

Digital & ICT STRATEGY

2018-2021
Case Studies



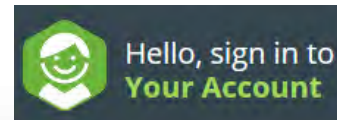
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Case Study – ‘My Calderdale’ Citizen Account



The Council launched its **My Calderdale** citizen account in March 2017, as a means of providing a one-stop shop for our citizens. The solution includes Oracle’s enterprise Identity and Access Management cloud platform (IDCS). This piece of software will enable us to deliver scalable and secure identity services for customers creating a My Calderdale account. This feeds into two of our service priorities: Customer – Implement the Customer Services Strategy and IT/Transformation.



The Council’s Digital and ICT Strategy emphasises the importance of having the right infrastructure in order to successfully deliver digital progress. The IDCS allows us to provide a seamless experience for our residents, businesses and visitors accessing the My Calderdale Customer Account, by having a single sign-on functionality. This will allow the customer to access multiple accounts they may have with the Council (library, sports, benefits etc.) through one set of log in credentials. The target for March 2018 is 10,000 customers.

Customers will be able to tailor their My Calderdale account to their individual needs with the ability to opt in and out of services, receiving status updates on anything they have reported, receive news updates, event information etc. of their choice and choose their preferred method of contact.



A Knowledge Portal is being developed to enable customers to get answers to their questions more quickly and easily online. Customers will be able to discuss, rate and subscribe to any answers within the knowledge foundation. The portal will be a rich and dynamic source of information for a more superior customer experience.

Case Study – Leeds Beckett University, University Business Centre - Halifax



Supporting Business Success

Leeds Beckett University and Calderdale Council have signed a formal agreement with the aim of working together to boost the economy in and around Calderdale, promising to work collaboratively to provide joint business support and engagement, learning, research, development and outreach opportunities.

This builds on the success of a previous project, which saw the University work with Calderdale Council to deliver support to over 350 SMEs in Calderdale over a 4-year project.

The University Business Centre – Halifax opening at the newly refurbished Piece Mill in Autumn 2017.

“Leeds Beckett University is delighted to be able to provide a University presence in Halifax and hope that businesses will work with us to help boost business and economic growth in the district”, says Centre Co-ordinator, Jesse Stott.

There is clear research that show having a University presence in an area helps to **raise levels of aspiration and attainment**, as well as supporting the retention of skilled graduate labour within a region.

The University Business Centre will help to create new jobs and new businesses as well as increasing the numbers of higher level jobs. The business support that Leeds Beckett University provides to early stage businesses is proven to almost double business sustainability.

The University Business Centres have over 15 years’ experience of successfully supporting more than 800 businesses to grow with a collective turnover of £42 million and 1300 jobs created.

Halifax was at the heart of Victorian manufacturing and now that technology is moving on the University can also help to develop new technologies, supporting regional growth.

Leeds Beckett University is local to Halifax and delighted to be partnering with Calderdale Council to support the prosperity of the region by helping to develop technology in the North. This also supports growth through the Northern Powerhouse agenda.

In partnership, Leeds Beckett University and Calderdale Council have sourced European funding to help fund business support activities in Calderdale. Through a programme called [Ad:Venture](#) the University will offer business development and academic expertise to early stage businesses or businesses, digital businesses, or businesses looking to develop digital solutions in Calderdale.

In addition there are a wide range of other [benefits](#) that businesses can access by working with a regional University, such as access to funding, academic expertise and graduate talent.

Leader of Calderdale Council, Cllr Tim Swift, says:

"We're delighted to welcome Leeds Beckett University to Halifax, as it underlines our commitment, and our ambition, to drive economic growth across Calderdale. We have a strong entrepreneurial tradition in Calderdale, with over 6800 small businesses already based here. Our partnership with the University will help these businesses to thrive, inspiring innovation and sharing the knowledge and skills to encourage growth and the creation of new jobs."



