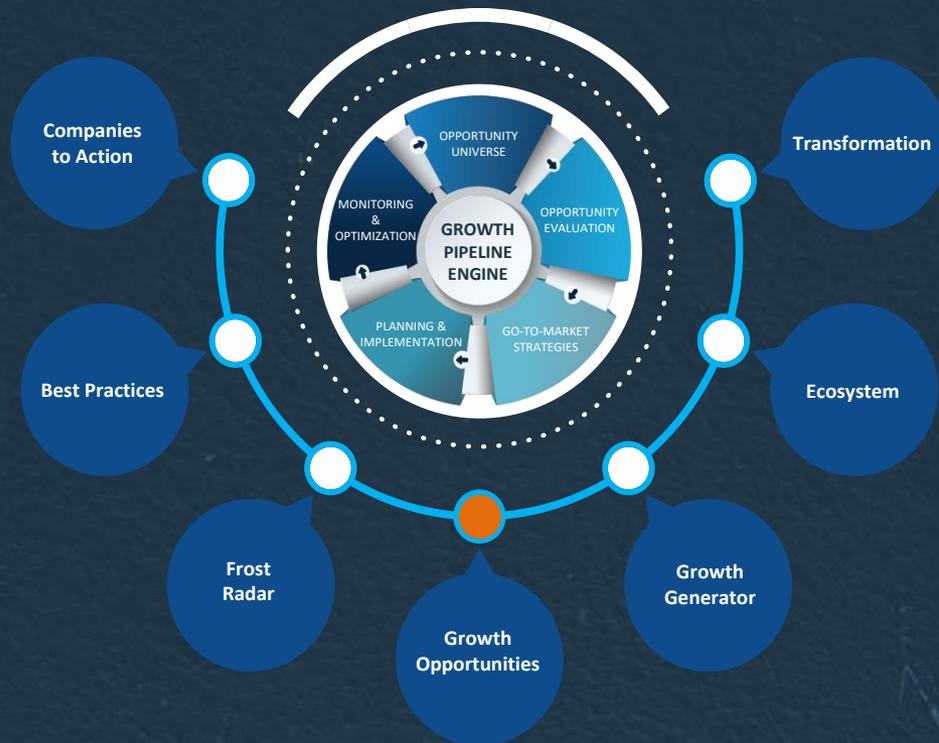


Global ADAS and Autonomous Driving Outlook and Growth Opportunities, 2024



Automated Parking and Increased Penetration of Eyes-off Driving Technologies Will Ensure Future Growth Potential of the Autonomous Driving Industry

