

Transport Policy Measures for Climate Change As Drivers for Health in Cities

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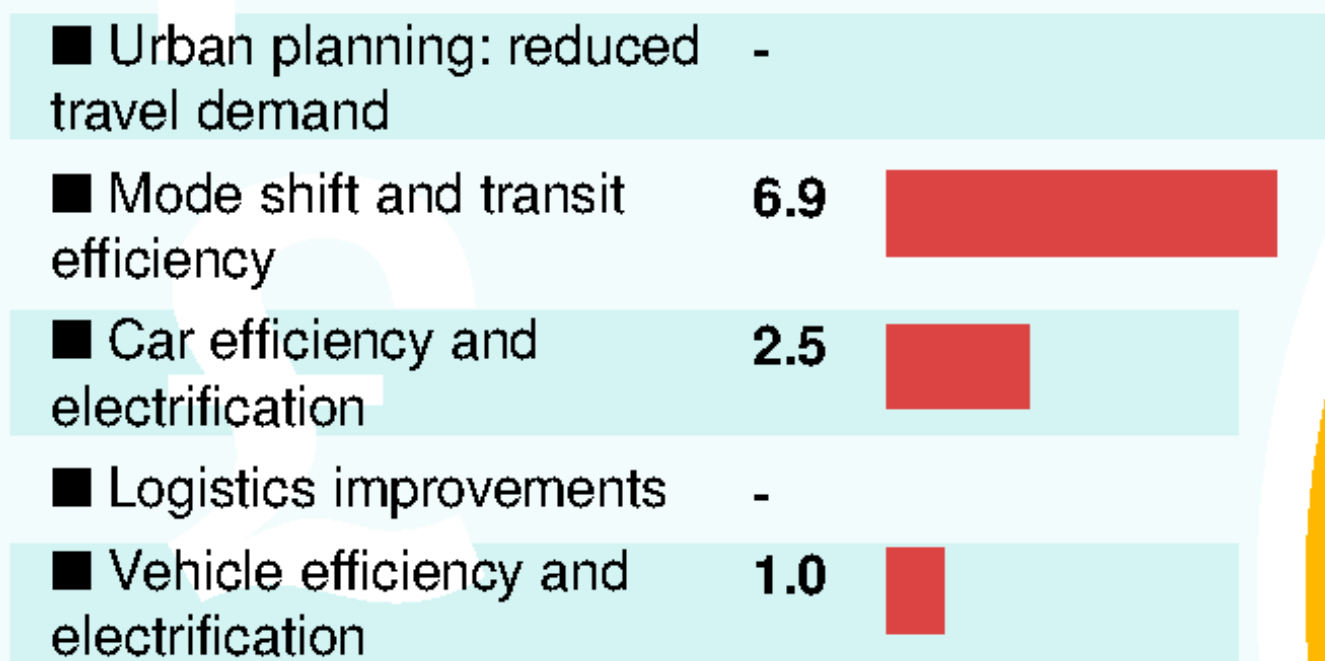
Investment

