



Automotive World Conference 16 September 2008

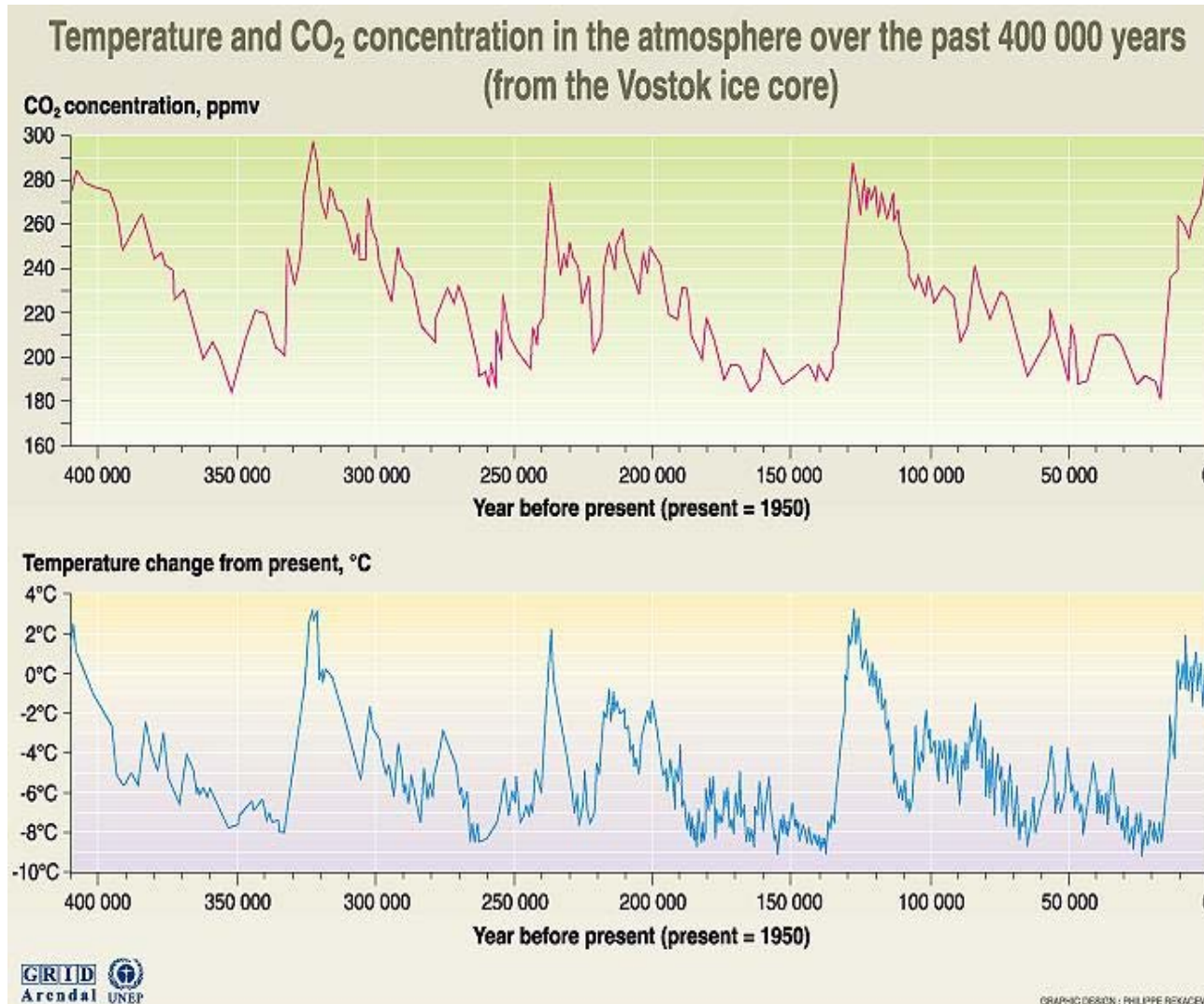
Brendan Connor ,Chairman, Cenex

Geological time series show global temperature and CO2 levels are highly correlated – current CO2 concentrations are at unprecedented levels

