

Date: 2 March 2022

Title: Technology and Data 2022/23 and 2023/24

This paper will be considered in public

1 Summary

Table 1: Authorities Requested					
Technology and Data Investment Programme for FY2022/23 and 2023/24					
Latest Estimated Final Cost (EFC) (Gross)	Previous EFC		Financial Authority	Programme and Project Authority	Procurement Authority
£360m	£258m	Existing (incl. transfers)	£258m	£249m	
		Requested	nil	£111m	
		Total	£258m	£360m	nil
		Future Submissions	£101m	£234m	

- 1.1 We are only seeking authority for activities that are directly funded within the Technology and Data (T&D) budget. We have excluded activities where T&D is accountable for delivery but where authorities are secured separately (London Underground and Surface Transport).
- 1.2 We have excluded the Home Office funded Emergency Services Network programme, which is due to be completed this financial year, and our Public Cellular Network project, which has been authorised separately. We have also received a request from the Department for Transport (DfT) for another project, which will be funded by the DfT and will be the subject of a separate request for authorities.
- 1.3 A paper is included on Part 2 of the agenda which contains exempt supplementary information. The information is exempt by paragraphs 3 and 5 of Schedule 12A of the Local Government Act 1972 in that it contains information relating to the business affairs of TfL and contractors and legally privileged advice. Any discussion of that exempt information must take place after the press and public have been excluded from this meeting.

2 Recommendations

2.1 The Committee is asked to note the paper and exempt supplementary information on Part 2 of the agenda and:

- (a) approve in respect of the Technology and Data Investment Programme (the Programme) an increase in Programme and Project Authority of £7.7m in financial year 2022/23 (bringing the total up to £110.5m) and additional Programme and Project Authority of £102.9m in financial year 2023/24 resulting in total Programme and Project Authority to £110.6m;**
- (b) note that the matters for which Programme and Project Authority is sought above include commitments that extend beyond the period of the Business Plan and Budget noted by the Board on 8 December 2021 and provision will, therefore, need to be made for those commitments in future Business Plans and Budgets; and**
- (c) note that Procurement Authority for the various projects in the Programme described in this paper will be sought at officer level in accordance with Standing Orders.**

3 Background

3.1 T&D is charged with providing core IT services as well as operational systems, payments, contact centre and digital online services, under a single function.

3.2 The outputs that T&D provide are fundamental for TfL to operate and deliver services to its customers. A strong track record has been established of delivering significant benefits for TfL and its customers, that has been maintained throughout this year.

3.3 T&D continues to support TfL's and London's coronavirus response and recovery, being at the forefront of getting the business and the city back on its feet. Throughout the pandemic we have used data to provide actionable insight to guide our response, particularly about customer demand, movements, and behaviour. We continue to provide local and national Government, and organisations across London, with leading insights and high-quality information to guide decisions.

3.4 We continue to adapt to the new ways of working, building on the success of our Digital Workplace Transformation programme, enabling over 15,000 employees to work from home. We are supporting TfL's move to hybrid working and enabling all our colleagues to work effectively both in our offices and at home, using the full set of technology services they need. We have upgraded around 180 rooms to smart meeting rooms and improved wi-fi in our hub offices. We improved our on-site support at our hub buildings for the next few months of office returns. We delivered 1,150 laptops, 2,955 headsets and 465 monitors to colleagues' homes.

