

Transport for London



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9 December 2011

Dear *Caroline*

London Assembly Transport Committee report – *State of the Underground*

Thank you for your letter to the Mayor and for sending us a copy of the Committee's report.

I enclose Transport for London's response.

The Mayor will be responding separately, as part of his January report to the Assembly.

Yours sincerely

Peter Hendy

London Assembly report: The State of the Underground

Introduction

TfL welcomes the Transport Committee's helpful feedback and we have outlined below how we have responded and plan to respond to all the recommendations. The State of the Underground report has been widely circulated and read across many departments in London Underground (LU).

We are in full agreement with the Committee on the need to improve performance further and recent figures (see appendix A) show we have already begun to make good progress. TfL has recently launched a reliability programme (see appendix B) which draws together all of its plans to deliver a deeper, more sustainable improvement in reliability for customers.

Recommendations

Recommendation 1

In light of the impact of strikes on London Underground's service in 2010/11 and the risks to the 2012 Games, we recommend that the Mayor review his and TfL's approach to industrial relations. Specifically, he should consider whether additional meetings with unions or other new structures might help improve relations. We ask that he report back to the Committee by December 2011 on his approach to maintaining good industrial relations over the next 12 months.

Since the Committee's report was published LU has secured agreement from all its trades unions to a four year pay deal that will ensure a long period of stability on pay. The agreement followed six months of constructive negotiations between LU management and trades unions' representatives.

The deal enables employees' salaries to keep pace with the cost of living whilst being realistic given the current economic situation and the pressure on Transport for London's (TfL) finances.

LU has also reached agreement with the trades unions on a temporary change to the framework agreement for train operators that will enable extended operations during the Games period.

In fact, following discussions earlier this year between LU's Managing Director and the General Secretary of the RMT, LU is jointly engaged with RMT in an independent review of industrial disputes.

Looking beyond the Games, LU Managing Director Mike Brown has committed to directly engaging with every member of staff, at a series of events now underway and continuing to March 2012. This includes discussion on how LU's operations will be affected by developments in technology and changes in customer behaviour. Parallel discussions are also taking place with the trades unions including with their General Secretaries.

LU is committed to managing any change openly and honestly and in consultation with trades unions.

Recommendation 2

By December 2011, the Mayor and TfL should provide a written report to the Committee on the steps that have been taken to reduce delays and ensure that performance returns to record levels both across the Tube network and on each individual line. The report should include the actions taken to address the main asset-related causes of increased delays in 2010/11, namely:

- fleet failures on the Victoria, Metropolitan and District lines;
- problems with the Automatic Train Operating system on the Jubilee line; and
- problems with engineering trains on the Northern and Piccadilly lines.

As the Committee acknowledged in its report, by the first two periods of 2011/12 reliability had already recovered from the dip experienced last year including the specific problems highlighted above. This trend has continued as set out in subsequently published performance reports - see appendix A, also publicly available on TfL's website at

<http://www.tfl.gov.uk/corporate/modesoftransport/londonunderground/1592.aspx>.

Despite some incidents that have caused regrettable disruption for customers, overall performance in the first six months of 2011/12 has improved, and customer satisfaction has been sustained at record levels. Demand has continued to increase, with new records being set several times for the number of journeys made in a four week period.

However, as the Committee noted, TfL is keen to ensure a consistently high standard of reliability expected by Londoners. To achieve this LU has put in place a comprehensive reliability improvement programme, putting reliability at the heart of everything it does. This programme focuses on three key areas:

- Response and recovery to any incidents that occur
- Predicting and preventing failures

- Improving how LU upgrades existing assets and purchases new assets.

See appendix B for full details, also publicly available on the TfL website at: <http://www.tfl.gov.uk/assets/downloads/corporate/Item06-Rail-Underground-Reliability-Improvement-Programme.pdf>.

The programme identifies (in section 2) the actions taken to address the specific issues that arose on the Victoria, Metropolitan, District and Jubilee lines mentioned above. The programme also introduces (in section 8) a series of "Command Centres" set up for every line on the network in order to deliver the required improvement in performance.

The incidents involving engineering trains on the Northern and Piccadilly lines were both the subject of detailed investigations, by TfL and Tube Lines respectively, and the Rail Accident Investigation Branch has also published reports of its investigations into both incidents which are available on its website. All recommendations concerning the incident on the Northern line have been implemented. The majority of the recommendations regarding the Piccadilly line have been completed and the remaining few longer term actions are on target to be completed to agreed programme dates by the end of 2012.

By December 2011, TfL should ensure its regularly published information on Tube performance includes Lost Customer Hours for each of the 11 London Underground lines broken down by causative factor.

TfL is committed to ensuring all passengers and stakeholders have increased access to full and transparent information on performance and has developed a new four weekly report now published on its website at <http://www.tfl.gov.uk/corporate/modesoftransport/londonunderground/1592.aspx> (see appendix A for latest figures).

The new format gives a wider range of measures including Lost Customer Hours for each line broken down by causative factors as requested by the Committee. This new format is evolving and we look forward to further input from the Committee as this process continues.

Recommendation 3

By December 2011 the Mayor and TfL should report to the Committee on the steps that will be taken to manage crowding on the Tube between now and 2018. The report should address how London Underground has responded to the issues raised in our previous report including progress with making real-time information available to passengers at stations and advertising alternative routes to popular destinations.

The upgrade of every Tube line under the current plan will increase peak capacity on the network by 30%. This is already playing a part in providing tangible benefits for passengers, with the Jubilee line upgrade now completed. This enabled the introduction of a new timetable in July 2011, with more trains (18% more at peak times) running more quickly between stations, creating more space for the rapidly-growing numbers of passengers who use the line. The Victoria line upgrade is on track for completion next spring; a new timetable has already provided more capacity at off peak times and the line now has a full fleet of new, more spacious, trains. On the Metropolitan line 16 new trains are already in service with much more spacious walk through carriages.

Day to day, TfL's approach to managing crowding is to provide the best possible train service and ensure that stations operate safely in order to maximise available capacity, and to ensure customers have all the information they need about the service and alternatives to make informed choices.

