

Investor Presentation

Sep'23

Goodness for **the Whole World**

We reinforce **life.**



Successfully Building the Future of Reinforcement



4
CONTINENTS

13
FACILITIES

+4,500
EMPLOYEES

2 R&D
CENTERS

Global Leading Position

01

- Agile production capabilities / demand fulfillment
- #1 TCF Producer
- Leading player in Ox-Ox Ceramic Matrix Composites
- CTCE : Industry & University Partnership

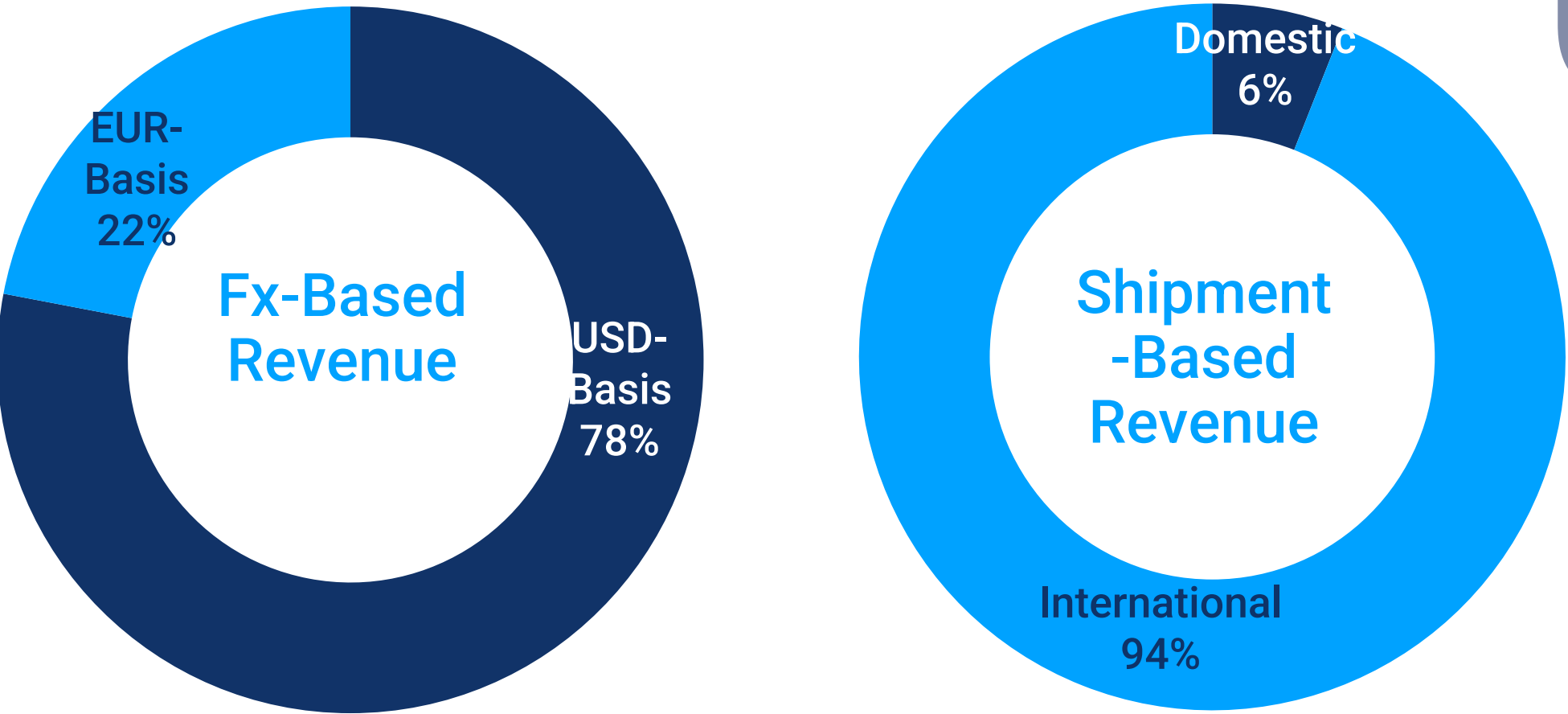
Trusted Partner

02

- Longstanding Strategic Partner Status with all Global Tire Players
- Sole supplier of B787 Dreamliner in NA
- Partner of Orion Capsule
- Resilient to global supply chain crisis

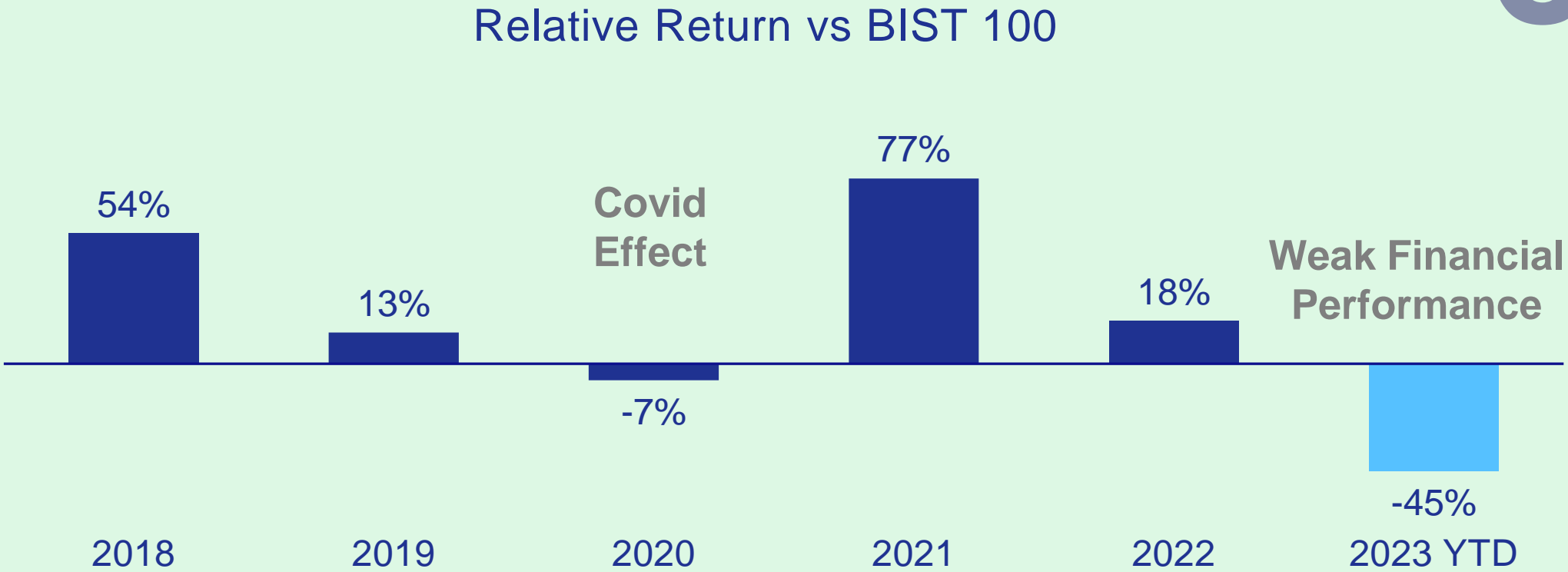
Natural Hedge to FX/Turkey Position

03



Strong Relative Share Performance

04



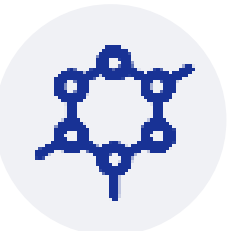
Kordsa
“The Reinforcer”

01 Tire Reinforcement

02 Composite Reinforcement

03 Construction Reinforcement

Advanced Materials
(Composites and Sustainable
Chemicals)



Vertical Integration
of Composites

Sustainable Chemicals



Platform Bio
Chemicals



Bio polymers



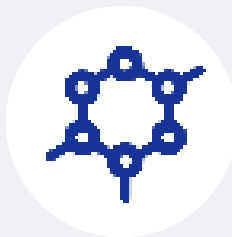
Chemical
Recycling

4 main pillars have been clearly defined to complete Kordsa's Advance Materials convergence

Drivers

- ✓ Globally proven competitive manufacturing capability
- ✓ Strong R&D capabilities on polymers & chemicals
- ✓ Cost competitiveness through global high quality, lean and agile structure
- ✓ Competent workforce with strong material science and engineering background

Pillars



Vertical Integration
of Composites

Securing supply chain and sustainability targets
Market → **3.5Bn USD** (2022)
CAGR → **12.5%**



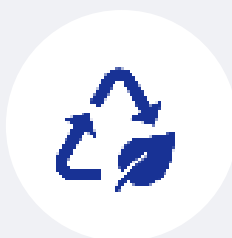
Platform Bio
Chemicals

Large commercial value, based for bio products (Polymers, fuels, ingredients...)
Market → **16.9Bn USD** (2022),
CAGR **12.5%** (2019-25)



Bio polymers

Competency on bio, recycled, virgin & high-performance polymers
Market → **4.5Bn USD** (2021) (Polymer Market **650Bn USD**)
CAGR > **15%** (2021-25)



Chemical
Recycling

Emerging, advanced recycling technology to replace virgin materials
Market → **55Bn USD** 2021 (<**3Bn USD** Chemical Recycling)
CAGR **18%-20%** Chemical Recy. / **6%-7%** Mechanical Recy.

