

# Projected growth in demand & CO<sub>2</sub> emissions

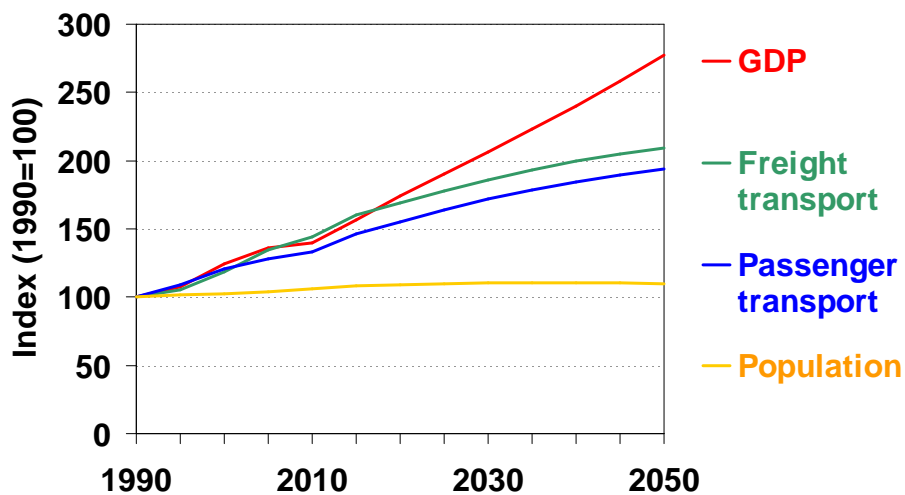
Second meeting of the CEPS Task Force on EU Transport Policy  
Innovation, Integration and 21st Century Infrastructure

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Unit A4: Strategy & Economic Assessment



