South America

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Specialist II – Automotive Practice

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OLIVER WYMAN

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South American Manufacturing Maturity
Implications for Suppliers

Traverse City Michigan

Oliver Wyman Profile

Oliver Wyman is a Marsh & McLennan company, one of the leading global professional service firms

MARSH & McLENNAN COMPANIES

- Revenue 2010: US$10.6 bn*
- Staff: 51,000*
- Offices in more than 100 countries
- Listed on the New York Stock Exchange

Oliver Wyman Group	Marsh Inc.	Guy Carpenter	Mercer
	Risk and Insurance	Re-insurance advisors	Human Capital

Industry knowledge

With more than 30 years of experience in consulting with leading companies in following industries

- Automotive
- Aviation, Aerospace & Defense
- Communication, Media & Technology
- Energy
- Financial Services
- Health and Life Sciences
- Industrial Products
- Retail & Consumer Products
- Surface Transportation

Capabilities

Broad expertise in functional areas

- Strategy & Growth
- Marketing & Client relationship management
- Mergers & Acquisitions, Capital Markets
- Cost efficiency & Operations
- Efficiency, Restructuring & Lean Management
- Procurement & Supply Chain
- Intellectual Property & Transfer Pricing
- IT & Operations
- Organization & Processes
- Risk management

Presence

USD 1.4 bn revenues in 2010
Staff of 3,500 in more than 50 offices in 25 countries

- Abu Dhabi
- Atlanta
- Barcelona
- Berlin
- Beijing
- Boston
- Buenos Aires
- Calgary
- Chicago
- Columbus
- Dallas
- Detroit/Troy
- Dubai
- Dusseldorf
- Frankfurt
- Hamburg
- Hamilton
- Hong Kong
- Houston
- Istanbul
- Leatherhead
- Lisbon
- London
- Los Angeles
- Madrid
- Melville, NY
- Mexico City
- Milan
- Milwaukee
- Montreal
- Moscow
- Mumbai
- Munich
- New Delhi
- New York
- Ottawa
- Paris
- Philadelphia
- Pittsburgh
- Portland
- Princeton
- Reston
- Riyadh
- San Francisco
- Sao Paulo
- Seoul
- Shanghai
- Singapore
- Stockholm
- Sydney
- Tokyo
- Toronto
- Washington DC
- Wilmslow
- Zurich

Source: Oliver Wyman
*Excluding Kroll, which was sold by Marsh & McLennan Companies in August of 2010.

Oliver Wyman’s Industrial Competencies

Our consulting offering for industry covers the entire value chain and has a strong focus on manufacturing.

R&D / Product Development

- Research and Technology
- Product strategy
- Technology development strategy
- Product creation processes
- R&D efficiency
- Brand management
- Partnership strategy

Procurement / Supply Chain

- Collaboration strategy
- Performance programs
- Sourcing strategy
- Supply chain management
- Material and logistics optimization
- Supplier Readiness

Manufacturing

- Production strategy and systems
- Performance assessment
- Complexity management
- Quality management
- RIW, Kaizen
- Global production footprint & expansion
- Greenfield factory planning
- *Annual* ***Harbour Report ™*** *Automotive cooperative study*

Sales & Marketing

- Global network expansion
- Network development
- Wholesaler and dealer support
- Marketing strategy
- Financial services
- Fleet management
- Customer loyalty / customer retention

Retail Brand Strategy

- Image assessment
- Positioning and brand strategy
- Logo and visual system creation
- Customer Experience Mapping℠
- Dealership design
- Visual merchandising

Strategy, operations, and organizational support

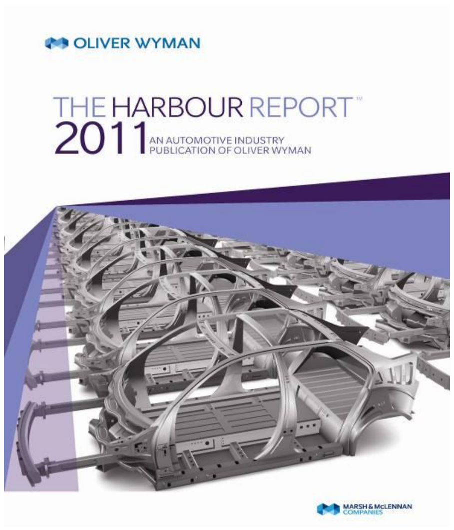
The Harbour Report™ History

North America (1981)

Europe (1996)

South America (2006)

