

### 10 things you possibly didn't know about Intelligent Transport Systems and Services

**What is an Intelligent Transport System?** – *it's a mixture of detectors, wireless links, computers, maps, information stores, working together to deliver a range of services such as passenger transport ticketing, traffic and travel information, guidance to car park spaces, route guidance, traditional traffic signal control. ITS isn't just new technology, it's also about making traditional techniques work better, faster or with less cost. ITS allows existing technology to be connected to improve and join up transport. Here's some examples.*

1. **We used to think of traffic control and public transport as two separate activities.** We now use ITS to send information to bus stops telling travellers what service is on the way and when it is likely to arrive, PLUS we can send messages to the traffic control centre so that the bus (or ambulance, fire engine) can have a priority passage through the city network.
2. **Managing natural disasters** . when Worcester flooded last year detectors reported what roads were in a bad state or completely closed and the control centre was able to send messages to roadside displays and radio stations telling drivers what routes were blocked and the best ways to divert round the trouble.
3. **ITS can count vehicles into and out of car parks**, look at the flows on the approach roads and send smart messages to drivers giving them information not on the number of vacancies while they are still 5Km away, but on the likely number when they arrive . this reduces wasted travel and cuts driver frustration.
4. **Old style pedestrian-controlled road crossings allow a fixed time for people to transfer. New crossing designs with movement detectors are much smarter** . they recognise that a group of children, say, has skipped across very quickly and change the lights to let the traffic move. But they also detect a person crossing over very slowly and hold the lights at red until they have safely arrived at the other side. It's different service delivery for different types of customer.
5. Driving 40 tonne trucks across Europe can be very exhausting. **ITS safety systems can monitor the driver's eye movements and blink rates** and sound a warning signal if there is a suspicion of drowsiness.
6. 20 years ago a satellite-based position fixing device was so large and power-hungry it needed a boat or a truck to carry it. **SatNavs now can be a part of a cellphone or an in-car accessory** and supply reliable position fixes at affordable prices. And despite what the newspapers say, there isn't someone up there with binoculars spying on you: the satellites only supply clock times; all the calculations are done down here on Earth.
7. **Fleet managers regularly use satnavs to plot where their lorries** are so that they can radio advice on how to avoid congested areas or re-route them to deliver stock to shops in response to changes in customers' demands or to visit markets to buy at advantageous prices.
8. **The UK's journey planner "Transport Direct" witnessed a near-trebling of its average daily business** when the bad weather hit earlier this year as travellers used its powerful information and search facilities to get the latest news of problems and find alternative ways to make trips.
9. **Every London bus – that's over 8000 units – has been fitted with Automatic Vehicle Location (AVL), radio and an on-bus passenger information display and announcement system** to deliver next stop displays and announcements on the bus as well as a feed to roadside displays. These services are of particular benefit to visually- or hearing-impaired passengers, infrequent travellers, passengers facing language barriers or people travelling in an unfamiliar area.
10. **ITS can provide additional road capacity without the time and cost of infrastructure construction.** The Automated Traffic Management scheme on the M42 monitors road conditions and as flows build up it switches on the overhead signals to allow traffic to travel on the hard shoulder and adjusts the maximum prevailing speed limit. Trials of these techniques showed significant gains for motorists, the environment and the economy. Average journey times fell by more than a quarter on the northbound M42 carriageway, overall fuel consumption reduced by 4% and vehicle emissions fell by up to 10%. Managing such a complex service as ATM is beyond the ability of human operators . it needs an Intelligent Transport System to take charge of the varied components and deliver the many benefits.