

European cars and vans: Characteristics of the the new vehicles' fleet

Dr. Peter Mock
Senior Researcher, Regional Lead Europe

April 24, 2012 (Geneva)

United Nations Economic Commission for Europe (UNECE)

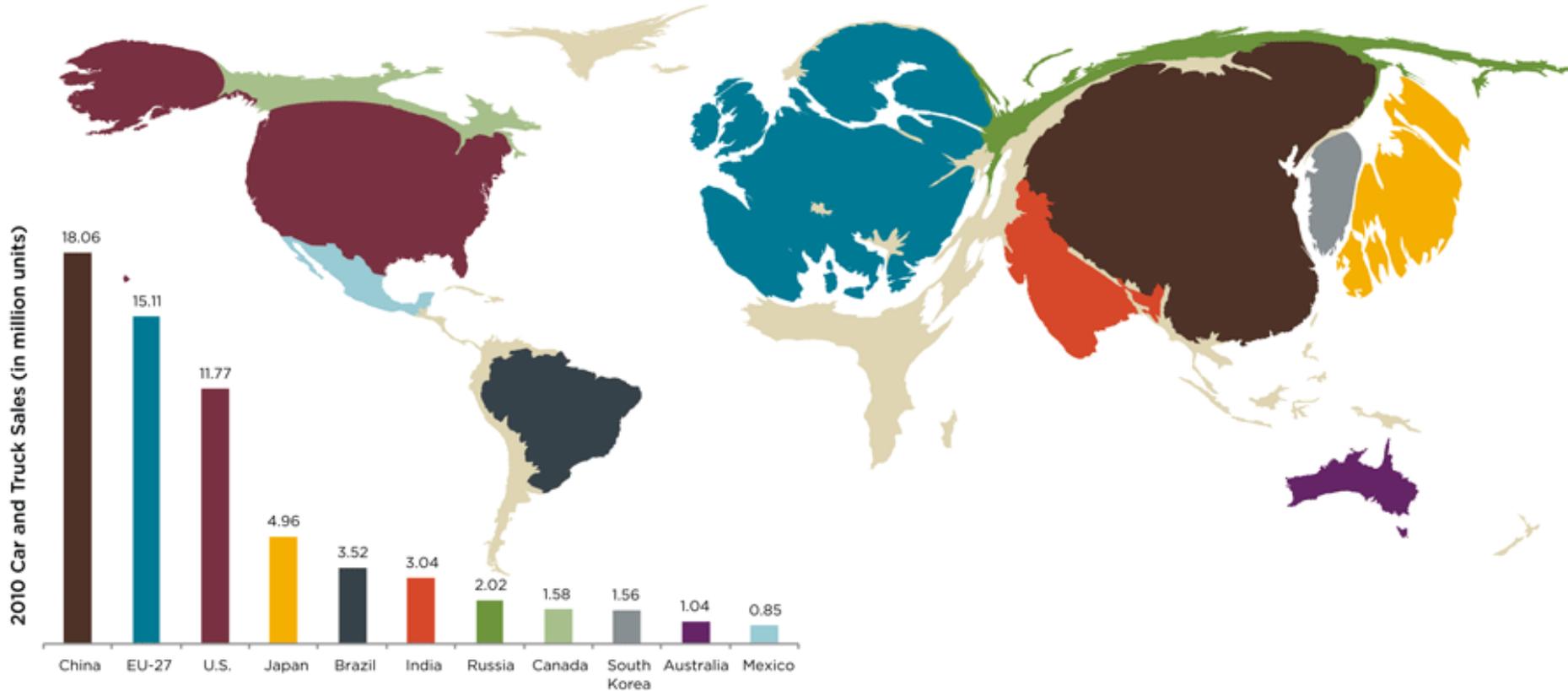
Assessing inland transport CO₂ emissions and the impact of mitigation policies



About the ICCT

Who we are and what we do ...

Top Eleven Vehicle Markets, 2010



The “Pocketbook”

Recently released ...



Download:

- <http://www.theicct.org/european-vehicle-market-statistics>
- Email for print copy: peter@theicct.org

The “Pocketbook”

What is it? And why do we need it?



- **Since 2009 / 2011 EU CO₂ performance standards for passenger cars and vans**
- **First set of “official” CO₂ monitoring data available from European Environmental Agency:**
<http://www.eea.europa.eu/data-and-maps/data/co2-cars-emission>
- **A good example for comprehensive collection of statistical data see US Environmental Protection Agency (EPA):**
<http://www.epa.gov/otaq/fetrends.htm>
- **ICCT “Pocketbook” to provide more details than currently available, but not to be considered official data!**

