



Renault  
Group

# De la logistique à la supply-chain Exemple de Renault Group

R FILLEUR 16 MAI 2022



# AGENDA

- 01** Renault Group Overview
- 02** Supply Chain presentation & missions
- 03** Supply Chain organisation & activities
- 04** Supply Chain main stakes
- 05** Parts Logistics
- 06** Crisis management in Logistics

# 01

Renault Group overview



# FROM VOLUME TO VALUE



**2020-2023**

Focus on margin & cash



**2023-2025**

New products, stronger brands



**2025+**

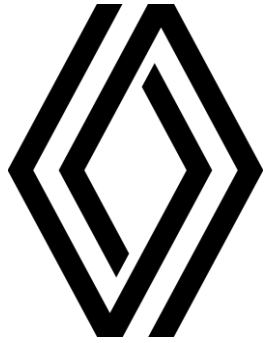
Leading mobility & tech player





# ONE GROUP, FIVE STRONG BRANDS

**more than 2,8 millions OF VEHICLES SOLD IN 2021**



RENAULT

The Group's global brand

« La nouvelle vague »



The Group's access brand



ALPINE

The Group's leading edge brand



LADA

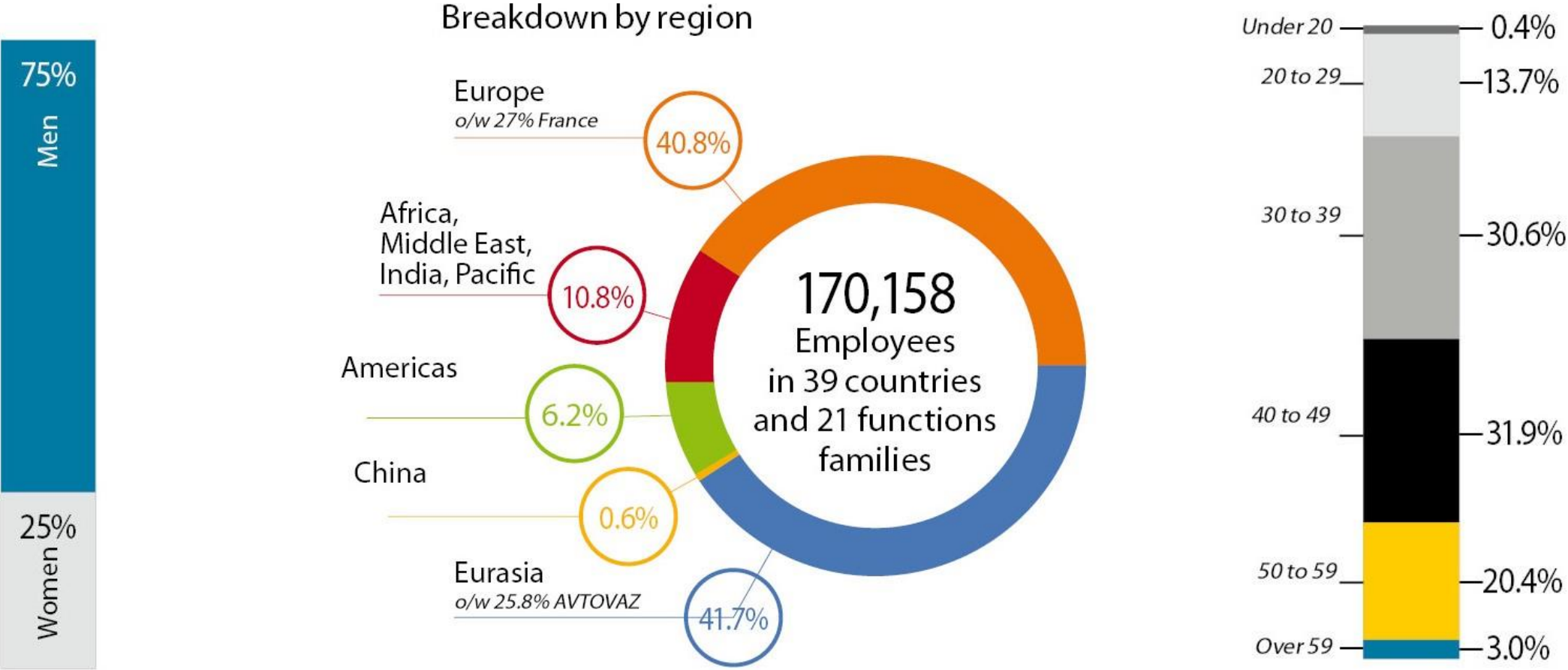
Leader brand  
of the Russian market

**MOBILIZE**  
**BEYOND AUTOMOTIVE**

Brand of mobility  
services and energy

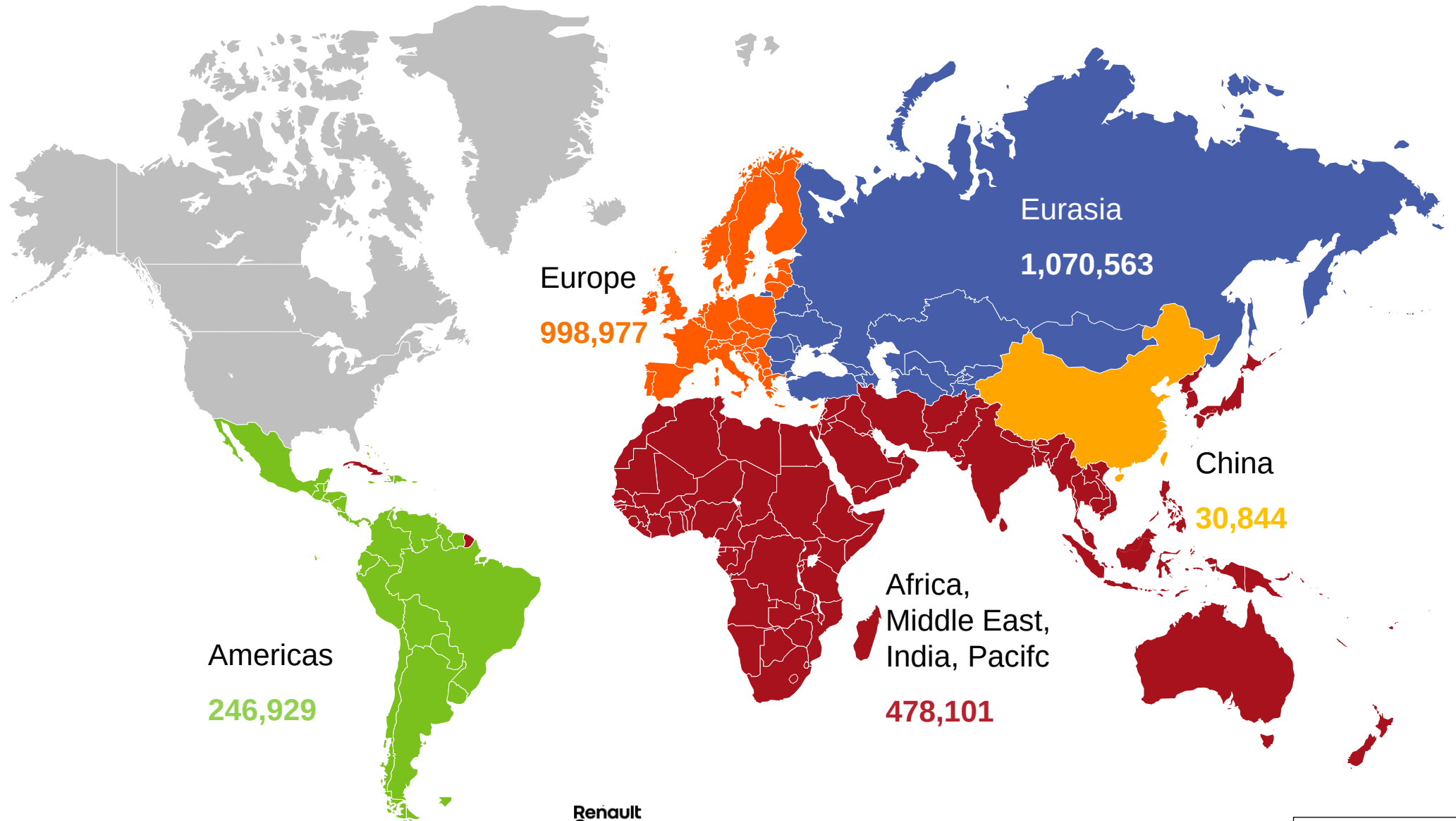
# RENAULT Group KEY FIGURES

## Workforce



## SUCCESSFUL GLOBAL COMPAGNY WITH FRENCH ROOTS

### MANUFACTURING: PRODUCTION AT THE HEART OF THE GROUP'S MARKETS



## RENAULT Group KEY FIGURES

### sales figures



France  
535,591



Germany  
204,933



Russia  
480,742



Turquia  
132,471



Spain +  
Canaries  
123,638



Italia  
154,882



China  
156,316



Brazil  
131,467



India  
80,518



South Korea  
95,939

**2.8 M**  
Vehicles sold  
worldwide in 2021



# INNOVATING FOR TODAY AND THE FUTURE

The mobility of tomorrow: electric, connected and shared



