Special Report

Emerging Trends Shaping the Collision Repair Industry

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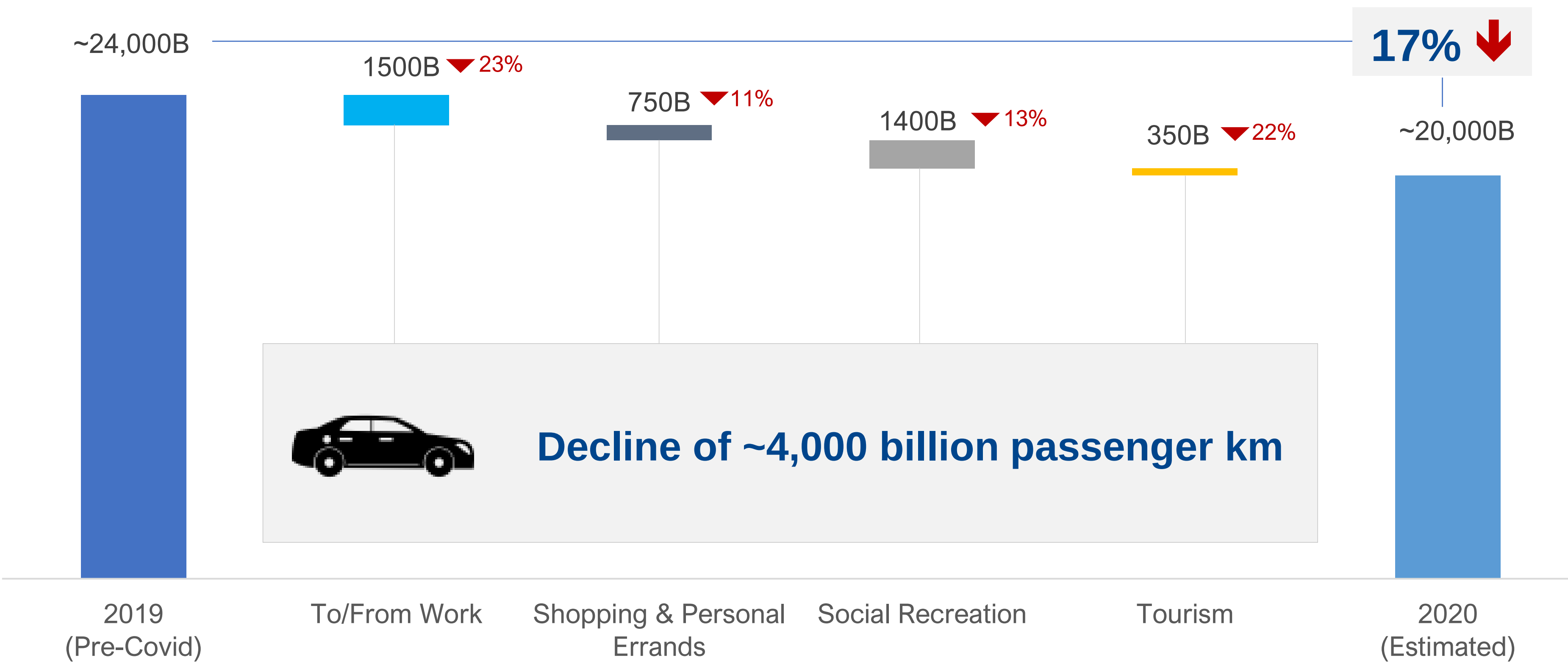
COVID-19 halted mobility in most countries; VMT, lead indicator of collision repair market, declined significantly in 2020 in top markets

Estimated Decline in VMT (Billion Passenger km) – Passenger Vehicles (Top 20 markets*) (2019-20)

