



# Digital living

## Getting the most out of digital society

*A consultation in partnership with the Corsham Institute Thought Leadership Programme 2016*

Report May 2016



This report was produced following a consultation at St George's House, as part of a programme of events in the Corsham Institute 2016 Thought Leadership Programme.

The report should be viewed in conjunction with reports from the series.

The consultations in the 2016 programme were:

- Digital health: Digital's role in health and care – March 2016
- Cyber and resilience: Digital's role in regaining resilience – April 2016
- Digital living: Getting the most out of digital society – May 2016
- Trust and ethics: Building a more informed digital society – June 2016

**This programme hosted at St George's House was developed in partnership by Corsham Institute, RAND Europe and the Smart Societies Institute.**



St George's House is a place where people of influence and responsibility in every area of society can come together to explore and communicate their views and analysis of contemporary issues. The aim is to effect change for the better in society by nurturing wisdom through dialogue.

Corsham Institute (Ci) was formed in 2013 to explore the opportunities and benefits of the digital society, both social and economic, with particular focus on shaping a future where individuals can realise their potential in a highly connected world.

RAND Europe is a not-for-profit research institute whose mission is to help improve policy and decisionmaking through research and analysis. Lying on the spectrum between that of universities and consultancies, RAND Europe's work combines academic rigour with a professional, impact-oriented approach.

The Smart Societies Institute is an independent, non-profit think tank aimed at improving society through the use of science and technology. The Institute envisions a future where science and technology augments and enhances our day-to-day lives to improve the quality of life for everyone in our society.

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## Key findings

### Context

Digital technologies are omnipresent, both in terms of where we are and what we do – in the workplace, at home, in the local community, when purchasing goods, when travelling and across different social interactions. Undoubtedly, these digital technologies are having a profound impact on wider society, as the public increasingly uses them as part of their day-to-day lives. However, it is important that these technologies are making a positive contribution to society and that any potential negative repercussions are identified and limited. The third session in the 2016 Thought Leadership programme examined the societal issues associated with the increasing take-up of new technologies.

### Key discussion points

#### *How can new technologies provide the most positive benefits to society?*

There is broad agreement in the group that technologies have the potential to promote a more inclusive and equal society, provided that everyone has access to technologies and acquires the skills to use them. The economic benefits are also seen as being particularly exciting, with the potential for different types of work and additional incomes being accelerated by the growth of digital technologies. Other benefits cited are the potential to increase freedom, extend independence and reduce loneliness through far greater connectivity to the outside world.

#### *What are the concerns related to the increased adoption of technologies in society?*

Despite the potential for equality and inclusiveness, the lack of access to digital technologies is cited as a key concern to the group. This reflects three areas: affordability, as the cost of digital technologies may mean that they are unaffordable for sections of the public; infrastructure, as those living in certain areas might not be able to access digital technologies, such as high-speed broadband; and skills, with certain individuals not having the digital knowledge required to do a job adequately. There are also potentially negative economic implications from the growth of digital technologies, with jobs being lost as tasks are carried out autonomously by machines. Privacy is another concern, with the group stating that many citizens are unclear about when they are providing data online and how it will be used.

#### *How can we judge success in the digital society?*

There is broad agreement from the group that there needs to be a move away from judging success purely by economic profit, and that we need to start thinking about measuring success by societal benefits. There are many instances where the societal value of digital technologies could be more important than the economic benefits they bring to the private and public sector.

## Next steps

The inequality risks associated with digital technologies can be mitigated by creating access to them regardless of location, age, income, education or health (physical and mental). This could be done by making technologies affordable, putting in place the relevant infrastructure so everyone can have access, or reskilling and upskilling individuals to ensure they have the relevant knowledge to use technologies as part of their daily lives, either at home or in the workplace. The appropriate training and education needs to be delivered to all individuals across different ages and groups – from formal education in schools and workplace training, to public awareness campaigns, through television, news and social media.

## Introduction

The Corsham Institute (Ci) Thought Leadership programme, which was designed and delivered in conjunction with RAND Europe, was established to explore the opportunities and challenges that digital technologies are creating within society. The programme seeks to bring together senior leaders from across academia, industry, government and non-government sectors in order to enable the emergence – through a combination of robust debate, knowledge sharing and personal reflection – of new thinking and ideas on how everyone in society can benefit from the use advantages that digital technologies can offer.

This report represents the main findings from the consultative event on digital living that was held on 14 and 15 May 2016 at St George’s House. The overarching question which this consultation sought to consider was:

***‘How can we encourage greater use of digital technologies in day-to-day life to the benefit of everyone in society?’***

The digital world has demonstrated its potential to bring economic and social benefits; as a result, across the globe we have seen a number of initiatives to take full advantage of these new tools, technology and communication platforms, such as the ‘smart cities’ programme which is aimed at developing our digital infrastructure in main population centres. However, questions remain as to what digital will mean in practical terms with regards to our social norms and our day-to-day lives – and how this may differ across particular demographic groups. Our discussions did not, therefore, focus on specific technological advances that can be considered as the *means* to a better life, but on the ultimate *end* itself: a better, more effective and digitally enabled society that is rich in opportunity for all. As with all reports in this 2016 Thought Leadership programme series, we have aimed to capture the main ideas and views put forward during our discussions, with the understanding that not everybody involved in the consultation will necessarily have endorsed all of the proposals and viewpoints reported. This report has been structured to reflect the main findings and conclusions under the following headings:

1. Background and context: The dawn of a new digital living age
2. The transformation of day-to-day living
3. A new framework for recognising success
4. Stakeholder motivation and barriers
5. Conclusions and next steps

As with all St George’s House consultations, this report has been prepared under the ‘Chatham House Rule’. Any phrases that are italicised and in double quotation marks are direct, but unattributed, quotes from the discussions during the event.

Ci and RAND Europe would both like to extend their warm thanks to the participants who introduced each of our sessions, and to all participants for stimulating and contributing to the high level of discussion that took place. A list of all those who took part is provided at the end of this report.

## 1. Background and context: The dawn of a new digital living age

The emergence of digitally enabled living will bring great social and economic opportunities for all parts of our society. But such a significant cultural and social change is not without risk. If digital technology is to be adopted as part of our day-to-day lives, then policymakers must be cognizant of both the benefits and challenges that these changes will bring – and how these may affect different demographic groups across society.

