PRINTING TECHNOLOGY & INNOVATION DAYS FOR FLEXIBLE PACKAGING

July 3rd /4th 2019

Istanbul, Turkey

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Printing markets and press developments

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Market for flexible packaging is growing continuously!

World market „Flexible Packaging“ grew from 2012 to 2017 by 4,0%.

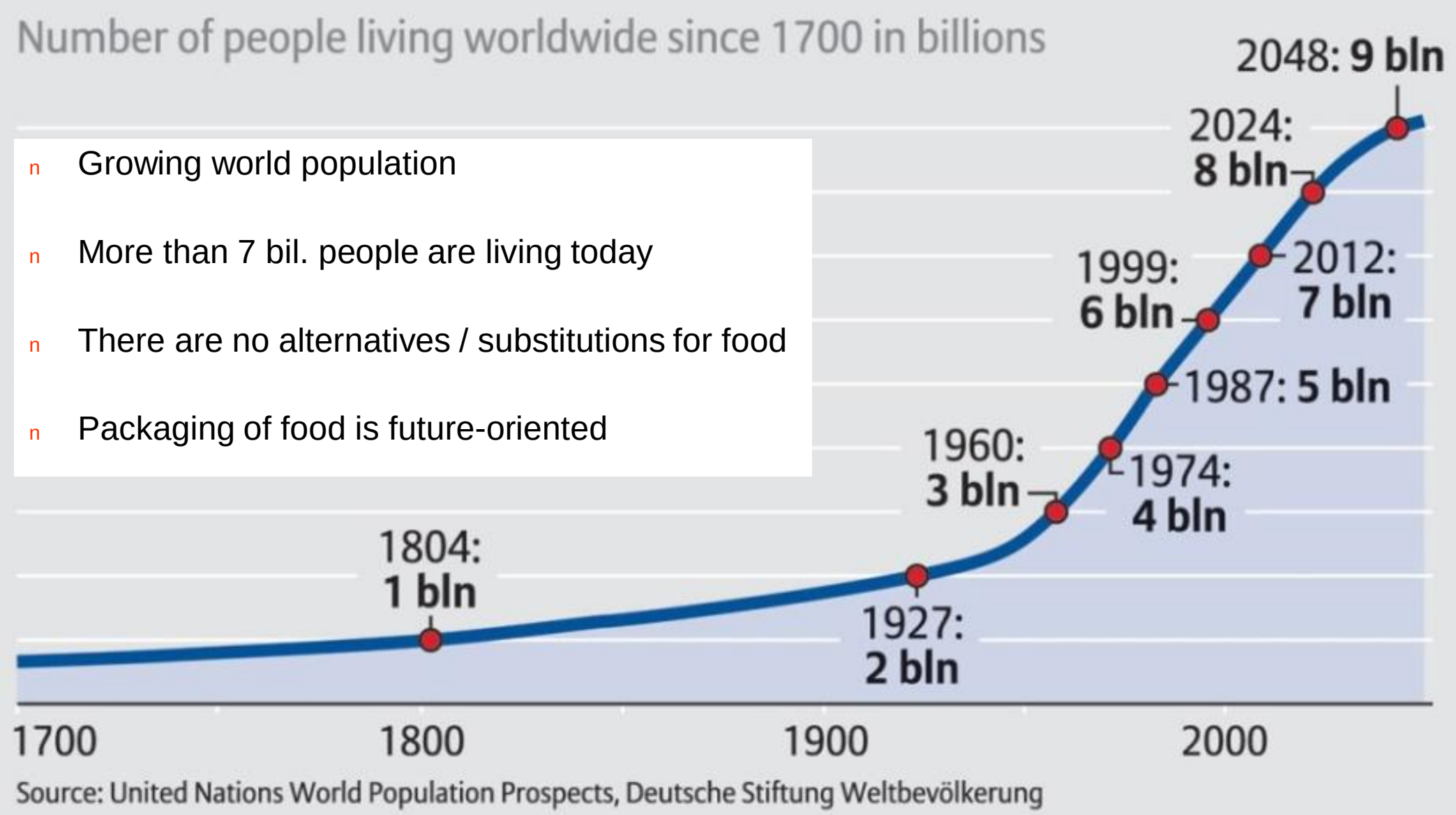
Until 2022, a continued annual growth rate of 5,0% is predicted.

