London Office for Technology & Innovation: Business Plan

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Executive Summary

This paper seeks approval for funds and support to establish a pan-London digital collaborative function, provisionally called the London Office for Technology and Innovation (LOTI).

The problem

There is a **digital collaboration deficit among London's public services**. Local authorities have seen severe budget cuts, missing out on the benefits of scale and sharing in digital technology. There are a number of aspects to this. London has limited infrastructure for digital collaboration. Digital leadership capabilities across London's public services are inconsistent. There is a lack of a shared evidence base of what works and what does not. Public services currently use and manage data in different ways, hampering their ability to share and reuse. Fragmentation makes it difficult for funders, universities, GovTech and Tech For Good to engage effectively with boroughs.

LOTI's mission and objectives

LOTI's mission is to address the digital collaboration deficit to **improve public services and outcomes for Londoners**. Its objectives are to **inspire and enable better collective digital leadership** and capabilities; **deliver stronger digital foundations** for public services through common standards and approaches; and **innovate to improve current and future public services**.

The LOTI proposal

The LOTI proposal is a team of three full-time staff, hosted initially by London Councils, supporting work across all boroughs and with a 'Core LOTI' (boroughs which have opted for an additional subscription and commitment to explore proposals and benefit from implementing solutions at scale).

This will lead six ongoing work streams with all boroughs:

- 1. **Digital leadership skills:** upskilling senior and middle managers
- 2. Collective knowledge: systematic digital benchmarking, including on tech procurement
- 3. Sharing & re-using: better digital networking and systematic sharing
- 4. Shared endeavour: better collaboration with GovTech, Tech for Good, universities
- 5. Scaling standards: including the Local Government Digital Service Standard
- **6. Data analytics coordination (Data Analytics Programme):** project management for collaborative analytics initiatives

It will also deliver implementation projects tasked by a 'Core LOTI.' This capacity will expand as new members join and/or external funding is secured.

The benefits for London

LOTI's work will bring about benefits for the **public, boroughs,** and **the wider tech ecosystem** in London. The public will benefit from improved public services and increased citizen participation. Boroughs will benefit from reduced costs along with increased staff skills and productivity. The broader ecosystem will benefit from a wide dissemination of lessons learnt, and research focused on user needs.

The ask

LOTI proposal will cost approximately £440k per year for 3 years, split between the GLA, London Councils, and voluntary member boroughs: £100k/annum from the GLA; £100k/annum from London Councils; and £30k/annum for 3 years from 'Core LOTI' boroughs, assuming around eight join.

Early in Year 3, LOTI's impact will be evaluated. The 'Core LOTI' members will determine its continuation beyond Year 3, including revised operating and funding models, membership, and scope of work.

1. Purpose

LOTI's mission is to improve public services and outcomes for Londoners through digital and smart technology. Its objectives are to:

- 1. Build common capability and opportunity to collaborate
- 2. Scale digital and smart technology across London's public services

LOTI will promote a culture of collaboration. Stakeholders have identified the following guiding principles for LOTI:

- Push boundaries together: Make bets together.
- Focus on the user: Relentlessly focus on Londoners as users and beneficiaries.
- Be a place for 'doers': Be and attract people who get things done.
- **Inspire collaboration:** Prove that collaboration works. Collaborate at every level and across organizations and functions.
- Always learn & celebrate success: Adapt, adopt and share successes across London.
- **Don't duplicate:** Build on existing networks and initiatives (Such as London Ventures, the London Grid for Learning) rather than duplicating them.

It is not the purpose or ambition of LOTI to attempt to control ICT and smart city technology spending or decisions across boroughs, or do anything that directly causes expenditure by a borough.

2. Strategic Context

2.1 Context for this business plan

This business plan builds on a year of exploration, scoping and engagement around the need for a London Office of Technology and Innovation. It builds on our Autumn 2017 LOTI scoping study by FutureGov, Arup and Stance; and London Councils' February 2018 LOTI discussion paper, presented to the London Councils Executive by the Director of Finance, Performance and Procurement alongside the Chief Digital Officer for London from the GLA.

Although it draws on examples from elsewhere, the way London is governed differs substantially from other major global cities. As such, this business plan is premised on the idea that LOTI will launch both as a support to all councils and a space for a "coalition of the willing" of London Councils, the GLA, and the most digitally-advanced London boroughs as a 'Core LOTI'.

Over time, LOTI would seek to expand its membership to more London boroughs, and to pan-London public service providers such as Transport for London and the London Ambulance Service. This plan recognises that not all boroughs are in the same place in digital transformation. For example, some boroughs will have existing commitments to outsource services and others are only in the early stages of developing their in-house capability.

2.2 International level

Around the world, governments invest in digital public services and smart city technologies to improve user experience, increase service efficiency, reduce costs, and prepare for the future. The potential is significant. A 2018 McKinsey report estimates that smart city applications can improve important quality-of-life indicators - such as crime reduction, health, commuting time and averted carbon emissions - by as much as 10-30 percent¹. For instance, crime incidents could be decreased by as much as 30 percent through a combination of predictive policing, home security systems, real-time crime mapping applications, personal alert applications and smart lampposts².

Cities are creating new organisational structures, processes and capabilities to more fully realise the public benefits of new and existing digital technologies. Examples include the Mayor's Office

¹ McKinsey Global Institute, <u>Smart Cities: Digital solutions for a more liveable future</u>, June 2018

² Ibid.

of the CTO in New York, the Digital Office for Scottish Local Government, UI Labs in Chicago, and Amsterdam Smart City. The structure of these entities varies. Some are located inside city government (New York), while others are arms-length, not-for-profit entities (Amsterdam).

2.3 National level

The UK Industrial Strategy, Digital Strategy and Government Transformation Strategy provide the broader national strategic backdrop for digital innovation in government. The work of tech-focused institutions like the Government Digital Service, Tech City, Innovate UK, the Open Data Institute and the Catapults provide further evidence-based support for reform. The new Secretary of State for Health and Social Care, Matt Hancock, has recently underlined the importance of technology to drive new thinking around the integration of sizeable National Health Service and local council budgets and coordination of service delivery, set out in NHS England's Five Year Forward View.³ The Government G-Cloud framework and the Digital Marketplace procurement platform are well-established, and local government procurement guidance is being redrawn to encourage innovation. The Ministry of Housing, Communities & Local Government is moving towards stronger coordination of local authorities around digital transformation through the new Local Digital Declaration and the Local Digital Fund to encourage collaboration between local authorities in digital public services.

Collaboration in the UK's nations and regions is increasing. Devolution to the combined authorities and directly-elected Mayors in Manchester, Liverpool and the West Midlands are developing their own regional innovation initiatives focusing on civic challenges, data-sharing and analytics, greater shared technical expertise, joint procurement and preparation for technological infrastructure such as 5G. Some local authorities are going further. Digital Birmingham acts as the city council's digital collaborative function. Bristol is Open - a joint venture between the City of Bristol and the University of Bristol - offers "city experimentation as a service"⁴. The Digital Office for Scottish Local Government - a collaborative of 30 local authorities - was established in 2016, and works with councils to help "their own transformation and ensure they are creating top class digital services for citizens"⁵. London risks falling behind if it is unable to collaborate effectively on digital - and it also has the most to gain from collaboration at scale.

2.4 London and borough level

Digital transformation is well underway across London. The recent *Smarter London Together* roadmap is the Mayor's flexible digital masterplan for London, and pan-London collaboration is one of its five missions. The roadmap sets out how the GLA will collaborate with the capital's boroughs and services, from TfL to the NHS, and with the tech community, universities and other cities. Some boroughs are forging ahead with digital transformation and experimentation. Barking & Dagenham is a centre of excellence for data science; Digital Greenwich leads a range of smart city pilot projects; and Hackney is employing a user-centred approach to a major public services redesign. These are just a few examples of excellent digital work happening in London's boroughs.

