

**What would really help consumers of essential services?  
Essential Services Access Network (ESAN) conference, 12<sup>th</sup> March 2018**

**Horizon-scan to set the scene for the future context for essential services, OR  
What should I put in the jam jar for my rainy day fund? When I could live to be 100,  
don't know when extreme weather will hit or what the state will provide?**

Sustainability First is an independent charitable think-tank that promotes practical solutions to improve social, economic and environmental wellbeing.

We work primarily in the energy and water sectors. I'd like to briefly flag two of our recent projects that are relevant to this conference. We've recently released major reports from both— please do look on our website and tell us what you think.

Firstly, our excellent Project Inspire which explored innovation and vulnerability and how to improve services and quality of life for energy customers in vulnerable circumstances. Zoe McLeod, who led this work is here today with another hat on.

Secondly, our New Energy and Water Public Interest Network (New-Pin) project. This has helped build a stronger voice for the long-term public interest in energy and water, ensuring that the sectors – companies, regulators and government – stay focused on consumer and citizen needs as they undergo significant transition.

Today, I want to look ahead and explore the changing nature of vulnerability in essential services. Before kicking off, it's important to flag that:

- The **speed of change** in these services is increasing exponentially. What might have previously been seen as far off changes are now actually upon us and that illusive thing the future is now hurtling down the tracks towards us at full pelt.
- **Established social and consumer protections are struggling to keep up as inequalities widen.** The 'consumer interest' is becoming increasingly fragmented, leading to regional and inter-generational differentials.
- **Old boundaries breaking down** - between sectors – energy, water, financial services and communications – and indeed between consumer and citizen issues - are blurring.
- **But new walls may be going up** - In the UK and abroad, questions are increasingly being asked about the balance of interests between nomadic capital and rootless global businesses and the users of essential services in the homes and communities where they physically live.
- **Political and institutional arrangements need overhaul** - The political systems and institutions that should be making the difficult judgement calls

around the public interest – which have significant distributional consequences - increasingly appear remote, silo based and designed for a different world. Trust in many established players is being rapidly eroded.

- **Definitions of what are essential services are also evolving** Broadband access is a case in point but when looking to the future we need to think beyond this. Digital communications, electronic banking, new exciting online business models – plus the machine to machine learning that sits behind these - all depend on electricity. In our future world, electricity dependency will be of growing importance when we think about access issues.<sup>1</sup>

In summary, our future is a very **uncertain place**. Knowing how much money to put in that jam jar for a rainy day – if you can spare any at all which many clearly can't – is about to become a whole lot more difficult.

When thinking about the future from the point of view of users of essential services, it's important to develop a **coherent view** of what this may look like. To get user centred services, we need to start from the lives people live are likely to change – not how the communications, energy, financial services and water sectors are likely to change.

To try and develop a joined-up and 'bottom up' view of the future, I want to do a **PEST analysis** of the changes we are likely to see in Political, Economic, Social and Technological areas in the coming decades - but with a slight difference. I want to turn this on its head and take tech change first as this is significantly disrupting the way we live and work. And in addition to 'economic' change, as a Sustainability think tank, I want to also look at environmental change.

For each area, I'll highlight the **opportunities and risks** this poses for users of essential services that companies, regulators, government and civil society will need to manage if the public interest is to be put first.

## **Technology**

The Government's 2017 Industrial Strategy highlights Artificial Intelligence and data as one of its 'grand challenges.' I'd like to pick out four issues here.

Firstly, digitisation and automation are already having a profound impact on the **world of work**. We may not have Silicon Valley but we do have a silicon round about – it has in many ways never been easier for start ups - and lots of new and exciting jobs are being created.

Some of the ways of working may be better suited to the needs of people that may have previously struggled gaining access to employment: they can be flexible and fit around other commitments such as caring responsibilities and can often be done

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<sup>1</sup> Sustainability First (June 2016) Long-run resilience

remotely. 18% of the UK population say they would consider some form of GIG economy work.<sup>2</sup>

But the downsides to this change are also well documented. The TUC calculate that one in ten people now face **insecurity at work** through zero hour and short-term contracts<sup>3</sup>. These trends are likely to continue with the rise in platform type businesses such as Airbnb that are estimated to grow 30% per year over the next decade.<sup>4</sup>

