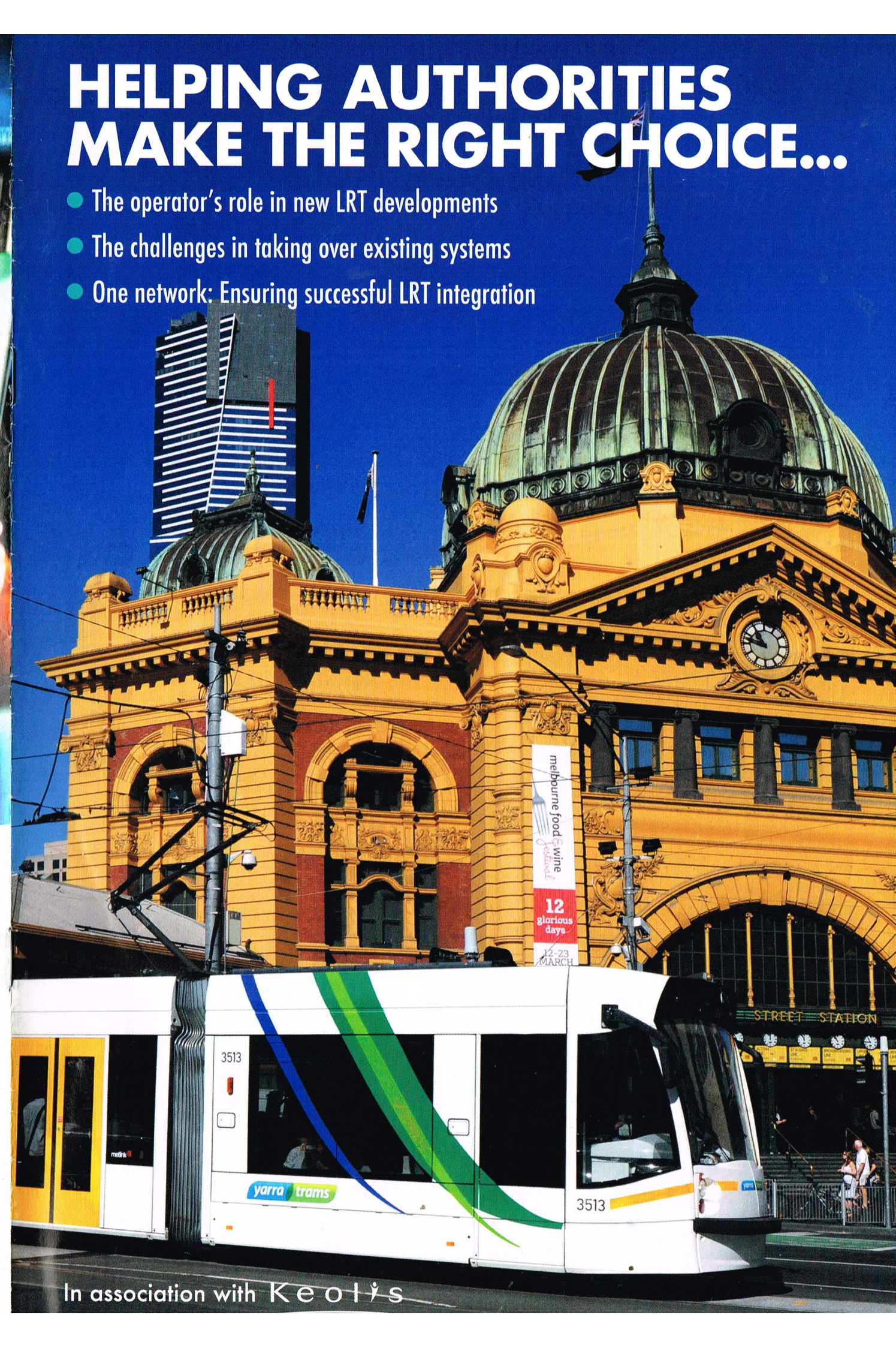




HELPING AUTHORITIES MAKE THE RIGHT CHOICE...

