NCC Digital Strategy and Roadmap

for the 2020s

Norfolk County Council

Version 1.1 15/09/2021: By Geoff Connell & Stephen Boddington

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Executive Summary

This digital strategy and roadmap explains how we are going to build on our past and current success, as the Connected Britain Digital Council of the Year 2020.

Our corporate plan articulates a clear vision for Norfolk, via our priorities

- Focusing on **inclusive** growth and **improved social mobility**
- Encouraging **housing, infrastructure, jobs and business** growth across the County
- Developing our **workforce** to meet the needs of the sectors powering our local economy
- Work to **reduce our impact** on the **environment**
- This way we can help Norfolk have a **growing economy**, full of **thriving people** living in **strong communities** we are proud of

Our digital strategy and road map for the 2020s supports that corporate vision.

That support is not about technological change for the sake of change but is fundamentally driven by our ambition for our County to be a place where we put people first, a place of opportunity where we can fulfil our potential and live productive, healthy and independent lives, a place for economic growth and regeneration whilst protecting our environment and a place where we can access the education, skills and employment that we seek.

If we successfully deliver this strategy, during the 2020s then we will have achieved:

- A fundamentally better resident experience whenever and however they interact with us irrespective of what service they need
- A better understanding of our residents, their needs and future demand through a modern approach to data and insights that focuses on collaborative sharing of data with partners to continuously improve services and make better decisions
- Significant contributions to achieving carbon neutrality by 2030 through the sustainability opportunities offered by new technology

Executive Summary

- **A more cohesive and collaborative council**, that builds partner networks, innovates through co-production with residents and becomes more transparent with its data and decision making
- **A more sustainable financial model**, where we can improve service delivery while maintaining or reducing costs
- **A positive impact on our climate commitments to be carbon neutral by 2030**, through a radical reduction in the use of paper, a move to digital record storage solutions, reduced postage, increased use of virtual communication systems and more intelligent travel choices that reduce carbon emissions.
- **Residents and businesses with access to the internet and sufficient digital skills** to achieve the financial, educational, social and health benefits that come with digital inclusion
- **Elected members who have the technology and digital skills to support their whole community** and have access to the most accurate, update data available to support key decision making and organisational scrutiny
- And **happier, more efficient staff** who have the technology and skills they need to do their jobs.
- And staff who will have had some of their time consuming, repetitive tasks automated to allow them to use their expertise to **focus on adding value to the work we do with Norfolk residents**.

The actions which this strategy outlines in more details were developed in collaboration with departments, our partners, key external digital suppliers and internationally recognized technology consultant specialists.

Specific case studies detail current, new activities that will establish how we work in the short to medium term.

Over the next year, the next set of key activities are being road mapped which will take us to the middle of the decade. We also discuss a formalized process of horizon scanning to spot potential new technological opportunities and determine when best to or if we should exploit them for the benefit of the organisation and the wider County.

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Current activities, priorities and strategic context

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Our Strategic Framework

Our Vision
is that technology should provide the platform to enable positive change

Our services are under pressure. So, we need to look at ways to:

- Manage demand
- Reshape what we offer
- Secure investment

Digital technology offers significant opportunities to transform and innovate the way that we work and how we work with partners and the people of Norfolk

Our work is guided by four core principles

Offering our help early to **prevent and reduce** demand for specialist services

Being **business-like** and making the best use of **digital technology** to ensure value for money

Joining up our work so that similar activities and services are easily accessible, **done once and done well**

Using evidence and data to **target our work** where it can make the most difference

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How we are organised to deliver

A key element of Norfolk's Digital Success is the configuration and relationships between delivery groups. The NCC corporate technology service (IMT) exists to manage core infrastructure, platforms and enable services and projects to deliver.

- NCC Corporate IMT inc. Fire & Rescue
  - Approx. 200 staff (perm & project)
  - Infrastructure
  - Application Support & Development
  - Projects & Change
  - Data Services
  - ICT Solutions (Schools & Education)

- Business Transformation
  - Smarter Working
  - Oracle (ERP) Replacement
- ASTEC (Adults digital transformation programme)
- Childrens Transformation Programme
- Norfolk Office of Data Analytics (NODA)
- Highways & other services with digital exploitation project teams that build on the core infrastructure, platforms & capabilities.
- Major application support teams, Social Care, Finance etc, Intelligence & Analytics, Information Governance.

Partnership Working Arrangements

- Norfolk & Waveney STP Digital Team
- Norfolk LA IT Managers Group
- Norfolk Office of Data Analytics (NODA)
- New Anglia LEP
- Socitm (National & Regional)
- Cyber Security Groups – C-TAG & EEWARP
- DCMS – BDUK Team
- LGA Digital Groups
- MHCLG Digital
- Crown Commercial Services

- **Supplier Partnerships such as:**
  - Microsoft & Bytes
  - Gartner, Capita, Oracle, Sitecore,
  - Liquid Logic, RNS, Hitachi & More.

Where we currently are

The previous digital strategy has already achieved significant progress across a range of priorities.
Highlights include:

- Over 95% of Norfolk properties now have access to superfast broadband connections (>24mbps) rising to 97% by September 2022
- “Full Fibre” connections and upgrades to over 400 public sector sites including offices and schools by July 2021
- Significant improvements in mobile coverage with more to do and 5G in Norwich
- The largest free to use public sector LoRaWAN deployment in the UK

- Norfolk and Suffolk Innovation Network
- All 6,500+ staff able to work remotely and fast rollout and adoption of digital skills for remote working for over 1,500 Adults and Children’s social workers.
- Agile development of Covid-19 systems allowed NCC to continue supporting some of our most vulnerable residents
- Digitisation of paper files at Scottow
- Better use of Data via Norfolk Office of Data Analytics, cloud-based data lakes, combined health & care data and analytics

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2021/ 2022 Priorities

Corporate initiatives

Progress Smarter Working & Digital Norfolk workstream

- Smarter Working enabled by technology, property & HR developments
  - Mobile & Flexible working, Wi-Fi, New Intranet, online self-service, process redesign
- Paperchase (Digital Print, Post, Scan and Storage)
- Counter Fraud Hub (in partnership with district, borough & city councils)
- Robotic Process Automation
- Data Enabled Efficiencies

New Finance & HR Systems Replacement

Digital skills development for officers & members, citizens and businesses

Key Departmental Initiatives

- ASTEC (Adults Digital Programme)
- Childrens Digital Transformation Programme
- Highways – Street Lighting, IoT Projects, electric vehicles
- Fire & Rescue Digital Programme (delivered through a new joint IMT service)

Partnership Working Initiatives

- Integration with NHS Partners, web and data projects with Districts and Norfolk Constabulary

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Current strategic context

On 7 May 2019, Full Council formally adopted Norfolk County Council's plan, ***Together, for Norfolk***, as part of its policy framework. The new whole-Council plan brings together the vision in ***Caring for our County*** and the Council values and principles and provides a clear view of the priorities and significant activity that the Council needs to deliver alone or with partners up to 2025.

Together, for Norfolk focuses on partnership working and collaboration, and aims to drive economic growth, improve social mobility, and lead to a better quality of life and outcomes for the people of Norfolk. The plan emerged directly from the needs assessment carried out as part of the County's deep analysis of social mobility, following the publication of the report by the Social Mobility Commission in 2018. The plan's outcomes framework has three overriding ambitions which drive the Council's priorities: A growing economy, thriving people, and strong communities. Our Plan also underpins and contributes to the delivery of the New Anglia Local Enterprise Partnership Norfolk and Suffolk Economic Strategy.

Our Caring for our County vision commits NCC to play a leading role in -

Building **communities** we can be proud of

Installing **infrastructure** first

Building **new homes** to help young people get on the housing ladder

Developing the **skills of our people** through training and apprenticeships

Nurturing our growing **digital** economy

Making the most of our **heritage, culture and environment**

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What our departments said about where they want to get to in the next 5 years

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Adults Engagement Feedback

Data:

- Wider system data integration inc. System 1 & Liquid Logic
- AI/ Machine Learning
- Multiple internal systems and sources of data
- Better, more accurate data inputting with common universal indicators

Business Practices:

- Smarter working
- Accurate, real-time management information inc. commissioned services
- Effective contract management
- Wherever possible simplify processes to aid self serve

Key Service Issues:

- 2025 switch off of analogue phones - covers care lines etc how are we going to manage this and impact on providers etc
- Interfaces that support people and reduce inequalities of access

Digital Skills:

- Citizens to help themselves – build capacity for independence
- Provider technology improved skills and connectivity
- Voice Bots to support citizen self-serve

Partner Networks:

- Integrating digital across the wider network of organisations operating within the care system
- Improving data flow between organisations

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Childrens Engagement Feedback

Data:
- Different organisations data changes are live to all organisations
- Multiple education databases need to join better
- Data ownership – children and families decide how to share their data

Business Practices:
- A skills App suite to support staff
- Smarter working inc. RPA
- Removal of internal barriers dept/ org
- Voice to Text data entry into Liquid Logic

Key Service Issues:
- The family and/ or child has a virtual community around them, and all orgs data and tech are compatible
- Tech enable community connections

Digital Skills:
- Evidence becomes the default for decision-making
- Improving tech skills and teaching in schools
- Intuitive design of digital interactions inc. SEND offer and support self-serve
- Digital safe spaces

Partner Networks:
- Create permeable boundaries between organisations so appear to operate as one
- Collaboration that is not always in real-time to allow flexibility
- Build on Vulnerability Hub

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CES Engagement Feedback

Data:

- Smart cities initiatives – sensors, real time data and analysis
- Consumer behavior and predictability
- Better systems to store & manage information – early priority

Business Practices:

- NCC policies to reflect new and emerging social media platforms
- Cyber security
- Greater automation

Key Service Issues:

- Driverless Cars
- EV charging infrastructure
- Drones
- Emergency Service Network rollout
- Getting the balance between place and service right as we become more digital

Digital Skills:

- Use of different social media channels for harder to reach communities
- Accessibility and equality issues

Partner Networks:

- Removing barriers to data sharing – increased interoperability
- New versions of business support, not just Scottow & Hethel but access tech they need

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CES Engagement Feedback

Data:
- Integration of data to enable risk stratification and integrated partnership approaches
- Digital preservation of key County records (NRO)
- As a basic principle all information goes into the public domain – a culture of openness by default

Business Practices:
- One core digital system for all staff means turning off legacy systems and releasing resource & funding
- Too many ways to contact me – simplify channels, consistency of approach and ease of trieval

Key Service Issues:
- The future of public transport – automated vehicles and rural issues
- Technology, communication & planning schemes

Digital Skills:
- Exploitation of mobile technology
- Better use of digital channels for museums
- Ease of use for citizens & staff – less reliance on skills

Partner Networks:
- Simple, easy partnership working via technology
- Planning development management systems

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F&CS Engagement Feedback

Data:
- AI & Big Data lead to a process of continuous audit
- Information Management Governance

Business Practices:
- Seamless interface for public, suppliers & partners
- Deliver new tech systems

Key Service Issues:
- Digital signatures and paperless contracts
- Keeping creativity in video interactions

Digital Skills:
- Building Robotic Process Automation tools
- Dashboards inc. sentiment analysis

Partner Networks:
- Build on success of Fraud Hubs with Districts
- Improve MS Teams interfaces with Districts i.e. passing of calls between call centres

S&G Engagement Feedback

Data:
- Sentiment analysis of social media
- Self-service and automation for routine data tasks
- Data security
- User research leads to priorities, plans and delivery

Business Practices:
- Automated social media monitoring and other key support tasks
- Paper free systems
- Clearly defined career pathways

Key Service Issues:
- Right permissions & infrastructure to access, store & use data
- Transformation across systems not via silos

Digital Skills:
- Staff skills reflect new tech approaches re comms
- Highly skilled data analytics workforce
- System wide support for those unable to access digital service provision

Partner Networks:
- Digital engagement with citizens
- NODA
- Courts accepting electronic filing and bundling

What comes next?

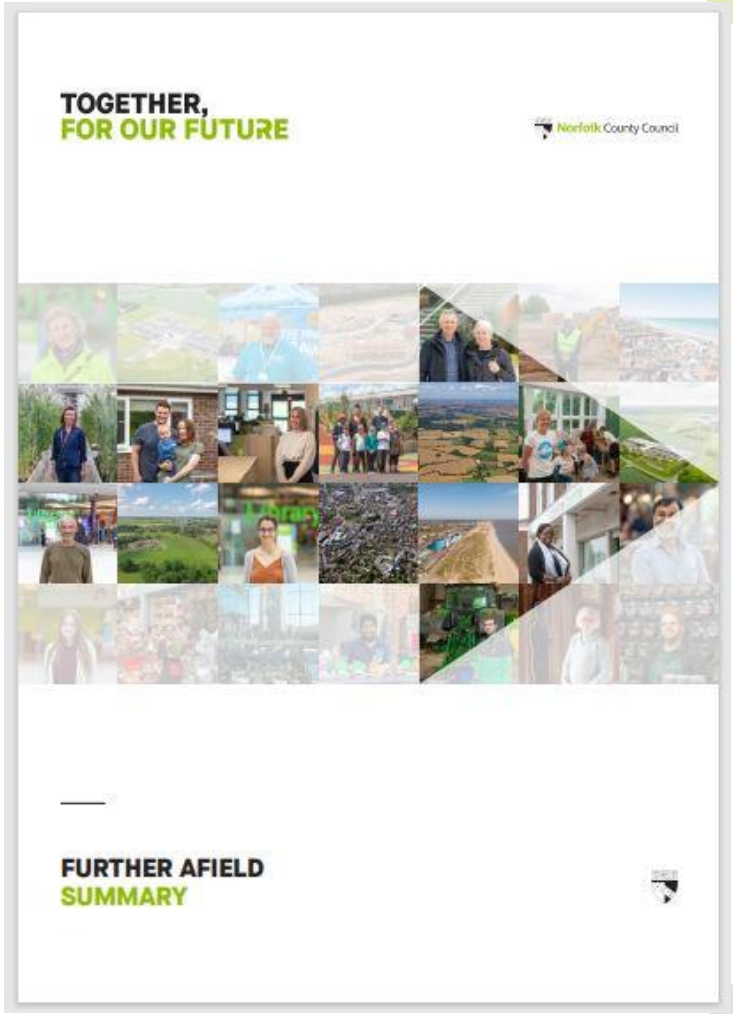
The emerging future of technology

Future of technology

Norfolk is changing in rapid and profound ways. The County stands on an economic future dominated by new technologies and exciting new industries. We will be working in new ways and will need to develop different skills, many of us will be working into older age and we want to find new ways to live healthily and happily for longer than previous generations.

Norfolk in the future will alter the demand and type of services provided by Norfolk County Council, as well as how these will be delivered. It is therefore vital for us to understand these changes so that we can ensure the Council is fit for purpose in the future.

The “Together for our Future” report did this for Norfolk, at a macro level, and this section of the Digital Strategy & Road Map intends to focus in the potential futures of technology, with a specific emphasis on local government. This section draws on work by specialist consultancies such as Gartner and Deloittes as well as work by various think tanks and central government to detail potential technological change and impacts.



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Five key themes for technological change in government

Services	Future technologies may offer substantial improvements to how existing services are operated and delivered. Some existing services have already incorporated elements of future technology on a trial basis – for example, the use of advanced types of computer-based learning to predict the weather. They may also make entirely new types of service possible.
Processes	Within government, future technology has the potential to transform entire processes – such as welfare benefits payments or construction planning – in ways that significantly improve productivity and efficiency. This will include changes to the government workforce, which will see some tasks taken out of human hands, and the creation of other new tasks that require specific human action or oversight.
Regulations	As new technologies emerge and mature, they will create new regulatory needs and may also offer novel ways to regulate activities in a faster, more reactive, and more precise way. For example, algorithms using real-time traffic data could make on-the-go adjustments to speed limits to improve the flow of vehicles in towns and cities.
Policies	The unprecedented ability of future technologies to assemble, interrogate and interpret large amounts of data will transform how policies are made and implemented. This may make it possible to target policies with increasing precision, or to design policies which adapt smartly to changing circumstances.
Technology	The adoption of technologies by government, and its own internal process of innovation, may give rise to new forms of technology that have applications and benefits for government, the wider public sector and the private sector.

These themes will be shaped and formed by the way that technologies evolve in relation to other technologies, by key socio economic drivers of change and to the development of complementary social and institutional innovations to realise the potential of these new technologies.

Why the wider picture matters

The complex interplay of social, economic, legislative, and environmental forces that shape technological change matter for two key reasons:

1. It means that as you place your view further away from now and scan the horizon the view becomes more uncertain. In the short-term we can offer projections and forecasts that are reasonably accurate but as you look in to the medium to long term then we need to be able to accept and manage uncertainty.

2. It matters because some of the potential productivity, efficiency and service advances of the near future will depend on this complex interplay as well as equivalent complementary elements including social innovation, practices and behaviours coming together to allow NCC to realise the potential benefits envisaged in the development of that technology

Lets consider two technologies that could alter how NCC delivers services:

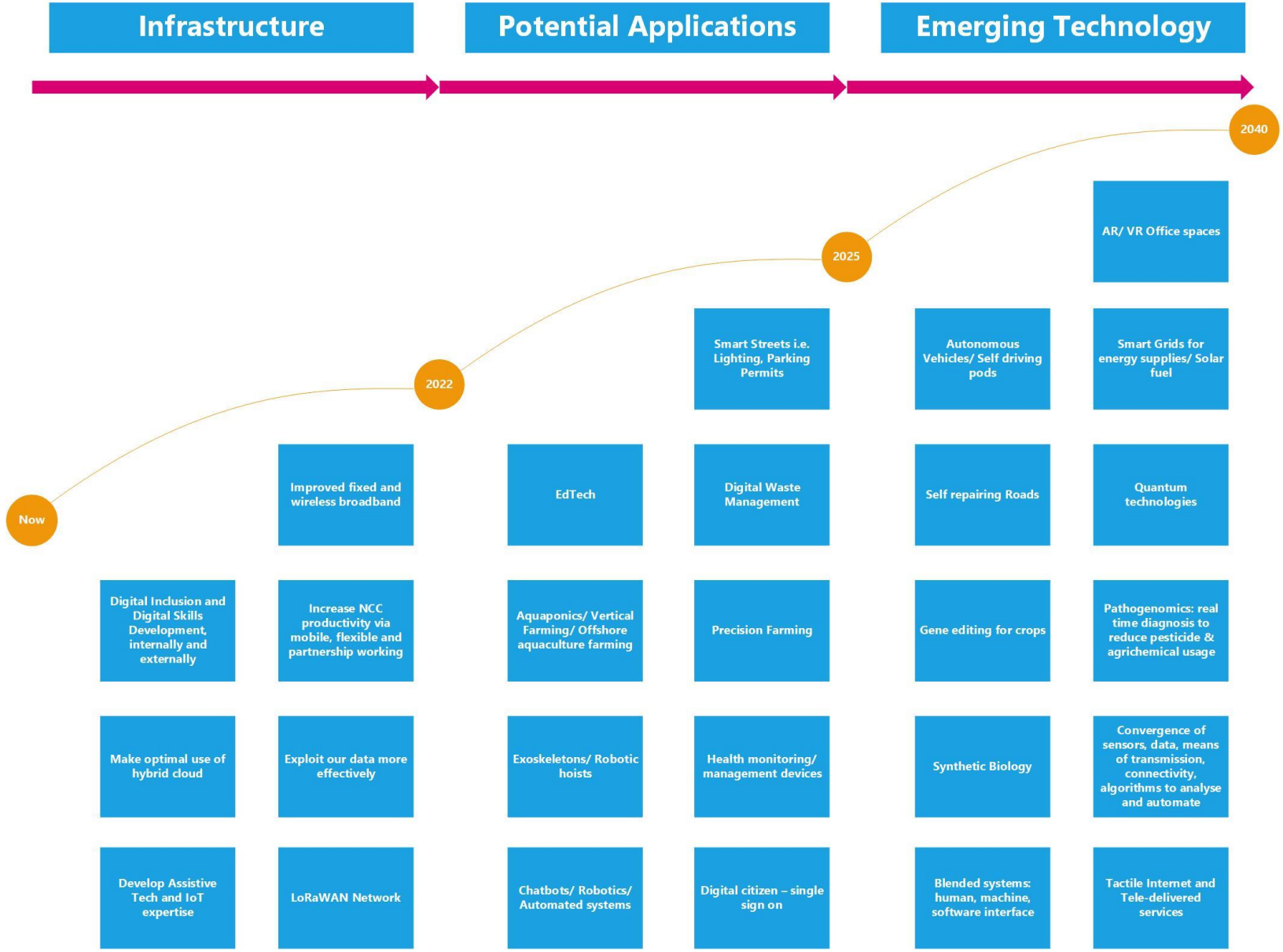
Driverless cars don't just need cameras, operating systems and machine learning that can cope with everyday challenges like rain and snow. They also need new rules on liability; charging patterns (both energy and financial) and business models; rules on how they move between areas they know well and areas they don't; and a thousand and one other details.

