



Portland High Capacity Transit -World Class HCT

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November 17th 2008
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Lagos, Nigeria

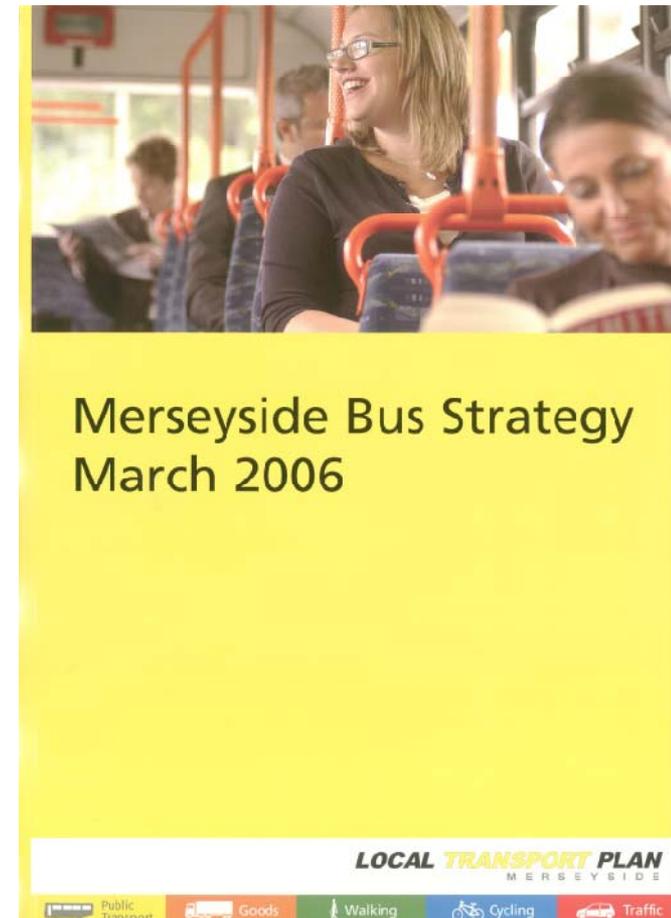


High Capacity Transit- what can it do for you ?

- High Capacity...and High Quality- speed, reliability, efficiency, safety, security, comfort, convenience, affordability
- Can Transit do more than “transit” ?
- City Shaping, Place Making
- What are we creating ? An Attractive City, A Happy City
- What does “The Top Dog” do next ?

Liverpool, UK: An Example of Integrated Transit Planning

- Liverpool City region - 1.4 million people
- The 10-year Local Transport Plan
- Clear policy objectives
- 'Putting the Passenger First'
- Multi-modal, transit & TDM
- A focus on targets & outcomes



Putting the Passenger First

Getting rid of the barriers

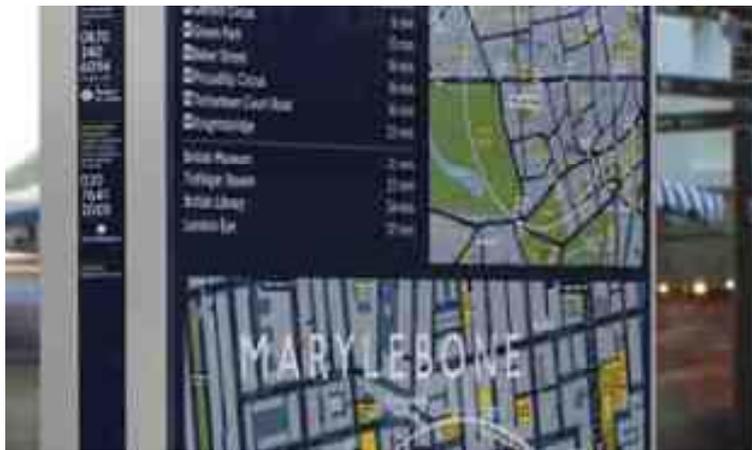
- I need to make a journey. Is transit an option ? How do I find out ?
- Route planning - easy information on schedules, tickets ?
- Access to transit - an easy & convenient walk ?
- Waiting at the transit stop - do I feel safe ? Am I going the right way ? How long to wait ?
- The transit journey - paying my fare (exact fare, no change...what's that all about) getting a seat, pleasant or threatening ? Where do I get off ?
- Do I need to transfer ? If so, where and how ?
- My journey's end. Getting from the transit stop to my destination. Wayfinding.
- ...And how do I get home again ?

So many questions. Maybe I'll just drive.

Integrated Transit Solutions- Information

- Improving the availability and quality of transit information, including:
 - Customized, personal maps (and timetables) as well as local and network maps provided free online and in print
 - 'Real-time' information on next LRT/bus and service disruptions provided at stops, online and to cell phones/PDAs





Wayfinding for the Complete Transit Trip

Integrated Transit Solutions- Fares and Ticketing

- Improving and simplifying the network and fares by:
 - Simplifying ticketing and fare payment by:
 - Offering off-vehicle ticketing at all key bus stops
 - Providing an integrated fare structure across all operators in the region
 - Offering cashless smartcards for all passes and pay-as-you-go trips





Modern architecture



Modern architecture



Integrated CCTV



Real-time and journey planning information

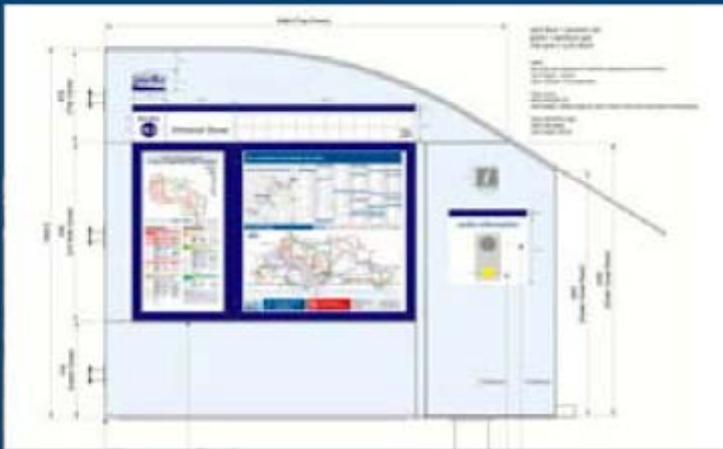
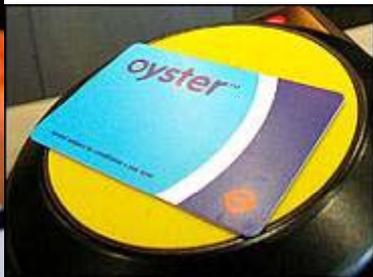
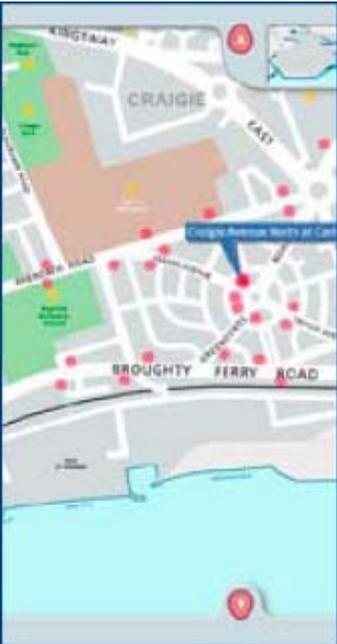


