

All-hazards national risk assessment for country risk management

John Tesh

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4			Coastal flooding Effusive volcanic eruption		
3	Major industrial accidents	Major transport accidents	Other infectious diseases Inland flooding	Severe space weather Low temperatures and heavy snow Heatwaves	
2			Zoonotic animal diseases ¹ Drought	Explosive volcanic eruption Storms and gales Public disorder	
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Relative likelihood of occurring in the next five years

Risk assessment is undertaken to optimally allocate limited resources

Why national risk assessment?

- Risk assessments provide policymakers with information .. to steer mitigation investments toward producing their greatest economic and societal benefit. **Without a tool such as the National Risk Assessment, it may be difficult for top level policymakers to make informed decisions on the relative benefits of buying down risks to public health, safety or security.**

OECD : INNOVATION IN COUNTRY RISK MANAGEMENT

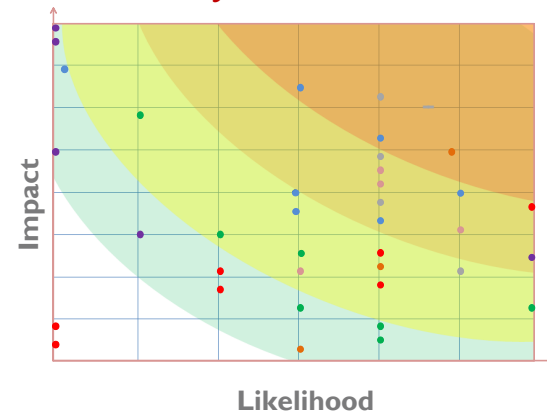
Why risk communication?

- Many countries face **budget constraints** that prohibit the investment necessary to finance effective prevention, protection and recovery measures... pressure will mount on policymakers to **reinforce the resilience of communities and individuals** and to reapportion their share of the burden
- **The benefits of investing in protective measures are often not seized upon by property owners due to their misperception of risks**, their short-term outlook and the upfront costs of implementation.
- **Governments should continue to strengthen public resilience** by encouraging property owners to adopt mitigation methods through education of risks.

National risk assessment in the UK

Long term (5 - 20 years): **national security risk assessment** for national security strategy

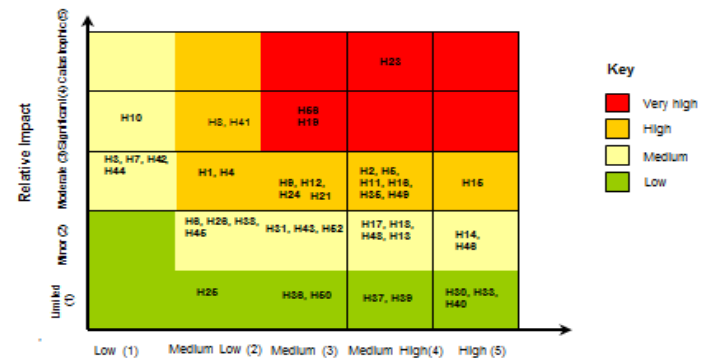
- every two years
- since 2010



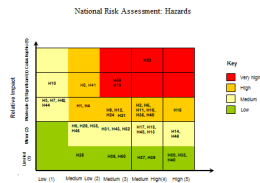
Medium term (5 years): **national risk assessment** for domestic resilience capabilities

- every year
- since 2005

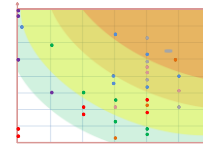
National Risk Assessment: Hazards



Risk assessment – methodological features



NRA



NSRA

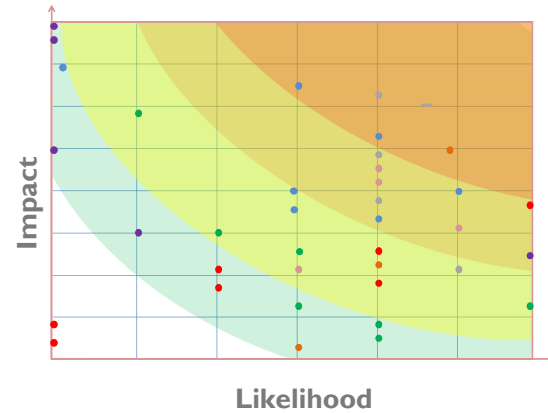
- Events in the next 5 years
- Scope: national, all-risks
- Impact criteria:
 - Deaths
 - Illness or injury
 - Economy: harm to GDP
 - Essential services and social disruption
 - Psychological harm
- Governance: cross-government strategic policy lead; science-informed