³ NHS England, *Five Year Forward View*, October 2014

⁴ https://www.bristolisopen.com/about/

⁵ https://www.digitaloffice.scot/about/mission-3

Collaborative digital ventures in London are not a new concept. Some boroughs have shared ICT services, and Sub-Regional Partnerships have facilitated some joint working. Camden collaborates with UCL on advanced analytics and machine learning. Professional networks such as the London CIO network, OneTeamGov and LocalGovCamp enable information-sharing between local authorites. However, collaborative projects are too often ad-hoc and heavily dependent on delivery by individual officers instead of developing the digital capabilities of the organisations involved. Collaborative projects can require significant legwork and time to identify and engage the right stakeholders across London.

London Ventures is an example of how to harness the innovation and commercial approach of the private sector to meet some of London local government's key challenges. However, the London public sector remains a fragmented market for tech firms, including SMEs. Both buyers and providers struggle to realise the full benefit of working together. For instance, a recent national audit of SME attitudes towards the Government's Digital Marketplace revealed that 71% of notices did not adequately explain what problem was to be solved and 74% did not clearly describe user needs.

3. Case for Change

3.1 Business needs⁶

Local authorities have seen their budgets severely cut by austerity. At the same time, London's growth is straining its housing, healthcare, transport and wider infrastructure. Greater collaboration and cross-working can help achieve more with less; collaboration, so often enabled by data, can present digital technology solutions as the best value for money. Using technology to tackle the biggest problems facing local authorities and other delivery organisations - housing, adult social care, public safety, air quality and congestion - will only be possible with consistent responses and standards. London's public services with collaboration will benefit from scale.

There are five main barriers to collaboration:

- Inconsistent digital leadership and capability: Capacity to understand and implement digital transformation among councillors, chief officers and council staff is inconsistent and in need of support. Many public sector organisations in London struggle to retain and recruit sufficient specialist skills, for instance in service-design or systems architecture.
- Limited collaboration infrastructure: Outside of the London Ventures programme, there is no consistent model for digital collaboration between London's boroughs and public

⁶ This section draws heavily on "The creation of a London Office of Technology and Innovation (LOTI): Report from the Scoping Study, November 2017", by FutureGov, Arup and Stance, and "London Office of Technology and Innovation: Establishing a digital collaboration function for London's public services", Theo Blackwell, January 2018

- services. Initiatives that do emerge are ad-hoc, and similar projects can develop in parallel, risking duplication of time, effort and boroughs' limited financial resources.
- Limited shared evidence-base: Knowledge of best practice and lessons learnt about technology initiatives can be limited. There is a need for benchmarking on digital maturity, cybersecurity, technology spend and other important transformation topics.
- Inconsistent foundations: Differences across public services hamper the ability to
 respond to current and emerging challenges. For cultural, systems legacy and professional
 reasons, public services use, manage and share data in different ways. This can hamper
 innovation and the sharing and reusing of digital products, resulting in less effective
 procurements and investment decisions.
- Fragmentation: London's public services the GLA Group, its 32 boroughs and the City of London, the NHS, and regulated utilities currently present a very confusing picture for potential partners. Despite growing interest, the Tech For Good, GovTech, academic and general technology communities struggle to effectively engage with boroughs and public services. As a result, London does not make the most of its leading research institutions, a vibrant technology sector, and highly skilled community of activists.

3.2 Benefits

Better tech collaboration across the GLA, London Councils, London local authorities and other delivery organisations will have direct benefits for all Londoners. It will deliver more responsive public services at reduced cost. Londoners will benefit from living in a city that is ready and able to take advantage of London's digital transformation, including co-designing their public services. In this way, the potential benefits from LOTI will be greater than the sum of incremental improvements to existing public services.

Investment in LOTI will remove barriers currently encountered by delivery organisations across London and enables them to work better together. Most of the direct benefits of this investment will accrue to 'core LOTI' boroughs. These include identifying shared challenges and interpreting baseline performance, access to shared expertise, enhanced employee skills, easy access to relevant networks and contacts, shared outputs from digital innovation and reduced duplication — which may ultimately increase the productivity of staff, improve services offered and reduce costs. In its advisory capacity, LOTI would be able to help 'core LOTI' prioritise and accelerate projects and offer support, depending on the chosen option. Other boroughs or delivery organisations who do not begin as core members of LOTI also stand to gain, particularly from the foundational workstreams.

The full benefits of greater collaboration will not be realised within the public sector alone, so an important aspect of LOTI's scope will be to facilitate collaboration across the whole tech ecosystem. Establishing common standards should provide opportunities for organisations from the private sector, civic tech and the GovTech sector to develop novel service solutions based on a better understanding of citizen and user needs.

Several smart city programmes have been successful in funding much of their digital

infrastructure through large public-private partnerships. For example, Sidewalk Labs is contributing \$50M in funding for exploration and testing in Toronto; Kansas City, Missouri is home to \$20 million worth of infrastructure using \$3.8 million of public money. Smart infrastructure has also led to new streams of revenue: for example, the LinkNYC terminals in New York are expected to generate \$500M over 12 years from advertising. Higher Education institutes and other not-for-profit organisations also stand to gain from better understanding of a shared endeavour across the public sector in London and from the convening power of LOTI, which could provide a single point of access to partner with local authorities.

Table 1: Potential high-level benefits arising from a collaborative function such as LOTI

For the public	Improved public services
	Increased citizen participation
For boroughs and other delivery organisations	Workforce with enhanced skills
	Increased productivity of staff
	Reduced costs (including economies of scale)
For wider ecosystem	Wide dissemination of learning
	Research more focused on citizen/user needs

Benefits from LOTI will arise in three main ways. First, by accelerating and amplifying the benefits of existing digital projects, by enabling those projects to identify and engage relevant stakeholders more quickly and easily, and by offering a mechanism for scaling successful interventions. Second, new collaborative initiatives will emerge that would otherwise not have happened. Third, through capacity-building and cultural change in London's boroughs and public services will indirectly lead to increased productivity and service improvements.

Quantifying the benefits of the foundational LOTI work will become easier over time. Sharing knowledge amongst the right individuals will increase transparency and may provide some immediate benefits. For example, systematic benchmarking of recently procured products and software⁷ may help boroughs negotiate new contracts. Identifying shared digital challenges achieves direct cost savings through shared solutions. For example, the guidance developed and shared by the Digital Office of Scotland on preparing, planning and interpreting General Data Protection Regulations (GDPR) has resulted in cost-savings in excess of £1million across the 30

 $^{^{7}}$ These benefits could be further amplified by coordinating with the Procurement and IT subcommittees of the GLA Group Collaboration Board

Scottish local authorities. Although outputs will be evident from these activities in the short term, they will require time for implementation to achieve the desired outcomes.

Some projects pursued through LOTI will likely result in direct benefits fairly quickly. For example, consistent wifi access could be implemented across the public sector estate in London. From a user's perspective, this would be similar to the eduroam network used by students and researchers from over 70 countries who benefit from free, secure, reliable wifi access wherever they are travelling or studying. Public sector workers would expect similar benefits, resulting in significant time savings in an era of more flexible and cross-organisational working.

3.3 Risks

There are different risks for the set-up of LOTI, and for when LOTI is operational. The main risks are listed here, and mitigations for each for the preferred option are detailed in the "Management Arrangements" section.

LOTI set-up risks:

- Funding of the LOTI preferred alternative is not agreed by the GLA and London Councils or is withdrawn.
- Fewer boroughs than expected agree to join LOTI initially.
- People with the required skills and experience cannot be sourced to staff the LOTI core team in the time allotted.