- 3.5 We have continued to experience rapidly growing demand for delivery of technology and data products and services, in an organisation that continues to operate with intense financial and resourcing challenges.
- 3.6 Despite these challenges, T&D has continued to deliver significant achievements. Including, introducing weekly capping on Oyster for rail customers, which gives customers the best price outcome for both Oyster and contactless payments over a seven-day period, and enabling the technical go live for the expansion of the Ultra-Low Emission Zone (ULEZ), which is helping to clean up London's air quality. Further details on our achievements are outlined in section 4.
- 3.7 We have worked with colleagues across TfL to deliver key business outcomes. For example, working with our Surface Transport colleagues, we delivered a new asset management system to manage the new Works for London (WfL) contracts. The Surface Asset Management Information System brought together several systems into one single solution, enabling TfL and its contractors to better manage the data and maintenance activities related to their assets. The internal T&D delivery and enhancement of the Maximo Surface asset management solution included 378 business requirements, over 60 enhancements as the WfL contracts were refined and the data migration of 1.3m assets, which has saved TfL over £5m, when compared to external delivery proposals.
- 3.8 Significant pieces of work continue to come in, T&D has been at the forefront of discussions regarding technical solutions for potential new Road User Charging (RUC) schemes. A further DfT funded project will be another substantial piece of work that T&D will be accountable for. An announcement on the project is expected shortly once all approvals have been confirmed.
- 3.9 Our new Chief Information Security Officer started in April 2021 and is driving forward our Cyber Security strategy. The strategy acknowledges that significant improvements are needed as cyber security threats across the globe are expanding and increasing amounts of interconnected technology pervades all aspects of TfL's business. Over the next two years, further investment will be made in this space, to improve our security posture and enable the major transformation which is underway.
- 3.10 While T&D has always demonstrated Value for Money (VfM), we continue to build on our governance processes with the Assurance team for projects over £2m and improving business case development across the department. In addition, we hold periodic deliverability reviews to support budget accuracy, and identify delivery issues which need intervention. This helped us to finish the 2020/21 financial year within 1.5 per cent of budget. Further details on our record of delivering VfM are outlined in section 5.

4 Review of delivery during 2021/22

- 4.1 In March 2021, the Committee granted authority for the current programme. For the 2021/22 financial year, the authority was for £79.5m. Overall, we expect to complete the year with a gross spend of £84.1m (£83m net of income). The difference of £4.6m is due to project spend carried forward from financial year 2020/21 and movement of some telecoms income and technology development spend transferred to business as usual (BAU) operating expense.

- 4.2 We are continuing to deal with the impact of the pandemic. We have delivered at pace across all our portfolios and are currently estimated to finish the year at £83m (net of income) against a revised budget of £83m.
- 4.3 Resourcing has been the greatest challenge to delivery this year and will continue to be a challenge over the course of the requested authority. We have an increasing workload against a background of resource attraction and retention issues. We need to recruit at volume, in a competitive job market, while delivering at pace, against a backdrop of pay freezes and job insecurity (based on media reports about funding discussions).
- 4.4 TfL's robust headcount control processes, 'pauses' in recruitment, and shortages in recruitment agents exacerbate this challenge. Approximate lead time to even start a campaign is around eight plus weeks (two-three weeks for headcount approval, then an average of six weeks for appointment of a recruitment agent). This additional pressure on our teams is decimating work life balance, and in a buoyant job market is making more people choose to leave TfL, some for up to 50 per cent more pay. Where traditionally slippage in technology projects is caused by technology failures or solution complexity, we are now finding resource availability is our biggest risk to delivery.
- 4.5 There are also resourcing challenges impacting our internal delivery partners, such as Procurement and Supply Chain, on whom we are dependent for authorising and placing contracts and have seen significant resignations, and our external supply chain, who are facing similar challenges in attracting staff.
- 4.6 It is important to note that these resourcing challenges not only impact T&D but also the wider business as we also deliver technology enabled outcomes for the rest of the organisation. There are frequent conversations with our colleagues across the business to determine prioritisation as necessary.
- 4.7 A substantial amount of time is consumed in governance activities. This includes those activities undertaken in preparation of papers, obtaining buy in from the relevant stakeholders informally before submission, presenting the paper through sequential meetings and reworking it following queries or challenges. The length of this process means we cannot react quickly in changing circumstances, such as acting to secure 'last buy at current price' warnings from the supply chain.
- 4.8 Throughout the year, TfL has continued to receive short term funding commitments from the Government. At a Programme level, the continual business planning work and prioritisation of our projects, draws attention away from project delivery. This is a TfL wide challenge however is worth highlighting here due to the demand it places on teams across T&D and the uncertainty it can cause to projects while trying to focus on delivery.
- 4.9 The global semiconductor (integrated circuit chips used in most technology hardware) shortage also remains a challenge to our projects as there are now extended lead times, sometimes more than 12 months, for many items of hardware that are critical to areas such as Networks and Hosting. The shortage in supply is causing costs to rise and we can struggle to react in time to 'last buy at this price' opportunities, primarily due to the protracted governance arrangements.