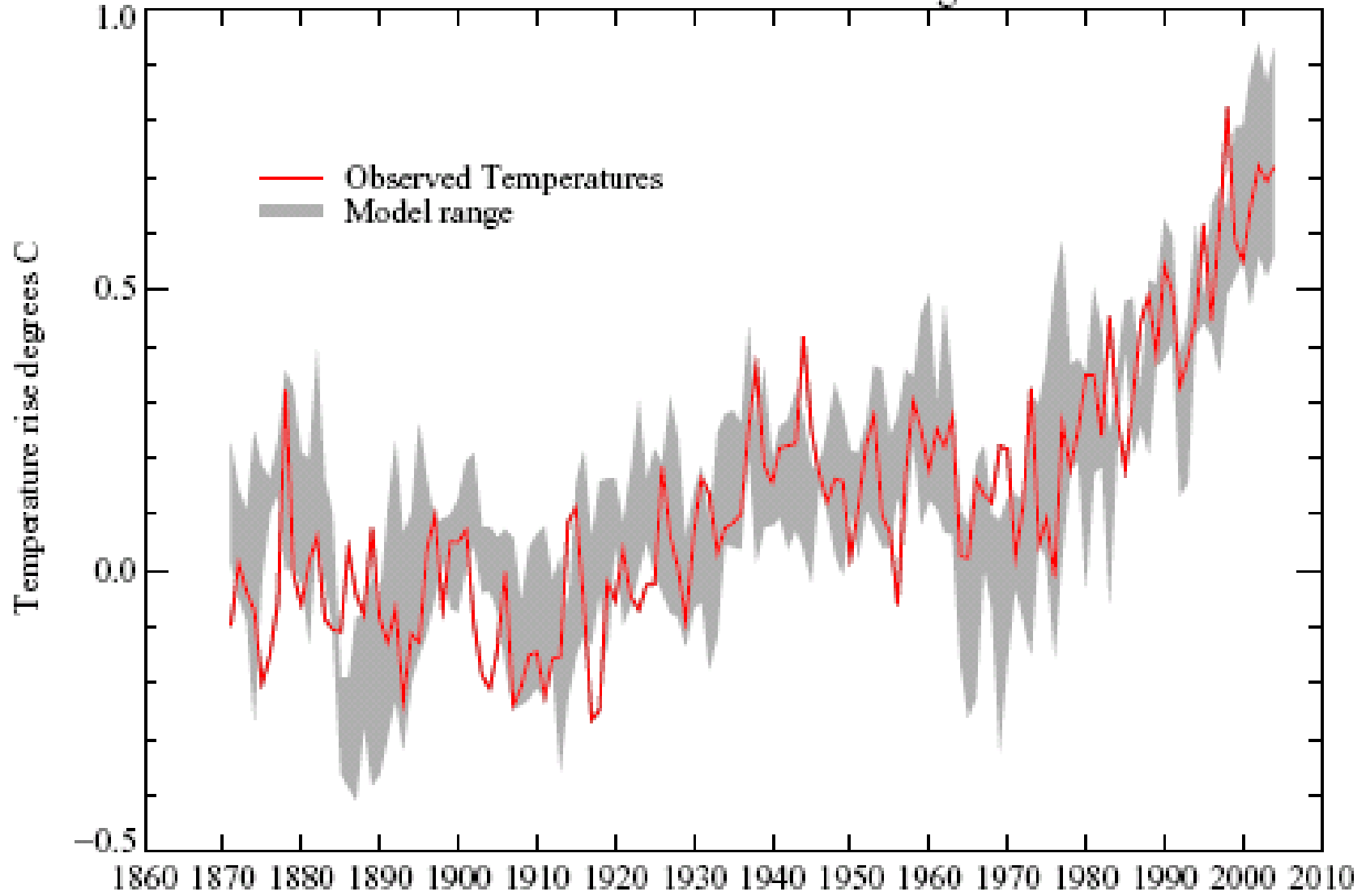


cenex

380ppm
2005

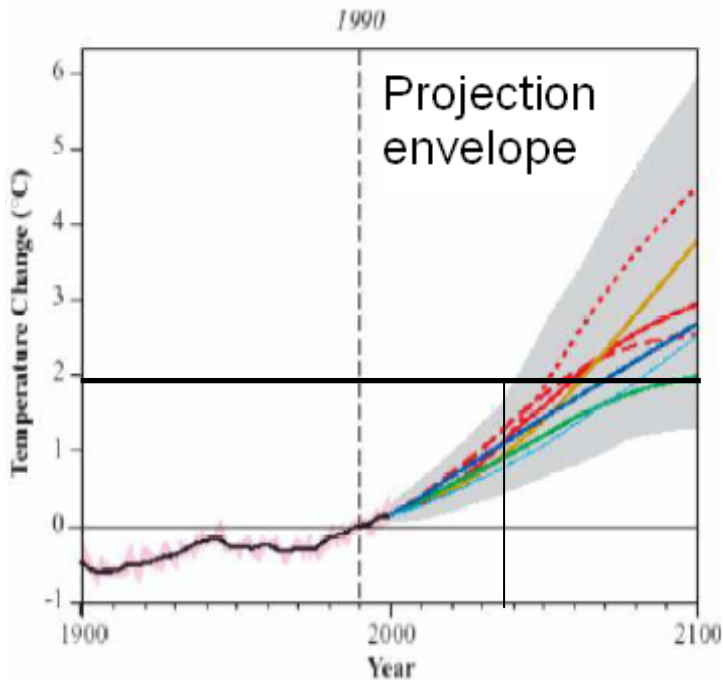


Simulated Global warming

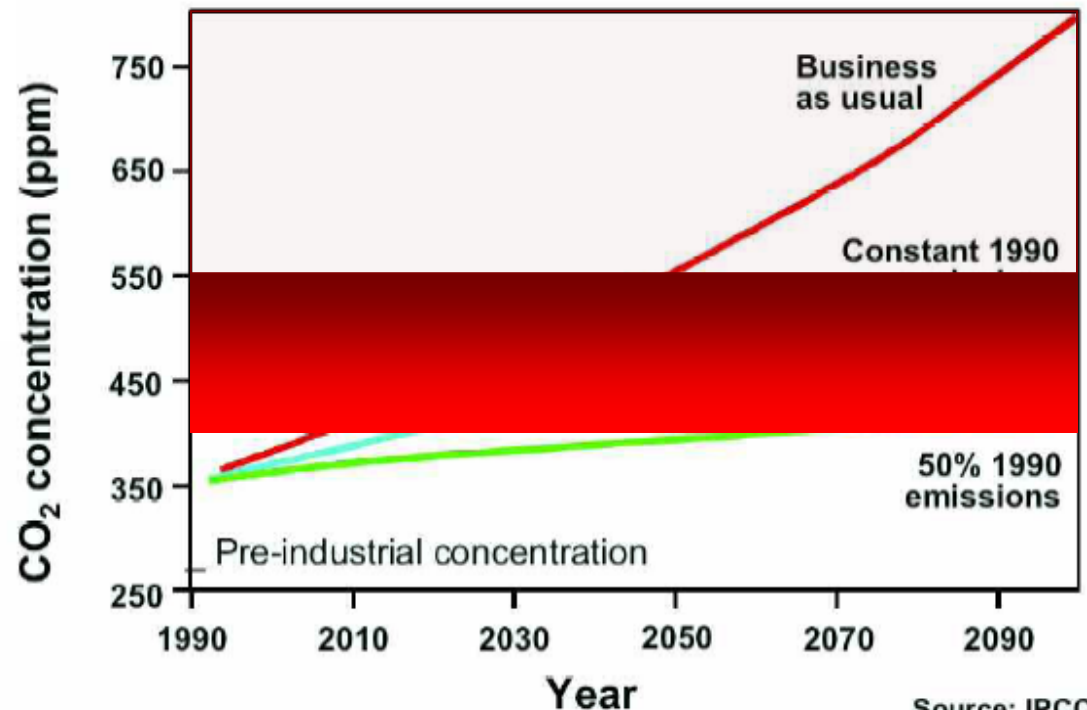


x

2°C is increasingly being accepted as “safe” level of global warming

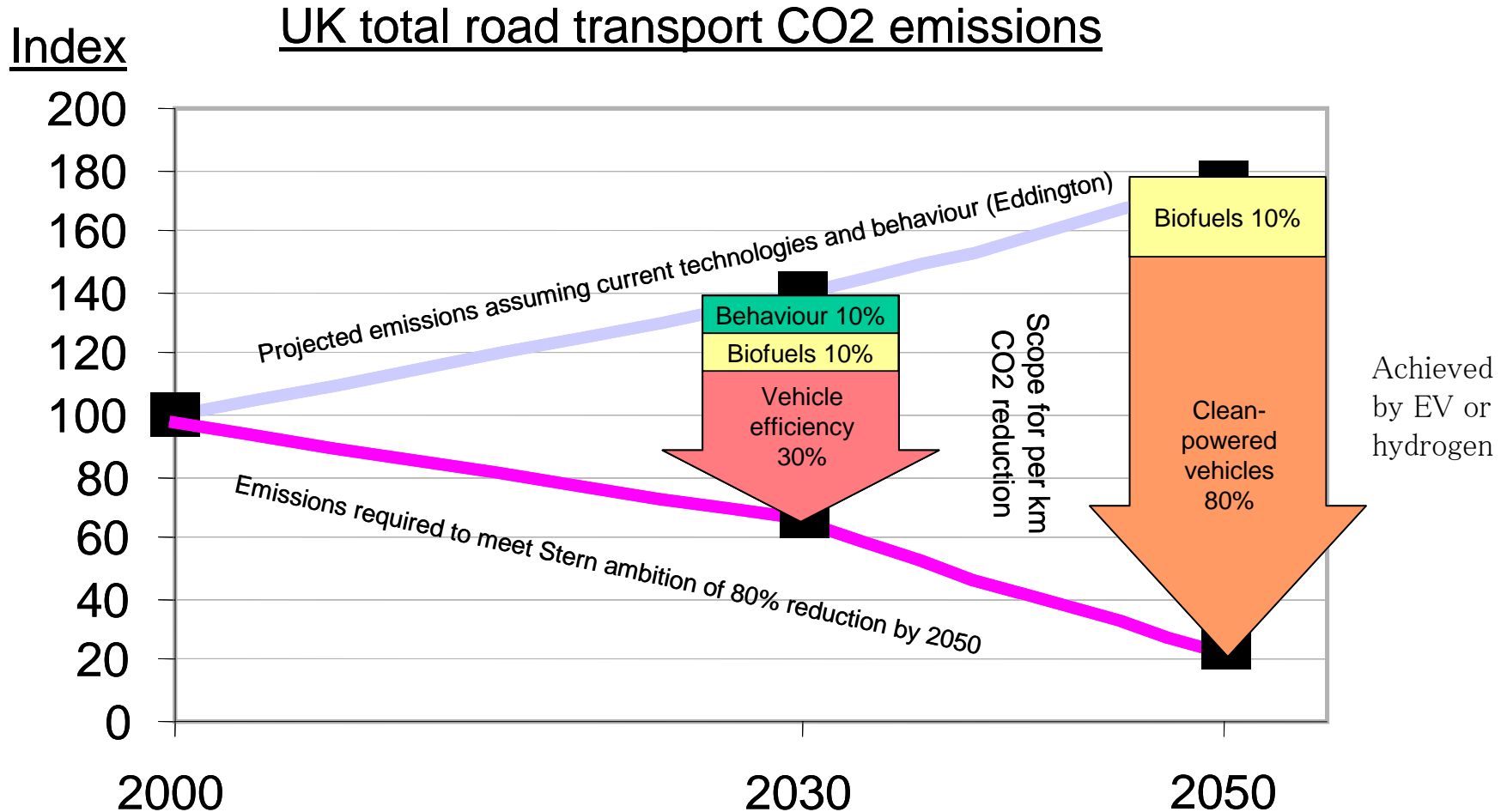


The risk of “dangerous climate change” increases as CO₂ concentrations stabilise above 400ppm. At 550ppm there is STILL considerable risk of significant harm



Schneider, 2005,
Avoiding dangerous climate change

King Review on how to decarbonise UK road transport identified critical role for automotive technologies



UK Vehicle Parc CO2 Emission Profile

Stats from SMMT and Highways Agency in 2007	MtC p.a,	UK Vehicle Parc	Av CO ² per veh/km @ 100kph	AvCO ² vehicle (t/v)	CO ² emission range	Ownership Fragmentation
Cars	20.2	30.8m	147gm	0.64	HIGH	HIGH
LGV	4.6	3.4m	243gm	1.35	MED	MED
HGV/SPV	8.1	0.7m	1248gm	13.1	MED	LOW