Global Automotive and Transportation Research Team at Frost & Sullivan

PFG7-46

May 2024

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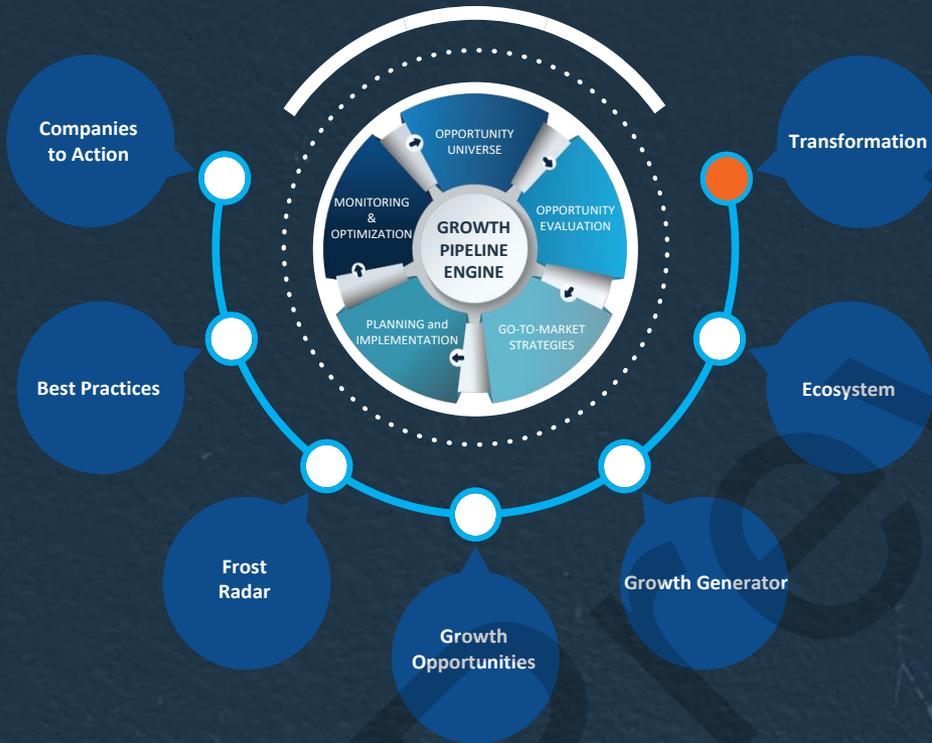
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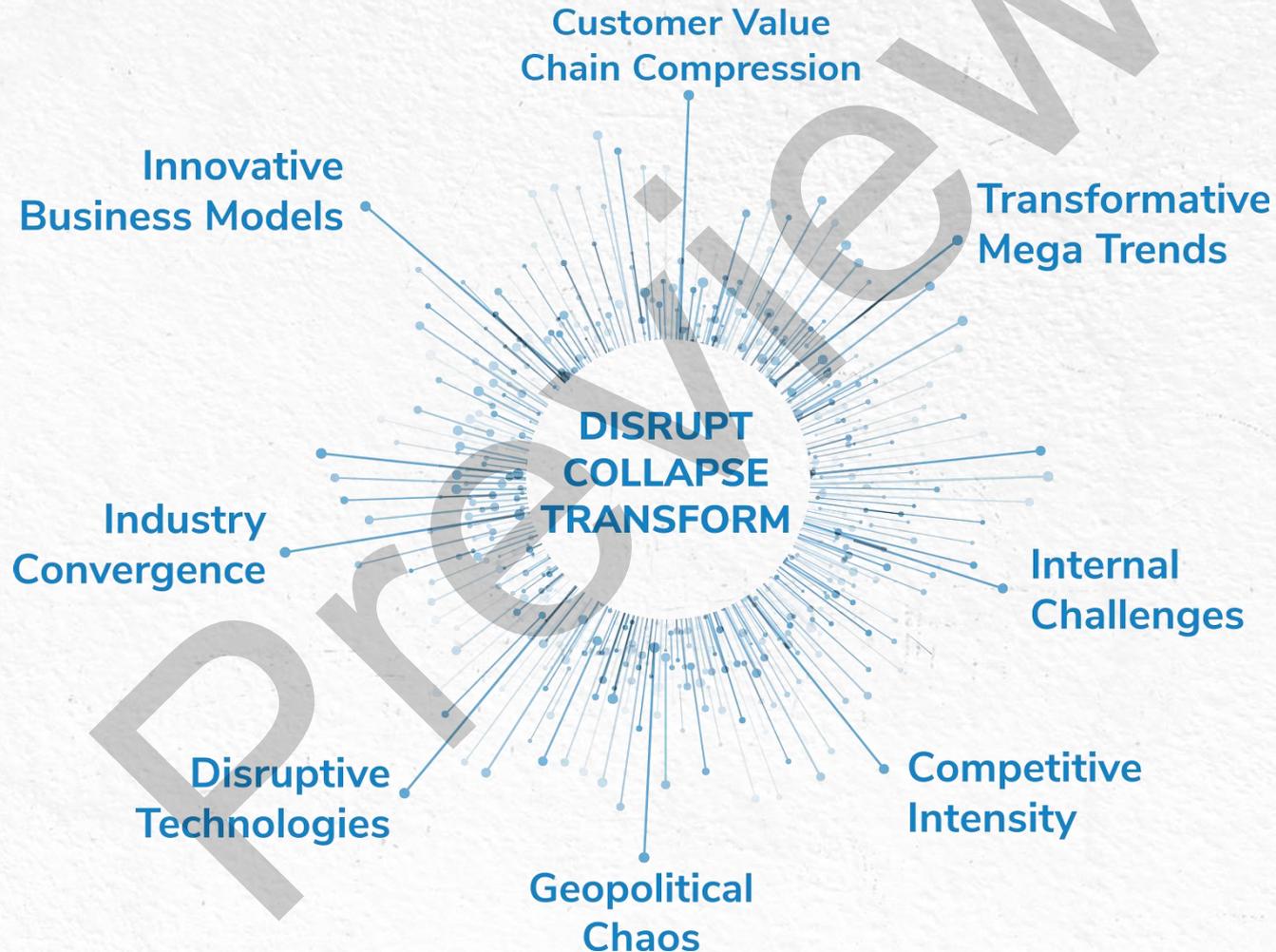


