THE ROAD TO CARBON-NEUTRAL MOBILITY

EU INDUSTRY COMMITTED, BUT REALITY CHECK NEEDED

Korea-Europe
Future Automotive Conference

Seoul, Korea

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2 November 2021

WHO WE REPRESENT

CLIMATE NEUTRALITY
BY 2050

CLIMATE NEUTRALITY

- EU’s overall goal is to reach climate neutrality by 2050
  - In line with the Paris agreement
  - Fully supported by all ACEA members
- Original target: -40% CO2 by 2030 compared to 1990 levels
- This year the European Commission concluded that a more ambitious target will be needed
  - 55% net reduction by 2030
- ‘Fit for 55’ climate package launched by Timmermans in July
  - Sets out the legislative framework and actions the Commission deems necessary (for each sector) to reach the new target

FIT FOR 55: AUTOMOTIVE IMPACT

- Proposal for new CO_2 targets, just 3 years after previous

CO_2 emissions from cars

	Targets set in 2019	New targets proposed
2025	-15%	-15%
2030	**-37.5%**	**-55%** (2021 levels)
2035	no	-100%

CO_2 emissions from vans

	Targets set in 2019	New targets proposed
2025	-15%	-15%
2030	**-31%**	**-50%** (2021 levels)
2035	no	-100%

- 100% reduction target in 2035 is effectively a ban on the internal combustion engine (ICE) in Europe

FIT FOR 55: AUTOMOTIVE IMPACT

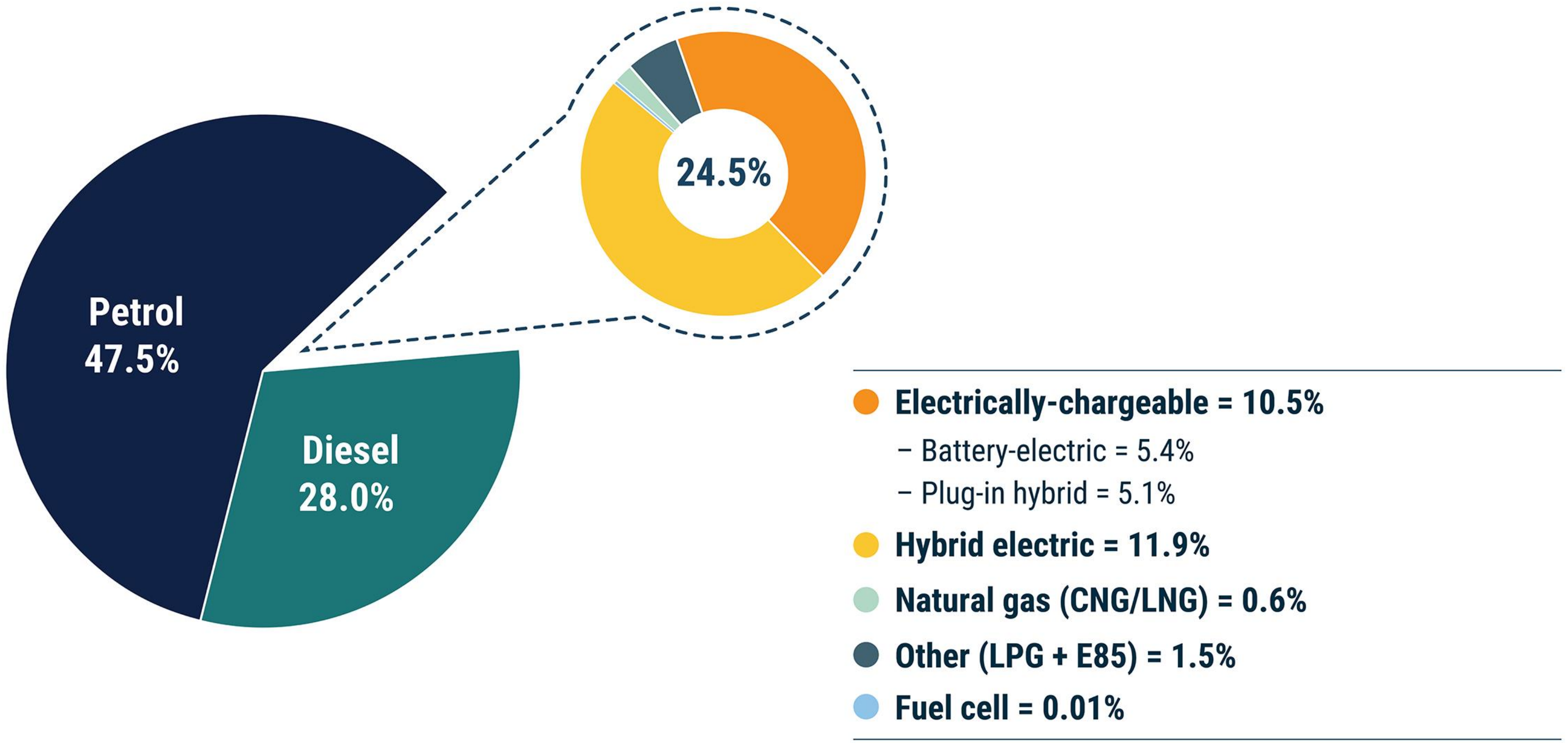
- Car CO2 target of 55% by 2030 would be very challenging
  - Requires corresponding binding targets for EU member states to build up the necessary charging and refuelling infrastructure
- Fit for 55 not ambitious enough: ‘only’ 3.5 million EV chargers
  - -50% by 2030 would already require 6 million public chargers
- Will speed up structural transformation of entire value chain
  - Major impact on our economy and jobs
- All powertrains must play role in transition to climate neutrality
  - Need to reduce the carbon footprint of the whole fleet on the road
  - EU needs to focus on innovation, not banning technologies

