



# LEON VAN DER MERWE

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**Toyota Motor Europe**

Automotive  
**LOGISTICS**  
& SUPPLY CHAIN

**EUROPE**

2-4 May 2022 | INFINITY Munich



# TOYOTA - IN EUROPE



**€10B+**  
invested since  
1990

**€6B+**  
spent with **400**  
European-based  
suppliers per year

**27k+**  
Direct  
employees



**1963**  
Began selling cars  
in Europe

**1.1 million**  
Vehicles sold in  
CY21

**6.4%**  
MARKET  
SHARE Dec  
21'



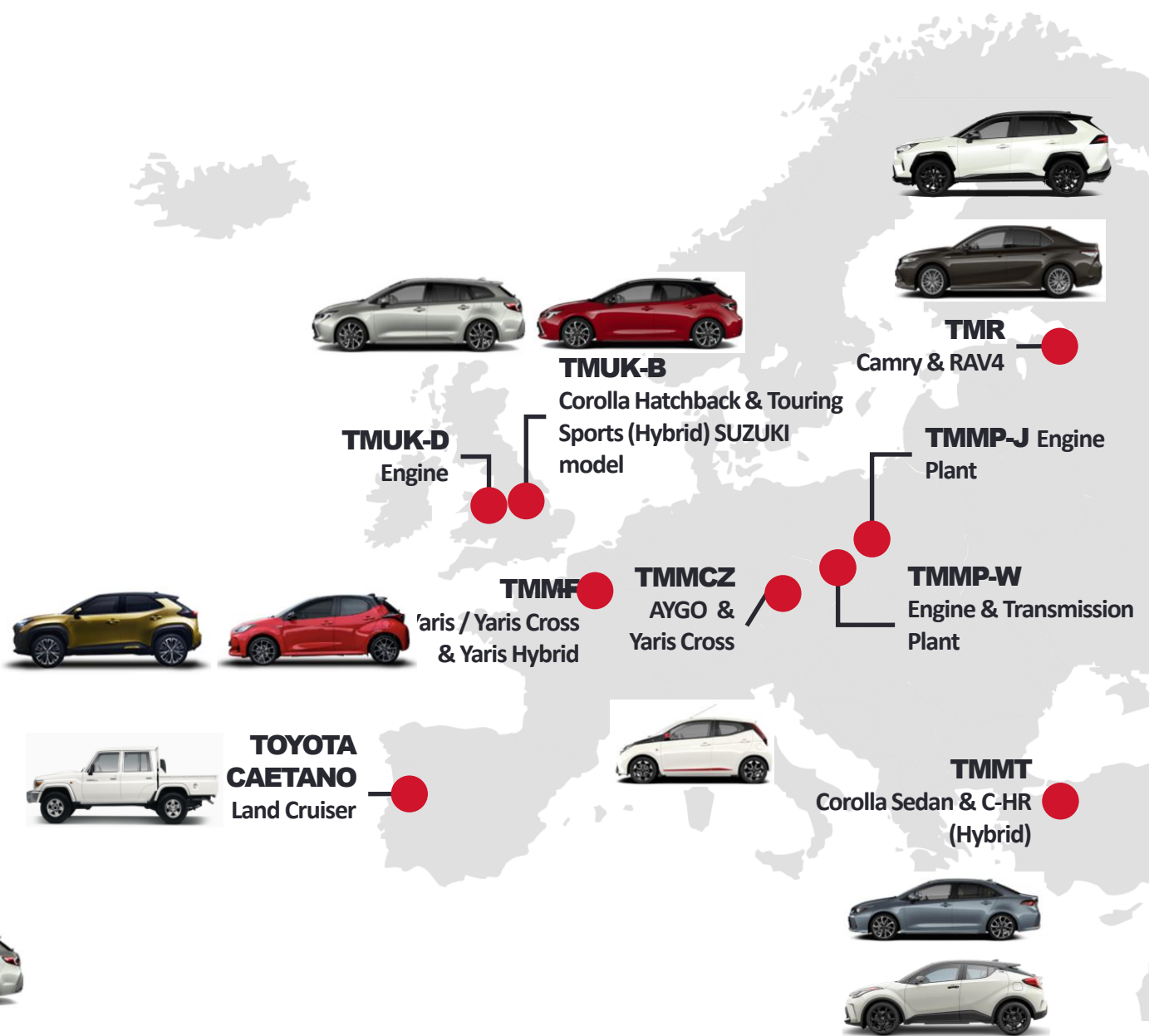
**3M+**  
Toyota & Lexus  
Electrified  
vehicles sold

**58%**  
Electrified mix in  
CY21 sales



# TOYOTA - IN EUROPE

9 manufacturing plants in 7 countries



### Alliances:

Suzuki / Citroen / Stellantis



8 out of 10 Toyota vehicles sold in Europe are made in Europe



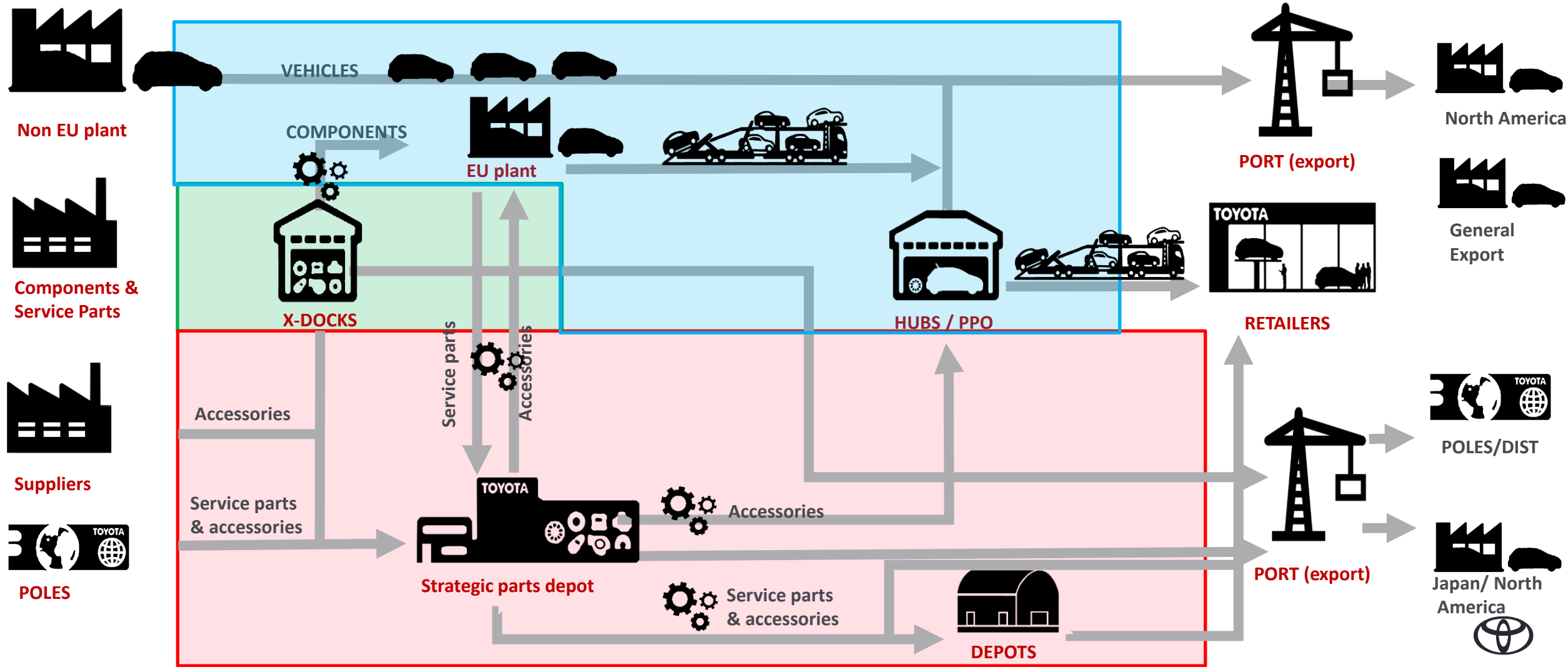
# TME SUPPLY CHAIN & PRODUCTION CONTROL - SCOPE