Table 7.14 Turkey: packaging consumption by type, 2016–22 ($ million)

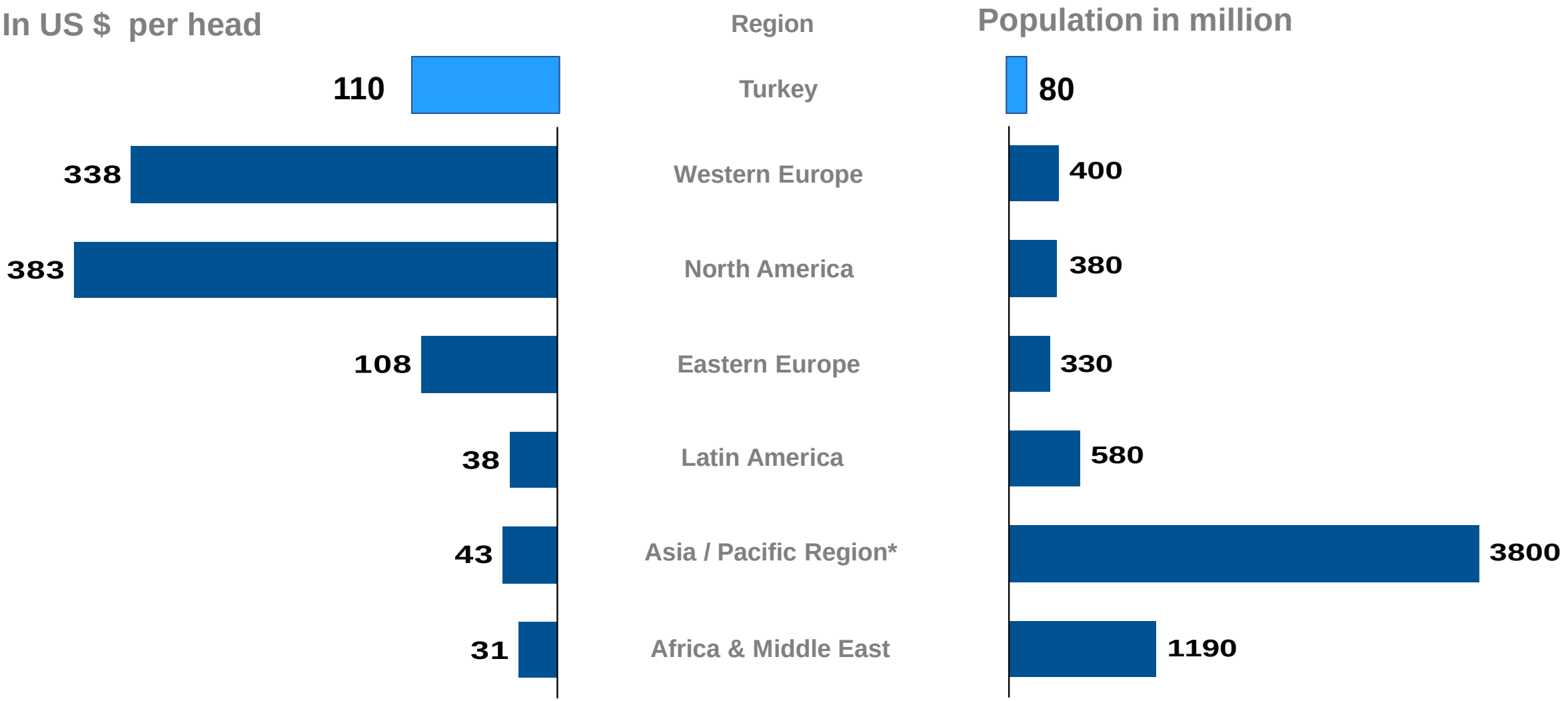
	2016	2017(p)	% change 2016–17	2022(f)	CAGR (%) 2017–22
Flexible packaging	1,700	1,805	6.2	2,335	5.3
Flexible plastics	1,189	1,266	6.5	1,695	6.0
Flexible foil	58	62	5.5	77	4.5
Flexible paper	452	477	5.5	564	3.4
Rigid plastic	2,545	2,634	3.5	3,173	3.8
Board	2,419	2,475	2.3	2,666	1.5
Metal	1,198	1,224	2.2	1,358	2.1
Glass	495	517	4.5	543	1.0
Other	403	417	3.5	428	0.5
Total	**8,759**	**9,071**	**3.6**	**10,504**	**3.0**

