

# IPI National Planning Conference 2010

## *Bus Rapid Transit – The Answer for Regional Cities*

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**Regional  
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[www.drdni.gov.uk](http://www.drdni.gov.uk)

# Impact of Congestion on Urban Life

- Economic Efficiency – €500 billion per year for EU
- Air Pollution – global warming, health problems, building decay
- Noise & Vibration
- Accidents – 40,000 death per year in EU
- Visual Intrusion
- Severance
- Loss of Urban Living Space
- Competitiveness



# City Challenges

- High quality access which is clean, efficient and sustainable leads to cities that are economically successful and better at attracting investment and high value employment whereas inaccessible and congested cities are less likely to benefit from inward investment.
- Need to compete with less congested out-of-town retail centres.
- An integrated mobility policy is essential for economic and social success.



# Transportation Strategy

## Integrated Strategy

- Public transport provision
- Public transport priority
- Pedestrian and cycle facilities
- Regional land use and transport strategy
  - Residential and commercial developments
- City Centre car parking control
  - Off-street and on-street



# BRT

Names: Rapid Bus, Metro Bus, High Capacity Bus Systems, Express Bus Systems, Busway Systems, etc.



*Bus Rapid Transit is high-quality, customer-orientated transit that delivers fast, comfortable and low-cost urban mobility.*

It is not business as usual.

## Characteristics

- Segregated / high priority bus lanes
- Rapid boarding and alighting
- Efficient fare collection
- Comfortable shelters and stations
- Clean bus technologies
- Modal integration
- Sophisticated marketing identity
- Excellence in customer service

# BRT in Europe



# Why Bus Rapid Transit?

- **Flexibility**

- Tailor to particular needs of community and urban area
- Ability to detour if streets are closed due to accidents/events
- Rapid implementation

- **Incremental Implementations**

- Staged to cater for additional developments on corridor
- Can be extended without major delays or infrastructural costs
- Can be upgraded to LRT if passenger numbers justify or can increase carrying capacity by providing additional buses

- **Customer Focus**

- Reliable, safe, convenient service
- Competitive in cost, reliability and travel time to attract car drivers

- **Costs**

- Lower costs per km than LRT or Metro
- Avoids major relocation of utilities, overhead catenaries and track construction
- Lower vehicle costs

# The Economics of Bus Rapid Transit



Bus Rapid Transit  
\$1-10 million / km



Metros & Light Rail  
\$20-207 million / km

# Modern Rapid Transit Vehicles

- Attractive
- Comfortable
- Accessible
- Environmentally friendly
- Hybrid technology
  - electric / diesel,
  - LPG,
  - hydrogen fuel cells