Digital technology is, by its very nature, disruptive to existing structures and processes. A recent report by McKinsey & Company<sup>1</sup> identified 12 disruptive technologies and the potential impact that these may have on society. The impacts ranged from the emergence of the Internet of Things (IoT) and its ability to automate different aspects of our daily lives, to significant changes in terms of the mode and type of work we will be undertaking in the future, to autonomous transportation, to advances in genomics, and to changes to the way we generate energy and explore for natural resources. Interestingly, the majority of the disruptive technologies identified in the McKinsey report will rely in part, or almost completely, on the use of digital technology for delivery.

In addition to managing the disruptive nature of digital, a further key challenge for society is how to ensure that the benefits are accessible to everyone. Many of the changes mentioned earlier are already being felt by those who are well connected and relatively prosperous in terms of networks and assets. But in sections of society that are perhaps less knowledgeable, less well connected and less able to access the opportunities provided by digital technologies, there is a risk that the current evolution will just further increase and entrench inequality, thus creating a more divided society, where those with the skills and resources to access such opportunities continue to prosper and the more vulnerable and disenfranchised members of society are left behind. As technology within the home offers the potential to make life easier for all of us, it is important that this remain accessible to everyone, regardless of background, age and social class.

To date, we have seen the smart cities agenda<sup>2</sup> promise to revolutionise our urban living model by meshing together analogue and digital living patterns, and we have seen the emergence of IoT as an opportunity to move towards automate day-to-day tasks and move towards a more autonomous model of living. However, very little of the debate has been focused on how digital technologies will actually benefit the lives of individual citizens, or on what further policy changes are needed if digital technology is to be adopted for the benefit of everyone in society.

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<sup>1</sup> Manyika, James, Michael Chui, Jacques Bughin, Richard Dobbs, Peter Bisson & Alex Marrs. 2013. *Disruptive Technologies: Advances that Will Transform Life, Business, and the Global Economy*. McKinsey Global Institute. As of 7 October 2016: <http://www.mckinsey.com/business-functions/business-technology/our-insights/disruptive-technologies>

<sup>2</sup> BIS (Department for Business Innovation & Skills). 2013. *The Smart City Market: Opportunities for the UK*. London: BIS. As of 7 October 2016: [https://www.gov.uk/government/uploads/system/uploads/attachment\\_data/file/249423/bis-13-1217-smart-city-market-opportunities-uk.pdf](https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/249423/bis-13-1217-smart-city-market-opportunities-uk.pdf)

Citizen trust appears to be a central issue to the greater use of digital technology in our day-to-day lives. As a RAND report on the IoT<sup>3</sup> noted, generating citizen trust will be essential if the full potential of IoT is to be realised. The report stated: ‘in order for government, business and societal organisations to realise the potential of IoT and meet its challenges, its application must be accepted and trusted – not universally, uncritically or unequivocally, but in a proportionate, reasoned and effective manner.’ Such an outcome will require both accurate and comprehensible information, but also the acceptance of new ethical principles and greater levels of trust in digital technologies across society.

The key focus for this consultation was therefore to explore what might be the benefits of ‘smarter living’ and how digital might support us to lead more fulfilling and effective day-to-day lives, while also recognising the importance of developing new social norms and behaviours if citizen trust is to be maintained as our society becomes more digitally enabled. As participants noted: *“these early years can be characterised both as honeymoon period, in which we see only the good in each technological advance, and wild West years, when the rules of the game are played ‘fast and loose’ and societal norms of behaviour are only just starting to emerge.”*

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<sup>3</sup> Schindler, Helen Rebecca, Jonathan Cave, Neil Robinson, Veronika Horvath, Petal Hackett, Salil Gunashekar, Maarten Botterman, Simon Forge & Hans Graux. 2012. *Europe’s Policy Options for a Dynamic and Trustworthy Development of the Internet of Things*. Santa Monica, Calif.: RAND Corporation. RR356. As of 7 October 2016: [http://www.rand.org/pubs/research\\_reports/RR356.html](http://www.rand.org/pubs/research_reports/RR356.html)

## 2. The transformation of day-to-day living

The significance of digital goes beyond single innovations; it has the potential to disrupt the way society both self-organises and is organised. As one participant noted, this disruption comes as a result of two shifts in our relationship to information that are facilitated by digital platforms:

**The aggregation and faster analysis of data:** Digital offers the ability to combine complex data flows and, through such aggregation, to support better decision making in all aspects of day-to-day life. Transport is a good example of this kind of impact. The capacity for pooling and analysing data from transport networks and services and from personalised travel devices should enable people to make smarter decisions as to when and how they travel.

**The facilitation and self-organisation of complex systems:** Digital can support the establishment of self-organising systems and, through disintermediation, enable new business and policy models to emerge. Examples of this include new commercial ventures, such as Airbnb, Uber, Kickstarter and YourParkingSpace, as well as new not-for-profit community and interest groups to emerge.

Nonetheless, while these changes are wide ranging and significant, most citizens are likely to experience a less extreme, more evolutionary rate of change as digital technology becomes a stronger feature of the day-to-day delivery of products and services. Due to the current pace of change and the unknowns in technological and societal advances, it is very difficult to imagine the future, more digitally enabled, society with any great specificity. Our attempts to forecast what such a society might look like were, as a result, primarily in the form of incremental changes to the current reality. Our discussions focused on seven thematic areas: our ways of consuming; our travel; our working lives; our housing and accommodation; our interaction with each other and with the wider community; and our democratic institutions (further details of the ideas that emerged from these discussions are presented in Annex 1).

From these discussions, we identified a series of common themes that will underpin growth in the use of digital technology across society:

- (i) **Increasing personalisation of services:** Digital will provide the opportunity for greater personalisation, but at the same time is likely to create an inherent risk that algorithms decide what information or services to share with an individual may in fact restrict the options to which people are exposed. This may raise concern among individuals that they are receiving less than full information on issues, services or opportunities which are of personal interest.
- (ii) **Greater optimisation of information:** The benefits of digital will depend on greater aggregation and optimisation of information. This will become a stronger feature of life as the digital age becomes more prevalent, and optimisation requires greater knowledge and understanding among the population if a new, more informed model of consent is to be created.