- The operator's role in new LRT developments
- The challenges in taking over existing systems
- One network: Ensuring successful LRT integration



For **US**, every single passenger is unique



With public transport operations in 13 countries across the globe, Keolis is also the world leader in LRT systems. Through its 45,000 employees the group aims to provide passengers and public transport authorities efficient, innovative and smooth-running transport every single day.

In the UK, Keolis is in partnership with the Go-Ahead Group through Govia, operating Southern, Southeastern and London Midland rail franchises; and with FirstGroup operating Transpennine Express. It is also part of Tramlink Nottingham alongside Trent Barton, Alstom and Vinci.

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Keolis

Moving further together

In association with Keolis

Helping new-build projects succeed

Creating a new light rail system from the ground up is challenging for any city, and involves a complex process that requires sympathetic yet strong project management while keeping all the relevant stakeholders well informed and involved at all stages. No two tramways are the same; conditions differ from network to network and each city will have different aspirations and objectives for its system.

Keolis, one of Europe's leading public transport operators, understands these realities through its operation of diverse networks and offers expertise right from a project's earliest stages drawn from a bank of relevant experience.

Being involved from the beginning ensures that the 'operator's view' is always taken into account, and this can help minimise construction costs over the longer term. For example, the new light rail system in Le Mans – a city of 200 000 people – opened in 2007 and was delivered on time and at around EUR20m per kilometre. As such it is reputed to be France's cheapest modern LRT system.

As Patrick Jeantet, Keolis' International Vice President, explains: "Our approach is based on understanding the client's real needs and on our ability to be flexible. This allows the project to be defined to offer the best value for the client."

"We have now experienced – working with several authorities in different-sized cities – building and launching metros, standard or innovative trams (such as Caen's value-for-money tram on tyres), and with different partners and suppliers. When a light rail system is being built, we can offer specific skills to manage transport operations in a disrupted context because of the ongoing works."

"We consider the relationship we have throughout the contract with our authorities to be key and listening is vital to ensure that public transport needs are fully understood. We then negotiate a clear contract in which our responsibilities, meaning the areas we have an effect on, are clearly described. So are our commitments."

To ensure new tramways are launched under the best possible conditions, Keolis deploys experts onto each local project with the help of its dedicated subsidiary KCP, and oversees their work via a specific Light Rail and Metro division based in Lyons.

Keolis' approach to new-build systems focuses on five core areas.

Upstream work

Working closely with the public transport authority from early in the planning process, every operational angle is taken into account to minimise disruption and negate any associated costs. Support covers all areas affecting the future tramway, including staff training and even defining depot characteristics and organising the stops.

As Régis Hennion, Head of Metro and Light Rail at Keolis explains: "Asking the opinion of the operator before starting the project would appear to be an obvious thing to do, but sometimes local authorities fail to do this."



Below left: Keolis launched Caen's innovative tram on tyres in 2002.

Below middle: Norway's second largest city Bergen will open its new tram system in June 2010.

Below right: ProMetro took over Porto's LRT system on 1 April 2010.

It is like an architect building a house without asking the opinion of the people who are going to live in it."

Single network

The concept of a single, harmonised transport network is fundamental to its success. Keolis' work in this respect includes in-depth studies into redesigning bus routes to avoid simply channelling passengers indiscriminately towards new tramways. Buses and tramways should never be separate or compete too strongly for passengers: there is only one network (see page 6).

Knowledge sharing

The diverse nature of Keolis' networks means the company has a wide range and depth of knowledge across its businesses worldwide; regular dialogue ensures best practice measures are shared and this benefits new systems. An example of this is the new tram system in the Norwegian city of Bergen, due to be launched in June 2010, which benefited from an international support team and Keolis' in-house training centre specialising in light rail.

Support

Through the expertise of its network operation and management, Keolis and KCP are ideally placed to support local authorities, down to the tiniest detail which if not addressed in the beginning could delay a project for months and allow costs to skyrocket.

Régis Hennion adds: "In Angers, we provided an expert on the tender committee for rolling stock, who gave his opinion on the choice of manufacturer, as well as on the long-term management of the rolling stock, including issues regarding tooling, spare parts and guarantee."

