Newcastle City Council

Digital Experts Programme
Newcastle City Council agile project management case study

The issue and context

As a council, Newcastle City is facing a tough financial future. Having already made more than £150 million of cuts during 2010/15, Newcastle had to make further savings of £40 million during 2015/16, with additional cuts of around £70 million anticipated over the following three years (subject to budget deliberations). Meanwhile demand on front-line customer services staff is increasing, leading to a potential decrease in customer satisfaction.

Taking advantage of the increasingly digital environment not just in individual service areas but across the council is therefore a priority, with the aim of making digital the channel of choice for residents, minimising the internal costs of service and maximising income.

Although it had developed a clear digital vision about building excellent digital services that are easy to use, and had staff committed to achieving success, Newcastle was less confident about the best approach to realising its ambitions.[1]

Previously the council, like many others, had worked largely within a Prince2/Waterfall culture, which meant that projects in its digital programme typically followed a pattern of early definition of requirements and a sequential design process, with the danger that changing user requirements over time would result in scope creep (and hence to budget or time overruns) or the delivery of 'finished' but outdated solutions.

However, contacts with a range of other councils and attendance at conferences, as well as a literature review of material from bodies such as Government Digital Services, National Audit Office and the Local Government Association, suggested that adopting a more flexible, 'agile' approach to developing Newcastle's digital programme could offer substantial benefits in terms

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[1] Newcastle's digital strategy, Digital by Choice January 2015, is available in the Digital Experts section of the LGA website. The council has also kindly provided a review of the strategy and its future ambitions from February 2016

of responding to change, focusing on user priorities, promoting iterative development and fostering internal and external collaboration.[2]

'Traditionally, projects were owned by IT. But most of them were actually business projects with an IT element. Agile puts collaboration at the heart of what we do.' Head of ICT

The project objectives and targets

Newcastle's wider digital programme aims to support 'increased levels of online self-service with those residents who want to do so, reducing demand across other channels'.

In particular, the council wanted to increase its online activity so that face-to-face contact in its customer services centres would quickly reduce by 20 per cent and telephony contact by 30 per cent, or some combination of both. The move to greater online activity would also help to generate capital receipts from reduced accommodation requirements. The combination of channel shift and property rationalisation within customer services was expected to deliver savings of £289,000 during 2015/16.

In order to achieve this reduction in costs, Newcastle recognised that it had to deliver solutions that would meet customer needs and expectations, enable its workforce to operate more effectively, and promote closer collaboration with partners and community groups.

Agile approaches were seen as a key element, helping to combat the perceived problems with traditional models of ICT-enabled change and to avoid situations where there is 'low user satisfaction because people find systems difficult to operate',[3] leading residents to fall back on traditional, more expensive, contact methods.

A further benefit, in addition to more user-friendly systems, would be an enhancement of ICT capacity through significantly reduced product delivery time while the council's background research also suggested that agile delivery could combat waste and reduce the risk of project failure.

The aim of the Digital Experts project was therefore to significantly enhance the council's skills and capacity in agile project management, focusing on those elements that add most value in implementing a digital programme (such as developing the user profiles discussed later in this case study).[4]

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[2] See for instance https://www.gov.uk/service-manual/agile-delivery/agile-government-services-introduction
[3] See for instance https://www.nao.org.uk/report/a-snapshot-of-the-use-of-agile-delivery-in-central-government-4/
[4] Note that the term 'Agile' is used here to describe a particular approach to designing digital solutions, not in its commonly-used sense of mobile or flexible working.