Accordingly, as outlined in the response to recommendation two, TfL has implemented a reliability improvement programme; a more consistently reliable service will lead to fewer instances of acute crowding caused by disruption.

TfL has also invested heavily in improvements to the way it provides helpful and timely real-time information so customers can make informed travel choices, through:

- working with staff so their first priority is to keep passengers informed;
- installing a new radio system that means staff, including train operators, can get information on service problems much more quickly than in the past;
- using new technology such as Blackberry handsets that mean staff have a direct information feed in their hands when they're working on platforms;
- improving the presentation of electronic service update boards at stations, on the website and data for mobile phone applications;
- developing new ways of helping passengers get the information directly through increasingly popular social media channels, such as new Twitter feeds now being trialled;
- making real time service update information publicly available for developers to use for their own applications, and looking at ways to promote those applications through TfL's website.

TfL has also developed initiatives following further analysis of the Committee's previous suggestions and of passenger flows. Recent analysis at Clapham South

and Bethnal Green stations on the Northern and Central lines suggested that the movement of some passengers from the 'peak of the peak' by less than quarter of an hour could lead to large benefits. It was found that avoiding as little as a 15 minute time frame could make a big difference to ensuring customers can board the first train and continue their journey in relative comfort. TfL has conducted trials at these stations to judge the effect of using targeted emails (for Clapham South customers) and posters, whiteboards and public address announcements (at Bethnal Green) to encourage regular customers at the stations to re-time their journeys if possible to avoid particular periods of congestion in the peak. The results of the trials are currently being analysed and TfL will update the Committee further once this has been completed.

TfL is also encouraging customers to consider better alternative travel options, where available, by emphasising a more integrated view of all TfL modes. Following on from the success of Legible London in promoting walking for short journeys LU has continued to work closely with other parts of TfL to further this programme and highlight the proximity of central London locations. As part of this, TfL recently completed a targeted walking pilot to encourage more people to make onward journeys from Waterloo station by foot. The results are still being processed but so far it is clear that Oyster usage reduced on the Tube and leisure walking increased during the period of the trial.

LU of course has well-rehearsed and proven plans for safely managing passenger flows at all its stations, including stations such as Victoria which are used by very large numbers of customers. This was well demonstrated by the station's ability to cope with the necessary but disruptive escalator work, recently completed ahead of schedule, which reduced capacity and necessitated a carefully managed crowd control plan.

Of course Victoria and other key and heavily used stations such as Bond Street and Tottenham Court Road are undergoing major upgrades to provide additional capacity. The impact of such upgrades is apparent at King's Cross St. Pancras where passengers' journey experience has been transformed by an upgrade that quadrupled the size of the station.

Recommendation 4

We recommend that the Mayor and TfL continue to make the case to Government for funding to upgrade the Bakerloo, Piccadilly and Central lines and intensify this activity in the run up to the next spending review. The Committee will support all efforts to this end recognising the importance of an efficient Tube network to the London and UK economy.

We are in full agreement with the Committee about the significance of these upgrades and their vital importance to London and the wider UK economy and we will continue to make the case to government to ensure there is funding to enable them to go ahead as planned.

A key element of that case is to demonstrate that TfL will deliver efficiently and provide the best possible value for taxpayers' and fare payers' money. The demise of the Public Private Partnership gave TfL the opportunity to look at upgrading the Tube using a much more integrated approach by developing solutions that fit more than one line. As a result, the Piccadilly line upgrade is now being progressed alongside the Bakerloo line as part of a wider programme that will drive future upgrades of all the deep Tube lines. A key element of this will be a common design of rolling stock specifically developed to meet the needs of the deep Tube's operating environment. This approach will deliver the best possible service, including improved reliability, for Londoners while also delivering substantial cost savings. The procurement strategy and therefore the schedule for introducing new trains and signalling on these lines is still under development, but the new trains on the Bakerloo and Piccadilly lines are likely to be introduced in the early 2020s.

Recommendation 5

By December 2011, TfL should publish a detailed breakdown of its plans to find savings on the Tube upgrade and maintenance programme. We expect this to demonstrate that its costs for the upgrades and ongoing maintenance are in line with the most efficient international metro systems.

TfL published its first Benchmarking report in June 2011 further demonstrating that LU performance, in terms of the availability of assets such as trains, tracks and signal systems, has improved by over a third since the transfer to TfL in 2003/04.

The next Benchmarking report will be published when it is considered by the TfL Board in March 2012. The report is being prepared in conjunction with the Independent Investment Programme Advisory Group (IIPAG) and will set LU's costs in an external and international context comparing our capital projects and maintenance costs with other Metros and, where available, with other external comparators for example Network Rail. We would therefore propose to share and discuss its findings with the Transport Committee at that time also.

LU's engagement with its metro operating partners around the world has already driven very significant changes to the way upgrades are delivered. In early 2009, prior to the start of the tendering process for the contract to deliver the new signalling system for the Sub-Surface lines, LU pro-actively sought to learn lessons from other metros, including Madrid, which helped inform the specifications for the tenders.

This resulted in a world class contract award price for the resignalling of the Sub-Surface lines, as well as minimal closure requirements.

LU continues to participate actively in international benchmarking activities with other metros through its membership of Community of Metros (CoMET) and the International Association of Public Transport (UITP). Most recently LU chaired a two day conference in London in November 2011 at which some of the world's top metros met to benchmark progress on their Communications Based Train Control Signalling implementation. It was agreed to form working groups on key areas such as implementation methods, reliability and unit costs. A future follow-up discussion between members of CoMET and its sister benchmarking group Nova members will be held to further share experiences and the output of the working groups. More information on international benchmarking and engagement can also be found in appendix D.

At the recent CoMET annual meeting LU promoted more focus on capital benchmarking. The meeting recognised that the work would generate a valuable source of data enabling further improvement. LU will take a lead role in this and will propose the initiation of an in-depth case study with the CoMET members on capital investment at the CoMET annual general meeting next April.