The Piece Mill, (adjacent to the historic Piece Hall), is now home to the University Business Centre in Halifax – providing access to business advice, mentoring, professional training and development, knowledge transfer and research expertise.

The University Business Centre will provide a range of office services including private offices, co-working, hot-desking, and registered business addresses. Businesses can benefit from using their free business lounge as well as access to professional meeting and events space. The University will also deliver regular free Innovation Network events in partnership with The Yorkshire Post and Halifax Courier to inspire business innovation and growth.

Further information about how businesses can benefit is available at: www.leedsbeckett.ac.uk/halifaxbusinesscentre



Case Study – The Victoria Theatre



The Victoria Theatre is a unique heritage and live arts venue, whose magnificent architecture serves as a gateway into the town centre: a projection of the town's ambition and history. Originally a world class concert venue, today it is the largest all year venue in the Borough. Capable of attracting up to 2,000 people per performance into Halifax the venue currently adds £5m p.a. to the local economy with significant scope for growth.

Bought by the Council in the 1960s and converted into a hybrid theatre/concert hall, the venue continues to deliver a high quality, diverse cultural offer for residents and tourists. The venue contributes substantially to the Council's priorities and is in the process of delivering an exciting and ambitious improvement programme, which includes engagement with and use of digital technologies and agendas.

The theatre's improving reputation and services are being driven and enhanced by the adoption of an evolving digital strategy. The vision is to make best use of this significant cultural asset, by delivering a digitally-equipped venue that is capable of hosting cutting-edge productions and services. This will further project Halifax and the Borough into the regional and national consciousness.



What does the Victoria Theatre contribute?

The theatre is a key part of the Borough's cultural provision, contributing to all the Council's priorities:

Grow the Economy

- The Victoria provides a multiplier to economic benefit generated by the wider cultural offer especially in complementing and supporting the Piece Hall
- Draws over 90,000 people per year into Halifax, many use local businesses some of whom plan their staff schedules around the theatre's programme.
- In 2016/17 the theatre's contribution to the local economy was calculated to be £5,227,165
- Every £1 of service subsidy generated £22.06p in economic benefit
- There is significant potential with investment to further grow these benefits
- Local performing arts schools have access to the theatre, which supports their business model

Reduce Inequalities

- Engagement in the arts and culture has a broad range of personal, social and community benefits, which can positively impact educational attainment, community cohesion, wellbeing and self-esteem.
- Provides opportunities for personal, social and creative growth in Calderdale children and adults who regularly access the venue in significant numbers
- Provides an exciting, quality training platform for young people offering a gateway into careers in performing arts
- The theatre is unique in England in offering a clinical Creative Arts Therapy Service working with some of the most deprived and challenged adults and young people in Calderdale. The service is in the process of being expanded to provide a continuum of creative opportunities

Build a Sustainable Future

As a part of the wider cultural offer and community in the Borough the theatre provides opportunities to develop a sustainable future by:

- Projecting the town and Borough in a positive light well beyond geographical boundaries
- Supporting and encouraging cultural tourism
- Mutually supporting the successful delivery of Piece Hall and other cultural investments
- Enlivening the town and making it more attractive for people to live and work in Halifax

The key issues for the theatre are not ideas, but investment and delivery capacity. The Victoria Theatre has been actively engaged with transforming services to make best use of digital for many years and in 2017 is delivering:

- New Box Office software
- Web Site re-launch
- Upgraded venue Wi-Fi provision
- Use of back-stage digital technologies
- Live data feed to Arts Council England's 'Audience Finder' programme – specifically designed to support cultural services in profiling and targeting current and potential audiences



Recognising the acceleration of the digital agenda and associated customer and commercial expectations, the venue has an opportunity to make a step change in the use of digital services to achieve a number of aims outlined in its Digital Strategy. The key next steps are to explore:

- **Making best and fullest use of new software and digital technologies including:**

- Encouraging customer use of, engagement with, and access via, digital technologies
- Efficient promotion of the venue, the programme and the Comedy Festival
- Demographic profiling/targeting of audiences to make evidence-based business decisions