Transformation in the ADAS and Autonomous Driving Industry

Is your company prepared to Survive and Thrive through the coming Transformation?

Why is it Increasingly Difficult to Grow?

The Strategic Imperative 8™: Factors Creating Pressure on Growth



The Strategic Imperative 8™

Innovative Business Models

A new revenue model that defines how a company creates and capitalizes economic value, typically impacting its value proposition, product offering, operational strategies, and brand positioning

Customer Value Chain Compression

Customer value chain compression as a result of advanced technologies, internet platforms, and other direct-to-consumer models that enables reduction in friction and the number of steps in customer journeys

Transformative Mega Trends

Global forces that define the future world with their far-reaching impact on business, societies, economies, cultures, and personal lives

Internal Challenges

The internal organizational behaviors that prevent a company from making required changes

Competitive Intensity

A new wave of competition from start-ups and digital business models that challenge the standing conventions of the past, compelling established industries to re-think their competitive stance

Geopolitical Chaos

Chaos and disorder arising from political discord, natural calamities, pandemics, and social unrest that impact global trade, collaboration, and business security

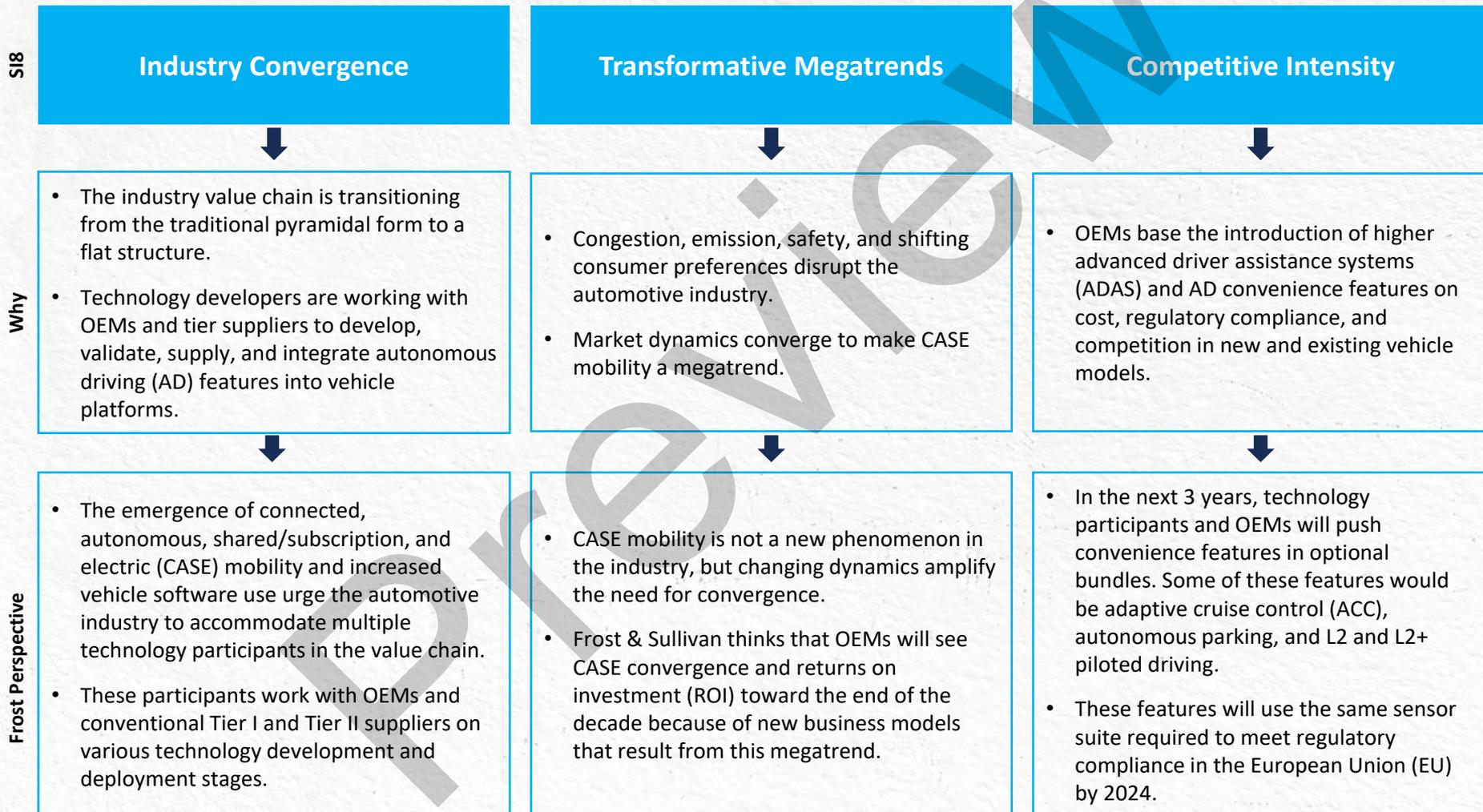
Disruptive Technologies

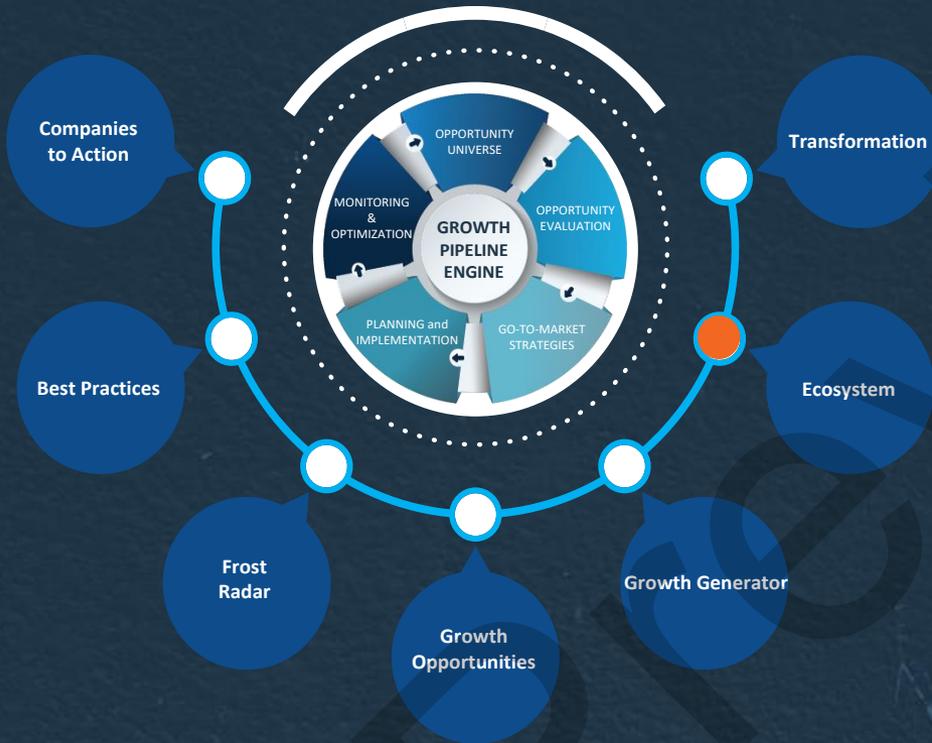
New, disruptive technologies that are displacing the old, and significantly altering the way consumers, industries, or businesses operate