LU's Capital Projects is a leading contributor to the Treasury's cost review study, Infrastructure UK (IUK), which identified LU's station's programme as a best practice example compared to internationally benchmarked equivalents. LU is also helping to socialise the work of IUK to infrastructure clients and suppliers through industry forums. In particular, the application of building information modelling (BIM) as part of the Victoria Station Upgrade and the proposed procurement approach at Bank Station Upgrade ('Innovative Contractor Engagement') are currently being considered for inclusion as models of industry best practice by HM Treasury.

LU continues to work with IIPAG, who have conducted reviews on many of LU's larger projects. The reviews consider LU's approach to the design, procurement and delivery of projects. The reviews have been helpful in highlighting opportunities to improve certainty and efficiency of project delivery. IIPAG have also carried out systemic reviews of project management practice, and have helped LU improve its project management maturity.

Recommendation 6

By December 2011 IIPAG should publish full details of its future work programme on the Tube and by when it intends to publish findings from this work. This should include full details of its proposals for benchmarking TfL's expenditure and performance on the Tube upgrades including with other Metros abroad.

In October 2010, TfL established a benchmarking programme and produced an initial report in June this year (see appendix E). Also in June IIPAG appointed two part-time specialists to direct TfL's programme going forward. IIPAG has established a Benchmarking Steering Group with senior representation from the business, where the priorities for benchmarking work are confirmed, the outputs of the benchmarking analysis reviewed and the recommended actions monitored. The annual Benchmarking report (see recommendation 5 above) will also set out the future programme of benchmarking activities that have been agreed by the IIPAG-led Benchmarking Steering Group.

For detail on all other aspects of IIPAG's programme please see appendix C for IIPAG's annual report.

Recommendation 7

By December 2011, TfL should provide a report to the Committee on the changes it has made to its organisational structure, processes and staffing to ensure successful delivery of the day-to-day Tube service and the entire Tube upgrade and maintenance programme.

A key focus for all of TfL's activities, and the Tube is no different, is to ensure that it delivers the best possible value for money in all its activities – in the front office and the back office. Good progress has been made this year in ensuring LU's operations adapt to changing times and are focused on customers needs, making best use of resources. Revised arrangements for station and ticket office operations introduced in February were essential to reflect the massive changes in the way customers now use the system following the success of Oyster, and have achieved significant savings. Currently Project Horizon, the TfL-wide organisational review of support services, is expected to deliver significant savings, a smarter way of working and a likely reduction of 20% of support staff.

As set out in section 4 of the reliability programme LU is developing plans to invest £25m to co-locate engineering and operations staff, the Network Operations Centre, Tube Lines support personnel and colleagues from the British Transport Police into a consolidated new LU Command and Control Centre. This will help respond in the quickest and most effective way to disruptions across the network. To support this new way of working, LU is currently recruiting specialist operational managers, whose responsibility is to take overall charge of how the network as a whole recovers and not just focus on the disrupted line.

Other aspects of the reliability improvement programme's plan to improve the reliability of day to day service delivery were referenced in the response to recommendation 2. Additionally, LU continues to investigate and develop proposals for further initiatives to enhance reliability as part of an ongoing process of improvement of its culture and processes.

For a detailed explanation of how delivery of capital programmes in LU is organised, the improvements already made and further actions now being taken forward, is attached see appendix D.

The progress already made in management of the Tube's assets and its management of projects has been recognised with the achievement of two significant industry accreditations. LU became the first UK railway operator to achieve PAS55 certification, an internationally recognised British Standard on asset management, following a full assessment between January and May 2011. LU has also now progressed to Level 3 of the Office of Government Commerce's P3M3 Maturity Model, an achievement based on the development of a single, consistent Project Management Framework within which all projects are managed. LU is focused on retaining these certificates and to build on its success to further improve ways of working.

Conclusion

I hope you have found this response helpful and of course TfL will be happy to discuss these issues with you in more detail. We view the Committee's report and our response as part of an ongoing dialogue and look forward to working with you closely in the months and years ahead as we drive forward further improvements to London's Tube service.

Appendices

Appendix A – New four weekly performance report

<http://www.tfl.gov.uk/corporate/modesoftransport/londonunderground/1592.aspx>.

Appendix B – Reliability programme

<http://www.tfl.gov.uk/assets/downloads/corporate/Item06-Rail-Underground-Reliability-Improvement-Programme.pdf>.

Appendix C – IIPAG's annual report

<http://www.tfl.gov.uk/assets/downloads/corporate/iipag-annual-report-2010-11.pdf>

Appendix D – TfL's Finance and Policy Committee paper: Capital Delivery in London Underground.

Appendix E – TfL board paper: Rail and Underground Asset Benchmarking

<http://www.tfl.gov.uk/assets/downloads/corporate/Item10-Board-29-June-2011-RUP-asset-benchmarking.pdf>.

TRANSPORT FOR LONDON

FINANCE AND POLICY COMMITTEE

SUBJECT: CAPITAL DELIVERY IN LONDON UNDERGROUND

DATE: 23 NOVEMBER 2011

1 INTRODUCTION

- 1.1 This paper advises the Committee of London Underground's (LU's) plans and progress in enhancing its project and programme capability to deliver the line upgrades. Some of the plans are currently being progressed only in LU, but have the potential to be applied across the whole of TfL's investment programme, a task made easier by the imminent creation of a pan-TfL Programme Management Office (PMO).
- 1.2 There has been significant change to the delivery of capital investment at LU over the past four years as a result of the integration of Metronet and the bringing in-house of the delivery portfolio. Combined with an increase in the value of the Investment Programme, LU's capital investment programme is now one of the largest in Europe. This paper reviews the change programme, demonstrates significant progress to date but recognises that the examples of best practice noted in the paper are yet to be applied consistently across the whole LU portfolio.. This change programme is based on the 'New LU/C Change' programme initiated on the Sub Surface Railway (SSR) Upgrade Programme.
- 1.3 The Committee is asked to note the paper.
- 1.4 This paper is the proposed response to part of the London Assembly report and is being considered in closed session to allow Members' comments to be incorporated prior to its publication.

2 BACKGROUND

- 2.1 London Underground's Capital Investment Programme will invest £10bn over the next seven years, spending on average £1.4bn/year, representing 85 per cent of the whole TfL Investment programme (see figure 3) .
- 2.2 Only six years ago (2005), LU had no direct accountability for any significant capital investment, all such work being delivered by the PPP Infracos, Tube Lines and Metronet. Progressively since 2005, and significantly in 2008 (following the administration and transfer of Metronet to TfL), the LU Capital Investment Programme has grown. During this period of growth, LU's programme/project management resources, tools and processes have also had to grow (see figure 1).

2.3 A number of change initiatives have been instigated to enhance LU programme delivery; these have been informed by both internal and external review. These changes, informally known as “C Change”, are formally grouped under the Programme Management Capability Improvement Programme (PMCIP). The PMCIP forms one of 21 programmes within the Rail and Underground Investment Plan, and is governed by a Director level board. This paper schedules the key initiatives, provides a status report on progress to date, and impact on performance.

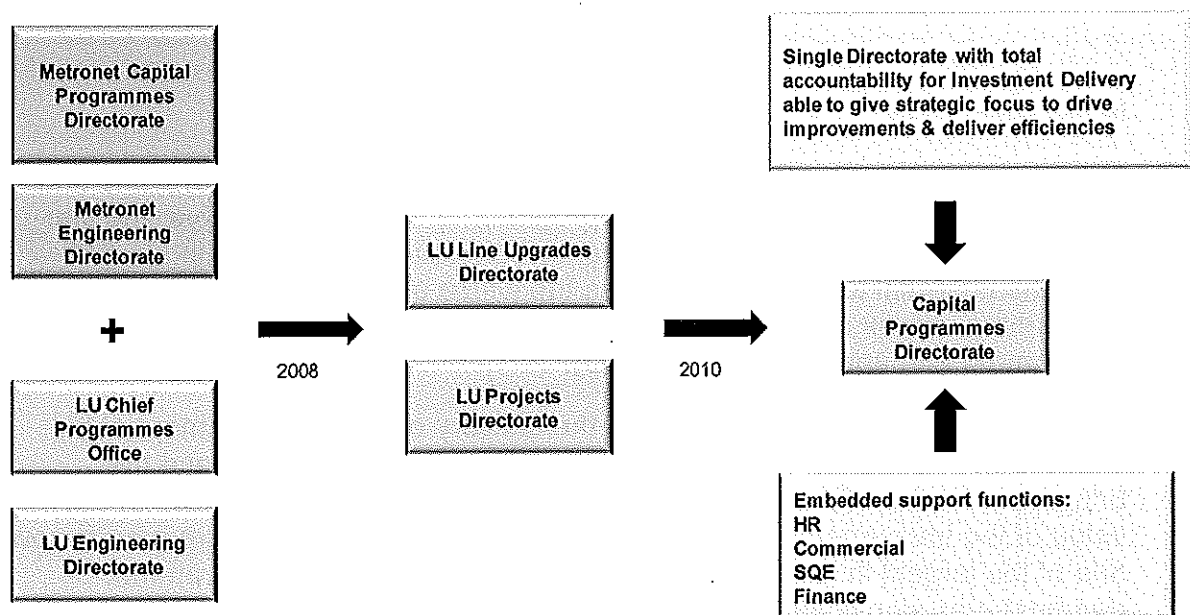


Figure 1: Background to the LU Investment Programme Organisation

2.4 As an integral part of LU, the Capital Programmes Directorate (CPD) has an excellent working relationship with the rest of the business, particularly with the Strategy team, the Sponsor of change, and the Operator and Maintainer, who receive the new or changed assets into operational use. This excellent relationship was acknowledged by the Nichols Group as world-leading in its recent report on the delivery of investment within LU.

3 SCALE OF INVESTMENT

3.1 The LU Capital Programme covers a wide range of programmes, including stations, track, rolling stock, signals, power and cooling. The largest of the programmes is the Sub Surface Railway Upgrade Programme (SUP), delivering one of the largest and most complex railway upgrades in Europe. Figure 2 provides an overview of the Investment Programme.

