Luas & Metro Plans for Dublin

Michael Sheedy
Director Light Rail
Railway Procurement Agency
• Performance of Luas to date

• Proposals for new light rail & metro lines

• Operating & Construction impacts
2007 Estimates based on Current Usage
10% more than forecast to date (Total)
Average Ridership per Hour

Morning and Evening Peak Hours (Nov ’06)
## Journey Time Saving

<table>
<thead>
<tr>
<th>Time Saving</th>
<th>Red Line</th>
<th>Green Line</th>
<th>Both Lines</th>
</tr>
</thead>
<tbody>
<tr>
<td>0-10 minutes</td>
<td>32%</td>
<td>19%</td>
<td>25%</td>
</tr>
<tr>
<td>11-20 minutes</td>
<td>24%</td>
<td>23%</td>
<td>23%</td>
</tr>
<tr>
<td>21-30 minutes</td>
<td>31%</td>
<td>40%</td>
<td>36%</td>
</tr>
<tr>
<td>31-40 minutes</td>
<td>4%</td>
<td>8%</td>
<td>7%</td>
</tr>
<tr>
<td>41-50 minutes</td>
<td>5%</td>
<td>7%</td>
<td>6%</td>
</tr>
<tr>
<td>51-60 minutes</td>
<td>2%</td>
<td>2%</td>
<td>2%</td>
</tr>
<tr>
<td>More than an hour</td>
<td>2%</td>
<td>2%</td>
<td>2%</td>
</tr>
</tbody>
</table>

75% of Luas passengers save 10 minutes or more
52% of Luas Passengers save 20 minutes or more
16% of Luas passengers save more than half an hour
Mode Transfer

- Cycling: 1%
- Walking: 7%
- Private Transport (including Taxi): 30%
- Bus or Train: 56%
- New trip: 6%

45% - 50% of Luas Users Have Car Available
Mode Split

Mode Share On Luas Corridor

PT Share increase from 16% to 27%
Luas Benefits

- Mode Transfer from Private Modes
- Increased Land Values (20%+)
- Improved Perception of Public Transport
- Urban Regeneration
- Improved perception of City Environment and Living Space
- Increased opportunities (social inclusion)
- Increased retail footfall (30%)
Park & Ride
Capacity V Demand

85% of comfortable capacity used
Loading of greater than 4/m²

Capacity of 265 persons (40m)

Capacity of 190 persons (30m)
30m to 40m

TGA (Citadis) 401

TGA (Citadis) 301
Luas C1 to Point
Principles of 3D Radar Mapping

Once buried object is found how do we determine what it is?

Using multiple antennae moving over a straight line
- Concentrated finding = single object
- Linear = service pipe
- Distributed = layer

Images improved using specialist image filtering techniques
Sample Results

North Wall Quay - Castleforbes 3D Layout
Carrickmines Bridge

2007/08/30
Metro North

- 15 stations
  - 9 underground
  - 6 surface
- 18 km
  - 10 km in tunnel
- Interoperable with Luas/Metro West
- High capacity
  - 20,000 passengers/direction/hour
- Frequent service
  - Up to 30 trains per hour
- Fast
  - 17 minutes to Dublin Airport
  - 25 minutes to Swords
- Reliable
  - Fully segregated
- Accessible
Metro North - Interconnector
Metro North - St. Stephen’s Green
Luas BX Route

St. Stephen’s Green

Dawson St.

Grafton St. (lower)

College Green

O’Connell St.

Marlborough St.
Luas F – Lucan to City Centre

Route Options – City Centre
Luas BX – New PT Bridge
Short cross section at widest point
Budapest
Metro North - O’Connell Station
O’Connell cross section
Artists impression of Platform level
Metro West