Industry Convergence

Collaboration between previously disparate industries to deliver on whitespace cross-industry growth opportunities

The Impact of the Top 3 Strategic Imperatives on the Autonomous Driving Industry





Ecosystem

How is the complexity of Ecosystem impacting your Future Growth Potential?

Research Scope



Vehicle Types



Passenger Car



Robotaxi



Autonomous Shuttles

Geographic Scope

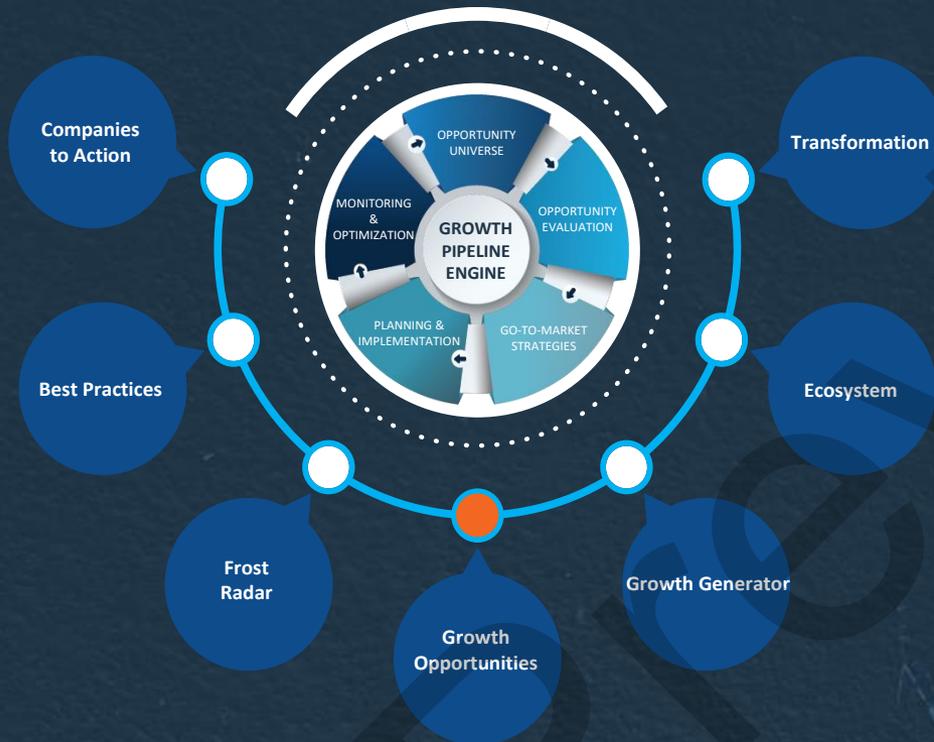


Global: Europe, NA, and APAC

Europe: EU countries and the United Kingdom

North America*: The United States and Canada

APAC*: India, China, and Japan



Growth Opportunity Universe

What Growth Strategies have you embraced to maximize your Growth Potential?

Growth Opportunity 1—Navigation on Autopilot

Opp. Size in 5 Years Over USD 500 M - USD 1 B	Relevant End-User Industries for this Growth Opportunity			Applicable Regions
	Manufacturing	Mobility	Metal & Mining	Central & East Europe
Timeline for Action 1 to 3 Years	Energy & Environment	Chemicals & Materials	Information & Communications Technologies	South Asia
	Electronics & Semiconductors	Agriculture, Food & Nutrition	Govt and Public Sector	Western Europe
	Construction	Education	Healthcare & Lifesciences	CIS
GO Base Year 2023	Consumer	Aerospace	Hospitality	North America
	Retail	Defense	Banking & Financial Services	Latin America
				Africa
				Middle East
				Asia-Pacific

Frost & Sullivan has identified 10 Growth Processes that serve as levers for determining and evaluating new Growth Opportunities.