- (iii) **Need for access to personal data:** To facilitate this optimisation, individuals will need to provide greater access to personal information if the main benefits of digital living are to be realised, but this needs to be implemented in a manner that enables individuals to feel safe and secure in the knowledge that granting such access contains appropriate privacy protections, that illegitimate use is prevented and that concerns about potential surveillance are mitigated.
- (iv) **Data as currency:** As increasing numbers of online services are provided for free of charge and funded by business models that rely on advertising revenue, individuals may find themselves compelled to agree – knowingly or unknowingly – to the sharing of their personal data and online habits with private providers in order to access well known communication platforms or other services. The desire to ‘keep up’ with others in society means that many people face little choice in terms of agreeing to share their personal data.
- (v) **Education and skills development:** There will be a need to educate and skill individuals so that they understand how to access the benefits that digital technologies can provide and so that everyone in society is able to remain economically active in a more digitally enabled world – a world where the nature of work and economic activity will be redefined.
- (vi) **Development of social norms:** Digital has the ability to create significant change in terms of how individuals interact socially and transact in day-to-day life. On the dark side, there are instances of cyber bullying and trolling. In a more digitally enabled world, we may see less face-to-face interaction, and there is a need to redefine what behaviours and social norms are acceptable in such an environment, as well as to consider how we encourage these new norms to be seen as the acceptable standard of conduct in a new, globally connected world.
- (vii) **Change in daily activity:** Innovations, such as autonomous cars and communication platforms, may affect patterns of physical mobility and activity, as well as the way we understand the spatial separation between different spheres of our lives. On the one hand, efficiency savings, through automation, may grant us more free time; on the other hand, being able to connect with emails from any location may intensify the feeling of being ‘always on’, and this could be exacerbated through interconnected use of technology.
- (viii) **Transparency, access and accountability:** Digital platforms can facilitate citizen access to information and data, provide direct access to elected representatives, anticipate service need, and facilitate the citizen voice in the policymaking process, although this may raise its own questions about the speed – and public expectations of – change and about the limitations of online platforms as public squares.
- (ix) **Increased connectivity:** Communication platforms allow us to remain in contact with others around the globe and to strengthen geographically local networks. On the one hand, this may reduce isolation; on the other, it may change the frequency and nature of the way in which we interact, both digitally and physically.

## Strategic challenges

Building on the common themes outlined above, our discussion moved on to consider the strategic challenges that we need to address as a society if the opportunities and benefits digital are to be realised by everyone. The main challenges we identified are summarised below.

- (i) **Lack of regulation and structure:** Many felt that there is a need to introduce greater levels of common regulation and control over the use of digital technology on a global scale, while also ensuring that we do not stifle innovation and the evolution of digital products and services. As discussed earlier, the rate of innovation and change is so rapid that it is difficult for established practices, behaviours and social norms to take root within society. In addition, many felt that the global reach of digital means that it is difficult for legislation and social norms to be constructed at national (government) level. Some expressed the need for a more global approach to be taken. The strategic challenge therefore is: How do we create a regulatory structure that can remain current, agreed and enforced on a global basis?
  
- (ii) **Trust, privacy, data protection and individual choice:** Participants felt that, if digital is to become a greater feature of our day-to-day lives, there is a need for individuals to be given more information and greater choice about what personal data is collected, where it is stored, and who has access to it and for what purpose. Individuals need a stronger sense of control and a more explicit process for giving personal consent if stronger levels of societal trust in digital are to be generated. As one participant noted: *"We already leave a digital footprint. Technology is inevitable. But you still need to have choices and options."*

We concluded that the current lack of recognised global standards for privacy and data protection, and lack of accepted norms of behaviour within the digital world, mean that trust and confidence among users of digital services and products are being eroded. This is likely to impact on the willingness of individuals to engage with digital approaches in the future.

While there are clear benefits from sharing data, both among individuals and among organisations, there are also examples of personal data being used in malicious ways, or without the knowledge of the individual whom the data is about. We concluded that there is need for a new 'compact' which can articulate the value exchange that takes place when individuals give their personal data to a third party and the value which is created and received back by the individual. This needs to include the resale of data between companies. Being more explicit about such an exchange of value will allow individuals to have a clearer understanding of why they are being asked to provide personal data, what is happening to this data, and the personal benefits which arise from such an exchange. Participants felt that being clearer about this will promote greater confidence among individual citizens in terms of when and how their data is collected and used.

- (iii) **The risk of deepening inequality:** Some felt that, as digital and the IoT become more ubiquitous in our day-to-day lives and deliver benefits to people who are already in possession of the skills, assets and networks to access such benefits, there is a risk that certain segments of society will become increasingly excluded and marginalised. Such inequality may be driven by a range of factors, including lack of connectivity, lack of skills and knowledge, or commercial pressure from business to target more affluent customer groups. The issue we face is: How do we ensure that everyone in society is able to benefit from the opportunities and benefits which digital is creating in our day-to-day lives? Others went further, by saying it should be the responsibility of government to ensure that such inequalities are not able to grow within our society, and that we should be required to place greater focus on how digital equality is measured, tracked and reported on.
- (iv) **Consensus around knowledge, language and skills:** Linked to the previous point about equalities, there is the need to for greater consensus and a clearer understanding of the knowledge and skills that are required to access and utilise the opportunities that will emerge as a result of digital technology. We agreed there is a need to create a shared understanding about how, as a society, we create an accessible language around digital, and how we invest in knowledge and skills for resilient communities.
- (v) **Structural change:** Throughout this consultation, we heard how digital technology has the potential to disrupt some very basic concepts and the economic structure of society, with one example being how we define being 'economically active'. Such structural change needs to be recognised by policymakers and planned for. For example, if the very nature of work is likely to change as digital technologies become more prevalent and jobs evolve towards higher-value-added, knowledge-based roles, with more manual, lower-skilled roles being automated (or undertaken by robots), then there is a need to plan for significant structural change in aspects of society, such as the future of employment. Future policy needs to recognise these changes now and consider how we will support individuals to transition into a new more digitally enabled world.
- (vi) **Channelling the profit incentive:** It was recognised that the private sector will always be driven by profit, and that this is the mechanism by which we create innovation and the production of new products and services. Some participants, however, felt that the private sector needs to be encouraged to be more open with some of the personal data that is collected, and to consider sharing some of this data for the general benefit of society. One idea which was suggested was to look at incentives and how we can encourage some of this data held by commercial businesses to be utilised for the greater good of society rather simply for commercial return.

