SUSTAINABLE MOBILITY

CHALLENGES AHEAD

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acea

WHO WE REPRESENT

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ABOUT THE EU AUTO INDUSTRY

- 12.7 million Europeans work in the automotive sector
- 11.5% of all manufacturing jobs in the EU
- €398.4 billion in tax revenue for European governments
- €76.3 billion trade surplus for the European Union
- 8.2% of EU GDP generated by the auto industry
- €58.8 billion in R&D spending annually, 32% of EU total

SUMMARY

- ACEA's mission is to drive Europe's mobility transformation
- Working towards a new era of mobility, where all Europeans can access affordable transport solutions that are:

Green & Clean

Smart & Efficient

Safe & Reliable

- At the same time, we need to ensure that the EU auto industry remains a strong Global & Competitive player

MAIN CHALLENGES

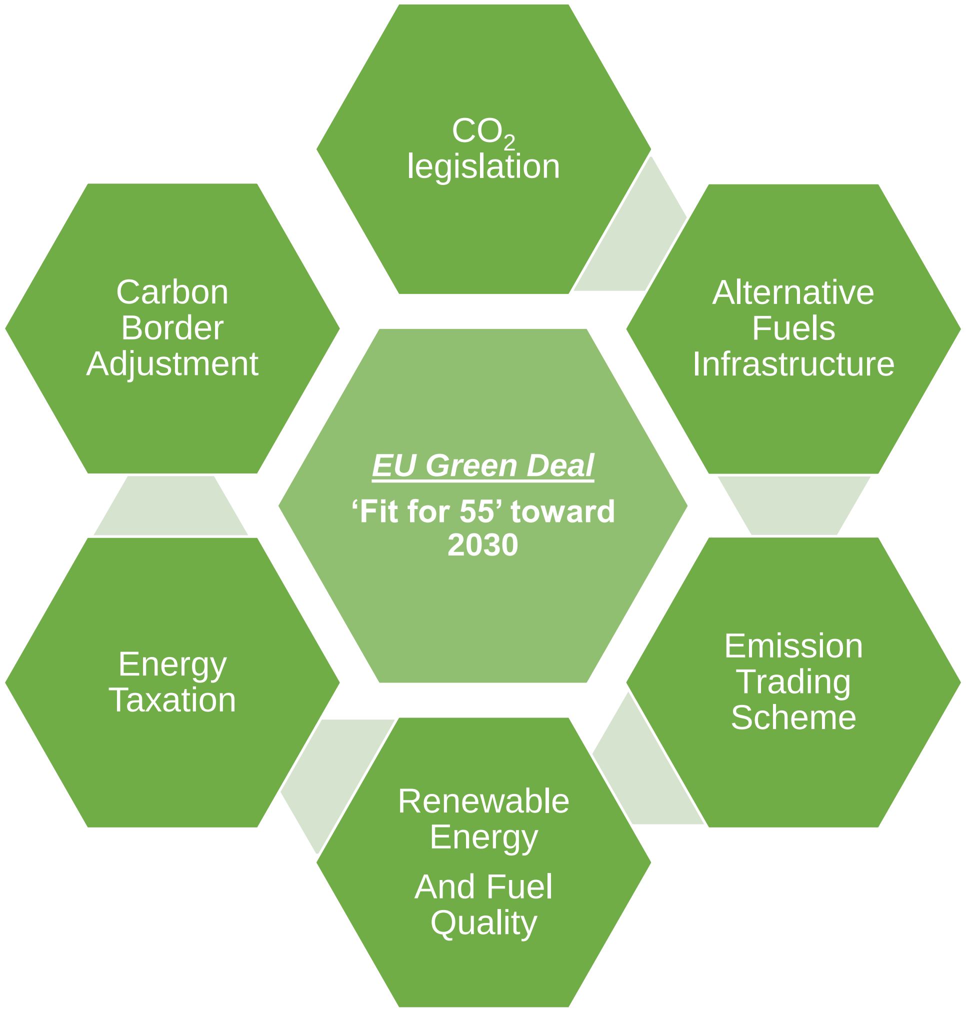
- ## Decarbonisation
  - Alternaive powetrains: all technology options delivering to decarbonisation in diffrenct vehicle segments
  - Infrastructure: sharp divisions in roll-out of chargers across EU
    Affordability: ensure that no countries or citizens are left behind
  - Supply chain security (eg battery value chain) and investment
- ## Digitalisation
  - Need for cross-border infrastructure
  - Right legal / regulatory framework for automated driving
- ## Social transformation
  - Many jobs and regions will be hit by shift to zero emissions
  - Still no ‘Just Transition’ plan for EU auto workers, skills are key