Controlled environments

Modern Transfer Centers

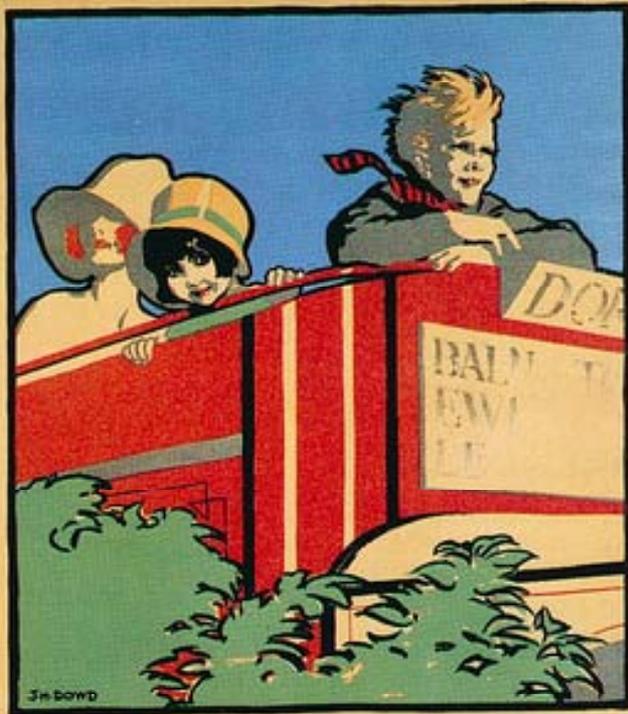


Clarity and safety

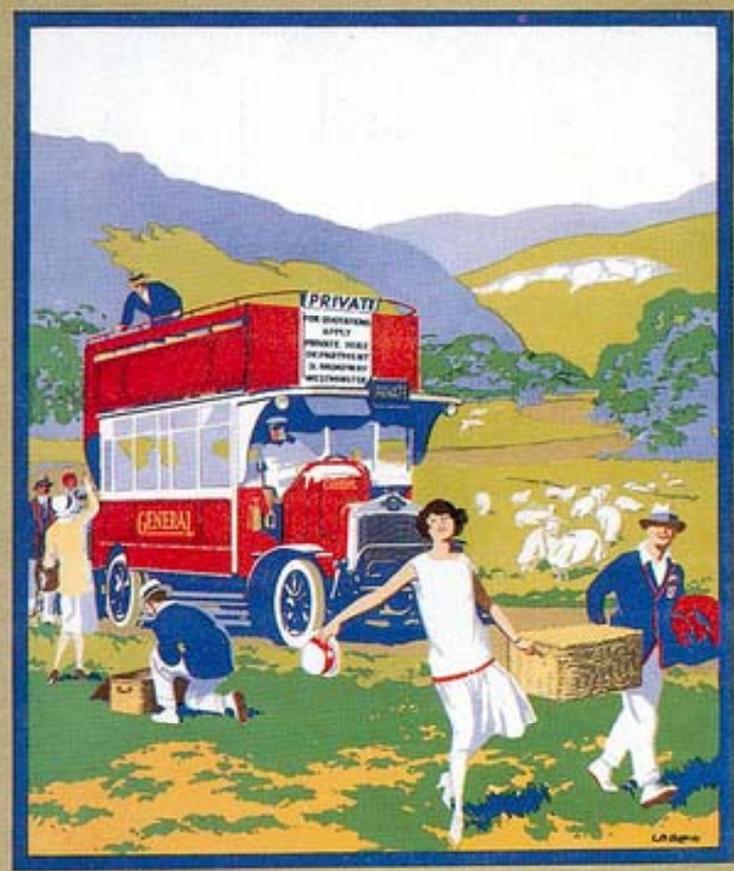


Liverpool, UK





RIDE **GENERAL** AND
RIDE WELL



SUMMER OUTINGS
BY PRIVATE BUS
RIDE **GENERAL** AND RIDE WELL

Routemaster Bus,
London, UK



Integrated Transit Solutions

- BRT implemented using exclusive right-of-way and all of the qualities and attributes of light rail
- BRT on major arterial routes, connecting with LRT
- Direct, fast links to key destinations

York, UK



High-quality vehicles



Level-boarding at stations

Vehicles



Vehicles



Citaro
100 - 120

ft
100



Van Hool
180+

Phileas
120 - 180



Integrated Transit Solutions

■ Introducing a *Hi-Bus* network that provides:

- Hi-Bus = High Frequency, High Capacity, High Quality
- High frequency - 10 minute or less on main arterial routes
- High capacity - more vehicles & seats to improve the journey experience
- High quality - high quality vehicles; fast, reliable and direct; new stops



