

The Business of Resilience

Summary Report 2022



GREAT
BRITAIN & NORTHERN IRELAND

Foreword



Rt. Hon Anne-Marie Trevelyan MP
Secretary of State for International Trade



Climate change, the Covid pandemic and geopolitical tensions bring into sharp focus the need to improve global resilience. Communities, companies and countries worldwide regularly face a range of threats such as natural disasters and cyber breaches. The impact of these events is pushing infrastructure and resilience thresholds to their limit.

The frequency and scale of these events is constantly increasing, and their destructive impact is often bigger than any individual economy can cope with. A more robust response is needed.

The UK is uniquely positioned to lead and shape a global resilience sector. As a world-leader in finance, insurance, infrastructure solutions and technology we have an unrivalled depth of cross-sectoral capabilities suited to provide governments and business with the full range of services required to identify, forecast and mitigate against the biggest risks.

The UK is home to the world's largest insurance centre and has an essential role to play. As a global leader in speciality risk and insurance with almost £2 Trillion of investments under management here¹ and US\$110 Billion of gross written premiums which is bigger than the next three largest global markets combined², the industry is already developing and providing leading edge solutions to overseas customers. The UK insurance sector has recent experience of creating innovative reinsurance solutions to provide cover for the increased risks of terrorism and of working in partnership with government to mitigate the increased risk of flooding.

Another key component is the UK's world-renowned reputation for expertise in engineering, technology, climate resilience and adaptation, data analytics and smart cities, all of which can

help predict and take action to mitigate future catastrophic events and provide information to support decision making for cities and major infrastructure sectors. Importantly, there is a strength of skills in these subjects throughout the UK with a strong talent pipeline due to the work of our world-leading universities and government investment in research and development to ensure the UK is a scientific superpower.

The importance of managing risk and resilience has increased in the wake of COP26. Recognition of the pace of climate volatility has required communities, countries, and companies to develop resilience and build-in adaptability. For the first time COP positioned adaption and resilience as equal to mitigating climate change.³

At the Business of Resilience Conference 2022, we are bringing together leading global underwriters, brokers, cities, companies, engineers, cyber specialists, professional and advisory service providers as well as leaders from the London commercial risk market. The purpose is to showcase existing work by the UK's resilience community, understand the size of the market opportunity, and explore how we can drive climate action across the world through the export of UK expertise.

The UK has an unrivalled legacy in insurance, infrastructure solutions, and technology. This unique blend of world-leading credentials firmly places it at the heart of the future of the resilience industry. Clearly prevention is better than cure, and new, proactive solutions will be presented at the Business of Resilience Conference 2022. These options offer support to global clients in building resilient communities, companies and countries.



Catherine McGuinness
Chair of the Policy and Resources
Committee, City of London Corporation



On behalf of the City of London Corporation, I am pleased to introduce this report on the 'Business of Resilience' in partnership with the Department for International Trade.

Society is at critical juncture. With a rapidly evolving and dynamic risk landscape, every citizen, community, and business is impacted. In this current decade alone, we have experienced the growing risks of climate change and extreme weather events, cyber-attacks and terrorism, and political violence and geopolitical tensions. Building resilience to these risks and ensuring full coverage requires robust, agile investment in infrastructure alongside innovation in products. The commercial and (re)insurance sector must play a crucial role by building resilience into its products for businesses and governments to help our interconnected global community meet the challenges of today and creating a better future for tomorrow.

In this summary report, we highlight the City of London's unique global position in producing (re)insurance products to support the acceleration of resilience and adaptability. As the world's largest global (re)insurance hub, the London market represents 7.6% of the total marketplace or US\$110 Billion of gross written premiums in 2018⁴. London's success is a result of the scale of products, innovation and breadth of services, and concentration of underwriting a broker expertise. With solid foundations, London can lead the way in creating a resilient society of the future.

We already see this with London and the UK leading on new global solutions in pioneering, balanced, and equitable infrastructure funding

models⁵. The UK has unmatched understanding of global need for cyber security. London is a global hub for cyber insurance, with over a quarter of business coming through the City of London⁶.

Last year the City of London Corporation hosted key players from across the financial and professional services sector for our Green Horizons Summit at COP26 in Glasgow. It was a prime example of the City highlighting the UK's role in leading innovation and gathering international momentum to build resilience and adaptation strategies to climate change⁷.

We are delighted to collaborate with our partners at the Department for International Trade to assemble the Business of Resilience Taskforce. Comprising pioneering financial and professional services businesses, their expertise have proposed solutions to address the global insurance gap for decarbonising economies, and limitations in technology and infrastructure. I wish to thank all those involved in this Taskforce.

In this document, taskforce stakeholders have provided a clear analysis of resilience and adaptability products to address the climate, cyber, and infrastructure risks that are experienced by global clients. Further, they detail compelling recommendations for the sector and government to implement to cement the UK as the leading global hub for resilient reinsurance products. This summary report is an important preface to the full report in shaping the UK's (re)insurance sector's role in leading the world into a resilient and adaptable future.

