The Digital Connectivity Infrastructure Accelerator (DCIA) December Dissemination Event

The third DCIA dissemination event took place in December and, following September's virtual event, was back in the real world. GSMA's London office, with its stunning views over Kings Cross, London, was the venue for the hundred or so attendees from across local government and industry attending the event. There was a great sense of energy and community in the room: with the programme now well underway, colleagues were getting a real and genuine sense of what they were achieving, but also the challenges and opportunities that lay ahead.

DCMS's Nick Wiggin opened the day and set out what the event was to achieve - through a series of presentations and panel discussions ranging from emerging Government policy to the direct user experience of pilots on the ground. Before then, however, Nick invited Mats Granryd, Director General of the GSMA, to welcome attendees to the event.

A welcome from the GSMA, Mats Granryd, Director General, GSMA

Mats set the scene by reflecting on the rapid development of telecoms in the UK over the years, its increasing role globally and what the future could hold for the sector.

Back in 1987, GSMA signed its first MOU with the UK and other countries which had committed to deploying GSM. At that point, there were 7 million mobile subscribers. Today, there are 5.5 billion and the mobile industry is worth £2.3 trillion. And 5G is becoming increasingly important: by the end of the year, there will be around 230 networks making 1 billion connections. By 2025, the UK is expected to be one of the leading adopters of 5G in Europe.

But how will 5G change society? 4G could be viewed as uniting the world, allowing a single platform on which a range of innovative businesses could build globally-recognised services. While 5G brought with it greater speed, latency and coverage, Mats's view was that this would eventually be a given. The key theme for him was around collaboration, and how 5G could bring together multiple partners to work together towards something special.

This dissemination event was the opportunity to do just that: to collaborate, create and find new connections and networks.

"Believe in the future... Take a step into the unknown and something good will come of it."

Thank you and DCMS Vision, Imran Shafi, Director, Digital Infrastructure, DCMS

Imran took to the stage and, before setting out his vision, noted his appreciation that such an important telecoms organisation as the GSMA had such a strong presence in the UK: it sent a strong message about the UK's desire to connect and learn about international best practice.

In his role as Director of all telecoms policy - with responsibilities including full fibre, the Shared Rural Network, the 5G investment framework and satellite providers - he saw the ongoing commitment to the sector from government and Number 10. They saw the power of effective digital infrastructure to improve lives, strengthen society and boost productivity.

How the public sector uses connectivity to improve public services, with limited cash but lots of innovation, was a very necessary and important challenge to meet. It was great to see all four Mobile Network Operators, and platform providers at the event, alongside all the local authorities who play such an heroic role in driving this work forward. Echoing Mats's comments, Imran emphasised again the importance of collaboration and innovation - the DCIA programme was showing what could be achieved through effective public/private partnerships.

Imran took a moment to look back in history - to 1807 when F.A. Windsor unveiled the first, flickering public gas lamp in Pall Mall, London. Can you imagine, he asked, what Frederick would think about how we use lamp posts today?

The success of the programme was not necessarily having 100 per cent success - it was important to see what works but also what does not work - that is the point of trials: to allow risk and innovation and learn what does work and can be used across the whole country: be that infrastructure, standards or asset management tools.

Imran's closing remarks were to become a theme for the day - "Please - continue talking."

The Wireless Infrastructure Strategy, Louise Lancaster, Head of Wireless Infrastructure, DCMS

Before giving an update on the upcoming Wireless Infrastructure Strategy, Louise shared her own insights into some of the background of the DCIA programme, how we have got to where we are now, and to highlight successes to date.

DCIA

DCMS has played its part in encouraging rapid network deployment through policy and legislation:

- The Barrier Busting Task Force has been helping bring down barriers that prevent fast, efficient and cost-effective deployment of gigabit-capable and 5G networks;
- Planning regulations have been introduced to support coverage extension and upgrades for 5G; and
- The Product Security and Telecommunications Infrastructure Bill has now received Royal Assent.

However, as demand for data continues to grow, network densification will also need to grow. Many providers, particularly neutral host providers, are starting to try and secure the large number of sites that will be needed. As part of this, those providers are looking to work with local authorities to secure access to their street furniture to host equipment. And - as many in the room will know - this is not without its challenges, ranging from questions around contractual terms to access to information about site availability and suitability.

It was against this backdrop that DCIA was launched, a programme to help places and network providers resolve a number of practical issues, such as:

- the digitalisation and streamlining of interactions involved in the site acquisition process;
- the promotion of standard agreements for the rollout of small cells;
- the removal of constraints caused by legacy PFI contracts for operation and maintenance of street lighting columns; and,
- the creation of standards for multi-purpose use of street lighting and CCTV columns for smart infrastructure.