MORPHOZ



EZ-FLEX



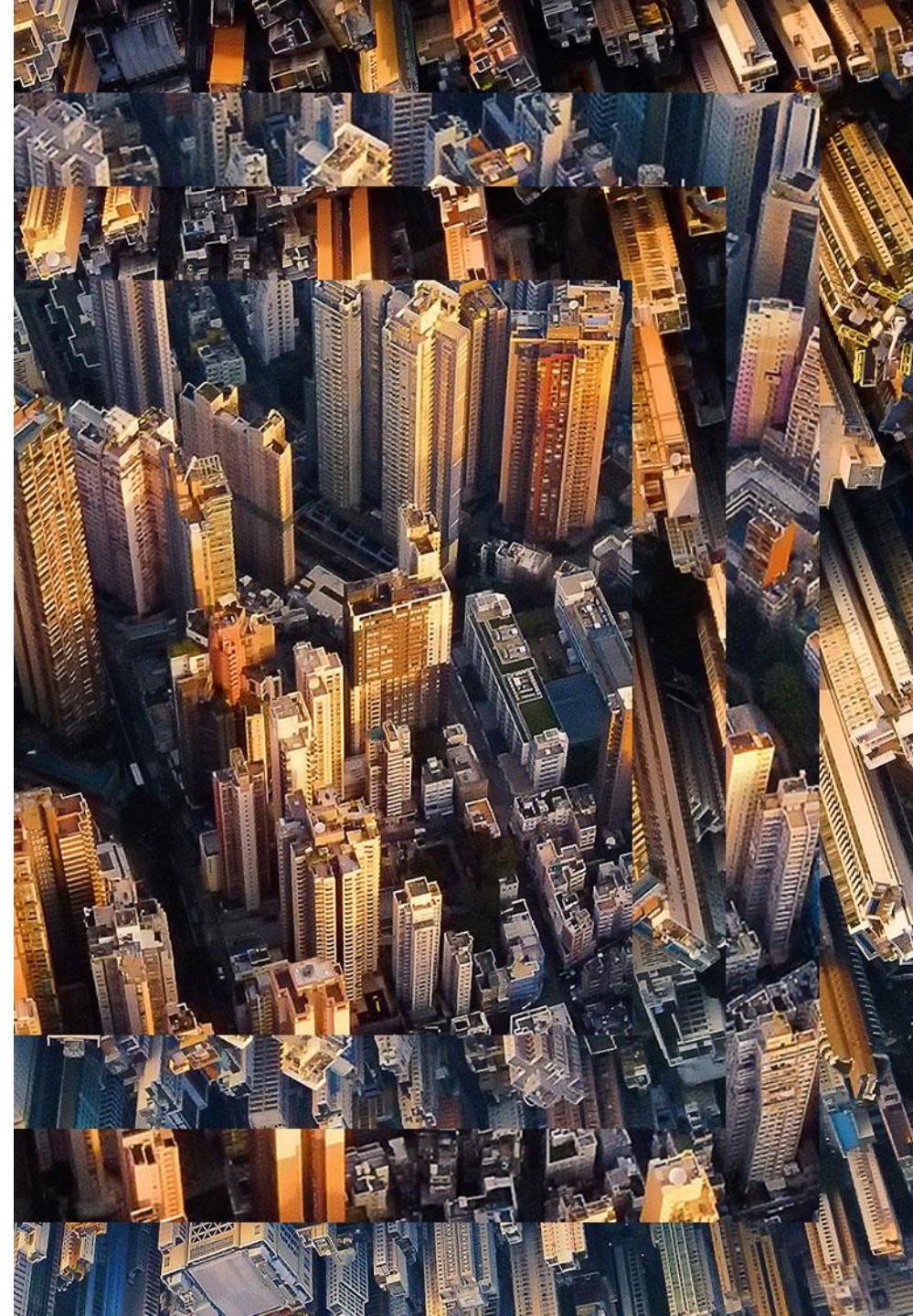
ZOE Cab



EZ-1 Prototype

# 02

## Supply Chain presentation & missions







Deliver the **right car**, at the **right time**, to the **right place** at the best quality, cost and leadtime level

Supply Chain is responsible for scheduling the vehicle's production, within S&OP process, ensure parts supply and set-up logistics flows for parts deliveries to the plant and vehicle distribution to the customer (dealers) in 130 countries.

The supply chain is constantly focusing on:

- reducing the carbon footprint of its activity
- generating value for the company within an end-to-end visibility and digitalized processes



# Supply Chain environment

We are facing exponential changes impacting our Supply Chain



Young and urban customers  
**New services**



Increasing regulations  
**Major variations and disruptions**



Digital & Connected  
**Data Analytics, IoT**



New ways of working  
**Skills and attractiveness**



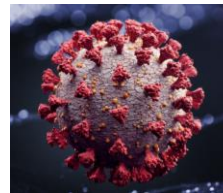
Software & Elec. over mechanics  
**Automated processes**



Sustainability and electric revolution  
**Carbon neutral**



Autonomous revolution  
**Massive opportunities**



Global pandemic and shortage crisis  
**Robust and resilient**

# We will **REinvent** the Automotive Supply Chain

End-to-end Connected Supply Chain

Carbon Neutral

Supporting Brands

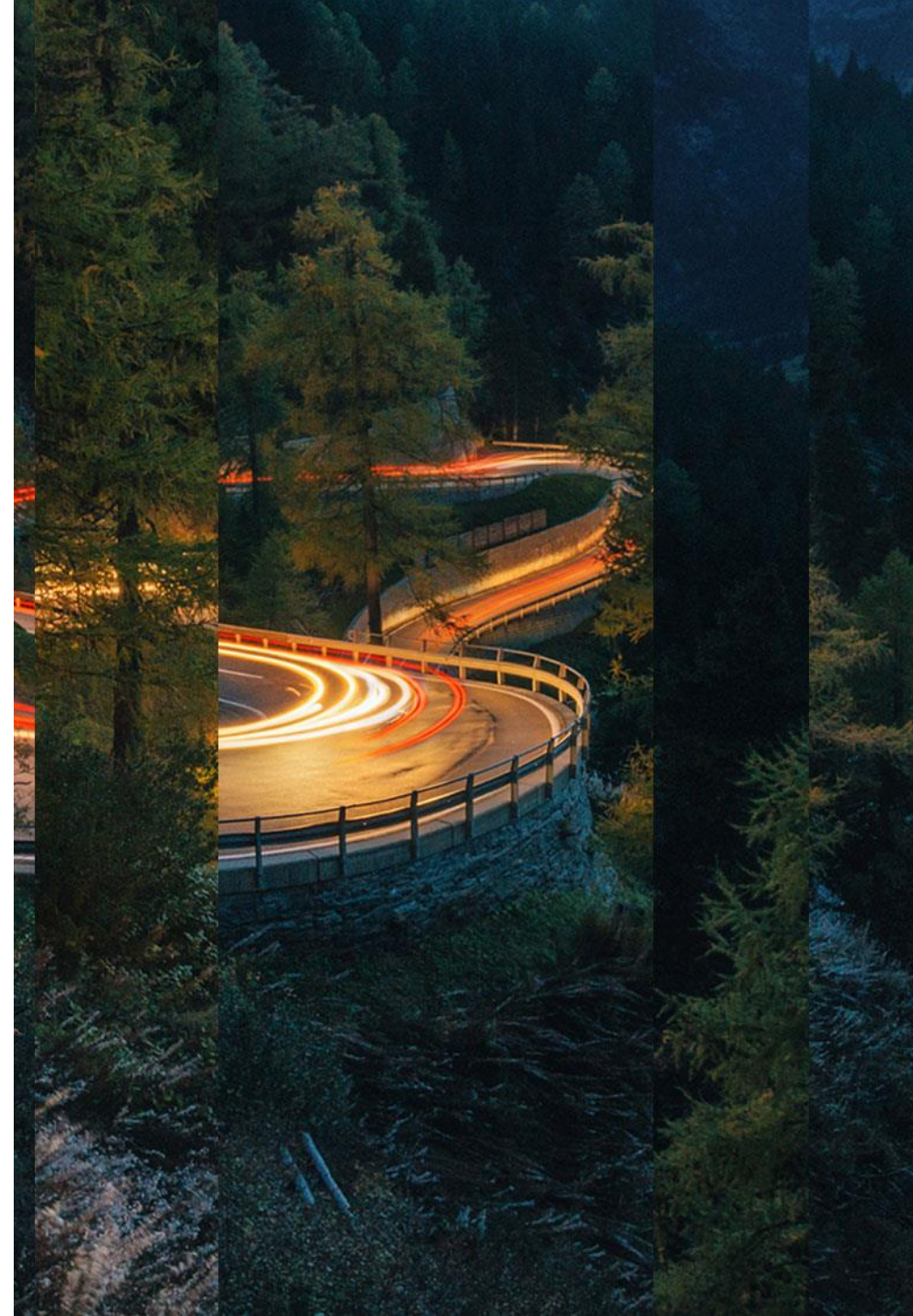
Generating Revenues





# 03

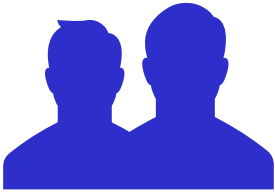
## Supply Chain organisation & activities



