



Smart Places Seminar IV

Future-Proofing Garden Towns
Through Digital

Chesterford Research Park
14th December 2018
Executive Report



Welcome from our hosts at Chesterford Research Park



www.chesterfordresearchpark.com

Delegates were warmly welcomed to the Nucleus Building, a contemporary, purpose built meeting, conference and events facility at the heart of Chesterford Research Park, by Rupert Dando of Savills.

Specifically designed to attract science and technology companies, Chesterford Research Park covers 250 acres, of which approximately 350,000 sq ft of purpose built lab and R&D facilities is already occupied. With a masterplan for around 1 million sq ft, the Park is home to world leading research science and research companies, including Illumina, AstraZeneca and Charles River Laboratories, in addition to a plethora of additional start-up R&D and knowledge based businesses.

Science Village, in particular, aims to attract and nurture new companies at Chesterford. Since its conception in 2012, the building has had a low vacancy rate and offers innovative, energy efficient individual R&D suites ranging from 1,515 sq ft to 1,993 sq ft.

Facilities like Science Village at Chesterford Research Park, are an essential asset and form an integral part of many research/ biotech parks. Specifically, the incubator style space at Chesterford, is ideal for young spin out companies and provides a platform from which to grow and flourish within the South Cambridge biotech cluster.

Big data, research and innovation are all fundamental elements of the digital economy. Digital will increasingly become a key feature of successful businesses and is now recognised as critical infrastructure, not just for businesses operating on science and research parks, but across the wider economy.

Rupert concluded by wishing the delegates a Merry Christmas and a Happy New Year.

Introduction - Cllr Alan Lion, Chair of Essex and Herts Digital Innovation Zone

Councillor Lion introduced the seminar programme and set out the key objectives of the day. Alan was pleased to see, not only the number of delegates that had invested their valuable time in the morning's event (over 70 delegates had packed the venue for this over-subscribed event) but also the range of organisations represented. There were leaders present from the commercial sector, in health and education, the voluntary and community sector, government and major digital infrastructure providers.

The theme of the day's event was a really important one. All the areas of the DIZ are at various stages of establishing new garden communities and this represents a once in a lifetime opportunity to look at how digital infrastructure and approaches could enable these communities to be prosperous, inclusive and healthy from the outset. In the room were the agencies and groups who would be designing, delivering and supporting these new garden communities. Getting it right would be a huge challenge but the event showed that we wanted to meet this challenge from the very beginning in full consultation.

The event was structured to enable delegates to explore the opportunities and challenges of digital garden communities but also other themes and issues people thought important. The DIZ is made up of and owned by many of the organisations represented and the job of the DIZ is to work together to define what digital success looks like for a place like ours, act jointly to lever in external investment on our infrastructure and

share and promote joint solutions to key challenges facing our communities. At the moment the DIZ is focusing on how it can future-proof its local economies, anticipating and responding to the opportunities and disruption that digital brings but also looking at how public services can be transformed by digital.

Alan closed with a hope that delegates enjoyed the session and found it informative and useful.





John Houston, Director, One Epping Forest and Claire Hamilton, Director, Harlow & Gilston Garden Town

John set out the background to the DIZ, which sits at the heart of the London Stansted Cambridge Corridor and had emerged out of discussions with the partner councils who were interested in exploring to what extent the approaches of smart cities could be translated into a mixed rural and urban 'place'. Partners had also talked to major infrastructure providers, to explore how they might be encouraged to invest further in digital infrastructure in the area.

A key element of the DIZ work plan is the development of a long term Digital Innovation Strategy. This will set out the ambitions of the DIZ and the steps we can take individually and collectively to make this the 'best connected place of its type in the UK'. We want to ensure we are successful in two areas digitally – one is future-proofing our local economies and two, using the technological opportunities fully to deliver the best public services we can.

The strategy, which is being developed with Arup, is nearing completion, the last section being an in-depth look at the opportunities and challenges for digital delivery in new garden communities. Today's seminar, the fifth such Smart Place Seminar, would inform that section and the output from the workshops carefully noted. John also acknowledged that digital inclusion would clearly be a key part of the success of any new communities and this will be the subject focus of the next seminar which was scheduled for April.

4 The approach of the DIZ has always been collaborative, working with partners to take full advantage of the digital economy through skills provision, investment in digital infrastructure, external funding or positioning the area to be recognised as a digital testbed or beacon area by central government and industry.

Today's seminar audience was the biggest to date, reflecting the importance of garden towns and John introduced Clare to give an insight into the plans, approaches and the work to date for Harlow and Gilston which is the furthest advanced of the proposed garden communities within the DIZ.