## Production Control - Project Management & Production Planning

Production Parts Logistics Division

Vehicle Logistics Group

Parts Supply Chain Group



# SUPPLY CHAIN EUROPEAN - LOGISTICS COMPANIES

## Production Parts Logistics Division (PPLD)

Cross-docks

Consolidation points

## Vehicle Logistics Group (VLG)

TME Hubs

Cross-docks

Port operations

NMSC Hubs

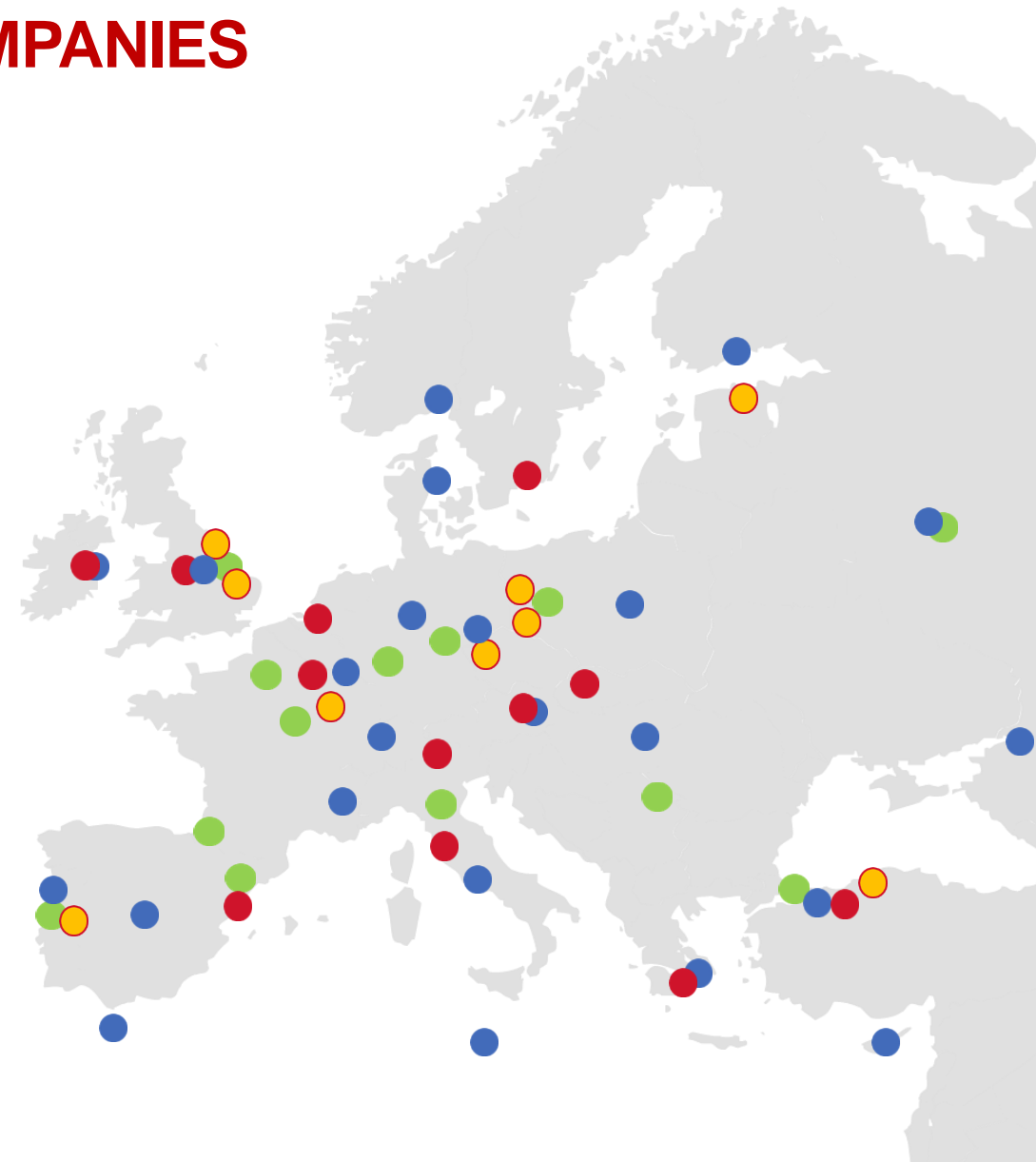
## Parts Supply Chain Group (PSCG)

TPCE

TME RDO

Affiliate depots

NMSC depots



# TME SUPPLY CHAIN - NUMBERS

## PEOPLE (~4200 members)

|        | Office | Warehouse | LP/<br>Support | Dedicated<br>Driver |
|--------|--------|-----------|----------------|---------------------|
| TOTALS | ~390   | ~1500     | ~1200          | ~1500               |

## PRODUCTION (K units)

|        | Vehicle | Engine | Transmission |
|--------|---------|--------|--------------|
| TOTALS | 798     | 702    | 475          |

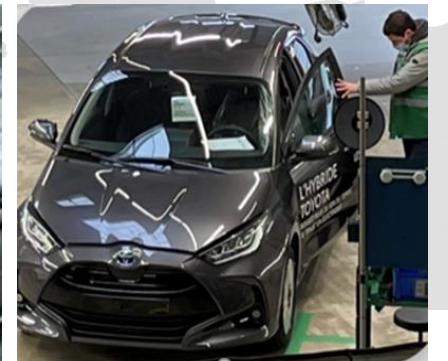
## MOVEMENT (~142 million km per year)

|        | Trucks KM | Rail KM | Sea KM | Air KM |
|--------|-----------|---------|--------|--------|
| TOTALS | ~110M     | ~5M     | ~20m   | ~12m   |

## NEW VEHICLE SALES (CY2021)

|        | Europe      | Global       |
|--------|-------------|--------------|
| TOTALS | 1.1 Million | 10.5 Million |

## STOCK (~ 200k m3 / average ~ 32 days)



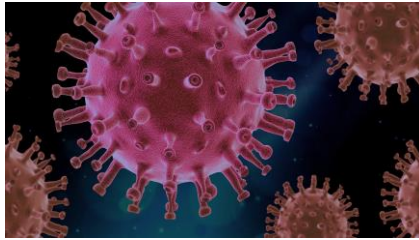
# SUPPLY CHAIN - CHALLENGES

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Brexit



Covid-19



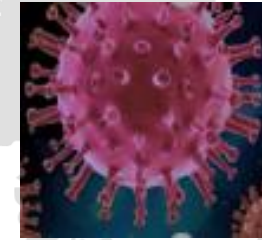
Semiconductor



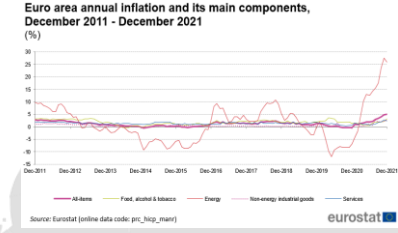
Driver shortage



Omicron



Inflation



Oct 20

Nov 20

Dec 20

Jan 21

Feb 21

Mar 21

Apr 21

May 21

Jun 21

Jul 21

Aug 21

Sept 21

Oct 21

Nov 21

Dec 21

Jan 22

Feb 22

Mar 22

????