"And I think it's fair to say that the feedback from all the stakeholders involved in the programme has been very positive so far". Thanks to the hard work of partners, the programme has seen some solid successes, including:

- The online standard agreements have been welcomed by the industry, and already adopted by several local authorities;
- Hundreds of local authority assets have been opened up as a result of the eight digital asset management pilots, across their buildings, land and street furniture portfolios; and
- Regions and local authorities are now working closely with all four Mobile
 Network Operators (MNOs) and all of their delivery partners to test a range of
 operational scenarios involved in site identification and acquisition. These
 tests will help streamline processes and demonstrate the benefits of using
 the digital platforms to speed up network rollout (with more to come on that
 in the later panel discussions).

All this has helped significantly enhance the dialogue between industry and the public sector. There is now a greater understanding of shared objectives and challenges - and an ever increasing degree of collaboration and practical problem solving.

DCIA has stimulated interest in a range of newly developed best practices, which raises the real prospect of accelerated densification of advanced wireless networks.

Local and regional Authorities really hold the key to deployment of better, faster networks through their asset portfolios. "Going forward, we want to work with you all to ensure that best practice and the lessons learned from this programme are shared as widely as possible."

Wireless Infrastructure Strategy

But there is more to be done to speed up and support deployment - and that is why DCMS will be publishing the Wireless Infrastructure Strategy. This will set out a strategic framework to accelerate the deployment and adoption of 5G and other wireless technologies, ensuring the UK is well positioned to maximise the potential of wireless networks by 2030.

In 2017, the government set an ambition for the majority of the UK population to have access to a 5G signal by 2027. This ambition has essentially been met now, with the industry deploying basic non-standalone 5G to cover approximately 64% of premises across the UK (according to Ofcom data).

In the Strategy, DCMS will set a new ambition so that the whole country can benefit from high quality 5G.

Louise was clear that the Government recognises that delivering 5G is a big investment and that network providers face a particularly challenging investment climate. The strategy will therefore set out the steps DCMS will take to encourage investment and to support providers and places in achieving that ambition.

There is clearly huge potential for businesses, consumers and the public sector to benefit from the adoption of advanced wireless connectivity and the Strategy will also focus on how the UK can realise the full economic and social benefits of 5G.

A key element of this is what DCMS is calling the 'connected places strategy'. Providing local leadership and a strategic approach to digit]al infrastructure is key to this - as attendees well know.

DCMS wants to encourage places to create the right conditions for investment, through things like appointing digital champions, putting in place digital infrastructure strategies, and building effective relationships both within councils and with telecommunications providers.

Across the public sector, 5G could unlock new applications and enhance existing services, enabling new digital ecosystems that create wider benefits across communities.

And the public sector can be an important "anchor tenant" to secure investment in networks. DCMS wants to help local and regional authorities build the case for investing in advanced wireless connectivity and to identify and articulate the needs of their communities in sectors such as health and social care, transport, education and so on.

The final element of the Strategy is about 6G and future networks because, believe it or not, the next generation of wireless technology is already on the horizon. The international process for 6G development is well underway and UK academia and industry partners are already contributing to the early work in shaping what will constitute 6G networks.

DCMS's 6G Strategy will set out how the government will work to shape the next generation of mobile to ensure that it helps address some of the challenges of our time and meets the needs of people and businesses in the UK.

Louise thanked attendees for taking part in the event and looked forward to continued joint working in the coming months.

User experience from the DCIA pilots, Panel discussion

After a typically lively networking session, the day moved into the technical workshops portion of the agenda. Dejan Bojic, DCIA technical lead, took to the stage and ran through the scope and shape of the DCIA programme: its four workstreams, the digital asset management pilots, the Early Adoption Group and where the programme was now in terms of its delivery milestones (in the test case execution phase). [Include slides 10-14]

The first of the four workshops focused on discussing the experience of using digital asset platforms with both industry partners and lead authorities. The conversation explored positive aspects of using the platforms in the context of their utility and ease of use.

Dejan was joined on stage by his panel, which included:

- Chris Jefferies, Acquisition Senior Manager, Vodafone
- Tiana Aimee, Account Manager, Freshwave
- Ali Akhtar, Head of Acquisition, BT Enterprise
- Nic Scullard, Senior Digital Infrastructure Project Manager, West Sussex County Council & West Sussex DCIA pilot
- Fin Kelly, Strategic Lead Digital and Smart Cities, West London Alliance & West London DCIA pilot
- Vasilis Papakonstantinou, Digital Connectivity Project Lead, WM5G & West Midlands DCIA pilot

Each panellist was asked to introduce themselves and give a summary of their pilot.

Fin opened with an overview of the West London pilot. The seven borough partnership had been working together for 20 years, with digital a part of their shared programme since 2019. Their motivation was to unlock the benefits of connectivity for their residents. DCIA is part of a broader business case including fibre rollout, digital inclusion and digitisting wayleaves agreements.

