APEC Fuel Efficient Tyre Information

APEC EGEE&C 43 Meeting – 9 to 11 April 2014

Energy Efficiency and Conservation Authority
Te Tari Tiaki Pūngao

New Zealand Government

Background

- Transport represents around 27% of all energy consumption across APEC
- Significant energy and carbon saving potential
- Several areas of intervention:
  - Vehicle purchase
  - Vehicle maintenance
  - Driver behaviour
    - How much they drive (PT, conservation)
    - How they drive
  - Low rolling resistance tyres

Total Final Energy Consumption by Sector
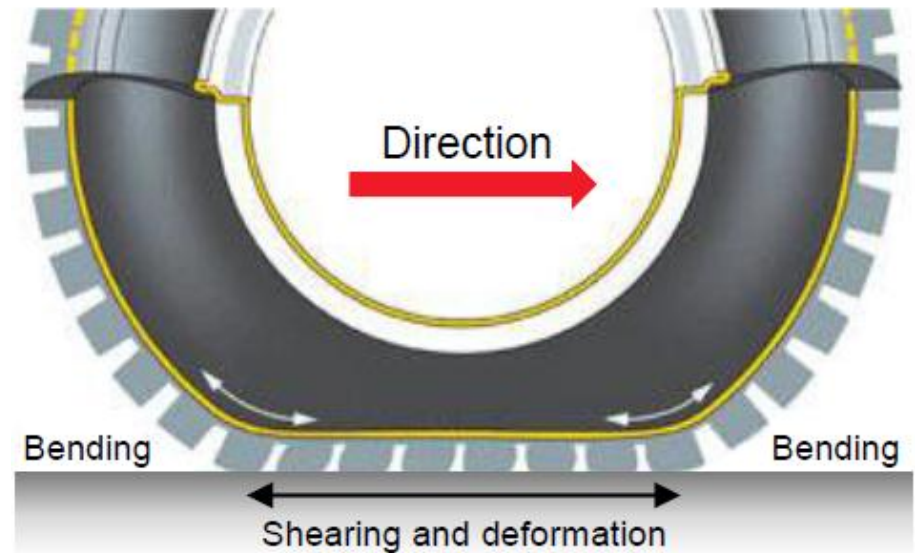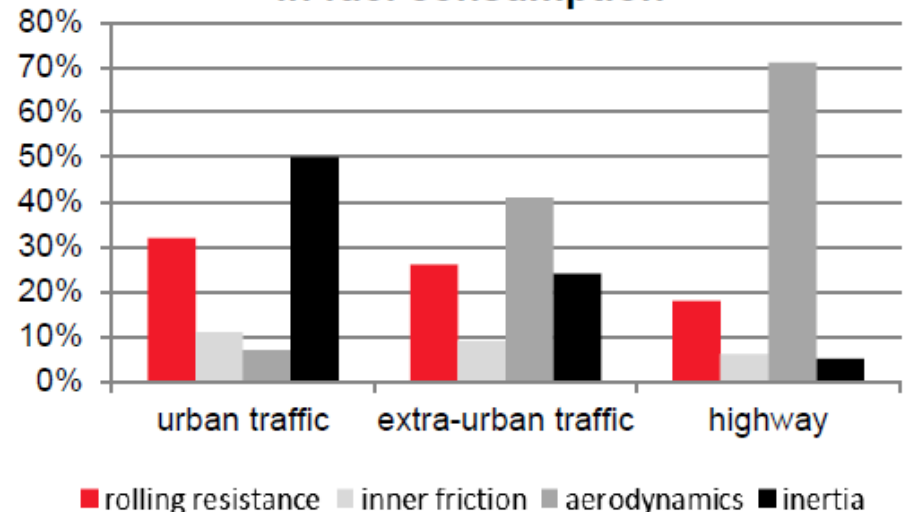

