
Investor Presentation

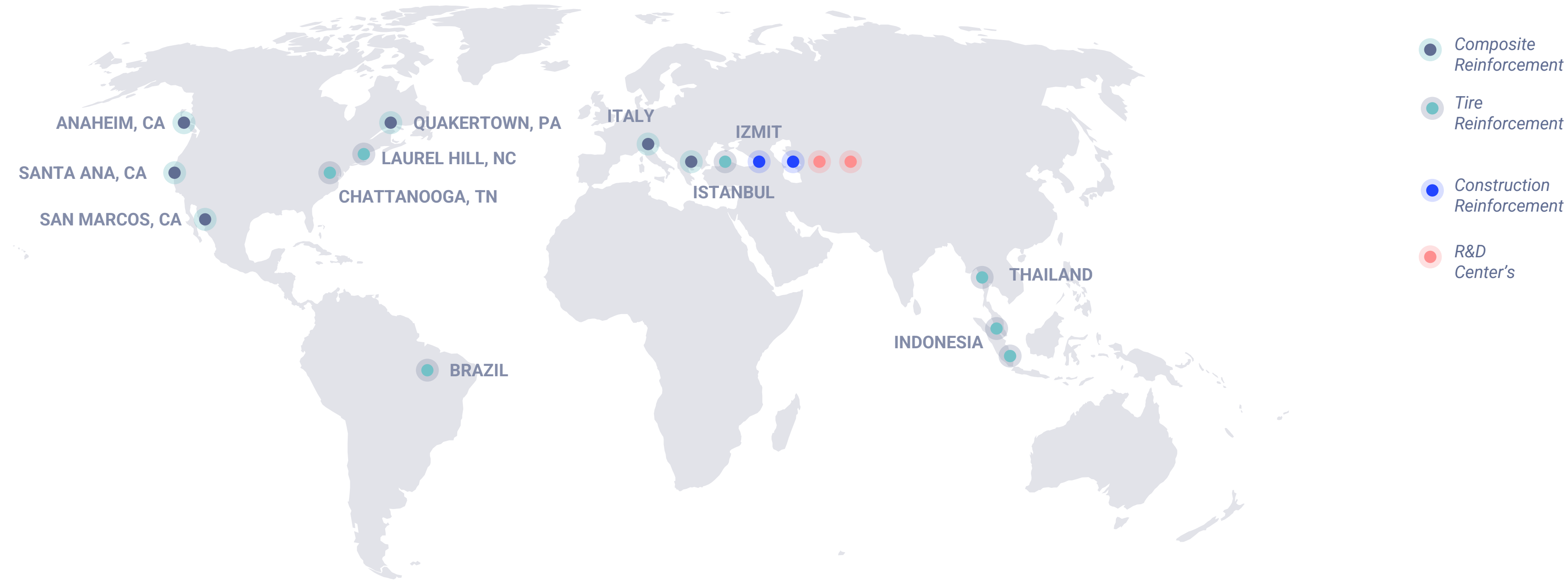
Nov'23

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

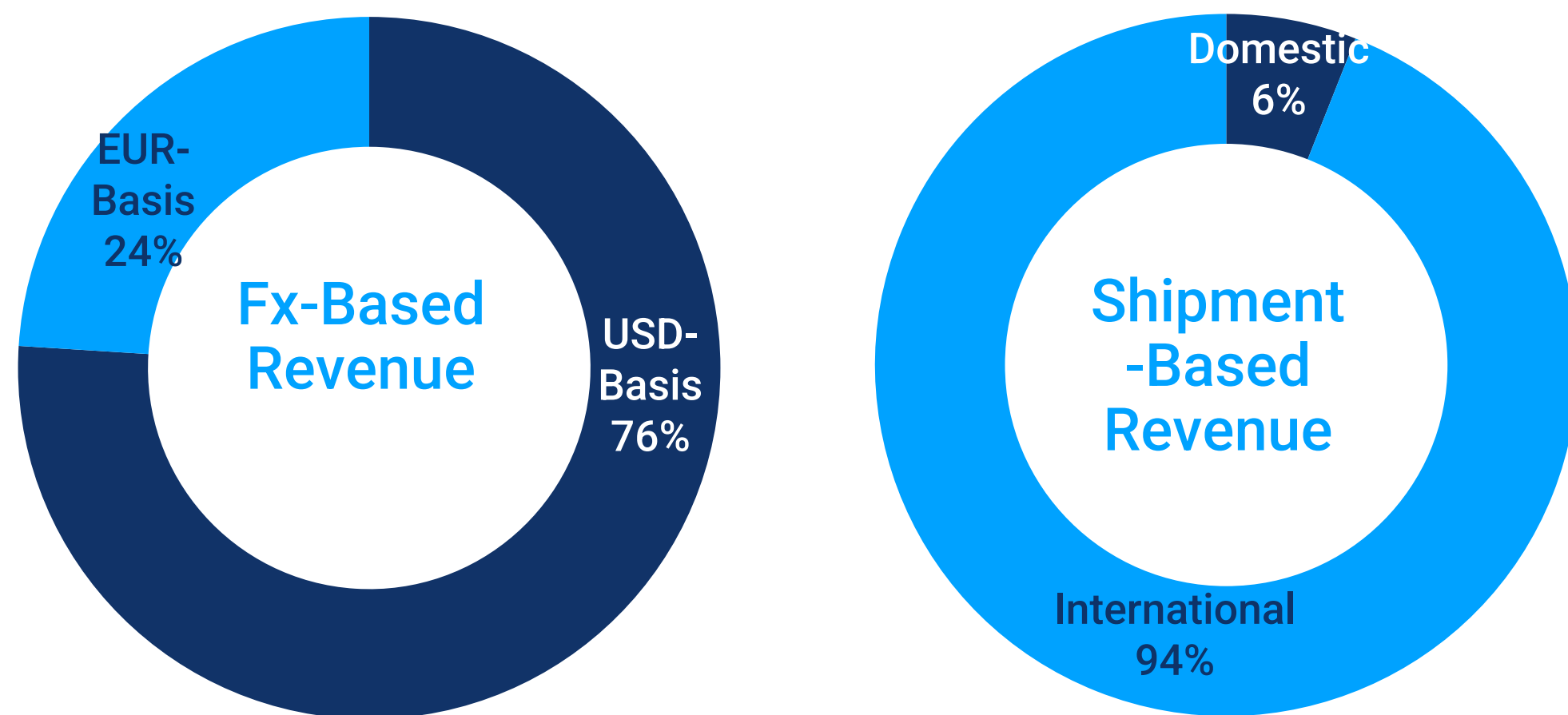
Trusted Partner

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

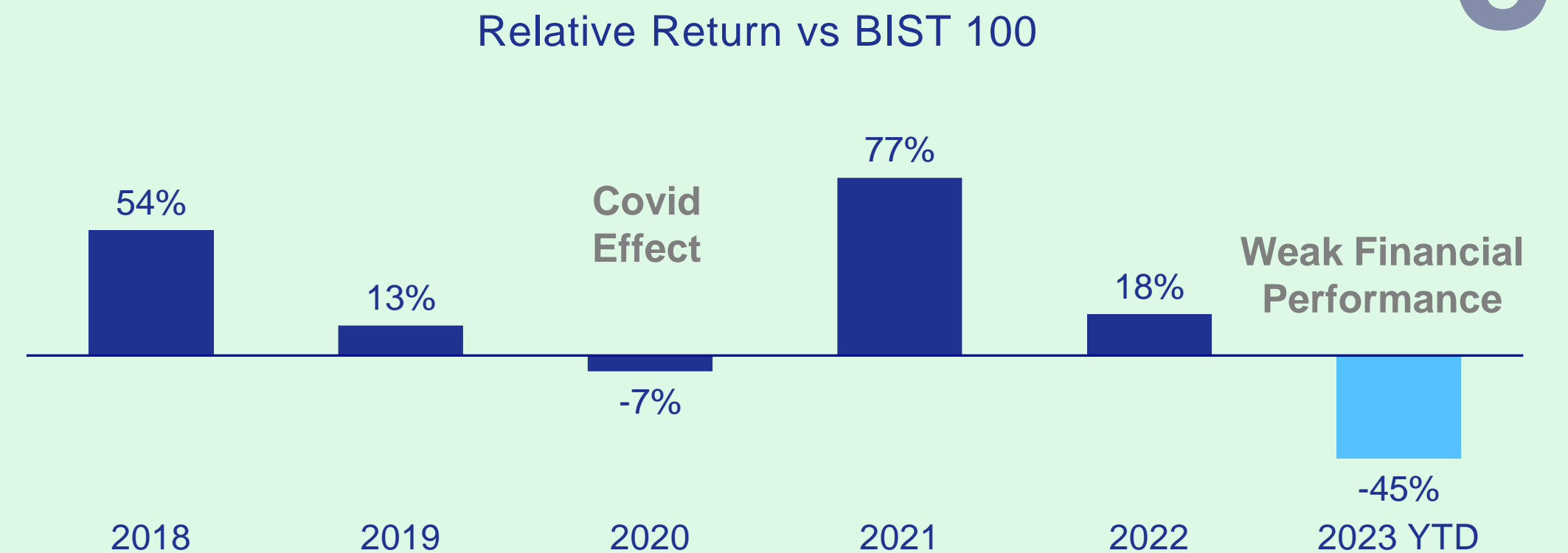
Natural Hedge to FX/Turkey Position

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%
Sustainable Chemicals		
	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.

