



RENAULT NISSAN MITSUBISHI

# AUTOMOTIVE LOGISTICS CONFERENCE

John Ennis

AMI Supply Chain (Middle East)

20<sup>th</sup> November 2019

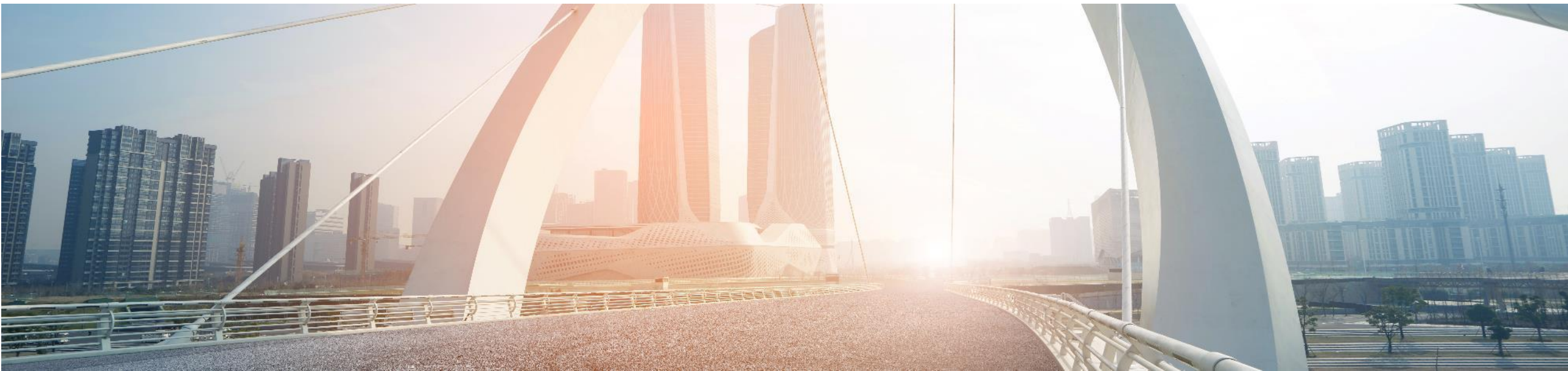




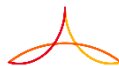
RENAULT NISSAN MITSUBISHI

# AGENDA

- ALLIANCE OVERVIEW
- LOGISTICS
- INNOVATION

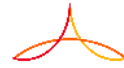






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# ALLIANCE OVERVIEW



# ALLIANCE - THE KEY FACTS & FIGURES

FOUNDED IN  
1999

THE LEADING  
AUTOMAKER

in the World

PARTNERSHIP

longest-lasting and most  
productive cross-cultural  
partnership in the auto  
industry

TECHNOLOGIES

developing the latest advanced technologies, with  
plans to offer autonomous drive, connectivity features  
and services on a wide range of affordable vehicles



