



- ❑ St. Clair Technologies is a global provider of electrical systems that span the Automotive, Military, Bus, RV, Heavy Truck, Marine, Solar and several after market industries.
- ❑ Recent projects also include partnerships in Aerospace and Alternative Energy leaders in the Hybrid Electric Vehicles, and CNG Systems.

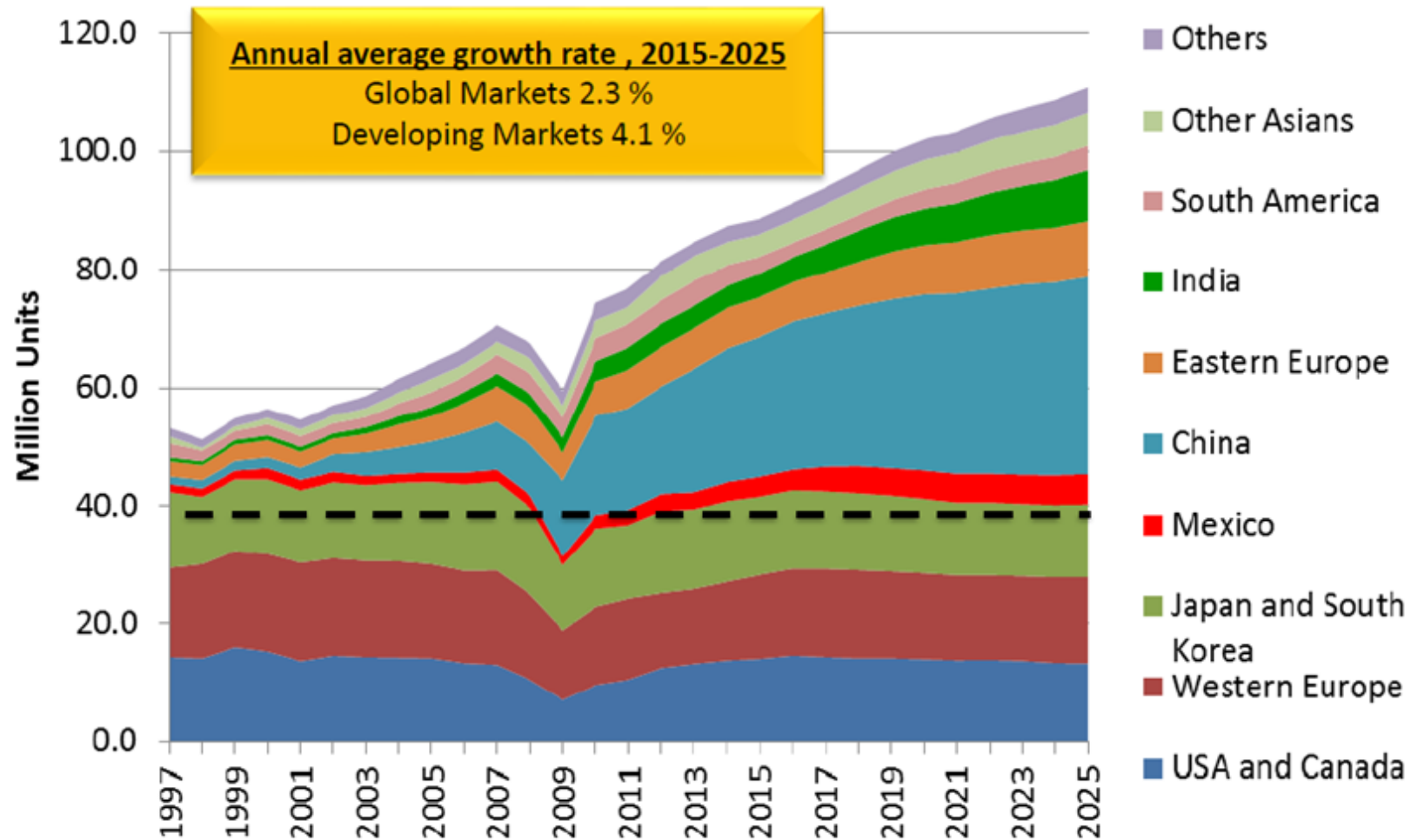


Company Overview

- ❑ St. Clair is privately owned, founded in 1951
 - ❖ Mexico Operations (Guaymas, Sonora) founded in 1996
- ❑ St. Clair provides cost-effective; innovative solutions ranging from ultra-high to low volume and prototypes, utilizing world class technology, advanced quality systems and a responsive management team
- ❑ 2015 Sales \$65M USD, 2016 Sales \$73M USD
- ❑ 950 Employees across USA, Canada & Mexico
- ❑ Two Manufacturing Facilities (Mexico) = ~130,000 sq-ft
 - F.O.B. point Nogales, AZ