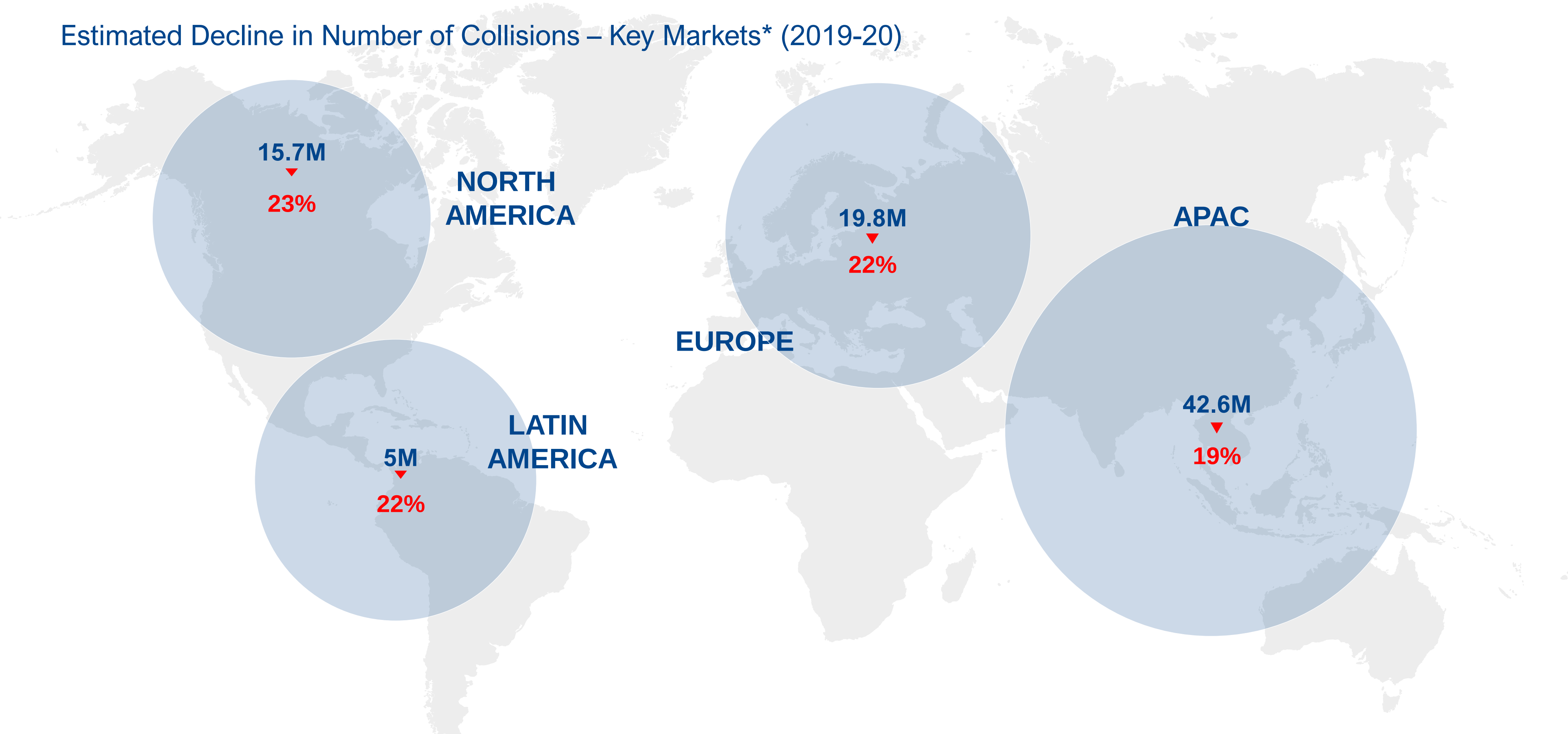


**includes US, Canada, Germany, France, Italy, UK, Spain, Japan, Australia, Poland, China, India, Brazil, Mexico, Russia, Turkey, Korea, New Zealand, Malaysia, Thailand*

Source: *Government Sources, Associations, Primary Interviews, Aranca Analysis*

Collisions fall sharply by 20-25% in key regions as number of vehicles-on-road drop

