



Global ZAM Downstream Industry Application Outlook

Chapter. Solar Bracket

"Seamless Future" ---Exploring innovations and infinite possibilities

Outlook: The global ZAM and its downstream application

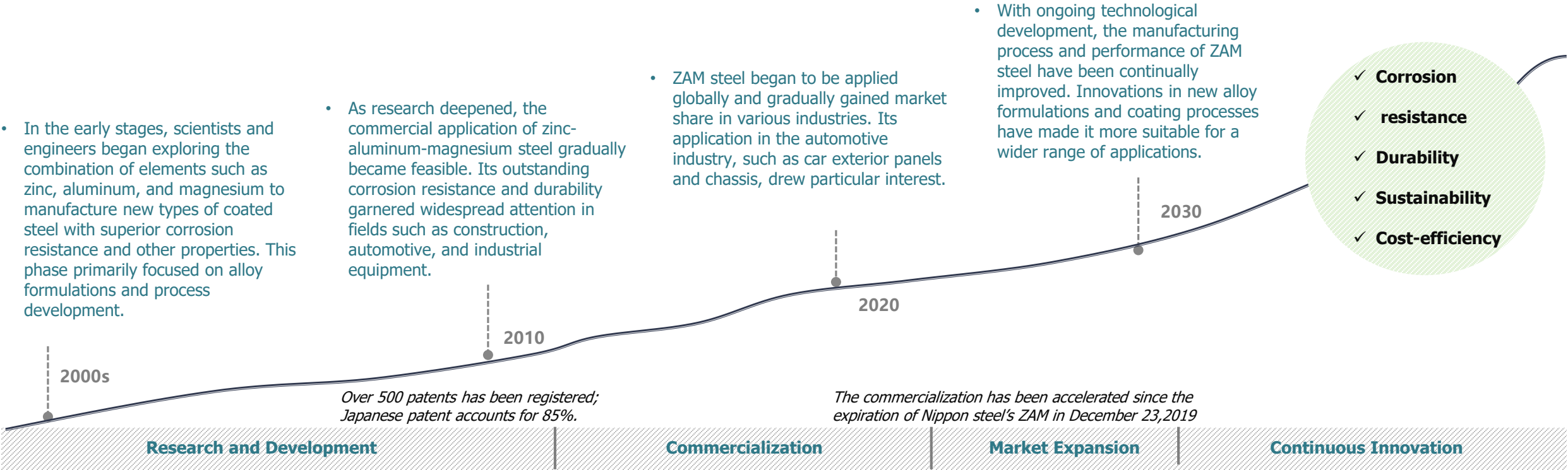
With technology advancement and fast commercialization, ZAM steel's competitive advantages has been widely recognized by multiple market players. Exploring innovations and infinite possibilities of global ZAM material and its downstream application has profound significance

Definition

Zinc-aluminum-magnesium steel, commonly known as ZAM steel, is an innovative type of coated steel that combines zinc, aluminum, and magnesium to create a **highly corrosion-resistant and durable material**. ZAM costed steel is a 21st century material developed by Nippon steel, and in the last decades, it's advanced coating technology enhances the performance and longevity of the steel, has gained recognition and adoption in more industries, such as **construction, automotive, and industrial equipment**.



Project Background

"Cost, low-carbon and Green steel" has been highly concerned by multiple market players. Based on long-term project accumulation and Regular seminars , SMM has been consistently tracking the application of ZAM steel in major industries such as Solar, Automobiles, etc,. Through regular communication with leading players, SMM summarizes the market dynamics and technological innovations, committed to providing valued clients with high-quality products and customized consulting services.



