

20mph limits Improve Air Quality

Where People Live

A 20's Plenty for Us Factsheet – Published October 2010

20's Plenty



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Many people assume that at lower speeds extra fuel is used and more pollution created. In fact the reverse is true. That's why "Total 20", without traffic calming, is supported by so many environmental organisations. The facts :-

When 30km/h (18.6 mph) zones were introduced in Germany, car drivers changed gear 12% less often, braked 14% less often and required 12% less fuel².

Choice of gear and driving style, not the number on the speed limit sign, most affect fuel use³. DfT guidance states, "Generally, driving more slowly at a steady pace saves fuel and carbon dioxide emissions, unless an unnecessarily low gear is used".

Most Continental European towns enjoy a 18.6mph limit (30km) which supports road safety and sustainable transport. Stop/go driving is typical in urban areas. Distances drivers could legally and safely go at 30mph is limited by traffic lights, crossings, congestion, junctions and pedestrian and cyclist numbers. 20mph limits cut unnecessary acceleration and braking and improve traffic flow.

A report from Belgium⁴ concluded "It is unlikely that imposing strict speed limits in urban areas has a significant influence on emissions of NOx or CO₂."

The likelihood of modal shift to non polluting modes due to better safety brings reduced fumes. Each trip transferred from a motorised vehicle has a fuel consumption of 0mpg and less noise. Plus reduced congestion and standing traffic, which pumps out more emissions than moving vehicles.

High vehicle speeds are the greatest deterrent to walking and cycling instead of driving. In Hilden, Germany, the percentage of in-town trips made by bicycle increased to 23% after the introduction of an 18.6 mph residential limit. Britain's default 30 mph limit is 60% higher than most Northern European towns where far more citizens enjoy the opportunity to walk and cycle in greater safety. UK pedestrians form a greater percentage of road fatalities (22.5%) than any other EU country⁵.

The AA's report, Fuel For Thought (Jan 2008) "accepts that targeted 20 mph speed limits in residential areas are popular and improve safety. Along shorter roads with junctions and roundabouts, limiting acceleration to up to 20 mph reduces fuel consumption"

Research from the ETA⁶ found that cyclists and walkers face pollution levels two thirds lower than inside a car. Drivers and their passengers face three times more fumes because they sit in the pollution tunnel in the centre of the road, breathing poisons from vehicles in front.

Road Traffic produces one fifth of carbon dioxide, over half of nitrogen dioxide and over 75% of carbon monoxide emissions in the UK. (DETR Winter smog/summer smog 1998 July)

20's Plenty for Us welcomes comment and feedback, so please contact us if you have or need any further information

¹ Total 20 is the setting of 20mph as the default speed limit across a whole Traffic Authority or community without calming.

² An illustrated guide to traffic calming. by Dr Carmen Hass-Klau (1990)

³ Newman & Kenworthy (1992). http://www.nap.edu/openbook.php?record_id=9676&page=369#p20003296ttt00035

⁴ Luc Int Panis Carolien Beckx and Steven Broekx, Association for European Transport and contributors 2006 Impact of 30 Km/H zone introduction on vehicle exhaust emissions in urban areas -

⁵ European Road Safety Observatory – Traffic Safety Basic Facts 2009 – Pedestrians

⁶ Environmental Transport Association. Road User Exposure To Air Pollution Nov 1997

20's plenty for Us campaigns for 20mph speed limits without physical calming as the default in towns and residential areas

Anna Semlyen, Campaign Manager

anna.s@20splentyforus.org.uk

07572 120439

Rod King, Campaign Director

rod.k@20splentyforus.org.uk

07973 639781