Written evidence submitted by the Cambridge University’s Centre for the Study of Existential Risk

THE THREE LINES OF DEFENCE MODEL FOR GOVERNMENT RISK MANAGEMENT

This submission addresses the committee’s concern with: ‘what “a comprehensive national resilience strategy” should entail’.

This recommendation has been developed by experts at the Centre for the Study of Existential Risk at the University of Cambridge, with contributions from industry and academic collaborators.

Please note that this is not a complete assessment of what a national resilience strategy should entail, but rather highlights one specific best practice approach that is widely adopted within private sector risk management, that it could be advantageous to adopt within government.

Overview:

As we have seen from Covid-19, there are clear lessons to be learned about how to better assess and manage risks. A clearly defined single point of accountability for risks in Government will help transform the UK’s resilience to future extreme risks.

Improving the Government’s approach to risk management will need strong leadership from the centre of Government, along with iterative work between policy officials, politicians and risks experts from a range of sectors.

The Integrated Review provides a good starting point; it sets out a promising long-term vision for national resilience. The next step is to set out a plan for achieving this vision which has extreme risks firmly embedded within it.

We suggest a plan below, based on the ‘Three Lines of Defence’ structure which is standard practice across industry. The plan sets out one possible implementation model.
a) The first line of defence: Strengthening departments’ ability to manage extreme risks

**Why this matters:** Government departments should be responsible for the day-to-day management of extreme risks relevant to their department. This is currently done quite effectively for non-extreme risks, but much less so for extreme risks. Risk Ownership Units, covering both extreme and non-extreme risks, would ensure that a culture of risk ownership is championed across Government, and help policymakers consider extreme risks when making policy decisions.

We propose an assessment of which Government departments are best suited to manage individual extreme risks. Once complete, we suggest building up Risk Ownership Units of between two and six civil servants. These would be housed in relevant departments and constitute the ‘first line of defence.’ Ministers would continue to be held accountable for the risks designated to their departments.

---

1 Our initial assessment (available on request) suggests eight new Risk Ownership Units.
For example, an Electrical Grid Risk Unit might sit in BEIS. It would focus on boosting the resilience of the UK’s electrical grid against extreme terrestrial and solar storms, man-made electromagnetic pulses and malicious digital intrusions.

These Units must be completely embedded in their departments and seen as part of those departments rather than extensions of the second line of defence (see immediately below). The relevant minister should also fully support the Units and understand their purpose.

b) The second line of defence: Creating a new Government Office of Risk Management, headed by a Chief Risk Officer

*Why this matters:* The Civil Contingencies Secretariat provides a good risk identification function, but there is currently no cross-government accountability mechanism to ensure action is then taken to check the quality and viability of risk planning and mitigation strategies. Without this crucial step there is a strong chance that the UK will not be well-prepared for future extreme risks.

A new Government Office of Risk Management, headed by a Chief Risk Officer (CRO) with specialist risk management expertise, would help bring the UK into line with current best practice from industry and elsewhere.

This Office would ideally be an extension of the current Civil Contingencies Secretariat. However, other arrangements would also work.

Its responsibilities would include:

- **Having overall responsibility for risk management across Government;**
- **Having powers to assign responsibility for risks to ministers** and hold them to account for their risk response strategy; and
- **Playing a leadership role in ensuring that risk planning, risk mitigation and risk preparedness improves across Government.** This would include ensuring that Departmental risk plans are fit for purpose and provide a body of expertise who can support Departments with risk planning.
- **Playing a leadership role in ensuring that risk management improves globally.**
- **Running regular vulnerability assessments.** Calibration of risk severity should be combined with a rating of vulnerability (not just likelihood). The assessment should examine the strength of existing mitigations and crisis management capabilities, how external the threat is, and its velocity, should it occur. This vulnerability assessment helps identify further mitigations required and actions to be taken by relevant risk owners;
- **Implementing the recommendations of the proposed new National Extreme Risks Institute (see the recommendation immediately below this one).**

c) The third line of defence: Establishing an independent National Extreme Risks Institute.
A National Extreme Risks Institute would be tasked with providing independent advice on assessing the Government’s approach to identifying and preparing for extreme risks, and making recommendations to the UK Government for how it can improve its management of these risks.

This Institute would focus on identifying and supporting Government efforts to boost resilience to catastrophic events, as promised in Integrated Review. It could be created as a What Works Center and part of the broader What Works Network.²

The Institute’s role would include:

- **Carrying out independent, evidence-based assessments** of extreme risks. This would allow for a greater focus on risks that are low-probability but highly destructive. It would mirror Switzerland’s approach³ of an independent institute offering a separate perspective on risks to that which exists in Government, and thereby reducing the chance of groupthink;
- **Carrying out issue-specific risk assessments to audit Government departments** in areas of particular concern.
- **Submitting recommendations to the Government and to the a new Government Office of Risk Management** which would oversee the identification, assessment and mitigation of risk;
- Collating and presenting research on extreme risks on risk management policy to decision makers;
- Identifying and highlighting extreme risks that are not clearly under the management of any particular Secretary of State; and
- **Issuing a flagship report** alongside each National Security Risk Assessment and Spending Review.

The Institute should have independence from the Government, and be accountable to Parliament. It should ideally be funded by way of endowment, to protect it from cost-cutting exercises in future Spending Reviews. The Government should ensure that the Institute's expert staff can access relevant confidential information, by providing security clearances to staff.

**Why the ‘Three Lines of Defence’?**

One perceived drawback of a ‘Three Lines of Defence’ structure is that it risks creating a siloed Government institution. But without a new CRO, there is no single point of responsibility for risk management. This means that it tends to be deprioritised amidst the ‘tyranny of the urgent’.

---

² https://www.gov.uk/guidance/what-works-network
And without the ‘three lines’ structure set out above, checks and balances are lacking and risk owners don’t get held to account to mitigate or plan for their risks. The problem we are seeking to solve is less one of coordination, and more one of establishing clear accountability. A lighter touch option would be expanding the remit of the National Audit Office to include the third line of defence’. This would retain the audit function of the third line, but the lack the extreme risks expertise that an Institute would provide.

To ensure proper coordination, we would also recommend an Oversight Committee. The Committee would bring the three lines of risk infrastructure together - with the CRO reporting to its Chair, as well as to the appropriate departmental head (e.g. the Permanent Secretary). It could be chaired by the Institute’s head, or by a parliamentarian, to provide independent oversight.

Sam Hilton, Research Affiliate at Cambridge University’s Centre for the Study of Existential Risk

Sophie Dannreuther, Research Affiliate at Cambridge University’s Centre for the Study of Existential Risk and Director at the Centre for Long-Term Resilience

14 May 2021