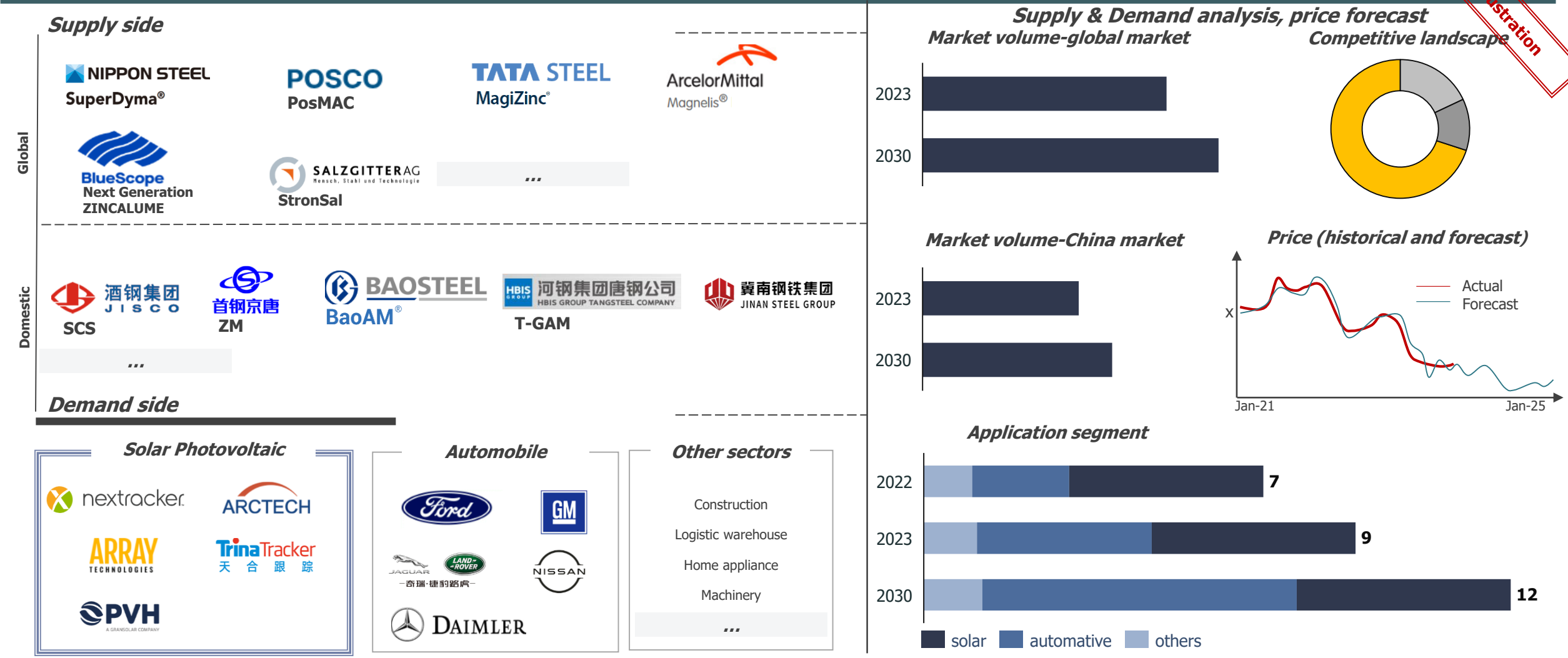
Global ZAM and its downstream application outlook

SMM bases on primary research, internal database and modelling, successfully help our client deeply understand Global ZAM and its downstream market and mapping future development strategy

Key Scopes			Key deliverable	SMM Methodology
Industry Level	Supply Chain		<ul style="list-style-type: none">> Industry Chain Structure> Profit Distribution	Primary Research <ul style="list-style-type: none">• Internal database• Surveys (questionnaires, focus group discussions, etc.)• Industry expert interviews• Company visits Secondary Research <ul style="list-style-type: none">• Official statistical data• Listed company announcements• In-depth industry media coverage Analysis from professional research institutions SMM offers customized solutions for players along the entire industry chain.
	Development Prospects		<ul style="list-style-type: none">> Boundary, scale, growth potential, and imaginative space of the target company's niche sector.> Market entry strategy	
	Driven Factors		<ul style="list-style-type: none">> Demand and Supply> Logistics of changes in quantity、 price、 etc	
Corporate Level	Competitive landscape and core competitor analysis	Market Segmentation	<ul style="list-style-type: none">> “Red ocean” or “blue ocean”> Market size of key players	
		Competitors Analysis	<ul style="list-style-type: none">> Operational statues of the targets> Key competitiveness analysis (product/technology/market)	
	Analysis of company's core strengths	Product/Service	<ul style="list-style-type: none">> Strategy positioning<ul style="list-style-type: none">> Product leadership> Customer intimacy	
		Business Performance	<ul style="list-style-type: none">> Evaluation on operational excellence> Cost structure analysis	
		Strategic Trends	<ul style="list-style-type: none">> Value chain corporation> Integration of the industrial supply chain> Organizational structure optimization and restructuring	
 Solid foundation of investment analysis			 Long-term and sustained industry tracking, comprehensive data sources and dimensions, rich research experience and accumulation.	