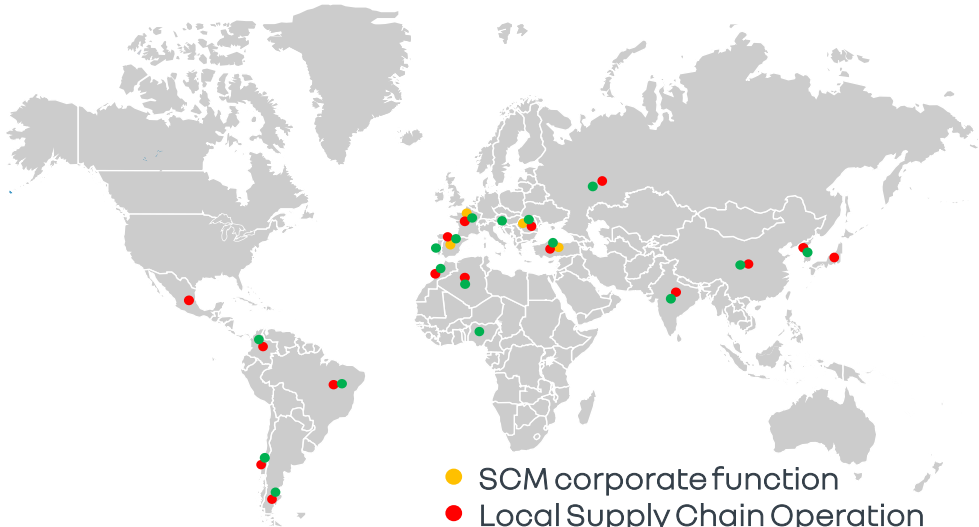
# Renault Group Supply Chain presentation



## A global function



1700 staff  
members  
(corporate)



- SCM corporate function
- Local Supply Chain Operation
- SCM in plants and logistics platforms

# S&OP and production control

Mission: Ensure Industrial answer to Business needs on a global scale while optimizing working capital & costs

- Establish **industrial capacity** (plants and suppliers)
- Approve **production volumes** with Sales & Marketing and Manufacturing: S&OP cycle
- **Schedule** assembly (plant scheduling system "carnet usine") and powertrain plant activity
- **Secure supplies**
- Monitor plants production **execution**
- Establish targets, optimize & control vehicle and part **stocks**



## KEY FIGURES

- **40** Renault plants
  - **3,500** suppliers sites
  - **7,500** model versions
  - **300,000** parts
- references**



# Parts logistics

Mission: Manage parts delivery from suppliers to plants on a global scale

- **Operate all parts flows between suppliers sites and plants** on regional/inter-regional flows in compliance with deadlines and quality standards
- **Engineer parts flows** on regional/inter-regional flows and **coordinate call for tender** with Purchasing (road, train, maritime, multimodal)
- **Manage AILN platforms** and Sofrastock International logistics platform
- **Digitalize parts transport process, with innovative solutions**
- **Develop Packaging solutions** (filling optimisation, part protection, recycling...etc.)
- Implement sustainable solutions in partnership with carriers



## KEY FIGURES

- **3,500** trucks or **containers/day** to supply our plants
- **200,000 m3** of **transported** parts/day
- From **3,500** supplier **sites** to **40** factories in **17** **countries**
- **13** logistics platforms (and **25** within the Alliance)

# Vehicle logistic & services

Mission: Manage vehicle logistic distribution from plant to dealers / customers

- Optimizing Lead Time / On Time Delivery / Quality / Cash flow & Cost
- **Proceed with vehicle flow systems** on regional/ inter-regional flows in compliance with deadlines and quality standards
- **Engineer vehicle flow systems** on regional/inter-regional flows and **coordinate call for tender** with Purchasing
- **Engineer processes** and **vehicle transport flow**
- **Compound management**
- Reinforce **End to End Visibility** (Telematics, Track and Trace, ...)
- **Develop new services** : customer segmentation, home delivery, ...



## KEY FIGURES

- Around **2,000** trucks or **boats per day** to deliver our cars
- To over **5,000** destinations
- Over **7,500** model versions manufactured
- Over **200** ports used worldwide

# Supply Chain priorities

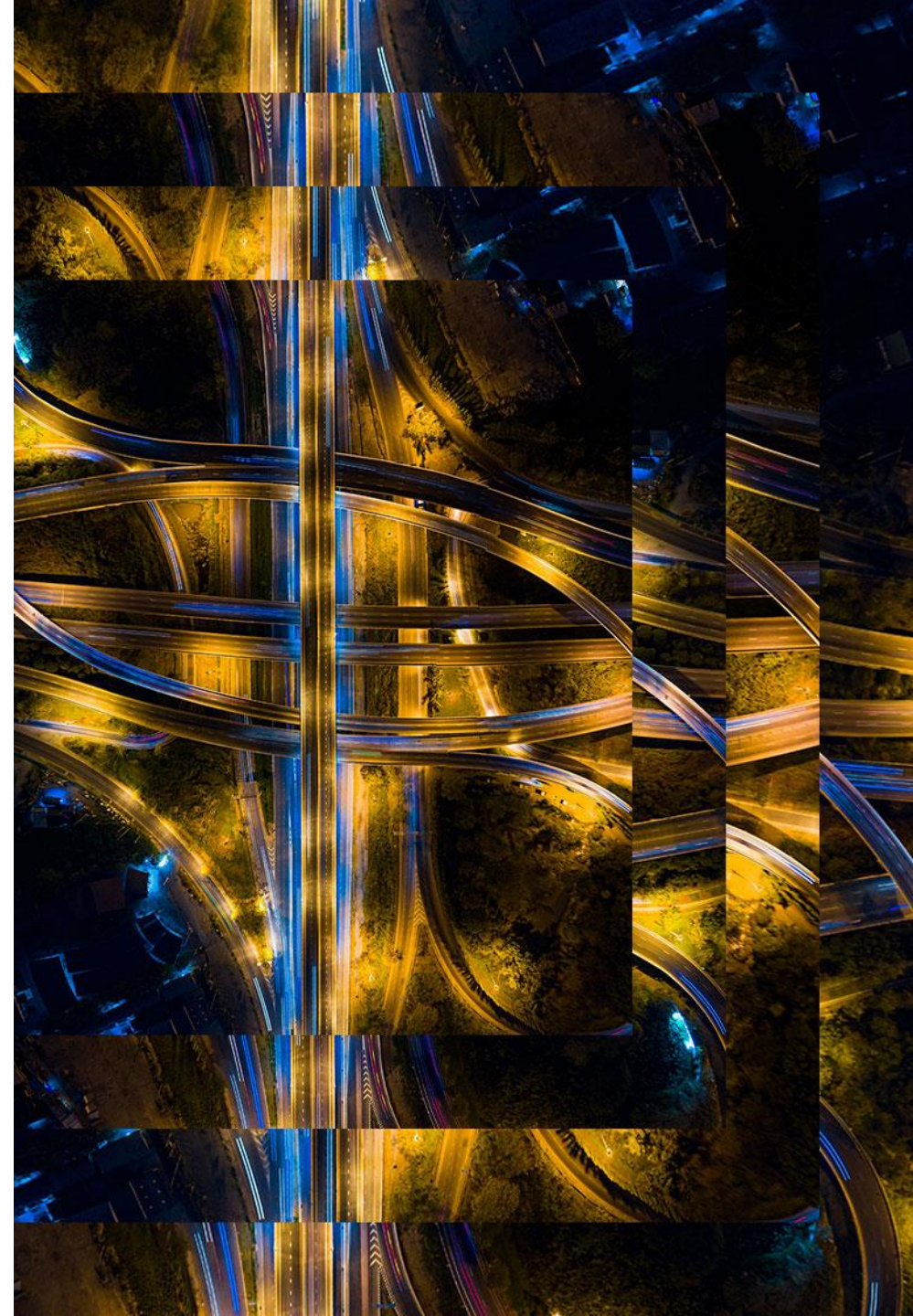
A transparent & agile Supply Chain that works collaboratively to create value

| CUSTOMER                           | CASH                             | COST                                                                                                                             | CREW                            | CARE                                  |
|---------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------|
| TRUSTWORTHY AND SEGMENTED SERVICES                                                                                  | OPTIMISED INVENTORY AND CASH GENERATION                                                                           | ADAPTATIVE AND EFFICIENT OPERATIONS                                                                                                                                                                                 | SKILLED, INNOVATIVE AND ENTREPRENEURIAL TEAMS                                                                      | SUSTAINABLE AND SOCIALLY RESPONSIBLE                                                                                     |
| FAST TRACK<br>(PMA up-selling)<br> | STOCK - 30 %<br>                 | VARIABLE COSTS - 4%<br> FIXED COSTS - 20%<br> | NEW ORGANIZATION WORLDWIDE<br> | CO <sub>2</sub> REDUCTION - 8,2 %<br> |
| NEW BUSINESS SERVICES<br>        | Best in Class S&OP process<br> | EtoE digital eco-system<br>                                                                                                    |                                                                                                                    |                                                                                                                          |