1. The London Insurance Market: Beyond 2021. AON. Link: 13883-London-Insurance-Sector-Beyond-2021-Report_v07.aspx (aon.com)

2. London Matters 2020. London Market Group. Link: London-Matters-2020-Digital-1.pdf (lmg.london)

3. COP26 The Glasgow Climate Pact. UN Climate Change Conference UK 2021. COP26-Presidency-Outcomes-The-Climate-Pact.pdf (ukcop26.org)

4. London Matters 2020. London Market Group. Link: London-Matters-2020-Digital-1.pdf (lmg.london)

5. London: A global marketplace for infrastructure solutions. City of London Corporation. Link: London: A Global Marketplace For Infrastructure Solutions (theglobalcity.uk)

6. The UK: Cyber security expertise and capital. City of London Corporation. Link: The UK Cyber security factsheet 2021 (theglobalcity.uk)

7. Summary Green Horizon Summit @ COP26. City of London Corporation and Green Finance Institute. Link: Summary Green Horizon Summit @COP (event.com)

CHAPTER ONE

Building resilient communities, companies and countries

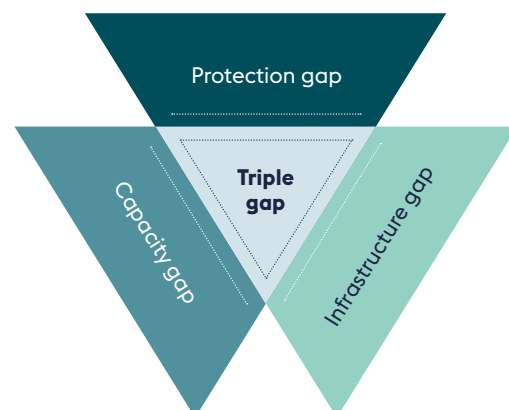


No single intervention will be sufficient to deal with the largest disasters – a new approach is needed as a matter of urgency. It is essential that a combined approach to resilience is adopted to manage risks effectively and secure the maximum value from insurance which will average the costs of large events across geographies and time. The UK is uniquely placed to lead on this effort and to convene key stakeholders across industry and government. Building on existing credentials, the UK is working to identify new solutions that will support global resilience in communities, economies and governments around the world.

The guiding principle is 'prevention is better than cure'. For example, natural disasters are increasingly prevalent but are better understood due to the information captured – aided by weather forecasting, climate modelling and risk modelling using advanced digital tools. Despite uncertainties in future scenarios, early investment in new, resilient infrastructure (physical or cyber defence) is significantly more cost-effective than remedial works. The overall cost would be lower, subsequently reducing the risk for insurance companies and therefore reducing the cost to society as a whole. Importantly, the impact, financially and personally, to citizens stands to be mitigated.

Central to the challenge of building global resilience is the 'protection gap' – the gap between economic losses and those that are insured. The global protection gap is 62%⁸, which can be much higher in locations where insurance penetration is particularly low – in Asia Pacific it is 88%⁹. This means that millions of households and businesses around the world are exposed to significant financial risk, which in turn has far reaching ramifications for the local economy and particularly those least able to cope.

This financial challenge is intensified by similar 'gaps' of infrastructure provision and the capacity to manage risks. **Consequently, communities, countries and companies are facing a 'triple gap'.**



The recently published Working Group II Contribution to the IPCC Sixth Assessment Report⁹ highlights that climate change has already caused irreversible impacts to our natural and human systems. There is increased evidence of maladaptation across many sectors and regions, where adaptation measures have in some cases increased vulnerabilities. Progress has been achieved in adaptation, but this is unevenly distributed and does not always address the longer term risks from climate change. At the current rates of action on adaptation and resilience and as our climate changes, the gap between our actions and what is needed will continue to grow. We therefore need to look at transformational interventions and ways to reduce disparities around the world.

A combination of better risk awareness and forward planning could help make the value and potential of insurance better understood and more widely available and thereby help close the protection gap. It will also help form more resilient societies, businesses and economies that are better able to cope with the likelihood of more frequent and severe catastrophes.

The size of the opportunity is significant. Take cyber: the protection gap is as high as 90%¹⁰ with losses of US\$1.5 Trillion¹¹ to the global economy, and this is expected to increase at pace as cyber attacks become bigger, more sophisticated and frequent.

Governments and the insurance sector are picking up a significant portion of the costs relating to catastrophic events and climate change. However, if this were to continue, we could see the protection gap widen, global resilience decrease, and the role of the private sector stifled. Therefore, cross-sector industry and government collaboration is critical to improving global resilience.