- **Cultural development and digital content**

- Enabling access to and the presentation of digitally blended and integrated cultural products e.g. live theatre, music, immersive experiences etc.
- Generating purely digital resources and content for consumption e.g. complementary products and heritage resources

- **Access**

- Streaming of performances into remote Calderdale locations e.g. Care homes
- Screening of live performances by National Theatre etc. within the Victoria Theatre

- **Facilitate strategic commissioning, integration, planning and delivery of services**

- Working strategically with Health and Wellbeing Commissioners to encourage engagement with arts and culture / the Victoria Theatre
- Promoting the Town as a culturally vibrant digitally enabled destination

- **Marketing, Promotion and Sales**

- Developing strategy to accelerate the shift to online and digital platforms.
- Improving the quality and nature of promotions by installing 'digital' posters in and around the theatre, developing SMS promotions and messaging and encouraging fuller interactions via Social Media platforms
- Develop digital aspect of the venue's brand to help refresh and promote the venue to a younger and more digitally savvy audience, through search engine optimisation and developing digitally orientated brand messaging.



Case Study - Taxi Licensing



that contains information regarding all licence holders within Calderdale. Leeds are already using this system and Bradford and Kirklees are also in the process of introducing it.

Calderdale's Licensing Department is embarking upon a new way of **partnership working** with the other West Yorkshire authorities plus York.

We are currently introducing additional system functionality to our **Uniform** IT system from IDOX, as part of a process to rationalise software costs. Uniform is a database system holders within Calderdale. Leeds are already using this system and Bradford and Kirklees are also in the process of introducing it.

Once up and running Licensing will be able to access read-only information from the other service areas that currently use or will use the Uniform system, i.e. Planning, Building Control and Environmental Health.

The authorities involved in this project have regular meetings and are currently developing a new way of working in which officers will have authorisation from each of the other authorities to deal with licensed vehicles from any of the areas. They will also be able to view limited information from each of the other authorities' databases to assist enforcement.

This will help to establish whether any applicants had a licence refused, revoked or suspended previously in any member authority be they Private Hire, Hackney Carriage or Dual Badge Drivers.

Our new "I apply" system to go live soon, meaning new licence holders will be able to apply for their licenses online. This will make it more convenient and quicker for the taxi drivers and will reduce administration.



We will build on the success of this system to provide an effective and efficient service for our customers and improve and strengthen the partnership working we have with our neighbouring authorities.

This will assist in the **safeguarding** of the general public not only in Calderdale but in the **whole of West Yorkshire**.

Case Study – Open Data

Open
Data

**CALDERDALE
DATA WORKS**

Our Open Data Platform - [Calderdale DataWorks](#) - was launched in September 2015 and has been used extensively since to publish Open Data.

This ranges from frequently requested Freedom of Information enquiries (42 business rates-related FOIs were answered by reference to DataWorks last year for example) to compliance with the government transparency code and is central to our ambition to be open by default. The platform runs on the same DataPress technology that powers Data Mill North, London DataStore and Data.Gov.Uk.

We have published over [180 open datasets](#) putting us consistently in the top ten nationally and we have published a diverse range of datasets such as planning, school data, allotments, libraries, environmental health, defibrillators, grant funded projects and air quality. We have 14 different publishers such as Northern Powergrid, British Cycling and Citizens Advice Calderdale as DataWorks is intended to be an open data platform for Calderdale the place rather than just for Council data.