# 04

## Supply Chain main stakes



# Supply chain main stakes



End-to-end



Connectivity



Sustainability



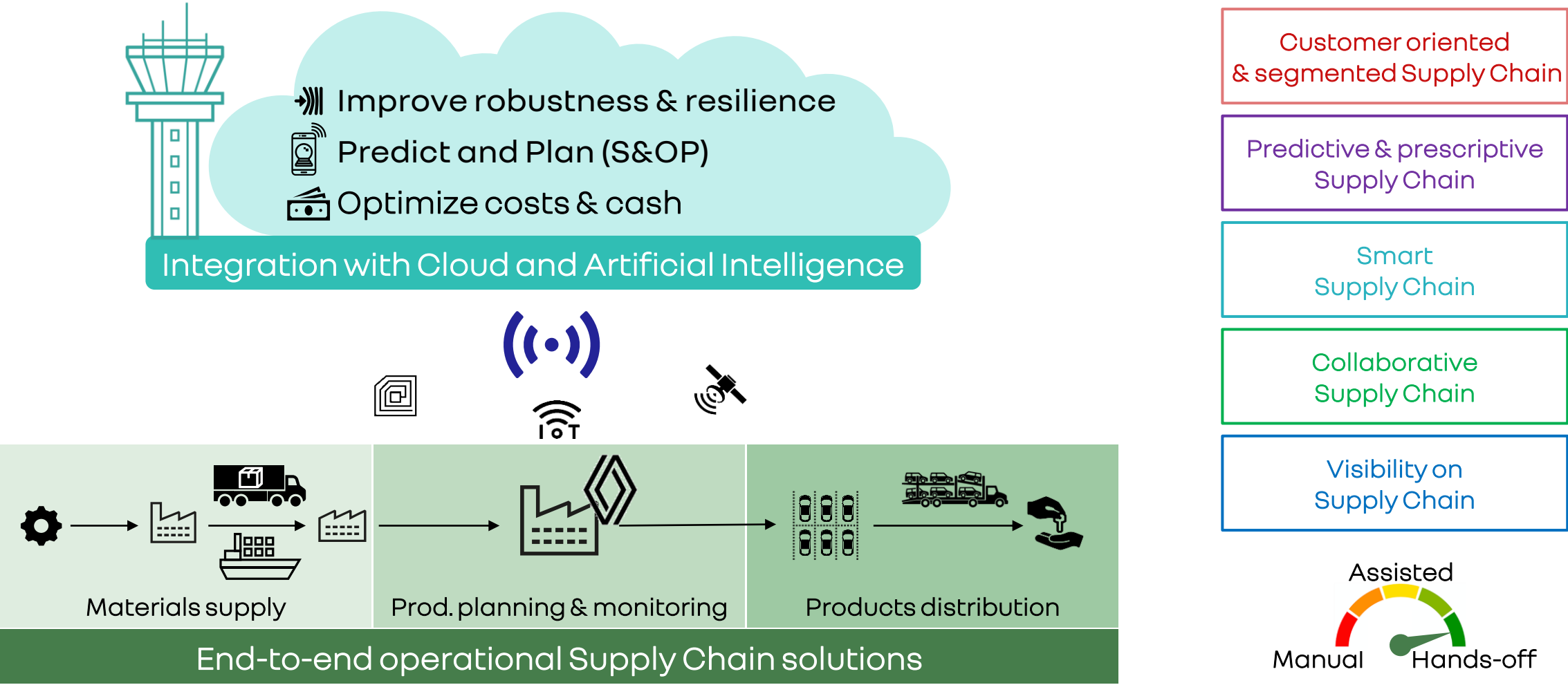
New ways of working

INNOVATION

# Renault Group End-to-end Supply Chain



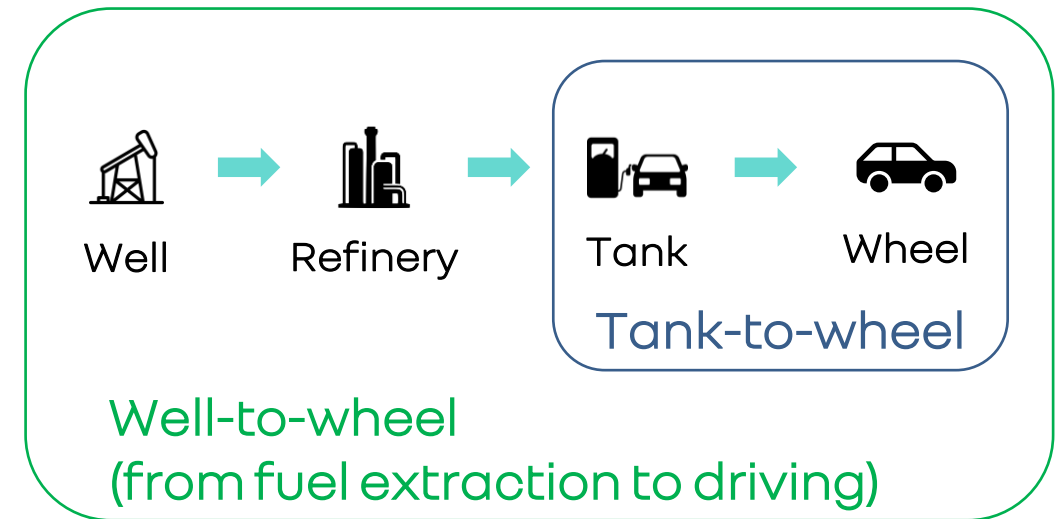
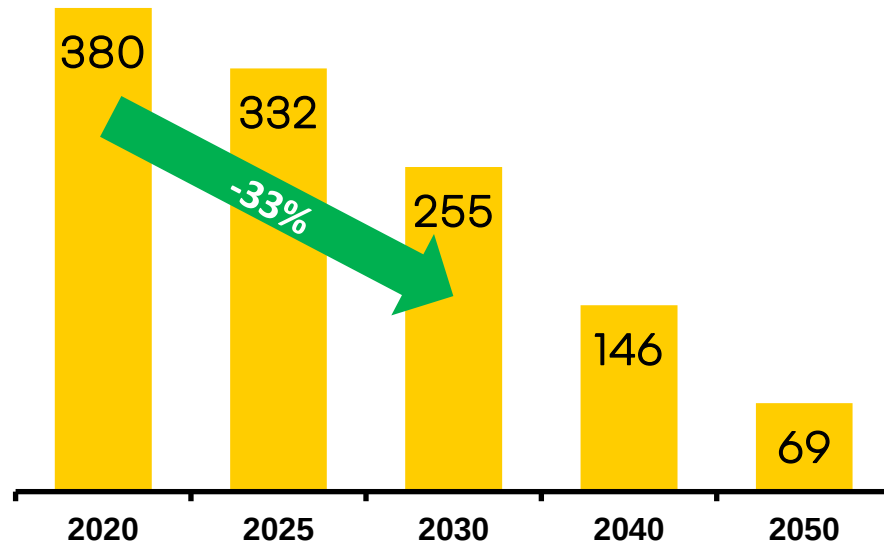
Unlock value, enhance customer experience & enable new business models





## Be carbon neutral by 2050 and earlier in Europe

Well-to-wheel plan (kg CO<sub>2</sub>eq/veh)