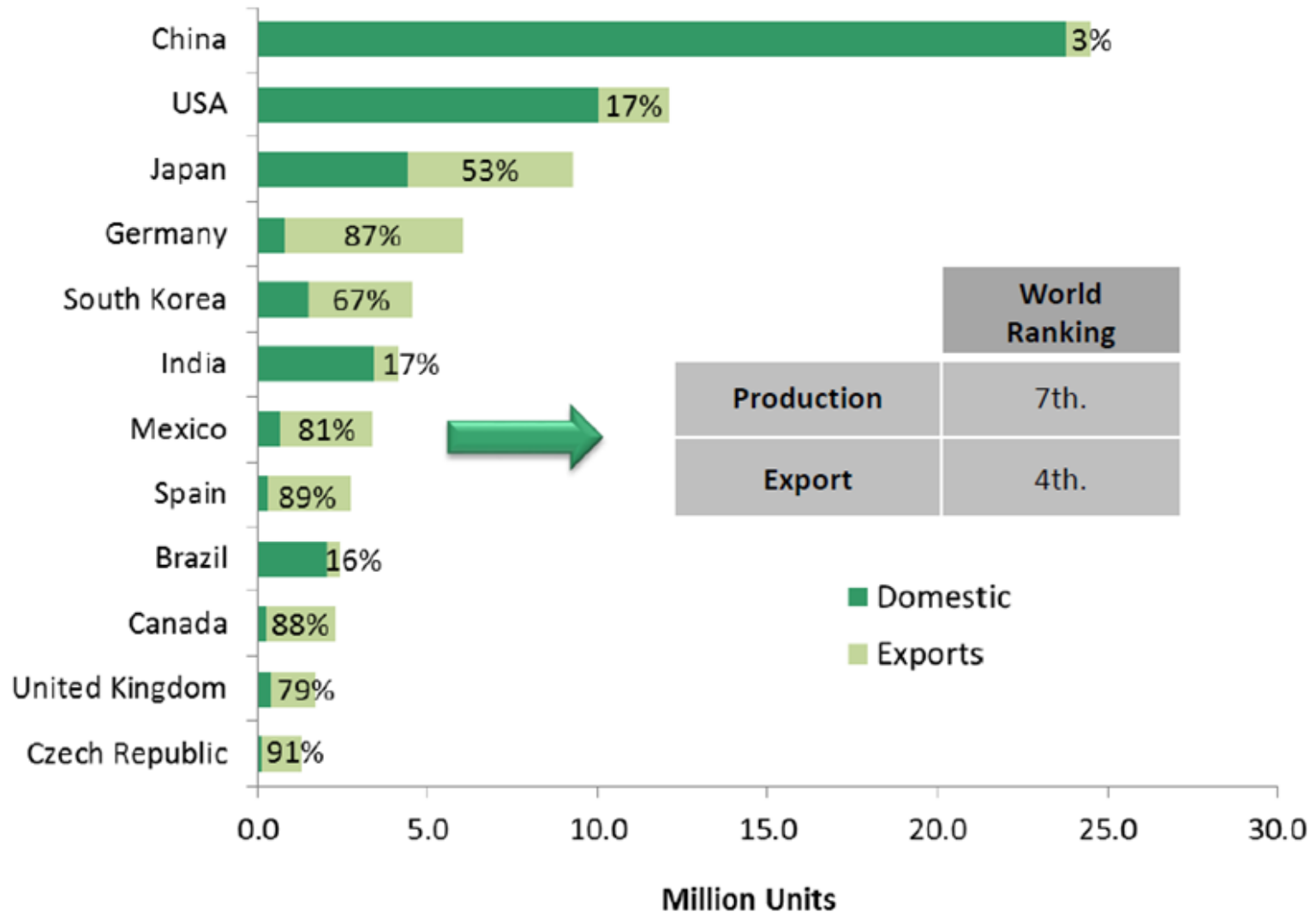


Production of vehicles in the World, 1997-2025





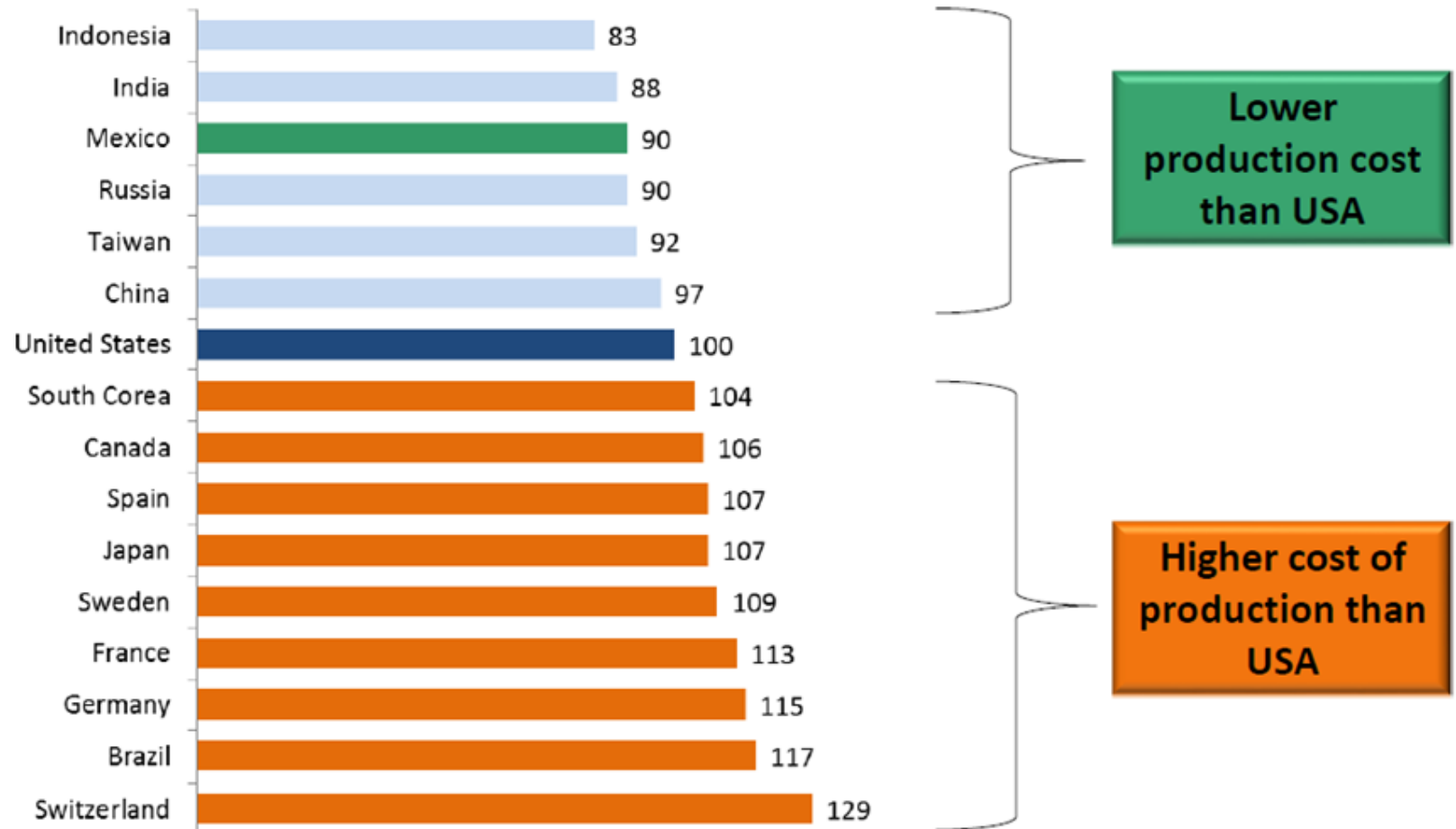
Production & Export/Domestic Market Ratio, 2015





Manufacturing cost comparison

- ▶ Average Mexican cost production is 10% lower than USA.





Geographic Location





T1 Suppliers

In Mexico there are approximately 600 tier ones that supply and support the OEM with regional content.





Wide Range of Export Markets

Mexico has signed 14 free trade agreements with 46 countries exceeding exports of 2.5 million vehicles annually and US \$ 65 billion in auto parts

