

How to maximise benefits for potential customers from Victoria's Fast Rail Link Projects?

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Summary

Fast Rail will be a success for Victoria if customer needs are placed uppermost in decision makers' planning strategies.

To be successful the new system must offer its customers:

- **at least regular hourly semi express services to/from Melbourne on all lines**
- **journey times faster than by road**
- **comfortable and reliable journeys**
- **stops at major towns and metropolitan transport hubs along the rail corridors**
- **integrated ticketing for metropolitan and country services**
- **better public transport connections within Melbourne**
- **better public transport connections in country centres**

1. Background

As part of *Linking Victoria* the Victorian Government is committed to introducing *Fast Rail* services between Melbourne and the key regional centres of Ballarat, Bendigo, Traralgon and Geelong.

More than 41% of Victoria's rural and regional population living along these corridors will benefit from this project.

The major target is to reduce train travel times between the major cities in Victoria's rural areas and Melbourne.

The upgrading of regional rail services will involve the reconstruction of nearly 500km of track, the introduction of the latest technology in train signalling systems and the upgrading of almost 200 level crossings. As part of the project, some rail tracks will need to be realigned to provide for more direct, high-speed routes.

New, already ordered *Velocity* rolling stock – 29, two-carriage diesel multiple unit trains, seating 173 passengers each, maximum speed up to 160 km/h or up to 30 km/h faster than the fastest existing trains – should allow more comfortable train journeys on all corridors. Furthermore, station precincts in Geelong, Ballarat, Bendigo and Morwell along the fast rail corridors will be upgraded over the next few years.

Today's railway timetables provide different service types, express as well as local trains, at irregular intervals, serving the whole or intermediate parts of the corridors. During peak times, the government currently plans at least two extra services in the peak direction and one in the other direction, in the morning and in the afternoon on the lines to Ballarat, Bendigo and to Traralgon. On the Geelong line, the Government will monitor patronage to determine the appropriate level of additional services.

Until now, the Fast Rail project has been viewed purely as an investment project. No *service supply concept*, which shows the structure of possible future timetables including the level of service to intermediate towns has been put forward.

Table 1: Fast Rail Journey Time Targets

Source: *Regional Fast Rail feasibility report*

Line	Existing Fastest express Times (min)+	Maximum time times (min) %	Travel time saving	Travel time saving
Ballarat	82	64	18	22
Bendigo	99	84	15	15
Geelong	51	45*	6	12
Traralgon	116	95“	21	18

+ includes existing stopping patterns

* includes stops at North Geelong and North Melbourne

„ includes a stop at Dandenong

2. Project Assessment

The Fast Rail project is the centrepiece of Government's *Linking Victoria Strategy*, a \$3.5 billion blueprint to revitalise the State's rail, road and port links. The unprecedented funding for regional public transport is planned to securely link regional centres to Melbourne, and thereby boost regional economic and social development as well as tourism.

The main target of the Regional Fast Rail project is to reduce journey times from regional centres to Melbourne. The provenance of this project seems to be the example of the TGV (Very High Speed Train) network in France, where radial rail links provide quick connections (as fast as possible') between major secondary cities with 0.5 M to 1.5 M inhabitants in the south, the southwest, the north and the east with Paris. Due to a considerable travel time reduction it was possible to regain up to 50% market share for rail from air traffic.

What are the similarities and what are the differences between the situation in France and in Victoria? First of all, journey time is one of the most important factors on decisionmaking about modal choice: the quicker the train ride, the more passengers will use rail as their preferred transport mode.

- **In France**, the major competitor for rail for long distance travel is air.
- Main trip purposes for TGV rides are business and tourism; commuting has low significance.
- Concerning potential patronage, the countryside between Paris and the cities served by TGV is of little significance.
- Due to a significant improvement of train travel speed (up to 300 km/h) and due to increasing congestion in airport accessibility, travel times by rail have often become quicker than those by air. Train and air travel have a near monopoly on transport in this long distance market.
- As a consequence, the upgrade of rail links was a major economic success and allowed increased connectivity for regional France with the capital of Paris.

- **In Victoria**, the passenger potential of regional cities is much lower than in France.
- Main trip purposes for potential Fast Rail riders are commuting, business and tourism.
- The share of corridor residents living in intermediate towns in comparison to main regional cities is significant (in the Ballarat corridor 24,000 versus 81,100 inhabitants or 30%, in the Bendigo corridor 42,800 versus 76,600 inhabitants or 56%, in the Traralgon corridor 49,190 versus 53,210 inhabitants or 48%) Residents living along the corridors will be an important source of new passengers.

- Furthermore, the major competitor for rail over all distances is the private car and not air. Overall rail has an 18% market

share of all travel to/from Melbourne in the Fast Rail corridors. Car driving and car passenger travel are the major modes representing 75% of all travel. Therefore total travel times using road or rail have to be compared and examined. In consequence, the Fast Rail project will only become successful if it provides an attractive, quality service to potential customers including existing car drivers/passengers from regional cities, from towns along the corridors and from Melbourne.