Globally, the average gap between economic losses as a result of catastrophic events and those that are insured is

62%⁸

8. 2021 Weather, Climate and Catastrophe Insight. AON. Link: [weather-climate-catastrophe-insight.pdf.aspx](https://www.aon.com/insight/weather-climate-catastrophe-insight.pdf.aspx) (aon.com)
 9. Climate Change 2022: Impacts, Adaptation and Vulnerability, the Working Group II contribution to the Sixth Assessment Report. IPCC. Link: [IPCC_AR6_WGII_FinalDraft_FullReport.pdf](https://www.ipcc.ch/report/ar6/wgii/) (ipcc.ch)
 10. Enhancing Financial Protection Against Catastrophe Risks: The Role of Catastrophe Risk Insurance Programmes. OECD. Link: [enhancing-financial-protection-against-catastrophe-risks.pdf](https://www.oecd.org/en/publications/2021/07/enhancing-financial-protection-against-catastrophe-risks.pdf) (oecd.org)
 11. SYSTEMIC RISK: Systemic Solutions for an Increasingly Interconnected World. Citi GPS and the Cambridge Centre for Risk Studies. Link: [Link: csi-critigs-systemic-risks-report.pdf](https://www.citi.com/insights/systemic-risks-report) (jbs.cam.ac.uk)

The protection gap in cyber security is as high as 90%⁷ with losses to the global economy of more than US\$1.5tn¹¹

In March 2021, the UK embarked on the Business of Resilience programme, creating an industry-led taskforce to tackle the protection gap and improve global resilience. The strengths of the UK's financial centre and its world renowned infrastructure engineering and cyber resilience capability are at the core of this initiative.

Underpinning the UK offer is concentration of world-class players in the consultancy, data analytics, engineering, infrastructure, technology, financing and insurance space, and their shared ambition to:

- Better identify and understand key risks, including natural and man-made disaster events as well as fast increasing cyber security threats;
- Develop a wide variety of solutions helping reduce the impact of those events as well as more resilient infrastructure systems;
- Secure sustainable sources of funding to invest in those solutions and infrastructures (ahead of disaster events happening);
- Put in place deep and reliable pools of capital, including insurance capital, for those communities hit hardest by disaster events; and
- Design the required processes and infrastructures that anticipate climate and societal risks, are climate resilient and allow for rapid recovery from those disaster events.



CHAPTER TWO

Key findings from an industry-led taskforce

A key initiative under the Business of Resilience programme was the creation of an industry-led taskforce covering three themes central to building resilience:

- Infrastructure Investments and Resilience
- Climate Risk and Disaster Finance
- Cyber Risk and Terrorism

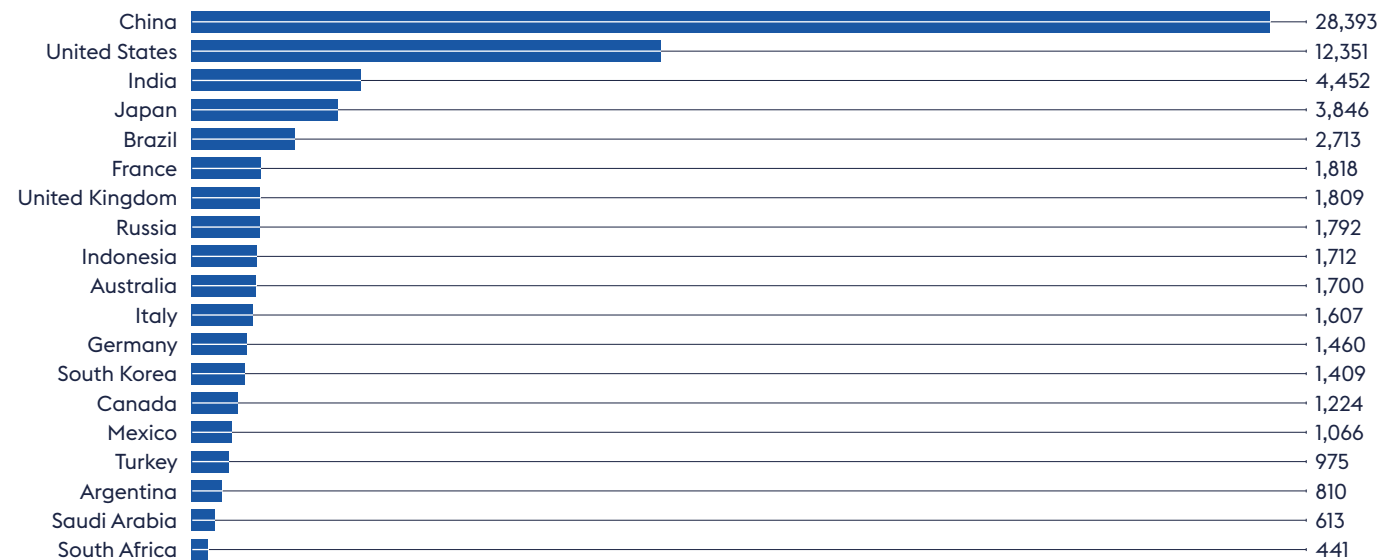
The findings of the taskforce under each of these themes are summarised below and will be presented at the Business of Resilience Conference 2022 to an international audience of stakeholders committed to building global resilience. The conference will facilitate the open exchange of ideas and explore recommendations to increase the UK’s global involvement in resilience efforts.