Business preparation

Adding a tramway into a town or city transforms local transportation, which means meticulous preparation. Effective communication of the tramway's advantages during the construction phase is as important as minimising the disruption this phase causes.

As far as is practical, changes to the overall transport system during construction should be invisible to the travelling public, to avoid 'turning off' passengers to public transport in its entirety.

Keolis has a proven track record of ensuring a seamless transition and communicating widely and efficiently to the entire tram corridor, allowing the new, improved network to emerge stronger.



Le Mans, home to France's most recently launched – and cheapest – tram system.

"Our approach is based on understanding the client's real needs and on our ability to be flexible. This allows the project to be defined to offer the best value for money."

KEY FACTS - KEOLIS TRAM OPERATIONS

- Keolis operates 13 tram lines in five French towns: Lille, Lyons, Le Mans, Caen and Bordeaux. The networks total 150km of lines, 252 stations and 200 trains. They transport more than 100 million passengers per year.
- In France, Keolis will operate the Angers tramway from 2011 (12km, 25 stations and an anticipated 35 000 passengers per day), the Brest tramway from 2012 (14.3km and 27 stations), and the Dijon (20km; 35 stations, 55 000 passengers per day) and Tours (12.4km, 29 stations, 44 000 passengers per day) tramways from 2013.
- Globally the firm took over operations of the world's largest tramway in Melbourne, Australia, in partnership with Australian firm Downer EDI Rail, on 30 November 2009. Melbourne's network covers nearly 250km over 28 routes, with 500 trams and 1813 tram stops.
- In 2010 Keolis joint ventures will open a new LRT system in Bergen, Norway, and take over operations of the Porto LRT, in Portugal. The company has also submitted tenders to run tramways in French city Besançon, where it currently runs the bus networks, and is part of the Golding consortium for the new tram project in Goldcoast, Queensland, which will start up in 2016.
- In the UK, Keolis is part of the Tralink Nottingham consortium, bidding to operate the expanded Nottingham Express Transit network. It is already a significant player in the country's heavy rail industry, running the Southern, Southeastern and London Midland franchises with the Go-Ahead Group as part of the Govia consortium. With First Group, Keolis is a partner in TransPennine Express.



Taking over existing tram systems

Working with stakeholders to create a brand new LRT system is one thing, bidding to take over the operation of an existing network is another, and brings with it a very different dynamic of challenges.

In 2009, Keolis teamed up with leading Australian engineering and manufacturing firm Downer EDI Rail to form new company KDR to operate the world's largest tramway, Melbourne.

A key advantage that Keolis brought to the partnership that won in Australia's second largest city was the company's ability to 'think like a passenger'. Patrick Jeantet explains: "We are very customer-focused and this means taking into account the details that matter for our client. Cleanliness of vehicles, staff attitude, behaviour during disruptions are all things that can change every day, because we are not talking of an industrial process but a day to day commitment. These details, perceived often as 'soft indicators', are among those things to which we pay great attention."

"Thinking like a passenger" has been coupled with the concept of a 'moving safe haven' that provides the best possible travelling experience. The aspiration is that when anyone thinks 'tram' they will envisage a comfortable, protected zone. For customers this means a safe and secure journey, for pedestrians and other road users it means efficient and co-operative use of roads (on a network where trams share the road space with other users), and for employees and contractors it is knowing that KDR is committed to ensuring they will arrive home in the same manner as they left for work. Keolis is committed to a culture of continuous safety improvement for all.

Keeping what works, improving what doesn't

The Melbourne system has kept its 'Yarra Trams' name, but with a stylish new logo and livery. This is just one visible symbol of how Keolis is working with local

Right: Lille has one of Europe's longest running tramways, which celebrated its centenary along the 'Grands Boulevards'.



stakeholders to ensure the best of what's already there is retained – if it isn't broken, why fix it? – combined with a fresh new approach to operational management. That new look marks the start of a revitalisation of Melbourne's trams: enhancements will include work to smooth the trams' ride, implementing innovative anti-vandalism measures, introducing improved passenger information and undertaking a heavy-duty clean across the fleet, plus replacing worn cloth seats.