Sustainable Chemicals

Evolving to an advanced materials company, **Kordsa invested 300+ M\$ since 2014**

**Composite
Technology Center
of Excellence**

- ✓ 30 M\$ investment
- ✓ Industry & University Partnership

**Inorganic
Growth**

- ✓ Invested 300+ M\$ between 2018-2022
- ✓ Became a trusted partner in the aerospace industry in the USA
- ✓ Expanded our competencies to the automotive segment in Europe
- ✓ Growing globally by Microtex acquisition



**Construction
(Kratos)**

- ✓ Reinforcement materials for infrastructure and building
- ✓ Doubled capacity in 1H'24
- ✓ Annual +10 M\$ revenue generated

**R&D
Platforms**

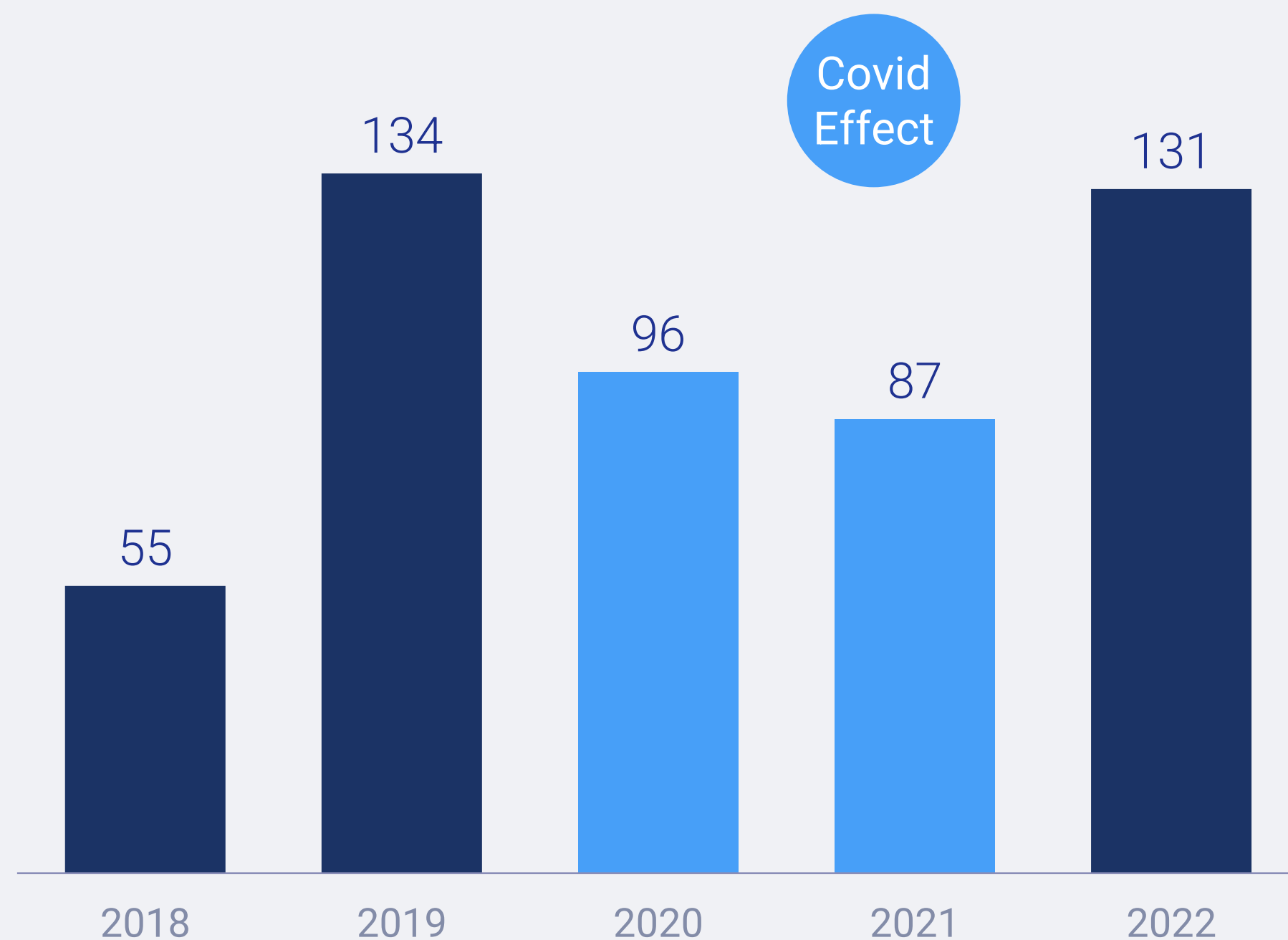
- ✓ Originate business through compounding, thin film, sustainable chemicals
- ✓ 140 dedicated and competent employees
- ✓ 922 patents registration, 509 registered patents
- ✓ Annual 10-12 M\$ allocated to R&D activities

**Organic
Growth**

- ✓ High-tech PET yarn
- ✓ TCF Capacity Increases in USA

Despite all difficulties, **we are moving forward**

Kordsa Composite Revenue (M\$)



- ✓ Overall reduction of airline passengers by 60% compared to 2019
- ✓ Focus on product & market diversification
- ✓ Expanding our competencies to automotive industry & Europe through Microtex
- ✓ Building a new technology center in Munich to reach out to European composite & construction customers

We believe in **Sustainability**



Science based objectives for challenging 1.5°C scenario



Sustainable Products
Collaborative and Free Licensing

Out of 90,000 companies



Supplier Engagement and Water Security leaders



Entered Istanbul Stock Exchange Sustainability Index for the 6th time



Turkey's best R&D Center for the 4th time

Our competencies support us in evolving to an **advanced material company**

Excellence

- ✓ Global Integrated & Agile Manufacturing Footprint
- ✓ High-end production capabilities (hybrid, UHT products)
- ✓ TPM Excellence Awards (Turkey and Indonesia)
- ✓ Competitive landscape visibility
- ✓ Machine and design capability

People

- ✓ Great Place to Work for 5 plants
- ✓ Recognition Awards
- ✓ 37% Women in White Collars
- ✓ Competent Workforce with Ms/Phd degrees in Global Technology
- ✓ Future of Work – People Oriented Approach

Digital

- ✓ Global ERP Project
- ✓ Connected Automation
- ✓ Artificial Intelligence
- ✓ Cybersecurity
- ✓ Augmented / Virtual Reality Applications
- ✓ RPA Applications

Better Materials, Better Future



Thank You



OPERATIONS



FINANCIALS



Our sustainability strategy has been created within the framework of our material issues and is in harmony with our business strategy. Our enablers through our sustainability journey are Technology and Digitalization.

Passion for Business Excellence

- ✓ Efficiency and improvements in our own operations to create a positive impact in our value chain and to accelerate low carbon transition.

Responsibility for People

- ✓ We commit to a non-discriminative, safe and healthy working environment for all.
- ✓ Investing in community development with our social responsibility projects

Innovation for Sustainable Materials

- ✓ With high value added sustainable product portfolio Kordsa is facilitating in transition to a low carbon economy with lighter products than alternatives.

Kordsa Sustainability Targets



2030

46.2 % Emission Reduction



2030

50% water withdrawal reduction per unit tonnage product



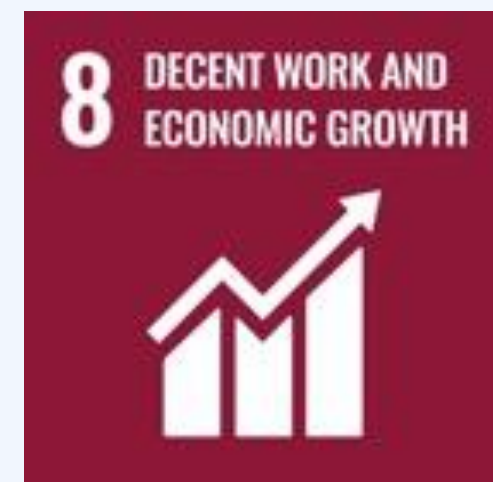
2025

45% Women employment



2030

50% total waste reduction per tonnage product



Zero Accident

Kordsa Awards & Recognition



Approval from SBTi for emission reduction targets.



