



Building a Pan-London IoT Data Ecosystem

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London is complicated..



How do we avoid data silos and make the most out of emerging technologies such as IoT?

We started with an outcome and use case:

Damp and Mould



Woman in critical condition after council 'failed to fix mould and damp issues'

- Government reforms affecting social housing in a decade via the Social Housing (Regulation) Act in July 2023
- Crackdown on damp and mould under new legislation in memory of Awaab Ishak (Awaab's Law)
- Landlords must investigate and fix serious problems within strict time limits
- New powers for Housing Ombudsman
- Already existing expertise within London

18 Boroughs Signed up:

Barking & Dagenham

Barnet

Camden

Ealing

Enfield

Greenwich

Hammersmith and Fulham

Hackney

Harrow

Hillingdon

Hounslow

Islington

Kensington & Chelsea

Merton

Redbridge

Southwark

Waltham Forest

Westminster

Our Objectives

Value to boroughs, Value at the London level

- Foster IoT adoption and faster implementation
- Avoidance of unnecessary repeated IoT trials
- Preventing data silos
- Wide range of tangible use case outcomes
- New aggregate data to make strategic decisions
- Unlock supplier investment
- Test technical feasibility
- Test collaboration methods

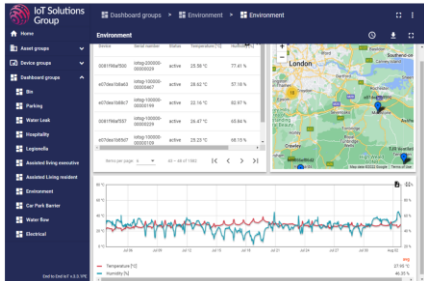


Approach

How are we achieving it? Borough Level

Rapid deployment IoT solution:

- Needs evaluation workshop for each borough
- Information Governance and resident engagement guidance provided to speed up approvals
- Shipping of 10 IoT sensors to each borough
- Installation / activation of sensors by borough
- Weekly reports spotlighting risk properties send to housing managers



Approach

How are we achieving it? Pan-London Level

Shared Pan-London Data:

- Sensor data shared from across all pilots
- Overlay additional external data sets
- Generate new strategic insights for policy makers
- Classification data, trends, root cause analysis



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Is there a use case for a shared IoT data platform?

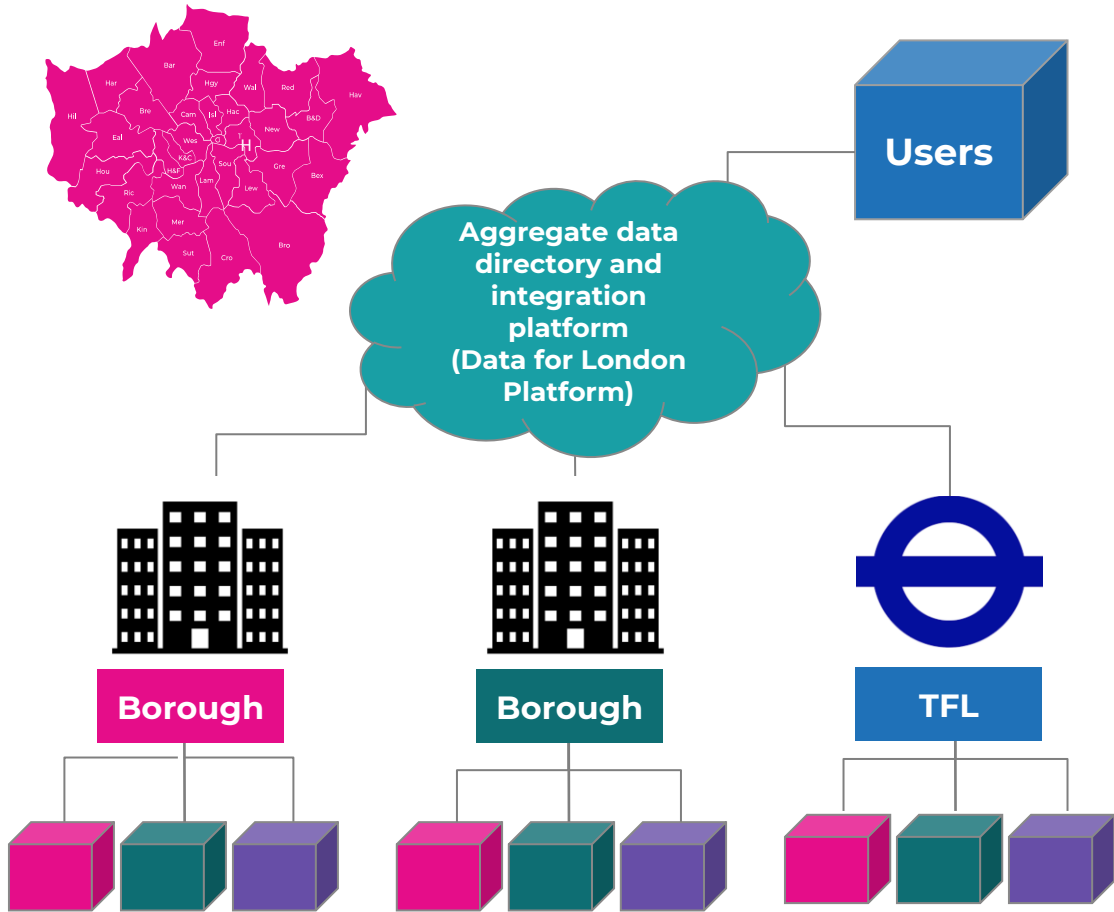
1. Housing archetype analysis
2. Landlord risk profiling
3. Public Health intelligence
4. Assessment of properties to enable retrofit