Nantes, France



Before



After

Istanbul, Turkey



Istanbul

- BRT line
- Orbital Route
- Fully segregated



Istanbul, Turkey





Istanbul, Turkey

Istanbul, Turkey



Dublin, Ireland



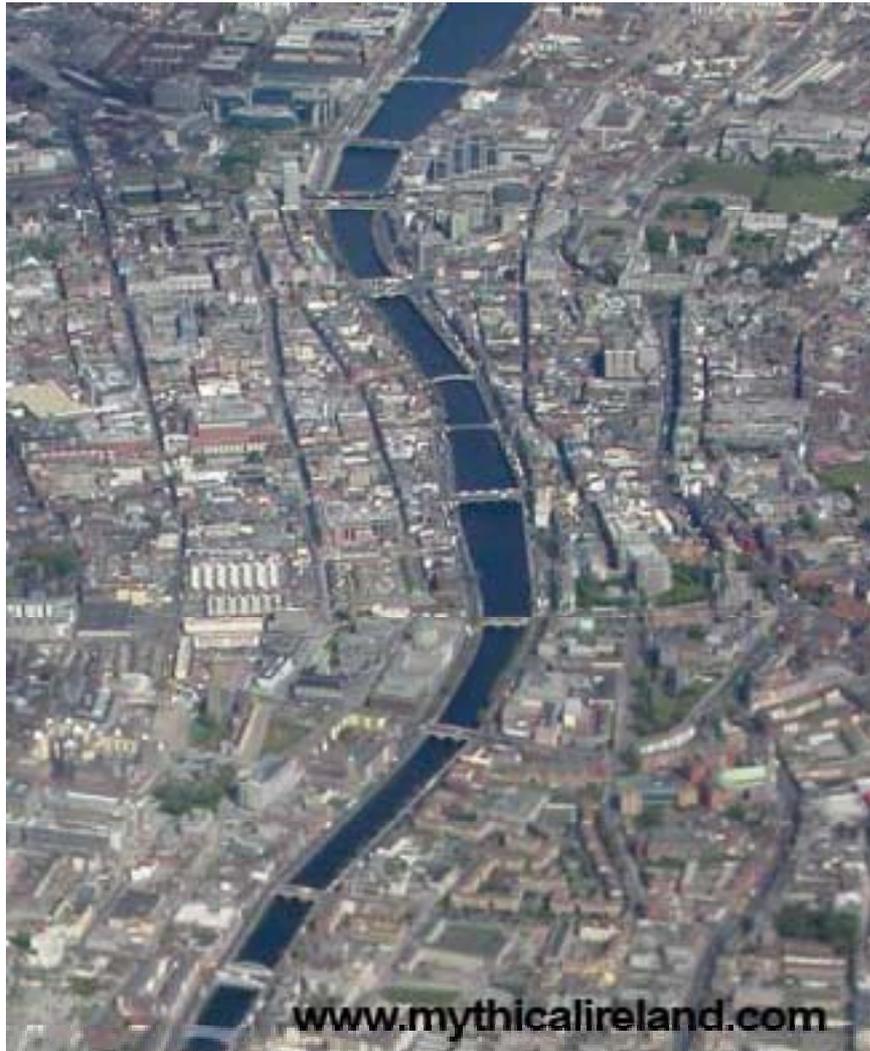
Dublin: A European Capital City



..famous for it's history, culture..& pubs



Dublin



Key Facts

- Dublin -major economic growth “The Celtic Tiger”
- Population of 1.35 million forecast to grow to 1.75 million by 2016
- Employment- 452,000 to 878,000
- Economy-GDP 260% growth 1991-2016

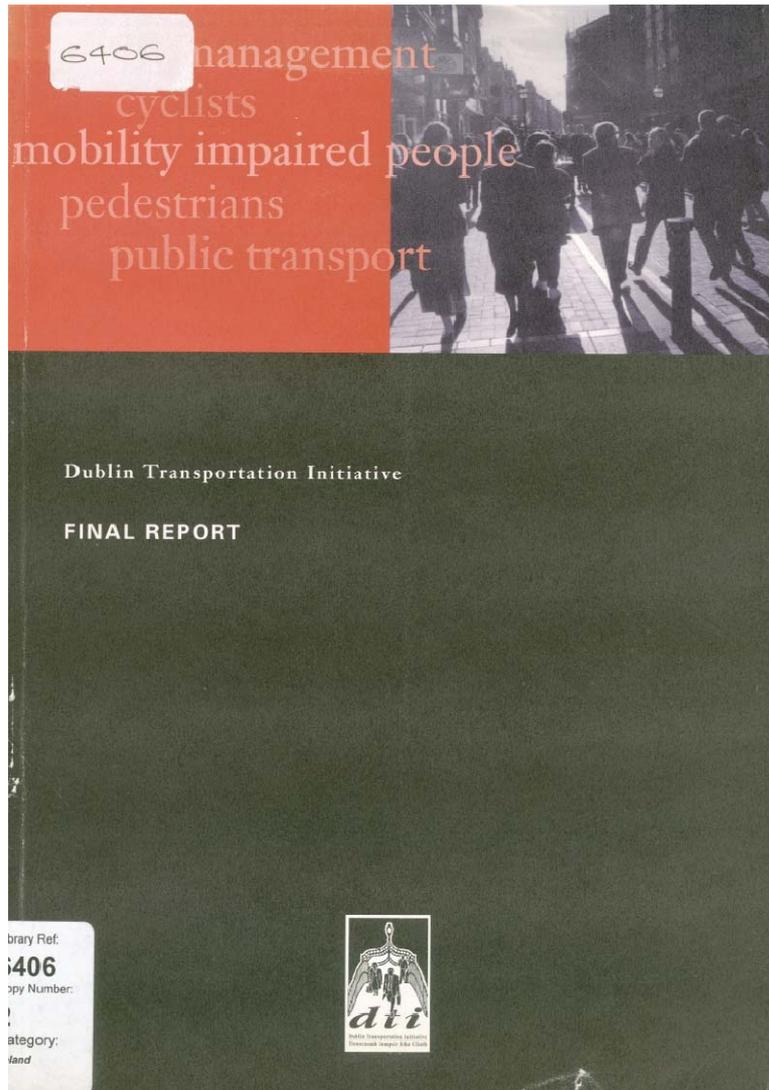
The Dublin Transportation Initiative- 1991- The Approach

- *“DTI was led, not by transport considerations, but by a broader vision for Dublin”*
- Integrated Land Use/Transportation Plan
- 20 year projections
- Developing a Vision
- Setting Objectives & Performance Measures
- Strategic decision Analysis
- Multi-modal Transportation Model
- Cost: Benefit Analysis
- Quantitative & Qualitative Attitudinal Research

The Dublin Transportation Initiative- Key Components

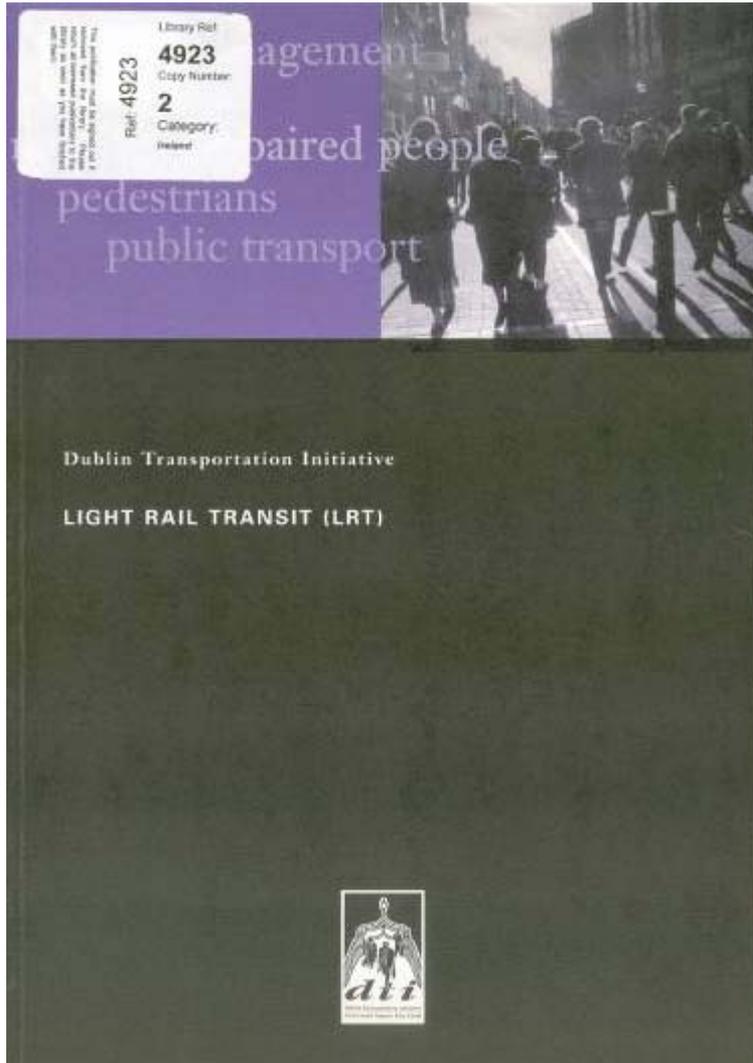
- Better use of existing assets
 - Walking/pedestrian strategy
 - Cycle strategy
 - Access for all
- Land use policies-
 - focus on city centre and three western towns
 - Higher density development along strategic public transport corridors
- Quality Bus Corridors
- Rail & Metro (DART) enhancements/extensions
- Light Rail Transit (LUAS)
- Park & Ride
- Integrated fares & ticketing
- Completion of orbital motorway- improved port access
- Traffic & parking restraint program