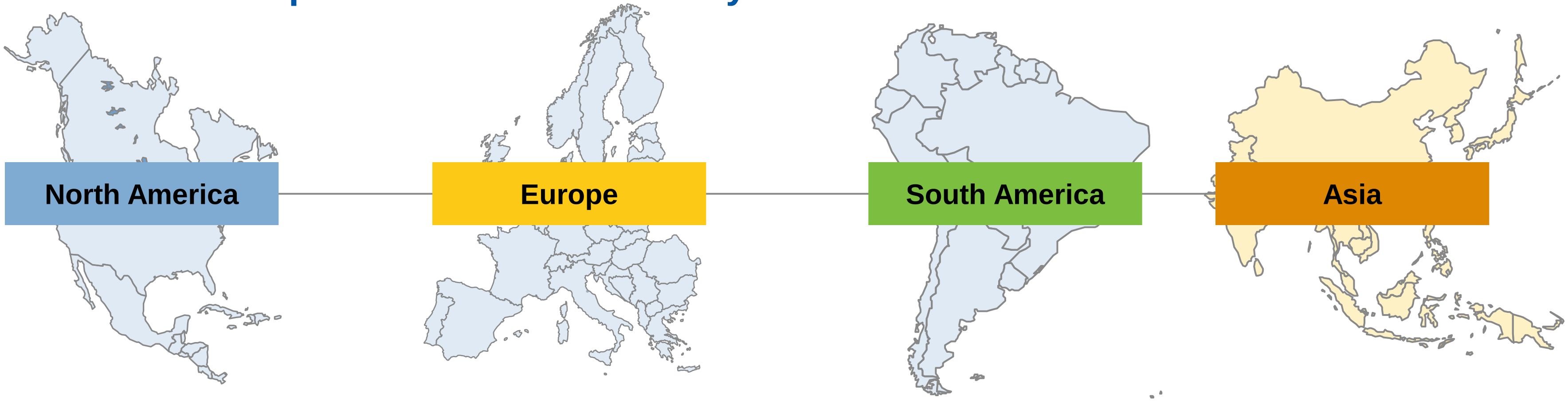
Asia (Dev)



The Harbour Report Global Automotive

1980 → **1990** → **2000** → **2010+**

2011 Harbour Report Team Global Factory Visits



North America

- Jefferson North, USA
  Trenton South, USA
- Chicago, USA
  Van Dyke, USA
- CAMI, Canada
  Detroit/Hamtramck, USA
  Lansing Grand River, USA
  Silao, Mexico
- West Point, USA
- San Antonio, USA
  Woodstock, Canada
- Puebla, Mexico

Europe

- Neckarsulm, Germany
- Oxford, England
- Cassino, Italy
- Kocaeli, Turkey
- Trnava, Slovakia
- Wolfsburg II, Germany

South America

- Pacheco, Argentina
- Rosario, Argentina
- Jeppener, Argentina
- Pacheco, Argentina

Asia

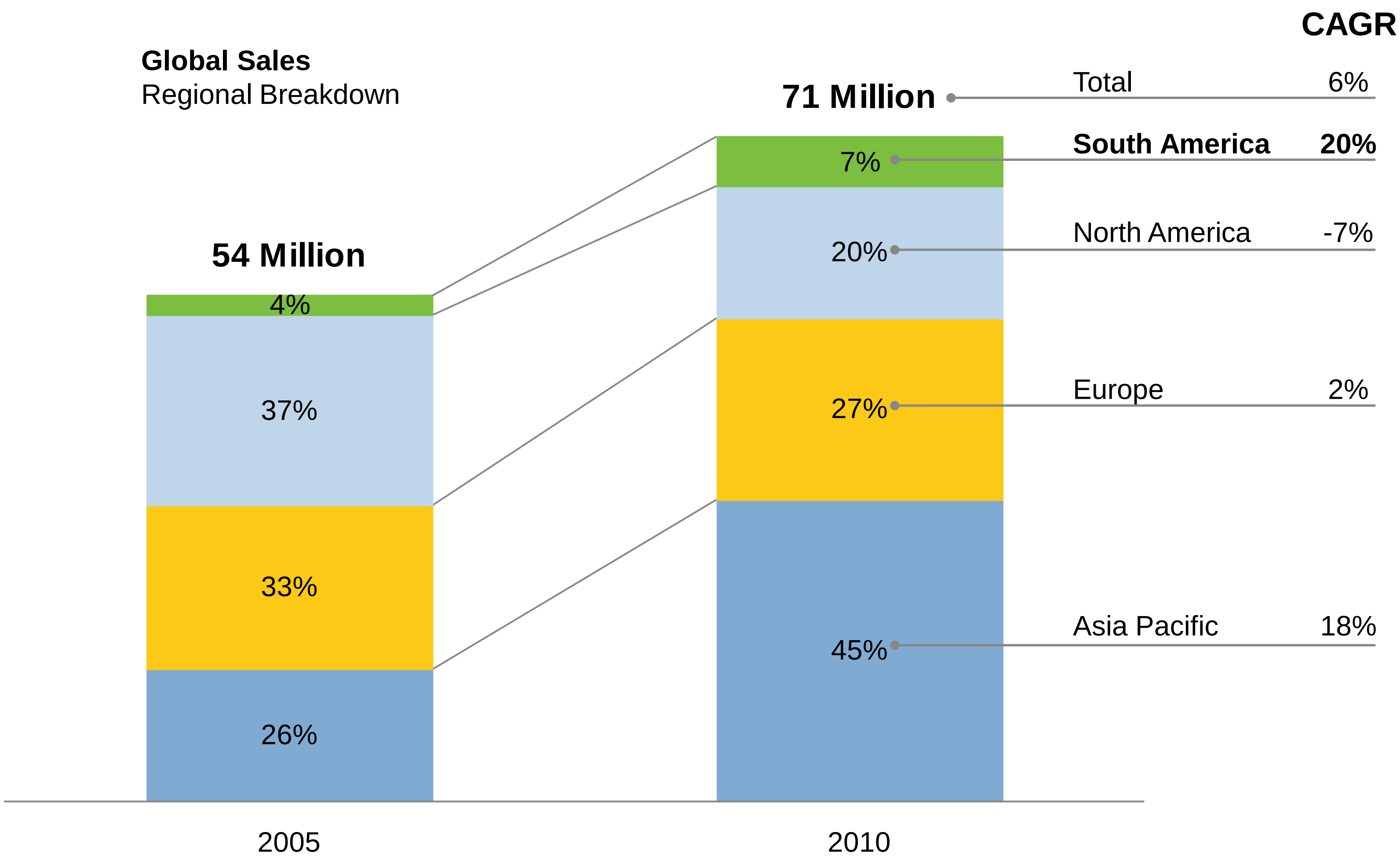
- Chennai, India
- Chennai, India
  Ulsan, S. Korea