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

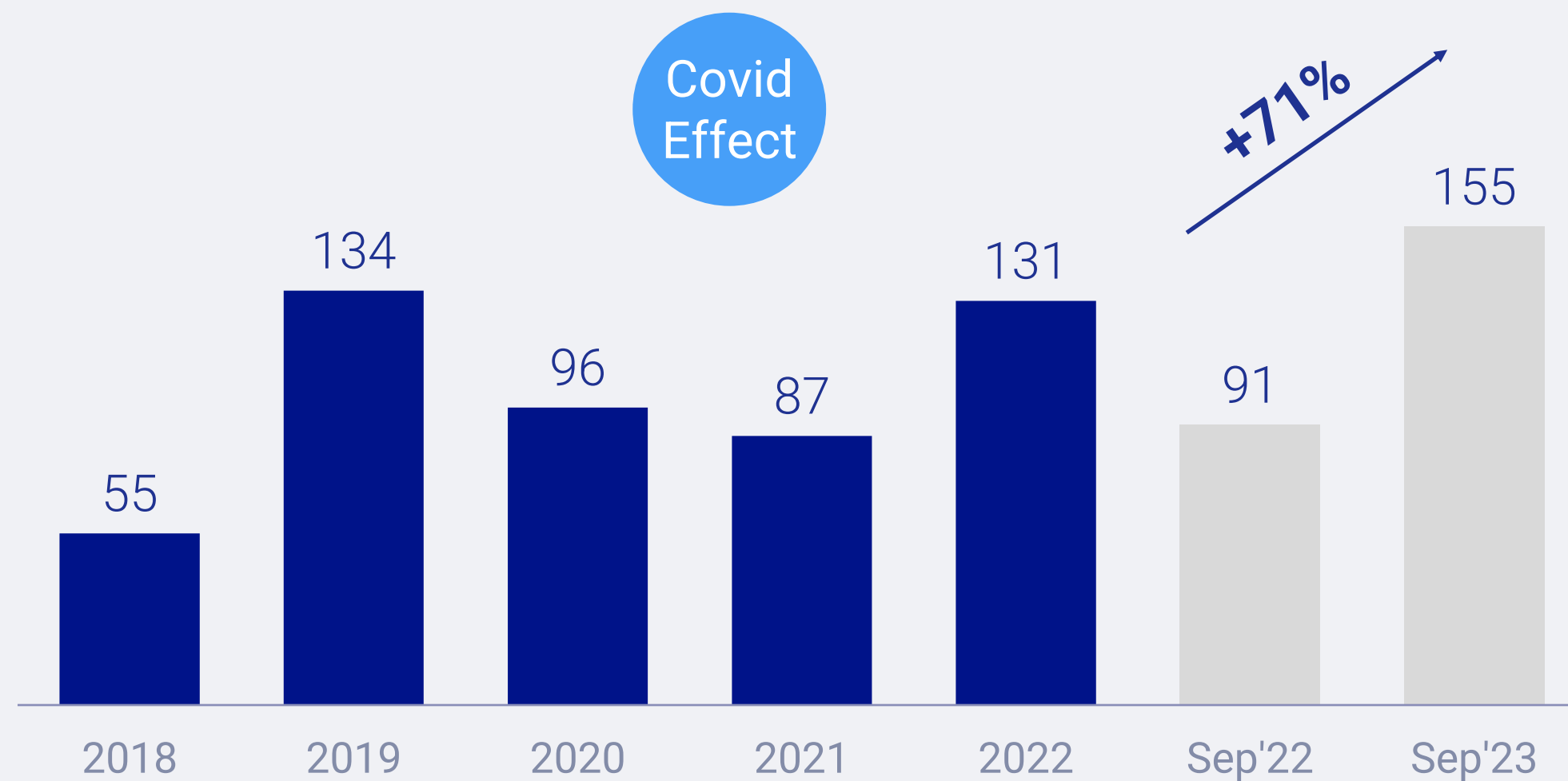
- ✓ Originate business through compounding, thin film, sustainable chemicals
- ✓ 140 dedicated and competent employees
- ✓ 922 patents registration, 509 registered patents
- ✓ Annual 10-12 M\$ allocated to R&D activities

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

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



THE REINFORCER

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



2030

50% total waste reduction per tonnage product



2025

45% Women employment



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)



