

The EU Legislative Framework on Light Vehicles and CO₂

Progress and Options

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Waterfront Conference
Promoting Low Carbon Vehicles:
Policy and Practical Action
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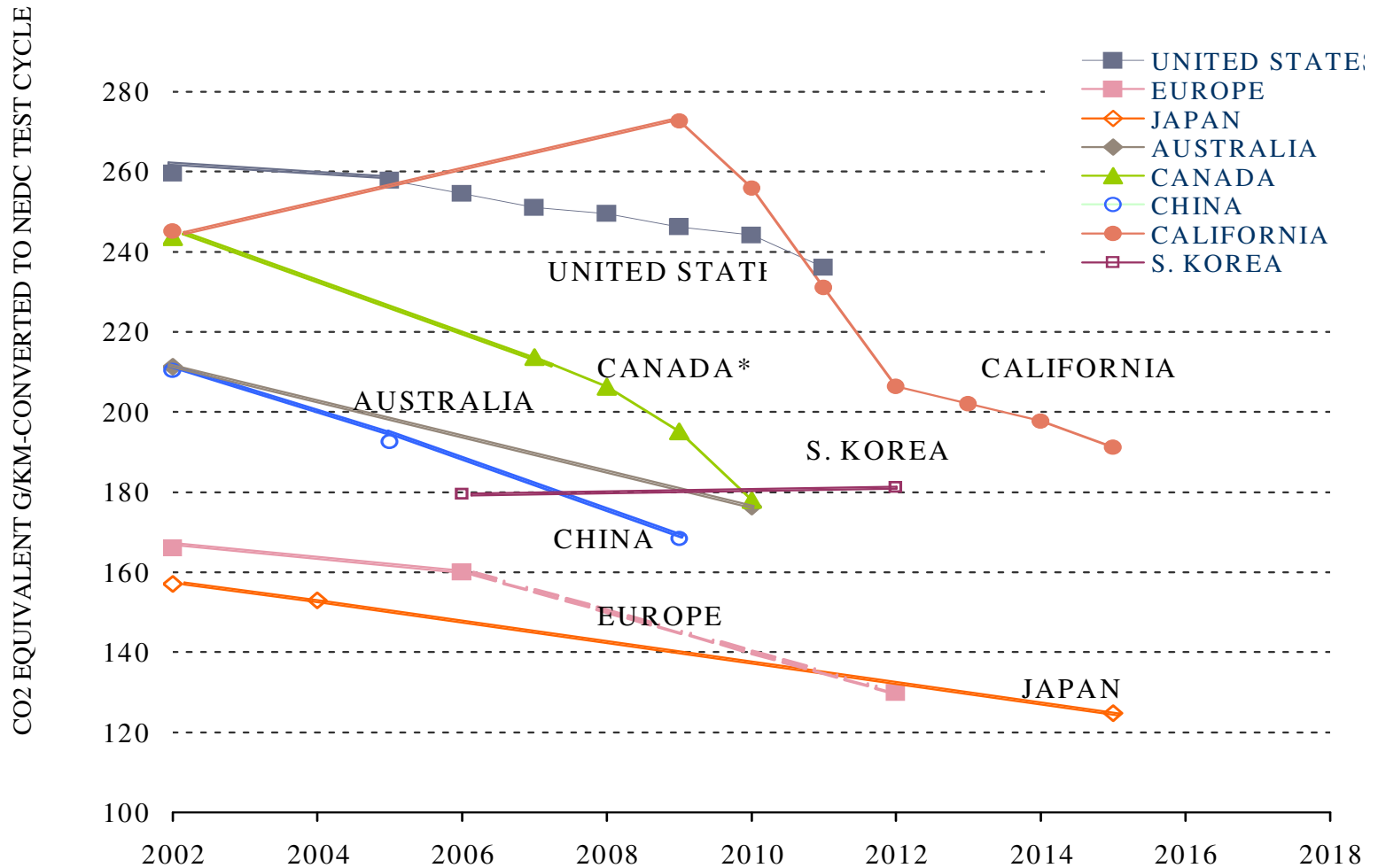


A Brief History

- **1990s:** EU exhaust emissions regulation in progress, but car fuel economy not improving
- **1993:** EU ratifies Framework Convention on Climate Change
- **1995:** Commission publishes passenger car CO₂ strategy
 - target 120g/km by 2005 (or 2010 at latest)
- **1997:** Carmakers threatened with legislation
- **1998/9:** Voluntary Agreements with manufacturers' associations
- **2000:** Monitoring Mechanism (1753/2000) established
- **2001:** CO₂ Labelling required (1999/94)
- **2005/6:** Review of Passenger Car CO₂ Strategy
- **2007: Legislation announced**

