Digital Innovation Challenge

Unlocking technology to improve care

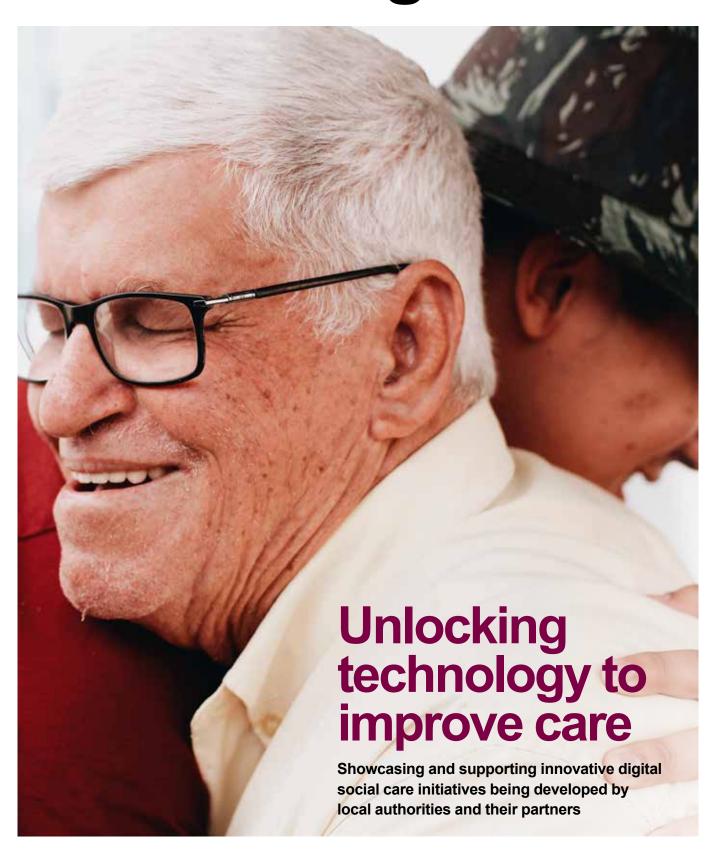**Showcasing and supporting innovative digital social care initiatives being developed by local authorities and their partners**

Foreword

The unprecedented circumstances of the past 16 months have demonstrated social care's capacity to evolve rapidly. They have also highlighted the possibilities digital technology offers around empowering and connecting people, delivering proactive services and supporting staff.

Nonetheless, as the recent ADASS-TSA commission report confirmed, it is still too rare that the potential offered by digital solutions is being fully explored. Acute resource pressures, and the continued lack of a sustainable long-term funding settlement, hinder local authorities from investing in and integrating creative solutions, which can often reduce costs as well as improving services.

Mindful of these points, ADASS is keen to bolster councils' capacity for harnessing new technologies to achieve better outcomes for individuals, families, carers and the workforce. So we teamed up with Microsoft to create a Digital Innovation Challenge aimed at uncovering, nurturing and promoting some of adult social care's best ideas – which can hopefully offer inspiration to peers across the sector.

We invited local authorities in England to bid for the opportunity to access Microsoft's expertise, to help them develop, accelerate and refine their projects. Thirty responded, with 10 finalists participating in a virtual Dragon's Den-style session, pitching ideas to ADASS and Microsoft representatives, in June.

The high quality and wide range of applications speaks volumes for the ingenuity at work in councils, working with partners and with people who access services. Our panel of 'dragons' have now, after a tough decision-making process, chosen four initiatives – from Shropshire and West Midlands ADASS, Wirral, Leicestershire and Telford and Wrekin – that will benefit from Microsoft support.

Just as important, we need to embrace this as a collective challenge, sharing learning as we go. This report aims to shine a light on this inventive thinking in what we hope will become a regular showcase. We'd like to extend heartfelt gratitude to all applicants for sharing your projects and ideas, and to thank our colleagues at Microsoft for joining with us to help drive digital innovation in adult social care.

What is the Digital Innovation Challenge?

The Digital Innovation Challenge is an initiative developed in partnership by ADASS and Microsoft, aimed at supporting and promoting work by local authorities and their partners that unlocks the potential technology offers for people who access and work in adult social care.

The scheme, inaugurated in 2021 in the wake of the sector's rapid tilt to digital during the Covid-19 pandemic, aims to deliver direct support in the form of advice and technical expertise, and to provide a showcase for progressive practice.

Councils across England were invited to submit applications for assistance, with their remit set as broad as possible so as to cater for both fledgling concepts and established projects looking to evolve or scale up.

For this year's first edition of the challenge, representatives from ADASS and Microsoft assessed submissions based on criteria including their level of innovation, their potential impact for citizens and for the applicant organisation, their ability to promote inclusion and the extent to which they have been developed with people with lived experience.