The pilot is now in full-on delivery mode, with the team hard at work making it a success. The opening of assets in West London has led to interest from other subregions - and the pilot's ambitions include scaling up the platform to provide support elsewhere in the capital. Increasingly the platform can be seen to open up the world of access in the borough - bringing together all information into one place. "The more we build up the platform, the more there's an open front door into West London", Fin wrapped up.

The seven West Sussex local authorities had been working together for over four years, began Nic. For them, digital is a priority to drive economic growth and tackle climate challenges. The area covered is a mixed bag, ranging from the urban centre of Crawley to quite rural tourism areas in the South Downs and round Bognor Regis. For them, DCIA came along at an opportune time. Importing around 1500 assets onto their asset hub enabled them to know what they own and what they could offer.

While the data collection was not without its challenges, Nic was pleased with the positive feedback from local boroughs on the value of the platform. It increased efficiencies by cutting down on multiple requests. Open access is key: it means assets can be maximised, which is vital with local authorities' priorities being stretched. "We believe sharing is caring", summed up Nic: having pre-approved assets on the platform enables positive conversations between operators and asset owners.

Next up was Vasilis for the West Midlands, where WM5G is the delivery partner for the pilot, which also spans seven local authorities - with the addition of Warwickshire, who have joined them for this project. WM5G was ready for DCIA that arrived in the wake of their recent 5G testbed and trials, which succeeded in accelerating infrastructure rollout in the West Midlands.

They were quick to partner with eight different industry partners and begin the process of data collation. Due to the geographical size of the area, and the density of its population, around 300,000 assets were loaded onto the platform: bringing a real diversity and range of options for operators. WM5G had already made steps to simplify processes, e.g. with the adoption of standardised contracts, but the pilot made things even easier for local authorities.

Going forward, continued Vasilis, they want to see significant benefits from the pilot: proving to local authorities that, even if they're not technically confident, the platform will work for them. With small cell deployment ramping up to meet the demand Louise Lancaster earlier mentioned, there needs to be streamlined processes in place to support small cell deployment. As Vasilis put it, "a wave is coming - a wave of densification and small cells", orders of magnitude greater than at present.

"Acquisition". That was the key takeaway for Vodafone's Chris Jefferies. Historically, there's been a particular process for acquisitions and not without challenges. The time and effort involved in securing sites - and then potentially losing them some way through negotiations because of local opposition - has been a clear cost for operators. The DCIA pilots have been "a breath of fresh air". Be it new template agreements or educational work, the programme has helped local authorities and

operators understand better their own requirements. Acquisition times have been reduced from up to 24 months down to 12 in some instances.

This has been a step change: immediately getting front-end buy-in from a local authority's planning, procurement and legal teams has been very useful. Chris observed that with increased densification, small cells need to be packed as closely as possible: more sites mean more options to do that. While these are pilots, the processes involved have real world implications for Vodafone - with 14 potential sites resulting from the pilots.

Onto Ali, representing BT Enterprise, who had some interesting insights about the human element of the pilots. BT has had plenty of engagement with local authorities and it's not just about buy-in at the executive level. It's those at the asset level who need to be brought on board as well - the park managers, lighting engineers, surveillance teams and so on. And it's important to be able to adapt to your audience: "It's great to be digital but you need to keep that human interaction going as well."

On the need to keep talking and an open-mind, Ali shared an example of an authority second-guessing an operator's requirements and removing infrastructure that could have been used - something that could have been avoided by keeping the conversation open right from the start.

Before opening up to the floor for questions, Tiana gave her perspective as an intermediary between local government and operators. For her, it was about translating and pairing the differing requirements of each side, bringing both onto a shared path of improving connectivity. Platforms help to speed up and streamline processes.

The DCIA pilots provide an opportunity to test the platform and identify key stakeholders in a local authority, educating and informing those that would not normally be involved. By getting them on board, everything can move faster. If, when talking to a local authority about small cell deployment but where there's no demand, that's when an agreement can be signed. Once those processes are in place, it is more attractive to operators who can say "let's go to this place: they're ready". Freshwave can bring that demand to an area: it's not easy but DCIA is showing how some of the difficulties can be overcome.

Having heard from panellists, Dejan opened the floor to questions:

Have any pilots tested the load-bearing capacity of street furniture, for example street lights?

Ali: "BT do structural tests. The dropout rate is around 10 per cent but where an asset fails, they'll build a new one and gift it to the local authority. That's why local authorities should not exclude anything from their asset register: they cannot assume what operators might want or be able to use."

What about some asset owners' attitudes around site rental, e.g. the case of a church asking for £100,000 which was unviable for the operator? Do they assume MNOs have the wealth to pay whatever they ask?

Chris: "The perception of operators being cash cows is changing. There are still appointed agents (in London) whose negotiations can slow down an acquisition. Local authorities need to think differently from using agents, who can price too high for an operator, which immediately ends the process."