The use of AI and machine learning in health and social care not only depends on progressing the technology but also on new rules, and probably on institutions for data (Who owns it? What are the penalties for abuse? What transparency is there for algorithms?). It will mean new habits for doctors, nurses and patients; new processes for linking narrowly defined health data to related data sets ranging from genomics to finance; and new rights for the beneficiaries.

Key Infrastructure to support change

The Key Infrastructure Drivers	
Norfolk Economic Infrastructure	**NCC Digital Infrastructure**
• **Full Voice and Data Coverage (i.e. 2G, 3G, 4G & 5G)**	• Local Area Network – Software-defined networking (SDN) for estate, Inc. Wi-Fi.
• **Broadband- Local Full Fibre Network**	• Wide Area Network (NCC & Schools)
• **Wi-Fi**	• CRM, Web & Portals
• **Assistive Technology**	• Public & Private Cloud
• **LoRaWAN & IoT Networks**	• Devices: Laptops, Tablets & Phones
• **Power infrastructure – electricity charging points**	• Internal software systems i.e. Social Care, HR/Finance, Sitecore, Tribal, Highways Maintenance etc
• **Small cell technology – via lamp-posts to boost rural wireless and urban 3G/4G/5G coverage**	• Robotic Process Automation

A timeline of emerging technologies



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What comes next?

Has the pandemic changed anything?

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Technology Recovery Themes

01 **Digital Infrastructure** – Broadband, Satellite Broadband, 5G, LoRaWAN (IoT), Wi-Fi, Li-Fi etc - this is the key underpinning for almost all the other tech enablers. Without a stable, robust, effective and fast digital infrastructure then how will we exploit other tech? Risks – Digital divide, access, digital skills and rural/ urban connectivity

02 **Data** – Interoperability across systems that bring public value. Data also underpins AI/ Machine Learning etc. Issues – data wrangling, level of computing power needed and only pattern recognition tools and not 'cognitive'. How to get data into a usable shape for other opportunities – data lakes and RPA. Risks – governance, privacy, legislation, time and practicality of getting it all to work.

03 **How we work and learn?** – where possible via remote working - digital provision of services – hybrid physical and virtual – role for RPA, Digital Signatures, Video Consultation/ Collaboration. Next gen remote working inc augmented/ enhanced/ virtual reality (vulnerable children), VR meetings, personal AI virtual assistants and chatbots. Risks of 1 and 2 not happening quick enough and slip back into old ways of working

04 **Mobility** – Electric micro mobility solutions – eBikes - £2bn cycle & walking plan – eScooters UK trials ongoing – other electric vehicles dependent on wider infrastructure, better battery cell tech and hydrogen storage to reduce weight. Risk – public transport and lack of policy, social and cultural innovation to support change

05 **Norfolk economy, society….** – AgriTech, vertical/ urban farms, clean energy, supply chain security, energy storage, robotics, drones, renting tech (Cloud space, RPA etc), circular economy, 3D printing, the end of cash, virtual culture, cyber security, waste reduction

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What are our partners doing ?

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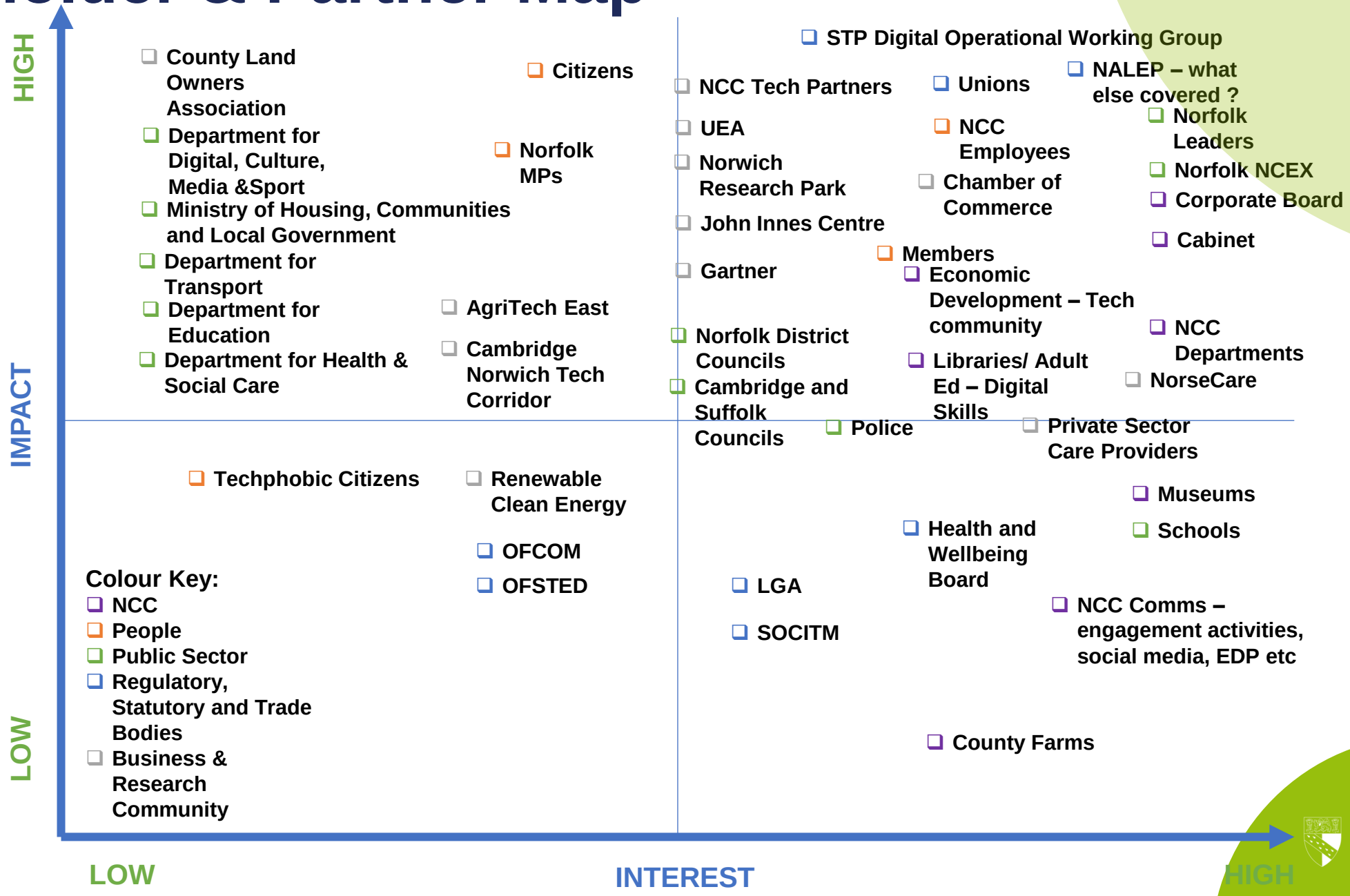
Stakeholder & Partner Map



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Key partners direction of travel

The NHS:

Prior to the Covid-19 pandemic the NHS had several key strategic documents which documented their planned technological development. The national focus is via the National NHS Long Term Plan and the local focus is provided by the Norfolk and Waveney STP Digital Strategy 2019-2024.

The local strategic directions are all driven by digital transformation, which is drawn from the Long-Term Plans emphasis on the central role that technology will play in transforming the NHS, as a supporter or enabler of success.

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The effect of the pandemic on NHS technological change

The STP strategy was originally developed to cover the period until 2024. However, the Covid-19 pandemic has accelerate technological change within the NHS and includes recent developments such as:

- Rolling out NHSmail to all Care Homes in Norfolk
- Contact tracing apps being developed with Apple and Google
- NHSX and tech firms increasing the use of video calls in Care Homes
- Corona-AI project between Vodafone and Imperial College London to use smartphones to treat Covid-19
- Massive change in patient and GP behaviour, using telephones and video doctor apps to do consultations
- NHS and Big Tech working together via health technology
- Developing key data platforms and NHS data centres to support Covid-19 response
- Virtual smartcards to give NHS staff faster access to hospital systems
- Data science taskforce to support NHS with rapid research
- NHS staff supported by mental health apps
- Rapid development and prototyping of ventilators
- Electronic record keeping as standard in NHS Nightingale hospitals
- 3D printing used to supply face masks
- Demand for NHS tech services increases significantly

This rapid upswing in the use of technology, data and innovation in the NHS could be the catalyst for a system wide acceleration in technological change post pandemic and NCC needs to be ready to engage with this work so as to achieve the outcome benefits related to ICS and Interoperability and not to be a blocker to significant transformational change in the wider health and social care system.

Other key partners direction of travel

Other key partner organisations include Norfolk District Council's and the Police. The potential scope for integrated technological solutions is less pronounced with these key partners than with the NHS. However, the potential does exist for instance by using Microsoft Teams as a standard tool and within key areas of shared responsibility such as the planning process where we are a key statutory consultee for the District Councils.

- Plantech offers the potential for new ways of combining and communicating place data and new forms of collaborative engagement on planning proposals.
- Augmented and virtual reality offer the potential for immersive visualisations and modelling tools for assessing impact that build on the current use of Google Street View.
- Post the Covid-19 pandemic there could be a wholesale reimagining of the planning process

Potential areas where we might benefit by joining up

- Data – "golden record" & master data sets (people, properties businesses)
- Data warehousing (GRID), Analytics, intelligence and visualization (Power BI, GIS etc)
- Server & Data Centre capacity, current assets and those in development could be shared to reduce combined overheads and improve resilience. "Hybrid Cloud" (good on-premise capability and commodity cloud) gives best VFM, security, performance
- Health & Care, Housing & Assistive Technology – we are working across the STP on networks, data & systems integration. What data integration would be mutually beneficial – related to Housing & Assistive Technology?
- Online transactions – and better linkage between county and districts to route transactions, perhaps via a Norfolk Mobile App (like Love Lewisham/ Newham etc)
- Because residents and visitors don't always know who does what in 2 tier.

Technology is just one part of the change process

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The acceptance and use of technology in organisations

Local government organisations operate within a complex environment of multiple lines of service with different characteristics, needs and outcomes, as well as staffing, governance and funding structures. Organisations which operate within this type of complex setting need to move beyond the notion that the adoption of new technology is a simple technology-driven change but rather a complex, iterative process of organisational change that interacts with wider societal changes.

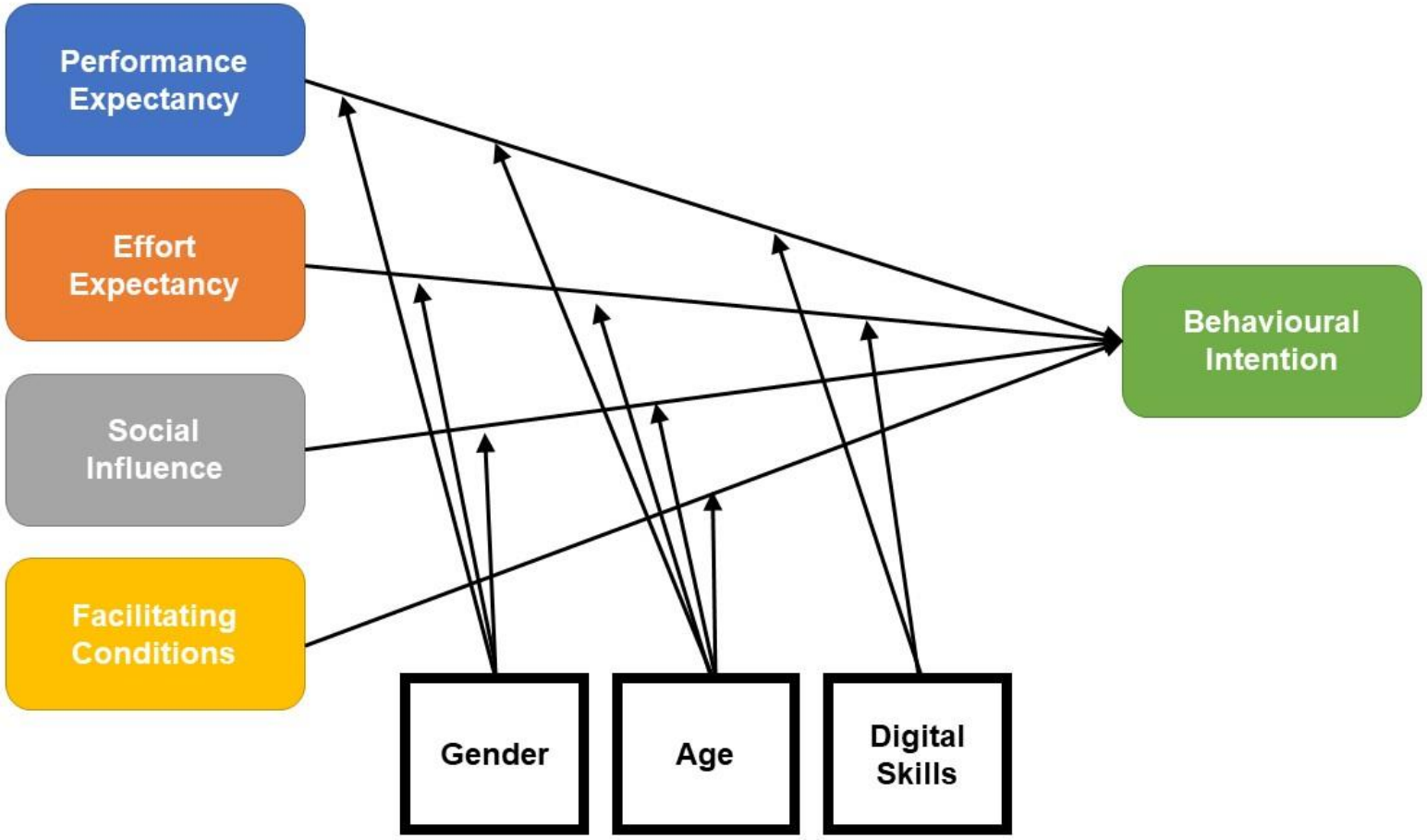
Many organisations have failed to reap the benefits of new technology due to the problem of underutilisation.

The successful implementation of technology not only depends on the commissioning of this technology it is also dependant on the need to be accepted and used by our employees, partners and citizens.

Therefore, as an organisation, how do we maximise the opportunities that are available to us via the implementation and acceptance of technology enablers?

One way to realise benefits from technology is to consider the implementation of technology through a theory of acceptance and use of technology framework. The framework on the next slide was adapted from a number of prominent models with roots in information systems, psychology, sociology and innovation theories and has been utilised in numerous research pieces to better understand and formulate technological change within organisations.

A framework for considering the acceptance and use of technology



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A framework for considering the acceptance and use of technology

Behavioural Intention

Our behavioral intent is to increase the use of digital technology in the way that we deliver services, in the way that we work and in the way that citizens engage with us.
How we achieve this is influenced by four key factors

Performance Expectancy

is related to the user's expectation that using the technology will result in an improvement in their performance. If a user understands or believes that a new piece of technology will improve their working experience then they are more likely to adopt and adapt working practices and are therefore more likely to engage with and see benefits from new technology. This intention to use technology is moderated by the gender, age and digital skills of the individual.

Effort Expectancy

is related to perceptions of ease of use. Evidence shows that the more comfortable and confident a users is with IT the more they use the IT and the more benefit they get. Age, gender and perceived digital skills impact heavily on this influencer.

Social Influence

Is related to the perception that others believe it is important for the system to be used. This influence can also contribute to perceptions of the quality of the IT. Age and gender are key influencers esp. older workers who place more import on social influence

Facilitating Conditions

Is related to infrastructure and organisational support systems and the working environment.

A framework for considering the acceptance and use of technology

The successful use of digital technology depends not only on the commissioning of technology itself, but the fact that it must be accepted and used by employees in order to improve performance.

Multiple public and private organisations have attempted to take advantage of the advances in hardware and software capabilities by investing in digital technology. Many however, have failed to reap the benefits of these systems due to problems of underutilization.

To succeed in our ambitions to use the significant opportunities of digital technology to transform and innovate the way that we work and how we work with partners and the people of Norfolk, then we need to consider how we also change the way the organisation, partners and citizens accept the use of technology.

Without this wider change it is unlikely that we will achieve the vision that we have set ourselves.