10.76m

Cars sold in 2018

1 in 9

Vehicles sold worldwide

775,000+

Electric Vehicles sold

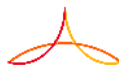
450,000+

Employees worldwide

122

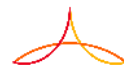
Manufacturing Plans



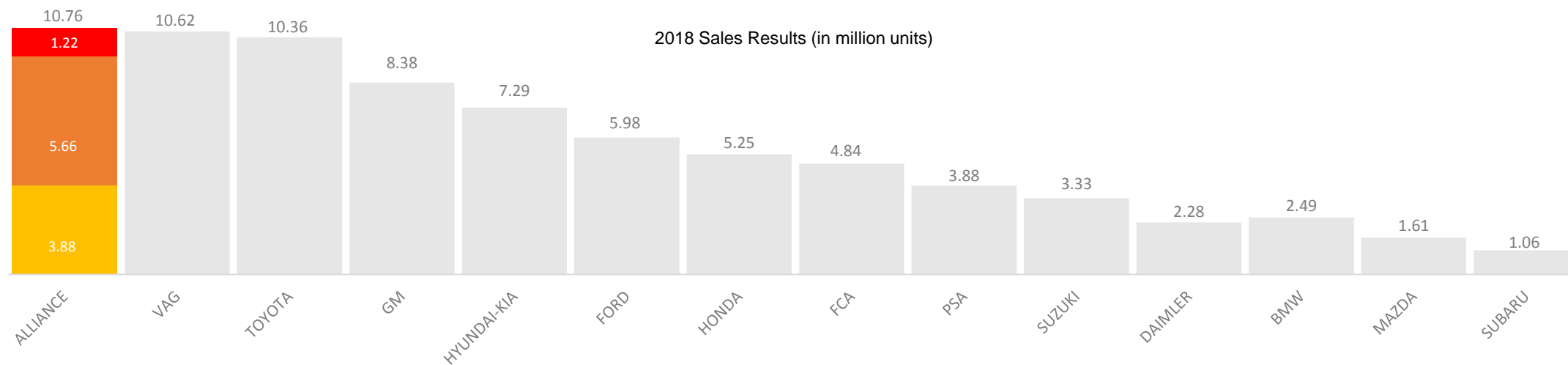


# ALLIANCE VEHICLES (TOP SELLING MIDDLE EAST)

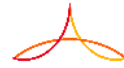




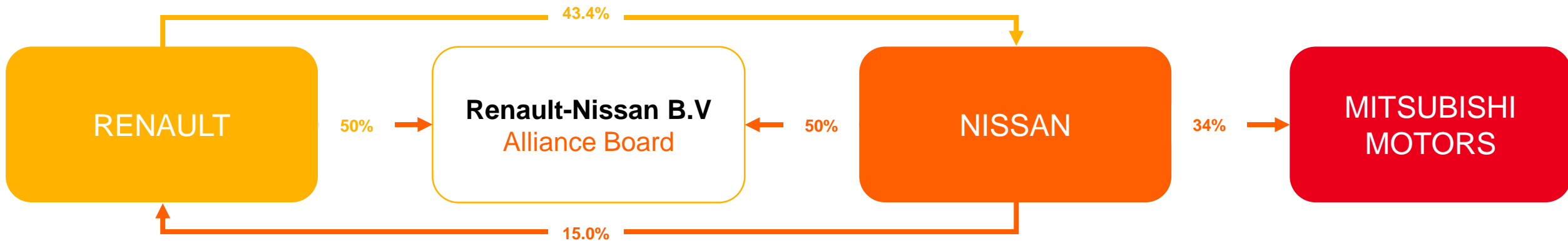
# ALLIANCE VOLUMES

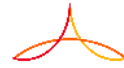




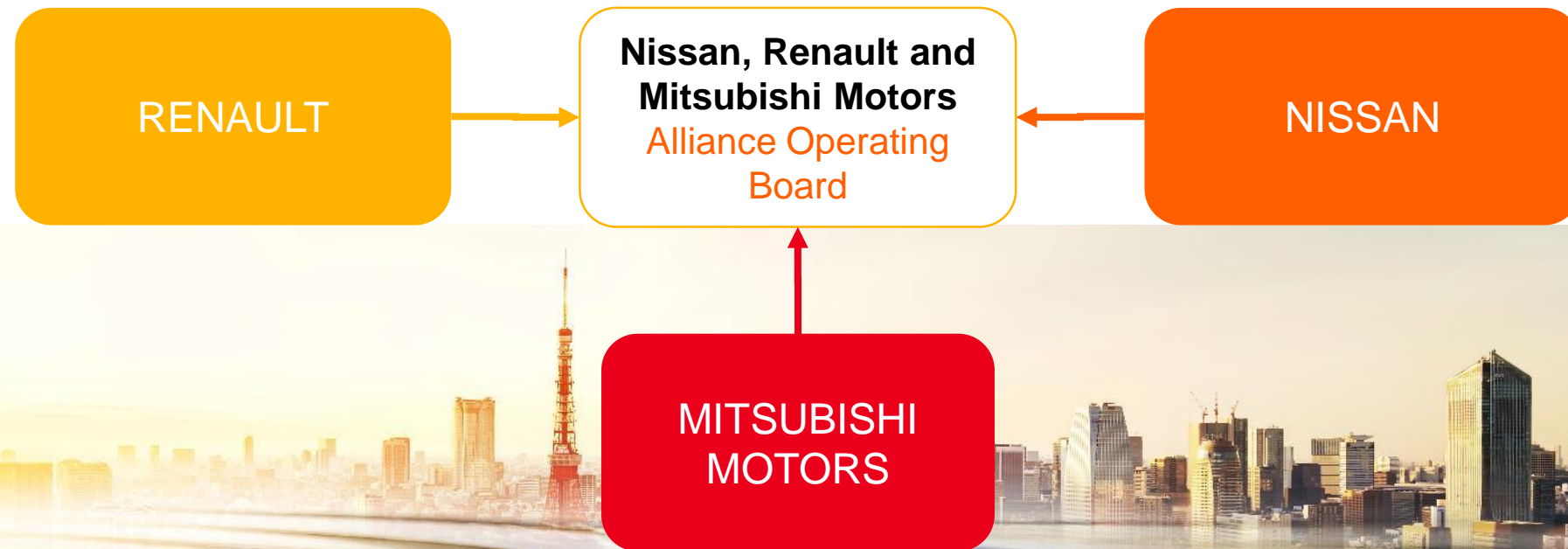


# ALLIANCE BUSINESS MODEL





# ALLIANCE BUSINESS MODEL







Electrification



Connectivity



Autonomous drive

# ALLIANCE – THE VISION -MOBILITY FOR ALL

## Zero Emissions Vehicles

- Building clean, affordable and safe cars for everyone
- 775,000+ Electric Vehicles in the Market
- 30% of total Alliance volumes will be electrified by the end of 2022



### Mitsubishi Motors i-MiEV

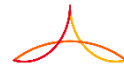
introduced in 2009 in Japan,  
worldwide in 2011 and to date  
selling over 114,000.

