

IMPERIAL COLLEGE, MAY 25TH 1993

WHAT IS HAPPENING IN CONTINENTAL EUROPE?

Supplementary Note by

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The prospect of comprehensive traffic calming

The benefits of traffic calming are now well established. When driving speeds are kept below 20 mph, we can expect a halving of serious accidents involving personal injury. Even following the narrow cost-benefit criteria for schemes, this saving in accidents is sufficient to justify traffic calming on the great majority of built-up roads. The logical outcome is therefore to propose comprehensive traffic calming on all roads except those without frontage activity, in order to get the maximum accident reduction possible. We now have the technology to make serious injury and fatal accidents in urban areas a very rare occurrence, without losing the benefits of motorised travel.

A model of comprehensively calmed towns is given in the Devon Traffic Calming Guidelines. This consists of all residential access and distributor roads having 20 mph or sub-20 mph speed limits (about 85-90% of urban road kilometres). The Minister for Roads, Kenneth Carlisle, has stated publicly that in his view about 80% of urban roads are suitable for conversion to the 20 mph speed limit. On main roads, two approaches are advocated. Where main roads pass through shopping and other areas acting as a focus for the local community, traffic calming would ensure that the through traffic function did not dominate other activities in the street. That is, priority would be shared between traffic and other activities. Such areas might constitute 10% of the main road network. The majority of the main road network would retain the 30 mph limit but would be redesigned where necessary to protect vulnerable traffic participants (eg. pedestrians and cyclists).

Questions that arise from this scenario are:

- Is it feasible?
- Can we afford the necessary measures?
- How long will it take to complete?
- Are there alternative approaches?

Cost

Comprehensive calming for all built-up roads on the lines suggested could cost in the region of £5 Billion, or around £100 per head. This could be funded without extra

money under the transport heading, if spending priorities were shifted away from capacity provision to improvement of urban street environments. For example, diverting 25% of the Trunk Road budget to traffic calming would be sufficient. In cost-benefit terms, the accident reductions alone would ensure the investment was repaid before the programme was completed, and would yield a substantial "return" thereafter. There would be other benefits to add to this as well.

Nevertheless, the achievement of self-enforcing speed reduction by physical measures at frequent intervals on all urban roads is costly, and is becoming difficult to sustain even in those countries that have been the strongest proponents. In Germany the pressures on public expenditure created by re-unification have meant a fairly drastic re-appraisal of traffic calming policy. Comprehensive physical measures are now being replaced by more emphasis on publicity and social awareness campaigns, together with the 30 kph (20 mph) speed limit over wide areas. Physical measures are used selectively, for example at sensitive locations like school entrances.

Timescale

With adequate diversion of funds and planning and engineering expertise, comprehensive calming could be achieved in 10-15 years. This will, however, require immediate and sustained political commitment. Traffic calming will also need to become part of wider strategies for traffic and planning rather than remain (as at present) a piecemeal response to accident black-spots. Few local authorities have developed a traffic calming strategy linked to budgets. Central Region in Scotland is a notable example of where a policy shift away from road provision has been matched by a shift of money away from roadbuilding to traffic calming.

Alternative approaches

Areas of debate in other European countries include the appropriate balance between traffic calming and other transport expenditure; how best to integrate safety with other traffic calming objectives; and the relative merits of public education, legal provisions, and physical street reconstruction.

A further possibility, which has so far received little attention outside Northrhine-Westfalia, is the possibility of switchable vehicle speed-governors. Prototype vehicles with a switchable maximum speed and acceleration were successful in trials (including the official car of Christof Zoepel, former NorthRhine-Westfalia Minister for Transport). The driver switched over to 30 kph operation when entering a 30 kph zone, and back to 50 kph when leaving. Outside towns the car was switched to "no restriction" mode. Although the prototypes were manually operated, it would be possible to connect the switch to external lights on the vehicle for enforcement purposes. A further development would be automatic speed switching using beacons at the speed zone boundaries to trigger the mechanism within the vehicle. This would be a further area of research towards the "intelligent vehicle and road", and could be pursued with road pricing and other developing technology.