2022 CDP Turkey Climate Change and Water Leader
(A-Global List in the world for water)



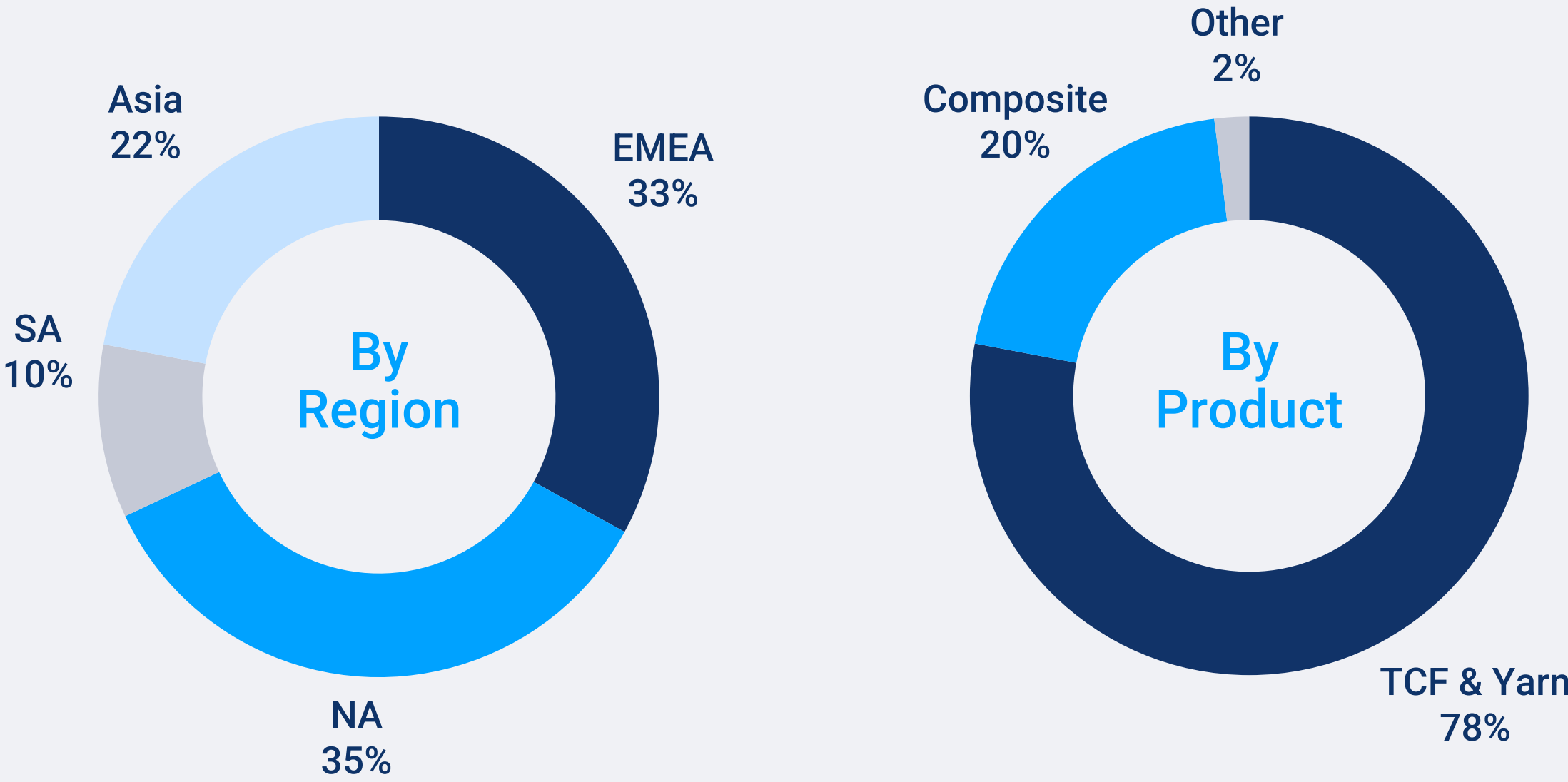
Ecovadis **Gold Medal**



Entered Istanbul Stock Exchange Sustainability Index **for the 6th time**

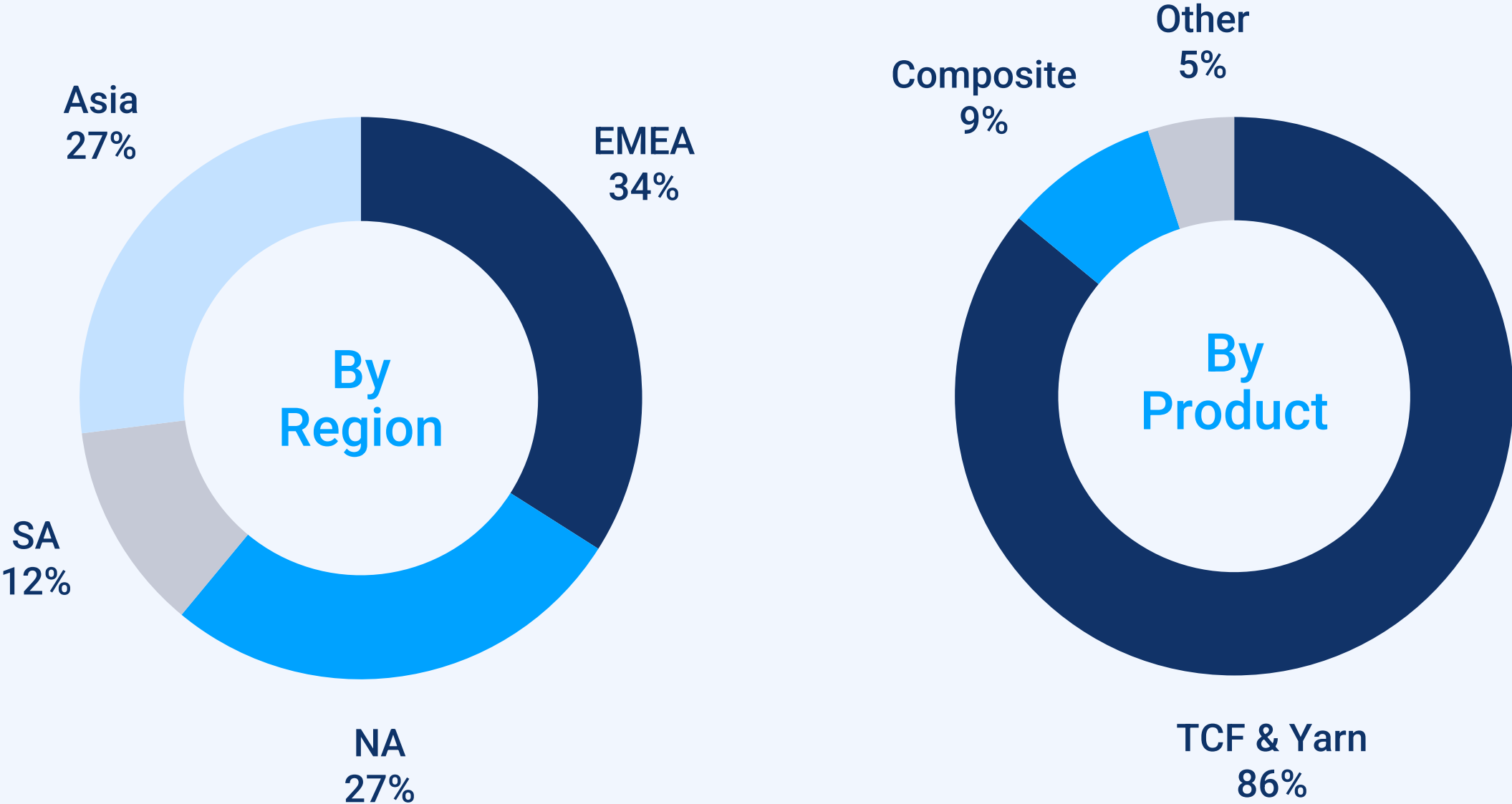
Growth in NA contribution thanks to strong composite results

Jun, 23 Revenue Split



* Composite sales increasing
* Shrinkage in tire demand
* High competition in especially in EMEA and APAC