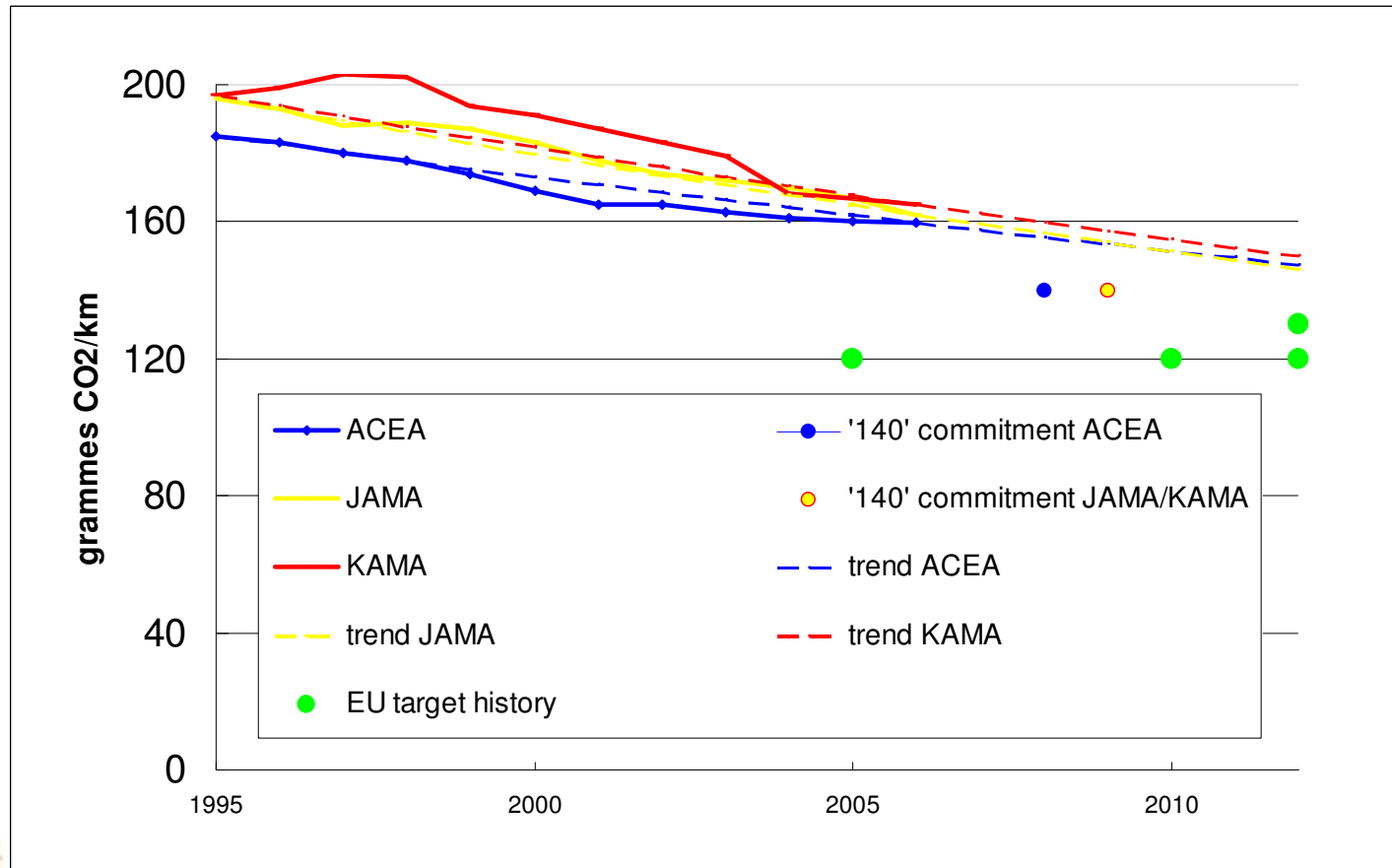


The Global Context



Source: ICCT

Progress has been made under VA but...