- Events or developments in the next 5 – 20 years
- Scope: global, all-risks
- Impact criteria
 - People: physical and psychological safety and security
 - Economy: harm to GDP
 - Essential services and infrastructure
 - Impact on national interests in the wider world
- Governance: cross-government strategic policy lead; science-informed

National security risk assessment for national security strategy



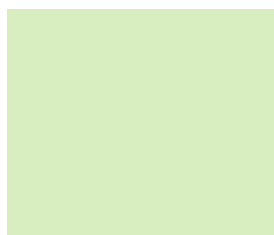
Long term (5 - 20 years)



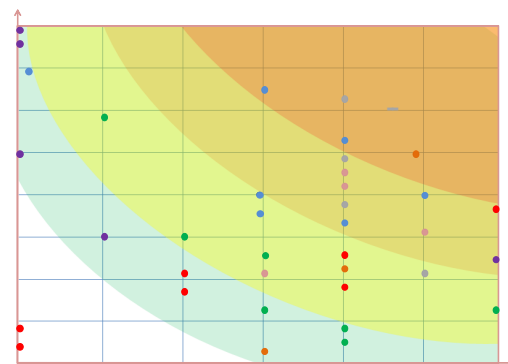
to ensure a secure and resilient United Kingdom - by protecting our people, economy, infrastructure, territory and way of life from all major **risks** that can affect us directly

to shape a stable world, by acting to reduce the likelihood of **risks** affecting the UK or British interests overseas, and applying our instruments of power and influence to shape the global environment

2010 national security risk assessment - tier one risks



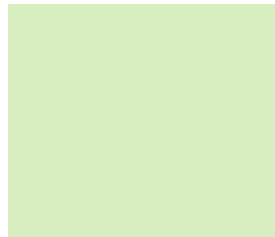
Long term (5 - 20 years)



- **international terrorism** affecting the UK or its interests, including a chemical, biological, radiological or nuclear attack by terrorists
- a major accident or **natural hazard** which requires a national response, such as severe coastal flooding affecting three or more regions of the UK or an influenza pandemic.
- hostile attacks upon UK **cyber space** by other states and large scale cyber crime
- an **international military crisis** drawing in the UK, its allies as well as other states and non-state actors

the UK national security council considered these risks should be tier 1 risks –the highest priorities for UK national security looking ahead, taking into account both likelihood and impact

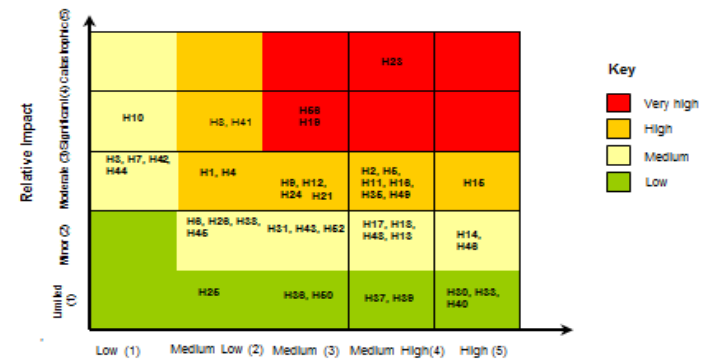
National risk assessment – priorities for domestic resilience