New vehicle registrations in Europe

Cars: by Member State

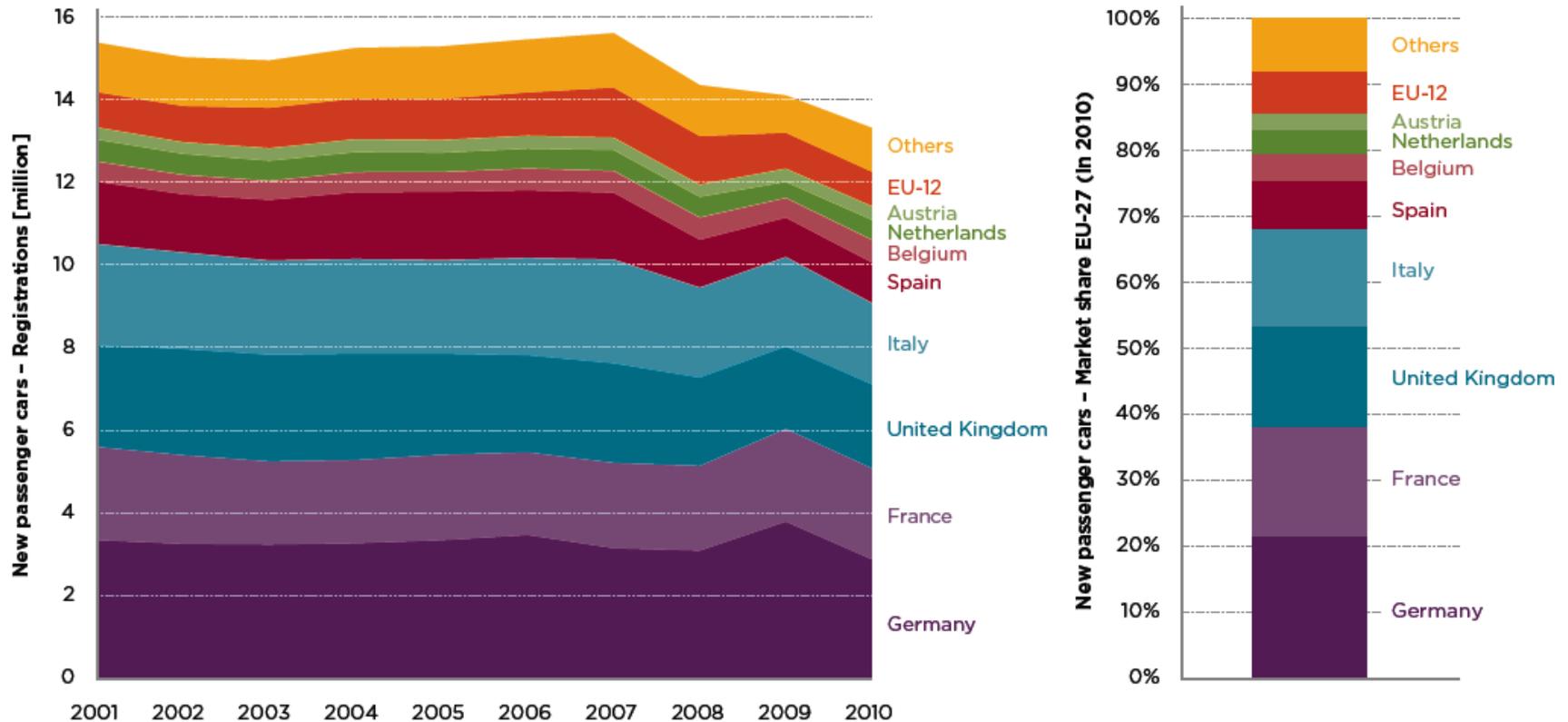


Figure 2-1: New passenger cars: Registrations by Member State

New vehicle registrations in Europe

Cars: by brand

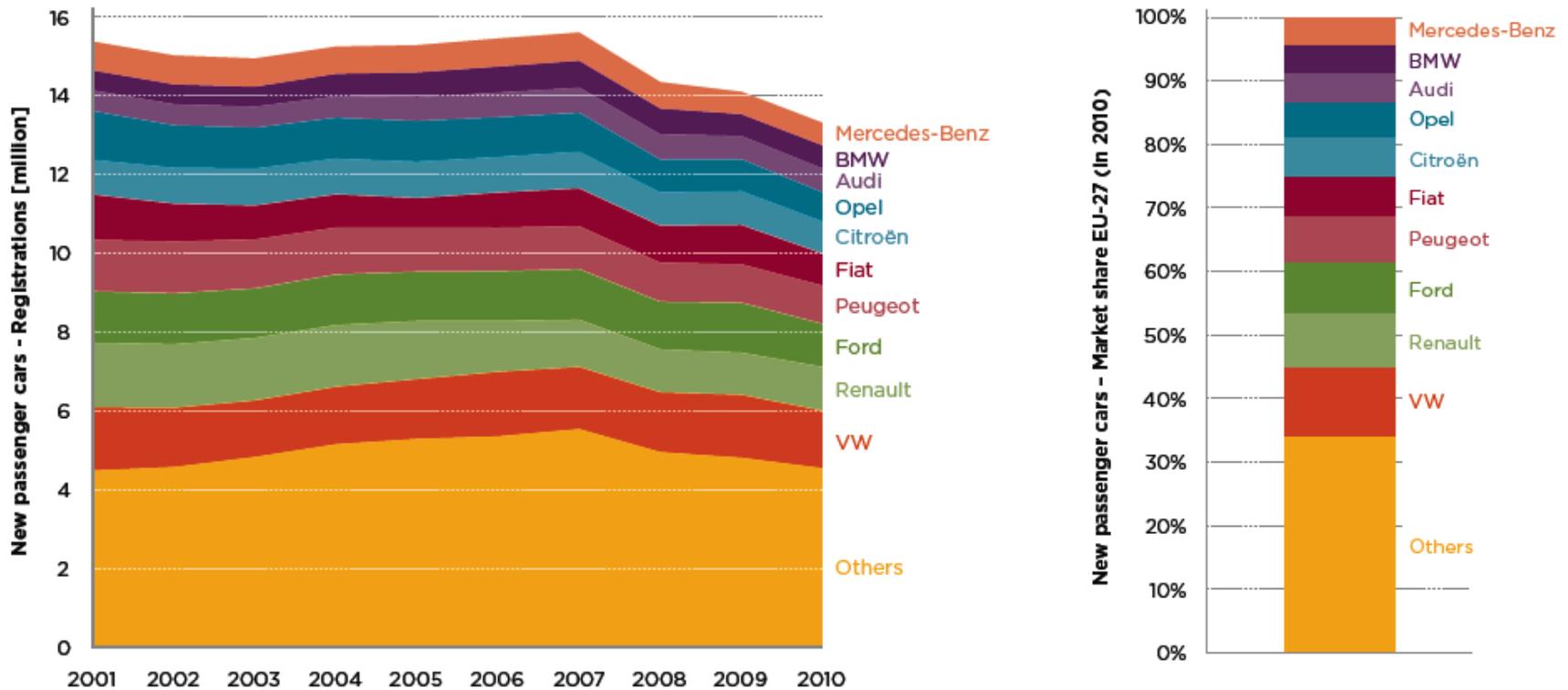


Figure 2-3: New passenger cars: Registrations by brand

New vehicle registrations Europe

The difference between cars and vans?

- **Light-commercial vehicles (N1 category):**
“... designed and constructed for the carriage of goods ...”

Car!



Van!



New vehicle registrations Europe

The difference between cars and vans?

- Light-commercial vehicles (N1 category):
“... designed and constructed for the carriage of goods ...”

Car!



Van!



Van?



Car?



