

## Summary: Delphi Study - Police Technology and Transformational Reform in Policing - Barriers and Enablers

Shaw, N., Williams, S.C., Allen, D.K., Norman, A., Gritt, E., Forsgren, E. (2017)

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### *Introduction*

By gathering multiple rounds of opinions from a panel of experts with backgrounds in technology, policy, industry and operations, a Delphi research methodology was applied to explore the barriers and enablers of technology and transformational reform in UK policing, forecasting what policing might look like in five to ten years' time.

### *Methodology*

The Delphi method “*structures and facilitates group communication that focuses upon a complex problem so that, over a series of iterations, a group consensus can be achieved about some future direction*” (Loo, 2002, p.763). Using purposive sampling based on senior staff with relevant expertise and seniority (e.g. CEO's), 16 participants formed the Delphi panel in the study. Two research questions were asked as follows:

- 1) *How does technology currently support transformative policing?*
- 2) *What would be desirable in transformational policing in the next 5-10 years?*

The Delphi process comprised of two rounds (further rounds were not deemed necessary) with a summary of results circulated to the Delphi panel between rounds.

### *What they did*

**Defining transformation:** There was a good deal of agreement of the scale, impact and outcome of transformation definitions, with recognition that transformation is both a process and a concept which changes processes. Innovation and striving for performance improvements were also clear themes. Finally, the concept of culture within the organisation was apparent, with the importance of people recognised amongst wider criteria of technology and processes. An overall definition of transformation was developed as follows:

*“Transformation is a fundamental and significant change within a system for the purpose of improving the performance of that system”.*

**Defining a vision for transformation in UK policing:** Defining transformation in a policing context was more varied. This included the greater use of technology in policing (e.g. mobility, analytics, security and cloud), a greater analysis of existing data, and increased multi-agency working (across emergency services but also external agencies for mental health and CSE). A summary vision for transformation in policing was developed as follows:

*“The collaboration of multiple services and agencies, using digital technologies to improve efficiency”.*

**Desirability and feasibility for transformation in policing:** Importantly, the Delphi panel clearly conveyed their belief that there is not only a strong desire for transformation in policing, but also that this is achievable.

**Key opportunities for transformation in policing:** From a list of 19 choices (developed from Allen et al, 2017) the Delphi panel were asked to identify and rank their top three areas of transformation in policing. This identified the prioritisation of inter-agency working, followed by more operational areas of call handling and crime analysis / mapping.

## *What works?*

**Which technologies are currently used to support key opportunities for transformation?:** Modern audio communication devices ranked as the highest theme in currently supporting key opportunities for transformation, including mobile phones, smartphones, and telephones. This is perhaps unsurprising in the sense these present the key information tools for decision making in contemporary policing. Surprisingly, scoring much lower was the concept of ESN (Emergency Services Network), the next generation of communication for the police due for implementation between 2017 and 2020. The ranking of a specific criteria of *Emergency Services Network and new communications systems* placed in 8<sup>th</sup> position by just three of the Delphi panel. Finally, it was interesting to note that newer, more innovative (and arguably more transformative) technologies such as biometrics, cloud services, cognitive computing, and machine learning all rated in the lowest positions.

**In what ways do technologies support highest priority areas for transformation:** The Delphi panel were asked to illustrate the technologies used to support their highest stated priorities. With this, the concept of having a '*greater amount of data available to aid decision making*' ranked most highly, followed by '*better co-ordination and communication*', and '*reduced processing time*' ranked in third position.

**What would be most desirable to achieve by transforming policing over the next 5 to 10 years?** The concept of standardisation stood out as the predominant theme, in particular:

- Greater use of IT in facilitating multi-agency working, from a national IT infrastructure to core systems and mobile devices, and increased use of cloud services. In addition, data must be in a common, shareable format. It was felt this would require national agreements on common systems and processes;
- An enhanced national solution to contact management, such as a next generation 999 and 101 to keep pace internationally with other countries that have progressed in this area;
- Using technology to support effective and efficient ways of working, such as use of predictive analytics.

## *What is promising?*

**In what ways could support for key opportunities for transformation be improved?** '*Inter-operability between Forces and other agencies*' and '*digitisation of processes*' both ranked equally highly in this question. When interpreting this, it could be argued that this recognises that Forces need to work more collaboratively using technological advances, and that by doing so, it is perceived that transformation would be more likely to be achieved.

**What are the key enablers for transformation changes to become a reality?** The enablers of transformation were located principally around the use of technology and leadership. Regarding technology, comments related to increased use of newer technologies such as cloud, as well as standardised approaches to data capture and use across different agencies.

Responses around leadership related to a shared vision, working across the range of Forces in addition to other agencies outside policing.

### *What does not work?*

**What are the main barriers to transformational change?** Overall, the barrier of sharing data in policing and external agencies was a clear and consistent theme. Additionally, the lack of a shared vision to deliver transformation across policing, wider emergency services and partners was noted, the lack of national-level co-ordination (in terms of sharing data and technology solutions), and a lack of understanding the benefits that could be gained from implementing new technology solutions.

**What are the current and anticipated risks impeding transformational change?** The appetite for change was noted, but concerns were raised about how Forces might deal with the political and/or public backlash if things went wrong.

**How does the Forces' portfolio programme and project management capacity support transformation change?** A broad range of mainly positive responses were provided to this question, however, most importantly, it should be noted that a majority of the Delphi panel indicated that Forces were currently operating at near capacity.

**How do Forces' portfolio programme and project management capabilities support transformation change?** The responses to this question were broad and most linked to comments to the previous question. Comments ranged from "...very few have [the capability]" to "greatly improved ...with a real focus on PRINCE and MSP". Additionally, it is important to note that some of the comments referred to difficulties in firstly recruiting and secondly retaining sufficiently skilled staff - many responses alluded to insufficient capability of appropriately skilled staff as being the primary challenge in portfolio management.

### *What do we need to know more about?*

The most striking finding from the Delphi research study was that whilst the greatest opportunity for transformation in policing was perceived to be inter-agency working (across policing, other emergency services, and other service areas such as mental health) and sharing data across Forces, this also presented one of the biggest challenges. Whilst the introduction of new technology is often associated with sudden and dramatic transformative change (Slack et al, 2012), comments within the Delphi study referred predominantly to the need for continuous, incremental change, which is typically facilitated on an ongoing basis.

Overall, we reiterate our sentiment stated at the beginning of this report, that is whilst ultimately no one has the capability to fully anticipate the future, it is hoped our findings will provide a platform for positive and constructive debate on future technology and transformation in policing.

### *References:*

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