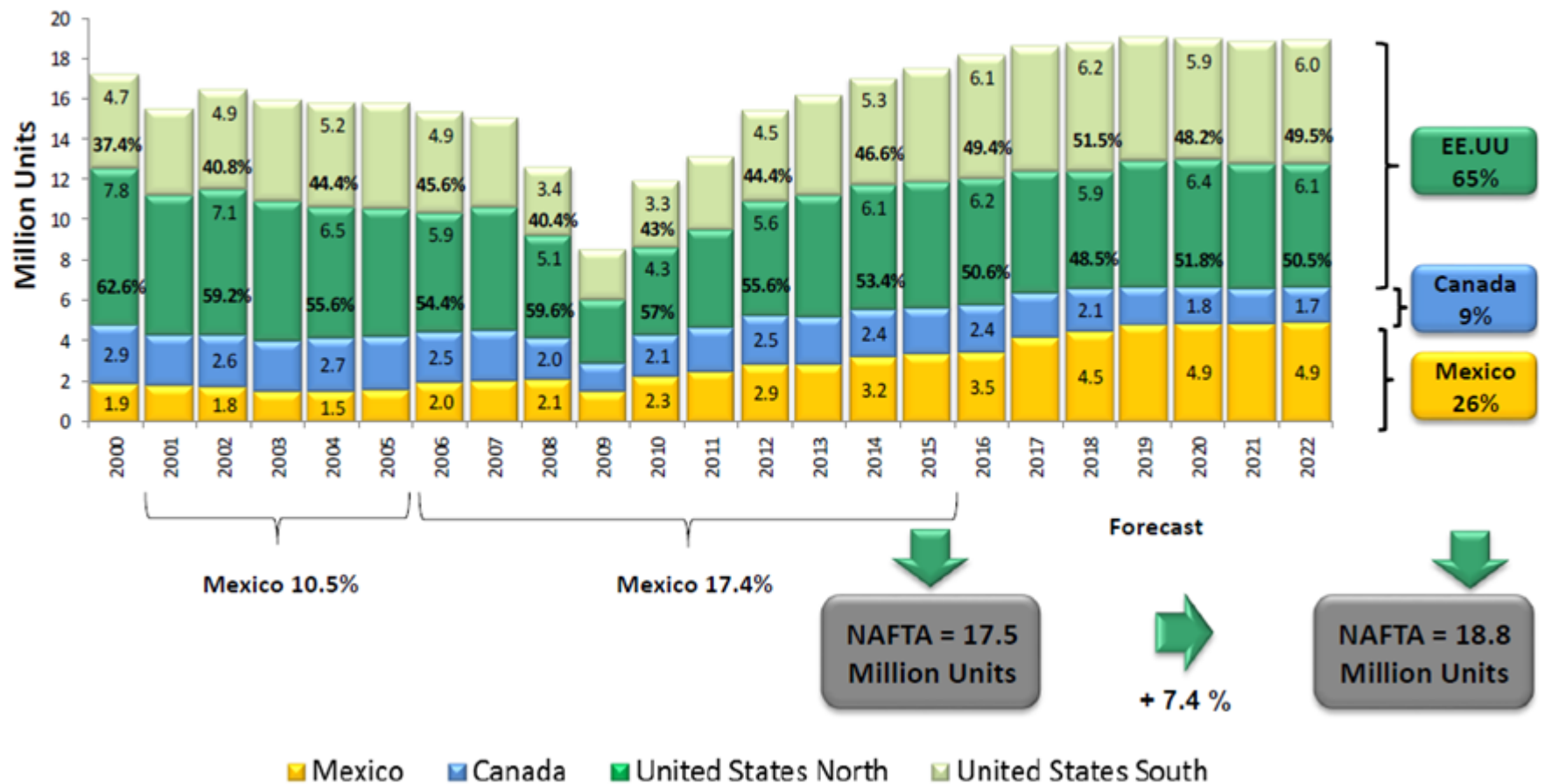




MODELS PRODUCED IN MEXICO			
PUBLICATION	SEGMENT	MODEL	AWARD
CONSUMER REPORTS	Subcompact Cars	Honda Fit	1st Place owner satisfaction
		Fiat 500	2nd Place owner satisfaction
		Ford Fiesta	3rd Place owner satisfaction
		Chevrolet Sonic	4th Place owner satisfaction
	Compact Cars	Volkswagen Golf	1st Place owner satisfaction
		Mazda 3	2nd Place owner satisfaction
	Midsized Cars	Ford Fusion	7th place owner satisfaction