Global population development

- Growing world population
- More than 7 bil. people are living today
- There are no alternatives / substitutions for food
- Packaging of food is future-oriented

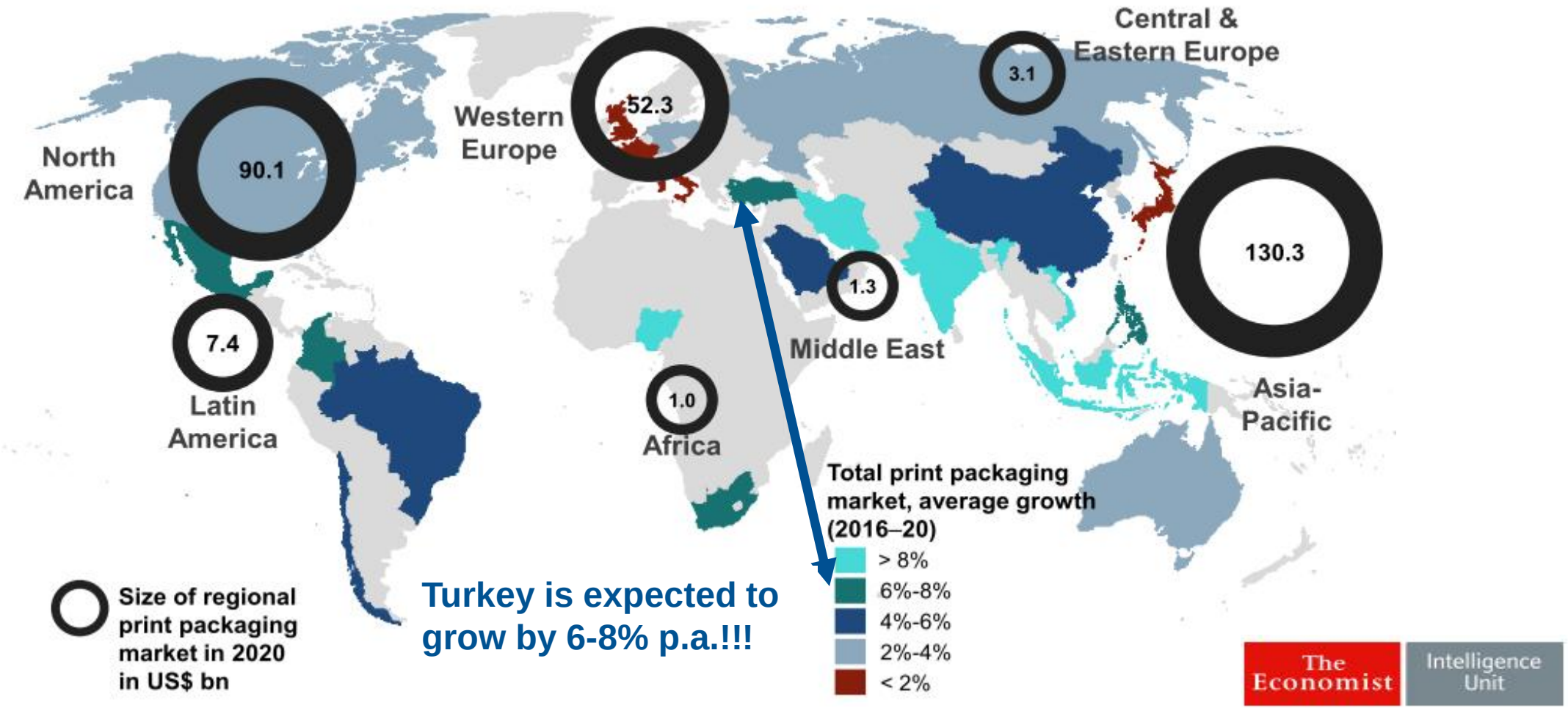


Per capita consumption of packaging material



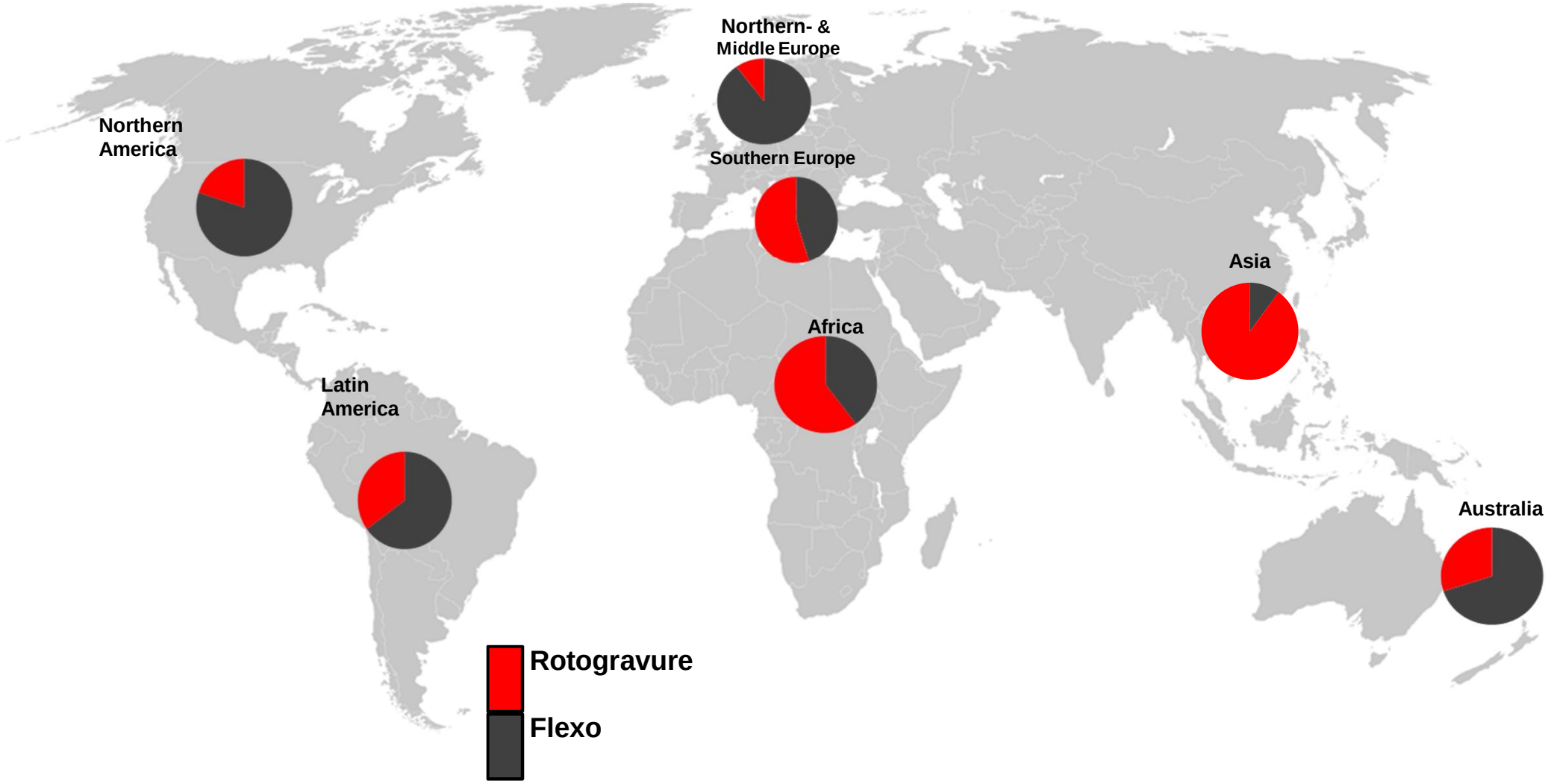
Source: Pira International

Packaging print market size and growth



Turkey is expected to grow by 6-8% p.a.!!!

Regional market share by printing technology



CI-flexo-presses

small & wide, medium & high speed, front- & sideloading, …