**But it's about more than just a data
platform!**



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A proposed joined up smart city ecosystem for London



Users

- Residents, Business, Academic
- Access via APIs and front ends

Pan London

- Open Data Directory
- Open Data Portal
- Aggregation for Specific usecases
- Analysis and Insight
- Ethics and Privacy Register
- Data and Interoperability Standards

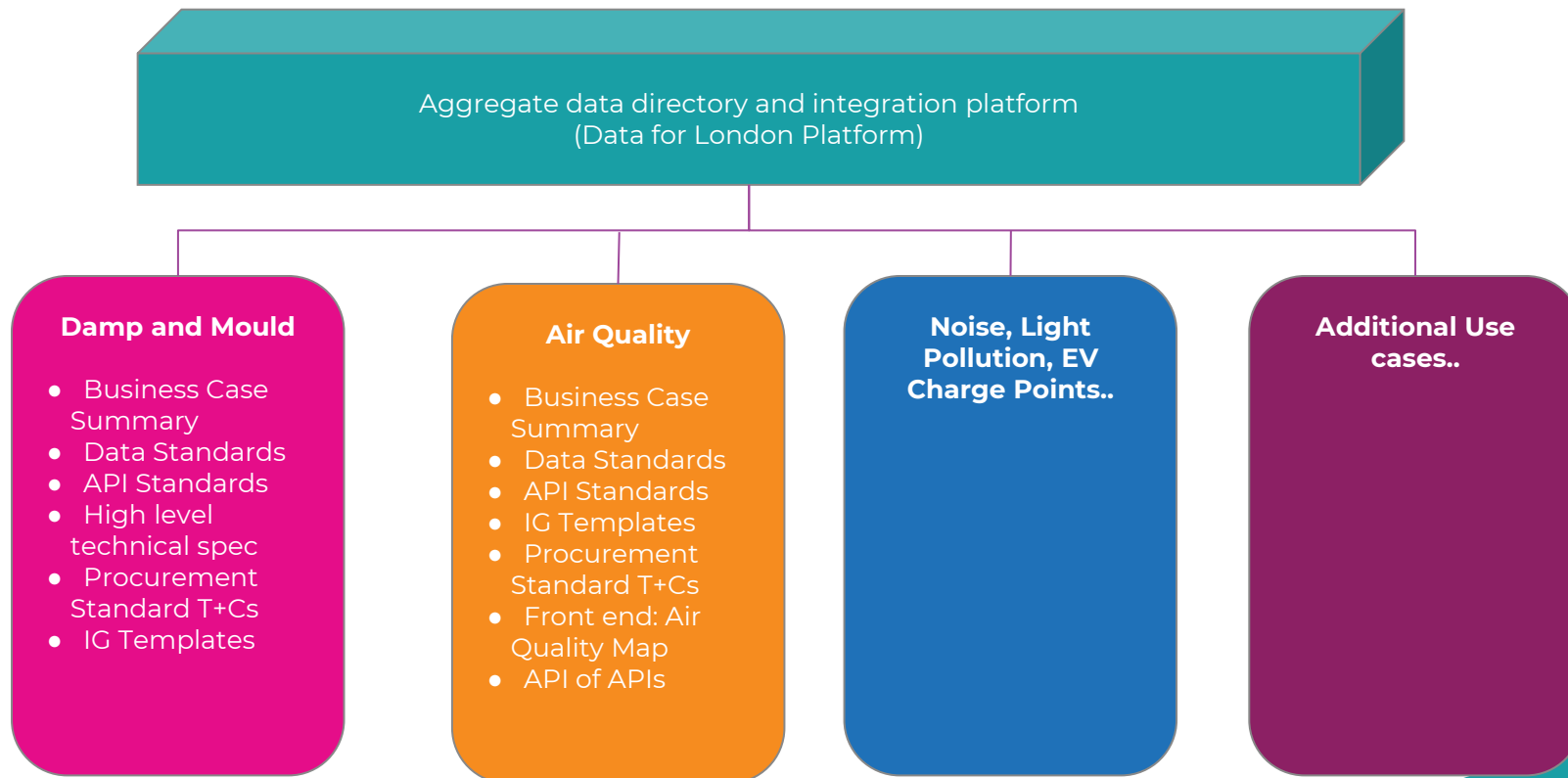
London Local Gov Level

- Operational and Strategic usecases
- Local Data Platforms
- Open Data Portals

Use Cases and Endpoints

- Sensors
- Usecase based aggregations

IoT Data Platforms - Standards and Templates



Benefits:

Damp and Mould

- Business Case Summary
- Data Standards
- API Standards
- IG Templates
- Procurement Standard T+Cs

- Ensure interoperability - so boroughs can easily share data for Pan-London projects
- Reduce the need to repeat pilots
- Simplify the information governance process
- Speed up the procurement process
- Shape the market
 - Provide suppliers with clarity on what London Boroughs expect

Builds on the existing LOTI Smart City Use case Library- [Access here](#)

London IoT Declaration

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London IoT Declaration

Introduction

This declaration affirms our collective ambition for the use of and the collection of data from Internet of Things (IoT) sensors by local public services. It commits us to working collectively, to:

- Design our services in such a way that data can be shared across London for the better delivery of services to our residents
- Challenge the technology market to offer the flexible tools and services we need
- Protect Londoners' privacy and security
- Deliver better value for money by ensuring that experience and knowledge is shared between boroughs to reduce rework

This joint endeavour was initiated by the Greater London Authority (GLA), London Office for Technology and Innovation (LOTI), and a collection of London local authorities. We invite all London local authorities and the organisations we collaborate with to join us by signing the Declaration and committing to delivering it.