Industry insights on infrastructure investments and resilience

Two years of Covid-19 have resulted in economic recovery packages embracing ‘building back better’¹² principles, net zero ambitions and enhanced climate resilience. However, the industry-led taskforce has expressed the view that ‘a widening infrastructure gap has emerged as investment has failed to keep pace with the impact of climate change’. More work and financing are needed to tackle global resilience challenges, including more **resilient infrastructure systems**.



Cumulative investment need to 2040 (US\$ Bn)



Source: Oxford Economics Global Infrastructure Outlook

↓
One of the objectives of the Business of Resilience Conference 2022 will be to discuss the role of both UK industry and the UK government.

Global infrastructure investment needs will reach US\$94 Trillion by 2040¹³. Developing countries are estimated to require US\$140 Billion to US\$300 Billion per year by 2030 and rise from US\$280 Billion to US\$500 Billion by 2050¹⁴. While infrastructure demand is greatest in the largest economies, emerging economies with lower capacity, such as Brazil or Indonesia, have the greatest need to import climate resilience services.

Creating resilience to climate change and other shocks requires a wide variety of products, technologies and services. A robust framework supports the way the UK builds resilience to these shocks. From the Climate Change Act (2008) to the work of the UK National Infrastructure Commission (NIC), UK institutions are already planning, designing, building and operating advanced climate adaptation solutions and climate-resilient infrastructure around the world.

The NIC has developed a five-stage **framework for resilience**¹⁵ – anticipate; resist; absorb; recover; adapt and transform – and the UK has world-leading, exportable expertise for every stage:

- **Governance:** Robust legal and regulatory framework, with professional services to advise on climate change legislation and disclosure
- **Engineering:** Leading engineers for the transition to net zero and climate-resilient design
- **Research:** Research institutions to support digital transformation in insurance, finance and infrastructure
- **Financing:** A global hub of international financial institutions and commercial banks
- **Insurance:** One of the oldest (re)insurance markets, leading on catastrophe modelling, climate risk analytics, insurtech solutions and parametric insurance products

The industry-led taskforce proposes the combination of expertise in infrastructure resilience combined with tailored insurance and finance products that would allow governments to invest in climate adaptation now, which otherwise may be unaffordable, as well as mitigating the risks on society and the cost of expensive remediation schemes.

The UK’s credentials in research, technology, and engineering with extensive experience in finance and insurance makes it well positioned

to offer and export resilient infrastructure solutions in the development of climate-resilient cities and infrastructure of the future. Alongside world-leading insurance resilience expertise, its services range from sustainable financing to climate governance to advice on monitoring and implementing net zero transition solutions.

The industry-led taskforce advocates for the creation of an integrated and collaborative UK climate resilience proposition. This would potentially be underpinned by a new facility, either as a commercial vehicle or government support facility, to develop project pipeline and Front-End Engineering Design (FEED) as a collaboration between UK professional services companies. Such a facility, could offer access to services from engineering firms, professional firms, technology firms, as well as other financial and insurance institutions in the UK resilience ecosystem.

Finance and insurance must be integrated into the overall proposition, however, there are barriers. The scale of infrastructure projects often requires more than one financing body, and the risks associated with lengthy projects (cashflow uncertainty, long payback periods) inhibit financing. Public and private institutions’ role in overcoming these barriers must be carefully assessed.

The industry-led taskforce has created a roadmap to realising this integrated facility and growing the UK’s share of the global sustainable finance market, while supporting faster transition to climate resilience with the added benefit of contributing towards net zero. One of the objectives of the Business of Resilience Conference 2022 will be to discuss the role of both UK industry and the UK government, as well as the merits of a new UK Climate Resilience Support Facility.