An independent assessment of the digital maturity of the organisation, conducted by SOCITM, has shown that we are already well placed to drive forward technological change

This assessment is confirmed by our recent success in being named ‘Digital Council of the Year 2020’ at the Connected Britain awards

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Building on our successes – key priorities going forward

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Our key priorities moving forward

Our work engaging with departments tells us that our focus should be on:

- **Improving business practices:** with a key focus on continuing to drive forward the smarter working agenda and developing accurate, real-time operational management information. The new HR and Finance system will be a key element of this, along with RPA, Power Apps and the wider Apps strategy
- **Data:** making sure that we get the best out of the data we own and make sure it integrates effectively with the wider system. Building on the success of the Vulnerability Hub, the Local Outbreak Management System and the Norfolk Office of Data Analytics
- **Digital skills**: the technology framework indicates how key this is to success and so the continued skills development of officer, members, citizens and business will remain a key focus. We will build on the success of our Teams rollout and bespoke training for social workers. The technology acceptance framework identifies this as a key activity to achieve success
- **Partner Networks:** will remain integral to our plans moving forward across all departments. Working in partnership to improve data flows and technological interoperability will support further integration with NHS partners, District Councils and Norfolk Constabulary. We can use our key convening powers to build system and network capabilities in Norfolk
- **Key service issues:** will remain at the forefront of our activities, making sure that the right skills and infrastructure are in place and that the right technological solutions are identified to support key service requirements. Already identified issues are:
  - the 2025 switch off of analogue phones
  - the need for a new pension administration and pension payroll system

Our key priorities moving forward

Our framework for the acceptance and use of technology identifies several key priorities that will underpin any successful strategy implementation:

- **Reducing digital exclusion** to improve skills and opportunities and to increase the uptake of digitally provided services (see next slide for details).
- **Improving digital skills** to build confidence and acceptance of technological change. This is a driver for success and covers staff, members, citizens and businesses. It is also linked to reducing digital exclusion

A key action to achieve the above is developing our partnership with Microsoft to drawn as much resource as possible from their Get On 2021 programme to Norfolk (see the Digital Skills Learning Pathway slide below for full details of opportunities)

- **Horizon scanning** to identify new technology and fully understand potential opportunities to give realistic assessments of the benefits and use for NCC

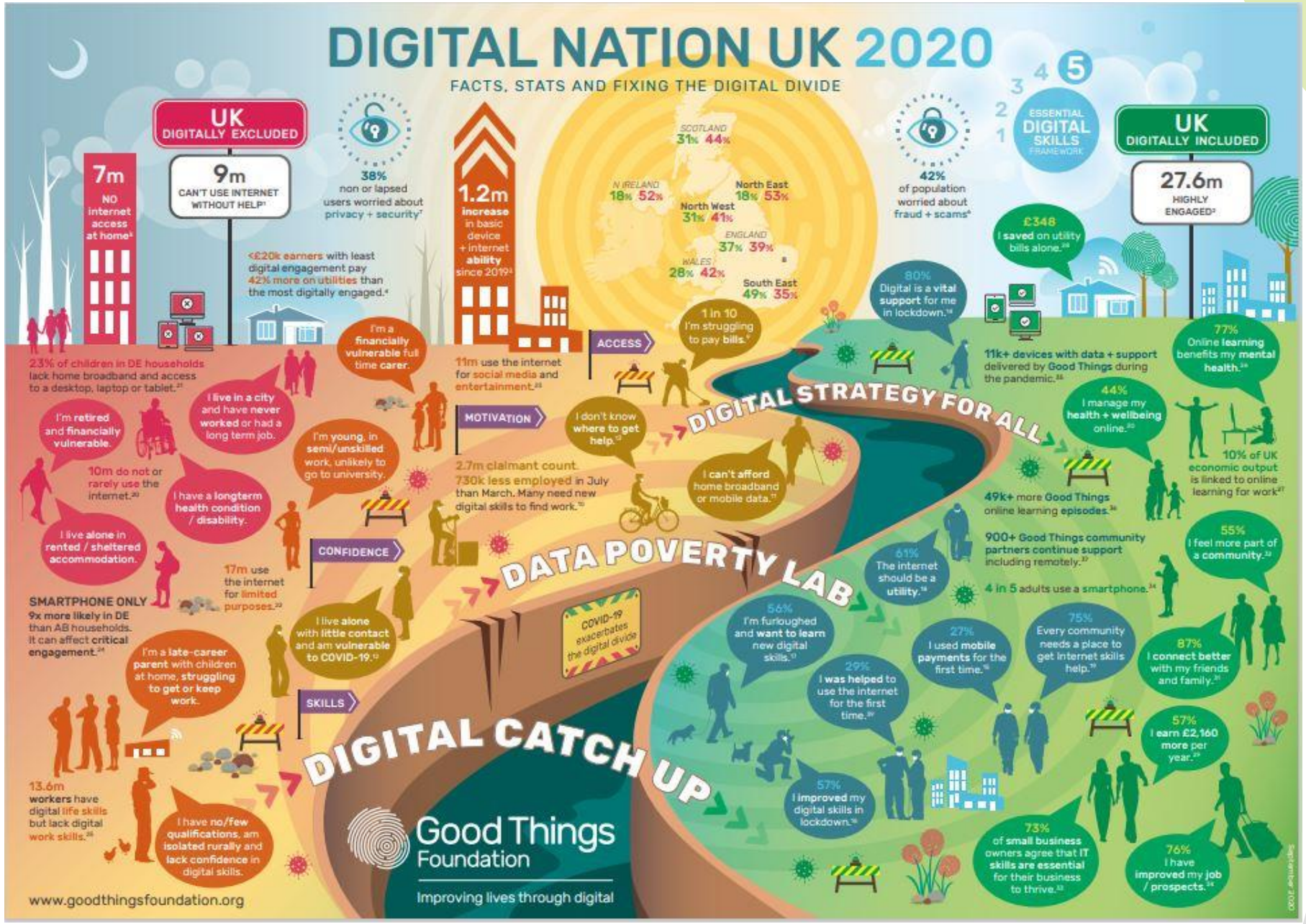
A key action will be to continue a rolling analysis of emerging technology via active engagement with technology consultants like Gartner, Microsoft and GO Sciences Emerging Technology Group to identify potential new opportunities at the earliest point and to assess when NCC should engage more actively with these technologies.

- **Staff and citizen engagement** to build a positive story around technology enabled change and to gain the most from social influence, the benefits of technology to enable good outcomes and to enthuse digital skills development

Key actions will be driven by elected member and the executive leadership leading by example and embracing new technological solutions and smarter working practices. We will also look to develop an internal tech champion network building on the success of Adults ASTEC group, Children's Tech group and CES digital evangelists.

- **Digital infrastructure** to support organisational change and the wider economy of Norfolk and the skills to exploit it – working with care providers to get the broadband and Wi-Fi strengths they need

Digital Inclusion



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Digital Inclusion:

This digital strategy and roadmap supports the organisations aim that every Norfolk resident should have the ability to take full advantage of the opportunities and benefits of accessing online services and harnessing internet technology. Key to this is the continued focus on improving digital infrastructure and skills.

Digital Assistants and Safe Havens

Are one of the ways that digital exclusion can be reduced by providing a network of locations that provide digital access, support and a safe environment to access services electronically.

This work will focus on developing the Assisted Digital offer in libraries to provide a private space for those without access to digital technology to access video call technology

Digital Engagement and Transparency

New technology offers an opportunity to engage with Norfolk residents in new and more inclusive ways.
To offer a voice to a wider representation of our citizenship and develop better services that are more responsive to need.
To be a more transparent and open organisation that supports co-production, collaboration and democratic accountability. To be an organisation that supports a culture of openness by default

Digital Skills Learning Pathway

Digital Literacy

Learn how to effectively use devices, software, and the internet to collaborate with others and discover, use, and create information. Click HERE to visit the site.

- Work with Computers
- Access Information Online
- Communicate Online
- Participate Safely and Responsibly Online
- Create Digital Content
- Collaborate and Manage Content Digitally

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- Manage email
- Create and send email
- Calendar
- Organise your inbox

Word
- Quick Start
- Welcome to Word
- Format Text
- Write & Edit
- Layout Pages
- Save & Print

Excel
- Quick Start
- Print & Share
- Enter & Format Data
- Import & Analyse Data
- Troubleshooting
- Formulas & Functions

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Cyber security

Norfolk County Council

Cyber Security

- The move to more digital provision of services and flexible ways of working are a cornerstone of the coming digital strategy and roadmap.
- The cyber threat to data and the services that we provide is real
- NCC is committed to having the appropriate cyber security measures in place to retain the trust of Norfolk citizens in our ability to provide robust and safe online public services. And in our ability to safeguard the data we hold on Norfolk and its citizens
- The digital strategy and roadmap supports this commitment by making sure that all new digital services have security built in by design and by moving to new digital systems and approaches we mitigate against the risks posed by unsupported old networks and legacy systems
- Cyber partnership working is important for both operational and reputational reasons. NCC will seek to help its partners to improve their cyber capabilities, for example provision of offline backups to counter ransomware attacks

Developing technology specific road maps till 2025

The following slides show high level summary information and some example details. The full deck of Tech Roadmap slides will be published & maintained at www.norfolk.gov.uk/digital

Norfolk County Council

Developing technology specific Road Maps

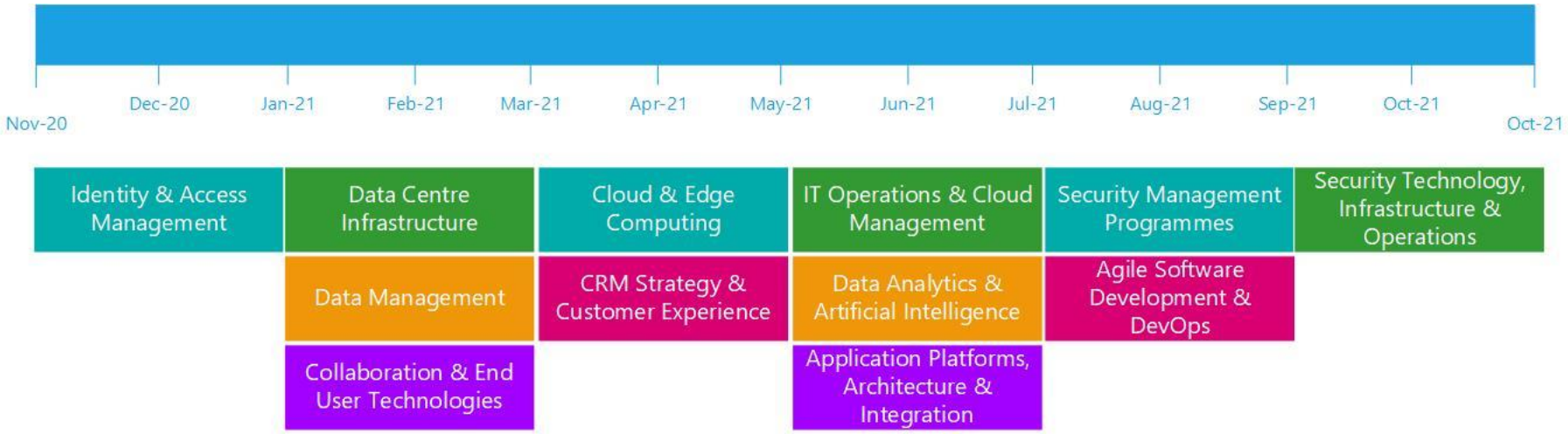
IMT has commissioned Gartner, an internationally renowned research and advisory firm to support the development of detailed roadmaps in **12 key technological areas** that are split into **4 key themes of Infrastructure & Operations, Cyber Security, Applications and Data & Analytics**

- Identity & Access Management
- Data Centre Infrastructure
- Data Management
- Collaboration & End User Technologies
- Cloud & Edge Computing
- CRM Strategy & Customer Experience
- IT Operations & Cloud Management
- Data Analytics & Artificial Intelligence
- Applications Platforms, Architecture & Integration
- Security Management Programmes
- Agile Software Development & DevOps
- Security Technology, Infrastructure & Operations

The timeline for developing these Road Maps is on the next slide

Developing technology specific road maps

This timeline shows the planned work cycle for developing these key strategic documents



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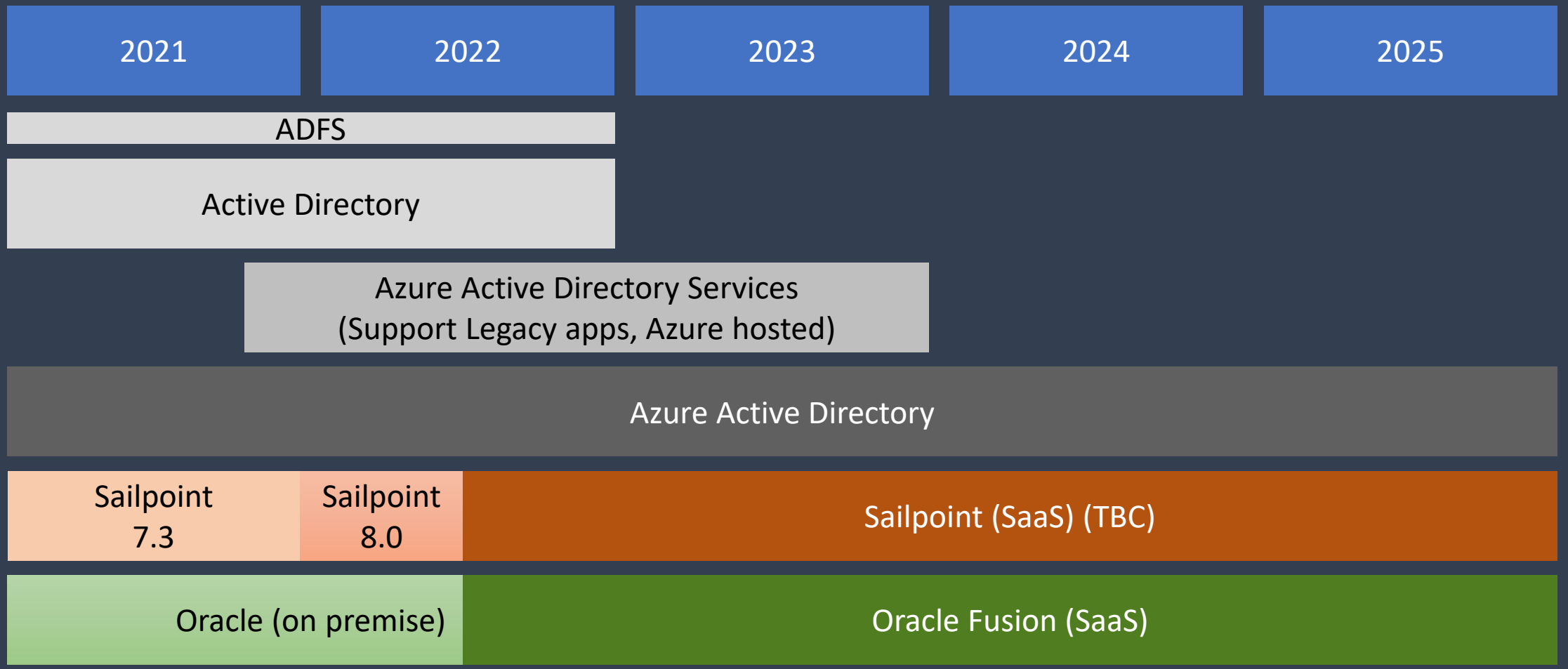
Roadmaps

- Network Strategy
- Identity & Access Management
- Key Applications
- Telephony
- Collaboration Tools
- End-User Technologies
- Automation

Network Roadmap

2021	2022	2023	2024	2025
Local Area Network – Huawei Equipment - Inhouse				
MPLS Wide Area Network - Capita	21 Nodes		Reduced size Network Zero Trust Cloud Services 158 corporate sites, 279 others	
Security – Denial of Service - Capita				
Firewall - Capita				
Filtering - Capita				
Resilient Internet Gateways - Capita	3GB		Cloud Services	
External Domain Name Service				

Identity and Access Management Strategy



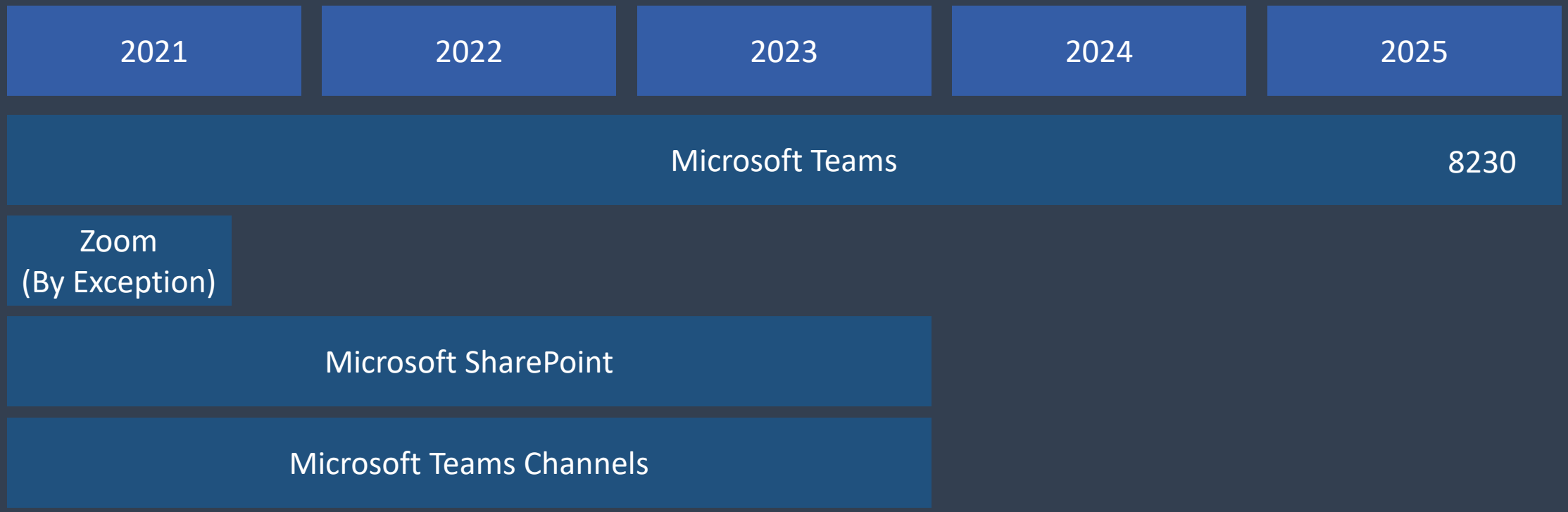
Key Applications by Department

	2021	2022	2023	2024
Finance & Commercial	Oracle (on premise)	Oracle Fusion (SaaS) |SiteCore Assyst | Intend |Capita Pay360 | ESRI		
Adults	Liquid Logic (Externally Hosted) | CACI			
Children Services	Liquid Logic (Externally Hosted) Synergy | Google WorkSpace			
CES	Mayrise | TERMS | CRM | Firewatch Spydus iCam| Civica | MasterGov | BookingLive			
Governance	Spitfire Replacement (SaaS)			
Strategy & Transformation	PowerBi (Saas)			

Telephony

2021	2022	2023	2024	2025	
Microsoft Teams					8230 Users
Contact Centre as a Service Avaya from Capita		**New Service** from Capita **or Teams**			303 Users
Session Initiation Protocol Trunks from Capita					190 Lines
Mobile Network Operator **Vodafone** from Capita					6440 SIMS
Mobile Device Management Microsoft Intune					2506 Users
Mobile Network Operator **EE (for Emergency Services Network)**					100 SIMS
Bring **Y**our **O**wn **D**evice Microsoft Intune					1339 Users

Collaboration Tools



End User Technologies

2021	2022	2023	2024	2025
Operating System – Current Microsoft Windows Evergreen release				8230
Firewall- Microsoft Windows Firewall				
Anti Virus - Microsoft Windows Defender ATP				
Productivity - Microsoft Office 365				

Norfolk County Council

Identity and Access Management (IDAM)

High Level Strategy

54

November 2020

version 1.2

HLS Template 1.0

Identity and Access Management (IDAM)

The county council needs to manage access to information and applications across a number of internal and external systems. We must provide controlled access for an increasing number of identities both internal and external to ensure both security and data integrity are maintained.