Regional collaboration and innovation

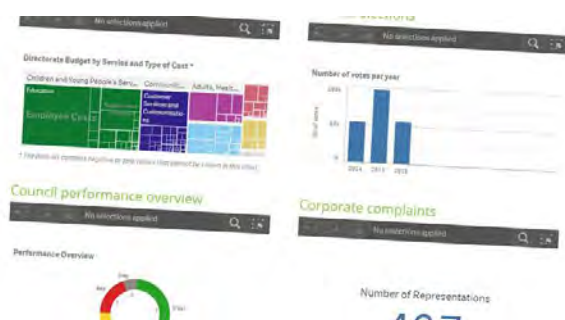
As sponsors of [ODI Leeds](#) we are able to collaborate with regional organisations in the public and private sector including other Councils, Universities, KPMG, Bloom Agency and the West Yorkshire Combined Authority ([WYCA](#)) on [innovative projects](#), access a range of digital and technological expertise, and take part in events and hacks on subjects such as Highways, Flooding, Air Quality, and Travel and Transport, many of which are key Council priorities.



Above: *an innovation hack day at ODI Leeds*

We have also been working with Leeds City Council on an Local Government Association funded project aimed at increasing physical activity to support independent living, and working with ODI and Sport England to bring the principles of the [Open Active project](#) to the region. We also publish sports activity, pitches, and facilities data in line with our Active Calderdale strategy.

Using Open Data



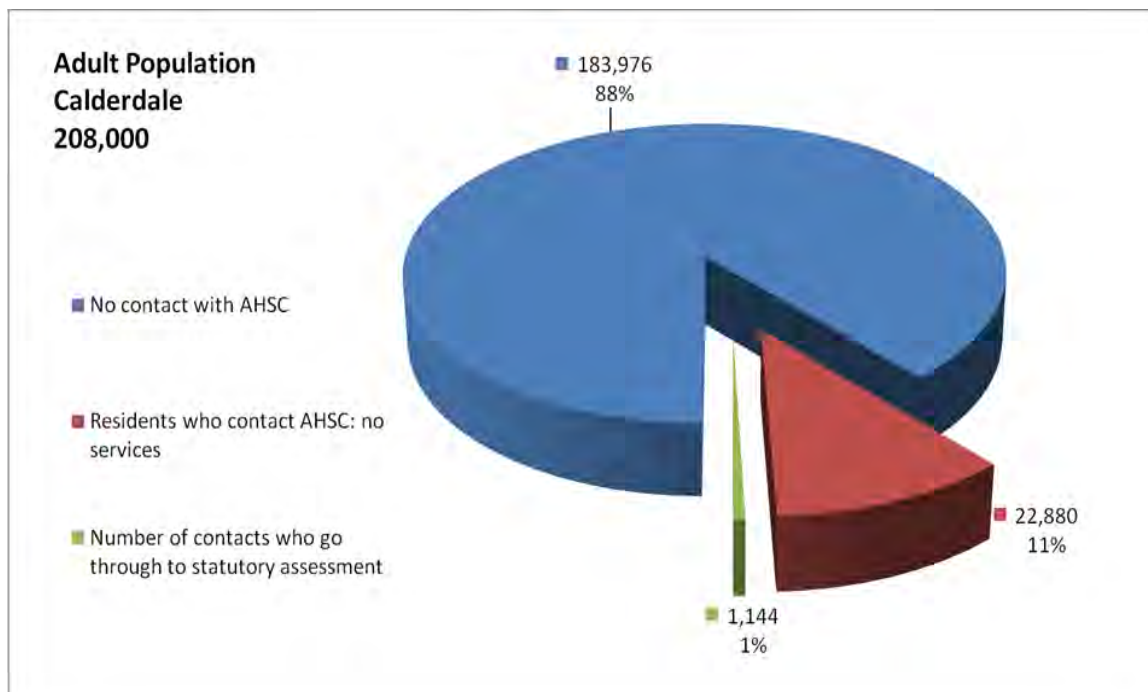
Being an open and transparent organisation by publishing data is in itself a good thing but there are many examples of apps and projects using open data such as the [Scores on the Doors](#), [Crime and Safety Tool](#), [Great British Toilet Map](#), [Ward Explorer](#) and [Out for the Count/Democracy Club](#).