- (vii) Increasing vulnerability:** If, as a society, we become increasingly reliant on digital technologies, there is a need to address the growing need for societal resilience when such technologies are not functioning properly or are deliberately attacked. Participants felt that there is a need to consider who should be responsible for ensuring that we are resilient as a society, and also how we can reassure citizens that we have appropriate safeguards in place, while at the same time not scaring individuals and reducing the rate of adoption of new technology. As an example, one participant mentioned the importance of ensuring that future generations still have the ability to drive a car, even though they are going to live in a society where there are predominately driverless cars in use. Without such basic training, we will be too vulnerable to technology failure and not resilient.
- (viii) Innovation:** There was general consensus that product and service innovation needs to be driven more by what consumers than by what the technology makes possible. Participants felt that there is a need to make the consumer more central to the innovation of new digital products and services; otherwise, there is a danger of continued innovation around technologies which do not gain market acceptance. The example given was that Uber has taken off in many cities around the world because it meets a clear need and offers something people always want: a cheaper, more efficient alternative to the incumbent provider, while remaining relatively low tech. Lots of other, more technology based innovations do not gain such acceptance because they are not founded on a consumer need but, rather, on a technology innovation.
- (ix) Concentration within the technology sector:** Linked to the previous issue of innovating to meet a consumer need, we concluded that much of the technological change in society is driven by a small number of very large tech businesses, and that this often makes it difficult for the voice of the consumer to be heard in any strategic planning. There is a need to consider how the consumer can be brought more into the centre of this debate about what a future digitally enabled society should look like, so that this technology-dominant approach to innovation can be better balanced against actual customer need.

### 3. A new framework for recognising success

Building on the strategic issues discussed in the preceding section of this report, participants felt there was a need to consider a new framework for prioritising innovation in a digitally enabled world. Given the current reliance on technology advances and commercial return as a driver for innovation, there was agreement that we should perhaps consider a wider set of metrics that will enable future developments to focus on a broader objective of delivering societal value.

Taking a broader-based perspective and setting ourselves the overarching objective of ‘How do we make the UK a better place to live, work, and learn?’ we considered what metrics might be used to prioritise technological advances, and to create societal rather than just commercial value. Participants hoped that using a broader list of criteria would enable future developments to be prioritised for the benefit of everyone, including the most vulnerable and isolated in society, to lead more effective and enjoyable day-to-day lives. We have summarised the metrics and associated measurement question(s) below.

#### Metrics

**Sustainability.** Will this development lead to a meaningful support or transition for many people in society, as opposed to delivering shallow and short-term gains?

**Scalability.** Is there real and affordable scope for expanding the innovation to reach a wide range of different people within society?

**Saliency.** Does the technology address the important and meaningful challenges that are faced in people’s day-to-day lives, such living longer, caring for family, and finding work?

**Productivity.** Does the technology help society as a whole to become more productive, within the context of a satisfactory work-life balance, or does the technology potentially lead to increases in anxiety and stress, which ultimately lead to lower levels of productivity?

**Efficiency.** Does the technology allow us to live our lives more efficiently? Or does it create a bounded set of interactions (e.g. in a walled garden), which constrains the benefits that can be realised?

**Vulnerability.** Is the new technology resilient, easily repairable and easily recoverable in the face of growing threats?

**Equality.** Is this technological development accessible to everybody in a way that can help narrow the gap between the digital haves and have-nots?

**Transparency.** Is it clear where this development has come from, who is involved, and why? Is it clear, in particular, how the data of those engaging with a platform or shared service would be used by providers?

It was felt by participants that adopting this broader set of metrics may allow us to gauge digital innovation priorities against the wider aim of creating societal benefit, rather than using a more conventional (and narrower) commercial return on investment focus.

## 4. Stakeholder motivations and barriers

There was general agreement that creating an equal society, in which everyone has access to the benefits and opportunities that digital technologies can provide, will require significant change. Concern was raised by the group however that greater reliance on digital technologies might in fact magnify the gaps between those elements of society that have connectivity and the means to access new services and those that don't. Inequality could be a result of access – on location, age income, education and skills, health (physical and mental), or affordability, and it will be important in policy terms that equalities issues are placed at the centre of any future plans.

Delivering the scale of change required will require the support from a range of stakeholders, and we heard about what some participants called the *“interconnected ecosystem of the digital world”* to deliver such change. Such an ecosystem has been created by high levels of interconnectedness between the different stakeholders (including the end user), who make up a self-sustaining system that develops, manages and uses digital technology. Most importantly, the high level of interconnections means that no single stakeholder can assert overall control of the system.

There was also clear consensus among participants that, while government has a strong role to play in such an ecosystem in terms of establishing standards and protecting individuals, government alone cannot deliver the degree of change that is needed. In fact, some went further, to state that the scale of change needed to bring the benefits of digital society to everyone is probably outside the capability of any one nation state, and that such change will require strong cooperation throughout across the whole stakeholder ecosystem, including from individual users themselves.

To understand the role which different stakeholders might play in the future as part of a *“digital ecosystem”* to encourage greater use of digital technology in day-to-day living, we explored the motivations and barriers experienced by four specific stakeholder groups, namely, citizens (i.e. individual users), businesses, government and academia.

### Citizens (individuals)

Individuals are likely to engage with digital technologies in their day-to-day lives for a wide variety of reasons; however, there was general agreement that the main motivations to engage with digital technology are as follows:

- Gain access to information and knowledge
- Interact socially, to have a voice in debates, or to be able to speak directly to people in power
- Co-create content, products and services and, ultimately, to have the opportunity to benefit financially (through such user-operated services as Airbnb)
- Create new connections and build personal reputation

- Access and consume products and services in a time-efficient and personalised manner
- Make personal decisions in real time (e.g. travel plans)

While the opportunities created by digital for citizens are extensive, there are also concerns and barriers that exist. Digital represents an opportunity to state your personal opinion and manage your personal reputation, but it also raises the risk of saying something inappropriate and even inadvertently causing personal problems that have longevity and a global reach. There have been examples of individuals using Twitter to state personal views and then experiencing issues about personal reputation and/or having legal action being taken against them.<sup>4</sup>

Although digital offers access to many more data sources, it does not support critical thinking and analysis, both of which are required to interpret such a wide range of data. Linked to this is a growing concern that algorithms are selecting and choosing options based on transaction history and that this may restrict choice in terms of what information is selected and what products/services are made available to the individual. A lack of awareness that this is taking place in the background means that, compared with traditional information sources, where bias is understood, there is a risk that we don't know what part of the whole picture we are looking at. We concluded therefore that, although the volume of digital uptake suggests that individuals like the opportunities that digital is creating in their day-to-day lives, there are growing concerns that the filtering of content and offer which is made available to individual users may lead to a growing sense of mistrust among consumers.

## Business

We heard how business is essentially driven by return on investment, and by a desire to enhance shareholder value through a combination of maintaining competitive advantage and having sustainable and cost-efficient operations. Interestingly, the private sector holds much of the investment capital which is needed to support future developments in the digital economy, but at the same time does not see its role as being the innovator for new products and services aimed at creating social value; business clearly sees that role as being the responsibility of government and civic society.

