Digital Transformation Task Group

Digital Transformation in the Covid-19 Crisis

The [Infrastructure Client Group](#)'s Digital Transformation Task Group (DTTG) consists of Chief Data Officers and their equivalents from the most progressive economic infrastructure clients. The members met virtually in mid-April for a special session under Chatham House rules to share lessons learned so far from the Covid-19 crisis.

The group took turns to share their stories on the place digital transformation had in managing the Covid-19 crisis in their organisations. While the members have different maturities of digitalisation and different working contexts, there were some common lessons, challenges and successes that could be found.

What this experience has proved

The Covid-19 crisis has highlighted a number of key themes that have regularly been discussed and promoted within the DTTG. The membership took some confidence that these areas were not new, but rather were emphasised by the new challenge.

- ***The value of Digital Transformation has become clearer.*** As one member stated, "*If the industry didn't value digital ways of working before, it does now*"
- ***It's about behaviours rather than tools***. Technology was rarely the blocker for members, with most limitations (such as VPN capacity or not having laptops) resolved in the first two weeks of lockdown. However, the membership saw behaviours of the people using the technology as the main blocker for long term digital transformation and embedment. One commented that "*cultural change is the key to acceptance".* This is the same as before Covid-19. We still have some educational issues to overcome, as highlighted by one member's comment that "*Digital twins are still seen as 3D graphics*".
- ***Interoperability needs the right architecture.*** If we don't get the data architecture right, we can't achieve interoperability. As one member notes however, we still have some work to do to know what data we have and how we can use it.
- ***Know your assets***. One member commented "*Knowing your assets is even more key to understand your resilience*". No central knowledge of all assets and sites led to challenges for other members. You also need to have access to data in the supply chain and on site and be able to make it available to everyone who needs it.
- ***Recent investment provided dividends.*** Newer members reported finding the crisis easier to manage. Those who had invested in digital transformation recently were also well placed. The 'youngest' DTTG members such were generally more ready for the demands of the crisis (such as cloud working, O365, remote teams etc.).
- ***Increased understanding of interdependencies.*** This event has given us a greater understanding the interdependencies across the supply chain.

Best Practice and Successes

The membership reported a number of successes related to Digital Transformation's contribution to managing the crisis. The most prominent of these are listed below.

- ***Business Continuity Plans****.* It was commented that keeping Business Continuity Plans flexible worked well. In several cases members had ones that didn't see this coming but were still very useful. One noted that their previous reviews of their BCP paid dividend now. Another commented that "*When this is over, we will look back and see that we*

have become more resilient. We have shown how we can very quickly ramp things down which wasn't something we had planned for in the past".

- **Command structures have generally worked**. Several members had Gold/Silver/Bronze command structures which in most cases were reported to have acted promptly and effectively – a successful test of their planned resilience.
- **Large upgrades, small timescales**. The rollout of tools like Office365 and IT infrastructure was going to take 'quite a while' in most cases, but actually was achieved in a matter of weeks. One commented that it was "*Surprising to see how much red tape and bureaucracy has gone*".
- **New forms of communication**. The crisis has necessitated some changes to communication and have led to a more diverse media of digital comms to customers.
- **New data on working patterns**. We have a lot more data to look at working patterns for flexible work. One member shared their use of Power BI for absence tracking across their enterprise.
- **Greater focus on mental health**. Several members reported an increased focus on mental health, inclusion and human connection. This is seen as a big positive from the crisis. However, some members also noted the increasing challenge to mental health that will come - "*As time goes on, as there is no known completion date, people will find the isolation harder and harder*".
- **Reconfiguring office space.** Several members have successfully employed social distancing in call centres and key offices.
- **Changed views on homeworking**. Several organisations reported a changed view on working remotely. People throughout their organisations are now more comfortable having webinars and teleconferences. There are still some challenges to overcome with homeworking (see later) but generally speaking a lot of progress has been made in this area through forced necessity.
- **Using the opportunity for maintenance**. Several members reported taking advantage of the reduced use of assets in some areas to do maintenance. Others rearranged their work plans to re-deploy from more residential areas to remote areas.

Challenges

A number of themes emerged from the discussion relating to the challenges DTTG members had faced.