DECARBONISATION

2050 IS ULTIMATE GOAL

- Indsutry fully supports carbon neutral mobility by 2050
- This is transformed into support of the Green Deal package as a whole
- It is not only Fit for 55 regulatory framwork, but also:
    - Ensuring enabling conditions from member states
    - Access to critical raw materials
    - Keeping mobility affordable
    - Manage transition of the sector with respect to economic and social dimension (industry cannot invest in all priorities at once)

FIT FOR 55 AND ENABLING CONDITIONS



- The legislations proposed will push OEMs to produce and attempt to sell cleaner vehicles
- There are number of conditions to be fulfilled to attract consumers:
  - Infrastructure available
  - Fiscal incentives to buy zero emission cars
  - Measures to incentive zero mobility (and penalise carbon intensive fuels)
- All parts of the package must work together

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FIT-FOR-55

- In theory well prepared package by the COM
- Diverging negotiations and results of the outcomes (CO2 vs. AFIR, CBAM vs. ETS)
- Speed of implementation is diverging

SUSTAINABILITY IS PUZZLE

- Industry cannot invest all solutions at once (EU CO2 regulation vs. Euro 7, global vs. EU markets), whilst keeping affordability
- Need to consider different segments
  - passenger cars
  - light commercial vehicles for SMEs
  - heavy-duty for freight transport across continent
- Industry will deliver on CO2 targets through investment inalternative powtrains:
  - Electrification
  - Hydrogen
  - For HDV combustion engines with carbon-free fuels

SUSTAINABILITY IS PUZZLE

- But decarbonisation will happen only if other elements are in place:

    - Respecting technology development (e.g. no possibility to speed-up for 2025 CO_2 targets)
    - Access to critical raw materials and battery production (CO_2 2030 targets vs. reality in battery production chain)
    - Infrastructure availability (AFIR and EPBD lagging behind)
    - The grid capacity and availability for smart charging (huge issue for heavy-duty vehicles)
    - Keeping mobility affordable (incentives from member states)
    - Skills transformation (new curricula or trainings of milions workers take years)
    - Availability of carbon-free fuels to decarbonise current fleet
    - Global factors that enable keeping production chains (COVID, Russia/Ukraine crisis, semiconductors shortage etc.)

DIGITALISATION

CHALLENGE IN MANY ASPECTS

- Digitalisation is an every day proces:
  - In production (move to Industry 4.0 and beyond)
  - In products (OEMs providing connected and automated vehicles)
  - In infrastructure (digital services, new business models)
  - In society (changing customers and consumer needs)

- EU-wide framework is essential to enable providing digital services and products (especially networks, physical infrastructure and services)

CONNECTED AND AUTOMATED VEHICLES

- Connectivity and automation of vehicles will happen irrespecteive of the infrastructure
- But the speed of deploying will depend on the speed of the infrastructure development
- Digital infrastructure shall support the physical couterpart
- Digitalisation, connectivity and automated driving will also positively contribute to decarbonisation (e.g. traffic management systems + smart navigations)

EU REGULATORY FRAMEWORK IS KEY

- Regulatory framework will shape the future development with respect to the:

  - Speed of deployment of new applications
  - Speed of transformation of the physical infrastructure towards digital (roads)
  - Speed of services (5G everywhere)
  - Access to data and new services