Jun, 22 Revenue Split



Tire Cord **Fabric Value Chain**

MANUFACTURING PROCESS

RAW MATERIALS

Polymerisation
and Yarn
Spinning

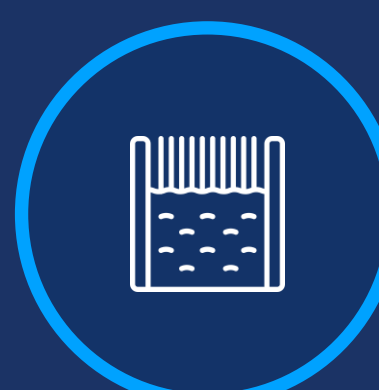
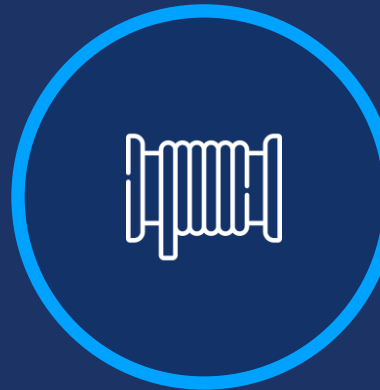
NY66 and
PET HMLS
Yarns

Twisting
and
Weaving

Greige
Fabric

Chemical
Treatment
(dipping)

Dipped
Fabric



Oil derivative
Chemicals and Polymers

HMD
Adipic Acid
NY66 Polymer
PET Polymer

Integrated production
can create value
compared to other
competitors

Higher value
added from
dipped fabric

Kordsa fabrics are developed for **specific requirements** and are custom made

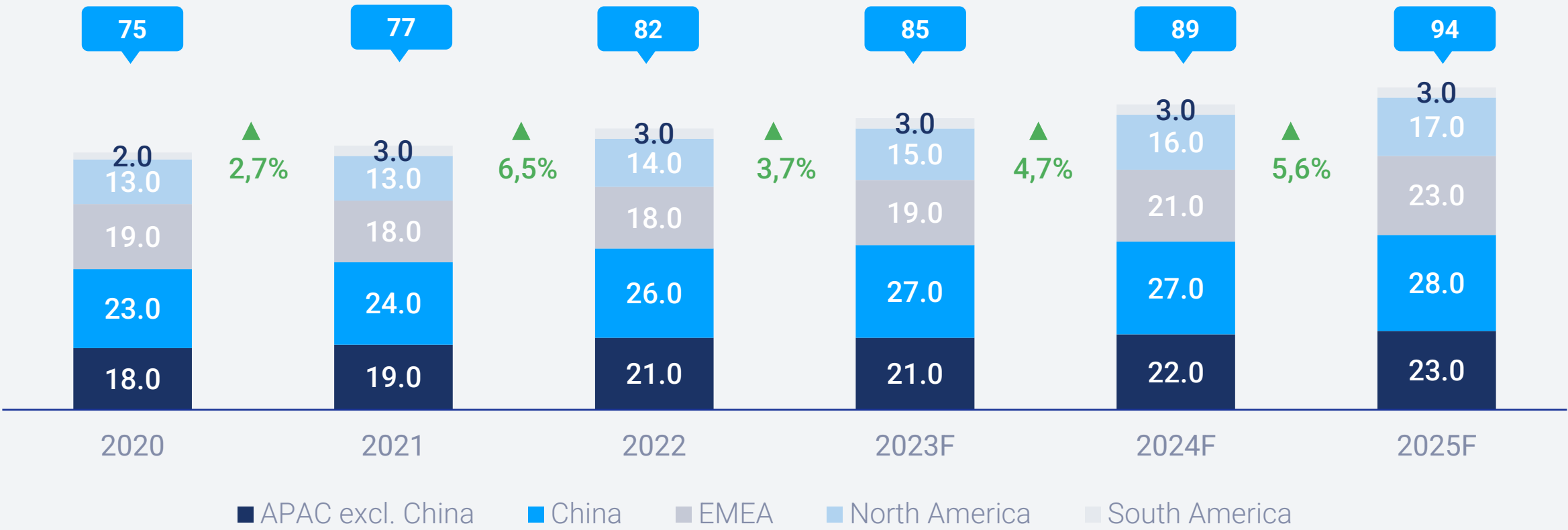
Where do **our products** go...

- 01** A tire is a highly complex composite with approx. 40 components working under dynamic conditions enduring heat and motion
- 02** NY66 typically used in cap plies
- 03** PET typically used in radial plies
- 04** By weight: 350-450gr per tire
- 05** By value => Approx 7-10% cost of a tire is Tire Cord Fabric

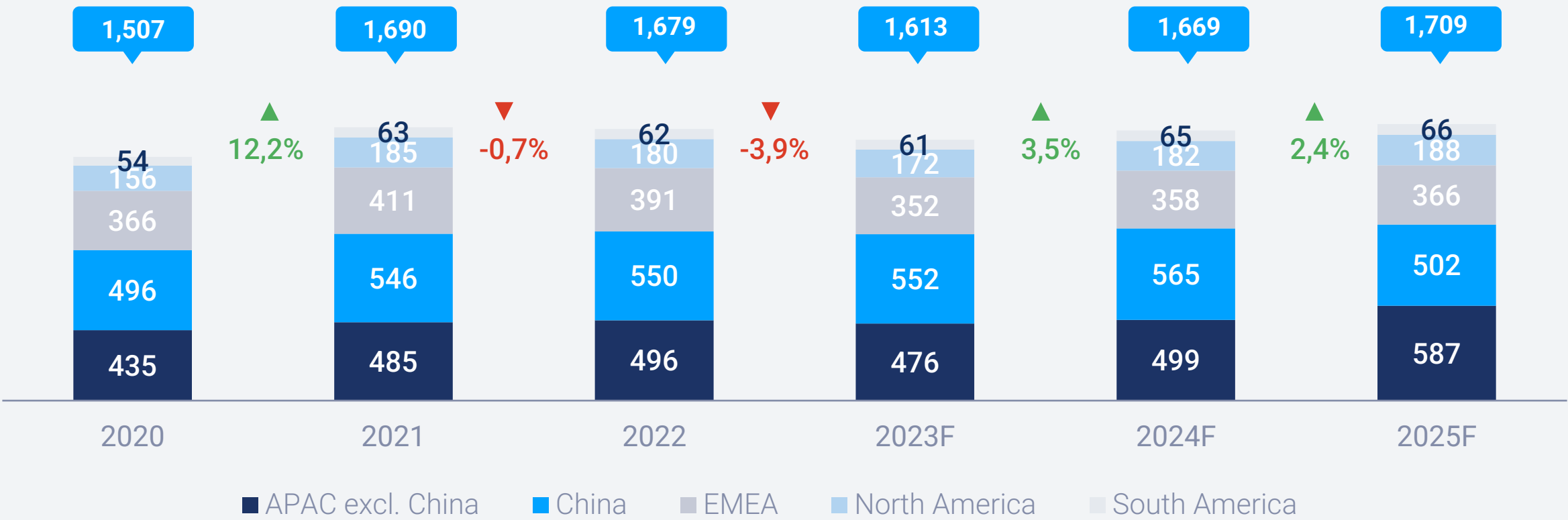


Ongoing Decline in Global Tire Reinforcement Market

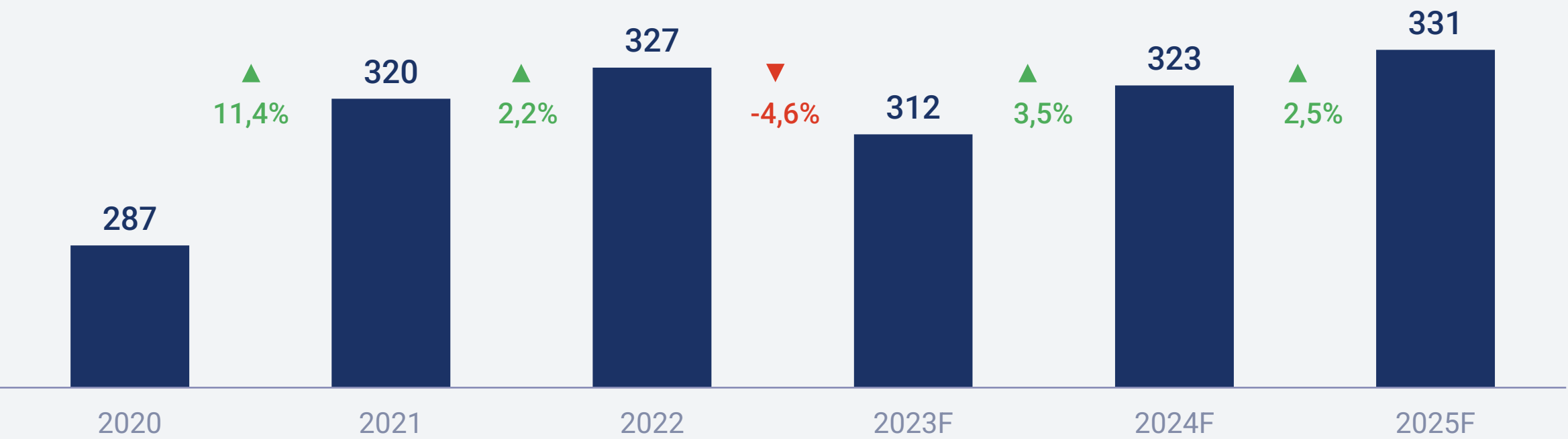
Global Automotive Market (million units)