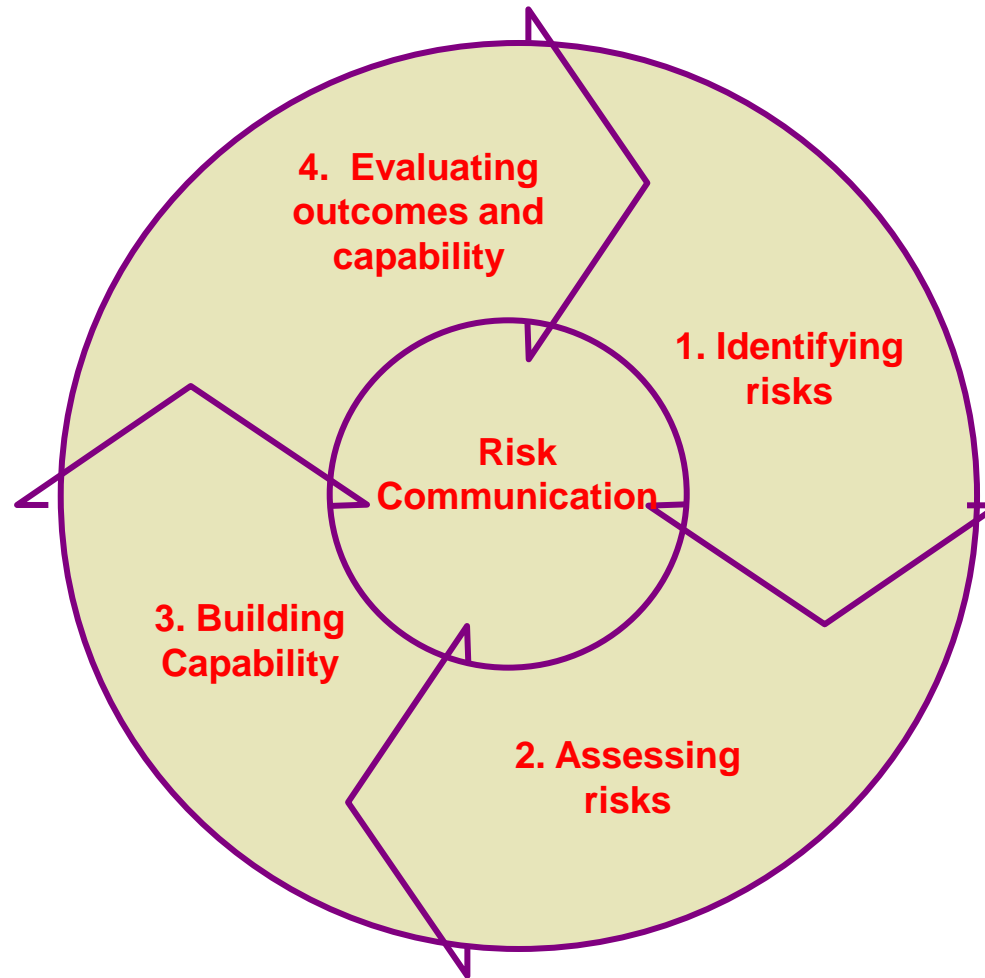
Medium term (5 years)
domestic resilience planning

- UK risk profile affected by
 - climate change
 - global instability
 - networked, interdependent, complex society
 - risk of cascade failures
- UK risk profile unlikely to change:
 - diverse,
 - No single risk dominating;
 - complex and unpredictable,
 - links randomly and suddenly emerging between events.
- requiring
 - generic emergency response capabilities
 - crisis management
 - specific plans for catastrophic emergencies
 - improved social-economic resilience, and
 - keeping an eye on the risks

National Risk Assessment: Hazards



UK national resilience planning cycle



Building resilience capabilities

- **risk identification and assessment**
- **horizon-scanning and crisis management**