HUMAN CAPITAL

SKILLS ARE ESSENTIAL

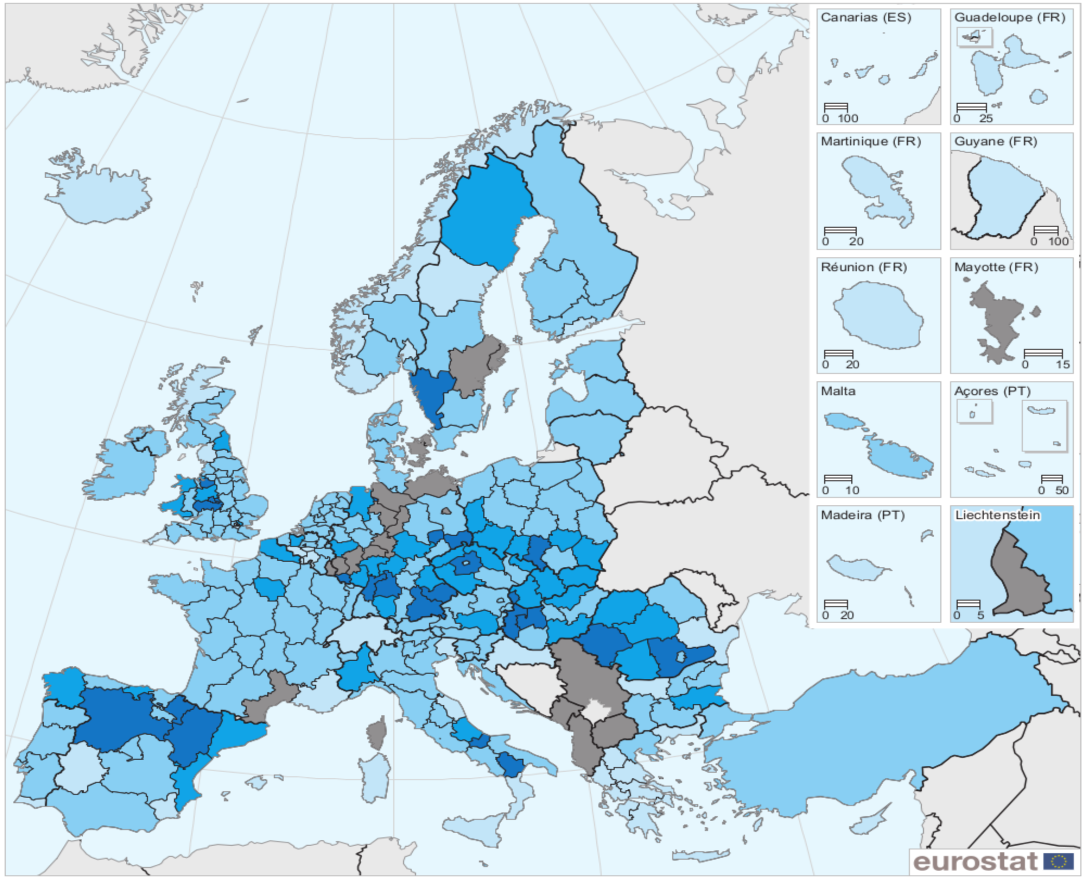
- New powertrains, business models and vehicles of future will need completely diffrenent skills
- New skills will be needed and applied, but probably:
  - In different place
  - In different timeline
  - in different sectors

- Develop skills roadmaps for millions of workers will take years (new curricula + graduates)
- Upskilling and reskilling must be massive

JUST TRANSITION

- Supporting Just transition is essential to ensure acceptance of a swift change of the sector
- Regional dimension is essential (in some regions in Europe automotive represents more than 15% of all manufacturing jobs)

Employment in the manufacture of motor vehicles, trailers and semi-trailers, by NUTS 2 regions, 2015
(% share of total employment in the manufacturing sector)