48 Total Factories, 25 Sites

Manufacturing Footprint

Global Sales Overview

Over the past five years Brazil and Argentina have shown the highest compound annual growth rate of any of the regions shown



Industry Overview
OEMs Highlights

- Increased investment strategy in Brazil for the period between 2011 and 2015
- Executing 'One Ford' global strategy in South America with the Fiesta.

- Significant investment over the next five years, including a new plant in Pernambuco capable of building 150.000 low cost vehicles for the local market.

- Made South America it's fourth regional business unit
- Investment over the next two years to renovate models and expand capacity

- Honda opened a new plant in Argentina in first quarter 2011. Current capacity is 30,000 cars/year, with the possibility of a 'small investment' to expand to 50,000.

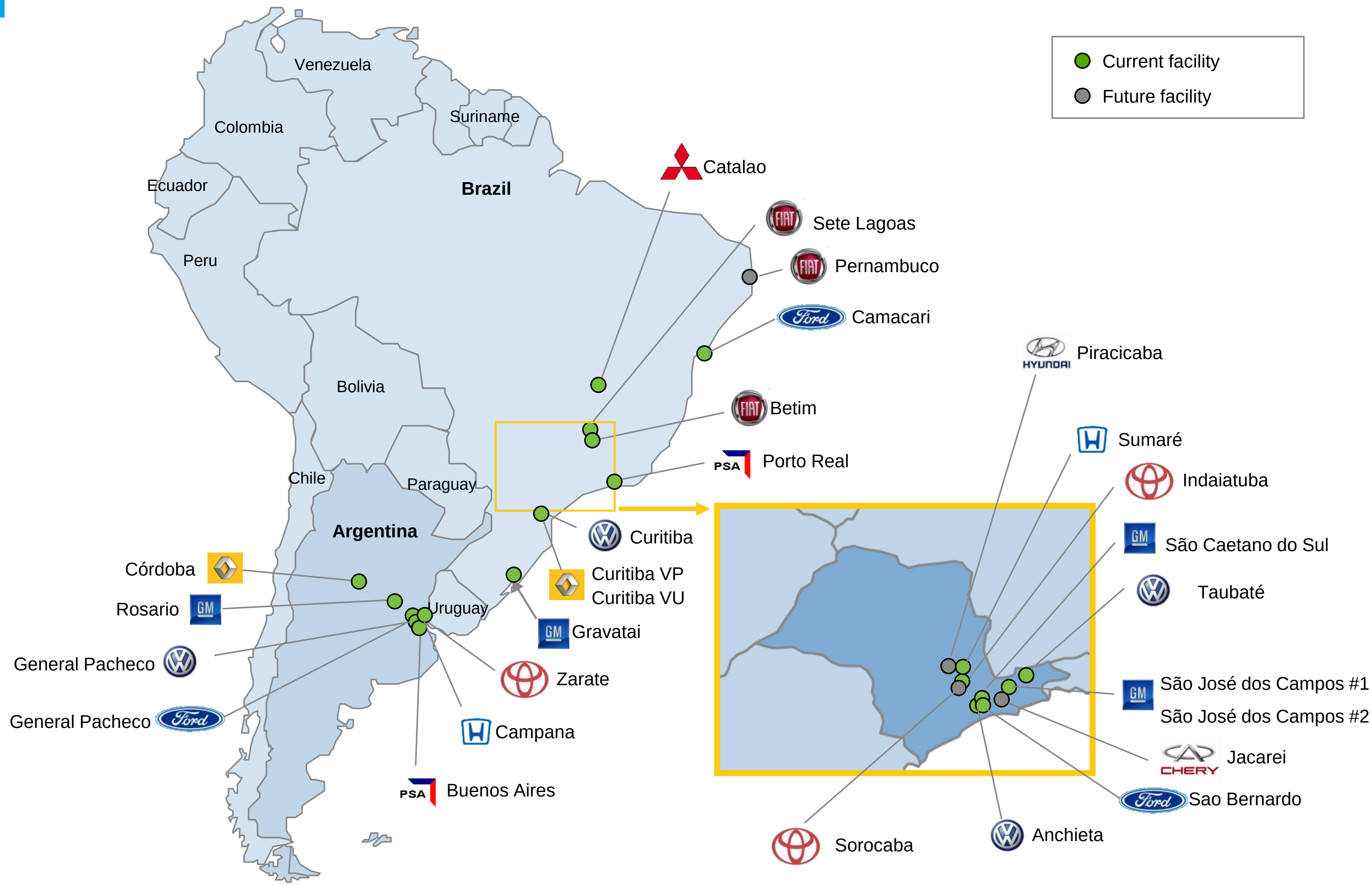
- Hyundai opening plant in Piracicaba, Sao Paulo state, Brazil. Planned capacity of 150,000 beginning in second half of 2012. Launching with a small flex-fuel hatchback, with more models in 2013.