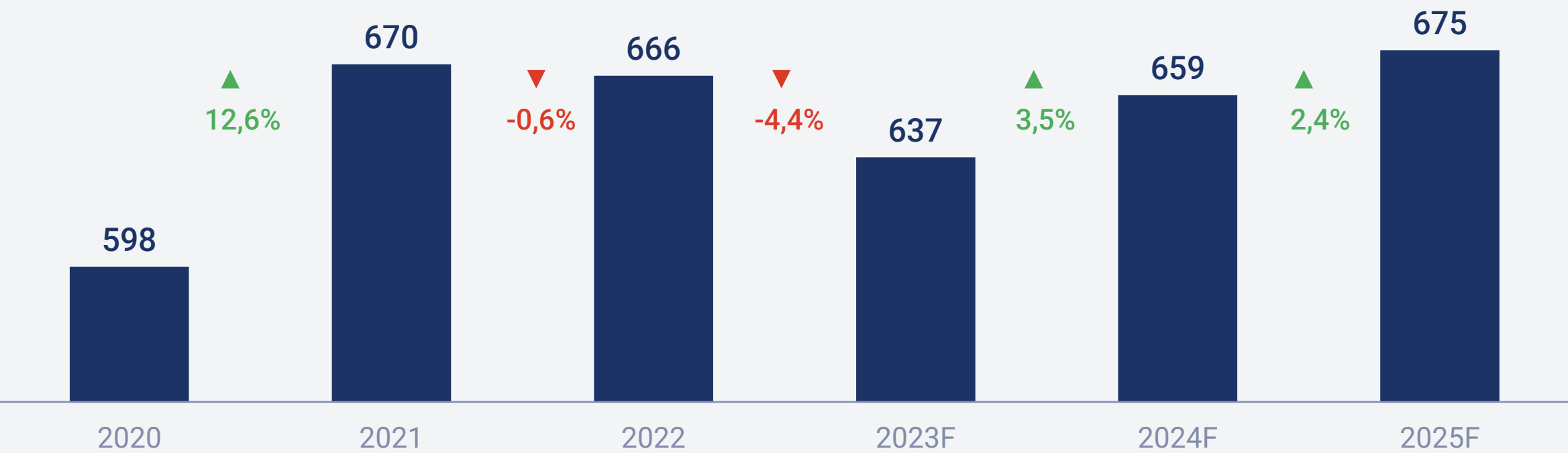
Global Tire Market (million units)



Tire Reinforcement Market (NY6.6-ktons)



Tire Reinforcement Market (PET-ktons)



INTERMEDIATES

RAW MATERIALS



Fibers:
Carbon Fiber -
Aramide
Glass Fiber - Ceramic
Fiber - Kevlar

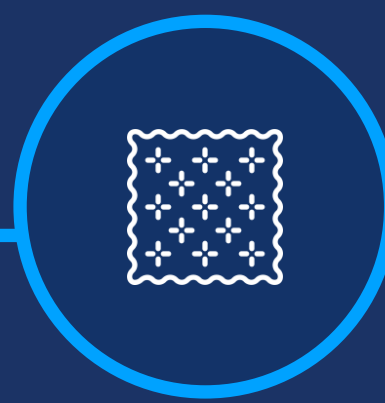
Weaving



The sole supplier of
B787 - Dreamliner



Prepreg



Value added products comprised by
ceramic, carbon, aramid, glass for
various industries such as aerospace,
energy, automotive, sports&leisures

Kordsa fabrics and prepregs offer cutting edge **solutions for aerospace & automotive markets**

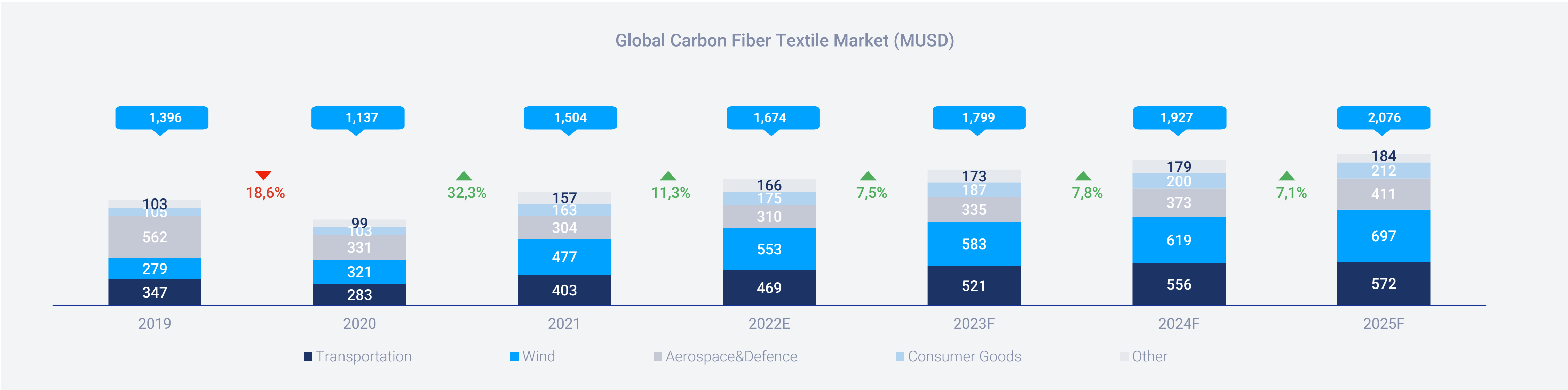
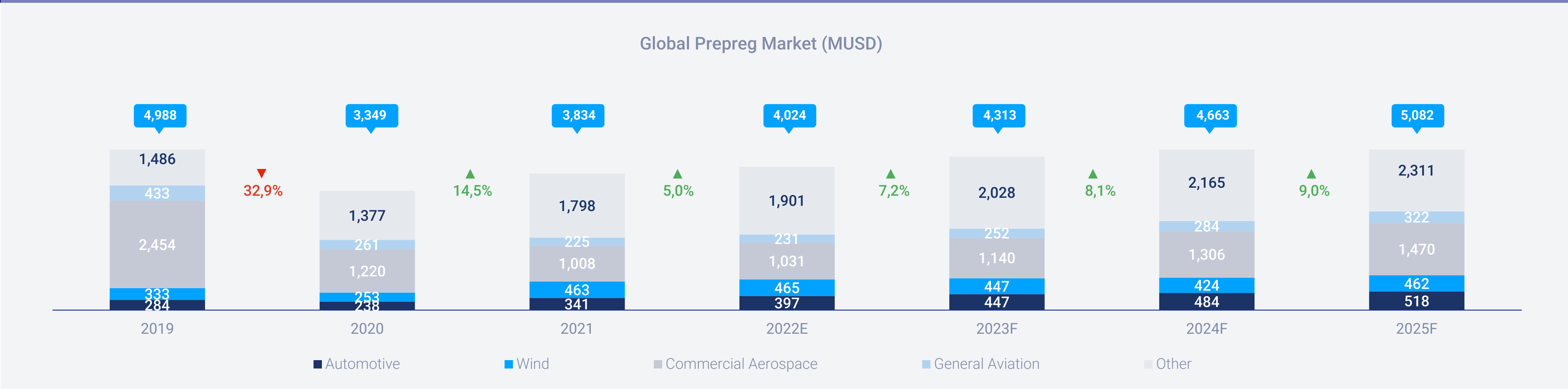
COMPOSITE PARTS

Composites use in aerospace & automotive is increasing, due to improved material properties and weight savings over conventional materials

«Lightweighting» is a major theme, driven by emission regulations as well as fuel-efficiency needs



Positive Outlook for the Composite Market 2023 and Beyond



MANUFACTURING PROCESS

**RAW
MATERIALS**

NY66 and
PP Fibers

Twisting

Dipping

Pucking

Cutting



Polypropylene
and nylon 66
polymers

Higher value
added from
dipped fabric

Kordsa's Kratos Fiber Reinforcement are applied in **Superstructure & Infrastructure Solutions**

REINFORCED CONCRETE STRUCTURES

MAJOR APPLICATIONS

- ✓ Infrastructure projects (tunnels, runways, dams, bridges, metro tracks, highways)
- ✓ Mines