LOTI operational risks:

- Projected benefits of LOTI are not fully realised or take significantly longer to realise than projected.
- LOTI is seen as an exclusive "club" of a subset of boroughs, and/or alienates boroughs that are not founding members.
- LOTI widens the digital capability gap between the top-performing digital boroughs and the lowest performers.
- Lack of sustained senior support for LOTI.
- Lack of wider tech community support for LOTI.
- Mayoral priorities change. A break clause can be implemented by the Mayor after the election in 2020.

4. Available Options

Four options were identified to address the business needs and challenges identified above:

- 1) Do Nothing / Status Quo: rely on existing GLA Smart London Team and engaged officers
- **2) Do Minimum:** enhance the existing GLA Smart London Team
- 3) Independent LOTI: establish a small independent team

4) Large-scale LOTI: establish a larger independent team

These options include no additional investment (Option 1 - Do Nothing), a very modest enhancement of current arrangement (Option 2 - Do minimum), a modest investment in an independent team (option 3 - small independent LOTI team) and the maximum feasible investment to fund a larger operation (Option 4 - Larger LOTI team).

Significant scoping work has been carried out to identify core issues that LOTI should address, in whatever form an investment might take. Based on these needs we distinguish between workstreams and projects. **Workstreams** describe ongoing programmes of work designed to improve digital leadership, digital foundations and service improvement across London, particularly in member organizations. All member organizations - and to a lesser extent, non-member organizations - will benefit from workstreams. **Projects** describe discrete pieces of work with narrow scopes and clearly defined start and end dates which are likely to be directed by subgroups of members.

It is anticipated that LOTI will have a small core of funded staff. The ability to address the priorities identified will be determined by the size of the core team. Sufficient scale will deliver new capabilities, especially in engagement and communication. If sufficient scale is LOTI can prioritise existing projects to develop and initiate new projects.

Previous scoping work found little or no desire for a 33 local authority framework. Formal membership to 'Core LOTI' would demonstrate a stronger commitment and buy-in to LOTI amongst delivery organisations.

Staffing costs determine the likely cost of each option. The approximate cost, structure, members, scope, capabilities, potential benefits, feasibility and scalability of each option are summarised in Table 2.

Table 2: Options considered

	Option 1: Status quo / do nothing Existing GLA Smart London Team	Option 2: Do minimum Enhance GLA Smart London Team	Option 3: Independent LOTI Small independent office serving member organizations	Option 4: Larger LOTI Larger team with greater capacity for programme delivery
Team size	0 additional FTE	2 FTE	3 FTE + specialists fund	5 FTE + (larger) specialists fund

	Option 1: Status quo / do nothing Existing GLA Smart London Team	Option 2: Do minimum Enhance GLA Smart London Team	Option 3: Independent LOTI Small independent office serving member organizations	Option 4: Larger LOTI Larger team with greater capacity for programme delivery
Scope	N/A (existing SLT Roadmap only)	3 workstreams: • Digital Leadership Skills • Collective Knowledge • Sharing & Reusing Ad-hoc support for GLA-led projects.	5 workstreams: • Digital Leadership Skills • Collective Knowledge • Sharing & Reusing • Shared Endeavour • Scaling Standards Support for 2 additional projects at any one time.	7 workstreams: Digital Leadership Skills Collective Knowledge Sharing & Reusing Shared Endeavour Scaling Standards Horizon tech & test bedding LOTI Lab Support for 4+ additional projects at any one time.
Additional capabilities	N/A	N/A	•Attracting & managing additional funding for new programmes •Supporting boroughs to operationalize programmes, and providing specialist advice •Comms and marketing •Digital engagement (incl. with residents)	As option 3
Increment al benefits	No capacity to deliver additional programmes , or to accelerate existing ones	Low/Medium Limited capacity to accelerate benefits from existing initiatives - Initiate and coordinate a few additional projects	High - Accelerate and amplify benefits from existing projects - Realise benefits from new projects and work streams that otherwise would not have been possible	Higher as Option 3 but with additional programme delivery and coordination capacity

	Option 1: Status quo / do nothing Existing GLA Smart London Team	Option 2: Do minimum Enhance GLA Smart London Team	Option 3: Independent LOTI Small independent office serving member organizations	Option 4: Larger LOTI Larger team with greater capacity for programme delivery
Legal structure	N/A	Added to existing GLA team	New independent office [incubated initially by London Council - TBC]	New independent organization (e.g. CIC)
Members	GLA only	GLA only	London Councils, GLA, willing + able boroughs	London Councils, GLA, willing + able boroughs
Cost	N/A	c. £140k/year	c. £440k/year for 3 years	c. £650k/year for 3 years
Feasibility of set-up	N/A Already in place	High Straightforward to add additional members to existing team in GLA	Medium More challenging to establish new office and funding arrangements, but incubation in London Councils would help.	Lower Likely less feasible to establish new legal entity, and to recruit more staff members with requisite skills and experience.
Scalability	N/A	Medium	High	High

NB. Full details of the initiatives referred to in this table can be found in the Appendix.

The Do Nothing alternative (Option 1) assumes no additional resources but would include informal attempts by the GLA Smart London Team to encourage collaboration using existing professional networks. The do nothing alternative provides no means of addressing the current barriers to implementation. Collaboration across London would continue occur in a piecemeal fashion and would be limited to informal channels and personal contacts.

The Do Minimum alternative (Option 2) is to enhance the GLA Smart London team with two additional staff. This would provide additional capacity for immediate additional support to existing project initiatives, although these might not be shared priorities. Option 2 would not be independent of the GLA, and therefore could not be seen as a borough-facing entity.

A small independent LOTI (Option 3) has the capacity to deliver a core work programme and two additional projects at any one time.

A large-scale LOTI (Option 4) would be quickly established as an independent entity. It would have a similar membership structure to the smaller independent LOTI, but would be able to deliver

more programmes simultaneously, and to handle collaboration for more than two discrete projects at any one time.

An even more ambitious option for LOTI, for example an entity to mirror New York City Mayor's Office of the Chief Technology Officer, would require significant political and financial support. This is a collaborative function with four distinct teams: NYC Connected (focused on safe, high-quality broadband), NYC Digital (building better government digital services), NYC Forward (smart city technologies), and NYCx (future of tech). The office delivers its own projects - such as defining guidelines for the Internet of Things - and works closely with other centralised delivery agencies. One example is a Climate Action Challenge to test new technologies for charging electric vehicles; this is a joint project with the Department of Transport and the Mayor's Office for Sustainability. Another is an initiative with the Department of Information Technology and Telecommunication to streamline the procurement of design services. This organisational structure has developed iteratively over more than seven years of strategic digital roadmaps, and continues to evolve. Such a model - with the scale to grow four sub-teams with distinct focuses and skill-sets - may be feasible in the future for London. However, this requires a strong foundation and a clear track record upon which to build.

5. LOTI Preferred Option

Based on a high-level evaluation of the four options above, **Option 3 - a small independent team -** was identified as the most attractive. Options 1 and 2 do not offer the capacity to adequately address the business needs identified. In contrast, Option 3 has the capacity to deliver a core work programme through a small, lean team. It therefore addresses the main business needs identified above for a relatively low cost, therefore could be said to offer the highest potential value for money. While offering more benefits due to larger scale and resources, Option 4 would be more difficult to establish and its funding harder to justify at the outset. It does however offer a blueprint for a larger LOTI should the first three years of Option 3 be successful.

This section sets out the work programme, team structure and benefits of the LOTI preferred option. The following section sets out its potential funding and affordability.

5.1 LOTI preferred option work programme

LOTI's core team has the capacity to deliver **six workstreams** and initially coordinate **two projects**. The six workstreams have been prioritised for LOTI's first three years. They have been selected because collectively they enable LOTI to fulfil its objectives: they directly address the barriers to digital collaboration identified in *Section 3.1 - Business Needs*. They also provide the necessary foundations for more technologically advanced and ambitious initiatives later on.