Estimated Decline in Number of Collisions – Key Markets* (2019-20)



*includes US, Canada, Germany, France, Italy, UK, Spain, Japan, Australia, Poland, China, India, Brazil, Mexico, Russia, Turkey, Korea, New Zealand, Malaysia, Thailand

Source: *News Articles, Country Mobility Trackers, Inrix, Primary Interviews, Aranca Analysis*

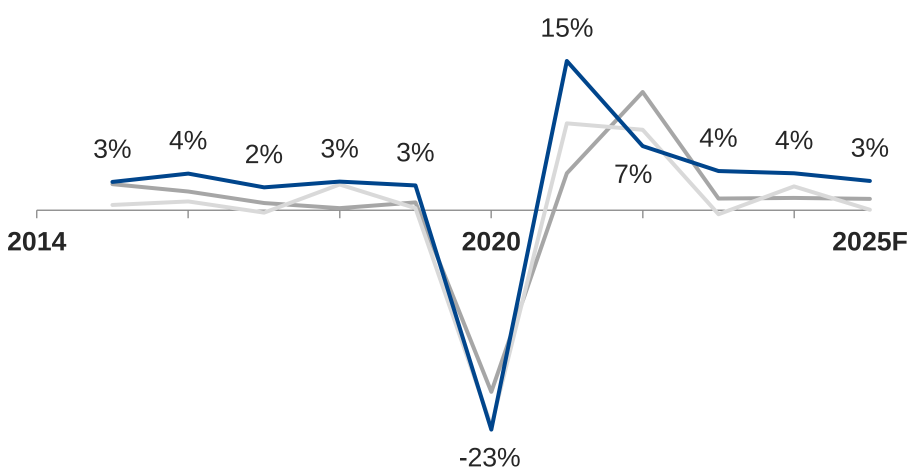
Size of the bubble represents the number of collisions in 2020

YoY Decline in Collisions (2019-20) attributed to COVID-19

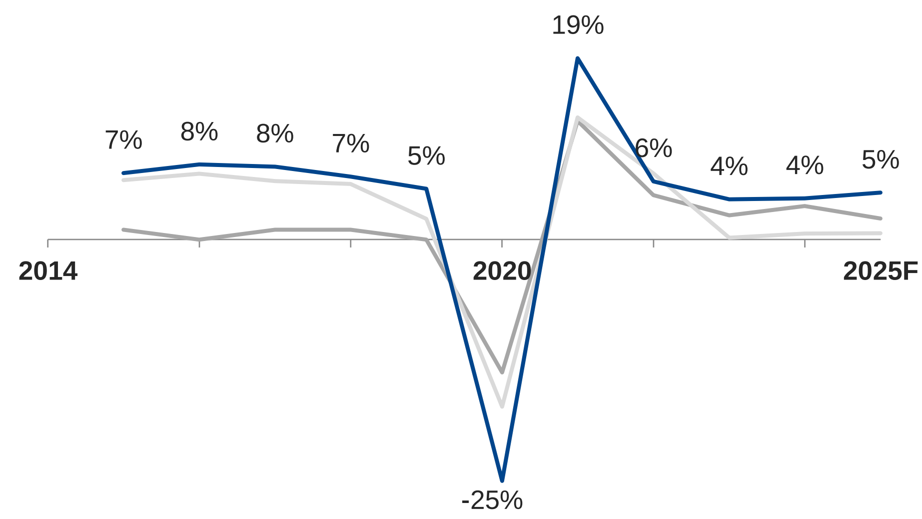
Developed markets expected to drag recovery; developing countries to emerge resilient

Performance of Industry Metrics Defining Collision Repair Industry (YoY Change) (2014-25F)

DEVELOPED MARKETS (Top 10 Countries*)



DEVELOPING MARKETS (Top 10 Countries**)



VMT NUMBER OF COLLISIONS[1] COLLISION REPAIR MARKET[2]

