

JAY SAGGER ON SHAPING EMERGING TECH MARKETS AT REGIONAL LEVEL

Transcript

Linda O'Halloran (00:00)

Jay Sagar, thank you so much for agreeing to share your case study with this project. To start, do you want to tell us, just in short, what is the project and how were you trying to shape the local service market in some way?

Jay (00:14)

So the project is the Pan-London IoT Damp and Mould project, which was initiated as a way to continue to leverage some of the IoT expertise that had been built up in some London boroughs through various funding pots over the years, and to look at where that technology might be able to support boroughs to meet some of the requirements that were going to emerge out of Awaab's Law, which at that point hadn't come in, but was on the cards and boroughs were trying to figure out how they might respond to the new requirements.

Linda O'Halloran (00:49)

Can you talk a little bit about the significance of doing it pan-London and not just for one particular authority? There's obviously intuitive economies of scale there, but also challenges.

Jay (01:00)

For sure. So, LOTI aims to do its projects with multiple boroughs as a default, as the way we work. But the reason it was particularly relevant in this context was that, in terms of experimenting with a new technology, it's not usually that good to do it in isolation. And we know that plenty of pilots happen, and then they're repeated by another local authority or another organisation and the learning isn't really shared. So one of the things we wanted to do off the bat was to make sure

that when we were experimenting, we were doing it in a way which would mean that the knowledge would be shared as part of the actual project and not just kind of things that were written up and left on the shelf and hopefully someone would pick up, but actually to build in that sharing as part of the project process.

And ultimately, the design of the project meant that we had almost a kind of natural experiment set up in that we allowed each of the boroughs who were deploying the technology to do it in their own way. We gave them sensors, but we said that they could explore their own use cases, and ultimately they would report back which use cases they'd selected, why, and which ones were working and which ones weren't, and to do that as part of a project. So across the 16 or 17 boroughs that were part of the initial phase, the information that was gathered from their individual deployments fed into a larger repository of information. And certainly, we were able to see a very wide range of experiments with the technology in very different contexts, which ultimately gave us a richer insight into what works and what doesn't work.

Linda O'Halloran (02:39)

Did you have moments in the process where you got together as a cohort and you shared how you're going about it and what maybe a common pattern looks like?

Jay (02:48)

Yeah. So we had, as part of the project rhythms, a number of collaboration sessions where we would come together and we would ask specific boroughs to present on the use cases they'd been exploring and how it was going. And particularly, the interesting stuff was how they were then trying to integrate some of the insights into other parts of the organisation.

I particularly remember one session where Islington were talking about how they were really starting to understand fuel poverty in a different way with this technology. They could see people who were underheating their homes significantly. And we know that that is a big cause of damp and mould, but also fuel poverty is an issue in itself beyond what it does to the fabric of the building. And so Islington were then exploring working with their welfare teams and the cost of living program within the council and trying to link up with them in a way which was not initially considered to be part of the pilot. But ultimately, if you want to start to make interventions, you've got to build those connections across

the organisation. And so that type of sharing, I think, was really valuable to support other boroughs to understand how you might go about this and start to select some interventions that might be outside of traditional housing.

Linda O'Halloran (04:07)

Was there, or is it maybe a bit too early to have an ambition to share these lessons more nationally and to have maybe some economies of scale in that the market is able to serve you more efficiently when more local authorities are asking for similar things, for example?

Jay (04:27)

Yeah, so that was definitely part of our thinking. One of the bits of work we did alongside the pilot was to create the London IoT Declaration, which we modelled on the Local Government Digital Declaration, which ultimately was a similar set of principles in that we wanted any borough that was using IoT-type technology to commit to a number of things. So there was the collaboration angle and sharing what they were doing, how it was going, what was working, and what was not working.

But there was also a market-shaping part of that agenda to make sure that we would be sharing the types of specifications that we were using, that we would commit to moving to agreed standards as they emerged, if they emerged, that we would commit to potentially creating standards if we had to and if there was a need to, and that if they existed, we would adopt them as a group of boroughs plus us as LOTI. And ultimately, that we would use our collective desire to operate in this space to shape the market and to make demands collectively of suppliers so that we could build some consistency in the market and ultimately shape it to meet the requirements that we have, rather than being picked off by individual suppliers offering various levels and qualities of product. So that was very intentional, and it's something that 15 boroughs signed up to as part of the process.