- Additional investment in it's Porto Real facility to increase capacity.
- Implementing new purchasing strategy designed to consolidate it's number of platforms.

- Toyota is investing in building a second assembly plant to build a new compact car designed specifically for the Brazilian market. Launch capacity of 70,000 units/year.

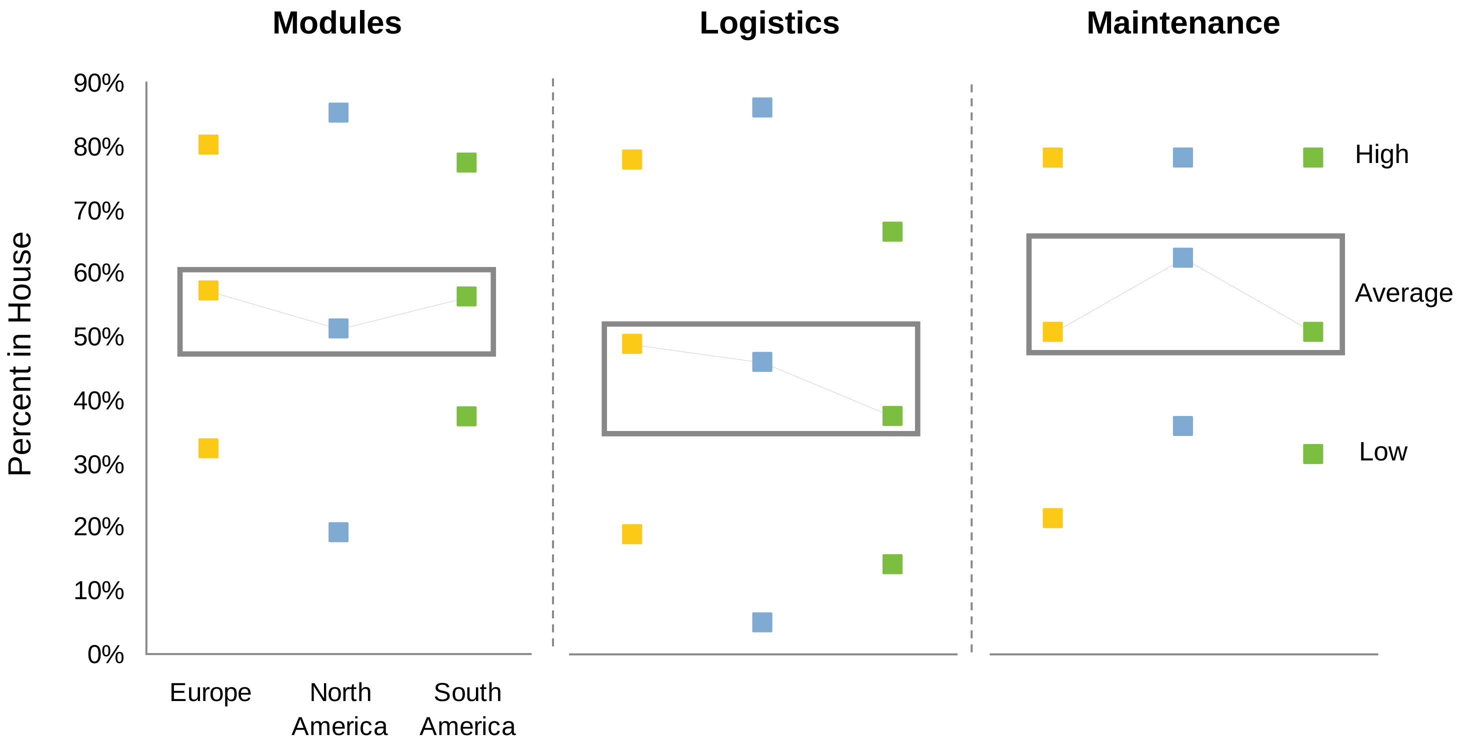
- Significant investment from the VW global investment program
- Workers in Curitiba returned after more than a month on strike after securing wage increases

Mercosur vehicle assembly plant locations



Regional OEM Sourcing Trends

OEMs look to suppliers to deliver consistent content and value regardless of region