***includes China, India, Brazil, Mexico, Russia, Turkey, Korea, Vietnam, Malaysia, Thailand*
**includes US, Canada, Germany, France, Italy, UK, Spain, Japan, Australia, Poland*
[1] Total number of collisions involving passenger vehicles
[2]Collision Repair Market includes a total of labor, parts and consumables

Source: *Primary Interviews with Collision Repair Experts, Government Sources, Associations, Aranca Analysis*

Following global recovery, changing customer demands and some emerging trends attract stakeholder interest worldwide

Mapping Degree of Impact of Key Trends in Collision Repair Industry

	Trends in Collision Repair	North America	LATAM	European Union	APAC (ex. China)	China
1	**Sophistication** Increasing ADAS penetration drives demand for advanced technical infrastructure	↑	→	↑	↑	↑
2	**Consolidation** Larger body shops taking over smaller ones to expand	↑	↓	↑	→	→
3	**Digitalization** Increased digital practices optimize businesses across value chain	↑	↑	↑	↑	↑
4	**Rising Repair Cost** Newer technology demands new types of products, services in collision repair space	↑	↓	↑	→	→
5	**Increasing Insurance Penetration** Rise in share of repair orders through insurance claims versus customer orders	→	↑	→	↑	↑

Source: *Aranca Analysis*

Prevalence of Trend ↑ High → Moderate ↓ Low

#1: Rise in ADAS offers growth avenues in sensor calibration, replacement; **growing sophistication** to drive speedy CAGR of 10–20% over next five years

Change in ADAS Penetration

2019-25F

	2019	2025F
US	11%	40%
Germany	12%	38%
France	10%	36%
China	6%	20%

Change in Mix of Average Repair Cost; Case Example: US

2019-25F I Figures in USD

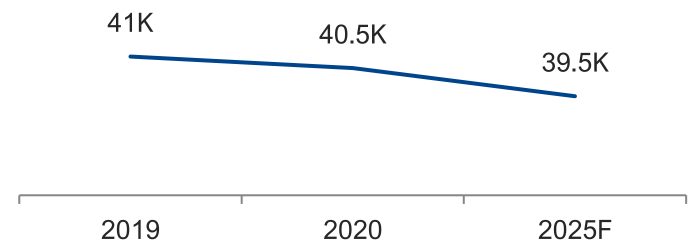
		Traditional				Emerging	
	Average Cost of Repair (ex. margins)	Labor	Refinish Coatings & Consumables	Traditional Parts and Components		ADAS parts	ADAS Calibration / Recalibration
2019 ($)	**1400**	643	93	537		73	54
2025F ($)	**1772**	759	105	606		202	100
2019-25 CAGR	**4%**	**3%**	**2%**	**2%**		**18%**	**11%**

Source: *Primary Interviews with Automotive OEMs and Collision Repair Shops, Aranca Analysis*

#2: Larger players aggressively take over smaller, distressed body shops, thus paving way for **greater consolidation**

Change in Number of Body Shops in US and Germany (2019-25F)

