THE DUBLIN TRANSPORTATION INITIATIVE:
HOW INTEGRATED TRANSPORTATION SOLUTIONS CHANGE A CITY

Innovations in Regional Transportation Plans
Rail-Volution Conference, Miami 2007

Alan Jones
Associate

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Steer Davies Gleave
28-32 Upper Ground
London, SE1 9PD
+44 (0)20 7919 8500

www.steerdaviesgleave.com
Where is Dublin, Ireland?
Dublin: A European Capital City

Miami, 2007
Miami, 2007

..famous for its 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
Introduction- the scope of this presentation

- A look back at a 1990’s Regional Transportation Plan
- How the “The Dublin Transportation Initiative” was developed
- What were it’s key components?
- A focus on the Light Rail component of DTI- “the LUAS system”
- A look at some examples of the benefits of an integrated planning approach
- A brief look ahead at Dublin’s future plans
Overview

Client:
- Department of the Environment, DTI
- Transport Department & Coras Iompair Eireann, LUAS

Started:
- 1990 Dublin Public Transport Model for CIE

A Brief Chronology:
- DTI Phase 1 - 1991
- DTI Phase 2 - 1992-1994
- Line A Inquiry (Red Line) - 1998
- Line B Inquiry (Green Line) - 1999
- Green Line opens - June 2004
- Red Line opens - September 2004
Dublin Transportation Initiative

- **Phase 1 (1991)**
  - Review of last twenty years
  - Current state of transport system
  - Scope for Phase 2

- **Phase 2 (1992 - 1994)**
  - At the time largest integrated transport planning study in Europe
  - Produced
    - 20 year strategy
    - 5 year implementation plan
    - Transport planning structure
  - Included
    - Developing the strategy
    - Consultation - public and stakeholders
    - Modelling and Appraisal
The Dublin Transportation Initiative- 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
- Public Private Partnerships for delivery
THE DUBLIN LIGHT RAIL PROJECT - “LUAS”
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 to contribute to wider land use and social cohesion objectives for the Dublin City Region
LUAS- A Two Line Network

Red Line = 15 km
Green Line = 8 km
LUAS - Steer Davies Gleave’s Involvement

Worked from concept to granting of funding for first two lines

- Selection of technology
- Route development
- Preliminary designs
- Modelling and appraisal
- Traffic assessment
- Expert Witness at Planning Inquiries
European Funding was critical for LUAS construction
LUAS - Opened in 2004...Well Supported
...and generated a lot of interest
LUAS - Key Achievement

Miami, 2007
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 $1.3 million in 2005 ($900,000 in 2004) - an achievement well ahead of an anticipated deficit of $3.3 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
THE LUAS IMPACT #1 DUBLIN CITY CENTRE
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
LUAS- Shared use of highway can lead to conflicts
LUAS IMPACT #2: TALLAGHT TOWN CENTRE
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”
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 to the urban realm.
Tallaght Town Centre Masterplan - Building on the Red Line

Planning legislation permits the writing of masterplan frameworks as ‘Local Area Plans’ for areas which:

- “require economic, physical and social renewal; and for areas likely to be the subject of large-scale development within the lifetime of a Development Plan”.

Tallaght Town Centre Masterplan adopted in October 2006
Development around LUAS Stops
"The arrival of Danninger's Tallaght Cross marks the enormous transformation of Tallaght's residential development located right on Tallaght town square with the Red LUAS line terminating at its doorstep"
LUAS- Red Line, Tallaght town centre-successful TOD
Tallaght “After”
THE LUAS IMPACT #3 RETAIL DEVELOPMENTS
LUAS- Small Scale Retail Benefits
LUAS- Changing Retail Offer - taking advantage of LUAS
LUAS- a “Captive Market”
LUAS- Increasing “Retail Footfall”
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

- Dundrum 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
THE LUAS IMPACT #4 RESIDENTIAL DEVELOPMENT
LUAS- Transit-Oriented Development...Old...
LUAS - Transit-Oriented Development...New
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
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)
LUAS is a Desirable Lifestyle Choice

Irish Times- Property Supplement June 2007
LUAS - FUTURE PLANS

Miami, 2007
Proposed Extensions

Railway Procurement Agency mandated to deliver by 2015:

- Seven Luas extensions/new lines
- Metro North (Airport), Metro West
- Increased capacity on Red and Green Lines
Proposed Extensions

Legend:
- Existing Luas Lines
- Key Interchange
- Proposed Luas Line A1
- Proposed Luas Line B1
- Proposed Luas Line C1
- Proposed Luas Line BX

January 2006
Conclusions

- 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”
- The DTI has delivered, but even the best plans cannot always anticipate rate of growth
Conclusions

- 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
For More Information...

Alan Jones, Associate  
Steer Davies Gleave

28-32 Upper Ground  
London
SE1 9PD  
United Kingdom
Tel: +44 207 919 8500

1000-355 Burrard Street  
Vancouver, BC, V6C 2G8  
Canada
Tel: 1 604 608 6198

alan.jones@sdgworld.net
www.steerdaviesgleave.com
Thank you