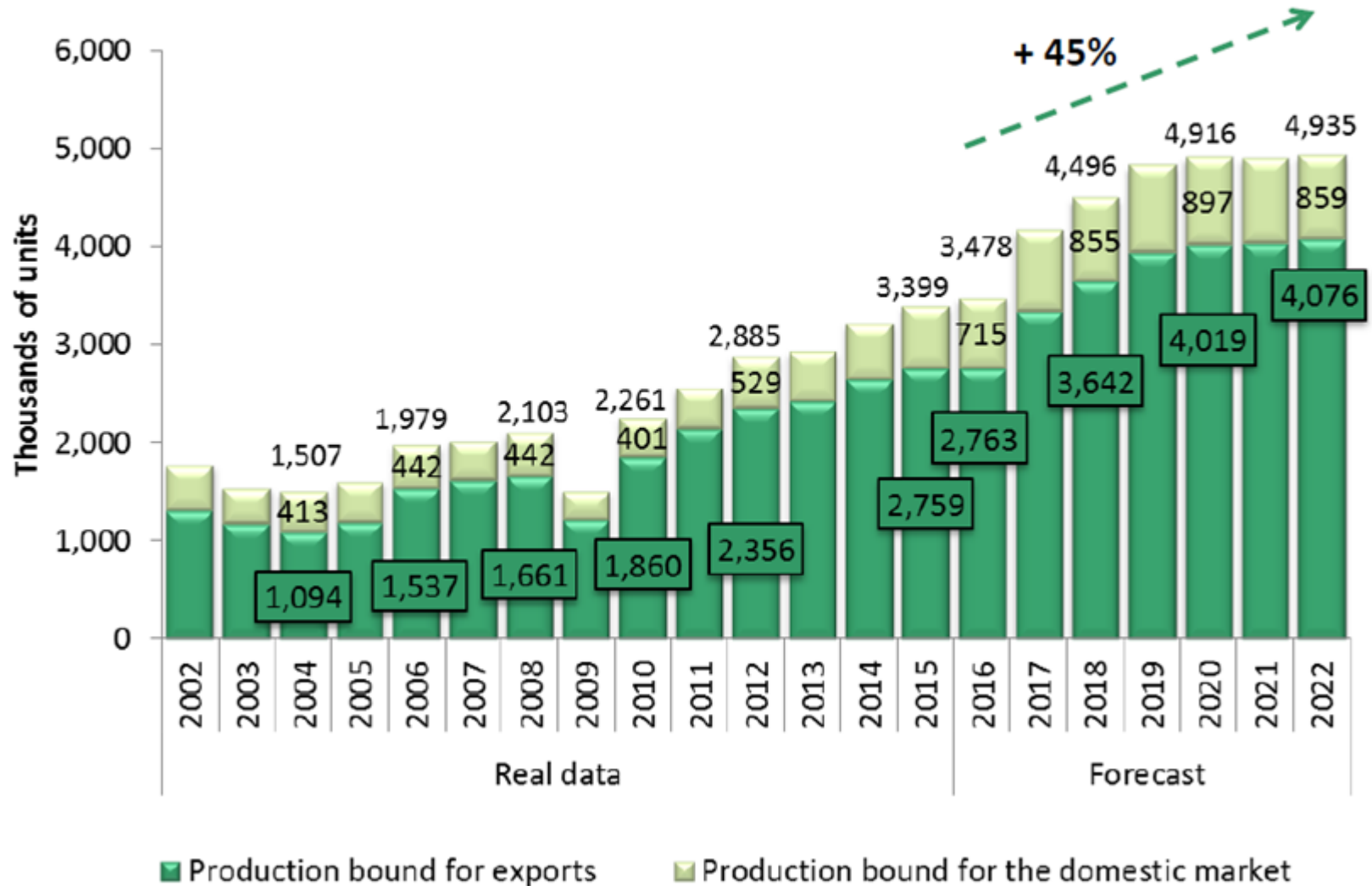


Light Vehicle Production in NAFTA Region



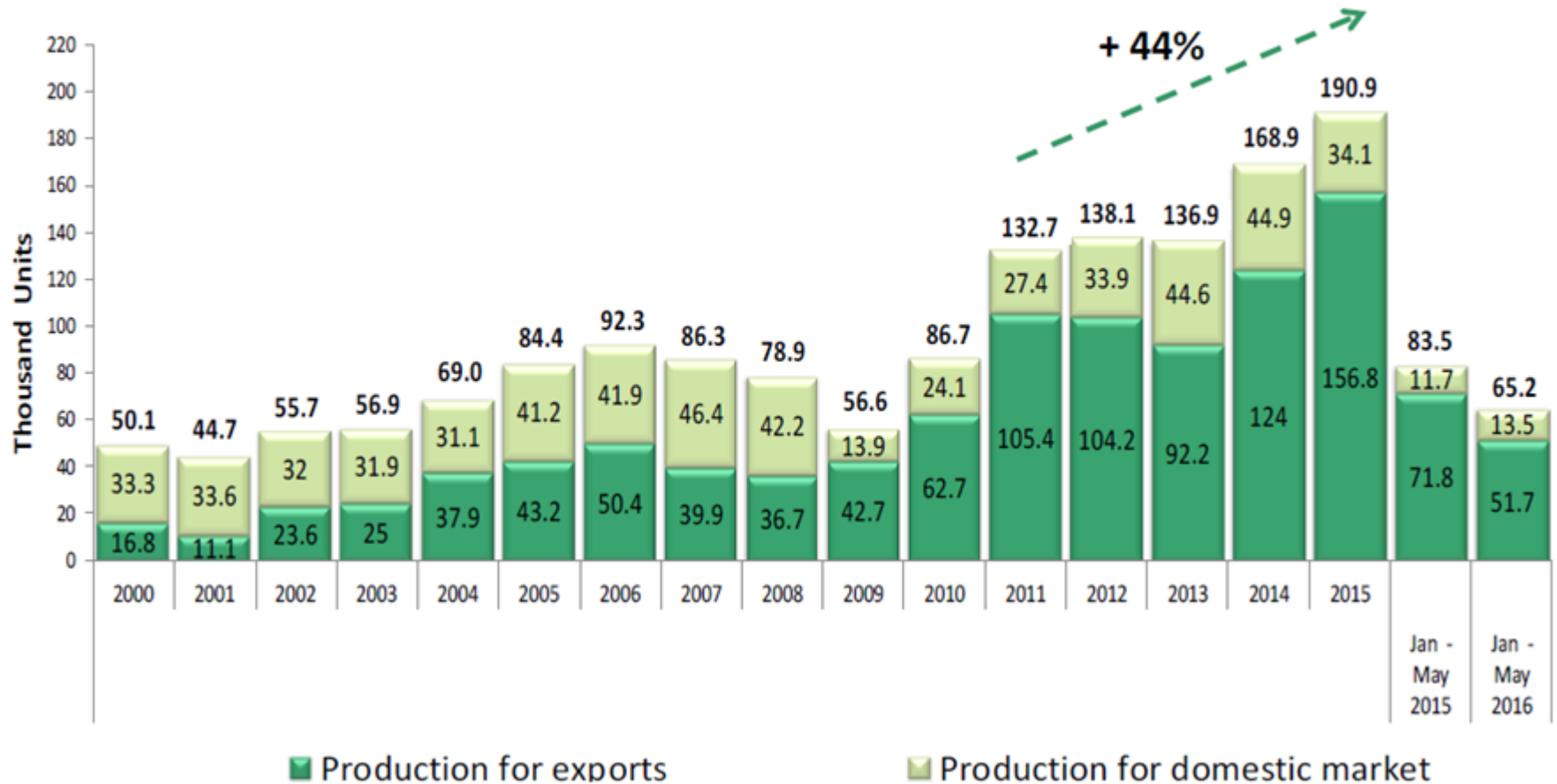


Light Vehicle Production in Mexico, 2002 - 2022



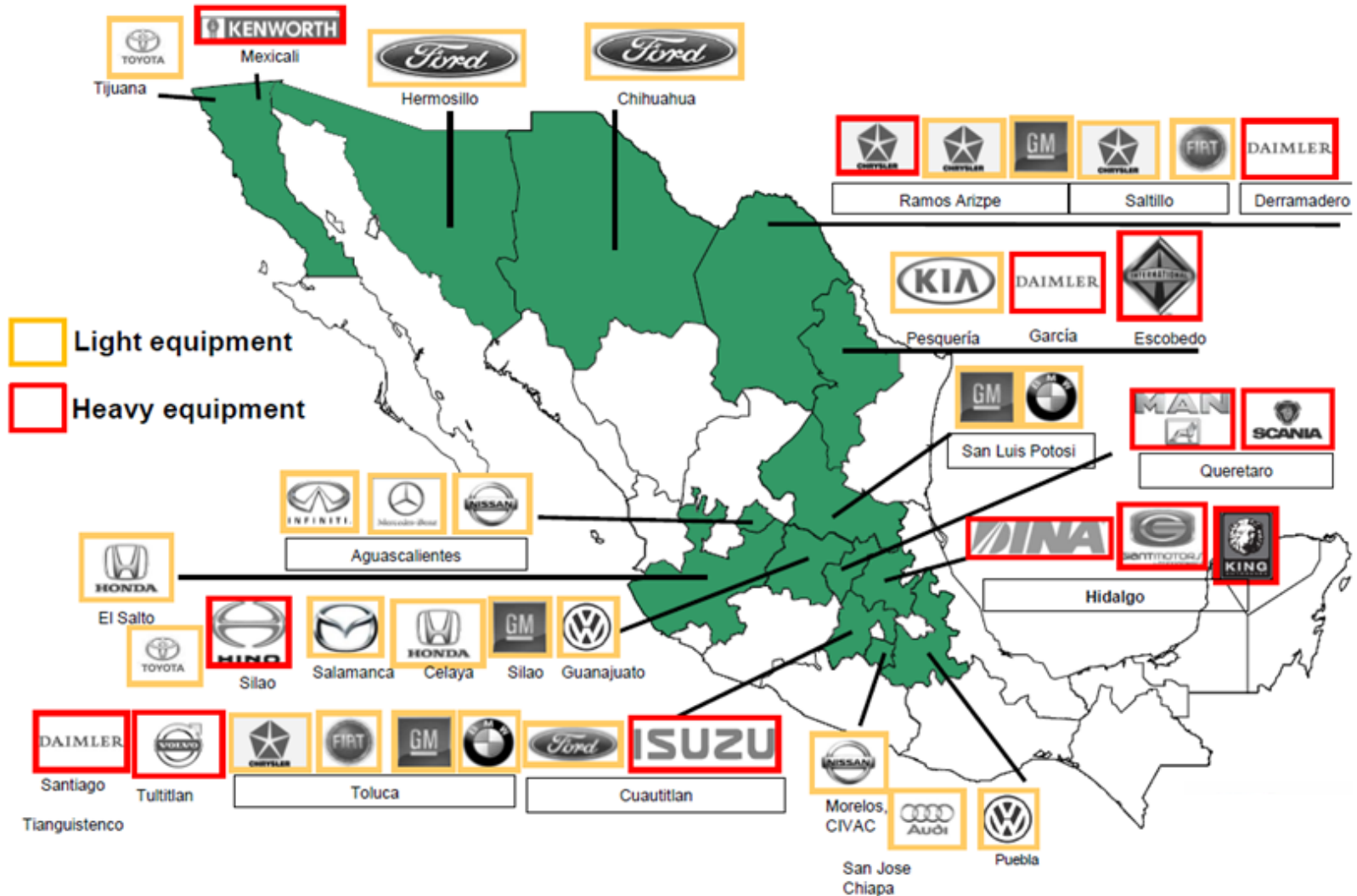


Production and Exports of Heavy Vehicles





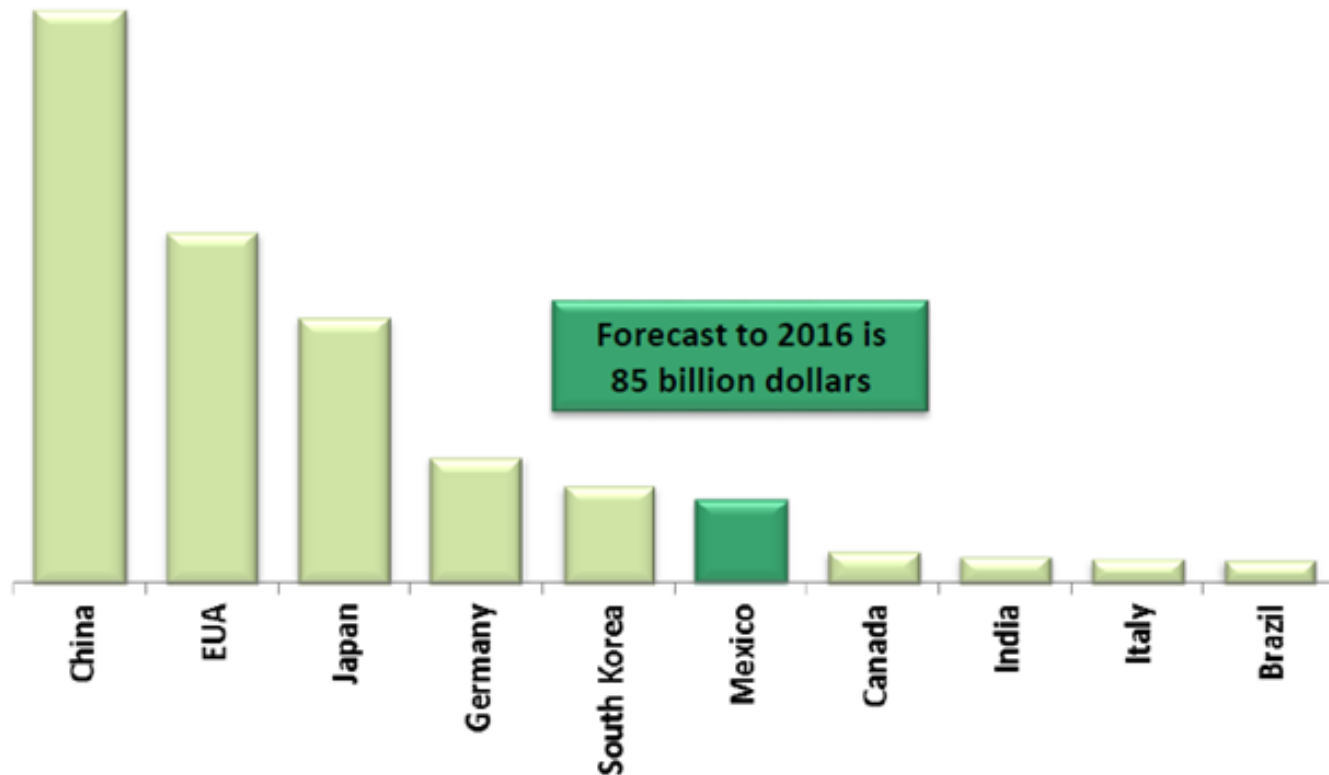
Mexican Automotive Industry Geography





Production of Auto Parts by Country, 2015

- ▶ In 2015, Mexico was the sixth largest producer of auto parts with a value of \$ US 82 billion.





Mexican Exports & Imports of Auto Parts by Country, 2015

(Million dollars)

Country	Exports	%	Country	Imports	%
USA	61,343	89.9%	USA	22,728	52.9%
Canada	1,719	2.5%	China	5,879	13.7%
Brazil	878	1.3%	Japan	2,942	6.8%
China	727	1.0%	Canada	1,879	4.4%
Germany	428	0.6%	South Korea	1,832	4.3%
United Kingdom	367	0.5%	Germany	1,783	4.2%
Japan	356	0.5%	Taiwan	555	1.3%
Italy	268	0.4%	Brazil	509	1.2%
South Korea	217	0.3%	India	476	1.1%
Spain	170	0.2%	Thailand	445	1.0%
Argentina	149	0.2%	Nicaragua	408	1.0%
Australia	133	0.2%	Italy	375	0.9%
Nicaragua	128	0.2%	France	296	0.7%
Thailand	127	0.2%	Spain	282	0.7%
Russia	110	0.2%	Czech Republic	233	0.5%
Total	68,262	100%	Total	43,000	100%