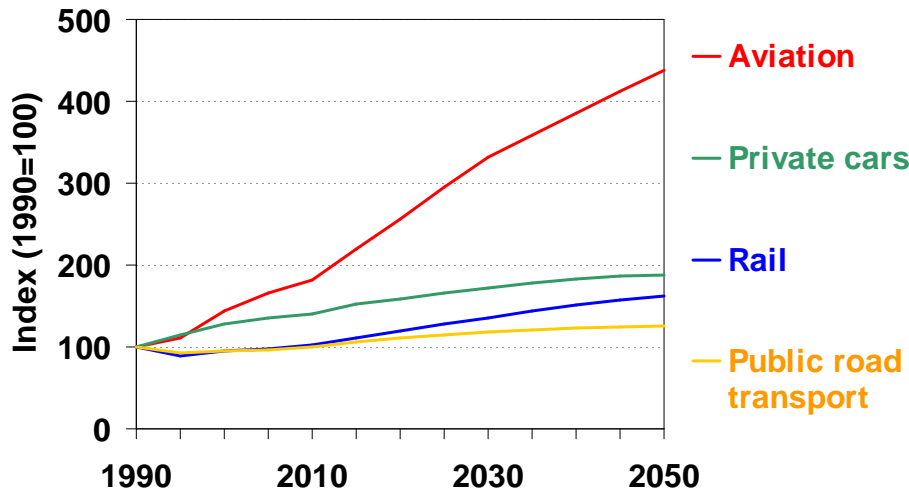
## EU27 Reference Scenario



Source: PRIMES modeling for EC's Impact Assessments

2

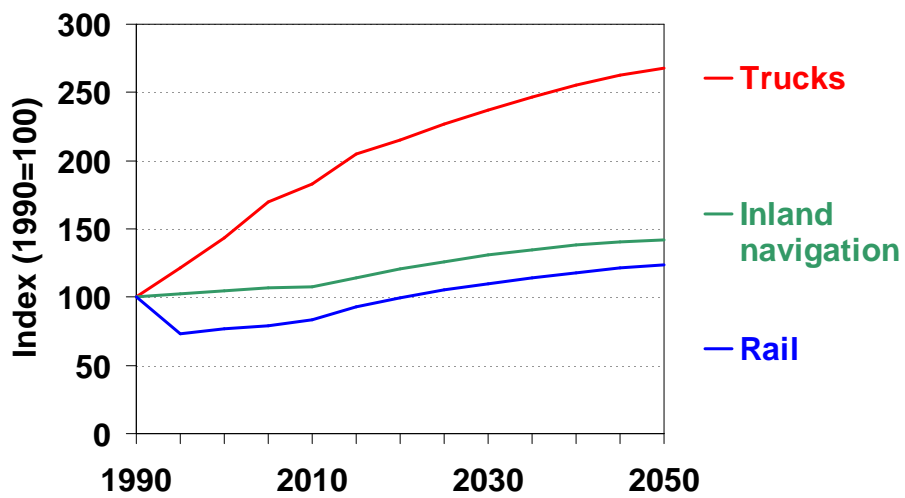
## EU27 Reference Scenario passenger-km



Source: PRIMES modeling for EC's Impact Assessments

3

## EU27 Reference Scenario tonne-km



Source: PRIMES modeling for EC's Impact Assessments

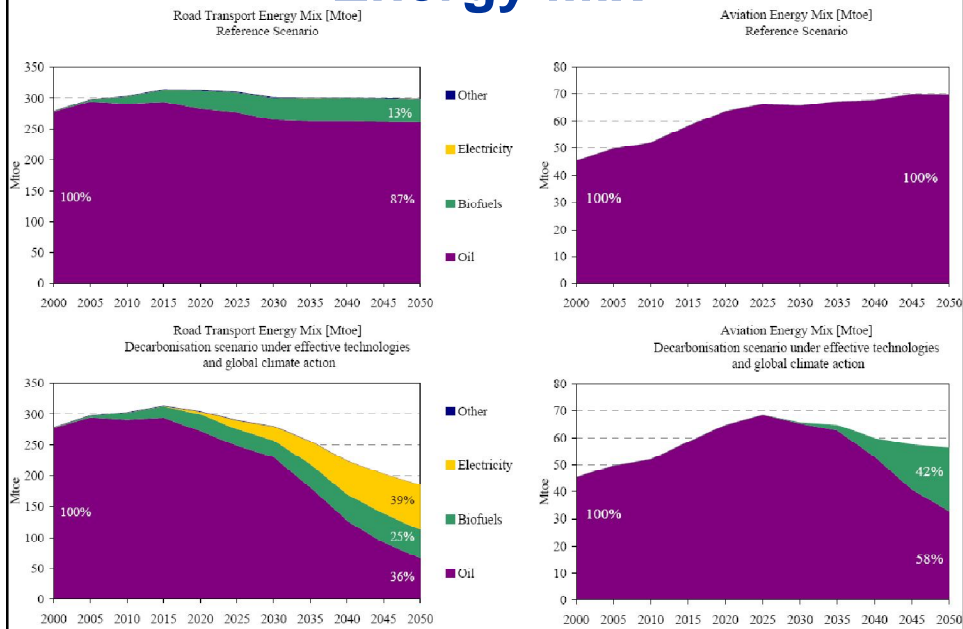
4

## Transport White Paper change in passenger & freight transport activity Policy Option 4 relative to 2005

<i>compared to 2005 (in %)</i>	2020	2030	2050
<b><i>Passenger transport activity</i></b>	19%	32%	41%
Road	17%	24%	27%
Rail	32%	63%	111%
Aviation	37%	82%	119%
<b><i>Freight transport activity</i></b>	22%	45%	92%
Road	21%	33%	53%
Rail	36%	60%	87%
IWW	25%	49%	60%
Maritime	22%	47%	101%