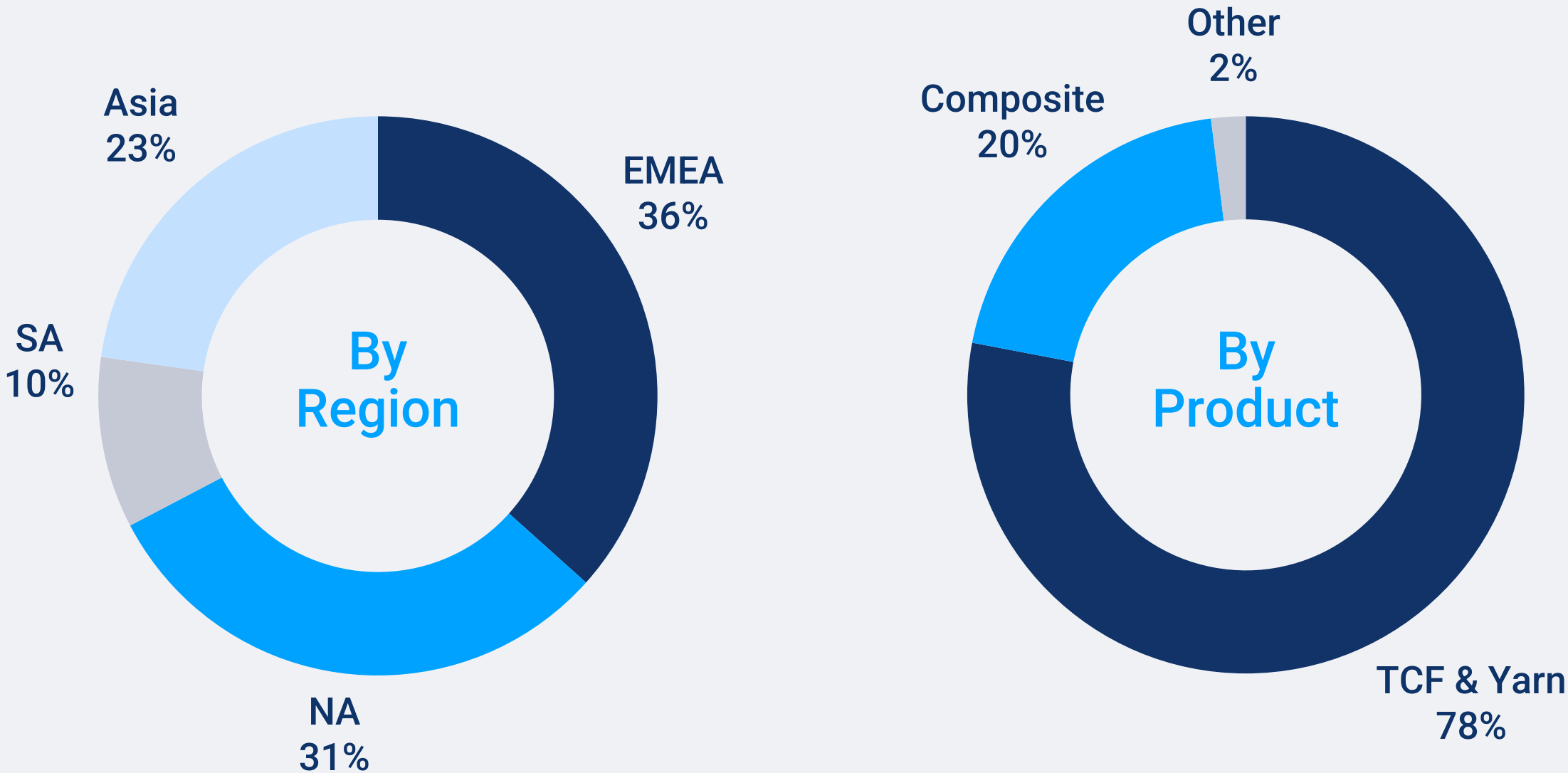
Ecovadis Gold Medal



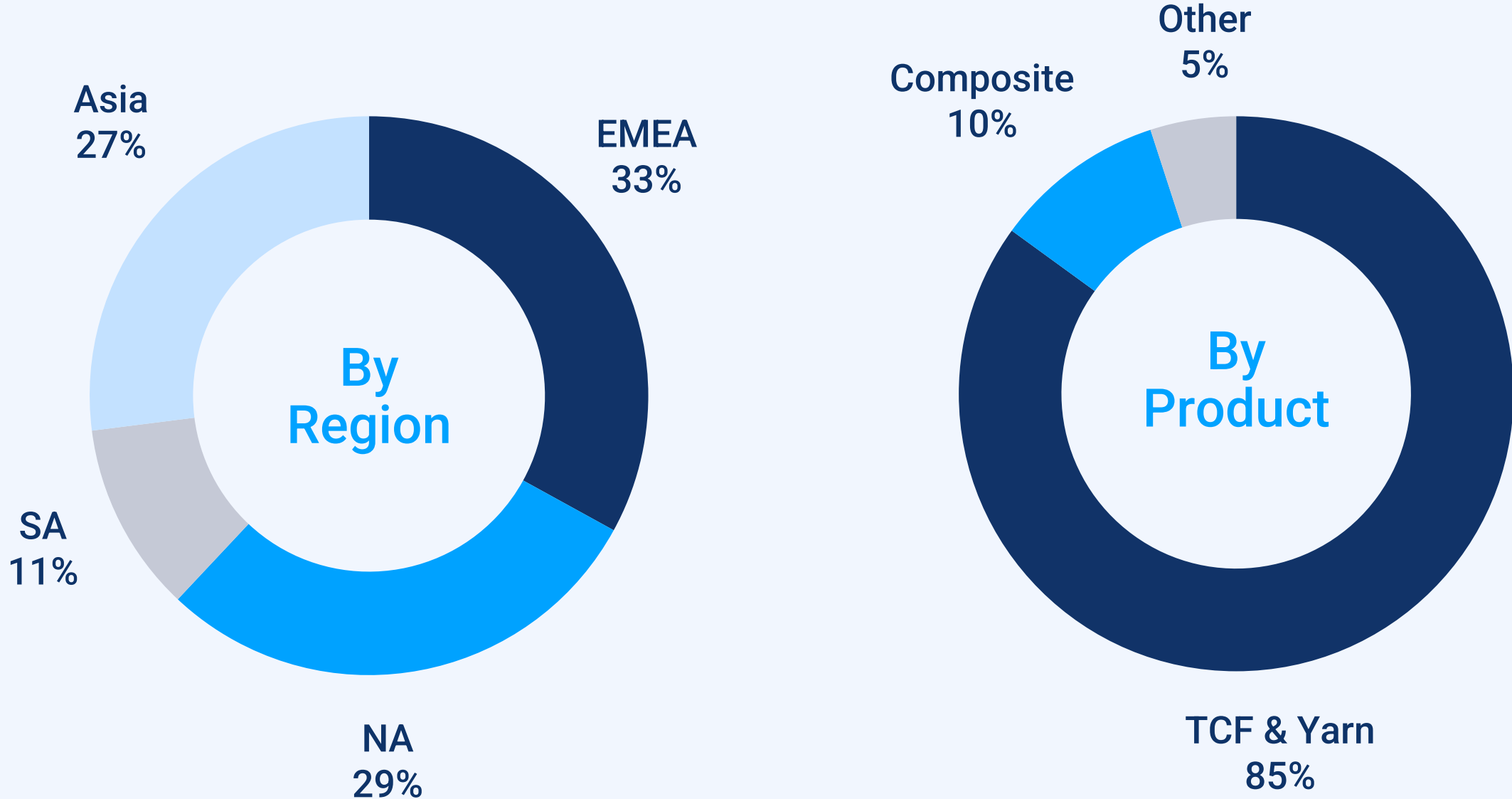
Entered Istanbul Stock Exchange Sustainability Index **for the 6th time**

Growth in NA contribution thanks to strong composite results

Sep, 23 Revenue Split



Sep, 22 Revenue Split



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

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

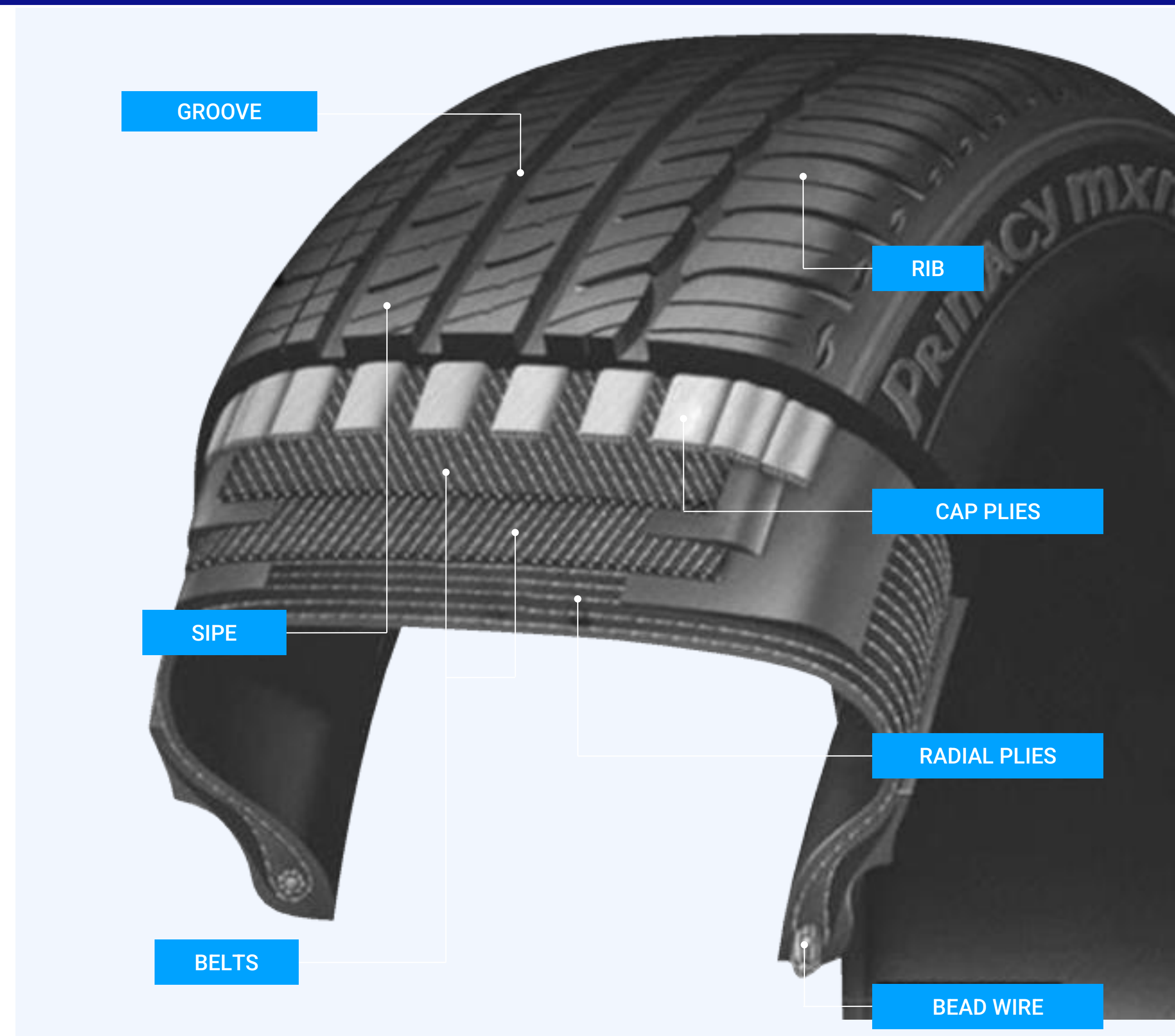
Integrated production
can create value
compared to other
competitors