Business Excellence

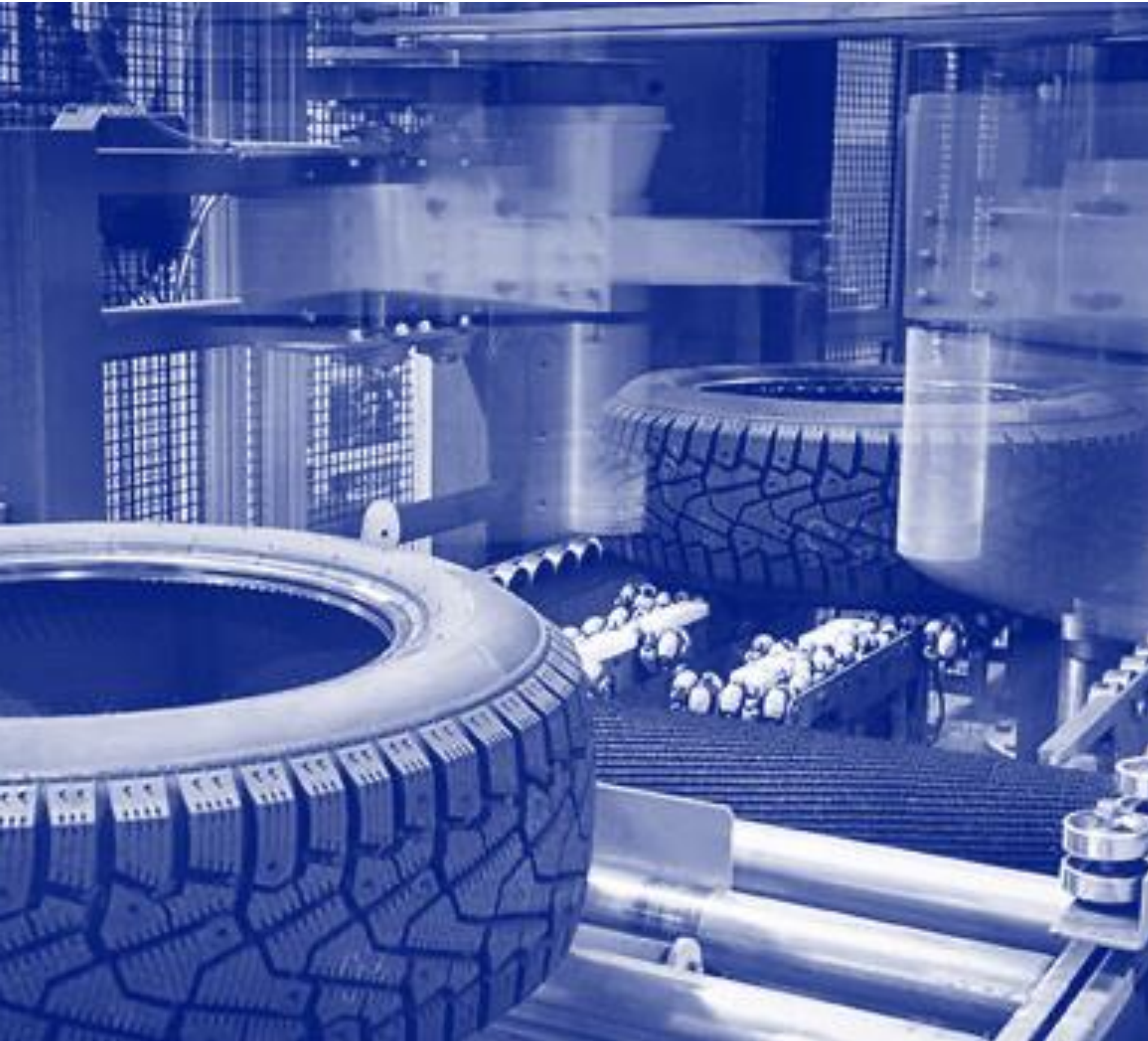
- ✓ Operational Excellence: Safe and reliable operations, competitive cost
- ✓ Digital Transformation: Data analytics and Artificial Intelligence, Robotics and Automations, Cybersecurity
- ✓ Effective Finance & Risk Management
- ✓ Commercial Excellence

Growth

- ✓ Growth in Tire Industry: Improve approved product base
- ✓ Growth in Composite Industry: Realization of growth business plan for composites, increase market penetration speed via acquisitions
- ✓ Growth in New Industries

Innovation

- ✓ Innovation in Material Science
- ✓ Innovation in Tire Technology
- ✓ Innovation in Composite Technology
- ✓ Effective Innovation Management



FINANCIALS



OPERATIONS

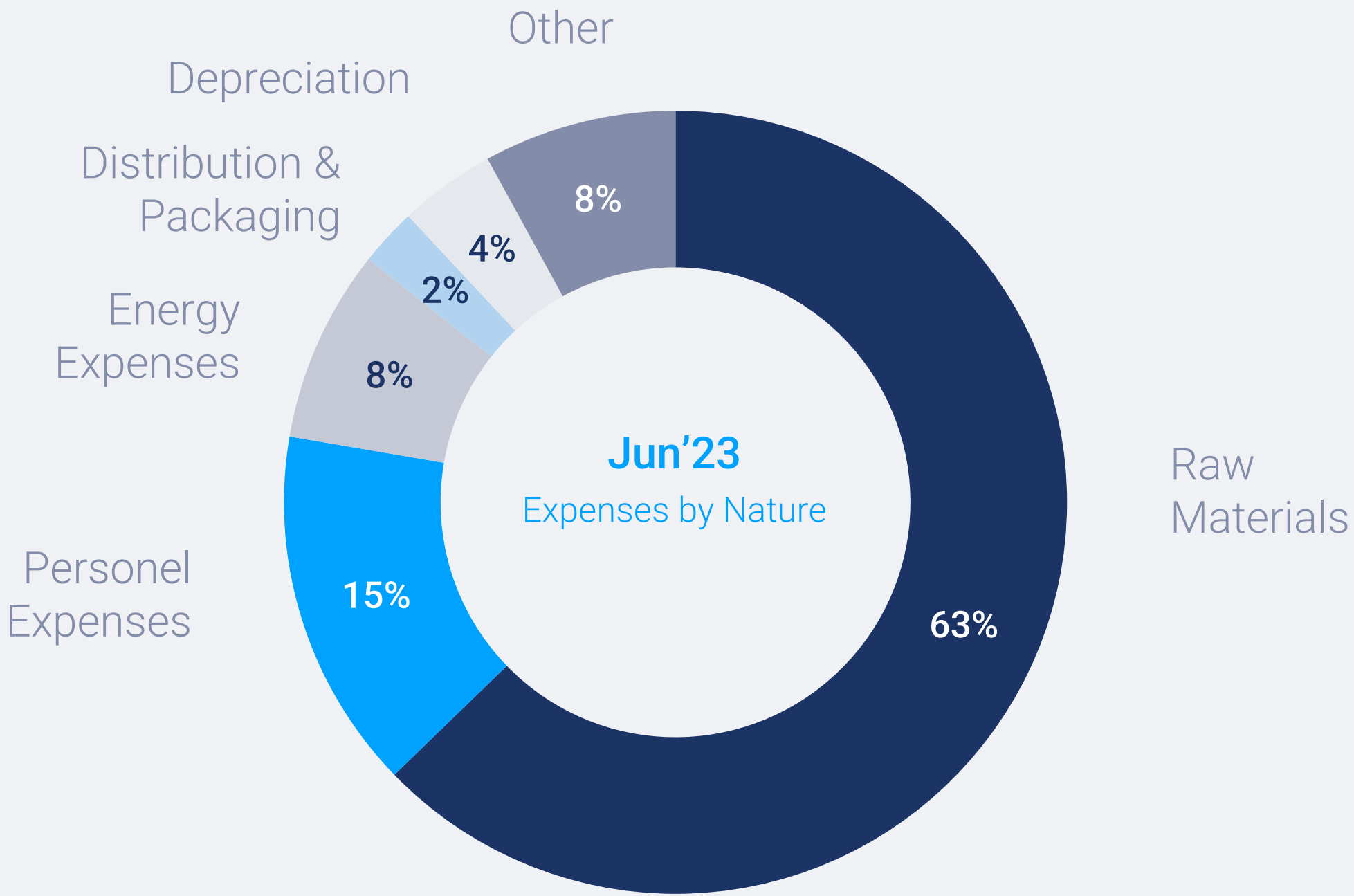
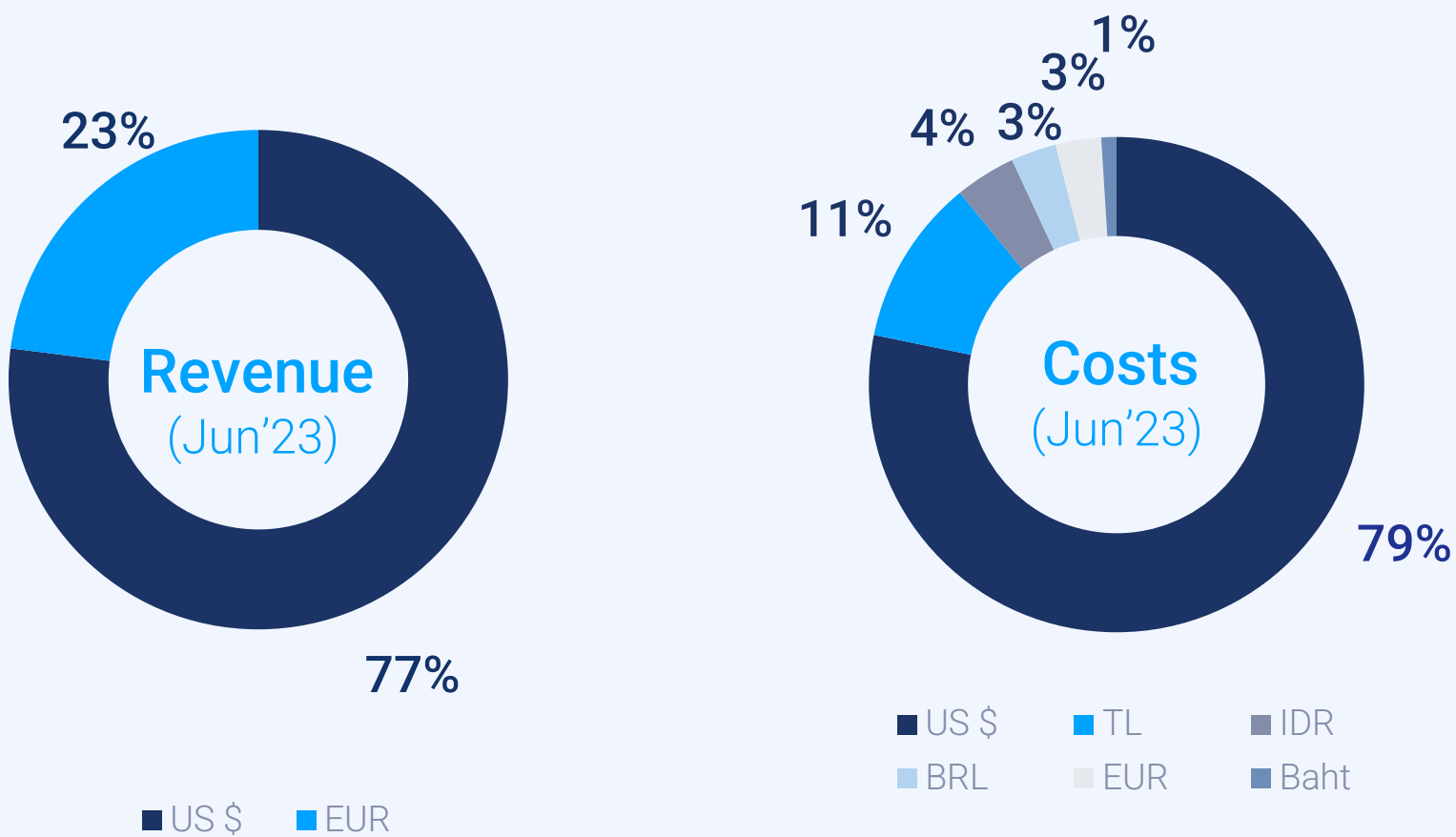


