New light rail lines and well-designed busways as a generator of new investments

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Introduction

There have been plenty of studies on light rail investment but so far very little on busways. A variety of methods have been used to assess the economic effects.

Mostly these evaluations took place after the light rail line (or busway) was built, often too quickly after its opening.
However we have very little experience to judge whether new investments will be good, bad or unimportant for the economy of the area. The methods the Department of Transport applies are too complicated and the outcome is coloured by political preconditions.
There are a number of light rail lines in Britain, which have been not as successful in terms of passenger gains and in generating new economic investment as they could have been. The major mistakes were:

- Time period too long between planning and implementation
- Lack of connection between land use planning and transport planning (especially too much planning of large shopping centres without taking account of major public transport connections)
- Location of the alignment was in part determined by existing disused train lines.
- High costs.
Movement from light rail lines to a more bus-orientated approach

Although in some cases the passenger numbers were disappointing after a light rail line opened, the economic effects are often not immediate and have longer term effects.

This has resulted in a movement away from light rail to more bus-orientated solutions. The main 2 reasons for it are:

They are cheaper and quicker to install.
Movement from light rail lines to a more bus-orientated approach

However the economic effects are limited, if buses do not have similar characteristics as light rail.

They need to have:

• An agreed land use and transport planning policy
• Their own alignment which cannot be penetrated by private cars
• High design standards of bus stops and vehicles
• Clean non-polluting vehicles with low noise output.
• A clear strategy in the city centre over where buses are allowed to go
  • High frequencies
  • Excellent marketing.
Movement from light rail lines to a more bus-orientated approach

If all these conditions are fulfilled we talk about busways instead of bus lanes. There is no reason why busways cannot have a similar economic effects to light rail. So far we have relatively few good examples in Europe and even less good evidence of economic success.

The main problem of busways and buses remains what happens with them in the city centre.

Hence we have in the following examples concentrated mostly on light rail.
Busways (TEOR, Rouen)
Busways (Phileas, Eindhoven)
Busways (Trans Vale de Marne, Paris)
Examples of successful new investments

In Europe the most successful country in combining new public transport investment with powerful land use planning is France.

Generally speaking in countries where land use planning is weak the effects of the public transport investment tend not to be very powerful.
Examples of successful new investments

Here are some examples:
Montpellier

228,000 population and 325,000 inhabitants in the transport area

Montpellier built a new light rail line of 15km of length which opened in July 2000. In terms of passenger growth it is regarded as a great success (Map).
The light rail line in Montpellier is to a large extent a typical French light rail alignment. As in many other French cities the line connects the most important centres of activities - university, schools, hospital, medical centre, city centre with housing areas, some of them at high density.

In addition the route alignment runs through a ZAC area (Zone d' Aménagement Concerté) and through some land which was free of existing development.
Montpellier

This alignment is a lesson on the possible choices available when planning a light rail line. It could be run either through areas of already existing high population and employment densities with little space for further expansion, like Line A and B in Strasbourg, or run through areas of potential for further new economic development. Ideal is a combination of both.

The economic gains seen mostly in the city centre when a light rail line is built were strengthened by large new constructions like the Congress Centre.
Montpellier

Most of the free land along the light rail line was owned by the city of Montpellier and some has been sold in order to construct new housing and offices by their own public sector (SERM).

What form this development may take depends on the type of area. Along some light rail stations we noticed the construction of mostly new private housing estates.
Montpellier
Montpellier
Montpellier
Rouen

107,000 population in the city and 397,000 in the transport area, PTU

The light rail line is 14km long and opened in 1996. There are three busway called TEOR all sharing the same route through the city centre (Map).
Rouen

There has been a change of use at the end stop of the light rail line (Technopôle) from more industrial and warehouse use to offices. A similar change was also seen in Freiburg in the industrial area of Haid.
The experience which has become common knowledge in Rouen that rent and house prices increase along the tram line had an impact on the TEOR lines. Several investors bought houses along the busway lines at the planning stage.
The largest new investment in the centre of Rouen was along the TEOR line at the bus stops Louis Pasteur. The old housing area was demolished and rebuilt with luxury flats, a large art gallery, university building and offices were built instead. It was completed in 2002. This was part of creating a new image for the busways.
Rouen
Rouen
Rouen
Strasbourg

250,000 population and
435,000 in the transport area

There are 2 main lines (A and B) in Strasbourg: Line A opened in 1994 and Line B in 1998 (Map).
The increase or the decline of pedestrian flows can be seen as an indicator for economic prosperity in the city centre. After the tram Line A and B opened there was a significant increase in the pedestrian flows. For instance, between 1992 (before Line A opened) and 1995 (one year after Line A had opened), the number of pedestrians increased by 66%.
Strasbourg

After Line A opened rent and property prices went up. By 1998 the office rents in Strasbourg were 10-15% higher compared to other cities of similar size. This tendency has continued up to today.

Since then rents and property prices have increased even further and are now so high that it is impossible for small shops to pay such rents and only large chain stores are able to pay such prices.
We see here an unintended impact as a result of pedestrianisation and tram access – if the effect is too successful, resulting changes in the property market may drive out some of the more traditional shops in a city centre, and make way for chain stores.
A different example of this is seen in the nature of the goods sold. For instance, one of the streets in the city centre used to be the main street where bus passengers would interchange with the tram. This changed in 2000 when Line B was running through this street and buses disappeared. With the new mode the average retailing shop changed over to very high class shops, such as Hermes, Bally, Gucci, Cartier.
Strasbourg
Apart from studying in detail the economic effect in 15 different urban areas, we also looked at changes which occur to car ownership per households along public transport corridors.

We found that when there is good public transport access, households give up their cars or their second car and this money is free for other purchases (Freiburg, Paris).
What can we learn from abroad and what is the best way forward?

Here are a few simple rules when planning to new public transport investments:

It is most important to combine land use and transport planning, that is to say an active public sector is necessary.

Many French tram constructions are combined with creating or the extensions of pedestrianised areas.

The proposed alignment has to go where the development is taking place or will take place and not where it is cheap to build a light rail line.
What can we learn from abroad and what is the best way forward?

Any funding of public transport has to take the potential for development into account: a line has to be successful in two ways, in terms of passenger gains and in terms of attracting new property development.

A good and united marketing campaign by politicians and the public transport operator before during and after the construction of a new light rail or busway is crucial for the image of the new public transport mode.
What can we learn from abroad and what is the best way forward?

At the start of the operation of a new public transport mode the vehicles have to work without any hitches otherwise a negative image is created which will take a long time to overcome.

According to our research which was carried out in 6 major European Metropolitan areas rail-based public transport modes are more powerful than buses in promoting economic development.

There are exceptions, such as the very well designed busways in Rouen.