

# Calm down, it's only a bump

The Transcalm has been launched by UK company Dunlop Transcalm, which claims it is set to "revolutionise current traffic calming and road safety methods."

The device does not affect law-abiding drivers but only speeding motorists.

Invented by Graham Heeks and designed in conjunction with Cambridge University, Transcalm has been supported, developed and engineered by the UK consultancy group Pell Frischmann.

The invention was designed to effectively overcome the problems associated with traditional solid vertical deflection traffic calming and other road safety measures.

The Transcalm has been piloted successfully for over four years in the City of London, where highways and transportation director, Joe Weiss, describes it as the "Rolls-Royce of road humps." Emergency services are said to have hailed it as a major improvement.

Containing a patented valve that allows a rubber housing to deflate when crossed by a

vehicle travelling within the safe speed range, the device does not deflate if a vehicle is exceeding the safe speed. This results in a jolt, but one which does not damage the vehicle.

The makers claim the device is quiet and does not cause vibration problems to nearby buildings. They say it discourages the 'slow down to a stop, then accelerate' impact



**The Transcalm in operation: it does not affect 'safe speed' vehicles**

of traditional road humps. It can be used where other traffic calming solutions cannot, such as on bus routes.

Graham Heeks says: "The device contains an over-ride valve, which means that buses and other large vehicles such

as ambulances and fire engines can cross at any speed, without the usual jolt from a traditional road hump. Heavy vehicles and other large vehicles will be slowed down by the majority of vehicles, cars and vans, which will be obliged to comply with the safe speed, and so create a platooning effect.

"We expect the device will be enormously popular on busy bus routes where authorities need to combine the need for public transport with road safety."

Statistics from the UK Department for Transport show that for each 1mph (1.6kph) reduction in speed there is a 5% drop in accidents causing injury.

Since its launch, Transcalm has been in discussions with a number of local authorities and private developers to establish reference sites in a range of applications around the UK, and some of these schemes will soon be in operation.

**Dunlop Transcalm**  
[www.transcalm.com](http://www.transcalm.com)

## Cars to talk to each other

A new European project will develop and test technology that allows cars to communicate with each other and with roadside infrastructure. Called Cooperative Vehicle-Infrastructure Systems (CVIS), the project is intended to increase road safety and efficiency and to reduce the environmental impact of road transport. CVIS will allow drivers to influence the traffic control system directly, and receive directions to provide the best route. Information shown on road signs will be available wirelessly and be shown on a display in the vehicle. This will also provide warnings of approaching emergency vehicles, while the system will allow hazardous shipments to be tracked and directed along the safest routes. The technology requires standardised communications between different makes of vehicles as well as roadside infrastructure however. CVIS will utilise the ISO CALM standard to provide a standardised networking terminal that connects using mobile cellular and wireless local area networks, short-range microwave (DSRC) or infra-red. The same CVIS box can be installed in vehicles as well as roadside equipment. As part of the project the CVIS system will be tested at test sites in France, Germany, Italy, Netherlands/Belgium, Sweden and the UK.

## Efficient profiling

A novel product called the Cross-Bones will make road building more efficient, according to its producer. This unit replaces conventional wooden timber profiling and is quick to use, as well as being cost-effective. Because the products are lightweight in design, a single person can carry several at once. The Cross-Bones can be assembled, positioned and erected in a third of the time of conventional profiling, providing cost savings in terms of labour. The profiling can be re-used, reducing timber waste on construction sites. The concept was developed by Thirty Design and recently won an innovation award from Brighton University in the UK.

**Thirty Design**  
[www.thirtydesign.com](http://www.thirtydesign.com)

## Quiet asphalt from Israel

Israel-based Pazkar claims to have developed high grade PMP bitumen for use in quiet asphalt. The company says the new bitumen can be used to pave access roads to major cities and also major junctions, which could result in significant operational savings.

A spokesperson for the company points out that the current condition of many of these roads is so poor that during rainstorms cars are forced to reduce speed by 30%, which results in traffic jams. The company's new product is porous, which means that falling rain will drain through it

into ditches built alongside the road. As a result, standing water is eliminated and drivers are not forced to reduce speed. Pazkar further points out that, by reducing heavy spray, the number of accidents on a rain affected road is also notably reduced. In addition, quiet asphalt has the same effect of reducing noise pollution in residential areas as would a 4m acoustic wall. However, quiet asphalt will also increase the overall cost of paving the road by around 25%.

**Pazkar**  
[www.paz.co.il](http://www.paz.co.il)

## Weighing together: KISTLER and Traffic Data systems

KISTLER and Traffic Data Systems are offering complementary products that allow slow and high-speed weigh-in-motion (WIM) capabilities. The Type 9195E Lineas quartz sensors from KISTLER offer accuracy, long-term stability and insensitivity to temperature changes. These units can be installed quickly and easily with only a small intrusion in the road surface, while they require no maintenance and can even be reground if required. These products can be used to determine wheel and axle loads as well as vehicle gross

weights in moving traffic, whether vehicles are moving slowly or at fast motorway speeds.

Traffic Data Systems says its new product line for DIN rail mounting can be used for complete weigh-in-motion systems. This integrated technology takes up less space in roadside cabinets and reduces installation costs. The basic equipment comprises a detector and classification module for 16 inductive loops, and an additional 32-bit computer system with a 24-channel A/D converter in the same physical design, enabling

6 lanes to be monitored with 24/48 Lineas sensors using KISTLER charge amplifiers. Full-video systems are available for online recording of traffic with superimposed data such as gross weight, type of vehicle, time and date, together with high-speed data transmission to the monitoring stations. Number plate recognition is also available as an option.

**KISTLER**  
[www.kistler.com](http://www.kistler.com)

**Traffic Data Systems**  
[www.traffic-data-systems.com](http://www.traffic-data-systems.com)