WHERE WE STAND TODAY

ON THE ROAD TO 2050

PROGRESS: EV SALES UP

- 22.5% of new car sales in the EU ‘electrified’ last year
- Only 8.9% in 2019, so market share more than doubled!



BUT MAJOR DIFFERENCES IN EU

SHARE ALTERNATIVELY-POWERED CARS, 2020

	AT	BE	HR	CY	CZ	DK	EE	FI	FR	DE	GR	HU	IE
BEVs	6.4%	3.5%	1.5%	0.5%	1.6%	7.2%	1.5%	4.4%	6.7%	6.7%	0.8%	2.4%	4.5%
PHEVs	3.1%	7.3%	0.4%	0.0%	0.9%	9.2%	0.3%	13.7%	4.5%	6.9%	1.8%	2.3%	2.8%
FCEVs	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
HEVs	10.5%	3.7%	6.0%	3.0%	5.1%	4.9%	11.7%	19.4%	10.2%	11.2%	14.5%	24.8%	12.4%
NGVs	0.2%	0.7%	0.0%	0.0%	0.6%	0.0%	3.5%	1.9%	0.0%	0.2%	1.7%	0.0%	0.0%
OTHER	0.0%	0.2%	2.0%	0.0%	0.6%	0.0%	0.0%	0.0%	1.0%	0.2%	0.5%	0.2%	0.0%

	IT	LV	LT	LU	NL	PL	PT	RO	SK	SI	ES	SE
BEVs	2.4%	2.0%	1.1%	5.5%	20.5%	0.9%	5.4%	2.2%	1.2%	3.1%	2.1%	9.6%
PHEVs	2.0%	0.6%	0.0%	5.9%	4.5%	1.0%	8.2%	0.0%	0.7%	0.1%	2.7%	22.6%
FCEVs	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
HEVs	16.1%	10.7%	20.6%	8.4%	13.1%	14.5%	8.2%	11.3%	9.9%	3.2%	16.1%	9.9%
NGVs	2.3%	0.2%	0.2%	0.0%	0.0%	0.0%	0.0%	0.0%	0.5%	0.0%	0.4%	1.2%
OTHER	6.8%	0.7%	0.0%	0.0%	0.6%	2.1%	1.2%	7.3%	0.7%	0.3%	1.2%	0.0%

BEVs = Battery-electric
PHEVs = Plug-in hybrid
HEVs = Hybrid electric
FCEVs = Fuel cell
NGVs = Natural gas (CNG/LNG)
OTHER = Other alternatively powered (LPG+E85)

BUT MAJOR DIFFERENCES IN EU

- 17 EU member states have a battery electric vehicle (BEV) market share of 5% and under
  - 8 member states have BEV share of less than 2%
- Only 8 EU countries have a BEV market share over 5%
  - 20.5% share in the Netherlands = exception in EU
  - Runner-up Sweden less than half of that, with 9.6%!
- Hybrid electric vehicles (HEV) dominate the alternatively-powered car market in most countries
  - 15 EU member states have an HEV share of over 10%
  - HEVs combine ICE with an electric motor: what after 2035?