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pollution
and water
management
energy

Revised strategy on CO₂ from passenger cars and light commercial vehicles 2007

Overall objective: 120 g/km CO₂ by 2012

Instrument: legislative framework

Specific targets:

Average new car fleet of 130 g/km CO₂

Additional 10 g/km by other technological improvements:

- Efficiency requirements for air-conditioning systems
- Tyre pressure monitoring systems
- Low rolling resistance tyres
- Gear shift indicators
- Mandatory fuel efficiency targets for light-commercial vehicles
- increased use of biofuels

Review in 2010 to explore longer term objectives and different approaches beyond 2012



Principles for future legislation

Targets and the implementing measures must be:

- **Technologically neutral**
- **Competitively neutral**
- **Socially equitable and sustainable**
- **Equitable to the diversity of the European automobile manufacturers**
- **Avoid unjustified distortion of competition between manufacturers**



Targets and Instruments (1)

Analysis has addressed 3 types of **TARGET**

- a **percentage reduction** from a reference year
- a **sloped target curve** linked to utility criteria (see below)
- a **fixed emissions target** to be met by all (ie 130g/km)

Flexible



Inflexible



Targets and Instruments (2)

... and at 3 types of **INSTRUMENT**:

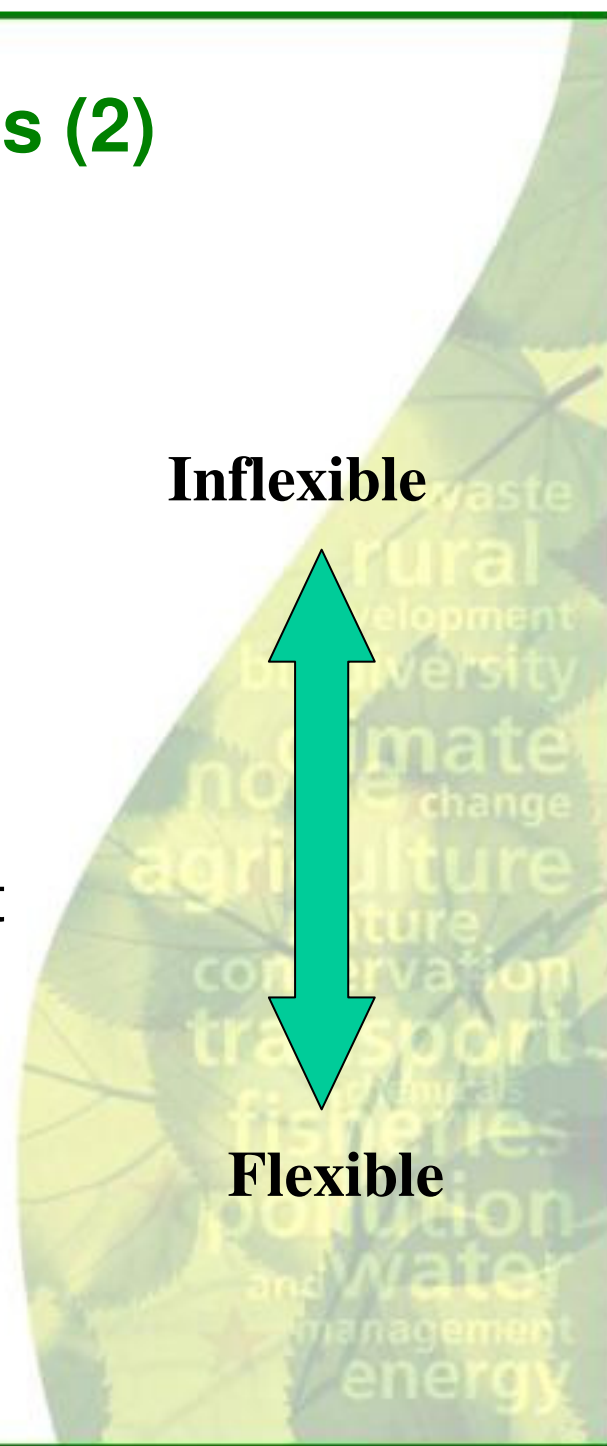
- Emission reduction requirements for **individual vehicles**
- a **manufacturer bubble** ie manufacturer as a whole can meet the target on average
- a **trading scheme** between manufacturers



Inflexible



Flexible



Main Target/Instrument Combinations

Car-based

- Each car to meet 130g/km
- Each car to meet segment or utility-based limit

Manufacturer-based

- Each mfr to meet 130g/km
- Each mfr to meet x% reduction from year yyyy
- Each mfr to meet own utility-based target