In line with the theme of a Moving Safe Haven, trams are being made more visible to road users and passengers in three ways: reflective bands on the front of vehicles, yellow bands on the steps, and yellow-painted doors, a distinctive feature which as well as adding to visibility have become a hit with the Melbourne public.

KDR is aiming to work with the Department of Transport, Metlink (the partnership of Melbourne public transport operators) and other transport operators to achieve a multi-modal approach to Yarra Trams operations.

Accompanying these improvements is a major focus on staff training. A tailored approach has been created for Melbourne through the Customer Service and Safety Training Academy – closely based on the Keolis Regional Institutes already existing in France.

Below: In May 2009 Keolis took over Bordeaux's entire public transport system including its three tram lines covering 57km of track.



"Cleanliness of vehicles, staff attitude, behaviour during disruptions can change every day, because we are not talking of an industrial process but a day to day commitment. These 'soft indicators' are among those things to which we pay great attention."

Transferring global knowledge to the UK

Keolis is part of the Tramlink Nottingham consortium that is bidding for the GBP400m Nottingham Express Transit Phase 2 project. Keolis and local bus operator Trent Barton are joined in the consortium by leading construction company Vinci Construction and rail vehicle manufacturer Alstom, and as such are ideally placed, with partners, to offer the kind of service Nottingham's local authorities and the passengers expect from this already award-winning tramway system as it expands.

Roger Harrison, Keolis UK's Light Rail Project Director, explains its role in the consortium: "If you are skilful enough you will find the right partners at the right time and using your established network is very useful and is part of ensuring future success. A good consortium meets the goals of each of its members, which is not easy, but flexibility helps a lot. You have to

start well before the start of the tendering process and take time to meet, assess and become comfortable with potential partners.

"We are confident we would bring our tramway expertise to the local bus company we would operate with in Nottingham; they have a very good local knowledge and are very customer-focused, and so are we. We know a great deal about integrating trams into a bus network and are familiar with both Alstom and Bombardier trams.

"Our benchmark capability is high and allows us to offer very competitive solutions.

"Trent Barton has a high reputation for quality, innovative ticketing technology, vast knowledge of the local bus network, local stakeholders and marketing. Keolis brings extensive public transport operating and maintenance know-how and is the world leader in tram operation."

Above: Keolis took over Melbourne's iconic tram system, the world's largest, in November 2009.

TWO DECADES OF LIGHT RAIL PROGRESS

1994:

Established in 1909, Lille has France's oldest tramway. Keolis renovated the mainly underground, metre-gauge system in 1994.

2000: First 17.7km of the Lyon

tramway opens – a network that has steadily expanded since.

2002:

Caen's 15.7km line opens: unique among Keolis-operated tramways, vehicles run on rubber tyres and use a single

central guideway.

2003:

Lyon's third tram line opens on a bespoke converted railway line, with level crossings and a nifty average speed of 30kph.

2007: Hailed by observers

as the cheapest French tramway to construct (at EUR20m per km), the new 15.4km line in Le Mans is launched.

2009: Keolis takes over its 5th tram network, in Bordeaux, with over 50km of track. A trifling

matter compared to the 250km of Yarra Trams' network won later that year by KDR, a joint Keolis-Downer EDI Rail venture in Melbourne, Australia.

2010: Fjord 1 Partner, a joint venture between

Keolis and local operator Fjord 1, is to launch a 10km-tramway in Bergen, Norway.

2011: Keolis will launch the new tram in the Loire Valley town of Angers (12km)

2012: Keolis will run the new

14km line being constructed for Brest, France.

2013: French cities Tours (urban zone 400 000 inhabitants) and Dijon (335 000), will become the latest to open a modern LRT system.

Beyond LRT: multi-modal integration



Keolis launched Bordeaux's redesigned public transport network in February 2010.

When a new tramway comes to a town, the last – but not the least – of the problems that can arise is that it is essential to make sure that the tramway does not bring about the collapse of the existing public transport network.