(% share of total employment in the manufacturing sector)

EU-28 = 8.1

- < 1.0
- 1.0 - < 8.0
- 8.0 - < 16.0
- ≥ 16.0
- Data not available

Administrative boundaries: © EuroGeographics © UN-FAO © Turkstat
Cartography: Eurostat — GISCO, 04/2018

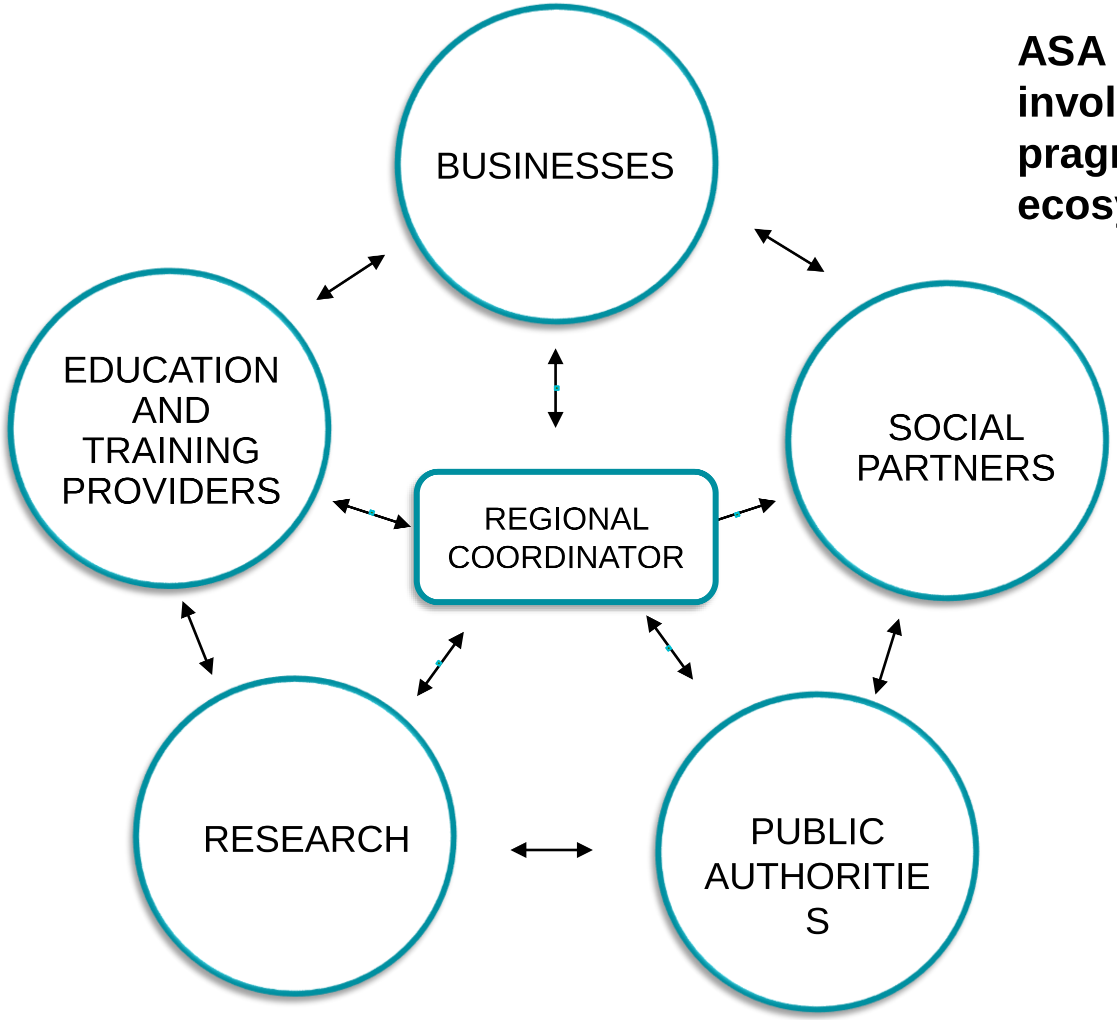
0 200 400 600 800 km

Note: the manufacture of motor vehicles, trailers and semi-trailers is defined as NACE Division 29. Earlier reference periods have been used in some cases. Ireland, Switzerland and Turkey: national data. Switzerland: estimate. Iceland: provisional.
Source: Eurostat (online data codes: sbs_r_nuts06_r2 and sbs_na_sca_r2)