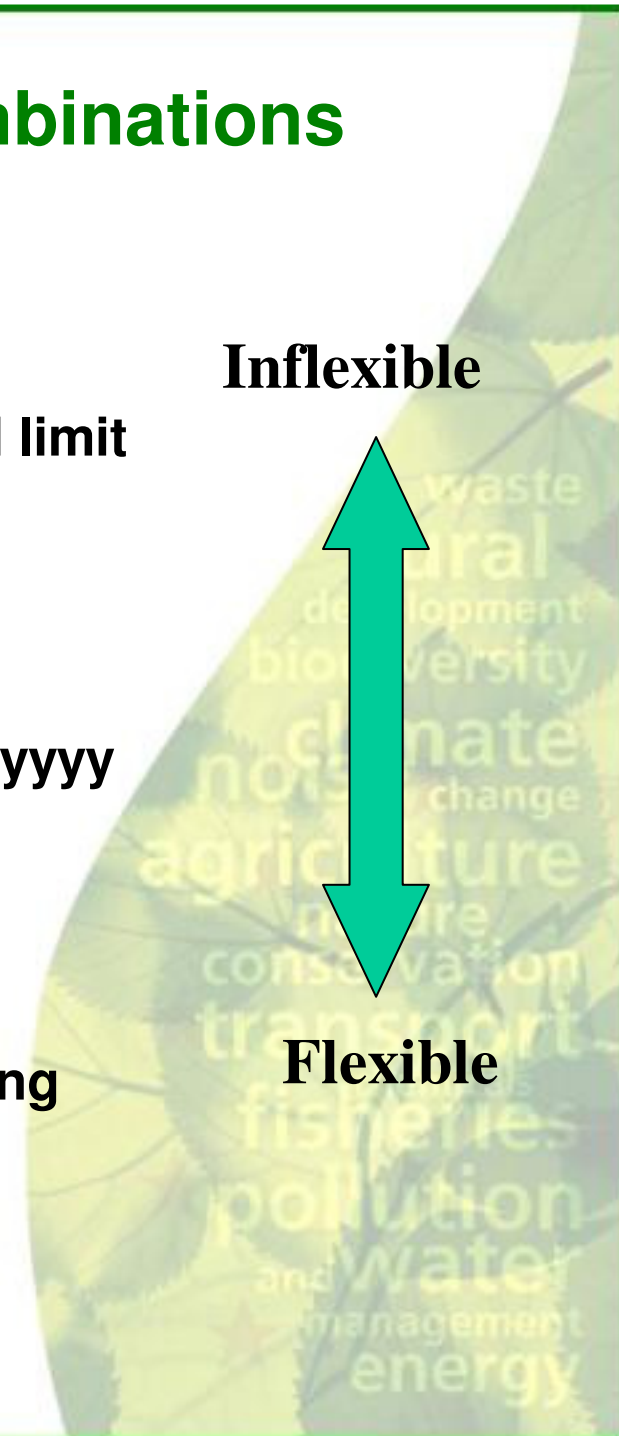
Fleet-based

- As for manufacturer-based, but with trading

Inflexible



Flexible



Limits and Targets

- **Limit values**

- Set an upper limit above which models are excluded
- **Pros** easy to understand and operate
- **Cons** inflexible; can have drastic effects; sensitive

- **Target values**

- Set an average value for a fleet
- **Pros** more flexible and 'fair'
- **Cons** harder to understand or operate
- **And** needs averaging mechanism



Classes and Utility Functions

- These are useful to *classify* vehicles or *normalise* emissions
- They allow us to recognise that 'big' vehicles tend to emit more CO₂ than 'small' ones