# Renault Group Sustainable Supply Chain

RG

## 4 main levers to achieve the carbon neutrality in 2040 in Europe

1

Exploiting the **ENERGY MIX** of transport and logistics platforms



2

Develop **MULTI MODAL** transport



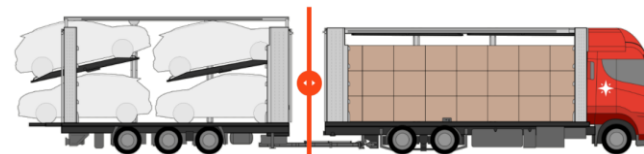
3

Deploying **INNOVATIONS** & Reducing km / m3 / weight transported



4

Reinforce the **PACKAGING** policy of circular economy



Supply Chain presentation



# INNOVATIVE WAYS OF WORKING





# Innovative ways of working

RG

## Collaborative organisation

**Collaborative working environment**



**Innovation lab**



**time dedicated to innovation**



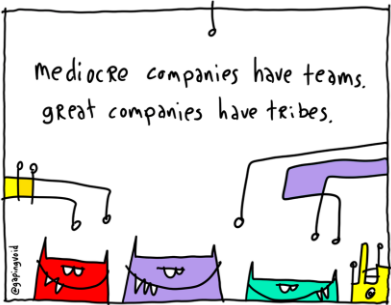
**Mentoring, coach**



**Collaborative innovation**



**Agile methods: tribes, squads, facilitation**



**Skills development**

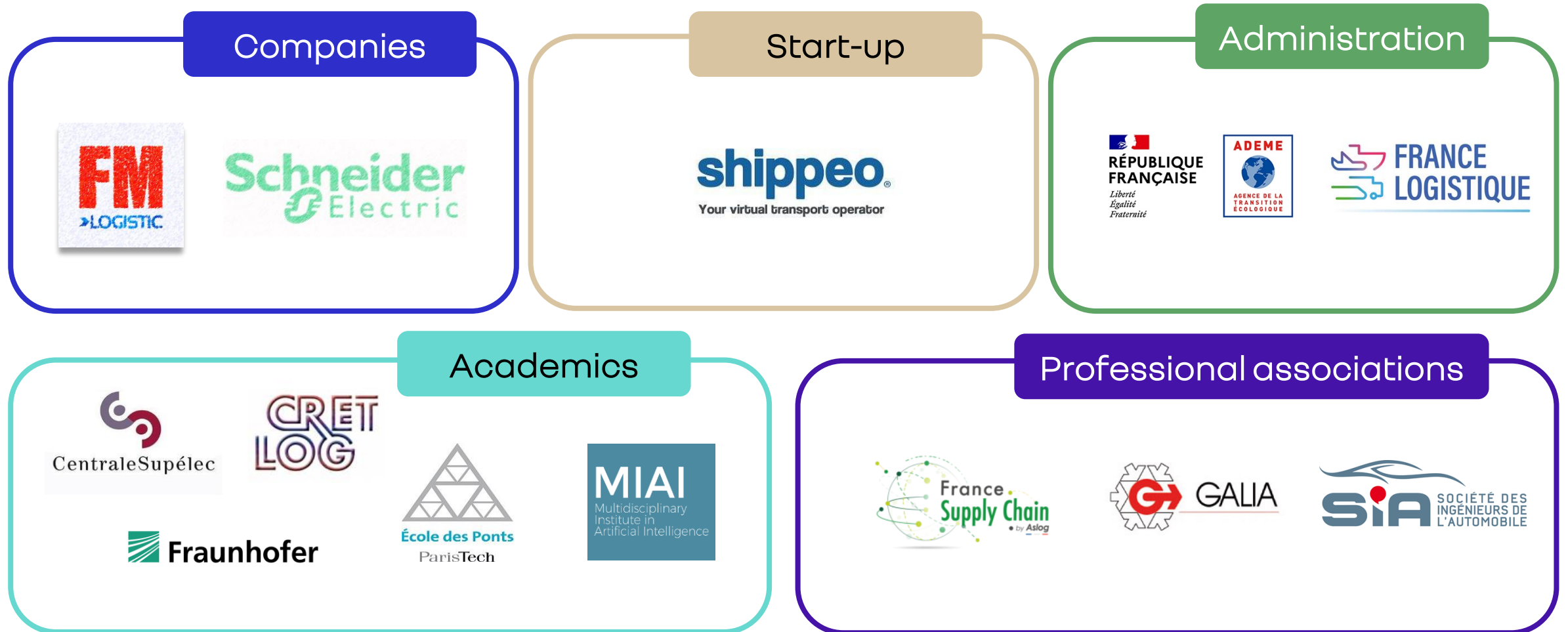