Nic: "In Wessex, they're looking for fair value for assets that's fair for everyone. They're aware that valuations have changed over the past 15 years. Operators need to know that assets won't be free but there should be an open, honest conversation about that. From the perspective of an authority, they have a range of statutory obligations, which does not include digital, so they do need that fair payment."

A follow-up question prompted some further discussion between attendees and panel members around the security implications of sharing data relating to power and fibre in an area - and what that meant for some asset owners. The point was made that fibre is critical infrastructure where risks cannot be taken by asset owners. However, there should be options to take those sensitive datasets and turn them into something usable by operators, even if simply a YES/NO variable to show a site is viable in terms of fibre or power. From the floor came observation that similar work was underway in Dorset that was relevant and may be of interest.

Telecoms infrastructure can look ugly! How can we make furniture look less utilitarian?

Chris: "There are technical restraints and practical considerations. Voda have looked at designs in the past and there is a balance between looks and cost. They would like to hide lower down but height has an impact on coverage."

Nic: "One example would be deployment in a national park: this would be a challenge and masts are likely to be rejected. It's worth bearing in mind there is a reason why some plannings are not successful. Realistically, telecoms equipment cannot always be hidden."

Bringing the first workshop to an end, Dejan challenged each panellist to come up with a single piece of advice they would give a local authority:

Ali: "Keep it simple, keep talking and don't be too reliant on digital. Become part of the delivery process so you can articulate it to your members and residents."

Nic: "Don't underestimate data. The sheer number of stakeholders you're going to have to work with... Don't underestimate the business case and challenges you'll have to face. Don't assume what MNOs want. It is worthwhile though."

Tiana: "Ensure you have the processes in place and it'll help with the engagement. Once the processes are in place, you'll have all the tools you need to help others."

Chris: "Transparency. Come on the journey. Come to Voda HQ in Newbury to see our equipment and hear why and how we deploy in that way."

Vasilis: "Refine your data management capabilities. Understand what kind of data is available and how to update it."

Fin: "Corporate leadership. Get it in the digital strategy and get your messaging right, linking to what benefits the council. Make it about residents, make it tangible. Make the link between the infrastructure and the real benefits that it brings - flow through the apps, the use cases like the health services that can be delivered that couldn't before."

And with that the morning session came to an end, with plenty for attendees to get their teeth into over lunch.

Exploring operating models for digital asset management, Panel discussion

There was a buzz following the morning session as attendees networked over lunch. Extended conversations and impromptu meetings spread out throughout the meeting space and spilled into side-rooms. Attendees did an excellent job of taking one of the emerging themes of collaboration to heart. Eventually, they found their way back to their seats for the second technical workshop of the day, with Dejan continuing as moderator-in-chief.

This session's focus was on exploring options of how regional and local authorities could work in partnership to support digital asset management, e.g, with discussion around the demands of ongoing data management for asset-owning local authorities; streamlining of processes and legal agreements; consistency and scale of industry engagement; shared accountability etc. With all of this in mind, the

workshop sought to answer the question: "what drives a choice between a local versus regional model?"

Attempting to answer the question were:

- Ceren Clulow, Digital Connectivity Manager, Nottinghamshire County Council
- Stacey McAdie, Digital Connectivity Lead, South London Partnership
- Mike Warr, Programme Manager, Essex + Herts Digital Innovation Zone
- Lynne Wilson, Digital Infrastructure Programme Manager, West Berkshire Council & West Berkshire DCIA pilot
- Graham Pinfield, Team Leader, Smart Perth and Kinross & Infralink Scotland,
 DCIA pilot
- Antony Corfield, Programme Manager, West of England Combined Authority & West of England DCIA pilot

Dejan kicked off the discussion by asking each panellist what local and regional meant to them - and what that meant in practice.

Regional is what mattered, according to Lynne, where her six West Berkshire local authorities have been working together since 2014. They've taken this approach because of the economies of scale it brings. They have senior board representation, with all local authorities providing funding. DCIA has helped them in educating and training partners on the densification that's coming, presenting the benefits of 5G and the pilot's asset management platform. They can also help their authorities with standard agreements, processes and so on.

West Berkshire have initiated a market engagement group to ask operators what's required from local authorities. They recognise the challenges faced by operators and neutral host providers - "it can be difficult to get buy-in from local authorities". While the regional authority does not have much funding, it can still add value by influencing practice and leveraging its assets. Building on their gigabit bit project has helped set up the required interactions and dialogue. For example, a couple of live use cases, Lynne noted, opened doors very quickly in thinking about doing things differently as part of their digital strategy.

Antony also spoke to the benefits of working regionally. Centred around Bristol and Bath, WECA includes four local authorities, which previously had loosely worked together on LFFN and 5GTT but with no distinct role for digital. Digital was included separately in areas such as skills and economic development. However, the region is a strong digital area within the UK: key sectors, including creative industries and advanced digital engineering, are all reliant on good connectivity.