AFFORDABILITY OF ELECTRIC CARS

LOWER-INCOME COUNTRIES FALL BEHIND

AFFORDABILITY ELECTRIC CARS

- Affordability remains a major barrier to consumers
  - Consumer uptake of electrically-chargeable vehicles (ECV) is directly correlated to a country's national income, ie the GDP per capita
- Countries with an ECV market share of less than 3% have an average GDP of below €17,000
  - New EU countries in Central and Eastern Europe, but also Greece
- >15% share only in rich countries with average GDP >€46,000
- 73% of all electric car sales are concentrated in just 4 Western European countries with the highest GDPs

ELECTRIC CAR SALES AND NATIONAL INCOME

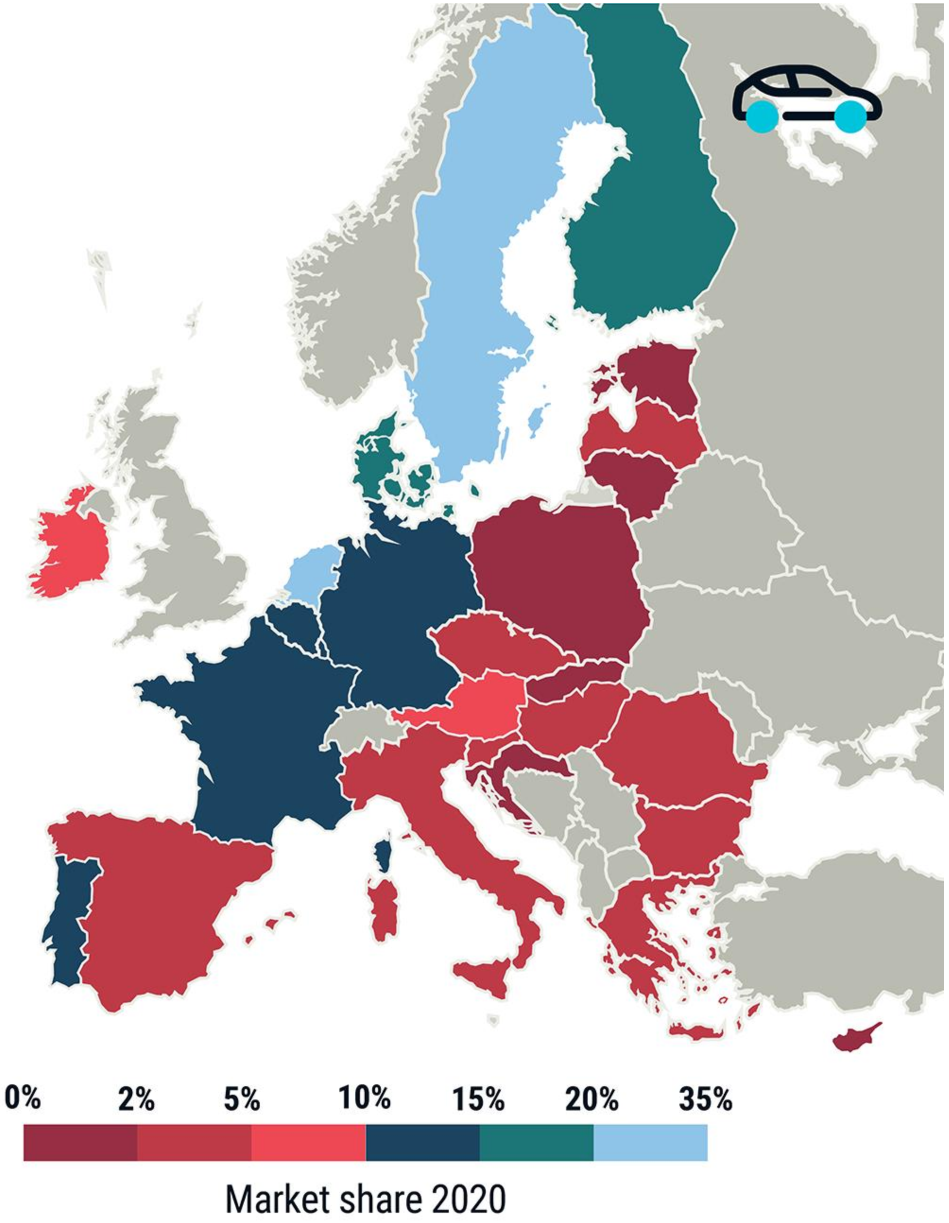
Electric cars < 3% of total sales
= average GDP < €17,000