Growth Opportunity 2—Perception Sensors

Opp. Size in 5 Years USD 100 M - USD 500 M	Relevant End-User Industries for this Growth Opportunity			Applicable Regions Central & East Europe South Asia Western Europe CIS North America Latin America Africa Middle East Asia-Pacific
	Manufacturing	Mobility	Metal & Mining	
Timeline for Action 1 to 3 Years	Energy & Environment	Chemicals & Materials	Information & Communications Technologies	
	Electronics & Semiconductors	Agriculture, Food & Nutrition	Govt and Public Sector	
	Construction	Education	Healthcare & Lifesciences	
GO Base Year 2023	Consumer	Aerospace	Hospitality	
	Retail	Defense	Banking & Financial Services	

Frost & Sullivan has identified 10 Growth Processes that serve as levers for determining and evaluating new Growth Opportunities.

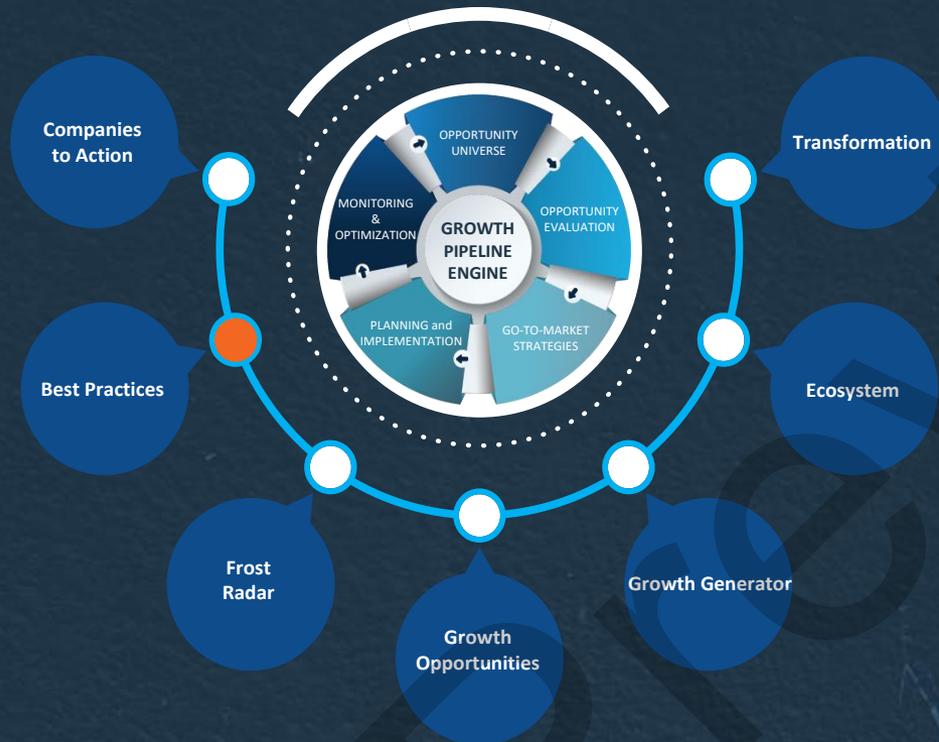


Growth Opportunity 3—Automated Parking Solutions

Opp. Size in 5 Years	USD 100 M - USD 500 M	Relevant End-User Industries for this Growth Opportunity			Applicable Regions
		 Manufacturing	 Mobility	 Metal & Mining	
Timeline for Action	Over 3 to 5 Years	 Energy & Environment	 Chemicals & Materials	 Information & Communications Technologies	South Asia
		 Electronics & Semiconductors	 Agriculture, Food & Nutrition	 Govt and Public Sector	Western Europe
		 Construction	 Education	 Healthcare & Lifesciences	CIS
		 Consumer	 Aerospace	 Hospitality	North America
		 Retail	 Defense	 Banking & Financial Services	Latin America
					Africa
GO Base Year	2023				Middle East
					Asia-Pacific

Frost & Sullivan has identified 10 Growth Processes that serve as levers for determining and evaluating new Growth Opportunities.