Businesses will, and do, react to market pressures, be that from consumers or competition. There are examples beginning to emerge of consumer pressure changing the approach that businesses are taking concerning data privacy and security – for instance, the recent move by WhatsApp to provide encryption for personal data. To date, however, many businesses have not felt the need, or requirement, to offer any form of information to individuals about the personal data that they collected and held on them, nor how such data is processed, utilised and in some cases sold to third parties.

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<sup>4</sup> One example is Justine Sacco's tweets, as reported by *The New York Times Magazine*. Ronson, Jon. 2015. 'How one Stupid Tweet Blew Up Justine Sacco's Life.' *New York Times Magazine*, February 12. As of 7 October 2016: [http://www.nytimes.com/2015/02/15/magazine/how-one-stupid-tweet-ruined-justine-saccos-life.html?\\_r=0](http://www.nytimes.com/2015/02/15/magazine/how-one-stupid-tweet-ruined-justine-saccos-life.html?_r=0)

Increasing consumer awareness and pressure to be more transparent about how data is collected and managed may lead some businesses to consider using a more transparent and public approach to data management. This could be positioned as a means of differentiating themselves as ethical operators and of creating a similar movement to the corporate social responsibility one which has been used successfully by many businesses to differentiate themselves from the competition.

Building on the issue of differentiation, some participants felt that small and medium enterprises (SMEs) are starting to lead a challenge against the dominance of larger, more established businesses, by positioning themselves as the leaders in terms of social and ethical behaviour. Some larger businesses are responding to this threat by considering how they can be positioned as leading the debate in terms of data management and ethics; however, more pressure is still required if such issues are to be taken seriously by the larger digital companies.

Finally, we heard how some of the more innovative businesses (e.g. Airbnb, Uber, Facebook, etc.) are redefining their role in a more digitally enabled world. As we move towards more of a user-creator model of transacting digitally, the more successful digital operators are redefining themselves as *“curators of information”* or *“facilitators of self-organising transactions”* rather than as the owners of such transactions. Such a change in role requires a redefinition of quality assurance and risk management processes to ensure that brand reputation is maintained as the operating model evolves.

### **Government and public services**

In contrast, we heard how government and the public sector are driven by a desire to ensure efficient use of resources, security of citizens and the state, and provision and equality of access. At the same time, government should also recognise that it has unique access to a range of datasets, which can be used to encourage economic growth, support development of policy insight and reform public services. The sharing of these datasets needs to be carefully controlled, and government needs to take a strong leadership role in terms of defining clear standards for how such public data can be shared without raising privacy concerns among citizens.

We also heard how government has a responsibility to create a long-term vision for digital, to create trusted platforms for the delivery of public services, and to ensure that society has the correct infrastructure in place to provide equal access to high-quality connectivity. The latter point is about ensuring that everyone in society has connectivity and the ability to access the opportunities being made available by digital technology.

The one resource that the public sector does not have, however, is the capital or resources needed to drive the level of investment needed in new infrastructure or technology. This investment is needed if we are to give greater choice to individuals over how their personal data is collected, stored and used by third parties.



We concluded therefore, that the public sector needs to consider how it can create new ways of generating change and encourage citizens and the private sector to consider a new approach to data management and ethics. This could be achieved by creating a more open discussion about the issues surrounding data collection and management, or by considering how supply chain policies might be used to influence.

### Academia

We heard how digital technology provides a number of opportunities and challenges for academia. While digital can democratise knowledge, it can also challenge existing learning mechanisms and disrupt models of sustainability for academic institutions. We identified three emerging opportunities for academia to support the growth of digital living:

- Develop new and more continuous forms of learning
- Help to facilitate work-ready skills and encourage greater collaboration between academic institutions and business/employers
- Support primary research through easier and quicker access to literature and data sources

The third point raises additional concerns about citation and ownership of intellectual property.

Others identified that digital is also challenging the traditional model of education, with the advent of massive open online courses (MOOCs) and the need to move towards a more continuous, lifelong model of learning and skills development, academia has a significant role to play in supporting the accessibility and growth of digital technologies across day-to-day living.

A key challenge that was identified for academia in relation to digital is the commercialisation of data and intellectual property. While digital offers great potential to share research, it is also seen as a threat to the ongoing sustainability of academic institutions. Further work is required to consider the impact that such sharing is likely to have on the more traditional models of education.

## 5. Conclusions and next steps

Having considered the opportunities which digital technologies are creating within society, the strategic issues that are faced, as well as the motivations of different actors to engage with digital, we concluded this consultation by outlining a series of recommendations and practical actions that participants said will help to ensure that digital technology can play a greater role in day-to-day life, to the benefit of everyone in society.

Five strategic conclusions were identified. These are listed below in order of priority:

- (i) **Develop a digital dashboard:** There is a need to enable greater personal control over the data which is collected and held by third parties and, in some cases, shared with others. A simple and accessible mechanism is needed to show individuals what data they have shared and with whom, how this is being used, and for what purpose. The concept of a digital dashboard was suggested by some participants. This tool uses a graphical interface to display relevant information and provide individuals with an easy way to understand a summary of the type of personal data which is being held and shared with others, as well as offering the ability to limit or remove such access. Such a mechanism would give people much greater confidence about sharing data and would reduce the fear of data being misused. It would also offer an opportunity to explain the potential benefits of sharing personal data with each third party, with potential consequences highlighted if access is limited (e.g. in such areas as medical research), so individuals can provide a much greater level of informed consent when deciding what is shared.
- (ii) **Create a digital covenant and related kite mark:** As outlined earlier in this report, participants felt there is a need for a new 'compact' or framework, which is able to outline the roles and responsibilities of different actors in the digital ecosystem to uphold the principles of ethical data use. Some participants referred to this as a new 'digital covenant' – a way of outlining the basic principles of data management as well as the different roles and responsibilities that we all have to play in maintaining ethical data usage. Although such a framework would need to evolve in line with technological development and societal learning, it would enable the founding principles of trust to be explained in practical terms to all stakeholders.

Underpinning such a digital covenant could be a set of industry standards and a 'kite mark', which could be used by businesses and organisations to demonstrate adherence to certain basic standards of data collection and management. A kite mark for apps and other products would provide individuals with reassurance that such products and services have been developed in line with such standards. The group stressed that any development work should include consumer input to ensure it is fit for purpose and user tested.

- (iii) **Acknowledge digital inclusivity as a basic utility:** There was general agreement that, as a society, we should consider defining access to high-quality digital infrastructure as a legal right, similar to the current rights that individuals have to access clean drinking water and electricity.

