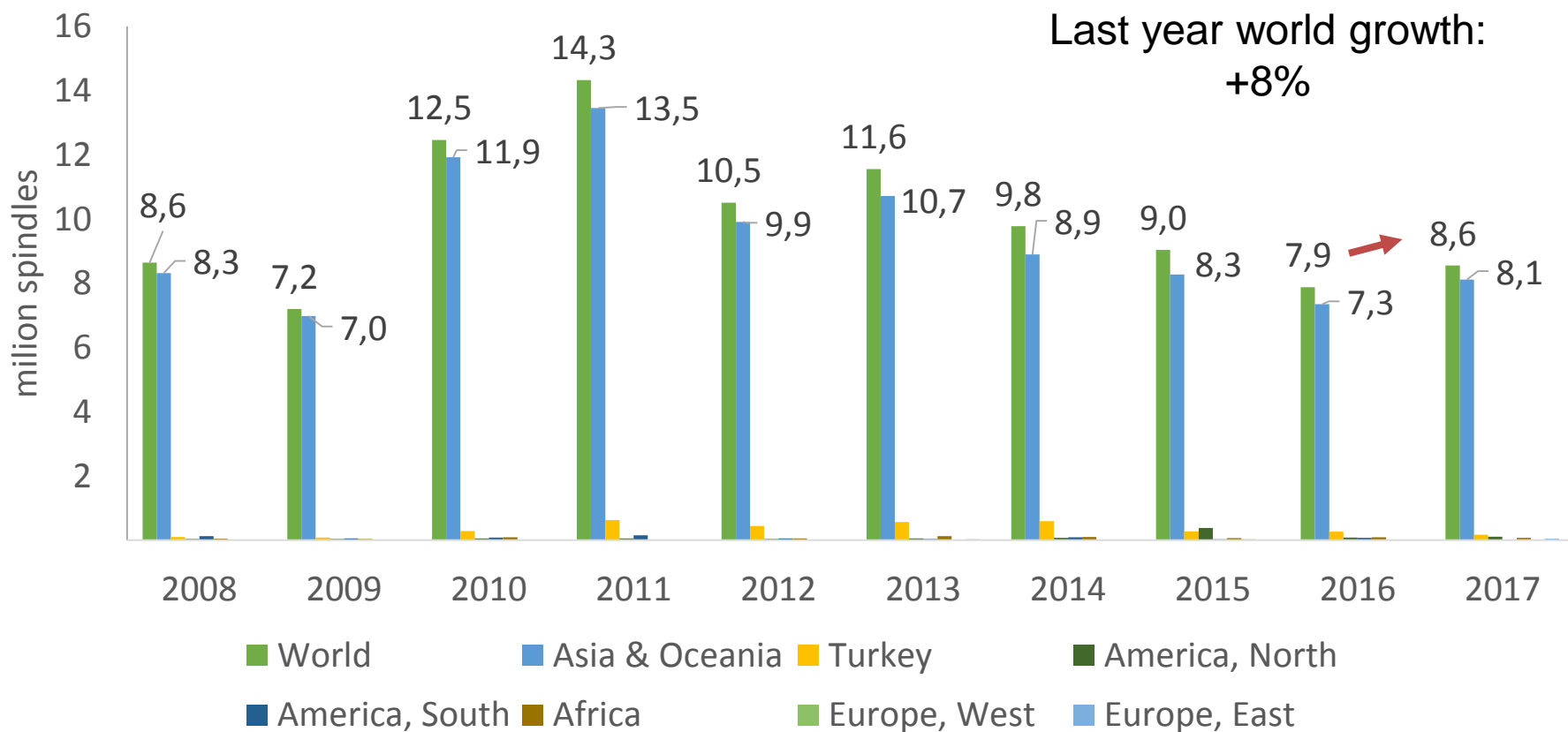
Canals in Panama and Suez

Where are currently the areas of investments in textile manufacturing?

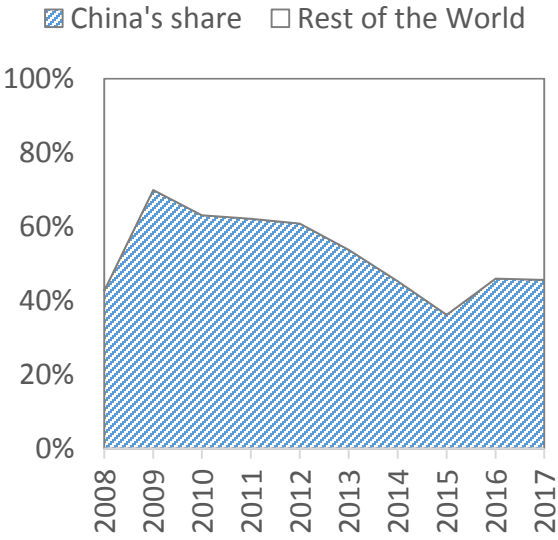
Global Shipments of New Textile Machinery **(2008-2017)**

Spinning Machines
Texturing Machines
Weaving Machines
Circular Knitting Machines
Flat Knitting Machines
Finishing Machines

1. Shipments - Short-staple spindles

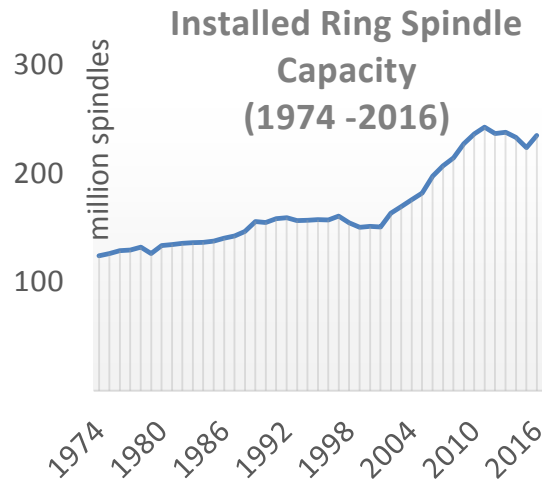
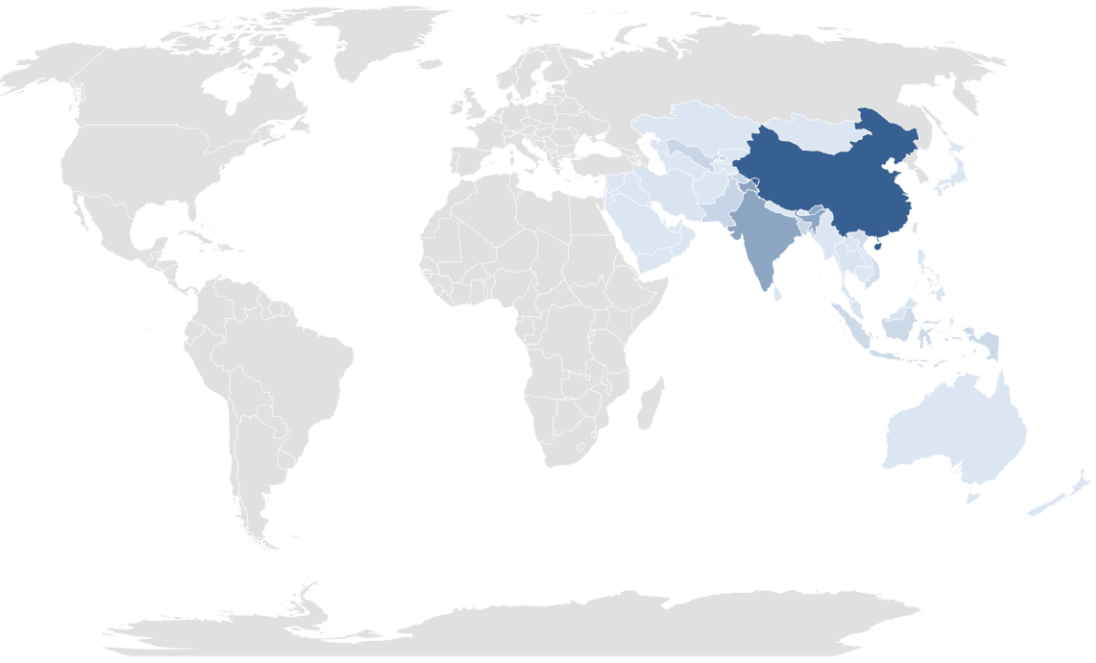


1. Shipments - Short-staple spindles



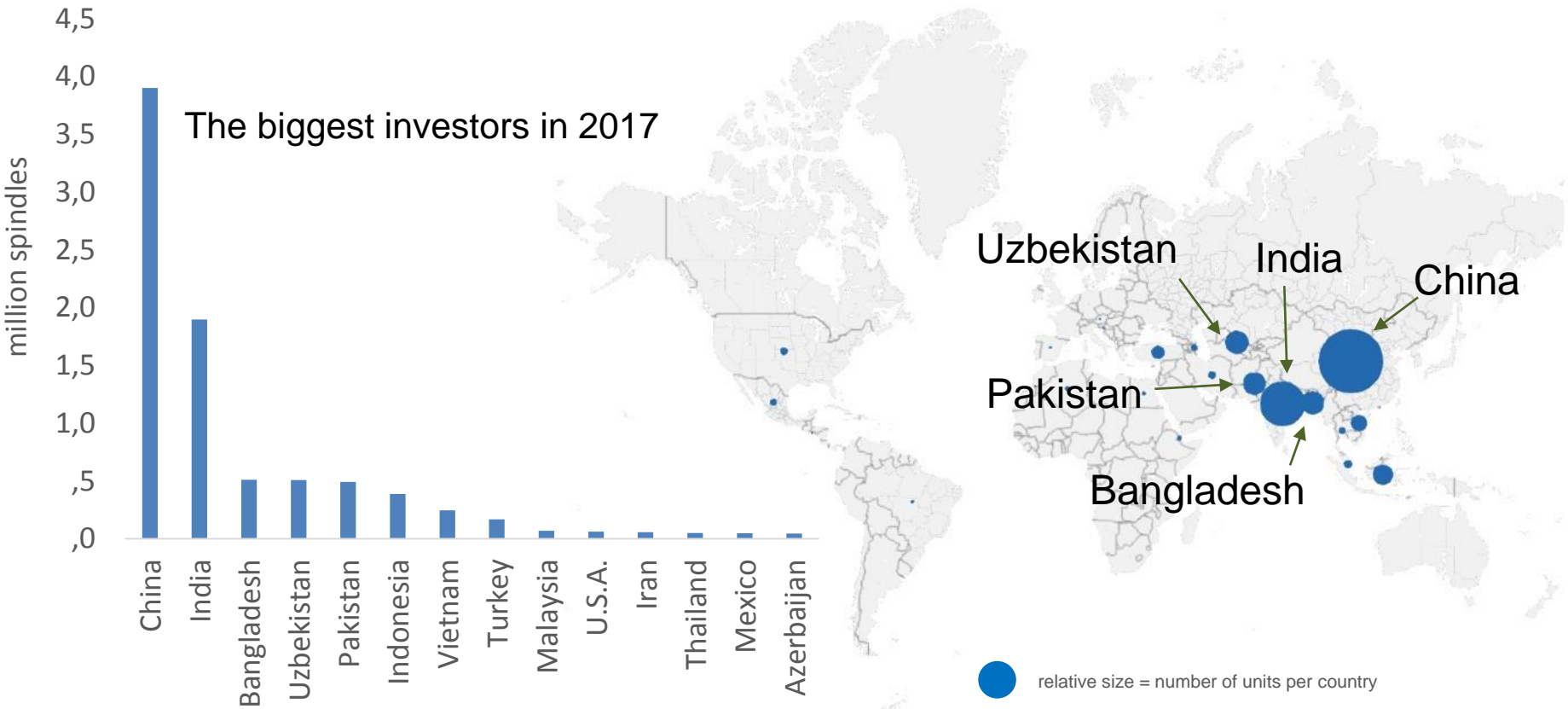
↓
- 1%

2017 0 3899200 units per country in Asia & Oceania

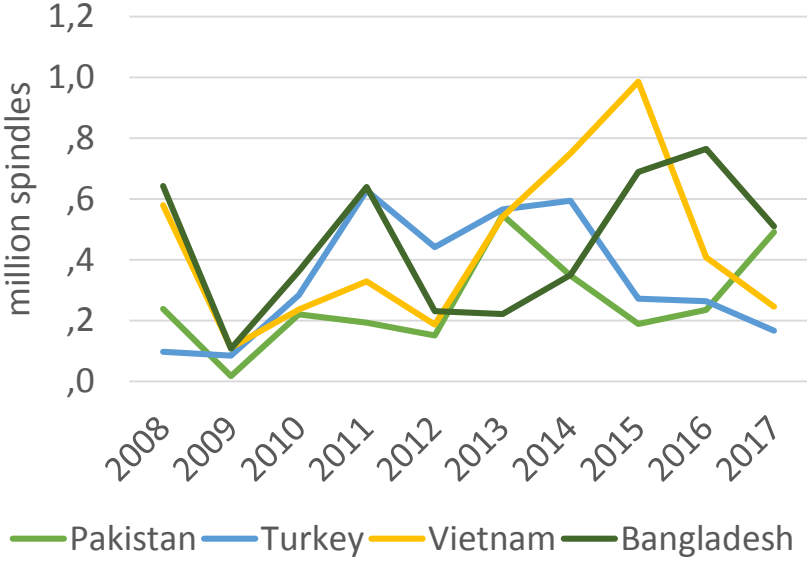
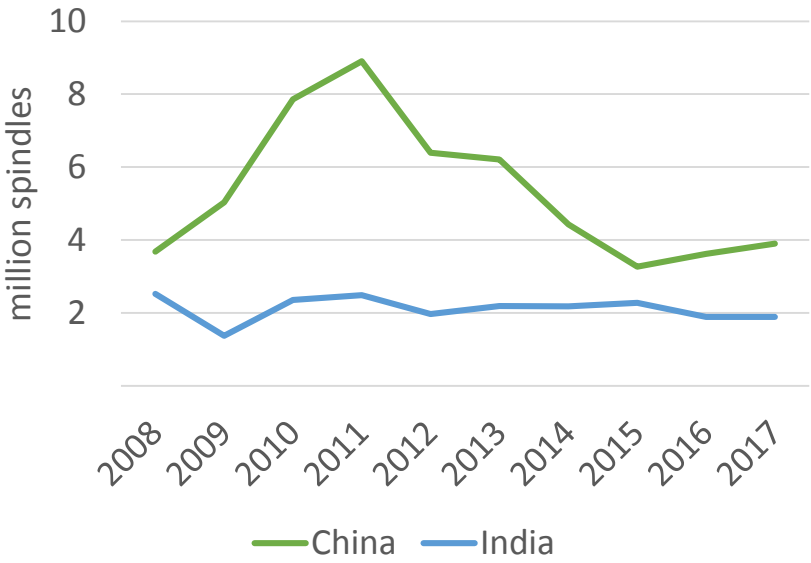


Chinese investments increased last year by :
+8%

1. Shipments - Short-staple spindles

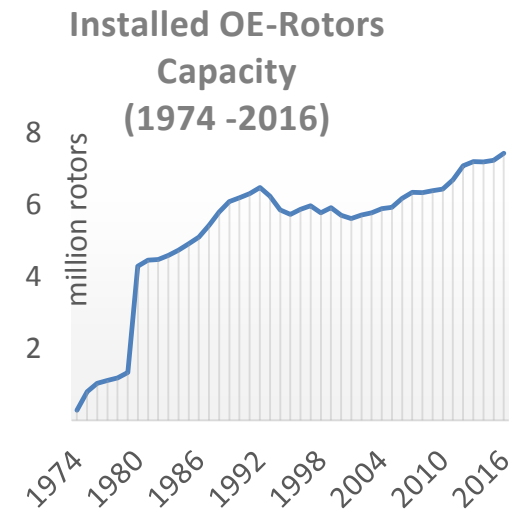
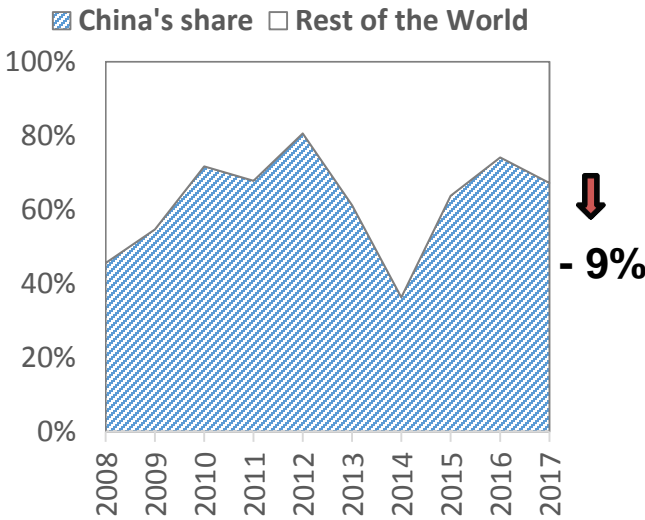
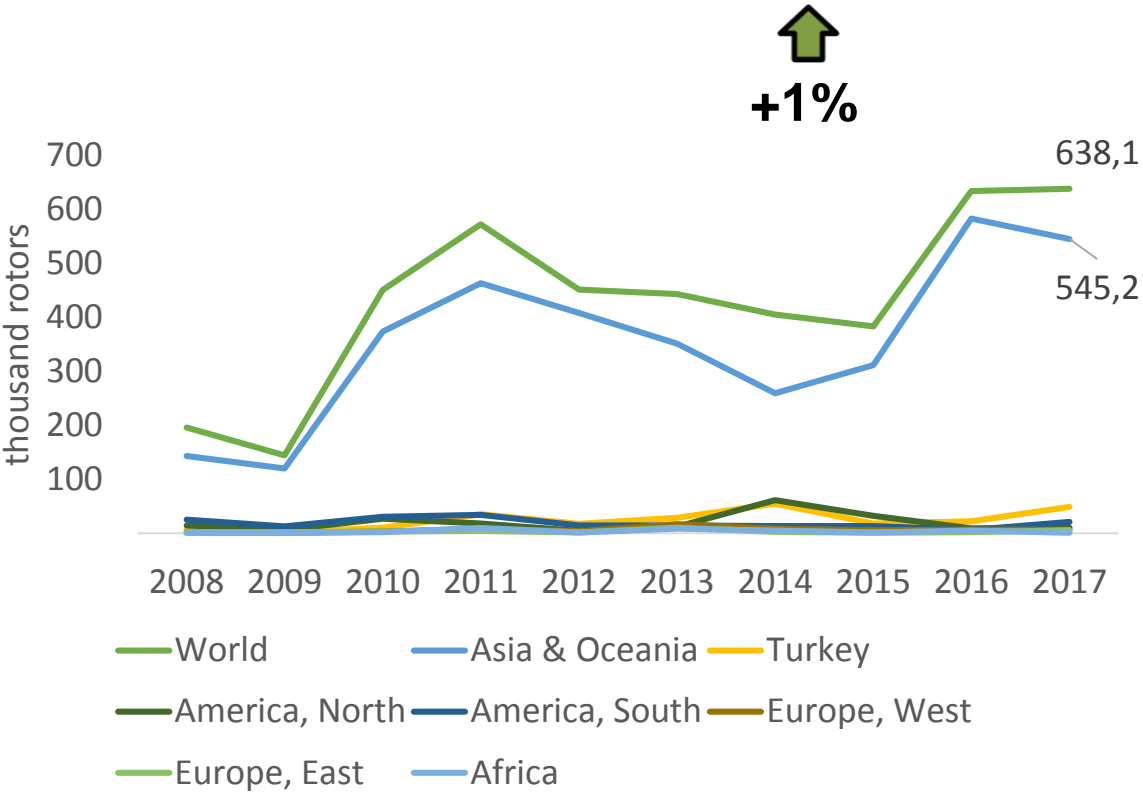


1. Shipments - Short-staple spindles



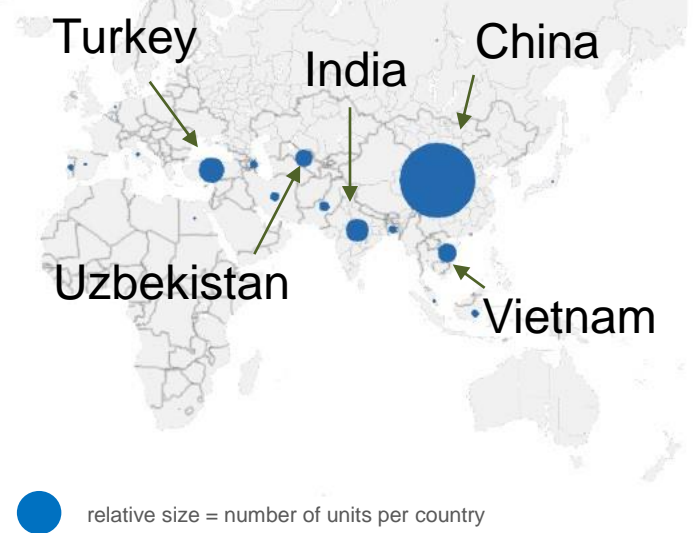
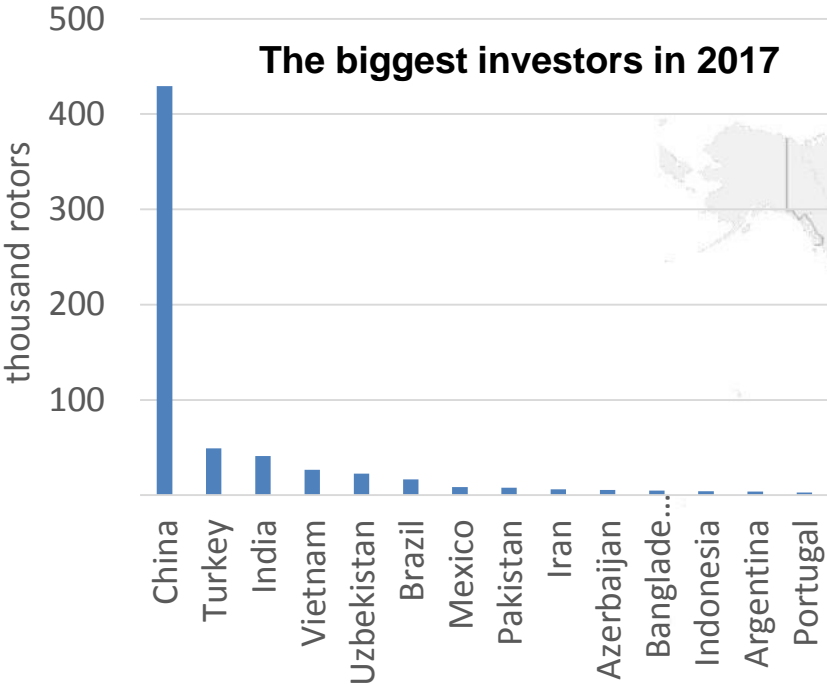
Year	Asia & Oceania	Turkey	America, North	Africa	America, South	Europe, East	Europe, West	World
2016:	7'349'216	263'420	80'240	93'408	70'960	7'932	17'176	7'882'352
2017:	8'115'226	166'876	111'375	76'132	15'792	50'796	15'136	8'551'333

