

**UNECE / WP.29 - June 2010 - Geneva**

**Round Table on**

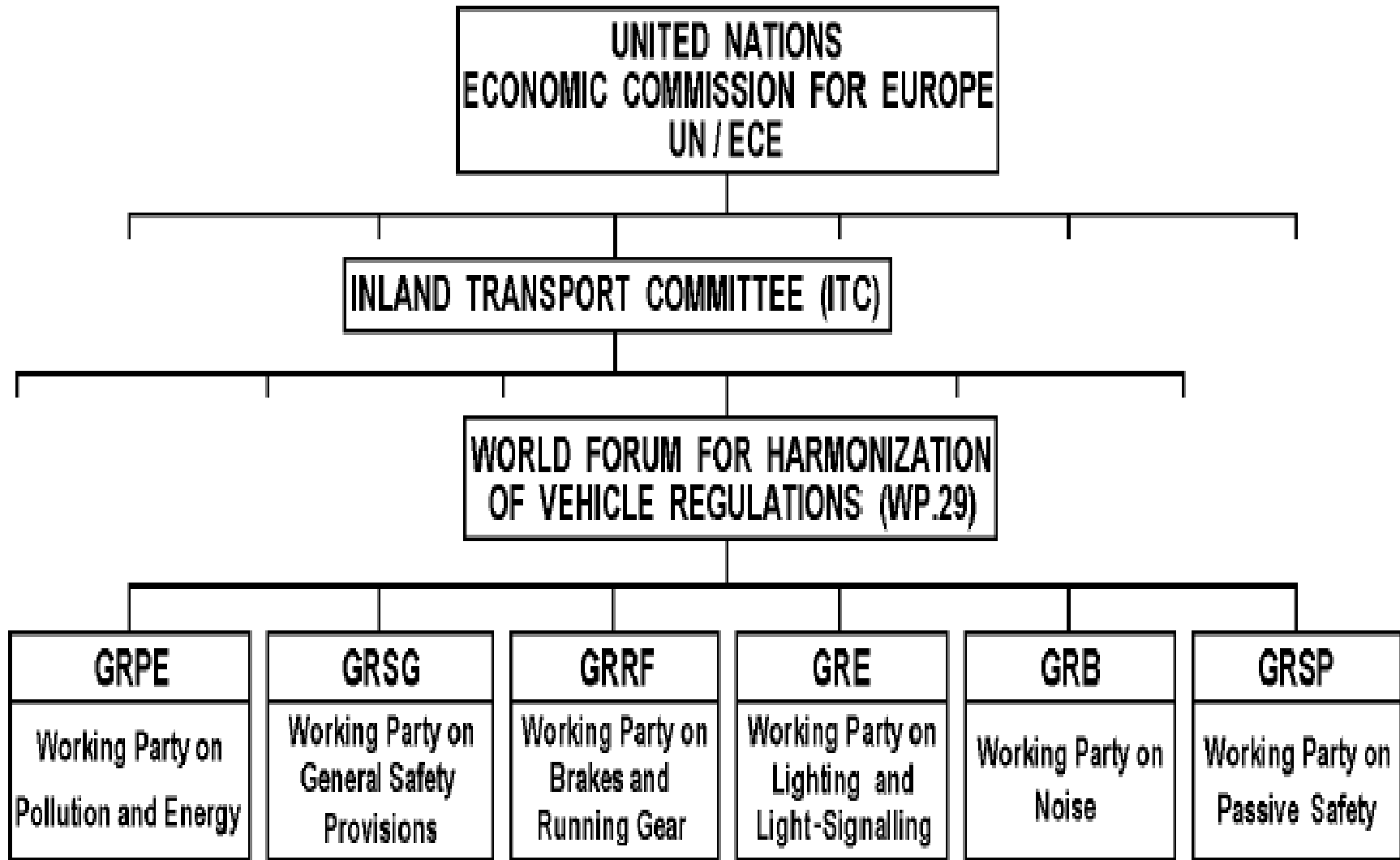
**Climate Change and Transport**

**What are the current and future activities of  
WP.29 to reduce CO<sub>2</sub> emissions by road  
vehicles**

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ORGANIZATION OF WP.29



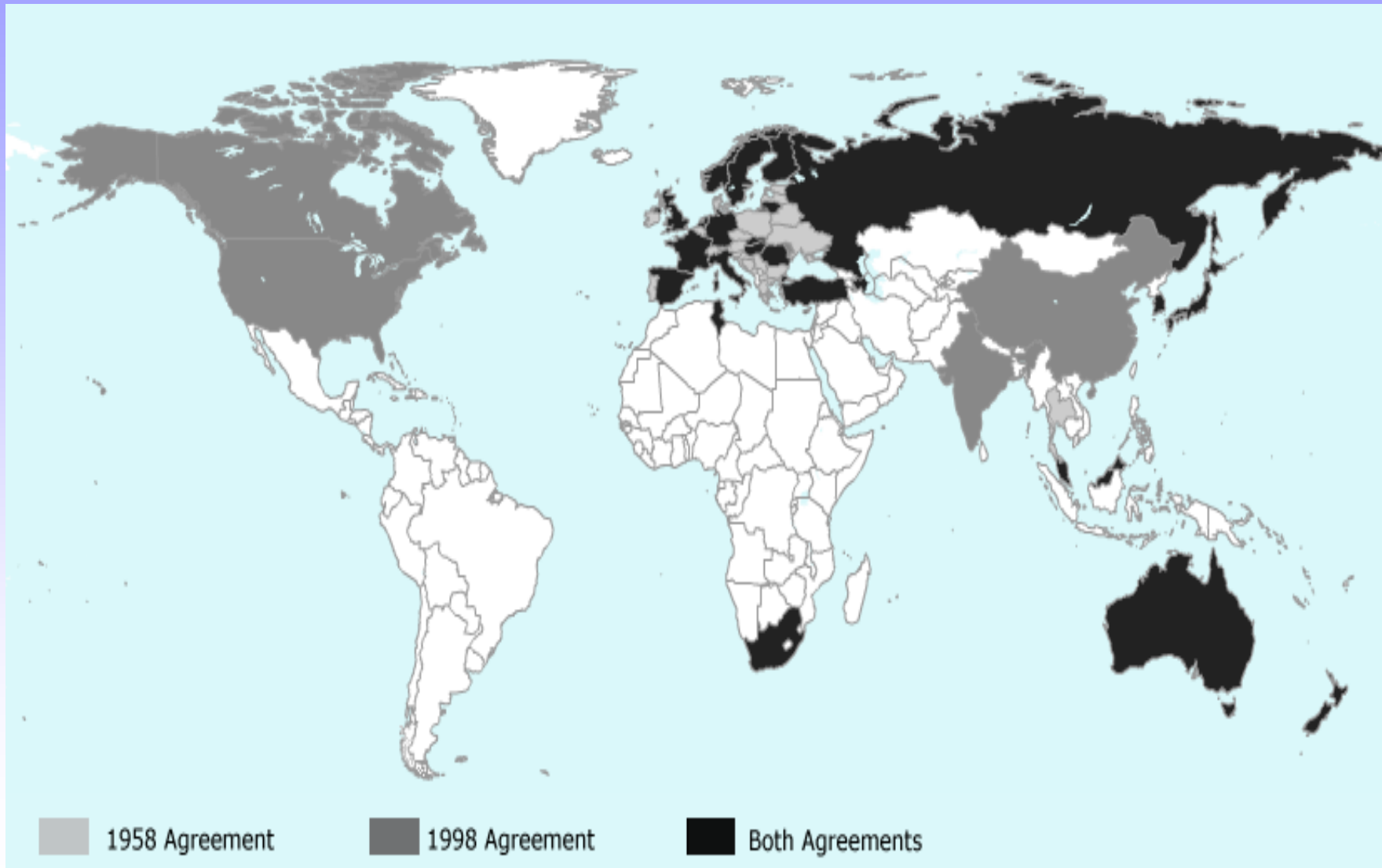
## **Agreements administered by WP.29**

- **1958 Agreement (UN-ECE Regulations)**
- **1998 Global Agreement  
(Global Technical Regulations – GTR)**
- **1997 Agreement  
on Periodical Technical Inspections**

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## **WP.29 has a double function :**

Firstly, it is a Forum, a latin word which means an open place for discussion.