Ten projects were shortlisted from 30 applications. Teams representing the 10 finalists took part in a Dragon's Den-style pitching event, conducted virtually because of the pandemic, with four being selected to receive support from Microsoft in developing their projects.

Meet this year's panel

Phil Porter
Strategic Director For Community Wellbeing, Brent Council

Ian James
Adass Associate And Digital Innovation Challenge Chair

Kenya Mckenzie-Jones
Digital Strategist (Worldwide Public Sector), Microsoft

Nicole Miners
Public Sector Specialist, Microsoft

Alison Tombs
Adass Trustee And Assistant Director For Wellbeing And Assessment, North Tyneside Council

Helena Zaum
Industry Solutions Manager, Microsoft

Shropshire and West Midlands ADASS: a region-wide data analytics model

THE CONCEPT
Collaborative analytics platform to help shape services and policy, enhance decision-making and evaluate new technology

THE VERDICT
An initiative that can forge a region-wide data-driven approach and set the agenda in tackling both health and social care challenges

The three representatives for West Midlands ADASS (WM-ADASS), in partnership with Shropshire Council, went further than any other Digital Innovation Challenge participants in making sure their virtual backgrounds were on-brand for the Dragon's Den-style session. But it wasn't only this effort that piqued the judging panel's interest.

Their pitch, the Midlands Integrated Data Asset (MiDAs), is a concept, based on existing digital infrastructure hosted by Shropshire, for a collaborative data analytics platform that can provide crucial insight across integrated care systems (ICSs) and partner organisations.

The project, which has buy-in from all 14 West Midlands local authorities including via a data-sharing agreement, aims to provide an integrated solution that will link ICSs across the region, helping with policy development, service design, strategic decision-making and evaluation of technology. WM-ADASS has already developed a 'data and intelligence hub' that pulls together information from a range of sources and is in use both within boroughs and at regional level.

In a selection of slides that impressed the 'dragons', WM-ADASS representatives demonstrated an array of dashboards that organisations have access to. These provide a rapid overview of the local care market and enable users to quickly zoom in on individual local authority areas, or to drill down into important metrics such as Covid-19 vaccination levels among staff.

Looking ahead, a key ambition for MiDAs is for it to deliver analysis that can enable a deeper understanding of population-level inequalities citizens face, and therefore sharpen focus on solutions that can further social justice aims. "Ultimately data and technology are nothing unless they are being used to humanise and personalise the services we provide to the communities that we work with," WM-ADASS programmes manager Pete Jackson told the Digital Innovation Challenge judging panel.

Jackson and his colleagues' request for Microsoft assistance centred on several elements. These included developing a data repository able to meet local authorities' and NHS partners' requirements, offering a 'critical friend' perspective on progress to date, and helping explore ways in which individuals' interactions with services could be captured as part of broader analysis.

While the judging panel highlighted a few areas in which the WM-ADASS bid could have been strengthened – notably in terms of defining exactly how the "whizzy" suite of analytics will be applied to solving people's problems – they agreed that all of these could worked through.

Moreover, the MiDAs concept scored highly against the Digital Innovation Challenge criteria, crucially in terms of how it was already addressing issues of partnership working and scalability by taking a region-wide approach involving both local authorities and the NHS.

> *Ultimately data and technology are nothing unless they are being used to humanise and personalise the services we provide to the communities that we work with* "
Pete Jackson, programme manager, West Midlands ADASS

Successful projects

Wirral: telecare hub providing 'a single version of the truth'

THE CONCEPT
Holistic solution pulling information from sensors and health and care records to support decisions and enable early action

THE VERDICT
A mature and comprehensive scheme that can help evidence the benefits of digital-driven, risk-focused approaches to service delivery

"We never rein in ambition – we are going to get to where we need to," Wirral Council's lead commissioner for the community care market, Jayne Marshall, told the ADASS-Microsoft judging panel in a determined ending to the Merseyside borough's pitch.

It was an appropriate closing gambit, given that one of the only reservations voiced by the Digital Innovation Challenge dragons was whether Wirral's scheme – to complete a holistic telecare solution serving both operational and strategic needs – was too vast in scope.

The local authority – which has buy-in from local health partners, care providers and the voluntary sector – plans to pull together data analysis from a range of home-based and wearable sensors, as well as health and care records.

The goal is to create a unified platform serving "a single version of the truth" that can be drawn on by everyone from call-centre operatives to commissioners, to inform both day-to-day and macro-level decisions. Wirral also wants its programme to serve more broadly as a proving ground for the benefits that its approach, and similar ones, can bring to adult social care.

"We have the Wirral Care Record, which is all the health information being pulled together in one place for an individual, and we're combining that with an individual's LiquidLogic record," explained Michael Hanrahan, Wirral's telecare and telehealth manager. "The new areas that will come into play are around our sensor-based, smart-home approach to telecare. We can see how people live their lives and understand changes that take place may be indicative of a problem occurring or, at the other end of the scale, if somebody is in a rehabilitation process, we can actually see that person's health and condition improving."