- 4.10 Milestone performance has not met target. TfL judges its performance against milestones, some of which are published externally (known as Strategic Tier 1s). These Strategic Tier 1 milestones are selected from a broader pool of “delivery Tier 1 milestones” which are nominated by each sub programme. These are supported by precursor milestones known as Tier 2s, which indicate our progress toward the Tier 1s. While T&D have no selected Strategic Tier 1 Milestones for 2021/22, we have 11 Tier 1 delivery milestones and 12 Tier 2 which we track locally. We have completed three Tier 1s on time, five cannot be delivered on time and three more are at risk. The three late Tier 1s impacted the customer benefit of weekly fares capping (22 days late), the benefit from a new network provider (15 days late) and the business benefit of new mapping data (101 days late). Other impacts include delays to cyber security improvements and delays to compliance works. Please see Appendix 1 for a detailed summary on the missed milestones and reasons for the delays. Note that only one of the Tier 1 milestones has slipped delivery into FY 2022/23 and mitigations are in place for that.
- 4.11 We are on track to deliver most of our T&D funded work, and we have secured efficiencies, notably in Hosting where savings of £47m are expected to be realised over the next seven years. Due to the challenges set out, some of our projects will deliver later than we hoped, which continues to impact our year end spend. To minimise the impact of this, we have brought in additional resources, notably in project management, to work in parallel. We have used alternative routes to market and different commercial approaches. We have reprioritised delivery, for example purchasing £1.4m of high specification virtual Desktop infrastructure to realise business benefit when other equipment was not available. Taken together, these initiatives have minimised the extent to which slippage of work in this year creates a cost pressure in subsequent financial years.
- 4.12 Across a range of projects, we have demonstrated our ability to unlock the potential of technology for our customers, our colleagues and for London. Examples of key deliverables this year include:
- (a) introducing weekly capping on Oyster for rail customers – this involved development work by our internal teams and our supplier, as well as lengthy, complex negotiations with the Rail Delivery Group to enable introduction on all rail services in London. This change brings significant benefits for customers, including giving the best price outcome for both Oyster and contactless users over a seven-day period;
 - (b) in October 2021, the central London ULEZ expanded to create a single, larger zone up to the North Circular Road and South Circular Road. T&D was central in enabling this milestone to be achieved. Our work included a technical upgrade of all Capita systems to a cloud-based platform – which was one of the largest IT projects in Europe this year;
 - (c) we have supported the readiness for the opening of the Elizabeth line by enabling the operation of new revenue collection assets (ticket machines, gates and supporting systems) at new entrances to Liverpool Street and Whitechapel stations, which have been opened as part of station rebuilding in advance of the Elizabeth line opening;

- (d) in June 2021, we signed a concession agreement with BAI Communications to help expand the delivery of 4G in Tube tunnels, with work starting in 2022. In addition to delivering key infrastructure for the Emergency Services Network, which has been delivered by TfL on behalf of the Home Office, once in operation TfL will be able to earn new revenue;
- (e) TfL Go's delivery focus in 2021/22 has been the integration of account and payment functionality so that customers can plan, pay and travel through one digital experience. The app has been downloaded over 750,000 times. The app has achieved an Apple App Store rating of 4.7 (out of 5) and a Google Play Store rating of 4.4. We are also continuing to add new features and functionality supporting operational priorities, from the Northern line closure to the introduction of the Elizabeth line; and
- (f) for our colleagues, we successfully launched myJourney, which is our new product for all career conversations. It is a key enabler of the culture we want to create for our people across TfL, with frequent conversations about wellbeing, progress, and development. myJourney has been delivered at rapid pace through a collaborative project team, involving HR, T&D, various teams across TfL and our SAP supplier. The initial delivery is the first step along a multi-year journey to upgrade our existing HR systems to support and enable our Colleague Roadmap.