The combined authority therefore took on a much stronger and more strategic approach to digital - with DCIA a driver for wider digital join up in the area. Co-ordination of demand is also a key role for the authority: convening partners, both in the public and private sectors, to show the benefits of 5G; aggregating demand for the market; and showing investment opportunities. Slowly, the four local authorities are recognising the benefits of digital - testament to the work of WECA.

Next up was Graham. Unlike the other regional authorities involved in the pilots, his four unitary authorities have voluntary - not contractual - arrangements for working together. Their partnership was born from the 2020 Tay Cities Deal and was partly in response to the Future Telecoms Infrastructure Review's call for world class digital infrastructure in the UK. LFFN, as a vehicle for bringing the authorities together, helped cement the current arrangements in the area, as did a previous £4 million investment in digital.

Now their plans are to grow and expand their digital economy, working with supporting partners such as the Scottish Futures Trust, Infralink and the 5G Centre, across both fixed and wireless technologies. Again, the driving force behind their ambitious plans was the need for dialogue, "a meeting of minds", to tap into new opportunities such as electric vehicles and smart cities.

Representing Nottinghamshire, Ceren shared her experiences. Like many others involved in the programme, DCIA and the Early Adoption Group helped spark a conversation, which in turn sharpened thinking on how to maximise digital opportunities in the area. Local partners began talking for the first time about digital assets, with many surprised at the number of management platforms and internal stakeholders in the area. DCIA helped to understand project constraints and challenges coming out of these circumstances.

While Nottinghamshire was already involved in the 5G Testbeds & Trials programme, they recognised the scope to do more by supporting telecoms in their communities - improving quality and capacity for their inhabitants. Key to this was political buyin and leadership, as well as better engagement with local stakeholders in the local authority such as those in properties, highways, procurement and legal. DCIA functioned as a catalyst for explaining benefits and identifying KPIs for these important partners.

Onto South London and Stacey, who set out what local and regional meant to her and her team. Her patch covers five London Borough Councils, supported by funding from the GLA for their own digital strategy, which includes asset mapping. Earlier involvement in DCMS fibre roll-out schemes has helped set an approach on which they can build. The DCIA Early Adoption Group has helped them look at a range of

options including corporate wide area networks and anchor tenancy models. While they are at the beginning of their journey compared to some, they have ambition.

Mike wrapped up the reflections from panellists with his own take on the DIZ - or the Essex and Hertfordshire Digital Innovation Zone. For them, working as a region was paramount, otherwise they wouldn't even exist. The history of the partnership stemmed from a single district failing to attract investment because they were "too small". What followed was a journey about place and what that meant for those in the area.

Now, seven local authorities are working collaboratively in tackling issues around education, health and better engagement with industry. For Mike, "We are all about what digital can do for business and place." Working regionally and across borders are not without their challenges but the opportunities - of a coherent economic area - make it worthwhile. While DIZ were already thinking about asset mapping several years ago, DCIA has helped them build expertise and capacity. Acting as a region gives them the scale to go further.

Having heard the relative merits of local versus regional, Dejan asked if industry had a preference:

Ali: "The way a region can articulate its strategy across an area is helpful but the nitty gritty sits with local authorities."

Lynne: "We've worked for several LAs with different views and backgrounds, and taken things they can collaborate on (education, training, learning from each other et cetera) but when it comes to adoption, it's down to each LA with their own nuances. There is so much more efficiency when they work together with a standardised view - otherwise it's like herding cats. It's difficult!"

Dejan asked what's the best single point of contact: someone who can co-ordinate at a regional level or a local authority closer to the ground.

Lynne: "A digital infrastructure group at the higher level, with LAs and regional reps, then each LA with its own mini-DIG."

Graham: "LA-based SPOCs because they don't have those formal regional structures. It helps to be seen as one area."

Dejan wrapped up by asking each panellist for a single piece of advice for potential adopters:

Graham: "Be brave and go for it! Dialogue is very important. You've got a dynamic that will weather any changes. Interpersonal is very important."

Stacey: "Line up your stakeholders early on."

Antony: "Take the time to get corporate-wide understanding and buy-in from internal stakeholders. Take a bottom up approach."

Ceren: "Challenges are common challenges. Find out who needs to own the asset management platform."

Mike: "Whatever comes out of the pilots, we shouldn't be fearful of making it simple for those in the future. For non-techies, that will help. And involve/inform others as users."

Lynne: "Find other LAs for lessons learned and benefits. A lot of the success in DCIA has been through learning from others and sharing, then reaching out to others (what worked, what didn't). We're all in it together."

Understanding value for industry partners and local authorities, Panel discussion

The penultimate workshop, this time chaired by Nick Wiggin, was held as a conversation between industry partners and pilot lead authorities looking into details of the site/asset acquisition processes, and, most importantly, mutual points of interaction. The session sought to explore how the use of asset management platforms can generate value through process time, cost and quality improvements.