Electric cars > 15% of total sales
= average GDP > €46,000

73% of all electric cars are sold in just 4 countries (with some of the highest GDPs)

Top 5: Lowest market share in 2020

Cyprus	Lithuania	Estonia	Croatia	Poland
0.47%	1.13%	1.82%	1.86%	1.89%
42 ECVs	453 ECVs	425 ECVs	676 ECVs	8,099 ECVs
GDP €23,580	GDP €17,460	GDP €20,440	GDP €12,130	GDP €13,600



AFFORDABILITY ELECTRIC CARS

Top 5: countries with the **LOWEST** electric car share + their GDP (2020)

1. Cyprus: 0.5% – €23,580
2. Lithuania: 1.1% – €17,460
3. Estonia: 1.8 % – €20,440
4. Croatia: 1.9% – €12,130
5. Poland: 1.9% – €13,600

Top 5: countries with the **HIGHEST** electric car share + their GDP (2020)

1. Sweden: 32.2% – €45,610
2. Netherlands: 25% – €45,790
3. Finland: 18.1% – €42,940
4. Denmark: 16.4% – €53,470
5. Germany: 13.5% – €40,070

INFRASTRUCTURE AVAILABILITY

SHARP DIVISIONS IN ROLL-OUT OF CHARGERS

INFRASTRUCTURE AVAILABILITY

- Less than 225,000 public charging points available in EU
  - Falls far short of what is required
- 7 million ECV charging points needed by 2030
  - 27-fold increase in less than a decade
  - But ‘Fit for 55’ proposal only aims for 3.5 million public chargers…
- 3 countries, covering just 23% of the EU’s total surface area, account for 70% of all charging points today
  - 29.7% in the Netherlands 66,665
  - 20.4% in France 45,751
  - 19.9% in Germany 44,538

DISTRIBUTION OF ELECTRIC CAR CHARGING POINTS ACROSS THE EU

70% of all charging points:

Located in just 3 EU co

30% of all EU charging points in Netherlands, but covers only 0.8% of total EU surface area