### Renault ZOE

is the #1 EV in Europe in 2017.  
Renault has sold 225,000+ EV  
worldwide since 2012.

### Nissan LEAF

Best-selling EV in the world with  
more than 409,000+ vehicles sold  
since its launch in 2010.



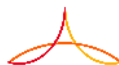
# 2

## LOGISTICS

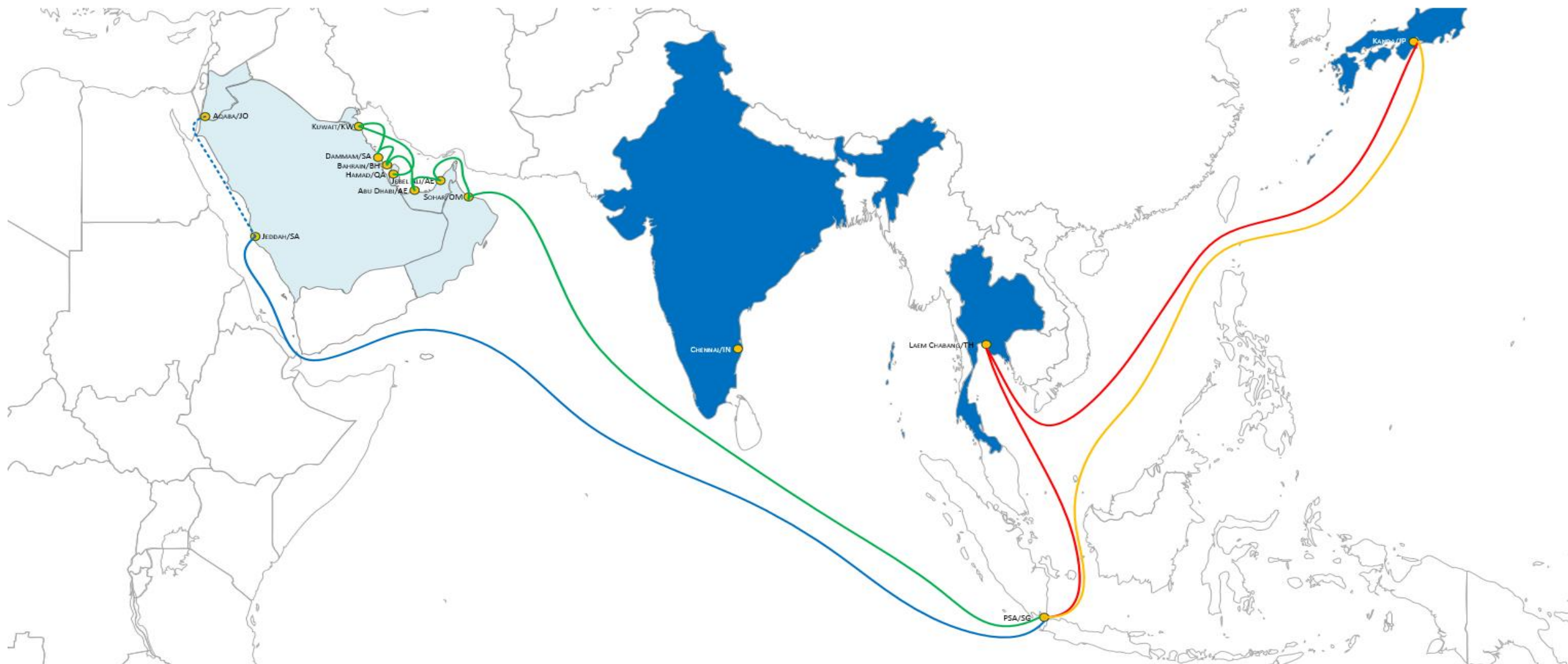


# GLOBAL PRODUCTION

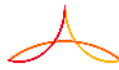