Higher value
added from
dipped fabric

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

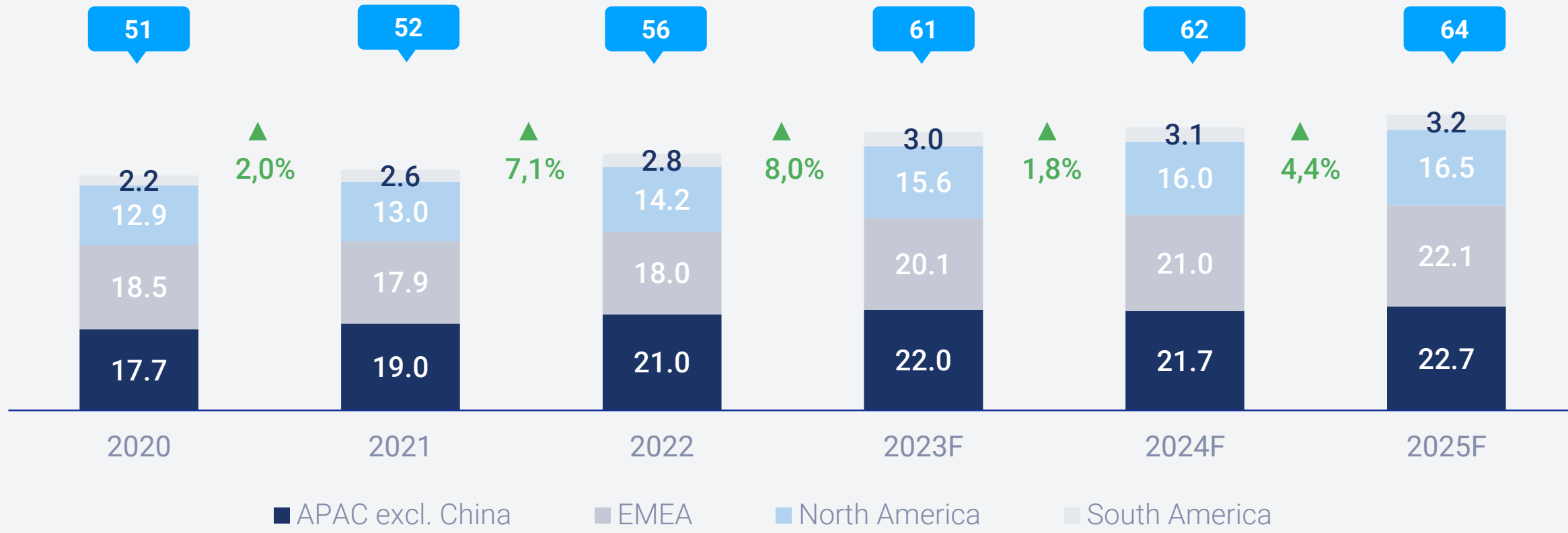
Where do **our products go...**

- 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

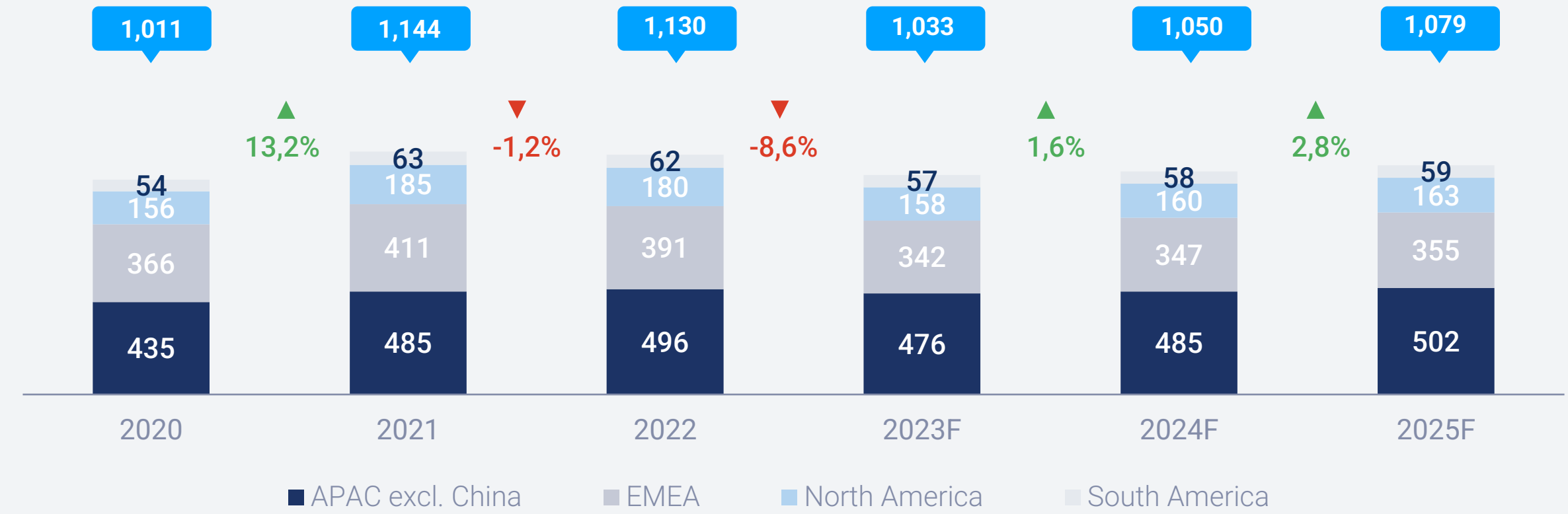


Ongoing Decline in Global Tire Reinforcement Market

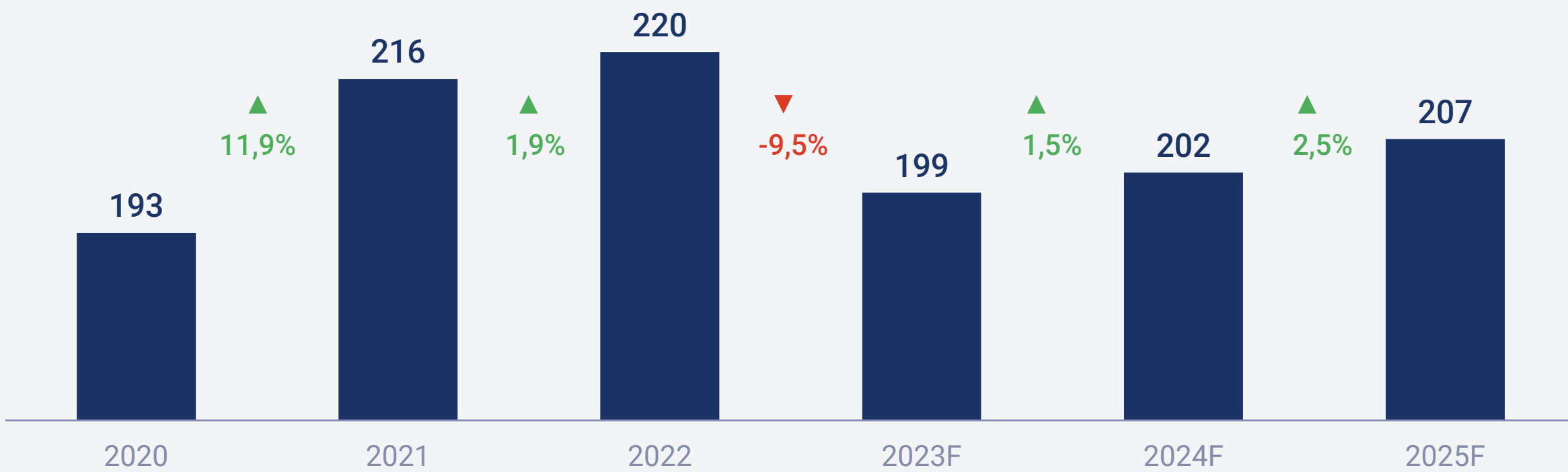
Global Automotive Market excl. China (million units)



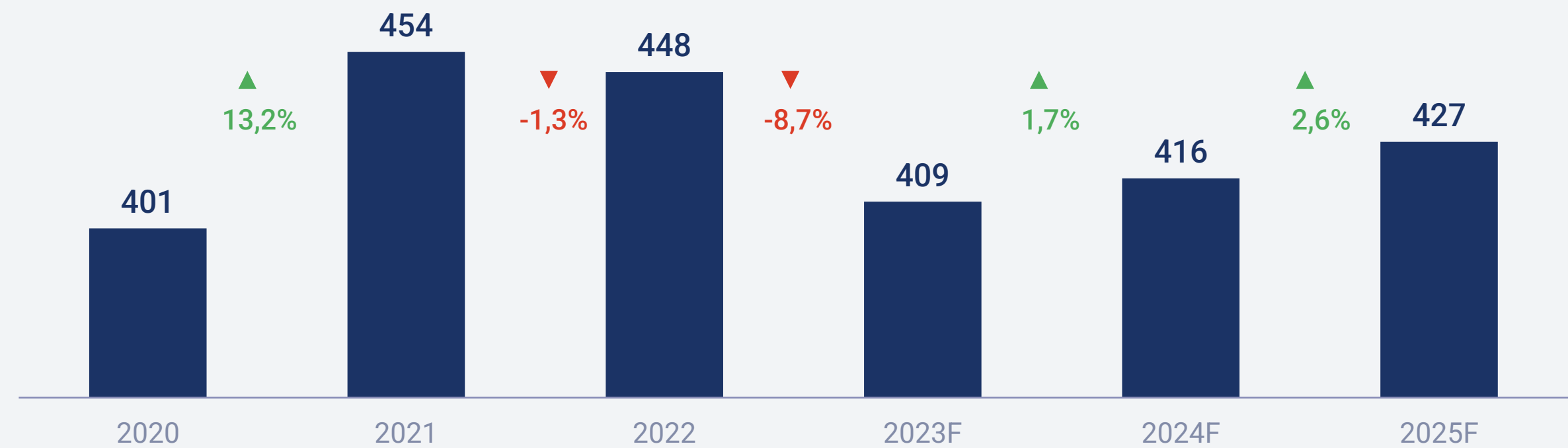
Global Tire Market (million units)



