

Global Medical Devices Outlook, 2022

**Digital Efficiency Solutions for
Operating Rooms and Competitive
Intensity are Opening up New
Growth Opportunities**

**Global Transformational Health
Research Team at Frost & Sullivan**

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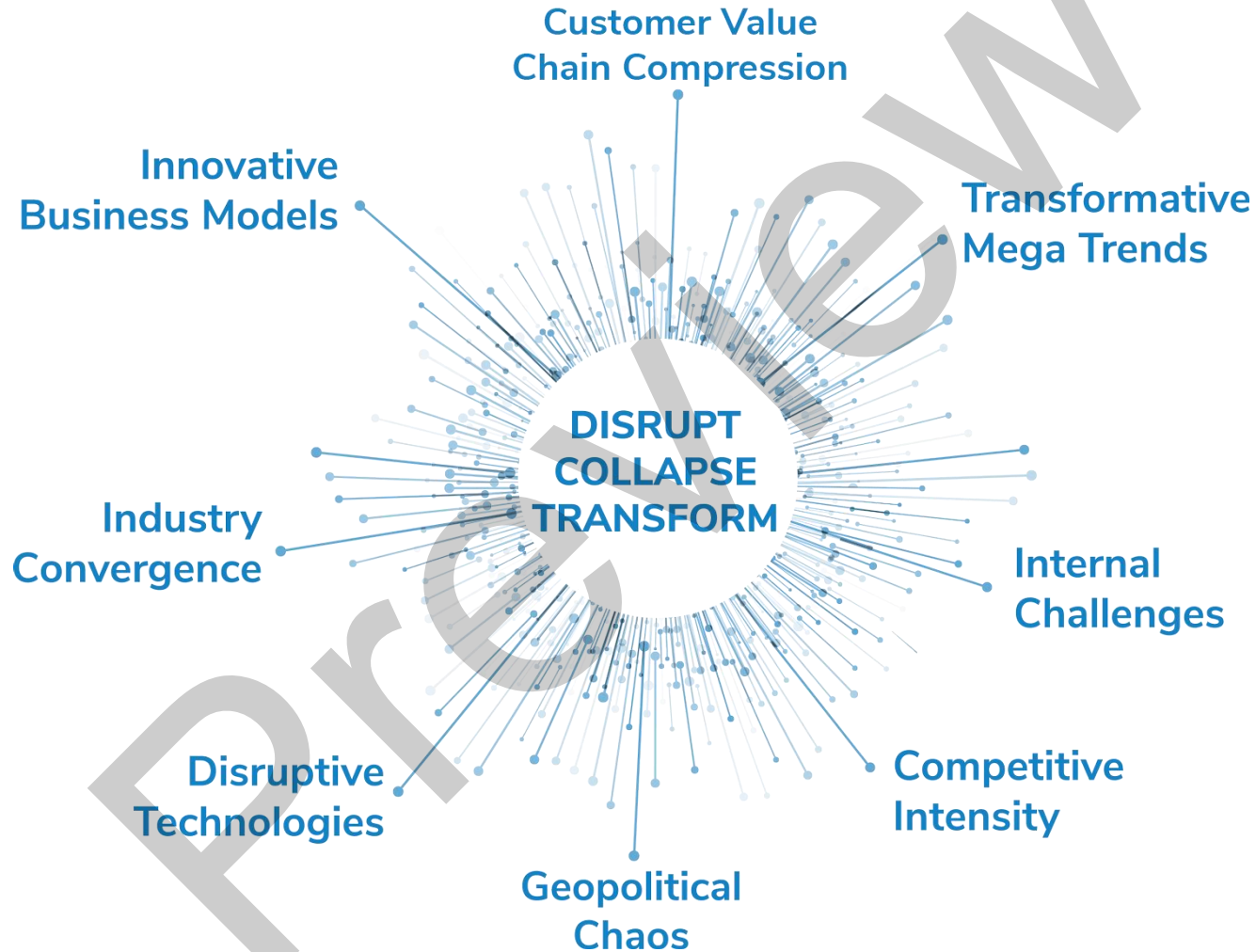
Author: Suchismita Das



Strategic Imperatives

Why Is It Increasingly Difficult to Grow?

The Strategic Imperative 8™: Factors Creating Pressure on Growth



Source: Frost & Sullivan

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

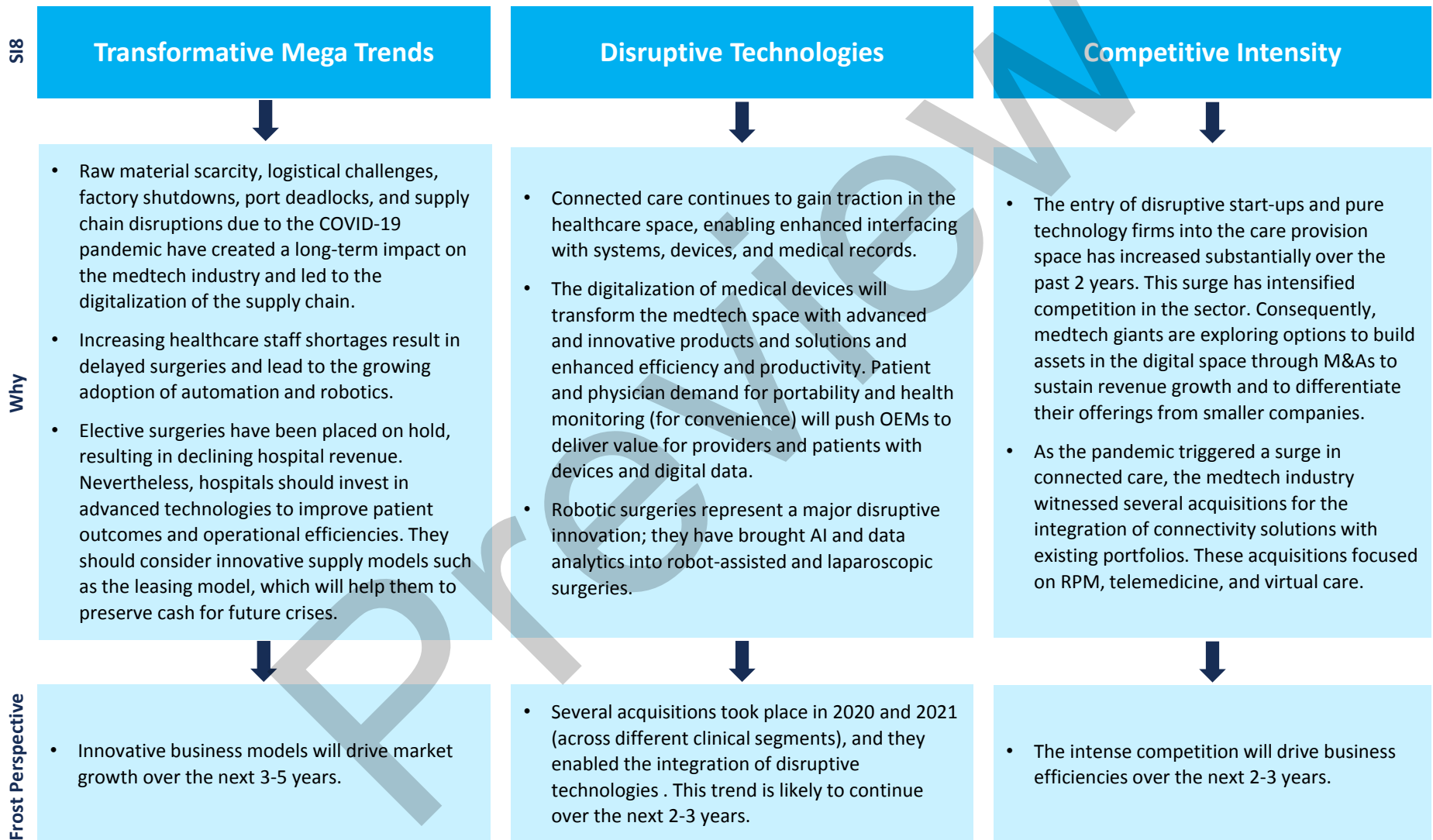
New, disruptive technologies that are displacing the old, and significantly altering the way consumers, industries, or businesses operate

Industry Convergence

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

Source: Frost & Sullivan

The Impact of the Top Three Strategic Imperatives on the Medical Devices Industry