VISTAFLEX C

NOVOFLEX´´

Launch Event: March 2019!

MIRAFLEX´´

MIRAFLEX´´ SINGLE PORT

DYNASTAR

Rotogravure Presses

HELIOSTAR´´S, HELIOSTAR´´A

WINDMÖLLER & HÖLSCHER

The future of rotogravure printing

Wouldn‘t it be fantastic to optimize the rotogravure process for short jobs?

We did the first step!

DYNASTAR – Our answer to shorter jobs and digital printing

Innovative press concept

- Fastest change-over
- Job preparation beside the press
- High printing efficency and overall output
- Same printing system, same inks, same printed product just as with wide presses

Service at site and Remote Service

- Operator training in HQ or at customer’s site
- 5 Service Technicians permanently in Türkey
- Qualified specialists 24/7 (Information and Diagnostic Center (IDC) located in Germany, USA, India)
- Smart Service support by telephone or Smart Glasses:
  - Technical problems and malfunctions
  - Maintenance, trouble shooting, printing process questions, …
- Fast spare parts supply

Digital printing for flexible packaging

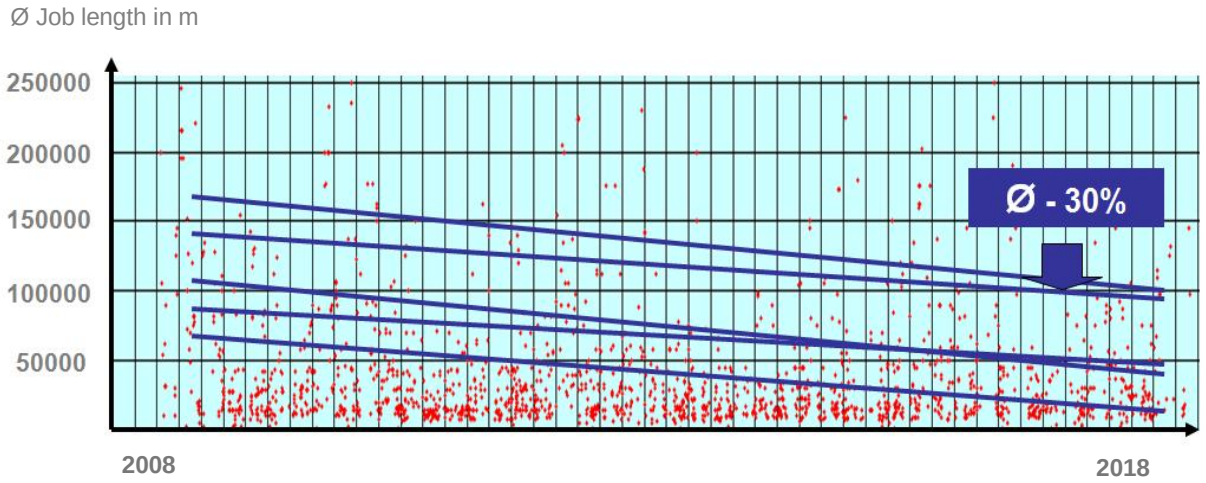
Digitalization is the greatest challenge facing the economy.