In it's report 'Will robots take our jobs?' PWC estimated that almost a third of UK jobs could be at risk of automation by the early 2030s. For those with just GCSE-level education or lower, the estimated potential risk of automation is as high as 46%.<sup>5</sup>

Secondly, digitisation is leading to the increasing **personalisation of services**. Pricing is already becoming more insightful and accurate. We can now get far more tailored and responsive services that more closely match our needs. It is now much easier to develop service packages – whether this is in finance, comms, energy or water – that reflect our specific requirements. Services can now be designed around us as individuals – not a customer profile that may be far removed from reality – enabling a seamless and frictionless experience. For many vulnerable customers this has the opportunity to be a game changer.

The risk here is perhaps less clear. As services become more individualised, existing social cross subsidies may be unwound. And new cross subsidies may be introduced. A platform company may give you 'free' energy – but at the cost of tying you into a sports package on your TV.

Understanding the algorithms that sit behind these new services and ensuring that these do what they promise, aren't anti-competitive or unduly discriminate between different groups of consumers is a challenge we are only just beginning to get to grips with.<sup>6</sup>

Thirdly, technological changes are paving the way for an increasing role for the **demand-side**. In essential services such as energy and water, demand reduction and demand side response are an essential way to reduce costs to not only individuals but also through flattening 'peak' demand, to the system as a whole. They are key to future affordability.

The potential rub is that those on low incomes / in vulnerable circumstances are unlikely to be early adopters of new smart energy and water saving technologies. Without broadband access and skills, and support to buy new smart 'kit' and

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<sup>2</sup> The RSA (April 2017) Good gigs: A fairer future for the UK's gig economy.

<sup>3</sup> The TUC (June 2017) The GIG is up

<sup>4</sup> FCA (October 2017) Future Horizons Report

<sup>5</sup> PWC (March 2017) Will Robots steal our jobs?

<sup>6</sup> See, for example, Freshfields, Bruckhaus Deringer (2017) Pricing algorithms: the digital collusion scenarios

appliances for the home or electric vehicles, they may be left behind if initiatives like time of use tariffs take off.<sup>7</sup>

Lastly, technology is leading to exciting opportunities in terms of **new business models, including platforms**, which can enable access to more joined up services, decentralised models of service delivery (such as local electricity generation from PV) but also to new intermediaries coming in that may be more in tune with the needs of specific customer groups or communities.

The risks here include how do we regulate platforms, how do we deal with stranded assets that potentially only poor and vulnerable are left using and how do we ensure accountabilities when new intermediaries can lead to fuzzy chains of liability so that we know who to turn to if things go wrong.

## Social

For an ESAN conference, the 'S' in PEST is clearly a vital dimension. Two of the challenges looking to the future here sit around an **people living for longer** and a world where much of our **infrastructure is increasingly congested** – congestion and capacity being some of the National Infrastructure Commission's priorities.<sup>8</sup>

The good news that we are all **living longer** – with one in 12 expected to be over 80 by 2039 - clearly needs caveating that in old age and with more disabled younger people, we are likely to have more complex health needs. Add in the fact that we will have more dispersed families, the challenges for users, **carers**, and the companies that deliver essential services, become more pressing.<sup>9</sup>

**Assistive living** technologies may be a life-line here. Our Project Inspire report outlines all sorts of services and products that can be used to help provide safety and peace of mind<sup>10</sup>. Such developments clearly need to be inclusive by design to ensure that users are able to use them even if they experience problems with loss of sight, sound or memory.

Although technology clearly has many upsides, it can be isolating and this can have a negative impact on mental health. Research shows that loneliness can be as harmful to health as smoking 15 cigarettes a day.<sup>11</sup>

As we all know, **housing pressures** in the UK are already significant leading to rising prices and rents. Although there are opportunities for new co-living approaches

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<sup>7</sup> Sustainability First (September 2017) Tomorrow's World for Energy and Water

<sup>8</sup> National Infrastructure Commission (October 2017) Congestion, capacity, carbon: priorities for national infrastructure

<sup>9</sup> Sustainability First (January 2018) Energy for all, innovate for all

<sup>10</sup> *Ib id*

<sup>11</sup> Holt-Lunstad J, Smith TB, Layton JB. PLoS Med (July 2010) Social relationships and mortality risk: a meta-analytic review.

where people pool and share resources in the process also addressing affordability issues and overcoming isolation,<sup>12</sup> there are also clearly downsides.