Clare set out the ambitions of the new garden community at Harlow and Gilston which would eventually provide 23,000 new homes on green field sites. Partners from across Harlow, Epping Forest and East Herts were working closely to ensure that this new garden community would set the highest standards of design build quality and set new standards of sustainability in line with garden town principles.

A key part of the brief would be a hugely challenging target of achieving a 60% modal shift, moving people away from cars to other more sustainable forms of transport and digital technology will be absolutely central to achieving this. Digital innovation will play a big part in shifting patterns of behaviour and therefore, a key challenge facing those who are going to design, build, live or work in the communities is to better understand what digital success could look like and what will be need from the outset to enable this.

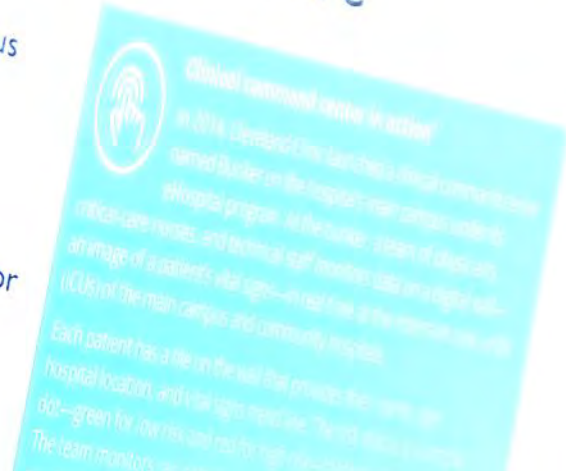
The Harlow and Gilston Digital Strategy will consider everything from what happens in our homes, to community spaces, to the digital provision required for a road transport network in order to do something very special in Harlow and provide the best choices for residents and the best opportunities for cohesive communities.



Build on Our Investment Digitally Enabled Care

The Princess Alexandra
Hospital
NHS

- Use the Control room to build continuous digital monitoring of patients
- Monitor for emergencies
- Reduce workload on wards
- Wearables and microfluidic sensors – monitor patients at and away from beds
- Big Data drives predictive analytics
- Inter-operability – Instant sharing of information with other health agencies (Community Health teams)



Michael Meredith, Director of Strategy, Princess Alexandra Hospital (PAH), Harlow

Michael leads the investment programme for PAH. A number of options are being actively pursued for the hospital including refurbishment on the existing site, the development of a new general hospital or a more general medical campus on a site in East Herts or Epping Forest. Michael pointed out, however, that a key element of future healthcare delivery will be provision of services closer to local communities and this would clearly be a central element to any plan for new garden towns or communities.

Clearly the challenges facing health service providers are significant with an increasingly aged population, people's changing expectations of how they wish their health care to be delivered and rapid developments in technology. Digital is already playing a key role in how health services are planned and delivered and it is acknowledged that this role can only grow. It is important however that there is consideration and planning for its use in a coordinated and joined up way, in both new and existing communities, if the full benefits are to be realised. It will be essential to continue to put the patient first rather than the technology.

Michael shared a number of examples of how digital theory was being translated into practice in different hospital environments. The plans being developed by PAH, in particular for a new medical campus, would put the hospital and the area it serves at the forefront of the deployment of technology such as wearables or radio-frequency identification (RFID). Again, in order to fully realise the opportunity, this would involve the hospital working ever more closely with infrastructure providers and other organisations. Only through collaboration could delivery against that ambition be ensured, generating and sharing patient and resident data to enable the hospital and its health partners to deliver greater productivity and better health solutions that more closely match need.

Michael concluded by emphasising the hospitals willingness to play a much greater role working with external organisations, which is critical to managing patient flow and delivering services.

NHS
The Princess Alexandra
Hospital
NHS Trust





Dr Rick Robinson - Digital Property and Cities Leader, Arup

Rick, from Arup, who have worked with the DIZ to develop its Digital Innovation Strategy, took on the task of exploring how we make sure that the new garden communities are not simply dormitories but economically vibrant in their own right.

Rick gave a number of examples of programs and places he had worked where the planning for major new communities had not integrated the residential with the economic. This he felt was a major omission, in particular, given the changing nature of work with people now working more regularly from home as part of their job and a need for better sustainability to avoid the over-consumption of natural resources.

Garden communities offer a unique opportunity to anticipate and provide for the changing nature of work and economic growth and build an environment and infrastructure that could support it.

Arup are also key advisors to central government on digital, however, much of this work has been focused on the agendas of smart cities. The government is increasingly looking at how this can transfer into the rest of the UK most of which is not solely urban. The Digital Innovation Zone in west Essex and eastern Hertfordshire is unique and at the forefront of these explorations and investigations. It is clear that the government is looking to get the maximum return from digital investment and that communities, particularly new ones, should be looking at how their plans and strategies are reflecting this agenda.