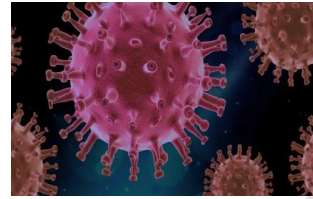
UK / France border congestion



Extreme snow in Europe (rail & trucking disruption)



Suez blockage



South-east Asia 3rd wave



Container distribution & price



Global shipping costs



Ukr/Ru



# TOYOTA EUROPE - HUMANITARIAN SUPPORT PROGRAM

| UKRAINE                 | RUSSIA                  | CONSEQUENCES                             |
|-------------------------|-------------------------|--|
| Suspended all logistics | Suspended all logistics | Suspended all logistics to ECC countries |

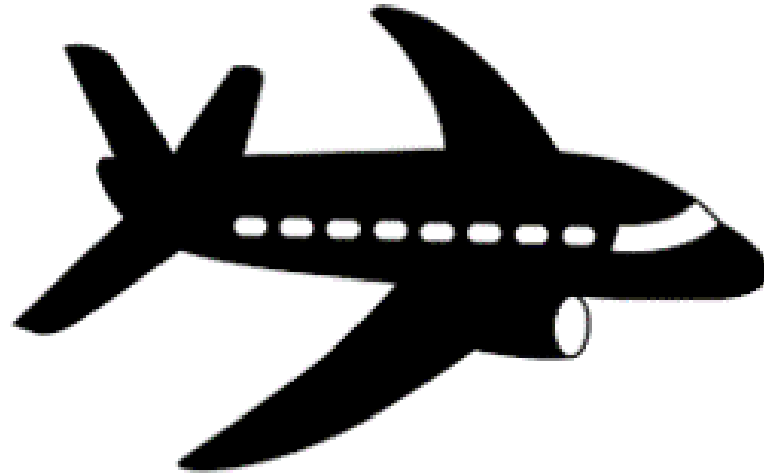
| FAMILY MEMBER REUNIFICATION   | HUMANITARIAN AID   | VOLUNTEERING   |
|---|--|--|
|  <p data-bbox="122 1153 810 1262">± 1,200 family members, over 50% children &amp; their pets</p> |  <p data-bbox="912 1153 1630 1199">Material and financial contributions</p> |  <p data-bbox="1753 1159 2395 1262">± 10,000 Toyota pan-E members volunteered to support</p> |



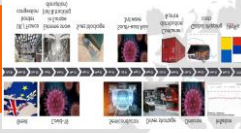


# HOW DOES TOYOTA WEATHER THESE STORMS?

Increasing tough regulatory environment



Crisis after crisis!