This would mean, for example, that digital accessibility is built in to planning criteria for housing developments. Many participants felt that the current situation, where low-income and rural households still do not have access to high-quality connectivity, was creating significant inequalities in society, and that public services should include access to high-quality digital infrastructure as a key criterion when screening any new policy developments for equality issues.

- (iv) **Build a digital skills infrastructure and curriculum:** Many participants felt that there is a need to build a flexible skills agenda that is capable of supporting individuals through the changes that digital will create across society during the next 10–20 years. While it is difficult to predict what skills will be needed for an individual, a company, a corporation, or even an entire nation over the next 20 years, we know it will be important to focus on knowledge-based, transferable and ‘soft’ skills – such as critical analysis, creativity, inventiveness, empathy and teamwork. At the same time, we need to design a skills infrastructure that is highly flexible. If the UK is to capitalise on the opportunities available from digital, employers need to be fully engaged with such arrangements, so that we can create a digital curriculum which outlines key skills, minimum standards and a route map for delivering the policy changes that are required. We also heard how future skills development strategies should include the use of ‘nanodegrees’, work-based training and education arrangements, as well as new forms of digitally focused continuous professional development.

- (v) **Develop a simple, accessible narrative:** Finally, participants identified a need to engage all elements of society in a debate about the opportunities which digital can provide in day-to-day life, and, through this, to develop a new, accessible narrative for digital living that is able to explain the opportunities that digital offers in a manner that is easy to understand for everyone. It will be important that the words used in such a new narrative are not technology focused but accessible, compelling and easily understood. The narrative needs to set out the potential benefits of digital living, but it also needs to also recognise people’s concerns and explain how these are being addressed through the development of new standards and a kite mark for ethical data management.

In addition to these conclusions, the group worked on a number of practical actions that could be taken forwards in the short term. These included:

- Approaching government ministers and officials to encourage the public conversation about developing a new, more user-controlled approach to data management.

- Exploring the viability and scope of a ‘What Works Centre for Digital Living’, based on the model of the current What Works centres.
- Designing and conducting research and engagement with different age groups to understand the attitudes to the use of personal data and digital technologies in day-to-day life. This could inform understanding on digital skills required and the creation of a new digital curriculum to generate a new, more flexible digital skills infrastructure.
- Engagement with the social housing sector to understand what can be done now, and in future, to ensure that tenants have access to high-quality digital infrastructure, as part of ensuring equality of access to the benefits of digital in day-to-day life.
- Testing the ideas and potential developments (for instance digital dashboard, the digital covenant, or the industry kitemark) by leveraging the networks of the participants and the organisations they represented at this consultation.

## Next steps

This consultation was one of four topics covered in the Corsham Institute 2016 Thought Leadership Programme investigating the opportunities and challenges created by digital technologies in society.

The other topics were:

- Digital health: Digital’s role in health and care
- Cyber and resilience: Digital’s role in regaining resilience
- Trust and ethics: Building a more informed digital society

A key findings report<sup>5</sup> highlighting the overarching themes to emerge from across this year’s programme, as well as the key findings from each of the four consultative events, is now available for download on the Corsham Institute website.

Ci and RAND Europe look forward to building on the findings from the 2016 Thought Leadership programme with a series of further Thought Leadership consultative events to be held during 2017 that will focus on:

- Education
- Open science
- Currency
- Civic engagement

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<sup>5</sup> Corsham Institute and RAND Europe. 2016. Thought Leadership 2016 Programme: Key Findings. RR-1771-CI Santa Monica, Calif.: RAND Corporation.

## Participants

Name	Position	Organisation
Claire Alexander	Chief Operating Officer	Corsham Institute
Kellie Beirne	Director of Innovation and Enterprise	Monmouthshire County Council
Will Brett	Head of Campaigns and Communications	Electoral Reform Society
Janina Cross	Chief Digital Transformation Officer	West of England Academic Health Science Network
Phil Dawson	Chief Executive	Assured Digital Group
Dr Advait Deshpande	Senior Analyst	RAND Europe
Cath Fallon	Head of Economy and Enterprise	Monmouthshire County Council
Prof Doyne Farmer	Head of School	Oxford Martin School for New Economic Thinking
Paul Garvey	Head of Government and National Securities	CISCO
Stuart Giles	Co-Founder	Epic Healthcare Group
Dr Salil Gunashekar	Senior Analyst	RAND Europe
Martin Head	Director, Content and Digital Communities	Corsham TV
Rupert Hine	Co-Founder	OCL
John Houghton	Principal Consultant	Shared Intelligence
Kumar Jacob	Chief executive	Mindwave Ventures Ltd
Remmert Keijzer	Policy and Communications Manager	The Consultation Institute
Richard Male	Director, Research and Innovation	Corsham Institute
Dr Catriona Manville	Senior Analyst	RAND Europe

## Digital living: Getting the most out of digital society

Report of a consultation in partnership with the Corsham Institute Thought Leadership Programme 2016

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Name	Position	Organisation
Gareth Morgan	CEO	GluBall
Stuart Newland	Director of Strategic Game Partnerships	Fenturi
Dr Marcus Alexander Ong	Commercial Director	Smart Societies Institute
Brian Parry	Director, Strategy and Thought Leadership	Corsham Institute
Cathie Reid	Co-Founder	Epic Healthcare Group
Charlene Rohr	Senior Research Leader	RAND Europe
Richard Savage	Partner	FutureWork Forum
Claire Shuter	Essex 2021 Programme Sponsor	Essex County Council
Josh Smith	Associate Researcher	Demos
Phil Smith	Managing Director	Business West
Katherine Stewart	Research Assistant	RAND Europe
Dr James Taplin	Lead Technologist	Innovate UK
David Templeman	Security Director	Smart Societies Institute
Andrew Ward	Director of Corporate Relations	Brunel University
Dr Tom Wormald	Managing Director	Deliberata

## Annex 1: How may digital change our lives?

The initial discussions focused on imagining what impact the rise of digital technology may have on seven elements of day-to-day life the areas of consumerism, travel, workplace, home, crime and safety, social interaction, local communities and democracy.

A summary of the discussion is provided below.

### Consumerism: More tailored and personal offers

Digital offers the opportunity to innovate and develop new products and services intended to make our lives more enjoyable and efficient. It will also enable better tailoring of personalised services and products, and it will provide the opportunity for individuals to become co-producers of content and new ideas.