Overview: ZAM Steel Market

Driven by the large downstream demand, large steel mills have been accelerating their deployment of ZAM materials, aiming to seize the market by offering high quality products with high cost efficiency

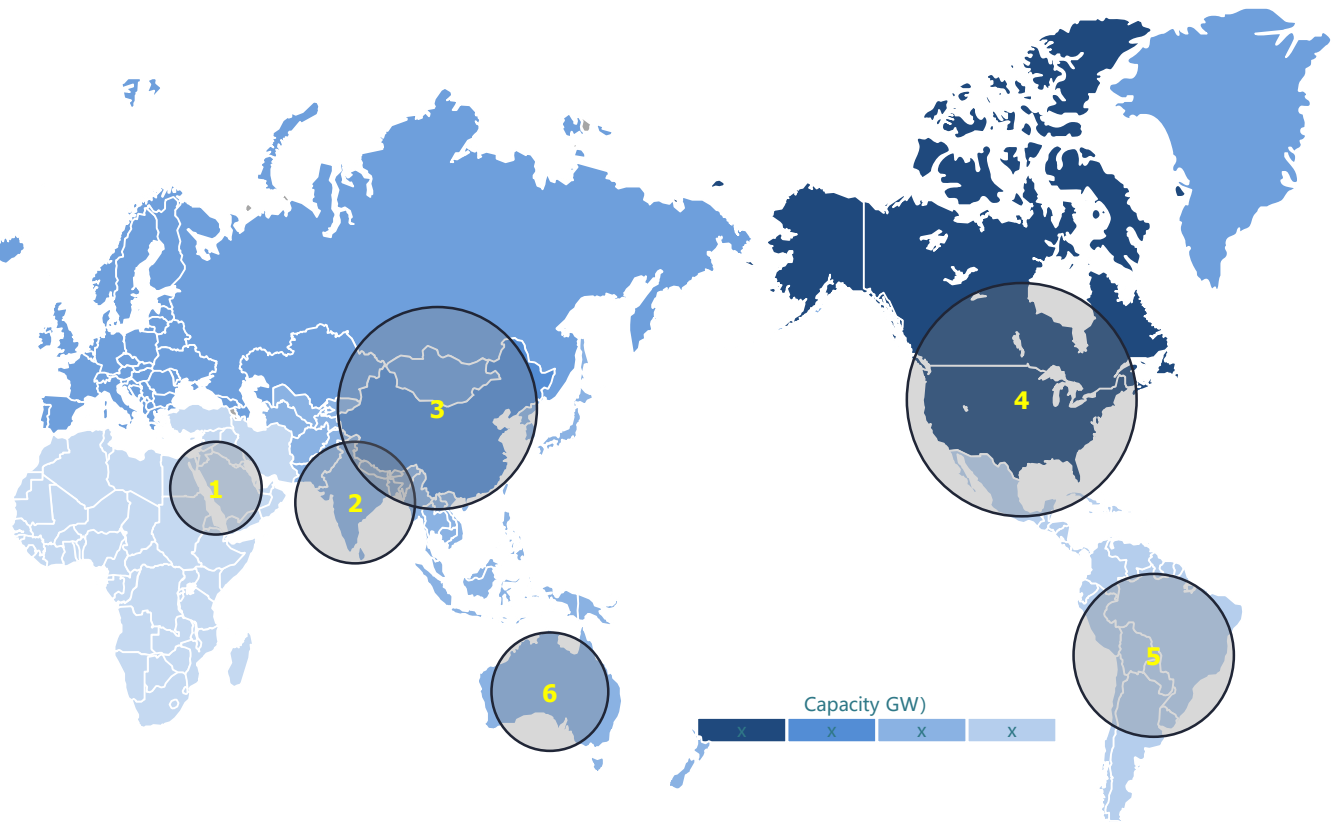


Growth emerging opportunities-solar bracket market potential

Fast development of solar photovoltaic industry provides great opportunities for solar bracket manufacturers