New vehicle registrations in Europe

Vans: by Member State

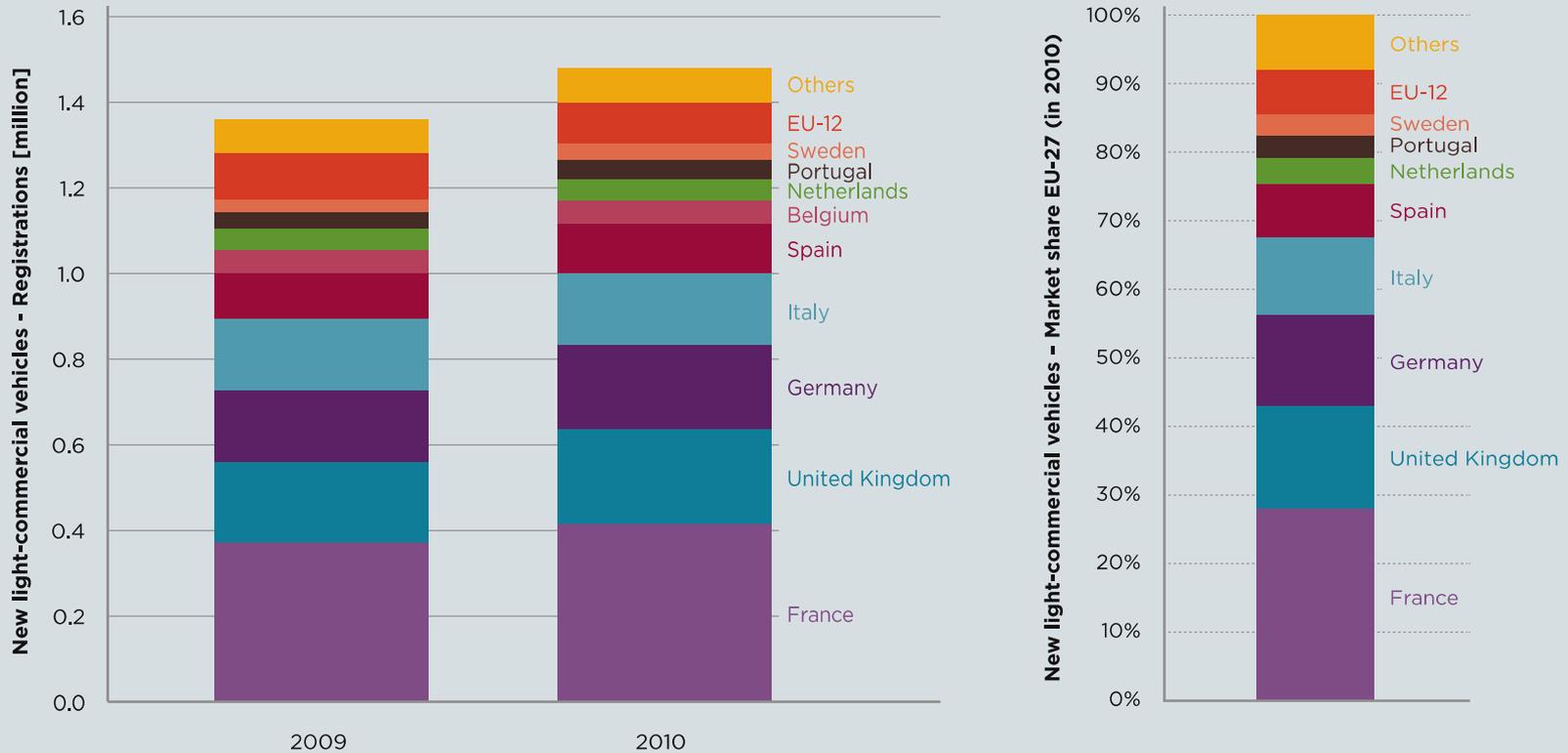


Figure 2-5: New light-commercial vehicles: Registrations by Member State

New vehicle registrations in Europe

Vans: by brand

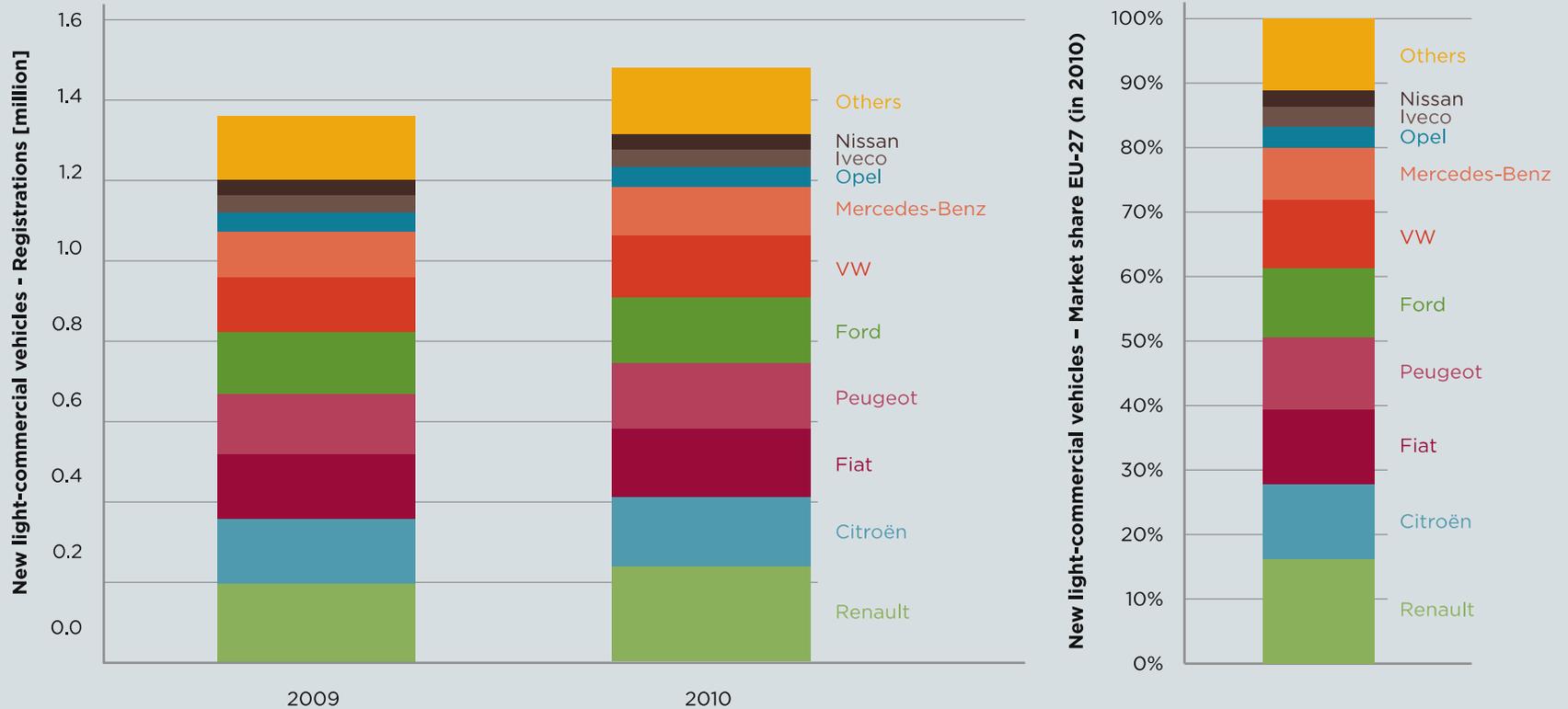
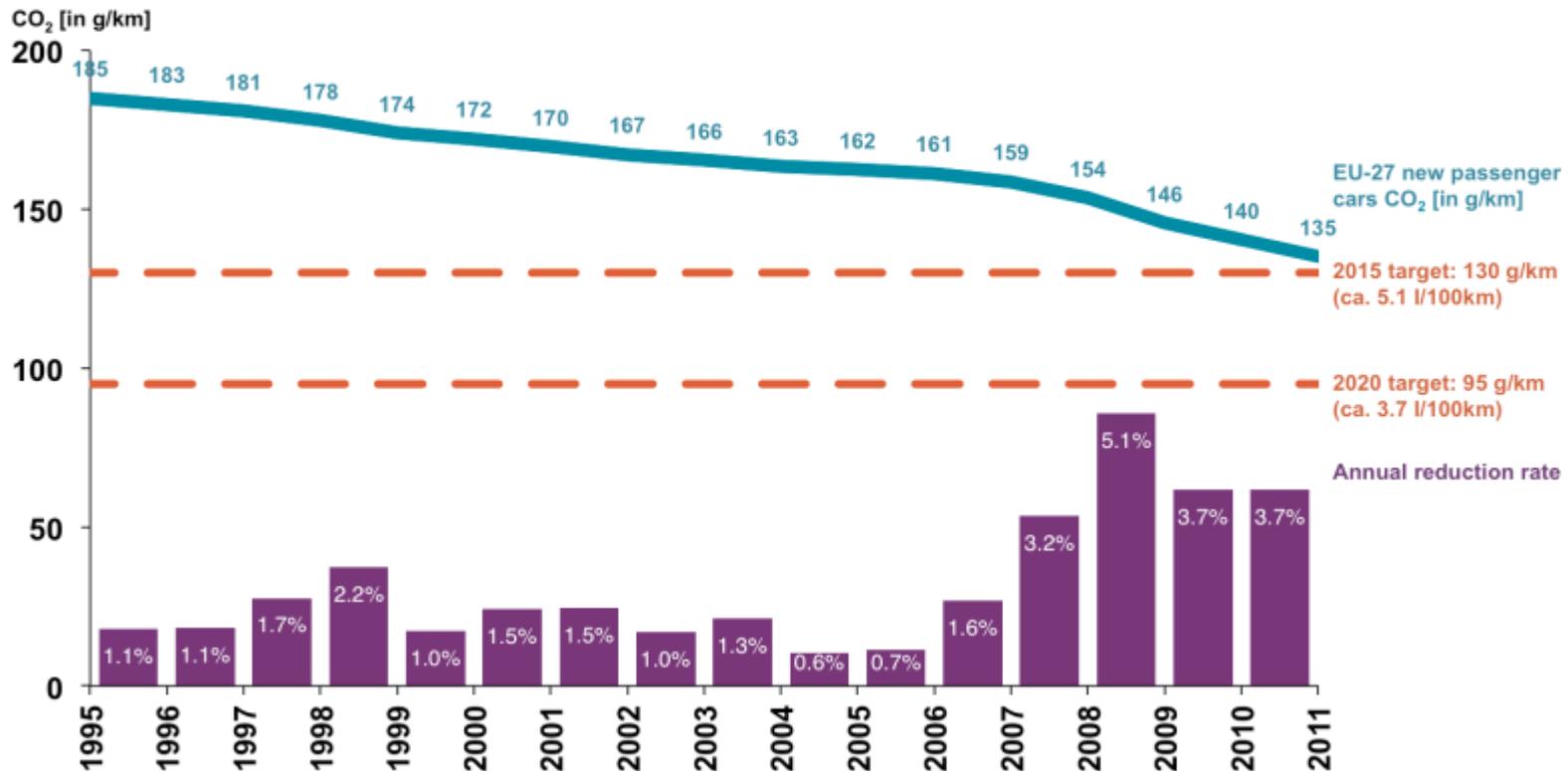