Table 2 (below) shows higher percentage time savings for future rail travellers compared with Table 1. Most new Fast Train users would experience larger time savings than suggested in Table 1 where the current fastest train of the day is compared with a non-stop Fast Train express. Comparing the current *average* rail journey time with a Fast Train semi-express service operating each hour on a regular interval timetable offers a more effective comparison in line with the concepts in this paper.

Even with the Fast Trains calling at extra important intermediate stations Table 2 shows an average time saving across all four corridors of 24 minutes (50% higher than in Table 1). In all four corridors journey times from the regional destination to the Melbourne CBD by Fast Train are shorter than by road. This suggests Fast Trains should offer powerful market competition to the car.

Table 2 : Fast Rail Journey Times Targets –

Current Average Train Times and Fast Train Semi Express Times

Source: Environment Victoria public transport campaign team.

Line	Existing Average Time (min)+	Maximum Semi Express Time-3 extra stops (min) ^φ	Travel Time Saving (min)	Travel Time Saving %
Ballarat	91	70	21	23
Bendigo	120	90	30	25
Geelong	62	50	12	19
Traralgon	132	100	32	24
+ includes existing stopping patterns				
^φ Fast Train express time plus 3 extra intermediate stops (estimate)				

The Fast Train project forms the basis of a valuable project to attract more people to public transport, however, until now it has only been planned as an infrastructure project. The project needs further refinement to become as successful as possible and spread benefits to the entire corridor population and state economy.

3. Customer's Requirements

Before specifying the most effective use of the upgraded rail infrastructure we have to evaluate the potential market requirements.

In general, public transport customers are looking for quick, frequent and reliable travel with a maximum of convenience, comfort and safety at affordable prices.

Due to the fact that 75% of all corridor trips to/from Melbourne are rides by private car, we have to analyse the reasons given for not using trains:

- 24% of non train users consider travelling by car as cheaper than riding by train. Any price for a product has to be compared with the value received. If quality improves, the willingness to pay for a good service will increase.
- 13% of non train users are not happy with the existing rail service on offer; for 7% of them, the train is too slow, for 3% rail is not safe enough and for a further 3% there are not enough trains going to Melbourne.
- 63% or **nearly two thirds** of reasons given not to use the trains apply to the overall public transport service quality and availability: 45% of non train users need a car when in Melbourne, and for another 18% their destinations are not readily accessible by public transport at present.

As a consequence, the Fast Train project cannot be treated as an isolated project apart from Melbourne's and Victoria's overall public transport network but as an important part of it.

There are different reasons for travelling. The main trip purposes are commuting to work and education opportunities, social/recreation, business and shopping. In particular Melbourne is a major trip attractor for commuting, business and shopping. Except in the La Trobe corridor, more than 10% of the working population in the corridors commutes to Melbourne; this figure is expected to increase to over 15% by 2021. This proportion varies depending how close people live to Melbourne: For example, the proportion of the working population of Bacchus Marsh and Woodend/Gisborne that commutes to Melbourne is over 45%, from Traralgon, Bendigo and Ballarat the proportion is 3 to 4% only. Another significant trip purpose is visiting friends and relatives and is expected to grow further. There are also inward flows of travellers to regional centres, too. However, they are smaller than those to/from Melbourne.

There is major potential in all the corridors for commuting to work and to education as well as for social/recreation travel, mainly to/from Melbourne but also to/from regional centres. Discussions held with community and regional leaders have already highlighted that service frequency and reliability are just as important as speed. Each corridor should have an integrated mix of regular interval Fast Trains supplemented by regular all station services.

4. Basics of a *Service Supply Concept*

The Fast Train project needs to provide potential customers with the most appropriate service type for each trip purpose.

Existing customer surveys highlight the need for regular, easily remembered and frequent train services, integrated into the existing overall public transport network, including common fares and adequate passenger information.

Public transport systems have to be kept simple and understandable to be able to compete successfully with private transport.

The travel time from origin to destination (from door to door) including intermediate interchanges is a key element in decision making by transport users.

The principles of a successful *service supply concept* are:

- Hourly fast train services between the main regional centres and Melbourne in both directions, stopping at the fringe of Melbourne's suburban network
- Hourly interregional services between the regional centres and Melbourne in both directions with additional services during peak hours, stopping at all significant stations in the country area and at key stops in the metropolitan area
- Reorganisation of the bus network with no parallel routes to railway lines, bus hubs at Fast Rail termini and at regular train stopping points for interregional services
- Integrated fares between urban buses in regional centres, corridor feeder buses, Fast Trains and the metropolitan public transport network.
- Integrated passenger information including urban buses in regional centres, feeder buses to/from railway stations in the corridors, Fast Trains and the metropolitan public transport network.
