Microsimulations Playbook

Strengthening Operational Resilience
in a Brave New World

iluminr

The impact of a global crisis on business

As we moved through 2020, organizational leaders and managers faced an unparalleled level of change. To sustain “business as usual” in the midst of a global pandemic, teams around the world were forced to work through complex challenges. In a world suddenly in chaos, they needed to create a rhythm in a work environment that was anything but “business as usual”.

Remote working, home schooling, recession, volatile economic sentiment and rapid digitization, coupled with a health crisis and a year of extreme weather, was just the beginning. What rapidly unfolded in 2020 inflicted widespread crisis fatigue, with many teams abandoning activities such as traditional tabletop and operational crisis simulation exercises.

95%

of leaders agree that their crisis management capabilities need improvement*

*Source: PwC Global Crisis Survey 2021

Marcus Vaughan
Co-Founder and Chief
Growth Officer
Catalyst Technologies

At the same time, the sheer volume of organizational change inflicted by 2020 naturally meant that 2019's playbook for response was no longer current. The year 2020 made it starkly apparent why organizations need to continuously invest in risk and resilience capability and consider new agile ways to prepare for and respond to events. This is where iluminr's microsimulations come into play.

This playbook provides a guide to assist organizations establish a successful microsimulation program that builds capability and resilience. To get you started, we've included several microsimulation templates with additional microsimulation packages available in iluminr.

If you would like to explore an iluminr microsimulation program, register your interest here:

Explore Microsimulations

Microsimulation in the new business environment

What is a microsimulation?

A microsimulation is an immersive bite-sized scenario exercise focused on creating a quick yet memorable experience. Its primary aim is to build resilience across the organization by having participants respond to an aspect of a simulated incident or critical event.

Through experiential learning, each microsimulation is designed to achieve at least one of the following objectives:

- Build awareness and engagement of your resilience program
- Develop individual skills and team capability
- Create familiarization with toolsets for resilience
- Meet regulatory or contractual compliance
- Validate data associated with risk and resilience

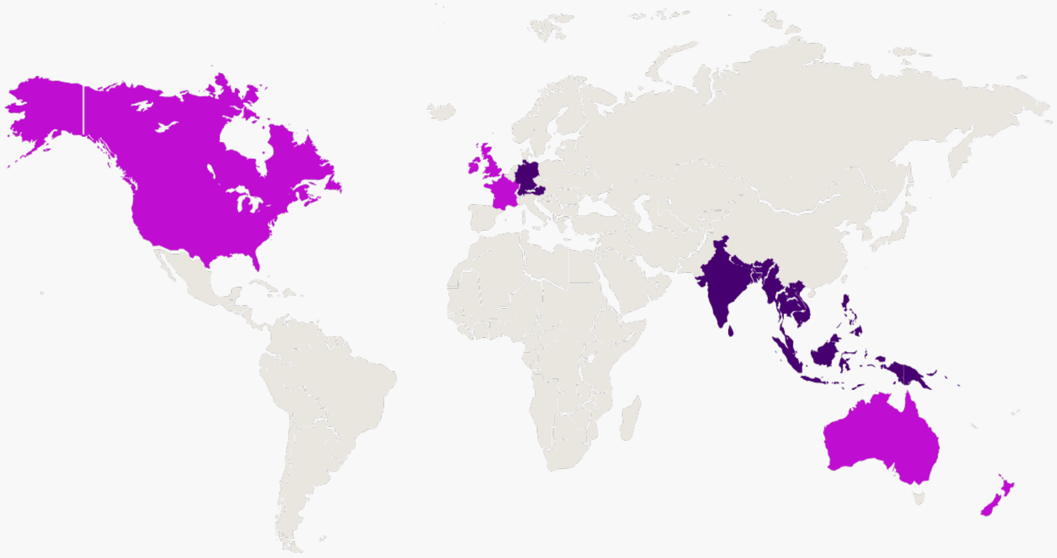
By regularly engaging with microsimulations, participants build their capability with the least amount of friction or interruption.

The purpose of microsimulations is not to replace larger and more robust tabletop exercises. Rather, they aim to support and complement other aspects of your program.

Why are microsimulations critical right now?

Crisis fatigue from COVID-19 has slowed many resilience programs in organizations, particularly training and simulation, with people saying, “We’ve just survived a crisis” (COVID-19).

Yet, as the 2021 LinkedIn Workplace Learning survey of learning and development leaders worldwide reported, “resilience” and “digital fluency” are the two leading skills that individuals will need to develop in 2021.



Top two skills across countries surveyed:

● #1 Resilience | #2 Digital Fluency ● #1 Digital Fluency | #2 Resilience

Source: Linkedin

Important reasons to deploy Microsimulations

Your organization will continue to change

The sheer amount of change your organization has experienced, both internally and externally, means your organization's response to a critical event now will be different from what it would have been 12 to 18 months ago. Supply chains, organizational structures, IT dependencies and health and safety protocols are just the tip of the iceberg.

Microsimulations bring awareness of these changes. Through microsimulations, you can test response procedures and assumptions in a new operating landscape. At the same time, you will potentially be able to identify anomalies in out-of-date business impact analysis data.

The capability gap will continue to grow

At the beginning of the COVID-19 crisis, many organizations found themselves scrambling for a good-practice crisis process. Previously they had, at best, relied on a rhythm of annual training. Although annual training is important, it has been proven to fall short of building true capability in crisis and critical event response. When annual training is removed, the organization moves backward in its future capability to execute a crisis response effectively.

E-learning is tired and out of date

Compliance training via e-learning will not generate the level of engagement you need to bring about change in thought. Despite best endeavours, most online training packages only lead to a rapid click-through and completion of a pop quiz. If your organization's learning pack was created pre-COVID-19, it's also likely to be out of date.

Recency bias creates blinders

Every crisis is different from the last. Now, more than ever, your organization needs to bring its awareness to other threats, not just another global pandemic. Making it through COVID-19 does not mean your organization has the resilience to survive a catastrophic cyber breach, natural disaster, lockdown or reputational crisis.

The threat landscape is rapidly evolving

The pace of change in today's macro environment is breath-taking. Technological, geopolitical and societal changes and physical climate risks are affecting how our organizations operate and evolve. Organizational risk profiles are changing, with new exposures emerging daily. To meet the demand of today's business environment, it's imperative that organizations continually validate exposures and contingency strategies.

Compliance requirements are here to stay

Despite many organizations wishing to postpone tabletop simulations, resilience programs must be current and meet regulatory or even contractual compliance. Compliance requirements will continue to exist and are likely to become more onerous as the world evolves.

Bridging the gap with experiential learning

Much like tabletop exercises, microsimulations use experiential learning to create lightbulb moments for change. This allows participants to better retain knowledge of resilience and how it applies across their organization.

Chief warden
Continue straight for 200m

Experiential learning in adults

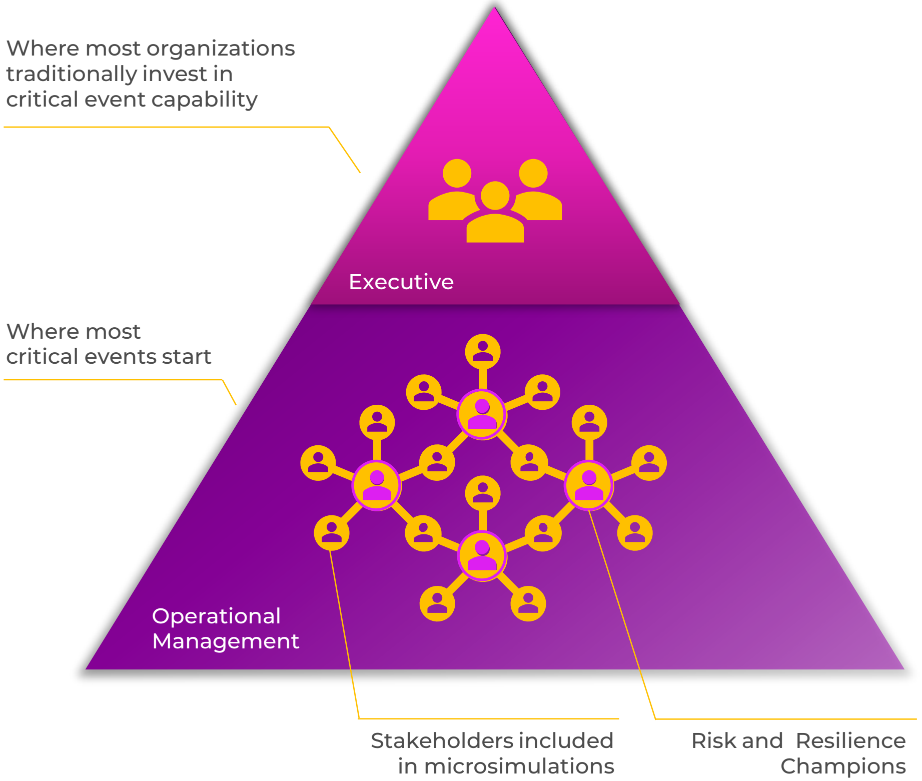
Microsimulations can be applied across most levels of an organization. It is important to consider where the greatest deficit in resilience and response training might currently exist. In the past, many organizations have invested heavily in crisis management simulation exercises for the executive and senior management. Yet, many operational managers have not experienced the same level of capability development. This can create a capability gap.

75%

Research suggests adults retain 75% of knowledge when they learn experientially*, that is, practice by doing.

*Source: The Peak Performance Centre

The capability gap



Where most organizations traditionally invest in critical event capability
Executive
Where most critical events start
Operational Management
Stakeholders included in microsimulations
Risk and Resilience Champions

A capability gap exists where the expectation of resilience capability does not match the actual level of capability.

The capability gap often exists across levels of the organization where the bulk of critical events begin as mere incidents.

For example, in 2020, the cyber security firm Kaspersky reported that 45% of business employees surveyed in North America would not know the proper steps to take in response to a ransomware attack at work*.

Risk and resilience managers have a significant opportunity to bridge the capability gap by providing experiential learning through a microsimulation program for those areas of the organization where many critical events begin.

*Source: Kaspersky

Devising an effective microsimulation program

Building resilience across an organization relies on stress testing the capability, processes, and assumptions built into your organization's business as usual and response processes. Stress testing how your organization deals with critical points of failure can provide vital pre-event lightbulb moments for improved risk preparedness.

Secure endorsement for a top-down approach

Every organization with a resilience framework has the ability to build resilience and keep its resilience program current using a board-endorsed approach. By aligning your program with the organization's resilience framework, you will be able to directly reference your program to a board- and/or executive-endorsed approach.

It's equally important to communicate your program to those ultimately responsible for resilience. This includes the overall objective of the program, a list of all those involved in each phase of implementing the program, the delivery timeframe, and what reporting will be provided.

Build credibility and momentum with champions

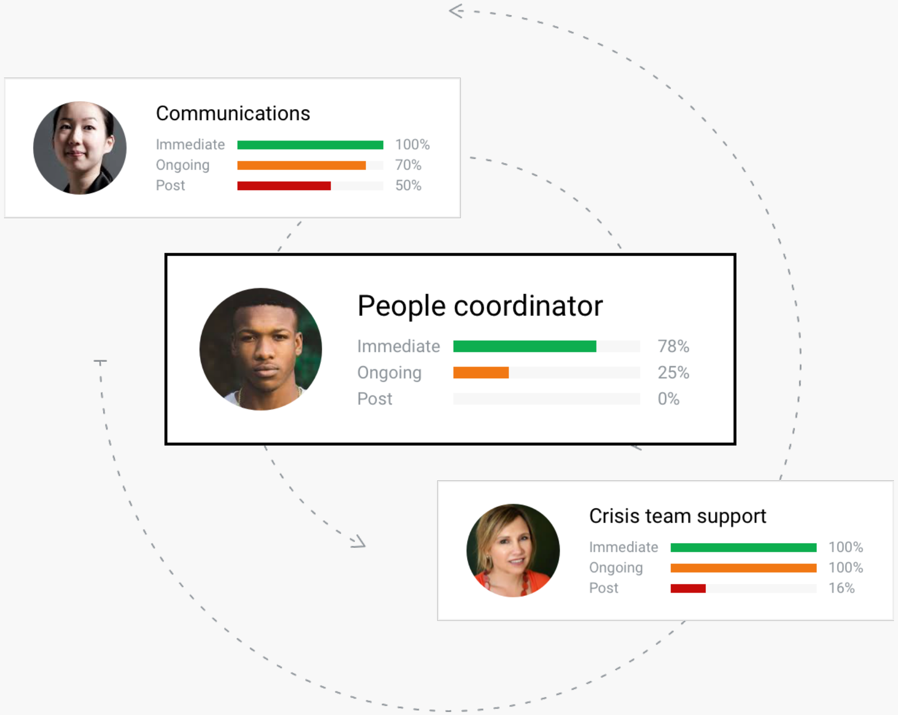
An effective resilience program relies on trust. Trust is built through ongoing engagement, and it takes time. Risk and resilience champions – people who are already trusted within the organization – can help your team establish credibility. Harnessing these internal "influencers" for continuous quality engagement will contribute to early-stage alignment and momentum. You will also create a real-time feedback loop for your microsimulation program.

Early-stage microsimulations may work best with champions who believe in risk preparedness and resilience. If your organization has not identified resilience champions, you can recruit existing risk champions to the role.

Pandemic response
Josh Shields 10:03 AM
Are you safe?

Pandemic response
Josh Shields 10:03 AM
Are you safe?

Pandemic response
Josh Shields 10:03 AM
Are you safe?



If the organization does not have identified risk champions, consider a small internal group of people who have been actively engaged in either risk management or resilience activities in the past 12 months (e.g. incident management team leaders, emergency management wardens or others).

Review feedback from your champions and tweak your program to make it more effective. Getting the support of the Chief Executive Officer, Chief Information Officer, Chief Financial Officer and others at the senior executive level (C-suite) for the risk and resilience champions will help create momentum.

For more information on establishing risk champions, see Alexander Larsen's article on "How to build an effective risk champion network "and apply the additional duty of "resilience" into the remit.

The 7 steps to effective microsimulations

It is important to consider a variety of situations and scenarios to avoid building a false sense of security as a result of retesting a single threat over and over.

To establish a meaningful microsimulation program, there are several key considerations:

1. Establish the objectives
2. Structure your microsimulations
3. Develop thought-provoking scenarios
4. Plan your communication
5. Deliver your microsimulations
6. Close the feedback loop
7. Measure and report on learnings

1 Establish the objectives

A critical ingredient in building and maintaining resilience is to align your microsimulation program with the organization's strategic and operational objectives. This must be clearly defined in the resilience policy or framework. However, to support alignment and ensure a clear linkage between strategic objectives and execution, it's also important to outline which specific objectives each round of microsimulations might achieve.

These objectives could include:

- Build awareness and engagement
- Create familiarization with toolsets
- Meet regulations and compliance
- Validate risk and resilience data
- Develop skills and capability

Over the course of a year, you may wish to cover all of these objectives. This will help you build resilience throughout the organization as well as report on the progress made against specific objectives as they align with audit or regulatory requirements.

Keep in mind that microsimulations are designed to be short, but more regular than a tabletop exercise. In this way, over the course of a year with a particular cohort of stakeholders, you may achieve all objectives.

CMT // 10:18 am

Welcome to your microsimulation on incident escalation. Click the link below to get started. Any questions, contact Andrew Smith in Group Risk.

Begin micro-simulation

2

Structure your microsimulations

Microsimulations complement your existing simulations to give you an expanded level of resilience across your organization. Resources are always limited, and you may need to consider where you are going to get the best return on investment for your microsimulation program. Keep in mind this may change over time.

When choosing participants for your microsimulation, consider participants':

- Level of exposure to existing resilience training
- Role or function and its criticality in an organization's sustainability
- Accountability for risk and resilience

To make the microsimulation exercise meaningful, you must also match the microsimulation to the responsibility of the participant. For example, the microsimulation for a designated group of critical event response team members will be different from that structured for ground staff at a regional site. To appropriately match a microsimulation to the participant's responsibility, ask the following two questions:

1. What role is this participant currently expected to take in mitigating the impact of a critical event (as outlined by policy, framework or plan)?

2. What role could this participant play in mitigating a future critical event?

Potential areas of responsibility

1. Risk or threat identification
2. Incident assessment
3. Incident escalation
4. Critical event intelligence reporting
5. Tactical response
6. Team activation
7. Control effectiveness review
8. Impact assessment
9. Response strategy planning and development
10. Communications
11. Task delegation
12. Supply chain management

3 Develop thought-provoking scenarios that drive action

Consider how you will draw out the response and result you need. Leading participants to a lightbulb moment by building detail into the scenario – such as testing a remote worker's ability to access procedures or a response plan, or asking a participant how they would escalate a standard IT outage – is extremely valuable.

For example, rather than asking participants how they would report an IT outage, ask them to specify who they would report it to, including contact details such as name, email address and phone number. This approach forces participants to validate the assumption that they have those details on hand.

To encourage knowledge retention and build experiential learning, drive the participants to take an action. Whether the action is as simple as accessing their function's business continuity plan or more complex, such as collaborating on a digital whiteboard to create a critical stakeholder map, driving participants to take an action reinforces good practice. Microsimulations are not big in size or length, so you can afford to immerse your participants in the detail. It is often the little details that derail response effectiveness under pressure.

Once you have developed your first round of microsimulations, review them with a risk and resilience champion, if possible, or a colleague. Key questions to challenge are:

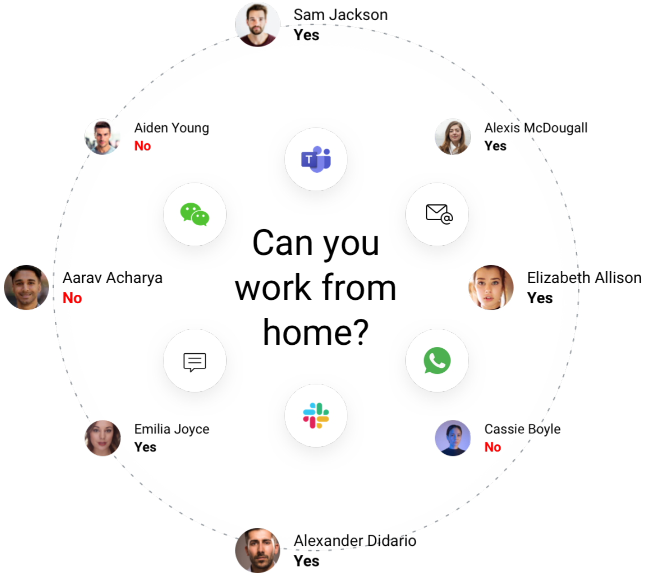
1. Is the microsimulation relevant to the participant group given their role, function and current level of maturity in resilience?
2. What objective(s) does it achieve?
3. Does the simulation drive an action?
4. What is our measure of success?
5. Which toolsets does it build awareness of?

4 Plan your communication

As with any training or simulation program, you need to give participants a timeframe for when the simulation is likely to happen, as well as the rules of engagement. Although it's important not to give away all details, you will need to provide the following:

- How the microsimulation will be delivered (e.g. SMS with a link)
- Whether or not the microsimulation is timed
- The need to follow the scenario detail (e.g. if a communications outage, how to get around the outage rather than ignoring it)
- Who to contact for support, and how
- The timeframe for microsimulation delivery (e.g. this Thursday, between 2 p.m. and 4 p.m.)
- What to do and not do during the microsimulation regarding communications (e.g. not contacting real suppliers about an outage).

Having a timed response visible to the executive or board will attract attention and build a sense of urgency in your microsimulation. Aggregated results can then be reported to the Audit and Risk Committee.



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Deliver your microsimulations

Deliver the microsimulation in a business as usual environment using a tool participants are familiar with, such as their smartphone. People are rarely at their desks and ready to respond to a critical event, but they will almost always have their smartphone with them. During a critical event, a person's smartphone will often be a primary link back to coordinated response teams.

The embedded communications module in your iluminr microsimulation will send each stakeholder an SMS with a short message and a link to begin the microsimulation. This will generally draw participants into a simulated event room to collaborate with their peers on a response.

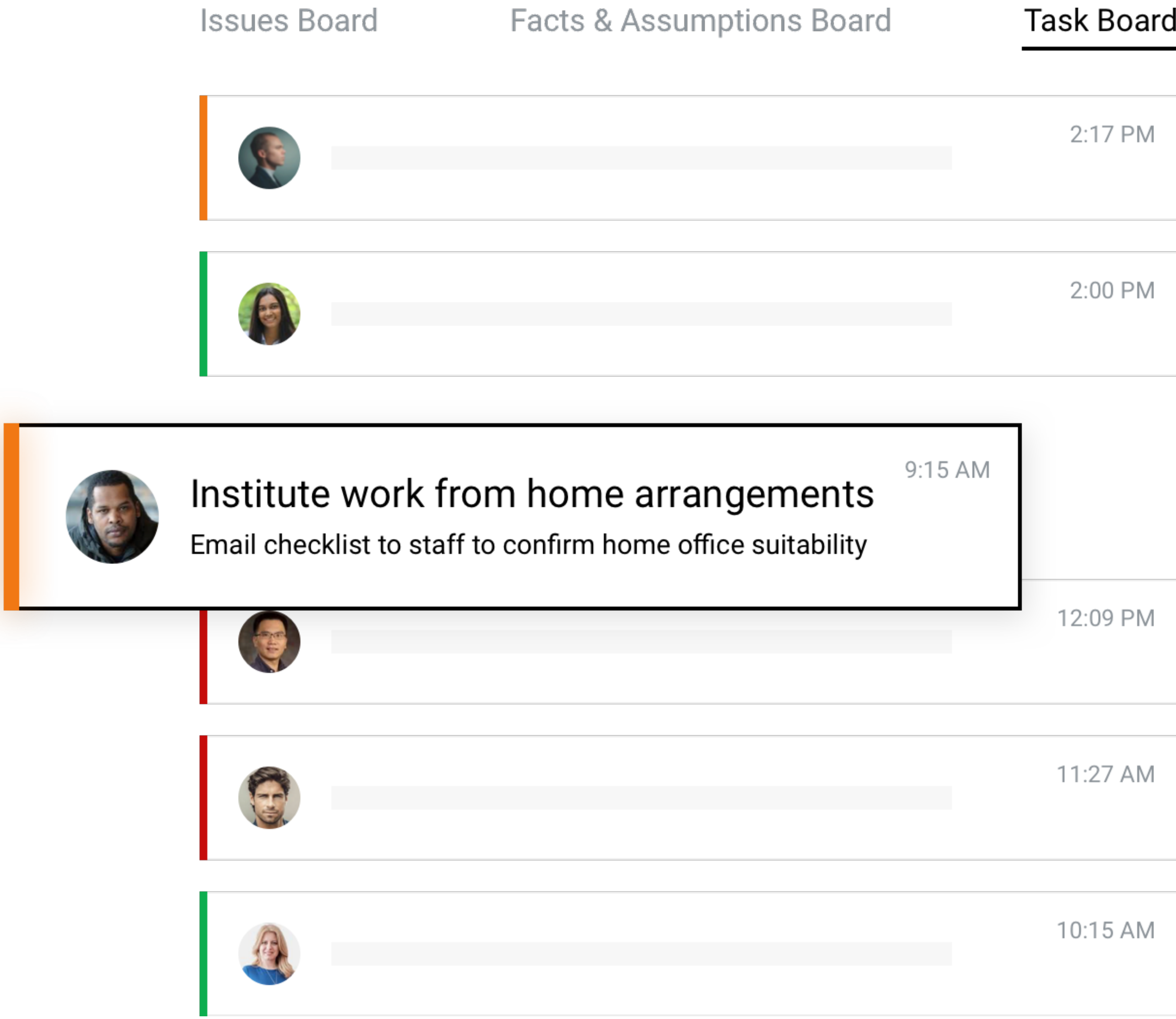
Benefits of simulated event rooms

- Regularly promotes familiarity of critical event response tools and processes
- Builds familiarity with the channels that will be used for communicating during a crisis (e.g. when participants receive a "shelter in place" SMS in the future, they won't consider it suspicious and ignore it)
- Retains a log of all interactions, which will help with reporting on response preparedness throughout the year
- Empowers response teams to collaborate on a shared response challenge, allowing for a more robust debrief and insights session

The context of your organization and your objectives will influence the length of the microsimulation. However, keeping it “micro” is key.

To reduce barriers to participation and increase engagement, aim for 10 to 15 minutes for each simulation.

This will also allow your team to build momentum when introducing the program across the organization.



Institute work from home arrangements

Email checklist to staff to confirm home office suitability

6 Close the feedback loop

Debrief. Taking time to debrief with participants is always valuable and will give you useful insights. For example, perhaps a participant was driving at the time and could not respond, or perhaps they have a dependency that they did not record but is critical to know.

Track. As with any tabletop simulation or live event, tracking key observations and actions for improvement will help your organization build resilience and continually improve.

Improve. Where appropriate, record feedback and use it to continually improve your program. For example, you may discover that participants misunderstood the scenario due to missing details that you can add into the next round, or perhaps they did not receive the link via SMS as their details were incorrect.

7 Measure and report on learnings

Measuring the results of your microsimulations program will help your organization demonstrate its continuous investment in resilience, including its crisis readiness and capability.

Throughout the program, record and report on:

- Scenarios simulated
- Objectives met
- Number of participants simulated
- Management levels simulated
- Key learnings and actions for improvement in the organization's resilience program that have been implemented as a result
- Trending areas of concern that require further resources for capability development

Getting started with iluminr microsimulations

iluminr has been designed to help your organization build resilience more effectively in today's complex operating environment. iluminr's microsimulation capability will assist your organization to increase its level of preparedness and create a referenceable log of resilience activities throughout the year.

5 microsimulations to get you started

A well-constructed microsimulation program will give your organization:

- Increased capability in critical event response across the organization
- Increased awareness of good practice response tools and processes
- An active approach to risk management through continual assessment of control effectiveness
- A continuous approach to maintaining current impact analysis and response data.

To get started on your microsimulations, we recommend the following:

	Microsimulation name	Primary objectives	Response level
1	Communications Outage	Threat awareness Skills development	Tactical
2	Severe Storm and Power Outage	Threat awareness Toolset familiarization	Tactical and operational
3	Cyber Incident Escalation	Threat awareness Process familiarization	Tactical
4	Cyber Outage Simulation	Threat awareness Skills development	Operational
5	Safety Communications Check	Staff awareness Data accuracy	Tactical

Microsimulation 1

Communications Outage

Objectives	1. Build awareness and engagement of the organization's resilience program. 2. Meet regulatory or contractual compliance. 3. Develop skills. 4. Create familiarization with toolsets for resilience. 5. Validate data associated with risk and resilience.
Scenario	Verizon (or other) has provided notification that its landline internet connectivity will be out over the coming three days due to damage from recent severe storm activity. Using the following link, log into iluminr Event Microsimulation Communications Outage WFH. Tasks to complete include: 1. Review critical functions and identify which teams may cause a critical function impact. 2. Make contact with your team within region to confirm their internet provider. Wording mandatory in all communications "This is part of disaster planning". 3. Confirm which workers are able to access the internet via cellular data plan via another network while WFH. 4. Confirm what resource requirements exist to successfully connect via cellular data.

Key success factors	
Timing	
Participants	
Delivery date and time	
Feedback meeting	
Summary observations	
Actions	

Microsimulation 2

Severe Storm and Outage – Operational Response

Objectives	1. Build awareness and engagement of the organization's resilience program. 2. Meet regulatory or contractual compliance. 3. Develop skills. 4. Create familiarization with toolsets for resilience. 5. Validate data associated with risk and resilience.
Scenario	A severe storm warning has been issued for your area over the coming 24 hours. Assume that a power outage may be experienced for the coming three days, with potential loss of access to site. Please confirm the following checklist: 1. Report on the first three preparedness tasks allocated in your emergency preparedness and response plan. 2. Confirm what functions may be interrupted with a loss of power to the site. 3. List the resources and equipment you require to maintain continuity or quickly recover those functions. 4. Which suppliers and customers are critical to be communicated with, given loss of access to site? 5. Who is your primary point of escalation for this situation (name, email, phone number and role)?

Key success factors	
Timing	
Participants	
Delivery date and time	
Feedback meeting	
Summary observations	
Actions	

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Microsimulation 3

Cyber Incident Escalation

Objectives	1. Build awareness and engagement of the organization's resilience program. 2. Meet regulatory or contractual compliance. 3. Develop skills. 4. Create familiarization with toolsets for resilience. 5. Validate data associated with risk and resilience.
Scenario	You are currently working away from site. Within the first 10 minutes of starting your day, your computer screen becomes locked with a suspicious message "Your computer has been locked by pyro-crypto". Your manager is currently on personal leave and uncontactable. Please complete the following: 1. Without accessing your computer (currently locked), who specifically would you report this situation to? a. Name and job title b. Phone number c. Email 2. What impacts are you likely to experience if you're unable to access your computer for today? 3. List any stakeholders you need to communicate with today, if unable to complete standard daily work functions. Note which are internal and external. 4. Which software applications do you need to access as a critical priority (include Maximum Period of Tolerable Disruption), and which thereafter?

Key success factors	
Timing	
Participants	
Delivery date and time	
Feedback meeting	
Summary observations	
Actions	

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Microsimulation 4

Cyber Simulation

Objectives	1. Build awareness and engagement of the organization's resilience program. 2. Meet regulatory or contractual compliance. 3. Develop skills. 4. Create familiarization with toolsets for resilience. 5. Validate data associated with risk and resilience.
Scenario	Supplier [Supplier name], has reported having a major cyber incident, disrupting their critical systems, applications and subsequent operations. They are anticipating a disruption to regular service of up to 48 hours. Using the following link, log into iluminr event Microsimulation – Cyber: 1. Complete an incident assessment using your incident management and crisis management platform or plan, and report: • level of assessment • the next course of suggested action. 2. What key impacts are you likely to experience? 3. List any stakeholders that you need to communicate with today, if unable to complete standard daily work functions. Note which are internal and external. 4. Which software applications do you need to access as a critical priority (by the close of business), and which thereafter?

Key success factors	
Timing	
Participants	
Delivery date and time	
Feedback meeting	
Summary observations	
Actions	

Microsimulation 5

Safety Communications Check

Objectives	1. Build awareness and engagement of the organization's resilience program. 2. Meet regulatory or contractual compliance. 3. Develop skills. 4. Create familiarization with toolsets for resilience. 5. Validate data associated with risk and resilience.
Scenario	Emergency communication preparedness message to all staff to confirm data accuracy and preferred channel of communication. "Our organisation is committed to providing rapid communications for safety. Please confirm your preferred channel to receive communications for rapidly escalating events (e.g. shelter-in-place event). Please save this number as Emergency Response Team for future alerts. Thank you. 1. SMS to this number. 2. SMS to another number. 3. Microsoft Team's message. 4. WhatsApp.

Key success factors	
Timing	
Participants	
Delivery date and time	
Feedback meeting	
Summary observations	
Actions	

Microsimulations Playbook

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Our Strategic Solutions Team is on standby to help you get the most out of microsimulations.

For support setting up a microsimulation program with iluminr, register your details here:

Explore Microsimulations