






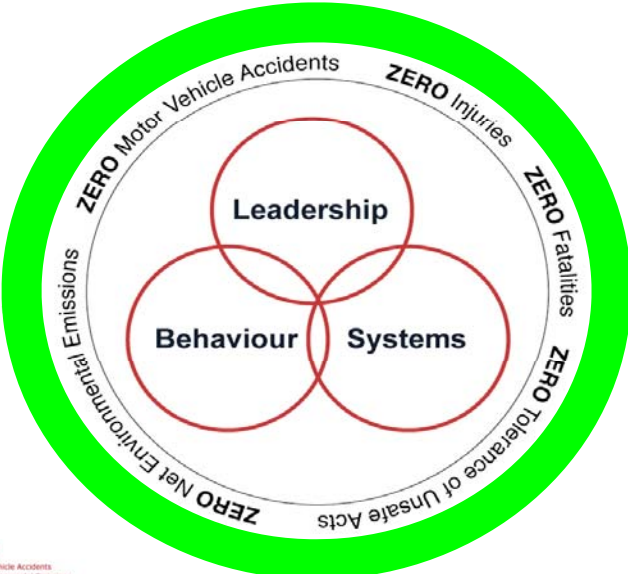
2010 EIANZ Conference
Queensland

Ten Years to Transition


vision ZERO ZERO Fatalities
ZERO Injuries
ZERO Motor Vehicle Accidents
ZERO Net Environmental Emissions
ZERO Tolerance of Unsafe Behaviour & Practices

David McInnes
October 2010, Melbourne

Vision Zero – the Linfox planning framework

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Linfox Leadership - Our view of the Climate Debate



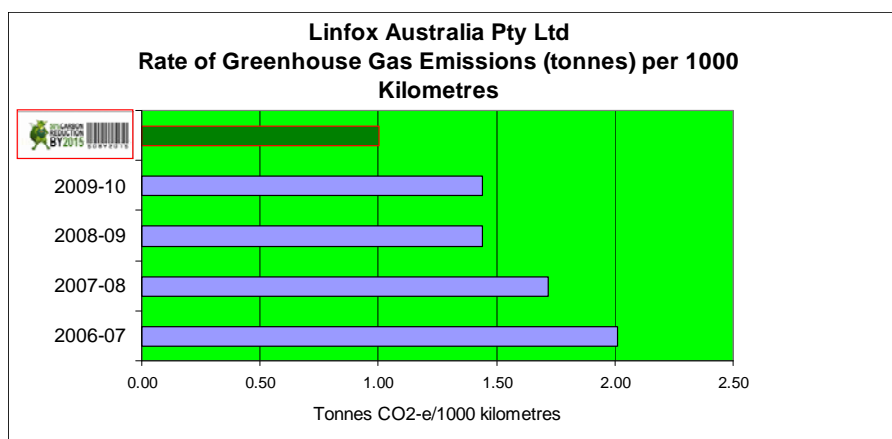
1. We have accepted the scientific evidence that Climate Change, caused by Global Warming is a reality.
2. We have accepted that, on balance, it is most probable that man made emissions play a part in Global Warming.
3. We have accepted that Transport is a significant contributor to man made CO2-e emissions.
4. We have accepted that everyone must play a part in reducing CO2-e emissions.
5. We have adopted a plan based on a Greenhouse Gas Reduction Cycle that impacts on all aspects of our business
6. We regard reducing use of energy and thereby emissions is good for the environment and good for business



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Linfox - what we have achieved so far



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Linfox Systems Greenhouse Gas Reduction Cycle



Linfox has prepared a dynamic plan, based on the elements of the Greenhouse Gas Reduction Cycle



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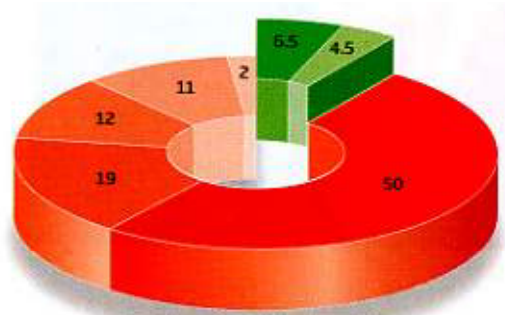
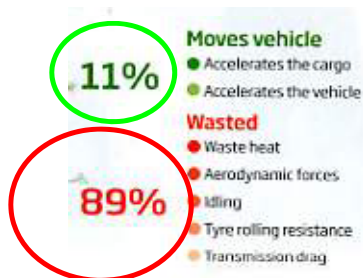
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Why have we concentrated on culture and systems rather than current truck technology ?