Tire Reinforcement Market excl. China (NY6.6-ktons)



Tire Reinforcement Market excl. China (PET-ktons)



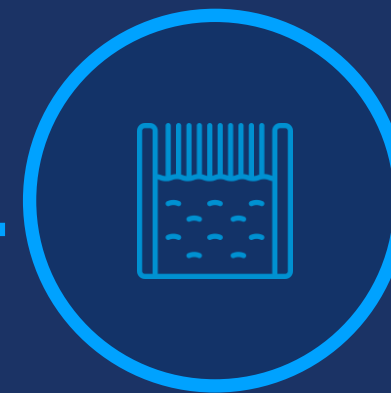
INTERMEDIATES

RAW MATERIALS



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

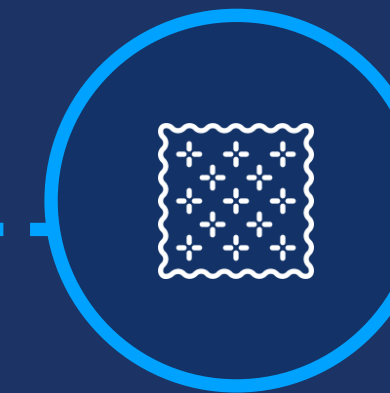
Weaving



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

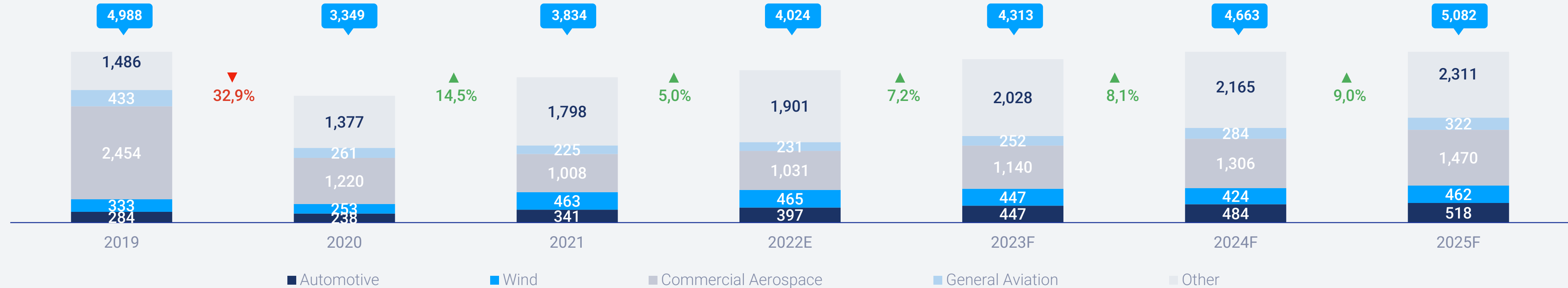
Composites use in aerospace & automotive is increasing, due to improved material properties and weight savings over conventional materials

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

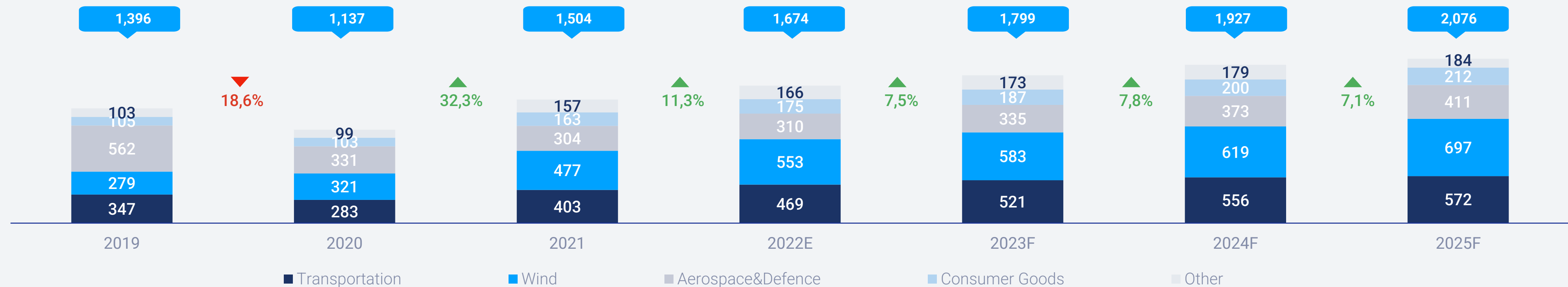


Positive Outlook for the Composite Market 2023 and Beyond

Global Prepreg Market (MUSD)



Global Carbon Fiber Textile Market (MUSD)