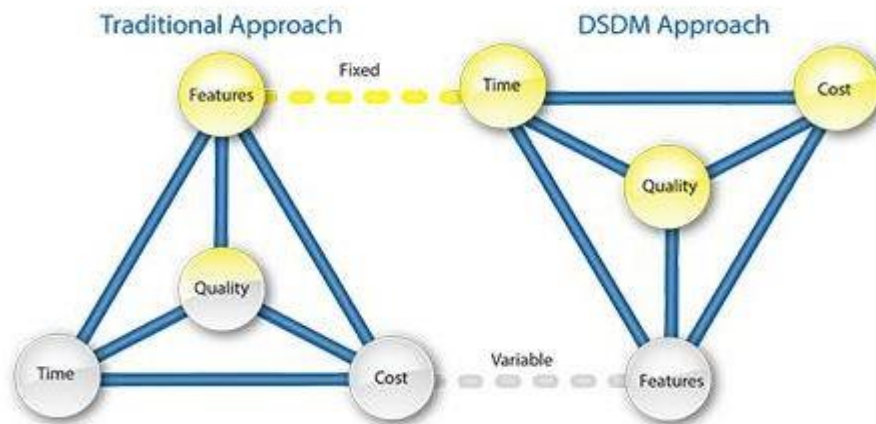Specifically, the funding would:

- Enable 12 members of 'Team Digital' to undertake a 3-day course in DSDM – one of the leading Agile approaches
- Allow a further 20 members of the team to undertake an agile awareness-raising day
- Procure 5 days of coaching to support the team through the initial stages of implementing the digital programme, recognising that formal training needs to be complemented by 'learning by doing'.

The LGA investment would thereby support the creation of a core group of trained staff who could help to apply this approach to specific projects as well as to promote agile techniques throughout the council and mentor others in their use.

The approach

There are different variations of agile project management, but in essence the techniques turn the traditional approach to solutions development on its head.

Instead of user requirements being set in concrete and cost and time treated as variable, the cost and time involved in a project are fixed at the outset and requirements are delivered within an agreed hierarchy of priorities.

Source: Agile Business Consortium (https://www.agilebusiness.org/)

This allows the goals of the project to be flexed as the initiative unrolls and more is understood about the future. It also allows the recipient of any solution to plan more effectively on the basis that the solution will be delivered on time and within budget.

Clearly the success of the approach depends on setting clear priorities. Typically, therefore, a team will only work on one project at a time, recognising that if you have many different projects running side-by-side, it is easy for all of them to lose focus and miss deadlines.

And at the outset there will be a detailed discussion with users about their priorities, which will be categorised using a technique called MoSCoW:

- **M**ust Have
- **S**hould Have
- **C**ould Have
- **W**on't Have this time.

The aim of the project will be to deliver all of the 'must haves', most if not all of the 'should haves' and ideally some of the 'could haves'.

'Historically, we had scope creep and you typically got a list of work that was too big to deliver. Agile has raised awareness of the need to set priorities.' Head of ICT

'The process really brings out what 'it' is that we're try to achieve'. Business ambassador[5]

Where an initiative comes under time or resource pressure, this framework provides a means of quickly identifying and agreeing which elements of the project may have to delivered in a different way (for instance, by retaining a 'good enough' process for an interim period) or postponed till a later date.

The agile approach used in Newcastle also employs a series of other techniques to support project delivery including:

- **User stories**. These typically use the format 'As a XXX, I need YYY, so that ZZZ'. The technique allows a wide variety of stakeholder views to be taken into consideration in the project. An example of three user stories is given below.

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[5] In Newcastle, representatives of the business functions involved in projects are commonly referred to as 'business ambassadors'

As a customer

I need the council (and partners across the city) to understand me and all the services I use

so that the services I access are more personalised, joined up and convenient.

❌ I don't want to have to access different services in different ways.
❌ I don't want to identify myself multiple times.
❌ I don't want to feel that I have no role or say in the services I use.

As a partner and co-provider of services

I need to be able to work jointly with council staff with shared data and processes

so that we achieve the best possible outcomes for customers in the most cost effective way possible.

❌ I don't want data about customers split across systems.
❌ I don't want to miss warning signs and opportunities to intervene.
❌ I don't want duplicated effort across agencies.

As a frontline member of staff

I need information and support (case based reasoning and scripting) wherever I am and whatever I'm doing

so that I can provide a wide range of services quickly, consistently and expertly.

❌ I don't want to have to switch between multiple systems.
❌ I don't want to have to consult guidance manuals.
❌ I don't want to have to return to the office to access information or use systems.