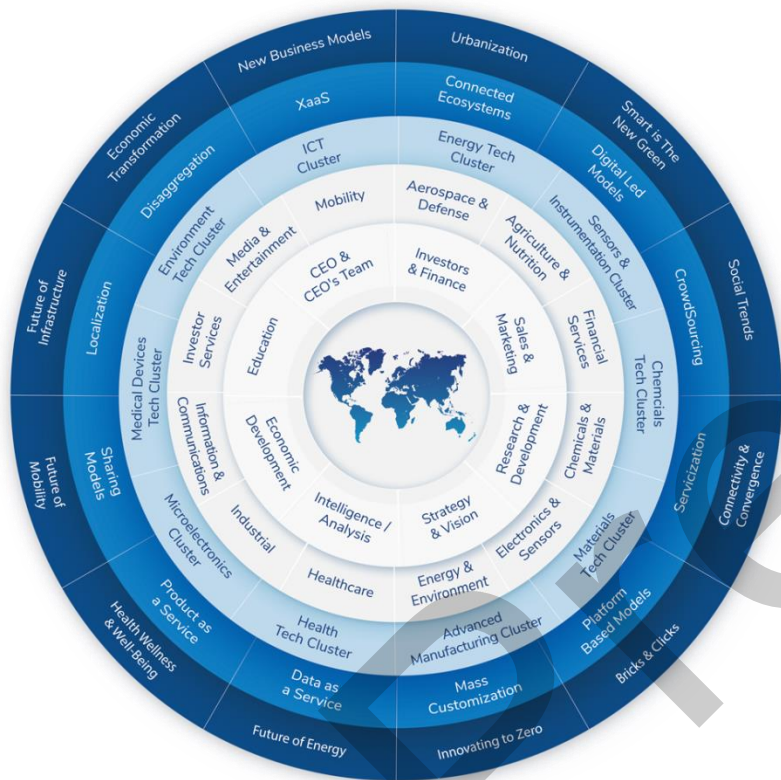


Source: Frost & Sullivan

Growth Opportunities Fuel the Growth Pipeline Engine™



The Innovation Generator™



Analytical Perspectives



The Growth Pipeline Engine™



Source: Frost & Sullivan



Analysis Highlights

Analysis Highlights

Project Scope	Study Period	2019–2026	Practice Areas	<ul style="list-style-type: none"> • Patient monitoring • Orthopedics • Cardiology • Minimally invasive surgeries • Ophthalmology • Wound care • Audiology • Respiratory • Urology – Gynecology • Aesthetics • Neurology • Robotics • Others 	Geographic Scope	<ul style="list-style-type: none"> • North America • Latin America • Asia-Pacific • Europe • Rest of World
	Base Year	2021				
	Forecast Period	2022–2026				

Source: Frost & Sullivan



Growth Environment

Market Segmentation

Global Medical Devices Industry

Patient Monitoring

- Cardiac
- Hemodynamic
- Respiratory
- Multiparameter monitoring
- Fetal and neonatal monitoring

Orthopedics

- Implants (knee, hip, extremities)
- Trauma fixation (internal and external)
- Spine
- Orthobiologics

Cardiology

- Percutaneous coronary intervention (PCI)
- Cardiac rhythm management (CRM)
- Structural heart devices
- Therapeutic and surgical devices

Wound Care

- Traditional wound care solutions
- Advanced wound management
- Wound prevention and early detection
- Wound healing and wound closure

Respiratory

- Ventilators
- Asthma solutions
- Sleep apnea devices
- Airway management devices
- Respiratory diagnostics devices

Minimally Invasive

- Laparoscopy
- Endoscopy
- AI-assisted minimally invasive surgeries

Audiology

- Hearing aids
- Cochlear implants
- Diagnostic devices

Urology - Gynecology

- Benign prostate hyperplasia devices
- Urinary incontinence devices
- Lasers and lithotripsy devices
- Consumables

Ophthalmology

- Ophthalmic diagnostic devices, ophthalmic surgical devices, and vision care devices

Neurology

- Neurological devices and consumables and tools

Robotics-Navigation

- Surgical robotics and surgical navigation devices and tools

Aesthetics

- Face and head procedures
- Breast procedures
- Body and extremities
- Injectables
- Facial rejuvenation
- Dental aesthetics
- Others

Others

- Infection prevention and control
- Sterilizers
- Refurbished medtech equipment
- Renal care (dialysis devices and consumables)

Note: This study analyzes 5 medtech segments—patient monitoring, orthopedics, cardiology, robotics, and wound care—as they contribute most of the revenue.