A distinctive feature of the Keolis group – based on its extensive experience of passenger demand and operating multi-modal services across the globe – is that it takes advantage of complementary aspects to prevent the bus network from simply becoming a foil for the tramway or from drawing passengers away from one to the other. In the words of Régis Hennion, head of Metro and Light Rail at Keolis: "There is only one network – and when a tram arrives in a city, it is the operator's duty to develop both transport modes together and avoid a two-tier system."

Patrick Jeantet, Senior Vice President International adds: "In Melbourne, the tram is an iconic and popular feature of the city but we feel a lot could be done to integrate it better with the bus and suburban rail networks. This is what we are working towards with the Melbourne transport authorities."

Keolis has considerable experience across the public transport spectrum: not only light rail, but also metro systems, buses, and heavy rail. In France, local authorities do not generally tender individual transport modes one at a time, but whole town networks. Such 'joined up' thinking encourages cooperation rather than competition, and through its extensive worldwide experience, Keolis understands both the advantages of such integration and how to get the best out of it.

For Éric Chareyron, Keolis' Head of Marketing, a tramway does not necessarily need to be specifically promoted, since it is naturally "so attractive that it has its own legitimacy within its segment." He adds: "A public transport authority invests in a tramway for its town, not just so that the tramway achieves a high level of passenger traffic – with 40-60 000 passengers per day – but to increase the market share of public transport as a whole. The authority wants the public transport system to be as efficient as possible within its zone."

It would therefore be a mistake for a town to concentrate on the tramway alone, to the detriment of the bus system. Éric Chareyron continues: "We must make all public transport modes attractive to the passenger, and that means also looking hard at bus services, which can channel passengers towards the tram or be an alternative to it." Indeed, the bus system can make it possible to relieve strain on the tramway by serving the same destinations. Chareyron's research showed that a large proportion of bus passengers, when given the choice between changing onto a tram and staying on the bus to get to their destination, actually preferred the security and comfort of the bus. Therefore through considering the network as a whole it becomes possible to "build up a genuine complementarity." This original approach of giving people an efficient alternative to the tram was the winning argument for Keolis in its bid for the Bordeaux network in 2008. The new network, integrating a new bus system, was rolled out in February 2010.

Achieving harmony

As buses and trams almost represent two different cultures, how do you achieve such a positive state? After the Le Mans tramway opened, Keolis introduced shared departmental meetings, so that different aspects of the company's operations in the French town – buses and trams – came together. In addition, drivers in Le Mans are qualified to take charge of both buses and trams.

Such measures are vital to achieve what surely is most important: the intention of sustainable public urban transport is to draw people away from cars, and a large part of making public transport permanently attractive is offering passengers different solutions instead of simply funnelling them towards the perceived fastest mode.

Régis Hennion concludes: "This demonstrates why co-operation rather than competition is the way to achieve integrated transport. The single network must be interconnected and designed according to the habits of the passengers. That is our philosophy and, I believe, one of our key strengths."



Melbourne's iconic tram system has yet to be fully integrated with the city's buses and trains.

"There is only one network. A public transport authority invests in a tramway not just so that the tramway achieves a high level of passenger traffic, but to increase the market share of public transport as a whole."



EXPERIENCE FROM TRUSTED TRANSPORT PARTNERSHIPS

Keolis is one of the world's foremost public transport providers with extensive operations in Europe and North America and, from 2009, operating the world's largest tramway network in Melbourne, Australia. The company is established in 13 countries worldwide.

Each year the company transports two billion passengers globally: trams, buses, heavy rail and special needs services are all part of the company's product offering.

In 2009, the company's turnover was EUR3.4bn – up 5% on the year before – and worldwide it now has more than 45 000 employees.

In the light rail sector, apart from its extensive and growing tram operations, Keolis is a pioneer in automatic metros, introducing the world's first in Lille and bringing advice and training to systems across the world, from Taipei to Chicago via Turin and Lausanne.

Key Keolis light rail goals and commitments are:

- To develop high-capacity transport systems on medium-sized networks.
- To make the systems financially accessible to a large number of urban authorities.
- To retain flexibility in choice of operating mode: guided and electrically-powered (with central rail like a tramway) or independent (electric motor).
- To guarantee a high level of safety and service.

Left: In Lyon users have the choice of four metro lines, four tram lines and over 100 bus routes.