1. **Digital leadership skills:** To seize digital opportunities, public services need digital capabilities. And the current digital skills provision is uncoordinated and uneven. To

- address this, LOTI would develop a pan-London digital leadership offer for senior and middle managers in conjunction with existing providers, such as GDS Digital Academy.
- 2. Collective knowledge: There a need for a strong shared evidence base about digital transformation best practice for London's public services, and there is an information asymmetry between suppliers and buyers. LOTI would develop a broad understanding about digital maturity across London's public services in agreed areas such as procurement, cybersecurity, planning and cloud adoption. It could also facilitate participation in benchmarking against other cities, for example Bloomberg Associates' City Tools or LGA maturity work.
- 3. Sharing & reusing: Approaches to scaling digital interventions or building coalitions for join technology funding bids are typically inflexible or ad-hoc. No pan-London repository exists for digital, data and tech stakeholders, experts and projects. To address this, LOTI would network with digital leaders, potentially with OneTeamGov and LocalGov Camp. It would improve transparency of experimentation in different organizations by encouraging sharing through the Pipeline tool. It would also act as a clearinghouse of local, national and international best practice. It may also coordinate joint technology bids.
- 4. Shared endeavour: Boroughs have little capacity for experimentation on common challenges. They fail to fully take advantage of London's research universities, Tech for Good and GovTech communities. LOTI would drive sustained, structured collaboration with external partners. It could curate existing problem-driven initiatives (e.g. the Civic Innovation Challenge), facilitate GovTech surgeries and build long-term partnerships.
- 5. Scaling the Local Government Digital Service Standard: Cultural change is required for digital transformation, especially outside digital teams. The standards to support this change exists, but there is limited support available to boroughs to help embed them throughout their organisations. LOTI would promote adoption of the Local Government Digital Service Standard and the Digital Marketplace. It could provide expert advice to individual organizations about how they can operationalise the Standard.
- 6. **Data analytics coordination:** The CIty Data Analysis Programme (DAP) has been established at the GLA, providing a hub for the development, commissioning and implementation of data science projects aimed at addressing public services and urban challenges which are better tackled together, and which may affect more than one agency. A pilot project with NESTA identified the four areas of supported that are needed, three of which can be met through existing partnerships or GLA resources:
 - a. Information Governance A framework of data sharing agreements between London's public-sector organisations will be developed over the next 18 months in partnership with the London Fire Brigade.
 - b. Technical Support Although individual organisations are breaking down barriers between internal data silos, there will never be a single warehouse with all of

- London's data. Rather, we need to be able to connect systems as and when required. The City DataStore provides this function and a secure area for sharing datasets and descriptions (metadata) to support projects
- c. Data Scientists The GLA's City Intelligence Team will provide 2 FTE of analytics in-kind support to LOTI for data analytics and will be able to draw on a wider pool of capacity for particular projects, including borough staff, central government and universities
- d. Project Management/Development taking an initial idea, opportunity or challenge and getting it to the point where the analytics can take place is often a substantial task, including negotiating access to data, refining and elaborating on the original question and working in detail with the end users of the analysis (such as delivery staff or decision makers). If LOTI attracts additional funding above the amount anticipated in the preferred option, a fourth post (over and above the core three-person team) could be created deliver this activity.

In addition to these workstreams, the preferred option LOTI will have the capacity to take on two implementation projects at any one time. Projects are discrete pieces of work with clear beginning and end dates, and narrower scopes. They could be new projects, scoped by LOTI; or existing member projects, where LOTI's role would be to accelerate progress and amplify benefits through greater sharing and scaling. Projects would be proposed and collectively prioritised by members each year. Examples of work that LOTI could take on include:

- A joint procurement framework for smart technology: A model for multiple boroughs to
 efficiently and responsibly procure smart city technology together does not exist. Cocreating such a framework would help enable boroughs to procure smart lampposts and
 other technologies at a lower cost.
- **Digital apprenticeship programme:** Provision for entry-level digital skills programmes and apprenticeships are inconsistent among London boroughs. A pan-London offer could help reduce costs, improve quality, and boost recruitment and retention of apprentices.
- Explore public service wifi: Internet access across the public estate in London can be
 inconsistent. Like eduroam for universities, productivity for London public sector workers
 could be improved by ensuring they have consistent access to the internet.
- Pan London Planning Data Initiative: Boroughs invest £750k each year in reporting planning data; yet the quantity and quality of this data is highly variable. Building on the London Development Database (LDD), this project are aims to improve the amount and quality of planning and development data available to citizens, businesses and public administration. It also supports the development of an open standards-based 3D data platform to be used by architects and developers for their schemes.
- Connected transport / smart streets: It is difficult to explore multi-borough/university
 collaborations on experimental sensors, connectivity or smart mobility. A LOTI project
 could coordinate this collaboration on specific use cases.

5.2 LOTI preferred option team structure

In order to properly support and resource the work of LOTI a team of officers will be required. To deliver the five foundational workstreams (excluding the DAP which will have in-kind support from the GLA Intelligence Unit), the preferred LOTI option will need at least three full-time equivalent members of staff: a Director, Programme Manager and a Community & Comms Manager.

In addition, a fund for specialists of approximately £100k/annum would allow LOTI to hire expert resource on a project-by-project basis; such as service designers, technical architects, software developers, cyber security engineers, and agile procurement specialists. Using a fund rather than hiring an additional staff member would allow flexibility, and enable LOTI's core members to benefit from a range of specialists with deep expertise. This pool might also be augmented by secondments from boroughs and from the private and/or third sectors.

The preferred option team structure has been kept lean. It represents value for money because it flexibly uses the minimum resources necessary to deliver the most important initiatives and functions of a LOTI. The team size is smaller than other comparable, collaborative digital functions in other parts of the world. For example, the Digital Office of Scottish Local Government has seven core full-time members of staff, Amsterdam Smart City around eight⁸.

Figure 1: LOTI preferred option team roles and responsibilities

Core LOTI workstream or project in bold

Director

Person specification: Leadership experience, preferably both in tech start-up and digital transformation in local government

Responsible for:

- Setting vision and strategy for LOTI
- Managing LOTI team and hiring
- Managing governance, core funding
- Future marketshaping activities
- Programme management

Programme Manager

Person specification:
Programme
management skills,
preferably with tech
procurement and/or
digital education
experience

Responsible for:

- Digital Leadership Skills
- Collective knowledge
- Project x 2
- Collecting data for monitoring & evaluation

Community & Comms Manager

Person specification:

Experience in
community-building, bidwriting, online marketing
& comms experience

Responsible for:

- Sharing & Reusing
- Shared Endeavour
- Embedding Standards
- Comms & marketing
- Digital engagement
- Ensuring LOTI works in the open

Specialists fund

A fund to hire digital, data and technology specialists for specific projects – especially technical architects, data scientists, agile procurement specialists and service designers

Responsible for:

- Providing specialist support for specific LOTI projects
- Supporting borough digital teams to operationalise programmes (e.g. scaling standards)

⁸ According to online research

Ability to scale the team

As more boroughs join - and/or additional workstreams and projects are added - the LOTI preferred option can easily scale. This would be done through adding additional programme officers to lead extra projects and workstreams (e.g. see the City Data Analytics Programme above) and increasing the size of the specialists fund. If extensive specialist knowledge is required for new programme(s), a staff member can be added long-term. For instance, the Digital Office for Scottish Local Government has done this through adding a cybersecurity expert to lead a new cyber project.