While this holds great potential for more rapid innovation and personalisation of commercial offerings, there are potential downsides to having digital technology embedded in every aspect of our lives. Individuals may feel “*less in control*” and “*badgered or sold out*” by the constant offering of products and services, targeted by search engine algorithms and often without explicit consent.

There is also a growing concern from consumers that companies are exploiting their personal data to create such personalised offers, without consent having been given, and without any knowledge of when, where and how such data was collected in the first place.

We concluded that if digital is to become a greater part of our day-to-day lives, then consumer trust needs to be maintained. This means that any digital evolution must consider how to protect the individual’s privacy and right to greater control over how – and by whom – their personal data is used. When it comes to the collection and sharing of data, *informed consent* must be a core principle underpinning any future developments if trust is to be maintained and enhanced.

### Travel: Greater choice and efficiency

As outlined earlier, we heard how digital has the potential to offer significant change in terms of travel. Whether in terms of information provision, personal choice or mode of travel (noting that this will eventually include space travel!) there is opportunity for significant change across the travel sector.

Supporting new innovation and transport planning, digital technology offers the ability to collect, aggregate and analyse data on how and when we travel more effectively. This will support more accurate planning as well as more informed decision making. For example, we heard how perhaps the greatest impact will be felt when transport options are combined with data about speed, cost, quality or environmental impact, allowing individuals the opportunity to make more informed choices, based on real-life, real-time data.

At the same time, we heard how technological advances will make travel less necessary, for example, by replacing trips to a GP or a hospital visit with online diagnoses, or how digital communication with work colleagues or friends will mean demand to travel for face-to-face meeting is likely to fall. When this trend is combined with the more radical transport changes outlined earlier, it will mean we are able to travel in driverless cars, or with a driverless taxi service, so that individuals can spend their time in more productive activities than driving.

Such change is not without unintended consequences. We heard how there are likely to be cultural and social issues, with individuals feeling they have less control over their lives. We heard in a previous consultation that over-reliance on technology can also create resilience issues for society; for example, if people are no longer trained to drive a car manually, then we are likely to become too reliant on technology, and what happens when this is not available. Others felt that we should recognise that driving a car has become a powerful expression of freedom and mobility and that people may resist the idea that they have less control of their travel choices. A further unintended consequence might be individuals undertaking less physical exercise (e.g. walking to the railway station), resulting in associated health issues within the population as individuals become less mobile and lead increasingly sedentary lifestyles.

### Evolution in the workplace

Participants felt that advances in digital technology are likely to create significant change in terms of when, where and how people work. Greater flexibility will also be accompanied by more effective communication and management of workloads, with the introduction of new smarter (workflow based) tools and greater emphasis on digital communications.

In theory, such changes should enable individuals to achieve a better work-life balance; however, participants felt that without an accompanying change in corporate culture, there is a risk that such changes might actually deliver the opposite: a burnt-out workforce, for whom 'flexibility' means a sense of being "*always on duty*", expected to respond to emails 24/7, and with no way of disconnecting from their work.

A further strategic issue identified in our discussions was the disruption that digital is likely to create in terms of the type and nature of work which is required in the future. We heard how there will be a shift away from manual jobs with repetitive tasks (as these will be automated and undertaken by robots), towards higher-value-adding, knowledge-based job roles. Such a shift has significant social and equality implications, with less skilled, less educated segments of society at risk of becoming increasingly marginalised.

We concluded, that in policy terms, there is a need to recognise the impact that digital will have on the world of work, and to consider the skills development and career paths that will be required for individuals who may currently operate in less skilled roles, so that they have the ability to access new, more knowledge-based roles in a future, more digitally based economy.



### Smarter homes

For many people, digital technologies should make life easier and more enjoyable within the home. As we saw earlier, smart devices, connected through the IoT, will free up significant amounts of personal time by anticipating our living patterns, making predictive choices on our behalf, and automating basic tasks. For example, the purchase and preparation of food are more likely to become automated in the next few years as IoT becomes a greater feature of the home.

Some have argued that we are already witnessing such changes with the installation of dynamic environment management systems, which allow us to adjust our environment to suit each individual in each room of a home. Such change will continue to occur, and is likely to lead to situations where your home can sense your mood and make adjustments automatically.

We identified that some of the greatest changes within the home will be for individuals who are either elderly, isolated, or living with physical and/or mental health conditions. In such situations the IoT offers the opportunity for more independent and social living, thus helping people to live happier lives and reducing the pressure and cost on public services. Suggested examples of such change include the ability to prompt someone to take medication, the ability to monitor activity in the home, such as food consumption or time spent in the bathroom, and online consultation with local medical professionals. Many of the changes will, however, require changes to the way we share personal data and will require the active consent of individuals being supported; however, the potential social and economic benefits are significant. One potential downside of these changes which was highlighted by some participants is a potential loss of agency or control over one's life, and a sense that one is constantly being watched or trapped into fixed cycles of activity.

The key risk identified in terms of the development of smarter homes was access to personal data and, associated with that, the need to manage both privacy and consent. While allowing access to such data provides significant social and economic opportunities, it also provides third parties with access to much greater knowledge about our personal habits and home occupancy. Participants felt that a balance needs to be found in terms of how consent to share such data can be given (and potentially rescinded) if individuals are to feel more confident about allowing access to such personal data and the associated benefits.

### Tackling crime and promoting safety

Digital has the potential to impact on the way we tackle crime and manage security activities at both a personal and a societal level. As mentioned above, the IoT within the home could promote household safety and security by using data more smartly and by providing crime prevention agencies with an opportunity to monitor homes and public spaces more effectively. For example, sharing sensor information with the police could help to identify when a burglary may be about to take place. Similarly, if someone who should be active at home is not showing signs of movement, this could suggest a problem. The benefits again seem significant; however, a number of participants mentioned concerns about personal privacy and a sense of constantly being 'watched' by a third party, leading to both cultural and social concerns.

Outside of the home, we heard how digital technologies could have significant benefit in terms of the ability to facilitate better sharing of data between police and other agencies tackling criminal behaviour, as well as with citizens themselves in terms of raising awareness about the risks of crime (including online crime) and risks to personal data.

Perhaps the one of the greatest barriers to digital participation raised by participants is in relation to security activities, and the potential misuse or inappropriately access to personal data by governments, crime fighting agencies or even criminals themselves.

This led us to conclude that while there are significant opportunities to enhance crime prevention work using digital technology, there is also a need for stronger trust among citizens that there are safeguards in place to prevent inappropriate access of personal data and to govern the sharing of personal data between public sector bodies and agencies.