Figure 2-6: New light-commercial vehicles: Registrations by brand

CO₂ emissions

Cars: Historical development

CO₂ performance standards in the European Union
New passenger cars 1995-2011

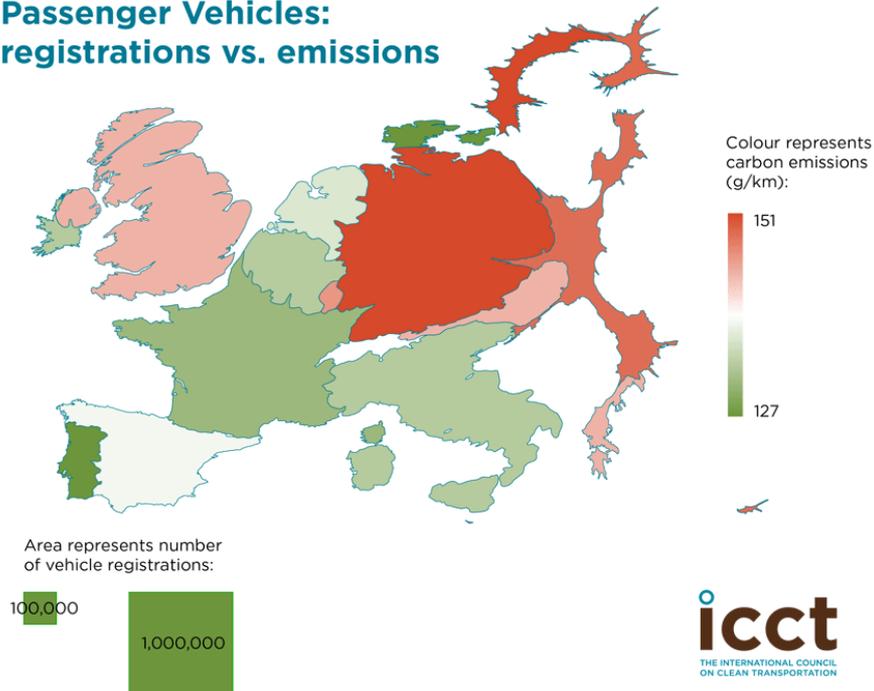


Data sources: 1995-1999 ACEA data for EU-15; 2000-2010 EU CO₂ monitoring data (2000-2003 EU-15, 2004-2006 EU-25, 2007-2010 EU-27); 2011 EU-27 ICCT estimate based on vehicle registration data. Note that changes in the number of member states (from 15 to 27) have only minor effects on the overall emission level (about 0.5 g CO₂/km) as passenger car sales numbers in the new member states are relatively low.

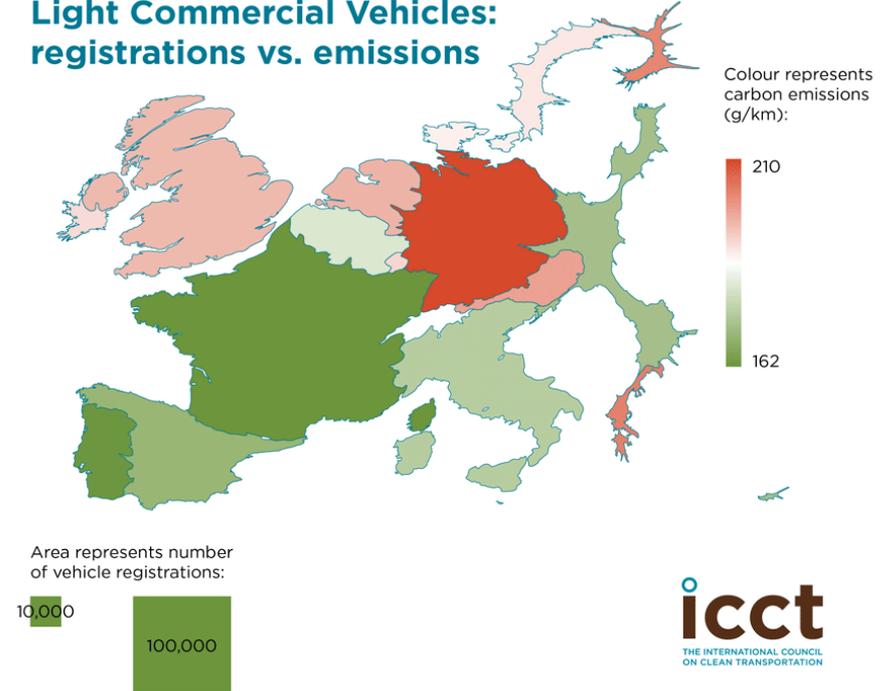
Not in the report – See: <http://www.theicct.org/blogs/staff/eu-car-manufacturers-likely-meet-2015-co2-target-early>