Source: Newcastle City Council

- **Time-boxing**. This technique puts time limits around different components of a project. It allows the project to be broken into small achievable steps, typically lasting two to four weeks, and helps the team to deliver practical elements quickly to users, rather than leaving them waiting for a final, 'gold-plated' solution. Rather than being treated as one amorphous whole, larger projects can be developed in a number of distinct phases, at the end of each of which the focus can be refined or re-orientated.
- **Daily 'stand-ups'.** These are short meetings where progress is reviewed with representatives of the user department and potentially other stakeholders (such as external suppliers). The aim is to deliver 'daily accountability' for the project's successful completion.

'The communications side has been pretty intense but has worked really well.' Business ambassador

- **Burndown charts.** These charts display how the resources committed to the project are being used up and, where necessary, allow for a prompt reassessment of the project scope and priorities.

For a fuller explanation of the DSDM agile approach used by Newcastle City Council, see https://www.agilebusiness.org/.

The progress to date

At Newcastle, the 12 core staff had undertaken the intensive Agile Project Management training by August 2015 and had identified an initial project (Digital Payments) to which the techniques could be applied. The coaching capacity included in the original Digital Experts bid was used to help the project team put the training concepts into practice.

Meanwhile, two half-day sessions had been run with a wider group of staff to raise awareness about the approach. These sessions were complemented by Agile Awareness webinars held in June 2015, in which around 50 staff participated. The council also committed to some business analysis skills training outside the formal Digital Experts funding, which took place in February 2016.

As at the end of October 2016, the most significant project that had been delivered using agile techniques was:

- Digital Payments – aimed at removing the cashiering function from Newcastle's face-to-face customer service offer. This went live on time at the end of November 2015.

Cross-departmental projects underway or in preparation included:

- Digital Manager and Employee Self-Service – featuring online mileage and sickness reporting forms and expense claims. This project forms part of a wider initiative to develop the council's CRM system and deliver a portal for Newcastle's employees, customers and visitors. It started as a pilot in August 2016 but was quickly put on hold after hitting some technical issues with the online forms – a good example of the agile approach's 'fail fast' philosophy. Following work on the forms product, the process will be reviewed in December 2016 for delivery in early 2017.
- Online payslips for council staff and schools – pilot to be reviewed at the end of November 2016 for possible wider roll-out by April 2017.

- Capital programme project management system – with potential for wider roll-out to around 85 project managers across the council by April 2017.
- A dashboard for managers – which currently allows senior officers to see the ICT projects/requests for their service and to forecast peaks and troughs of work. Finance projects have been identified as the next step.
- Fraud audit – concept development only at present.

Other major initiatives, such as the planned move of the customer services function to Newcastle's libraries in the early part of 2017, although not formally underpinned by agile project management techniques, are likely to use some of the same principles.

Meanwhile, the council's ALMO, Your Homes Newcastle,[6] has taken up the agile approach with particular enthusiasm and drawing on the expertise of the council's training provider has applied agile project management techniques to a range of projects including:

- Electronic document management pilot (housing management)
- Electronic document management pilot (leasehold)
- A website replacement
- Workforce scheduling for garden care (environmental services)
- Business intelligence (single view of the customer).

Two other initiatives – an external portal for leaseholders and a new intranet – were dealt with as routine responsive work rather than as formal projects.

The outcome – successes and challenges

Agile project management offers a development philosophy and set of techniques that help deliver projects more effectively. It can therefore be difficult to disentangle the benefits directly attributable to taking the approach (including any financial savings) from the benefits achieved by the successful implementation of the specific project in which the approach was deployed.

Moreover, one of the major benefits of adopting an agile approach is the reduction in wasteful or low-value work – but it can be difficult to quantify the cost of things not done.

With these caveats, Newcastle has been able to identify a range of financial and non-financial benefits attributable to its Digital Experts project.

Financial benefits

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[6] YHN employs around 8,000 staff and manages approximately 30,000 properties

The council has estimated savings to date of around **£69,000** from its deployment of agile project management in an initial series of projects, the most significant of which has been the Digital Payments initiative. Future savings to the estimated value of **£156,000** are anticipated from major projects currently underway.