Ongoing challenging externalities impact financial performance

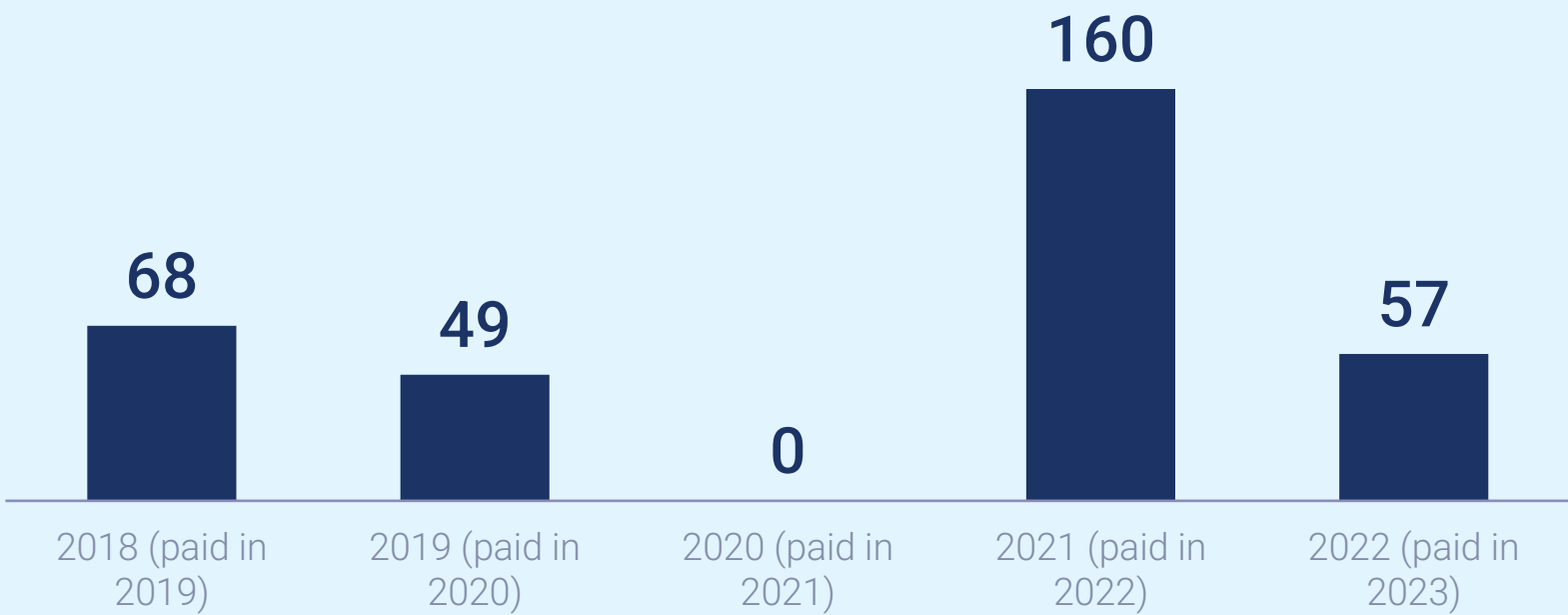
	USD Financials (MUSD)						
	H1'22	H1'23	Δ	3Q'22	4Q'22	1Q'23	2Q'23
Sales	599	531	-11.4%	286	269	276	255
Gross Profit	129	78	-39.6%	46	39	41	37
Gross Margin (%)	21.5%	14.6%	-6 pts'	16.0%	14.5%	14.8%	14.4%
OPEX (%)	9.2%	10.5%	1 pts'	9.4%	11.5%	10.2%	10.8%
Operating Profit	73	25	-65.9%	19	14	14	11
Operating Profit Margin (%)	12.1%	4.7%	-7 pts'	6.7%	5.4%	5.1%	4.2%
EBITDA	92	42	-54.2%	26	16	23	19
EBITDA* Margin (%)	15.3%	7.9%	-7 pts'	9.2%	6.1%	8.3%	7.5%
Net Income	61	3	-95.7%	22	13	5	-2
Effective Tax Rate (%)	-21.9%	-74.5%	-52 pts'	-4.4%	366.5%	-21.9%	-149.7%
Net Income (%)	10.1%	0.5%	-10 pts'	7.8%	4.9%	1.7%	-0.8%

