



Rijkswaterstaat  
*Ministry of Infrastructure and the  
Environment*



## Country Update the Netherlands

Mr. Wilco Fiechter  
Ministry of Infrastructure and  
the Environment

27<sup>th</sup> IPHE SC Meeting,  
27<sup>th</sup> of April,  
Hamburg, Germany



# Position of the Netherlands

Characteristics of the Netherlands, focusing on early market development:

- High population/market density
- High GDP per capita/purchasing power
- Large hydrogen industry (Port of Rotterdam), 2nd largest producer in Europe.
- Centrally located in NW-Europe, well connected to DE, DK, BE, FR and UK
- Strong track record for early and wide adoption of innovative clean cars, e.g.:
  - largest share of hybrids in EU
  - frontrunner in plug-in cars





# Political Situation in the Netherlands

- Recently, 15<sup>th</sup> of March, General Elections Dutch Parliament:
- Result: No big parties anymore, only medium sized and small parties!
- Consequence: at least 4 parties needed for a majority in Parliament.

Coming months: formation of new Cabinet.

4 Parties involved/negotiating:

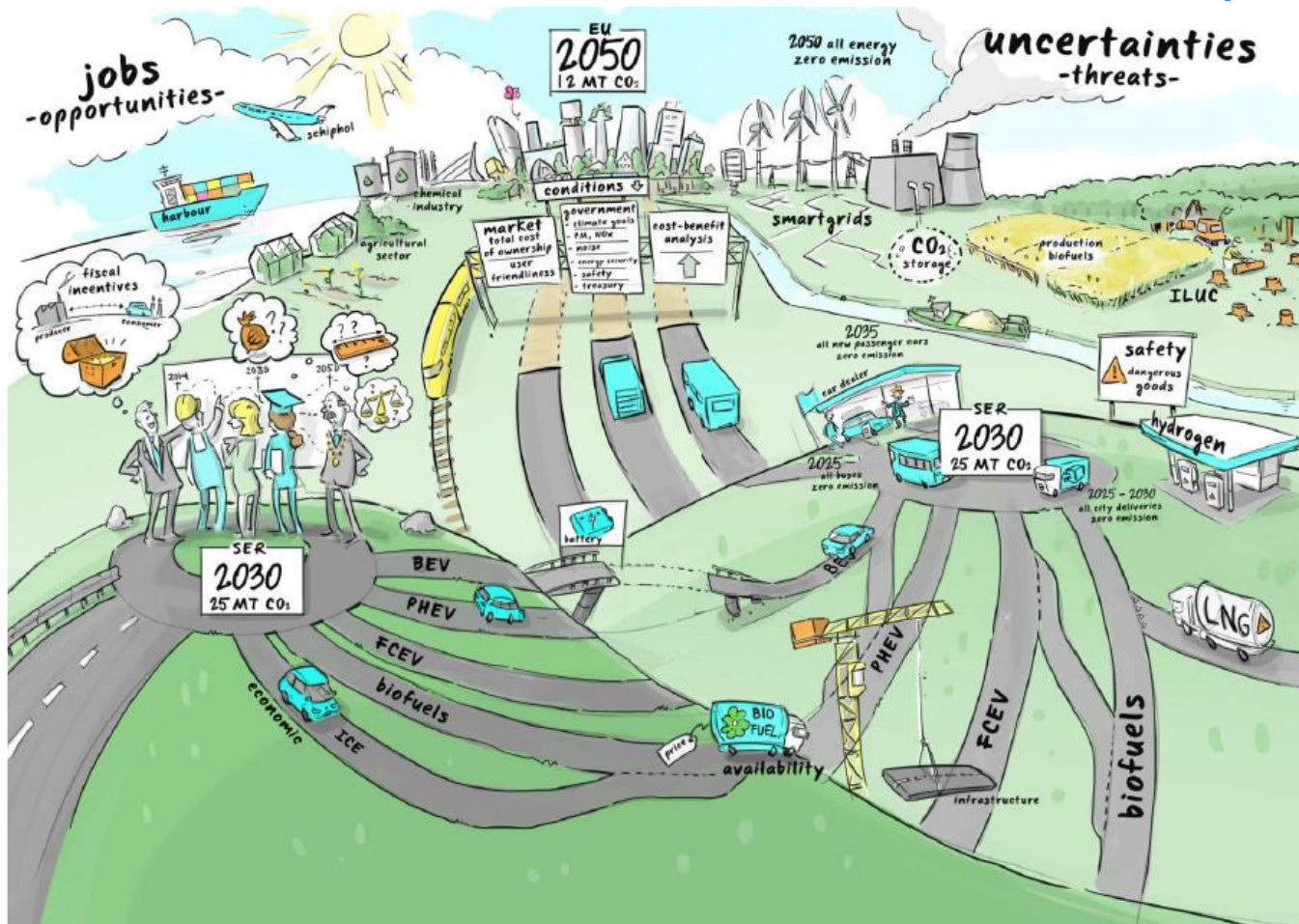
Big Issue: How to deal with the "Paris Agreement"/COP21.







# Vision on sustainable Fuels for Transport





# H2NL (National Hydrogen Platform)

Ministerie van Infrastructuur en Milieu

Nationaal Waterstof Platform



## Focus:

- regional approach by creating nodes for first market development
- locations with both infrastructure (HRS) and clients
- heavy duty vehicles (buses, garbage collection trucks, etc.)
- Thus creating BC's for HRS and opportunities for FCEV's.

Note: Map still a draft due to possible change of focus.

## Waterstof tankstations in Nederland

-  In werking
-  Gepland realisatie begin 2017
-  In voorbereiding realisatie begin 2018
-  In onderzoek





## Highlights: FC-buses

April 2016: agreement between Public Transportation Authorities and the Ministry of Infrastructure and the Environment.

Interprovinciaal Overleg  
van en voor provincies



Ministerie van Infrastructuur en Milieu



### Agreement on Zero Emission Regional Public Transportation By Bus

#### Main Objectives:

- No later than 2025: all new buses zero emission
- By 2030: all buses should be zero emission
- Only renewable energy for buses in public transportation  
(Nowadays almost 5.000 buses in the Netherlands)



## Highlights : FC-buses

Many (demonstration) projects ongoing:

- City of Rotterdam, starting with 2 FC-buses this Summer.
- City of Eindhoven (South):  
2 buses in service.
- Starting later on this year:
  - Groningen (North)
  - Arnhem (East)

The Netherlands/Benelux is a partner in the new FCH-JU busproject ('JIVE-2').

3 or 4 regions will participate with (at least) 50 FC-buses.







## Highlights : FC-buses

Other developments on zero emission Buses:

- Battery Electric Buses (overnight charging)  
-> small range

*Example: 18 buses for services at small islands.*

- Electric buses with opportunity charging  
-> larger range, recharging during service.

*42 buses in Eindhoven region.*

- FC-buses?

- + Good solution when large ranges (> 250 km/day) are needed.
- + Business Case is still a problem (too expensive in CAPEX and OPEX, compared to electric buses).





# Thank you for your attention!

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