

Technology and transport

I was pleased to see the government announce major steps forward in introducing digital signalling systems to the English railways. It is a classic example of how the digital revolution can solve major problems we currently have on our congested and inadequate railway network.

I have long argued we have enough track in most places, but need to use it more intensively. Network Rail tell me they can only run 20 trains an hour on a piece of track, despite the trains all going in the same direction on it and despite usually good visibility along lines that are mainly straight. As a result the rail track we see around is empty most of the time. The old fashioned signals we have often fail, leading to extra delays as safety rules understandably make it difficult to override signals even where the driver can see the track is clear.

Digital technology will allow each train to have full visibility of the track ahead and know in detail its own position and the speed it can travel forwards. The early adoption will allow safe passage of 24 trains an hour, an increase of 20% in track capacity, with the possibility of going higher than this as the technology and its use matures. It could mean both more trains on track and safer trains if applied well.

We need the similar adoption of better technology for traffic lights. Junctions with a clear main road and side roads or a lesser road intersecting should revert to main road green at all times when the feeder roads have no traffic, with sensors informing the system. For more complex junctions with two or more busy roads, sensors could do a better job equalising the misery of waiting times by offering green light phases proportionate to the flows.

I have recently written about how technology could also eliminate the stack of aircraft waiting to land at a busy airport for much of the time. Predictably there were the usual pessimists here telling me it cannot work. I take heart from the fact that the last meeting I held on it with the government was positive, with systems now in development.