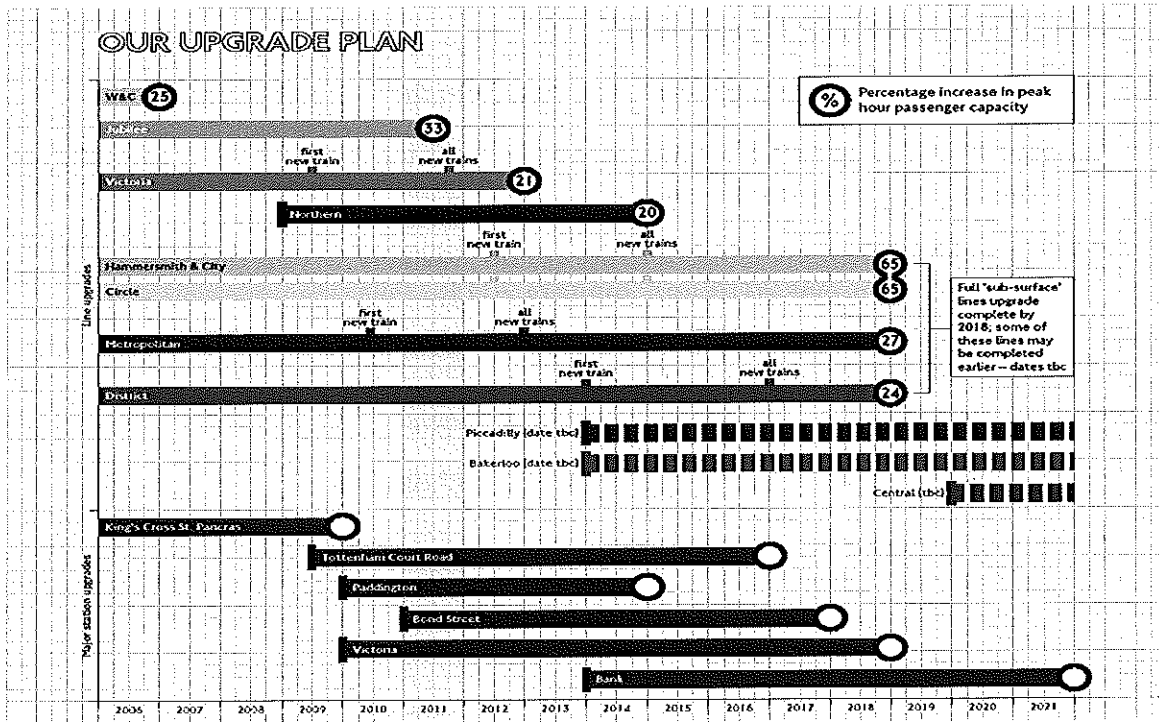
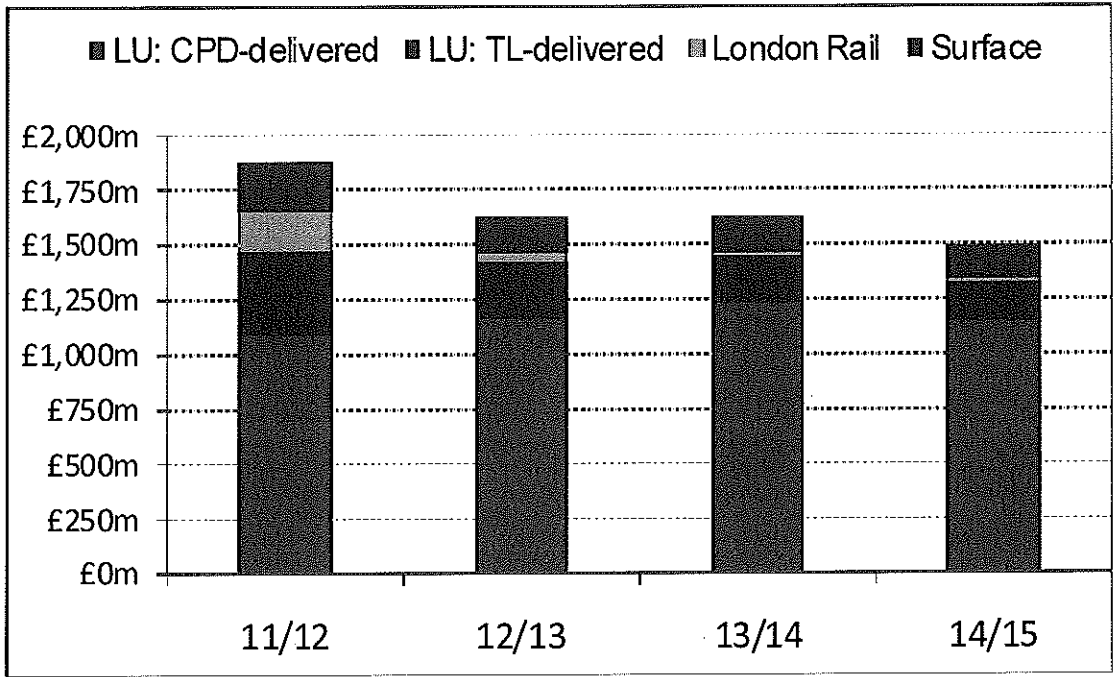


Figure 2: overview of Investment Programme



CPD = Capital Programme Directorate; TL = Tubelines

Figure 3: overview of Investment Programme spend profile

4 CHANGE PROGRAMME ACTIVITY

4.1 The following sources have been used to inform and establish the PMCIP:

- (a) the "New LU" initiative started following the integration of the LU and former Metronet capital programmes;
- (b) the Independent Investment Programme Advisory Group (IIPAG) quarterly reports September 2010 and January 2011;
- (c) the IIPAG annual report July 2011;
- (d) various individual and systemic IIPAG reviews;
- (e) a review undertaken in August 2011 by Nichols; and
- (f) observations and analysis from the external accreditation of LU's project management systems undertaken by Outperform and the APM Group, which led to the level 3 accreditation against the Office of Government Commerce (OGC) P3M3 maturity model.

Previous papers have been provided to the Committee setting out the specific actions being undertaken to address the issues raised by IIPAG.

Overview

4.2 The PMCIP comprises six themes:

- (a) People and Knowledge Sharing;
- (b) Risk and Value;
- (c) Governance and Organisation;
- (d) Developing Process and Systems;
- (e) Engineering; and
- (f) Identity and Branding.

Each of these is addressed below.

People and Knowledge Sharing

4.3 **Capability:** A single pan-TfL PMO will be established in January 2012 to provide oversight and support of the delivery of projects across TfL. A single project management methodology and system is under development and will be delivered in 2012.

4.4 LU has launched an Accredited Project Professional (APP) scheme for project staff (June 2011) and Health, Safety and Environment (HSE) training. The scheme sets minimum professional and competency standards, which are used to develop staff, and are reviewed by line managers, as a minimum, twice a year. This builds upon the existing competency management systems developed under TfL's Pyramid tool and provides a standard for all project

management development within the CPD.

- 4.5 **Knowledge Sharing:** Knowledge sharing events have been established, promoting cross-TfL sharing of knowledge and lessons learnt. Speakers from across TfL and external cross industry speakers such as Chief Executives from leading construction companies contribute to this activity. The most recent event was attended by 25 senior executives from within the rail and construction industry as well as a similar number of TfL employees.
- 4.6 LU CPD recognises that individuals learn lessons and carry knowledge with them. The organisation is increasing the “functional transfer” of staff between programmes in order to increase performance by directly applying hard-gained lessons and experience from one project to another.
- 4.7 A signed undertaking has been established with Network Rail to share information to mutual advantage. This will complement the knowledge sharing work that has been undertaken through the Communities of Metros (CoMET) benchmarking group.
- 4.8 Good progress has been made in sharing best practice with other members of CoMET especially Madrid, Paris and New York, including the agreement to share knowledge and personnel.
- 4.9 **Recruitment and Management of Resources:** A number of recruitment, reward and retention processes that were seen as limiting the programme managers’ ability adequately to resource their projects have been highlighted. All of the proposals recommended by Nichols have now been implemented. A separate paper to the Committee (Resourcing the Sub-Surface Railway Upgrade, November 2011) provides a more detailed status report.
- 4.10 **Behaviours:** Nichols recommended a behavioural change programme, a strong stance on poor behaviours using the performance and development process, and consistent messages from leadership and intolerance of inappropriate behaviours.
- 4.11 The PMCIP C-Change will seek to improve the behaviours within the CPD. This will build upon the work initially commenced on the ATC programme through the ‘New LU’ initiative which sought to prepare the organisation for closer, more collaborative, working with its contractors. This work has been given greater urgency through the views expressed within the Nichols’ review.