Market Potential Map

Size of target market



Drivers-Global race to net zero emission by 2050



National-level initiatives to decarbonize

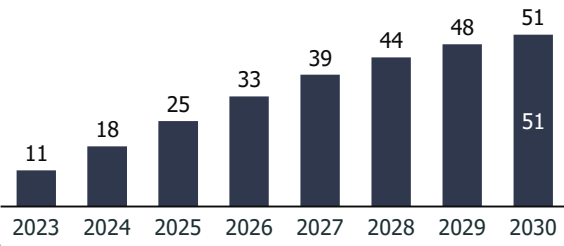


Decarbonisation commitments in most industries driven by ESG standards

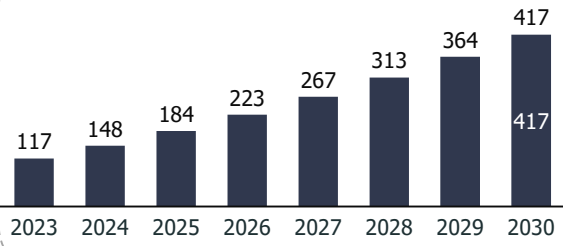


Growing demand for electrification

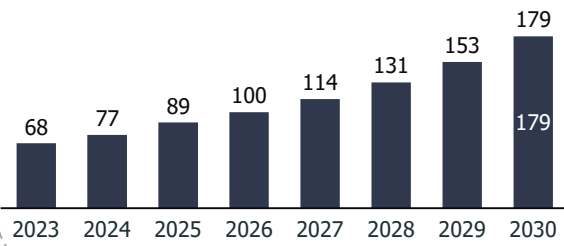
1. Saudi Arabia



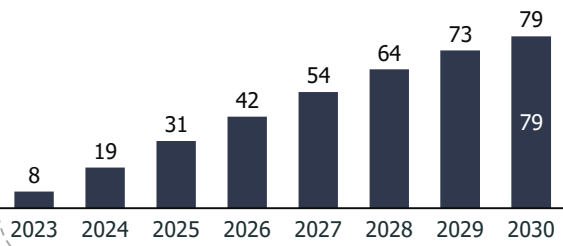
4. America



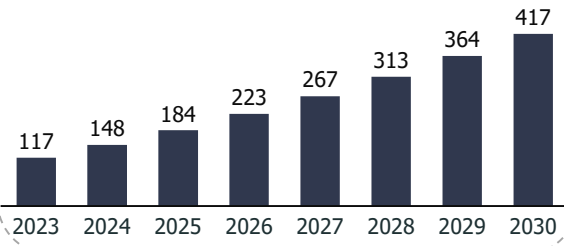
2. India



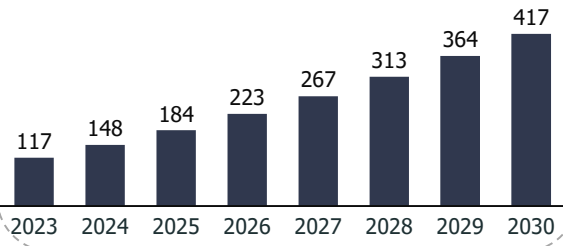
5. Brazil



3. China



6. Australia



Key practice: ZAM application in solar bracket market

ZAM has been widely applied in the mounting structures of solar brackets, while the increasing requirements on brackets pose higher standards on ZAM steel

Illustration

Types of solar bracket

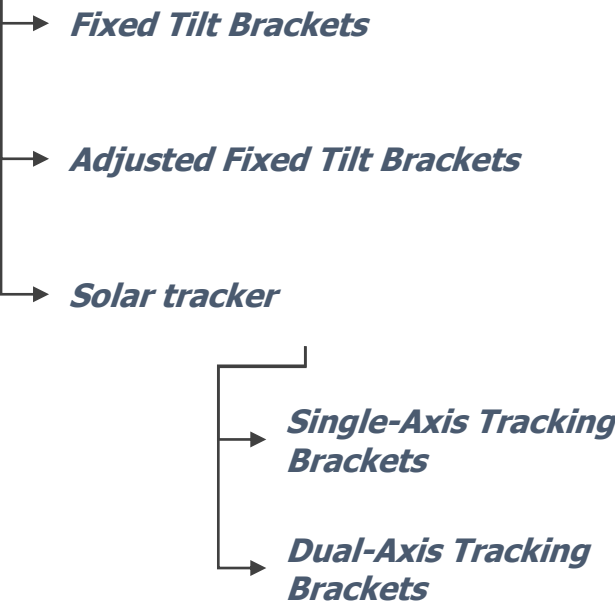
Solar mounting structures are critical components that used for support the solar panels, ensuring the efficiency of solar photovoltaic , accounted for approximate 20% of total cost.