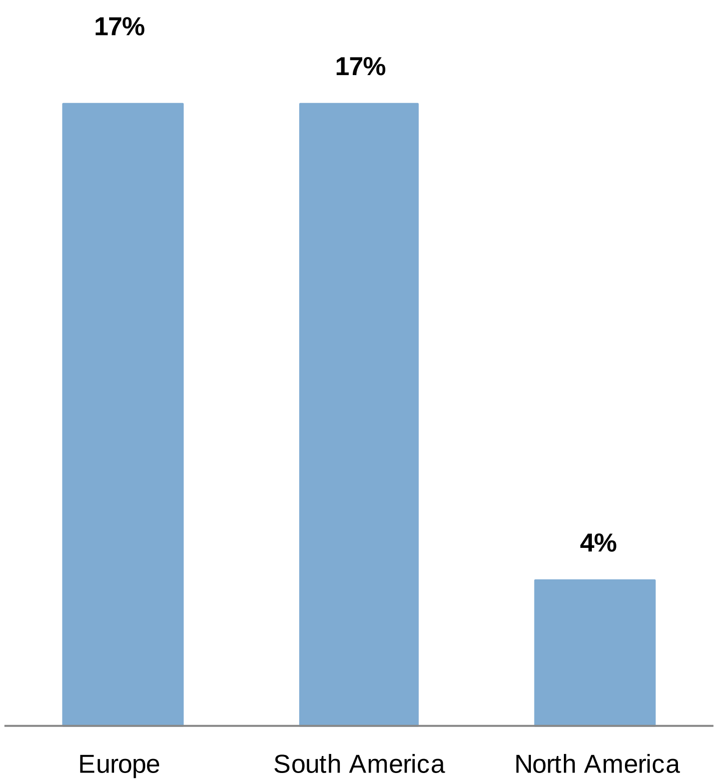


Relative sourcing hegemony across regions

Selective Growth of Supplier Parks

Incentives have driven greenfield development to rural areas of Brazil and Argentina that often lack an existing local supply base

Prevalence of On Site Suppliers



Percent of major modules assembled by suppliers located on-site or in adjacent supplier parks

Regional Differences

- Moderately successful in Europe
  - Ford has been at the forefront of supplier park development in Europe for many years
- Widely unnecessary in North America
  - Suppliers in the industrial Midwest are able to serve a variety of local clients
- Potential for growth in South America
  - Plant location and infrastructure concerns
- Current South America Examples
  - Ford Camaçari
  - Fiat Betim
  - GM Gravataí
  - PSA Porto Real
  - VW Anchieta
  - VW Curitiba
  - VW Taubaté
- Risk of customer dependence

Local Regulations Tip The Scales

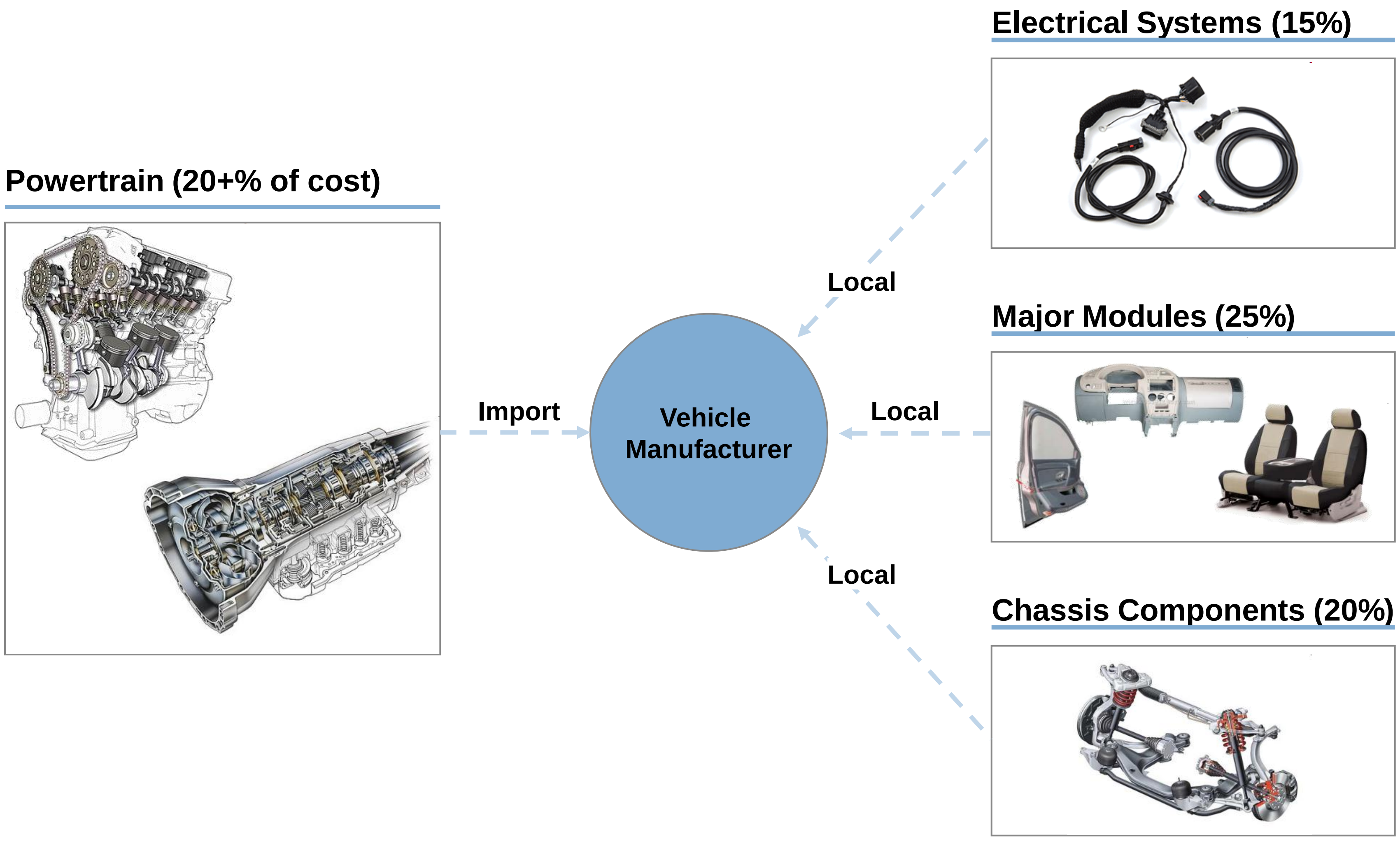
Protectionist policies in Brazil and Argentina give local suppliers a competitive advantage over those producing abroad