2. Shipments - Open-end rotors



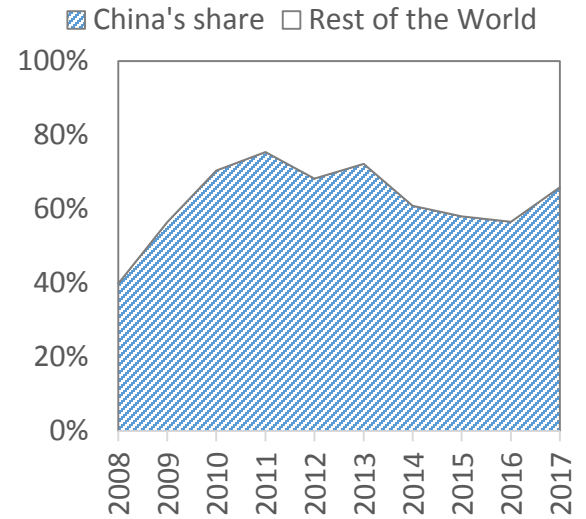
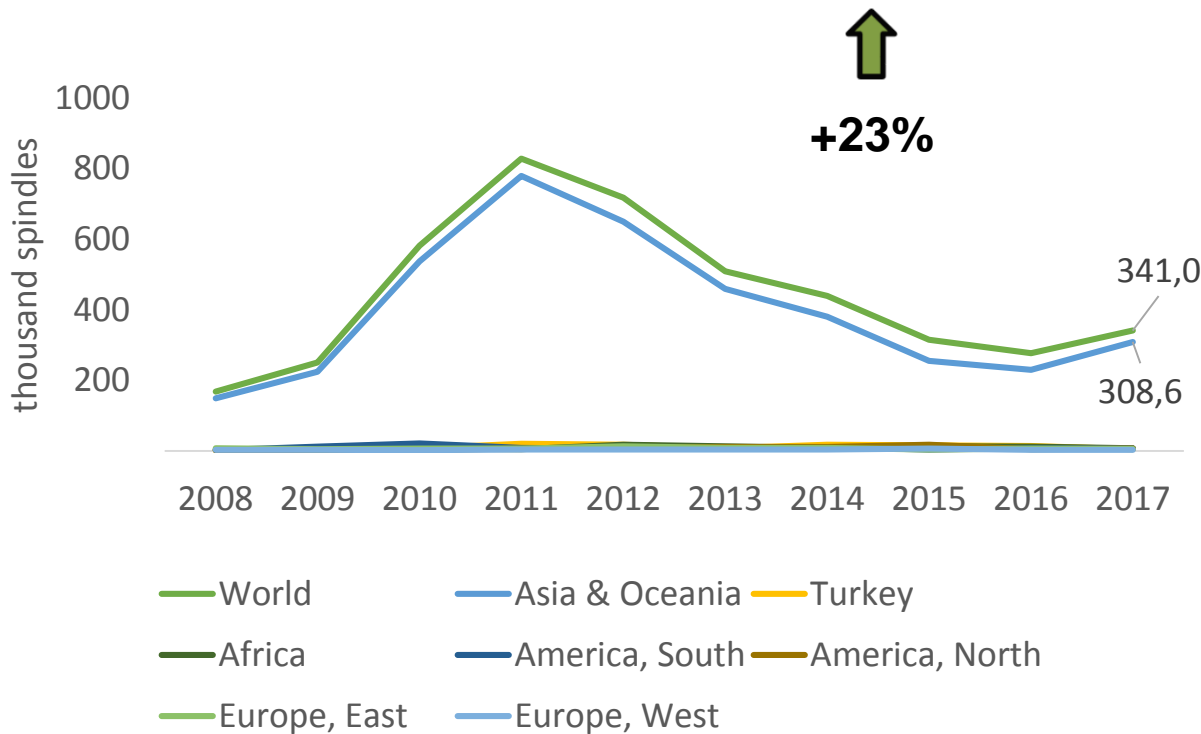
2. Shipments - Open-end rotors

The biggest investors in 2017



Year	Asia & Oceania	Turkey	America, South	America, North	Europe, West	Europe, East	Africa	World
2016:	582'702	21'978	6'422	9'072	6'900	2'154	4'834	634'062
2017:	545'232	49'108	20'808	10'128	6'044	5'736	1'040	638'096

3. Shipments – Texturing spindles



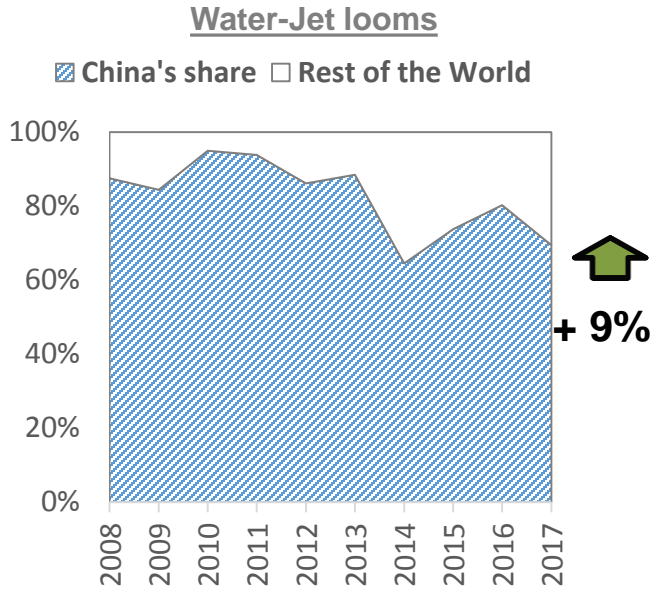
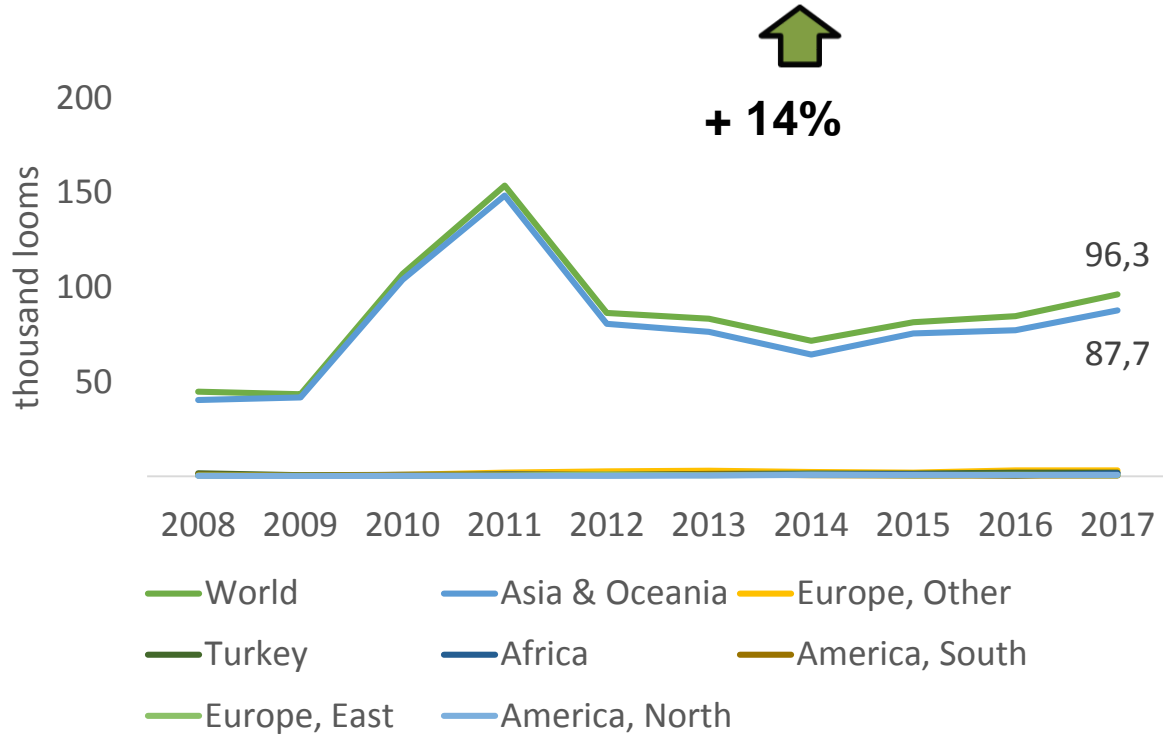
+17%

3. Shipments - Texturing spindles

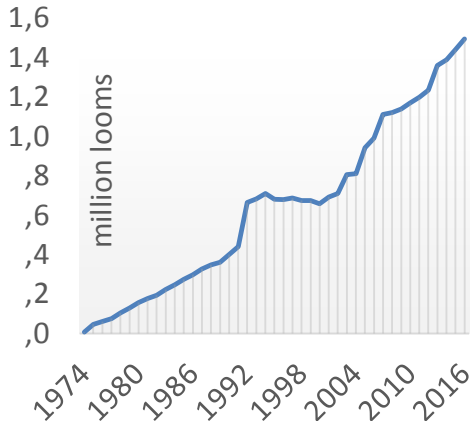


Year	Asia & Oceania	Africa	Turkey	America, South	Europe, East	America, North	Europe, West	World
2016:	229'415	12'000	13'368	6'886	6'720	4'800	3'017	276'206
2017:	308'552	6'960	4'560	6'000	5'902	6'062	2'960	340'996

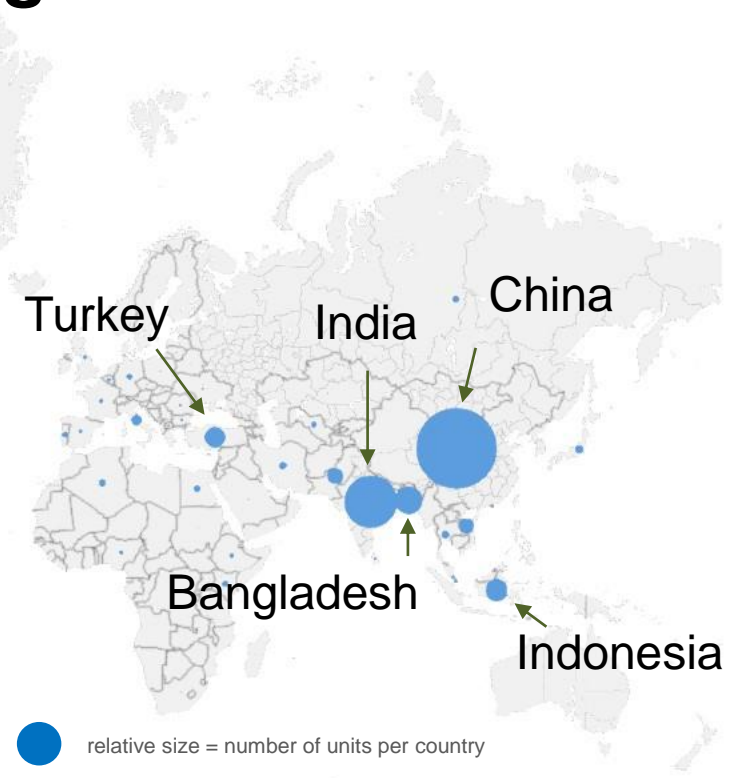
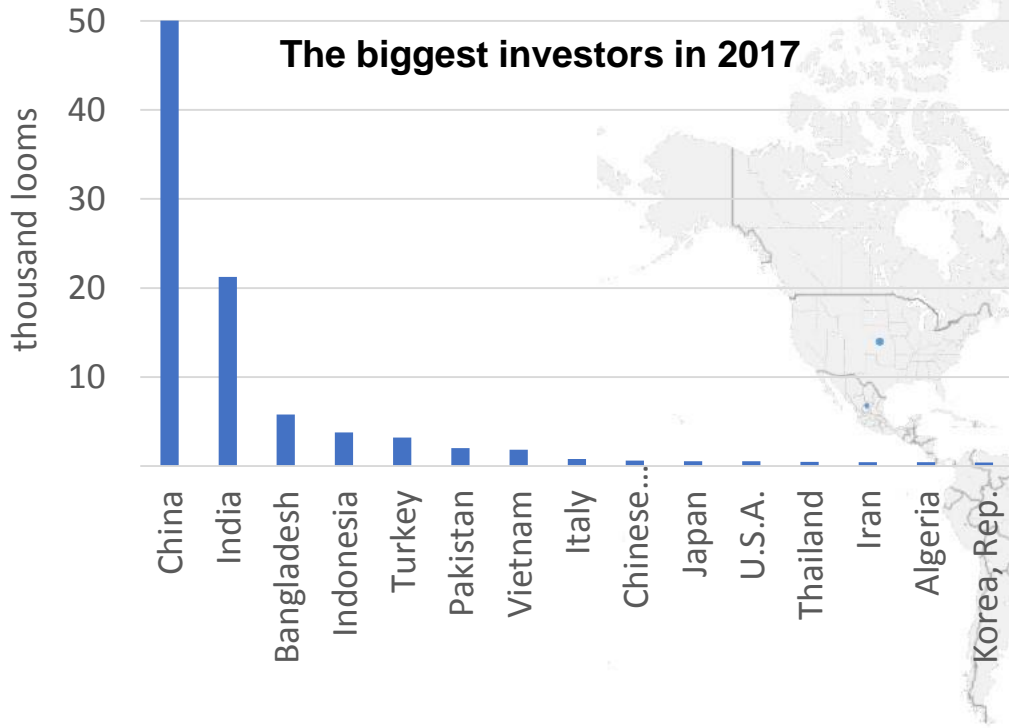
4. Shipments - Shuttle-less looms



Installed Shuttle-less Looms (1974 – 2016)

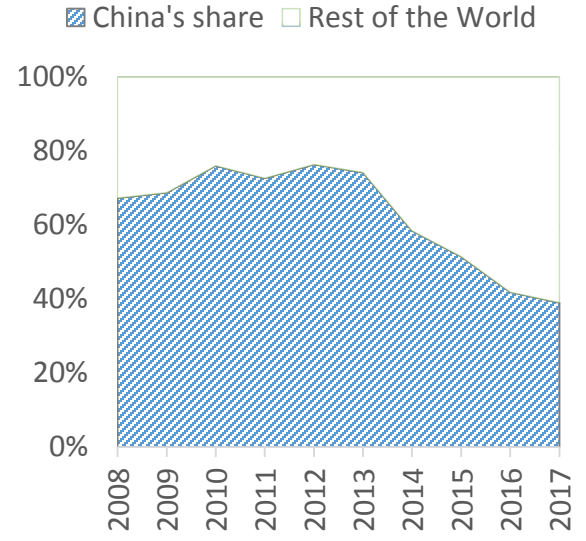
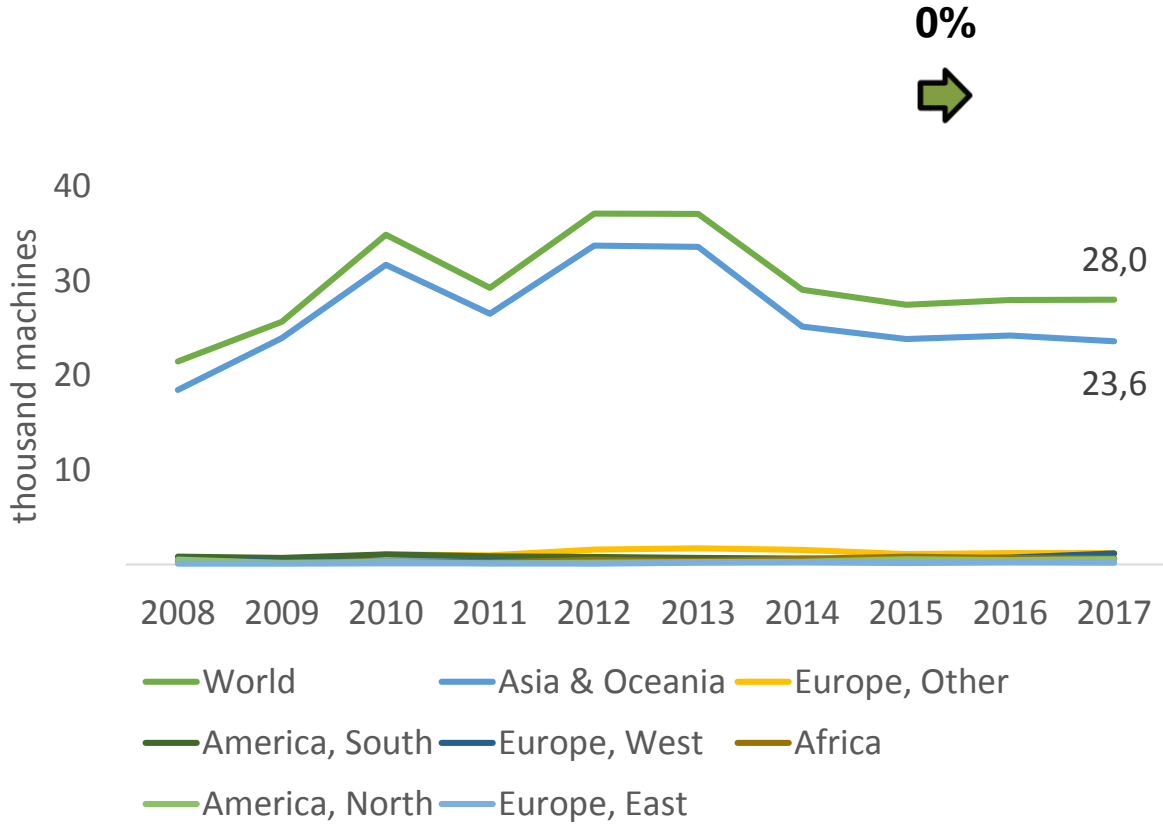


4. Shipments - Shuttle-less looms



Year	Asia & Oceania	Turkey	Europe, West	Africa	America, North	Europe, East	America, South	World
2016:	77'183	3'095	2'018	479	693	770	460	84'698
2017:	87'718	3'203	1'904	1'533	781	643	389	96'171

5. Shipments – Circular knitting machines



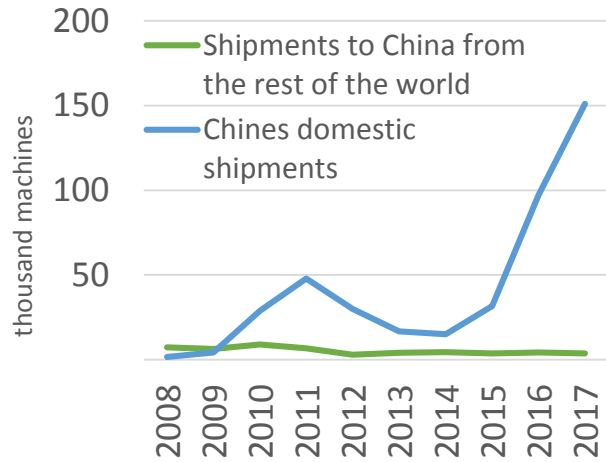
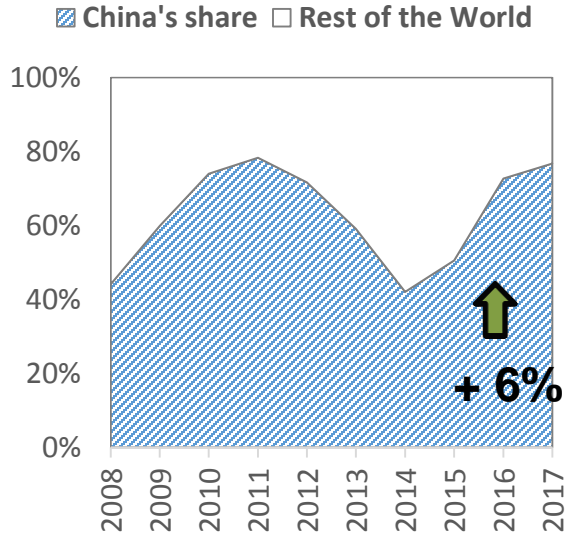
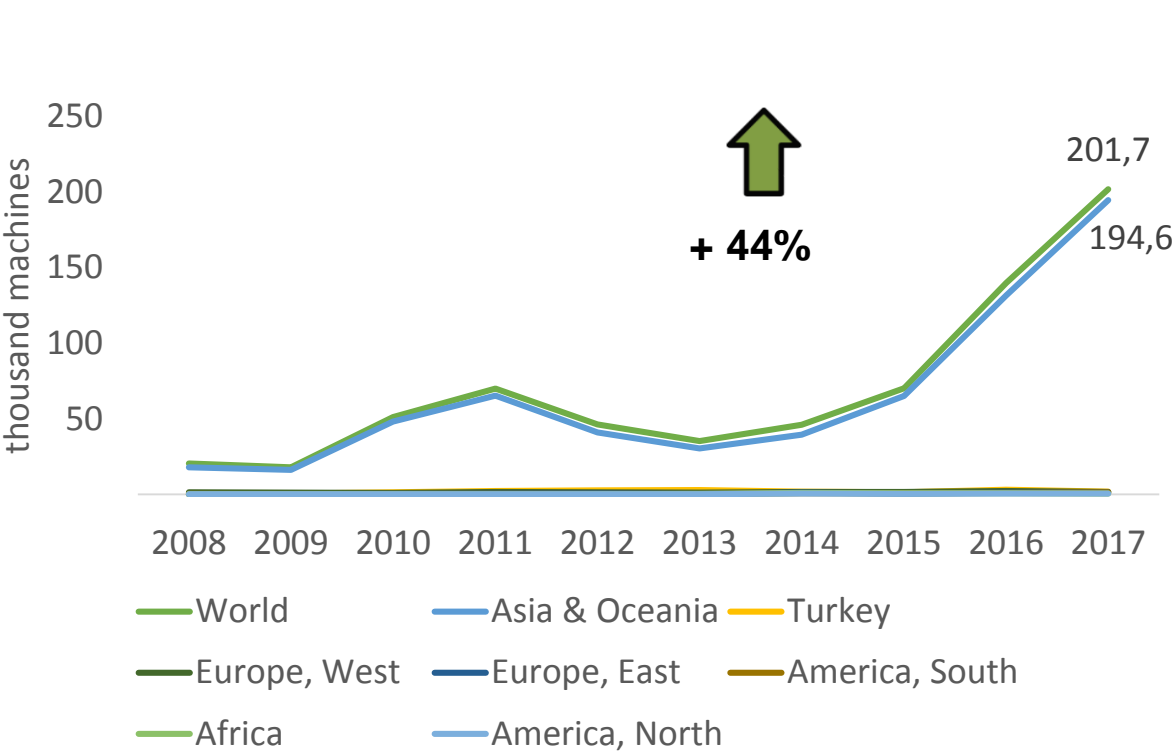
-7%

