

Lower urban speed limits

Better for citizens, better for the environment, better for all

MANY EUROPEANS WANT A 30KM/H LIMIT

Setting the speed limit within towns and cities at a maximum of 30km/h (20mph) is safer for people and better for the environment. This is why many citizens' groups across Europe are campaigning to set urban speed limits at 30km/h; some as part of a wider campaign to improve the quality of life in urban areas.

Here are a few good arguments for a 30 km/h urban speed limit, also known as **Tempo 30**, as well as some reasons why the common arguments against it are wrong.

WHY A 30KM/H LIMIT?

Fewer accidents, injuries and deaths

There are fewer accidents where the speed limit is lower, and those accidents which do happen are less severe.

The numbers speak for themselves: Belgian figures show that 45% of all pedestrians hit by a car travelling at 50km/h die, while only 5% die from being hit by a car moving at 30km/h. And slower speeds are needed everywhere. Even the Czech Republic suffered 557 urban road deaths in 1998 alone.

And when the speed limit is reduced from 50km/h (30mph) to 30km/h (20mph), the overall number of accidents goes down by about 20%.

The number of **serious accidents** decreases even more. For example, the number of people seriously

injured in road accidents dropped by 72% in the German city of Münster when a 30km/h limit was introduced. And a reduc-

Why? The slower a car moves, the less space the driver needs to react to problems, and to brake. At 50km/h a car needs nearly 28m to stop, but it needs less than half that at 30km/h: only 13,3m.

tion in speed of only 10% results in 30% fewer deaths from traffic accidents. These facts concern us all. Thousands of pedestrians die each year in accidents. The USA took just over 15 years to lose 58,000 citizens in the Vietnam war; Europe takes just over 15 months to lose the same number on the roads. For example, France suffered 1044 pedestrian deaths in 1998.



Greater safety for children, the aged and the disabled

Children benefit most from a 30 km/h urban speed limit. For example, 46 000 children are injured each year in road accidents in Germany, the European leader in child road accidents. And 300 children under 15 die. The number of under-15s killed is even higher in France, where 387 children died in 1998. A 30 km/h urban speed limit could prevent many of these deaths.

Take a typical example: a child runs out into the road 15m in front of a moving car. At 50km/h the car will hit the child at a speed of 45km/h, probably resulting in serious injury and perhaps even in death. At 30km/h, the driver will manage to stop before hitting the child.

After children, the aged and the disabled have the most to gain from a 30 km/h urban speed limit. More

than 7 850 people over the age of 65 died across the EU in road accidents in 1998. Crossing the road will no longer be an ordeal with a 30km/h limit. All of us hope to become pensioners in some years' time.

And many non-disabled people suffer some sort of movement-inhibiting injury at some point in their lives: they also stand to benefit from a lower speed.

Quieter

Traffic noise is both annoying and extremely damaging to people's health, a fact well-documented by the World Health Organisation. A 30 km/h urban speed limit quickly makes streets quieter, reducing noise by 3 decibels. That's approximately a halving of the source of traffic noise: ten cars travelling at 30km/h make as much noise as only five cars at 50km/h. Conversations near an open window or on the streets and undisturbed sleep will become possible once more. Problems like irritability and concentration problems in children will reduce, as will a number of mental health problems. This in turn means reducing public health problems and costs.

Avoiding noise will also bring financial benefits for communities, which will have responsibility for noise reduction along their roads when future EU legislation on noise calling for abatement measures is implemented. A Directive is about to be adopted, which will require noise mapping and abatement plans; and it is to be expected that noise legislation will be strengthened in the coming years.



Better for cyclists

Cyclists can move more safely, the slower and more regularly the traffic flows. They can move within the traffic rather than having to stick to crowded cycle paths, which are often unsafe. And, as with pedestrians, cyclists have a distinctly lower risk of injury and death with lower car speeds if they actually get hit. All this means cyclists will get around more quickly.



More space for pedestrians and children

The faster a car moves, the greater the stopping distance between cars has to be; and the wider the road needs to be (for safety reasons, a faster car needs wider lanes). On the other hand, a 30 km/h urban speed limit allows the roads to be narrower, leaving more room on the streets for wider pavements for pedestrians and playing children. This will also put an end to pavements that are so blocked by cars that parents with prams cannot pass.