CO₂ emissions By Member State

**Passenger Vehicles:
registrations vs. emissions**



**Light Commercial Vehicles:
registrations vs. emissions**



Not in the report – See: <http://www.theicct.org/blogs/staff/cartogram-passenger-car-markets-and-carbon-emissions-eu>

CO₂ emissions

Cars: by engine technology

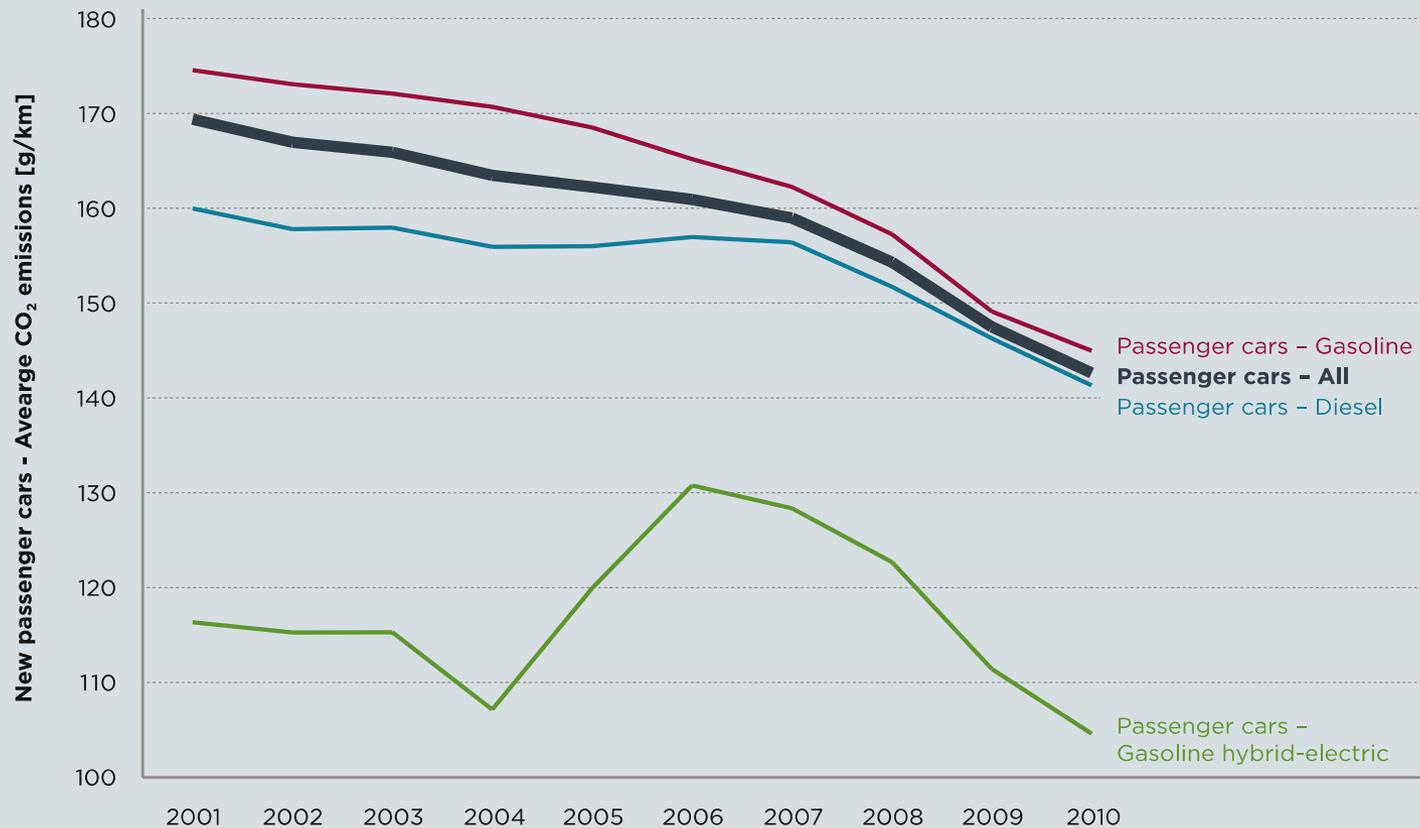


Figure 3-5: New passenger cars: CO₂ emissions by engine technology

