**LUAS - DUBLIN’S LIGHT RAIL TRANSIT SYSTEM**

**INTRODUCTION**

Luas* is the new Light Rail Transit (LRT) or tram system for Dublin city. Light Rail differs from regular train services because it is integrated with road traffic and often shares space with other vehicles. The challenge of the Luas scheme was to ensure that it could be built to the high standard demanded by the main project stakeholders, the Government. Stakeholders are the people who are involved in or affected by the operations of an enterprise. To this end, the Railway Procurement Agency (RPA) was created in December 2001 with the duty of managing the Luas project.

This case study examines the role of the RPA in monitoring the different contracts involved in the construction of Luas in the nation’s capital. The study will outline why there was a need for a Light Rail system to service the greater Dublin Area and show us how Luas will benefit the local economy and the communities it serves.

**RAILWAY PROCUREMENT AGENCY**

The RPA was established by the Transport (Railway Infrastructure) Act 2001 as a standalone, semi-state organisation responsible for the procurement of railway infrastructure systems. A semi-state organisation is owned by the State but has its own independent management structure. Other examples of semi-state organisations include ESB, CIE, and Bord na Móna.

The RPA was responsible for all planning, management, and communications activities regarding Luas. These tasks were particularly complex because the RPA itself did not construct Luas.

**THE LUAS CONTRACT**

Several years ago, the Government invited businesses from the private sector to tender for the Luas construction project. A tender is an offer by a company to do certain work or to supply certain goods at a fixed rate. The tender that won the contract was submitted as a joint venture by a number of engineering companies.

Following the award of the contract, the RPA’s goal was to ensure that the benefits of Light Rail systems would be available to the people of Dublin.

**LIGHT RAIL TRANSIT IN DUBLIN**

A Light Rail system for Dublin was first proposed in the early 1990s by the Dublin Transport Initiative. This initiative was created by the Government to plan for Dublin’s transport. This type of organisation, like the RPA, represents an example of the beneficial role government plays in business. In this instance, the Government took responsibility for planning a transportation infrastructure; a task that was unlikely to be addressed by private enterprise.

The work of the Dublin Transport Initiative was transferred to the Dublin Transport Office in 1995. In September 2000, the Dublin Transport Office produced a strategy called “A Platform for Change.” A strategy is a set of guidelines for an organisation’s operations. The Dublin Transport Office strategy outlined a vision for an integrated transport system in Dublin to be completed between 2000 and 2016.

**FACTORS INFLUENCING TRAFFIC GROWTH IN DUBLIN**

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<tbody>
<tr>
<td>Population</td>
<td>1,281,917</td>
<td>1,337,030</td>
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<td>Increasing no. of households</td>
<td>459,000</td>
<td>549,000</td>
<td>602,000</td>
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<td>Increase in employment</td>
<td>452,000</td>
<td>492,000</td>
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<td>Growing in or over-wintering (199 per household)</td>
<td>4%</td>
<td>42%</td>
<td>79%</td>
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**BENEFITS OF LIGHT RAIL TRANSIT**

Light Rail has emerged in recent years as a very popular addition to public transportation systems worldwide. The main benefits of Light Rail are:

- High capacity services: By operating on fixed rails, long tram carriages can travel through existing city streets.
- Excellent reliability: By using dedicated tram paths and providing priority at road junctions, a frequent service is possible.
- Passenger comfort: With spacious carriages and excellent suspension, trams offer a very smooth ride.
- Accessibility to people with physical disabilities: Because trams operate at kerb level, boarding trams is easier for wheelchair users.
- Environmentally friendly: Trams are powered by electricity, not directly producing exhaust fumes.
- Safety: Light Rail systems are designed so trams can mingle safely with other traffic.

New Light Rail systems have been implemented across Europe in Strasbourg, France; Stockholm, Sweden; and Manchester, England. As well as direct benefits, there are many indirect benefits of Light Rail. For example, trams create an opportunity for environmental and economic revitalisation by creating links with previously hard-to-access areas. Trams also proved extremely popular with the public. After the implementation of light rail transport in Grenoble, France, public approval was 93%.

