

green futures

First light

Is China poised to clean up?

The car in front is electric
Mass transit gets sexy
and
Jonathon Porritt swims upstream

Rites of passage

Interactive bus stops, driverless cars and brief encounters... Could tomorrow's transport be even sexier than a soft-top convertible? **Anna Simpson** takes a ride into the future.

The number 57 glides to a halt by the skytrain interchange and a modern Celia Johnson steps in. Reaching into her purse for a BlackBerry she flips it open and studies it for a minute, then turning round with a smile taps a gentleman on the shoulder. He gets up to offer his seat but she holds out her hand: "Mr Rose, so glad to meet you. According to the transit network you work with an old friend of mine – time for a chat?"

This vision of mass transit as a future LinkedIn-on-wheels is a favourite of Professor Glenn Lyons, from the Centre for Transport and Society. It's about making it fit with people's lifestyles, he argues, when asked how low-carbon transport can realise its potential.

Innovators are already coming up with designs to bring such visions to the streets. In May, the Massachusetts Institute of Technology unveiled a solar-powered digital bus stop. Dubbed The EyeStop [right], it allows passengers to check their emails, browse community message boards and track the location of all the buses in the area, turning the tedium of waiting into time well spent. The slick glass frame of the EyeStop is also designed to glow brighter as the bus nears, so signalling how close it is.

But however slick the stop, futurologist Ian Pearson dismisses buses as a clumsy way to get around. "You see buses with nobody on them, still using a lot of fuel to get where they have to be." He envisages a fleet of publicly owned computer-driven electric cars – or pods: "You'd just pick up a phone and say 'I want a car please', and the pod turns up outside your house, picks you up and drops you at your destination, then heads off to answer someone else's call." The pod would have a sensory system, Pearson explains, capable of reacting in milliseconds to other vehicles and pedestrians by braking or accelerating. It would react so quickly, in fact, that colliding with another pod would be impossible, and this means that there'd be no reason why one pod shouldn't drive a fraction of an inch behind another, improving the capacity of the roads by a factor of three or four.

Pearson isn't the only one convinced that computer-driven pods are the way forward for urban transport. "It's the biggest and most radical thing that could happen," says Brian Souter, CEO of transport giant Stagecoach, who believes it could be a big cost saving, too. "People think the cost of public transport is going up because of fuel – but fuel is still only 10% of the service cost... 60% of it is labour. Without drivers you could run more vehicles at much higher frequencies – and save money."



Bus stop with a view:
a source of information
as well as shelter

“
Speed will
always be
associated with
pleasure
”

It sounds good, but will it ever move from science fiction into reality? "I remember as a kid futurologists saying 'We'll all be driving around in computer-driven cars'," says a disenchanted Richard Brown, CEO of Eurostar, "and now I'm 56 and it hasn't happened."

Yet prototypes on show at the Future Mobility Solutions Conference in Helsinki suggest that driverless cars are indeed just around the corner. Developed by the EU CyberCar project, these intelligent machines have high-tech lasers under the hood to avoid crashes and follow paths mapped out by GPS. They even have an

images: MIT senseable city lab



automated voice to keep passengers informed on the journey – a definite plus for Knight Rider fans. And when David Hasselhoff decides he needs to take the wheel, all he has to do is enter a password to switch to manual, or navigate from his mobile phone.

But why stick to the road, asks Pearson. The car he envisions wouldn't wait idly in the car park at the city interchange, but drive straight onto the electric rail tracks, racing off at 360km/h. Its batteries would get a quick recharge en route, ready to turn down the A-roads when it hits Edinburgh.

To Richard Brown, this is madness. However quickly the computer responds to a danger ahead, he explains, the stopping distance for a high-speed train is at least three miles, and putting more 'pods' on the tracks would be giving people a license to kill themselves. But if cars are never going to be more like trains, the humble bus might, he says:

"Buses will look very different in 20 years' time. You'll see longer, articulated buses which look like trams, if not small trains, on trunk routes – and there'll be smaller ones going around estates."

He even shares Pearson's dream of tapping into your BlackBerry to dial a bus – "or taxi, it'll be the same thing". But what's really going to change isn't the bus, he says – it's fashion.

"Travel behaviour is like other consumer behaviour in that there's a lot of habit – a lot of ritual – in it. If people have a car parked outside their house, instinctively

“

Buses aren't a very fashionable way to travel, but they'll look very different in 20 years' time

”

they're going to get in that car. And buses aren't a very fashionable way to travel. I would see that all changing very fundamentally in 20 years' time."

The London-based Campaign for Better Transport is looking at how the places we live and work can influence these habits. "The Americans call it transit-oriented development – or TOD," says Executive Director Stephen Joseph. Instead of making transport adapt to rigid urban layouts, the idea is to shape the city around effective transit. Each region is designed to have the right blend of residential, work, retail, civic and green spaces so that you never have far to go, and no destination is further away than a stroll along a pedestrianised avenue to a rapid transit pick-up-point.

One of the first cities to try out TOD was Curitiba, the capital of Paraná in southern Brazil – which has become something of a case study in innovative transport. In 1968, a master plan designed to minimise traffic pedestrianised a major street, and installed a one-way system that gives priority to exclusive bus lanes. The city's 'speedy bus' system is designed so that they only ever stop to let passengers on and off at specially designed stations. Each bus carries up to 270 people and no matter how far you go, the price of a single journey stays the same. Following in Curitiba's footsteps is Hong Kong's LOHAS (Lifestyle of Health and Sustainability) Park. There, walkways are designed so that pedestrians never have to cross a road, and all pathways lead towards the public transport interchange. "It isn't about mass transit on its own," explains Joseph. "It's about the land use patterns that make mass transit worth having."

Personally, I'd say a transit system is 'worth having' when using it stops being a bore ("I'll have to take the f***ing tube") and becomes a pleasure. In transport terms, speed will always be associated with pleasure, and short journeys give the impression of having travelled quickly. And so those of us who can't move to newly built eco-towns might find ourselves relocating so that our social, domestic and professional lives can play out in close proximity. Indeed, Brown is convinced this is already happening:

"People are coming back to live in the inner city. Little more than 20 years ago politicians waxed lyrical about solving inner city problems – now they talk about sink estates or edge of town."

Interestingly, the most attractive town centres in Britain – those where a fine cathedral drew interest and industry in the past – are also those where transport behaviour is really on the move. "They have the greatest interest in preserving their environment," explains Souter, "and they've also got the most successful park and ride systems, so big numbers of people are shifting from cars to buses." For Souter, the natural next step for towns like these is to make them car-free, and implement a high frequency, computer-driven pod service.

Ambitious thinking is certainly happening at a high level, and technology is at the ready. Whether it will be changing habits that drive transport into the future, or slick and stylish buses that spark new trends, we don't know. But it's just possible that 2050 could see us stepping from our transit-oriented apartments onto the platform of a solar-powered skytrain, and tapping directly into the online community network: the perfect set-up for a brief encounter. ©

Anna Simpson is Green Futures Publishing Coordinator.



In the pink: the healthy glow of an approaching bus