5.3 Potential value for money

The logic chain below illustrates how LOTI's core workstreams translate into outputs, and how those outputs can generate tangible outcomes once implemented. For instance, the "Sharing & reusing" initiative should result in two main outputs: first, making it easier to identify relevant networks and contacts; and second, making it easier to share code and products. Assuming these outputs are taken up by 'Core LOTI' members, they can result in improved public services (a benefit for the public), increased productivity of staff, reduced costs (benefits for members), and a wider dissemination of learning (a benefit to the wider ecosystem).

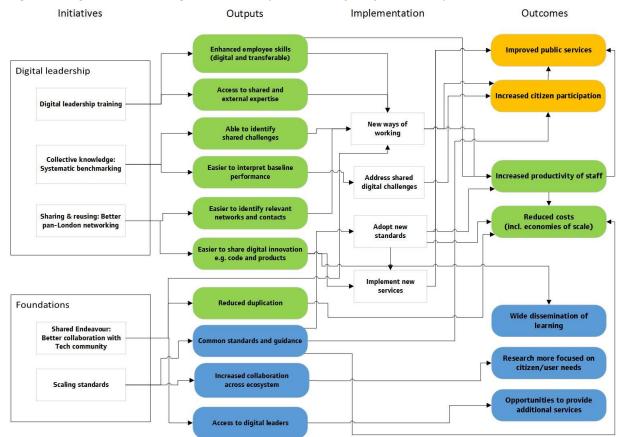


Figure 2: Logic chain outlining mechanism by which benefits of a LOTI may be realised

Benefits for the public

Benefits for boroughs and other delivery organisations

Benefits to wider ecosystem: civit tech, GovTech and Higher Education Institutions

5.4 LOTI preferred option value proposition to 'Core LOTI' members

LOTI will offer the following to member boroughs:

- Be part of London's digital leadership; shape new standards and approaches
- Access to LOTI's cutting-edge technology partnerships with London's top research universities (e.g. on machine learning, connectivity, smart sensors), and GovTech and Tech for Good communities
- Potential access to more digital and technology funding (LOTI able to identify funding opportunities, draft bids and manage relationships with funders)
- Share the risk and cost of digital experimentation and technology pilots
- Able to propose and prioritise LOTI's projects
- Full access to LOTI's collaboration infrastructure to facilitate coordination on own smart city infrastructure and digital services projects
- Full access to LOTI-produced or commissioned guidance, benchmarking and research materials

• Full access to LOTI's database of digital projects, experts and stakeholders

Member boroughs would be expected to sign up to the Local Digital Declaration, and to appoint a nominated lead to manage collaborations with LOTI, as well as a small annual financial contribution of £30k. They would also be expected to contribute officer time to work on joint projects, and support from the Chief Executive's office to help unblock any barriers. If feasible, and subject to the needs of the work programme, they might also be asked to make desk space available a day or two per week, to allow LOTI staff to co-work on-site with their teams.

LOTI will offer the following to London Councils:

- Reputational benefits from incubating LOTI
- The ability to strengthen the tech & innovation offer for boroughs
- A mechanism for getting more out of existing initiatives, such as London Ventures
- Full access to LOTI's collaboration infrastructure to facilitate coordination on own smart city infrastructure and digital services projects
- Full access to LOTI-produced or commissioned guidance, benchmarking and research materials
- Full access to LOTI's database of digital projects, experts and stakeholders In return, London Councils will contribute £100k/year for 3 years; manage and govern LOTI; and provide office space and back office support for LOTI (TBC).

LOTI will offer the following to the Greater London Authority:

- Project management support for the City Data Analytics Programme
- Deliver at least seven pre-agreed actions from the Smarter London Together roadmap
- Full access to LOTI's collaboration infrastructure to facilitate coordination on own smart city infrastructure and digital services projects -- helping to streamline stakeholder engagement for technology projects and bids
- Full access to LOTI-produced or commissioned guidance, benchmarking and research materials
- Full access to LOTI's database of digital projects, experts and stakeholders

In return, the GLA will contribute £100k/year for 3 years; provide expert advice, guidance and promotion from the Chief Digital Officer for London, who is based at the GLA; and provide in-kind resources in the form of data scientists, who are part of the City Data Analytics Programme (DAP).

6. Funding and Affordability

The budget needed to deliver funding for the team and programme of work set out in the preferred option is outlined below. The overall cost of £440k per annum over 3 years is illustrative. Salaries have been benchmarked against comparable roles in the public and social sectors in London. Pension and recharge costs are estimated using 2018/19 London Councils rates. London Councils recharge costs include office space, support services and other overheads for the core team. A small budget for branding & marketing, and for projects (primarily workshops

and events), has been included. LOTI would aim to secure part or full sponsorship for these items where possible.

Core members would commit to funding in LOTI's first three years. However, a monitoring and evaluation project would be commissioned early in LOTI's third year to review its impact. Core members would meet during LOTI's third year to determine its future operating and funding model without unduly tying future borough administrations to expenditure after the 2022 elections.

LOTI will be supported by the GLA, London Councils, and Bloomberg Associates during the set-up of LOTI from November 2018 (called 'Year 0' below).

6.1 LOTI Budget

Notes: The LOTI budget assumes a 4% annual increase in salaries, NI and pension contributions for staff members. It currently allows for a £80,000 per year budget for specialists to assist projects.

LOTI set-up

Year 0 budget	£30,000					
Cost item	Salary	NI	Pension	Total	LC Recharges for staff	Total annual cost
Associate (Bloomberg)	£0	£0	£0	£0	£0	£0
Set-up time from officers						
(GLA+LC)	£0	£0	£0	£0	£0	£0
Marketing & branding	£0	£0	£0	£15,000	£0	£15,000
Project funding (events, workshops, research, travel expenses)	£0	£0	£0	£15,000	£0	£15,000

LOTI in full operation

Total cost over 3 years: £1,246,512

Average cost per year: £415,504

Year 1 budget £406 953

rear i budget	1400,955					
Cost item	Salary	NI	Pension	Total	LC Recharges for staff	Total annual cost
Director	£76,414	£9,383	£9,170	£94,967	£22,000	£116,967
Community manager	£44,747	£5,013	£5,370	£55,130	£22,000	£77,130
Programme manager	£49,300	£5,641	£5,916	£60,857	£22,000	£82,857
Specialist fund	£0	£0	£0	£80,000	£0	£80,000

Marketing & branding	£0	£0	£0	£20,000	£0	£20,000
Project funding (events,						
workshops, research, travel expenses)	£0	£0	£0	£20,000	£0	£20,000
Monitoring & evaluation						
(spread over 3 years)	£0	£0	£0	£10,000	£0	£10,000
		Total				£406,953

Year 2 budget	£415,391					
Cost item	Salary	NI	Pension	Total		Total
					LC	annual
					Recharges	cost
					for staff	
Director	£79,471	£9,758	£9,537	£98,766	£22,000	£120,765
Community manager	£46,537	£5,214	£5,585	£57,335	£22,000	£79,335
Programme manager	£51,272	£5,867	£6,153	£63,291	£22,000	£85,291
Specialist fund	£0	£0	£0	£80,000	£0	£80,000
Marketing & branding	£0	£0	£0	£20,000	£0	£20,000
Project funding (events,						
workshops, research, travel expenses)	£0	£0	£0	£20,000	£0	£20,000
Monitoring & evaluation						
(spread over 3 years)	£0	£0	£0	£10,000	£0	£10,000
Total £415,39					£415,391	

Year 3 budget	£424,167					
Cost item	Salary	NI	Pension	Total	LC	Total
					Recharges	annual
					for staff	cost
Director	£82,649	£10,149	£9,918	£102,716	£22,000	£124,716
Community manager	£48,398	£5,422	£5,808	£59,629	£22,000	£81,628
Programme manager	£53,323	£6,101	£6,399	£65,823	£22,000	£87,823
Specialist fund	£0	£0	£0	£80,000	£0	£80,000
Marketing & branding	£0	£0	£0	£20,000	£0	£20,000
Project funding (events,						
workshops, research, travel	£0	£0	£0	£30 000	£0	£30 000
expenses)	EU	EU	EU	£20,000	LU	£20,000
Monitoring & evaluation						
(spread over 3 years)	£0	£0	£0	£10,000	£0	£10,000