2027 Euro 7 target



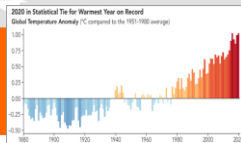
50% reduction in C.A.F.E



Fit for 55



Global warming

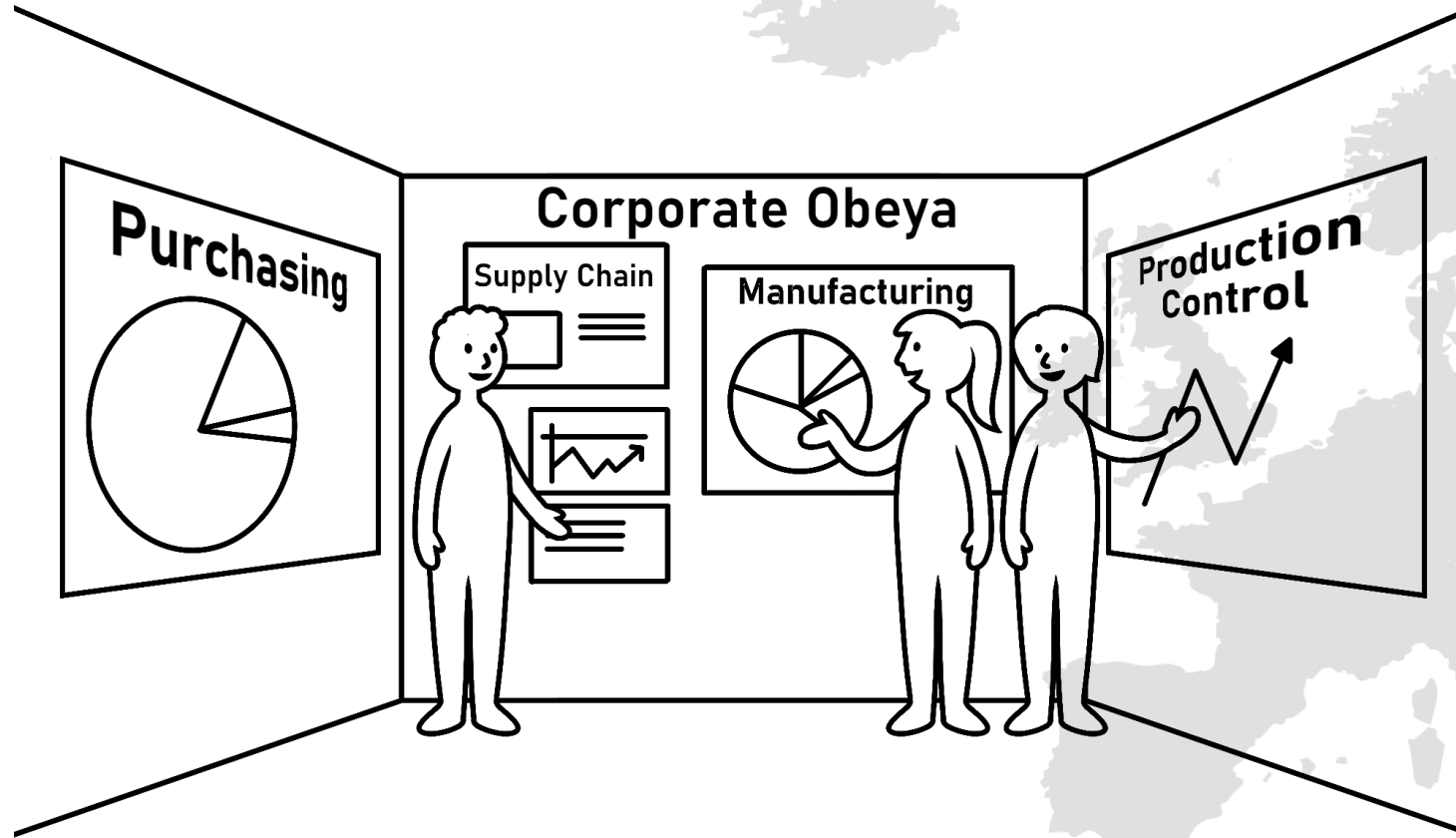


COP26



# TOYOTA – OBEYA MANAGEMENT

# 大 部 屋



Working together with a “one-team” fighting spirit

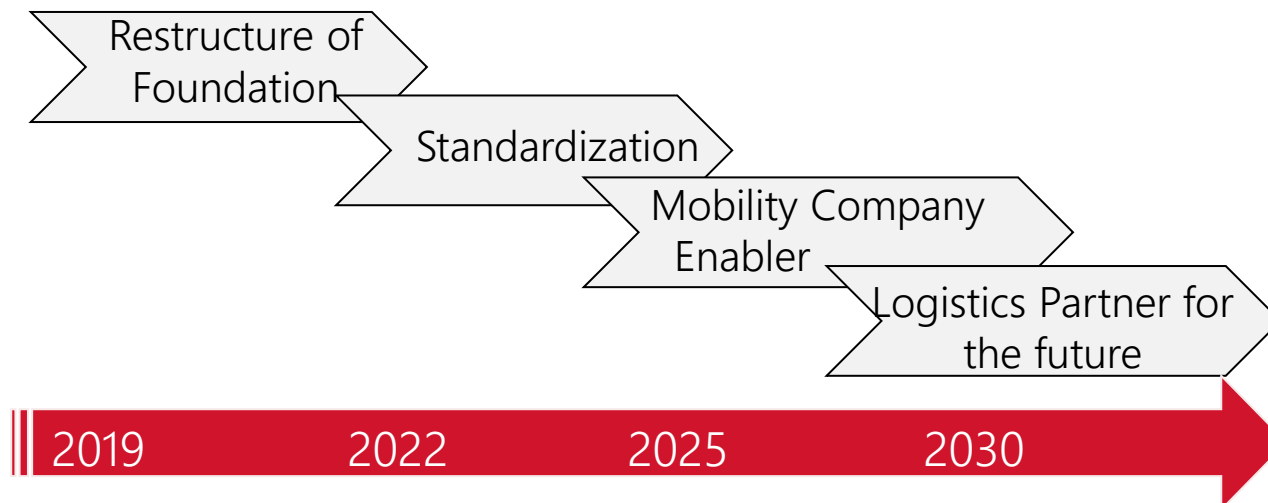


# SUPPLY CHAIN – 2025 STRATEGY

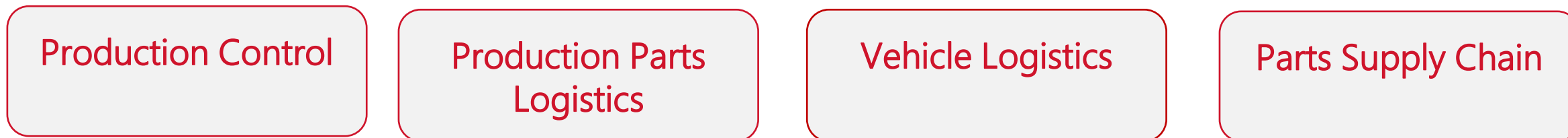
## 1 Mission

*Create Happiness for all*  
**by delivering the**  
**right product at the right time**  
**through lean integrated logistics**  
**exceeding Customer & Stakeholder**  
**expectation**  
**with engaged members**  
**realising a sustainable future**