CO₂ emissions

Cars: Vehicle mass over time

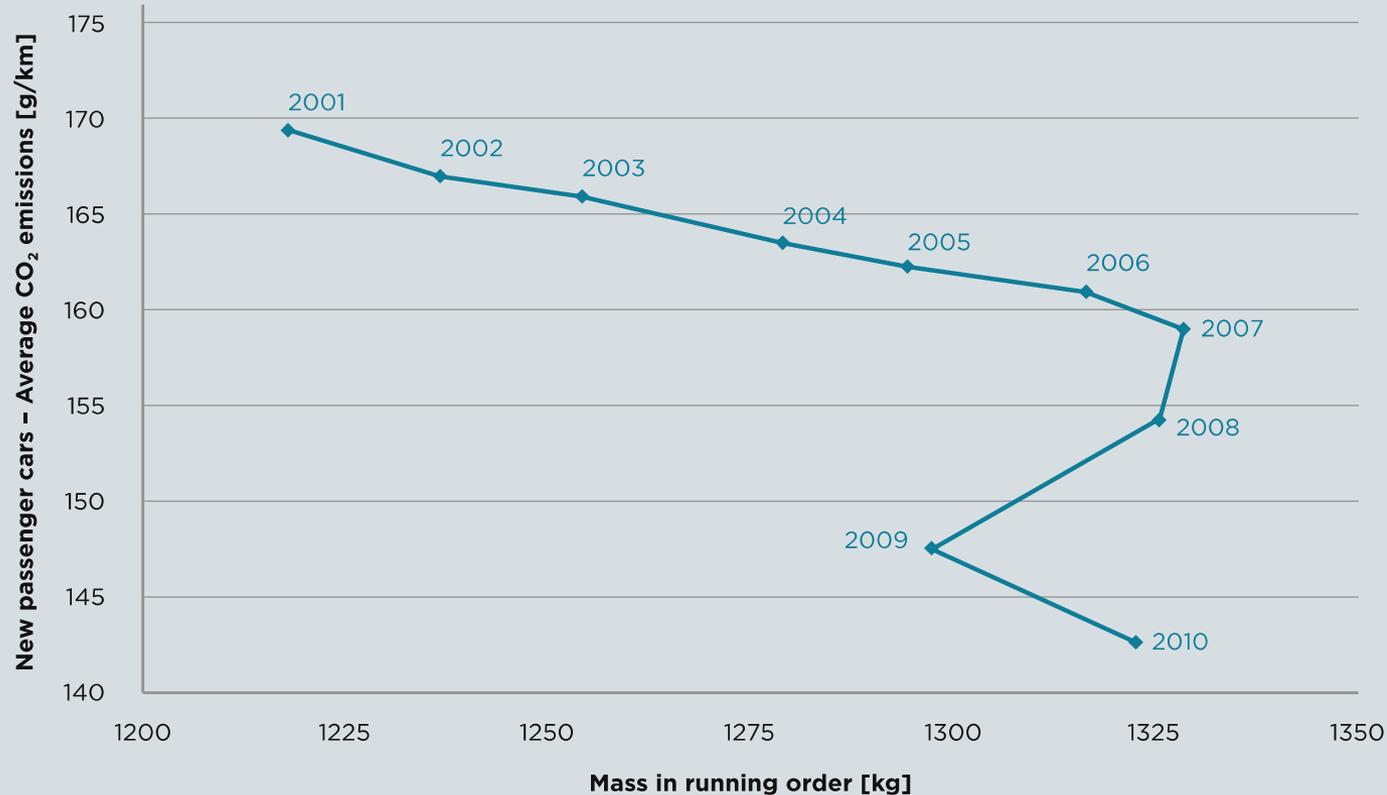


Figure 3-24: New passenger cars: CO₂ emissions vs. vehicle mass

New vehicle technologies

Cars: market share hybrid-electric vehicles

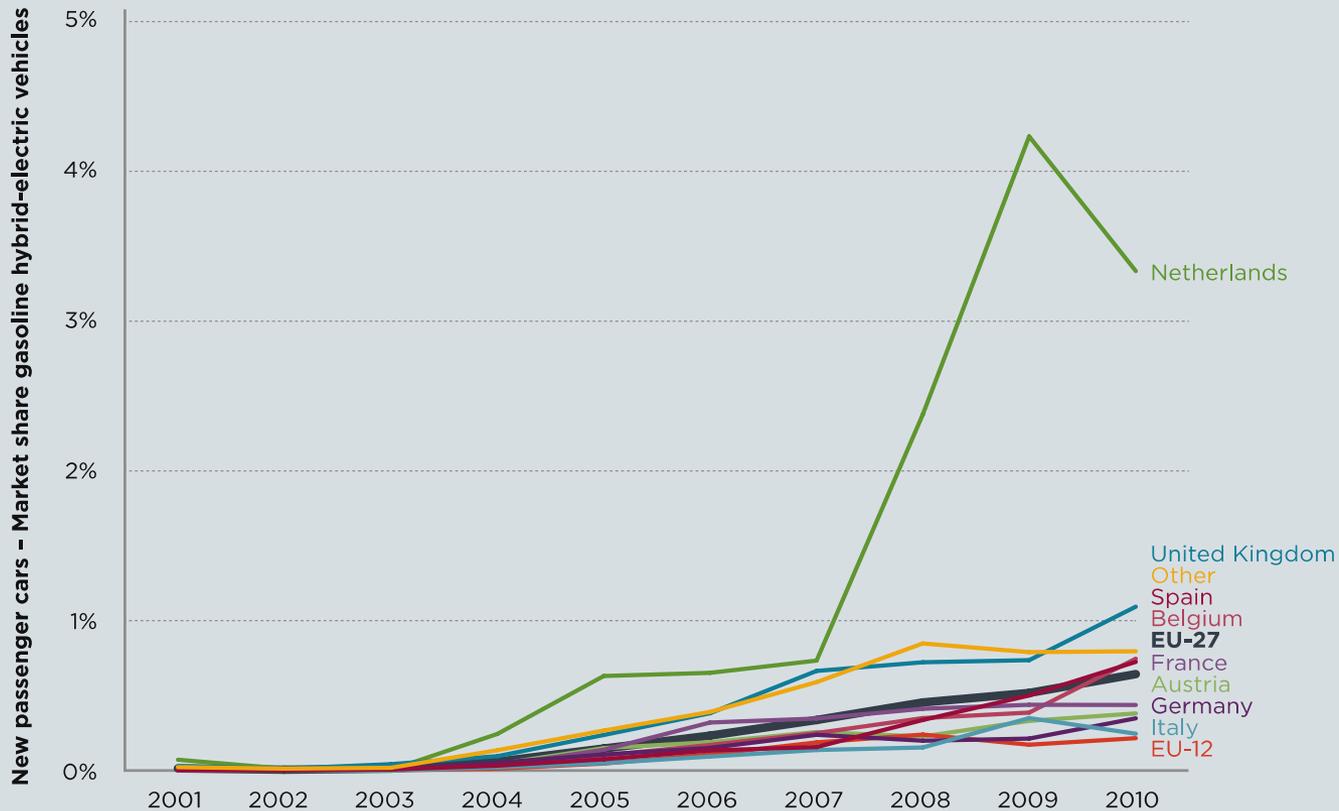


Figure 4-2: New passenger cars: Market share gasoline hybrid-electric vehicles by Member State