### More routes to social interaction

Not surprisingly, participants felt that digital technology has the scope to continue to revolutionise the way we communicate and interact socially.

The growth of social media has made it easier for people to connect with like-minded groups and movements who are physically separated. This is perhaps more the case among younger age groups within the population, for whom *“the definition of digital or tech is not something separate but just life”*, whereas for older age groups there is still a desire to view digital as something separate within their day-to-day lives.

New modes of communication facilitated by digital technology are providing people who have limited mobility, or family in different parts of the world, to see and communicate with their loved ones in real time. At the same time, we heard how this technology is helping to reduce loneliness and isolation by enabling people to stay in touch with others in a simpler and cheaper manner than was previously available.

Growth in social media and the use of digital for social interaction is not without its consequences, however. Some felt that social media has supported growth of the ‘tribe’ phenomenon, meaning the opportunity to be part of a shared experience, which for the most part can be a positive experience. However, this can also have negative implications if used in inappropriate ways. Positive examples of joining such a ‘tribe’ include English footballs fans in places across the world, who may never, or very rarely, get a chance to go to a football match in person, but who can follow a game and take part in the chatter about their favourite football club using social media (for example, by following *#LFCfamily* on Twitter). However, the potential for negative use of social media, including the effective radicalisation of young people, cannot be ignored and needs to be addressed in terms of future policy and use of social media.

Some participants also noted that social media has other uses, including the ability to support personal security and the ability to spread awareness of emergency events, such as natural disasters or terrorist attacks; it is in effect changing the way in which people are accessing and consuming news in general.

While such developments are creating positive benefits, some felt that there needs to be a debate about an individual's right to privacy and the manner in which such services are being provided (i.e. through access to personal geo-location data on individual users).

While the social benefits of digital technology are clear, many felt that using such communications channels is not without risk, and there is a need for a more open debate about the potential downsides. For instance, we heard how there is considerable scope for communicating misleading, or even malicious, information, and that the culture of 'trending topics' promotes the use of sensationalist reporting, which is not regulated by any code of conduct or etiquette.

Interaction through social media is also replacing more traditional face-to-face communication for certain groups and individuals, and thereby changing social culture. Others felt that the desire to participate, coupled with the current lack of accepted codes of behaviour, means that such channels can often be used for bullying, trolling and other anti-social activities. This has become a societal issue which needs to be addressed if we are going to become increasingly reliant on such modes of communication.

### **Strengthening local communities**

Linked to social interaction, we heard how digital has the potential to impact and strengthen local communities in three distinct but connected ways:

- It can help strengthen local communities through online interaction (for example, on a new housing development, where an intranet can encourage neighbourly activity or discussion around local issues and concerns).
- It can encourage greater awareness of local assets and the skills and resources available within a local community (for example, to encourage activities like time banking, where people give time to others based on their skills and in exchange receive support).
- It can encourage greater cohesion and communication between different parts of local society.

The main risk identified within local community interaction is that digital technology allows people to withdraw from direct social interaction and community involvement. By allowing people to feel that they have 'done their bit' by signing an online petition, without getting involved in other forms of civic engagement, there is a risk that community interaction becomes increasingly virtual in nature.

### **Deepening democracy**

Following a similar theme to local communities, it was felt that digital technology offers the opportunity to fundamentally change how we conceive of democracy, offering citizens the opportunity for greater transparency and access to elected representatives, as well as to the democratic processes by which policy is designed and implemented.

Equally, others felt that digital has the ability to support new forms of public consultation and direct democratic engagement, enabling officials and elected representatives to more easily source and test out new ideas and to understand the feasibility and implications of new proposals. As mentioned above under transport, digital can also support better policymaking through access to more accurate and timely data, allowing service needs and requirements to be better anticipated and monitored at a local and national level.

In summary, it was felt that digital offers the potential to create stronger innovation in public policy and services, as well as the ability to better tailor public services to specific groups and individuals within society.

While increasing democratic engagement was generally seen as a positive outcome, a number of risks were identified during our discussions. Some felt there is a danger that, as a society, we become more focused on 'single issue activism, which devalues the need for elected representatives, who are often called to make decisions based on a wider perspective of the issues and a need to balance the requirements of different elements of society. Others felt there is a need to consider how elected representatives will be supported to handle and analyse the potentially high volumes of response that can be received using digital engagement channels and a need to manage the potential risk of frustration among citizens who do not see any immediate change as a result of the feedback they have provided.



# Thought Leadership 2016 programme delivered by:

## **Corsham Institute**

<http://corshaminstitute.org>

Corsham Institute (Ci) is a not-for-profit organisation whose mission is to accelerate an inclusive digital society that is citizen centric and trusted. We do this by creating a physical and intellectual space to convene, connect, educate and innovate across sectors.

Ci was formed in 2013 to explore the opportunities and benefits of digital society, both social and economic, with particular focus on shaping a future where individuals can realise their potential in a highly connected world.

Our four key areas of work are promoting digital skills and education, driving research and thought leadership, powering enterprise and realising digital communities.

Our values are to work openly and collaboratively and to make a sustainable contribution to the economy for both national and commonwealth public good. We do this by imagineering, co-developing and sponsoring services for citizens and government where trust, ethics and informed consent come first.

## **RAND Europe**

<http://www.randeurope.org>

RAND Europe is a not-for-profit organisation, whose mission is to help improve policy and decision-making through research and analysis.

Part of The RAND Corporation, we were founded in 1992 to provide quality impartial research and rigorous fact-based analysis, and to serve the policy needs of EU institutions, governments, charities, foundations, universities and the private sector. Our work lies between that of universities and consultancies, combining academic rigour with a professional, impact-oriented approach. In other words, we operate as a research-focused business, using a professional services model within the context of a public good mission.

We combine deep subject knowledge across many policy areas – including health, science, innovation, defence and security, transport, infrastructure, criminal justice, education, employment and social policy – with proven methodological expertise in evaluation, impact measurement and choice modelling.

## **St George's House**

<http://www.stgeorghouse.org>

St George's House was founded in 1966 by HRH The Duke of Edinburgh and the then Dean of Windsor, Robin Woods, as a place where people of influence and responsibility can gather to grapple with significant issues facing contemporary society.

The House offers a safe physical and intellectual space, rooted in history but focused firmly on the future. The emphasis throughout our carefully-crafted consultations is on dialogue and discussion to encourage creative thinking, informed debate and sustained engagement. This is a place where participants can make a real contribution to society, where personal enrichment and social progress are mutually compatible, and where Wisdom is nurtured.