## 2. Phases moving Forward



## 3. Restructure of Foundation



# SUPPLY CHAIN – AGILE & RESILIENT MEMBERS

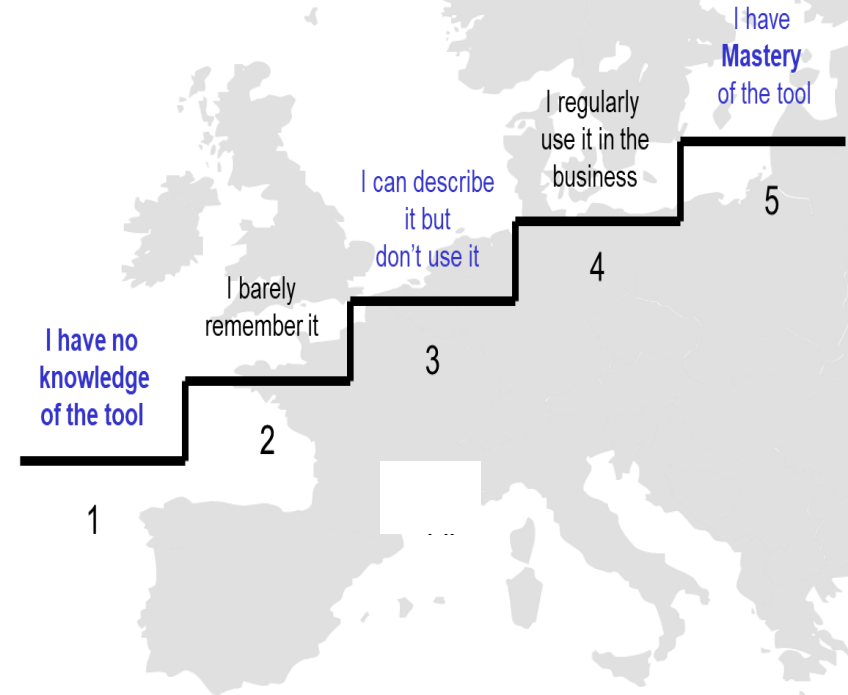
## 5C Values & Competitiveness



## Diversity & Inclusion



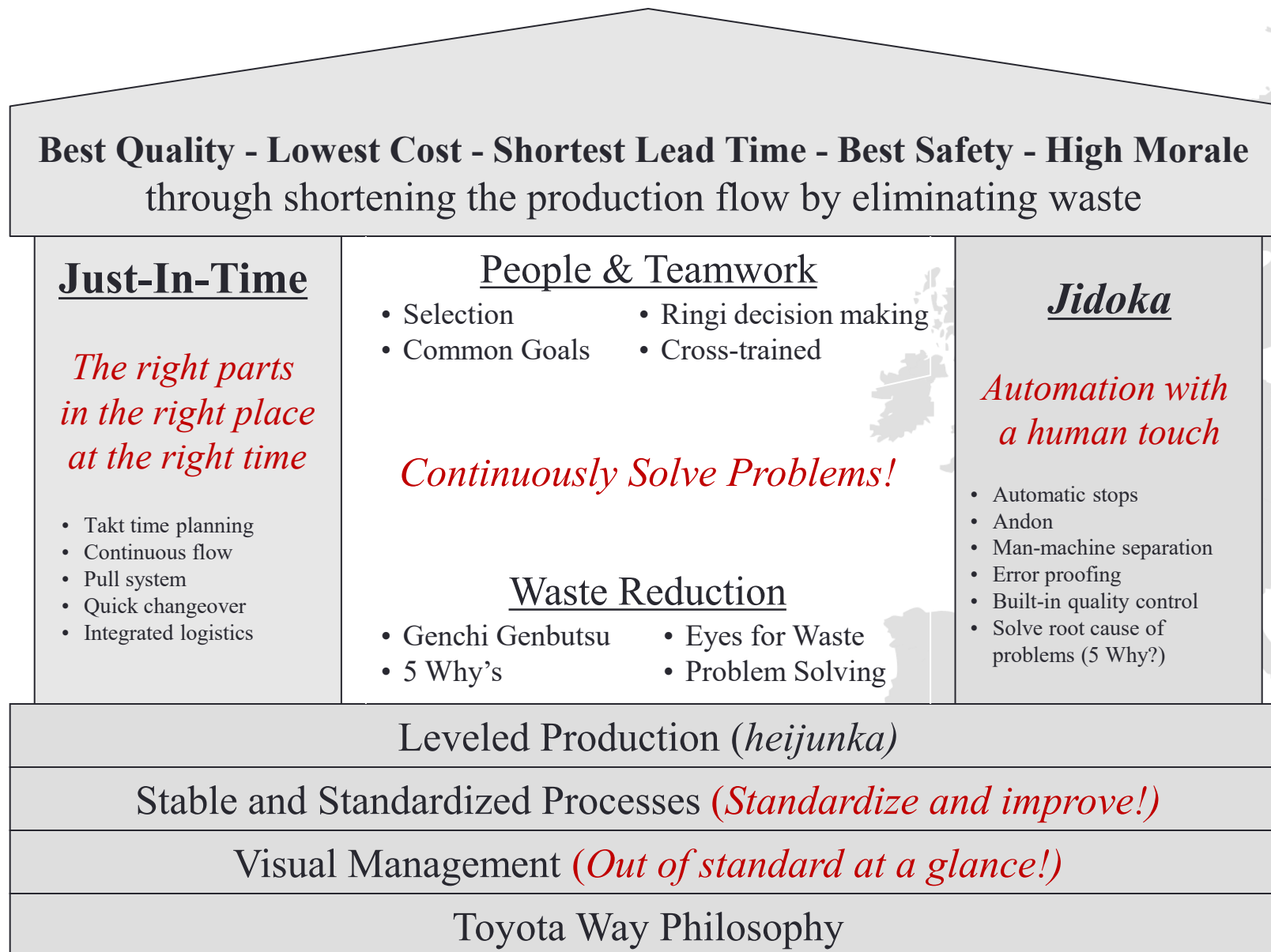
## Skills & Member empowerment



## Organisation structure



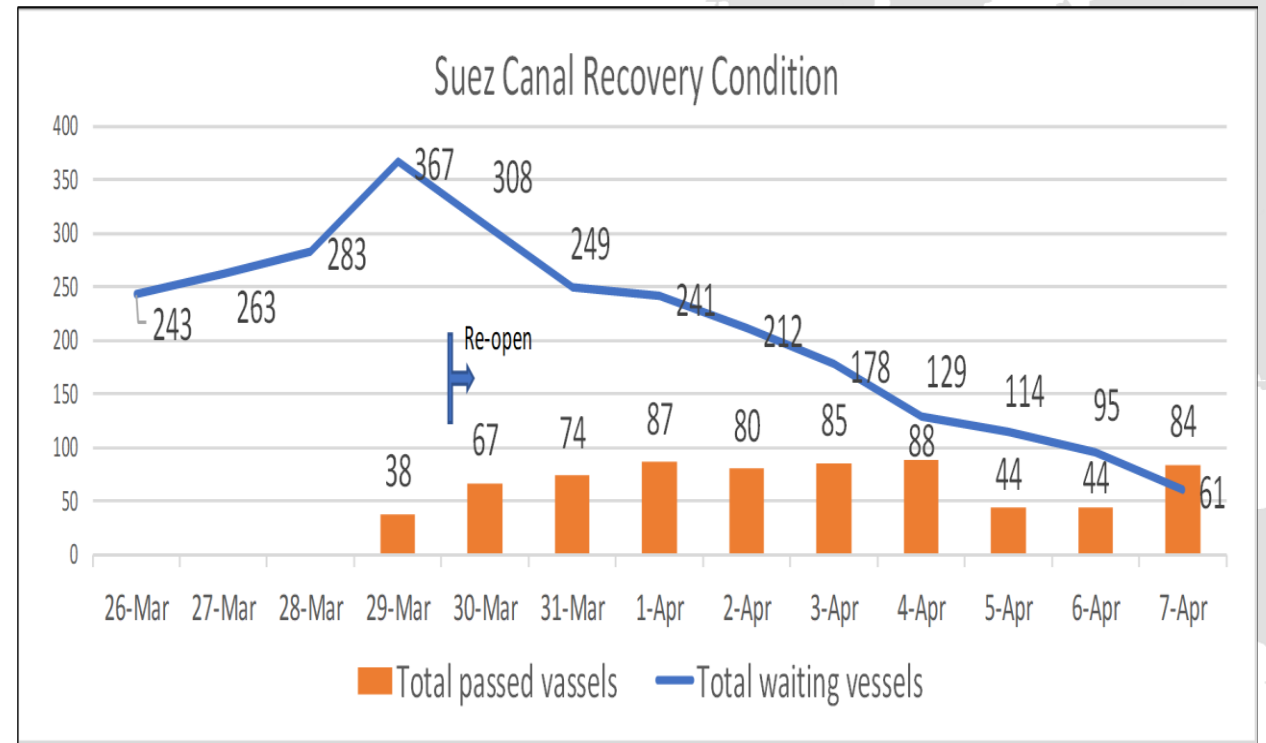
# TPS – TOYOTA PRODUCTION SYSTEM



# TPS EXAMPLE – SUEZ CANAL BLOCKAGE MARCH 2021

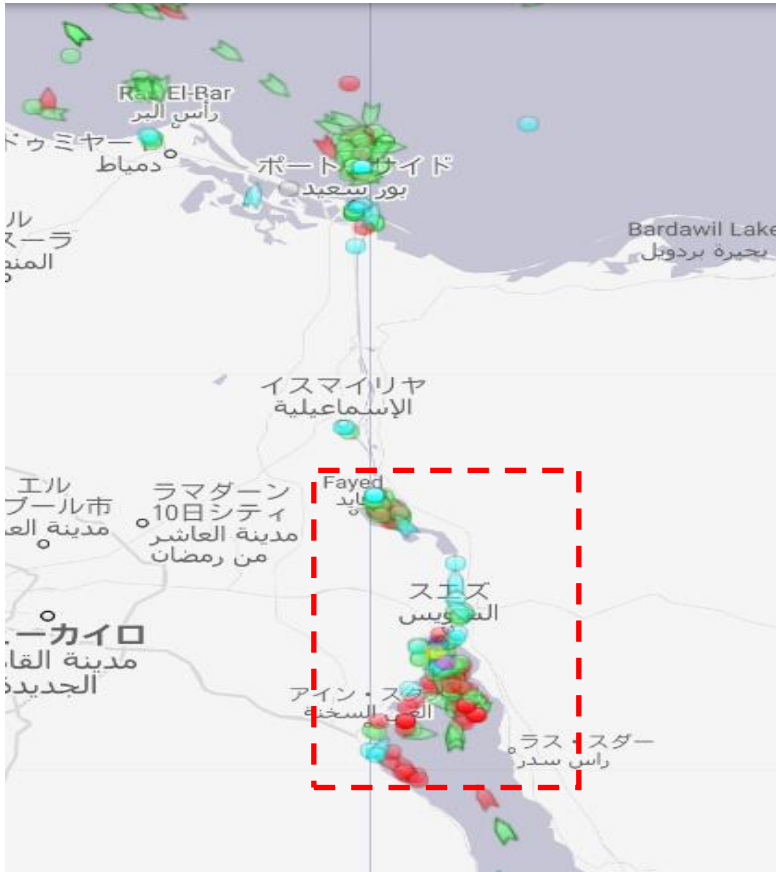
23/3/22': 7:40hrs - Blocked by mega container ship Ever Green