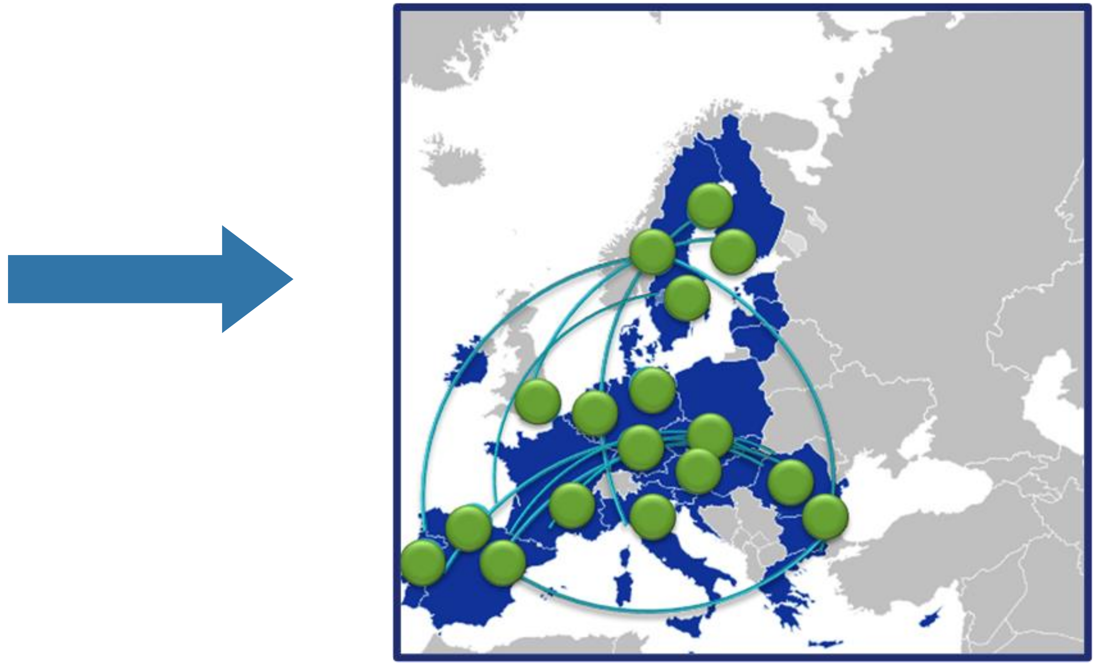
INDUSTRY IS LEADING

- ACEA is part of number of Erasmus+ projects to define skills needs in future and preparing education sets
- Automotive Skills Alliance (https://automotive-skills-alliance.eu/) was established in January 2022 to be leading body in the upskilling and reskilling in automotive
- Intensive cooperation with Committee of Regions to tackle the issues directly at place

AUTOMOTIVE SKILLS ALLIANCE



ASA mission is to bring together different kind of stakeholders involved in the automotive ecosystem and to ensure continuous, pragmatic and sustainable cooperation on the skills agenda in the ecosystem.



CONCLUSIONS

INDUSTRY WILL DELIVER

- Automotive is fully committed and invests into future solutoins
- But it cannot be done alone
- Sustainable industry and transport in the EU is a joint exercise
- We need member states and policy makers to help and all industries need to contribute
- Regulatory framework of the Fit for 55 must reflect reality, global competition and competitiveness of the European industry

REPRESENTS EUROPE’S 16 MAJOR CAR, VAN, TRUCK AND BUS MANUFACTURERS

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