Good for the environment and health

Cars emit fewer damaging pollutants at a maximum speed of 30km/h than at a 50km/h maximum in cities, because traffic flows more smoothly and there are fewer queues and stop-starts. Reductions in NO_x, an ozone precursor, are especially strong. Ozone develops when sunshine and car exhaust fumes come into contact, and is a powerful irritant. This means children probably avoid playing outdoors on the warmest summer days. Children, pensioners and those who are ill should not go outdoors when ozone limits are exceeded [See T&E's 1997 publication, "Traffic, air pollution and health", for more details on the effects of emissions from traffic]. This leads to the ridiculous situation of children in the garage so that cars can play outside.

As a recent article in British medical journal *The Lancet* shows, air pollution kills even more people each year than traffic accidents and is a major factor in millions of chronic illnesses. Lower speeds will result in fewer indirect deaths each year as a result of lower emissions.

SOME MYTHS DISPELLED

Myth:
a 30 km/h urban speed limit creates more traffic jams and so greater congestion costs

Fact: traffic moves most smoothly in urban centres at a speed of 20-30km/h. The following-distance between cars may be shorter at lower speeds, but it still allows traffic from side streets to filter in and encourages the continuous movement of traffic. Examination of traffic patterns in Switzerland has shown that a speed of 30km/h allows the road system to smoothly accommodate the maximum number of cars (more cars than at higher speeds). In other words, a slower speed limit means faster overall travelling time for all. In a world where time is money, this is a significant advantage. And of course a lower speed means fewer environmental problems thanks to more regular driving behaviour.



Myth:
A 30 km/h urban speed limit hinders public transport

Fact: Public transport users and companies generally profit from a slower, safer, traffic culture. Experience to date with a 30km/h limit has shown that boarding times exert a far greater influence on the timetable than the speed-limit. And if delays are nevertheless experienced, public transport can be given right of way at crossings to speed it up even more.

Myth:
A 30 km/h urban speed limit creates more emissions

Fact: The opposite is true. Studies have shown that reducing the speed limit from 50 km/h to 30km/h results in a clear reduction in polluting emissions and energy-use. Simply reducing speed results in large reductions in CO2 (about 15%), NOx (about 40%) and carbon monoxide (about 45%). The only exception is hydrocarbons, which rise very slightly (about 4%). Changes to driving style (from aggressive to defensive driving) also makes a big difference. Ideally, drivers would both slow down and change their driving habits, but legislation can only supply the former.



Myth:
Implementing a 30 km/h urban speed limit will require many structural measures

Fact: Numerous examples of existing practice show that a 30 km/h urban speed limit is possible without significant structural measures. The city of Lucerne has managed to implement a 30km/h policy without taking any such measures. And making 30km/h the standard speed within city limits will result in much better safety for all. All it needs is sign-posting on those few streets where there are exceptions to a 30km/h rule; such as on part of a road where one can drive at 50 km/h.

Myth:
Implementing a 30 km/h urban speed limit as a standard would cost millions

Fact: Making a general ruling is far cheaper than implementing it one piece at a time; so the cost of introducing a general 30 km/h urban speed limit is significantly lower than its present piecemeal introduction. Of course, implementing a 30km/h limit comes at a cost; for example in changing traffic signalling. But this one-off cost has to be seen in light of the wider costs caused by higher speeds: reducing speed is an investment in public health. The initial costs borne by society will be paid back within a few years by high annual savings in lower health and absentee costs. For example, Portugal had 49 319 road accidents in 1998 in which people were injured, Italy had 204 615 and Sweden had 15 514 such accidents. In Switzerland, experts have put these annual savings at 180 to 200 million Swiss Francs (about ±120-130 million).



Myth:
Nobody would respect a 30km/h limit in urban areas: speed wouldn't decrease

Fact: The experience of cities like Lucerne shows that a 30km/h limit results in generally lower speeds. When universally applied, the greater part of the results come from normative pressures and the average traffic speed falls. Researchers have pointed out that it will simply become the normal thing to drive more slowly in built up areas: all that is needed is strong police enforcement at the start (which is self-financing, as the experience of the German town Heidelberg shows). The highest speeds are in any case reduced, thereby significantly improving traffic safety.

Myth:
Children will pay less attention to the roads with a 30 km/h urban speed limit, so there will be more accidents

Fact: A 30km/h limit is not a replacement for traffic education: children have to learn to deal with dangerous traffic. But this doesn't mean that a child's first error of judgement should be fatal. As is well-known, the younger a child is the more confused s/he becomes from traffic rules and volume, and speed. At 30km/h children are more able to safely learn to deal with traffic, as mistakes don't have the same deadly consequences as at higher speeds. A 30 km/h urban speed limit also means that children can be left alone earlier and more often, meaning they are more able to develop the independence that they need in life. This also frees a care-giver to do other things.