New vehicle technologies

Cars: market share natural gas vehicles

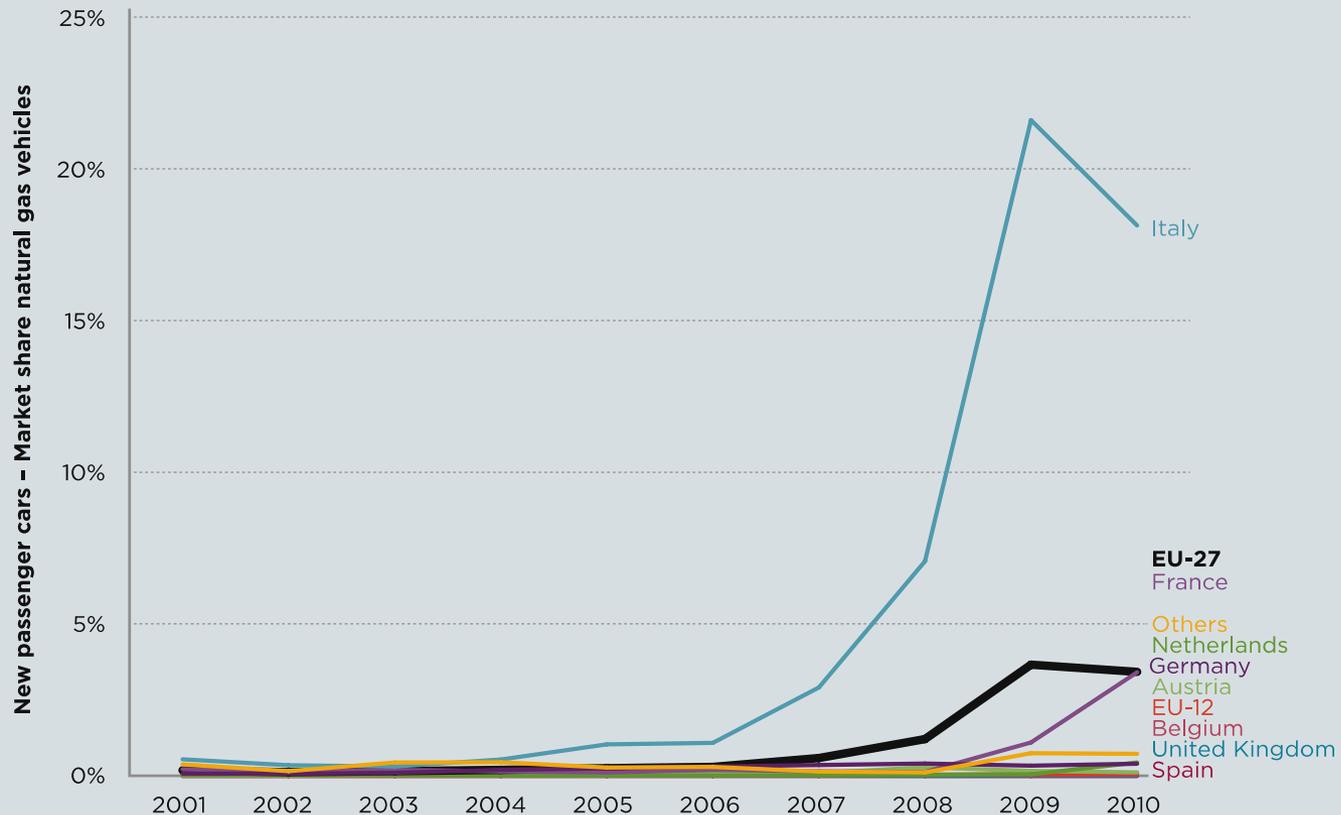


Figure 4-3: New passenger cars: Market share natural gas vehicles (mono- and bivalent incl. LPG) by Member State

New vehicle technologies

Cars: market share ethanol vehicles

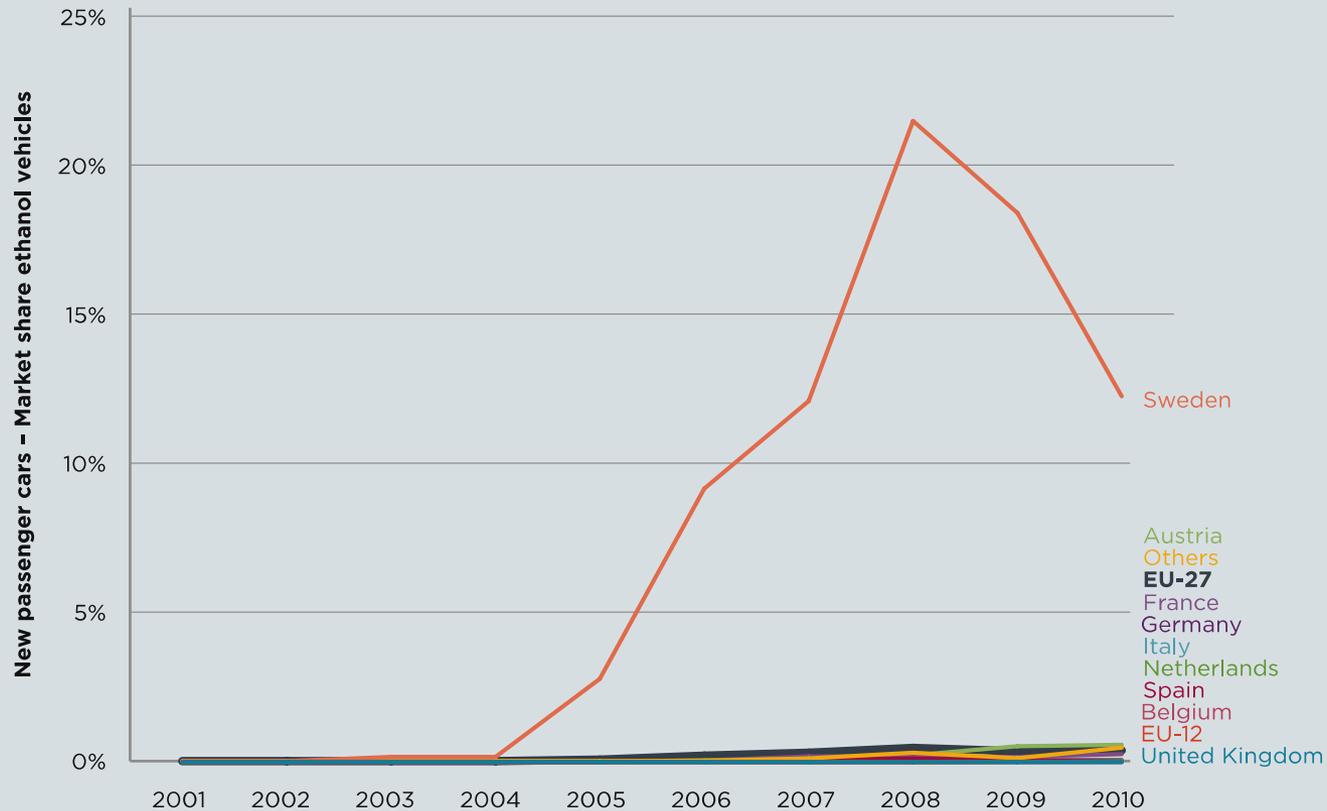


Figure 4-4: New passenger cars: Market share ethanol vehicles (including flex-fuel) by Member State