**Serious Games**



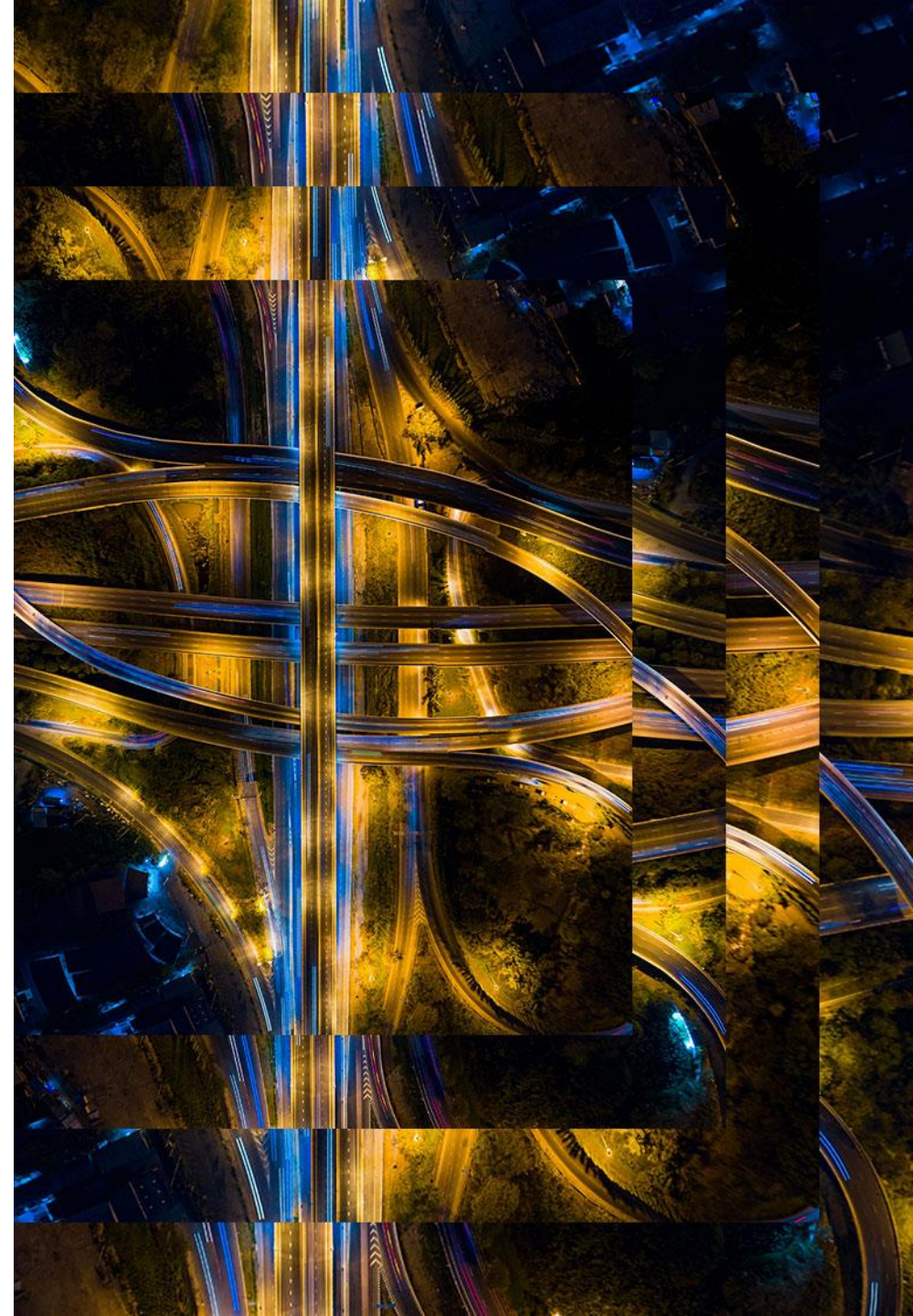
# Supply Chain network

No one single player can move alone



# 05

## Parts Logistics

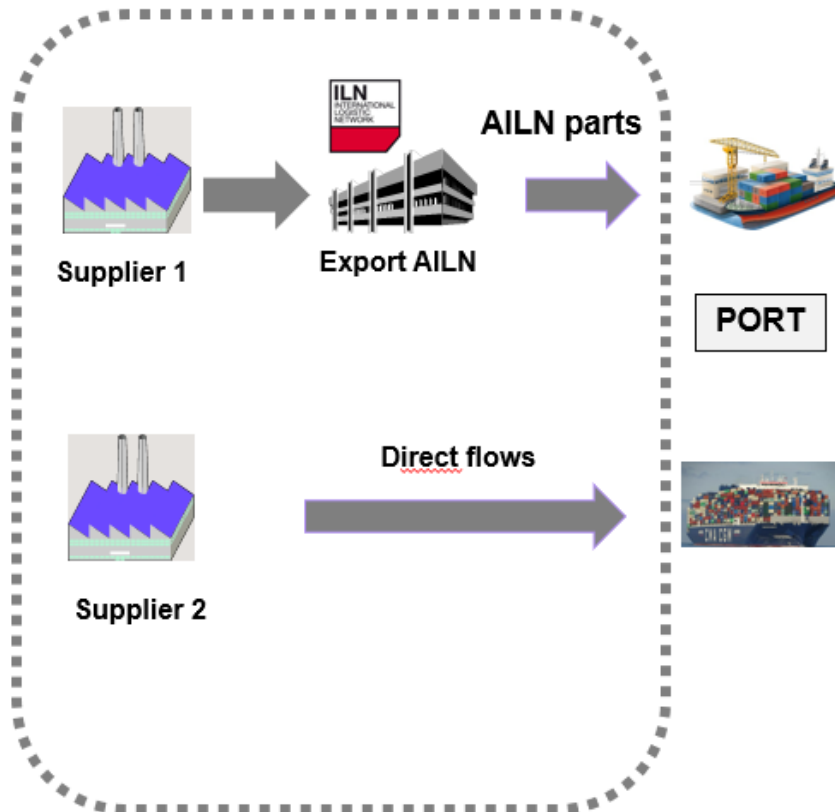




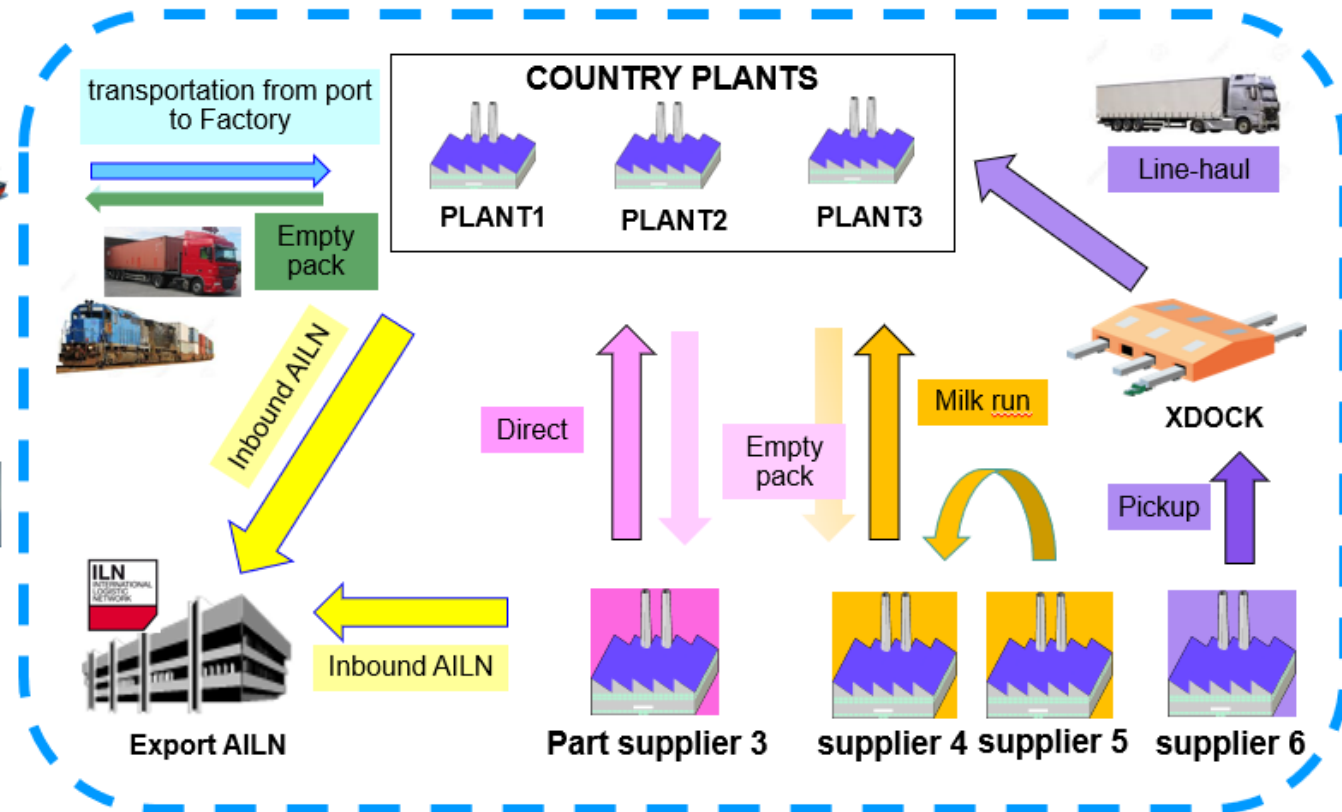
# Parts Logistics Transport Scope and Mission

Ensure **transport solutions** for **part deliveries** to the plants & **packaging** to the suppliers  
on **Time** with the good **Quality**, at the best **Cost** with **Sustainable** solution

Inbound **OVERSEAS** < 20% M3 / plant

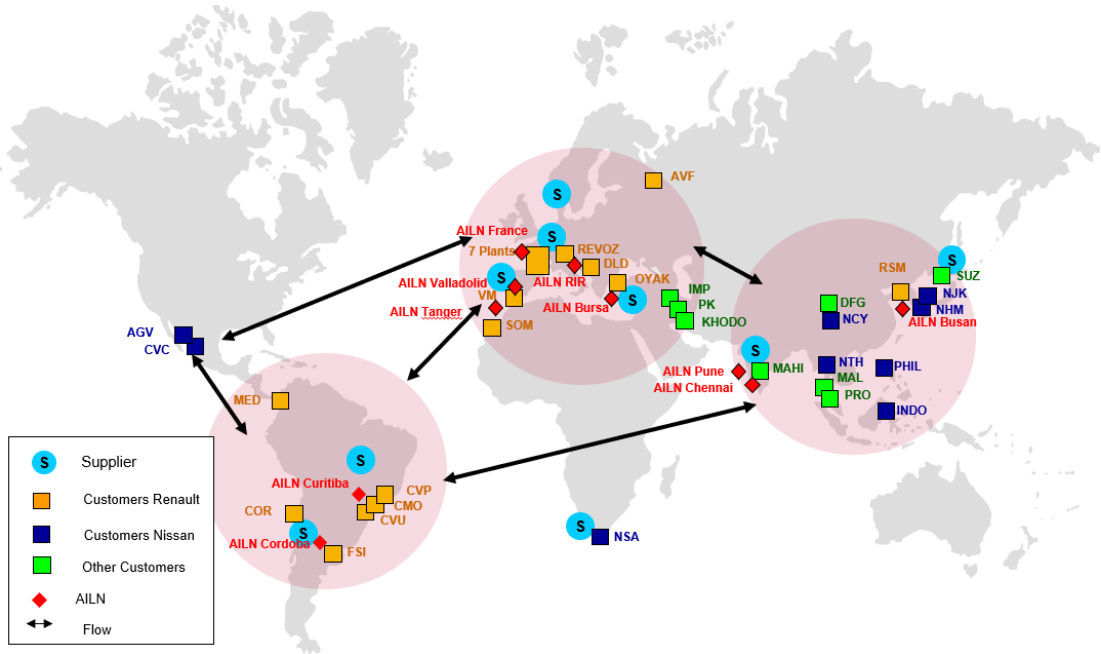


Inbound **INLAND** > 80% M3 / plant



# Over-seas Flows: AILN Network

Alliance International Logistics Network



## 24 platforms, 17 countries



2 platforms in 2000 → 11 in 2022

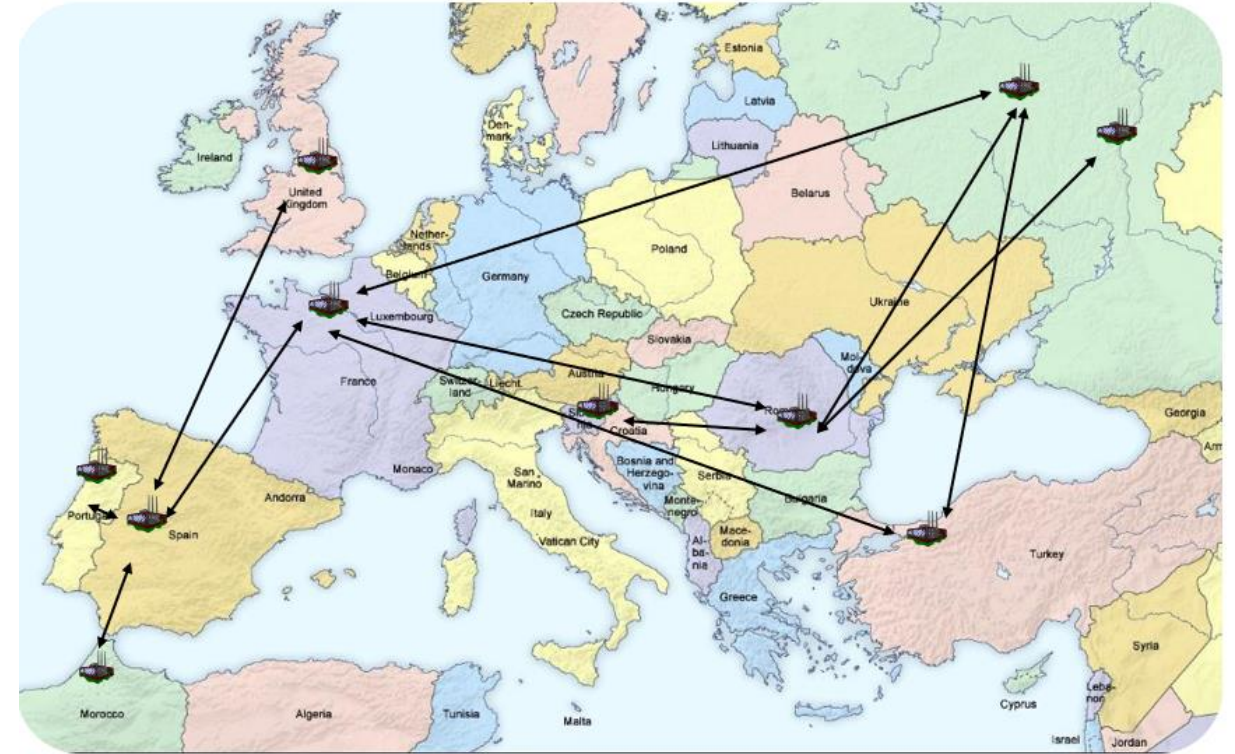
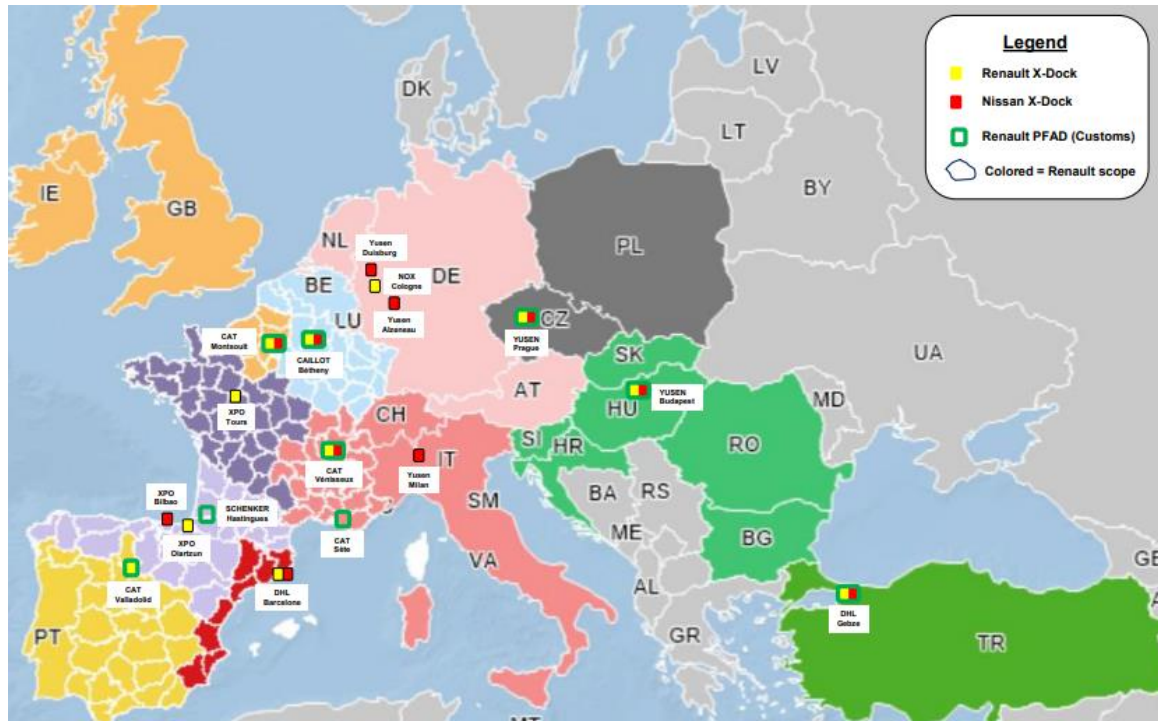