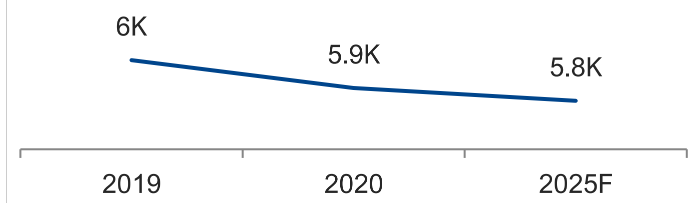
US



Key MSO involved in M&A

M&A resulted in 1000 body shops in 2019

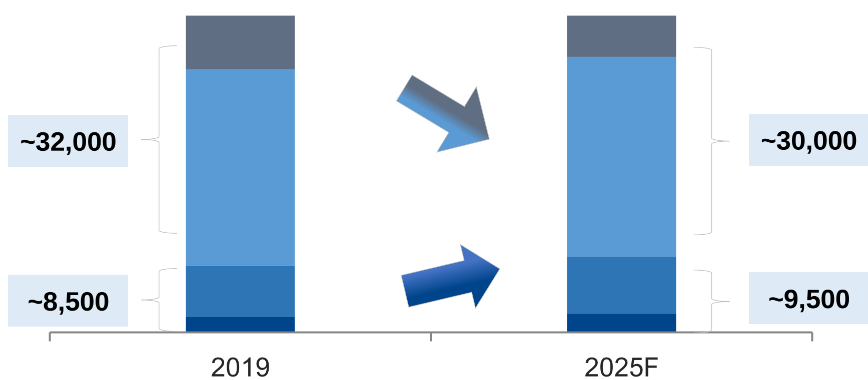
Germany

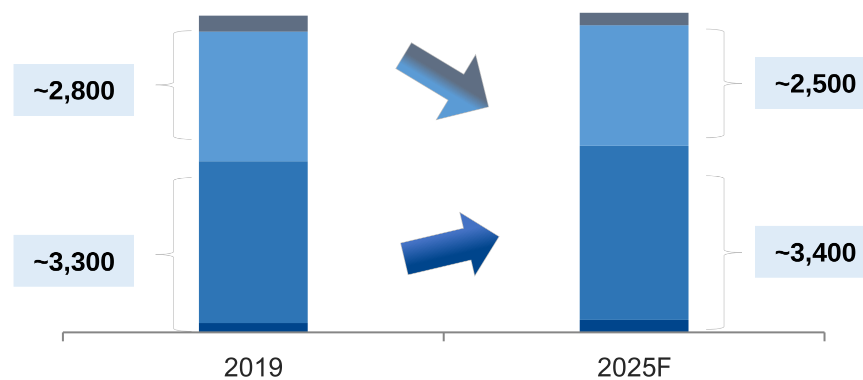


Key MSO involved in M&A

Expansion by converting independent shops to franchises

Change in Share of Body Shop Type in US and Germany (2019-25F)





Strengthening of A&B type of body shops will support the need for a more structured industry offering improved service quality

Source: *Primary Interviews with Body Shop Associations, Aranca Analysis*

A (Revenue >$3M/yr)
B (Revenue $1.5M -$3M/yr)
C (Revenue $600k -$1.5M/yr)
D (Revenue <$600k/yr)

#3: Digitalization changing collision repair industry operations; offers opportunities in repair process optimization, workflow management

Penetration of Select Digital Solutions in Body Shops

Digital Solutions	Factors	Penetration Levels	Growth Rate (2019–25F)	Tailwinds
Digital Vehicle Inspection	Digital record of vehicle inspection with real-time updates to customers	80–90% 30–40%	8–10% 30–35%	**Improved transparency** between body shops and customers **Time savings** of up to 50% Enables tracking history of repairs
Digitalized OEM Repair Procedures	Digital manuals and procedures with timely updates	80–90% 45–50%	12–15% 20–25%	**Increasing vehicle complexity**: New materials, sensors, parts (such as AEB) will require OEM support **Aggressive push by OEMs, associations**, states for mandates in collision repair
Workflow Management Software	Track repair journey, cost estimation, part sourcing, order management	75–80% <40	8–10% 20–30%	**Push from insurance companies** to reduce time cycle **Optimized resource allocation, process control**, higher vehicle throughput, better order history tracking
Scanning, Diagnosis & Callibration	Diagnostics pre-/post-scanning, ADAS calibration / recalibration	30-35% <5%	30-35% 35–40%	**Increasing ADAS penetration** in parc Repair shops see **high share of scanning** requirement driving need for sophisticated tools Industry **transitioning from OBD to OTA** diagnostics

Source: *Body Shop Magazines, News Articles, Primary Interviews with Collision Repair Shops,, Aranca Analysis*

Developed Markets Developing Markets

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#4: Demanding overheads, technical complexities compel body shops to **push up auto repair costs**