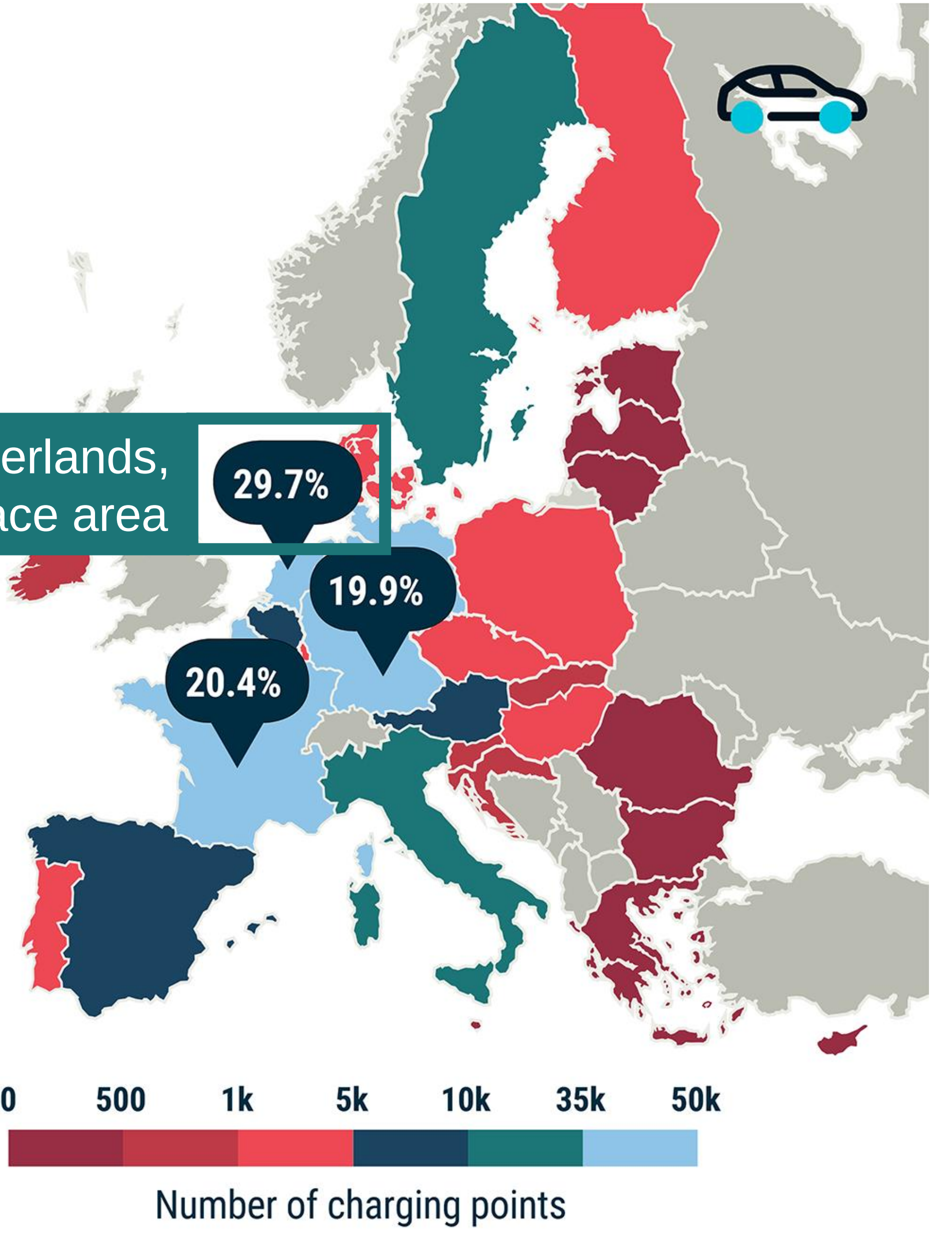
29.7% Netherlands

20.4% France

19.9% Germany

Top 5: Fewest charging points in 2020

Cyprus	Malta	Lithuania	Bulgaria	Greece
70	96	174	194	275



INFRASTRUCTURE AVAILABILITY

- Of the 224,237 chargers available across the EU:
  - Only 24,987 suitable for fast charging (capacity of > 22kW)
  - ‘Normal’ points (≤ 22kW) account for the vast majority (199,250)
- Just 1 in 9 charging points in the EU is a fast charger today
- ‘Normal’ chargers also include many common-or-garden, low-capacity power sockets
  - Not suitable for charging vehicles at an acceptable speed
- 10 EU states do not even have 1 charger per 100km of road
  - All these countries have ECV share of under 3% (except for Hungary)

INFRASTRUCTURE AVAILABILITY

Top 5: **MOST** charging points per 100km of road

1.	Netherlands	47.5
2.	Luxembourg	34.5
3.	Germany	
4.	Portugal	14.9
5.	Austria	6.1

8 TIMES BIGGER
than Netherlands

Top 5: **LEAST** charging points per 100km of road

1.	Lithuania	0.2
2.	Greece	0.2
3.	Poland	0.4
4.	Latvia	0.5
5.	Romania	0.5

JUST TRANSITION

IMPACT ON ECONOMY AND JOBS

JUST TRANSITION

- Trade unions, auto associations, employers and NGOs have warned EU Commission about ‘Fit for 55’
  - “While new jobs will be created by electromobility, job losses will be acute in ICE supply chain and specific regions”
  - “Jobs will not be easily interchangeable as they are often located in different places and require different skill sets”
- 2.4 million workers need retraining / upskilling to keep jobs
  - 12.6 million Europeans work in automotive, that is 6.6% of all EU jobs
- But EU ‘Just Transition’ plan for auto workforce is still missing
  - Major risk of social disruption, badly managed transition will severely undermine public support for climate action

CONCLUSIONS

REALITY CHECK NEEDED

CONCLUSIONS

- ACEA fully committed to carbon-neutral mobility by 2050
- But EU 'Fit for 55' plans need reality check in 3 key areas:

1. Infrastructure
   - Two-track Europe for e-mobility, sharp divisions in roll-out of chargers
   - Commission needs to set more ambitious, binding targets for member states
2. Affordability of electric cars
   - Split between Western and Central-Eastern Europe + North-South divide
   - EU must urgently ensure that no countries or citizens are left behind
3. Just Transition
   - Many jobs, and specific European regions, will be highly impacted by shift to zero-emission vehicles, but still no EU plan for auto workers

REPRESENTING EUROPE'S 15 MAJOR CAR, VAN, TRUCK AND BUS MANUFACTURERS

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