Linda O'Halloran (06:09)

Organisations like LOTI are really important market shapers in their regions and

set up to do just this. Are they enough? Have you been able to achieve your ambitions to encourage suppliers and incentivise local authorities as well to engage in pre-market standards — or pre-competitive standards rather — and basically evolve in the direction that you believe necessary?

Jay (06:37)

So I think the short answer to that is no, but we are working on it, and we're trying. And I think that this needs to happen at multiple levels. So there's stuff that we can do regionally, and there's certainly opportunities to collaborate across regions as well to shape markets, particularly when we start to understand what's worked in our area, and then we can compare notes with other regions.

Some of the work that has been happening in Glasgow as part of their — I think it's called like the 5G Accelerator programme, which is where they were doing damp and mould sensor work — in Glasgow, you know, we've looked at some of their documentation, and we've been speaking to them about what's worked and what hasn't worked. Equally, projects in Wales as well. So there is that kind of cross-collaboration across the regions. I think there still isn't quite the maturity there for us to collectively act and start shaping the market. But I think we're on the pathway to do that as individual projects mature and as we start to understand what those asks are in our respective regions.

I think with this project, the IoT Damp and Mould project, we haven't quite got to the point of really shaping the market, but the next phase of the project, which is looking to do both damp and mould work but also to monitor the performance of retrofit interventions in homes, will allow us to have more influence over the market. So we've intentionally been doing a lot more market engagement as part of that work. We're aiming to support boroughs that are participating in the Social Housing Fund retrofit programme to install sensors. We're doing that in a technology-agnostic way. So we want to collect data centrally to monitor retrofit performance across London, but we are saying that any sensors and supporting systems are eligible as long as they can give us data at the intervals we want via APIs, and that the data ownership is with the boroughs and therefore they can pass it on to us centrally.

So, setting a number of specific requirements that suppliers will need to meet. And in that sense, because we are working as part of this much bigger program with a large budget behind it and a number of boroughs that are going to

purchase quite a lot of technology to do it, I think we will be able to shape the market to meet some of our needs. We have been engaging with suppliers in a much more active way to ask them about their pricing, what the different models are, and their procurement methods so that we can build up a set of guidance and, in some cases where we're going to be offering funding, a set of requirements for boroughs to use when contracting with suppliers that will set a set of minimum requirements, not so much a standard, but it's that type of thinking where we're going to try to check the market in that way. We haven't done that yet, but that, I think, will be probably the most active market-shaping activity we've done in this space once the actual buying commences.

Linda O'Halloran (10:09)

That's exciting. And it does show, I think, that regional groups, or maybe just collections of organisations that have similar interests and goals, can be market shapers, perhaps without national engagement in the futures space — like in the innovation, future technologies, new technologies, which is maybe slightly more greenfield. Is the same true for legacy, for our established kind of service infrastructure that we depend on to keep services on and that we will need to connect these new things to?

Jay (10:48)

I think it's much more challenging in that space. The overall landscape for the legacy technology is that there are systems which are old technology, and the business model is about keeping the data locked in. It's not about making it available to build additional services on top. Those legacy providers see that as a risk to their business model, where there is a small number of incumbents that don't want to allow anyone else into their space. They fear that their hold on the market will be jeopardised if they let, if they build, or they create APIs that allow people to take the data out, because then there's all sorts of possibilities of building parallel systems, which will, in the future, possibly mean that the legacy system isn't required.

And that has an impact on the core functionality around the case management functionality which those systems provide and which they were set up to provide, but it also really stifles the innovation side. Because ultimately, if we want to do anything sophisticated with analysis around how is damp and mould affecting particular property types, particular tenancy types, what's the repairs history, what's the tenancy history, what's the demographics of the people living

in the homes, then it's very difficult for us to get that data out and combine it with the readings we're getting from the sensors. And that's where the innovation is. The legacy providers are not making that easy for us to do, and that ultimately is holding back innovation in this space.

Linda O'Halloran (12:36)

Any ideas for how we can speed up this movement away from perhaps data-for-ransom legacy lock-in?

Jay (12:41)

So I think that there have to be manoeuvres at multiple levels. Obviously, we're going to try to put pressure on from where we're sitting, but we historically haven't really made much of an impact even when we've come together as boroughs, as groups of boroughs, to make demands of those legacy suppliers. So I think something at the national level is probably needed to speak with that kind of power of all the local authorities across the country that use these types of systems.