Wirral has already invested over recent years in integrated commissioning and technology-enabled care (TEC) infrastructure, with the aim of taking advantage of the increasing opportunities offered by sensor technology around unobtrusive monitoring of health and wellbeing. The council has also been in discussions with other like-minded North West local authorities, and tech providers, about ways in which technology can be used to support service delivery.

In terms of assistance from Microsoft, Wirral's requests were mostly technical – around stratifying and managing its data, down as far as considerations such as the frequency that different data points need to be collected, and generally acting as a 'critical friend' able to offer oversight and feedback. The council acknowledged to the judges that the quality of its social care data was at present not yet matching that of health.

Despite the panel posing a few searching questions, when it came to crunch time at the end of the day, most quickly agreed that Wirral should be on the shortlist.

"It's a mature project that I think is going to provide evidence, from a technical point of view, for the direction of travel for this kind of risk-focused approach to service provision," said Microsoft's Helena Zaum.

> *We can see how people live their lives and understand how changes that take place may be indicative of a problem occurring or, at the other end of the scale, see someone's health and condition improving*
> **Michael Hanrahan, telecare and telehealth manager, Wirral Council**

Telford and Wrekin: building the evidence base for preventative services

THE CONCEPT
Data analytics solution to evaluate the impact of co-designed interventions and inform their future development

THE VERDICT
A clearly adult social care-oriented initiative based on a comprehensive set of tools and with a sharp focus on improving people's outcomes

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We would like to develop an interactive, real-time accessible dashboard, and we want to be challenged on what data to capture, from the plethora of information at hand via our systems ❞
Clare Hall-Salter, service delivery manager for service improvement and efficiency, Telford and Wrekin Council

Telford and Wrekin Council's confident and straightforward pitch snared the judging panel's attention from the outset. The presence of the council's DASS Sarah Dillon and her team's ability to make their case without attempting to blind the dragons with numbers were two factors that helped cement a favourable reception.

The West Midlands local authority has in recent years built its adult social care offer around preventative services in consultation with people with lived experience and in partnership with the local voluntary sector. This co-production-driven approach has influenced the development of a range of place-based and digital elements, centred on a Virtual House and a physical Independent Living Centre (ILC), both of which are openly accessible.

The former has – uniquely according to the council – been based on technology usually used for museum tours, enabling citizens to navigate a lifelike home and view items of assistive technology and other aids to independent living in-situ.

Meanwhile the ILC, prevention and enablement service delivery manager Michael Bennett explained to the judges, "provides a one-stop shop for all information, advice and guidance and early help assessments – including from an independent voluntary sector, trusted assessors, the therapists and social workers". Volunteers at the centre include people with learning disabilities, sensory impairments and physical disabilities, who deliver advice and guidance about the kit on offer.

"We now need to develop a sophisticated model for capturing the quantitative and qualitative data from our own systems [including visits to the ILC and Virtual House], and from our partners' systems," said Clare Hall-Salter, Telford and Wrekin's service delivery manager for service improvement and efficiency.

The aim in harvesting this data would be to evidence the impact – including over the longer term – of the council's investment in preventative services to date, and to steer its future priorities. "We also want to demonstrate the impact on reducing demand on acute services," Hall-Salter explained. "We would like to develop an interactive, real-time accessible dashboard, and we want to be challenged on what data to capture, from the plethora of information at hand via our systems."

Grilled by Microsoft's Kenya McKenzie-Jones on the council's approach to managing the quality of that data, Hall-Salter impressed the panel by responding that this was part of training at all levels, backed up by a specialist quality assurance team. Dillon, the local authority's Caldicott guardian, also set judges' minds at ease around how issues around citizens' consent to the use of their data were being addressed.

Deliberating at the end of the presentation, Microsoft and ADASS representatives commended the scheme's clear social care focus, preventative ethos and the fact that it was centred on people's outcomes and how these could be improved. One element the judges felt may need attention was ensuring that Telford and Wrekin's model could be replicated in other local authorities that were less far advanced in terms of their interventions.

Leicestershire: Social care chatbot with a human touch

THE CONCEPT
'Digital support worker' to help citizens or family members explore social care services and access the information they need

THE VERDICT
A solid, well-rounded project with the potential to deliver great benefits for the adult social care sector and beyond

> *If you're not sure what it is you're looking for, or whether social care can help, navigating around services online can be really quite daunting – especially if you're having to do this at a point of crisis*
>
> **Claire Jones, head of direct services, Leicestershire County Council**

"Navigating around social care services is extremely challenging – even for those of us who work in it on a daily basis," Claire Jones, Leicestershire County Council's head of direct services told the panel of dragons. "If you're not sure what it is you're looking for, or whether social care can help, it can be really quite daunting – especially if you're having to do this at a point of crisis."