Risk and Value

- 4.12 A systemic review has been undertaken with the IIPAG to examine the adequacy of risk management and the approach to risk provision and contingency. A revised control and calculation approach as approved by the Committee has been established, including removal of contingency from project forecasts and recalculating based on the risk registers. Functional lead for risk has been strengthened, led by the appointment of an industry renowned expert on risk into the PMO. Training and embedment of best practice continues.

4.13 While benchmarking has been conducted for maintenance activities over the previous six years, under the guidance of the PPP Arbiter, limited work has been done on capital projects, notably on escalator replacement. The work of TfL's benchmarking team is now giving greater focus on capital investment. A number of studies have commenced, including a comparison between LU and Tube Lines track renewal unit costs and the size and cost of project management. In addition, standard units of measure are being defined for repeatable work items (e.g. cost per metre of Ballasted Track Renewal) and historic and forecast data is being gathered in order to compare these to external benchmarks (e.g. Network Rail, Tube Lines). The first phase of work has identified 12 unit rates across Track, Civils, Rolling Stock, Signals and Power upgrades and Stations Capacity. Further work in the coming year will expand the coverage. The benchmarking of capital programmes is being carried out as part of the wider benchmarking programme directed by IIPAG and the outcome of the work will be included in the next Annual Benchmarking Report to the Board, which is planned for March 2012. Figure 4 shows the current capital works benchmarking studies.

Benchmarking - current priorities for Capital Programmes

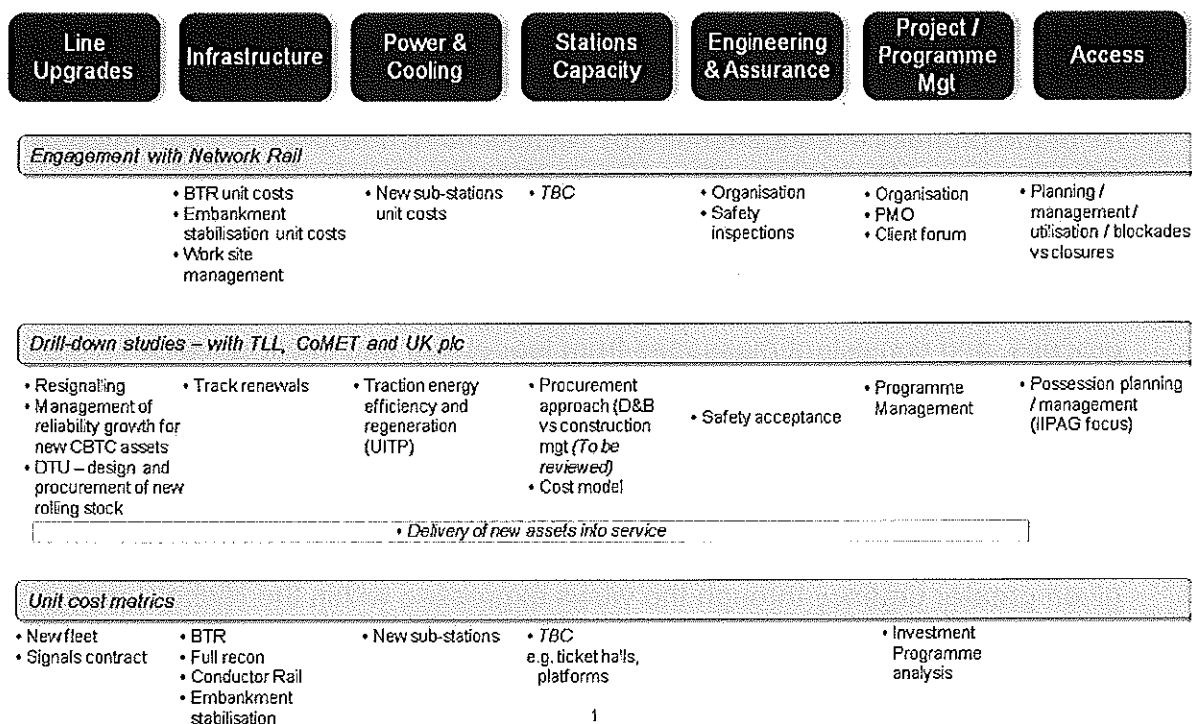


Figure 4: capital works benchmarking activity

4.14 Extensive sharing of best practice and costs have commenced with several organisations from the rail and infrastructure industries.

4.15 Efficiency targets have been set for the capital programmes (£1.3bn over the Plan years to 2017/18). LU is expecting to meet this target, having achieved efficiency savings of £195m since 2009.