Market Segments

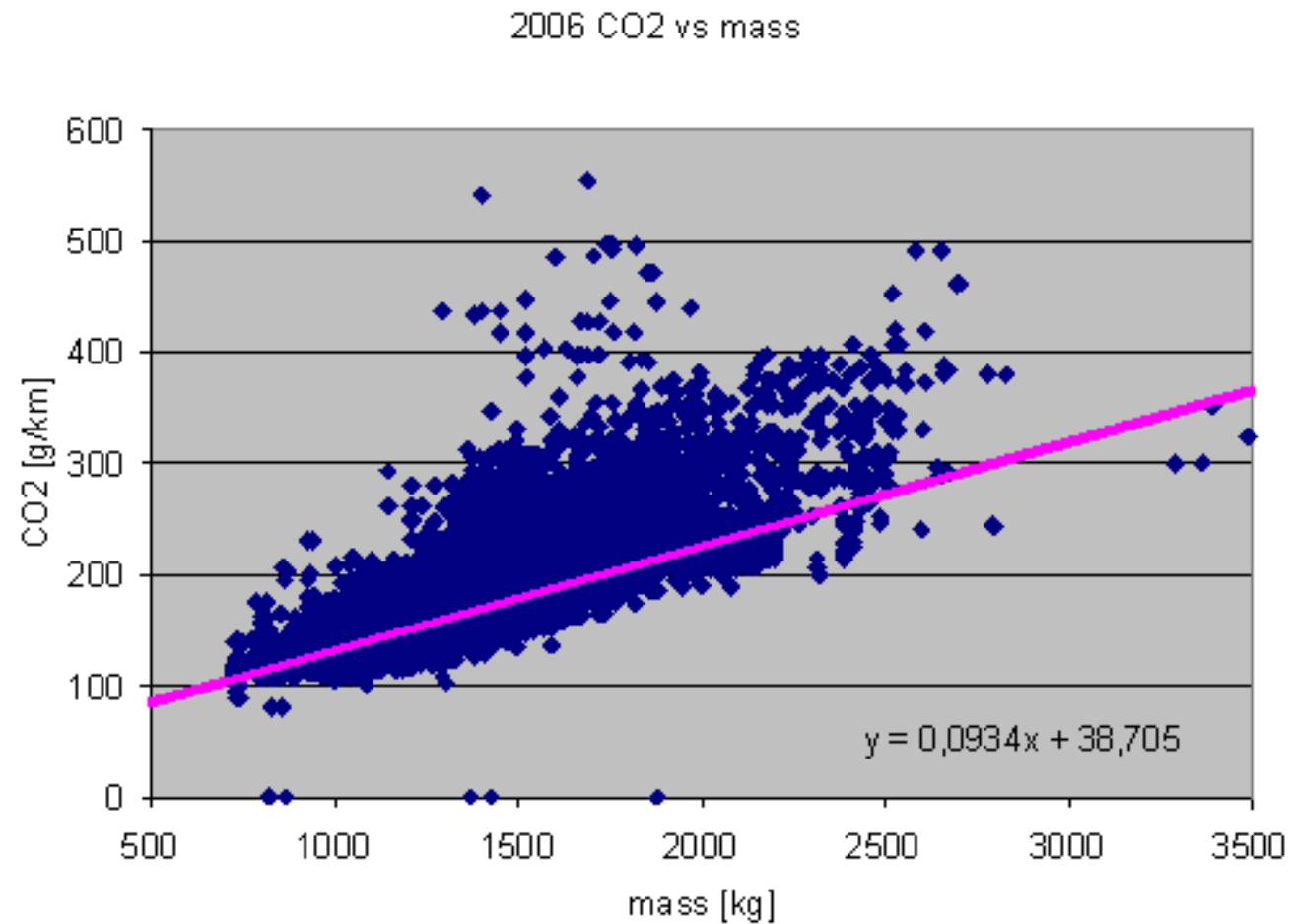
- **Pros** available and easy to understand
- **Cons** probably unworkable!

Utility Functions

- **Pros** much greater flexibility
- **Cons** harder to understand, no ideal metric available, possibility of perverse effects



Applying a Utility Function



waste
rural
development
diversity
mate
change
culture
ture
rvation
sport
eries
ution
and water
management
energy



Legal and Institutional Matters

- **Who should be main Obligated Entities?**
 - Manufacturers' associations?
 - Manufacturer groups?
 - Dealers or importers?
 - Member States?
- **Should system operate at MS or Community level?**
 - Commission stated preference for EU-level scheme
 - ... though most legislation works through Member States
- **What Sanctions to apply?**
 - Exclude from market?
 - Fines?
 - Enforced trading between mfrs?
- **Definitions**
 - What constitutes equal treatment?
 - How can we reflect past efforts?
 - How to reflect diverse positions of mfrs in market?



Cars and CO₂ – Next Steps

Public consultation completed in May/June 2007

Impact assessment nearing completion

Legislative framework

- proposed by the Commission probably in 2007, at latest by mid-2008
- NB this should cover **all** the legislative components

Legislation enacted in 2009?

Review of the strategy in 2010



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