The benefits of ZAM application

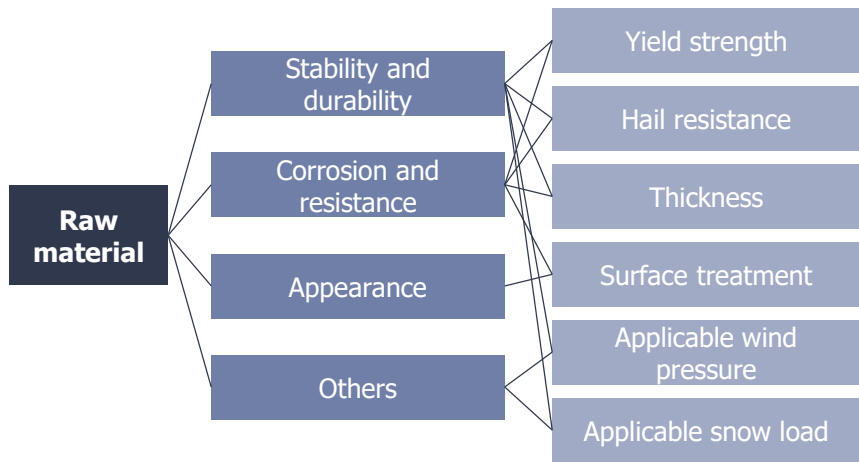
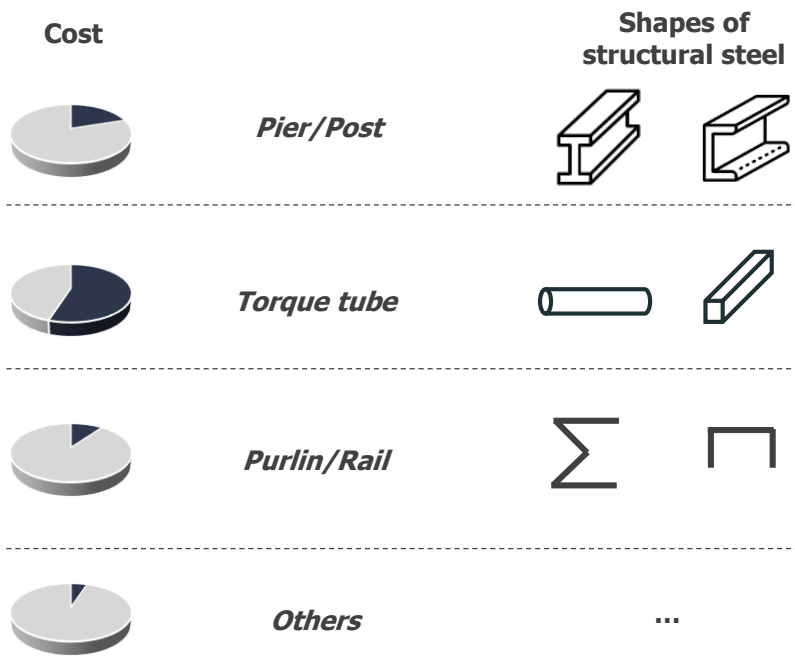
With the commercialization of ZAM and the continuous increase in market recognition, ZAM steel is gradually replacing the high-energy and high-cost hot-dip galvanizing production process. It is increasingly being applied in key components of solar brackets, such as torque tube, purlins, and piers, which accounted for over 60% of total steel consumption.

