

## Eating the elephant

### *Paper 4: Breaking down the system digital transformation challenge*

*This is the fourth quarterly insights paper published as part of the [Digital ICS programme](#).*

*"They always say time changes things, but you actually have to change them yourself."  
Andy Warhol*

Integrated Care Systems (ICSs) have a well-defined "digital mission", on the face of it. We'd summarise it as follows:

- Enable all those in the system who need it, to be able to see the relevant information about their patients and service users.
- Provide patients the means to manage their own care through a modern integrated digital service experience.
- Bring together sources of data at the macro level to be able to make strategic decisions about health and care service design.

But accomplishing these things requires the coordination of hundreds or even thousands of services, individuals and technologies.

As we've said in [previous insight reports](#), no ICS is the same and many are supremely complex. For example, Cheshire and Merseyside Integrated Care Board (ICB) covers 17 provider trusts, 55 Primary Care Networks, nine Local Authorities, a myriad of voluntary, community and social enterprise players, and to top it all, also has to deal with managing patient flows from North Wales. The challenge of coordinating such a huge task in a complex system is further exacerbated by the inconsistent effectiveness of the levers that an ICB has at its disposal to effect change. These [levers](#) are not always clear, consistent, or effective.

### Eating the elephant

In our experience of digital transformation, it's often helpful to start small in order to establish new patterns and build momentum. So how might system leaders start to think about breaking down the vast challenge of "system working" when it comes to digital? How might the proverbial elephant be eaten? The answer is always, "one bite at a time".

One of the concepts we've been exploring is the individual elements or 'units' that could represent "system working". One way to think about system working is by focusing on the points of intersection between organisations. These intersections are where patients and staff (manifested as data flow) need to be able to pass from one organisation to another so seamlessly that the joints don't show. The outcome for patients is an efficient joined up service. And the outcome for staff is that they have the information they need to make key decisions accurately and expediently.

Examples of these joined up services and data flows could be:

- Flowing operational data to a "care command centre", like how [Maidstone and Tunbridge Wells NHS Trusts centralised trust operations at the start of Covid](#).
- Combining elective care waiting lists to identify duplicates and work on them as a cross-organisational team instead of in silos.
- Ambulance handover at an emergency department, like in One Gloucestershire ICS where shared EPR data between acute hospital and community trust teams allowed community staff to review the history of patients waiting in ambulances and assess whether patients could be redirected to care in a community setting, reducing the ambulance queue and avoiding unnecessary admissions.
- Ensuring clinicians in specialist centres see the patient records and where they've been referred from.

By thinking about specific intersections, board leaders can begin to prioritise those that will provide the biggest impact. As you solve them one by one (or several *en masse*, which could be possible with say the big bang launch of a new platform or technology), you will pick up much needed know-how, develop trusted relationships, create reusable tools and write documents and agreements. All of which, provided you curate and share it correctly, will enable you to tackle the subsequent intersections more quickly. Building this network of capabilities in human and resource terms is really what system working is all about.

### Plugs and sockets

At the risk of mixing even more metaphors, another way of thinking about the points of intersection where data needs to flow is by thinking of them as a series of plugs and sockets. The shape of the plug is the information outgoing, and the socket is where that data is received. Problems arise when the sockets aren't the right shape to meet the plug. When thinking about moving healthcare data around a system there tends to be two technical approaches that can be used:

1. Move onto the same sets of plugs (e.g. converge on similar systems). There are great examples of the successful leverage of cross system technologies. For example, Picture Archiving and Communication Systems (PACS) allow clinicians across multiple organisations to access imagery of x-rays and other scans. This also allows systems to drive better value by consolidating technology contracts.