Dublin Transportation Initiative- Consequences



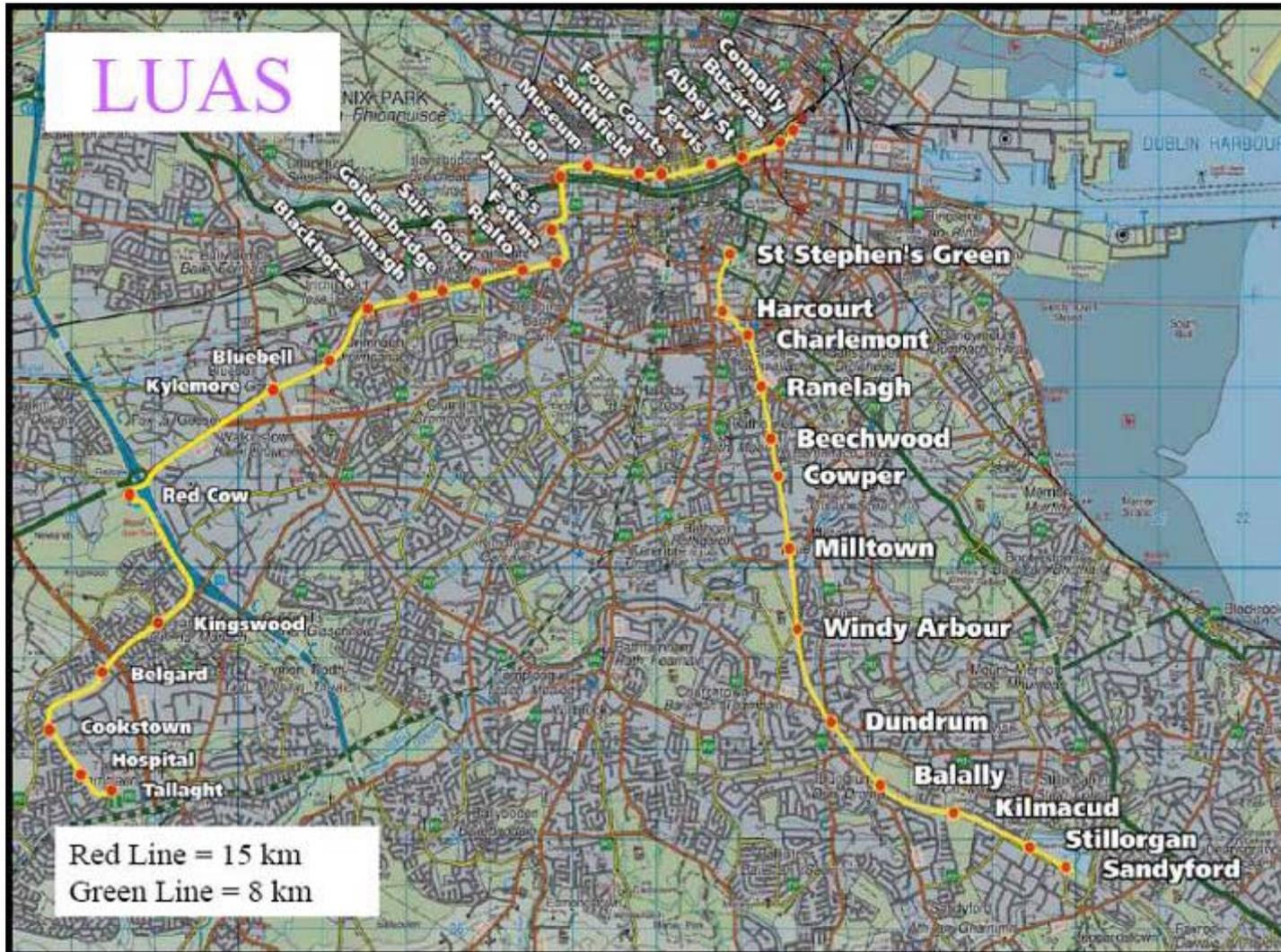
- Established the Dublin Transportation Office
- LUAS design & development LUAS planning powers
- Creation of Rail Procurement Agency
- A Platform for Change (2000)
- Public Private Partnerships for delivery
- The Transport21 Plan (2005-2015)

The Dublin Transportation Initiative- LRT was a Key Component



- DTI recommended a three line LRT network
- A high capacity solution
- A high quality solution
- Competitive journey times
- 20-50% reduction during peak periods
- LRT can contribute to wider land use and social cohesion objective for the Dublin City Region

LUAS- A Two Line Network



LUAS - Opened in 2004...Well Supported



...and Generated a lot of Interest



LUAS- Green Line facts



- St Stephen's Green to Sandyford
- 8km (5 mile) route
- 13 stops
- Light rail vehicles 40 metres long, 300 passengers/80 seats
- Former Harcourt Street rail alignment
- Opened June 2004
- End to end journey time 22 minutes

LUAS- Red Line Facts

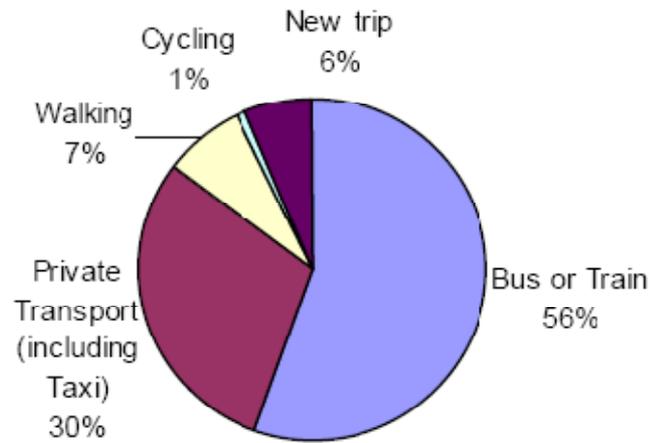
- Connolly Station to Tallaght
- 15 km (9 mile) route
- 23 stops
- Light Rail vehicles 30 metres long, 235 passengers/60 seats
- “Within Highway” system
- Opened September 2004
- End to end journey time 46 minutes