I think there needs to be some sticks in the mix to make sure that there's expectations set of what technology should be able to do as a minimum set of functionality in the public sector. Having open APIs, I think, has got to be a requirement, and as LOTI, we're suggesting that boroughs don't buy any technology that doesn't have that functionality. And certainly, that's not a difficult thing to do when you're buying from new suppliers because they've designed their products in an ecosystem mindset; the legacy suppliers haven't got that mindset and, for various reasons around the business model, don't want to adopt it. So I think there needs to be some sticks to force their hand in that space because they haven't been willing to come to the table through discussion and more collaborative opportunities. So we need to look at what else can be done.

And I think the other challenge is that it's really difficult, in this context, for local authority housing teams to move away from those systems because they are very stretched as organisations. They are firefighting, and it's difficult for them to create the kind of forward-looking strategy around housing services and delivery that would then allow you to design a modern technology architecture and system architecture around it. And that is a real blocker as well, because when we, as LOTI, have engaged with LOTI boroughs and their housing teams to look at more innovative approaches to procurement of housing technology, this has

come up — that actually, really, those housing teams don't have a clear idea of the types of requirements they might want in five years' time or ten years' time in terms of what the service needs might look like. And ultimately, that's because they are really laser-focused on delivering their statutory duty now. That's totally understandable, but it isn't a good space for technology innovation because the thinking hasn't been done on what the future of that service should look like. And that does cause this churn of just re-procuring the same systems which do the same functionality now, and we're stuck in a bit of a loop there.

Linda O'Halloran (15:59)

100%. This is kind of part of the mission in some ways of this project — to highlight that there isn't an owner for this setting the vision, doing once the co-creation of the art of the possible so that everyone benefits, rather than each of hundreds of different organisations with their very small budget, bandwidth, and staff having to do it. It feels quite wasteful. And I think perhaps in that space, I don't know that central government necessarily needs to do everything, but there's a convening power that only the centre has that I wonder could be used a little bit more in a surface way.

Jay (16:42)

Yeah, absolutely. Absolutely. I mean, I think, well, there's a number of angles to it. Certainly, from a service perspective, I think there are some big-picture questions of why are these housing services so stretched. And if there's a bit more breathing space, maybe then you can start to think a bit more strategically about how those services run. If there's a bit more clarity about where the resources are for those services and some support to maybe think through some of that, that could be helpful, convened from the centre.

I think on the technology and data side, I also think standards are really helpful here. And I think there are some really good bottom-up standards that have emerged from the sector, but they do need adoption by central government to make them, I suppose, generate the uptake that makes standards actually work, and to give technology vendors, local authorities, housing associations, and anyone else who's planning to use them the certainty that there will be someone to look after them, that there will be adequate governance around them, and that they're not just going to disappear and fade away. And ultimately, that there is collective buy-in that these are the standards versus any other that might pop up. And so I think that, undoubtedly, there is a major role for government to play

centrally to do that. I think that's where working collaboratively — the kind of top-down and bottom-up coming together, selecting the right thing for the sector and then having government support of it — is a good model.

Linda O'Halloran (18:18)

Hear, hear. That kind of transitions us into the conditions for actually successfully shaping markets. You talk about top-down and bottom-up. This is literally two subheadings in the playbook text because we've seen it work really, really well in places like digital planning and social care interoperability. Are there any other conditions, having tried for many years as LOTI now to shape markets in different local service areas, that are essential that maybe, as a local agency, you need help to put in place?

Jay (18:50)

I think there needs to be a kind of established model that that can be how it works. So that as bottom-up projects start to define certain aspects of viable standards, ways of working, and collaboration, there might then be a place to go with that in central government to say, "If we want to get this to work, who do we speak to? And is there a possibility that there is then an ability to sort of take that on and scale it beyond what the regions managed to do locally?" So I think that being a way of working which is established would be quite valuable because I think it would also incentivise regions to work in a more focused way.

And certainly, there might be some kind of requirements that you need to get to before government might want to look at it, and if we could define some of those, perhaps that would also bring some clarity to the space. I think you don't want to be too prescriptive because I think the dynamics can be quite different depending on what the project context is. But ultimately, if we know there's a certain set of things which will allow government to get involved, then we can also begin to build those into our thinking and allocate our resources and our work towards getting to that point. So that might be one way.

Linda O'Halloran (20:10)

Credit where credit's due to teams in central government that I think are really aligned with that vision, and I know from past work the Local Digital programme have been that in many ways. But perhaps a real challenge has been all of the incentives in central government working against the policy owners for all these different services. There's something in the specific policy owners' feeling that

it's their duty and their remit to engage that I think I still don't really know how to do. That's kind of why I've done this project.