29/3/22': Midnight – canal reopened



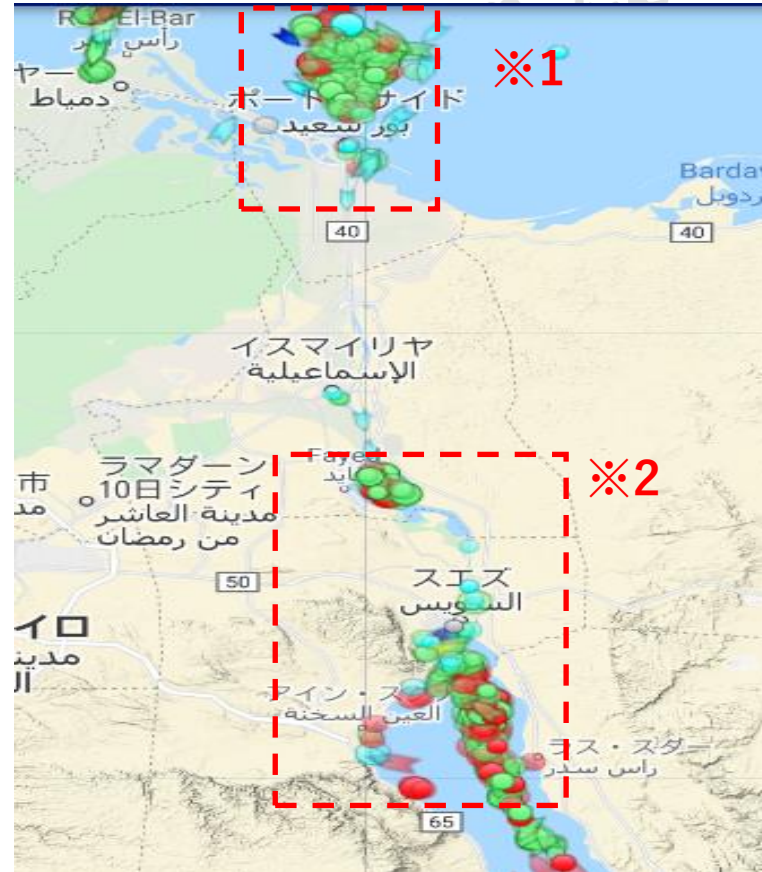
# TPS EXAMPLE – SUEZ CANAL BLOCKAGE MARCH 21' - TRACKING

24th Mar



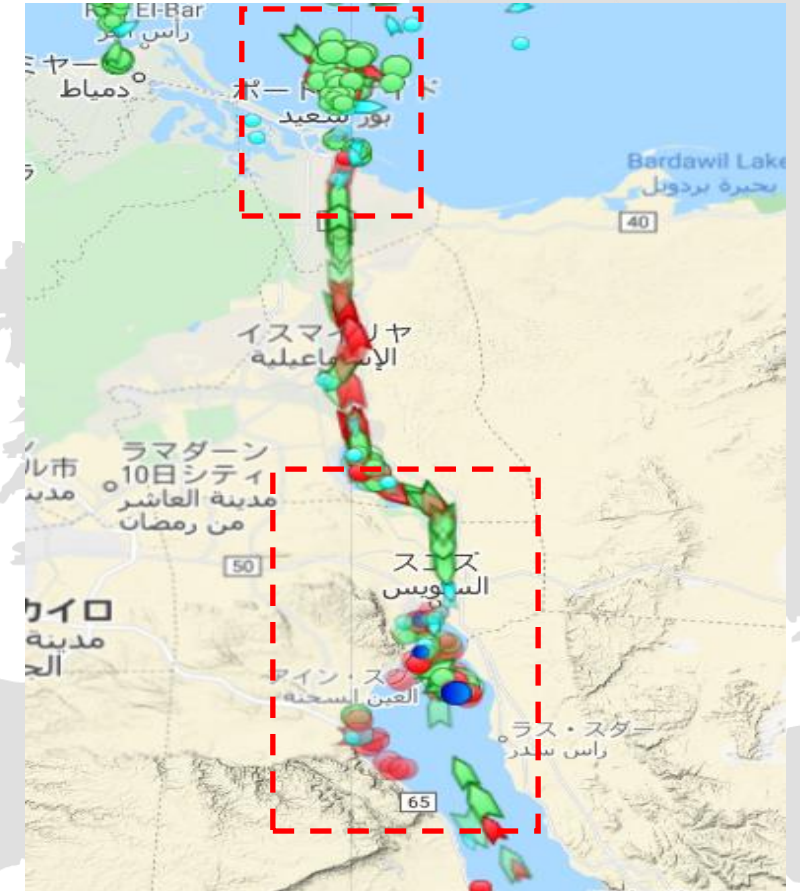
South 68 Vessels  
 North 73 Vessels  
 0 passed

