



PBL Netherlands Environmental  
Assessment Agency

# NECD-revision: Dutch Assessment and comparison with GAINS

*Work in progress*

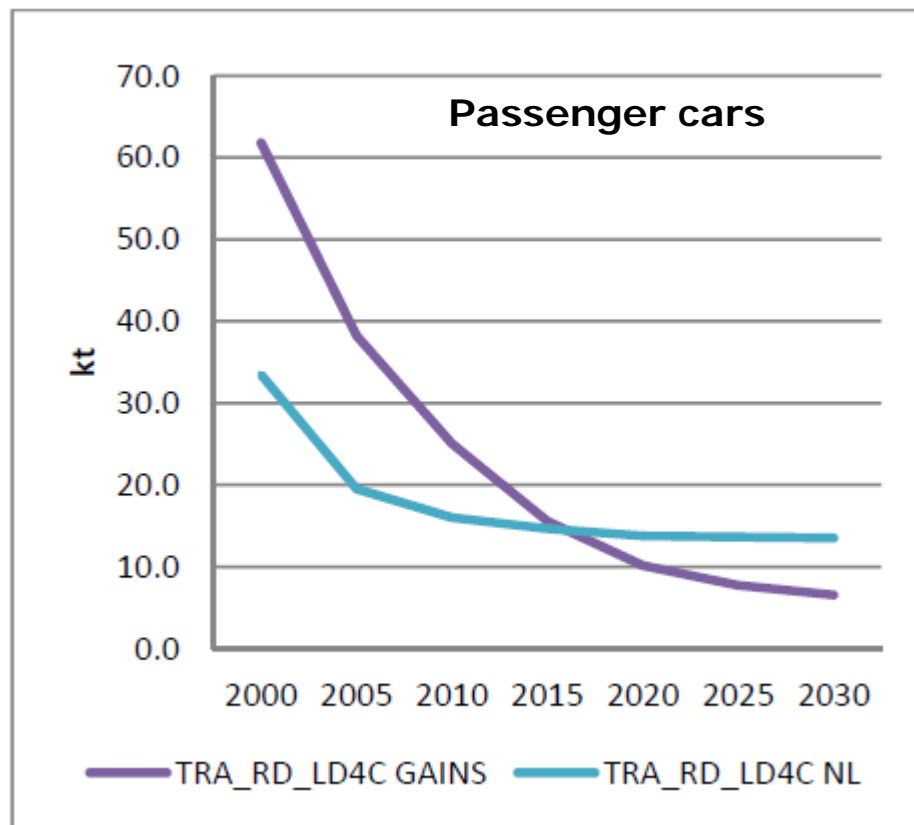
TFIAM 7 May, Pieter Hammingh, Gerben Geilenkirchen, Durk Nijdam, Sietske van der Sluis, Winand Smeets (PBL). Kees Peek & Co (RIVM)



## Process

- **Hearing for Parliament: 13 Februari 2014**
  - What is the benefit of a European approach?
  - How many jobs will get lost?
  - Is black carbon reduced sufficiently?
- **PBL/RIVM-Report on cost and benefits of the proposed revised NEC-Directive: June 2014**
  - Will costs of meeting air quality limit values and Natura2000 protection be reduced?
- **Bilateral consultation: ongoing**