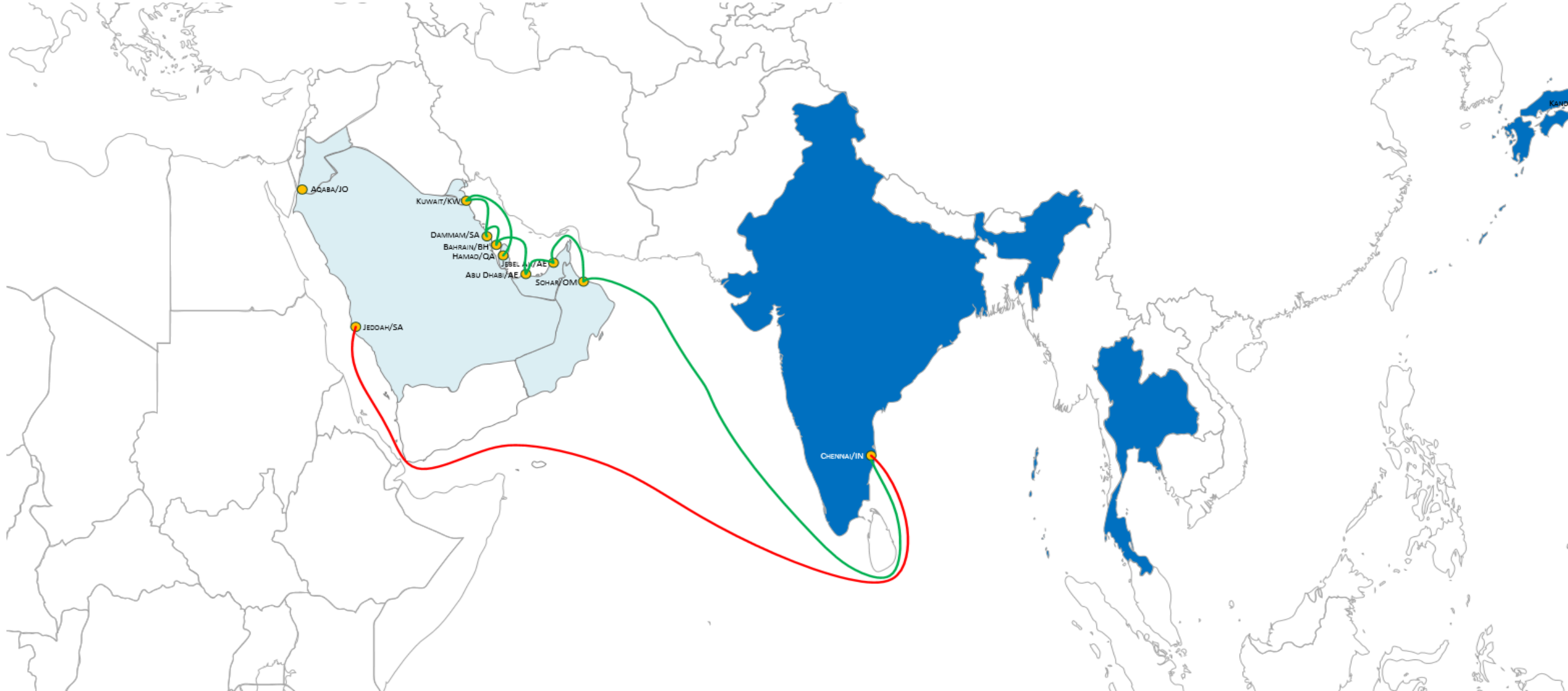
# MIDDLE EAST LOGISTICS

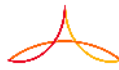




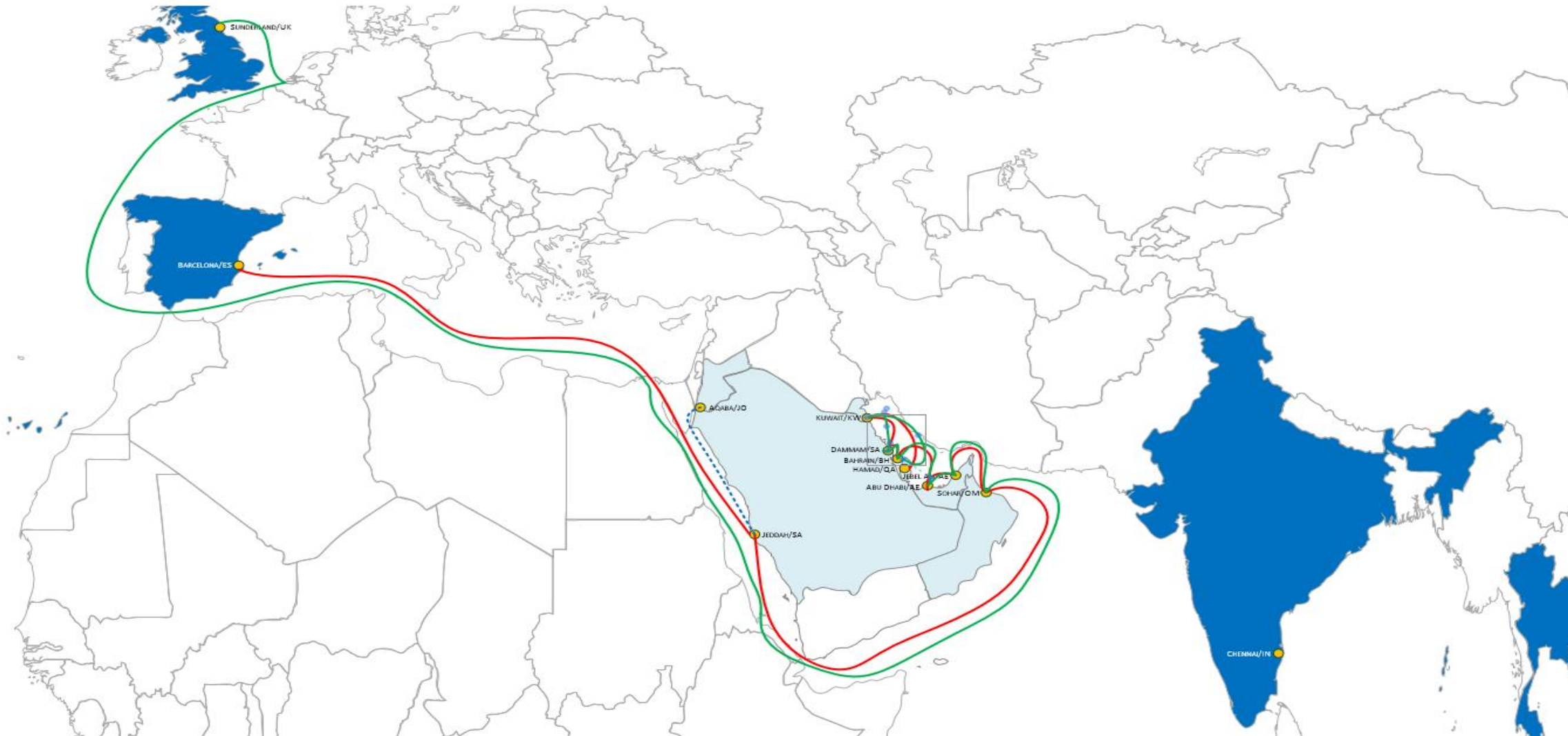


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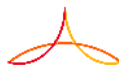




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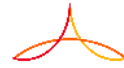