Effects of raw material to solar bracket

Ground-mounted solar brackets



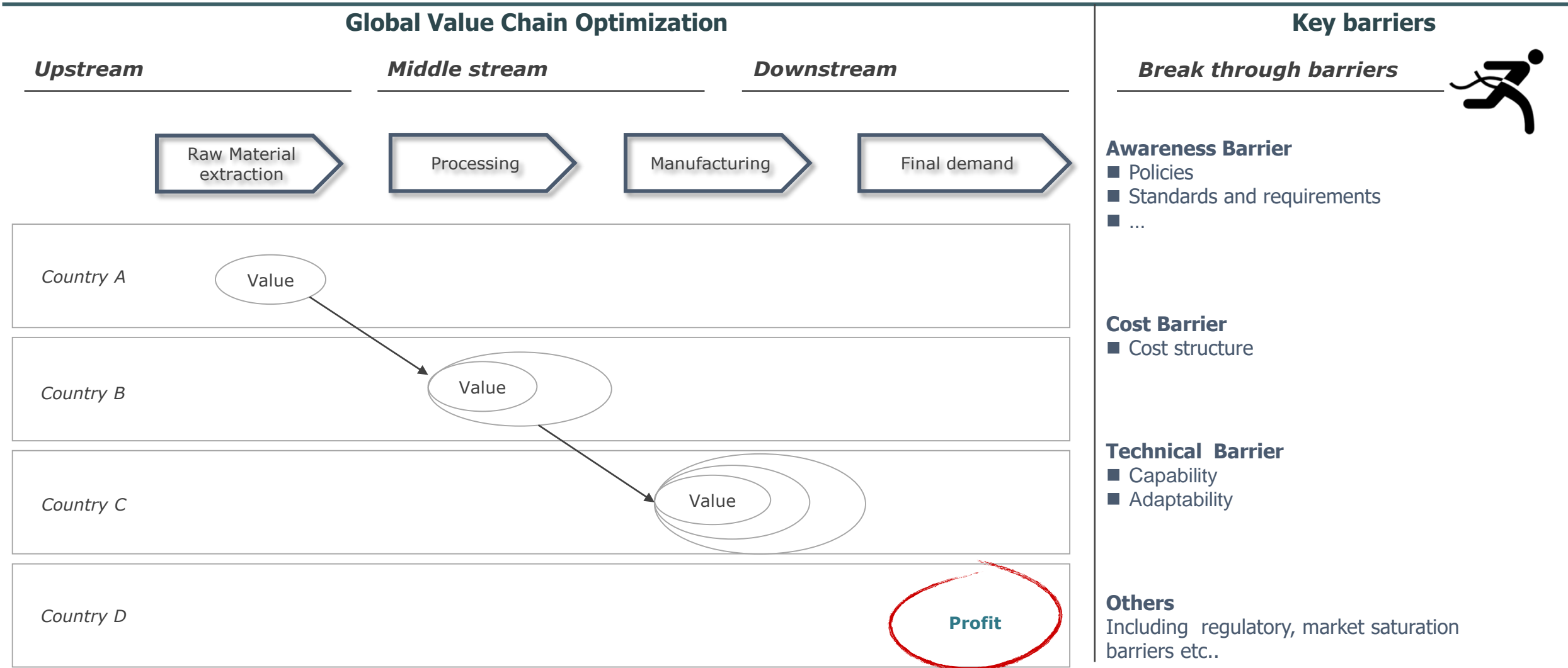
Structural parts with largest Steel consumption



Solar bracket manufacturers have to optimize the supply path of raw materials, achieve **cost reduction and efficiency improvement**, based on the requirements of the owner and EPC.
With the higher requirement on steel structural parts, how to make purchase decision on raw materials to maximum its profit margin has becoming a critical issue.