6.2 Funding schedule (LOTI in full operation)

Revenue item	Year 1	Year 2	Year 3	Total
Preferred choice:				
Capital	0	0	0	0
Revenue	£440,000	£440,000	£440,000	£1,320,000
Total	£440,000	£440,000	£440,000	£1,320,000
Funded by:				
GLA contribution	£100,000	£100,000	£100,000	£300,000
London Councils contribution	£100,000	£100,000	£100,000	£300,000
Core member boroughs'				
contributions (assumes 8)	£240,000	£240,000	£240,000	£720,000
Total	£440,000	£440,000	£440,000	£1,320,000

7. Management Arrangements

7.1 Initial LOTI set-up resources

Bloomberg Associates will provide a full-time associate from November 2018 to conclude the Memoranda of Understanding between LOTI and the boroughs and receive funds, develop of database of expertise in London, and write a practical primer on digital trends, tools, and standards. The GLA Smart London Team and London Councils will provide in-kind support in the set-up of LOTI and the work of the associate. The GLA will also provide up to £30k to fund marketing, branding, events, workshops, and travel expenses.

7.2 Initial LOTI set-up project governance

A LOTI-London Councils Steering Group is proposed to oversee the approval and funding processes needed to set up LOTI, and then to guide its set-up phase.

7.3 LOTI set-up project management plan

The initial LOTI set-up team (see 7.1 above) will be responsible for developing a Project Initiation Document for approval by the Project Board. This team will also be responsible for developing

and maintaining a delivery and implementation project plan for establishing LOTI. This should include the key milestones set out in Table 4.

Table 4: Key Milestones

Milestone	Date
Business Plan Approval and Funding	September - November 2018
LOTI set-up phase (including recruitment; assumes an associate and/or interim staff to set up LOTI are in place by early November 2018)	November 2018 - March 2019
LOTI Launch	April 2019
Interim Impact Evaluation ⁹	April - August 2021 (TBC)
End of initial LOTI commitment	March 2022

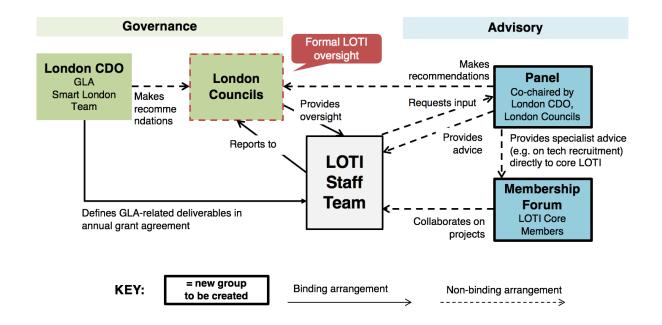
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 $^{^{9}}$ For more information, see Section 7.7 Post implementation evaluation arrangements

7.4 Governance and advisory of the LOTI preferred option when operational

7.4.1 Governance and Advisory Model Overview

These proposed governance & advisory arrangements are summarised in the diagram below:



Briefly, there are two components of LOTI's formal governance designed to reflect the collaboration between London Councils and the GLA in this new function:

- London Councils will formally oversee LOTI. The Senior Management Team will provide oversight and day-to-day management of the team; additional oversight may be provided through regular updates to the Leaders' Committee, or through other forums as London Councils sees fit
- 2. The CDO for London, based in the Mayor's Office and supported by the GLA Smart London Team, will define GLA-funded LOTI deliverables and milestones in the annual grant agreement to be entered into between the GLA as a funder and London Councils as the accountable body for the GLA funding. The London CDO may also may make recommendations to London Councils regarding LOTI's delivery. This will be outlined in the GLA's funding agreement annually with London Councils.

These governance arrangements are supported by two advisory groups:

• An **Advisory Panel**, to provide advice to LOTI's staff team on workstream and project delivery, and to strengthen connections with key stakeholder groups. This will be co-chaired by the London CDO and a London Councils representative.

• A **Membership Forum** made up of representatives from LOTI's member organisations, to work together, consider project progress and deliverables, and provide new project ideas and other input

The sections below lay out more detail behind each of these governance and advisory arrangements.

7.4.2 Governance

London Councils

London Councils will have the authority to sign off LOTI's priorities and work plan. This work plan must incorporate the deliverables and milestones agreed with the GLA as part of its annual funding agreement (see next section).

In addition, the LOTI Staff Team may also provide an update on a quarterly basis to the Leaders' Committee at London Councils. Although primarily designed to inform, these updates will also give Chief Executives the opportunity to provide feedback on LOTI's progress and provide advice on its priorities from a borough perspective.

CDO for London, and the GLA Smart London Team

Subject to the entry into a funding agreement on GLA terms the GLA will make a grant of £100k per annum, initially for up to three years, to London Councils. This will represent around one quarter of LOTI's core budget. To set clear expectations, GLA funded deliverables and milestones will be written up and agreed annually by the London CDO, the GLA Smart London Team and London Councils. The London CDO may also make recommendations on LOTI delivery to London Councils.

To make claims, London Councils must ensure that the LOTI deliverables and milestones are satisfied in accordance with the details set out in its annual funding agreement with the GLA. These may be varied from time to time by the GLA to ensure that they continue to align with Mayoral priorities and the <u>Smarter London Together Roadmap</u>. Equally, the CDO and Smart London Team will ensure that priorities are consistent for the LOTI staff team to operate effectively.

Future Mayoral administration post-May 2020

A mayoral election will occur in May 2020. A future mayoral administration will have the right to give notice to cease funding for convenience during 2020/21. London Councils cannot continue to bind the GLA to their funding agreement if this right is exercised by the Mayor.

7.4.3 Advisory

Advisory Panel

LOTI will also benefit from an Advisory Panel, made up of 10-12 individuals. This panel will meet in-person on a quarterly basis and be co-chaired by London's Chief Digital Officer and a senior representative from London Councils. Its function will be to provide non-binding advice on the delivery of LOTI's work programme to London Councils. Just as importantly, it will serve as an important resource to LOTI staff, who will be able to turn to the Panel for support and advice at and between meetings.

The Advisory Panel will embrace iterative, informal ways of working and digital collaboration tools (e.g. Trello, Slack) to enable it to serve as a responsive sounding board to the LOTI staff (and on occasion directly to 'Core LOTI' officers) between meetings. This could include alerting LOTI to relevant developments; helping to unblock key issues; making introductions; providing occasional coaching to 'Core LOTI' officers; publicising digital, data and technology vacancies in LOTI and its member organisations to their professional networks; and providing informal advice about prospective hires.

Appointees may be nominated by London Councils or by the London CDO. The Panel membership is still to be agreed but may include some or all of the representatives below. (*Please note this list is an initial proposal only and will be finalised during LOTI's set-up phase*).

- 1 x London Chief Digital Officer
- 1 x London Councils senior representative
- 1 x Leaders' Digital Lead
- 2 x Chief Executives of Boroughs / public services
- 2 x Borough Service Directors, covering areas like Health & Social Care, Housing, Planning, Environment
- 1 x Community Safety Partnership representative
- 1 x representative of the GovTech community (e.g. an incubator head, start-up founder)
- 1 x representative of the Tech for Good community
- 1 x university representative (preferably a technical expert from a LOTI strategic partner institution)
- 1 x central government representative (e.g. MHCLG or GDS)

Membership Forum

'Core LOTI' members will collaborate frequently to progress joint projects and workstreams, and meet in sub-groups as needed. The purpose of semi-annual Membership Forum meetings, modelled on the approach of the Digital Office for Scottish Local Government, is to provide regular checkpoints for all 'Core LOTI' members to come together at once. Representatives from all of 'Core LOTI' (the GLA, London Councils and the member boroughs) will be invited.