Only 6.5% of the energy in a long-haul truck's fuel is used to shift the cargo inside it

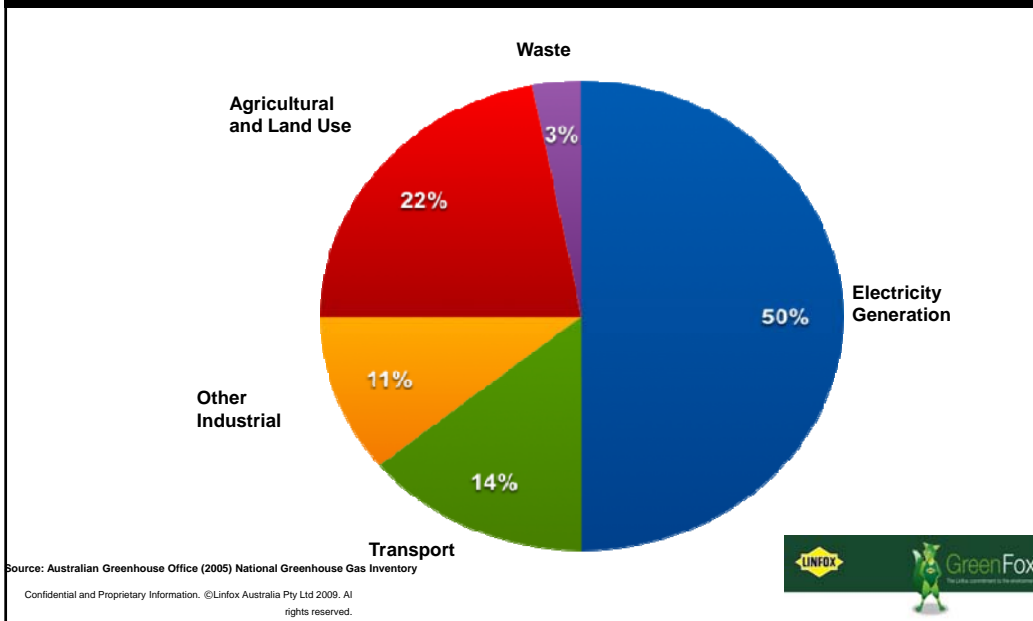


Source: New Scientist Magazine, August, 2009

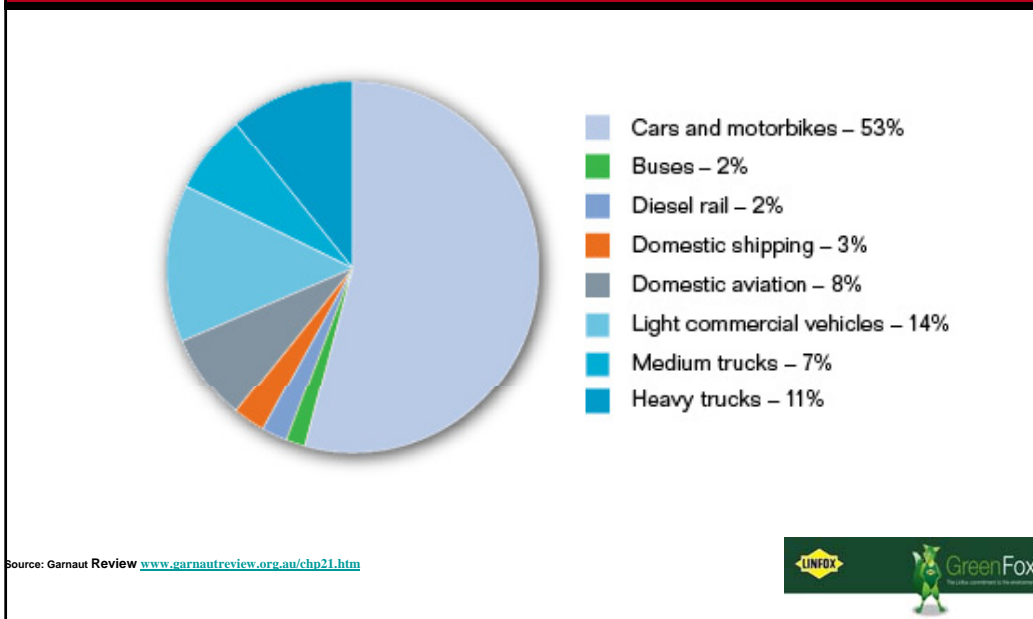
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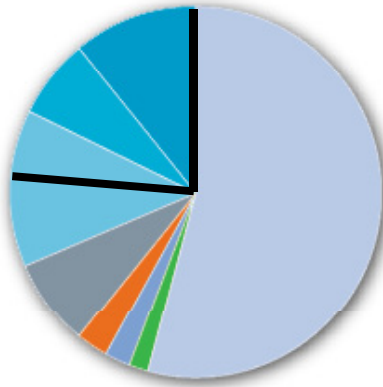
Sources of Australia's Greenhouse Gas Emissions



Sources of Australia's Greenhouse Gas Emissions



Sources of Australia's Greenhouse Gas Emissions 20??

