As schools and colleges close across Europe, and many states in the USA, from Maryland to New Mexico, take similar action; as companies encourage staff to work from home, and sporting/cultural venues close their doors; as the fog of NO2 clears over northern Italy; and, as retirement homes close their doors to visitors and 70 year olds are advised to self-isolate, the question is, “Have we reached a light bulb moment for the concept of smart cities?”

For over a decade the concept of smart cities has been on the lips of city leaders and has run the roller coaster of the Gartner Hype Cycle, but with little to show for it in terms of approach or committed investment. However, as Governments begin the process of lock down, the question arises: how much easier would this be if we had a digital infrastructure to cope with the online learning and classes, the online telecare that offers remote diagnosis and care, with the minimum risk of spreading infection, while maintaining close contact; and the capacity to handle a massive upsurge in home to office communication? BT maintains that we have sufficient capacity to meet this hike in demand1 and yet broadband providers in Spain, where full fibre covers 75% of homes (versus 10% in the UK), are urging users to reduce consumption in the wake of a 40% increase in broadband data use and a 50% increase in mobile activity. Time and the swirling ball on our screens will tell.

Of course, the priority at the moment is to keep services open as best we can and to minimise the impact – we are rightly in crisis management mode for the next six months, at least. But a new strain of Coronavirus will return at some point in the future – perhaps sooner than we might predict - and, if the current crisis provides the light bulb moment, that bulb will be kept glowing brightly for many years to come, as towns and cities struggle to cope with the Climate Emergency, and the need to transform local heat/energy and transport systems to zero carbon at various target dates between 2030-2050. A new clean energy infrastructure will be central to achieving this goal, but green technology alone will not do the trick: it will require systemic change, and urban design and digital technology will be fundamental to reducing travel, for balancing supply and demand in a renewable energy world, and making Mobility as a Service a reality. Moreover, economic regeneration remains an urgent priority for all towns and cities: the “gig economy” has resulted in the lowest quartile wages remaining static for a decade, an increase in child poverty, and a rising incidence of mental health issues, but the Government’s advice to minimise social contact will devastate the visitor/leisure economy, along with the service logistics that supports it, and this will create social tensions as never before.

The lesson is obvious: while we need to focus on the crisis, we also need to build in resilience, and long term sustainability - that, ultimately, is the purpose of a smart city and the duty of a local authority.

We desperately need to develop holistic approaches, and make the appropriate investments, to address these multiple challenges and, thereby, avoid or mitigate the level of human suffering in the future? Policy planning and co-ordination is not helped by home working, but now is the time for local authority policy makers and digital transformation teams to develop their thinking on how to develop a smart city strategy which builds resilience and is truly transformative.

1 Nic Fildes, Financial Times, 16 March 2020
So, what should local authorities do?

**Step 1.** Define the major challenges faced by the town/city, based on evidence/benchmarks and lessons from the present situation, and, working with key stakeholders, develop a vision of what the future holds for the city against a number of realistic scenarios. Much of this first step can be carried out on-line.

**Step 2.** Similarly, a lot of the preparatory work in relation to the specific areas/themes identified can be carried out on-line, with a view to developing a shared perspective with key stakeholders (in each theme) of what real transformation could mean for residents, visitors and business, with challenging quantifiable goals/outcomes, potential innovative solutions, an assessment of the barriers to implementing innovative solutions/achieving those outcomes, and a critical path analysis and Action Plan in each area.

For example, most Councils know the challenges they face in relation to adult social care, and the impact of an ageing demographic on Council budgets. We also have evidence of the success of a range of telecare solutions from the Liverpool 5G test bed\(^2\), Sweden\(^3\) and the USA\(^4\)\(^5\)\(^6\). So, now is the time to develop an Action Plan to transform adult care and transform the nature of employment within the sector. As indicated above, the steps needed to reach Zero Carbon requires massive change to housing, energy and transport, and the scale of the task is such that it requires the planning process and initial steps to start now.

However, in segmenting Step 2 into specific themes, we should not overlook three important horizontal elements as part of this analysis:

- a) understanding the urban design implications for the longer term vision and service transformation;
- b) determining what data/information service providers and residents/clients need in order to make informed decisions e.g. from simple information about service provision and the content/impact/progress of planning applications, to complex questions such as capacity availability/provision and real time pricing;
- c) examining dependencies and the data being generated in one area, which could be used in another, not least to explore the barriers to data sharing and how they might be overcome;

The outcome of this phase should be careful consideration of the options open to the local authority to address the challenge(s) in question, and the outline business case(s) that would

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3 https://link.springer.com/article/10.1007/s41669-017-0059-7

4 http://www.oecd.org/officialdocuments/publicdisplaydocumentpdf/?cote=DSTI/ICCP/CISP%282015%291/FINAL&docLanguage=En (see Pps 56-57)


justify expenditure. And, when Covid-19 permits, this work can be shared with stakeholders in a more dynamic setting to confirm the approach.

**Step 3.** Based on the above, policy makers should be able to articulate the city’s strategy and Action Plan, including key projects with their objectives. But two critical elements underpin a smart city and merit special focus:

a) a data strategy, in particular an integrated data management system, as set out in BSI’s PAS 181, that is GDPR compliant and provides residents, businesses, visitors, city managers and service providers with the information they need, when they need it.

b) a digital infrastructure that is future proof and provides all residents and business with globally competitive fixed and mobile communications services. Given that this will be the local authority’s source of data, the channel to its citizens, the means by which it supports its ageing population and those in need of care, and fundamental to its economic regeneration strategy, it will wish to consider the different models for providing the service, including taking a significant stake in the digital infrastructure, in order to offer a competitive open platform to all ISPs, and a means of ensuring digital inclusivity.

**Concluding Remarks**

The Government is trying to evoke the spirit of WWII, although the scenes in our supermarkets suggests something less collective, and the newsreels of English tourists in Benidorm are more redolent of Wellington’s troops running riot following the siege of Badajos. If there is inspiration to be drawn from the recent period of our history, then I would urge the leaders of the “forgotten army” of local councils to follow the example of that great general of the “Forgotten Army”, Bill Slim, who having been forced out of Burma, held the line at Kohima to stabilise the situation, and then made sure his men learned the lessons of their defeat in Burma - transforming their effectiveness by being “smarter” in jungle warfare with minimal resources - and returned victorious.

So, as we hold the line against Covid-19, our towns and cities need to learn the lessons, and develop that longer term resilience to shocks in the smarter way I have outlined above. Our citizens, young and old, expect and deserve nothing less.