12. Building Back Better: A Sustainable, Resilient Recovery After COVID-19. OECD. Link: [Building-back-better...A-sustainable-resilient-recovery-after-covid-19](https://www.oecd.org/building-back-better/A-sustainable-resilient-recovery-after-covid-19/) (oecd.org)

13. Global Infrastructure Outlook: Infrastructure Investments Needs 56 Countries, 7 Sectors to 2040. Global Infrastructure Hub. Link: [Global+Infrastructure+Outlook+factsheet+--+June+2018.pdf](https://www.gihub.org/global-infrastructure-outlook-factsheet) (gihub.org)

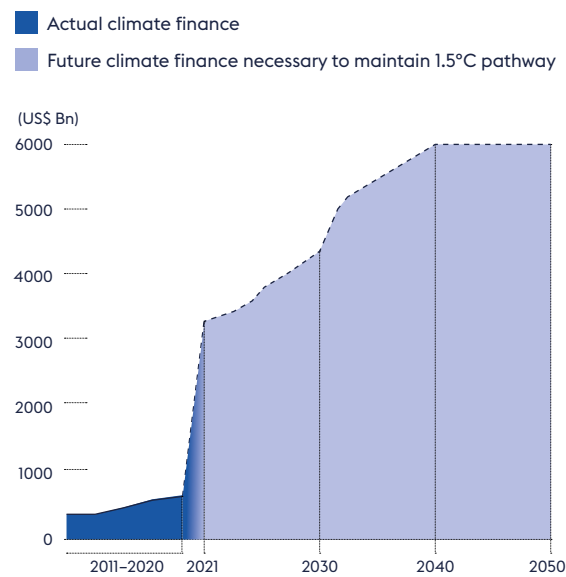
14. Adaptation Gap Report 2020. UN Environment Programme. Link: [AGR2020.pdf](https://www.unep.org/adaptation-gap-report) (unep.org)

15. Anticipate, React, Recover: Resilient Infrastructure Systems. National Infrastructure Commission. Link: [Anticipate-React-Recover-28-May-2020.pdf](https://www.nic.org.uk/anticipate-react-recover) (nic.org.uk)

Industry insights on climate risk and disaster finance

On the topic of Climate Risk and Disaster Finance, the taskforce focused on the UK insurance sector and its critical role in mitigating and adapting to climate change. Bringing together risk managers, risk carriers and investors, the insurance ecosystem can be a powerful enabler of change. It can provide innovative products and services to help finance, manage and accelerate the decarbonisation of economies. It can also support the growth of greener industry, transport and energy.

Total global climate finance in the UK (US\$ Bn)



➔ An increase of at least 590% in annual climate finance is required to meet internationally agreed climate objectives by 2030 and to avoid the most dangerous impacts of climate change.

Existing climate-focused solutions, products and services provided by the UK ecosystem focus on:

- **Financing** the transition to a resilient, sustainable future, and structuring financing to incentivise climate action
- **Mitigating** natural disaster and climate-related risks, as well as the risks associated with transitioning to a resilient, more sustainable lower carbon economy
- **Enabling** the transition to a lower carbon economy

The insurance industry plays a key role in motivating governments, corporates and individuals to take tangible action to achieve net zero and more resilient societies.

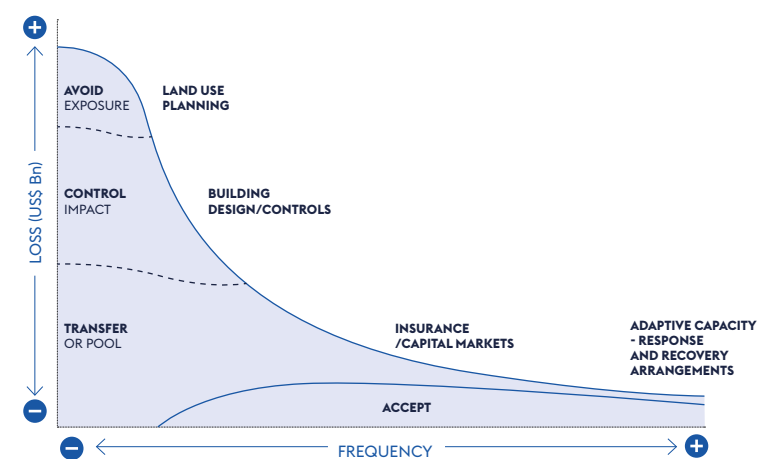
Catastrophe models are an important facilitator behind many solutions. They use historical data and climate projections to better understand future risks. The output of catastrophe models must continue to evolve to become more useful as climate change makes natural disasters more difficult to predict based on backwards looking methodologies. They also offer an investment product (for example, in the form of catastrophe bonds) that is not linked to the performance of financial markets. This will provide an opportunity for investors to diversify the risk profile of their investment portfolio.

Additionally, catastrophe bonds are a transparent form of insurance that offer a faster pay-out than a traditional insurance product. They allow governments to act quickly to support the most critical and vulnerable parts of their community following an event.

Equally, the role of insurtech is particularly important to resilience by facilitating the development of parametric solutions that are integral to closing the growing insurance protection gap. Improvements in technology, data availability and modelling are likely to be integral to some, if not all, solutions.

Finally, the industry-led taskforce suggests that, rather than each country having to build the knowledge, capability, systems and processes locally, countries could be supported by a UK-based global data hub. Worldwide adoption would increase use and lower the cost of such a hub, allowing developing countries to access current best practice research, tools, risk financing, event recovery and advisory services. These could be expanded into claims systems and services to provide low-cost solutions tailored to disaster response rather than costly, under-used, full-service solutions.