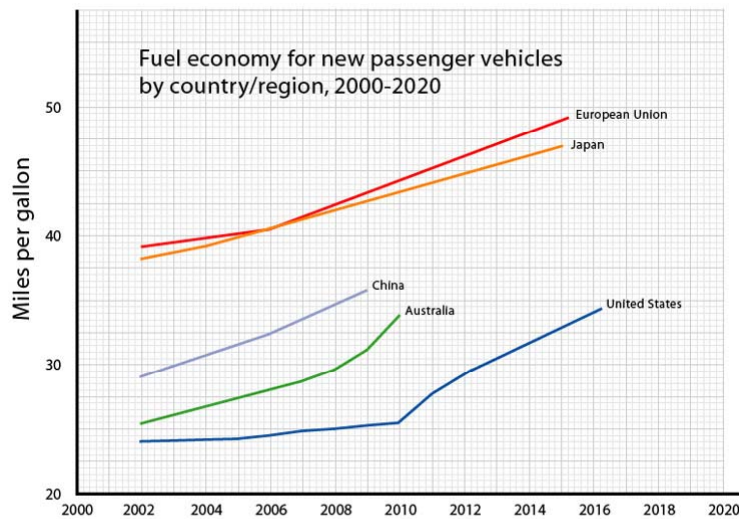


- Cars and motorbikes – 53%
- Buses – 2%
- Diesel rail – 2%
- Domestic shipping – 3%
- Domestic aviation – 8%
- Light commercial vehicles – 14%
- Medium trucks – 7%
- Heavy trucks – 11%

Source: Garnaut Review www.garnautreview.org.au/chp21.htm



Sources of Australia's Greenhouse Gas Emissions



Source: <http://www.futuretimeline.net/21stcentury/images/miles-per-gallon-future-graph.jpg>

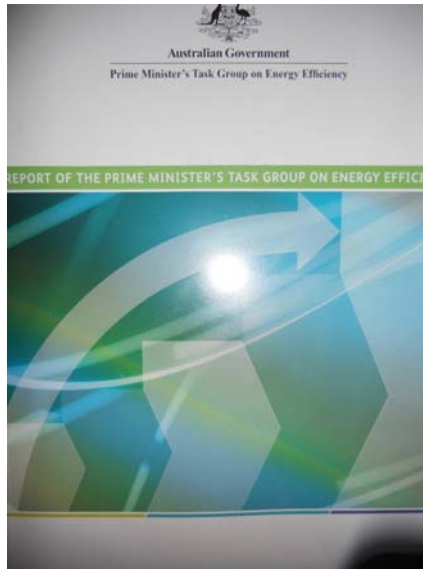
www.FutureTimeline.net

(Aust 8.6, China 8, Japan 6, EU 5.8)



Roadmap for the future

LINFOX



ZERO ZERO Net Environmental Emissions
ZERO Tolerance of Unsafe Behaviour & Practices



General Assumptions 2010 - 2020

LINFOX

1. It is unlikely that there will be any significant, technological breakthrough in Heavy Vehicle engines in the period to 2015
2. Biodiesel will be more widely adopted as an intermediate step to zero carbon emitting vehicles, some manufacturers are resisting the use of biodiesel at the moment
3. Carbon pricing impacts will be minimal
4. Low emissions, local electricity generation is likely to become more widespread
5. Linfox will continue its policy of maintaining one of the most modern fleets in the Asia Pacific region
6. Vehicle monitoring will provide opportunities for emissions reductions
7. Demand for non potable water is likely to increase in metropolitan regions of Australia
8. Incremental improvement in electrical energy efficiency systems
9. Efficiency in road transport through greater use of higher productivity vehicles on selected routes
10. Carbon mapping of supply chains will be more widely adopted

vision
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Blue sky to 2020



1. Zero Carbon vehicles will be the predominant form of new transport vehicles
2. Electric vehicles will predominate
3. Carbon emitting vehicles will only be licenced to operate only if they meet strict environmental performance standards
4. Manufacture of internal combustion engines in decline
5. Individual transport ownership will be less common
6. Speed limits on manufactured vehicles will have been imposed to maximum speeds of 100 km, 80 km and 60 km – prices will reflect reduced speed capacity.
7. Most homes will be self sufficient in Electricity generation
8. Low energy consumption will be seen as a socially desirable goal
9. Electronic communication, commerce, entertainment, information will be the predominant form of mass communication
10. Sustainable development will be at the core of our society's values

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