4 platforms in 2004 → 13 in 2022

## Yearly Turn Over (2021) :

- ~ 5000 containers or equivalent / month
- ~ 340 000 m3/month
- ~ 2150 suppliers
- ~ 40 plants
- ~10 Maritime's companies
- ~ 200 flows

## Scope Renault / Nissan



## 15 X-dock covering 21 countries



## 11 X-Dock (including 5 common with Nissan)



#### 4 X-dock additional specific to Nissan

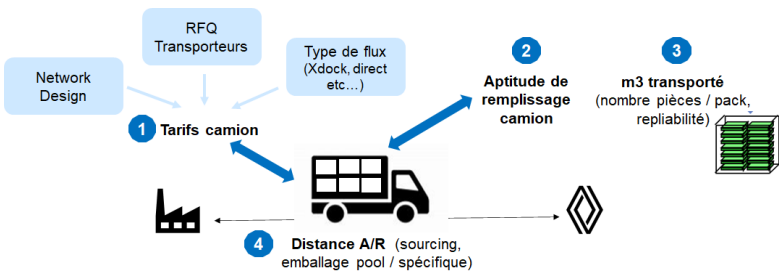
### Yearly Turn Over (2021) :

- ~ 65 000 trucks / month
- ~ 3 800 000 m3/month
- ~ 2500 suppliers
- ~ 34 plants
- ~70 main haulers



# Parts Logistics – Stakes for the future

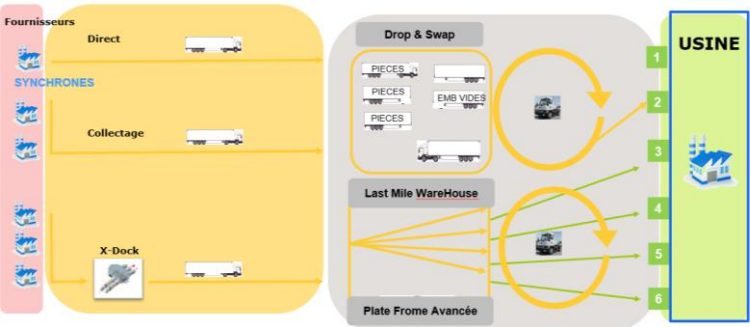
Reduce logistics Cost and Stock



4 Key levelers

1. Route cost
2. Filling Ratio
3. M3 transport
4. Distance

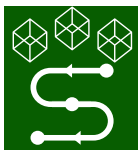
Plant delivery strategy



4 delivery flows

1. Direct
2. Drop & Swop
3. Deconsolidation center
4. Warehouse

Reduce CO2 Emission



Reduce km\*m3

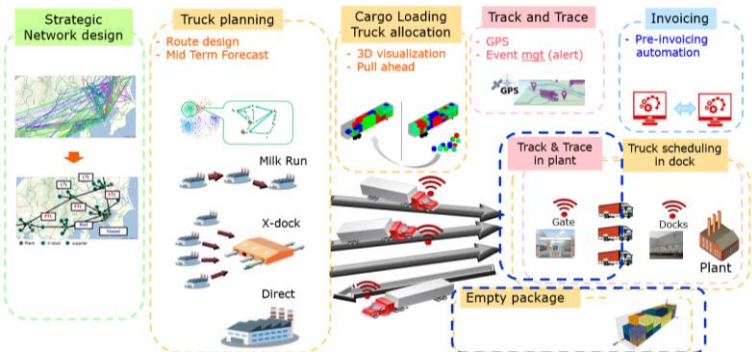


Energy Mix  
(Biogaz, EV, H2, ...)



Mix multimodal

Transform our functions



4 Main topic :

1. Filling rate optimisation
2. EtE Track & Trace
3. Route design
4. EtE cost management

# Parts Logistics - Main functions in Renault world

## OPERATIONS & PERFORMANCE

## Daily operations

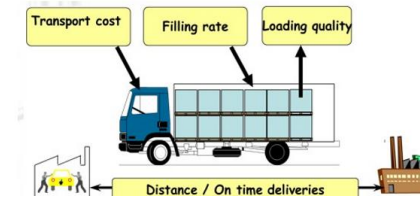
- Transport Follow up
- Spot Ordering



# ENGINEERING

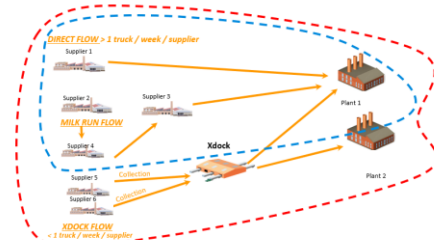
## New Model Preparation

- Parts sourcing
- TdC reduction
- Flow preparation



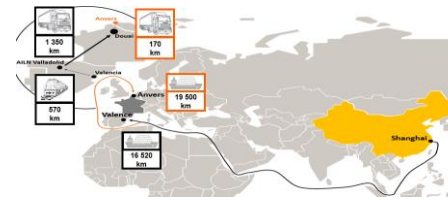
# Route Design

- Direct
- Milkrun
- X-dock



# Flow Engineering

- Network design
- Flow implementation



## Quality and performance

[illegible]