	Brazil	**Argentina**
Import Tariff (pass car)	35%	21.5%
Import Tariff (auto parts)	0 – 19.5% (16.5%)	1.5 – 19.5% (17.5%)
Low volume exception	No	No
Used / Remanufactured	Restricted	Prohibited
Local Content Requirement* ($)	60% / 50%	30%

*OEMs that do not meet local content requirements are subject to additional taxation

Impact of High Cost Components

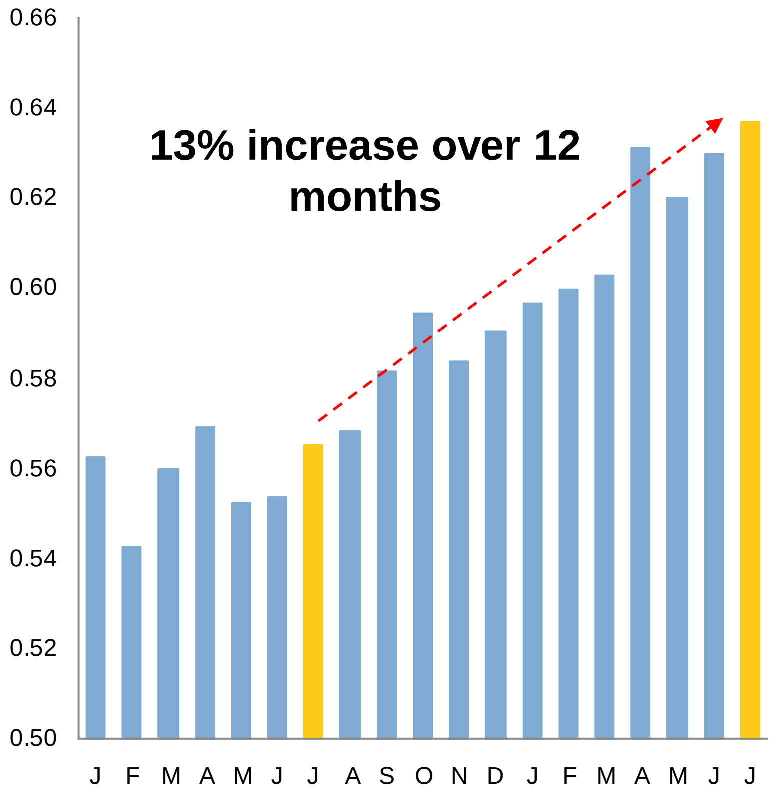
Sourcing decisions regarding high cost components can dramatically shift OEM requirements for locally sourced content