6 Looking in more detail at new garden communities, there needs to be clear understanding of how to deliver on the 'place' experience - on food and leisure, social interaction, artisan production through new business models, borrowing and sharing at a local scale to enable these communities to experience lifestyles traditionally associated with cities. Through digital technology it is possible to change how space is configured making the place friendly and attractive to the people and communities that will fulfil key roles.

No-one anticipates huge industrial platforms in these new communities but as the nature of work is changing, and the ability of people to do that work in a local environment becomes more possible, then it is necessary to call into being infrastructure, housing and social facilities that support this and develop the sense of 'place' that will be so crucial to attracting people.

Rick explained that you can discern trends in digital enablement of economic growth, however, the speed of it and its changing nature ensures this is not an exact science. Given that more data or information was created in the last four years or so than had been produced in the history of mankind then it is crucial that capacity to anticipate this as best we can is built into the infrastructure.



ARUP

Adrian Wooster - Director of Strategy, Gigaclear

Adrian from Gigaclear, who, in recent years, have become a major partner in infrastructure delivery in the DIZ area, focused on the practical elements of digital communities and on getting the infrastructure right from the outset.

Gigaclear already serve over 80,000 properties with ambitious expansion plans to serve a further 350,000, representing over 20,000 km of rural trenches. Garden communities offer a unique opportunity to build yet more rural connectivity but also, crucially, to get it right first time.

Adrian emphasised the point that retrofitting infrastructure was the worst, and most expensive, outcome for communities. The best approach for those planning the new garden communities was early and constant dialogue with the infrastructure providers and greater clarity over the outcomes that would be required. This would enable the providers to work on innovative solutions and be better able to match how they work and what they provide, with what the new communities will expect and need.

Infrastructure providers are commercial organisations but to be really successful they need to be able to give their clients, customers and residents what they will need in a way that works for them. Gigaclear are at the forefront of this but, like everyone else, are learning all the time. It is clear to them and their business model that copper is no longer in anyway appropriate for modern infrastructure provision. This is fundamentally true when looking at planning new communities and infrastructure for the next 30-40 years. Their approach is based on 'digital to the premise'. The UK is lagging sadly behind its major international competitors in this area and if we want garden communities to be vibrant and competitive economically we need to ensure they have been provided with the digital tools and capacity for them to do the job.

When we are thinking about new garden communities we must be thinking about digital communities and we need to get this right from the very beginning.



Gigaclear are very willing to work with planners and developers at the pre-planning stage, or even before, to understand and discuss how services and infrastructure can be configured to deliver the best outcomes for new residents and businesses in garden communities. These communities offer real commercial opportunities for infrastructure providers but Gigaclear want to get it right as much as anyone else.

Gigaclear
Ultrafast Fibre Broadband



Jenni Lloyd - ShareLab Programme Manager, Nesta

Jenni from Nesta gave delegates an introduction to ShareTown which had been launched nationally the previous week. ShareTown is an online future townscape that explores the changing relationship between citizens, technology, and local government.

Share Town explores the collaborative economy, a world filled with under-utilised resources that, prior to the emergence of the internet, were difficult to access. Digital technology had fundamentally changed this scenario, connecting those people that have things with those people that need things.

Jenni spoke at some length about the importance of using digital opportunities to ensure that all communities, but particularly newly planned communities, are inclusive. Sharing platforms can fundamentally be used to positively address social need, bringing together those with surplus assets (skills, tools etc.) with those that need them. In effect, this is about using new digital capabilities to help people help each other.

Share Town is a fictional town that sets out a positive vision of the future. It visualises how the growth of self-organised, democratic and inclusive means for communities to meet their needs through sharing, can create a new relationship between citizens and service providers. Interactions are balanced and collaborative and data platforms are employed for public benefit. The service providers work in collaboration with service users to understand their needs, how they can best be met and by what mechanism.

Share Town is not a prediction, rather it is an attempt to start conversations about the future of communities and how they might be shaped.

Jenni felt events such as these were very useful and she was both happy to be at the event and to work with the local authorities of the DIZ to test out these approaches.

For more information visit www.nesta.org.uk/blog/welcome-sharetown



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Seminar Workshop Session

Mike Warr, lead officer for the DIZ, introduced the workshop section, in many ways the most important part of the day, where delegates could help shape the design and delivery of the new garden communities.

The workshops list had been suggested by partners and covered:

- Digital health and care;
- Built environment;
- Housing, transport and infrastructure; and,
- Supporting vibrant economies

It was also decided to leave the opportunity for delegates at one of the workshops to decide their own topic and discuss that subject in detail. This group chose Community as a topic for their workshop.