Secondly, this Forum is dedicated to the harmonization of vehicle regulations, and all the discussions in WP.29 shall be focussed on it.

Basically we are limited to vehicle regulations covered by our terms of reference and the agreements we administer

## WP 29 : what we cannot do [at the moment...]

- market-fuel quality regulations
- regulations based on well to wheel approach
- regulations based on whole lifecycle of vehicles

and

- WP.29 cannot make regulations mandatory as legislation – this is up to the Contracting Parties

**A possible strategy  
to reduce transport CO2 emissions  
and to  
improve energy efficiency of vehicles**

## A possible strategy

### Short-term objective

through an improved energy efficiency and the use of sustainable biofuels (2015);

### Midterm objective

development and introduction into the market of plug-in hybrid vehicles (2020-2025)

### Long-term objective

development and introduction into the market of electric and hydrogen/fuel cell vehicles (2030-2040).



## **A possible strategy**

This strategy would shift the automotive sector from the use of fossil energy to the use of hydrogen and electric energy. For the effectiveness of that integrated strategy, the energy sector has to ensure the sustainable and cost-effective generation of electricity and production of hydrogen.

**Since more than 30 years the enormous reduction of pollutant- and noise emissions of vehicles is a story of success.**

**Today the reduction of GHG emissions (especially CO<sub>2</sub>) and improvement of energy efficiency in the transport sector moves more and more into the foreground.**

**In this regard WP.29 and subsidiary Working Parties works on the amendment or development of harmonized regulations concerning a large number of measures, e.g.:**

- **Hybrid-, Electric-, and Fuel Cell Vehicles**  
(environmental related regulations, as well as safety requirements ensuring a similar safety level compared to conventional vehicles)
- **Vehicle Regulations for the use of alternative fuels (gas, biofuels)**
- **Advanced engine management systems**
- **Reduction of rolling resistance (tyres, ...)**
- **Installation of electric devices with a low energy consumption**
- **Intelligent Transport Systems (ITS)**

## (1) WLTP

### *Worldwide harmonized Light vehicles Test Procedures*

Develop new emissions test cycles and procedures for light vehicles with regard to the emissions of gaseous pollutants (NO<sub>x</sub>, CO, HC) and particles, including CO<sub>2</sub> and fuel consumption

Worldwide harmonised test cycles for Heavy Duty Vehicles (WHDC – GTR No. 4) and Two Wheelers (WMTC – GTR No. 2) are already finalised and adopted GTR's

## **(2) HFCV / HEV**

### **Hydrogen & Fuel Cell Vehicles / Hybrid Electric Vehicles**

#### **Development of new regulations or amendment of existing ones**

- with regard to the measurement of the fuel consumption and CO<sub>2</sub> emissions, electric energy consumption
- with regard to safety aspects of Hydrogen storage and fuel systems as well as electric safety (high voltage)

### (3) EFV

#### *Environmentally Friendly Vehicles*

To continue a fruitful cooperation between WP.29 and future international conferences on Environmentally Friendly Vehicles (EFV) and to foster the development and introduction of EFVs as well as renewable fuels.(b) To review, in a short term view, the feasibility of the proposed EFV concept (evaluation method, integrated approach).

## **Documentation**

### **Main document:**

UNECE activities on the reduction of emissions of gaseous pollutants and greenhouse gases in the transport sector

**<http://www.unece.org/trans/doc/2010/wp29/ECE-TRANS-WP29-2010-84e.doc>**

**<http://www.unece.org/trans/doc/2010/wp29/ECE-TRANS-WP29-2010-85e.doc>**

**<http://www.unece.org/trans/doc/2010/wp29/ECE-TRANS-WP29-2010-86e.doc>**

**European strategy  
on clean and energy efficient vehicles**

( linked to the CARS 21 process –  
taking global issues into account)



**European strategy on clean and energy efficient vehicles**

Medium and long term objectives & actions:

Research, regulatory/standardisation framework, ... to promote a new industrial approach, based on clean and energy efficient vehicles, supporting the decarbonisation of transport, to create a green and sustainable economy.