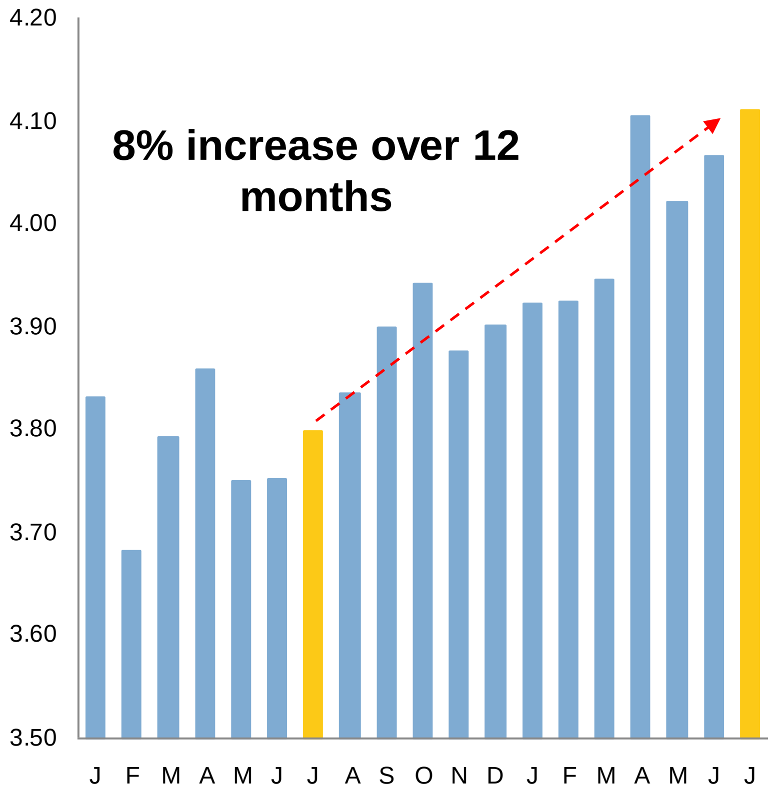
Currency Valuation

The current value of the Real has offset some of the cost barriers for importers, but the net impact still favors local content

US Dollar ($)



Chinese Yuan Renminbi(¥)



Market and Manufacturing Maturity

Rising Consumer and OEM Expectations

As the South American market has matured, consumer have come to expect high quality, contemporary offerings from OEMs; Suppliers in turn must meet more rigorous standards

Uno: Fiat Betim (2010)

Hoggar: PSA Porto Real (201)

Fiesta: Ford Camaçari (2011)

Etios: Toyota Sorocaba (late 2012)

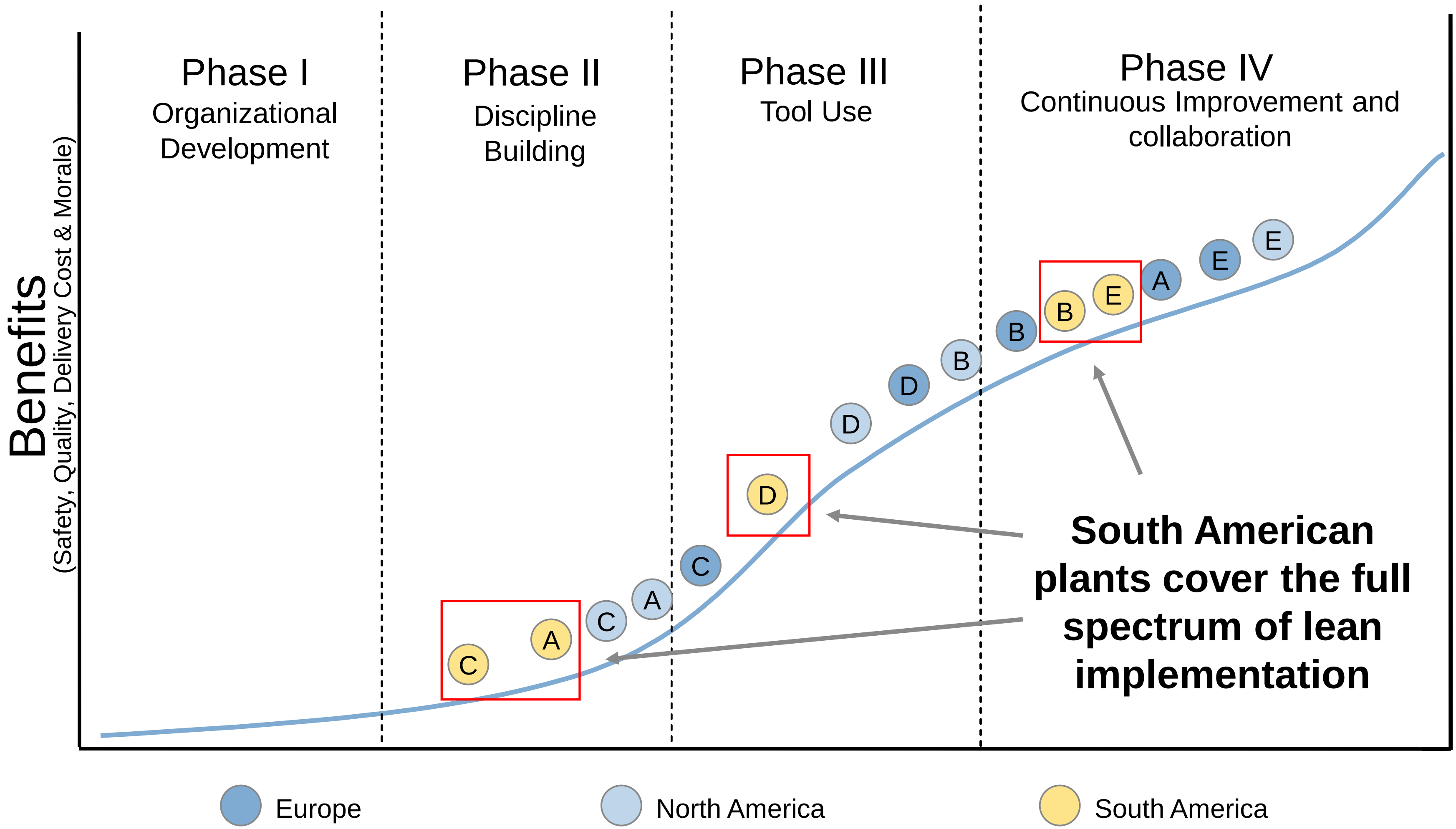
Cruze: General Motors São Caetano do Sul (2011)