Factors Impacting Average Cost of Collision Repair

Factors >> Driving Cost	Cost of Vehicle Components and Parts	Vehicle Complexity Impacting Skills and Infrastructure	Additional Service Requirements
Scenario	• Sensor-based parts (bumper, windshield, etc.) incur additional replacement costs. **Each sensor costs $500–1500** based on application. • Light-weight and dissimilar materials **raise panel cost by 30–50%.** • Different parts are required to cater to electric vehicles.	• Labor rates: 20–25% ▲ • Training expenses: 50% ▲ • Capital investment: 1.3–1.5x ▲	• Addition of ADAS recalibration as a new service in repair shops • Increase in average **share of scanning and recalibration service from <1% of total repair cost to ~10%** by 2025
Impact	Average increase in part replacement cost **$500–1000**	Increase in operating expenses for collision repair shops **1.2x**	Increase in cost of repair service **10–20%**

With the rising complexity of parts and the irreparable nature of some components, such as sensors, the **industry is transitioning towards a trend of replacement over repairs, especially in developed markets.**

Source: *Body Shop Magazines, News Articles, Primary Interviews with Collision Repair Shops, Aranca Analysis*

#5: Increasing insurance penetration further driving share of claims within repair orders, especially in emerging markets

Insurance Penetration in Collision Repair Industry in Developing Markets (2019–25F)

Share of Insurance Claims (vs. OOP) in Collision Repair Industry

	2019	2025F
China	48%	**53%**
India	44%	**48%**
Brazil	35%	**41%**

ENABLERS

Factors Enabling Insurance Growth

- **Regulatory evolution**
  Compulsory motor third-party liability (MTPL) insurance (India, China)
- **Improvements in market access**
  Increase in FDI from 49% to 74% to enable foreign brokerage firms to venture into India
- **Insurtech revolution**
  5x growth in number of InsurTechs in Brazil in past three years
- **Growing use of mobile devices**
  95% of auto insurance carriers in China embracing virtual claims handling
- **Wider financial inclusion**
  Reduced premiums, expanded coverage on auto TP insurance by >50% in China

Source: *Insurance Reports 2020, News Articles, Primary Interviews, Aranca Analysis*

How is Aranca helping players in the collision repair industry?

We offer solutions serving a diverse set of requirements across the value chain

Market Tracker
(Tracking collision repair indicators such as VMT, collisions, claims, parc, sales, age of vehicle, etc. across 30+ markets to perform relative benchmarking)

Industry Assessment and Implications
(Estimating market size, its implication on businesses, covering elements of labor, parts, paints, allied materials while studying repair order costs, claims/OOP, etc.)

Opportunity Quotient for New Tech Solutions
(Evaluating emerging profit pools with technology trends such as ADAS (recalibration tools, etc.), digitalization (diagnostic tools, workflow management, etc.) shaping the industry)

Business Expansion Strategy
(Identifying partners, targets to pursue inorganic expansion to capitalize on opportunities emerging from adjacencies in existing portfolio, markets, value chain)

Competition Assessment
(Deep-dive analysis on peers across value chain, including suppliers of parts and consumables and collision repair equipment, as well as body shops; detailing peers' financial and operational dynamics)

Voice of Customers
(Studying customer behavior in terms of purchase, business workflow, sales to gather intel on purchase criteria, repair timelines, changing customer requirements, technology uptake, etc.)

Our Work in Collision Repair Industry

25+
Market & Business Advisory Projects

500+
Network of Body Shops Connections across 30+ markets

15+
Clients Assisted in Collision Repair Ecosystem

ABOUT ARANCA

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Valuation & Financial Advisory
CFOs in Start-ups, PE/VC Firms, Corporate M&A Teams, Mid-market Companies

Technology | IP Research & Advisory
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Investment Research & Analytics
Brokerage, Hedge Funds, IRPs, I-Banks, AMCs, Investor Relations

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