Risk management hazard assessment



➔ Effective risk management requires realistic assessment of the hazard and a balancing of the benefits and costs of treatment.



Industry insights on cyber risk and terrorism

Under this theme, the industry-led taskforce's work focused more on cyber than terrorism as the UK is already a world leader in terrorism risk resilience, providing valuable lessons for cyber risk efforts.

The taskforce highlighted more than US\$1.5 Trillion in cyber losses per year¹⁶ and the cascading impacts of catastrophe on digitally interwoven industries and geographies.

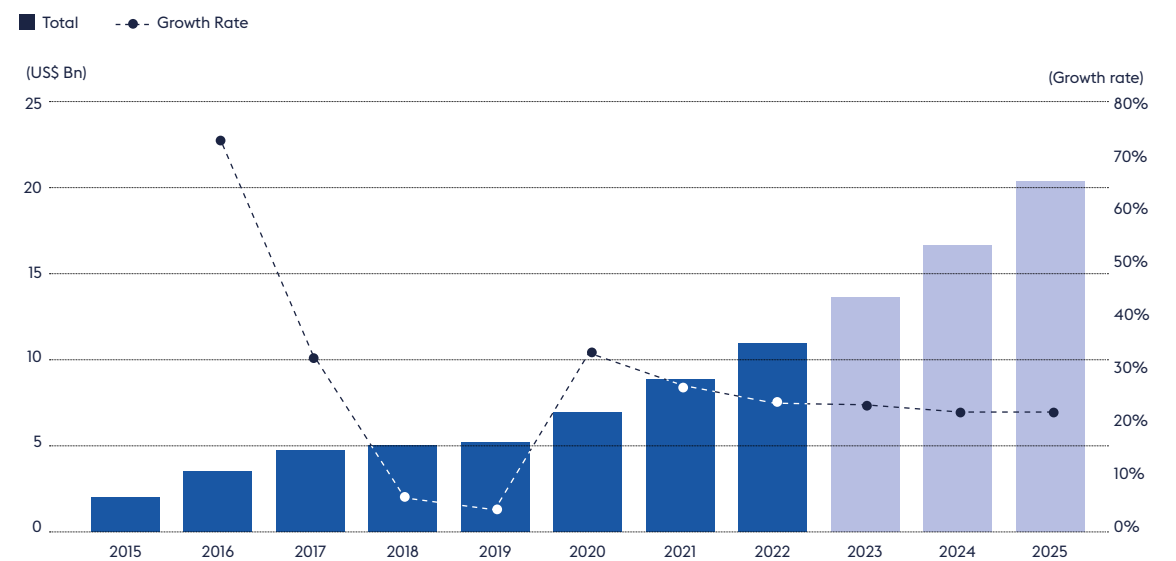
The global cyber insurance market has been one of the fastest growing insurance sectors of the past decade, driven by US demand, with insurance premiums doubling since 2015 to reach US\$3.15 Billion in 2020¹⁷. Growth is set to continue with the market predicted to exceed US\$20 Billion by 2025¹⁸. Export opportunities are also expected to increase, especially in Europe, Asia-Pacific and Latin America, as well as in mature cyber markets

such as the US, where underinsurance is still material. The insurance protection gap for cyber remains high, with as much as 90% of all global cyber losses uninsured.¹⁹

The City of London has been a centre of (re)insurance excellence for more than 300 years. Its ecosystem enables the London market to lead the world in speciality commercial insurance, taking on the most challenging risks. Lloyd's of London is a key hub for cyber insurance, with access to more than 77 expert cyber risk insurers in one place.²⁰

The taskforce's work directly aligns with the UK's National Cyber Strategy 2022²¹ aims to 'leverage and export UK cyber capabilities and expertise to boost our strategic advantage and promote our broader foreign policy and prosperity interest'. Furthermore, international promotion of cyber insurance supports the Strategy's wider themes of building partner nation resilience and UK leadership in the cyber domain.

Global cyber insurance market (gross written premium) 2015–2025



Source: GlobalData, Insurance Intelligence Center

16. SYSTEMIC RISK: Systemic Solutions for an Increasingly Interconnected World. Citi GPS and the Cambridge Centre for Risk Studies. Link: [citi.com/insights/systemic-risks-report](https://www.citi.com/insights/systemic-risks-report). pdf (jbs.cam.ac.uk)

17. Report on the Cybersecurity Insurance and Identity Theft Coverage Supplement. National Association of Insurance Commissioners and the Center for Insurance Policy and Research. Link: [cyber-supplement_2019-report_final_1.pdf](https://www.naic.org/content.naic.org/cyber-supplement_2019-report_final_1.pdf) (content.naic.org)