Ridership

- LUAS ridership has been in excess of forecasts
- Passengers up 17% in 2006 to 26m, up from 22m in 2005
- Red line increased patronage by 25% in 2006
- Tram capacity being increased in response, with all 26 trams on the Red line being lengthened from 30m to 40m giving a 40% increase in capacity
- Operates without a State subvention. The service recorded a surplus of €985,000 in 2005 (€680,000 in 2004) - an achievement well ahead of an anticipated deficit of €2.5 million
- Success of the scheme has provided the impetus for major expansions of the network under the Government-sponsored *Transport 21* initiative

LUAS - Mode Share



- 30% of ridership from car
- 6% new trips

Street Running... Giving Direct Access to Downtown Dublin



LUAS- Integration with Mainline Rail Services



New Downtown Development Integrated with LUAS



LUAS Provides a Link to the Downtown Financial District



LUAS- Segregated Right of Way Where Possible



Tallaght - Historic Problems

- One of the three “western towns” highlighted in the DTI
- High car dependency and bus services that are infrequent and difficult to access
- Extensive surface car parking
- Low density development, weak retail offer
- Negative image
- Social deprivation -high unemployment & crime rates

Tallaght "Before"



Land Use Planning Response to LUAS



Tallaght Town Centre Masterplan *Information*



- Following the introduction of LUAS 'Local Area Plans' have been developed and adopted by Local Authorities which seek to maximise the opportunity presented by LUAS to redevelop areas in a sustainable way, with higher densities and major improvements urban realm.

Development Around LUAS Stops



LUAS- Red Line, Tallaght town centre-successful TOD



LUAS- Changing Retail Offer Taking Advantage of LUAS



LUAS- a “Captive Market”



LUAS- Green Line, Beechwood Stop, New Retail Development



LUAS- Larger Scale Retail Benefits



- Jervis Shopping Centre
- opened in 1996
- includes department stores and 50+ specialist shops
- LUAS stop outside the Centre
- developer redesigned Centre,
- adding extra entrance for direct access from LUAS
- footfall increased 20%

LUAS- Green Line, Dundrum - Larger Scale Retail Benefits



LUAS, Green line Dundrum



- Jervis Shopping Centre
- Largest retail development in Ireland
- 1 million sq ft retail + 100-bed hotel
- Served directly by LUAS
- Integrated design links stop to shop

LUAS, Red Line - New Residential Development



- Extensive new residential development
- Re-zoning of commercial/industrial land
- Planning & Development Act 2000
- Development Levy scheme
- Residential \$175,000/acre
- Commercial \$400,000/acre
- Contributions passed to RPA to fund LUAS

LUAS - Red Line Smithfield



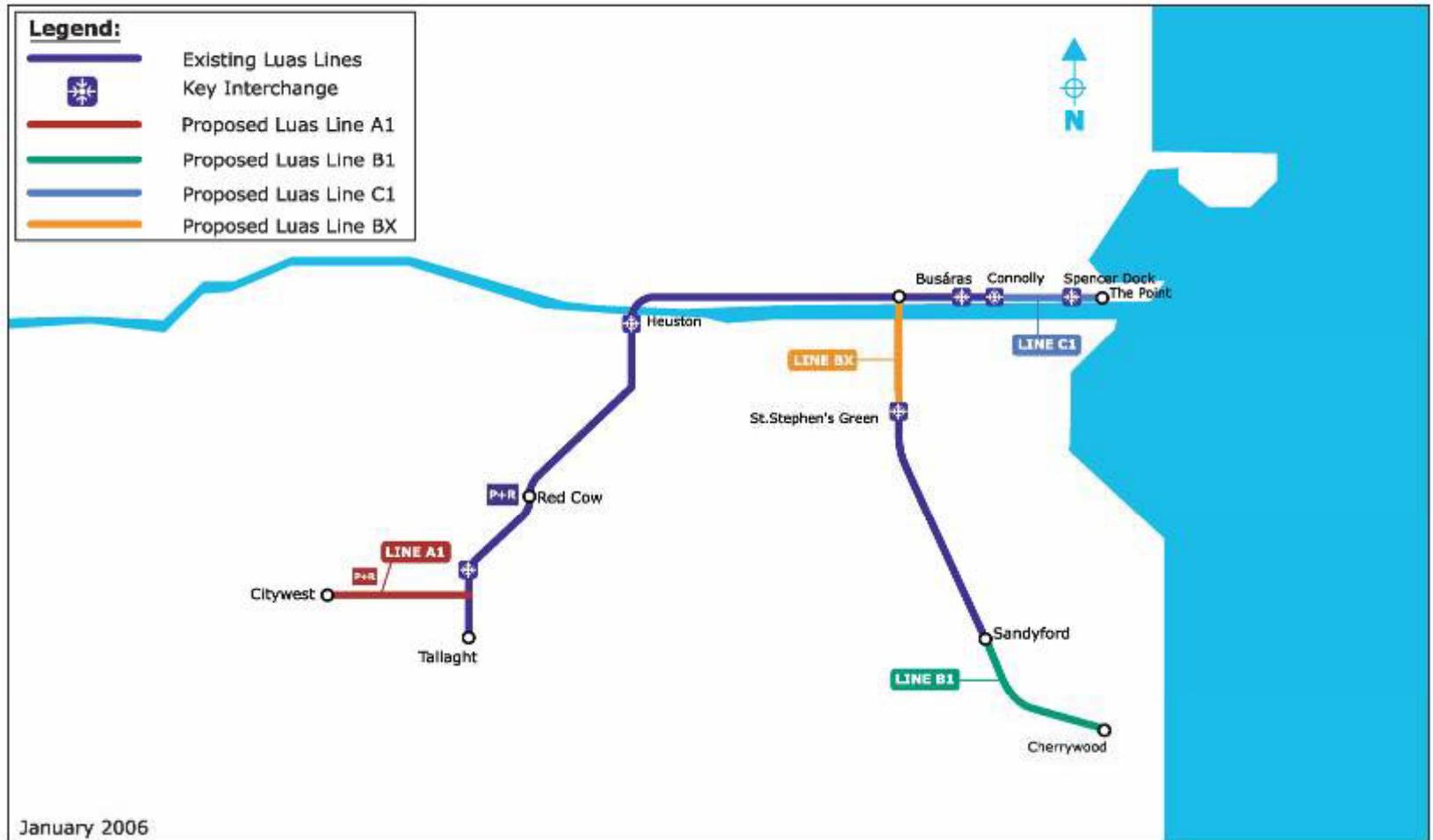
Property Impacts

- Homes close to both LUAS Dublin LRT lines saw an additional 15% price rise over and above the general increase in prices during the period 2002-2004