The impact of the Digital Payments project was particularly impressive, delivering an estimated £60,000 of the £69,000 savings to date as a contribution to the City's target for 2015/16. This was achieved through:

- Better prioritisation, quicker resolution of issues and closer engagement with service departments as a result of using agile methods.
- A massive 99 per cent reduction in payments taken face-to-face by the council in the month following the completion of the project (December 2015) compared to the same month in 2014. Meanwhile there was a 37 per cent increase in online payments year on year and a 47 per cent increase in payments by the automated phone system.[7] As the council had anticipated, telephone payments taken by the contact centre or other staff showed an increase and there was a more significant rise in payments via Paypoint and the Post Office. However, this has had the ancillary benefit of helping to maintain the viability of Post Offices and other organisations such as newsagents and grocery shops that provide vital local services.

Across the council, online transactions during the period 1 April to 30 June 2016 had increased by 21 per cent compared to the same period in the previous year. The Digital Payments project has played an important role in this channel shift.

Meanwhile, the council has also benefited from:

- Speedy and on-time delivery of the project by the target date in November 2015, with none of the overruns that can dog complex projects of this nature, allowing both the project team and the service departments involved to free up resources for other activities.
- Feedback following the removal of the cashiering function suggesting that customer satisfaction and income levels have not been affected, while staff have generally reacted positively, with former cashiers for instance moving into alternative frontline roles which allow them to be involved in a wider range of activities with the public and provide a better service.

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[7] 26,063 face-to-face payments were taken in December 2014 compared to 310 in December 2015. The other figures above also compare December 2014 with December 2015

'The project was delivered in six months, whereas in the past we might have anticipated a timescale of at least a year.' Assistant Director
'Paying online is easier and quicker than waiting in a queue. Very helpful.' Customer

In addition to the £60,000 of savings attributed to the Digital Payments project, by using its own staff to train and support colleagues in agile techniques, rather than employing external consultants, the council believes it has avoided some £4,500 in professional fees to date. A further £4,500 of savings is estimated to have come from five smaller projects through the use of the MoSCoW technique to eliminate low-value work.

Using the documentation generated by the agile approach, Your Homes Newcastle has carried out an analysis of the savings potentially achieved in five of its projects through the careful grading of priorities using the MoSCoW technique. Three of the projects showed no savings as all the Musts, Shoulds and Coulds were delivered and the Won'ts were not recorded. In the other two, the Coulds and Won'ts not delivered were treated as a saving. Although these undelivered features would have had some value – or may have been de-scoped as part of a traditional approach – the likelihood is that they would have remained in the specification and taken up time and budget better spent on other activities. With these caveats, the analysis showed a saving of £4,500 and 19 days over the five projects on a total investment of £53,000 (i.e. around an 8 per cent reduction in low-value work).

Looking to the future, Newcastle has also done projections for the illustrative savings that could be achieved by several cross-departmental projects that are currently being delivered using agile methods:

- The manager and employee self-service project is projected to generate annual cost reductions in the region of £64,000 by introducing online mileage and sickness reporting forms and expense claims that will generate savings in staff time and administrative work.
- The implementation of online payslips for council staff and schools is anticipated to offer ongoing annual savings valued at around £43,000 via a mixture of cashable reductions in printing and postage costs and non-cashable time savings. The project will also help to promote digital awareness and literacy among staff.
- The capital programme project management system is projecting time savings valued at around £49,000 per annum, based on the reduction in administration associated with the approval, monitoring and reporting on schemes in the programme. Project managers will be enabled to work more efficiently and to focus on value-adding activities, thereby reducing the risks and reputational damage associated with projects not being delivered on time and within budget or failing to meet agreed outcomes.

Non-financial benefits
In addition to these financial benefits, the use of agile programme management has had a more general impact on the working culture and relationships of the staff and partners involved in Newcastle's digital projects. Indeed, team members were keen to stress that in adopting an agile approach they were seeking 'more than just another project management methodology'.