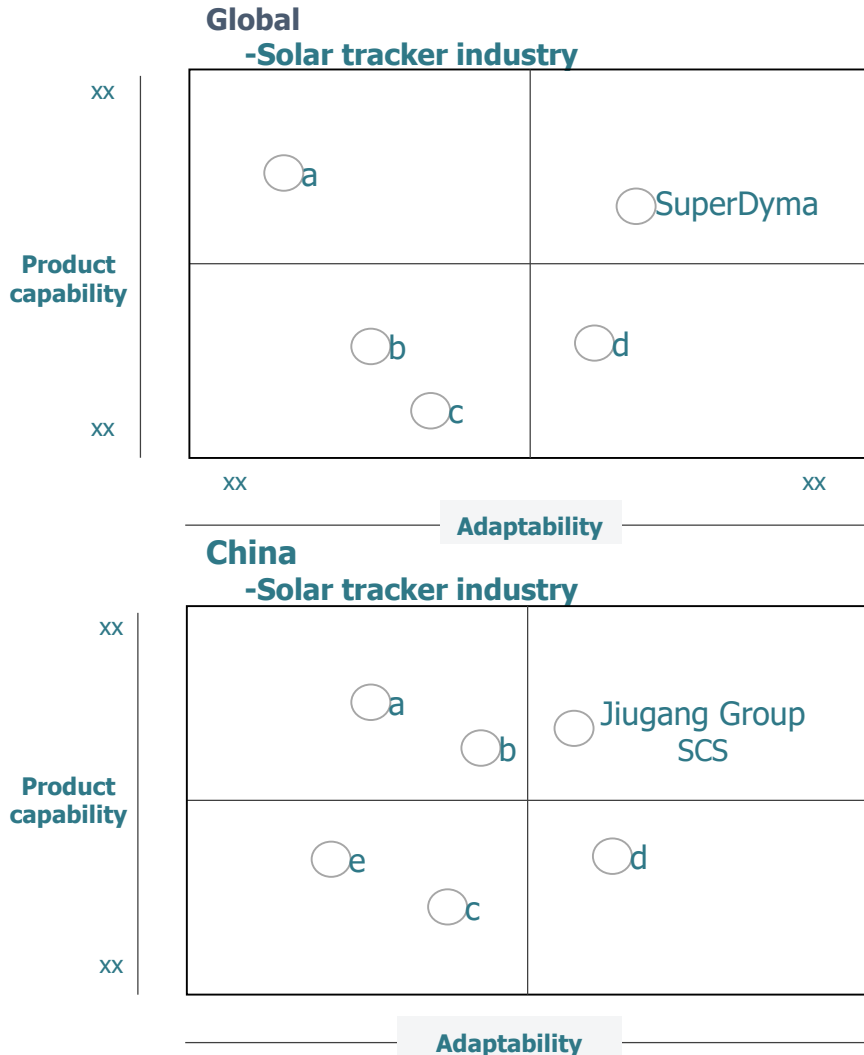
Global value Chain optimization strategy

Players should overcome kinds of barriers in order to optimize its global value Chain