Membership Forum meetings will give members a chance to agree which members will lead each LOTI project; to share progress and ways of working; to review project deliverables; to celebrate successes; to propose new LOTI project ideas for consideration by the LOTI Advisory Panel; and to

raise any concerns. As a "working meeting", the focus of these in-person events will be on advancing LOTI's workstreams and projects through hands-on workshops. Collaborative digital tools (e.g. Slack, Trello), will be used to enable regular contact among members between Membership Forum meetings.

7.5 Monitoring

A collaborative function such as LOTI is pioneering in nature. Although potential benefits have been described in section 3.2, many of these are likely to accrue over the longer term. Despite this, capturing and articulating the benefits during LOTI's first two years of operation will be crucial to continuing support beyond Year 3.

A monitoring plan will be developed at the outset, with a clear owner identified for each benefit that LOTI is to deliver. The benefits will be drawn from those articulated in Section 3.2 of this document: notably those that affect citizens directly, as well as those that are directly applicable to the members of LOTI and its stakeholders.

7.6 Risk management

Risks will be identified on an ongoing basis, and managed carefully. The Director will be responsible for maintaining a simple risk register for LOTI, its core workstreams and projects, and for reporting. Risks will be assessed for impact and likelihood, and mitigations put in place as appropriate. Each risk will have a clearly identified owner responsible for managing the risk and its mitigations. The initial risks identified for LOTI preferred alternative are shown in Table 5.

Table 5: Key risks in the set-up and delivery of the LOTI preferred alternative

Risk	Impact	Likelihood	Mitigation
Funding of the LOTI preferred alternative is not agreed by the GLA and London Councils or is withdrawn.	High	Low	LOTI will only be established if London Councils' funding is also secured. During the set-up phase, contingency plans will be put in place to manage the unlikely event of core funding being withdrawn before LOTI's initial three-year timeframe. This will include seeking alternative funding from other sources and explore bringing LOTI in-house.

Risk	Impact	Likelihood	Mitigation
Fewer boroughs than expected (i.e. fewer than 8) agree to join LOTI initially	Medium- Low	Low	If fewer boroughs than currently anticipated sign up to become founding members, the team size and programmes of LOTI can be scaled back from the outset, and/or additional funding from external sources secured.
More boroughs than expected (i.e. more than 8) agree to join LOTI initially	Medium	High	If more boroughs than expected want to become founding members, then London Councils may decide to expand the size of the team proportionally, and/or to reduce boroughs' required contributions.
People with the required skills and experience cannot be sourced to staff the LOTI core team in the time allotted.	High	Medium	Secondment, recruitment through partner organizations, and interim/contractor routes will be explored. If this has a budgetary impact, this may reduce the size of the team initially, reduce the funds available to hire specialists, and/or delay LOTI's launch.
Projected benefits of the LOTI preferred option are not fully realised or take significantly longer to realise than projected.	Medium- High	Medium- High	The benefits realisation plan will clearly define the method, measures and owners for realising each benefit. This plan is likely to be iterated as LOTI's activities evolve. The Director will be responsible for managing, monitoring and updating the plan with support from the Programme Manager, and with input from benefit owners.
The LOTI preferred option is seen as an exclusive "club" of a subset of boroughs, and/or alienates boroughs that are not founding members.	Medium	Medium	The London Chief Digital Officer, and other senior sponsors of LOTI from London Councils and the GLA will communicate the open invite to join LOTI to all borough Chief Executives. The Director will be responsible for establishing an open, transparent and inclusive culture.

Risk	Impact	Likelihood	Mitigation
			If other London boroughs or public services wish to join, they will be able to do so at any time by committing the required financial and in-kind resources.
The LOTI preferred option widens the digital capability gap between the top-performing digital boroughs and the lowest performers.	Low	Medium	LOTI's deliverables will be made available to all London boroughs, regardless of if they are members. If required, LOTI may later develop special capabilities to help late adopters to "catch up". This would be dependent on securing additional funding from boroughs and/or other external funders.
Lack of senior buy-in to LOTI preferred option	Medium	Low-Medium	A stakeholder engagement and communications plan has already been initiated and will be further develop during LOTI's set-up phase. Ongoing engagement with key stakeholders to establish buy-in is crucial to the success of the function.
Lack of wider tech community buy-in to LOTI	Medium	Low-Medium	A stakeholder engagement and comms plan has already been initiated, and a selection of key members of London's tech community has been invited to input on this document. The team structure for LOTI includes a Community Manager, whose responsibilities include tech community engagement.

7.7 Post implementation evaluation arrangements

GLA Economics will support the development of a monitoring and evaluation plan shortly after LOTI has been set up, or during the set-up phase. This will include further development of the benefits logic chain, as well as evaluation indicators, data sources and success criteria.

An evaluation plan will be drafted during LOTI's set-up, with guidance from GLA Economics. This will set out the approach for an interim impact evaluation. This plan will also identify key metrics to monitor, which in turn will facilitate ongoing performance management. These metrics could include borough satisfaction, number of successful projects delivered per year, and number of GLA, London Councils, and/or individual 'Core LOTI' member projects where LOTI has added value. Delivery and 'Core LOTI' member satisfaction of each workstream will also be tracked.

Early in Year 3 (around April-August 2021), LOTI will commission an interim impact evaluation, with input from GLA Economics. Evaluation objectives will be defined in conjunction with LOTI core members and wider stakeholders. The evaluation itself will likely be largely qualitative, and focus on evaluating LOTI's process and organisation. Negative results ('what does not work') will be as important to report as positive findings (on 'what works'). It is projected to cost up to £30k. This cost is included in the LOTI budget and is spread over three years.

A more comprehensive impact evaluation should be planned for a potential second funding round for LOTI (2022 - 2025). This is when it will be long enough to capture long-term value of money.

Appendix

A1 - Full list of proposed LOTI workstreams and initiatives

The full list of LOTI workstreams and projects that have been proposed so far.

LONGLIST OF PROPOSED LOTI WORKSTREAMS

Workstream

Workstreams are ongoing sets of activities, with broader scopes, and focused on capacity-building

Digital leadership skills: upskilling senior and middle managers

Collective knowledge: systematic tech/ digital maturity and procurement benchmarking between boroughs and w/ other cities

Sharing & re-using: better pan-London digital networking

Horizon tech collaboration and test-bedding

Shared Endeavour: better collaboration w/ GovTech, civic tech, universities

LOTI Lab: B2B digital marketplace for boroughs & GovTech SMEs

Scaling tech procurement: collective procurement on e.g. smart lampposts, electric bikes

Scaling standards: including the Local Government Digital Service Standard, Digital Marketplace, G-Cloud

Data analytics: project manage collaborative data analytics projects, with LODA (London Office of Data Analytics)

LONGLIST OF PROPOSED LOTI PROJECTS

Project examples

Projects are discrete pieces of work focused on implementation (vs. capacity-building)

Explore public service wi-fi: improve the consistency of wi-fi access across the public estate.

Pan London Planning Data Initiative: improve the quantity, quality and transparency of planning data; building on boroughs' work to develop open data standards for planning applications

Digital apprenticeship program: entry-level upskilling; spend apprenticeship levy wisely

Common and open standards: create an open standards platform to be shared across boroughs, e.g. on specifications, module descriptions, APIs

Streamline sharing of legacy data: build a platform to allow boroughs to combine and securely share their legacy data (modelled on open banking)

Connected transport/ smart streets initiatives: make it easier to explore multi-borough/university collaborations with e.g. experimental street sensors, connectivity or mobility projects

A2 - Core LOTI workstreams detail

The tables below provide additional detail on the six prioritised workstreams that make up the core LOTI offer for the proposed option. This includes the problems addressed, main activities, benefits, feasibility, risks, costs & resources, timing, end users/beneficiaries, and the status quo for this work without a LOTI.