'It's been a big shift for the organisation culturally, brokered under the agile banner.' Project team member

Engagement with the different stakeholders for a project has become much more effective. Whereas previously many individual meetings would have been held to agree a project's parameters, with the goalposts moving at each meeting, the agile approach brings all the key parties together at the outset to agree the scope and priorities – some 30 people in the case of Newcastle's Digital Payments initiative. This collaborative ethos has had the added benefit of reducing the pressure on the business functions to come up with a 'perfect' specification at the outset of a project.

The work itself is carried out in a much more cross-functional way, with people contributing on an equal basis and working across job roles more flexibly. Many issues that would previously have been escalated up the management hierarchy are now dealt with by the team and there is no longer the mass of documentation that used to be produced. Anecdotally, there are even fewer email exchanges as people now talk to each regularly!

'Everyone gets involved. We don't get stuck on grades, roles and hierarchies in the way we used to do.' Project team member

From the perspective of employee morale, staff feel more able to influence projects, rather than things 'being done to them', while the digital team are seen to be delivering value on a quick, regular and consistent basis. Interestingly, in the view of team members the clearer analysis of requirements and greater involvement of suppliers prompted by the agile approach has also led to tougher contractor management.

There remain cultural barriers that will be familiar to all councils – the belief that everything is 'more complicated' and that 'we're different' – while the initial definition of 'must have' features often goes well beyond any legal requirements. But accepting that cultural change takes time and there is, and will be, some resistance, the agile approach provides a strong element of challenge that Newcastle is finding to be very helpful.

Key learning points

Newcastle are keen to stress that agile project management is not a panacea for all ills. Many of the challenges faced by traditional development techniques around managing unexpected costs or dealing with suppliers remain.

The successful deployment of an agile approach requires commitment, patience and open engagement on all sides – for example, the approach may feel quite 'top-heavy' until staff become familiar with the techniques and employ them efficiently and consistently and there is a need to avoid jargon.

The project teams and their colleagues in the business functions have also had to learn how to scope the size of projects more accurately so that they fit within the agile time boxes, although this is developing with experience. It is also a challenge to decide how widely to extend participation in any project, particularly from the business functions. If the involvement is too narrow, staff in the wider department may feel the initiative has not been properly thought out; if too many people are involved, the approach may become cumbersome.

'We've needed to be agile in our adoption of agile.' Business partner
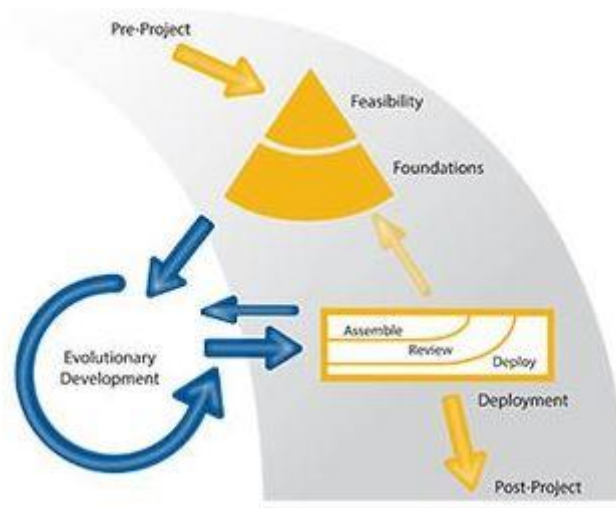
Particular issues in a local government context include:

Governance: in the private sector, agile techniques are often deployed in circumstances where relatively junior staff are empowered to make changes without reference to more senior managers – for example, companies such as Google may make many hundreds of small changes to their systems each week.

The need for accountability and transparency in the public services clearly imposes different responsibilities. Newcastle considered this issue carefully and one of the reasons for choosing the Dynamic Systems Design Methodology was its ability to offer an appropriate governance framework. So a typical project might incorporate:

- Overall programme approval by a high-level board
- A two-week feasibility assessment reviewed at senior level
- A four-week foundation stage by the end of which all the key outcomes required by all the key people have been captured and the priorities set according to MoSCoW. At this stage, a key participant will be a senior head of service or 'business owner'
- An iterative development phase with an agreed end date for deployment

- A post-project review of the business value actually delivered.