4.13 A breakdown of our Programme structure can be found in Appendix 2.

5 Delivering value for money

- 5.1 We have continued to simplify and consolidate our services and core infrastructure. Operating cost has dropped from £362m in 2015/16 to £234m in 2020/21 to £232m in 2021/22, an overall reduction of 36 per cent. We continue to drive savings in other areas of the organisation through better processes and use of technology.
- 5.2 Following last year's submission, we initiated a Programme-wide approach to increasing the amount of business cases for our projects. Working with the Investment Appraisal team, we ran multiple training sessions on how to develop a business case, setting out the different levels of information required depending on the initiative. We published a specific business case area on our T&D SharePoint site, hosting our newly created guidance and tools. We also focused on the projects with estimated costs over £2m and have seen an increase in business cases for these projects from 22 to 56 per cent. We are running individual sessions with some of our largest projects to provide direct support in developing business cases. Overall, across T&D (business funded projects and projects under £2m as well), the number of projects with approved business cases has risen. This year we have been tracking business cases periodically across all initiatives in comparison to last year where we only tracked T&D projects above £2m. We have seen an increase in the number of business cases being completed, and while the percentage of business cases completed has stayed static, approximately 31 per cent, this is because the number of live initiatives has increased from 145 in Period 3 to 200 in Period 10.

- 5.3 We continued the Financial Acumen workstream, which mapped out the end-to-end process for initiatives, from business planning estimation through project lifecycle out to BAU operations. This was supported by training sessions, which have been delivered to over half of the portfolio and will continue in 2022.
- 5.4 During the Greater London Authority budget process, we carried out multiple deliverability reviews with all portfolios to review their delivery and forecasts. This provided an opportunity to challenge the spend, understand where potential delays could occur and drive consistency. Across all areas during the reviews, resourcing was the biggest risk to delivery and accurate forecasting for the remainder of the year.
- 5.5 In our periodic finance variance reviews, we ask our teams to report on spend against budget and identify where slippages or issues have occurred and the reasons for these, looking to putting in place remedial actions where possible.
- 5.6 After our last review by the Committee, we recognised our weaknesses in risks and engaged central Programme Management Office (PMO), securing a subject matter Expert to carry out a risk maturity assessment across the programme as well as to support best practice in high impact projects and create an improvement plan. Results from the assessment showed where we were falling short to the ideal standards and provided useful steps to increase our maturity. We are establishing guidance on both cost and schedule risk management. We are reviewing our capital investment risk strategy and are trialling the use of TfL standard risk management software (Active Risk Manager) supported by specialist colleagues in PMO.
- 5.7 We are working with our colleagues in Assurance, PMO and Finance on the best way of treating risk. In 2020 we collaborated with central PMO on a risk maturity assessment. We have started taking steps to improve in the areas identified by the Maturity Assessment. This includes the management of risk at programme level and the use of Active Risk Manager. Not all of these recommendations readily integrate with our other management and reporting provisions, so we are running trials to de-risk them. Unrelated to the trials, but related to risk management, there is an open item over the treatment of uncertain elements of scope, for example the appropriate way to record the potentially multiple million-pound cost of moving from a long-term incumbent supplier to a new supplier if the incumbent does not win the tender.
- 5.8 As part of our recommendations from last year's Programme review, it was identified that we had a gap in our assurance processes whereby we were missing Project Assurance Reviews (PARs) for our high value projects. In total 12 PARs were missed or late. We implemented changes to our project controls and as a result the three projects which required a PAR have completed one as required, with a further two projects under continual review.

6 Strategic case for new authority

- 6.1 T&D's Technology strategy is aligned with the Mayor's Transport Strategy and TfL's strategic priorities. We recognise the central role technology plays in any modern organisation. Our strategy lays out our commitments and our delivery principles.

6.2 The strategy includes T&D's commitments, which are:

- (a) technology enabled workforce – we provide the technology tools our people need to do their jobs at the front line, in head offices and from home;
- (b) informed customers – we deliver the digital experiences that help customers make informed and safe technology choices;
- (c) seamless payments – we manage day to day revenue collection processes and technologies and ensure they meet the needs of our customers and operations;
- (d) infrastructure that works – we provide our people and customers with infrastructure that is cost effective, secure, and works;
- (e) secure and resilient – we make sure technology is sufficiently secure and resilient to collapse, attack and quick changes in demand, and that our customers and operations are confident of that fact; and
- (f) data driven technology design – we adopt technology that is focused on making data available and accessible for decision making.