29th Mar



South 195 vessels  
 North 172 vessels  
 Total 367 vessels stagnating

31st Mar



South 31 vessels  
 North 36 vessels  
 84 passed  
 249 vessels stagnating



# TPS EXAMPLE – SUEZ CANAL BLOCKAGE MARCH 2021

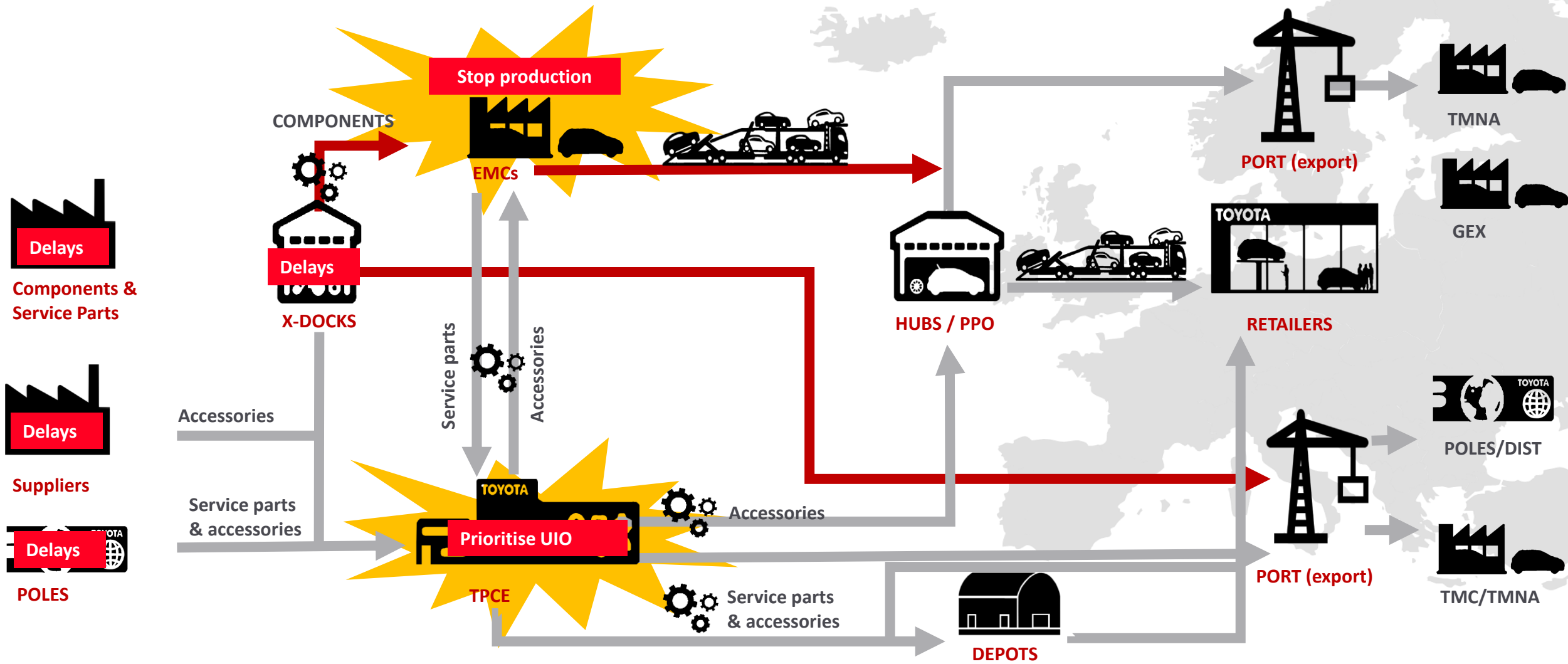
Just-in-time stock levels





# TPS EXAMPLE – SUEZ CANAL BLOCKAGE MARCH 2021

## Clean stop / clean start at manufacturing plants



# TPS EXAMPLE – SUEZ CANAL BLOCKAGE MARCH 2021

Toyota TPS approach – stay loyal to our foundations

|                                |                 |                           |                         |                                   |
|--------------------------------|-----------------|---------------------------|-------------------------|-----------------------------------|
| Visualise the whole operations | Cyclic approach | Short lead time           | High efficiency         | Flexibility                       |
| Respond quickly                | Ensure heijunka | Kanban for quick response | Standardise work Jidoka | Start/stop with minimum inventory |



Standardised work & Kaizen mindset x temporary halt production in a clean way

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Clear & guaranteed ETA times to our customers & quick start-up



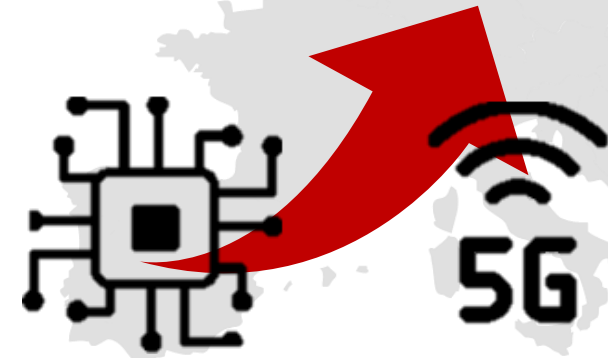
# TPS EXAMPLE – SEMI CONDUCTOR SHORTAGE

Toyota minimised the impact of parts shortage



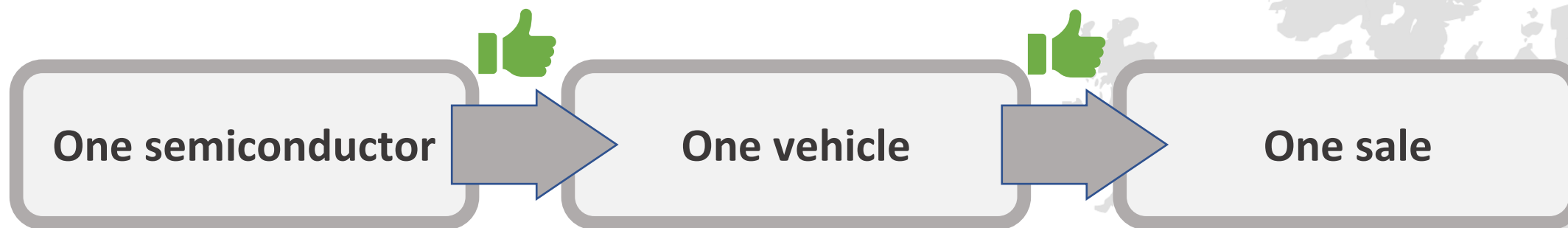
## Problem:

- Covid-19 – factory shutdowns
- High global demand for technology (Home-working / home schooling/ 5G / gaming etc.)
- Double supplier lead time