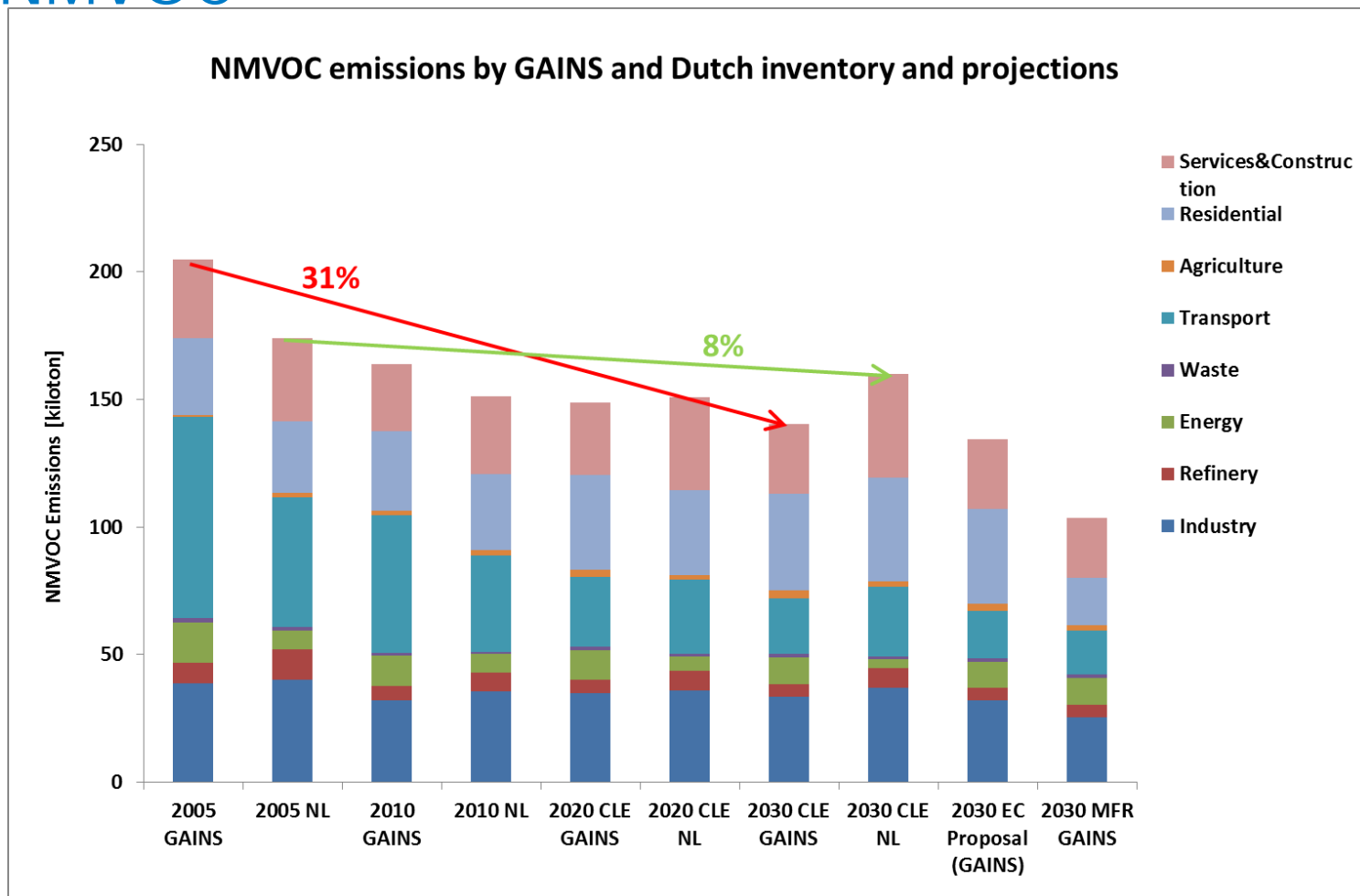
## NMVOOC in transport



### Differences GAINS-NL:

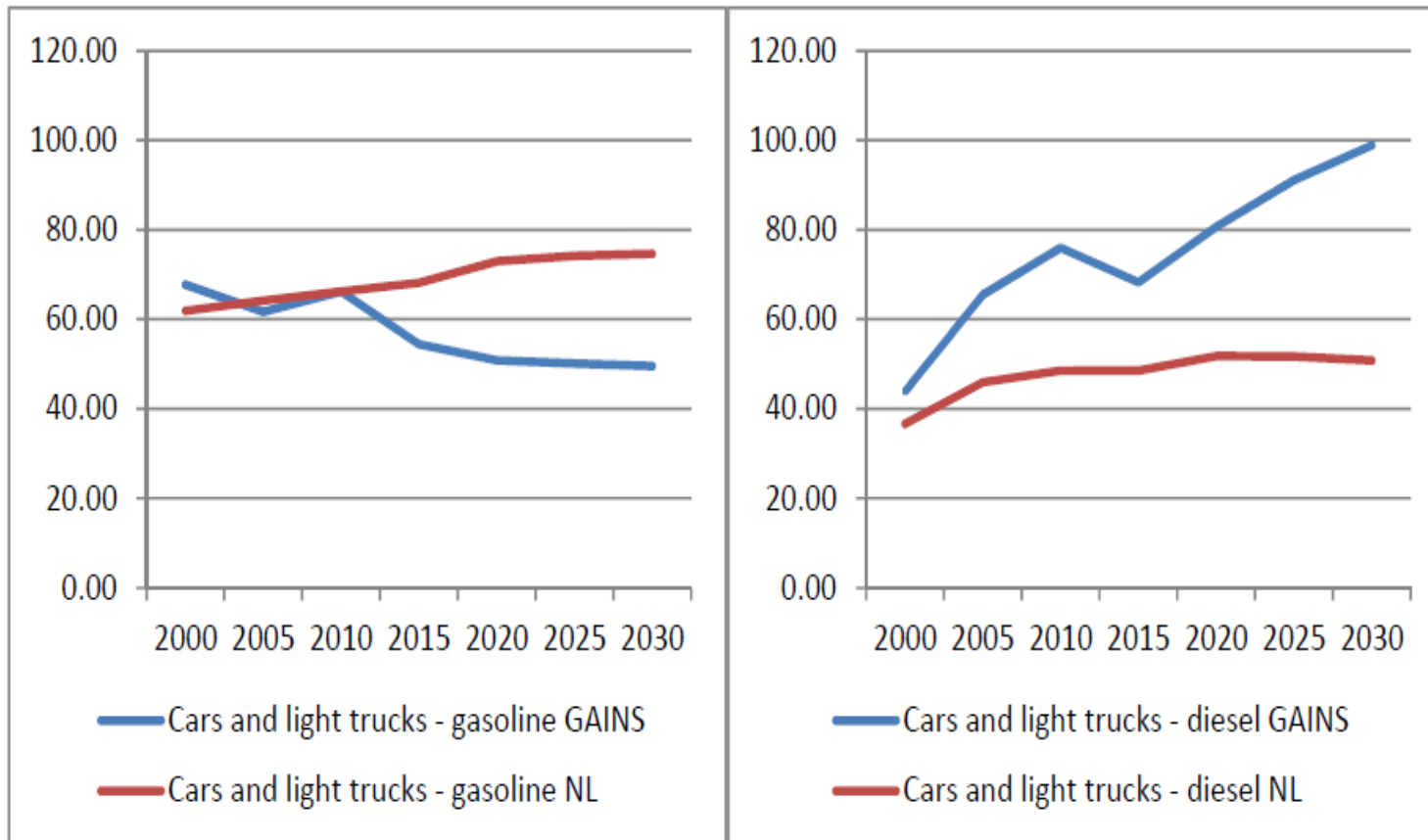
- Lower base year emissions due to less mileage by older cars
- In 2030 with current fiscal policy more gasoline cars