This reality, which countless people looking for information on their local council's website will have experienced, provided the context for Leicestershire's project – to develop a 'digital support worker' chatbot, 'CAS', able to help people explore their options. The rapid rise in use of the council's digital channels during the coronavirus pandemic provided an extra shot of urgency to the scheme.

Importantly, Leicestershire wants the virtual assistant to demonstrate a 'human touch' – something representatives felt Microsoft could be invaluable in helping develop – in terms of the warmth and flexibility of its interactions. It is envisaged these would be voice-activated and deliverable across a range of media – including easy-read and pictorial forms – and in a number of different languages to meet the needs of the county's diverse communities.

Underpinning the service would be a structured knowledge base, scalable to service requirements and able to respond to queries in a personalised way based on filtering according to specific needs, geography and other factors. Analytics – another key area in which Microsoft's expertise was sought – would foster learning around citizens' needs and where gaps in the service may lie.

"The real value of this is in the positive impact it can have on people who think they, or their families, may need social care support, and in how it can enable us to target and prioritise our resources," Jones said.

Looking at resource issues, Leicestershire estimates that it could have saved between £20,000 and £85,000 in 2020-21 if 80% of the calls it received that resulted in no service, or were signposted elsewhere, had been handled by a digital assistant. The local authority also believes that broadening the channels via which people can seek assistance could result in some accessing support before things reach crisis point. One feature of CAS it sees as crucial is the ability for human responses to be triggered depending on the information it receives.

With other councils also having begun experimenting with chatbot technology in social care – albeit cautiously for the most part – some judges felt Leicestershire's project seemed solid rather than spectacular in terms of pure innovation. But most agreed the council had thought its programme through well, in an area where achieving results could be highly beneficial. "The plans are far-reaching – it would be a great thing for the sector to crack," said Microsoft's Helena Zaum.

Tough competition

The four projects selected to receive development assistance from Microsoft were worthy winners – but it was a close-run decision, with the 10-strong Digital Innovation Challenge shortlist demonstrating the breadth of talent within local authorities and their partners.

BARKING AND DAGENHAM

The East London borough, which is the most deprived in the capital, is proposing to develop a mixed reality app in order to support residents with learning disabilities to live independently. The modular solution would help people gain confidence with everyday tasks around cooking, cleaning, personal hygiene and safety in the home as well as providing scenario-based training to help with reintegrating back into society as coronavirus restrictions ease. Barking and Dagenham aims to develop both 'off-the-shelf' elements and tailored scenarios to reflect individual situations people may find themselves in.

CAMDEN

Camden's pitch was based around developing its approach to person-centred planning, which has seen it work with an academic partner to create portable, digital wiki-based plans that individuals can share with anyone supporting or caring for them. The personalised plans, which can host various forms of media including videos, photos and documents, help professionals to rapidly get to know people, fostering positive relationships and enabling strengths to be showcased creatively – and were commended by the judging panel.

LANCASHIRE

Lancashire is seeking to answer an important question: which devices, among the rapidly expanding market for home-based and wearable smart sensors, are worth councils and their partners investing time and money in. Its project, to comprehensively evaluate available solutions, was fuelled by a perception that both paid and unpaid carers are increasingly spending time feeding health and wellbeing data into systems, detracting from their capacity for direct work. While the scheme didn't make the top four, the panel agreed to suggest academic partners who may be better placed than Microsoft to take it forward.

NORTH YORKSHIRE

Similarly to Wirral, the initiative North Yorkshire brought to the Digital Innovation Challenge is about pulling together datasets in order to develop a predictive, risk-based approach to social care – with a particular initial focus on falls prevention. The project, for which the council has partnered with technology providers, aims to develop a centralised dashboard that can be used both at a strategic level to identify gaps and allocate resources, and operationally to help practitioners manage caseloads.

SOUTHWARK

Southwark impressed the judges by including in its team Nicky Rolfe, the chair of the local parent and carer forum Southwark Independent Voice. She proved a passionate advocate for the council's plans to create a peer-to-peer network, with the goal of sharing tips and knowledge, and providing support, to help young people and their families use direct payments and personal budgets in more beneficial and rewarding ways. The scheme, Connect4Care, would enable people to come together over shared interests, facilitating both the pooling of resources and the forging of new friendships.

THURROCK

The Essex local authority is seeking to develop a personalised app/portal that enables people to access digital resources – including advice, support and diagnostic services – necessary to manage their condition. The technology would also incorporate key health data, medical records and supporting information to assist health and social care professionals with decision-making and, where necessary, enable a 'virtual ward' to be set up in individuals' homes.