The ease with which people living in homes with multiple occupation can influence shared bills, get energy and water savings behaviour as a group or persuade their landlord to make money saving changes to the home may be problematic. Principal agent problems are likely to increase. And of course many of these homes may be overcrowded and of poor quality. This is particularly the case in the private rented sector where a quarter of households will be living by 2025.<sup>13</sup>

## Economic

Near-term UK **economic growth** projections are sluggish<sup>14</sup> and Brexit, at least in the short to medium term, is exacerbating this trend. Factors which have previously led to falls in **poverty** are now in question as state support for many on low incomes falls in real terms, rents increase and rising employment no longer reduces poverty.<sup>15</sup>

This is leading to projected upward trends in measures such as **child poverty** across the whole of the UK and with **absolute poverty** predicted to rise in areas such as the North East, the North West, the Midlands, Wales, and Northern Ireland.<sup>16</sup>

The OECD has forecast high consumer **debt growth**, which coupled with stagnant household incomes, is considered to be a major financial stability risk. The OBR has projected the household debt-to-income ratio to reach a peak of 150% in 2023.<sup>17</sup>

**Wealth inequalities** are also widening and are now greater than income inequalities.<sup>18</sup> Wealth is driven by property ownership and pensions. This type of inequality by its nature can ensure differences between different social groups and crucially between generations – in terms of opportunities and experiences - can widen over time. **Millennials in ‘Generation Rent’** are unsurprisingly getting more vocal about this.

## Environmental

Moving on to the future view for the environment. Climate change impacts, particularly those related to **extreme weather impacts**, will be increasingly felt over the coming decades. Although there are a range of scenarios, there’s an estimated 12% chance of a severe drought in the East / South East of England in a coming 25 year period.<sup>19</sup> The UK is also still some way off meeting its **commitments under the Climate Change Act**. Further policies will be needed to meet the targets which are

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<sup>12</sup> For example, see <https://www.dezeen.com/tag/co-living/>

<sup>13</sup> PWC (2015) UK housing market outlook: generation rent

<sup>14</sup> Financial Times (January 2018) Gloomy growth projections cloud hopes for UK economy

<sup>15</sup> Joseph Rowntree Charitable Trust (December 2017) UK Poverty 2017

<sup>16</sup> The IFS report (November 2017) *Living standards, poverty and inequality in the UK: 2015–16 to 2021–22*

<sup>17</sup> OBR (November 2017) Economic and Fiscal Outlook

<sup>18</sup> <https://consumerinsight.which.co.uk/articles/household-resources-2017>

<sup>19</sup> Water UK (2016) Water Resource Long-term planning framework, 2015-2055

likely to include reducing emissions from residential buildings and transport,<sup>20</sup> both areas, where if the costs are not managed, the **affordability impacts** on consumers of essential services could be keenly felt.

To be frank, after the ‘Beast from the East’ and Storm Emma, it is quite difficult to find an upside to the difficulties that intense and unpredictable weather events may have on users of essential services. Perhaps the best that can be said (besides snow days for school children) is that such events can **bring communities closer together** and reduce isolation. I wouldn’t be surprised if lots of people here today talked to people that they wouldn’t have normally spoken to during the last few weeks.

We all know, however, that such events often have the greatest impact on people in vulnerable circumstances and those that don’t have the resources or resilience to recover from shocks. And once the headlines have moved on, and the rest of the world is ‘back to normality’ those people may be left to pick up the pieces on their own.<sup>21</sup>

**Jobs in the clean tech sector** are a good news story and remote sensors and monitors, innovations in materials, and apps and online platforms etc to address environmental pressures are clearly also exciting and can enable users of services to be paid to go about their own activities differently. For example, Wessex Water’s online auction platform for improving the environment can help farmers, many of whom may be on low incomes, to get paid for environmental services.<sup>22</sup>

## Political

Last but not least I’d now like to say a few words about the political outlook. We all know that there are continuing financial **pressures on our public services** – hospitals, councils<sup>23</sup> etc – that are already impacting on many users of essential services, particularly those in vulnerable circumstances.

And then there is **Brexit**. Whilst there may be opportunities to reduce what some may think of as ‘red-tape,’ it can also be a tremendous distraction from considered long-term public policy making.