# NMVOG

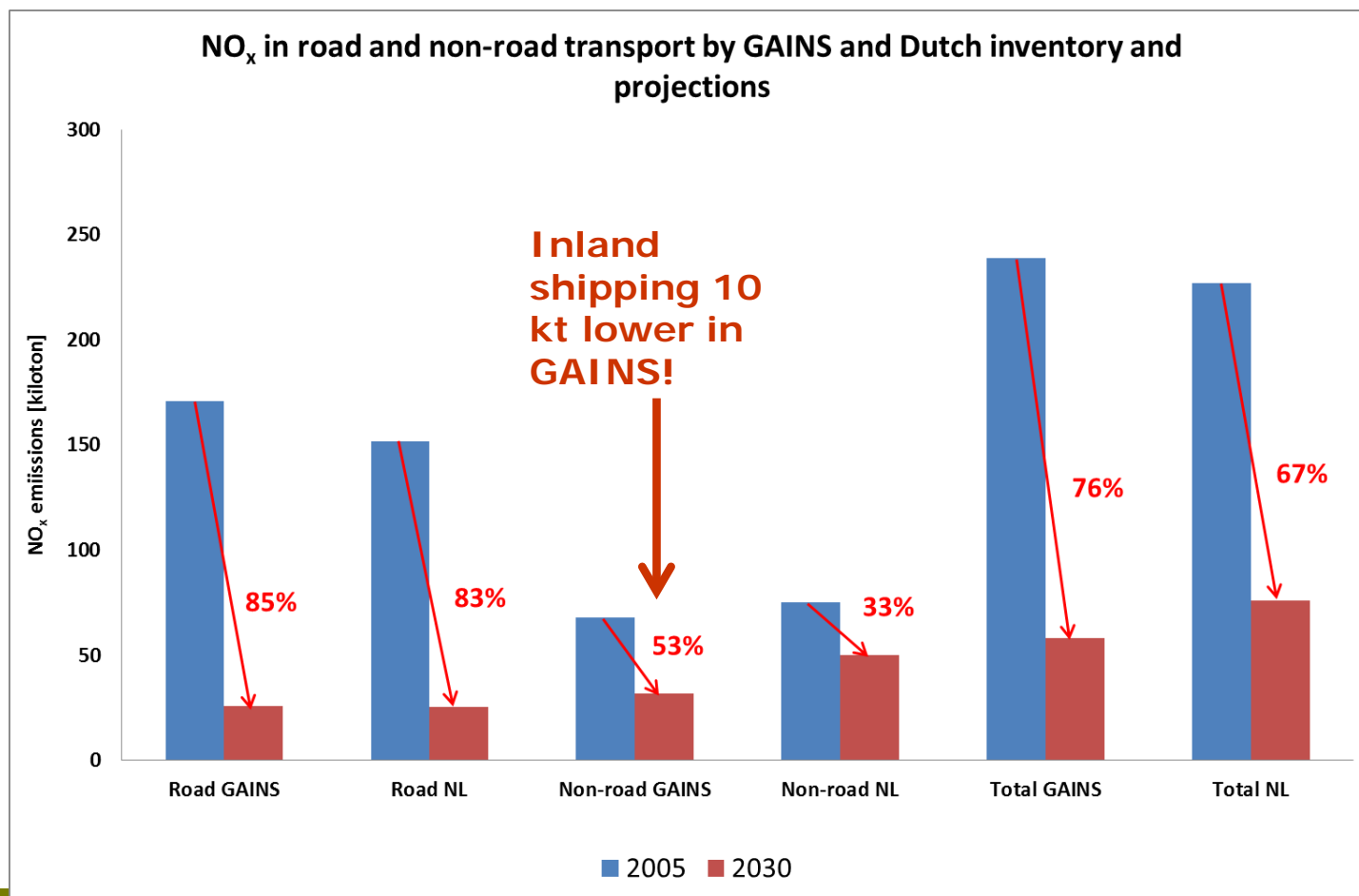


# Less gasoline in GAINS/PRIMES; more diesel

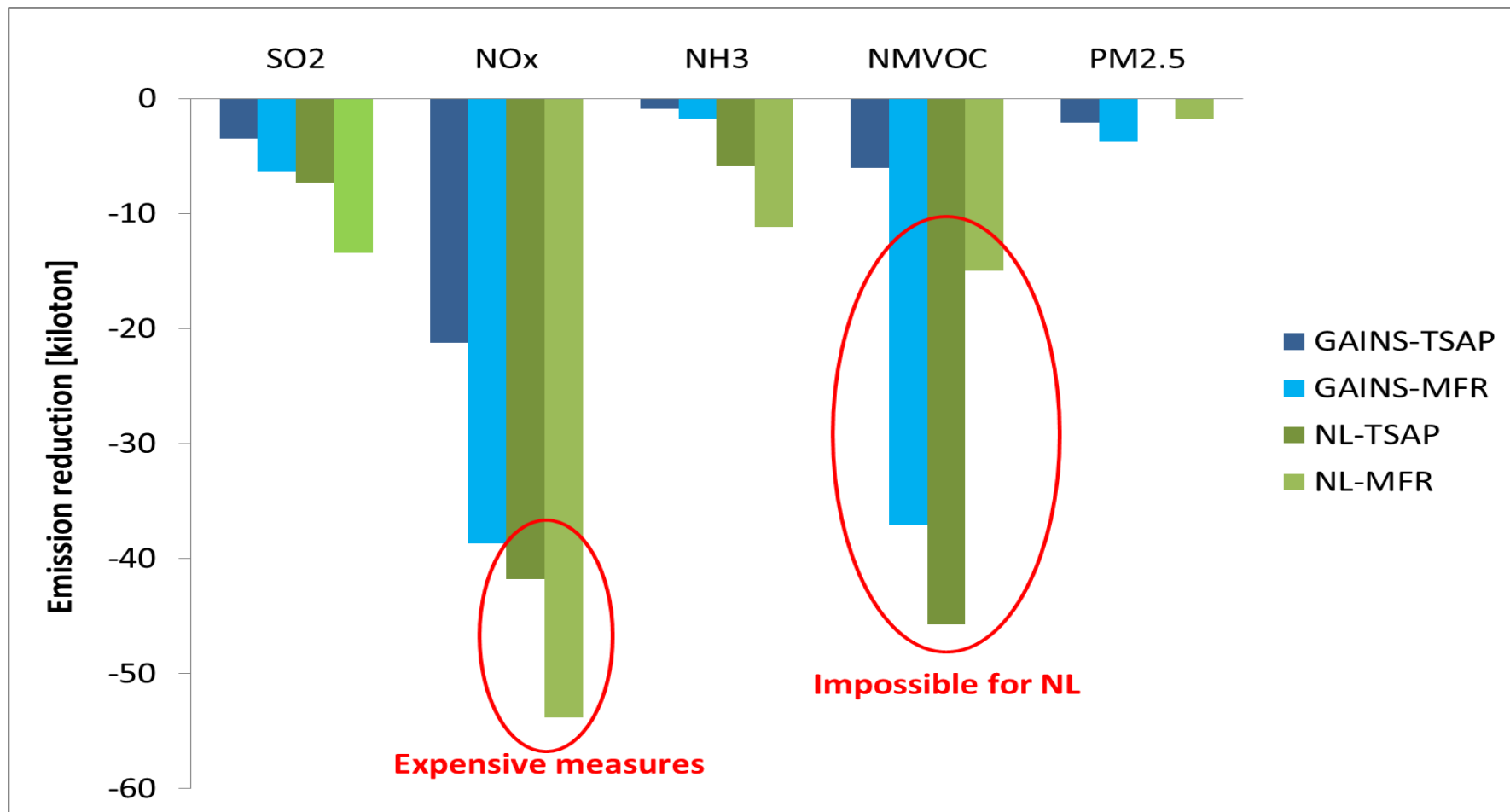
Figure 4: Vehicle kilometres driven (billion) per fuel type for light-duty vehicles