5

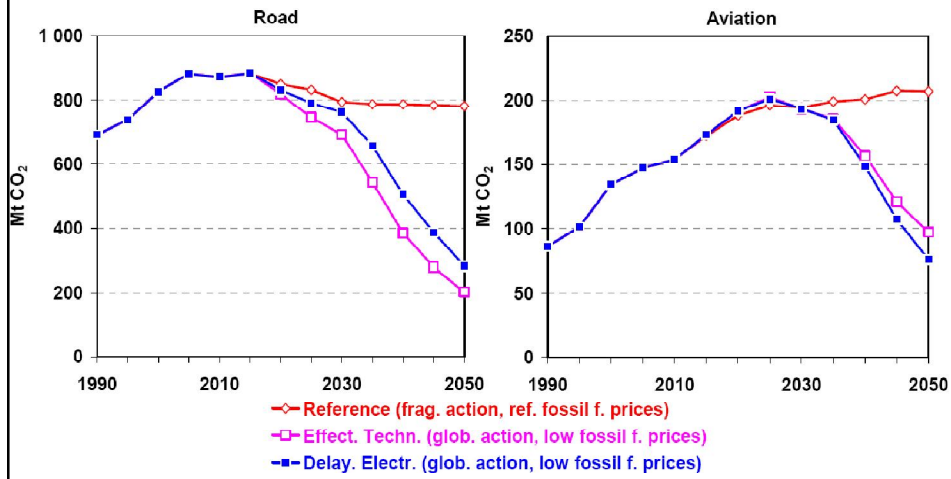
## Energy Mix



Source: PRIMES modeling for EC's Impact Assessments

6

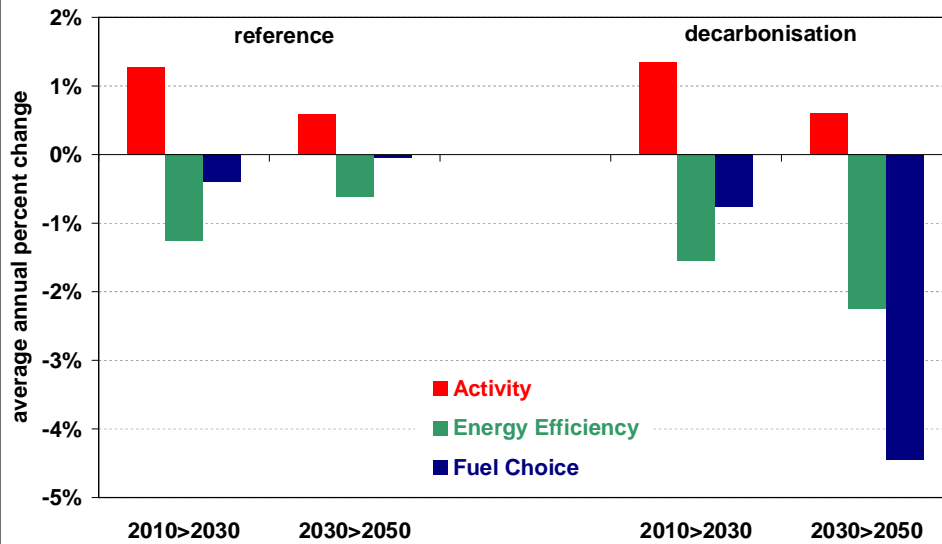
# EU27 transport CO<sub>2</sub> emissions



Source: PRIMES modeling for EC's Impact Assessments

7

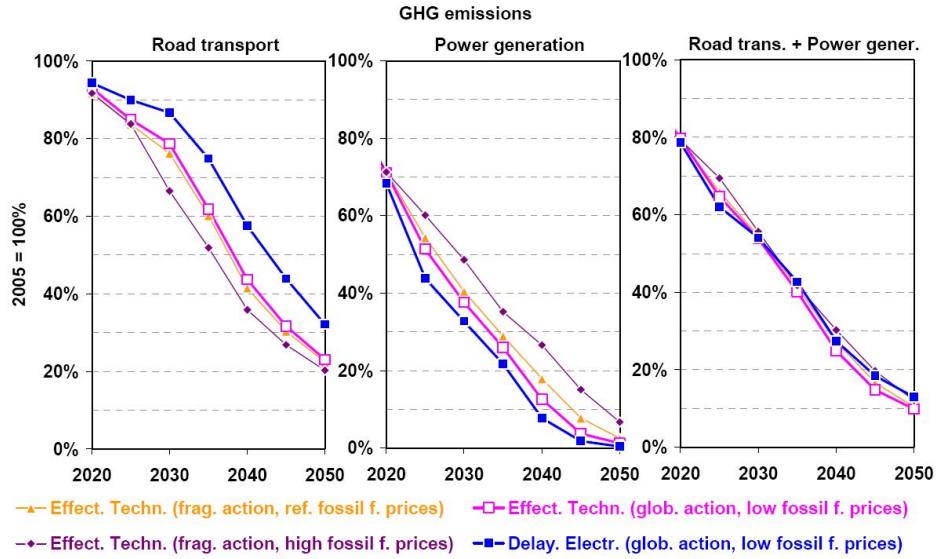
# Transport CO<sub>2</sub> emissions decomposition



Source: PRIMES modeling for EC's Impact Assessments

8

# Electricity



Source: PRIMES modeling for EC's Impact Assessments

9

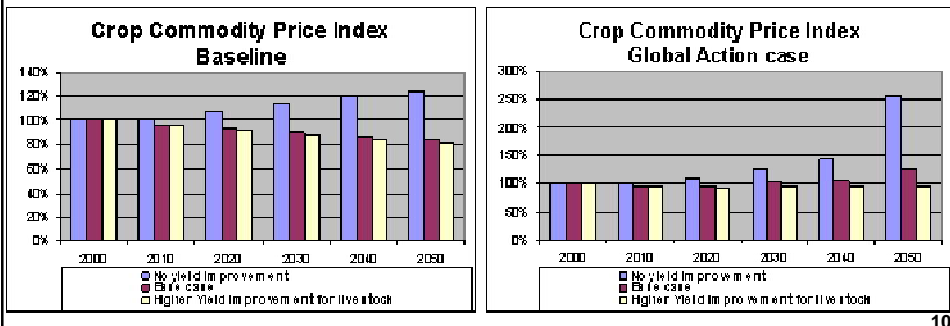
# Biofuels

## attaining simultaneously multiple objectives

- eliminating net deforestation by 2030
- reduce (limit increase) in agricultural emissions
- increased biomass use for energy

**Reference case:** biomass production more than doubles by 2050

**Decarbonisation:** the production of biomass more than triples



10

## Summary

- Even with decarbonisation, transport activity is expected to grow significantly in next 40 years
- Huge variation of growth between modes
- Road transport's share might decrease, but still will be by far the most important mode
- Main contributors to CO<sub>2</sub> reductions:
  - Improved efficiency (advanced engines)
  - Fuel choice (shift from oil to electricity & biofuels)
  - Carbon intensity of fuels (electricity, biofuels)

11

## THANK YOU!

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