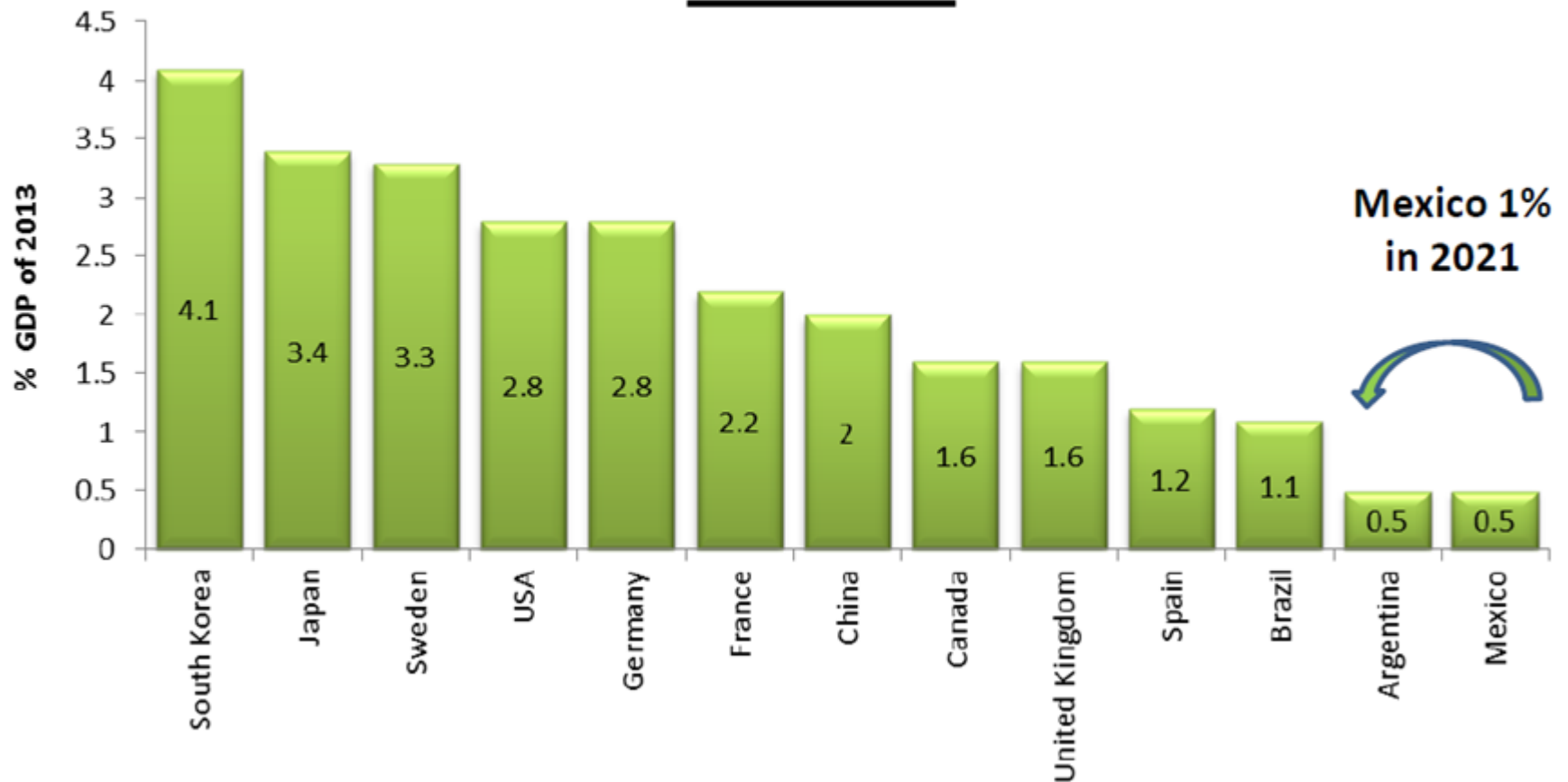
Main Exported Auto Parts, 2015

(Million dollars)

Auto parts	2014	2015	Growth (%)
Harnesses and cables	7,866	8,132	3.4%
Seats for vehicles and its parts	5,440	5,358	-1.5%
Engines and its parts	4,602	4,537	-1.4%
Differential axles and its parts	2,983	3,492	17.1%
Stamped parts and accessories of bodies	2,794	3,074	10.0%
Air bags and its parts	2,182	2,544	16.6%
Gearboxes and its parts	2,061	2,387	15.8%
Brake mechanisms	1,769	1,947	10.0%
Devices for audio and video	1,885	1,734	-8.0%
Selected auto parts	31,582	33,206	5.1%
Total	64,527	68,262	5.8%



Investment in Research and Development in Selected Countries

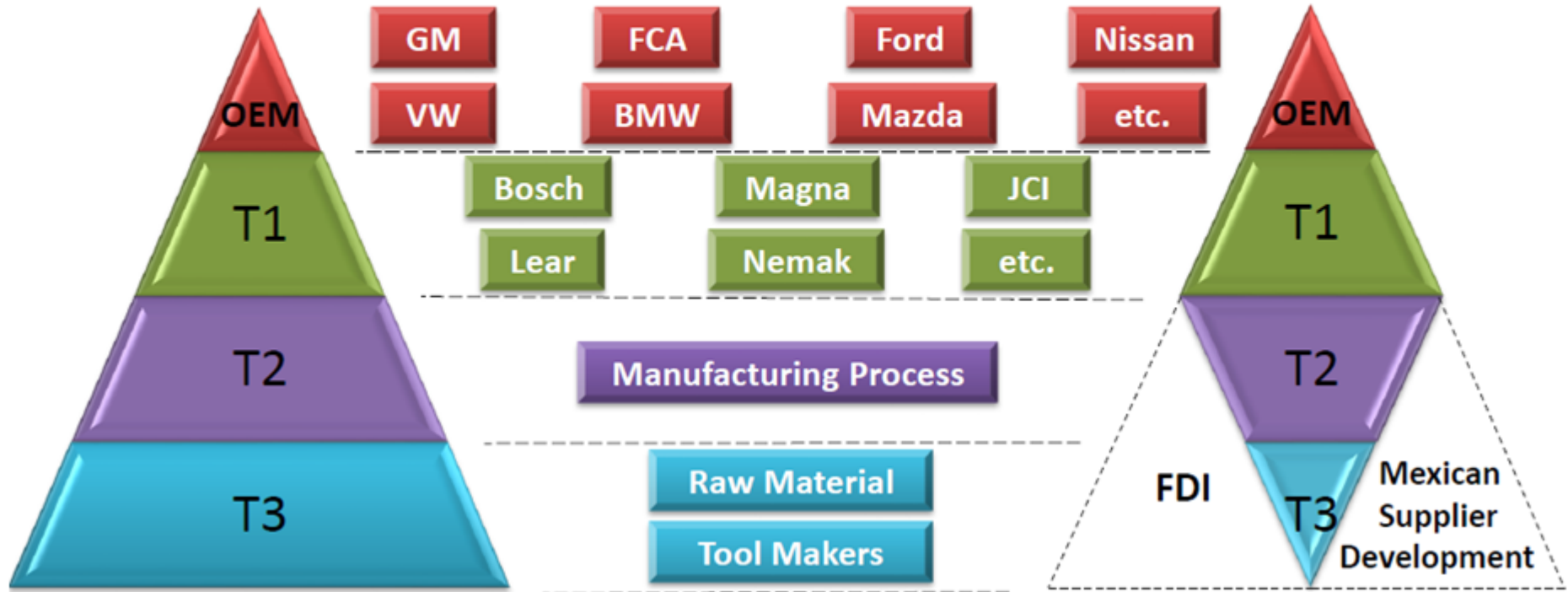




Supply Chain

Developed Country

Mexico





ST.CLAIR TECHNOLOGIES

Innovative Solutions for Electrical Systems

Mexico

Already today a favored destination for automotive companies



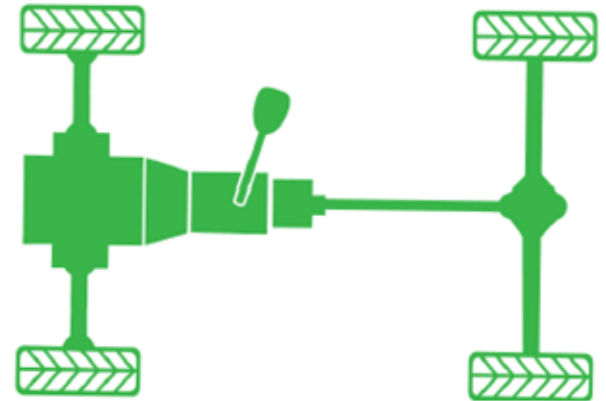
21 OEM plants in operation; **6** under construction