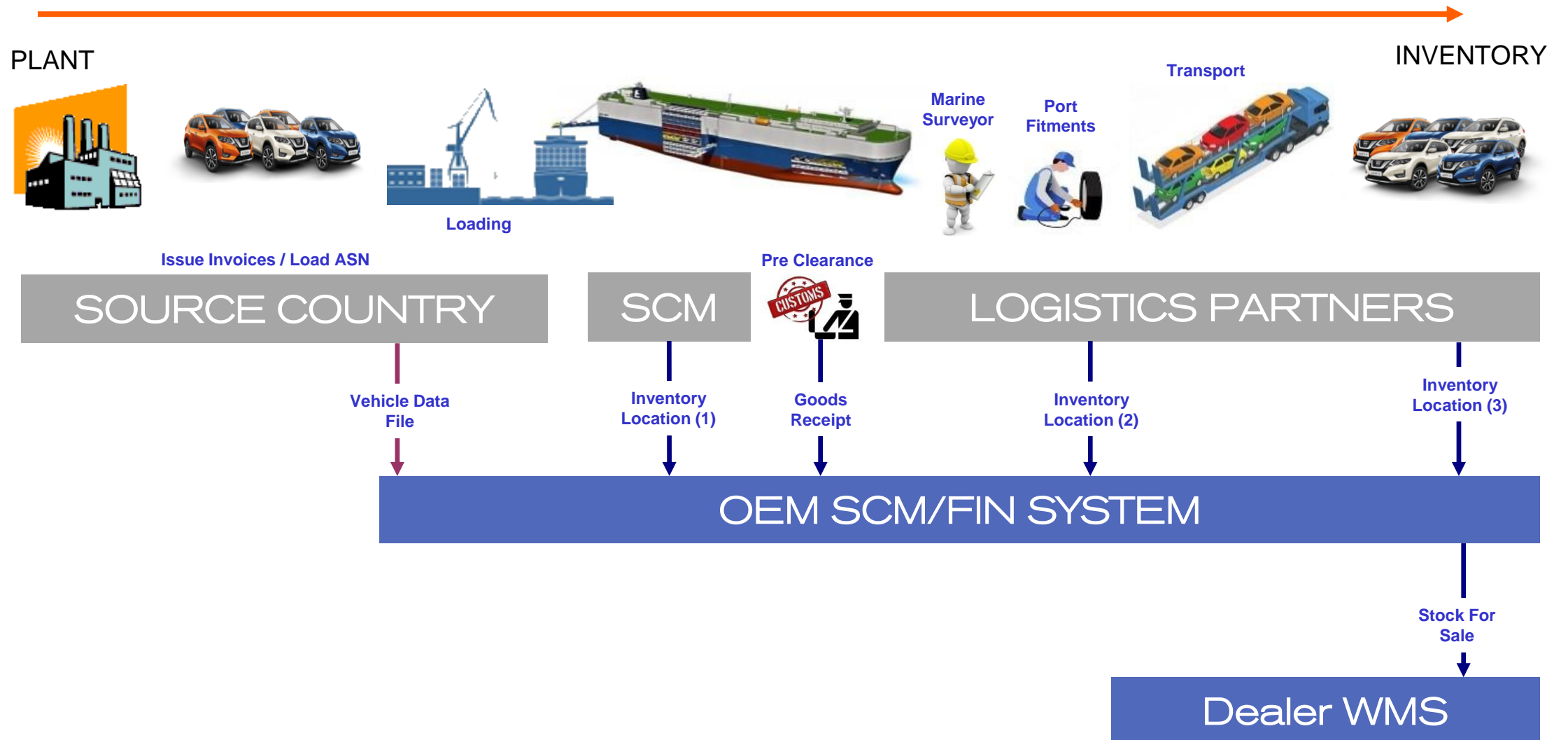


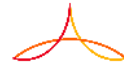
# MIDDLE EAST LOGISTICS



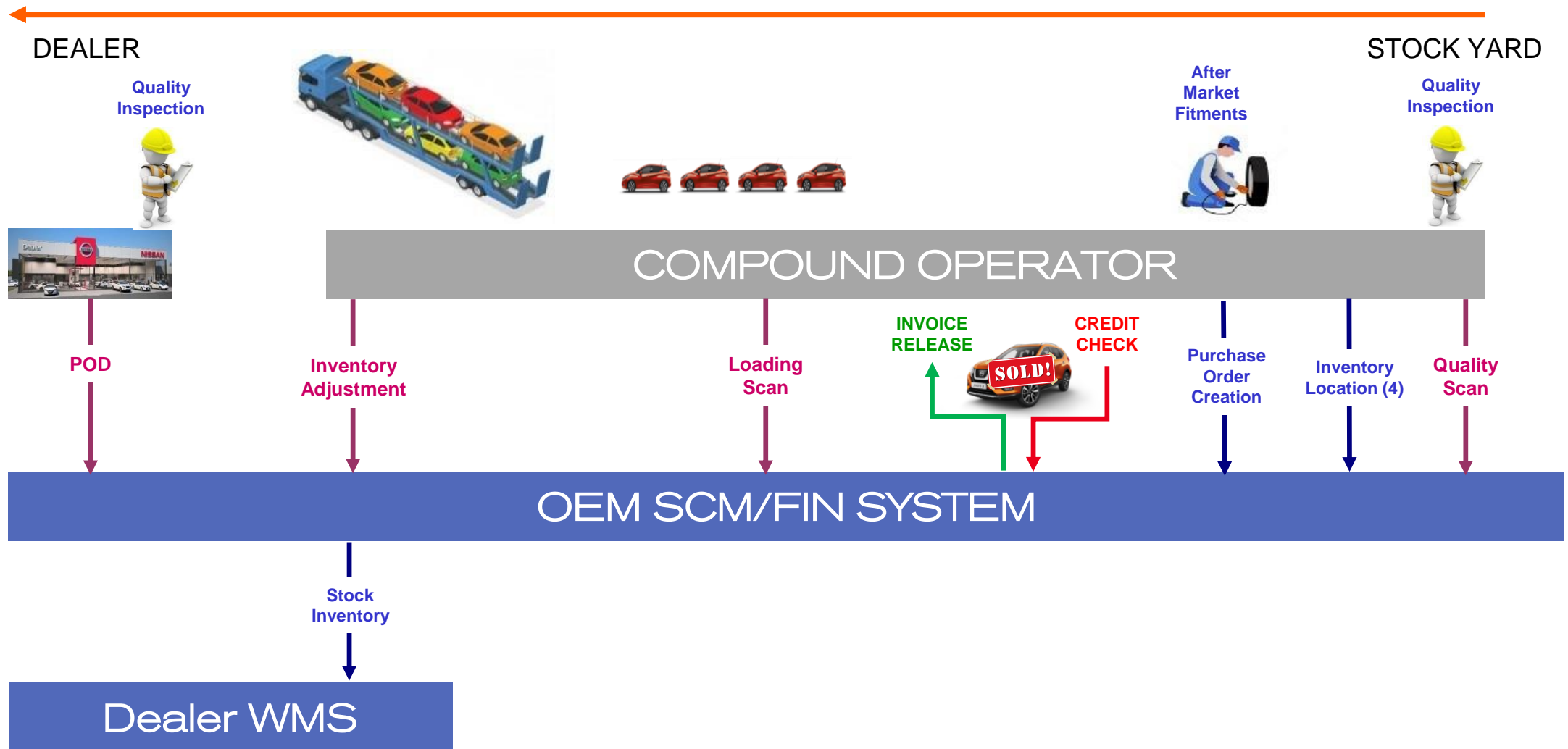


# MIDDLE EAST LOGISTICS (PORT TO PORT)

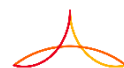




# MIDDLE EAST LOGISTICS (PORT TO STOCKYARD/DEALER)







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INNOVATION



## INDUSTRY 4.0

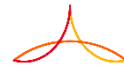
### PRODUCTION PLANTS SHAPED BY THE FUTURE

Our production system is future-focused, undergoing a major transformation in response to the changing challenges of the automotive industry and the expectations of our customers.

The 4.0 revolution is ushering in new business functions, new skills and new tools. It is the driving force behind a connected, agile and competitive production base.

Our objective in this new world: to build vehicles meeting the highest standards of quality and to maintain the performance of our industrial system. While ensuring the well-being of our employees.





**INDUSTRY 4.0**

## **4 KEY INITIATIVES TO DRIVE DIGITAL TRANSFORMATION**

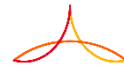
**REAL-TIME SUPPLY  
MANAGEMENT**

**SIMPLER PROCESSES  
WITH CONNECTED  
TOOLS**

**CONTINUOUS  
TRACEABILITY**

**DATA FOR PLANNING**





# INDUSTRY 4.0

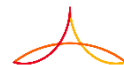
## REAL-TIME SUPPLY MANAGEMENT

As soon as a customer orders a vehicle, suppliers are informed, raw materials are prepared and logistics flows are established.