6.3 Our delivery principles are the rules we follow when making decisions about investing in, running, or maintaining technology:

- (a) focus on business outcomes – listen to business needs, taking colleagues on a journey to shape appropriate and cost-effective technology and data driven decisions;
- (b) consolidate and standardise – consolidation of multiple systems, decommission unused systems and avoid bespoke systems, following industry standard products where possible;
- (c) reuse – be resourceful with the technology we have already bought or built and challenge the need to buy new kit or software;
- (d) start small, plan big – start with a minimum viable product, gather user feedback to inform new requirements and build in an iterative manner;
- (e) safe, protective, resilient – protect our customers, staff and business integrity, keeping technologies up to date consistently;
- (f) protect our commercial position – proactively manage contracts to keep whole life costs down; and
- (g) risk managed – identify when our delivery principles, policies and standards are not met and ensure plans are adapted to address relevant threats.

6.4 Beneath the over-arching T&D strategy sit several supporting strategies which are refreshed annually. These include product strategies which guide how we invest in technology, service strategies which set out the day-to-day provision of our technology and contact centre services, and business strategies which guide our

ways of working. These strategies are shared with our colleagues in relevant areas of the business.

Risks of insufficient funding

- 6.5 T&D is responsible for delivering critical services that enable the business to meet its purpose and work towards its vision of being a strong, green heartbeat for London. These services are viewed as business as usual, and without them, our customers, staff, and London would not benefit from a world leading transport network. Our work includes providing the ability for customers to pay easily to travel across the city on all our services whilst the underpinning technology allows us to collect the revenue from customer journeys. We provide the phones and connect networks, without which our transport network would halt as well as providing the ability for service controllers to track their bus or train. For our staff, we provide the hardware, such as PCs, and software, such as Windows 10 and SAP, which are the bare minimum for their roles.
- 6.6 Over the last few years, TfL has been in a challenging financial position. As a result, T&D has deferred non-essential spend in order to help the business meet its financial targets. Much of the spend in T&D is focussed on supporting essential business functions, including collecting revenue and keeping our systems running, as well as upgrading systems and processes to be compliant with legislation (eg General Data Protection Regulation). Due to historical deferral of planned investment, T&D is now in a position where all Programme spend is considered essential.
- 6.7 We are continuing to go through prioritisation exercises, driven by the ongoing funding negotiations with the Government, and we are expecting the outcomes of these negotiations to result in further cuts to the programme. This will come with substantial risks, as we will no longer be able to carry out essential activities across our portfolios, including several necessary renewals works.
- 6.8 We asked all our portfolios to prioritise their projects from most to least critical. This provided a forced ranking which was then used to develop a narrative explaining the profile of risk that would occur should reductions to the T&D budget be made because of the funding deal outcome. These risks are detailed in our submission to Part 2 of the agenda.

Financial context

- 6.9 Once the latest Government funding agreement is finalised, we expect that the authority required for the coming financial year will be reduced in line with the agreed prioritisation, using a risk-based approach. Despite the expected outcomes of the funding settlement, and our delivery challenges, we have not reduced the value of this programme at this time. We will instead focus concerted effort on overcoming barriers to delivery, including recruitment and retention, taking all opportunities to increase the speed and consistency of decisions taken and flexibility of approach to ensure delivery of these essential projects.
- 6.10 Risks which may increase the required authority for FY 2022/23, include new technologies such as Windows 11 and new legislation, which are likely to drive costs up, plus projects like the Enterprise Resource Planning (ERP) transformation, which are in the early stages of development, so the forecast can

vary significantly. In addition, Project Proteus, which will deliver the retender of the Revenue Collection Contract (which collects £5bn of TfL's fares revenue annually), is responsible for a major risk to the overall programme as the potential supplier transition costs remain a multi-million-pound unknown.

- 6.11 In technology projects, almost by definition, any renewal will contain elements of enhancement. Eighty-four per cent of our spend is currently classified as renewals work which focusses on refreshing assets and infrastructure to address legacy technology issues and maintain the availability, security, and quality of service. The remaining 16 per cent is for non-discretionary enhancements work, which is focussed on creating new capabilities and functionality, however, all is considered essential.