Therefore we need to ensure we manage four key components:

authentication	authorisation	user management	directory services (aka central user repository)

Scope

Technology

Microsoft Active Directory
Microsoft Azure Active Directory
ADFS
Microsoft Business to Business (B2B)
Microsoft Business to Customer (B2C)
Sailpoint

Target Systems

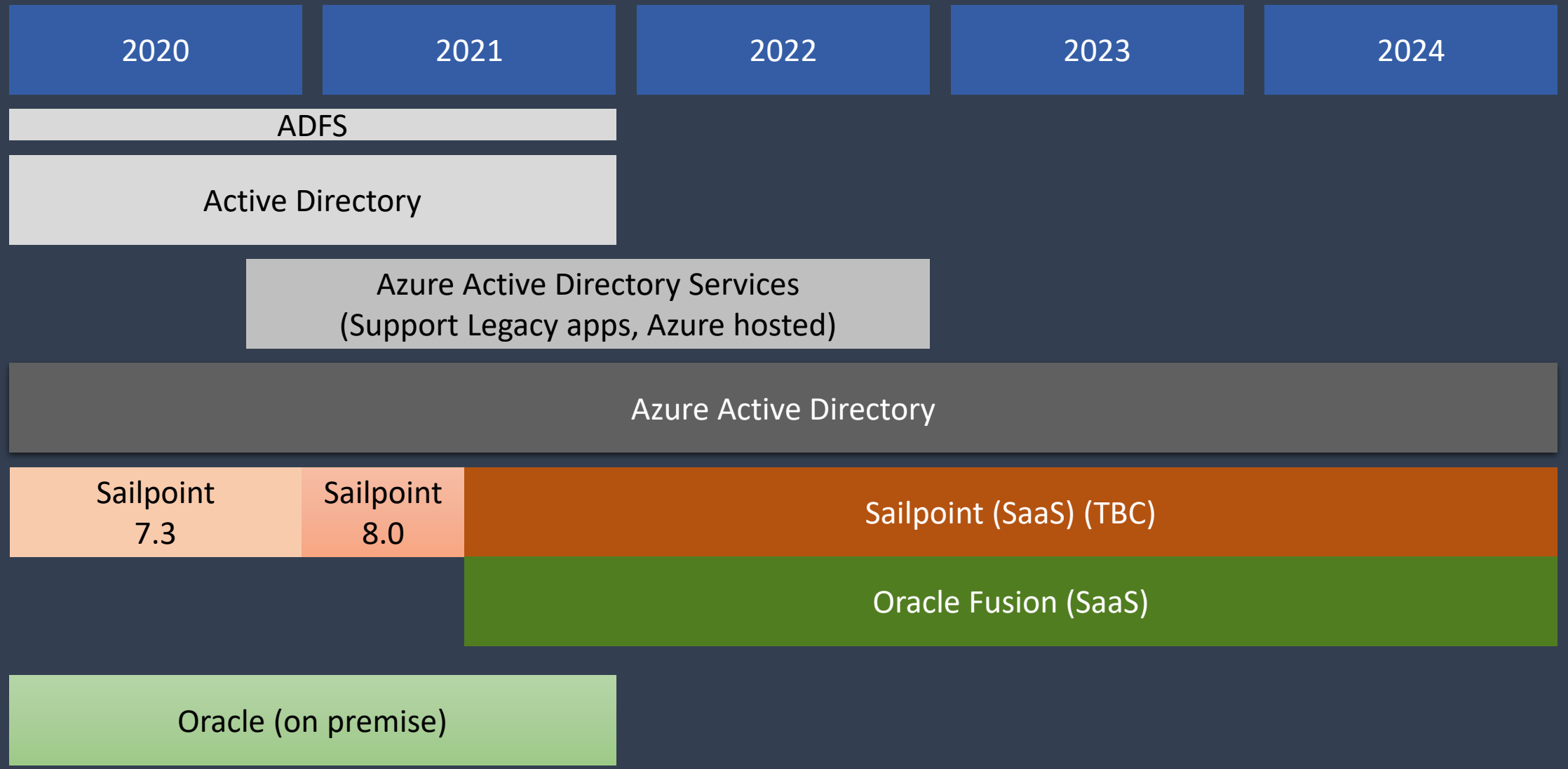
Customer and Partner Facing Systems
Line of Business (LOB) Applications e.g.

Oracle Fusion	Liquidlogic Cloud	CRM
Assyst	Sitecore	

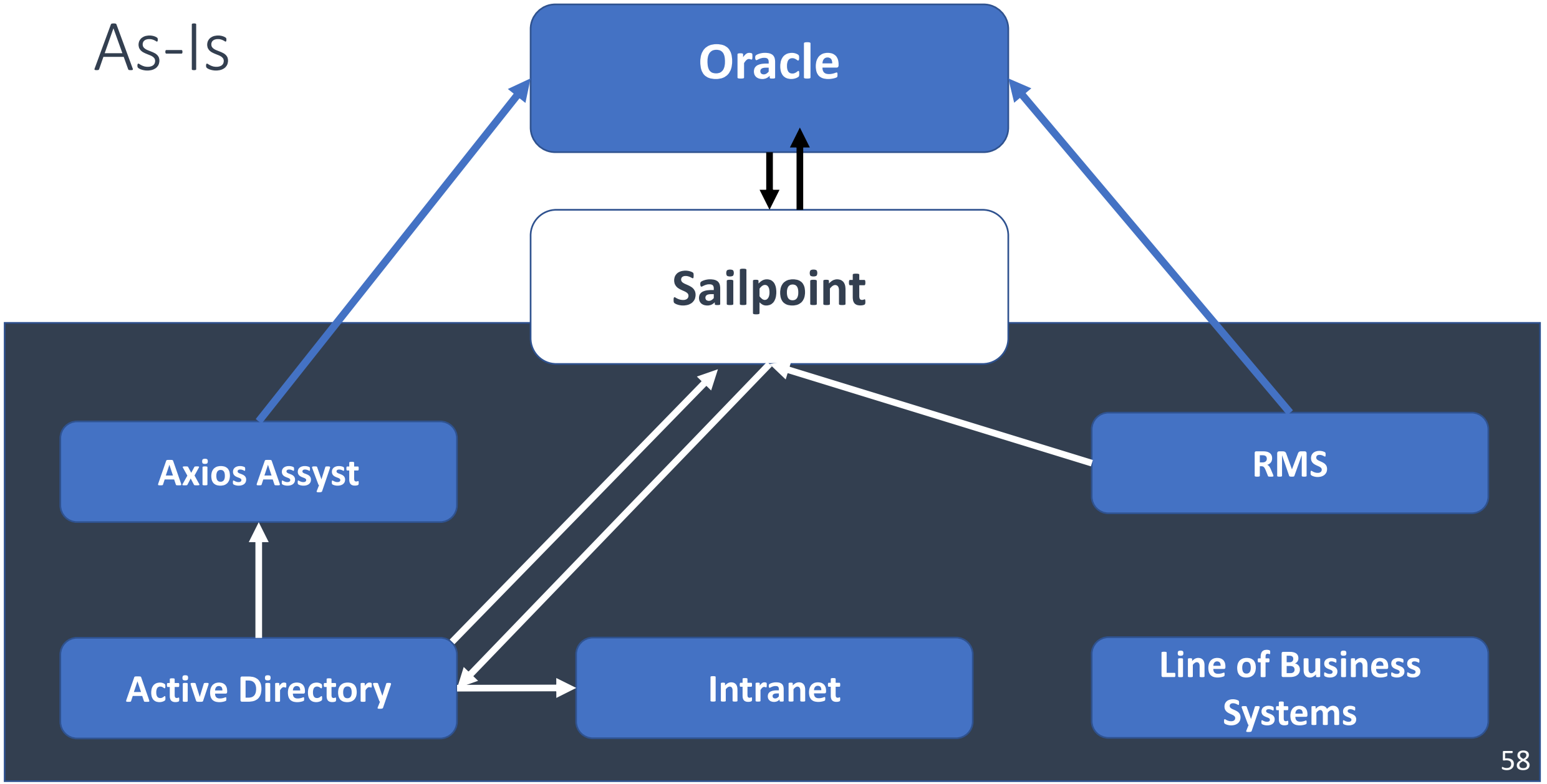
Processes

Joiner, Mover and Leavers
Audit and compliance
Internal and external identities
Partnership working
Authentication / Verification
Authorisation / Validation
Identity management
Directory service

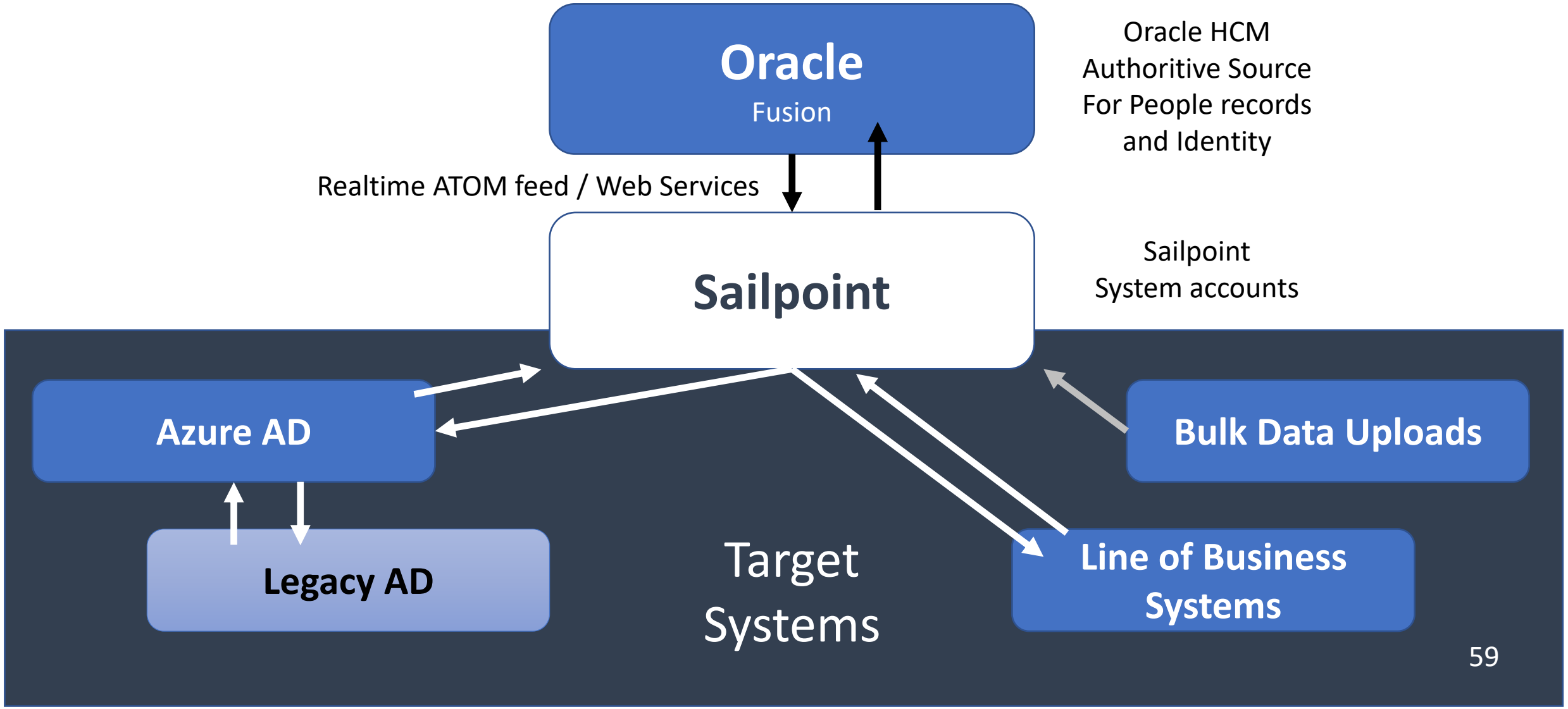
IDAM Roadmap



As-Is


Oracle
Sailpoint
Axios Assyst
RMS
Active Directory
Intranet
Line of Business Systems

To-Be


Oracle
Fusion
Oracle HCM
Authoritive Source
For People records
and Identity
Realtime ATOM feed / Web Services
Sailpoint
Sailpoint
System accounts
Azure AD
Bulk Data Uploads
Legacy AD
Target
Systems
Line of Business
Systems

Core Principles

1. Oracle will be the Authoritive source for all records it manages
2. Sailpoint will be the central user repository for all identities
   - Business to Customer (B2C) / citizens
   - Business to Business (B2B)
   - Line of Business Systems
3. Sailpoint will be updated by Oracle using a real time feed
4. All integrations **Must** be SAML 2.0 compliant
5. Azure Active Directory will be our primary source of authentication
6. Azure Active Directory services will be used only to support Legacy apps
7. All authentication with use Multifactor Authentication by default (MFA)

What this strategy means for you

Norfolk County Council

Staff and Managers

Key activities include:

- Digital Skills Training
- Bring Your Own Device support
- New online self-service Finance & HR system
- Smarter Working Programme
- GRID & PowerBI for internal data analysis
- Norfolk Office of Data Analytics (multi-agency)
- Robotic Process Automation
- Power Apps development work
- STP Digital Programme (NHS & care integration)

Key benefits for you include:

- You will have the right kit and equipment to do your job
- Our workplaces will evolve to reflect new ways of working and focus on supporting collaborative and creative activities
- Systems that support you to provide a better service, in more flexible ways and the skills to use them
- Automated internal processes that are online, self serve and available at all times
- Better use of data to help inform the decisions you make and the tools to do this, such as Power BI
- Repetitive tasks will be automated to free up your time to do tasks that matter and add value to the people we serve
- Improved working with our partner organisations via data that can be accessed across organisations and technology that support collaboration rather than hinders it.

Elected members

Key activities include:

- Digital Skills Training
- The Digital Strategy and Road Map
- Horizon scanning for new opportunities
- Technological roadmaps that will support the organisation over the next 5 years.
- Development of a “bot” to help residents & businesses access improved connectivity.

Key benefits for you include:

- You will have the right kit and equipment to support your communities
- A digital skills offer that allows you to get the best out of your technology
- Improved access to data to improve decision making and scrutinise organisational activity
- A more effective organisation that exploits technology for the benefit of the organisation and the community we serve
- An organisation that is at the fore front of technological engagement and continually looking for new opportunities to enable the key changes that our organisations strategic vision requires to support inclusive growth and our four core principles
- An organisation that uses technology to enable innovation in practice and service delivery

Norfolk County Council

Citizens of Norfolk

Key activities include:

- The Citizen Experience Strategy
- Improving fixed and mobile network coverage
- Improving joint working across Norfolk Public Sector Organisations.
- Improving staff and community digital skills to get the best out of the technology available
- A clear focus on reducing digital exclusion

Key benefits for you include:

- You should expect a quality experience every time you interact with us
- More services, information and advice will be available for you to access online and at your convenience
- Our services will be more responsive and flexible as our staff move to smarter, more flexible and remote working models
- You will get better broadband and mobile
- You will be able to access our services in multiple ways that reflect busy, modern lives
- The delivery and development of services will be customer led
- We will endeavour to keep things as simple as possible
- We will work with our partners to better support the Norfolk community
- We will support disadvantaged, vulnerable and digitally excluded individuals and communities to access services and build support the development of digital skills

Norfolk County Council

Our partner organisations

Key activities include:

- Norfolk Office of Data Analytics
- Improving systems & data integration with the NHS, Districts, Police, voluntary & private sector
- Improving staff digital skills to get the best out of the technology available
- A clear focus on reducing digital exclusion

Key benefits for you include:

- Working closely together this strategy will focus on delivering systems and technology that support increased interoperability.
- A clear focus on improving digital skills within our organisation and an ability to support others to develop their skills
- Improving the digital infrastructure of Norfolk, broadband, mobile coverage and the LoRaWAN network so we can all benefit
- Have workspaces where people can meet to work collaboratively and creatively to support the Norfolk community
- Key resources, such as data, can be bought together in the simplest ways possible to drive cross-organisation initiatives and programmes.

Norfolk County Council

Norfolk Business Community

Key activities include:

- Improving broadband, mobile and LoRaWAN IoT networks
- Promoting the Norfolk and Suffolk Innovation Network
- Working with Microsoft and other organisations to develop digital skills
- Refining our economic development offer to support new technologies

Key benefits for you include:

- We will continue to work to improve broadband and mobile connectivity in Norfolk by building on the success we have already had in improving coverage and speeds to reflect our ambition to make Norfolk the best connected rural county
- Working with our key partners, including Microsoft, we will be improving the digital skills of school pupils and the wider Norfolk work force
- We will continue to promote the LoRaWAN network which is the largest free public sector deployment of this technology in the UK and support the work of the Norfolk and Suffolk Innovation Network to exploit this technology to open new market opportunities, allow entrepreneurs to trial new ideas, lead to efficiencies and improved productivity in the ICT sector and enable tech solutions where mobile phone networks are inadequate
- Innovative economic development support around accessing new technologies
- Look to develop County Farms as a showcase for the potential of Agritech to transform a key Norfolk economic sector

Norfolk County Council

Case Studies of current and new activities

See Appendix for full details

- 5-year Customer Experience Strategy
- Digital inclusion – Healthy Libraries
- Digital inclusion – Video Care phones Pilot
- Data & Analytics- Corporate Strategic approach
- Data & Analytics for Finance & HR
- Norfolk Office of Data & Analytics (NODA)
- Digital Strategy for Care
- GO Digital – free business support to become more digital
- LoRaWAN – largest free public sector deployment in UK
- LoRaWAN – case studies inc Highways, Museums and business applications
- Schools Digital Skills
- Innovation Network – Assistive Technology & Sensors
- Integrating the Fire Service

Norfolk County Council

NCC Digital Strategy and Roadmap

for the 2020s

Case Studies Appendix

Norfolk County Council

Case Studies of current and new activities

5-year Customer Experience Strategy	pg 3
Digital inclusion – Healthy Libraries	pg 10
Digital inclusion – Video Care phones Pilot	pg 12
Data & Analytics- Corporate Strategic approach	pg 14
Data & Analytics for Finance & HR	pg 19
Norfolk Office of Data & Analytics (NODA)	pg 23
Digital Strategy for Care	pg 35
GO Digital – free business support to become more digital	pg 37
LoRaWAN – largest free public sector deployment in UK	pg 47
LoRaWAN – case studies inc Highways, Museums and business applications	pg 53
Schools Digital Skills	pg 60
Innovation Network – Assistive Technology & Sensors	pg 62
Integrating the Fire Service	pg 69

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Case study:
5-year Customer Experience Strategy

Norfolk County Council

5-year Customer Experience Strategy

Norfolk County Council

Context & Drivers

- Providing residents with a quality experience whenever they interact with us, whatever they need and however they access services is fundamental to our core purpose – serving the people of Norfolk

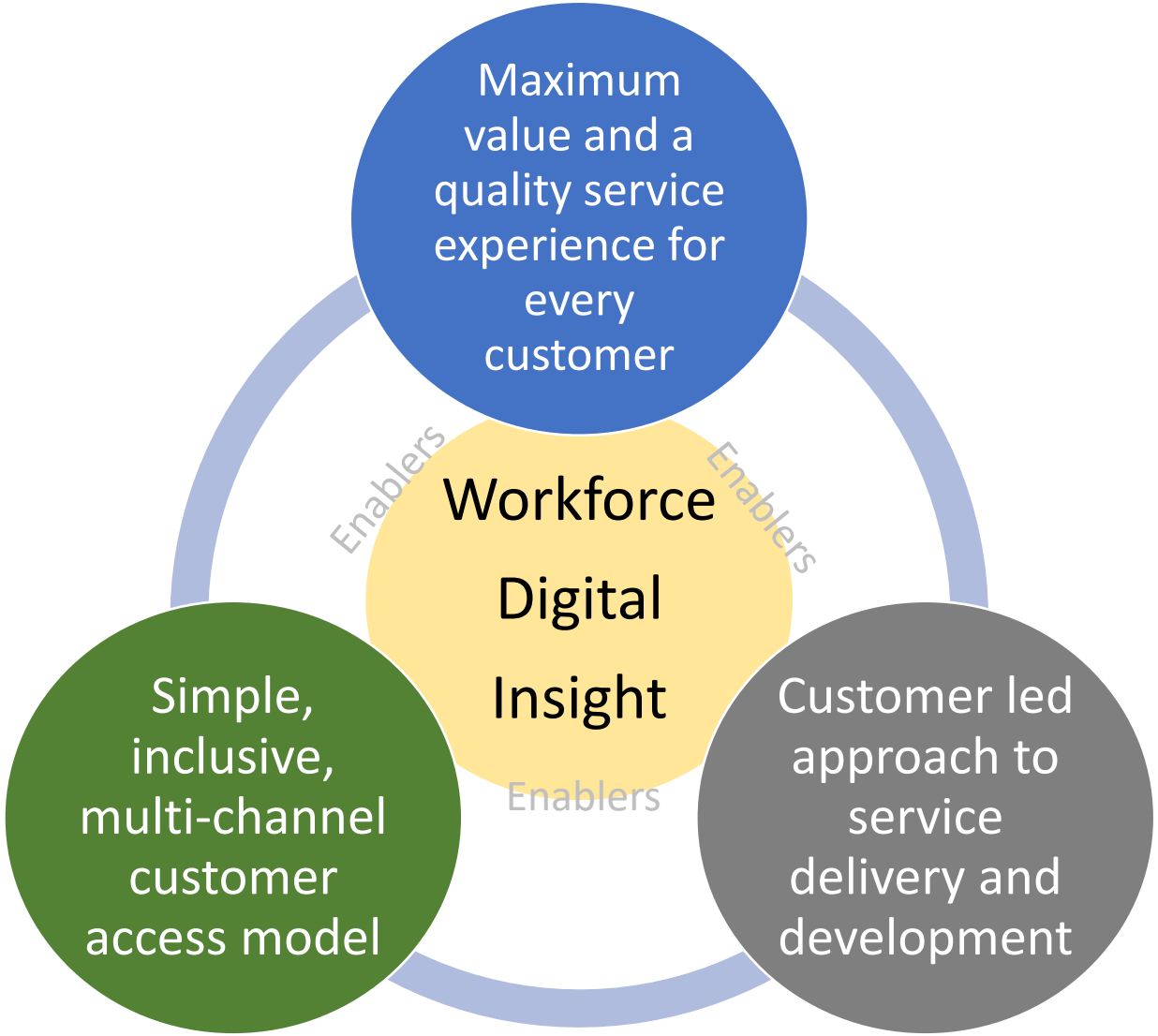
- Customer expectations of us continue to be shaped by service experiences they have every elsewhere every day and these continue to rapidly evolve and change