1: DIGITAL LEADERSHIP SKILLS

Problems addressed

- Senior and middle management lack skills to address digital opportunities and challenges.
- · Lack of important skillsets in boroughs (e.g. digital and service designers)
- · Possible duplication and quality variation across existing and future digital skills programmes

Activities

- Develop digital skills standards for middle and senior leadership, building on existing work
- Develop pan-London digital leadership skills program (e.g. with GDS Digital Academy and existing programs); assist with course design, placements etc., and track outcomes
- Create and curate pan-London learning networks, and ongoing inspirational speaker programme

Renefite

- Service improvements from upskilled staff
- Reduce cost of digital skills training provision

Costs & resources

LOTI staff time

Timing

 Ongoing, some benefits realised in Year 1

End users / beneficiaries

 Middle and senior managers in GLA family, boroughs

Feasibility: HIGH

- Digital skills programs exist (e.g. GDS Academy, CIT Digital, Climate Kick)
- · Political support exists

Risks: LOW

TBC

Without LOTI:

- Lower quality skills provision
- Inconsistent offer across London
- Higher risk of duplicated effort

2: COLLECTIVE KNOWLEDGE

SYSTEMATIC TECH BENCHMARKING

Problems addressed

- · The baseline comparative knowledge helpful for digital transformation is limited
- · Making the case for investment in digital transformation can be challenging
- There is an information asymmetry between IT / smart tech vendors and boroughs

Activities

- · Build case for investment in digital transformation, by compiling case studies and examples
- Manage live database of boroughs' IT systems, digital tools and procurement timelines to help inform procurement
- · Manage London's participation in inter-city benchmarking (e.g. Bloomberg Associates' City Tools)

Benefits

- Better VFM for tech procurement (address information asymmetry between vendors and boroughs)
- More informed decision-makers lead to better services

Costs & resources

LOTI staff time

Timing

Ongoing, some benefits realised in Year 1

End users / beneficiaries

 CEOs, CIOs and tech procurement officers in boroughs

Feasibility: MODERATE

- Political sensitivity exists around procurement spends
- Potentially time-consuming to manage benchmarking

Risks: MODERATE

 Boroughs reluctant to participate in benchmarking Risk of leak of commercially and politically sensitive data

Without LOTI:

- · Highly variable ICT spending
- Any info sharing ad-hoc
- Participation in benchmarking less likely, takes more time

3: SHARING & REUSING

NETWORKING & A PLATFORM FOR SHARING

Problems addressed

- Scaling digital innovations, approaches often too inflexible or ad-hoc
- There is no pan-London repository of digital, data & tech stakeholders, experts and projects officers launching a new collaborative project typically need to piece together this information from scratch

Activities

- Review current professional networks and identify what works, what doesn't, and address gaps
- · Create and nurture more effective networkers of do-ers by running tea camps, unconferences
- · Manage central repository for sharing event content and maintaining connections (e.g. via Slack)
- Scale Hackney's Pipeline product to improve transparency around experimentation
- Establish processes for boroughs to share code on GitHub, and manage comms around this

Benefits

- Better engaged, informed and networked staff leads to service improvements
- Reduced costs and increased efficiency from re-using code

- Potential to build on existing popular movements
- But potential resistance to sharing IP, code

Costs & resources

LOTI staff time

Timing

Ongoing, some benefits realised Year 1

End users / beneficiaries

 Digital, data and tech practitioners in London

Feasibility: HIGH

- Risks: MODERATE

 Existing networks may react negatively if feeling threatened
 - Possibly very time-consuming to organise events, teacamps

Without LOTI:

- Digital networking remains duplicative, uncoordinated
- Any sharing / re-using of code and digital products is ad-hoc

4: SHARED ENDEAVOUR

BETTER COLLABORATION W/ TECH COMMUNITY

Problems addressed

- · Boroughs have little capacity for experimentation and innovation, due to funding constraints
- Boroughs do not fully take advantage of the city's universities, civic tech and GovTech communities
- · GovTech and civic tech struggle to understand how best to engage with boroughs and service owners

Activities

- · Curate and drive participation in mission-driven initiatives (e.g. Civic Innovation Challenge)
- · Work with catapults and other partners to clarify gov. procurement, hold GovTech surgeries
- Form and manage long-term, pan-London partnerships with university and industry researchers
 - Facilitate sharing of boroughs' challenges and researchers' findings, projects

Benefits

- Benefits of external collaboration (innovation, expertise) increased and more evenly distributed
- Improved tech procurement
- Growth of GovTech sector

Costs & resources

LOTI staff time

Timing

 Ongoing, likely beyond year 1 to realise benefits

End users / beneficiaries

- Borough CIOs, City Hall
- GovTech firms, accelerators
- Civic tech / Tech for Good
- Universities

Feasibility: MODERATE

- · Willingness to collaborate
- But challenging to sustain momentum and benefits of partnerships

Risks: LOW

- Talking shop risk
- Reputational risk for LOTI if partnership participants fail to commit sufficient resources

Without LOTI:

- Collaboration continues to be ad-hoc, less effective and limited to certain boroughs
- GovTech

5: SCALING STANDARDS

E.G. LOCAL GOV. DIGITAL SERVICE STANDARD

Problems addressed

- · Digital transformation requires significant cultural change for public organisations
- The standards to support this change exists. But very little support is available to help boroughs to adopt and fully internalise these standards

Activities

- Promote existing standards and drive take-up by boroughs and public services, especially: Local Government Digital Service Standard, Digital Marketplace, G-Cloud
- Provide expert support and guidance to embed standards as part of a broader digital transformation programme, and to realise benefits

Benefits

- Benefits of external collaboration (innovation, expertise) increased and more evenly distributed
- Improved tech procurement
- Growth of GovTech sector

Costs & resources

LOTI staff time

Timing

 Ongoing, likely beyond year 1 to realize benefits

End users / beneficiaries

 London Councils, GLA, boroughs

Feasibility: MODERATE

- Widely endorsed standards exist
- But cultural change needed to embed is difficult to achieve

Risks: MODERATE

 Risk that it will take longer than anticipated to scale and fully embed standards

Without LOTI:

- Take-up of standards will remain organic, slow
- Standards may not be fully embedded

6: DATA ANALYTICS

PROJECT MGMT FOR JOINT DATA ANALYTICS

Problems addressed

- The London Office of Data Analytics (LODA)¹ lacks proper project management support and coordination
- · Councils' data science capabilities are limited

Activities

- · Work with boroughs to identify data analytics needs, and source potential joint projects
- Work with LODA data scientists and boroughs to coordinate collaborative data analytics projects and ensure the necessary foundations (e.g. info sharing agreements are in place)
- Manage strategic partnerships with universities, industry etc. to leverage extra data analytics expertise

Benefits

- Accelerate data analytics projects
- Provide data science expertise to core boroughs, help with capacity-building

Costs & resources

LOTI staff time

Timing

 Ongoing, could realise some benefits from Y1 projects

End users / beneficiaries

London Councils, GLA, boroughs

Feasibility: MODERATE

- LODA already set up and funded, data scientists in post
- LODA pilot
- Some foundational work still to be completed

Risks: HIGH

- Need to carefully manage data-sharing risks
- Lack of foundations (e.g. info sharing agreements, data standards) may delay projects

Without LOTI:

Data analytics projects likely to take longer, have fewer participants, and struggle to fully leverage university, industry expertise