Packaging will survive the e-commerce supply chain.

Printing will stay as an important element in the supply chain business.

Today’s key requests / driving forces in printing technology:

Shorter jobs **and** **Faster deliveries**



These are real concerns in the market.

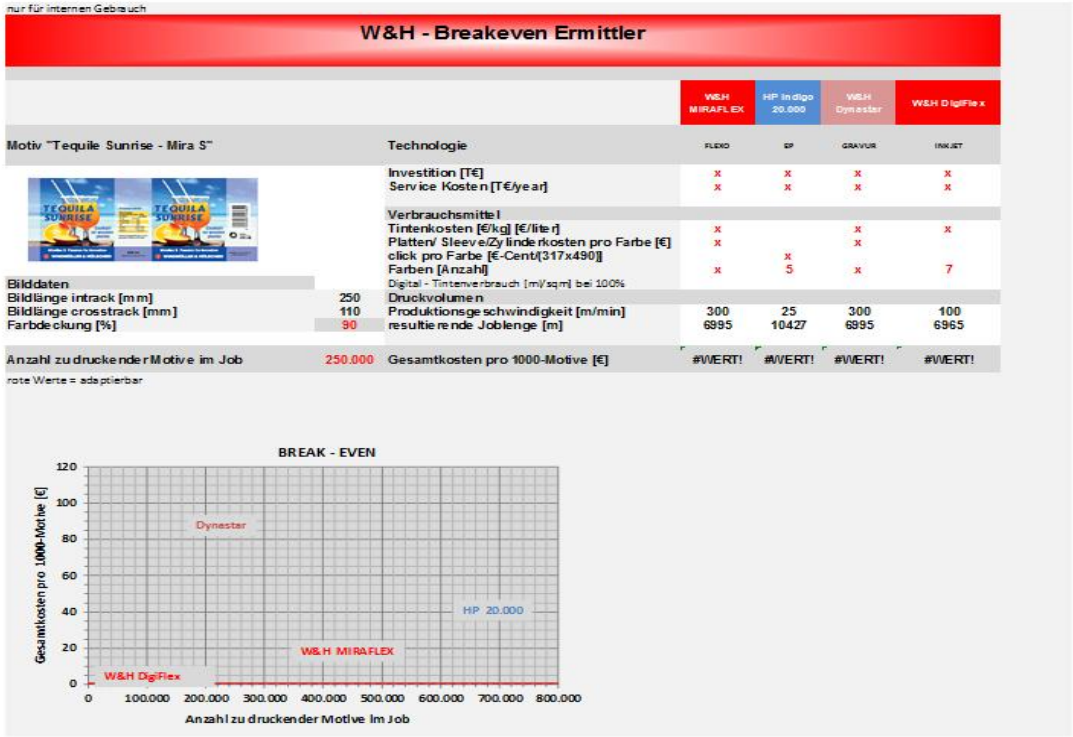
It’s more than just printing technology!

It´s effected by the entire process from IMAGE-to-PRINT!

Thinking about digital printing ...

- We believe that digital printing will grow in long term.
- In the next decade, digital printing will be developed to the third accepted printing technology.
- It will reach a considerable level, but will not become disruptive.