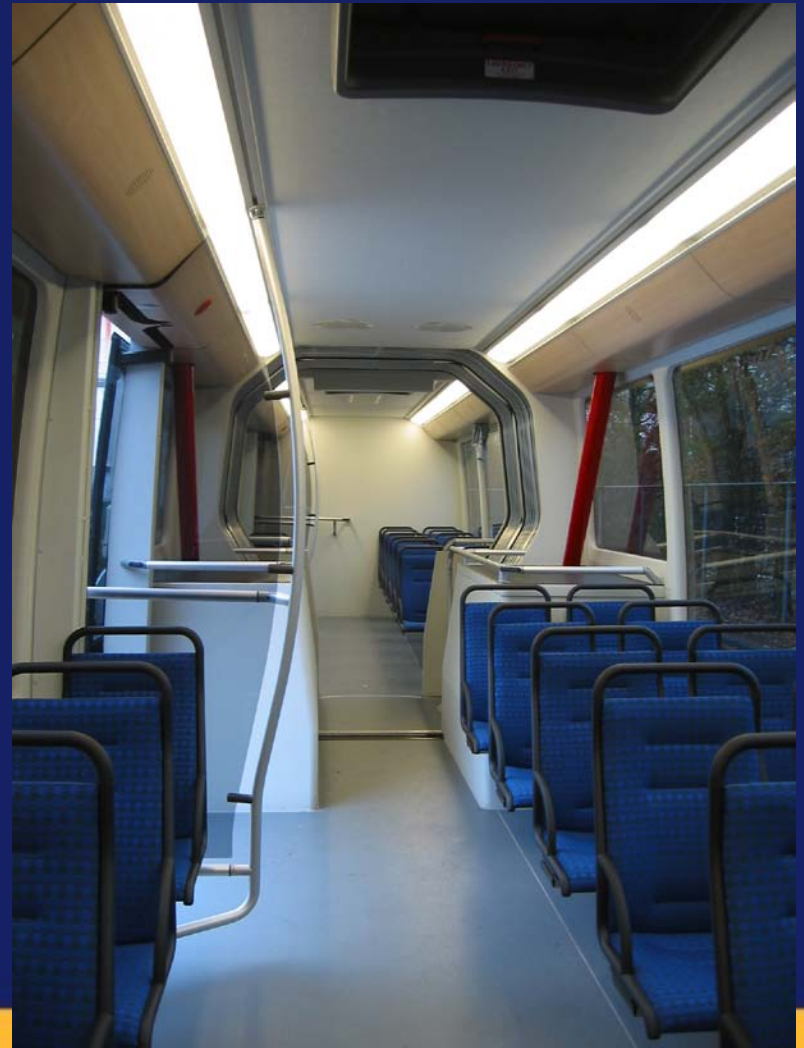
# Modern buses



“Think rail, use buses”



# Phileas



# Streetcar - Wrightbus





# Passenger Information

*On Board  
Paris: Val de Marne Busway*



*At Stations  
Vancouver 98B*



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# Station Security



## *Brisbane SE Busway*



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# Guidance

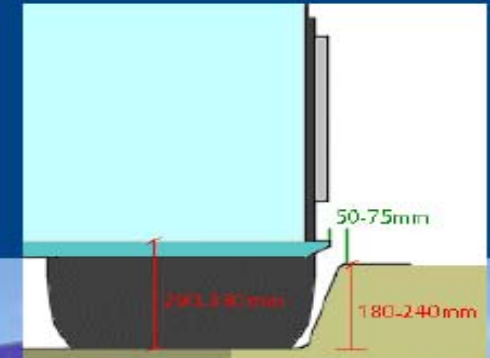
*Optical*  
**Rouen, France**  
*TEOR*



**Mechanical**  
**Leeds, UK**



**Kassell Kerb**  
**Amsterdam**  
**Zuidtangent**



# Range of Station Options: Simple



*Number Three Rd Transitway  
Vancouver  
98B*

*Washington St. Interior Buslane  
Boston  
Silver Line*



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# Need To Facilitate Multiple Stream Boarding