- Imperative to reduce costs and therefore increase efficiency, important to maximise value for our customers

- Demand picture - significance of self serve offer as a demand control tool for info and advice and simple interactions; consequent growth in average handling times over offline channels

- Significant progress 2015-20 - core technical capabilities in place enabling progress against strategic objectives (insight, service measurement, digital offer)

Themes emerging | Focus for 2020-25 strategy



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Theme breakdown | Maximum value and a quality service experience for every customer

We will give every interaction a consistent and tangibly **'customer focused'** feel whatever access channel it is delivered over, whatever service it relates to and whichever part of the organisation it is with

We will be **easy to deal with and make it as simple as possible** for customers to find and access information, advice and council services

We will deliver high **value for customers** by working as effectively and efficiently as we can and being relentless about driving out 'waste' (such as mistakes and rework) and unnecessary cost

To modernise the customer experience and reduce our 'cost to serve' we will **extend our online offer,** whilst maintaining an inclusive 'digital by design'

Norfolk County Council

Theme breakdown | Simple, inclusive, multi-channel customer access model

We will make information and services available to customers and easy to access over a **range of access channels**

We will continue to build on the **'single front door'** principle and operating model for customers accessing universal information, advice and services

We will work with partners to provide a seamless customer experience, **make the most of community assets and support the local offer and prevention**

We will **enhance our universal information and advice offer online**, building on the Norfolk Community Directory as our core vehicle

Norfolk County Council

Theme breakdown | Customer led approach to service delivery and development

We will **grow our capability to track and measure customer experience end to end** and make delivery against customer service standards an integral part of the council's performance management processes

We will understand customer needs and interactions by making appropriate and intelligent use of data to inform development and changes, so customer journeys and services are designed with them in mind, connected together where this makes sense, and so customers don't have to join the dots

We will develop the capability to link together data and create a 'single customer view', so we can see what services customers may need or be interested in and use this to help them avoid needs escalating at a later stage

We will further embed inclusive design into our customer access and service model

Norfolk County Council

Case study: Digital Inclusion – Healthy Libraries

Norfolk County Council

Digital inclusion – Healthy Libraries

Example project: Healthy Libraries

Digital First Primary Care Funding has allowed the STP and Libraries to develop the Healthy Libraries Connect Team who provide innovative ways to connect with digitally hard to reach groups via:

- In library support
- Access to training
- Set up support
- Drop in help services
- Device allocation in conjunction with The Good Things Foundation which offers tablets with pre-paid MiFi dongles to individuals identified as low income, isolated, elderly or have underlying health conditions

The Healthy Libraries Connect Team has recently been awarded funding to evaluate their work to establish if scaling up the offer to support more digitally excluded people in Norfolk and Waveney is the right way to do this.

Norfolk County Council

Case study: Digital Inclusion – Video Care Phone Pilot

Norfolk County Council

Digital inclusion –Video Care Phone Pilot

This pilot is a joint partnership between Adults Social Services and the STP to understand how the use of video carephone technology can support the wider Digital Inclusion agenda. The pilot is being funded with approx £300K of STP Digital Accelerator money.

200 day service user will be identified to pilot an 'out of the box' SIM enabled video carephone. Potential benefits include:

- People feeling more engaged in their care.
- People feeling more connected to others and less isolated.
- Reduced risk of harm due to lack of health of care input/supervision.
- Reduced risk of depression from isolation.
- Increased access to basic needs such as medication, food, supplies and human contact. Reduced digital exclusion in some of our most vulnerable communities/ increased contact with health and care or a return to expected levels of health and care.
- An evidence based to support our future delivery model.

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Case study:
Data & Analytics – Corporate Strategic Approach

Norfolk County Council

Data & Analytics – Corporate Strategic Approach

NCC Cloud Data Platform

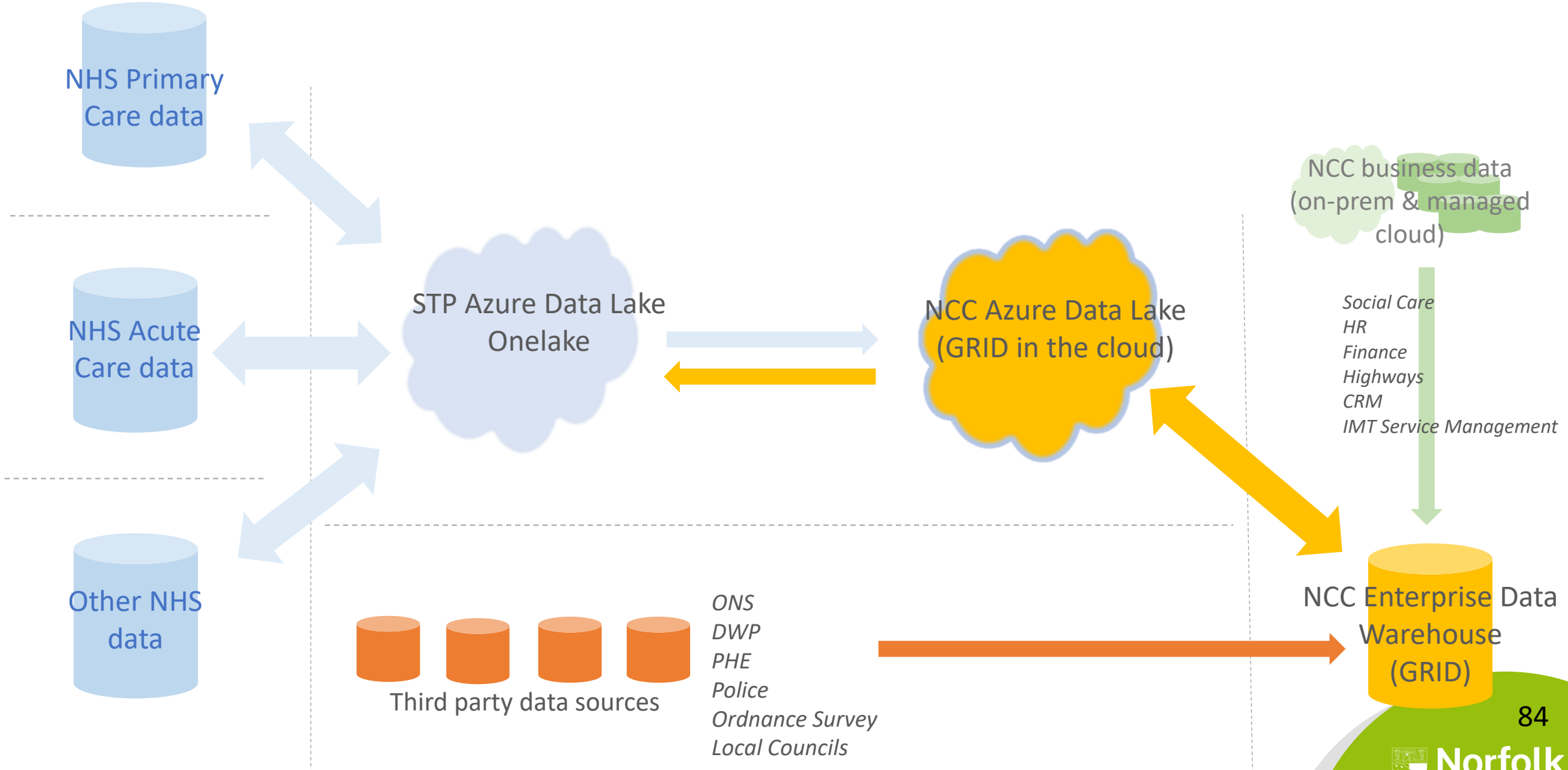
Business Goals

- Easier and safer data sharing with partners – focus on Health and Social Care
- Exploiting IoT
- An analytical environment for Norfolk Office of Data Analytics
- Capability to exploit big data, e.g. road traffic movement

IMT Goals

- Modern Hybrid Data Platform – on-premise and Azure
- New ‘Offer’ to NCC and partners
- Exploiting IoT
- Big data capability
- Integration with new Oracle ERP
- Ingestion of data from Microsoft Common Data Service
- Staff development
- Migration of on-premise GRID operations

Data flows for integrated care system in Norfolk and Waveney

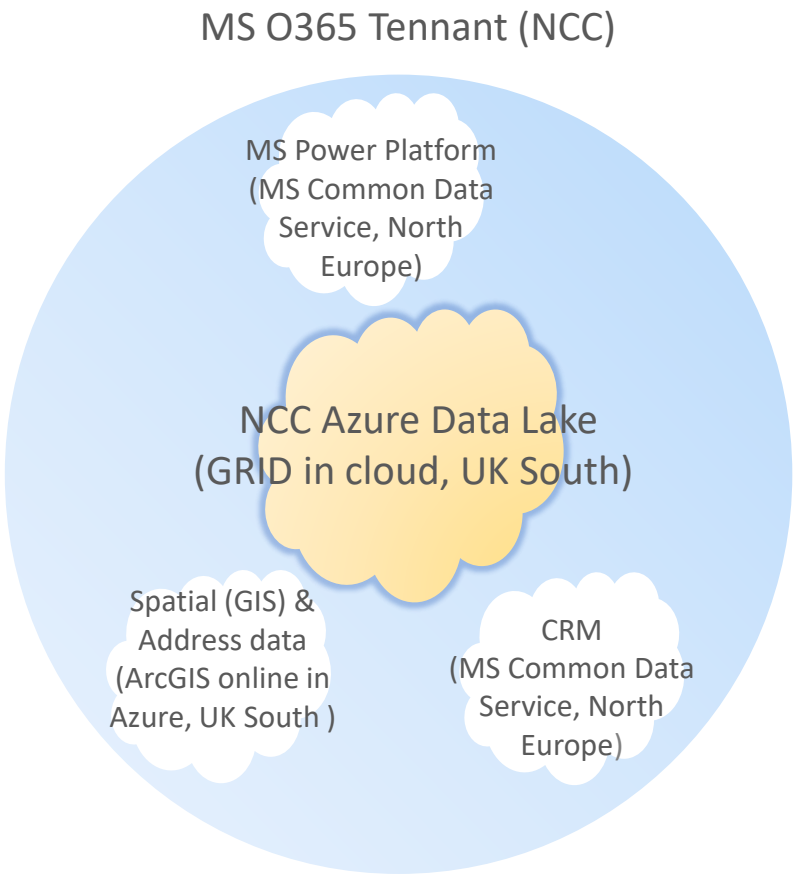


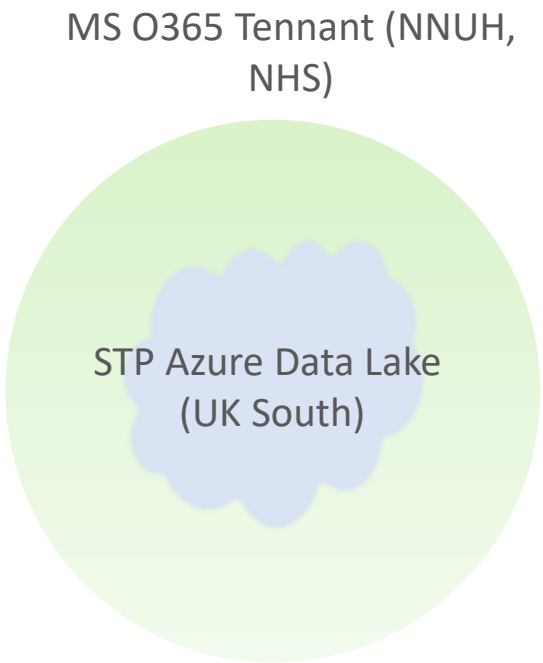
NCC high level structured data infrastructure: future state

NCC Line of Business Data managed services in the Cloud

- *Adults (Liquid Logic)*
- *Children's (Liquid Logic)*
- *Highways (Mayrise)*
- *IMT Service Management (Assyst)*

HR & Finance (Oracle ERP)





Case study:
Data & Analytics – Finance and HR

Norfolk County Council

ORACLE CLOUD

Data and Analytics for Finance & HR

Approach

Our implementation partners OCS have devised an approach for delivering the following key capabilities:

Operational Analytics

- Monitors transactions and processes undertaken within the HR & Finance applications.
- Usually monitors a single business process
- Focused on current picture or recent past.

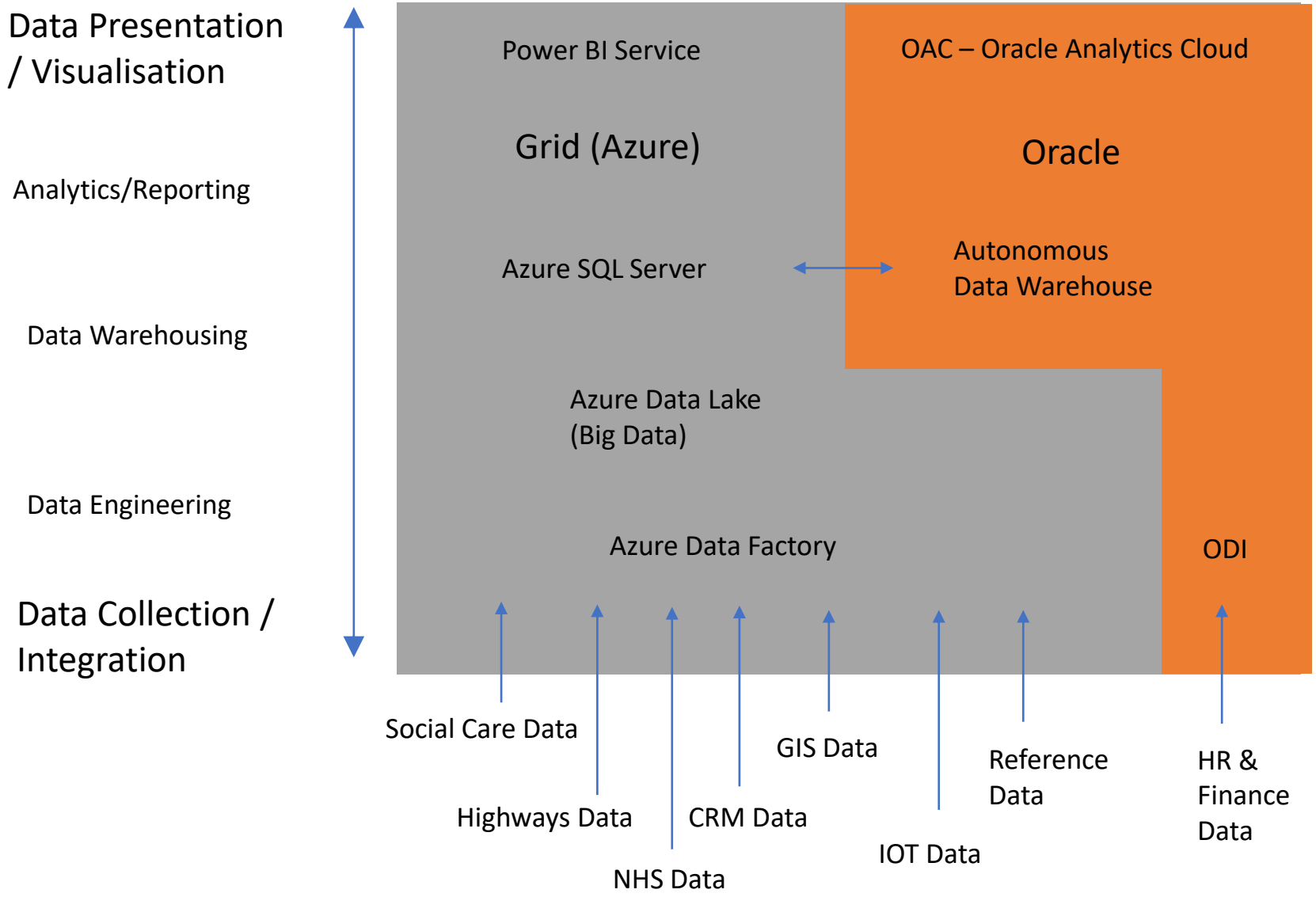
Strategic Analytics

- Provides an enterprise wide view.
- Associated with data from multiple business processes
- Focused on what has happened in the past and how this has changed/trended over time.

Visual Analytics

- Tools to support exploration over varied data sets
- Advanced visualizations reveal hidden trends and information.
- Predictive capabilities

Azure / Oracle Conceptual Design



Case study: Norfolk Office of Data & Analytics

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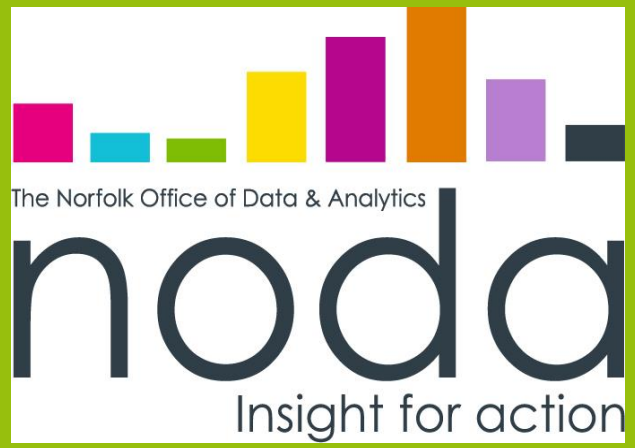
Norfolk Office of Data & Analytics – an overview



What are ODAs?

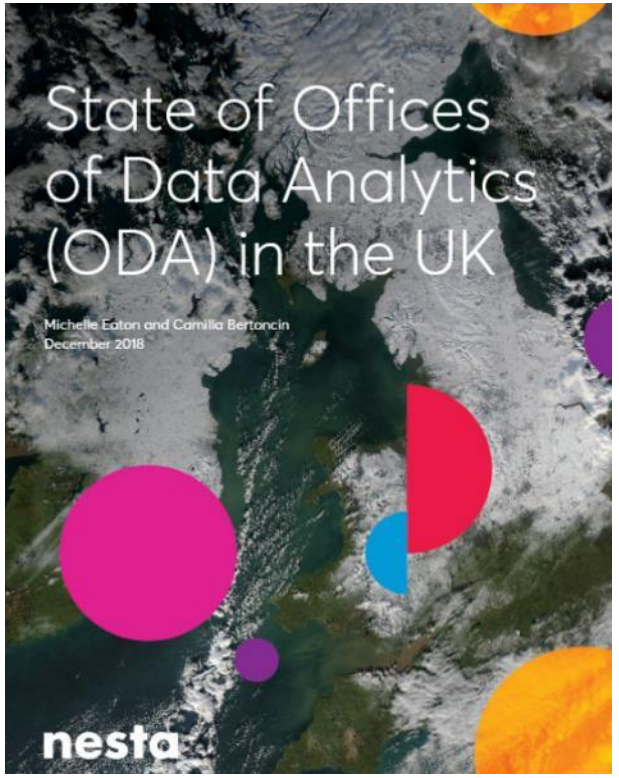
Offices of Data and Analytics have grown in the UK from the 'ground up' to transform the way in which we use data for analysis and actionable insight.