# Inland shipping: increasing energy use not in GAINS → NO<sub>x</sub>-reduction overestimated

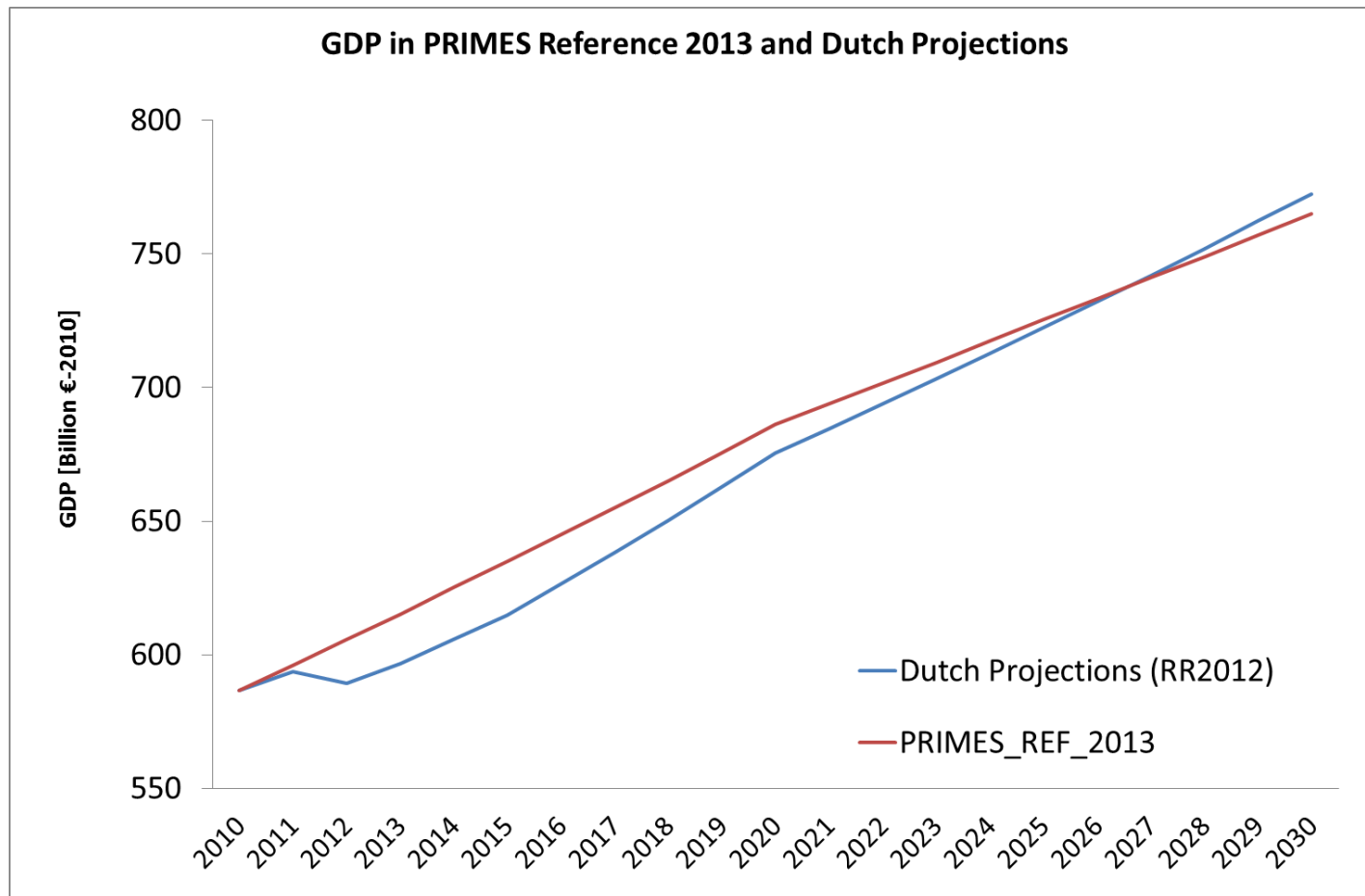