Source: Agile Business Consortium (https://www.agilebusiness.org/)

Project v ongoing work: the tension involved in balancing resources between project work and day-to-day operations is nothing new, but is perhaps more acute in local government where there is often an urgent need to respond to local events, both politically and managerially, as well as a wider range of line-of-business systems than would be found in most private sector organisations.[8]

Some local government projects, such as multi-million-pound estate renewals, may necessarily have to be spread over several years and involve many different partners and external contingencies over which the council may have limited control. Some interviewees questioned how an agile approach would cope with these types of initiative.

An additional factor is that many local government digital solutions come pre-packaged or 'off-the-shelf', with limited scope for the purchaser to make changes, while suppliers may not be used to working in an agile way or willing to change their priorities to meet the council's needs.

Meanwhile, agile approaches do imply a more active and consistent engagement from the end-user or client department, other partners and potentially residents than was typically the case under more traditional methodologies – a significant issue when resources are tight. The short, intense time boxes also mean that staff absences for holidays, sickness or other reasons have to be managed more carefully than might previously have been necessary.

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[8] Around 170 to maintain in Newcastle's case

But while these challenges are real, the benefits of taking an agile approach are still significant. For instance, the techniques may help to flush out at an early stage where a project is at serious risk of failure because of an inability of a service department to commit adequate resources. A decision can then be made at an early stage whether to proceed (with additional resources), postpone or abort the initiative.

Techniques such as user stories and MoSCoW can help to clarify the needs of different stakeholders and to refine requirements at the specification stage, leading to better procurement. Representatives of the business areas, as well as suppliers, can also be integrated successfully into agile approaches and encouraged to contribute to change, as the following quotations suggest:

'We invite suppliers to our daily stand-ups. Not all of them, but the ones where they have an important contribution to make. Once they get used to it, they find the process really helpful.'
Project team member

'The team engages with me and other stakeholders very well. They have a way of measuring progress that makes sense to me and gives me confidence that they're focusing on the right things'. Business ambassador

Senior sponsorship: conversations with Newcastle staff have underlined, once again, the crucial role that senior-level sponsorship plays in digital initiatives. This is a common theme running through all the projects in the Digital Experts programme.

In Newcastle, the cabinet and chief executive have been highly supportive of both the council's move towards digital and its adoption of agile techniques. Senior officers in both Newcastle's wider change programme and its ALMO, Your Homes Newcastle, went through the initial agile training and have been active in promoting agile principles.

Meanwhile Your Homes Newcastle restructured its ICT team into a flatter structure during 2015, which has helped to support a more agile way of working, while the Head of IT at the ALMO has been invited to join the board of the Agile Business Consortium, an international not-for-profit organisation devoted to promoting agile thinking and techniques.

'It's incredibly important that the digital team can offer its expertise to new projects and apply the models and experience they've gained. The business departments might only do one project a year, so without the support of the digital team, they'd be having to learn everything from scratch.' Business ambassador

Next steps

Newcastle City Council has an ambitious change programme embracing issues such as workforce skills, estate and asset management, commercialisation and adult social care. There are also major initiatives, such as promoting resident self-service, that will require effective partnership between a wide range of agencies in the city. The council has recently appointed an external consultancy, which employs agile methods, to analyse how it delivers change and to critique its operating model.

One of the challenges for the future will be to extend the use of the agile approach beyond the digital team and Your Homes Newcastle to the wider organisation, so that it becomes the norm and its benefits are felt across the council. At present, the digital team typically finds it has to explain the concept of agile with each new department that undertakes a project – time that will be saved once the approach becomes more widely understood and accepted.

Meanwhile, Newcastle has started conversations with neighbouring councils about the approach. Via its involvement in the Agile Business Consortium, it also hopes to stimulate debate more widely across the local government community about the potential benefits.

'It's been really enjoyable working with colleagues in the business departments on these projects.' Project team member

Contact for further information

For further information on this project, please contact:

Katherine Preston
Business Analyst – Digital First Team
Newcastle City Council
Phone: 0191 2115267
Email: katherine.preston@newcastle.gov.uk