5. Shipments – Circular knitting machines

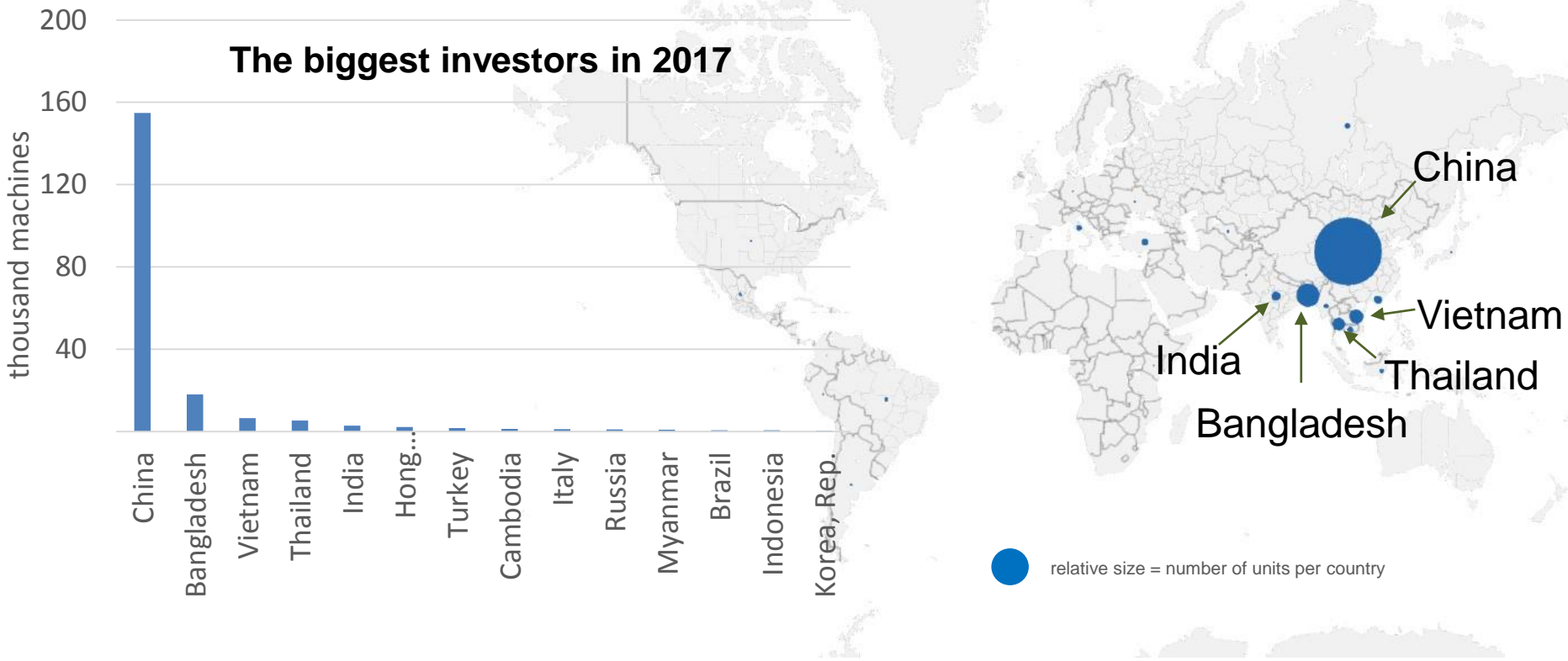


Year	Asia & Oceania	Turkey	Europe, West	Africa	America, South	America, North	Europe, East	World
2016	24'238	1'191	725	690	452	444	234	27'974
2017	23'627	1'189	1'173	626	626	569	200	28'010

6. Shipments – Electr. flat knitting machines

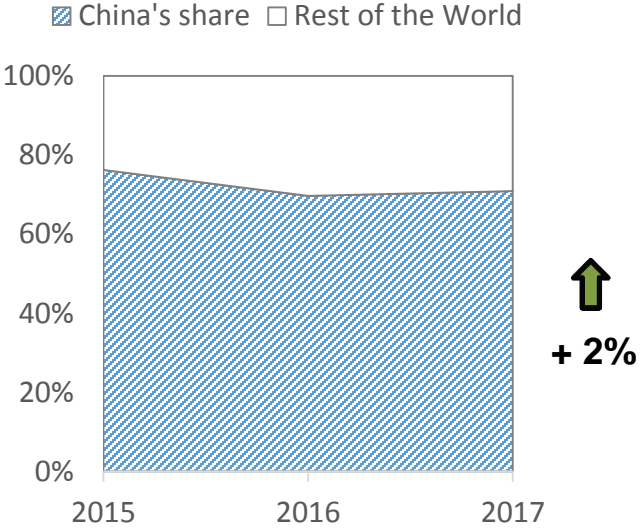
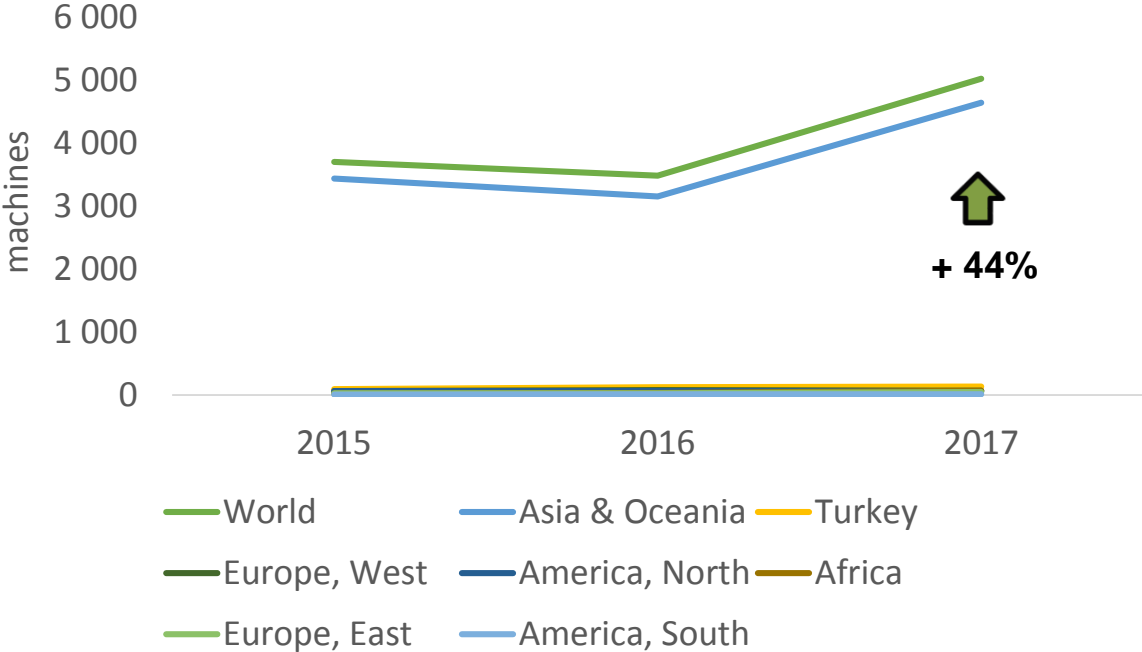


6. Shipments – Electr. flat knitting machines



Year	Asia & Oceania	Turkey	Europe, West	Europe, East	America, South	Africa	America, North	World
2016	131'398	2'975	2'138	1'060	988	653	422	139'634
2017	194'609	1'721	1'602	1'417	1'322	449	607	201'727

7. Shipments – Finishing machines

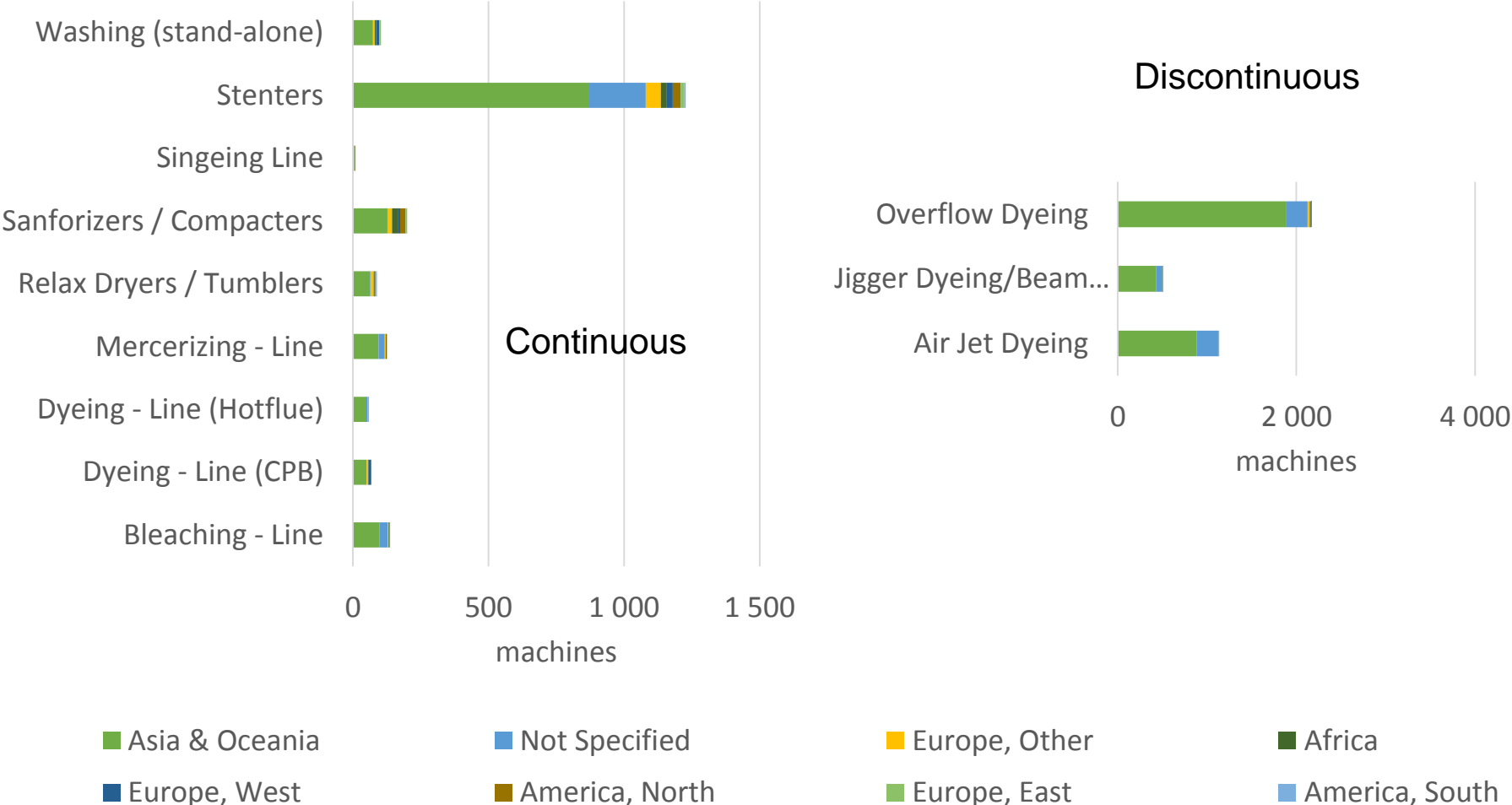


6. Shipments – Finishing machines



Year	Asia & Oceania	Turkey	Europe, West	America, North	Africa	Europe, East	America, South	World
2016	3'147	121	77	63	30	27	12	3'477
2017	4'638	133	67	58	64	45	12	5'017

7. Shipments – Finishing machinery (Fabrics Woven & Knits, 2017)

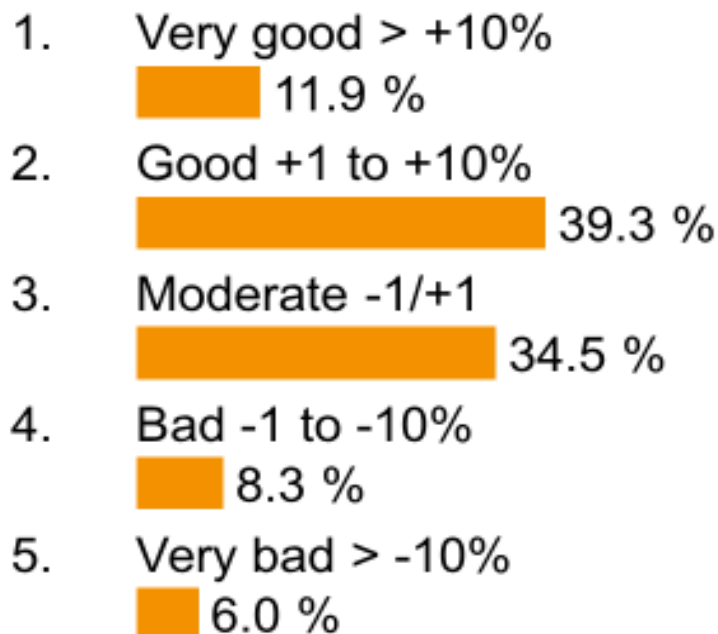


Order Intake (Textile Machines) from China in 2018

Perspectives for the order intake from China 2nd half 2018 (year-on-year)?



International Textile
Manufacturers Federation



Competitive Chinese Textile Industry

Competitiveness as Measured by Unit Labor Cost

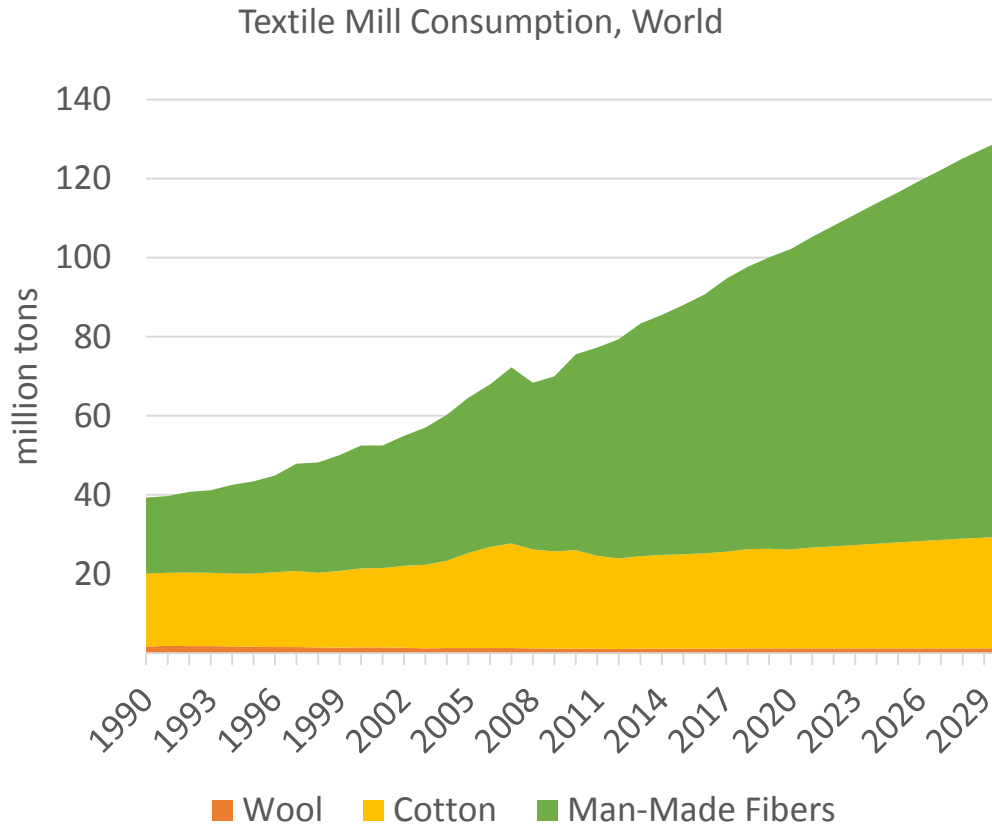


Source: National Bureau of Statistics of China; Apparel Manufacturing in China/ IBISWorld (Apr, 2017)



Implications for the global textile industry

Textile Mill Consumption



- Advent of synthetic fibres
 - Wearing comfort improves
 - Functional clothing
 - Technical textiles
 - Easy to control quality and quantity
- Cotton consumption stagnated in recent years due to both volatile and relative high cotton prices since 2010.

Source: PCI Fibres (2017)

Fiber Production - World (in million tons)

	2017	2020 **	%-change
Cotton *	24.50	25.00	2%
Wool *	1.15	1.17	2%
Acrylic	1.68	1.69	0%
Nylon (filament)	0.19	0.22	14%
Nylon (staple)	4.26	4.71	11%
Polypropylene (staple)	0.35	0.37	6%
Polypropylene (filament)	1.65	1.90	15%
Polyester (staple)	16.76	17.58	5%
Polyester (filament)	35.49	39.28	11%
Cellulosic (staple)	4.28	5.10	19%
Cellulosic (filament)	0.27	0.29	10%
Total MMF	64.94	71.14	10%
Total Fibre Production	90.59	97.31	7%

* Consumption figures

** Forecast

Source: PCI Fibres (2017)

World Man-made Fibre Production by Country/Region (million tons)

	2017	2020 *	%-change
China	44.96	48.89	9%
Western Europe	2.52	2.69	7%
Eastern Europe	.74	.88	18%
Turkey	1.38	1.75	27%
Africa/Middle East	.80	.90	13%
Chinese Taipei	1.77	1.79	1%
North America	2.84	3.19	12%
India	5.93	6.96	17%
Japan	.67	.66	-2%
South Asia	4.87	5.66	16%
S. Korea	.05	.05	6%
Latin America	1.71	1.67	-2%
Australasia	.79	.90	14%
Total Fibre Production	69.03	75.99	10%

* Forecast

Source: PCI Fibres (2017)

World Polyester Production by Country (million tons)

	2017		2020 *		% -change	
	Polyester (staple)	Polyester (textile filament)	Polyester (staple)	Polyester (textile filament)	Polyester (staple)	Polyester (filament)
China	10.14	26.95	9.93	29.64	-2%	10%
India	1.51	3.48	1.70	4.29	13%	23%
USA	.65	.75	.76	.80	16%	8%
Turkey	.26	.24	.51	.30	97%	28%
Chinese Taipei	.53	.80	.57	.80	7%	0%
South Korea	.76	.64	.74	.61	-3%	-5%
Indonesia	.67	.69	.71	.69	6%	0%
Thailand	.33	.37	.35	.38	4%	3%
Malaysia	.11	.26	.12	.26	0%	0%
Vietnam	.18	.33	.43	.41	131%	25%
Bangladesh	.07	.06	.07	.06	12%	2%
Others	1.54	.94	1.70	1.02	10%	9%
Total	16.76	35.49	17.58	39.27	5%	11%

* Forecast

Source: PCI Fibres (2017)

Economic catch-up in Asia continues

Growing global GDP, current prices (billion USD)

Year	World	Europe	USA	China	India	Middle East & North Africa	Sub-Saharan Africa
2018	87.5	22.9	20.4	14.1	2.9	3.1	1.7
2023	114.3	28.1	24.5	21.6	4.66	3.8	2.6
Growth %	30.7	22.7	20.2	53.1	63.5	25.1	55.8

- Global GDP is expected to increase by over 30% from 2018 to 2023
- Economic growth in emerging and developing countries will be strong
- Asian retail markets for textile and apparel become more and more important
- Customer preferences in Asian countries change towards Western-style. On the other hand, Asian-style will influence textile industry

GDP per capita, current prices (thousand USD)

Year	World	Europe	USA	China	India	Middle East & North Africa	Sub-Saharan Africa
2018	11.7	30.9	62.2	10.1	2.1	6.6	1.7
2023	14.5	37.9	71.8	15.2	3.3	7.5	2.3
Growth %	23.5	22.6	15.1	50.5	53.5	13.6	37.1

Sources: IMF, UN

Strong increase in fibres consumption in China and India

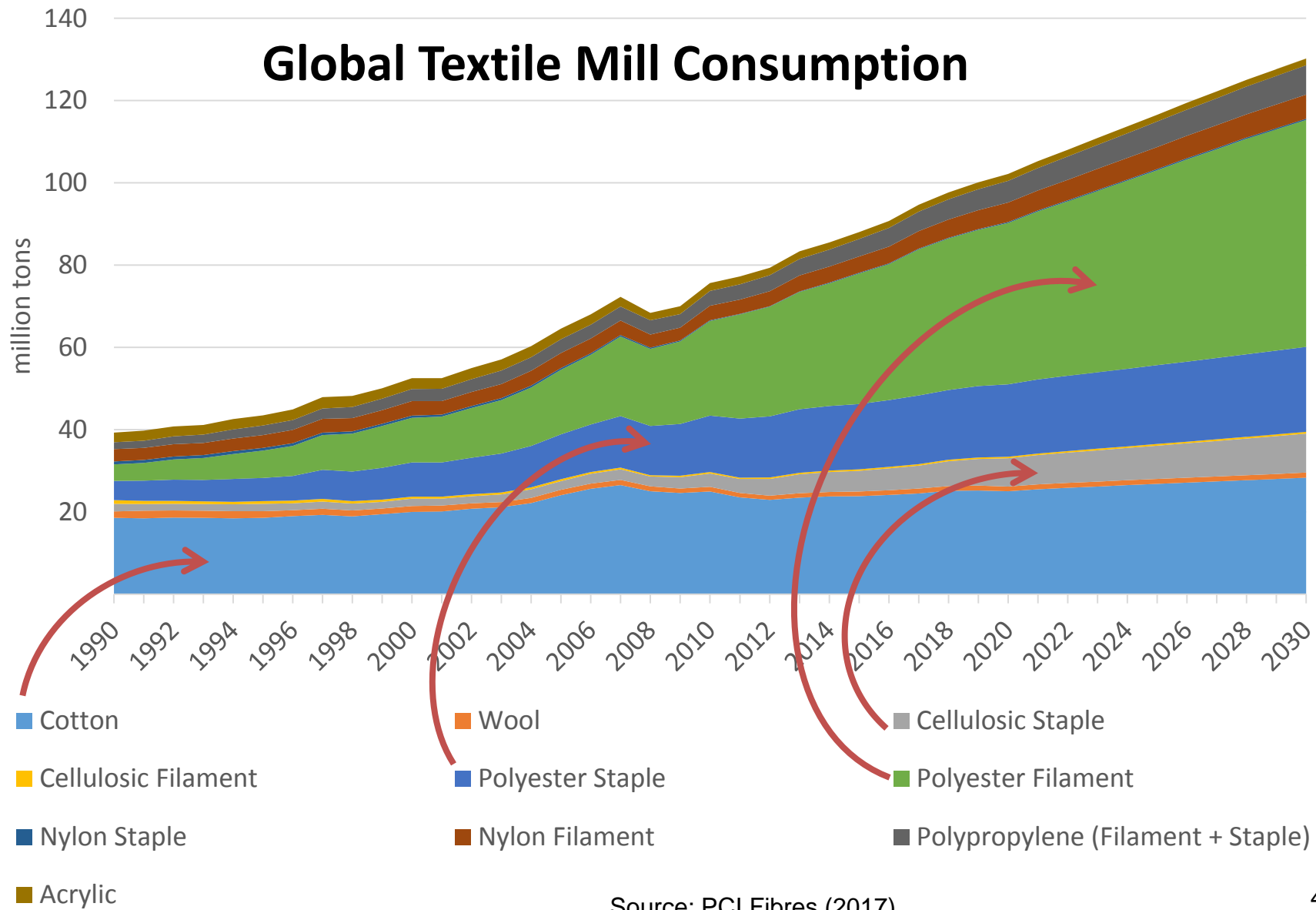
Higher per capita fibre consumption (kg per capita)

Period	World	West Europe	Turkey	North America	China*	India	Africa/Middle East
2017	12.5	22.4	26.8	32.6	20.1	5.8	5.8
2020	13.1	23.1	26.9	34.1	21.9	6.3	5.9
2030	15.2	26.5	29.0	38.5	29.0	8.2	6.2

*with Hong Kong

Source: PCI-Fibres (2017)

Global Textile Mill Consumption



Source: PCI Fibres (2017)

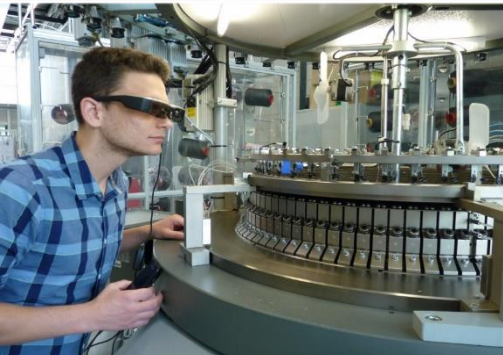
Summary

- Growing Global Textile & Apparel Market
- Share of e-Commerce is on the rise
- New technologies allow mass customized production
- Internet of Things (IoT) offers new potential to increase productivity
- Sustainability is a trend and an integral part of business (CSR)
- Infrastructure Projects (OROB-Initiative) – Creating new opportunities
- Textile production concentrated in Asia (especially in China)
- Shifts of textile production to other countries (Asia and partially Africa)
- Production in other regions (Africa, Americas, Europe) has more potential due to
 - Technologies (digital and 3-D printing, automation)
 - Fashion trends (fast fashion)
 - Reduced cost differentials (rising labor costs)
 - Sustainability (traceability, circular economy)

- Global fiber consumption is on the rise (GDP and population)
- Man-made fibers (mmf) are benefiting most
- Within mmf, cellulosic staple + polyester filaments are growing strongly
- Wool has become a «luxury» fibre
- Is cotton is becoming a «luxury» fiber as well?

THANK YOU
FOR YOUR ATTENTION!

www.itmf.org



Industrial Internet Now

Digitalization – to be or not to be!

risks and chances form mass production to mass customizing by Industry 4.0

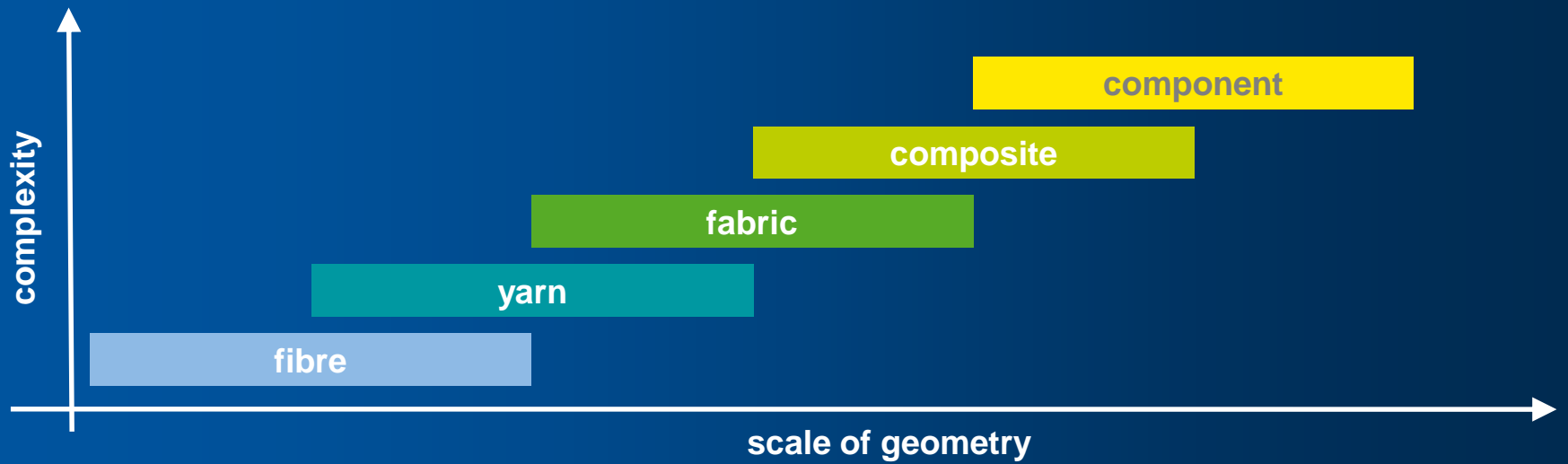
Prof. Thomas Gries, Dr. Volker Lutz

everything is changing...

Small and innovative companies enter most important German stocks index DAX, while established financial institutes have to leave



Fiber based solutions 4 you





INTERDISCIPLINARY



INTEGRATED



INDUSTRY-ORIENTED



INTERNATIONAL



4 Divisions

400 Employees

(Semi-) Finished parts



Natural & synthetic
fibrous material



Yarn

Fabric

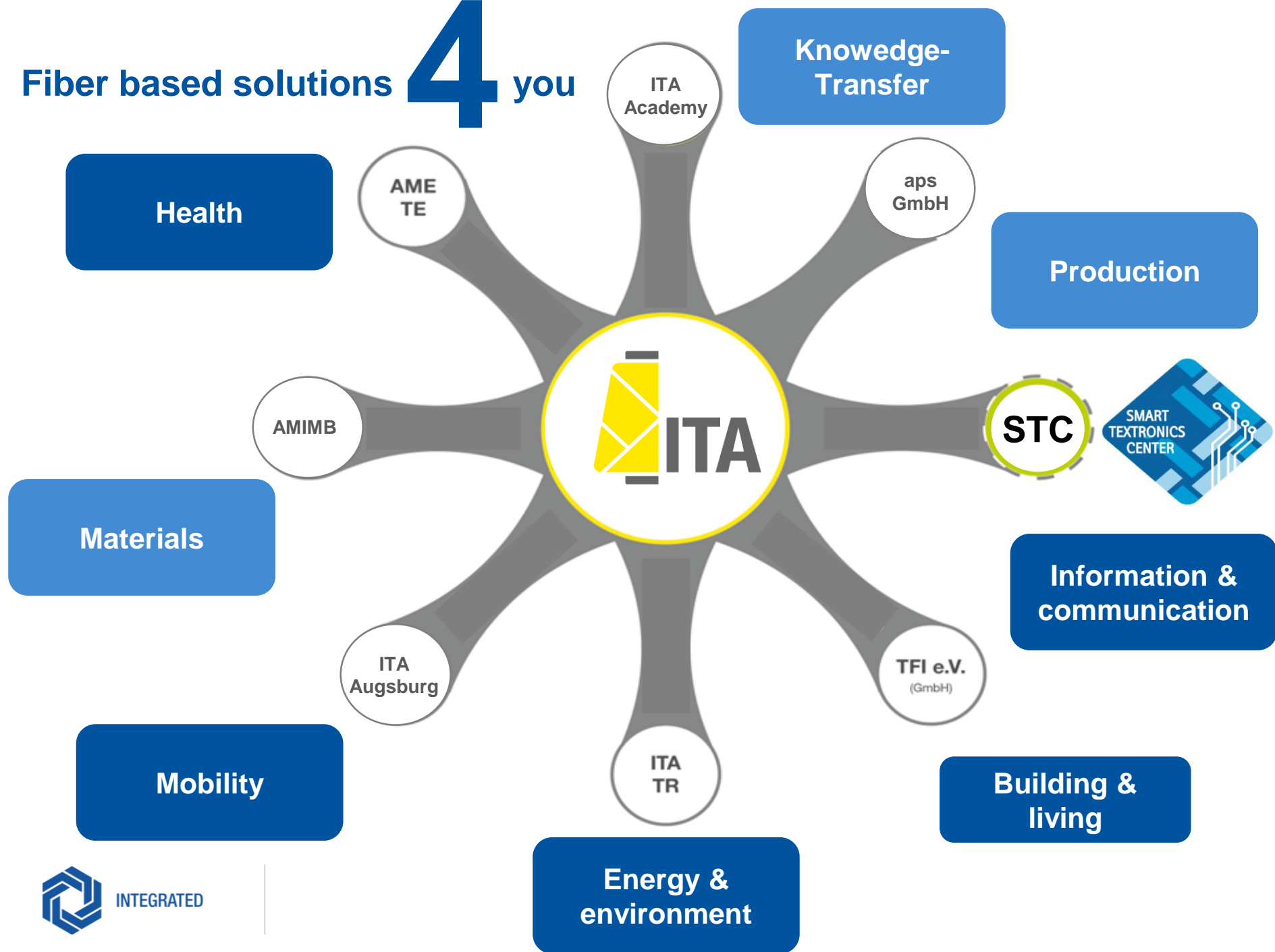
Composite

RESEARCH AND SERVICE IN ONE HAND



INTERDISCIPLINARY

Fiber based solutions 4 you



RWTH with the biggest technology campus in Europe

500+ Industrial Clients

15 clusters of high-tech companies

Client Base across over 100 countries



Active Collaboration with Turkey

Campus GmbH, A. Steindl



INDUSTRY-ORIENTED



Ansan/Korea



Istanbul/TR

4 Global Locations

Aachen/GER

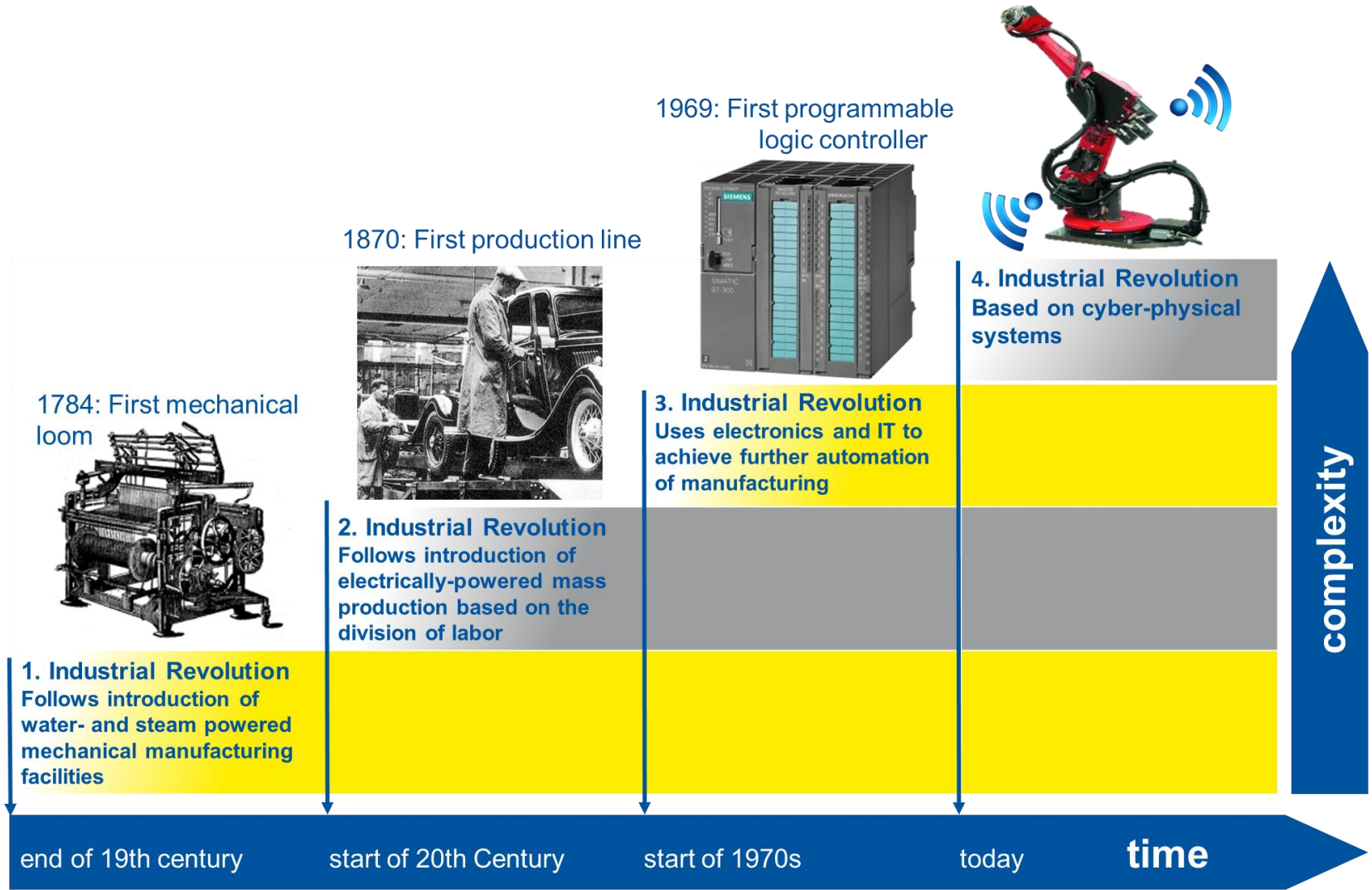


Augsburg/GER



The industrial revolution

I4.0



Risks of digitalization

Fragmented value chain

Intellectual property/design ownership

Global production network

Diverse process- and work organization

Skills shortage

By 2020, 60% of digital businesses will experience a major service failure because of IT teams' inability to „manage digital risk in technology and use cases“

Gartner Projection

but there is more ...

Cost reduction

Energy/material efficiency

Ongoing growth rate

New business models

New generation of IT skilled workers

Already connected textile value chain

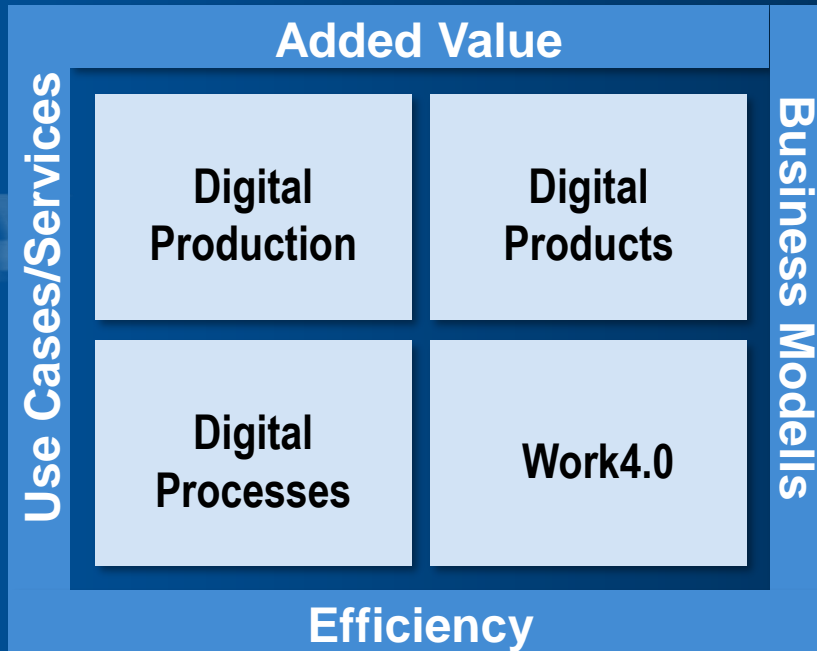


Only textile value chain?

A few more examples....

SPEEDFACTORY

STOREFACTORY



Case Study – SpeedFactory

Customized solutions for the sportswear industry

Aim :

- Production of highly individualized products
- Highly flexible production infrastructure
- Future of Manufacturing

Results:

- Basic cognitive technologies
- Interfaces between process steps
- Human-machine interaction
- 3-D in industrial applications

SPEEDFACTORY



Supported by:



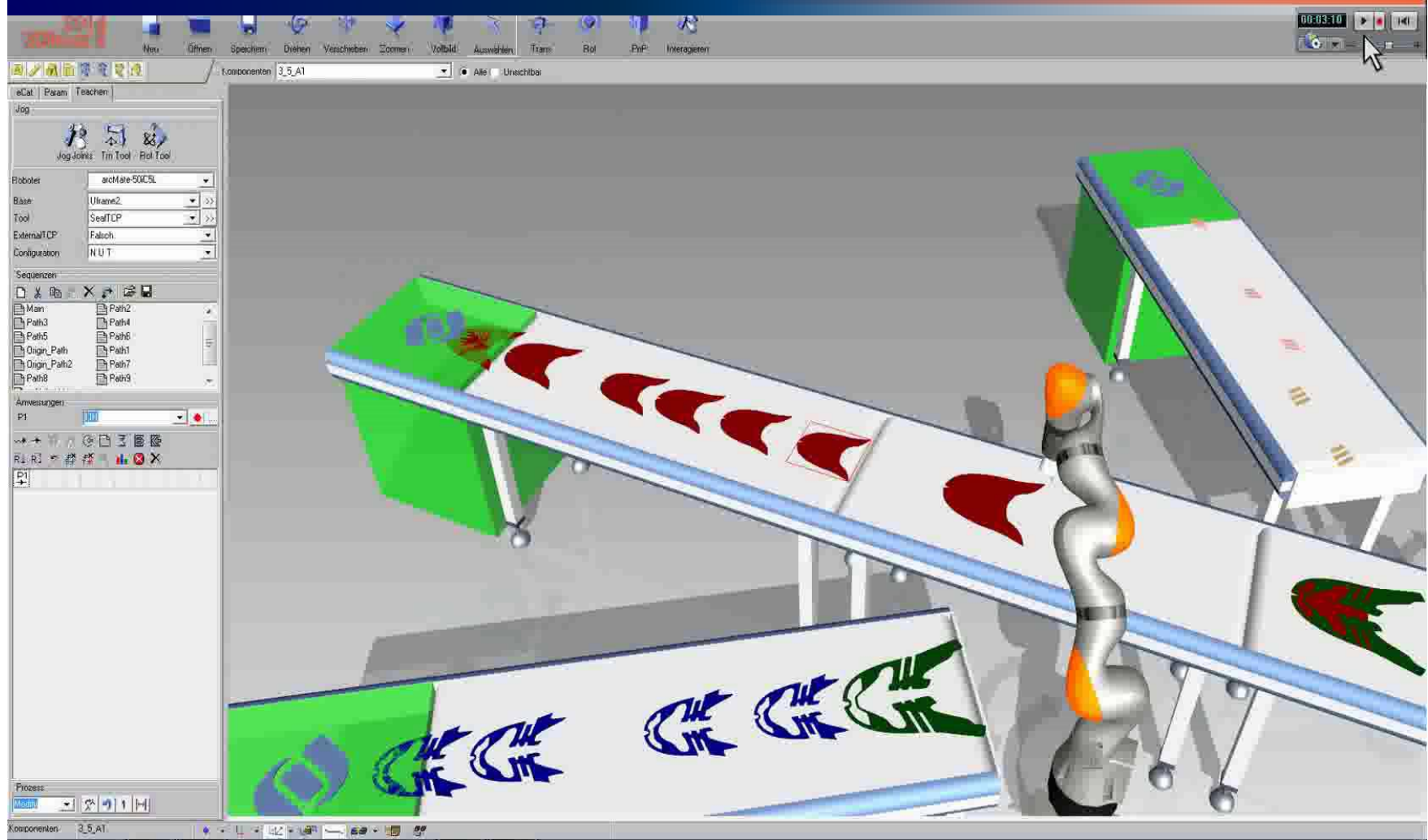
Federal Ministry
for Economic Affairs
and Energy

on the basis of a decision
by the German Bundestag

AUTONOMIK
FÜR INDUSTRIE 4.0

Case Study – SpeedFactory

Customized solutions for the sportswear industry



Case Study – StoreFactory

Customized solutions for the apparel industry

Aim:

- In-Store production of individualized products with minimized delivery times
- Customer integration into manufacturing
- Garment production on 2-bed-flat- knitting machines
- Digital data transfer – From 3D scan to product

Results:

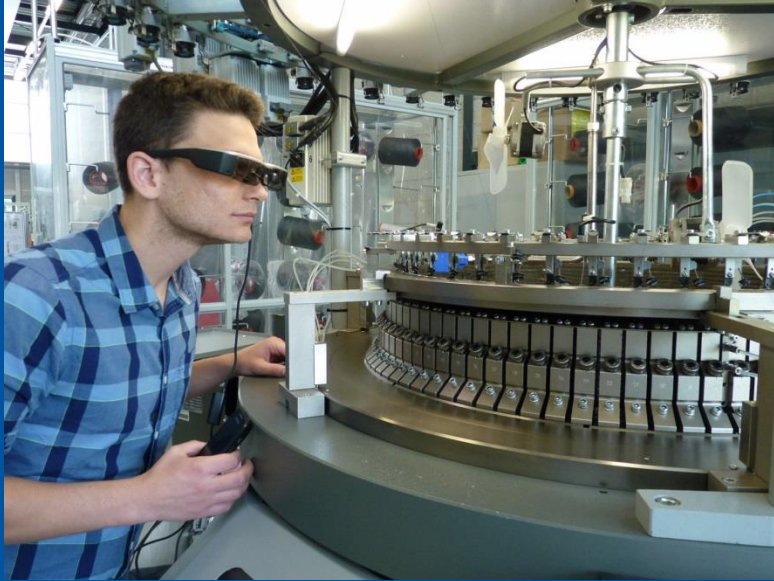
- Minimized Production chain in Store
 - yarn, knitted fabric, washing, heat setting, labeling
- Customized product regarding size and design
 - Use of body-scanner, unique customization area
- Delivery time: 4 hours from order to pick-up

STOREFACTORY

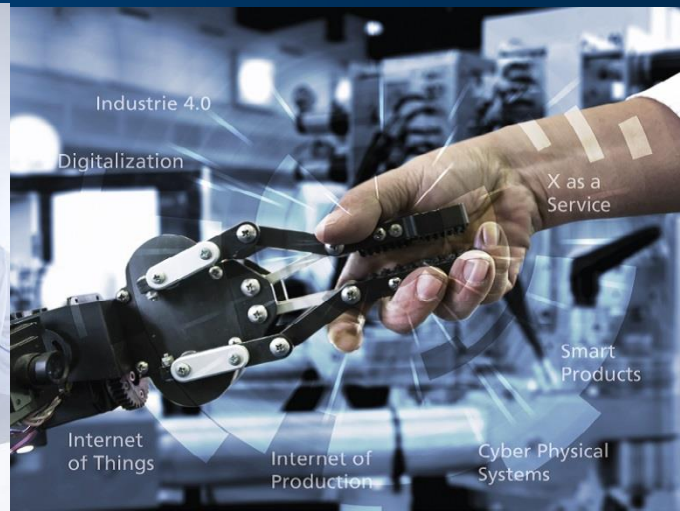




How does the workplace change
in the digital age?



We still need People to operate Machines!!



i4.0 SozioTex

Training the next generation workforce

SozioTex Scientific Team

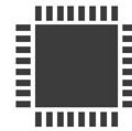


ELSI aspects
= ethical, legal and
social implications

Technological change



Design



Machine

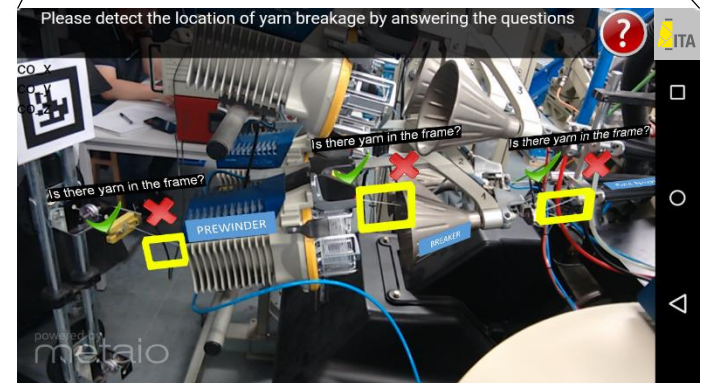
Interaction

Social change



Interdisciplinary approach

Development and implementation of new
production technologies/ assistance
systems with socio-technical perspective

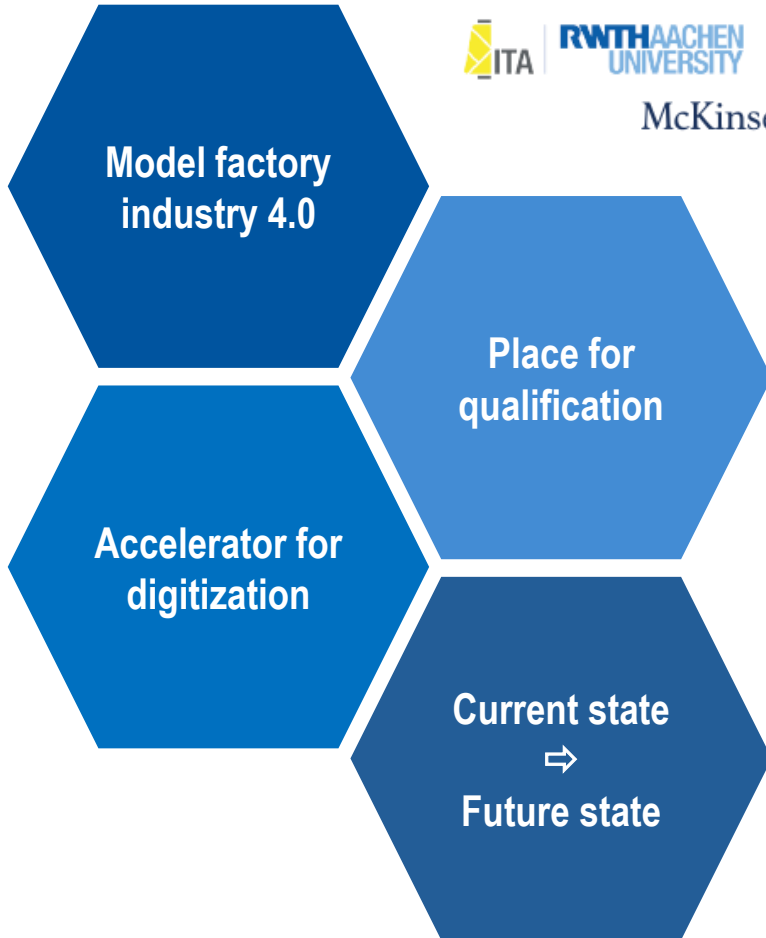


AR for machine service

How to transfer to industry...