ability to respond

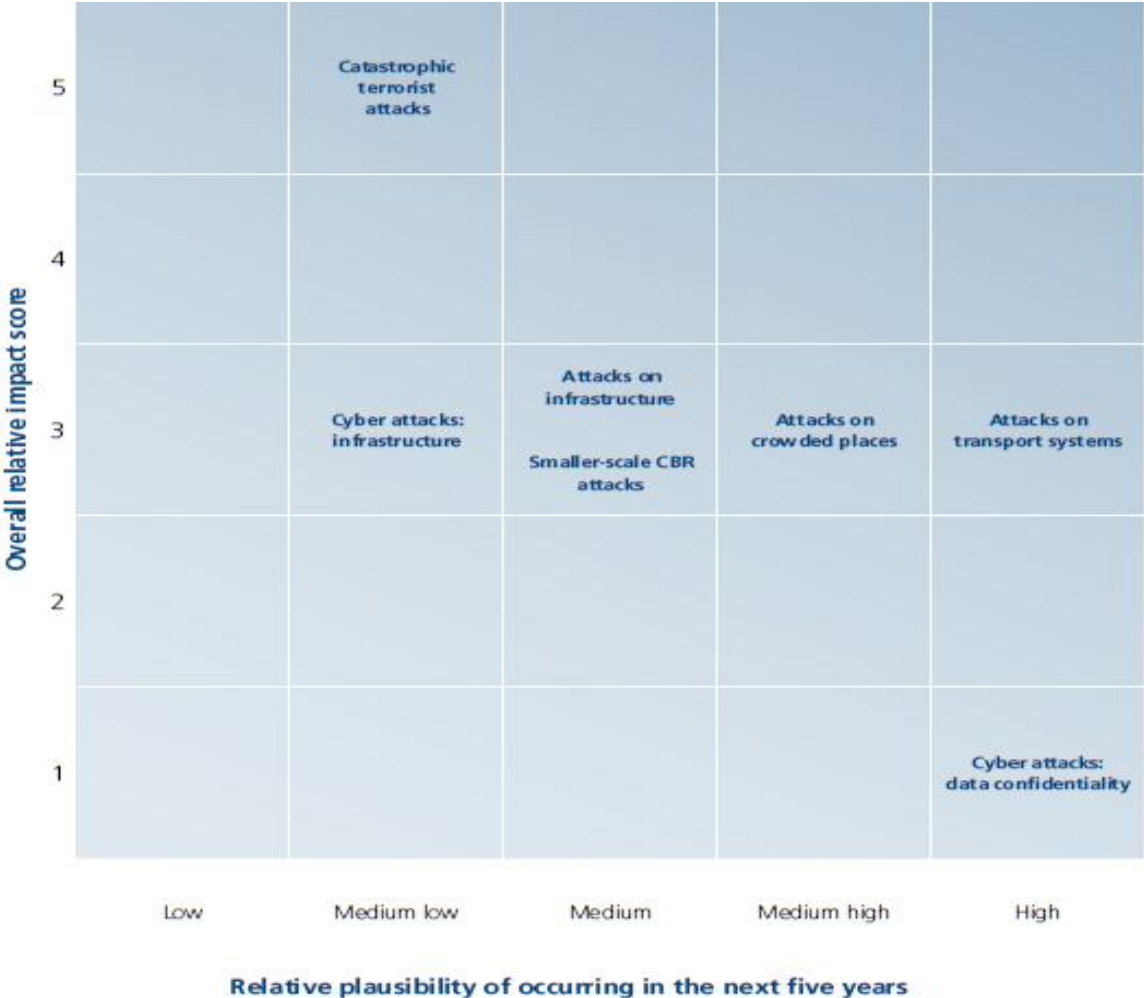
- **local response**
- **national capability and capacity**
- **contingency planning for top risks**

reducing vulnerability to harm

- **resilience of essential services/national infrastructure**
- **corporate resilience**
- **community resilience**

Risk communication - UK national risk register

Threats



UK national risk register - hazards

Hazards

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	Relative likelihood of occurring in the next five years				

Summary of benefits :- national risk assessment enables us to:

- **avoid speculating** on, or attempting to predict, future shocks in an inherently unpredictable risk landscape
- **prioritise risks** according to the likelihood of them materialising and the impact when they do
- **identify the highest risks** requiring special programmes of mitigation by the government
- **communicate information on the risks widely**, and so support a strategy of building resilience from the bottom up
- **quantify** the consequences needing to be planned for
- **adopt strategies** for managing risks

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Questions?

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