Amarok: Volkswagen General Pacheco (2010)

2011 Lean Implementation Curve™

Certain manufacturers in South America are still at the early stages lean implementation, while others perform at benchmark levels

Blind rank of five manufacturers' (A - E) regional operations

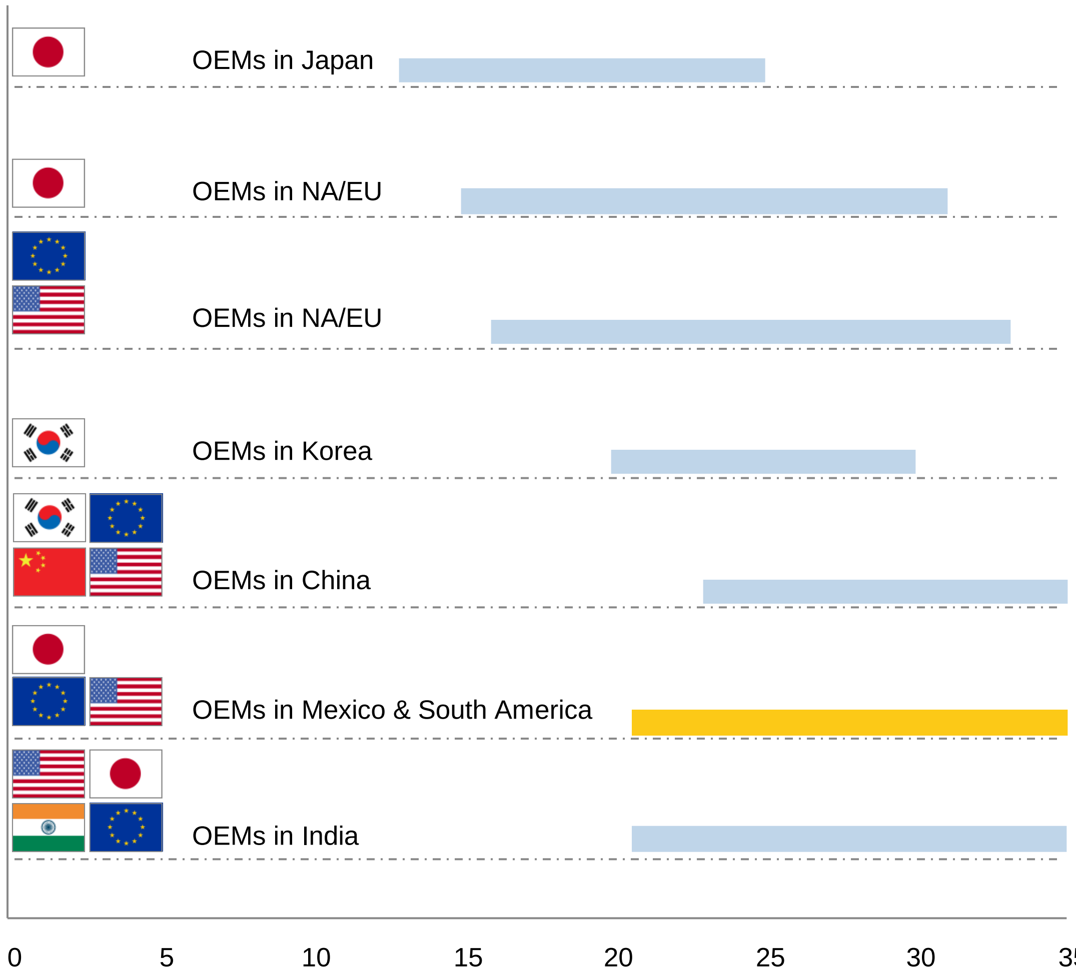


Global Labor Productivity Comparison

Labor productivity ranges from 20 to 50+ labor hours per unit in South America

Improving Labor Productivity
Four Strategies

1. Focus on in-process quality; reduce labor and time devoted to inspection and repair.
2. Increase cooperation between manufacturing and product development to improve design for manufacturability and drive out complexity and variation.
3. Develop standardized manufacturing systems with flexible work teams trained to continuously improve processes and rebalance work loads.
4. Strike a balance between labor and automation that is appropriate for the labor costs and technology in a given region.



Evolution Toward a More Holistic Approach to Sourcing

South American perspective on the range of factors influencing sourcing strategy

In Sourcing: OEM Considerations

North American trend toward in-sourcing could be repeated in South America as OEMs drive down internal cost and improve quality

- Productivity / automation
- Labor agreements
- Quality concerns
- Floor space utilization
- Delivery concerns
- Competitive differentiation

Outsourcing: Supplier Opportunities

Cost is king, but other drivers are playing a more significant role in sourcing decisions. Suppliers called upon to add value while reducing cost

- Capital investment
- Lack of OEM capacity
- Supplier location
- Core parts strategy
- Main line optimization
- Supplier capability

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