Best Practices Recognition

What Best Practices has your organization embraced to maximize your future Growth Potential?

Best Practices Recognition

Company of the Year (COY)

Company that exemplifies visionary innovation, market-leading performance, and unmatched customer care

Customer Value Leadership (CVL)

Company that offers products or services customers find superior for the overall price, performance, and quality

Entrepreneurial Company of the Year (ECOY)

Best up-and-coming, potentially disruptive market participant

New Product Innovation (NPI)

Company that offers a new product or solution that uniquely addresses key customer challenges

Technology Innovation Leadership (TIL)

Company that has introduced the best underlying technology for achieving remarkable product and customer success while driving future business value

Competitive Strategy Leadership (CSL)

Company with a stand-out approach to achieving top-line growth and a superior customer experience

Enabling Technology Leadership (ETL)

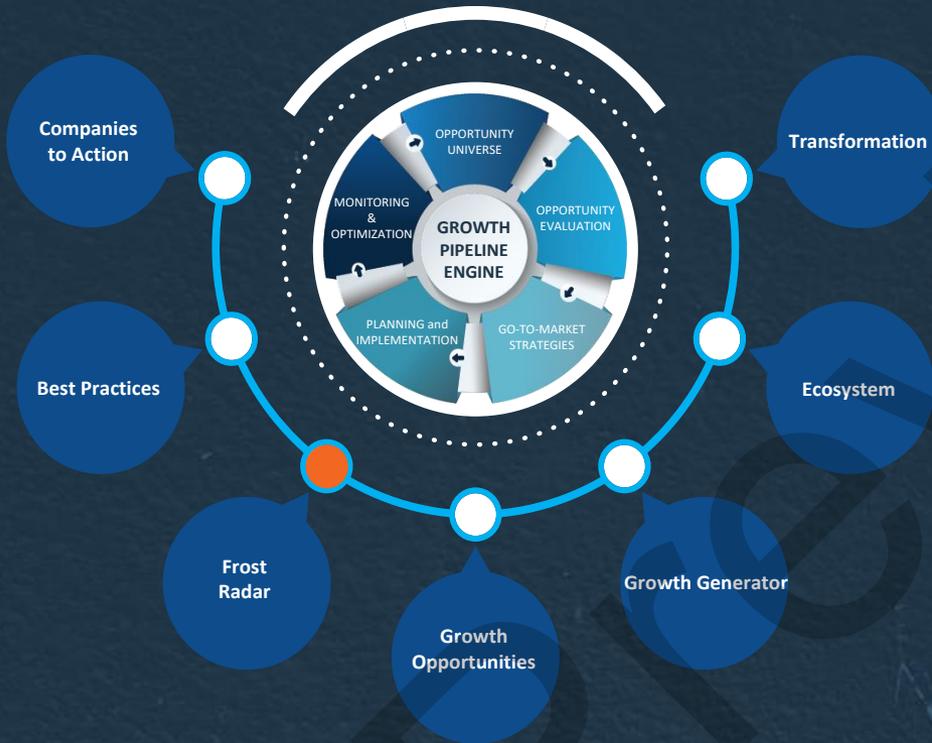
Company that applies its technology in new ways to improve existing products and services and elevate the customer experience

Market Leadership (ML)

Company that achieved the greatest market share resulting from outstanding performance, products, and services

Product Leadership (PL)

Company that offers a product or solution with attributes that deliver the best quality, reliability, and performance in the industry



Frost Radar

How is your organization maximizing your future Growth Potential?