Consumer Energy (PJ)
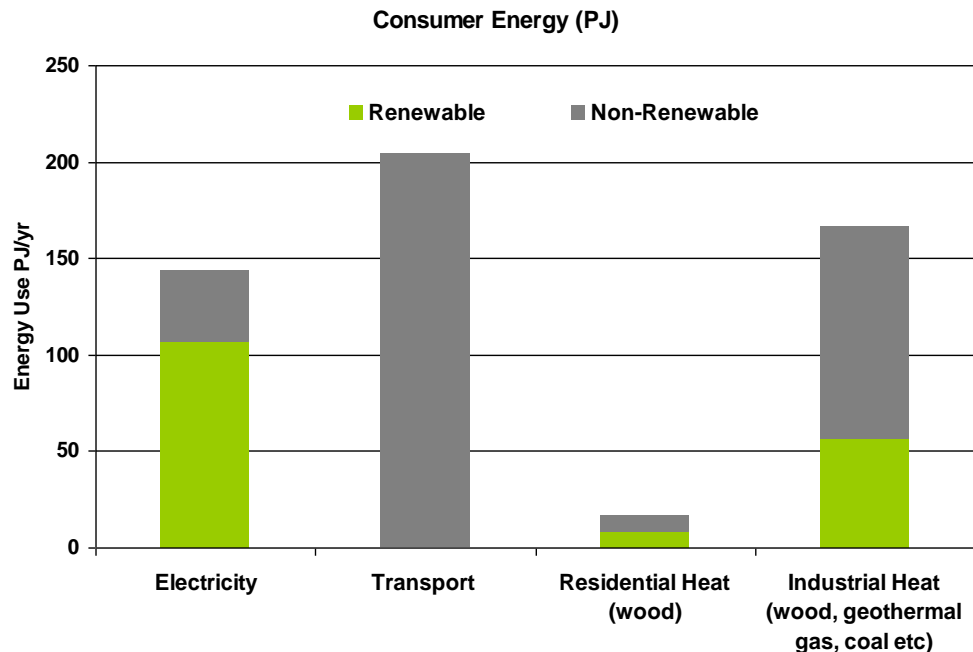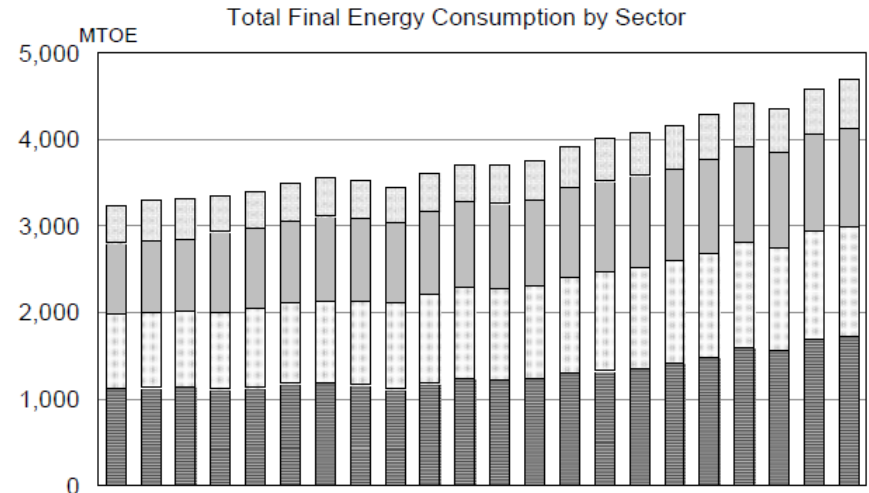
APEC Fit

- 2013 APEC leaders declaration:
  - reiterates the importance of energy efficiency in transport and the commitment to the energy intensity reduction target of 45% by 2035

- 2011 APEC joint energy and transport ministers declaration
  - We instruct the EWG and the Transportation Working Group (TPT-WG) to collaborate on joint activities …

- 2013 St Petersburg energy ministers declaration
  - affirms that energy efficiency is one of the fastest, most environmentally sound, and cost effective ways to address climate change and energy security while stimulating economic growth

Fuel Efficient Tyres (FET)

- Reduce the rolling resistance while maintaining breaking performance

- Provide energy efficiency improvements of up to 7%
  - Average 3-4% (Across APEC is equivalent to South Korea)

- Market ready product
  - Many brands and products

- Largely economic
  - Savings outweigh costs

Direction

Bending | Bending

Shearing and deformation

Proportion of driving resistance values in fuel consumption

urban traffic | extra-urban traffic | highway

■ rolling resistance ■ inner friction ■ aerodynamics ■ inertia
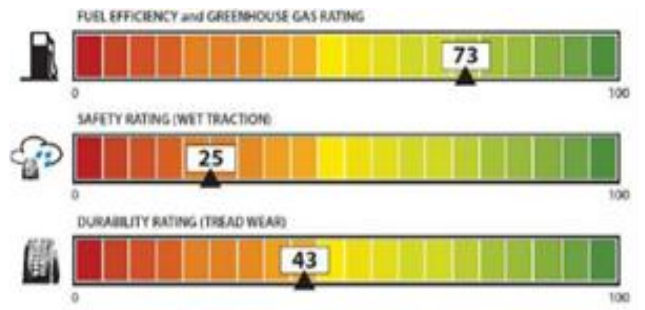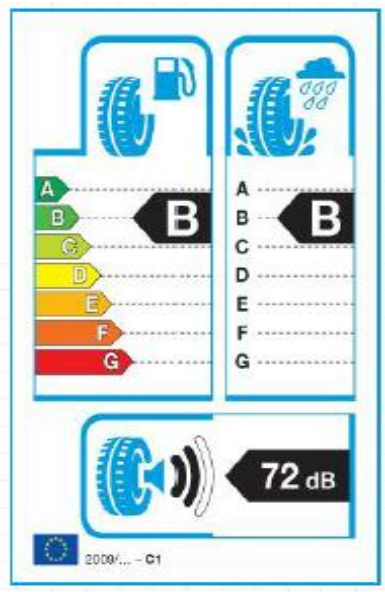
EECA

Problem

- Low deployment
- Low consumer awareness
  - "black round things"
  - a tyre is a tyre is a tyre
  - Passive buyers
- Limited action across the world
  - EU
  - US
  - Japan
  - Korea

EECA

FUEL EFFICIENCY and GREENHOUSE GAS RATING — 73

SAFETY RATING (WET TRACTION) — 25

DURABILITY RATING (TREAD WEAR) — 43

72 dB

AAA AA A B C
a b C d

Objectives

Ultimate objective is to improve deployment of Fuel Efficient Tyres

Project objectives:

- Understand current FET initiatives in APEC
- Identify success factors
- Understand barriers
- Look at standards and labelling options to overcome barriers.

Method

Analysis of opportunity from FET tyres.

Stock-take and analysis of existing FET initiatives

Barriers analysis with a specific look at information

Identify opportunities for collaboration

Implement a capacity building workshop