Left: *Our citizen performance dashboard*

We have published more detailed information about Calderdale such as [ward](#) and [neighbourhood](#) profiles and population, and public health and deprivation data, to provide a richer picture of Calderdale, the place, which has helped services and voluntary sector organisations with funding bids. Our [interactive dashboards](#) bring the data to life and make it accessible to a wider audience, using visualisations, and allowing self-service interrogation and scrutiny of data and our performance.

Case Study – Gateway to Care Online

Early intervention and prevention, the gold-standard of good social care, has never been more urgent. In Calderdale, the Gateway to Care service has achieved impressive results in enabling individuals to maintain their independence, to continue to live in their own homes and to avoid the need for traditional social care services. However, Gateway to Care only reaches 11% of the population of Calderdale, is only available during office hours, and is dependent on telephone and personal contacts.



Gateway to Care Online is designed to build on the successes of Gateway to Care by digitally replicating the same personalised pathways and strengths-based practice. Based on graphically

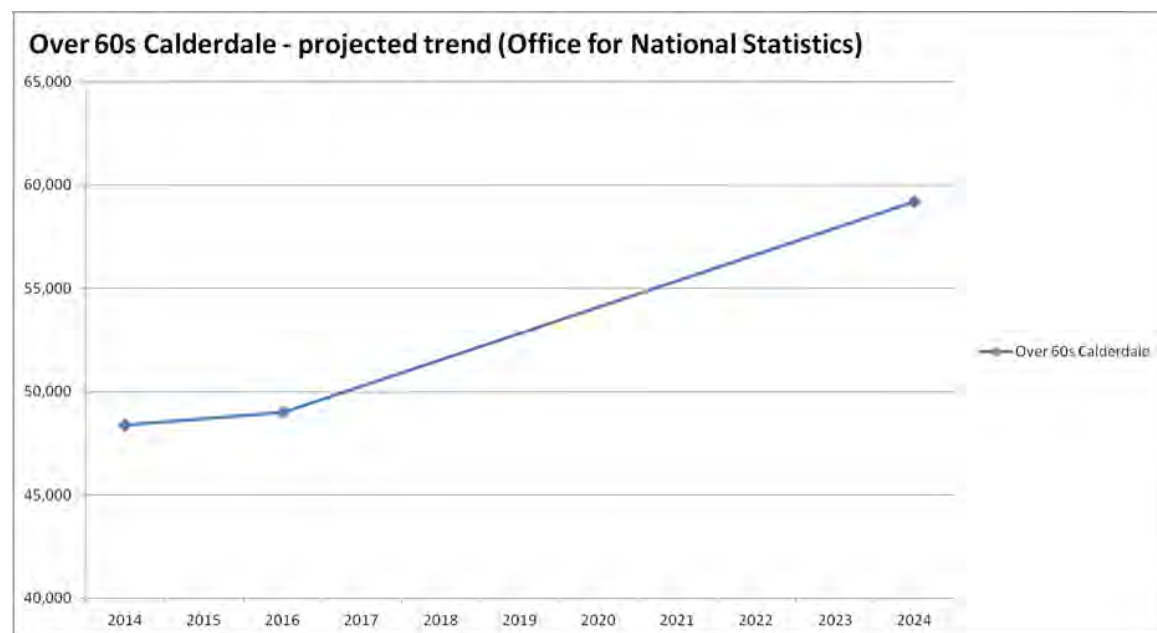


illustrated self-assessment and enhanced with artificial intelligence and chatbots, this online tool will put the Council's professional knowledge, standards of good practice and early intervention strategies directly into the hands of the general population.

The technology will have the capability to listen, write and chat online (conforming to international accessibility guidelines) and is designed to understand and interpret thousands of questions and answer with clear and simple responses and suggestions.

For people with reading difficulties, if English is not their first language or they have physical disabilities affecting their ability to use a keyboard and mouse – the **Gateway to Care Online** chatbot will guide users through all stages so that they will achieve the same outcomes as people using conventional interfaces.

'Sign-posting' to external information (e.g. NHS Choices, e-marketplaces, community assets, Care Quality Commission reports, third sector sites, targeted research etc.) will ensure that people make well-informed decisions about meeting their social care needs.