## SIMPLER PROCESSES WITH CONNECTED TOOLS

## CONTINUOUS TRACEABILITY

## DATA FOR PLANNING



## INDUSTRY 4.0

### **SIMPLER PROCESSES WITH CONNECTED TOOLS**

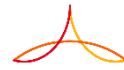
In our production plants, digital technology helps employees to be more mobile and proactive and to share information. It also contributes to easier decision-making on the production line.

### **REAL-TIME SUPPLY MANAGEMENT**

### **CONTINUOUS TRACEABILITY**

### **DATA FOR PLANNING**





# INDUSTRY 4.0

**REAL-TIME SUPPLY  
MANAGEMENT**

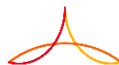
**SIMPLER PROCESSES  
WITH CONNECTED  
TOOLS**

**CONTINUOUS  
TRACEABILITY**

Vehicle parts, assembly and packaging are tracked in real time, so customers can follow the progress of their order.

**DATA FOR PLANNING**





# INDUSTRY 4.0

**REAL-TIME SUPPLY  
MANAGEMENT**

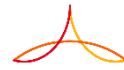
**SIMPLER PROCESSES  
WITH CONNECTED  
TOOLS**

**CONTINUOUS  
TRACEABILITY**

## DATA FOR PLANNING

Data are sent and analyzed continuously to conduct remote operations and simulations as well as to optimize maintenance.

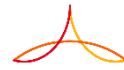




# PEOPLE AND ROBOTS, HAND IN HAND





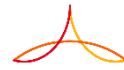


## PEOPLE AND ROBOTS, HAND IN HAND



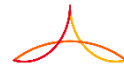
Simple to program, easy to handle and flexible, cobots can carry out a variety of tasks based on the operator's requirements. They can also work in different areas of the plant, depending on production requirements.