Estimated value of component production of **\$USD 85,500M** in 2016; **5%** YoY growth

12 free trade agreements that grant access to **46** countries

7th largest light vehicle producer worldwide (**3.4M units**); expected to become the **5th** by 2020 (**5M units**)

Deloitte Study ranks Mexico as the **8th** most competitive nation worldwide for manufacturing, up from **12th** in 2013 and forecasted to move up to the **7th** by 2020





ST.CLAIR TECHNOLOGIES

Innovative Solutions for Electrical Systems

Mexico

Examples of strategic investments supporting the evolution of the sector



Infrastructure



117 sea ports & expansions



27,000 km railroads & expansions



133,000 km roads: connecting ports & plants



76 airports & building a new main airport

Development Centers & Education

- More than **20** public & private R&D centers
- **300+** Institutions with automotive-related degrees by region (2014)



Why Partner with St. Clair?

- ❑ Privately held mid-sized company with an involved Arizona-based executive management team, offering the benefits of world class technology and quality systems, while maintaining a proactive, responsive customer service based approach to doing business.
- ❑ Reliable supplier with robust quality systems and processes
 - State of the art equipment and comprehensive error proof testing.
 - Industry recognized supplier for both Quality and On-Time Delivery.
- ❑ We are successful at managing very complex products in short lead times.
 - We can delivery large harnesses with unlimited option driven content within 4 weeks.

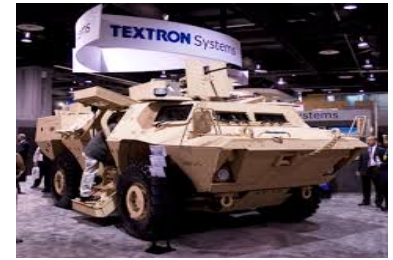
Why Partner with St. Clair?

- ❑ **Stable and knowledgeable work-force in Guaymas, Mexico**
 - 20 years in the same manufacturing location, with a strong relationship with the Offshore group; Sonora's largest provider of Mexico outsourcing solutions.
 - Minimal rotation as a result of workers being from the area.

- ❑ **SCT desires to foster lasting partnership where we can collaboratively identify ways to improve design and reduce cost.**
 - We conduct weekly VAVE exercises for our customers to examine area to improve efficiencies, design and discover cost reduction opportunities.
 - SCT saved our customers an average of 3% last year through this process.

- ❑ **SCT is multi-disciplined, and can support a wide range of products as evidenced by our diversification.**

- Sampling of current flagship programs St. Clair supports for Auto, Truck, Military, and Bus...





Company Certifications:

- ☐ ISO/TS 16949
- ☐ ISO 9001 & ISO 14001
- ☐ **AS9100 (Aerospace)**
- ☐ U.S. Government certified – Military (DOD CCR)
- ☐ IMDS Compliant
- ☐ CTPAT & FAST Certification
- ☐ ITAR Registrant Code: M23465
- ☐ UL Registrant Code : E6123
- ☐ Women Owned Business Status



Manufacturing Sites and FOB Location



We have two facilities in:

Guaymas,
Sonora,
Mexico



Guaymas is approximately 250 miles from Nogales, AZ, on the US border.
Average freight crossing time is 12 hours from departure of our plants.

Research & Design Development

□ Component Design Development Process

- Preliminary, Interim and Final Design Reviews planned for major new projects
- 3D printing being used for part trial and design reviews
- 3D math data being used for holder and tester development
- 2D Manufacturing and Customer Drawings being developed
- DFMEA, PFMEA and Control Plans to be connected where we are Design Responsible

□ Patent requests pending

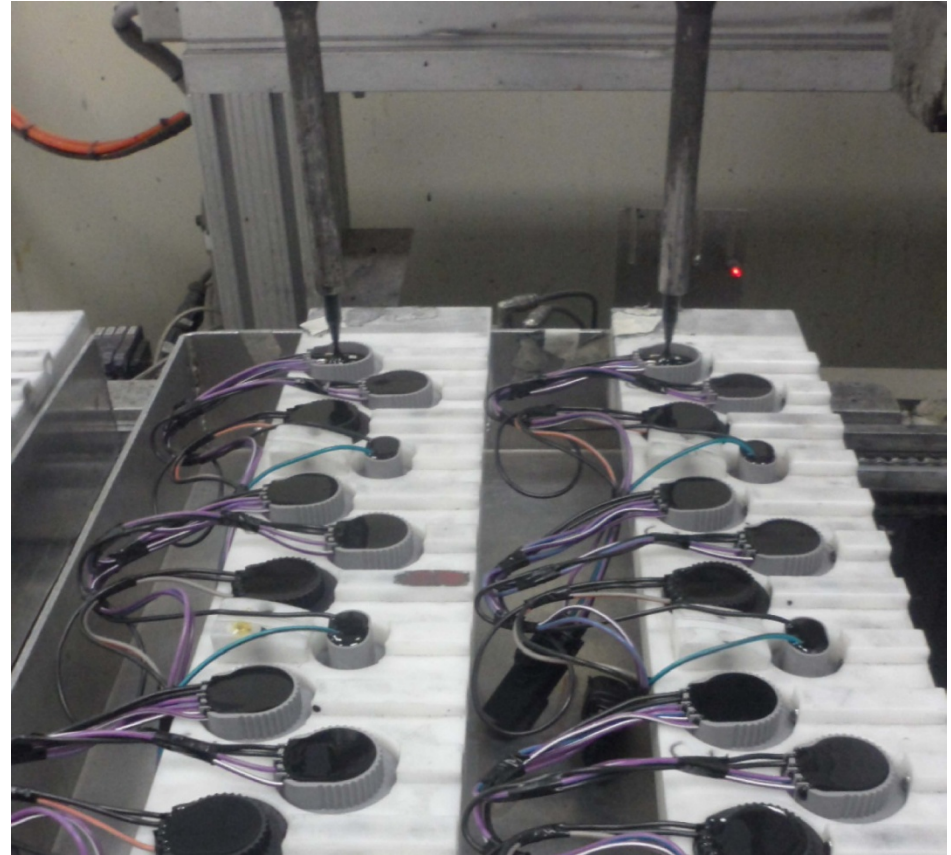
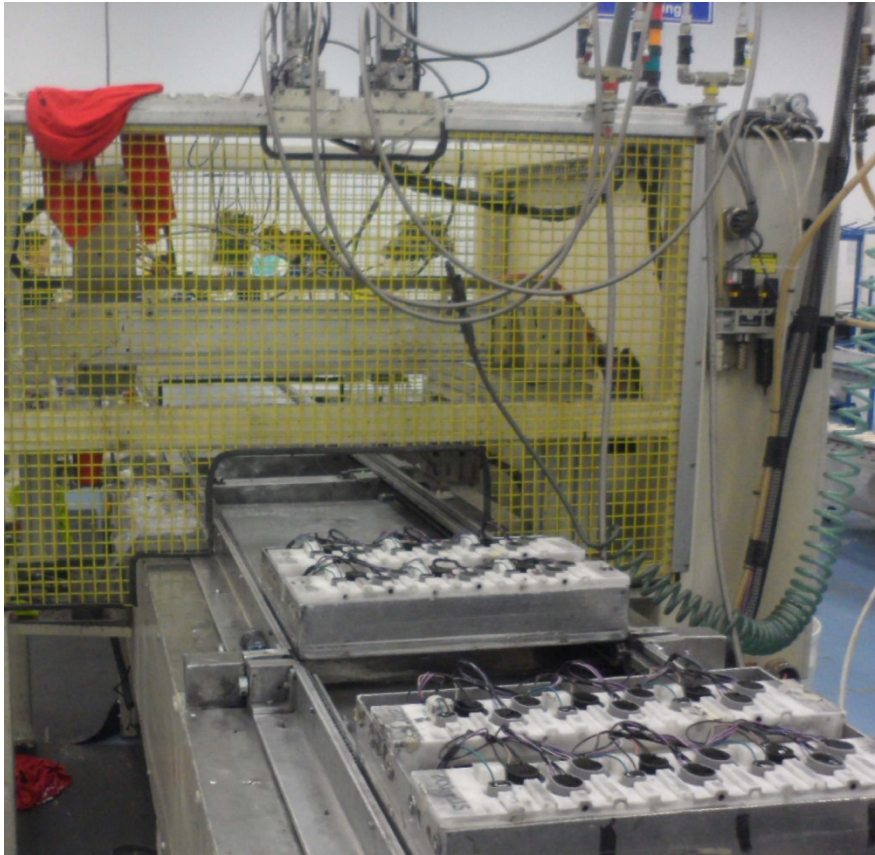
- ❖ 70-way AGI header and
- ❖ 8-way sealed Molex inline