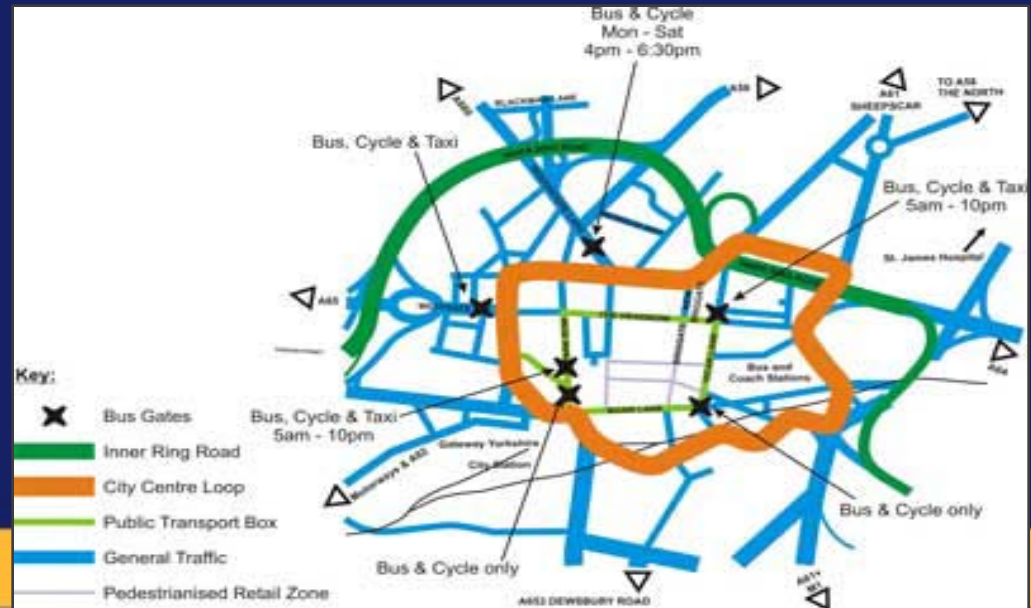
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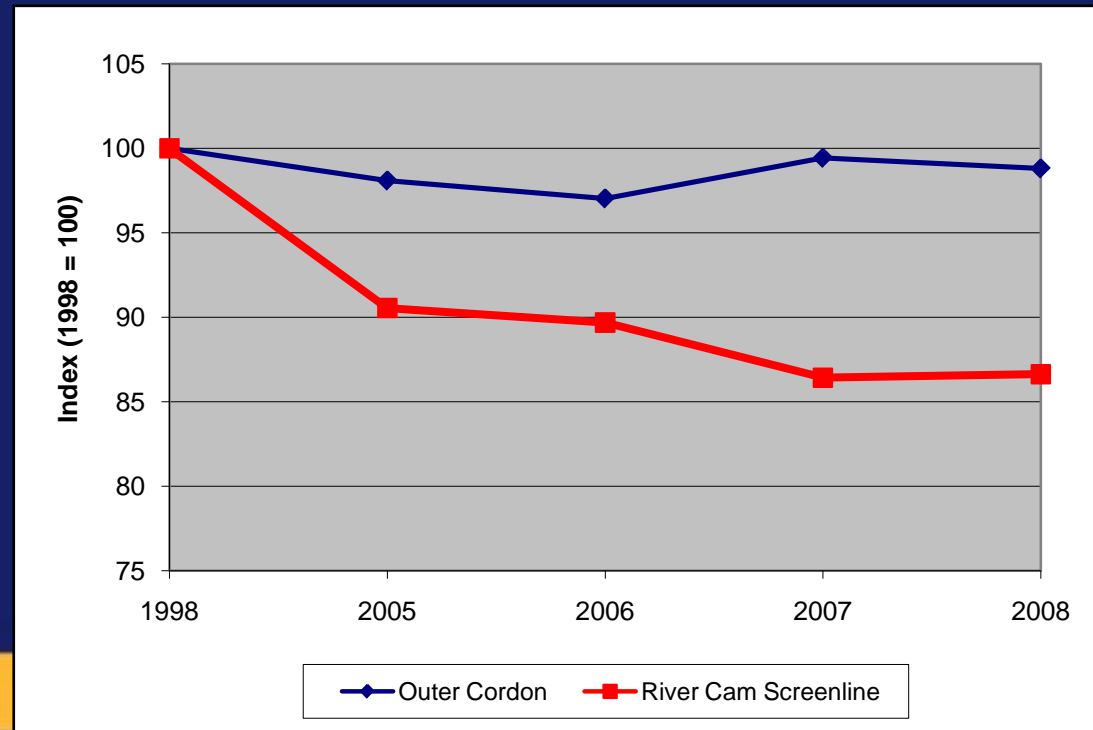
# Leeds

- Progressive City Centre transport policy:
  - bus priority, based around a public transport 'box'
  - extensive pedestrianisation of the retail core
  - completion of 'City Centre Loop' giving central area access at strategic points
- Traffic removed from major City Centre streets
- No significant problems on surrounding network



# Cambridge

- Core traffic scheme:
  - restricted private car access to the city centre
  - removed through traffic
  - improved park and ride services
  - pedestrian and cyclist infrastructure
  - increased parking charges
- Phase 2:
  - 9,000 vehicles removed from Emmanuel Road
  - only 2,000 extra vehicles recorded on main adjacent routes
- Cam screenline traffic reduced by over 14% since 1998