\$10.4trn

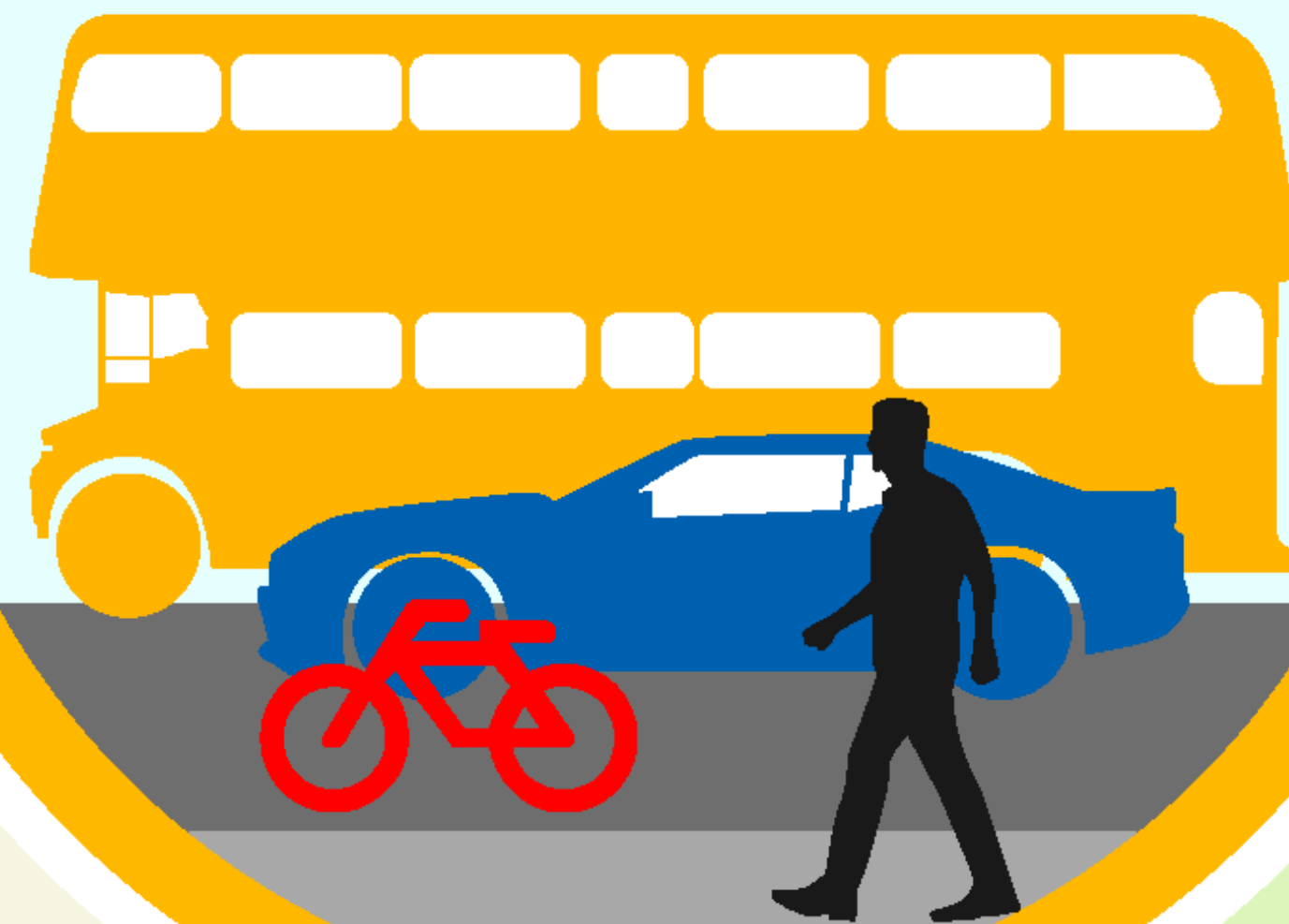


over the period between 2015 and 2050 in 'Urban planning', 'Mode shift and transit efficiency', 'Car efficiency and electrification', 'Logistics improvements' and 'Vehicle efficiency and electrification'...

Total Investment¹ (2015-2050; USD tlns)