Digital printing – we are prepared for your individual break-even calculation



nur für internen Gebrauch

W&H - Breakeven Ermittler

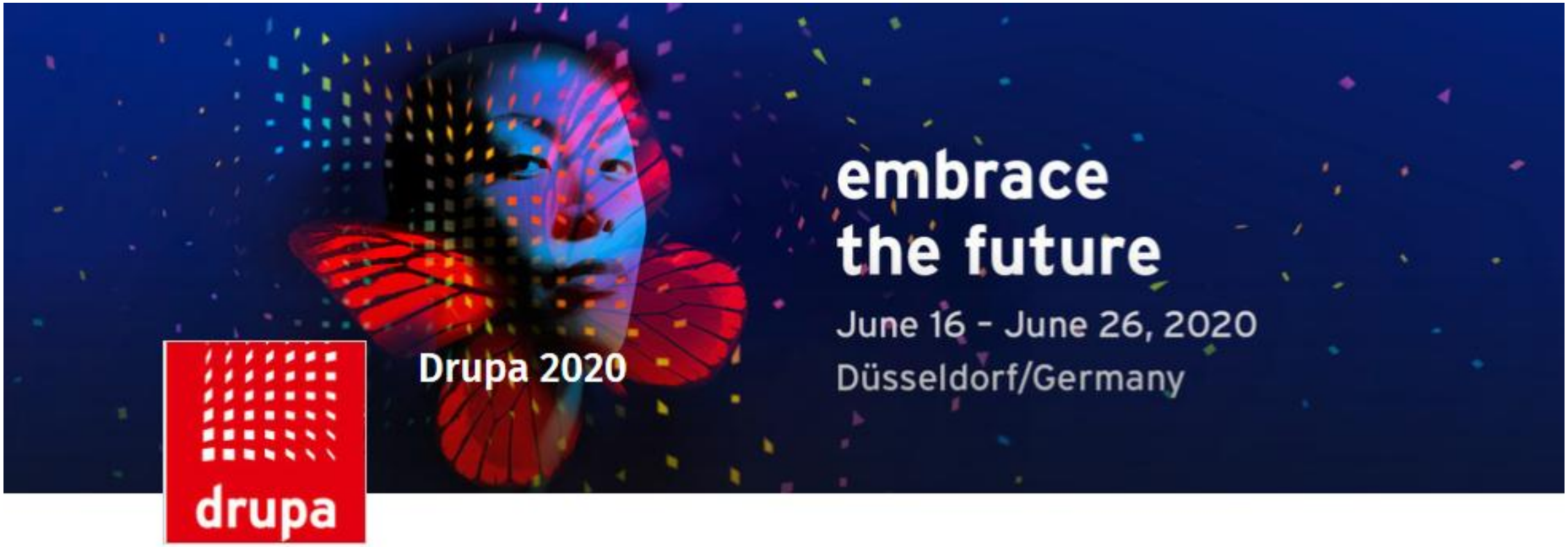
			W&H MIRAFLEX	HP Indigo 20.000	W&H Dynestar	W&H DigiFlex
Motiv "Tequile Sunrise - Mira S"		Technologie	FLEXO	EP	GRAVUR	INKJET
		Investition [T€]	x	x	x	x
		Service Kosten [T€/year]	x	x	x	x
		Verbrauchsmittel				
		Tintenkosten [€/kg] [€/liter]	x		x	x
		Platten/ Sleeve/Zylinderkosten pro Farbe [€]	x		x	
		click pro Farbe [€-Cent/(317x490)]		x		
		Farben [Anzahl]	x	5	x	7
		Digital - Tintenverbrauch [ml/sqm] bei 100%				
Bilddaten		Druckvolumen				
Bildlänge intrack [mm]	250	Produktionsgeschwindigkeit [m/min]	300	25	300	100
Bildlänge crosstrack [mm]	110	resultierende Joblenge [m]	6995	10427	6995	6965
Farbdeckung [%]	90					
Anzahl zu druckender Motive im Job	250.000	Gesamtkosten pro 1000-Motive [€]	#WERT!	#WERT!	#WERT!	#WERT!

rote Werte = adaptierbar

Target cost calculations depend on…

- § run length
- § printing technology
- § number of repeat orders
- § ink costs
- § …

- § internal production workflow
- § downtimes
- § …

- § consumables costs
- § substrates
- § utilization rate
- § ….

Let us meet at drupa 2020 to verify our results