Approach: technology neutral

Considered powertrains:

- Alternative Fuels (combustion engine)
- Electric and Hybrid Vehicles
- Hydrogen Fuel Cell Vehicles

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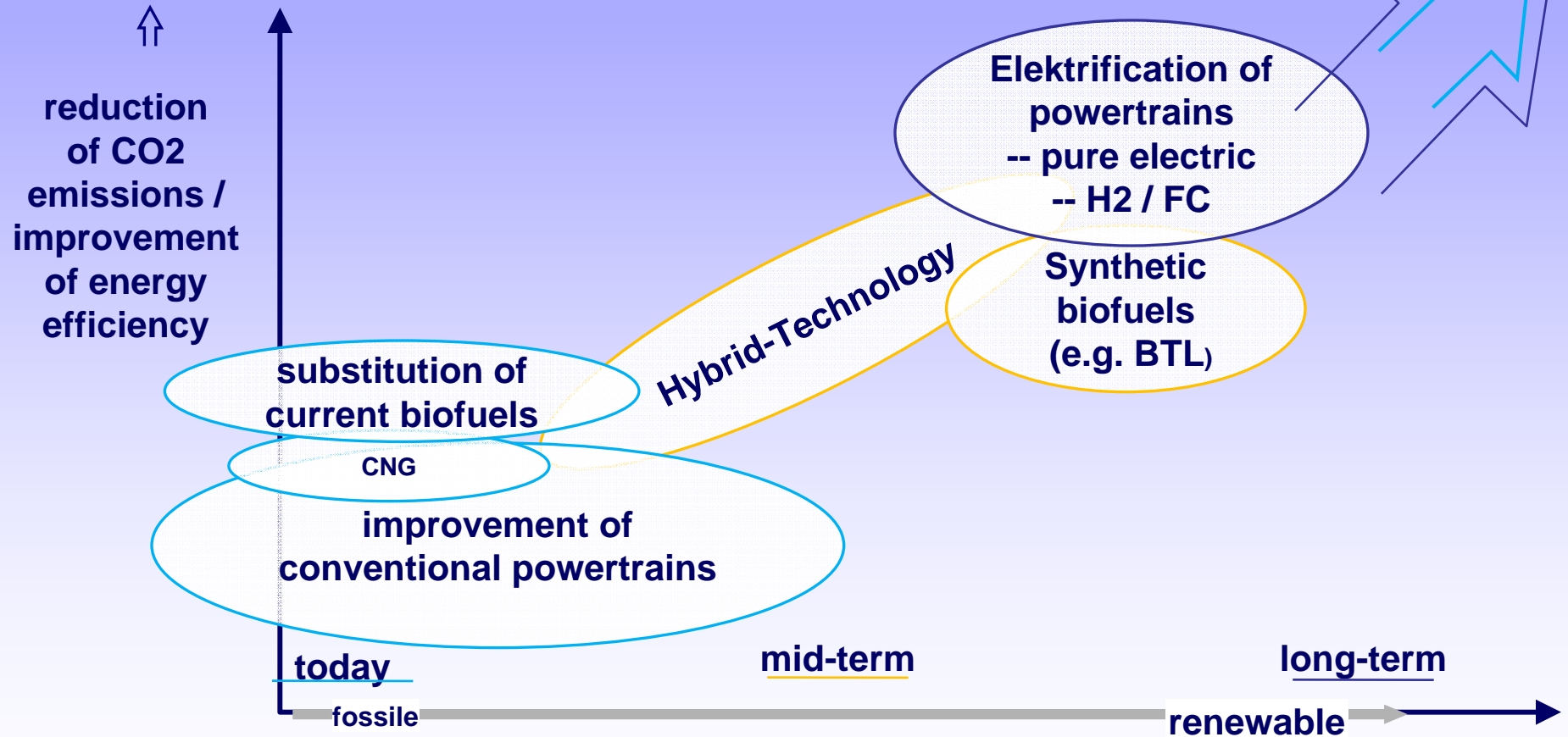
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## **The German governmental transport fuel & energy strategy**

A modern and sustainable strategy for future  
transport [and mobility]

The German governmental transport fuel & energy strategy



➡ electrification of vehicles is part of the German governmental fuel strategy

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**Thank you for your attention**