- 4.16 Notable achievements include: reduction in escalator replacement costs by 50 per cent, industry beating costs for recently awarded Sub-Surface Rail upgrade programme (SSR) signalling contract, station capacity projects on average 10 per cent less per cubic metre than internationally benchmarked stations (source Infrastructure UK (IUK)).
- 4.17 LU has strengthened its project focus on project Value Management. An interim functional Head of Value has been appointed to raise awareness, competency and use of Management of Value techniques. Initial processes, competency requirements and training plans are in development and consultation with IPAG, which will be applicable across TfL.
- 4.18 LEAN methodology and processes have been piloted within the Stations Programme, and have achieved £13m savings in the last 12 months. It is proposed to extend the use of LEAN throughout the LU Investment Programme, and establish a functional lead within the new PMO.
- 4.19 The success of LU CPD is beginning to be recognised. CPD has demonstrated the efficiency of delivery through its ability competitively to win work on the Crossrail project. The Level 3 external accreditation of CPD's project management systems means it is one of only two organisations in the country on the Independent Assessor's (Outperform) database to achieve this benchmark.
- 4.20 In summary, LU continues to raise the commercial awareness of its project teams, through the appointment of key risk and value specialists, who provide functional leads, embedding best practice and promoting value -adding practices and culture. These roles will be strengthened through further appointments and adoption of value adding techniques (e.g. LEAN) in the formation of the new TfL PMO in January 2012. In addition, comparison and challenge through benchmarking is giving greater visibility of opportunities to improve efficiency.

Governance and Organisation

- 4.21 **Maturity:** Independent reviews of LU's capital programme delivery organisation were commissioned in 2007, 2009 and 2011. The reviews measured LU's maturity against the Government standard (P3M3). Each review highlighted improvement actions, which have been implemented or are in progress. Figure 5 shows the growth in maturity, resulting in LU achieving level 3, LU being only one of two companies to have achieved this level.

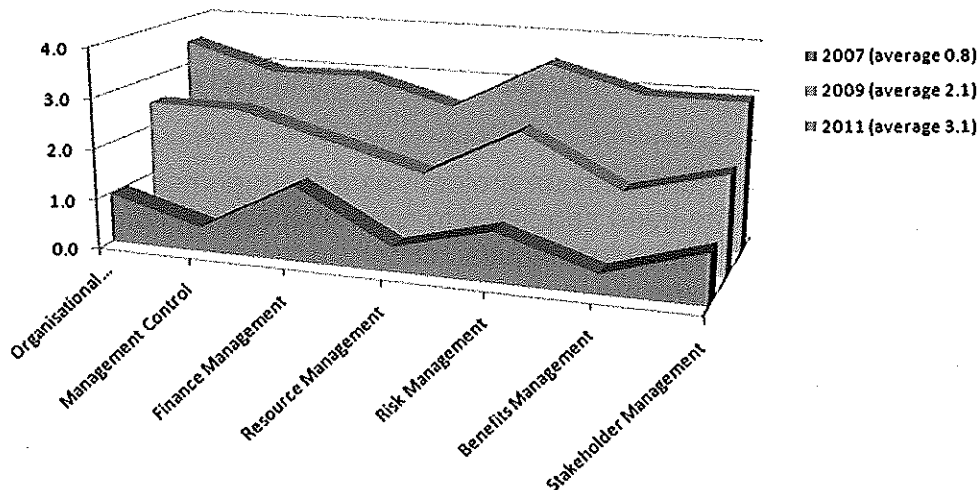


Figure 5; P3M3 maturity scores for LU project management

4.22 Embedment of Support Functions: Nichols recommended the embedment and co-location of support services into programme teams; the appointment of a single functional lead reporting to the Capital Programme Director; defined and agreed service provision; delivery objectives of support staff set by the Project Manager (PM); support resource requirements set by the PM and not headcount constrained.

4.23 All these principles have been agreed by the support directors and single functional leads are in place. Headcount constraints have been removed. Service provisions and objectives are being drafted to be incorporated in mid-year target setting.

4.24 Appropriate Levels of Delegation: Nichols recommended appropriate levels of delegation to allow freedom to deliver within a “defined envelope”.

4.25 Some levels of delegation have been raised to appropriate thresholds. Remaining areas to be finalised are: contingency draw down, and agreement of appropriate commercial and procurement authorities. Work has commenced to review the investment authorisation process to increase the level of delegation, while maintaining the appropriate level of management oversight.

Developing Process and Systems

4.26 A common methodology (Project Management Framework PMF)) was introduced across LU in July 2009. This was the first stage in applying common processes to project management in the post PPP London Underground. Following embedment and further improvement in 2010, PMF is now fully established across all LU projects.

4.27 Special Interest Groups are established to promote best practice in engineering, governance, planning, sponsorship and controls.

4.28 An estimating database (RIB) has been created along with a standard cost breakdown structure enabling easier cost comparison and estimate preparation. An initial library of 120 historical projects was included, and all

future estimates, contract and final costs will be loaded. There are currently 200 projects in the database.

- 4.29 A project is funded and in progress to design and implement an integrated project management control system across TfL. The system will bring together planning, risk, cost management, benefits management, issues management, resources management, change control, lessons learnt and reporting. The benefits of the system will progressively roll out during late 2012.
- 4.30 Improved management of NEC contracts is supported by the introduction of a contract management system (ASITE).

Engineering

- 4.31 LU has established an Engineering Improvement Project that builds upon the work undertaken in the previous Engineering Directorate and embedded on the SSR programme, in areas such as the consolidation and simplification of Standards. LU is developing an Engineering Management Framework to embed these improvements as a part of our wider Project Management Framework.

Identity and Brand

- 4.32 LU recognises the need to build the trust of its stakeholders in its ability to deliver, which Nichols identified as a key requirement for a successful outcome in the next Comprehensive Spending Review. A key part of this is the need to build confidence through the effective communication of achievements.
- 4.33 A strategy is being created jointly with TfL Communications to identify who the key stakeholders are and how they should be approached. This is due to be completed early in 2012.

Role of the Sponsor

- 4.34 One of the fundamental principles agreed when Metronet was integrated back into LU was the separation of "sponsor" and "delivery". This has worked well, with the sponsor owning the business case, setting priorities between maintenance and renewals, and setting the long term asset strategy for the business. However, further development of this role and wider application across TfL has been recommended by IIPAG.
- 4.35 A separate paper to the Committee, led by the sponsor, will address progress on this subject.

5 PERFORMANCE

5.1 The Change Programme is “work in progress”, yet there have been significant delivery successes to date as shown in figure 6.