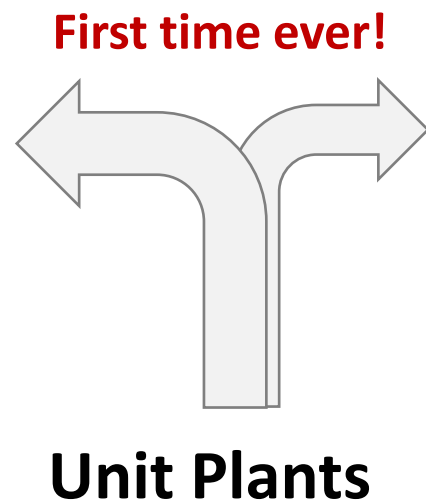
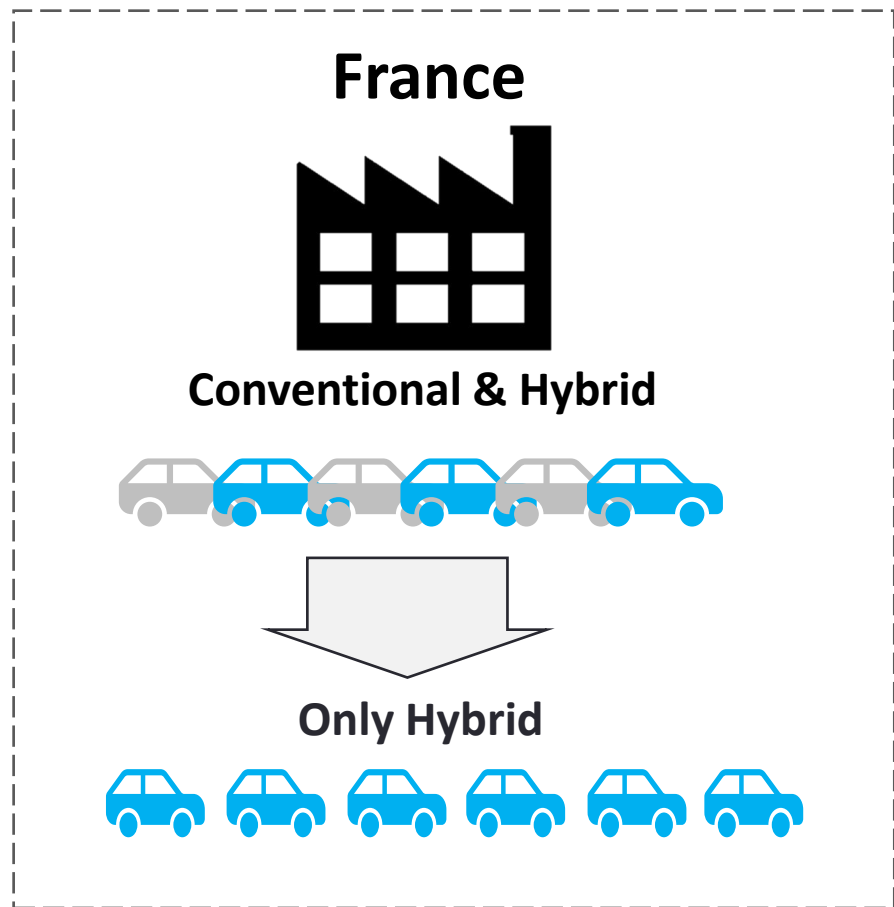
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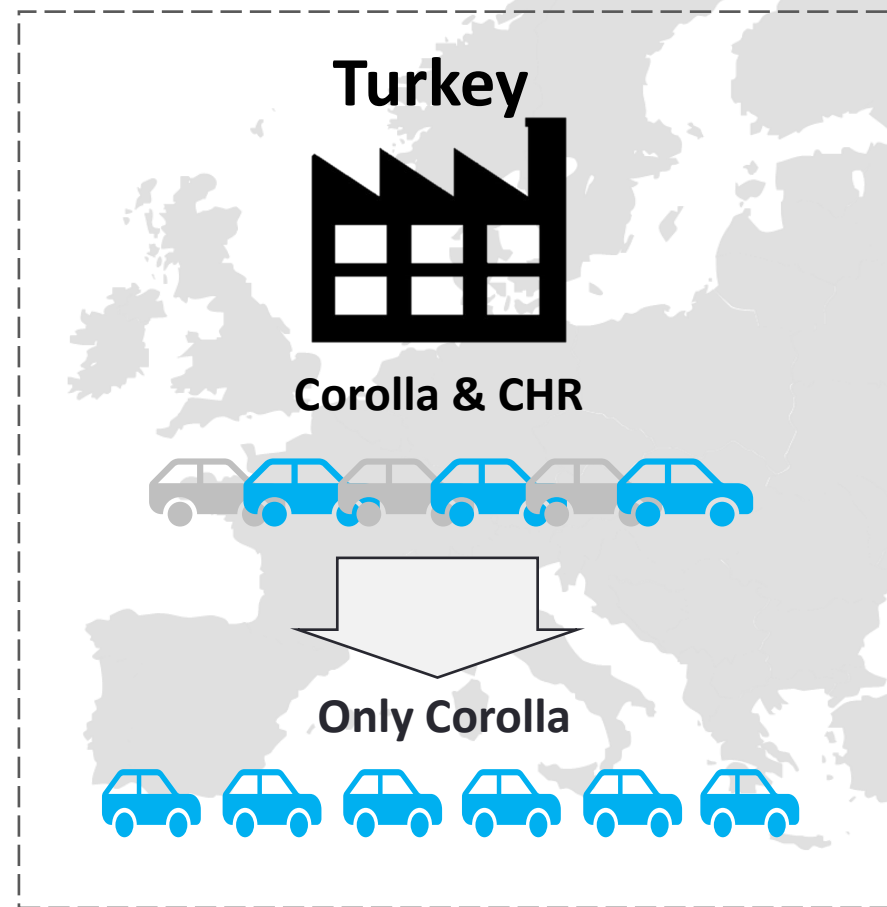


# TPS EXAMPLE – SEMI CONDUCTOR SHORTAGE

Plants efforts: Reduce parts supply impact to deliver the best outcome for our customers



Start / stop production



# TOYOTA FOR THE FIRST TIME EVER - # 2 IN THE 2021 PC MARKET IN EUROPE

FROM 7TH IN 2018 TO A SOLID PODIUM POSITION

|    | TTL Europe<br>PC only | Jan-Dec 18 |        |      |    | TTL Europe<br>PC only | Jan-Dec 19 |        |      |    | TTL Europe<br>PC only | Jan-Dec 20 |       |      |    | TTL Europe<br>PC only | Jan-Dec 21 |        |      |
|----|-----------------------|------------|--------|------|----|-----------------------|------------|--------|------|----|-----------------------|------------|-------|------|----|-----------------------|------------|--------|------|
|    |                       | '000 units | vs LY  | MS%  |    |                       | '000 units | vs LY  | MS%  |    |                       | '000 units | vs LY | MS%  |    |                       | '000 units | vs LY  | MS%  |
|    |                       |            |        |      |    |                       |            |        |      |    |                       |            |       |      |    |                       |            |        |      |
| 1  |                       |            |        |      | 1  |                       |            |        |      | 1  |                       |            |       |      | 1  |                       |            |        |      |
| 2  |                       |            |        |      | 2  |                       |            |        |      | 2  |                       |            |       |      | 2  | Toyota                | 920        | 111.0% | 6.4% |
| 3  |                       |            |        |      | 3  |                       |            |        |      | 3  | Toyota                | 828        | 89.2% | 5.7% | 3  |                       |            |        |      |
| 4  |                       |            |        |      | 4  |                       |            |        |      | 4  |                       |            |       |      | 4  |                       |            |        |      |
| 5  |                       |            |        |      | 5  |                       |            |        |      | 5  |                       |            |       |      | 5  |                       |            |        |      |
| 6  |                       |            |        |      | 6  | Toyota                | 928        | 103.3% | 5.1% | 6  |                       |            |       |      | 6  |                       |            |        |      |
| 7  | Toyota                | 898        | 103.9% | 4.9% | 7  |                       |            |        |      | 7  |                       |            |       |      | 7  |                       |            |        |      |
| 8  |                       |            |        |      | 8  |                       |            |        |      | 8  |                       |            |       |      | 8  |                       |            |        |      |
| 9  |                       |            |        |      | 9  |                       |            |        |      | 9  |                       |            |       |      | 9  |                       |            |        |      |
| 10 |                       |            |        |      | 10 |                       |            |        |      | 10 |                       |            |       |      | 10 |                       |            |        |      |
| 11 |                       |            |        |      | 11 |                       |            |        |      | 11 |                       |            |       |      | 11 |                       |            |        |      |
| 12 |                       |            |        |      | 12 |                       |            |        |      | 12 |                       |            |       |      | 12 |                       |            |        |      |
| 13 |                       |            |        |      | 13 |                       |            |        |      | 13 |                       |            |       |      | 13 |                       |            |        |      |

Q1 2022: TOYOTA MARKET SHARE ROSE TO A RECORD HIGH OF 7.6%



THANK YOU

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