**Localism** is a potential positive here. The rise in smart cities, metro mayors and the community initiatives previously referred to are enabling place based innovation<sup>24</sup> and a more rooted, purposeful way of doing business.

All well and good but **some issues cannot be dealt with locally**: eg if they are systemic risks (computer viruses); can be more efficiently addressed through

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<sup>20</sup> The Committee on Climate Change (January 2017) An independent assessment of the UK’s Clean Growth Strategy: from ambition to action

<sup>21</sup> For example, see <http://wp.lancs.ac.uk/cyp-floodrecovery/>

<sup>22</sup> See <https://entrade.co.uk>

<sup>23</sup> The NAO (March 2018) The Financial Sustainability of Local Authorities, 2018

<sup>24</sup> See, for example, Robert Hambleton (2015) Leading the inclusive city - Place based innovation for a bounded world

standards (eg safety issues); or where the views of different localities conflict and a co-ordinated long-term view is needed (eg the future of the gas network).

In this context, many of our political and institutional arrangements are struggling to remain relevant. **Trust in government** remains low at 36% with the majority of people saying that they do not feel that their views are represented in politics today.<sup>25</sup>

As ‘the establishment’ wonders how best to evolve to deal with the twenty first century challenges ahead, many have called for more radical approaches. Views are polarised. They range from on the one hand, to leave it to **individual choice and ‘let the disruptors in’** to on the other, giving the **state a greater role** to play in these sectors.

The former approach should help **unleash innovation and enable services to more quickly respond** to our changing needs. The latter, through taxation, can **pool risks and spread costs** more fairly between generational cohorts, and should help to address the potential distributional impacts of future change.<sup>26</sup> State based approaches could also lead to government / regulatory interventions to ensure provision of ‘basic’ value offerings – or new ownership models for monopoly ‘anchor’ organisations in our communities.

What is clear is that we are going through a time of significant disruption where the public has little appetite for incremental change. The economy is unlikely to provide quick fixes and we are likely to face some difficult choices as a society as to how we want to live. Essential services will be at the forefront of such decisions.

If essential service providers, regulators and policy makers don’t tackle the **social and environmental issues** I’ve outlined we are likely to see increasing regulatory and political volatility. And what we do know is that users of essential services don’t like shocks.

As we experience increasing change, service providers, and regulators and government, need to ensure that they stay **focused on the public interest outcomes** that we want to see if they want to be viewed as legitimate and worth the public’s trust.

What would really help users of essential services? A personal view:

1. A **joined up cross sector approach** to the provision of essential services that is centered on people – not on service providers. This also needs to recognise that many essential services markets are international – user groups need to join together;

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<sup>25</sup> Endelman (January 2018) Endelman Trust Barometer 2018 – UK findings

<sup>26</sup> See Sustainability First (October 2015) Long-term affordability in energy and water and UKERC (March 2018) Funding a low carbon energy system: a fairer approach?

2. A **flexible approach** to future essential services – we don't know where the problems are likely to be and for whom;
3. An **inclusive approach to planning**. Decision makers need to take the public with them as they will be making ethical choices and judgements that will have significant distributional impacts for years to come; and
4. Potentially - a **twenty first century US obligation** on 'core' essential services that recognises the dynamic nature of vulnerability and how quickly some of these markets (financial services and energy) are changing and goes with the grain of people's behavioural biases. Whether this is delivered through a basic income,<sup>27</sup> a hypothecated / earmarked tax, an obligation placed on service providers or even public bodies, is likely, in my view, to occupy significant time in the coming years.

And finally, in 2015 countries around the world, including the UK, adopted a set of **UN Sustainable Development Goals** many of which address essential service issues such as ending poverty, reducing inequalities, good health and wellbeing, sustainable cities, clean water and sanitation and affordable and clean energy.

Companies that want to be '**good corporate citizens**' are busy working on how they can achieve these targets by the **deadline of 2030**. That's not really very long to maximise the opportunities, and address some of the risks, that I've outlined this morning.

Unless we do this, however, deciding on how much money to save in our jam jar rainy day fund will be increasingly problematic.

**Sharon Darcy**

**9 March 2018**

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<sup>27</sup> See, for example, <http://basicincome.org/news/2017/10/overview-of-current-basic-income-related-experiments-october-2017/>