(Source: Douglas Newman Good Property Agency)

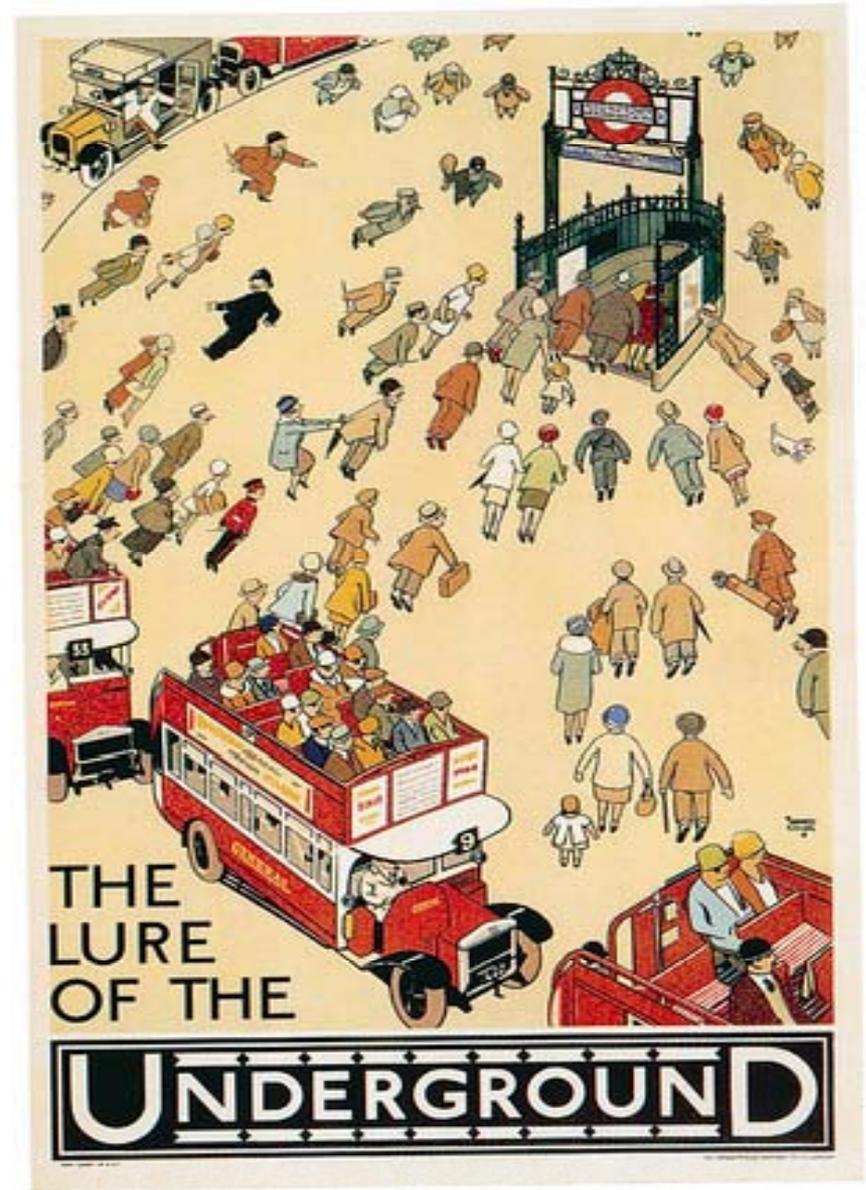


Proposed Extensions



Do Subways make an Attractive City ?

- A function of city-scale
- A major engineering exercise
- A major cost item
- Major travel time and capacity benefits

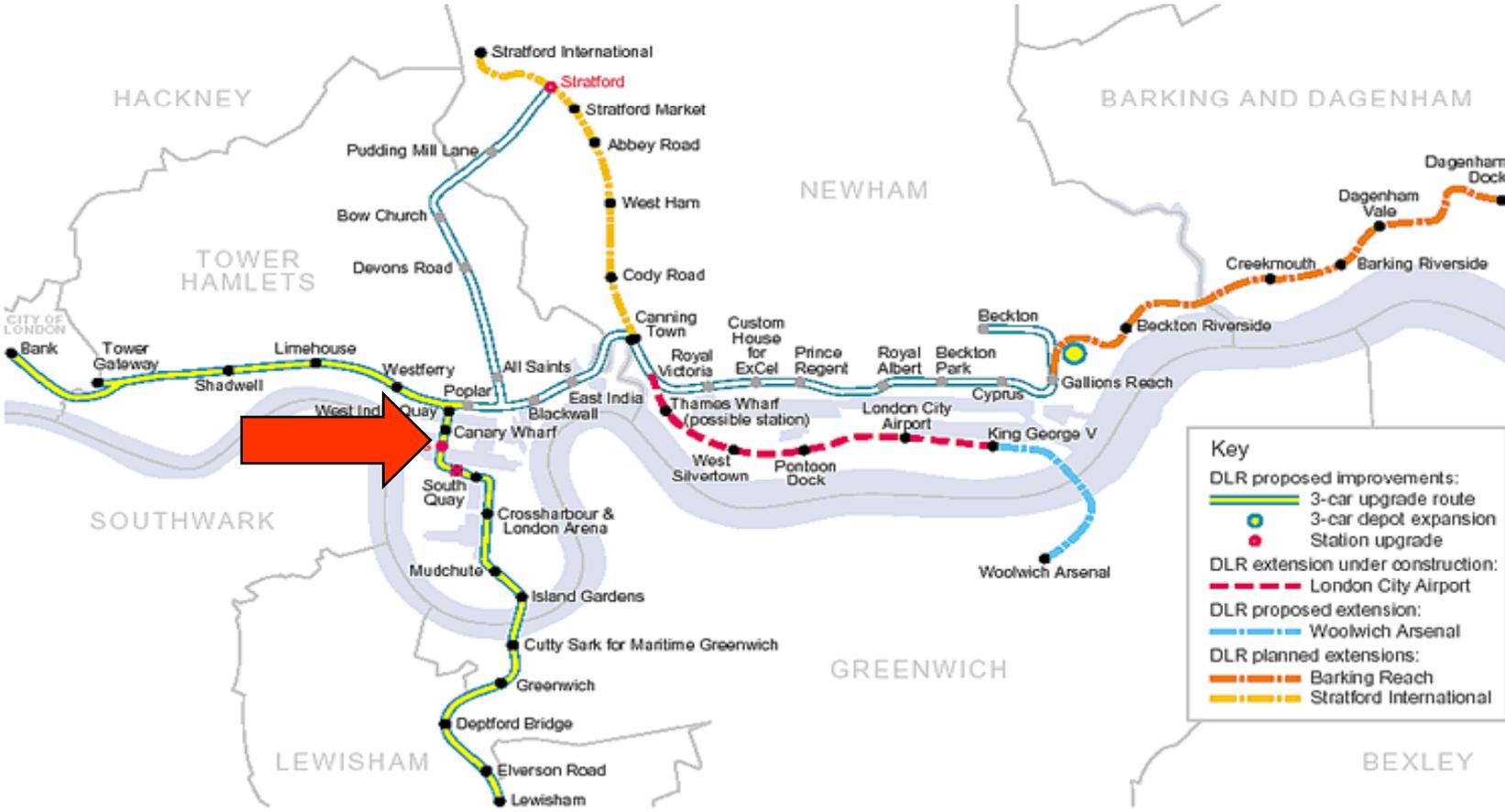


LONDON: Canary Wharf

- 1980's decline
- Dis-used docks
- Major regeneration
- New financial centre
- No transit connections



LONDON: Canary Wharf- Docklands Light Railway network



LONDON: Canary Wharf- Docklands Light Railway (DLR)

- Docklands Light Railway
- Initial line 1988
- Public Sector funding
- £77 million

- Now a large network
- 5 lines
- 26 kms
- 34 stations
- 94 LRVs
- 40 million pass./year



LONDON: Canary Wharf

- 25 years later
- A major destination
- A 2nd Financial District
- ..and still being extended
- 14 million sq ft office/retail
- 90,000 workers

- Transit is key to success
- DLR..
- ..and London Underground



Docklands Light Railway, London, UK





Jubilee Line Extension of London Underground-
£400 million Private Sector funding

© Transport for London 2005



LONDON: Canary Wharf



US-style Streetcar

- 120 passengers, sharing with cars



European-style Street Tram or LRT

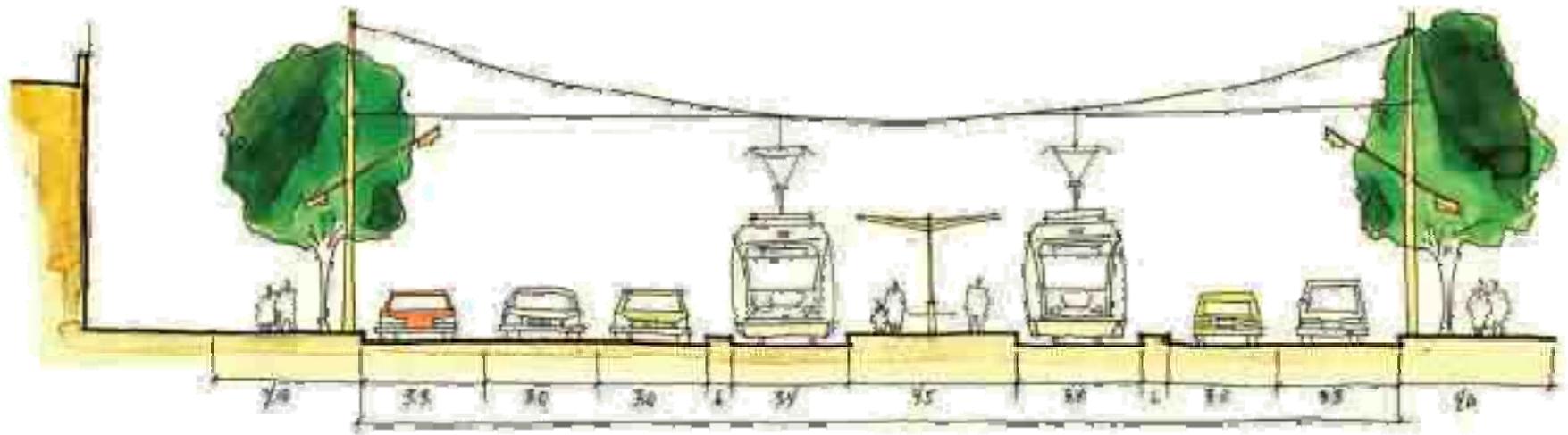
- 200 passengers and priority over car



Developing Integrated Transit Solutions

■ Complete Streets and Corridors

- Working with partners to implement '**complete corridors**' that include region-wide investment in sidewalks, bikeways, lighting, landscaping and other measured to improve access to stops
- Implementing comprehensive wayfinding to guide passengers to transit stops
- Landscaping, tree planting and public art integrated into design



Lyon, France



THE TRAM WITHIN BARCELONA



100 % low floor



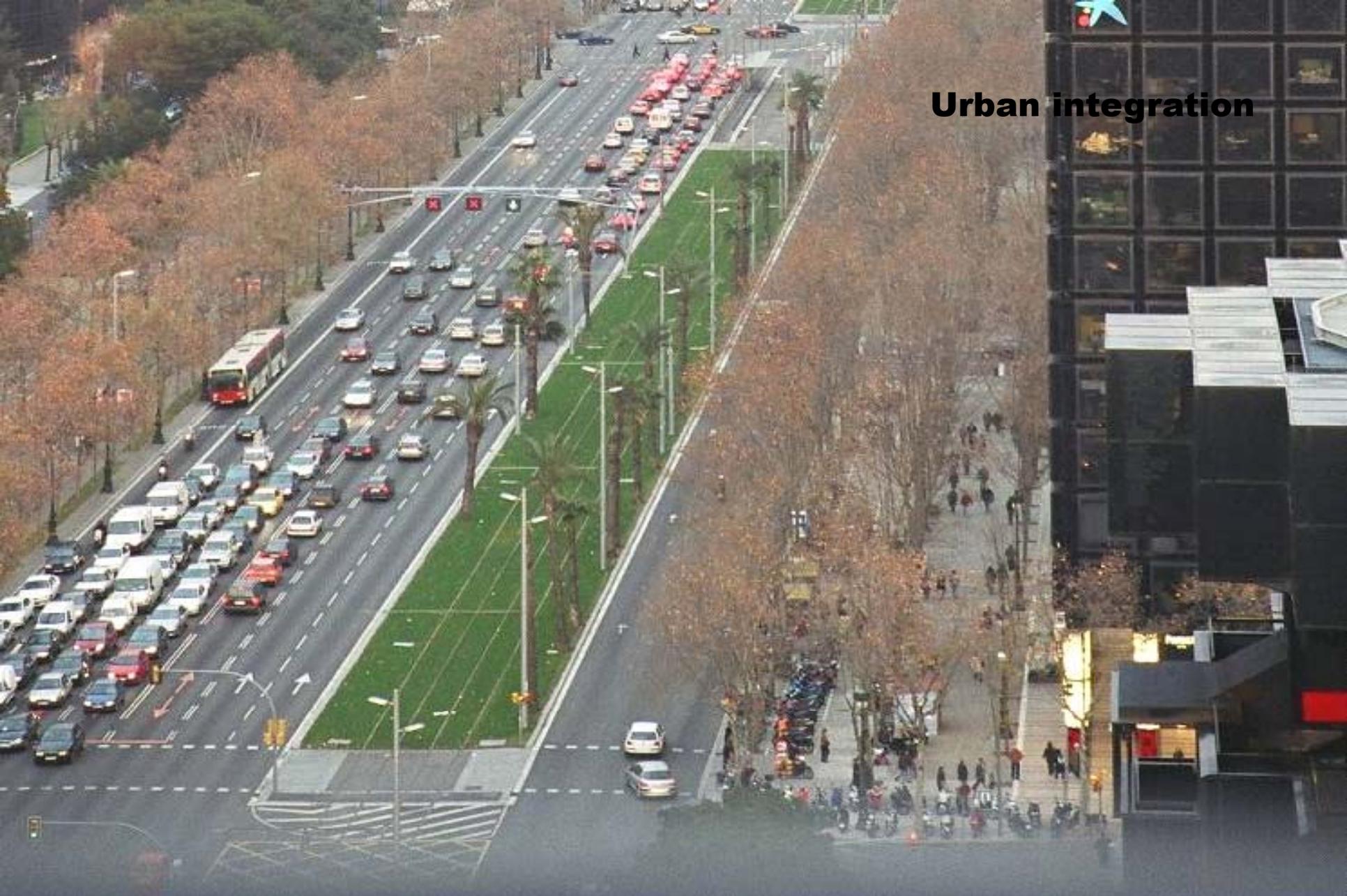
TRAM VIA METROPOLITÀ S.A.