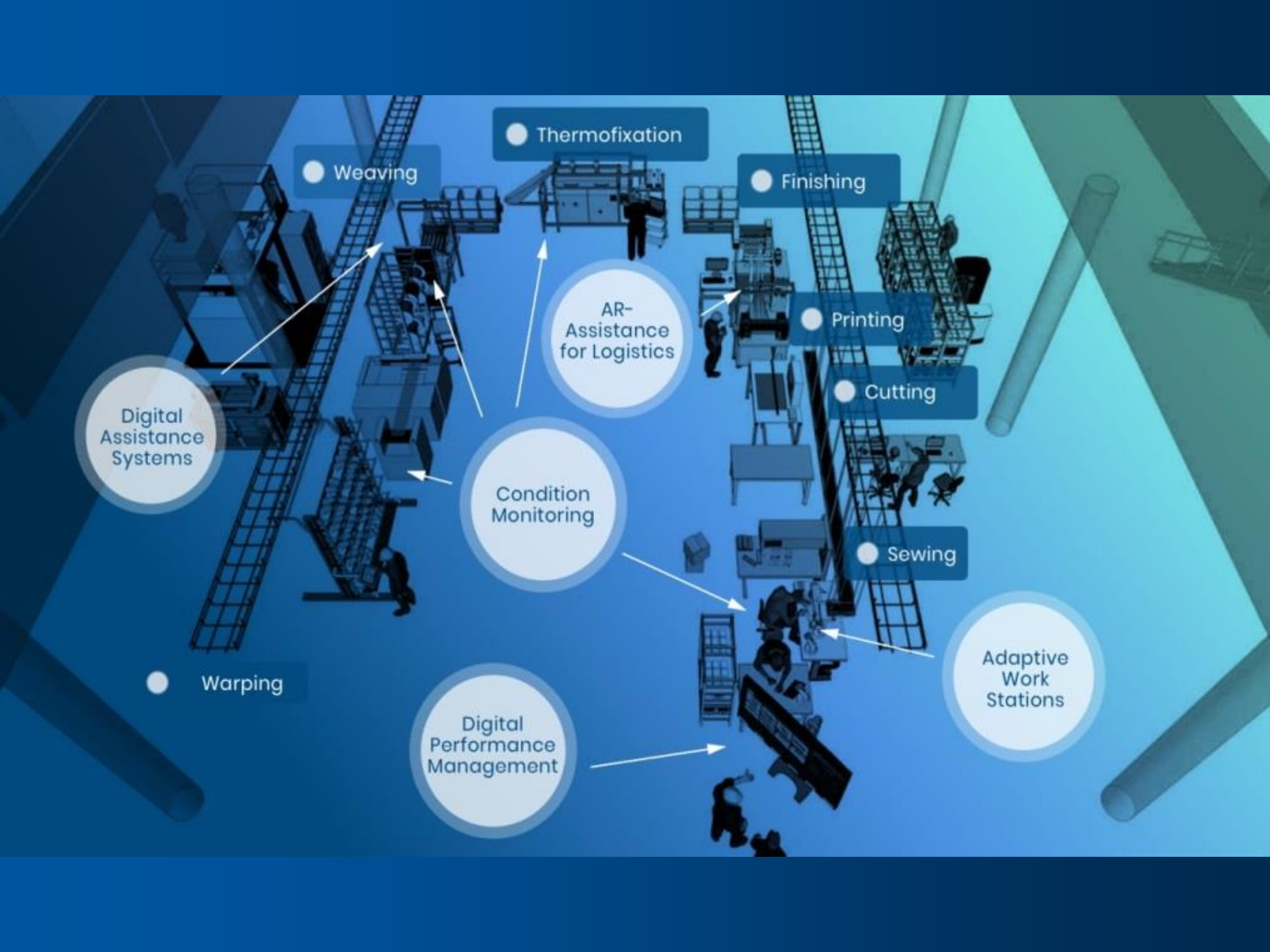
Reality – DCC: Digital Capability Center

Model Factory for Digitalization along the textile process chain



Shop floor of the DCC in Aachen, Germany





● Thermofixation

● Weaving

● Finishing

● Printing

● Cutting

● Sewing

Adaptive Work Stations

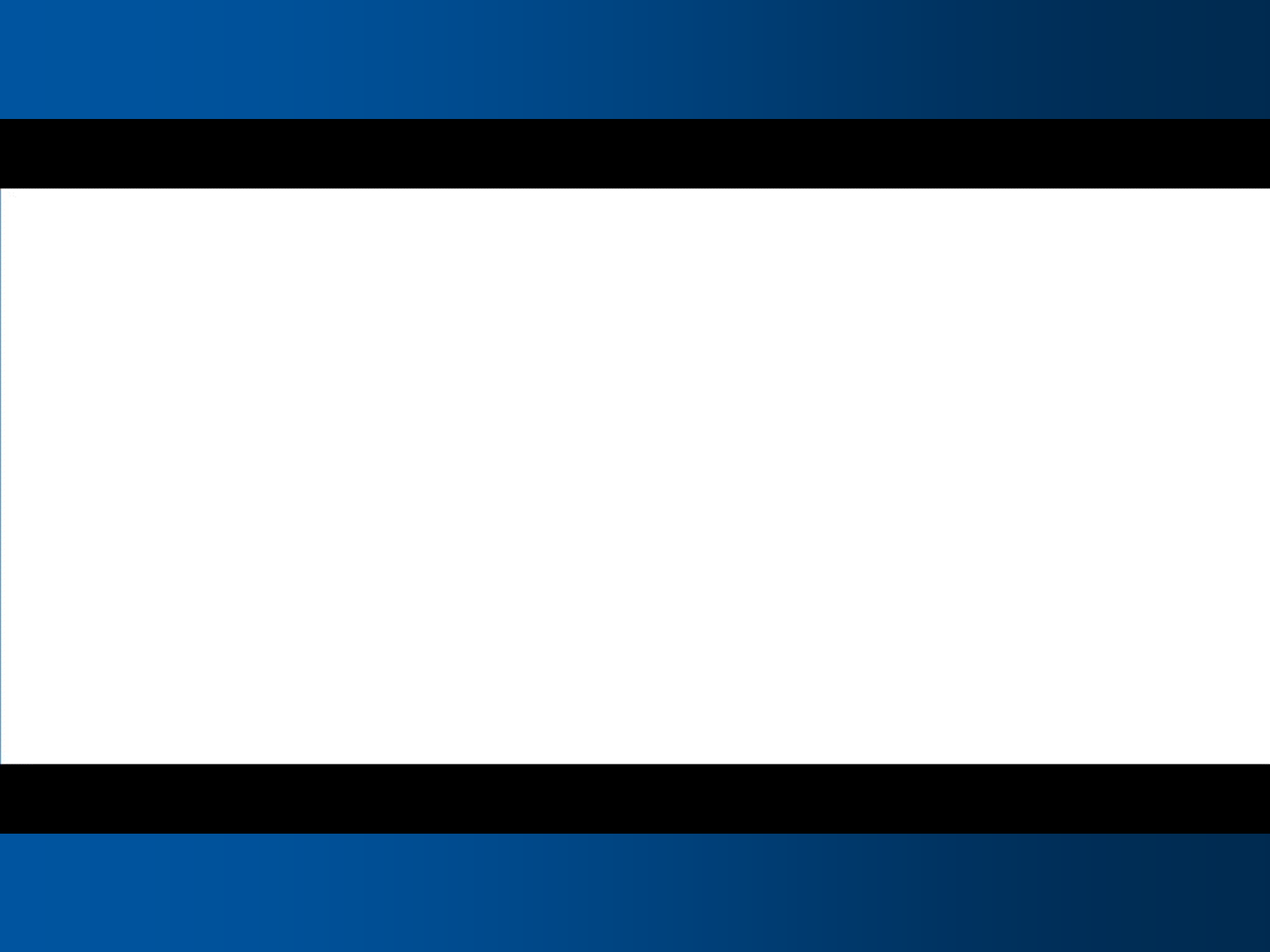
AR- Assistance for Logistics

Condition Monitoring

Digital Performance Management

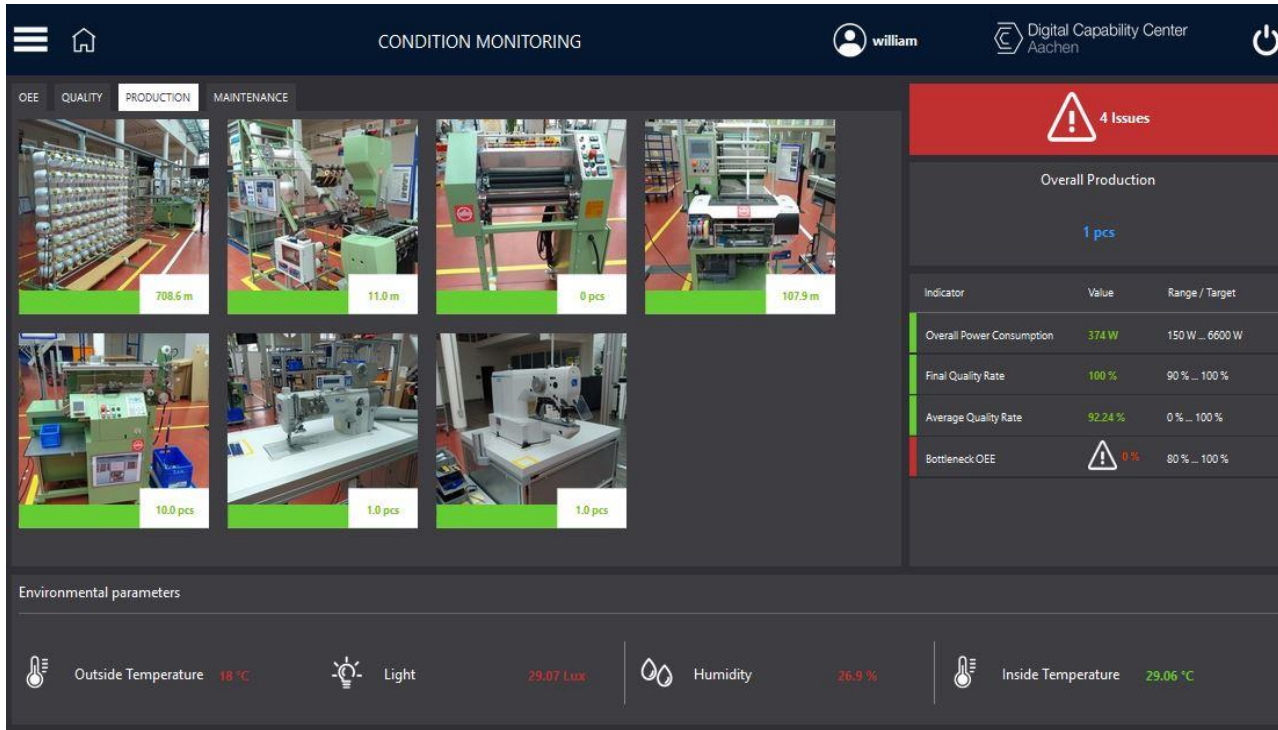
Digital Assistance Systems

● Warping



DCC - Example

Condition Monitoring

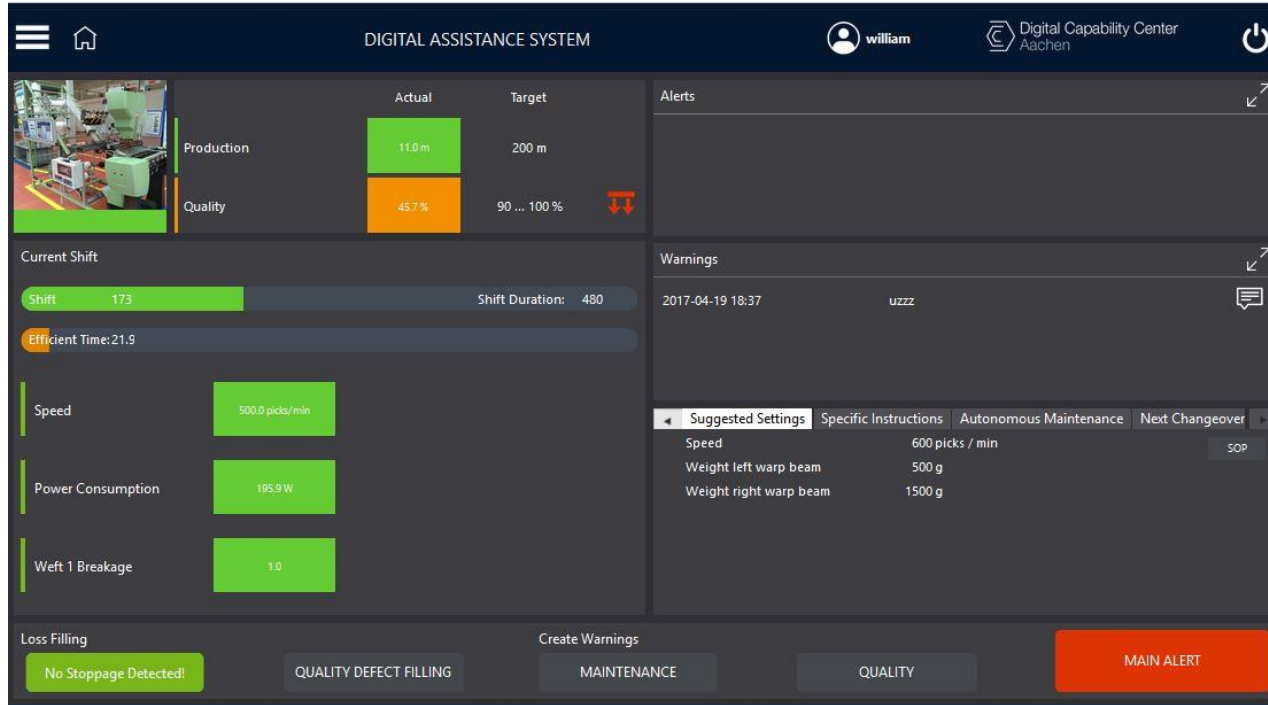


Condition Monitoring

Enhanced reliability of machines and reduced machine stops by **-75%**

DCC - Example

Digital Assistance



Digital Assistance

Reduction of need for training and complexity of required operator skills by **-50%**

Next textile products

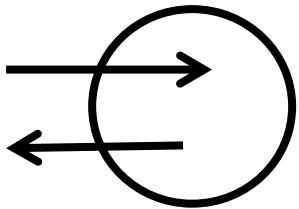
Smart Textronics

Products – Smart Textronics

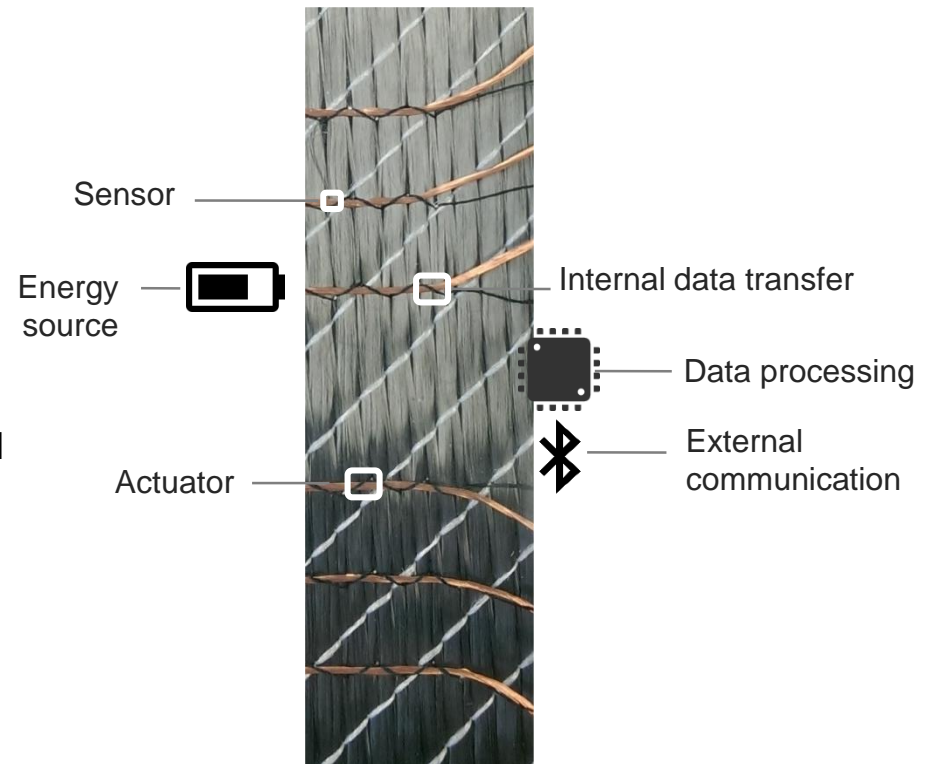
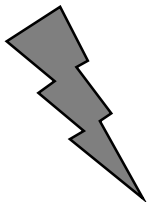
Increased functionality in textile products by electronics

Smart Textiles sense, react or interact with the environment by the change of their physical, chemical and/or electrical properties

- **Smart Materials** sense and response



- **Smart Textiles** incorporate especially electrical functions



Products – Smart Textronics Center

Largest international research institute for smart textiles



strength of Korea in electronics



strength of Germany in production technologies



strong partnerships between ITA, SKKU & KITECH



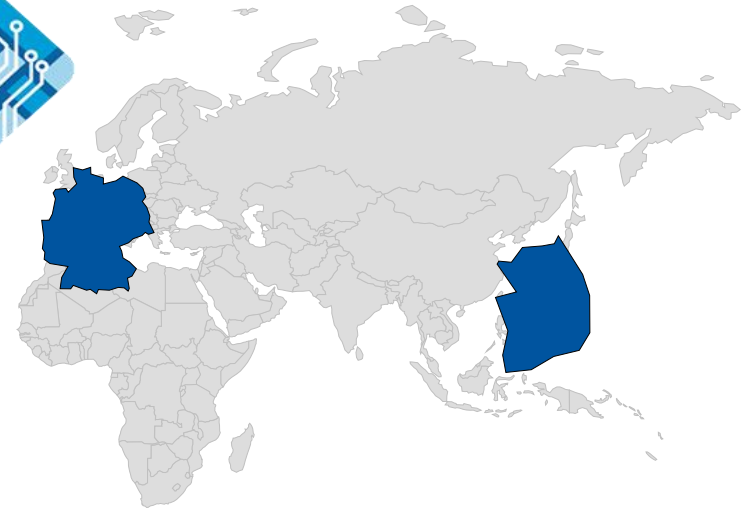
regional partnership between Ansan & Aachen



interest of governments in D & KOR for digitalization



strong focus on SME



Products – Smart Textronics Center

Largest international research institute for smart textiles



Products – Example: INTUITEX

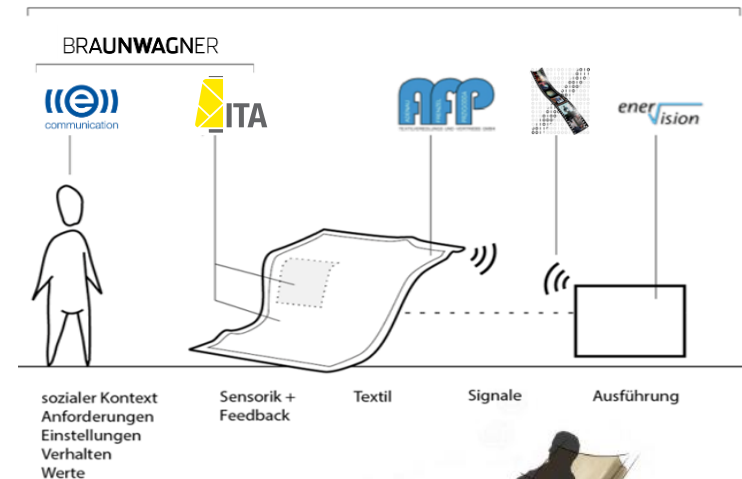
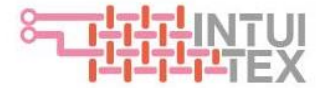
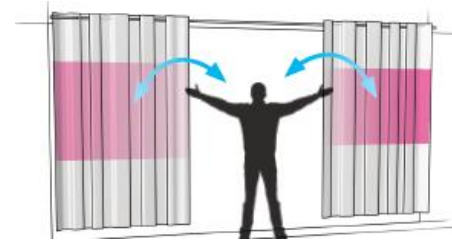
User oriented textile interfaces

Aim:

- development of an extended textile touch pad
- highly flexible production infrastructure

Areas of research:

- new user oriented interaction concepts
- textile based interaction concepts
- socio-psychological trials
- user diversity





What is the next step?

One more vision....

Future – 4D-Textiles

Mass Customized solutions using Innovative 4D Textiles

What are 4D-Textiles

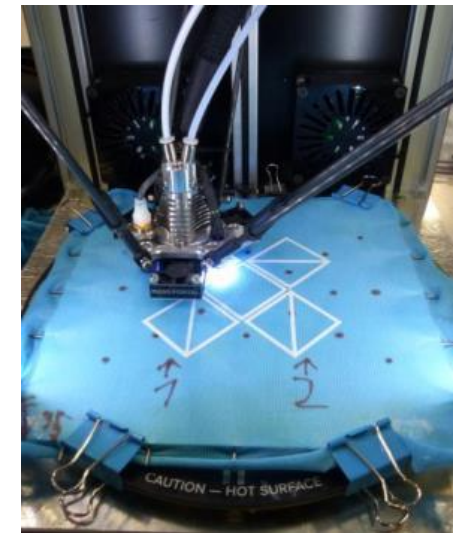
The term „3D Textiles“ has been defined by Wulfhorst et al. in 2000.

4D Textiles are fabrics and textile products being able to change shape and function over **time**. This change is achieved by the complex interaction between **hybrid materials** and by the use of **external stimulus**.

Additional to the spatial expansion of fabrics (3D) the change over time faces the **4th dimension in textiles**.