MANUFACTURING PROCESS

RAW MATERIALS

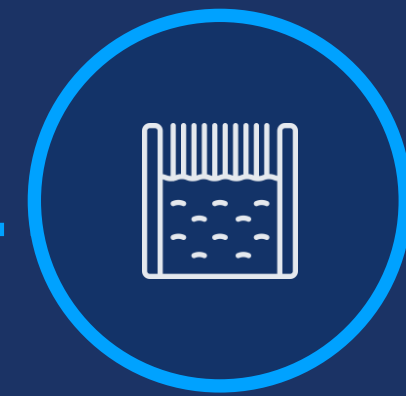
NY66 and PP Fibers

Twisting

Dipping

Pucking

Cutting



Polypropylene and nylon 66 polymers

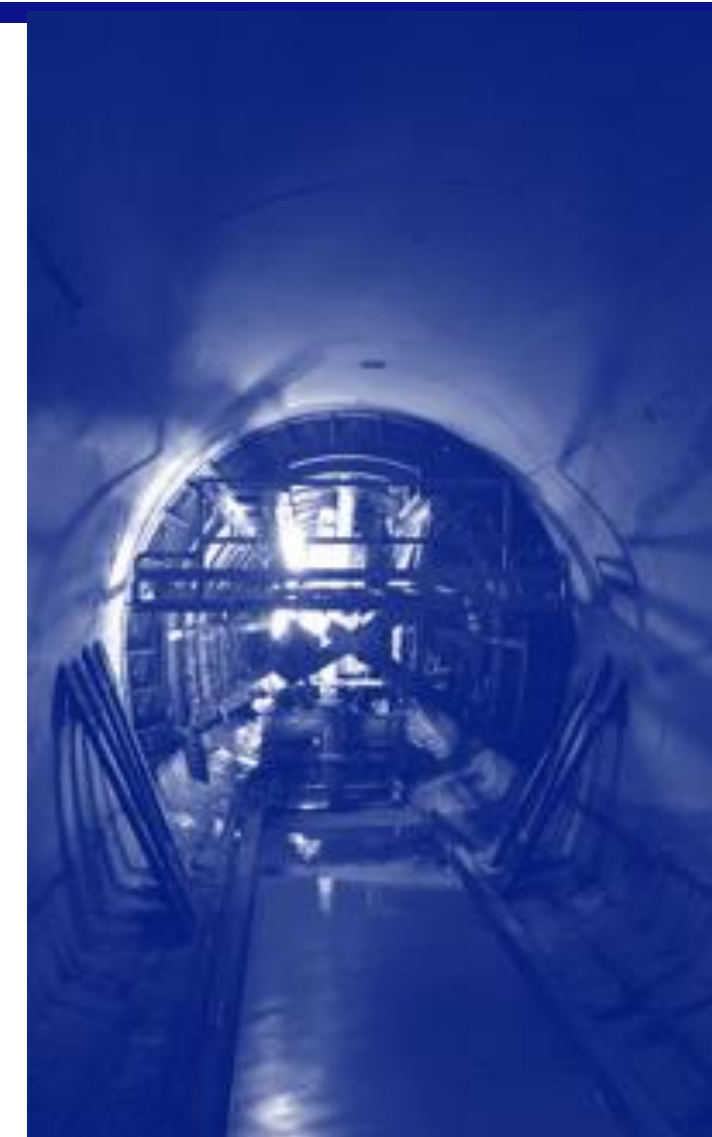
Higher value added from dipped fabric

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

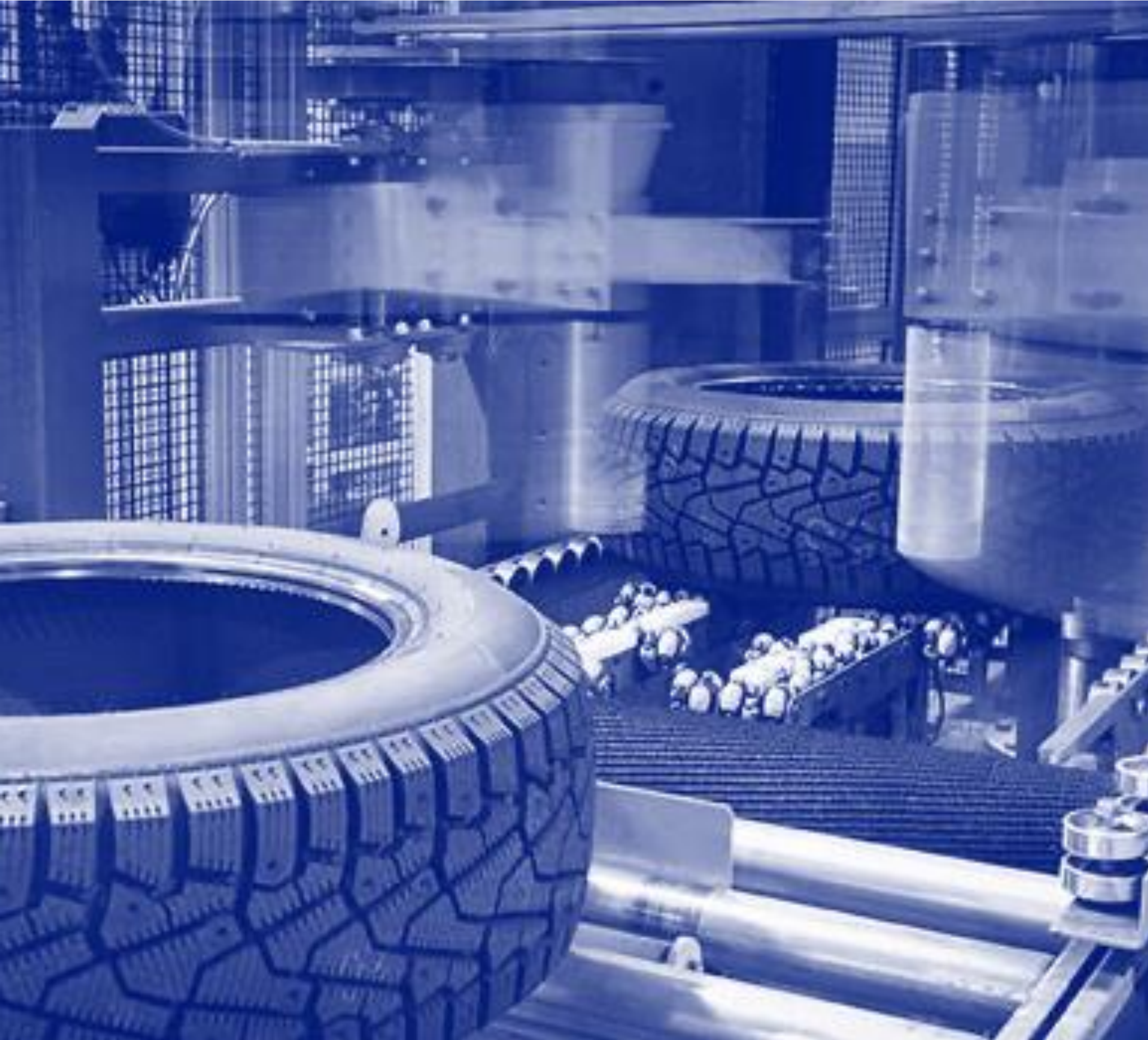
- ✔ Operational Excellence: Safe and reliable operations, competitive cost
- ✔ Digital Transformation: Data analytics and Artificial Intelligence, Robotics and Automations, Cybersecurity
- ✔ Effective Finance & Risk Management
- ✔ Commercial Excellence

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

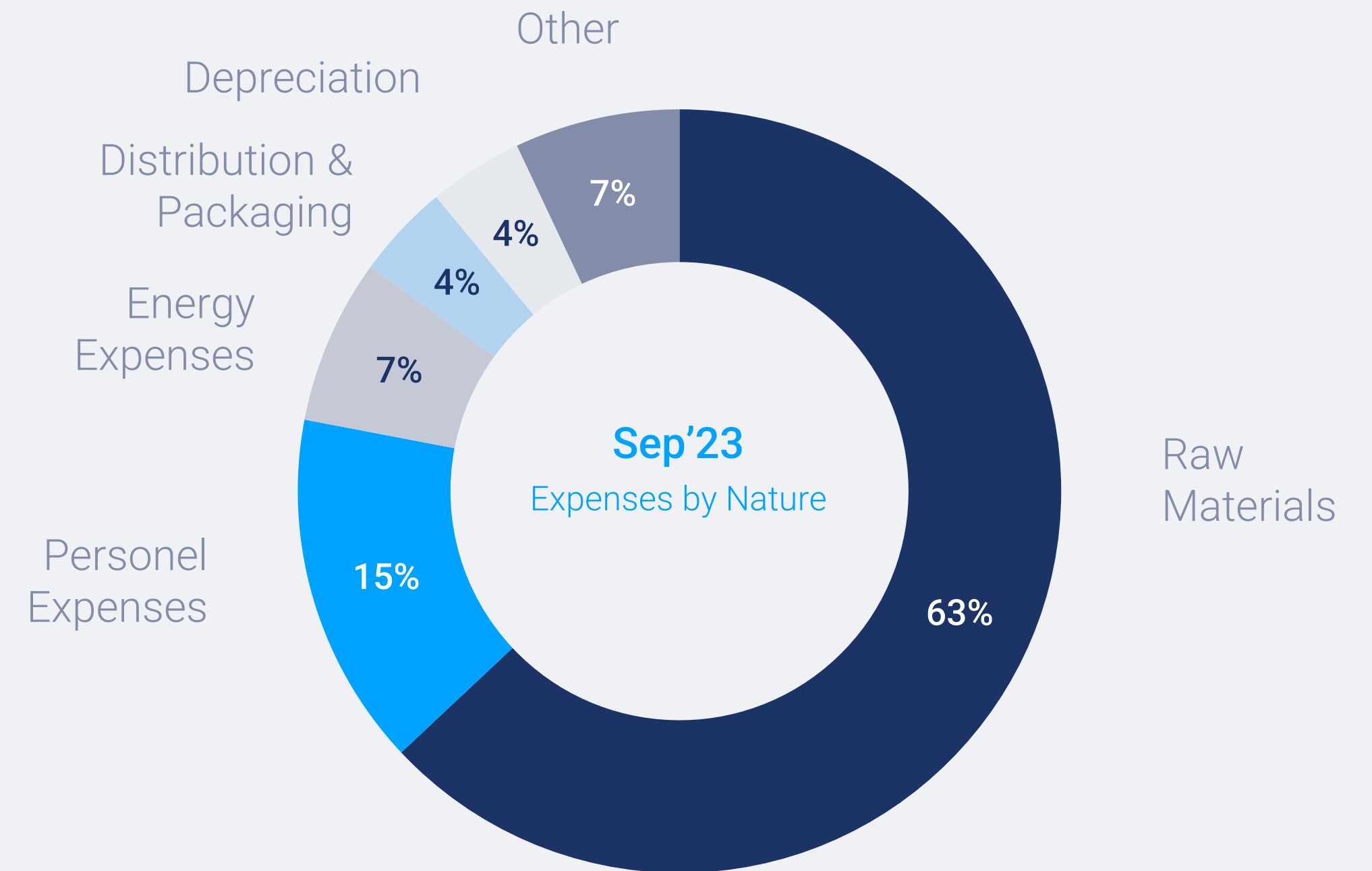
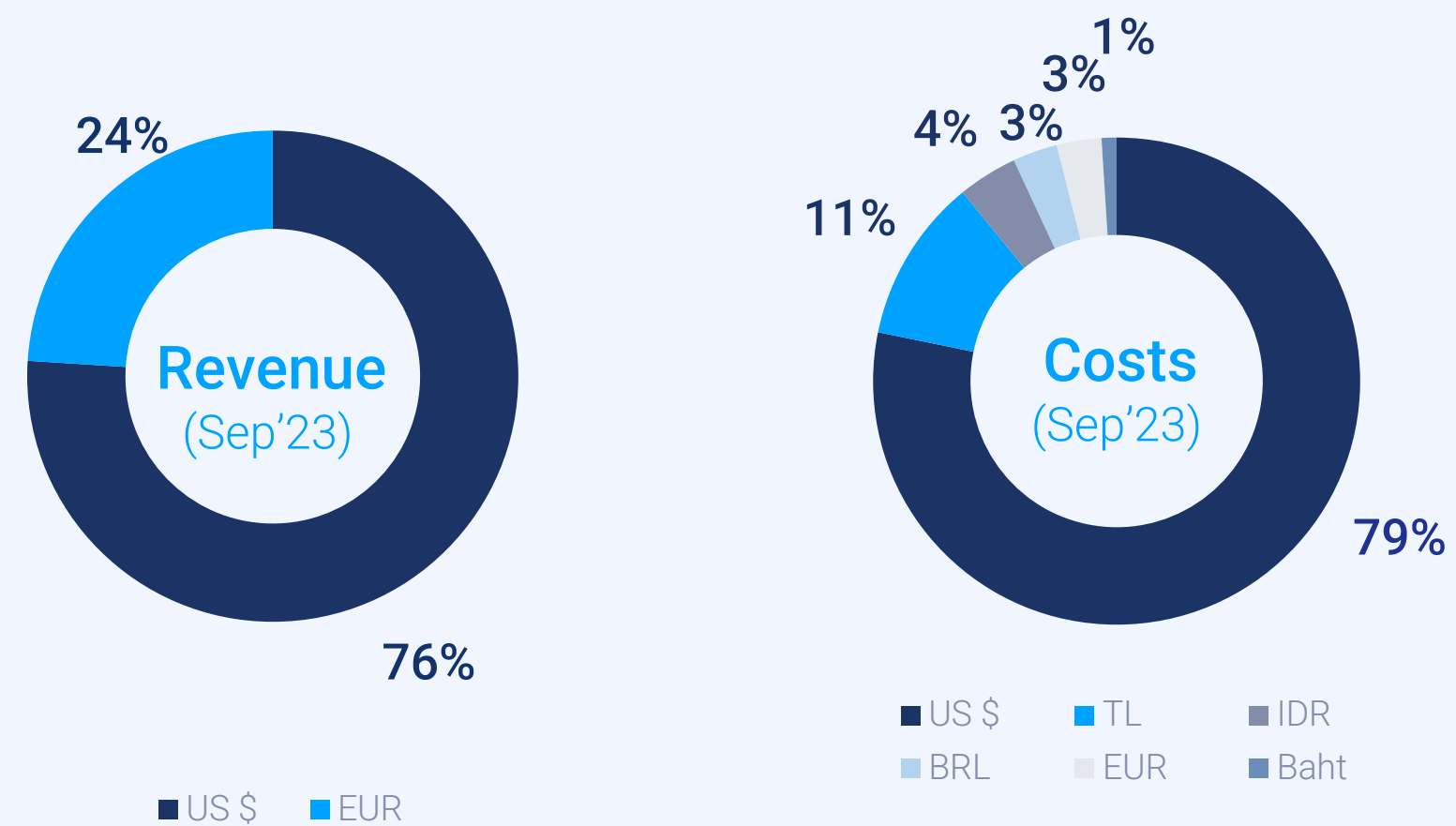