Taking part in the conversation were:

- Peter Hollebon, London & South East Outdoor Small Cell and Microcell Delivery Lead, Virgin Media 02
- Jamie Hayes, Managing Director, Streetscape, Fibre, Private Networks, BAI Communications
- Daniel Clarke, Strategy and Partnership, Connecting Cambridgeshire, Cambridgeshire County Council
- Paul Armstrong, Head of Digital Innovation, North of Tyne Combined Authority and North East DCIA pilot
- Garry Littledyke, Project Manager (Mobile & 5G), Dorset Council & Wessex DCIA pilot

- Raphael Ramsden, Economic Adviser Digital Infrastructure Analysis Team,
 DCMS Future Network Programmes
- David Kinshott, DCIA Technical Lead, DCMS

David kicked off the discussion with some background. He emphasised the need to demonstrate success for DCIA but recognised that the core problem to solve in doing so was around site acquisition. This is a difficult activity, involving multiple parties and uncertain timelines. The programme needed a way to measure this, and avoid receiving eight different responses from the pilots. Eventually, through extensive engagement with pilots and others, an approach was agreed. In terms of other supporting work, David highlighted that the PFI work was around 75% complete; the BSI standards were out for consultation; and standard contracts had been hosted on the DCMS website.

Nick agreed on the importance of sharing learning and best practice, and also understanding from an industry perspective what had value: with that, he turned to panel members for their views.

For Peter, the platform was broadly meeting their expectations. For VMO2, small cells offered a capacity solution, not a coverage one, which complemented their macro deployments. Small cells were at the low end of the market: cheaper, but their time to market was absolutely critical. VMO2 was seeing 30% year-on-year growth in data demand: MNOs need to get ahead of that. This requires a huge amount of investment and the need to deliver capacity as quickly as possible. Not doing so would mean an unacceptable failure to their customer base.

From a platform perspective, they need a willing landlord who wants to do business with them. It's easier to work with someone who has a platform and a single point of contact than someone without. Good data is key and needs the tools to reduce failure at the front end. DCIA is acting as a pathfinder to make that happen.

From Jamie's perspective, BAI were lucky to have had the opportunity to work with so many organisations, including all platform providers. BAI like collaboration and quality data. With their work around private networks, e.g. for offshore wind farms, they're likely to see diverse and different network requirements. For them, the access agreement standardisation is helpful - and it does not necessarily have to be open (given that different customers will be operating under different circumstances).

Jamie flagged BAI's Hyperconnected London report, which examines how London boroughs are improving digital connectivity and the challenges they face in delivering for residents and businesses. Looking ahead, BAI are keen to see more pilots come to fruition but Jamie recognised the challenges in the sector: a

patchwork quilt of doing nothing, out of date site lists, too much data for local authorities to handle etc. All the more reason now to focus on reaping the benefits of the real test cases and data coming out of DCIA.

Paul recognised similar pain points and market failures in the North of Tyne. For him personally, he was greedy and lazy when it came to what would help him deliver better connected services! He wants the best network possible but doesn't want to argue with his lawyers about it. DCIA has provided a way and the mechanics for the region to do that. It is possible to turn things around more quickly but those pain points around securing internal approvals remain challenging.

Dorset have gained a huge amount of insight from their project so far, began Garry. It has changed the way they think and begun to influence senior leadership in the council. Historically, applications for asset use went directly to their planning team but, as a result of DCIA, the digital team is now able to get more involved and exert greater influence. He went on to set out some of the geographical challenges of Dorset, which are not well-understood by operators. Without something like DCIA to help educate, the area risks being left behind. DCIA can also help them make the right decisions, working collaboratively with local stakeholders and getting strategic support from seniors.

Dan recognised the barriers for operators being discussed. For Cambridgeshire, the standardisation element of DCIA has been important. They seem themselves as a willing landlord but recognise their neighbours may be less so: hence the need to work more collaboratively and educate them on the operators' perspective.

Taking policy through internal clearance around making assets available will make things easier. Local authorities tend to be poor, busy and want processes to be as easy as possible. DCIA is helping the area reflect on - and improve - their processes. Being able to pull together and demonstrate assets to the market makes it easier for operators to deploy.

Raphael next gave some background to DCMS's approach to benefits realisation and measuring the success of the programme. Planning is quite difficult for local authorities in these situations and connectivity is not an outlier in that. However, LAs have goals around connectivity so there are challenges. The programme aims to make things simpler: spending six months minimum for an operator to secure permissions should not be the reality. DCIA is a dual-pronged initiative, with both a technical solution and a process solution. Therefore, when it came to measuring the benefits of the programme, the focus is on four areas:

- Effective communication between LAs and MNOs
- Time taken to process small and macrocells

- Number of small and macro cells processed
- Will the platforms be used in future?