Hard Currency Revenue

FX Exposure

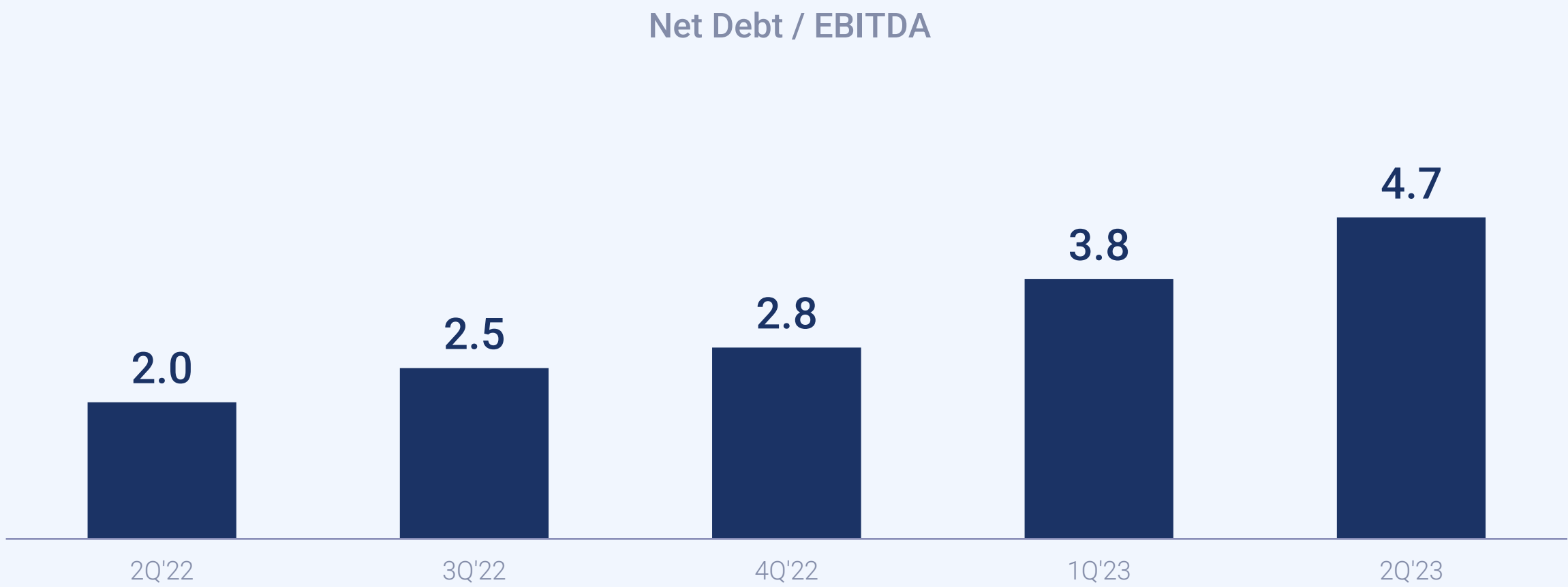
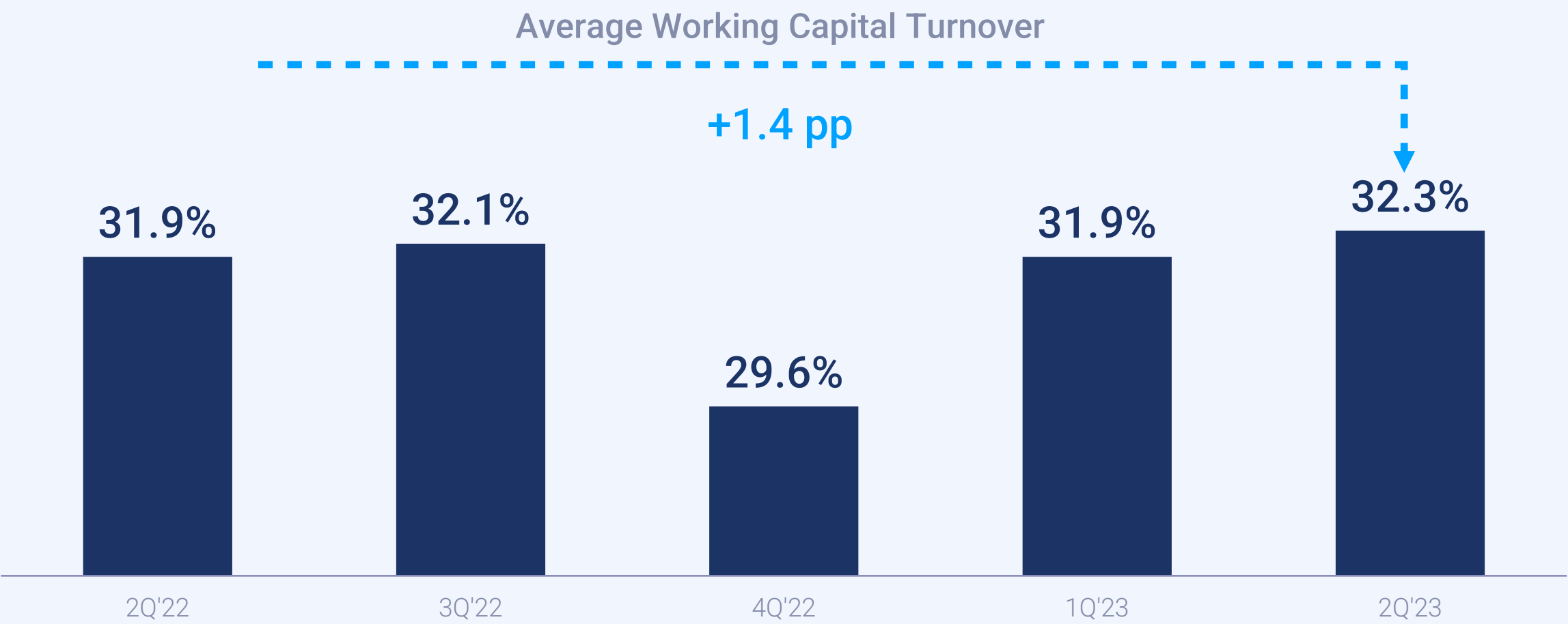


DIVIDEND (MTL)



- ✓ Demonstrates value-based pricing model
- ✓ Ability to pass through raw material price volatility: (Revenue – raw material costs) tracked as a KPI by sales team
- ✓ Conversion costs as a key metric for management KPIs (main components are personnel expenses and energy costs)
- ✓ Hard currency revenues
- ✓ FX exposure on costs -> EM footprint on local costs + hard currency priced raw materials
- ✓ Benefit from US\$ appreciation vs. TL, IDR and BRL

Through stock optimization and production planning



INVENTORIES DOWN 9% Y-O-Y

Driven by low demand in tire and rm price decreases

RECEIVABLES UP 7% Y-O-Y

Driven by low demand in tire and rm price decreases

PAYABLES UP 34% Y-O-Y

Driven by low demand in tire and rm price decreases and goods-in transit effect

M\$	Amount		Avg. Int. Rates
	31.12.2022	30.06.2023	%
Net Debt	379	391	
USD-Basis	307	357	8.1%
EUR-Basis	83	50	7.7%
TRY-Basis	25	25	12.1%
Other Currencies	7	9	5.4%
Cash & Cash Equi.	-43	-50	

GROWTH PLANS

Investments such as Polyester Line, construction, SEC in Turkey and Dipping in the USA continue and they are expected to be in production from 2024 which accelerate Kordsa's organic growth

ONGOING COST MANAGEMENT FOCUS

WC IMPROVEMENT PROJECT

Balance Sheet

	TL Financials (MTL)			USD Financials (MUSD)		
	YE 2022	H1 2023	Δ	YE 2022	H1 2023	Δ
Cash and Cash Equivalents	799	1,298	499	43	50	8
Account Receivables	3,860	4,822	962	206	187	-20
Inventories	5,497	6,880	1,383	294	266	-28
Other Current Assets	989	1,511	522	53	59	6
PPE & Intangibles	8,131	11,238	3,108	435	435	0
Investment Property	426	589	162	23	23	0
Goodwill	2,515	3,473	958	135	135	0
Other Non-Current Assets	1,352	1,690	338	72	65	-7
Account Payables	2,972	2,702	-269	159	104	-54
Total Debt	7,900	11,401	3,501	422	441	19
Short Term Debt	4,804	5,280	475	256	204	-52
Long Term Debt	3,096	6,121	3,025	165	237	71

Kordsa Income Statement 1H'23

	TL Financials (MTL)						
	2Q'22	2Q'23	Δ	3Q'22	4Q'22	1Q'23	2Q'23
Sales	4.639	5.012	8.1% ▲	4,962	4,679	5.194	5.012
Gross Profit	853	715	-16.2% ▼	795	676	768	715
Gross Margin (%)	18.4%	14.3%	-4 pts' ▼	16.0%	14.5%	14.8%	14.3%
OPEX (%)	6.2%	10.8%	3 pts' ▲	9.4%	11.5%	10.2%	10.8%
Operating Profit	435	203	-53.3% ▼	330	251	265	203
Operating Profit Margin (%)	9.4%	4.0%	-5 pts' ▼	6.7%	5.4%	5.1%	4.0%
EBITDA	563	369	-34.4% ▼	455	287	431	369
EBITDA* Margin (%)	12.1%	7.5%	-5 pts' ▼	9.2%	6.1%	8.3%	7.5%
Net Income	408	-50	-112.2% ▼	387	230	90	-50
Effective Tax Rate (%)	21.9%	-149.7%	-170 pts' ▼	-4.4%	366.5%	-21.9%	-149.7%
Net Income (%)	8.8%	-0.8%	-10 pts' ▼	7.8%	4.9%	1.7%	-0.8%