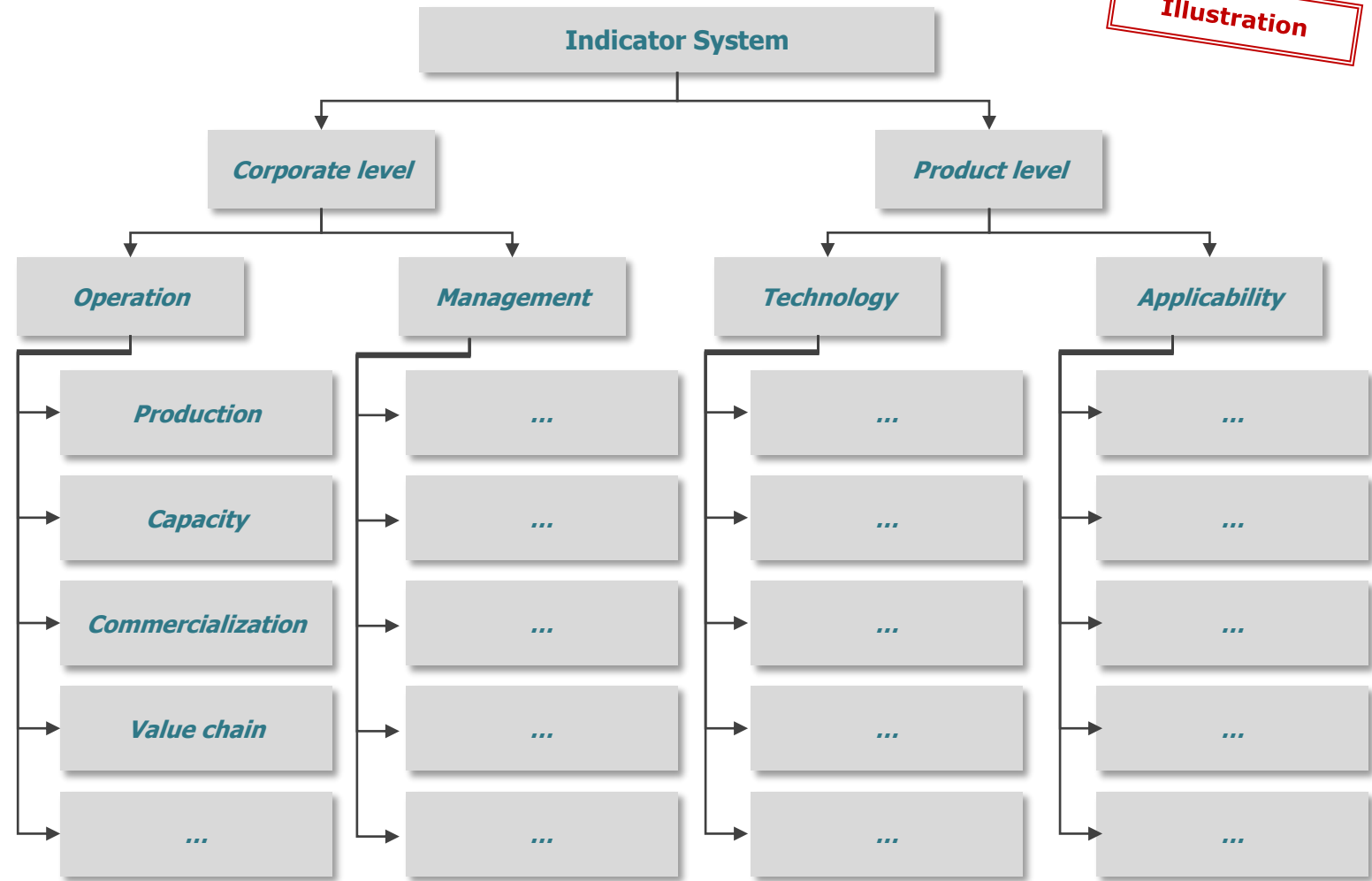


By conducting the competitiveness positioning analysis of the major/target products based on indicator system, uncovering the strategic logic

Competitiveness positioning



Indicator system analysis



SMM will customize the indicator system based on client's demand.

Downstream: cost structure analysis and corporate strategy positioning

Utilizing cost structure analysis to assist enterprises building the most adaptable business strategy, maximizing the profit margin

Illustration

Cost structure analysis and pricing model

Corporate Strategy

Cost structure

Profit Margin

Raw material

Manufacturing

Logistic

Tax

Total cost

Piers

0.018

xx%

Torque
Tube

0.018

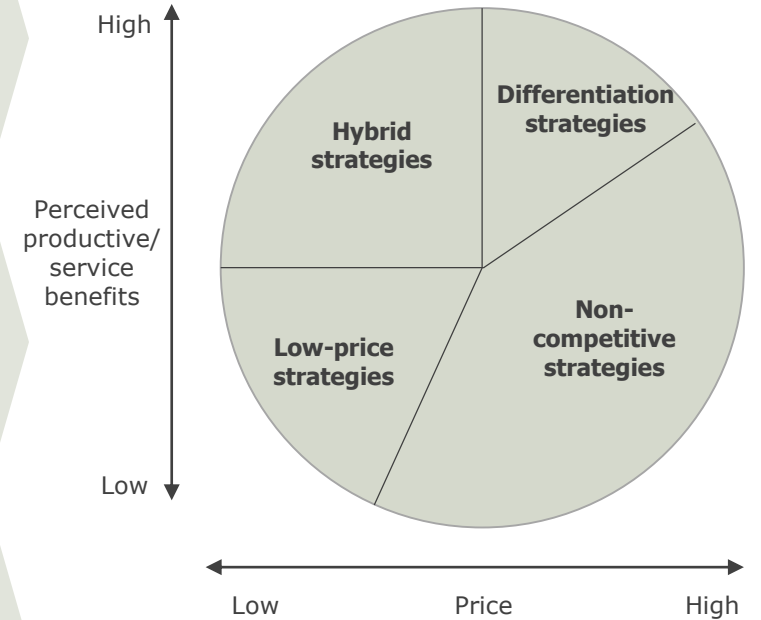
xx%

Others

0.018

xx%

The Strategy Clock



SMM will deliver customized corporate strategies based on comprehensive analysis...