Buses	0.9	0.1m	663gm	9.8	LOW	V.LOW

The UK market for Electric and Low Carbon Vehicles - stimulated by UK Incentive Structures



- Battery powered/Plug in Hybrids electric vehicles attracting mainstream motor industry investment
- Electric vehicle incentives include:
 - Zero road tax and grants for recharging stations
 - 100% discount on Congestion Charge
 - Free or discounted parking in locations in Central London
- Wide range of electric vehicles (vans and city cars) now on sale in the UK market:
 - Modec, Smith Electric Vehicles, NICE, G Wiz, Th!nk, Vectrix,
- Cenex running demonstration projects
 - Smart EV
 - Modec



Hydrogen and Fuel Cell Projects



- The UK is developing world leading fuel cell technologies but the automotive market is > 10 years away
- In this pre-commercial period, fuel cell technologies are being used by the UK niche vehicle sector to produce innovative next generation vehicles to operate in field trials in London and in the regions
- Cenex supporting proposals for developing a hydrogen ring of hydrogen stations to build learning from vehicle demonstration
- Cenex and Intelligent Energy using EnV bike as an exemplar project to secure process for type approving hydrogen vehicles



Summary



- **No silver bullets but sector specific, technology neutral approaches should be favoured**
- **Road Pricing and Congestion Charging Extension**
- **Fuel Price Impact on private motorist behaviour and on VM technology introduction**
- **Critical role for technology development and fleet demonstration**
- **UK “Electrification of Road Transport” Project**
- **Critical role of public procurement initiatives**
 - **Low Carbon Vehicle Public Procurement Programme**
 - **£20 m + £30m 2008/11 + £50m potentially 2011/14**

Thank you for your attention

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