Jay (20:48)

Yeah, well, you know, from a local government perspective, we are pretty agnostic about which government departments want to get involved with this. We just hope that the departments can collaborate, and that mummy and daddy can get along, and we can work on something in a sensible and constructive way, and the differences can be resolved at that level. We're super focused on what the outcomes are. We don't mind who we work with, we don't care who owns it, and we don't want the glory.

I think government departments obviously are fighting for their own resources, and I get the incentives at that level. But ultimately, we should all be collectively working to the outcomes we want to see in society, right? And that doesn't matter which department owns this project or that project. We just need the commitment from everyone who has expertise, influence, and power in this space to come together to actually make things work. I think ultimately that's what local government want from central government. The way you've organised things is up to you, but let's just get it done because one thing I think that happens at the local level is the resource constraint is so real. The reality of facing the brink for so many local authorities means that we don't have time for this; we have to find the solutions. And I think that has driven a lot of focus to people in local government. So that would be my message: let's just do it, let's not mess around here.

Linda O'Halloran (22:18)

I definitely have the impression there is a huge willingness in so many people in central government, but unfortunately, we're not yet at that point where people have the permission to say, "I have a certain contribution to make to this outcome. Therefore, I can convene all the sector stakeholders that I know, and I can establish a mission team to deliver this." Hopefully, yeah, we're getting there. Do you want to say a little bit about what's been the hardest for you about trying to see what insights we can glean from sensors that will help us with a number of outcomes?

Jay (22:49)

Yeah, so ultimately the outcomes we have for the damp and mould projects are to improve the wellbeing of the residents living in a home which potentially might have damp and mould. And so there is a health element to that, there's a quality of life element to that, and then there are other outcomes around asset performance and maintenance costs, and driving a more effective repairs and maintenance service which is reducing their costs, understanding what works and what doesn't work, and only doing what does work, having the ability to do that in a more sophisticated way.

Understanding that just going and doing a mould wash every time someone complains is the cheapest thing you can do if you just look at it in a very transactional basis. But if you look at your overall portfolio, then you're wasting a lot of money there because often it doesn't work in certain situations. So actually understanding where you should do the cheap intervention, where you should do the expensive intervention, and how likely it is to work. And then once you've done it, actually monitoring to see if it works and feeding that into your understanding. Those are the types of places we want to get with this type of work.

And as it evolves into the retrofit space, we also want to be able to monitor the performance of insulation, new heating systems that are being put in, what's the impact on the cost of heating a home, how well that retrofit intervention worked, and whether we should repeat it for a similar stock type or should we do something different? So those are things that we want to understand and drive. And also, we want to make sure that local authorities can meet their new regulatory requirements around Awaab's Law to make sure that they are dealing with damp and mould in a timely way and ultimately discovering properties that might be at risk of it and intervening much earlier.

Linda O'Halloran

So, in trying to achieve these overlapping missions, what's been the hardest? What's gotten in your way the most?

Jay (00:00)

What's been the hardest? I think what's always hard is convening lots of organisations. I mean, it's what we do, but it is hard, and it takes a lot of effort and organisation. So I suppose it's acknowledging that that is a big part of the work,

and that there are so many benefits to doing things at the kind of scale that we do it at, but it specifically takes quite a lot of work to facilitate it, make it work, make sure that everyone is getting the benefit from it, and that we're getting people to input. You know, dealing with all the sorts of challenges you have when you've got multiple organisations in the mix — people leaving and staff turnover and all that sort of stuff which inevitably starts to happen once you've got 20 or more organisations who you're involving in your work. So I think that's a real difficult part of doing this.

I think one of the other things which is really challenging is the way that different local authorities are set up to do innovation work. It's often signed off as like, "Yes, let's do this. We think it's the right thing to do." For our particular project, we made sure that any borough that was going to participate had a housing director sign off their participation. So there was that senior buy-in because we knew that if you don't have that, then you give people sensors and they don't deploy them and they don't look at the data, and that kind of thing. I think that was really important because it did really help generate the buy-in, keep people engaged, and give people permission to work on this.

But ultimately, even with that permission from the director, the resources available to do innovation work are really small in most local authorities. Everyone has got their day job, which understandably takes up most of their time and often doesn't leave them to have lots of time to have more creative conversations about what the data means, to really have the internal collaborative conversations with other parts of the team to say, "How would you interpret this data? What would you do if we gave you it in this way or that way?" That real, kind of exploratory conversation, which I think is critical to actually understanding what the benefits and the use cases are.