- **Defining 'critical'**. There have been multiple strands of effort across different bodies to define and map out 'critical works'. This has been challenging for reasons such as understanding the interdependencies across the supply chain and having suitable definitions for value/outcomes that would enable evaluation.
- **Products aren't the answer**. Some members reported that some suppliers are taking advantage of the current situation to try to sell products rather than contribute to true digital transformation. Bespoke/proprietary tools are typically coined as innovation and sold as a solution. Suppliers need to line up with architecture the Client's want not the technology they want to sell. This highlights a lack of understanding that technology is not the answer but the data architecture and behaviours of those using it. We also need to ensure that tools encourage interoperability.
- **Data management**. Organisations cannot mandate that all data is supplied in a digital format. This is a particular challenge with Local Authorities and utilities firms. The Covid-19 event has highlighted that we cannot access data if not in a digital format when working remotely. Spending time cleansing data or turning it into the digital format is required.
- **Capacity for another crisis**. Good weather has meant that several members are not dealing with dual crises.
- **Not everyone can work from home** – as commented by members "*Most of us can and do work remotely*", but not all. Some roles in our industry still require a physical

presence, particularly when the impact of failure is high (as it often is with SCADA systems).

- **Vulnerable customers**. Previous lists of vulnerable customers weren't perfect for many members. Difference between vulnerable and priority has been highlighted. "*We were pretty hot on financial vulnerability, but physical and mental was vulnerability was less well understood*". Members suggested it would be good to compare with NHS list.
- **National data flows**. Risk of moving to shared cloud services is that we are at the whim of the main providers – i.e. Microsoft's performance.
- **Public perception of critical workers**. Several members had issues with staff being challenged by the public. In some cases, Public Relations campaigns had to be created to resolve this issue that particularly effected utilities. This was not helped by a poor understanding of the criticality of utilities to normal life.
- **Work backlog**. Many members were working towards business as usual, but the reality is that non-priority work has been postponed, and some of it might turn into priority work as a result.
- **Increased costs**. Some members have seen increased costs due to inefficiencies and last-minute IT Infrastructure upgrades, but it is too early to tell how much the impact is.
- **Infrastructure for working from home**. Members reported challenges keeping the same standards at home as in the office – internet speeds, screens, chairs for DSE all fall under this category.
- **Increased cyber security requirements**. As expected, there has been an increase in cyber security threats such as phishing attacks.
- **Predictive models accuracy.** The models for usage have been shown to be inaccurate, however members commented that "*the thought process was useful*".

Thoughts on the future (new normal)

Reflections from the members on what our new normal will look like, and what we will have to think about.

- **Digital Transformation will become more important.** It is perhaps not surprising that this was a common thought across the membership. Several members commented that there will be a "*better understanding and acceptance of the need to invest*" in digital transformation – this incident has proven the concept and the value it brings. However, we should also not use the burning platform of Covid-19 to make short term decisions. One member commented "*Try not to do anything just for the sake of the incident that does not have a lifespan*".
- **Information – from transaction to enterprise**. Some members expect a move away from transactional ways of sharing information towards connected data environments becoming normal. This will be assisted by moving to more cloud-based applications and streamlining the existing transactional document-based information exchange to become more fluid and data-based.
- **Speed of decision making and simplicity.** Some members hope that the best traits of crisis management can transition into normal operation. "*The speed of decision making was really exciting, and we want to know how we can we keep that going*". We also saw that it was "*not always complex solutions that were needed to get things done quickly*."
Changes to upgrade plans. New social usage patterns might require new asset investment plans (e.g. Water infrastructure upgrades). This "*Shines a light on where we need to invest or move faster*". The membership felt that we cannot yet know how much of the changed patterns will stick, and what that might mean for the use of our infrastructure. For example, will there be a change in transport demand with more people working from home?
- **Technology debt**. This was raised by a few members as something we don't know yet, but suspect is coming. This could well be a challenge to face across member organisations over the medium term.

- ***Finding the balance**. Members generally report working from home to be going okay, but there were concerns over finding the right balance between office and home after the crisis. We have proven we don't need all the office space and travel, but we do still need some contact. "No matter how many Teams meetings we have, we still hear people say, "I want to put that on a whiteboard or up on the wall" - will be interesting to hear how people fill the psychological gap". "Sometimes nothing beats getting people in a room with a whiteboard".*
- ***Greater focus on effectiveness over attendance**. One member commented on the possibility of having a different approach to meetings and to how we measure our effort. We can take this opportunity to focus on effectiveness over attendance, which is linked into the Digital Transformation theme of focusing on outcomes.*
- ***Call centre changes.** Members expect to see more customers moved to online service, which will free up call centres to deal with priority customers. The event has also proven that call centres can perhaps involve more home working.*

About ICG

The Infrastructure Client Group (ICG) brings together the UK's most progressive economic infrastructure clients in partnership with government and industry. It was established with the clear aim of driving improvement in the development and delivery of the UK's economic infrastructure for the benefit of the end users of the assets - society.

The ICG fulfils its role to contribute to a people-focused, system-based view of infrastructure by:

- Identifying, sharing and disseminating best practice in the development and delivery of infrastructure programmes and projects
- Providing a single voice to government and industry

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