> *"The ability to make easy data driven decisions is becoming vital to the way that we all live and work. This should be the way that government provides services."*
> Government's Transformation Strategy 2017-2020[3]

A model for multiple organisations to join up, analyse and act upon data sourced from multiple public sector bodies to improve services and make better decisions.

ODAs always adopt a shared vision and objectives, sometimes have shared capabilities and resource, often have a range of collaborative working practises, and definitely have a commitment to data analytics.

Ultimately, an ODA creates multi-organisational, actionable insight from otherwise siloed information.



ODAs (Offices of Data & Analytics)

There are now more than dozen separate ODAs in operation in England. All vary a bit in design, but are fundamentally delivering against the same objective:

Harnessing the data and analytical capability from **multiple organisations** into a **virtual** team (e.g. councils, Police, NHS) to meet **common goals**.

DATA PEOPLE ACTION ecda

SODA The SUFFOLK OFFICE of DATA & ANALYTICS

Virtual collaboration - Real insight

Loti

How does the 'ODA approach' differ from what has been done in Norfolk?

The Norfolk Office of Data & Analytics
noda
Insight for action

Single Organisation approach	ODA approach
Excellent analysis work undertaken in one part of an organisation (e.g. NCC Public Health)	Using data from multiple owners such as NHS, Police, other councils to deal with county-wide public health issues (such as Covid-19 response)
Organisation led project on single group of customers (e.g. adult social care clients)	Data on residents/patients/clients from across the county: Acknowledgement that **we all deal with the same people across different services**
Statistics and reports outputs, usually de-identified	**Actionable insight**: identifiable data is used to actually make decisions in regard to groups or even individual customers
Use of own IT network and data-warehouses	Use **shared analytical platforms** which allow for data matching, linking and use of data visualisation (e.g. health, social care and geo-spatial data)

Vision and Purpose

Vision

NODA provides evidence and insight to allow action to be taken

Purpose

- To join up information and data using suitable secure technology and analytical methods
- To generate evidence of where to target our resources to best effect
- To provide insight to prevent and reduce the need for services
- To contribute to improving outcomes for the population and community
- To develop our collective analytical skills and access to data

3 Key Functions

The Norfolk Office of Data & Analytics
noda
Insight for action

DIRECT DELIVERY
Delivering data initiatives – conducting practical data sharing and data analysis projects

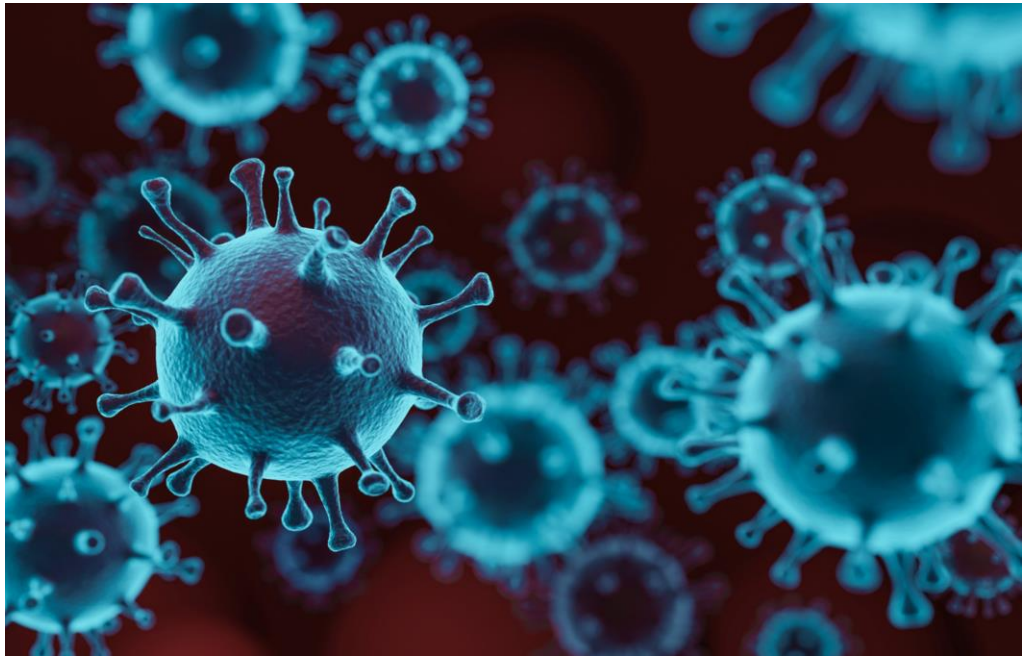
COORDINATION
Coordinating and convening Norfolk's data community. Providing an ecosystem to support data practitioners

SYSTEMATISE
Offering replicable processes and training in common areas such as analytics, data ethics, security and information governance

NODA activity

NODA is supporting the Norfolk Resilience Forum's Covid-19 response and recovery:

1) Data briefings and RWCS
2) Economy of Norfolk
3) Vulnerable People

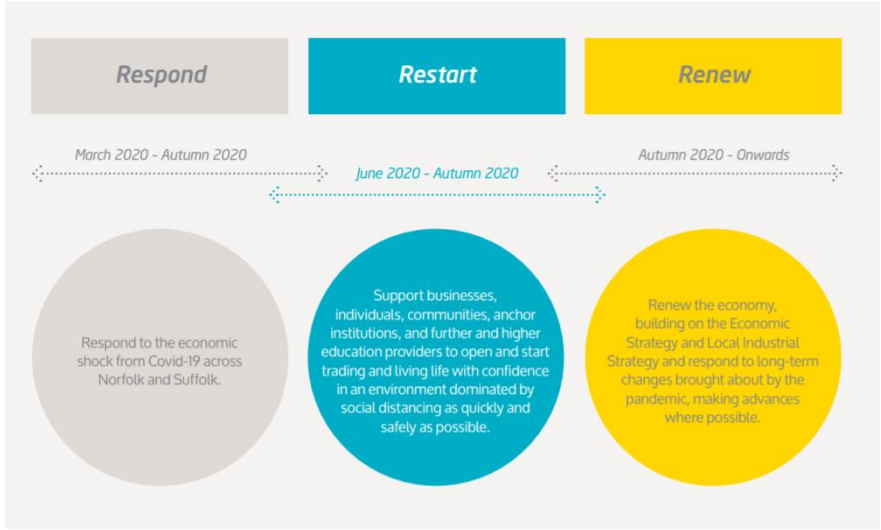


We are also starting to support other areas of work – for example supporting Norfolk Constabulary & Public Health with developing a Drug Market profile for the county.

C-19 and the Norfolk economy

NODA can help Norfolk partners gather evidence to inform New Anglia's Renew Plan, the economic recovery plan for Norfolk & Suffolk.

We can also help provide local skills and labour market data.



NEWANGLIA
Local Enterprise Partnership for Norfolk and Suffolk

C-19 and Vulnerable People

NODA has developed a dashboard showing the indicators of vulnerability, to help the Community Resilience Hub predict changes in demand for services by geography.

Vulnerability Categories

Clinical
- Shielding Population / EVPS
- Over-70s
- BAME
- Deprivation
- Additional CCG Vulnerable

Societal
- Domestic Abuse
- Digitally-Excluded
- Frailty / Domiciliary Care
- Self-Isolating in need of supplies
- Disrupted support networks

Psychological
- Increased Stress & Anxiety
- Mental Health – untreated/undiagnosed & existing
- Digitally Excluded
- Rural/Social Isolation

Financial

Hardest-hit sectors – Leisure, Some Retail & Manufacturing?,
Seasonal Workers
Gig economy?
Reduced Hours - either employer or childcare-driven
At-risk of redundancy / unemployment

Cross-Cutting Characteristics

Norfolk County Council

Project ADDER (Addiction, Diversion, Disruption, Enforcement and Recovery)

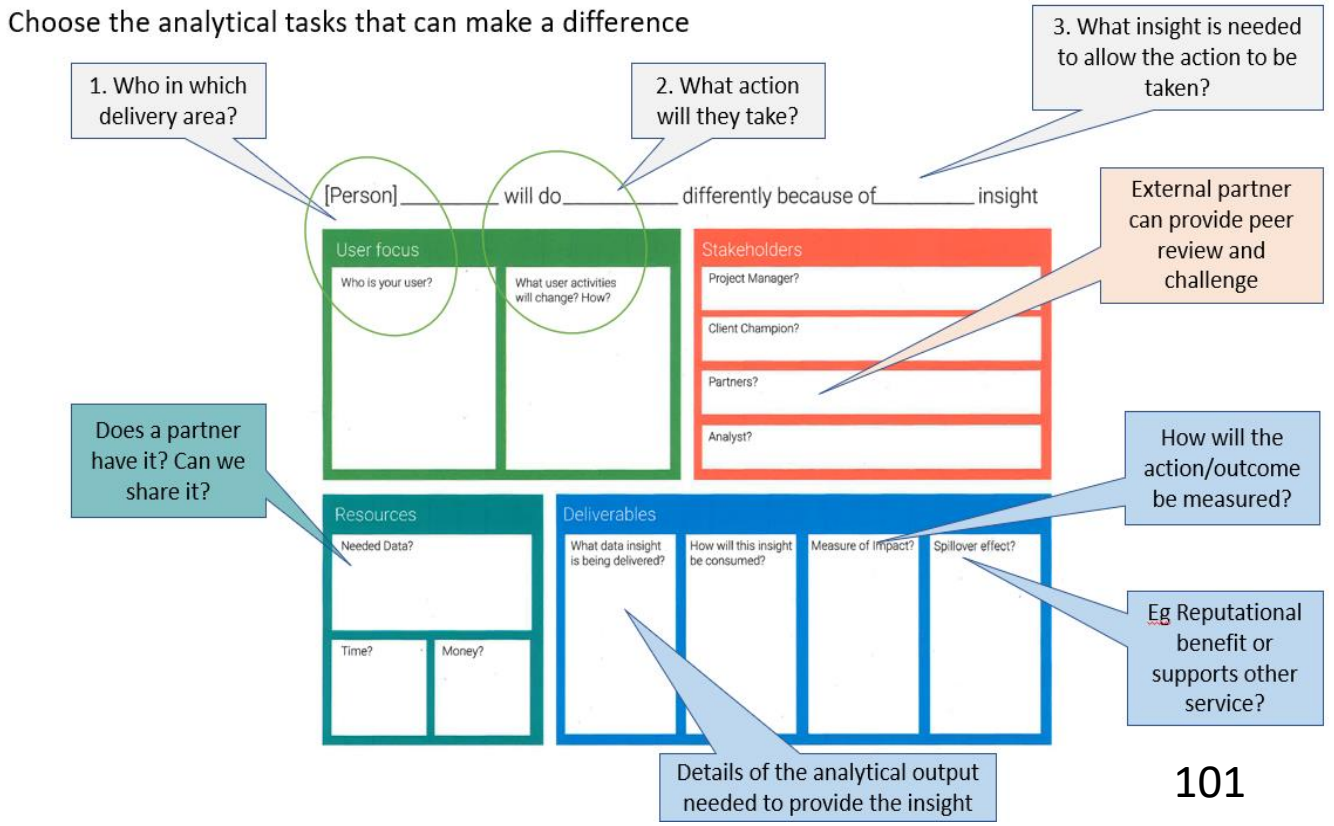
- The Home Office in conjunction with DHSC and PHE have secured funding from the HMT Shared Outcomes Fund to pilot an intensive whole system approach to tackling drug misuse in select locations worst affected by drug misuse, alongside national activity to disrupt the middle market supply of drugs.
- The Norwich pilot, (Project ADDER) will involve co-ordinated law enforcement and safeguarding activity, alongside expanded diversionary, support, and treatment/recovery provision in the chosen pilot areas.
- This will be complemented by Home Office and National Crime Agency activity to tackle middle market drugs and firearms supply.
- The project will build on existing work and look to expand multi-agency partnership working in the local areas to drive sustained health and crime related outcomes.
- The intention is for Project ADDER to be piloted over a period of three years beginning as soon as possible in this FY 20/21 and running until the end of FY 22/23.
- The project will be underpinned by an evaluation and monitoring framework which will help to inform the evidence base for future Government intervention and national investment in this field, as well as informing local strategy.
- NODA specific role: to offer information governance and information sharing advice to support the development of a drug market profile for the county, as well as providing a central platform for partners to identify opportunities to use data and information that might otherwise remain siloed.

What activity do we undertake in the next 12m?

We need to continue to develop our 'business as usual' activity in parallel with delivery of the Covid-19 response activity, where resource and capacity allow

Potential activity	Groups supported with better outcomes
Mental Health (incl Self-Harm and Suicide)	Vulnerable Young People and Adults
Gangs / County-lines	Children, Families and Communities
Housing & planning	Inclusive Growth and Communities
Domestic Abuse	Families and Communities
Troubled Families.	Families and Communities
Protecting Children	Children
Alcohol licencing	Communities
Delayed Transfer of Care (DTOC) patient tracker	Patients
Inclusive Growth	Families and Communities
Information Sharing	All Groups

What analytical tasks?



Case study:
Digital Strategy for Care

Norfolk County Council

Digital Strategy for Care

The Digital Strategy for Care will take a systemic, network approach to developing the use of digital technology to create a resilient, sustainable care sector which reflects the care needs of the Norfolk population. A number of actors are already operating in this sphere and multiple projects are currently running to support the sector including: Attend Anywhere pilots run by the NHS and GPs, wound management video consultations run by NCH&C and the Covid Protect project

- This workstream will look to understand the current system wide approach to driving digital into the care sector.
- This knowledge will allow for a proper gap analysis to be conducted to identify areas of opportunity.
- Innovation projects or projects that build the framework and support that can underpin innovation will be identified and a prioritised action plan will be developed to drive system wide change.
- This work will be co-produced with internal and external stakeholders and link explicitly into the market position statement and commissioning intentions work.
- External funding streams will always be sought to drive forward each project or pilot identified in the action plan.

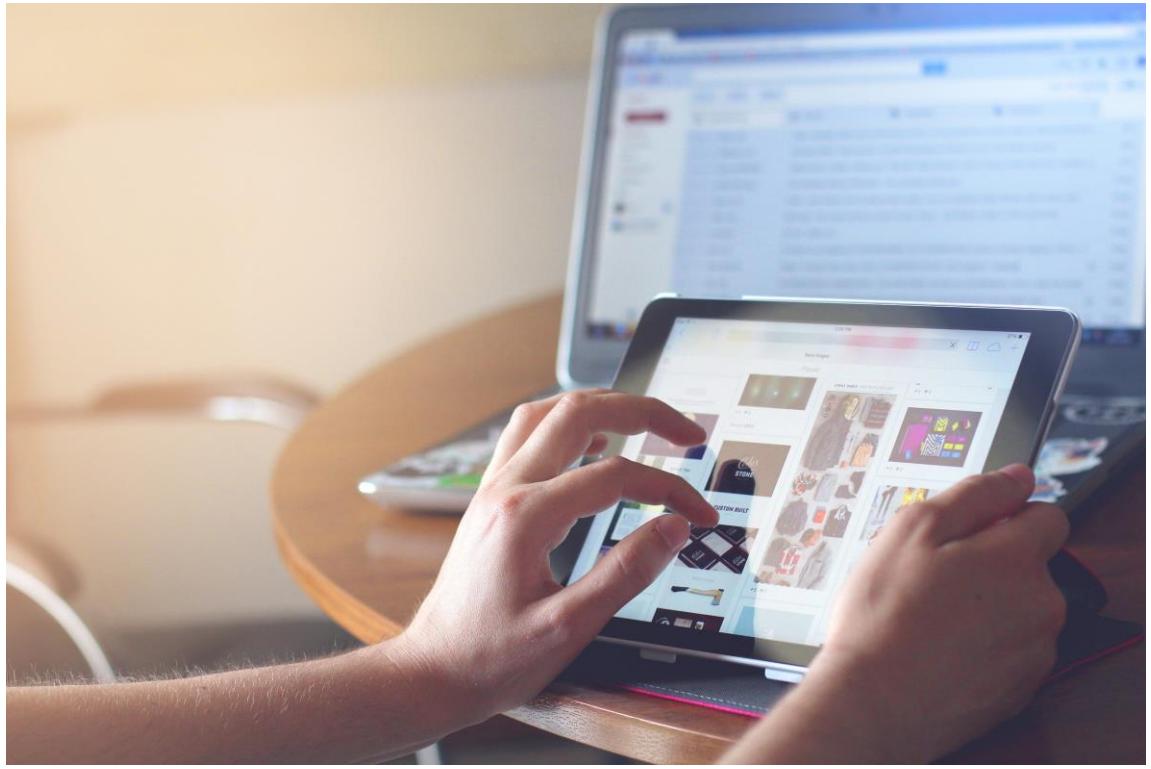
Previous research into the residential care market, conducted by ASC and anecdotal feedback from NHS and NCH&C colleagues has highlighted that the sector needs support to develop digital skills and infrastructure. A Task and Finish Group has been established to support the development of digital skills that includes colleagues from Economic Development, IT and ASC as well as Care providers and the voluntary sector to oversee a range of projects to improve skills which remains a fundamental digital building block to wider system change.