# Monozokuri



## Perf Review

## Inland RFQ



## Multimodal

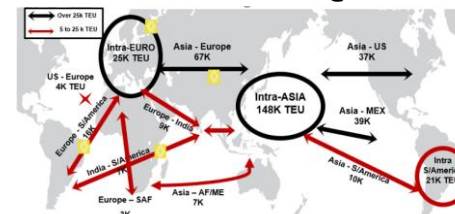


## Biogaz

## X-Dock and Last Mile Management & Perf



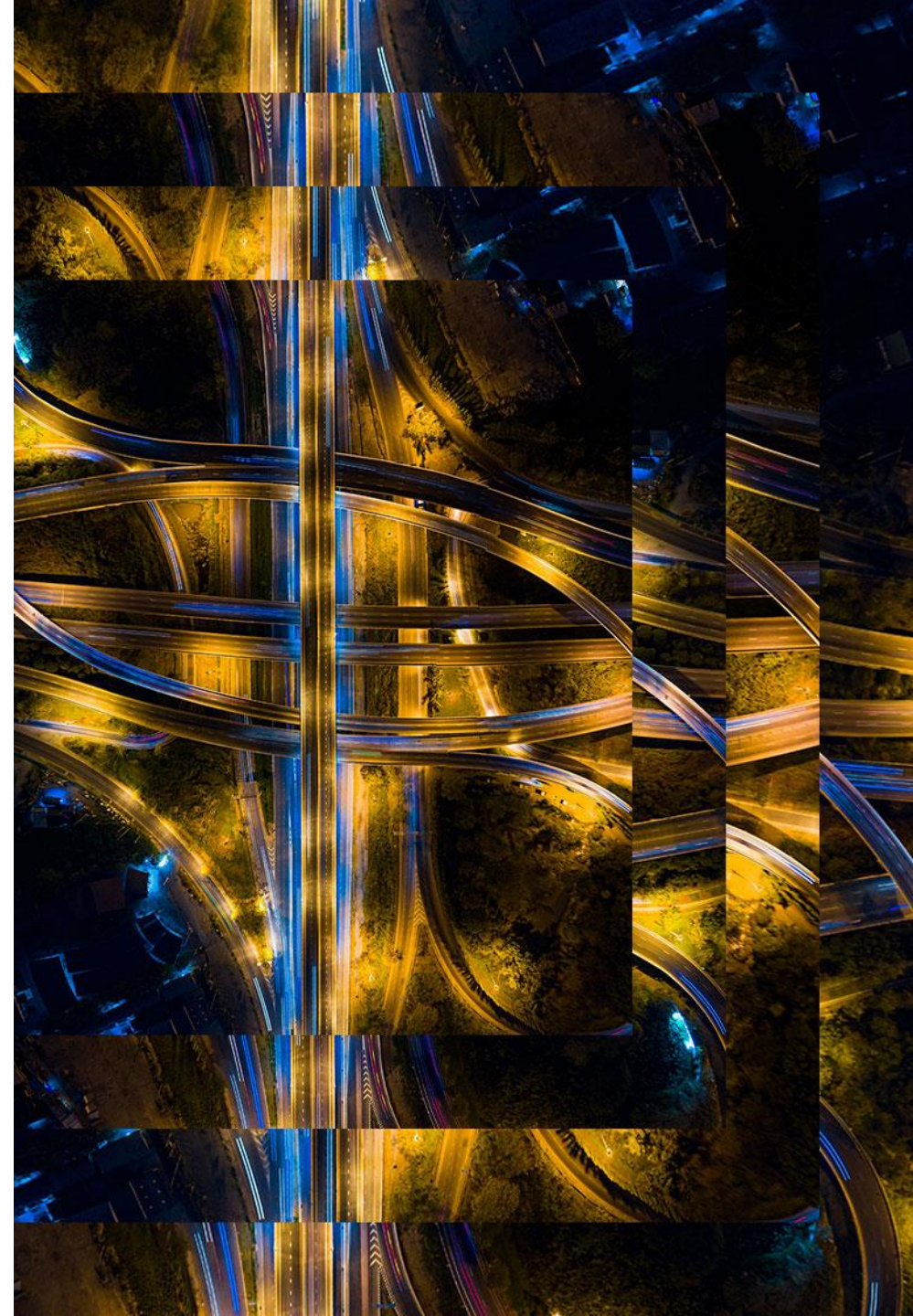
## Overseas RFQ





# 06

## Crisis management in Logistics







# CRISIS...THE NEW NORMALITY

**BREXIT**



**Suez canal blockage**



**Ukraine crisis**



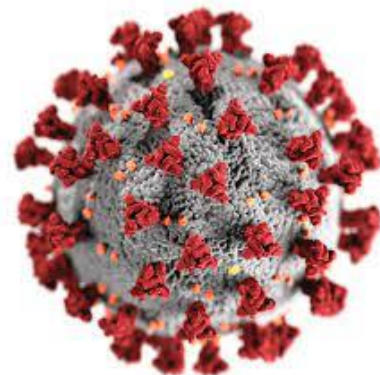
**2020**

**2021**

**2022**



**TK Economic crisis**



**COVID19 PANDEMY**



**Electronic Components shortage**



**Shanghai lockdown**



## CRISE DU CANAL DE SUEZ – Mars 21

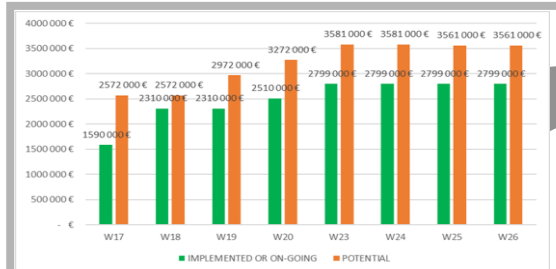


- Canal de Suez bloqué par navire Ever Given depuis le 24/3
- Trafic redémarré le 29/3
- # 400 navires en attente de passage à Port Suez et Port Saïd
- L'engorgement des navires prendra 2 à 3 jours à résorber
  
- **Impacts pour Renault Group:**
  - 350 containers bloqués pour Renault
  - Retards à l'arrivée # 2 semaines
    - 5 jours de blocage du Canal
    - 3 jours d'attente pour passer le Canal & quelques navires reroutés par Le Cap
    - 6 jours de congestion des ports d'arrivée





# COVI19 CRISIS MANAGEMENT - EUROPE

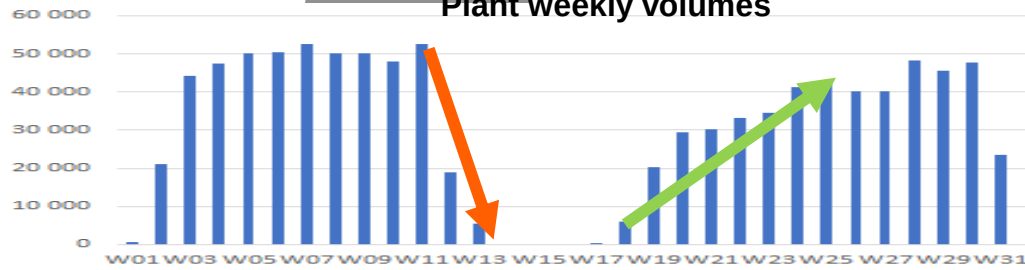


Specific action plan to improve FCF:  
36 actions – 2.8M€ savings



# 1000 trailers dropped or unloaded in logistic platforms in France, Spain, Morocco → 2M€

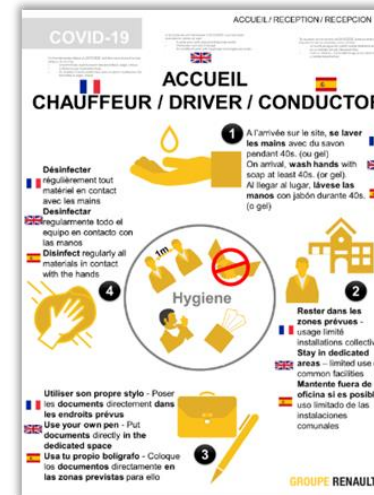
Plant weekly volumes



Daily audio meetings with DLO & plants  
to prepare restart scenarios



Corporate SCM  
100% at Home Office



Safety instructions  
for truck drivers



Plants progressive restart (4 to 6 weeks):  
- delivery of parts in transit  
- daily TFR optimization

→ No plants stops at restart

Stop the activity

Minimize impact

Prepare the restart

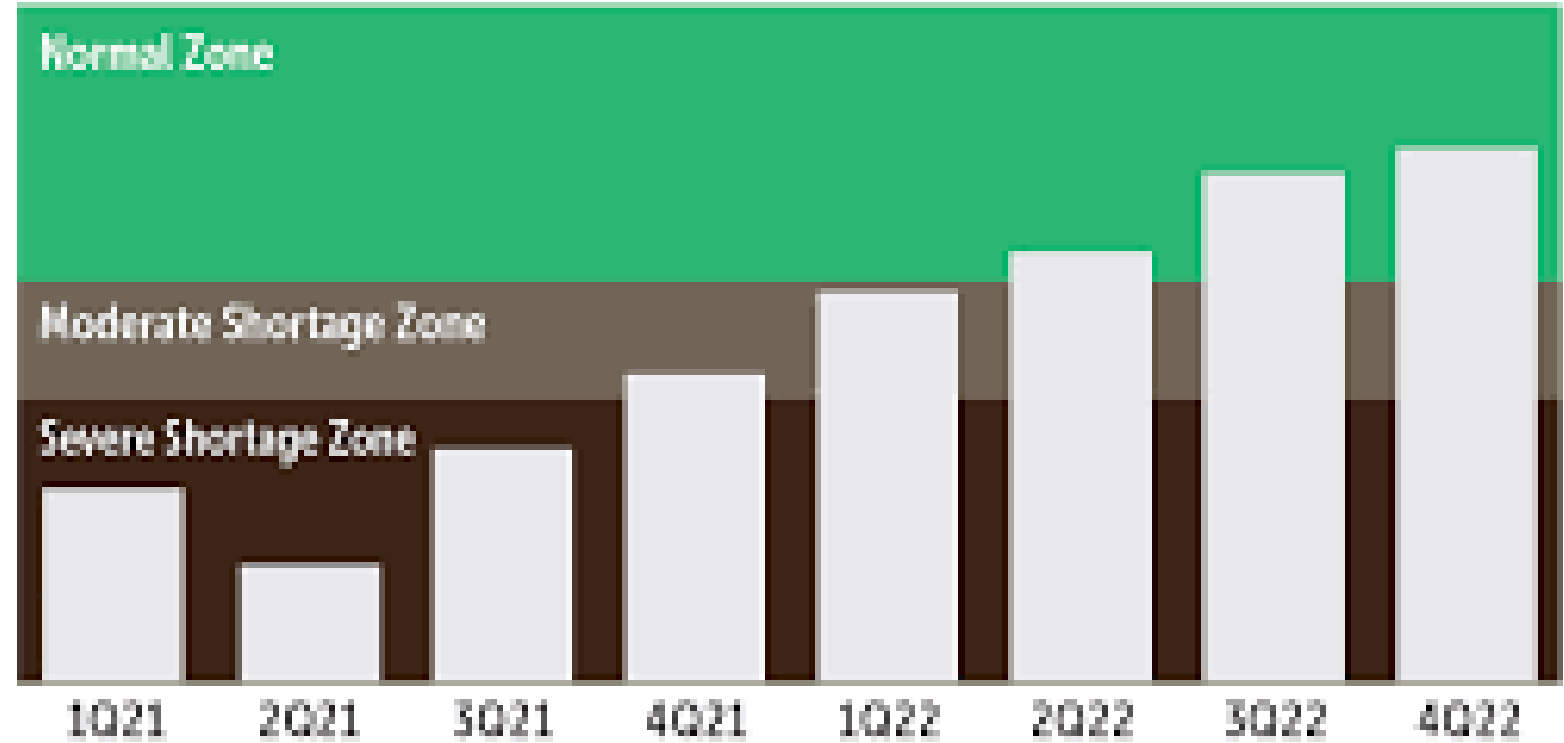
Support the restart



## EC crisis

# SEMICONDUCTOR INDEX

Based on supply chain tracking and projected worldwide inventory movement, 2021-22



- Many Tier1 & TierN suppliers in shortage
- ➔ Emergency deliveries
- ➔ Huge need of flexibility & reactivity





**Thank You**

**Q&A**