Myth:
Reducing speed limits to 30km/h would restrict personal freedom

Fact: Lowering already-existing urban speed limits to 30 km/h means an increase in everyone's personal freedom: it is safer for pedestrians, increases freedom for children to play and improves conditions for those wanting to have a conversation while near roads. It also relieves pressure on those looking after children. Car-drivers' personal freedom also increases, as they have faster average speeds, moving more smoothly and with more predictable journey times.

Myth:
Accidents are caused by poor road conditions and the first priority should be to fix infrastructure

Fact: Speed limits do not replace the need for well-maintained infrastructure. But in cities lower speed limits are a far cheaper and more effective way to reduce road deaths and injuries than spending large amounts on improving road conditions or building new roads.



Myth:
Zebra crossings will be removed in 30km/h zones. That's more dangerous than a 50 km/h system

Fact: Roads should be primarily for citizens, not cars, so crossing the road should normally be possible almost everywhere. 30 km/h urban speed limits facilitates this. Some places will always need zebra crossings, such as near retirement homes and schools; but these should be introduced in close co-operation with local residents and should remain the exception. A speed of 50 km/h carries unacceptably high risks for pedestrians and is therefore too fast for a zebra crossing. This is supported by a study done in the 1990s by the German Federal Highway Research Institute, which concluded that the speed limit at zebra crossings should be 30km/h.

Myth:
Things are fine the way they are: there's no need to change anything

Fact: The innumerable accidents on urban roads each year in Europe, and the thousands of resulting injuries and deaths, tell a different story. In Spain, for example, 1 146 people were killed and 69 655 people were injured in urban road accidents in 1998. A 30 km/h urban speed limit is among the cheapest and most efficient methods possible to reduce this deadly toll. We've accustomed ourselves to the high level of violence on our streets; yet countless pedestrians and cyclists feel themselves under threat each time they travel. We cannot accept this deadly state of affairs.



Some sources for further information

- Dirección general de tráfico, Ministerio del Interior, Anuario Estadístico de Accidentes, 1998.
- Institut belge pour la sécurité routière, Politique criminelle en matière de vitesse – Manuel pour l'élaboration d'un plan de surveillance et de poursuite, 1999.
- IRTAD, the OECD's International Road Traffic and Accident Database. See www.bast.de/irtad/index.htm
- Künzli, N. et al. Public-health impact of outdoor and traffic-related air pollution: a European assessment. In *Lancet*, Vol. 356, pp 795–801, September 2000.
- World Health Organisation, Guidelines for Community Noise, 2000. See <http://www.who.int/peh/noise/noiseindex.html>
- T&E. Traffic & Health, 1997. See <http://www.t-e.eu>
- T&E, et al. Noise in Europe: A briefing from the NGO community, 2000. See <http://www.t-e.eu>
- VCD, Verkehrsclub Deutschland, Fact-sheet: Leben schützen mit Tempo 30! 2000. See <http://www.vcd.org> (in German)
- VCS, Verkehrsclub der Schweiz, Fact-sheet: Argumente zu 30km/h innerorts: Häufig angeführte Gründe gegen Tempo 30 innerorts und ihre Widerlegung. 2000. See <http://www.vcs-ate.ch> (in German, French and Italian)

About T&E

The European Federation for Transport and Environment (T&E) is Europe's primary non-governmental organisation campaigning on a Europe-wide level for an environmentally responsible approach to transport. The Federation was founded in 1989 as a European umbrella for organisations working in this field. At present T&E has 38 member organisations covering 20 countries. The members are mostly national organisations, including public transport users' groups, environmental organisations and the European environmental transport associations ('Verkehrsclubs'). These organisations in all have several million individual members. Several transnational organisations are associated members.

T&E closely monitors developments in European transport policy and submits responses on all major papers and proposals from the European Commission. T&E frequently publishes reports on important issues in the field of transport and the environment, and also carries out research projects. More information can be found on the T&E web-site.

T&E: Bd de Waterloo 34, B-1000, Brussels · Tel: +32-2-502 99090 · Fax: +32-2-502 9908.
 E-mail: info@t-e.eu · Internet: <http://www.t-e.eu>

ABOUT THIS FACT-SHEET

This fact-sheet is based on the VCD and VCS leaflets referenced above as a source of information. It was completed with input from T&E's membership across the whole of Europe.

© T&E 2001