□ Development Status

- 28 Active New Components - Supporting \$15M in business in 2017FY
- 7 Component Design Continuous Improvement
- 7 Components being resourced



ST.CLAIR TECHNOLOGIES Innovative Solutions for Electrical Systems



State of the art two-part polyurethane potting system and over-molding

Insulation Displacement Connections:

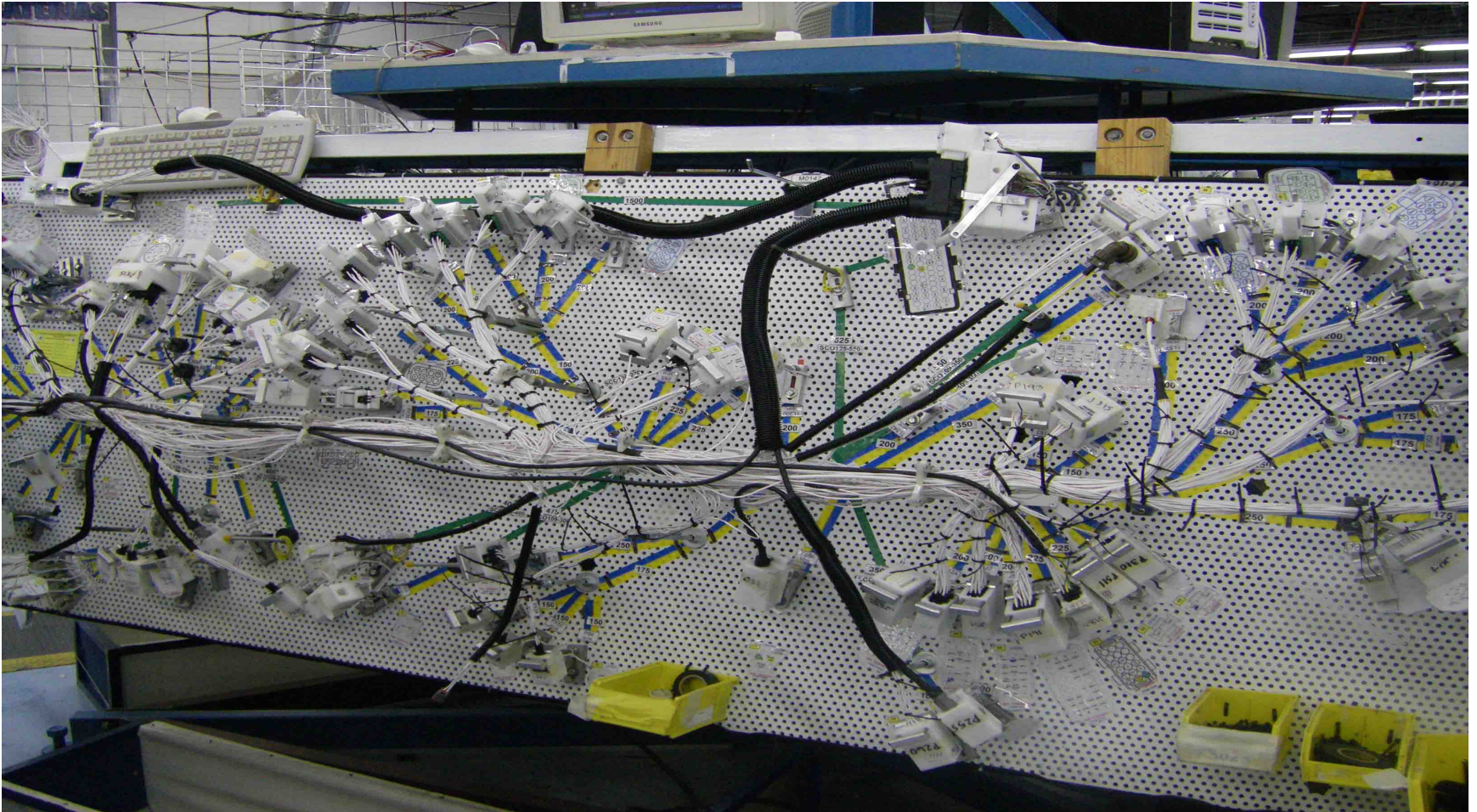
- Automated IDC termination with wire core positional control.
Example shows circuit edge board connection



Ultrasonic splicing:

- Control based on applied energy to bond cable strands. Scanning of bar coded system set up to ensure the correct splice configuration is chosen. The machine has the capability to lock out the splice if the splice area is not correct.





Large Military Harnesses



ST.CLAIR TECHNOLOGIES Innovative Solutions for Electrical Systems



Complex Engine Harnesses



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Innovative Solutions for Electrical Systems





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Innovative Solutions for Electrical Systems





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Innovative Solutions for Electrical Systems





ST.CLAIR TECHNOLOGIES Innovative Solutions for Electrical Systems

THANK YOU!