There was general agreement on the barriers and possible solutions. Garry said there was room for creativity in local authorities, e.g. in Dorset they have reached out to farmers, town and parish councils and others, to get a broader network of engaged local asset owners. Jamie cited the example of a high street where no MNO was able to find a way to meet their capacity needs, which was having a detrimental effect on local business. By looking creatively at street furniture options, asset owners and existing infrastructure, BAI was able to patch together a solution - quality of data helped make that happen.

Peter emphasised again the benefits of a platform, a single point of contact and a willing landlord, as well as the need to shout about the connectivity benefits resulting from better co-operation between local authorities, asset owners and operators: "This pilot ends in March but that doesn't mean the collaboration has to end. That's the main positive message."

Nick invited questions from the floor:

Are you looking at a pre-pilot baseline of the number of small cells on public sector assets? If yes, that will help make the case for LAs.

Raphael: "If we report on assets, we can show the impact on planning but March could be too soon so can't guarantee that would be useful."

There was a comment from the floor that, for that reason, it may be helpful for the life of the EAG to extend beyond the programme, so as to capture and share these lessons learned.

What would be the judging criteria for the winning landlord prize?

Peter: "Time to market from application to deployment."

Garry: "Yes, because that translates into savings. It's levelling up connectivity and improvement."

Raphael: "Time to market reduction: from initial conversation to design completion/ delivery integration, that's success. If we can reduce the time to market, we're delivering connectivity faster - to people and communities."

Paul: "Fixing all problems. A winning landlord doesn't want the market coming to him looking for assets. He wants to go directly to MNOs with all the evidence to show where they need connectivity."

Dan: "Adding value to the process."

Informing adoption with Lessons Learnt from DCIA pilots, Panel discussion

After the final networking break, with the energy levels still high in the room after such an engaging series of discussions, attendees returned for the final technical workshop, led by DCMS's Sara Hussein. The session was designed to recap all the topics covered throughout the event but with a focus on the lessons learned. Supported by real examples and presented from the platform providers' perspective, these learnings looked to help other adopters prepare for - and implement - digital asset management in their regions.

Joining Sara were:

- Rob Leenderts, Founder & Director, AssetHub
- Alana Archer, Project Manager, Asset Market
- Richard Pain, Head of UK & Ireland, Sitenna

Opening the discussion, Sara invited each panellist to go through their process map. Richard kicked off for Sitenna, where assets are pre-loaded so reducing time to market. An MNO can do their shopping, filter down through the details then contact the LA or other relevant willing landlord. A site visit is booked and that crucial buy-in is won early on. Terms are agreed via a template agreement on the platform.

Asset Market has a similar approach, explained Alana. For operators, the platform is a front door for the LA that leads them all the way through to acquisition. The processes sit behind that. They have listed all publicly owned assets and, within those, if an applicant looks for a specific site or area, there are a number of filters. Constraints are also visible.

Rob added that the AssetHub process map was broadly similar. It is a relatively standard process (an enquiry is submitted with a response and quote coming back). Key mutual points of interaction include hand-offs in enquiries, site visits, applications, contracts and life cycle co-ordination. Both parties need to be logged in and responding to enquiries so AssetHub bakes in chasing reminders - all to try

and squeeze out as many extra time savings as possible. If not handled correctly, any of these points of interaction can slow down the whole process, hence trying to automate these as much as possible can speed things up.

Alana spoke about making sure the right local stakeholders had been identified. Having a front door with key contacts is important. There should be a clear channel to ensure an operator is talking to the right person. She agreed there should be a transparent audit trail so the user can be reminded if there's no response. There should be mitigations in place against messages getting lost in inboxes.

Sara asked about blind spots and where industry and local government can learn to make the process more efficient. Examples included a lack of clarity around what sort of data is required from LAs; MNOs' lack of understanding of LAs' processes and governance structures; data inconsistencies; multiple parties involved at each stage of the process; time constraints; resource capacity; and lack of telecoms expertise.

For Richard, using standard contracts was key. He cited Glasgow's as really good examples. An LA should take something like that, amend it and get their legal team to review. An LA should also work on their data quality.

Rob agreed and also highlighted the importance of engagement and buy-in across the whole local authority, e.g. an operator may initially be received positively by an LA when approaching them about an acquisition, only later to hit a barrier when speaking to another local stakeholder, such as the actual asset owner. "It just takes one decision maker to say no, then the MNO or neutral host provider walks."

From the perspective of an MNO or Neutral Host provider, added Alana, it's important to acknowledge that asset owners are probably fairly new to this. They may not know all the telecoms terms and acronyms. An operator should know their audience, and make them feel comfortable and confident. They should simply accept that some asset owners may be possessive. A top down / bottom up approach is most effective as there is no guarantee that getting senior buy-in equates to the actual asset owner being on board.