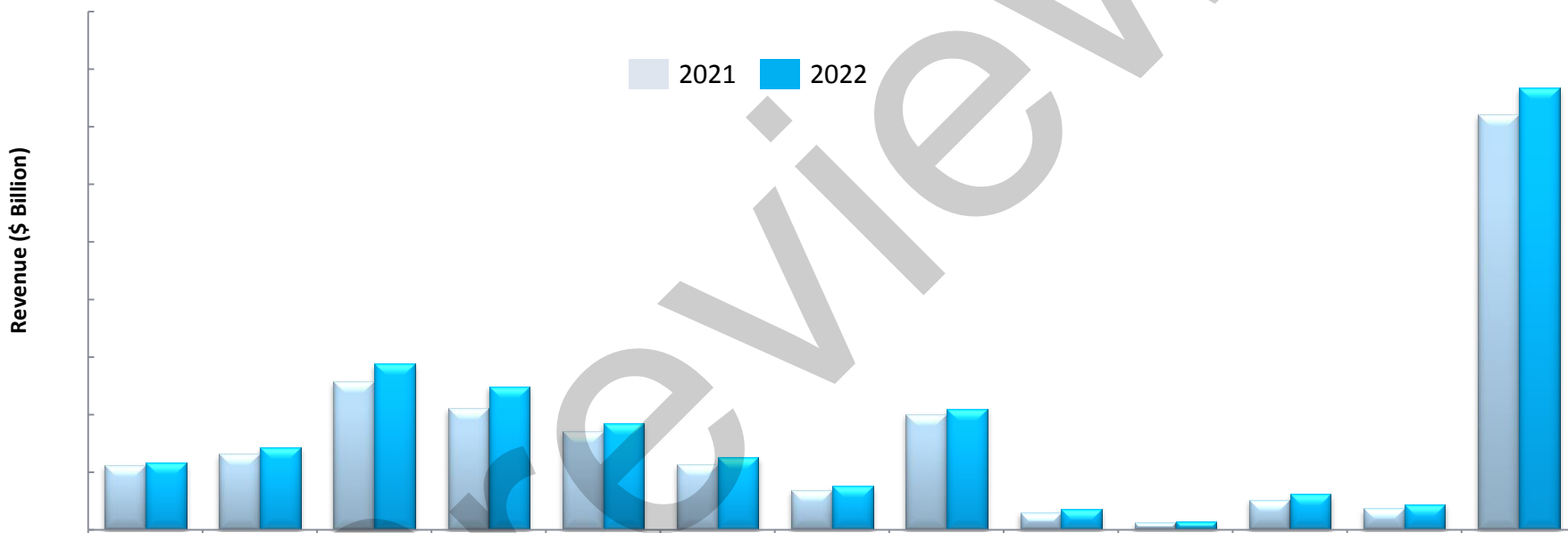
Non-exhaustive list

Source: Frost & Sullivan

Revenue Trends, 2021

Revenue Forecast by Segment

Medical Devices Market: Revenue Forecast by Segment, Global, 2021 and 2022



Growth rates are for the aspirational scenario

Note: All figures are rounded. The base year is 2021. Source: Frost & Sullivan



Growth Opportunity Universe

Growth Opportunity 1—Digital OR Management and Efficiency Solutions to Address Surgical Workflow Needs

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

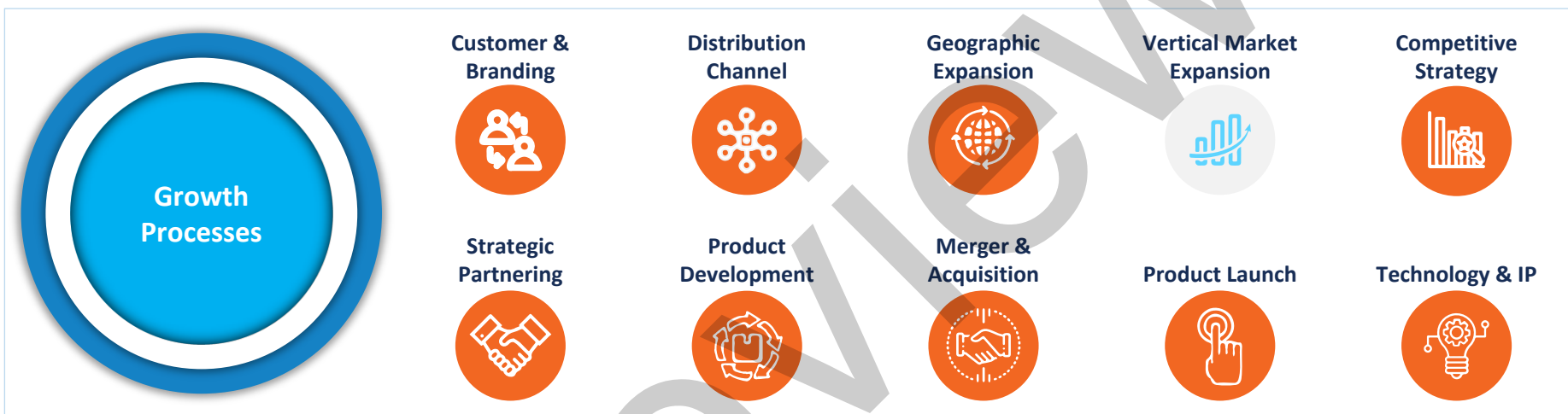


Opp. Size in 5 Years	\$100 M–\$500 M	Relevant Industries for this Growth Opportunity			Applicable Regions	
Timeline for Action	2 Years	Industrial Automation	Commercial Mobility	Security	North America	Western Europe
		Environmental	Chemicals & Materials	Communications Tech		
		Oil & Gas	Ag., Food & Nutrition	Information Tech	Latin America	Africa
Building Technologies	Test & Measurement	Pharma & Biotech				
Base Year	2022	Consumer Electronics	Aerospace	Advanced Medtech	Central/Eastern Europe	Asia-Pacific
		Consumer Mobility	Defense	Fintech		