Delivering capability

- 6.12 We have a clear understanding of our resourcing requirements for the full programme of work requested in this paper and have conducted regular bottom-up exercises during the past year to understand the resource profile required to deliver this work. This has been tested against our trends in recruitment to provide a realistic profile. This profile will be amended once we understand the funding agreement secured and which projects remain in scope of the programme.
- 6.13 We know that recruitment will remain a significant challenge going forward, however, it is important to note that we have managed to increase our number of fulltime equivalent employees (FTE) to 1,354 (an increase of 73 FTE) since Period one 2021/22. Based on our forecasting in Quarter one, we still require approximately 331 FTE to deliver against the full authority requested and business funded projects (excluding Contact Centre Operations and additional requirements for RUC and the DfT project outlined in section 3.8), with around 60 per cent of these resources directly delivering against capital investment programme.
- 6.14 We have put in place measures to help meet our demand for resources, including working with HR Pay and Reward to offer an allowance to help attract and retain 'hard to fill' roles within the team; engaging external agencies to source more specific skill sets; sponsoring overseas workers; utilising consultancy partners; and we will be looking to obtain bulk headcount approvals where appropriate.
- 6.15 We will also continue to seek support from HR colleagues to find quick, pragmatic, and realistic solutions to our short-term resourcing constraints, while also looking to the future to develop a more robust resource strategy for T&D. At this heart of this strategy will be upskilling our delivery teams and further investment and support is needed to allow us to do this. We need to develop our people so they can meet the demands from the business and stay updated on the latest developments in the technology sector. With the resourcing challenges limiting the skills we can recruit, being able to train our existing staff will be crucial in reducing the resourcing challenge.
- 6.16 The above interventions will not remove all delivery risks, but by keeping a diverse supply chain with rapid routes to market, e.g. frameworks and reacting swiftly and flexibly to challenges as they arise, we will be able to deliver on this

programme. Having said this, to account for the fact that there will always be elements that we are over optimistic about, a total over-programming amount of £44.9m has been included covering FY 2022/23 & FY 2023/24. This comprises £33.6m of general overprogramming and £11.3m specifically for Payments projects.

7 Authorities sought

- 7.1 A summary of the T&D Business Plan and Investment Programme from FY 2020/21 to FY 2025/26 is shown in Figure 1, and summary of breakdown of total Programme and Project Authority by portfolio in Figure 2.
- 7.2 Authority granted by the Committee which relates to both the current funding period to 2022/23 and commitments outside of this period, may need to be revised as part of future budgets to be considered by the Board. Provision will also need to be made in future Budgets and Business Plans in respect of commitments made which extend beyond the period of the current Business Plan and Budget. If additional funding is not available, a prioritisation of the TfL Investment Programme will be required, and some programmes and projects will not be taken forward and revised authority will be sought as appropriate.
- 7.3 All financial commitments related to this request will be overseen in accordance with TfL Business controls in respect of draw down.
- 7.4 Ongoing investment prioritisation exercises taking place across TfL and linked to the latest Government funding deal mean the figures and projects included in the programme are subject to change.
- 7.5 This submission presents the case for the overall T&D Investment Programme. This authority table covers project spend of £210.1m and an estimated income of £1.6m totalling £211.7m of authority requested for financial years 2022/23 and 2023/24. The Programme will return annually to the Committee to renew and validate a rolling two-year approval. This ensures that approvals are aligned to financial years to complement the nature of this Programme.

8 Assurance

- 8.1 TfL Project Assurance conducted a Programme Assurance Review on the Programme on 17 and 18 January 2022.
- 8.2 Through the Programme Assurance Review, and the Independent Investment Programme Advisory Group's (IIPAG) report, eight issues and recommendations were made, including one critical issue. We responded to these on 31 January 2022, and we have started working on the actions outlined in our Management Response.