And ultimately, when it comes to using this type of data within local authorities, most housing maintenance teams don't really have the right type of skill set to interpret this type of data. They don't have lots of people with statistical backgrounds that are used to calculating risk in this way. There are quite set and specific ways that asset managers understand their portfolios, and lots of those are quite traditional; therefore, it's quite difficult to integrate some of the analysis and insights which are generated from a large amount of streaming real-time data with some modelling done on top of it, which is completely understandable. But ultimately, it's the classic thing: you can put whatever technology in, you can generate whatever insights you want, but if you haven't got the right people and

processes to work with them, then what's the point of it really? Because you won't get to the place that is ultimately going to drive the value and lead to the outcomes that you want.

So if you want to really think about the risk of damp and mould and look at that across asset types and tenancy types, then you're going to need to work with people who look after those services. And if you haven't got that integration, it's going to be very difficult to actually then understand truly what the problem is and then act on it. And that's a massive part of the challenge as well, right? Because if you've got a repairs team which is used to just doing mould washes when they get the call and you don't have the capacity to do other types of interventions in response to your tickets, then you can have the insight telling you to do something different, but you won't. And that will mean that you don't do the preventative work and then you don't get the health outcomes. And you might end up being on the hook for some of these things if situations do develop into more risky damp and mould situations.

Linda O'Halloran (04:11)

There's so much to that. I mean, it just goes to show how systemic all of these challenges that you're trying to address are. And to me, it also speaks to the importance of very widespread engagement. You spoke to the overhead of communicating — it takes people to create these narratives about what's broken and how you might fix it. And the more pooling of resources you could do intuitively, the more we could help skill-strapped, cash-strapped organisations to benefit from all of this insight.

Jay (04:40)

Definitely. And one of the things that, I suppose, is an interesting reflection considering where the project's got to now. When we did our initial deployment of sensors, we built a pan-London data aggregation platform because we thought it would be useful to test out the ability to do that from a technical perspective. But we didn't really have a use case for it. That's not really the LOTI way of doing things, but there was a need to understand whether technically it was possible. But having proved that it was technically possible to do it, it was very helpful then as the project matured and we started to engage with our colleagues at Warmer Homes London, who run the pan-London retrofit program. They do have a use case for aggregating IoT sensor data across London, which is to understand how retrofit performance is playing out, not just in one borough,

but across the whole city or all of the boroughs that are doing the retrofit activity. So we can start to really generate insights across a very large portfolio of stocks.

Once you have that use case for aggregated multi-organisation data, then it really starts to drive the resources you can put behind it. I would always say with this sort of project, you need to have a use case to make it work. I think that was something we kind of didn't have in the first instance, but we now do have as part of the Warmer Homes London program. From a technologist's perspective, you're always trying to prove the value of what you're doing in relation to outcomes and build trust. For us, I think we built trust. We proved that the technology that we were experimenting with could add value for the outcomes we were interested in. And then that meant that when we were engaging with Warmer Homes London, we could point to some concrete achievements and the ability to bring people together, the ability to bring data together, which ultimately gave them the confidence to go ahead with their more ambitious data program, which is now quite sophisticated in terms of what it's attempting to do in terms of understanding retrofit across London.

The aim is to report more data than the government needs on how their money is being spent because we can do that. Reporting is one thing, but we're going to have that data because we think it's going to drive value in how we do retrofit in the future. We've got big ambitions to look at how we might start to evaluate that data from a public health perspective as well, which I think is really exciting and ambitious. Then we're starting to bring together all of these agendas around what does it mean to invest a lot of money in improving the fabric of social housing in London. What are the benefits in terms of carbon reduction and our net-zero goals, but what are also the direct benefits to the residents and what does that mean from a public health perspective as well? That's a very exciting place to get in terms of the sophistication of analysis and hopefully delivering outcomes across those different spaces.

Linda O'Halloran (07:34)

It's a lovely note to end on, a very hopeful note to end on, and it shows how much local networks have to offer central policy people that are really invested as well

in these ambitious missions to mitigate climate change and adapt. So, yeah, hopefully this is the time when these worlds are about to start merging to do really ambitious market shaping.

Jay, thank you so much for your time and for bringing the perspective of these regional innovation ecosystems. I really appreciate it, and we will hope to talk more again soon.

Jay (08:05)

No problem. Thanks for giving me the time to speak.