2015: Tibbitt, MIT
4D-Materials

2016: Gries, RWTH
4D Textiles



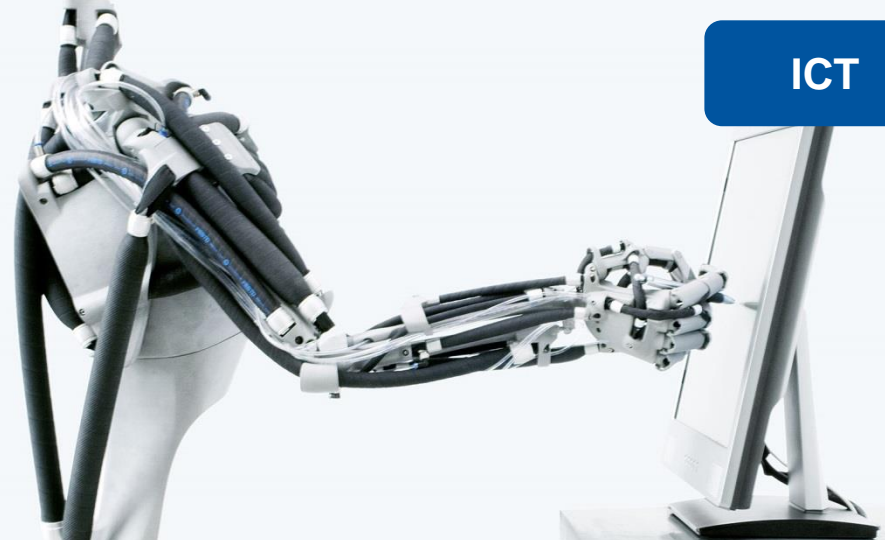


RWTH AACHEN
UNIVERSITY

Health



ICT



Building



Mobility



Digitalization – to be or not to be

still talking or doing it?

Supporting your business

We offer:

- Material development (from fibre to product)
- Development and engineering along the textile process chain
- Industry 4.0
- Innovative business development e.g. Open Innovation
- Training, workshops and education
- International partner network



our experts

with our strong partners

Do you know?.....

Prof. Frank Piller

The Open Innovation Expert



Boris Radke

CIO at ProSiebenSat1 Media SE, Zalando etc...

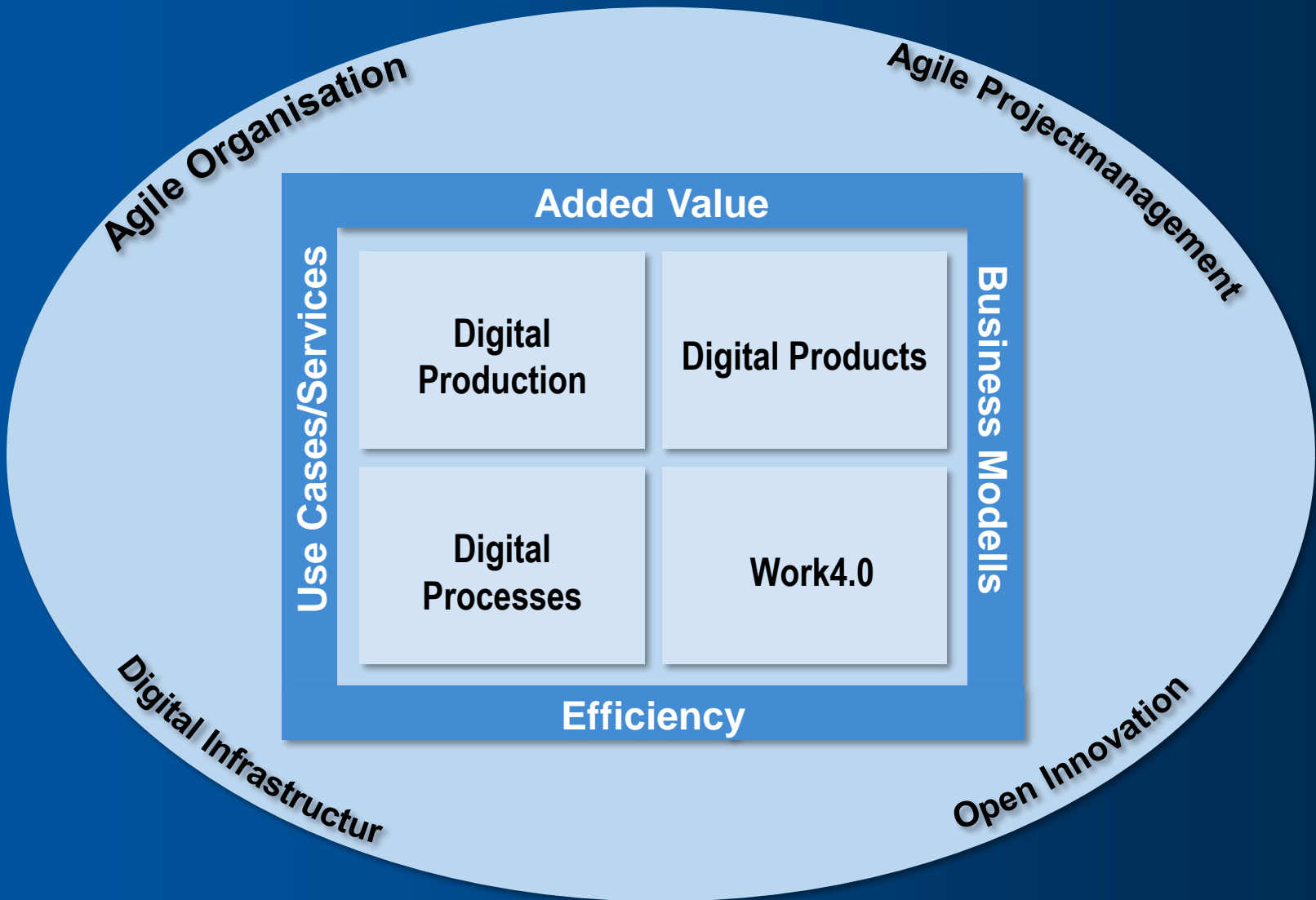


Osthus GMBH

Connecting data, people and organizations

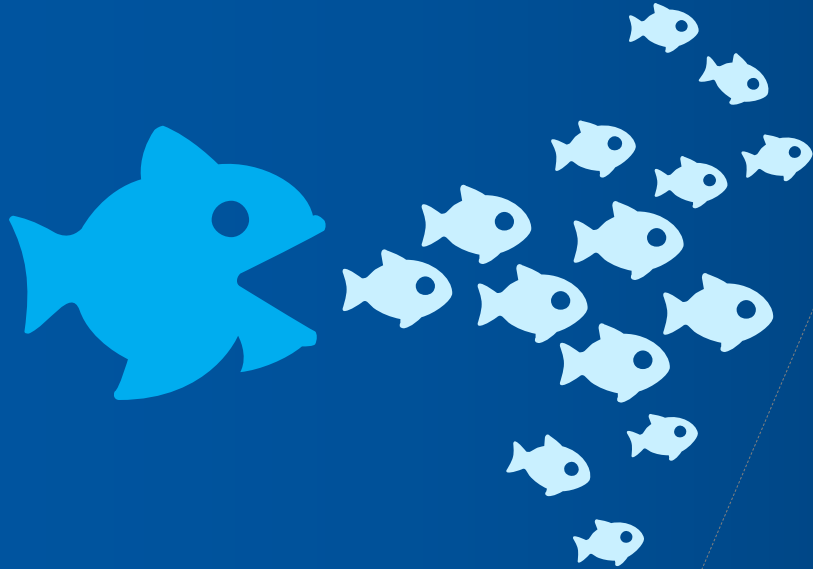


Believing in what we deliver...

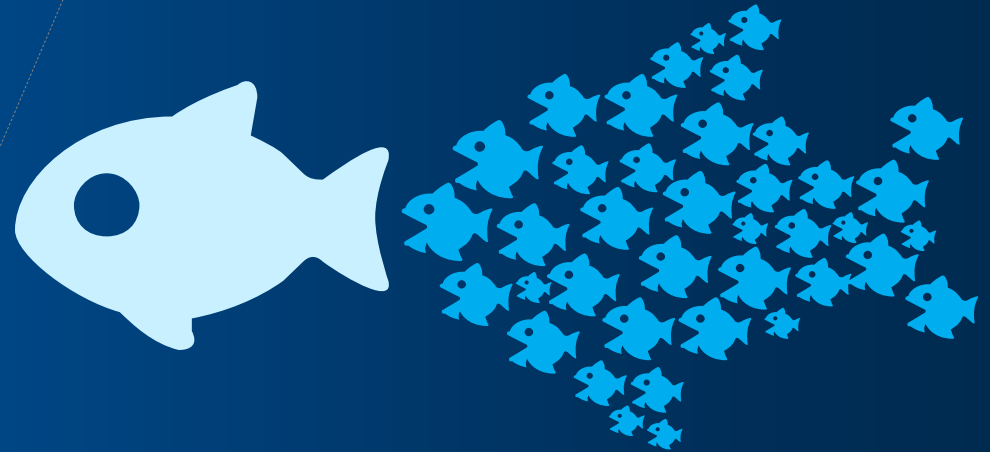


Agility will transform Chances into reality

"In the new world, it is not the big fish which eats the small fish, ...



... it's the fast fish which eats the slow fish"



KLAUS SCHWAB

Founder and Executive Chairman World Economic Forum

Thank you for your kind attention!

Univ.-Prof. Prof. h.c. (MGU) Dr.-Ing. Dipl.-Wirt.-Ing. Thomas Gries
Institute of Textile Technology
RWTH Aachen University
Otto-Blumenthal-Straße 1
52074 Aachen





Design for

AUTOMATION

Pete Santora
Chief Commercial Officer





AN AUTONOMOUS DRIVING CAR FOR SEWING



Problem

Fabric's Not Rigid





Internal

- Shorter lead times
- Zero-inventory initiatives



External

- Labor unavailability
- Rising global wages

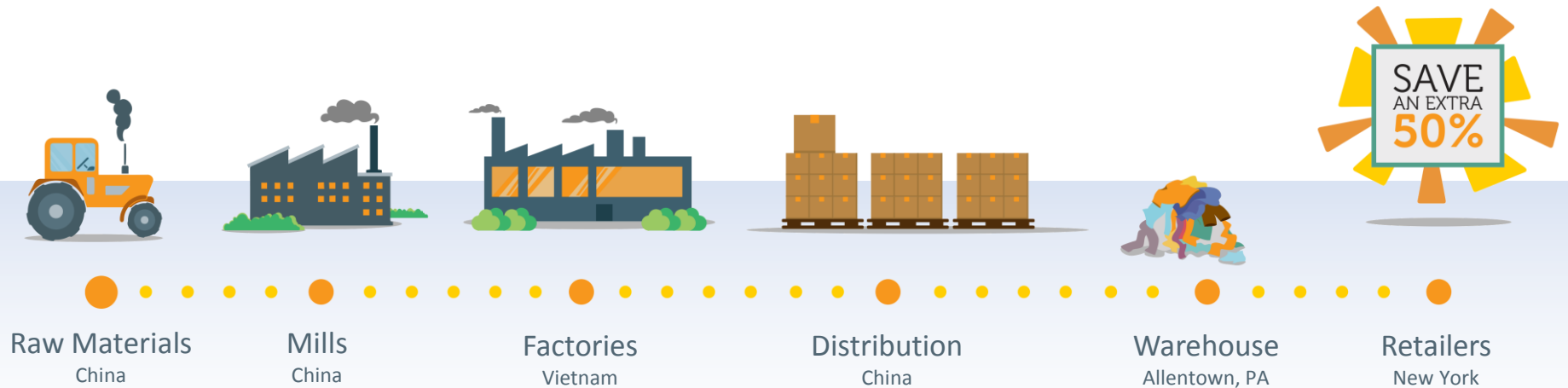
eCommerce is Crushing
The Supply Chain

**And it's
accelerating**



Global

Off-shoring extended lead times to 12+ weeks.



SEWLOCAL™

The on-demand, local supply solution that shortens lead times to 1-3 days.



Farms
North Carolina



Mills
North Carolina



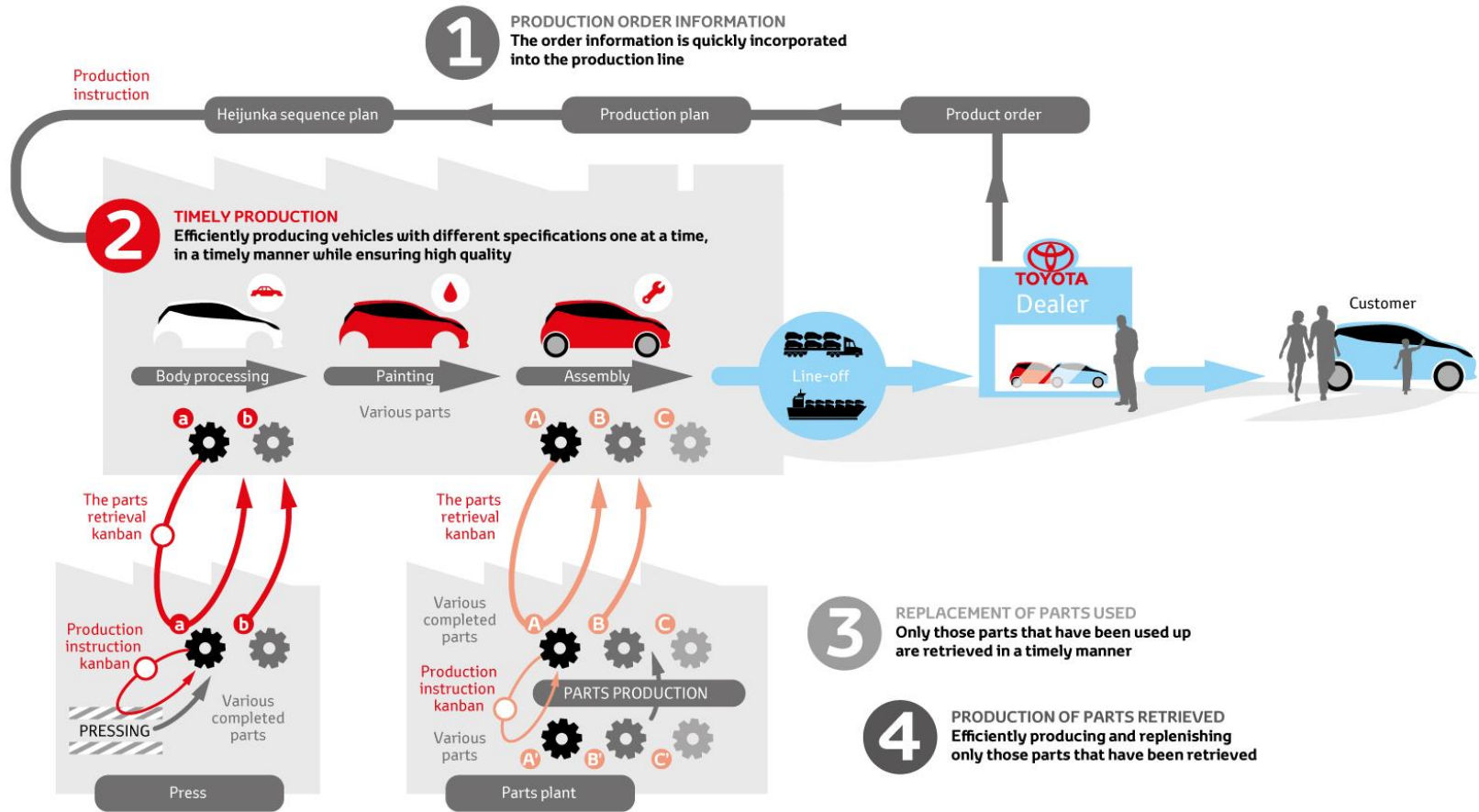
Factories
North Carolina



Retailers
North Carolina



Inventory ZERO

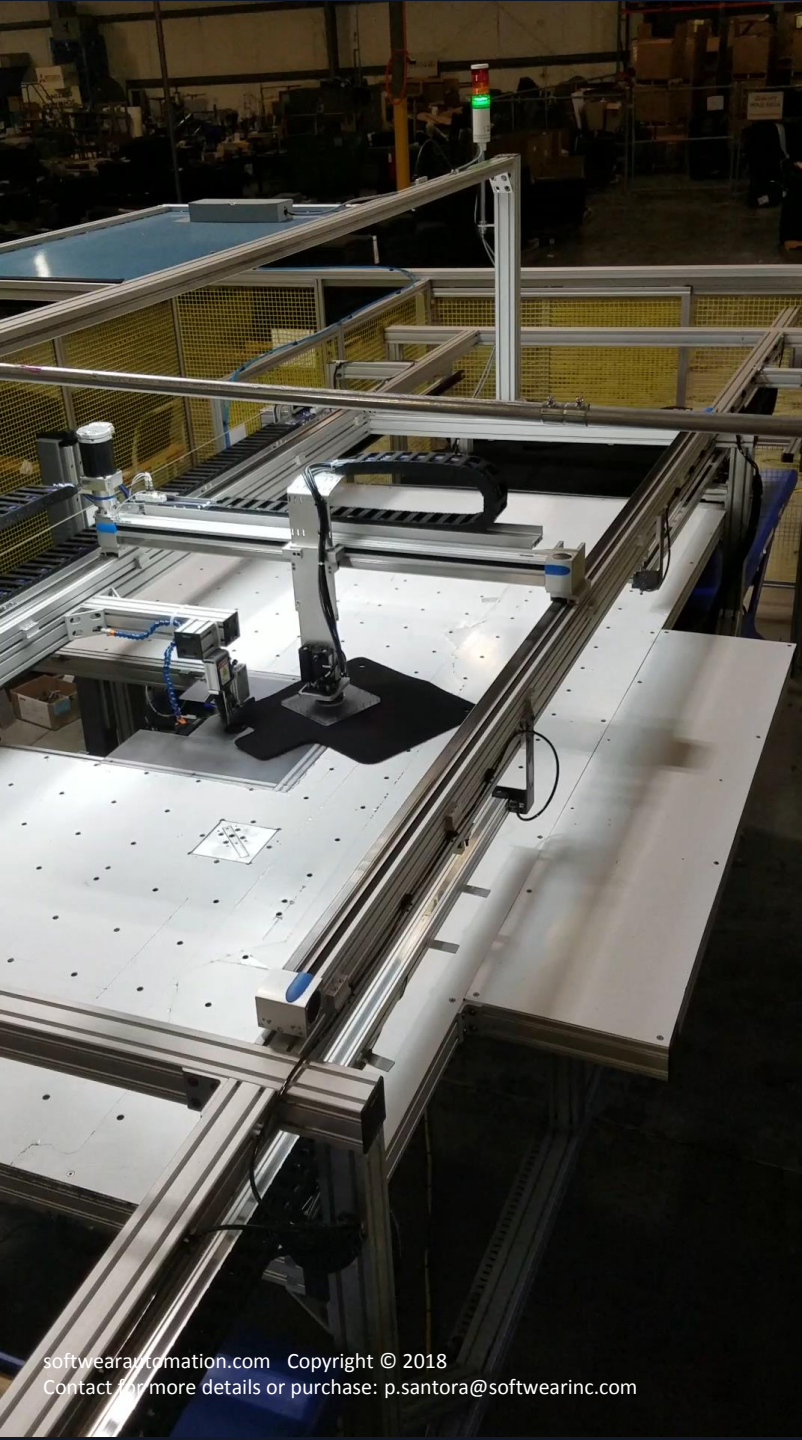


Revolutionary Technology

SEWBOT® worklines with:

Swarm of intelligent robots for precise fabric handling





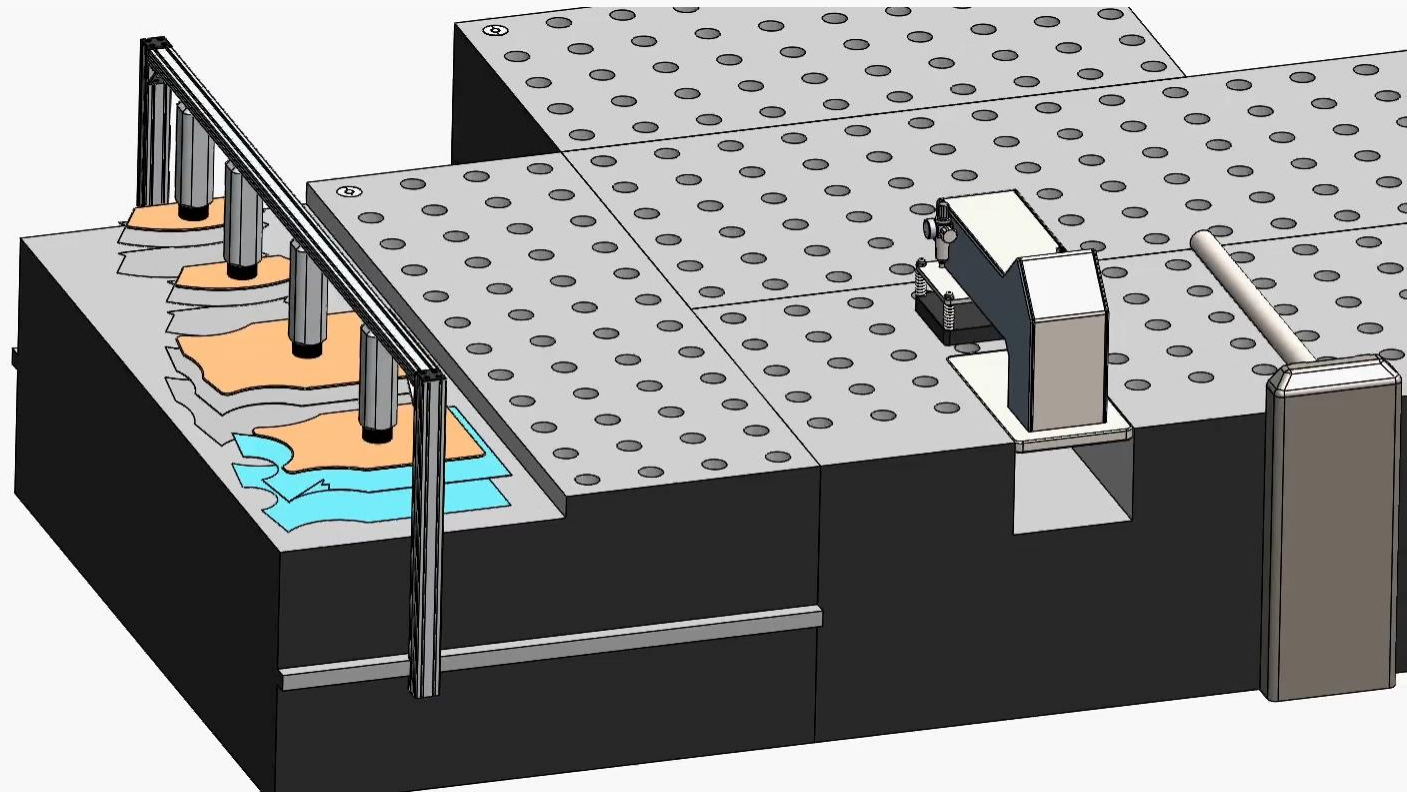
Full Sewing Automation with
our

SEWBOT® Worklines

for Automotive & Home Goods
are already enabling local supply
chains



Digital T-Shirt Workline

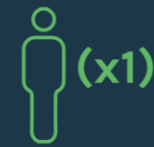


T-Shirts Comparison

Manual vs Digital T-Shirt Workline

of Manual Operators

of Workline Operators



Manual Output / Shift

Workline Output / Shift



T-Shirts Comparison

Labor Cost



Expected average wage over all major textile production countries: \$2.50/h



Manual Sewing

\$0.40

\$0.52

\$0.70

Digital T-Shirt Workline

\$0.05

\$0.09

\$0.33



T-Shirts
Good for the environment
is
good for
your business





LOCAL FOR LOCAL MODEL

On-Demand, Made to Measure



Carbon Light
~80%
Less Transport



Reliable
> 40%
Per t-shirt



Responsive
> 90%
Reduced lead times



Cost Efficient
\$2.8
Per t-shirt



Asset Light
> 90%
Inventory
reduction



Flexible
> 80%
Less change over time



Become
#uncrushable

Join Us to SEWLOCAL™

Contact for more details or purchase:

Pete Santora

Chief Commercial Officer

p.santora@softwearinc.com



Digital Transformation Survey 2018

Digital transformation of the textile value chain

Mark Jarvis

Managing Director, WTiN

Presented at the ITMF Conference 2018, Nairobi



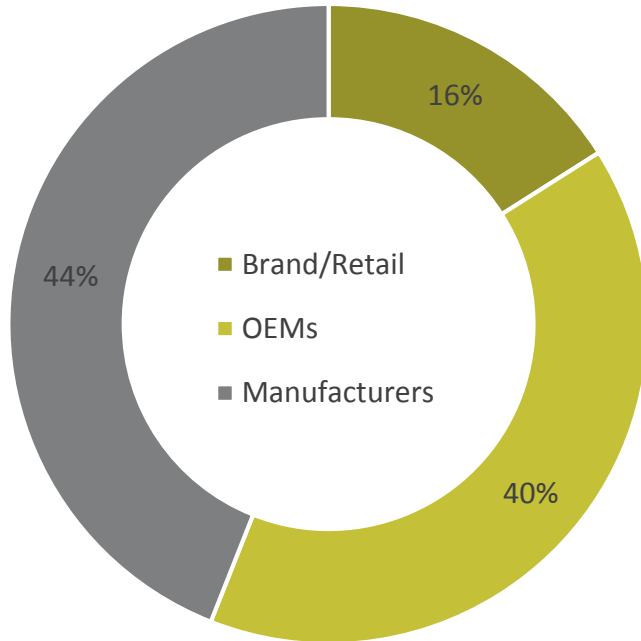
***"We define DIGITAL
TRANSFORMATION as the agenda
to achieve a substantial change in
business performance through
durable digitalisation techniques..."***

Supporting partners

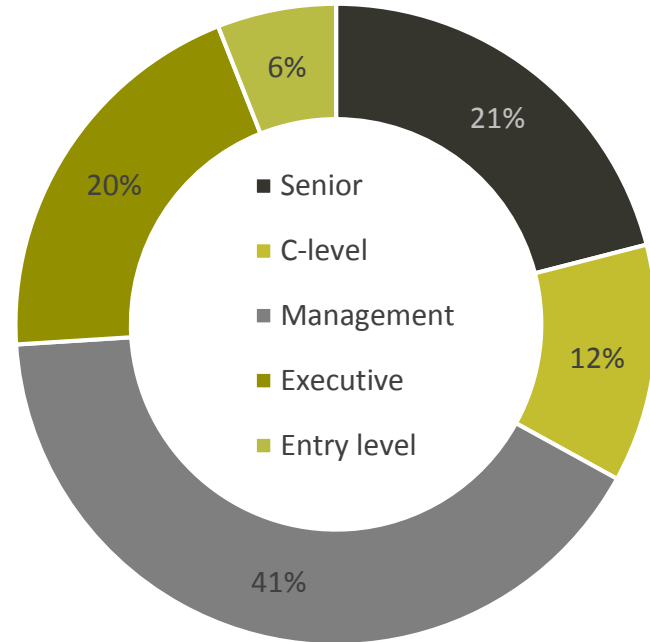


Respondent Profile

Sector



Job Function



Respondent Sentiment

Attitudes to digital transformation



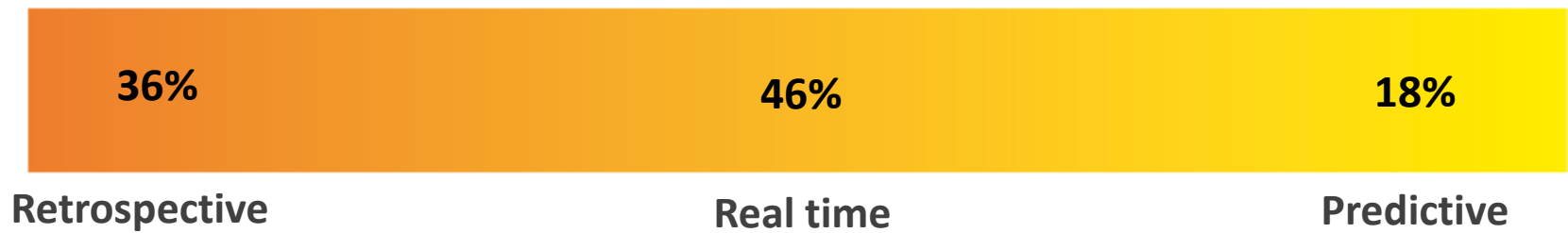
The world map is color-coded into six regions, each with associated sentiment text. North America is green, South America is grey-blue, Europe is purple, Africa is orange, Asia is yellow, and Australia is blue.

Emerging
Game-changing
Late Adopters

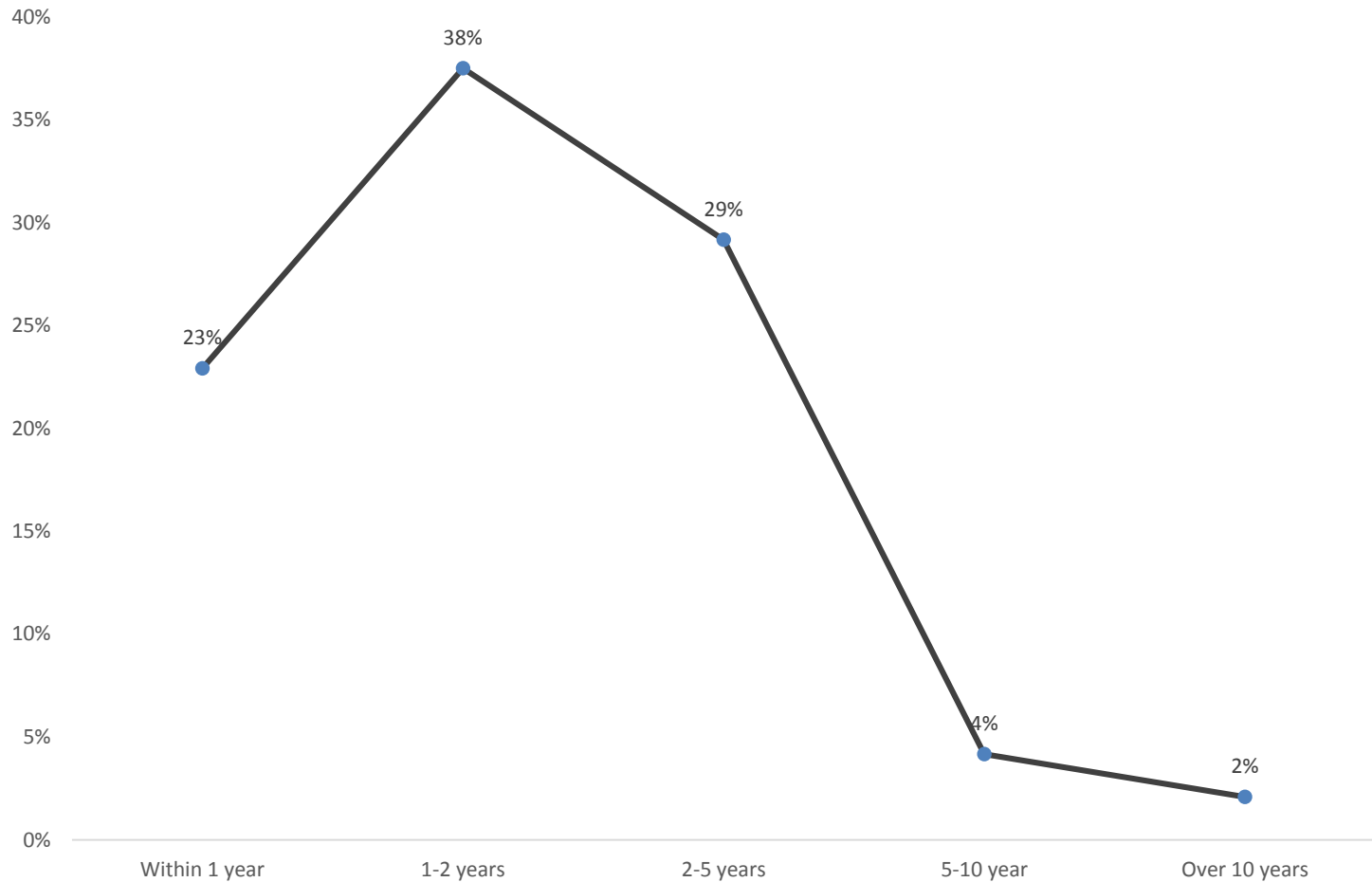
Slow
Mandatory
Transparent
Revolutionary
Challenging
Critical

Fast Fashion
Digital Factory
Very Slow
Nascent

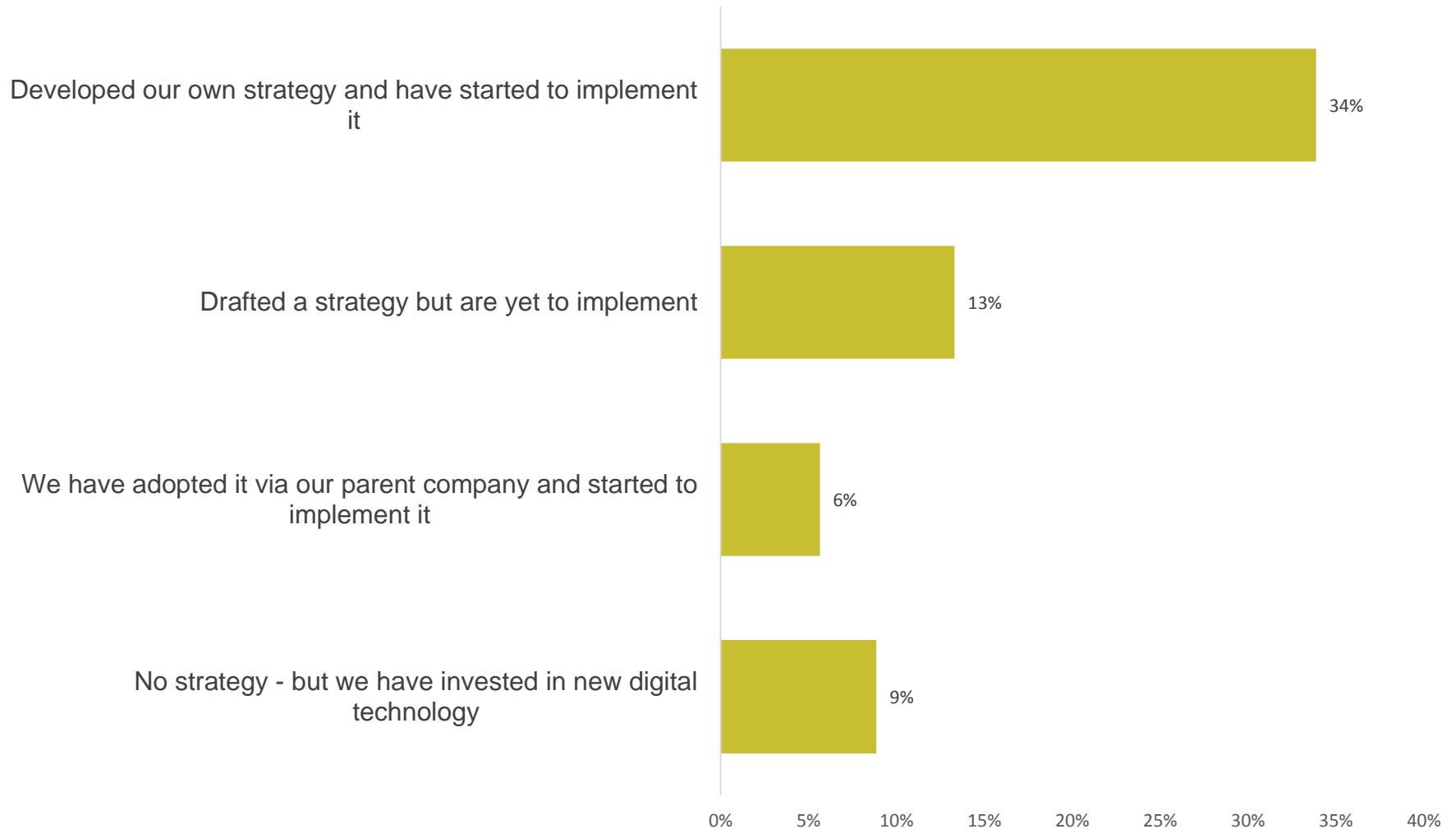
Data Analytics Continuum



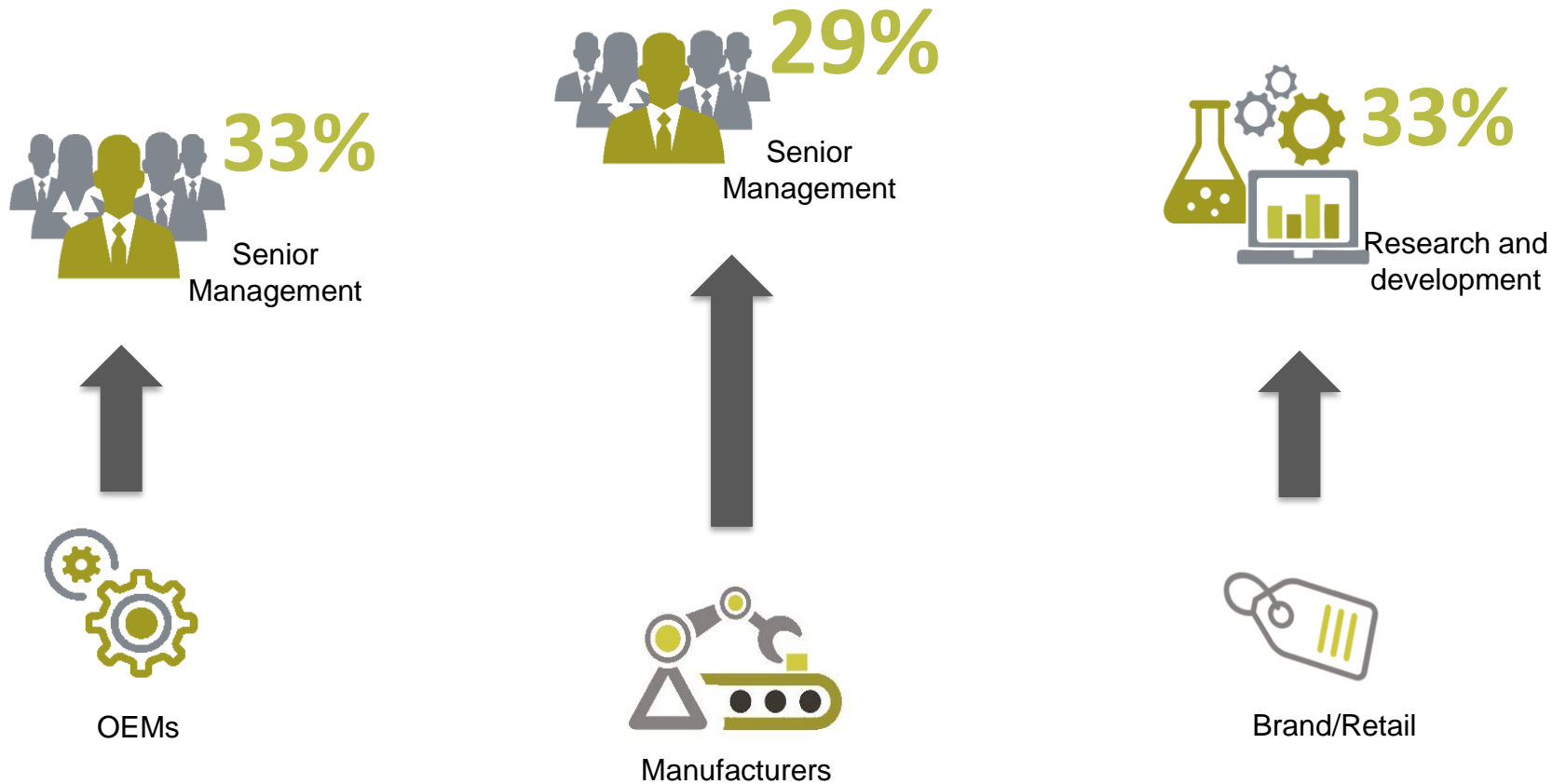
38% of businesses intent to look at their digitalisation strategy in next 5 years



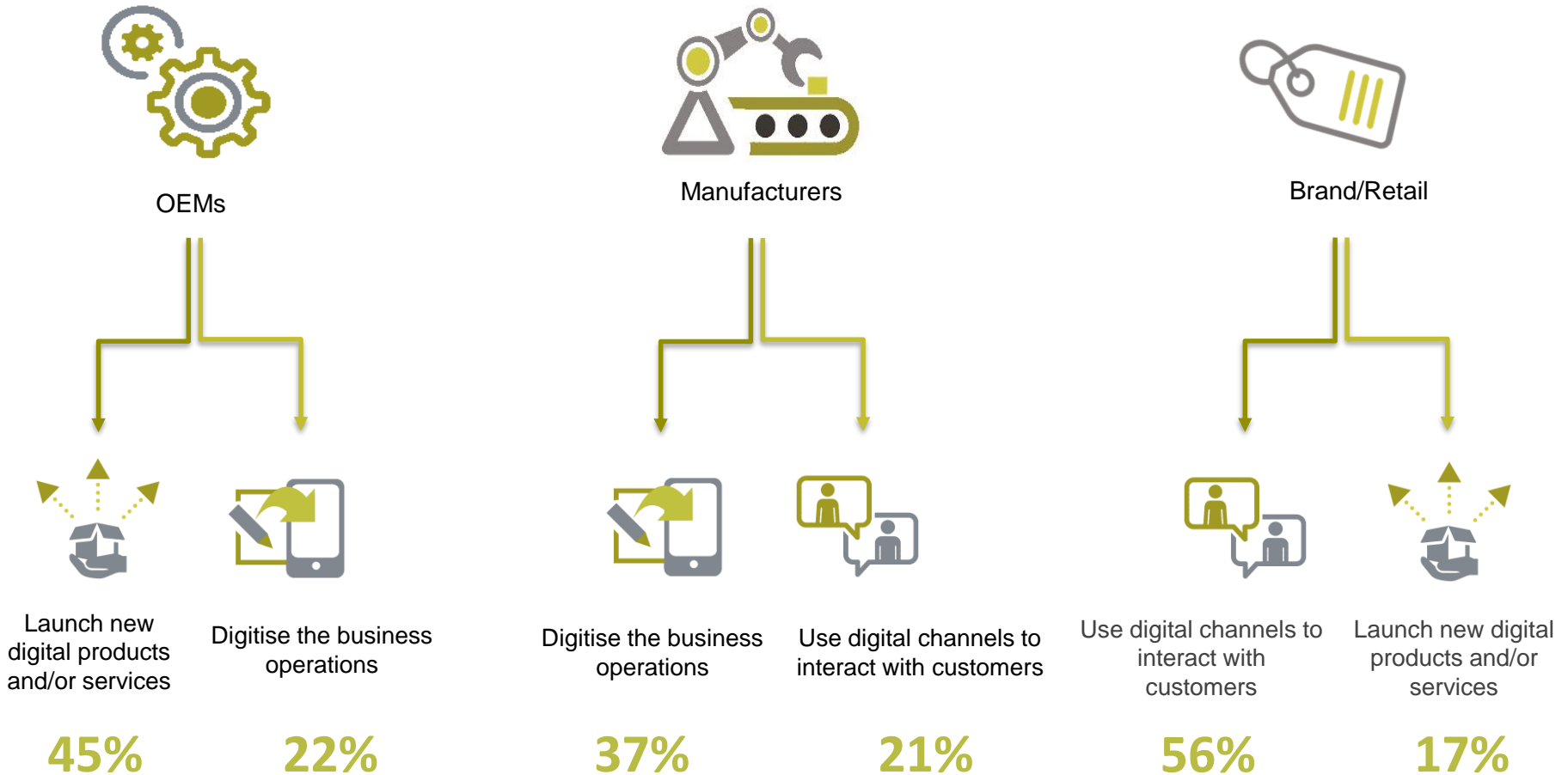
62% of businesses have started their digitalisation journey



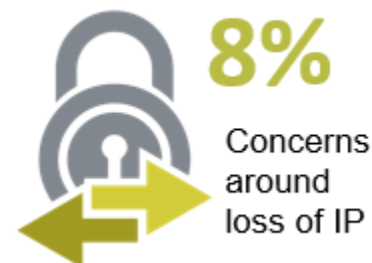
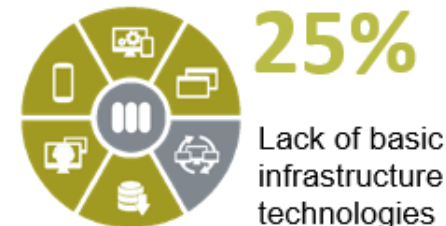
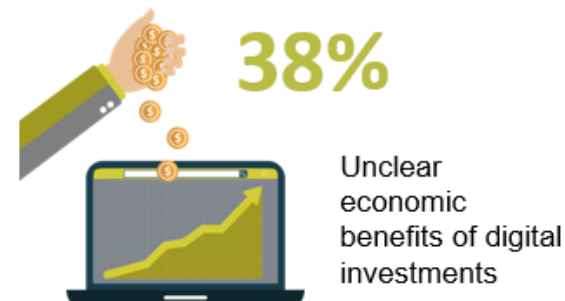
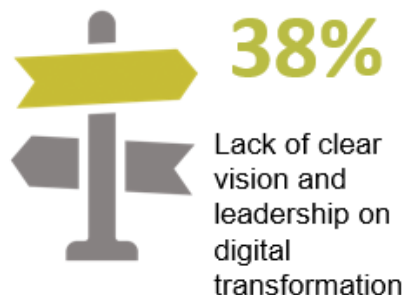
Where did the digital transformation initiative begin