Figure 1: Summary of the T&D Investment Programme Costs and Funding

	Portfolio		Business Plan Year						Total
	Rounded to £m		20/21	21/22	22/23	23/24	24/25	25/26	
Cost	Base Gross Draft Forecast values	(E)	65.3	86.2	124.5	119.3	113.1	124.0	632.3
	Management adjustment to account for schedule optimism		0.0	(2.1)	(17.3)	(16.3)	(1.7)	(1.5)	(39.0)
	Investment Programme Total Gross	(A)	65.3	84.1	107.2	102.9	111.4	122.5	593.4
Funding	Financial Authority	(B)	65.3	84.5	108.6	-	-	-	258.4
Authority	Existing Project Authority	(C)	70.4	79.5	102.8	-	-	-	252.7
	Transfers	(D)	(2.8)	(1.0)	-	-	-	-	(3.8)
	Project Authority less Transfers	= C + D	67.6	78.5	102.8	-	-	-	248.9
	This Project Authority request	= A - C	(2.3)	5.6	4.4	102.9			110.6
	Future Project Authority request	= A - C					111.4	122.5	233.9
	Income	Investment Programme Income	(E)	5.0	1.5	0.7	0.9	0.2	-
Income	Financial Authority Income	(F)	5.0	1.5	0.7	-	-	-	7.2

A) Gross Costs net of the management adjustment for overprogramming

(B) Financial Authority is based on the Revised Budget up until FY22/23

(C) Based on the last committee Paper that was approved in March 2021

(D) iBus2 project transferred to Surface in FY21/22

(E) Income value which requires Programme & Project Authority plus Financial Authority

(F) Financial Authority Income is based on the Revised Budget up until FY22/23

Figure 2: Summary of breakdown of Total Programme and Project Authority by T&D funded portfolios

Portfolio / Product Family	Estimated Final Cost (£k) (Note 1)		Valid Existing Authority (£k) (Note 2)		Additional Proposed Authority (£k) (Note 3)	
	2022/23	2023/24	2022/23 (incl prior year carryover)	2023/24	2022/23	2023/24
	Note 1		Note 2		Note 3	
Payments	40,578	43,011	33,014	-	7,565	43,011
Payments - Cubic Performance Assurance Fund (see Note 4)	2,516	4,950	9,046	-	(6,530)	4,950
Networks	15,546	1,793	7,192	-	8,354	1,793
Hosting	12,284	10,598	26,214	-	(13,930)	10,598
Cyber Security	10,016	10,000	9,594	-	421	10,000
ERP	9,984	6,925	11,394	-	(1,410)	6,925
Digital Workplace	7,797	8,833	2,777	-	5,020	8,833
T&D London Underground	5,930	10,075	4,887	-	1,043	10,075
Digital	4,708	5,493	4,838	-	(130)	5,493
Data & Analytics	4,557	4,424	9,158	-	(4,601)	4,424
T&D Surface	2,496	1,603	172	-	2,324	1,603
Technical Service Operation	1,977	1,223	(133)	-	2,110	1,223
Contact Centre Operations	624	813	778	-	(154)	813
Telecoms	-	-	265	-	(265)	-
Other T&D (inc Technology Development & Indexation)	5,443	9,522	-	1,622	-	7,065
Management adjustment	(17,303)	(16,332)	(18,119)	-	816	(16,332)
Total Authority Required	107,155	102,930	99,456	-	7,698	102,930

Note 1 – Estimated Final Cost for FY22/23 & FY23/24 are based on the Period 10 financials

Note 2 – Includes:

- £102.8m authority for FY22/23 approved at Programmes & Investment Committee in March 2021
- £3.3m of additional authority required from prior years carried over into FY22/23

Note 3 – Additional Proposed Authority requested for FY22/23 & 23/24

Note 4 – the fund is a mechanism in the Revenue Collection Contract which allows Cubic to draw-down on funds for refreshing life expired or obsolete components of the Revenue Collection system

List of appendices to this report:

Appendix 1: Milestones setting, Tech Programmes FY 2021/22

Appendix 2: Technology and Data Delivery Programme Summaries FY 2021/22

A paper containing exempt supplemental information is included on Part 2 of the agenda.

List of Background Papers:

T&D Technology Strategy (October 2021)

Independent Investment Programme Advisory Group Report

TfL Project Assurance Report

Management Response to IIPAG and TfL Project Assurance Reports

Contact Officer: Shashi Verma, Director of Strategy and Chief Technology Officer
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