Case study:
Go Digital – free digital support to micro and SME businesses

Norfolk County Council

Go Digital

Norfolk County Council

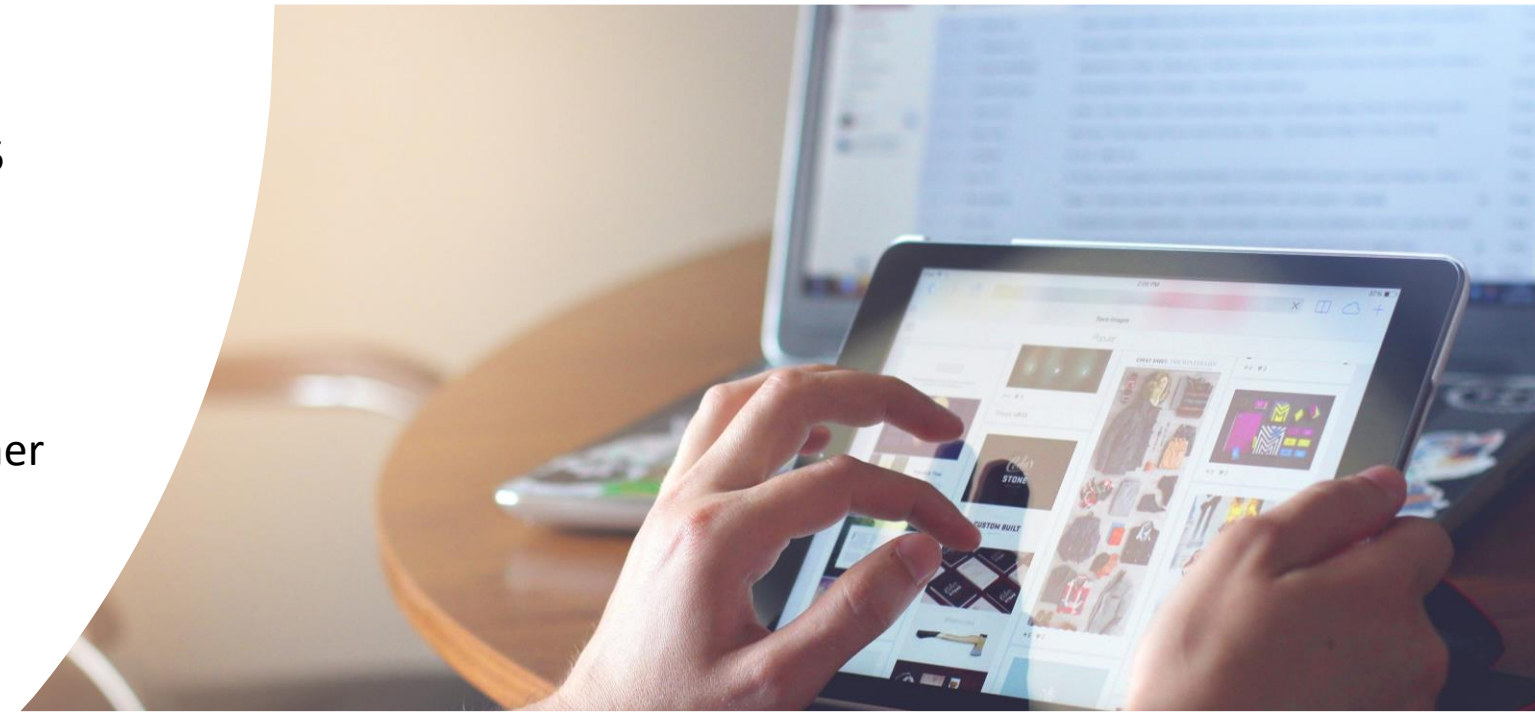


Free business support to help you do more with digital

Norfolk County Council

Go Digital

- Free business support to help Norfolk micro and SME's do more with digital.
- Focus on businesses in the tourism and care sectors and food & drink producers although any business can apply
- Launch on 7 December. Closes on 31 March 2021. Deadline for advisor applications is 15 February 2021.
- 43 businesses to receive advisory support
- 35 businesses to also receive business voucher support

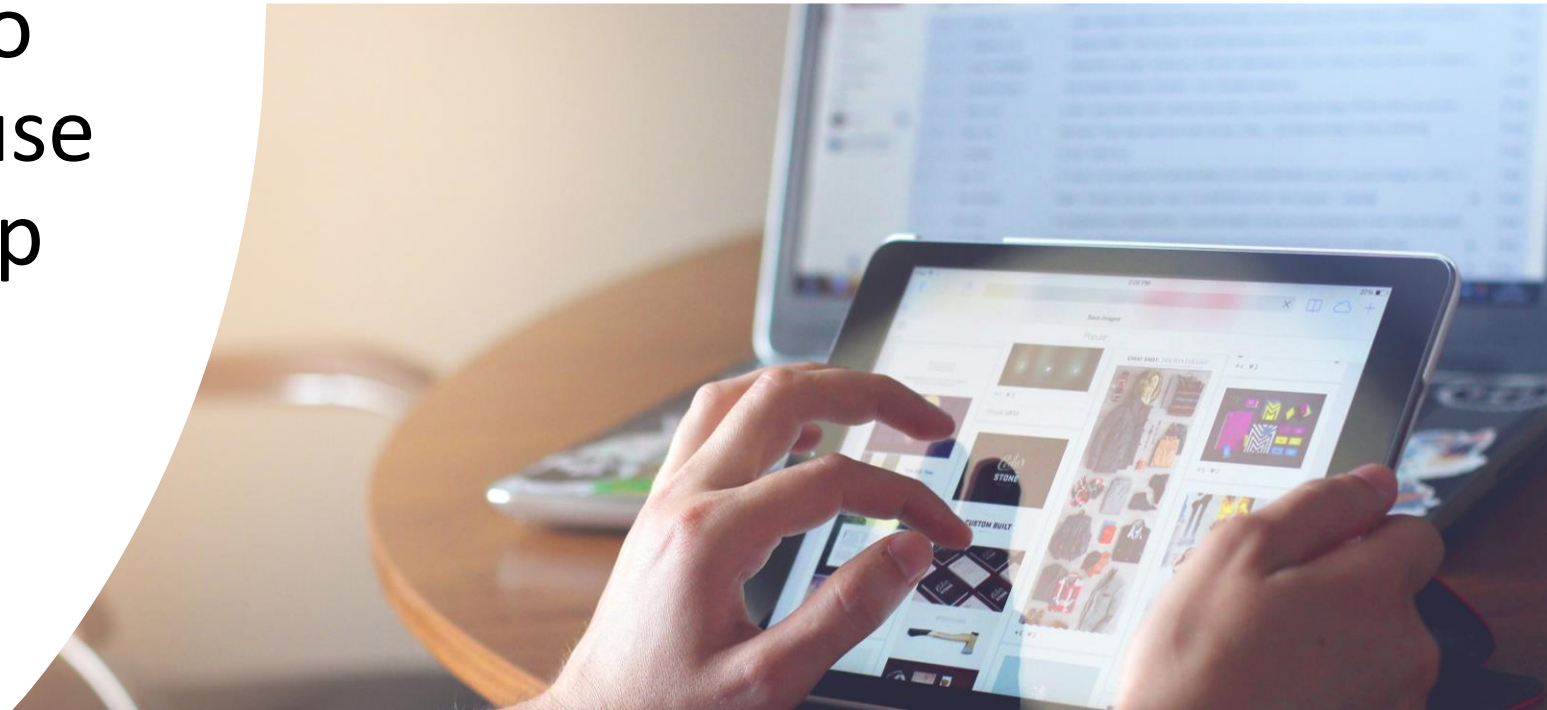


Norfolk County Council

Go Digital

Programme Overview

For micro, small and medium sized businesses based in Norfolk who want to make better use of digital tools to help them to grow.



Norfolk County Council

Go Digital

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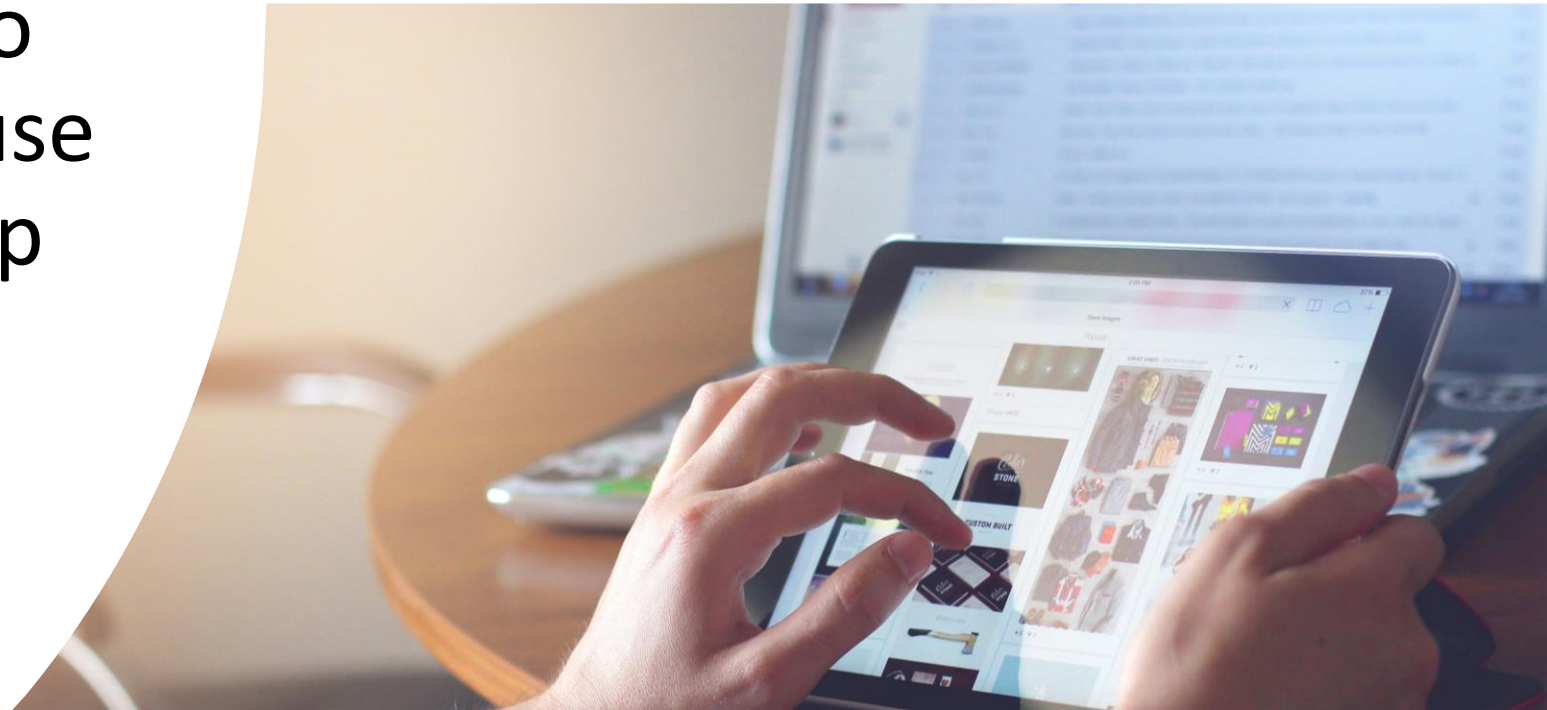
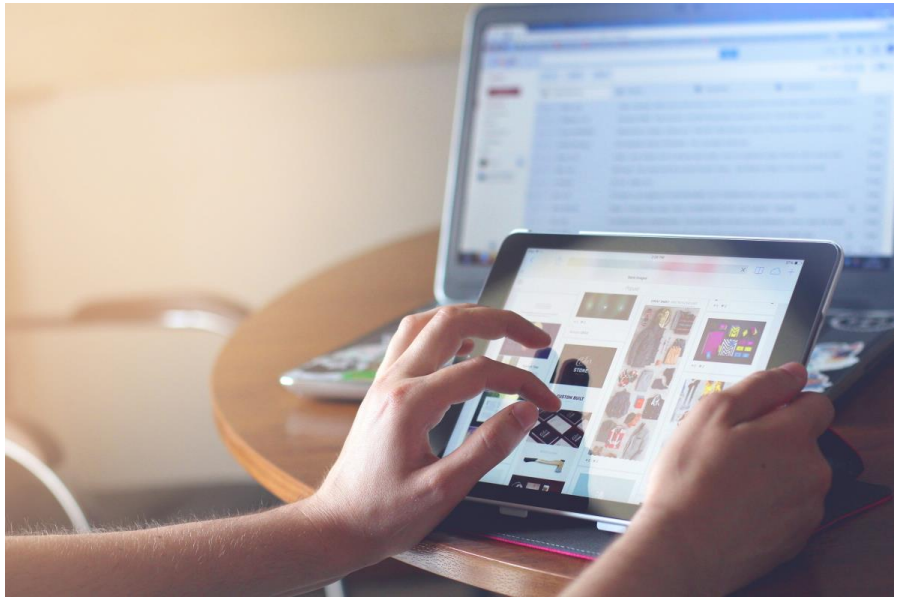


Norfolk County Council

What will Go Digital do?



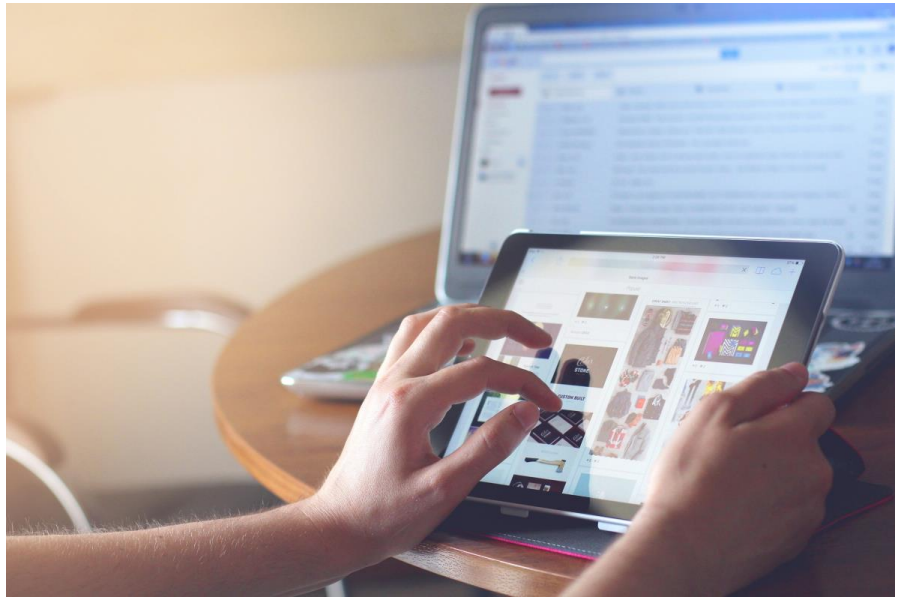
Go Digital will help businesses in Norfolk to:

- Identify the digital tools and projects that are right for them
- Understand the benefits of using digital tools
- Have the confidence to undertake digital transformation projects
- Discover and grow their knowledge of the digital tools available

Go Digital

Norfolk County Council

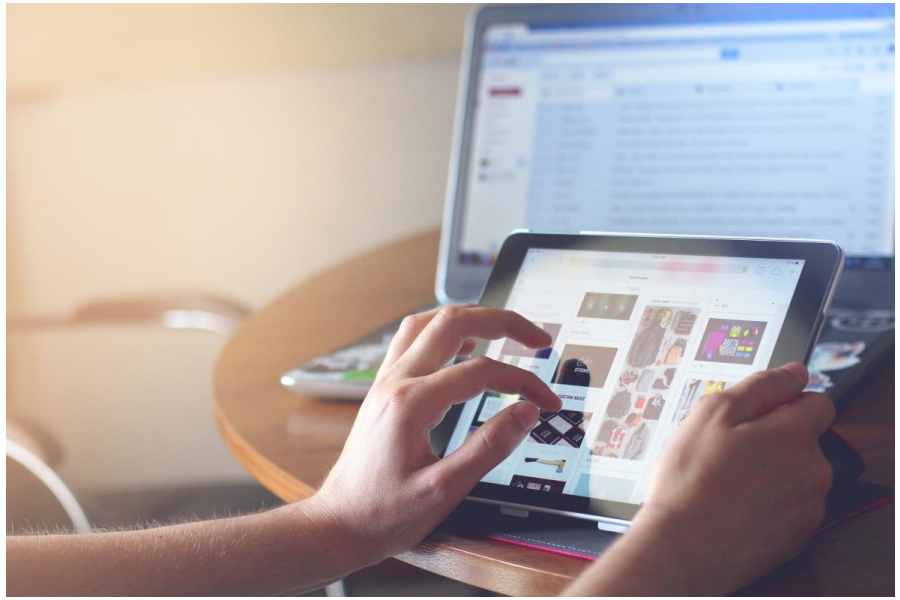
Who are we targeting?



- Norfolk based micro or SMEs
- Preferably from the care, tourism sectors or food and drink producers
- They have some usage of digital tools e.g a website or they use social media to promote their products
- But little understanding of other digital tools that could help them
- They don’t know where to start
- They need expert advice as to what tools are best for their business
- They need confidence to take forward projects

Go Digital

Norfolk County Council

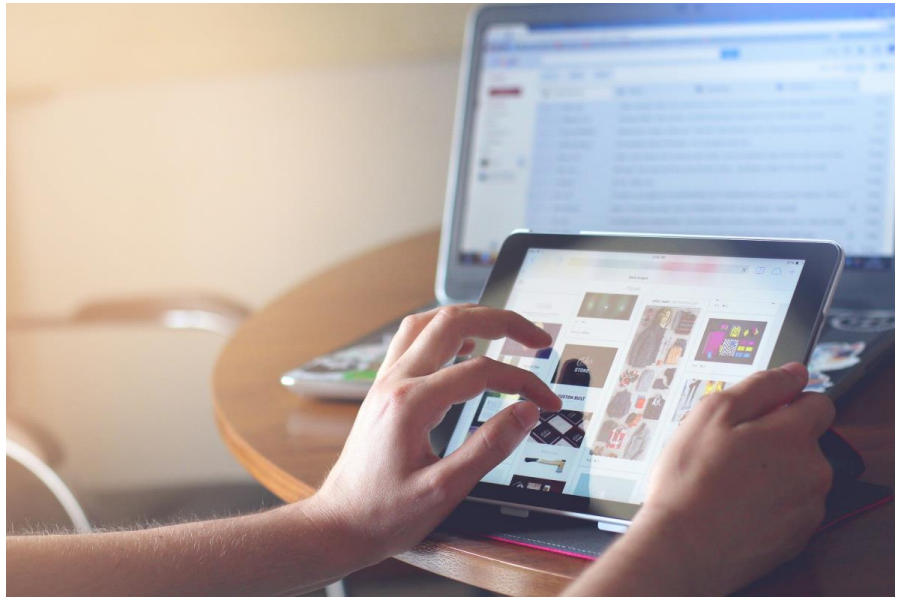


What do clients get?

1. An experienced business advisor matched to their business
2. Quality advisor time to identify digital opportunities that fit with and add to existing business plans
3. A digital audit of their business and a comprehensive report identifying the digital tools needed to meet goals
4. An action plan which identifies the digital priorities and next steps
5. The opportunity to apply for a business grant worth up to £500 towards their digital action plan

Go Digital

Norfolk County Council



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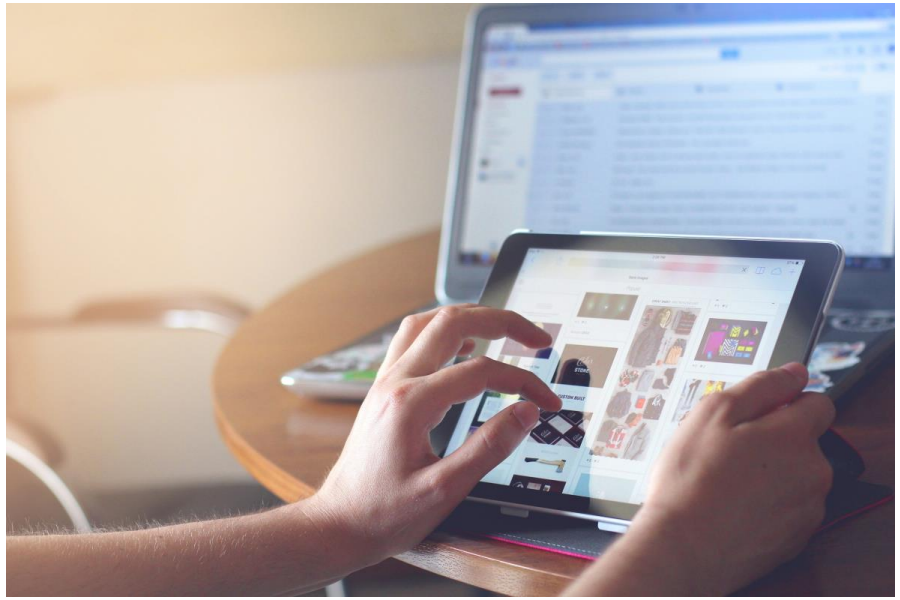
Go Digital

Norfolk County Council



More information

- Programme launch 7 December 2020
- Please help us to promote
- www.norfolk.gov.uk/business/grants-and-funding/go-digital
- Contact us via econdev@norfolk.gov.uk