Ongoing challenging externalities impact financial performance

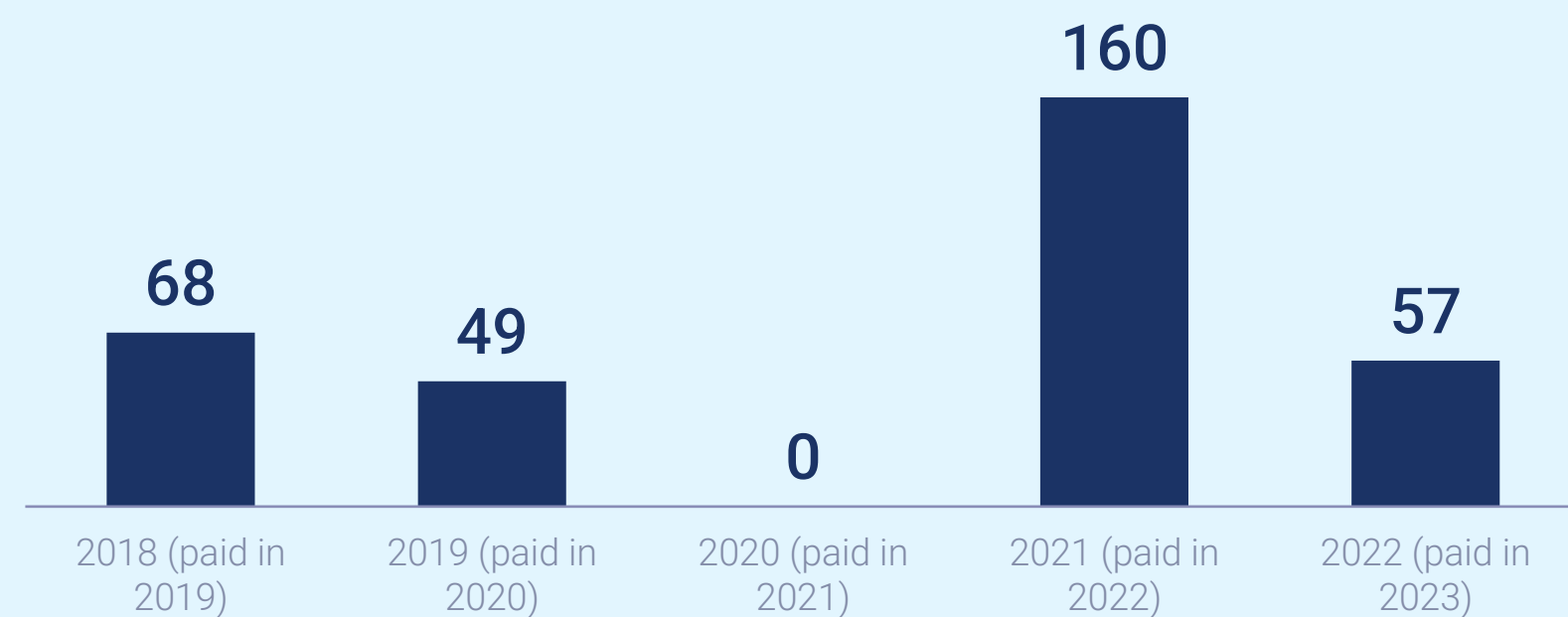
	USD Financials (MUSD)							
	H1'22	H1'23	Δ	3Q'22	4Q'22	1Q'23	2Q'23	
Sales	885	772	-12.8%	269	276	255	241	
Gross Profit	173	115	-33.5%	39	41	37	37	
Gross Margin (%)	19.5%	14.9%	-4 pts'	14.5%	14.8%	14.4%	15.2%	
OPEX (%)	9.3%	10.5%	1 pts'	11.5%	10.2%	10.8%	10.5%	
Operating Profit	90	40	-55.8%	14	14	11	14	
Operating Profit Margin (%)	10.2%	5.2%	-5 pts'	5.4%	5.1%	4.2%	5.7%	
EBITDA	92	64	-30.0%	16	23	19	22	
EBITDA* Margin (%)	10.4%	8.3%	-2 pts'	6.1%	8.3%	7.5%	9.3%	
Net Income	82	6	-92.1%	13	5	-2	3	
Net Income (%)	9.3%	0.8%	-8 pts'	4.9%	1.7%	-0.8%	1.3%	