2. Use plug adaptors, in our case in the form of interoperability. Interoperability is the ability of computer systems or software to exchange and make use of information. Some suppliers will interoperate with other systems as standard, sometimes you can buy intermediary software that does the join-up, some suppliers will charge for development work to make this all happen, and some suppliers will never do it because the technology doesn't allow it, or it is not in their interests. So, the ability to interoperate is heavily influenced by your technology choices (you can read more in our leadership guide [Making the right technology decisions](#)), meaning you need a clear strategy and plan around what you want to achieve. Again, prioritisation of the areas where you will get the biggest impact will be vital as you will never be in a position where everything interoperates with everything. At least not in our lifetimes.

In both cases, whilst the technology is obviously important, what is even more critical [to enable interoperability](#) is aligning on process, culture, and operating model across multiple organisations. A key example of a challenge that ICB's are working through from a culture and process perspective, is information governance. It will be crucial for ICB's to take a proportionate approach to risk. The Information Commissioner's Office is quite clear that organisations need to consider the risks from **not** sharing information as much as sharing it; as not doing so can have considerable consequences for patient care. Aligning on culture and process will take time. After all, many of these organisations were previously in competition. But finding their way through these issues will be to the benefit of all.

### Starting small, testing assumptions

Both of these approaches represent a large amount of work. Therefore, if you have made an assumption that fixing a particular "interface" will deliver value to patients and staff, it's important to test this assumption by starting small. You might be able to put in place temporary connectors to start with so you can test the service design first. You can use what's referred to in the industry as '[swivel chair integration](#)' i.e. use a human to do the connection in the first instance. Or use a truly universal technology like email. Although there are issues around using such approaches at scale, it's perfectly reasonable to use this approach to test. It is also important that for any commercial software you plan to use, you need to test it thoroughly (not just within the digital team but with those who will be using it day-to-day), at a small scale before making irreversible decisions at large scale. By testing and learning you will establish feedback loops and an experimental mindset that will set you up for the long term.

### Which bite first

*"We rarely talk about the shared care record. At our trust we have our own EPR, which isn't linked. The question is, what would make the shared care record important to our trust's staff working on the frontline?" Chief Executive of acute trust; ICS partner member*

Some of these interfaces can in themselves take quite a lot of work. You can't solve all the interfaces at once; there are too many of them. So, the question then turns to prioritisation: which ones should you solve in what order?

Successful prioritisation is a mix of science and art. The place to start is with evidence: what do you know about the problems your users are facing; what data do you have that may tell you where joins between organisations are particularly broken; or where there are a huge number of patients that will be impacted if you manage to improve things? In addition, there may also be some ultimately subjective criteria such as how complex the potential solution might be. It's worth considering some sort of sensible scoring system to provide a rounded view. There may also be some factors that are around politics and judgement, e.g. are leaders and teams on board with the work and if not, can they be taken on the journey? It takes surprisingly few people to hold back progress and create roadblocks within a system if they're not signed up, so often it's important to go where the energy is.

When considering which parts to fix first, you might want to consider criteria such as:

- how much clinical benefit there is (or expressed differently how much clinical risk is reduced)
- what sort of impact it will have (volume of transactions/interactions)
- cost or complexity, taking into account dependencies.

This can't be an exercise in isolation. It's critical to be able to have that conversation at system level to align partners on the strategy and secure the appropriate buy-in and necessary investment. Being able to clearly articulate your priorities, the problems to fix and the rationale for taking the bites in that order will help you do just that.

### Our offer

The [Digital ICS programme](#) is a free and voluntary offer for ICBs, thanks to funding from NHS England as part of their Digital Academy programme. It is delivered by NHS Providers in partnership with NHS Confederation and Public Digital, a consultancy that has experience of working with over 30 governments, global businesses, and multilateral organisations on digital transformation.

It builds on the learning from the NHS Providers' Digital Boards programme which has engaged over 1,800 board members from 200 NHS trusts, including delivery of over 100 trust board development sessions.

The programme is available to all members of NHS Confederation's ICS Network and works closely with existing ICS forums to share board-level good practice and learning on digital transformation. It also offers bespoke leadership development sessions, designed to build consensus among the board and equip leaders with a clear understanding of the conditions needed for successful digital transformation across systems.

Please [contact us](#) to find out more.