Sara then invited questions from the floor:

What's the best way of getting that top down / bottom up approach? We've managed to update a statement of policy 20 years old but we need to get the ground troops signed up to it as well!

Alana: "We got a neutral host provider to run a workshop with unengaged highways teams. They ran through and addressed all their questions and concerns like "what

happens if my street light is broken or knocked over?" Most industry partners would be open to something like that."

Rob: "A lot of this has been done before. Find out where and what their solution was."

Richard: "Lots of it is about psychology. Be sensitive to asset owners' concerns. Think of your audience. Sell the benefits of the acquisition. To your seniors, it's about savings. It's a harder sell to the owner who doesn't want the road dug up. Get them on side."

When LAs have known agents, how do we convince them of the relevant value of assets?

Richard: "My view is you should look at the pros and cons of using agents."

Rob: "We are facilitators, if they choose to use an agent."

Alana: "There needs to be a shift in focus. It's not about a revenue generator any more for LAs and their assets. It's about digital connectivity and helping your community. It's fine that LAs want to make money but there must be agreed fair values."

From agreement of contract, how long will a build take?

Alana: "Within our platform, we've developed the post-approval phase but it does depend on the site. If you're ready to go, as soon as possible, but it is difficult to say. It's really a question for the operator. Of course, if there's fibre, it's a big issue."

A quick no or a long maybe on a request? For a platform provider, what would make a quick no - flood zone? Historic building? Soil quality?

Alana: "On the other side, some MNOs may just really way the site and be able to pay to get it fixed. It needs to be realistic, nuanced but also standardised. Platform providers are willing to work."

The specification for data fields for platforms done at the start of DCIA - will they be revised as we near the end so EAG can think about that?

Dejan: "Yes they will. We had 20 data points at the beginning, and some desirables in the annex. There have been some new ones and some that can be dropped. There may be a subset of essential criteria now. We'll make a decision on the spec and report on them."

There was some discussion on the question from the panel. Rob made the case that adding new fields is not a problem for platforms but they should bear in mind the needs of asset owners, e.g. MNOs may want to know the thickness of a lamp post but there is no way LAs are going to be able to measure, say, 5000 lamp posts that way. Having location as a mandatory field was considered but it would need supporting data, e.g. a large roof could be listed as one location but with the potential to host more than one asset.

In wrapping up, Sara invited the three panellists to share their single key message for the audience:

Richard: "Start now on data collection, work on template agreements and getting engagement from across the LA."

Alana: "Top down and bottom up engagement. Who makes the decision? Who knows the details? Who is the executive site owner? Hit all key points and make sure you're listening to what people have to say."

Rob: "All the above! And process is key, data is key, internal agreement is key. Don't feel ashamed to use standardised forms. Come talk to us if you need help."

Smart Infrastructure PAS update, Peter Lee, British Standards Institution

Next up was an important update on one of the programme's other workstreams, with Peter Lee reporting on the Smart Infrastructure standards.

Key points from Peter's detailed presentation were:

- Generally and crucially, these standards are important to accelerate market innovations in future connectivity - if the standards are adopted, they'll bring pricing down: more standardisation means commoditisation and more products to market;
- They are: PAS 190 (Existing lighting and CCTV columns Assessment for multifunctional use - Code of practice) and PAS 191 (Multi-functional lighting and CCTV columns - Design specification);
- They've been around 12 months in development via a transparent, consultative approach and engagement with a broad range of stakeholders, e.g. consumer/public interest groups, BSI technical committees, utilities companies etc.;

- They've been drafted in line with BSI and ISO drafting rules; are the basis of certification schemes and quality marks (where required) and formal standardisation (e.g. British, European or international standards); and are voluntary;
- The scope of the market is large: with millions of lighting columns across the UK. PAS 190 covers factors relevant for assessing the suitability of modifying columns for multi-functional use, e.g. access points, banners, festive decorations etc.; PAS 191 includes the column but also gantries, cantilevers etc. and covers their core function, equipment hosting, durability, hazards etc.;
- Digital connectivity may not be enough of a use case to upgrade lighting columns but there are other use cases and related standards that could strengthen the case, e.g. EV charge point standards;
- The standards are now out for public consultation with a view to publishing them in 2023.

Closing notes and thank you, Simon Rowell, Head of Market Development, DCMS

After a long, informative and lively event, Simon took to the stage to wrap up. He thanked GSMA for the use of their excellent facilities; the speakers for their time and insights; and for all those attending, once more face-to-face, for making the most of the event to network and connect. He also thanked Nick Wiggin for his personal contribution over the life of DCIA, with Nick now moving to a new role outside DCMS.

In closing, Simon said, "We've learnt a lot. This has been a really useful event with loads of great conversations taking place. And the one word that keeps coming out, the main point of doing all this - collaboration."