Go Digital

Case study:
LoRaWAN – the largest free public sector deployment in the UK

Norfolk County Council

Working to make Norfolk the best connected rural county in the UK

WAN
Fibre
Mobile
LoRaWAN
5G

The largest free public sector LoRaWAN deployment in the UK

NORFOLK & SUFFOLK INNOVATION NETWORK

NEWANGLIA
Local Enterprise Partnership for Norfolk and Suffolk

LoRaWAN

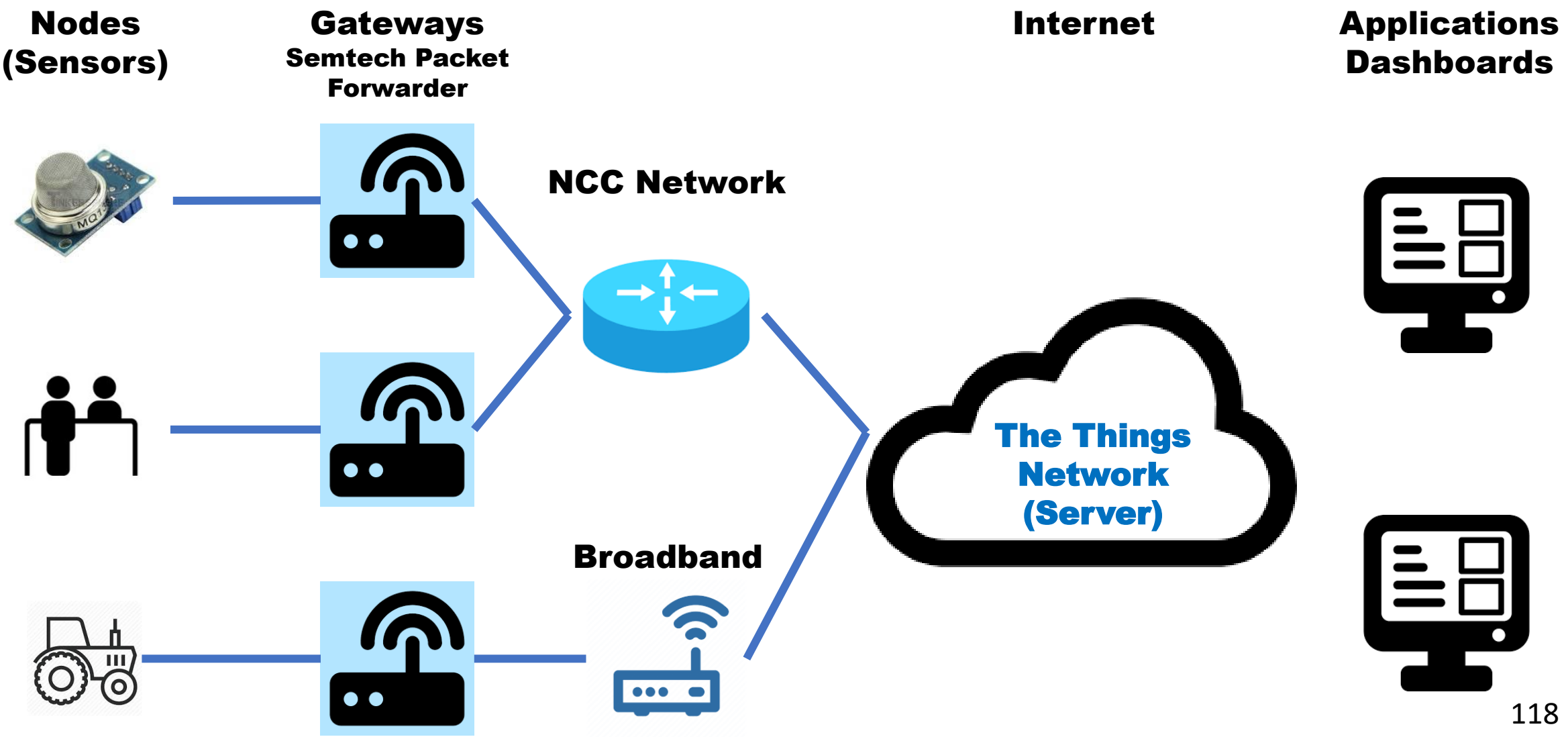
Long Range Wide Area Network

Sensor

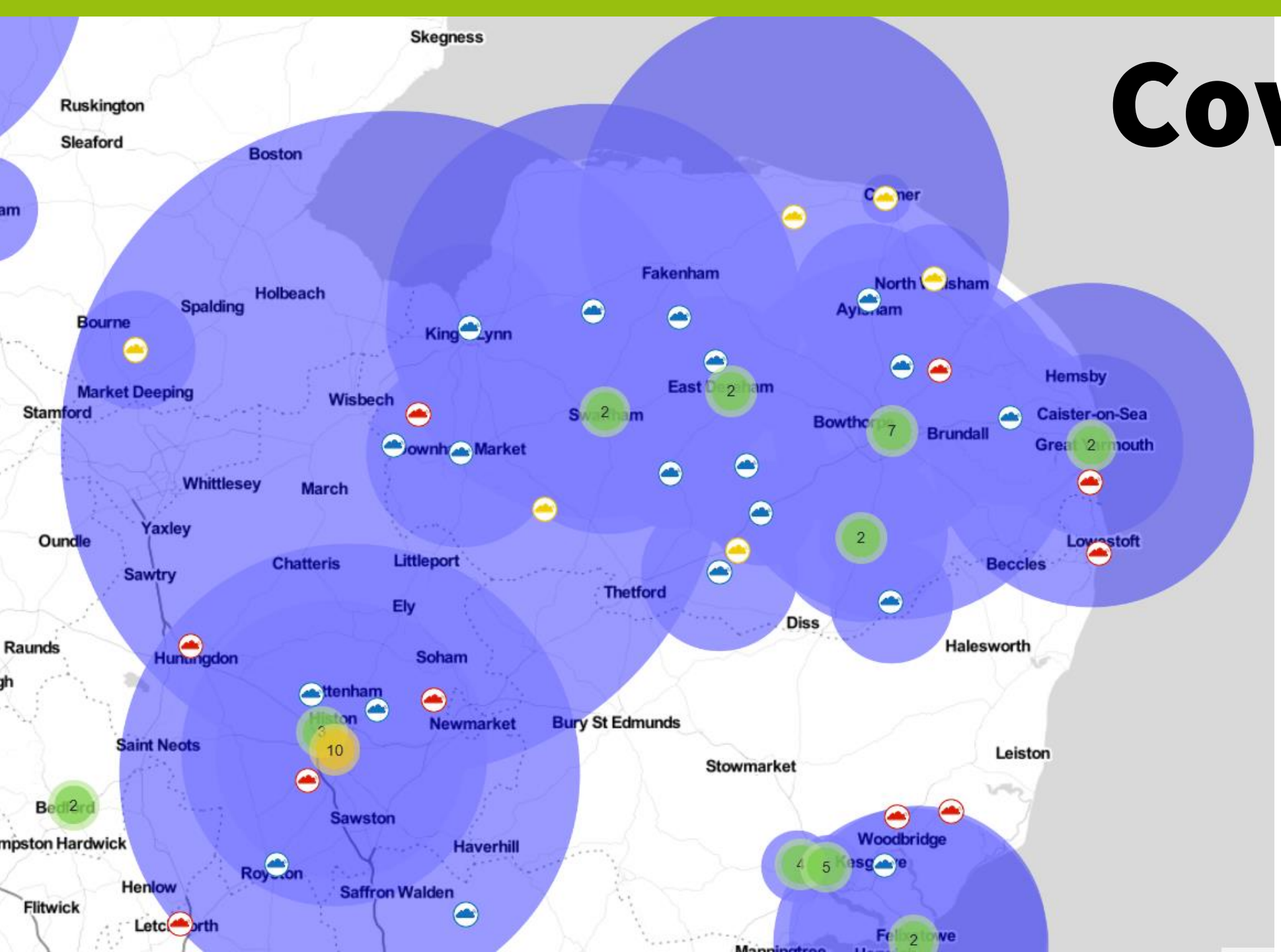
Gateway

Dashboard

Norfolk and Suffolk Innovation Network



Coverage Jan 2020



https://ttnmapper.org/

Case study:
LoRaWAN case studies including highways, museums and business applications

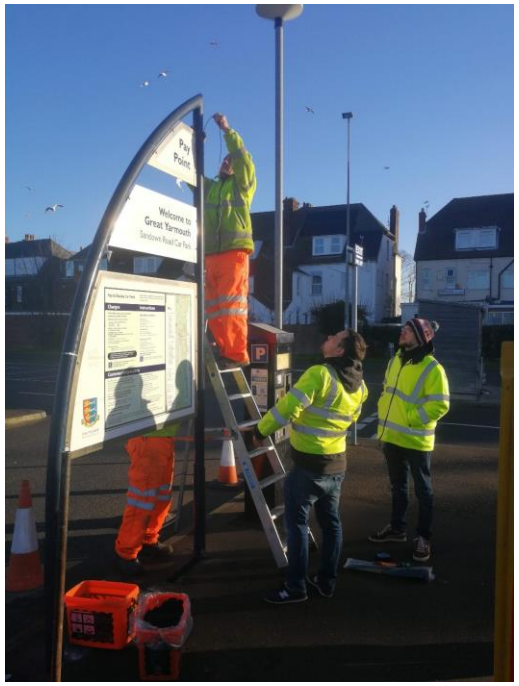
Norfolk County Council

Eastern Daily Press

Temperature sensors to be installed on Norfolk roads in trial to see if grit runs can be cut

Dan Grimmer dan.grimmer@archant.co.uk @dangrimmer24

PUBLISHED: 10:58 14 November 2018 | **UPDATED:** 10:58 14 November 2018



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DeltaT [5]
Battery
Solar Panel [1]
Temperature [°C]
VPD [mbar]
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08:00
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Air temperature, high precision [°C]
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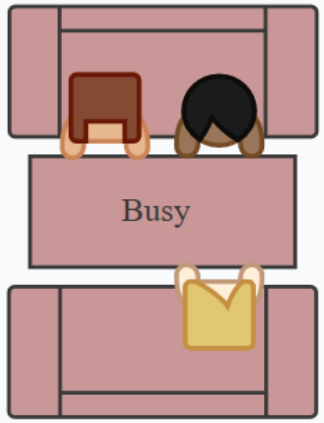
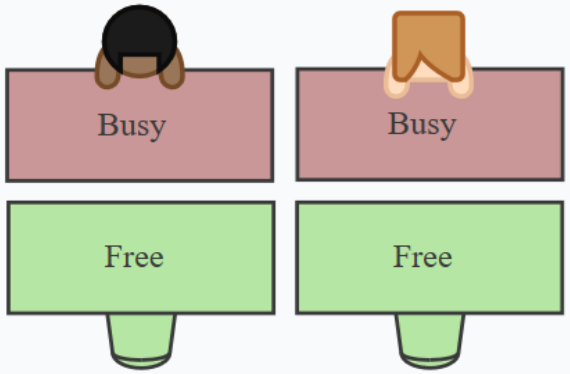
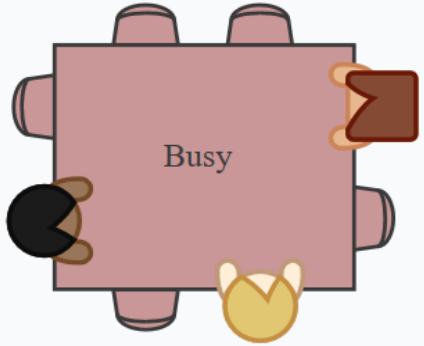
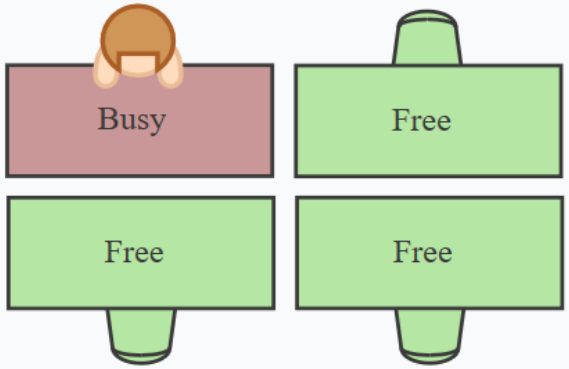
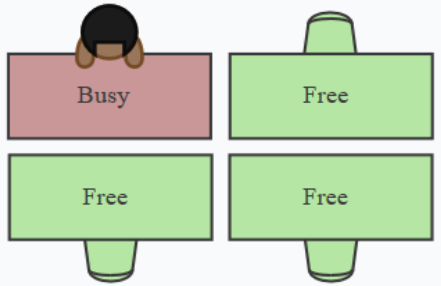


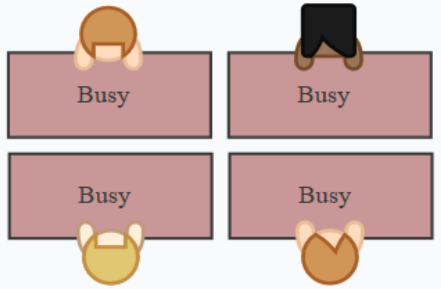


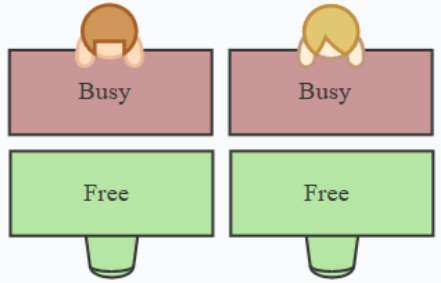




Property Office







UNIQTEC

Andy Digby

Scottow Temperature and Humidity Monitoring

Current Status | Historic Overview

Sensor 1
9 minutes, 49 seconds ago

19.8 °C
48 %
3.01 V

Sensor 2
9 minutes, 24 seconds ago

15 °C
49.5 %
2.96 V

Sensor 3
11 minutes, 52 seconds ago

13.3 °C
52.5 %
2.95 V

Sensor 4
28 minutes, 41 seconds ago

15.1 °C
52.5 %
2.95 V

Sensor 5
38 seconds ago

13.1 °C
81 %
2.96 V

Sensor 6
8 minutes, 10 seconds ago

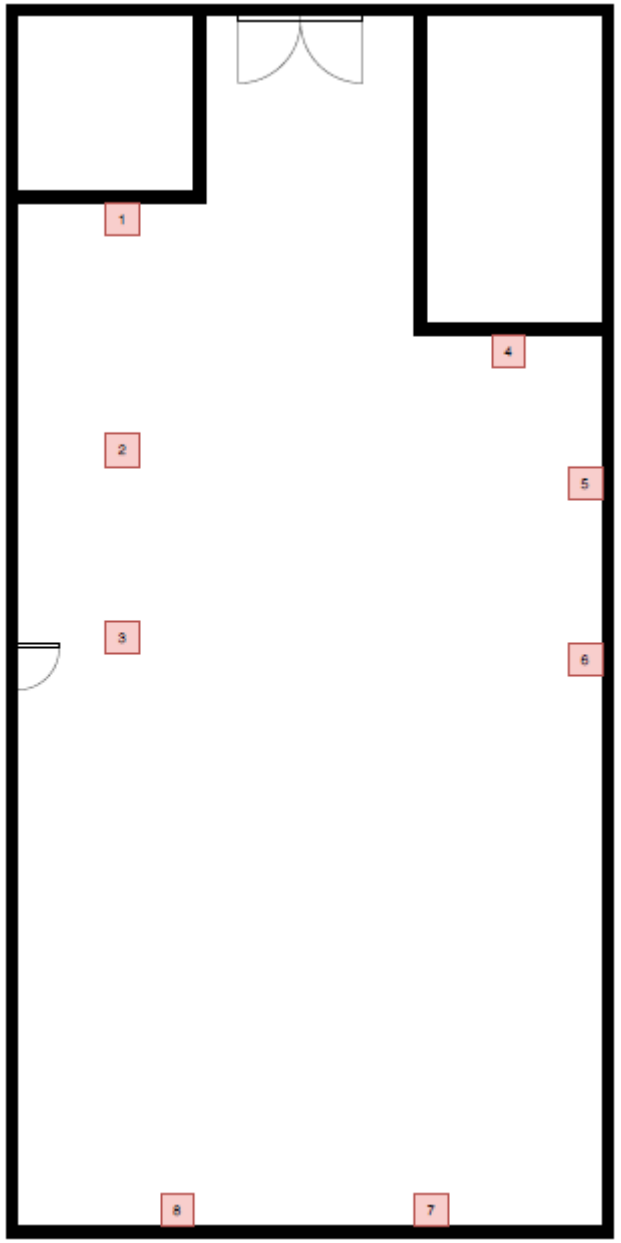
16 °C
51.5 %
2.95 V

Sensor 7
7 minutes, 30 seconds ago

12.9 °C
58.5 %
2.88 V

Sensor 8
12 minutes, 28 seconds ago

12.7 °C
54.5 %
2.96 V



Case study: Schools Digital Skills Development

Norfolk County Council

Schools Digital Skills

Case study: Innovation Network - Assistive Technology & Sensors

Norfolk County Council

Norfolk County Council

Working to make Norfolk the best connected rural county in the UK

Innovation Network

Assistive Technology

Norfolk County Council

Fact File

- Norfolk County Council spends £1m per day on adult social care for 14,000 people in Norfolk, predominantly for care services commissioned from 700 providers. The care market employs 27,000 people.
- Last year, 20,205 people received short term and long-term care packages and 5,000 had reablement services – helping them to get back on their feet after a crisis
- Demand for services is growing, with a rise in the number of over 65s – up 31 per cent, from 209,700 in 2015 to a predicted 274,800 in 2030
- The over 85 population will rise by 77 per cent over the same period and Norfolk has the third highest prevalence of dementia in the region

Norfolk County Council

Scope

- Using the Innovation Network this project will implement a closed field trial of discreet and simple to install sensors.
- Data stored on NCC Microsoft platform
- Capita funding via social value fund
- Capita provide sensors and platform for analysis of data
- It will also inform future decision making and business case development around the use of the Technology which if successful will be shared nationally

Deployment

Oct 2020	Nov 2020	Dec 2020	Jan 2021	Feb 2021	Mar 2021	Apr 2021

Work Package One – Scoping & Funding

AT / IMT Installation

Work Package Two – Installation, Build & Testing

Norse Care Installation

Work Package Three - Review Technology, Processes and Data

Norfolk County Council

Sensors

- Sensors
  - **Motion, Light Temp in each room** — Netvox RB11E LoRaWAN Occupancy Sensor X 12
  - **Kettle Use** — Netvox R809AG LoRaWAN Power Plug X4
  - **Front & Back Door** — Netvox R311A – LORAWAN DOOR/WINDOW CONTACT SENSOR X 6
  - **Shower Taken** — Netvox R711 LoRaWAN Temperature Humidity Sensor X 4
  - **Chair occupied** — Netvox R311WA wireless seat sensor X 4
  - **Bed occupied** — Netvox R311WA wireless seat sensor X 4
  - **Fridge open/close** — Elsys Mini Sensor or Netvox R311A X2
  - **Microwave Use** — Netvox R809AG LoRaWAN Power Plug X4
  - **Cupboard open/close** — NETVOX R311A – LORAWAN DOOR/WINDOW CONTACT SENSOR X4
  - **Cutlery Drawer open/close** — NETVOX R311A – LORAWAN DOOR/WINDOW CONTACT SENSOR X 4
  - **Kettle Use** — Netvox R809AG LoRaWAN Power Plug X4
- Locations
  - Test House - AT/IMT staff homes

Norfolk County Council

Sensors

- Sensors
  - **Temperature, Light, Motion (all-in-one)** Netvox RB11E LoRaWAN Occupancy Sensor X 12
  - **Kettle Use / Power Outlet Use** Netvox R809AG LoRaWAN Power Plug X4

- Locations
  - HwC scheme (Bowthorpe and GFC)
  - Accommodation based reablement schemes (Benjamin Court, Gray Fairs Court)
  - Still to be confirmed with Chris Metcalf

Case study: Integrating the Fire Service

Norfolk County Council

Integrating the Fire Service

We have now fully integrated the Norfolk Fire & Rescue IT service into the wider NCC IT service.

- In April 2020 the Fire and Rescue IMT team joined the Corporate IMT service
- The IT helpdesk has now been successfully integrated into the Corporate IT helpdesk
- The IT infrastructure has been merged with the Corporate IT Infrastructure
- We are in the process of updating all fire service devices to Microsoft Windows 10 and Microsoft Office 365.
- We have started the deployment of new laptops across the Fire & Rescue service

The Emergency Services Network (ESN) is a critical communication system which will replace the current Airwave service. ESN is a major national project which includes the police, fire and rescue, and ambulance service as well as a range of other users inc. local authorities. The delivery of the new service has started, it will deliver improved voice and data services using new handheld devices or operating equipment in vehicles, aircraft and control rooms.

Norfolk County Council