# Additional reductions in 2030 for TSAP commitments





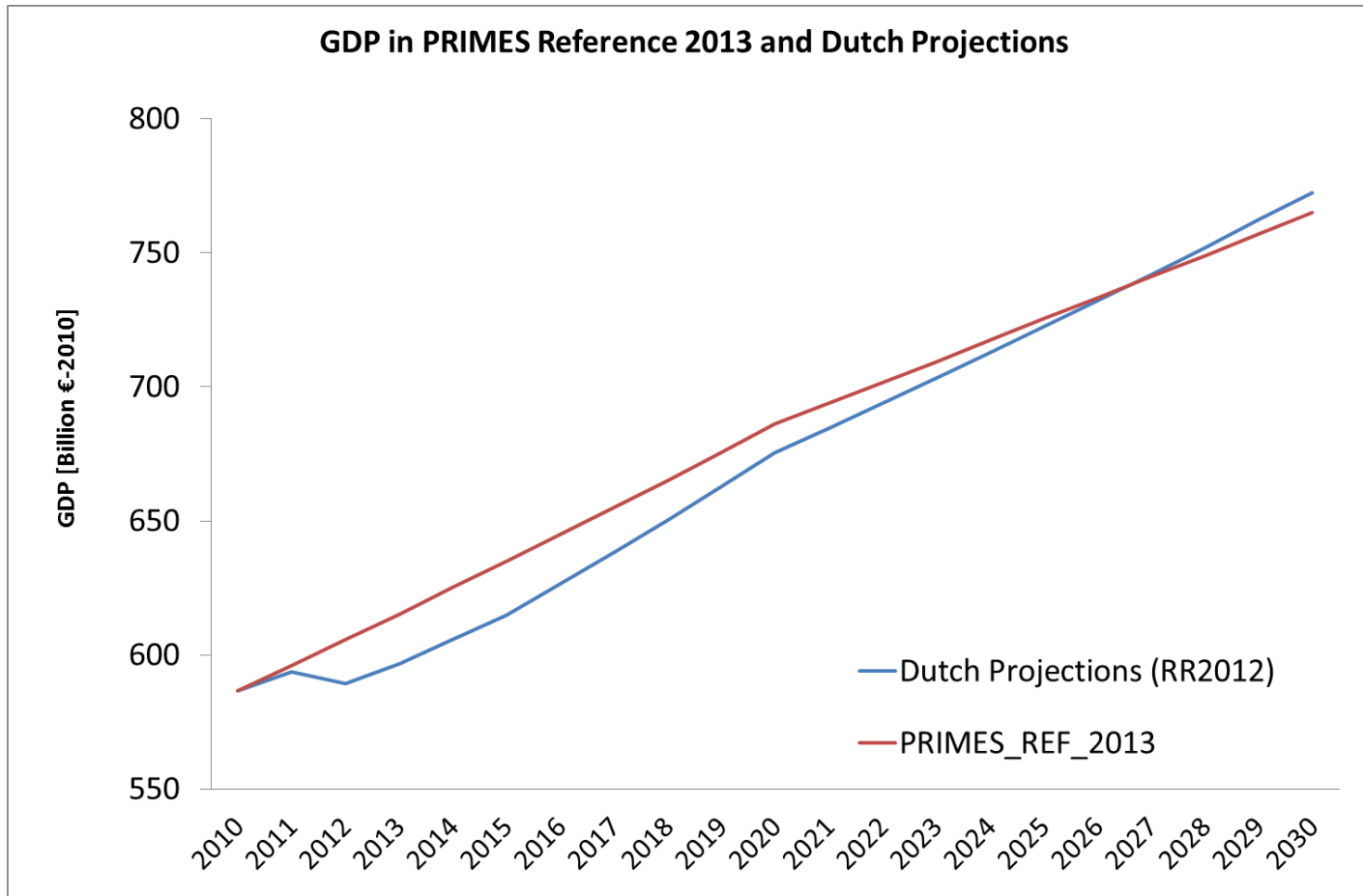
# Thank you!