→ **19 tramways**

**TRAM VIA METROPOLITÀ
DEL BESOS, S.A.**

→ **18 tramways**





Urban integration

Urban integration



Montpellier, France



Montpellier

- Short under-pass designs
- Not full Subway
- Wider City Shaping and Place making Decision-stay on the surface
- Animate the streetspace





















Strasbourg, France



Strasbourg, France

Strasbourg, France

- Light Rail fully integrated
- Provides easy access
- Is part of “the place”



LUAS is a Desirable Lifestyle Choice



21 Moyne Road, Ranelagh, Dublin 6
Auction Wednesday 27th June 2007

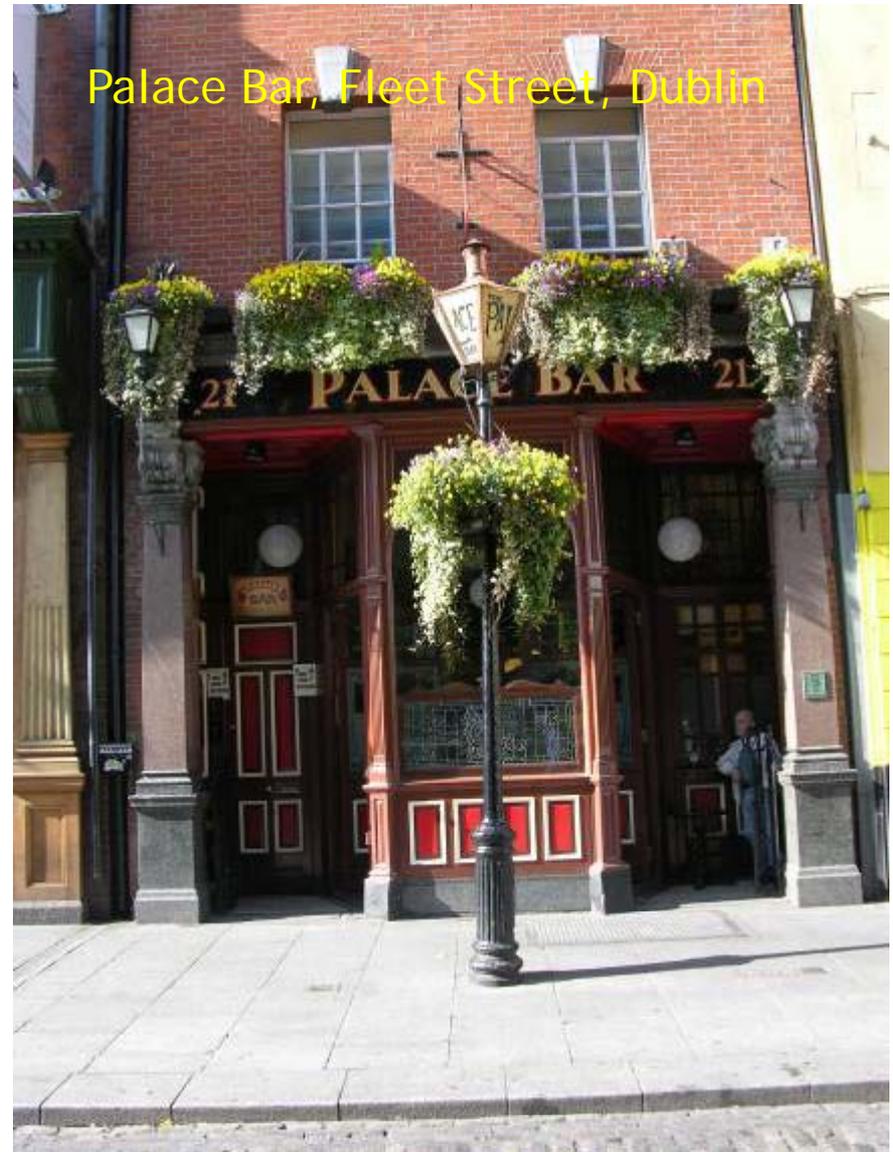
Ranelagh 499 5050

- A stunning Victorian residence which has been extensively refurbished and extended in recent years by it's architect and interior designer owners
- Bright spacious accommodation complemented by a wealth of original period details.
- The rear garden with feature Victorian style greenhouse has been extensively planted and nurtured providing a tranquil private retreat
- Superbly convenient location within a minutes walk to LUAS at Beechwood
- Acc: Ent hall, drawing, dining, kitchen/breakfast, sunroom, 3 beds, master ensuite shower, family bath, attic conversion, 156sq.m/1,678 sq.ft including attic conversion 22sq.m/ 236sq.ft
- Open view Thursday 1-2pm and Saturday 3-4.30pm
- **AMV €1,700,000**

Irish Times- Property Supplement June 2007

Dublin

- Railway Procurement Agency mandated to deliver by 2015
- The DTI Initiative has highlighted the benefit of an integrated Regional Transportation Plan
- Land Use link is critical
- Multi-modal approach is key
- Stakeholder inputs generate “ownership”



Dublin

- LUAS has provided real Transportation Choice
- LUAS has generated TOD
- The Development industry can see the benefit
- DTI and LUAS has achieved more than “transportation benefits”
- The DTI and LUAS has changed the face of Dublin





Thank you

For More Information...

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