18. Cyber Insurance, 2021 Update: Thematic Research. GlobalData. Link: [cyber-insurance-2021-update-thematic-research](https://www.globaldata.com/cyber-insurance-2021-update-thematic-research) (globaldata.com)

19. Enhancing Financial Protection Against Catastrophe Risks: The Role of Catastrophe Risk Insurance Programmes. OECD. Link: [enhancing-financial-protection-against-catastrophe-risks.pdf](https://www.oecd.org/financial-protection-against-catastrophe-risks.pdf) (oecd.org)

20. Why buy cyber insurance at Lloyd's? Lloyd's of London. <https://www.lloyds.com/about-lloyds/what-we-insure/cyber/why-cyber-insurance>

21. National Cyber Strategy 2022. Cabinet Office, UK Government. Link: [national-cyber-strategy-amend.pdf](https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/111111/national-cyber-strategy-amend.pdf) (gov.uk)

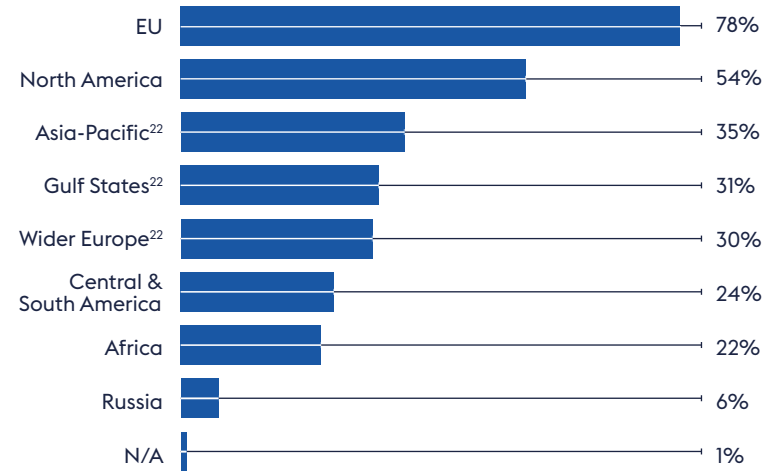
Increasing UK businesses' cyber security and the uptake of cyber insurance will improve the UK's overall resilience and will attract foreign direct investments into the sector. The domestic design and implementation of innovative ideas provide a strong foundation to develop specialist security products and services for export. Consequently, the UK can reinforce its reputation as a world-leading insurance hub and build out the internationalisation of its resilience solutions.

According to the industry-led taskforce, the creation of new commercial cyber pools in the UK and elsewhere could withstand losses for major catastrophic events and create capacity not already provided by the cyber insurance ecosystem, while also harnessing the capacity of the reinsurance sector. Moreover, they could strengthen cyber risk management best practice and underwriting, and encourage more businesses to participate and benefit.

The pooling of risks makes the market more robust, reducing the volatility of claims and the costs of cyber insurance. Furthermore, it potentially decreases the UK's protection gap, and it strengthens the UK cyber ecosystem, with the potential to attract foreign direct investments by improving investment prospects. UK firms involved in the pool would be able to develop and participate in new pools abroad too, thereby using the UK's expertise to strengthen the resilience of our foreign partners.

Described by the industry-led taskforce as a three-phase framework, the commercial cyber pool could be seen just as phase 1, with the potential for

Export Regions (for businesses that export)



Source: Ipsos (n=113)

a public-private cyber pool should governments choose to participate and the inclusion of multiple perils in phases 2 and 3 respectively. The possibility of applying UK learning and experience is another topic for discussion during the Business of Resilience Conference 2022.

Additionally, a consultancy, R&D and innovation centre could implement structures emerging from the commercial cyber pool, drawing on UK academic, government and insurance expertise. This would lead to a shared understanding of complex risks; financial protection mechanisms and targeted risk transfer solutions for complex risks; and insurance products linked to incentives for resilience.

The UK's unique approach to terrorism risk

The UK insurance market has a unique approach to terrorism risks. In 1993, following market failures to provide sufficient capacity to cover certain terrorism risks, the UK government and UK insurers established Pool Re, a mutual for reinsuring terrorism risk across Great Britain.

Backstopped by an unlimited loan facility from HM Treasury, Pool Re offers a financial safety net for around £2.2 Trillion of UK assets and businesses of all sizes²³.

Since its creation, Pool Re has succeeded in re-establishing a market able to offer comprehensive, affordable terrorism insurance that has paid claims without resorting to its government guarantee.

Its strengths include:

- Solvency, supported by a UK government guarantee
- Availability of cover to beneficiaries at risk and wide accessibility to regulated insurers in general and its members in particular
- Affordability thanks to UK government guarantee, even after a series of catastrophic events
- Claims transparency, since claims are handled by the underlying property insurer within a pre-defined protocol
- Breadth of cover, which since 2019 also includes non-damage business interruption.