Source: Frost & Sullivan

Growth Opportunity 2—Medtech OEMs to Redesign Device Portfolios to Meet ASCs' Specific Needs

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

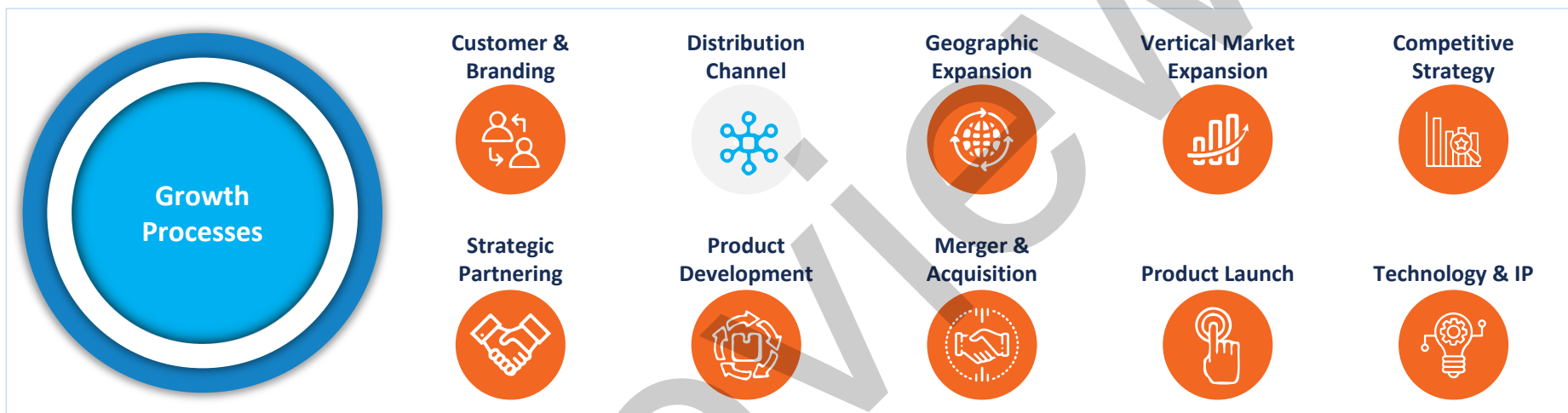


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Building Technologies	Test & Measurement	Pharma & Biotech				
Base Year	2022	Consumer Electronics	Aerospace	Advanced Medtech	Central/Eastern Europe	Asia-Pacific
		Consumer Mobility	Defense	Fintech		

Source: Frost & Sullivan

Growth Opportunity 3—Women-specific Medical Devices that go beyond Fertility and Pregnancy and Cater to Unaddressed Needs (pelvic health, menopause care)

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



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		Building Technologies	Test & Measurement	Pharma & Biotech		
		Consumer Electronics	Aerospace	Advanced Medtech	Central/Eastern Europe	Asia-Pacific
Consumer Mobility	Defense	Fintech				
Base Year	2022					

Source: Frost & Sullivan

Next Steps

Why Frost, Why Now?

Our Expertise

EXPERIENCE

- 60 years of proven global experience
- Trusted partner of Investors, corporates, & governments

COVERAGE

- Industry convergence through comprehensive coverage
- Global footprint to match clients' needs

ANALYTICS

- Innovation Generator™ driving six analytical perspectives
- Proprietary growth tools & frameworks

BEST PRACTICES

- Growth Pipeline Engine™ and Companies to Action™
- Ten Growth Processes: Best practices foundation

Client Impact

- **FUTURE GROWTH POTENTIAL:** Maximized through collaboration
- **GROWTH PIPELINE™:** Continuous flow of growth opportunities
- **GROWTH STRATEGIES:** Proven best practices
- **INNOVATION CULTURE:** Optimized customer experience
- **ROI & MARGIN:** Implementation excellence
- **TRANSFORMATIONAL GROWTH:** Industry leadership

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