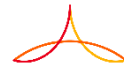
## PEOPLE AND ROBOTS, HAND IN HAND



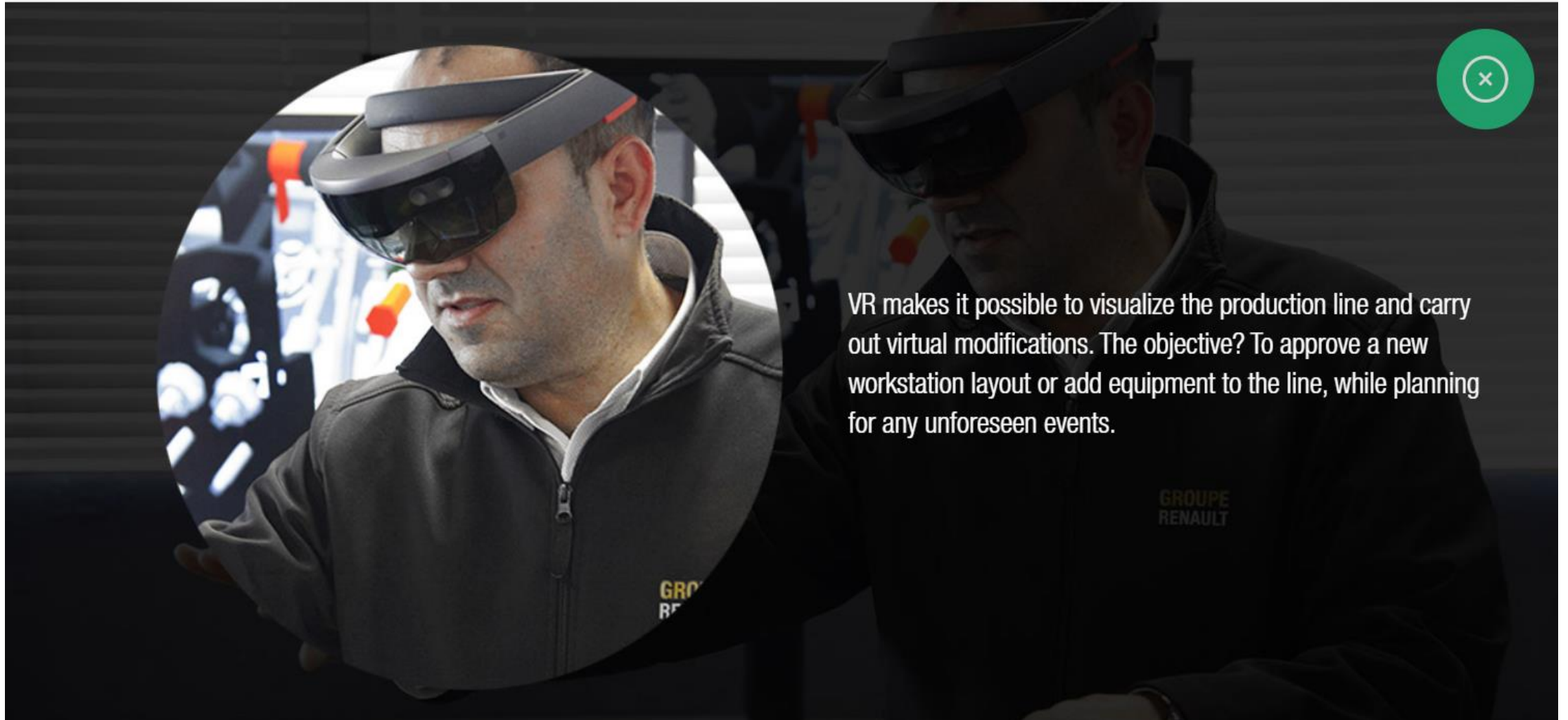


## VIRTUAL REALITY, REAL PROGRESS!

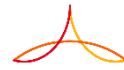




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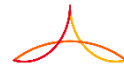




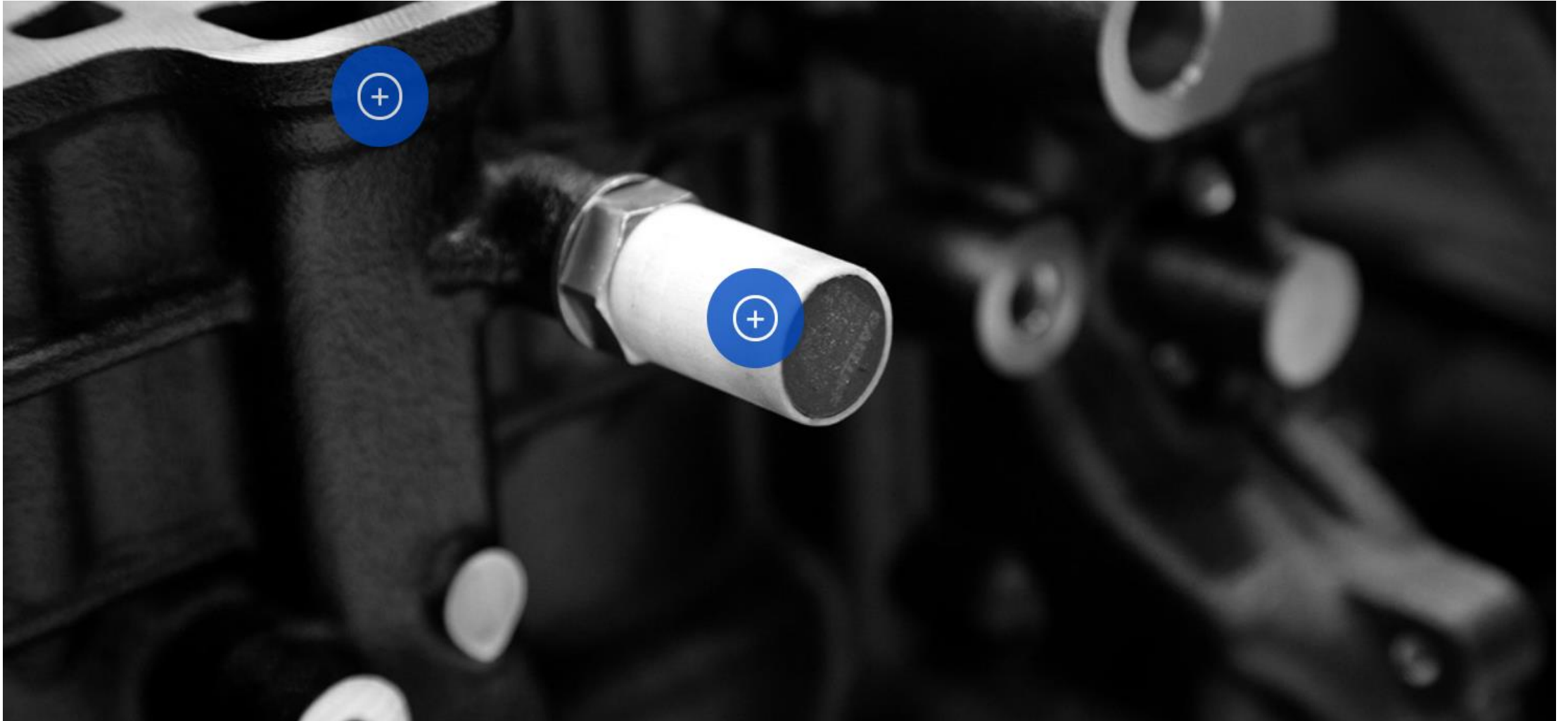


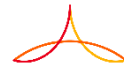
## VIRTUAL REALITY, REAL PROGRESS!





**TOTAL TRACEABILITY, NOTHING IS WASTED!**





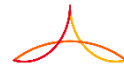
## TOTAL TRACEABILITY, NOTHING IS WASTED!



RFID (Radio Frequency Identification) chips are positioned on the parts or integrated into the labels stuck on the packaging. They store information and are associated with a database throughout the vehicle manufacturing process.







**Thank You!**