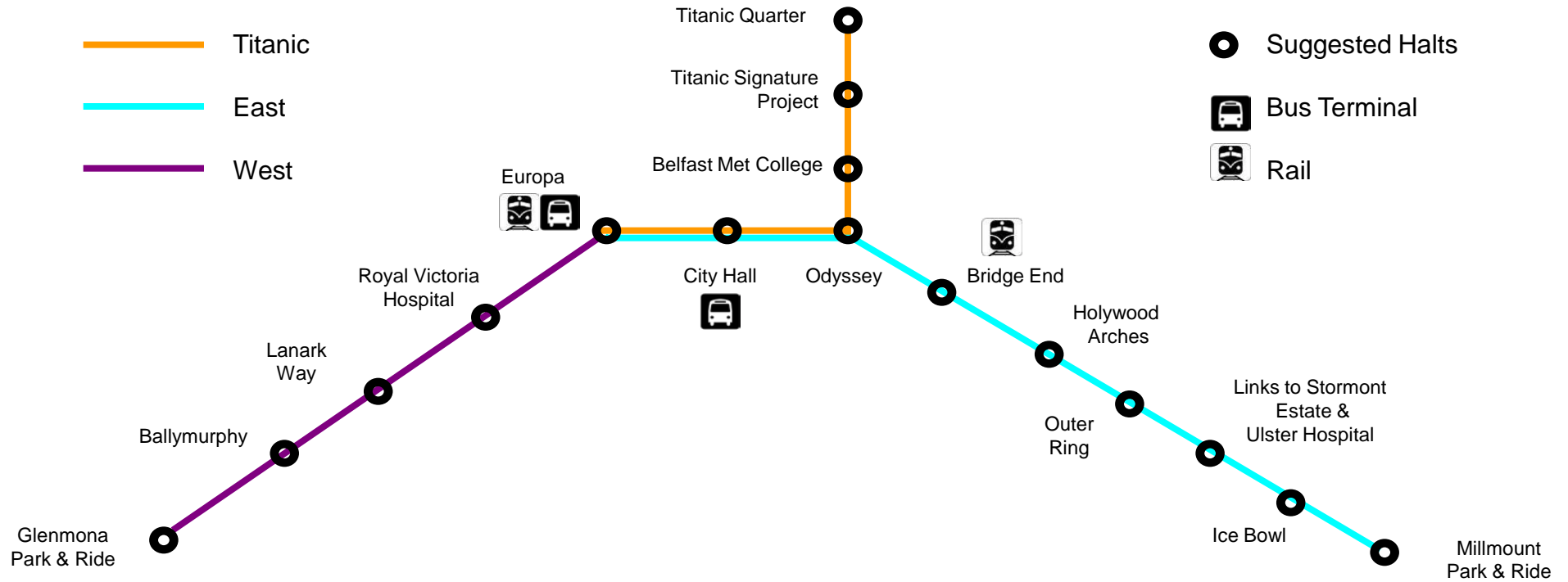


# Ministerial Announcement

- In November 2008, the Northern Ireland Executive approved the proposal to implement a bus rapid transit system for Belfast, based on pilot network of 3 routes linking the city centre to:
  - » Titanic Quarter
  - » East Belfast
  - » West Belfast
- On 1 December 2008, at the BRT-UK Conference in Belfast, the Minister for Regional Development officially launched the project and announced the setting up of a Rapid Transit Division to design and build the pilot network.

# Possible Routes

This is the preferred route as proposed by the Strategic Outline Case



# Regeneration / Integration

- BRT will have an inclusive citywide identity
- It will be a key driver for the regeneration of Belfast; providing high quality access and connectivity between the different parts of the city where major regeneration projects are underway or proposed.
- It will link the most deprived communities to key employment locations, shopping facilities, leisure and education services.
- It will facilitate the growing integration and partnerships between the different communities across the city.

# BRT – Key Criteria

- Attractive Product – speed, frequency, reliability
- Full Accessibility
- Well equipped Stations/Stops
- Visible Identity and Brand
- High Quality
- Tailored Concept

Must allow the system to operate to its full potential.