Hard Currency Revenue

FX Exposure

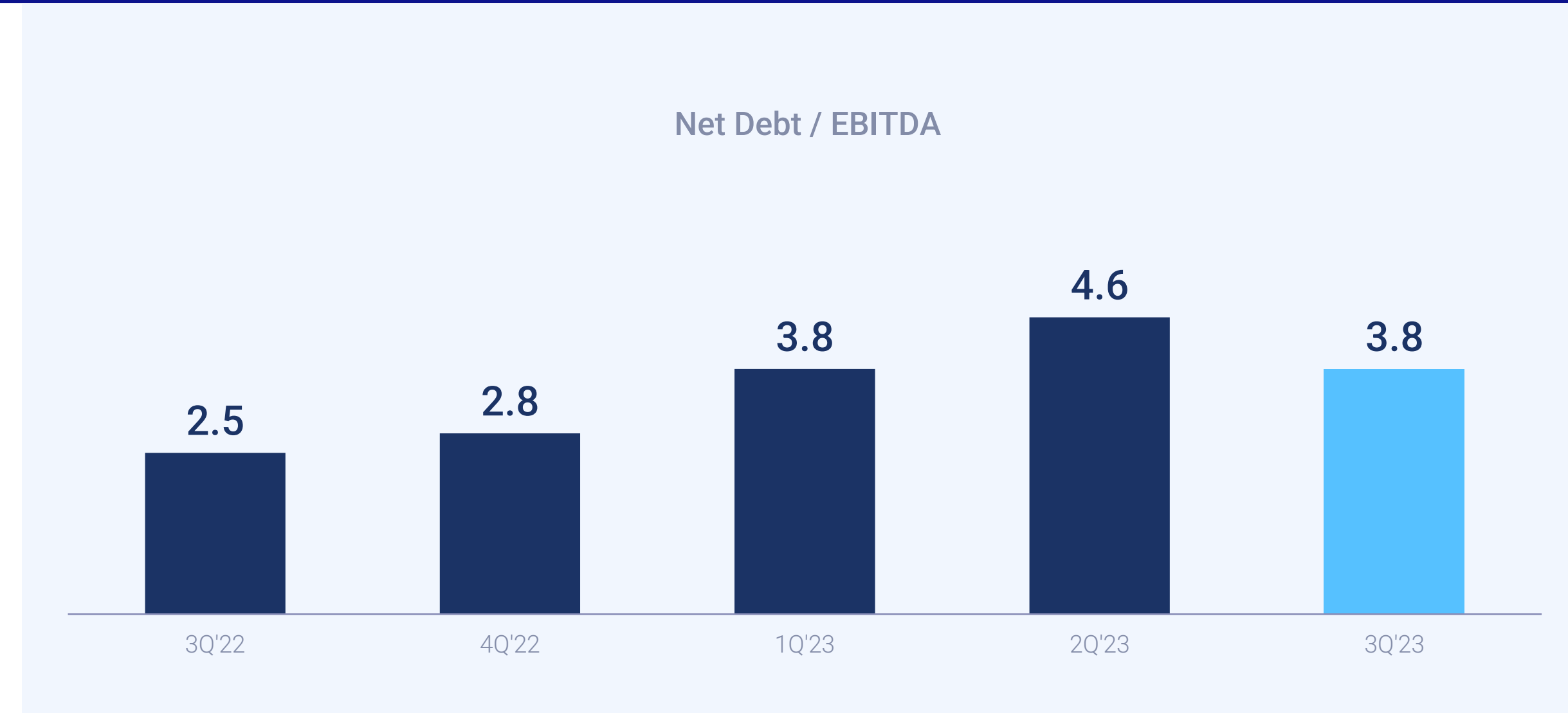
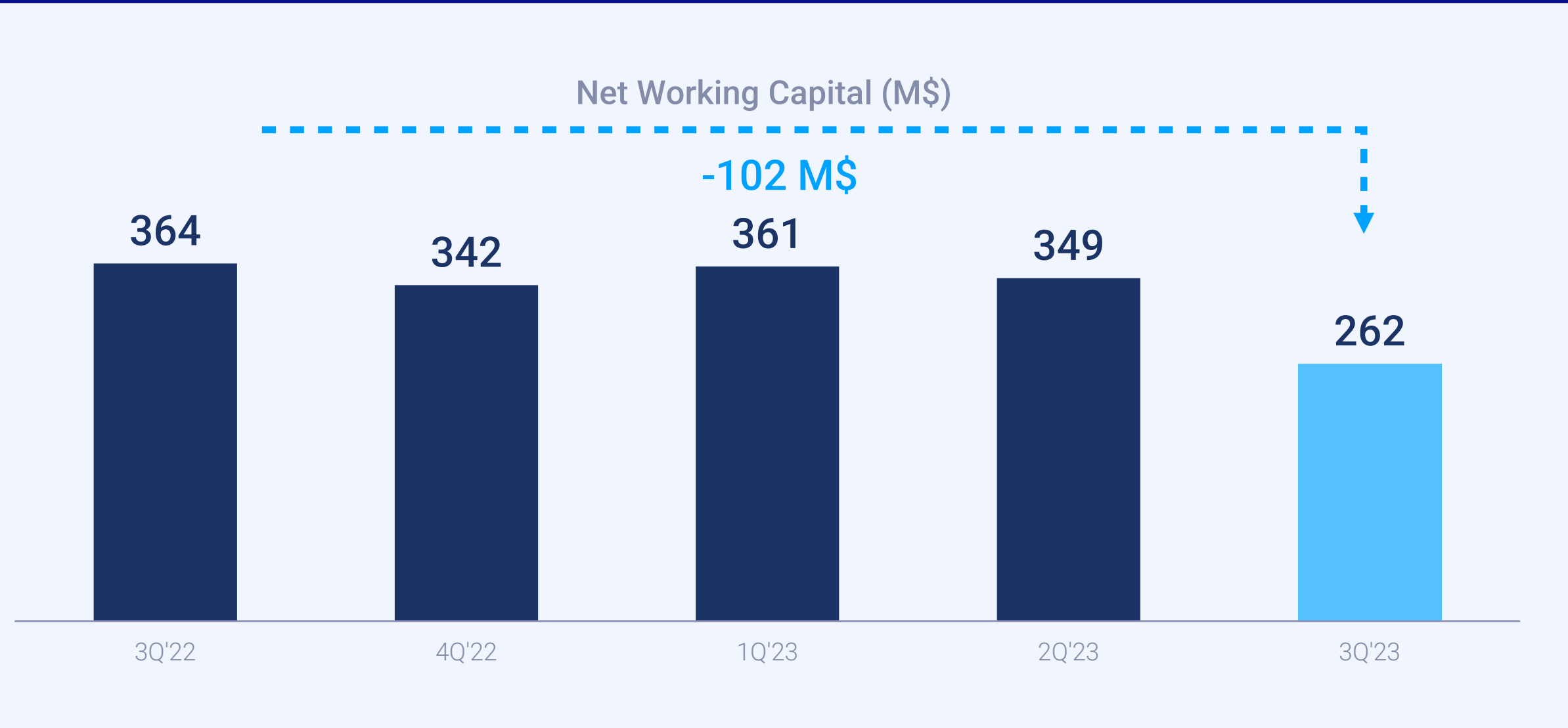


DIVIDEND (MTL)



- ✔ 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 29% Y-O-Y

Driven by low demand in tire reinforcement, efficient inventory management and rm price decreases

RECEIVABLES DOWN 30% Y-O-Y

Driven by low demand in tire and rm price decreases

PAYABLES DOWN 31% 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	30.09.2023	%
Net Debt	379	310	
USD-Basis	307	274	8.1%
EUR-Basis	83	40	7.7%
TRY-Basis	25	50	12.1%
Other Currencies	7	3	5.4%
Cash & Cash Equi.	-43	-57	

GROWTH PLANS

Polyester Line, Construction (Kratos), Single End Cord (SEC) in Turkey
Dipping Unit in the USA

COST IMPROVEMENT FOCUS

CASH MANAGEMENT & IMPROVING NET DEBT LEVEL

PRODUCT/SECTOR DIVERSIFICATION in COMPOSITE
GROWING in AEROSPACE & NON-AEROSPACE

Balance Sheet

	TL Financials (MTL)			USD Financials (MUSD)		
	YE 2022	Sep 2023	Δ	YE 2022	Sep 2023	Δ
Cash and Cash Equivalents	799	1,564	765	43	57	14
Account Receivables	3,860	4,437	578	206	162	-44
Inventories	5,497	6,174	677	294	226	-68
Other Current Assets	989	1,469	479	53	54	1
PPE & Intangibles	8,131	11,869	3,738	435	434	-1
Investment Property	426	624	198	23	23	0
Goodwill	2,515	3,682	1,167	135	135	0
Other Non-Current Assets	1,352	1,852	500	72	68	-5
Account Payables	2,972	3,449	477	159	126	-33
Total Debt	7,900	10,078	2,178	422	367	-54
Short Term Debt	4,804	4,558	-246	256	166	-90
Long Term Debt	3,096	5,519	2,424	165	201	36

Kordsa Income Statement 1H'23

	TL Financials (MTL)						
	Sep'22	Sep'23	Δ	4Q'22	1Q'23	2Q'23	3Q'23
Sales	13,761	18,770	36.4% ▲	4,679	5,194	5,012	8,564
Gross Profit	2,683	2,791	4.0% ▼	676	768	724	1,299
Gross Margin (%)	19.5%	14.9%	-4 pts' ▼	14.5%	14.8%	14.4%	15.2%
OPEX (%)	9.3%	10.5%	1 pts' ▲	11.5%	10.2%	10.8%	10.5%
Operating Profit	1,399	967	-30.8% ▼	251	265	212	490
Operating Profit Margin (%)	10.2%	5.2%	-5 pts' ▼	5.4%	5.1%	4.2%	5.7%
EBITDA	1,429	1,563	9.4% ▼	287	431	378	788
EBITDA* Margin (%)	10.4%	8.3%	-2 pts' ▼	6.1%	8.3%	7.5%	9.2%
Net Income	1,279	157	-87.7% ▼	230	90	-40	107
Effective Tax Rate (%)	-17.3%	-57.2%	-40 pts' ▼	366.5%	-21.9%	-149.7%	-38.1%
Net Income (%)	9.3%	0.8%	-8 pts' ▼	4.9%	1.7%	-0.8%	1.3%