# Development in GDP 2010→2030

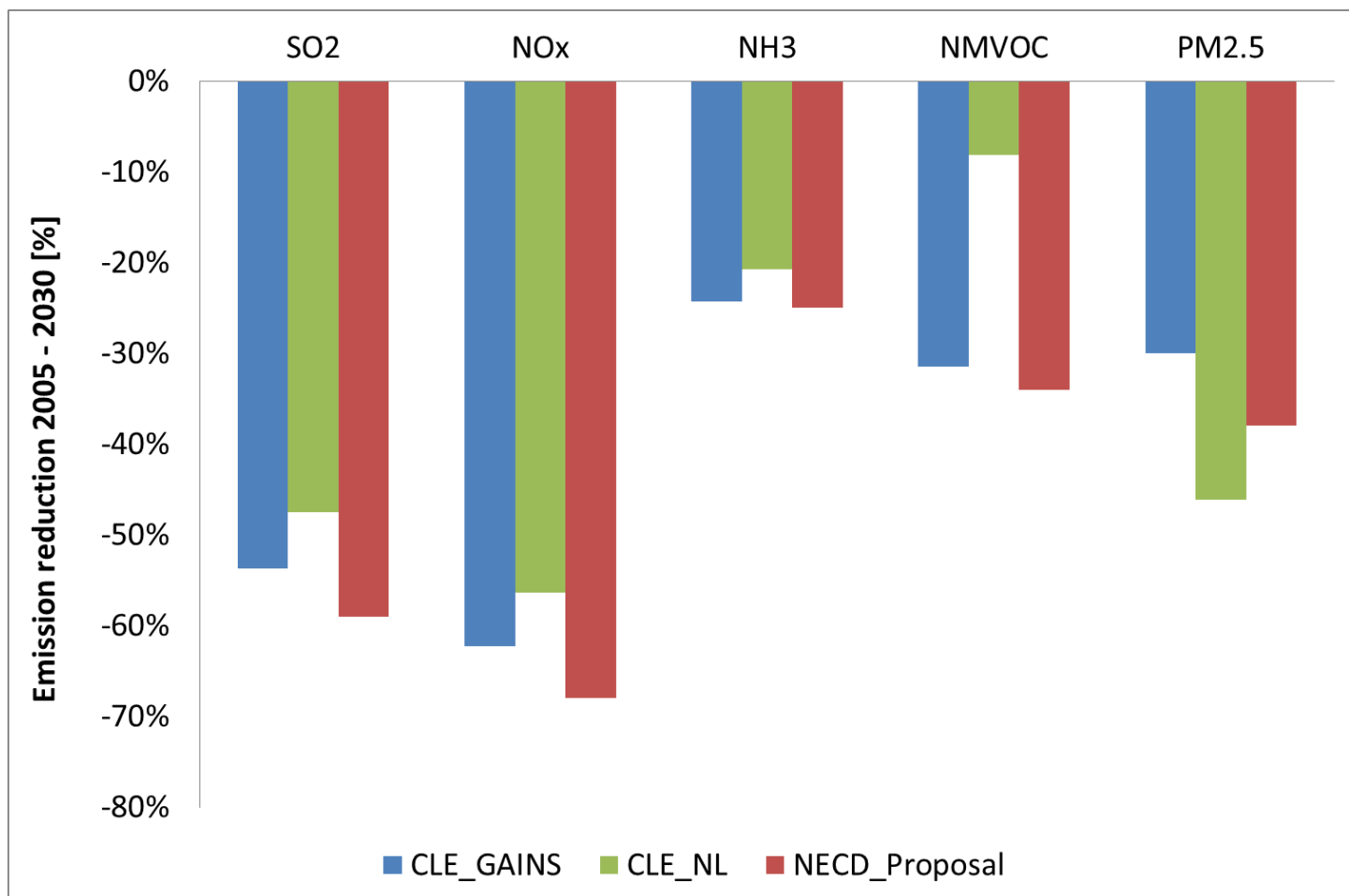




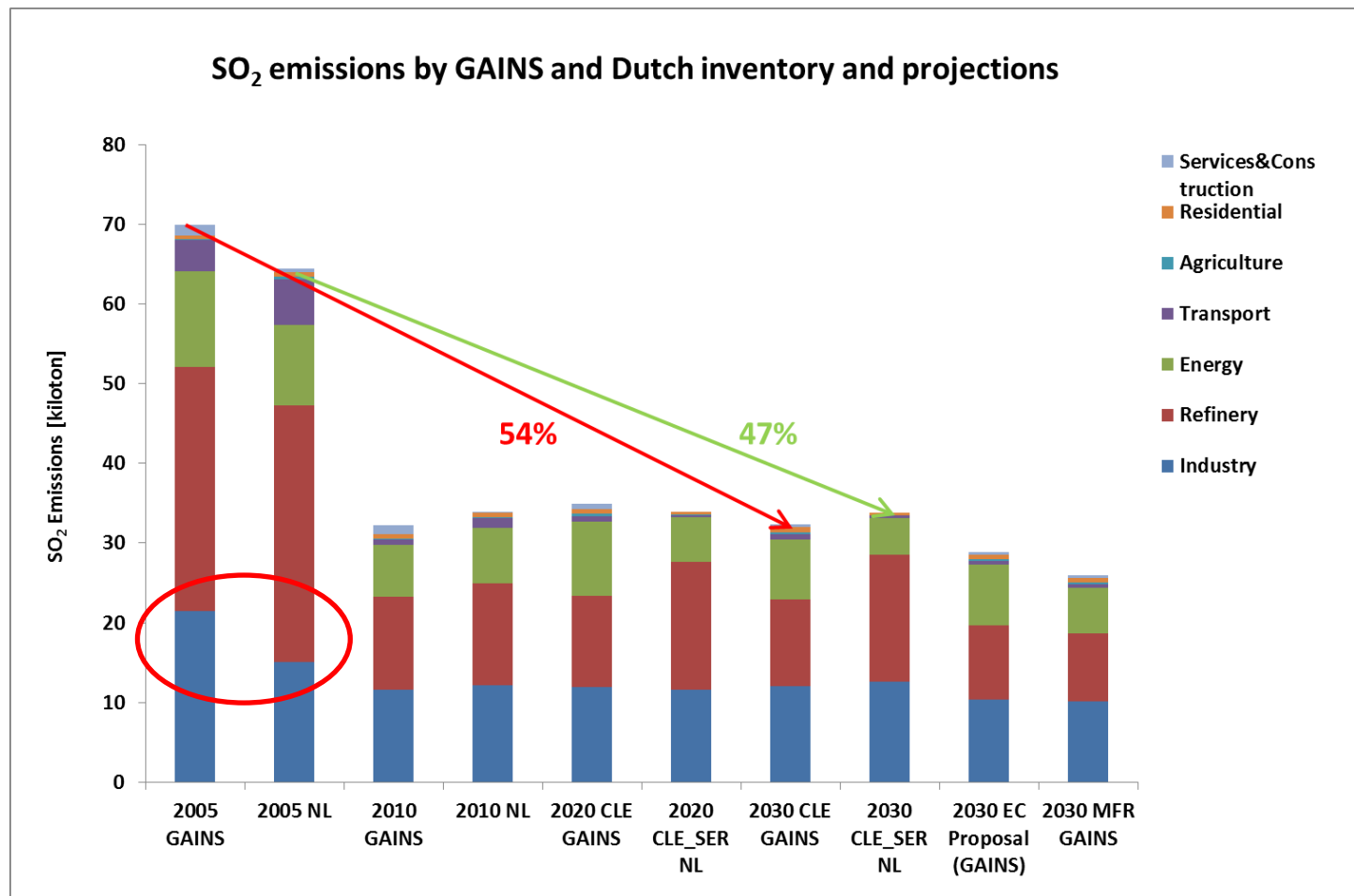
## PRIMES Reference scenario 2013 comparison:

- PRIMES 2013 assumptions on population, GDP, CO<sub>2</sub>-price, final energy use comparable to Dutch assumptions (projection 2012);
- Gas & coal prices 20% higher in PRIMES, oil slightly lower;
- PRIMES assumes smaller growth in chemicals, construction, metals, paper&pulp, less fossil fuels in electricity generation;
- PRIMES assumes more diesel and less gasoline in the future;
- PRIMES RES = 14.4% in 2020, Dutch projections 2012 adjusted here to account for the Dutch target of 14% RES in 2020;
- CO<sub>2</sub> in PRIMES 8.5% lower in 2030; explained by above differences & lower energy efficiency in Dutch 2012 projections.

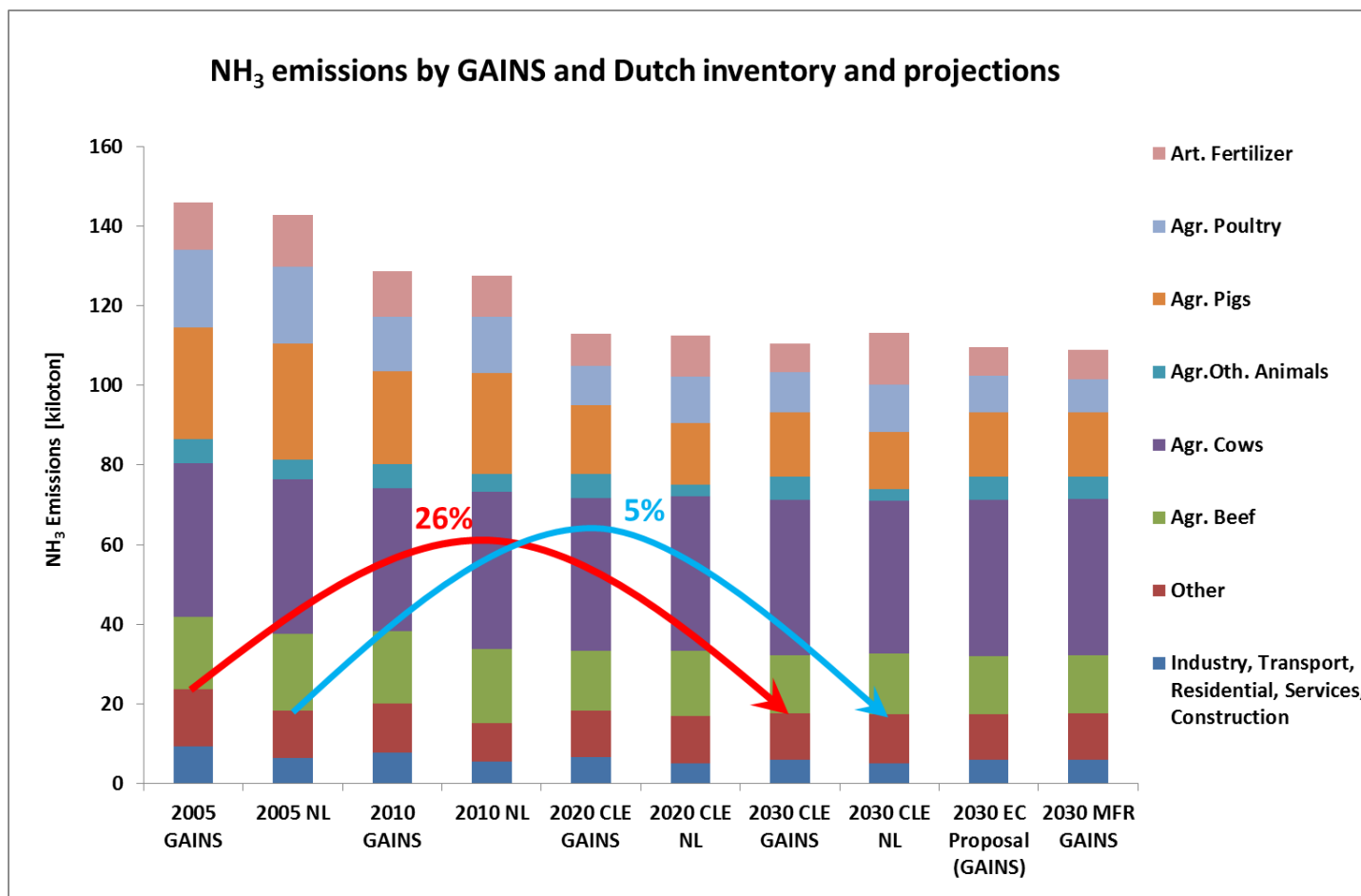
## Emission reductions in the baseline 2005 → 2030