Frost Radar

Benchmarking Future Growth Potential



Strategic Imperative

- A robust analytical tool to benchmark the future growth potential of leading organizations across multiple industries
- Organizations benchmarked across 10 key criteria that relate to innovation and growth, relative to competitors
- An evaluation of every organization's efficacy across these criteria, helps determine how well they are positioned to drive growth in the future
- Our goal is to help them better leverage their strengths and to overcome their weaknesses, and thereby strengthen their growth potential.



Selection Criteria

Analysts use **6 criteria** in determining markets with Frost Radar coverage:

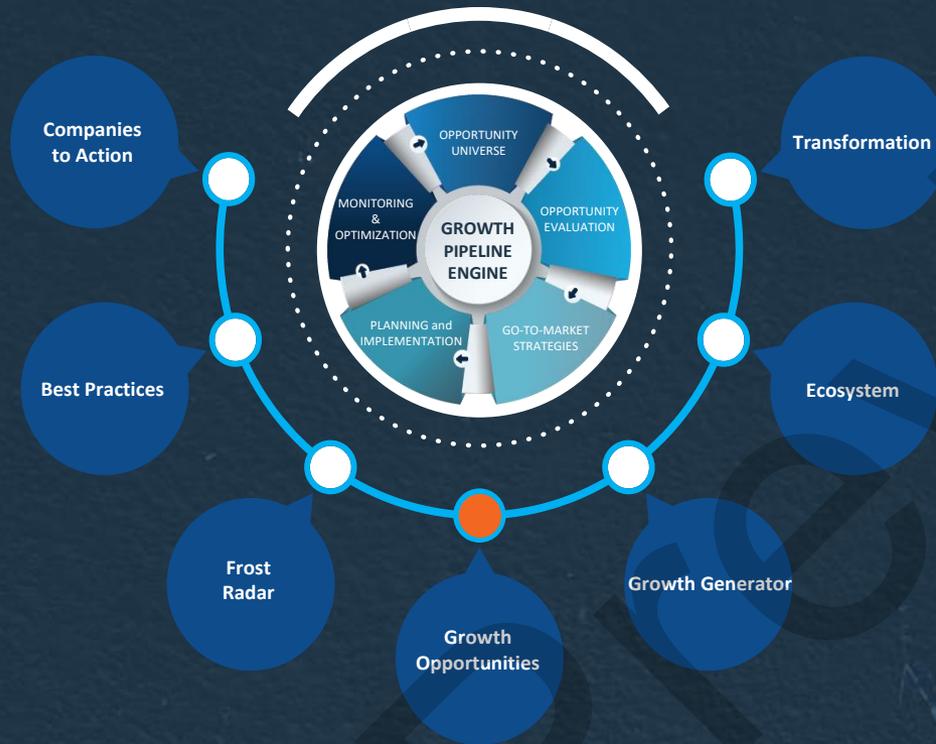
- 1) Markets that are dynamic and fluid
- 2) Markets that are highly fragmented with numerous companies
- 3) Highly competitive market (emerging or mature)
- 4) Highly fragmented customer base
- 5) Frost & Sullivan has a strong brand in the market
- 6) Analyst brand in the market is very strong



WHY Frost Radar?

- Our fundamental value proposition to clients is to help them innovate and accelerate growth
- Market share is important; however, digging into how companies' grow their market share helps us determine future growth potential
- Frost Radar is a tool that helps us identify organizations that can support their customers into the future

How is your company evaluating its future growth potential?



Next Steps

How does your organization identify and prioritize Growth Opportunities?

Benefits and Impacts of Growth Opportunities



Which of these benefits would be most important to your Investor-Customer-Employee?

Next Steps



JOIN:
Growth Council

APPLY:
Companies to Action

ENGAGE:
Growth Dialog

PARTICIPATE:
Growth Council Think Tank

Does your current system support rapid adaptation to emerging opportunities?

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Industry Convergence

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In-depth Coverage

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Global Perspective

Global expertise across technology applications and verticals, including manufacturing, automotive, healthcare, and many more



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