22. Asia-Pacific includes East Asia, South Asia, Southeast Asia, Australia and New Zealand. The Gulf States includes Bahrain, Iraq, Kuwait, Oman, Qatar, Saudi Arabia, the United Arab Emirates and Yemen. Wide Europe includes all countries outside the European Union, including Israel.

23. Managing Terrorism Risk & Building Resilience. Pool Re. Link: COH_J012852-PoolRe-White-Paper-web.pdf (poolre.co.uk)



CHAPTER THREE

Conclusion

The challenge facing our post-Covid world could not be starker. Urgent, collaborative, proactive action is needed to cope with the combined risks of climate change, cyber and terrorism threats, and national infrastructure adaptation to create a more resilient world.

It's a challenge that cannot be shouldered by individual nations or governments alone. Businesses and sectors must help build on the work that some governments have already started across developed and developing countries. Collaboration is needed to build solid financial resilience into our communities, economies and nations. Only resilience will enable us to tackle the major crises we face in a fast-changing world where so many people are still uninsured.

Overcoming this global insurance gap, as well as the current limitations in technology and infrastructure, will be critical. And the unique expertise of the insurance, financial services, engineering and academic sectors within the City of London, and the UK will be central to this. With a well-established financial ecosystem already in place, the UK offers hundreds of years of insurance innovation and technological leadership alongside deep liquidity pools.

This short briefing has spelled out the proposals of the industry-led Business of Resilience's taskforce to take positive and transformative steps forward. As a global financial and insurance centre, the UK already has much to contribute to the programme for greater global resilience, as well as avenues for tackling increasing risks in the future. This is, however, ultimately a challenge that no one country can take on alone. New international partnerships will be needed, based on sharing knowledge, data and risk mitigation efforts, and the UK is ready to play a leading role.

The size of the opportunities is enormous, as the estimates provided in this report show. But so are the consequences of not taking action to exploit these opportunities.

Next steps

For those attending the Business of Resilience Conference 2022, you are encouraged to participate in the sessions by asking questions about the proposals.

If interested as a potential buyer or delivery partner of any of the solutions, please contact the Department for International Trade either at the event or via the emails provided in Appendix Two.

APPENDIX ONE

Taskforce composition and subgroups by theme

Infrastructure Investments and Resilience

Philip Hoare (subgroup chair) – President, Atkins Engineering

Jonathan Holyoak - Policy and Net Zero Programme Director, Atkins Engineering

Adam Rimmer – Chief Executive, Flood Flash

Dr Steven Wade – Director Climate and Resilience, Atkins

Chris Hall – Head of Marketing, Flood Flash

Denise Bower – Executive Director, External Engagement, Mott MacDonald

Madeleine Rawlins - Global Practice Leader – Climate Change, Mott MacDonald

Jo da Silva – Global Director of Sustainable Development, Arup

Clare Francis – Regional Head of Client Coverage, CCIB, Europe, Standard Chartered

John Dora – Director, Technical Lead, Climate Sense

Jeremy Benn – JBA Consulting

Helen Meekings – UKEF

Emma Howard-Boyd – Chair and Ex officio DEFRA board member, Environmental Agency

Paul Dyson – Crossrail International

Climate Risk and Disaster Finance

Dominic Christian (subgroup chair) – Global Chairman Reinsurance Solutions, Aon UK, and the rest of the Aon team (Mary Alade, Kshitij Anand, Emma O'Donnell, Elisha Walia, Andrew Wragg)

Ben Wilson – Communications and Sustainability Director, Association of British Insurers (ABI)

Matthew Connell – Director of Policy and Public Affairs, Chartered Institute of Insurance (CII)

Bronwyn Claire – Lead, ClimateWise

Michael Bateson – Senior Consultant on Sustainable Finance, Ernst & Young

Ola Jacob Raji – Broker Success Manager, FloodFlash

Rebekah Clement – Sustainability Director, Lloyd's of London

Richard Leftley - Micro Insurance Pioneer

Sid Miller – Chief Executive, New Zealand Earthquake Commission

Ian Branagan – CRO, RenaissanceRe, Insurance

Development Forum

Vivek Syal – Group CRO, Tokio Marine Kiln

Daniel Stander – Special Advisor, United Nations Development Program (UNDP)

Cyber and Terrorism

Julian Enoizi (subgroup Chair) – CEO, Pool Re

Paddy McGuinness CMG OBE – Former UK National Security Advisor

Lt Col. Stephen Johnson – Cranfield University

Alex Kirykowicz – Manager, Frontier Economics

Charles Whitmore – International Public Sector Lead, Guy Carpenter

Julia Graham – CEO, Airmic, and Crown Representative for Risk and Insurance

Andrew Coburn – Centre for Risk Studies, Cambridge University

Alain Caplan – Head of Futureset, Lloyd's

Aiden Kerr – Director of Public Sector Solutions, Swiss Re

APPENDIX TWO

Contact the Department for International Trade

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