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THE CONSTRUCTION OF LUAS

The RPA had to ensure that Luas would form a successful part of the future Dublin transportation network. One crucial challenge was how to build a large new transport system on the streets of a city with severe traffic congestion. To do this effectively, the RPA decided to divide construction into two phases.

Phase One: Site Preparation and Diversion of Utilities

Because Luas was to be built along many ordinary city streets, services such as water, gas, electricity and telephone lines ran directly beneath the proposed tram lines. As a result, before any work could commence on the tracks themselves, all existing cables and pipes had to be re-routed. This was required to ensure that, in the event of future problems with underground utilities, it would not be necessary to dig beneath the Luas line.

Phase Two: Infrastructure and Control Systems

Phase two involved laying tracks for Luas, constructing stations and installing overhead electrical lines. It also involved implementing the technology required to control traffic on the Luas lines.

LUAS COMMUNICATIONS STRATEGY

During construction, the RPA maintained close contact with local authorities, An Garda Síochána, local businesses, and households. This was to ensure that construction activity could be coordinated and cause minimal disruption. A communications strategy was also required to keep everyone affected by Luas up-to-date with progress.

The RPA chose a variety of channels to distribute its message. This included newspaper advertisements and street signs warning of construction works. The RPA also used direct-mail to send newsletters with construction updates directly to businesses and homes affected by development.

LUAS AND SAFETY

Safety formed a vital part of the RPA’s communications strategy. With the arrival of trams on the streets of Dublin, drivers, cyclists, and pedestrians had to be made aware of new hazards. A hazard is anything that has the potential to cause harm. With regard to Luas this includes such things as slippery metal tracks and the potential for bicycle wheels to become caught in rail grooves. The RPA therefore placed prominent advertisements in many local and national newspapers warning of the new hazards.

These actions represented the determination of the RPA to pursue socially responsible business activities. This is a business that considers the effects of its decisions on a wide range of people and understands the need to behave as a good member of society.

MANAGING THE LUAS LIGHT RAIL PROJECT

The construction and communications activities carried out by the RPA were made possible by the use of effective planning, team structures, and internal communications. A successful plan normally displays the following characteristics:

- It has a set of agreed objectives.
- It is precise and not open to misinterpretation.
- It is flexible and can react to changes in operating circumstances.
- It is achievable.

The organisation of the work that resulted from the plans involved decisions on aspects such as manpower planning, team structures, and internal communications. Finally, for a project as large as Luas the implementation of adequate control systems provided an important step.

Hundreds of people have worked on Luas over its lifespan and millions of euros have been spent. If there are no control and measurement systems in place, who is to know if the plans are being adhered to? In the case of Luas this is especially important because the RPA is answerable to the Government, who in turn are accountable to the people of Ireland. Therefore, the RPA created a control system that allowed it to know if work was being carried out as agreed. In such cases, the RPA had the power to ensure that contracts with companies who did not fulfil their commitments would not be renewed.

THE FUTURE FOR THE RPA

Now that Luas has been successfully launched in Dublin, the RPA is turning its attention to other projects including the development of two new light rail projects with the extension of Line B (Green Line) to Cherrywood and Line A (Red Line) to the Point Depot.

The RPA will also implement an Integrated Ticketing System and construct a new Metro system in Dublin.

Integrated ticketing is a system whereby a passenger can transfer from one mode of transport to another without having to purchase a new ticket each time. This arrangement encourages passengers to move more freely between buses, trams, and trains.

The possible construction of a Metro system in Dublin is another step towards improving the city’s public transport. Metro differs from Light Rail because it is physically separated from all other vehicles and can move at greater speeds and with more carriages. The RPA envisages this system being built as a Public Private Partnership (PPP). (A PPP is where the Government enters into agreement with private businesses to deliver a service to the public.) This benefits the state because construction and operating costs to the taxpayer are lower.

Following the successful management of the implementation of Luas, the RPA can look forward to these challenges with great confidence.