

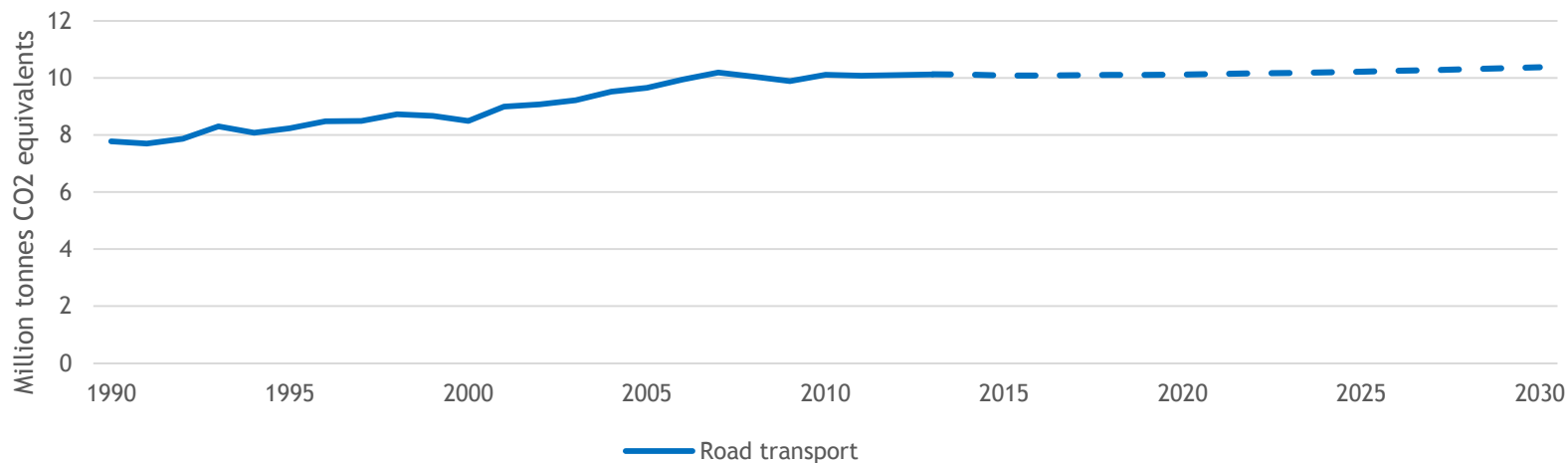


Road transport emission projections

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Historical and projected GHG emissions from road transport



Main principles

1. Assessment of road transport development (per person or per vehicle)
2. Total traffic activity calculated - total for each vehicle class
3. CO₂ emissions calculated
4. Assessments «translated» into HBEFA input
5. HBEFA used to calculate
 - a. Average EFs for each subsegment in the last inventory year
 - b. Total traffic activity for the same subsegments for the projection time series
6. Emission calculations of CH₄ and N₂O, as well as LRTAP components

Assessment of road transport characteristics

- Based on historical development for
 - Development in traffic, e.g. annual mileage
 - Emission factors
 - Energy efficiency
- Expert judgement to assess possible impact in the future for different parameters
- Biofuel shares in petrol and diesel constant in the projections

Assessment of characteristics – Passenger cars

- Annual mileage per person stable for the period to 2030
- Average emissions per kilometer is expected to decrease
 - Due to higher share of hybrid vehicles, higher energy efficiency, hydrogen, etc.
- Number of electric vehicles are expected to increase according to national targets

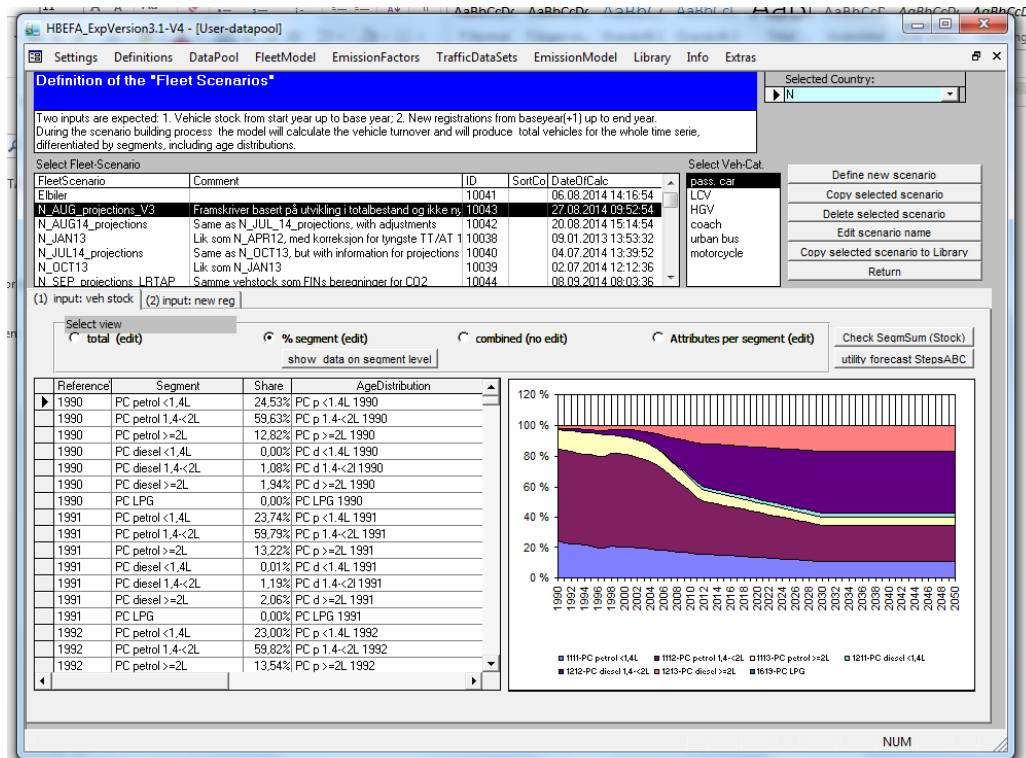
Assessment of characteristics – LDV and buses

- The vehicle fleet develops with the same rate of increase as the population projections
- Average annual driving length per vehicle is assumed to increase in accordance with historical development (0.2 per cent per year for LDV and 0.1 per cent per year for buses)
- Fuel efficiency development differentiated on petrol and diesel for LDV, no efficiency development for buses

Assessment of characteristics – HGV

- The vehicle fleet is set constant at 2012 level
- Annual increase in driving lengths per vehicle based on assessment of historical development
- No fuel efficiency development assumed

HBEFA projections



Input to HBEFA projections

1. Development in total vehicle stock per segment + age distributions + other input at same level of detail as for historical emission calculations

OR

2. Number of new cars + survival rates + other input at same level of detail as for historical emission calculations



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