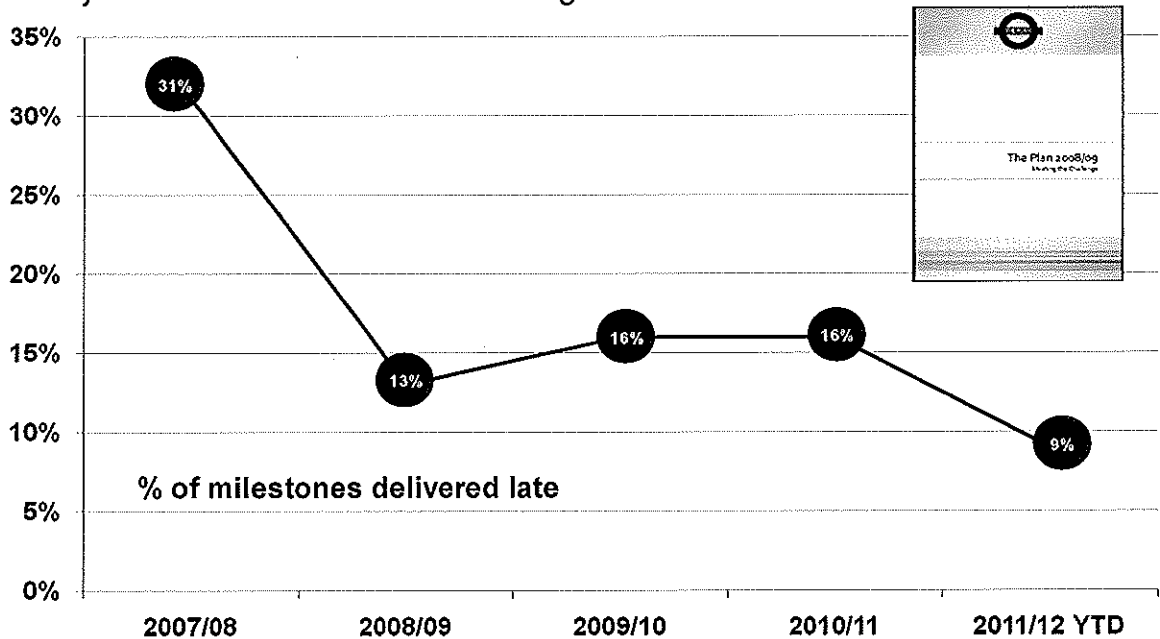


Figure 6: improved delivery certainty

The following are some examples:

5.2 Victoria Line Upgrade:

- (a) all necessary infrastructure works in place ahead of new train introduction;
- (b) entire fleet from 1967 replaced;
- (c) first fully Rail Vehicle Access Requirements compliant line on LU;
- (d) £23m of efficiencies; and
- (e) delivering a year early.

5.3 Track Renewal Programme:

- (a) unit rates for track best in class after retendering track contract (based on improvement and efficiency plans); and
- (b) Bayswater blockade (first ever four-week LU shutdown) completed on time, to cost, to scope and without impacting the next day's service. However, the recent performance of the track contract is a cause for concern and an improvement programme is being developed.

5.4 Major Stations Programme:

- (a) Victoria Station Upgrade contract let at world-class rates;
- (b) Crossrail stations work (Whitechapel, Tottenham Court Road, Bond Street) contracted and all on time and budget; and
- (c) Stratford and Green Park developments for the 2012 Games delivered on time and below budget.

5.5 Stations Asset Renewal Programme:

- (a) 28 stations modernised (including King's Cross, Oxford Circus, Mile End, Warren Street, Aldgate East, Brixton and Holborn);
- (b) 13 escalators replaced (including eight at Bank and three at Oxford Circus);
- (c) 41 escalators refurbished and returned to service (including 11 at Piccadilly Circus and 10 at Bank);
- (d) Victoria station escalator refurbishments 1, 2 and 3 delivered in record time; and
- (e) Four lifts refurbished.

5.6 Sub-Surface Rail Upgrade programme:

- (a) re-specified ATC contract: best-in-class ATC system, minimal closures for signalling and world-class unit rates;
- (b) successfully operating 17 S8 trains on the Metropolitan line;
- (c) necessitated extensive immunisation work;
- (d) extensive re-modelling of Baker Street, Aldgate and Hammersmith station layouts;
- (e) delivered Service Control Centre at 50 per cent cost estimated by Metronet;
- (f) Hammersmith Control Centre delivered at 60 per cent of original estimate, on schedule and to specification, through use of techniques imported from the automotive industry;
- (g) poorly defined Metronet depot strategy replaced with a clear, considered decision about Hammersmith, Neasden, Ealing Common and Upminster properly accounting for operational and maintenance requirements; and
- (h) Neasden depot - high risk resignalling completed on schedule and civils programme back on track.

5.7 Power and Cooling:

- (a) all ventilation shaft upgrades delivered to time and cost;

- (b) Power and Cooling now sponsored together with line upgrades for an integrated programme; and
- (c) best system solutions chosen for SSR, mid-tunnel ventilation and future upgrades (Deep Tube Programme).

6 SUMMARY

- 6.1 There has been significant change over the past four years as a result of the integration of Metronet and the bringing in house of the Delivery Portfolio, combined with an increase in the value of the Investment Programme, to what is now one of the largest in Europe. This has culminated in the creation of a single delivery organisation able to focus on the strategic improvement of delivery performance.
- 6.2 Very considerable delivery successes have been achieved. However, major challenges remain, most notably performance of the track contract and reliability of new assets. The engagement with IIPAG, on all the challenges CPD faces, has overall been very constructive and value adding. The need for ongoing improvement is fully accepted and indeed championed at every level in CPD.
- 6.3 LU has created a single change programme (PMCIP, formally known as C Change) to enhance the capability of London Underground's delivery organisation. Independent assessment has shown significant progress in the maturity of the organisation (P3M3) and improvements to delivery and cost performance. Work will continue on the change programme, and a further status paper will be submitted to the Committee in May 2012.

7 RECOMMENDATION

- 7.1 The Committee is asked to NOTE this report.

8 CONTACT

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