Mike asked the workshops to focus in on a few key questions under each of their theme areas. These were:

- a) what might digital success look like in garden communities and what are the main priorities to get this right?
- b) what are the main barriers that could prevent us achieving these outcomes?

Each of the themed workshops was facilitated by one of the early session's speakers with the additional 'Community' workshop facilitated by David Rutt from Anglia Ruskin University.

10 The groups were asked to feed back at the end of the Workshop Session the outcomes of their discussions. A snapshot of some of the outcomes fed back are summarised below and a more detailed summary of the outcomes will inform the garden towns section of the DIZ Digital Innovation Strategy:

Digital health and care:

What does success look like? Excellent access to care; using technology to make better use of existing resources; helping people to help themselves and others; self-testing, monitoring and alerts; joined up services

Barriers? People bypassing services to go straight to A&E; inconsistent GP services; inaccurate self-diagnosis via the internet; lack of skills in hard to reach groups; need for digital buddies; a need for demonstrator homes to build confidence in the community; who will fund the technology?



Built environment:

What does success look like? A place that stands the test of time; shift from reliance on cars; intelligent street furniture technology moving beyond immediate needs of residents eg. strategic threats such as flooding

Barriers? The community needs a stake in the planning process but what will tomorrow's citizen demand?; need community engagement to ensure new service initiatives are fully utilised

Housing, transport and infrastructure:

What does success look like? Demand from people to live there; balance of housing fit for purpose and well designed; homes for life; successful integration of new developments with existing communities; nearby work places; sense of pride in the community; sustainable / carbon neutral

Barriers? Need to change behaviours; public transport is poor; lack of a sustainable transport infrastructure or policy; lack of vision; the reality of investment challenges; funding the right balance between provision for current transport and need to plan for alternative modes

Supporting vibrant economies:

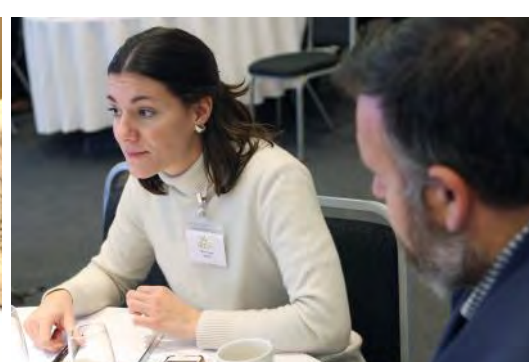
What does success look like? Economy works for the community, is inclusive and resilient; large anchor institutions; strong skills base; quality of place attracts people to work and live; social enterprises encouraged

Barriers? Recognising and valuing social value in procurement processes; how can we support social enterprises and encourage them to grow?; lack of co-working space

Community:

What does success look like? Open areas designed to encourage interaction, including intergenerational activities; flexible facilities and creative space; 'free to access' community facilities; budgets dedicated to community development

Barriers? Profit put ahead of the needs of the community; the challenge of holding developers to account; integrating new communities with existing communities; assumptions made as to what people want





Closing Remarks - Cllr Howard Rolfe, Leader Uttlesford District Council



Howard started by congratulating the DIZ for making this session happen and for making the connection between the international digital technology hubs of Cambridge and London and the DIZ, a crucial piece of the geographical jigsaw.

The garden town challenge is very real and one that Uttlesford, and all the local authority partners in the DIZ, are already working on to deliver in the best way possible. The part that digital can play in these new communities is absolutely essential not least in health and social care where, historically, there has been a pattern of non-connectivity.

And there is also a role for digital to play not only in ensuring that these new garden communities are fully connected within themselves but also in helping them to connect and integrate with our existing communities.

So what happens next? Howard commended the Digital Innovation Strategy and reinforced Uttlesford DC's support for it and their intention to remain closely involved in its completion. He looked forward to the programme of actions that will emerge from the strategy. These would enable the DIZ to have a real impact around the area through the joined up efforts of the partners.

About the Essex and Herts Digital Innovation Zone

The DIZ is a cross-sector, cross-border partnership covering Broxbourne, East Herts, Uttlesford, Harlow and Epping Forest districts. The area crosses into two county councils and two Local Enterprise Partnerships. The partnership includes representatives from local authorities, further and higher education, health service providers, the community and voluntary sector and local business. It is working to make the DIZ geography 'the best connected place of its type in the UK'.

For more information please contact Mike Warr at Epping Forest District Council on 01992 564472 or at mwarr@eppingforestdc.gov.uk or visit the DIZ website at www.diz.org.uk

Delegates from the following organisations attended or supported the seminar:

