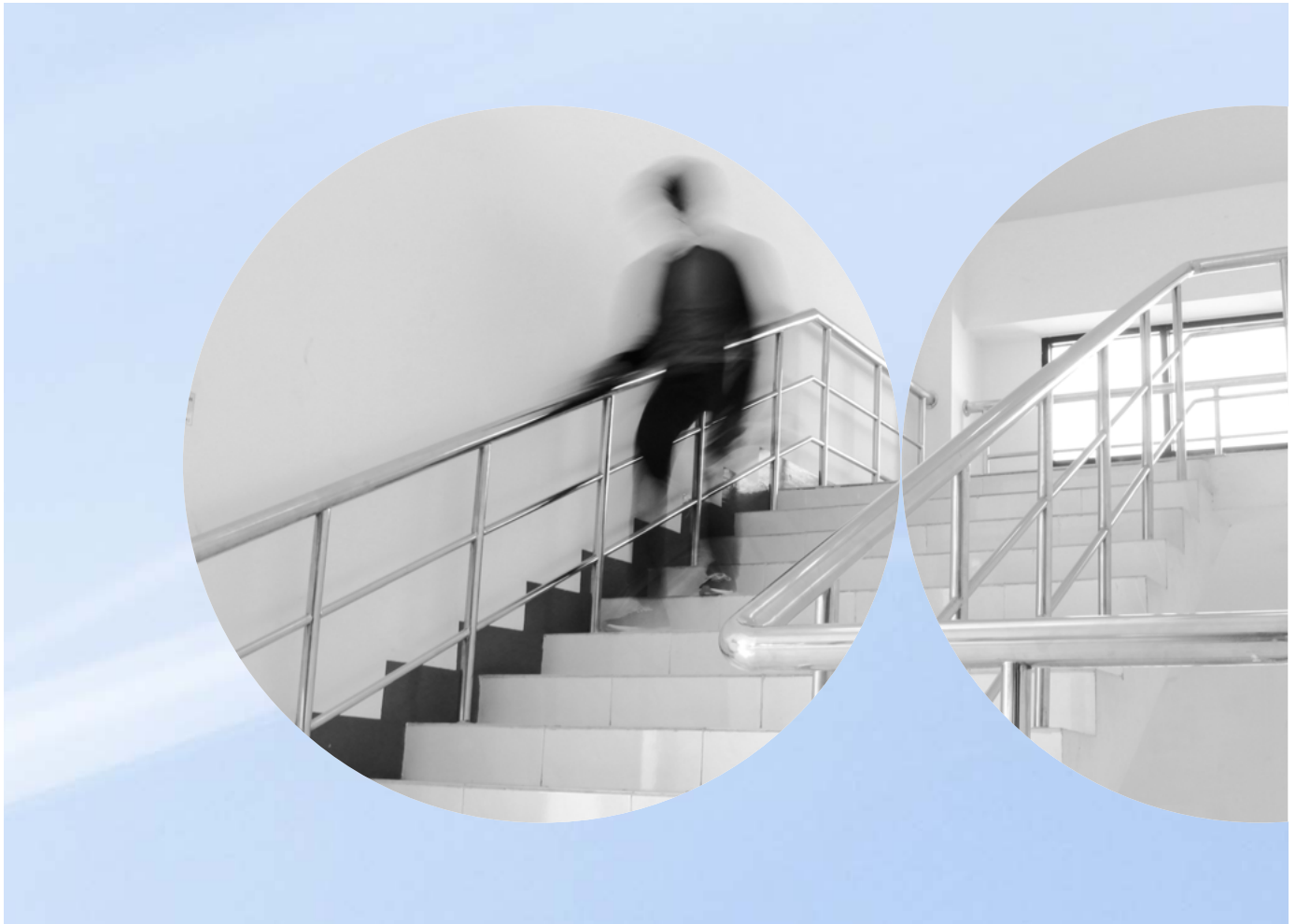


Validating cyber risk management through exercising





In a world where cyber security threats are prevalent, it is vital to have confidence in your organisation's cyber risk mitigation plans and your people's skills.

Cyber security exercises allow you to practice vital processes, plans, and communications in a safe and realistic environment. Exercises are used to build, test, validate, and continuously improve cyber security capabilities with ever evolving skills, techniques, and tools. They are also a valuable channel for developing and maintaining the internal and external relationships required for successful cyber risk mitigation.

Exercising your capabilities increases the likelihood your organisation will respond effectively to a cyber incident. It provides an opportunity to revalidate and identify necessary improvements that will inform the development of the overall crisis management framework.

Exercise levels

We run exercises at all levels:

INTERNATIONAL

These may include multi- or bi-lateral exercises with a scenario which affects stakeholders in multiple countries, or entities within one country but involves parties, stakeholders, suppliers or sites in other countries.

NATIONAL

- Government
- Critical national infrastructure (CNI)
- Smaller businesses and consumers if relevant
- Major industrial, commercial, and financial systems

SECTORAL

Exercises will focus on elements of:

- CNI sector
- An industry
- A commercial sector, government departments
- Other groups of organisations with shared interests or common systems

ORGANISATIONAL

Exercises focus on a single organisation with a single set of systems within a common security boundary. For example, an enterprise or government department.

Exercise types

We will design, build, and deliver tailored exercises to achieve your objectives by using these types of exercise:

TABLETOP EXERCISES

These simulate a realistic cyber security scenario and timeline. This exercise allows management and technical teams to practice their communications and information flows, operational processing, and decision making. It's a useful way to test or validate plans and explore weaknesses in interfaces.

TECHNICAL EXERCISES

Simulated infrastructure and technical challenges that enable your technical teams to practice and test their ability to use a combination of technical skills effectively, achieving results in a realistic cyber security scenario.

FULL-SCALE SIMULATION EXERCISES

These will provide a live rehearsal for the full implementation of a plan. They enable management and technical teams to practice and test:

- decision making
- technical skills
- information flows
- operational levels
- tactical levels

These exercises are particularly useful for verification and validation, testing logistics, communications, and physical capabilities. Involve going step-by-step through a risk scenario, with leadership engaging the relevant stakeholders in a strategic discussion. This type of exercise provides a quick way to conduct an interim assessment of options and plans in the event of a new threat or vulnerability. It is especially useful for training, awareness, and identifying gaps of knowledge in your team.

DISCUSSION AND SCENARIO DRIVEN WORKSHOPS

Involve going step-by-step through a risk scenario, with leadership engaging the relevant stakeholders in a strategic discussion. This type of exercise provides a quick way to conduct an interim assessment of options and plans in the event of a new threat or vulnerability. It is especially useful for training, awareness, and identifying gaps of knowledge in your team.

PGI in action

Three-day exercise consolidates banking sector cyber defence training

We used a technical exercise as the final test at the conclusion of a six-month training programme for a Central Bank. Selected IT staff from banks across the country were reskilled as cyber security professionals. The programme consisted of:

- Nine weeks' classroom training
- Sixteen weeks' online laboratory-based coaching
- Workshops and exams
- A three-day full-scale simulation exercise

We used our cyber range to create a realistic replica of a national banking sector, including multiple banks and a communications environment. The exercise scenario involved simulated cyber attacks on the banks in which the trainees worked. It required them to detect, investigate, respond to, and recover from these attacks.

The exercise also included participants working together across organisational boundaries, briefing managers, and supporting senior decision-making and public communications activities.

Building national exercise capability

We worked with a national cyber security authority to develop its cyber security exercising capabilities. We worked with them to co-develop a national doctrine and framework based on a customised version of our existing cyber security exercise development methodology. This explained the phases through which a cyber security exercise is created, such as:

- Design
- Development
- Building
- Delivery
- Evaluation
- Reports

Together, we created templates and guidelines to assist national exercise design and delivery teams through each phase. Then 20 national organisations joined us and our clients to run through two national exercises to ensure full knowledge transfer.

Why choose PGI?



We specialise in helping our clients achieve digital resilience, and we integrate cyber security exercises into our offer of testing and improving organisational risk management procedures. We ensure team-based learning outcomes within our training programmes.

Our exercise team consists of individuals with over 20 years' experience of strategic, operational, tactical level exercises, and skills in building and using the most up to date technical exercise environments.

We regularly develop and implement tabletop and technical exercising as part of our training and capacity building programmes. We have built and operated technical assault courses aligned with those of CREST and other certifying bodies as part of our end of course exams.

We have been employed by the UK and other government departments to develop and run technical and tabletop cyber security exercises. We've done this for national and multinational audience covering sectors from oil and gas to law enforcement.