Key technical parameters

Cars: engine power by Member State

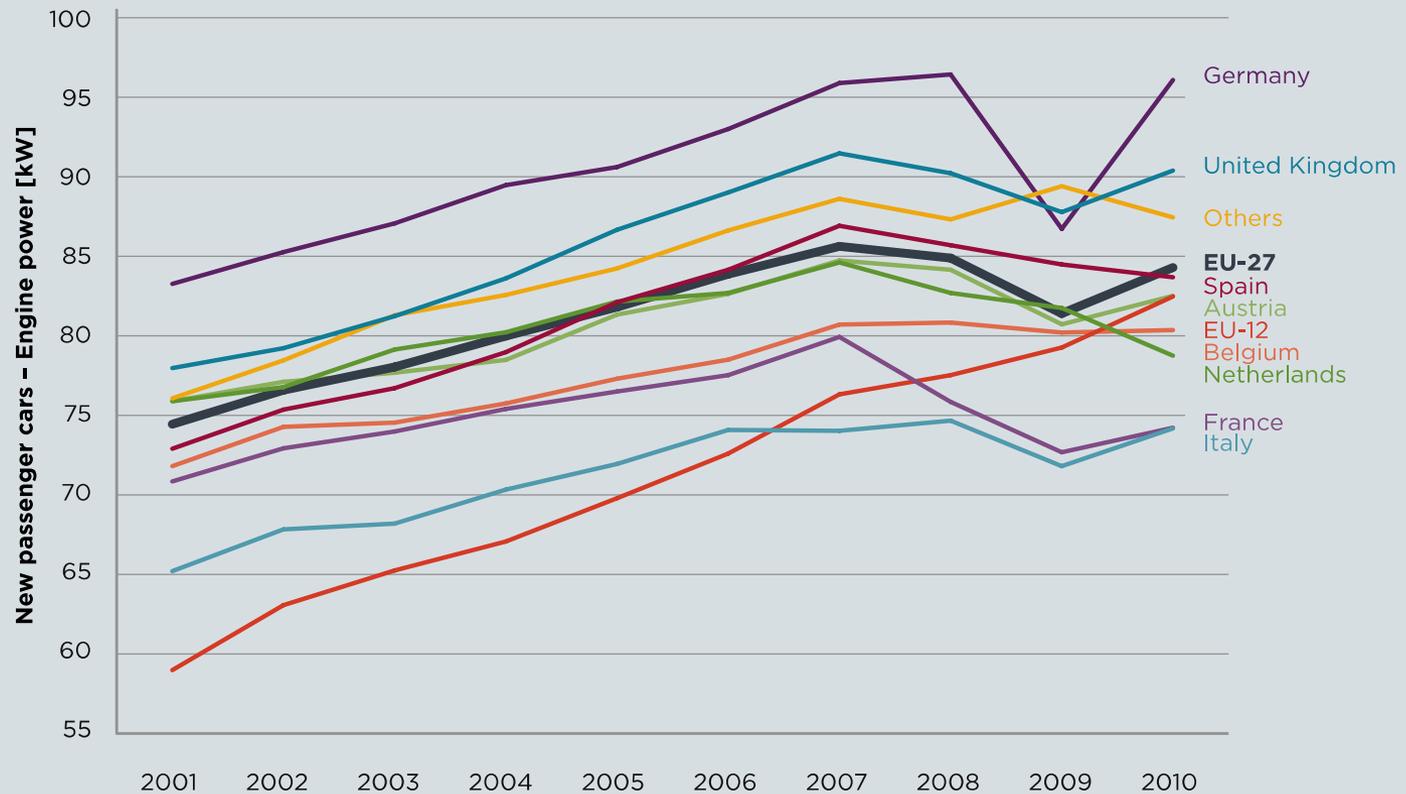


Figure 5-1: New passenger cars: Engine power by Member State

Criteria pollutant emissions

Cars: market share Euro 3 / 4

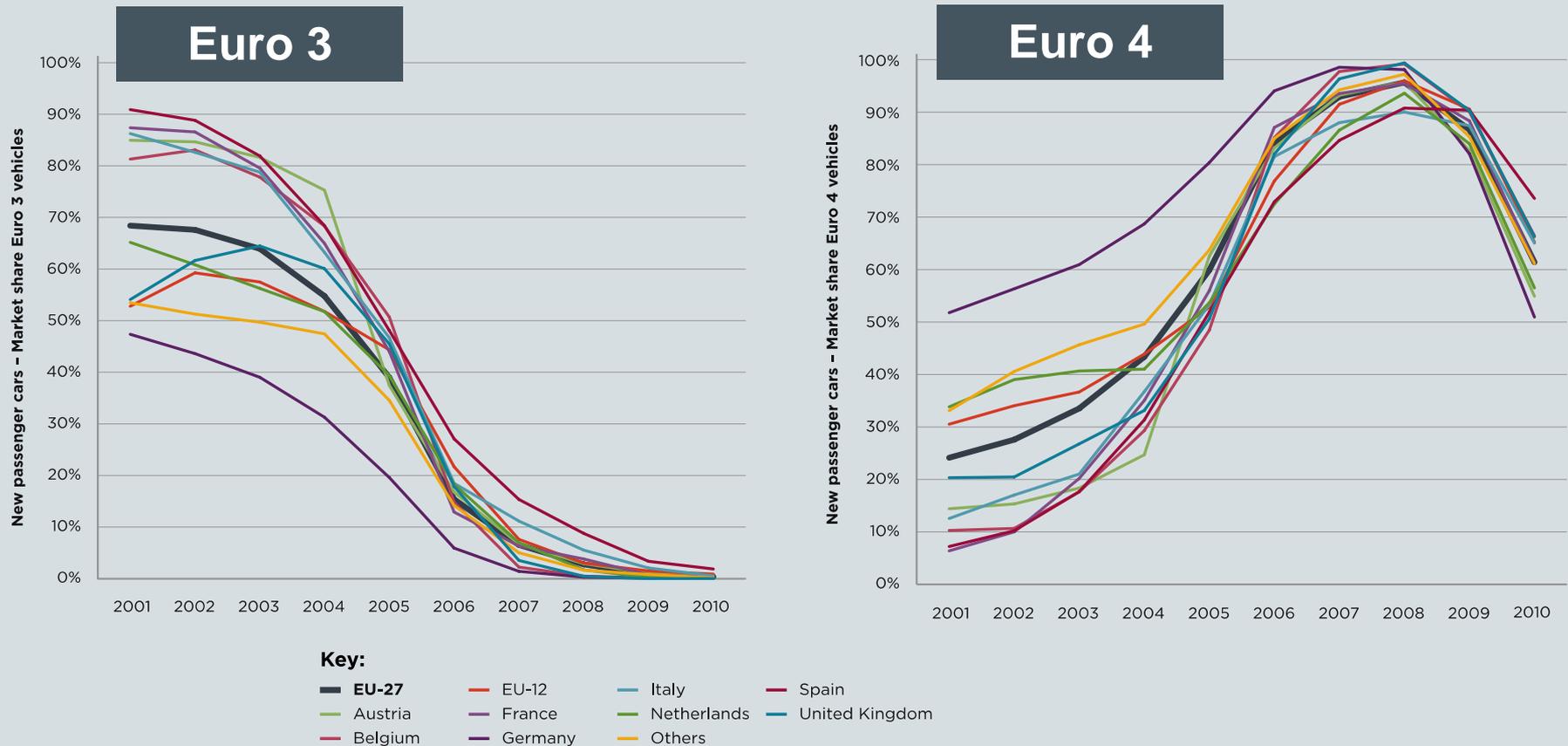


Figure 6-1 – 6-3: New passenger cars: Market share Euro 3 / 4 vehicles by Member State

More information? We have it ...!

Online:

- Pocketbook European Vehicle Market Statistics: <http://www.theicct.org/european-vehicle-market-statistics>
- ICCT EU website: <http://www.theicct.org/europe>
- Working paper series on world harmonized test procedure: <http://www.theicct.org/series/worldwide-harmonized-light-vehicles-test-procedure-wltp>
- ICCT staff blog: <http://www.theicct.org/blogs/Staff>
- ICCT newsletter: <http://eepurl.com/r5Y5>
- Peter Mock (ICCT Regional Lead Europe): peter@theicct.org