Available 24/7 and not rationed by time or availability, **Gateway to Care Online** will be a cost-effective and safe digital solution, reaching new target populations (e.g. self-funders) and delivering independence and self-directed support to all users. It will contain the rising costs of providing traditional Gateway to Care, while delivering an online channel exceeding the expectations of people looking for digitally managed social care information.



Case Study – An Internet of Things (IoT) Data Network for Calderdale



[AB Open](#) is a technology consultancy based in Halifax that specialises in wireless communications and embedded computing — intelligence that can be found embedded in everyday products — and was selected to deliver a [government backed innovation programme](#) for the benefit of SMEs. The focus for this is a new wireless technology that enables communication over long distances, while using very little power, and without the need for a SIM card or cellular contract.



This revolutionary “low-power wide area network” (LPWAN) technology holds the promise of being a key enabler for the Internet of Things (IoT), since it consumes so little power and yet can communicate over distances of up to 15km. Example applications for which include remote river level monitoring, where a sensor transmitting a reading every 15 minutes might achieve a battery life of around a year with only a single AA sized lithium battery.

Left: **A Flood Network sensor**

Working in partnership

Upon being selected to run the prestigious [IoTUK Boost programme](#) — one of only six such initiatives being run across the UK — AB Open set about building partnerships and Calderdale Council were the first to commit their support. This has included, amongst other things, helping to identify SMEs in the area that might benefit from integrating LPWAN technology into their products and services. Also, providing a site for base station equipment where this will offer excellent coverage, thereby enabling the maximum number of businesses in the region to make use of the network to support the development of new products and services, and subsequently trialling these.



Above: **A Flood Network sensor being installed on the Calder**

[LoRaWAN Reaches New Heights with Gateway on 275ft Tall Landmark](#)



Aiming high

Another important aspect of the programme is building additional key partnerships, and AB Open secured support from partners Calderdale Council, [The Things Network](#) (TTN), [Microchip Technology](#), and [RS Components](#), who sponsored the power solution for the gateway installation and provided expert advice.

If you wanted to locate a LoRaWAN gateway in Calderdale where it would provide service to the greatest number of users, where would you put it?

The answer to which if you know the area, is [Wainhouse Tower](#) — a Victorian structure that is getting on for 300 feet tall and lays claim to be the tallest folly in the world!



Site installation

Thanks to the excellent support received from Calderdale Council, AB Open has been able to install the Boost gateway on the top of the tower, following all the necessary due process concerning planning and conservation etc. The antenna was secured to the masonry without the drilling of any holes and in such a way to prevent damage, with this and fixings painted black to help them blend into the background.

Right: **Antenna attached to top of Wainhouse Tower**

LPWAN is low power wide area network, in a class of network like LAN and WAN.

LoRaWAN is a particular system and standard, based around the LoRa (long range) wireless technology.

There are other LPWAN technologies, such as SigFox



Next steps

Now that the Boost gateway is live, attention is turning to supporting the Boost participants in making good use of this. Of course, since it's connected to The Things Network, it's also open for use by any other members of TTN community and any questions should be directed to the [Calderdale Community](#) category on The Things Network forums.

A myriad of smart opportunities



Above: **LPWAN Development Kit**

The uses for LPWAN technology are by no means limited to river level sensors used in flood monitoring, and there are many opportunities across the private, public and non-profit sectors. These include enabling the creation of new products and services where significant additional value comes from the ability to send and receive small amounts of data, along with the smarter provision of services in the borough through closer monitoring of their quality and use.

One of the most exciting things about LPWAN technology is that it lowers the barrier to innovation and it is possible to start experimenting with very little outlay. Whether you are interested in monitoring air quality for environmental applications or soil moisture for agriculture, or remotely updating displays with event information, LPWAN together with low cost hardware makes it possible to prototype solutions for minimal cost and in a very short period of time.



[Andrew Back](#)

To find out more about the programme please contact AB Open via: iotukboost@abopen.com

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