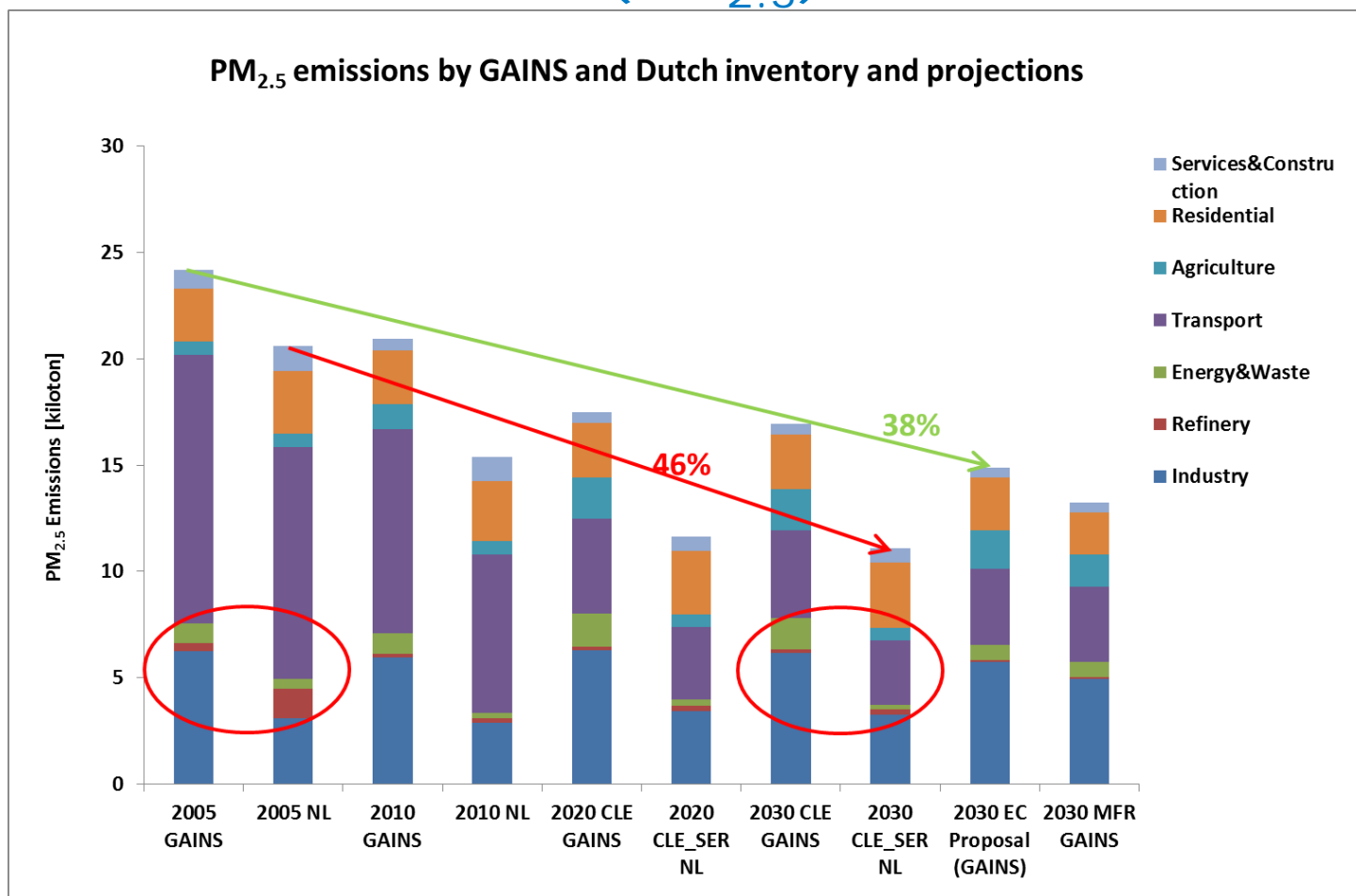
# Sulphur dioxide



# Ammonia



# Particulate Matter (PM<sub>2.5</sub>)





## Conclusions

1. PRIMES/GAINS energy baseline is slightly less (fossil) energy intense;
2. Overestimations in historic years and lower projected emissions in 2030, result in relatively large emission reductions in the GAINS baseline (except for  $PM_{2.5}$ );
3. ...this in combination with the proposed additional ambition under the NECD Proposal results in:
  - an unachievable and costly commitment for NMVOC in the NL;
  - total costs of the proposed emission reduction commitments being 7 times higher than estimated by GAINS!
4. Suggestions have been given how to adjust the GAINS baseline with a focus on the historic years;