Business goals for digital transformation



Key challenges to digital transformation



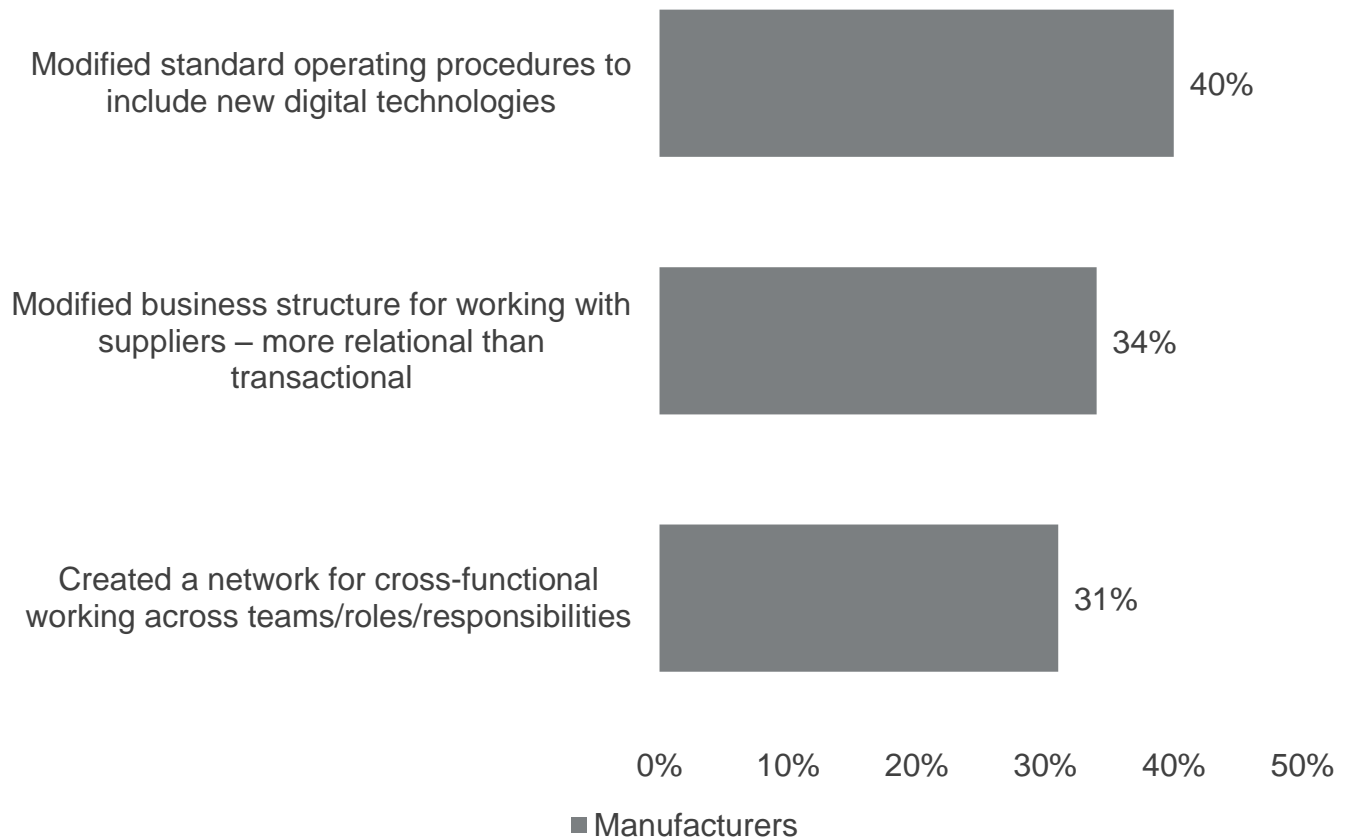
Investment in people to bridge the skills gap



Structural changes happening within businesses since the digital transformation began



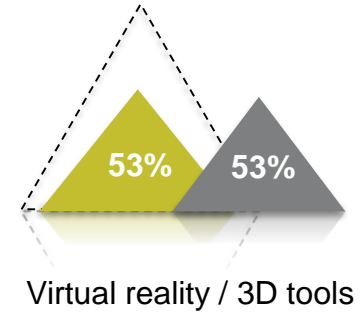
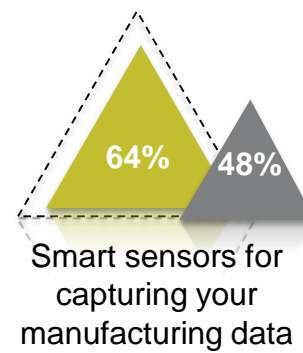
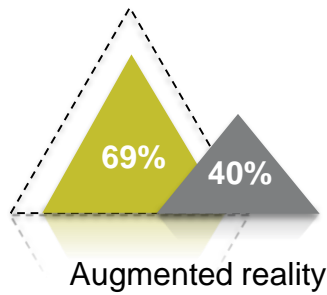
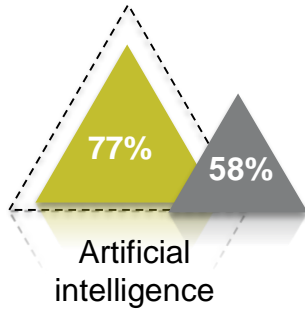
Manufacturers



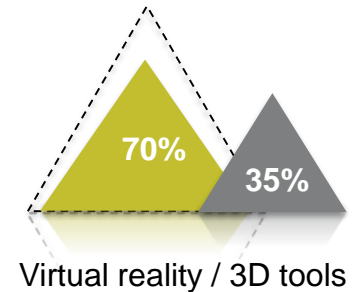
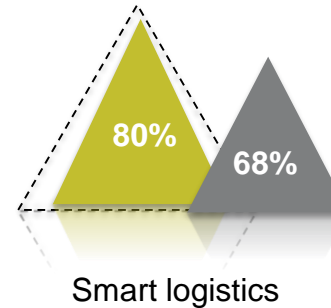
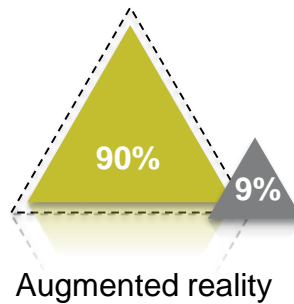
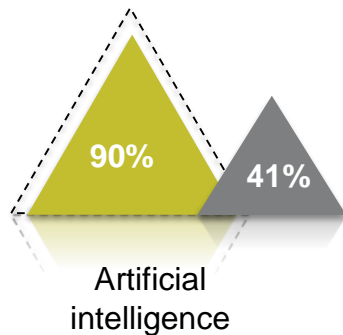
Need for digitalisation vs investment likelihood



OEMs



Manufacturers



■ Digital technologies required

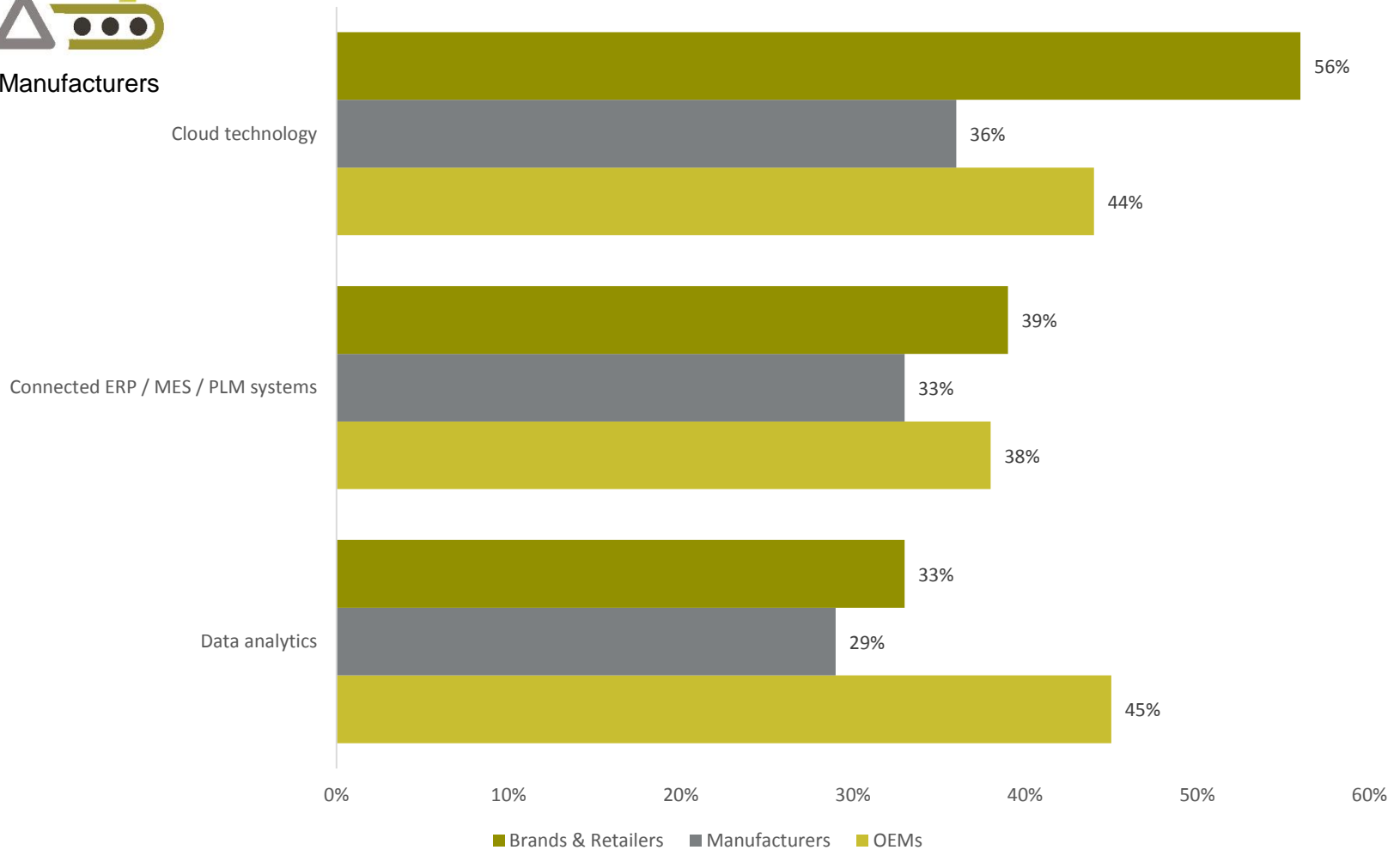
■ Likelihood of investment in the medium term

Industry 4.0: Gaps in expectations

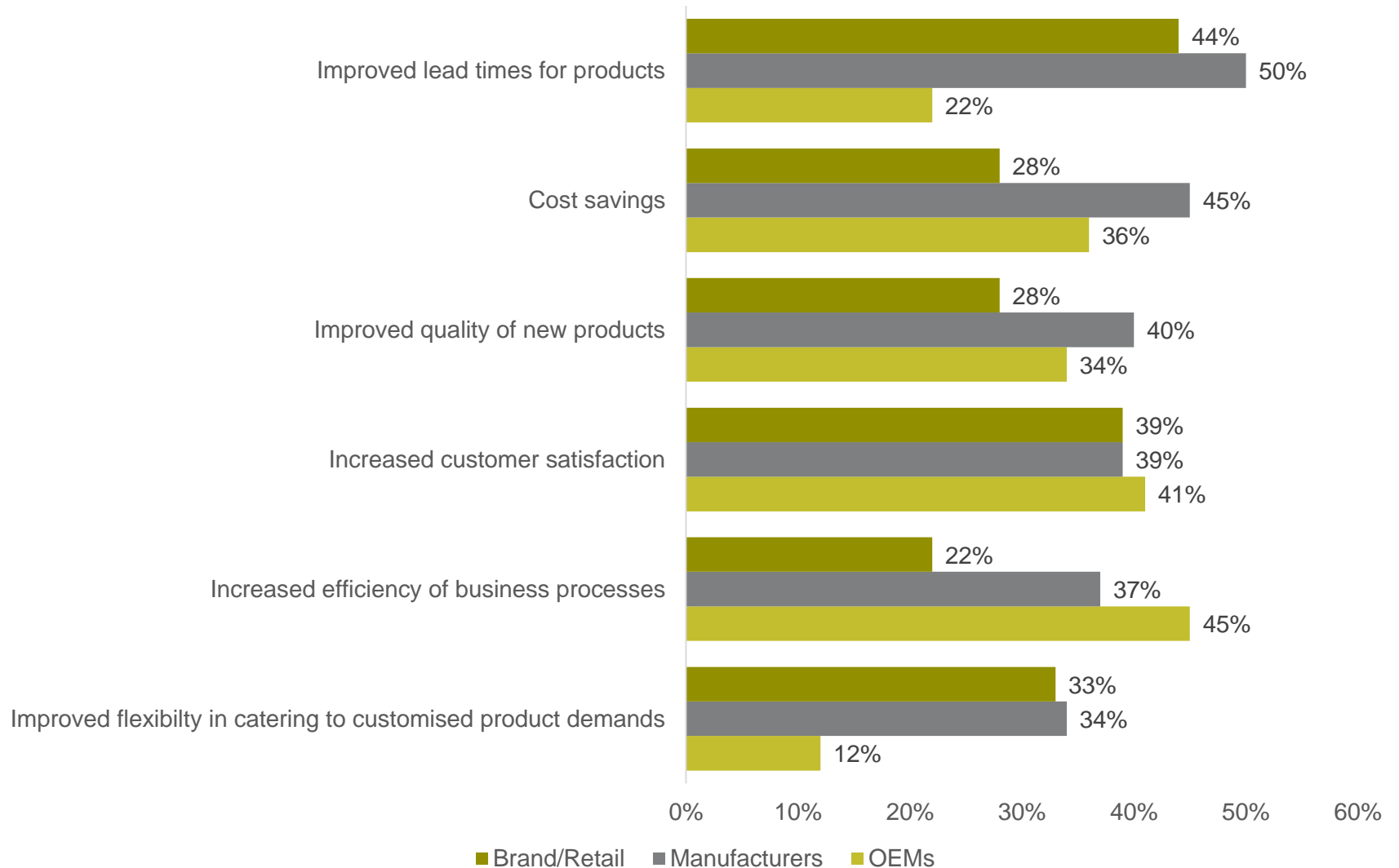
What Brand/Retail & OEMs think Manufacturers require



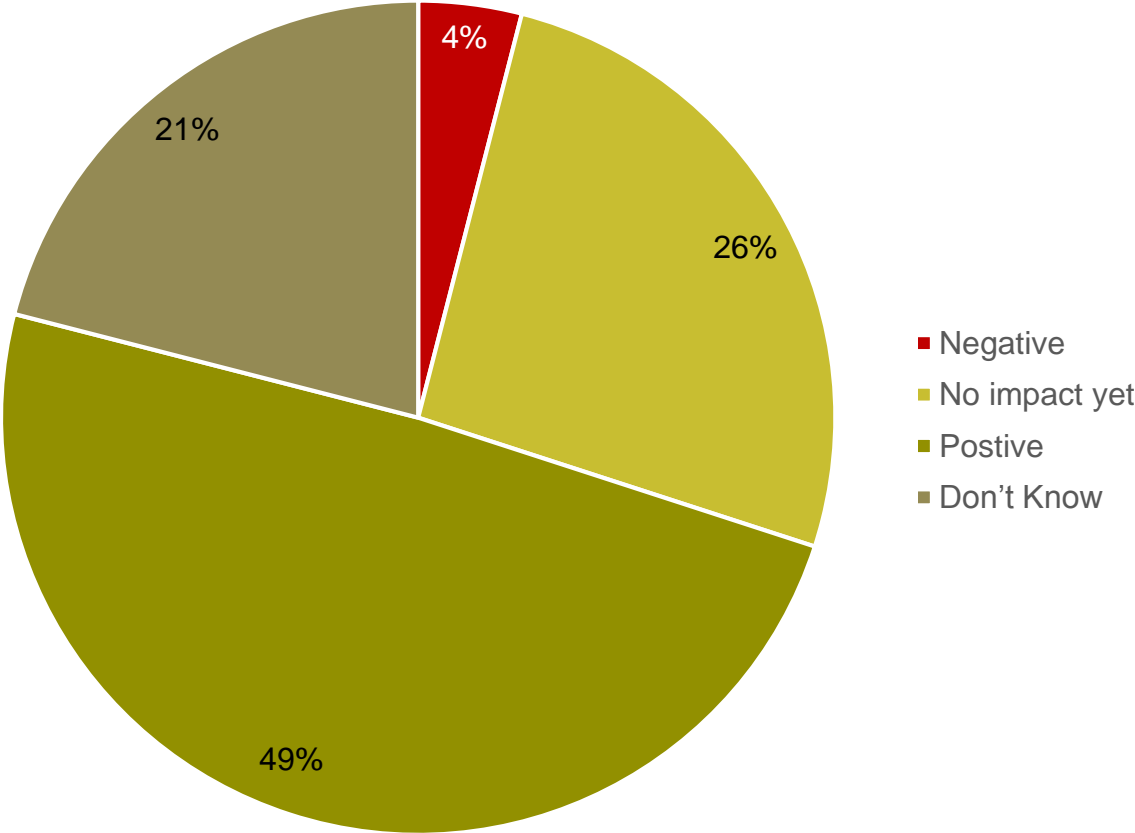
Manufacturers



Measurable impact in lead time and business process efficiencies



Industry is confident that digital investment returns positive benefits



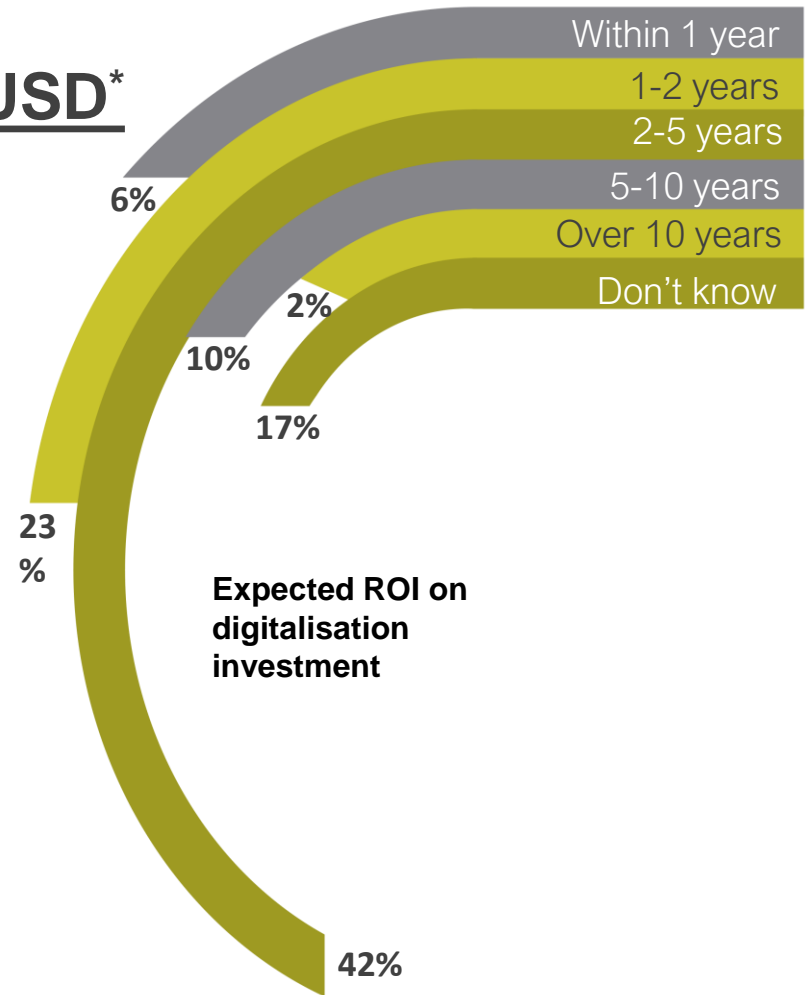
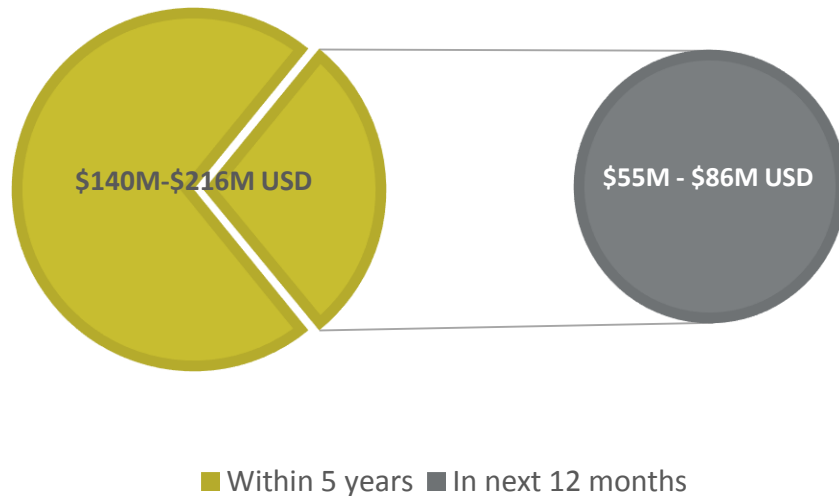
Impact of digitalisation on revenue

Most companies expect digitalisation investment to pay back within 5 years

Average Investment: \$837,000 USD*

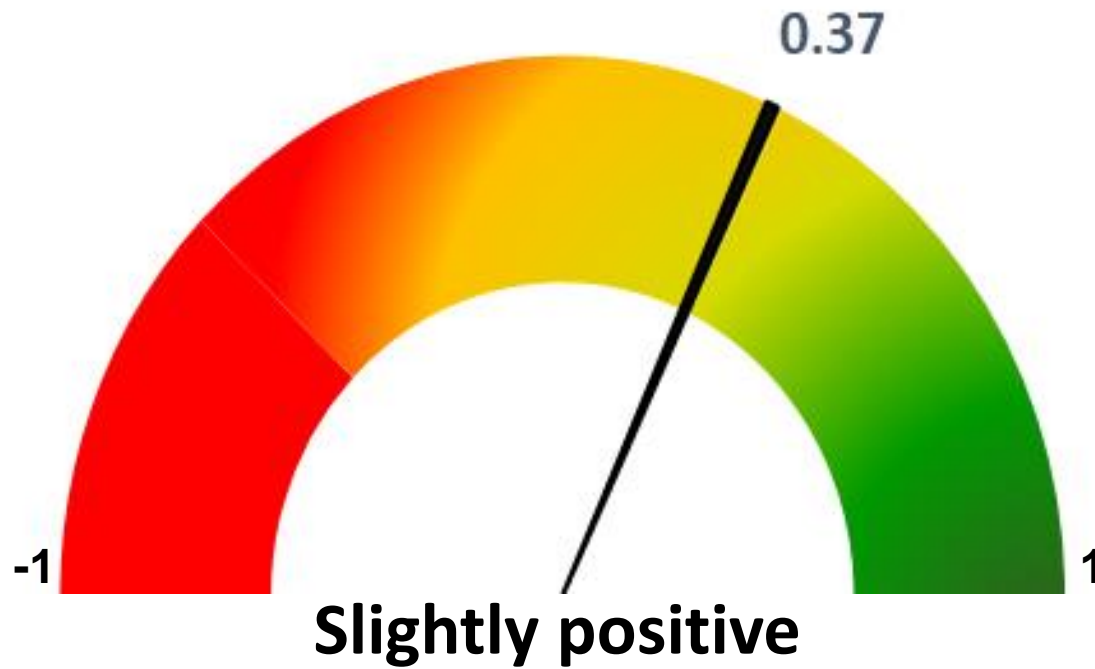
Average Payback = 4.5 years

Investment expected in digitalisation within next 12 months*



connected
transparent real-time
accelerating
interconnected
robotics efficient
diagnostic
transforming
predictive
disruptive
decentralised
sustainable
integrated

What does the future look like ?



Innovate Textile & Apparel

europa 2018

Three days • Four events • One destination

6 - 8 November, 2018 Amsterdam, Netherlands

ita.wtin.com

Sponsors & partners

oerlikon

SoftWear
AUTOMATION

MTI

ARCHIPELAGO
TECHNOLOGY



Inspectorio

spgprints®



GHERZI

Disclaimer

- This presentation has been prepared for ITMF Annual Conference on 8th Sept 2018. The presentation is intended solely for the benefit of the attendees, the content is confidential & may not be disclosed to any other persons or companies.
- The presentation comes from our data, knowledge & experience, & the opinions expressed are solely those of WTiN. They have been arrived at following careful consideration & enquiry but we do not guarantee their fairness, completeness of accuracy. The opinions are subject to change & WTiN will not accept liability for reliance upon them.