The Opportunity

The cost of IoT devices has now dropped to a level where they offer a real opportunity for public bodies to redesign their services around actual real world data either to inform strategic decisions or operational ones in real time.

This is an opportunity not only for individual local authorities, but also at a pan-London level if the data can be aggregated and shared.

Great work has already been done to transform our services using digital tools and technology, but we have an opportunity to do more with IoT devices and data sharing.

Our Ambition

We want to co-create the conditions for public bodies across London to work together to reduce duplication of effort, reduce the likelihood of data silos and help transform how data is used in London.

This requires:

- Sharing of experience and business cases between effort and unnecessary repetition of pilots
- Agreeing common minimum requirements and solutions to ensure consistency of data
- Agreeing how IoT solutions can be implemented regarding the privacy and security templates
- Agreeing common minimum data standards to be shared and collated wherever



- Principle 1 – Protect Privacy
- Principle 2 – Build Public Trust
- Principle 3 – Data Ownership
- Principle 4 – Flexible, Modular IoT Solutions
- Principle 5 – Sharing Information
- Principle 6 – Secure and private

The DRAFT Commitments

- **GLA and LOTI**
 - leadership role, shared platform for data and document repository
- **Local Authorities and other organisations**
 - publish case studies, share lessons learnt and use cases, standardise tender requirements, use frameworks, agree standard DSAs and DPIAs, revisit the declaration annually
- **Suppliers**
 - Work with local gov to deliver in accordance with the principles



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Jay.Saggar@loti.london

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