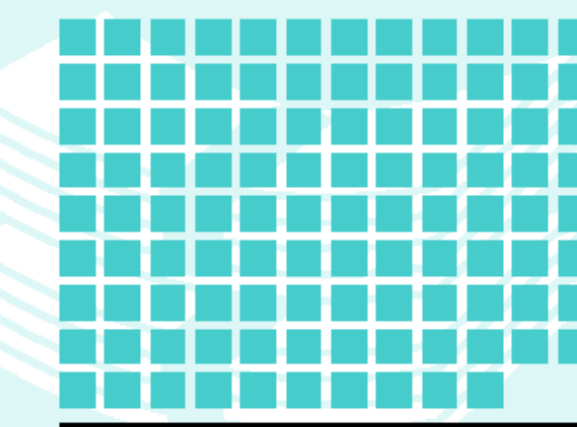


TRANSPORT SECTOR



Economic Benefits

Would yield annual energy savings in 2030 of



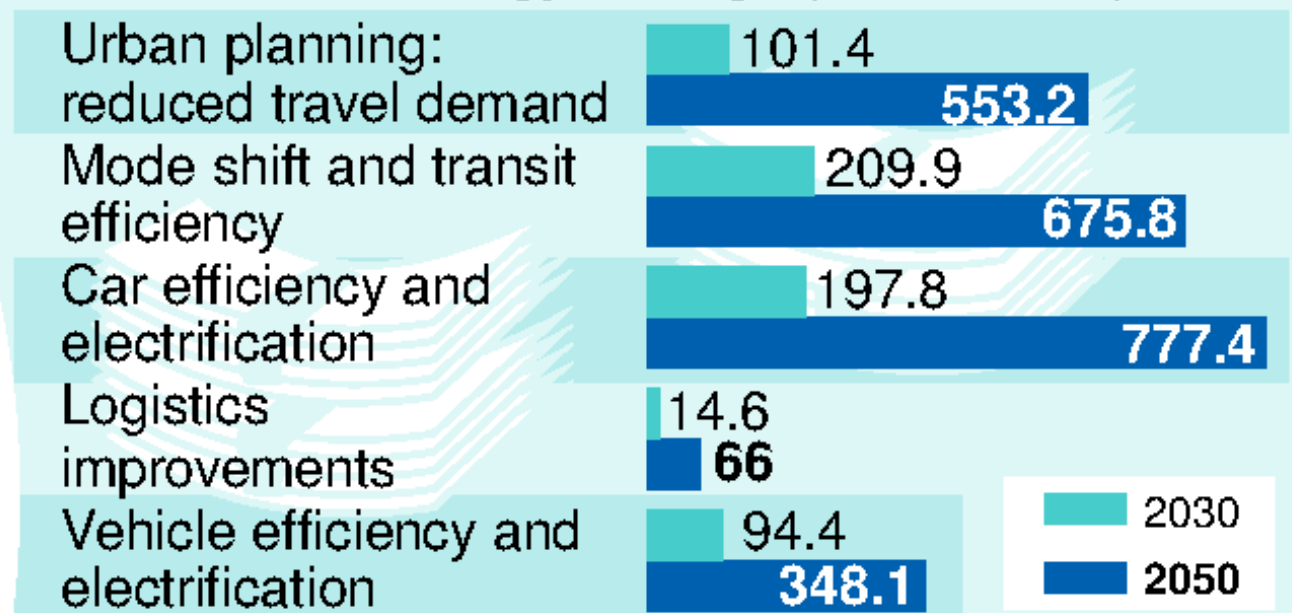
\$618bn USD...

and net present value over the period 2015-2050 of

\$10.6trn USD...

while continuing to generate energy savings after 2050²

Energy savings (billions USD)



Carbon saving



These investments would generate substantial, and long-term, reductions in carbon emissions: in 2050 these investments would collectively save

2.8

GtCO₂... of 2011 global GHG emissions (WRI 2011).

an amount which is just less than to the entire GHG emissions of India in 2011 **7%**

Annual abatement 2050 (GtCO₂-e)



Co-Benefits

These investments could also yield wider benefits to public health, the local economy, particularly those of lower-socioeconomic status:

- Congestion pricing, exists in more than a dozen global cities, has been found to reduce traffic, travel times, and congestion 10-30% (Section 2.2.1)
- Policies which promote liveable density have been shown to increase urban productivity 3% for every doubling of urban density (Section 2.2.2)
- Public transport networks can reduce transport related injuries by up

to 80% (Section 2.1.5), creating direct and indirect employment (Section 2.2.3), improve public health (Sections 2.2.1, 2.2.2, and 2.1.4).

■ Health benefits from dedicated cycle lanes have been vary from 0.30-1.20€ per km (Section 2.1.4).

■ Pedestrianisation produces health benefits several times larger than cost of investments (Section 2.1.4)

■ Realising these benefits, however, requires careful consideration of a range of contingencies.

Key considerations include:

■ What populations are most, and least, likely to benefit from investments?

■ What technologies are necessary for successful implementation?

■ What governance mechanisms are needed for implementation. What financing mechanisms

■ How will economic factors, including energy prices and interest rates, affect these investments?

² Based on the central scenario: energy prices rising 2.5% per year, 3% discount rate and base case learning curves (Sudmant et al 2016)