Written evidence submitted by Professor Robert Dover, University of Hull

1) Context: I am a Professor specialising in the study of intelligence and national security. I provide these brief reflections in line with the suggested topics that are to be considered by the Inquiry, which match up to my own research expertise. I have not sought to answer all of your questions but to frame my response under the headings of Fusion Doctrine, data usage and external expertise.

2) Summary: Information conflicts will come to dominate our encounters with domestic and international competitors, and with strategic or societal level challenges that emerge. Our current capabilities and capacity have sought to address this through the increased use of data collection and analytics and in initiatives such as the Fusion Doctrine to bring the strands of government together. These initiatives have produced some improvements but are essentially improving classic methods, rather than introducing new ones. The reflections here suggest some ways of meeting these new challenges around the collection and use of data, the recruitment and promotion of staff and connectivity across government.

3) Fusion Doctrine: The Fusion Doctrine is a work in progress. From the open-source perspective there is evidence of greater levels of fusion or ‘jointery’ across government. There is evidence that this has yielded some operational improvements. I would note – however – that there remain operating frictions between parts of governments that are a natural product of organisational boundaries: the key point is, however, that our adversaries and competitors have managed to operate and exist against us in such a way to exploit these frictions, or to move in a more agile way around us. This is, in part, cultural: some of our competitors are more focused on instrumental impacts or the ‘state of the game’, whereas HMG has tended to focus on process, norms and ethics, and equally has been slow to grasp the information and ideas contest that has raged around it. Consequently, Fusion has helped to improve a classic way of working, but has not heralded the sort of revolution in the operating doctrine that would see the UK compete properly or over-match our peer or peer+ competitors in the international arena. The areas in which HMG could seek to further embed Fusion Doctrine would be to understand that ‘bleeding edge’ technologies need to have their financial risk underpinned by government, that failure is part of the process of creating such technologies, that the existing patterns, collection and usage of data will not be adequate to meet future challenges, and that the conventional recruitment and promotion programmes are not going to be fit for purpose for an age that will be dominated by contest in the information realm.

4) Use of Data: Transforming the nature and purpose of data collection across government is essential to improve the quality and utility of data and assessments. Within the existing operating model datasets are unwieldy, dislocated and with access models that have lent themselves to organisational stovepipes.

5) I would propose two changes to the existing model: 1) the creation of a data-lake across government, that pulls in feeds from a plurality of sources both domestically and internationally. These include sensor outputs from the internet of things, and internet of bodies (as that comes online), a dragnet of open sources (be they publications, online sources, open social media, BBC Monitoring style sources), and other types of open-source assessments. The critical point here is to create a large pool of data that does not attract significant security classification, but which is capable of being aggregated and utilised by
more and less sensitive parts of government for their activities. The data would not be particularly sensitive, but it could be used in the production of classified or sensitive outputs. More importantly is 2) that the larger data lake could be called on from departments across government to improve their evidence-based decision making. This transforms this kind of large-n data collection to be ‘decision-support’: to place a greater emphasis on the collection techniques within government to be used across the whole of Whitehall to make stronger decisions, to receive and respond to warning notice far more quickly than has been demonstrated recently. That would still leave small data-ponds, with significant security restrictions to be used by UKIC and similar others. The bifurcation of these low-security data-lakes and high-security data-ponds produces greater utility from the strong trends towards data collection and analysis.

6) The greater use of data-lakes and ponds also lends itself to thinking through the types of staff required to make use of them. Direct entry programmes into the information domain across the security and military spheres by those who have proven skills and experience in data collection, analysis and manipulation reduces the reliance on up-skilling those who have a more generalist security or military background. It would also provide appropriate recognition to the increasing importance of the information sphere to our security communities and to the whole of government.

7) **External Expertise:** The inquiry is rightly interested in unpublished evidence. I would, however, note that there are several academic contributions (including my own) to the debate around how the security community utilises external expertise. The relatively homogenised profile of those who are able to contribute to our agencies, Armed Forces and so on do not help to meet the requirements of understanding a diverse range of threats and the complexities of culture in security issues.

8) The security machinery of the UK is staffed by highly effective professionals and there is always a danger of the politicisation of security by governments of all stripes. This should be avoided at all costs, because the superficial charms of working with compliant security communities is ultimately self-defeating: security officials must be able to speak difficult truths to power, to help those in political control avoid the myriad threats that exist. Any intertwining with political interests in the strategic warning process threatens to dull our responses to these threats.

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