सुरक्षा और लचीलापन — संगठनात्मक लचीलापन — लचीलापन नीति और रणनीति के लिए दिशानिर्देश

Security and Resilience — Organizational Resilience — Guidelines for Resilience Policy and Strategy

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Risk Management, Security and Resilience Sectional Committee, MSD 17

NATIONAL FOREWORD

This Indian Standard which is identical to ISO 22336 : 2024 'Security and resilience — Organizational resilience — Guidelines for resilience policy and strategy' issued by the International Organization for Standardization (ISO) was adopted by the Bureau of Indian Standards on the recommendation of the Publication and Risk Management, Security and Resilience Sectional Committee and approval of the Management and Systems Division Council.

The text of the International Standard has been approved as suitable for publication as an Indian Standard without deviations. Certain conventions are, however, not identical to those used in Indian Standards. Attention is particularly drawn to the following:

a) Wherever the words 'International Standard' appear referring to this standard, they should be read as `Indian Standard'; and

b) Comma (,) has been used as a decimal marker while in Indian Standards, the current practice is to use a point (.) as the decimal marker.

In this adopted standard, reference appears to an International Standard for which Indian Standard also exists. The corresponding Indian Standard, which is to be substituted in its place, is listed below along with its degree of equivalence for the editions indicated:

International Standard	Corresponding Indian Standard	Degree of Equivalence
ISO 22300 Security and resilience — Vocabulary	IS/ISO 22300 : 2021 Security and Resilience — Vocabulary	Identical

For the purpose of deciding whether a particular requirement of this standard is complied with, the final value, observed or calculated, expressing the result of analysis shall be rounded off in accordance with IS 2 : 2022 'Rules for rounding off numerical values (*second revision*)'. The number of significant places retained in the rounded off value should be the same as that of the specified value in this standard.

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Introduction

This document provides guidelines on formulating policy, designing strategy and determining priorities for implementing an organization's resilience strategy. It describes how organizations can better anticipate and respond to change that will enable them to deliver their objectives and to survive and prosper.

ISO 22316 established the foundational principles for organizational resilience and a set of common attributes demonstrated by the organizations that have adopted those principles.

Organizations increasingly recognize the challenges of disruption arising from natural hazards, climate change, global conflicts, pandemics, epidemics and other human-made crises impacting upon society and disrupting businesses. Consequently, organizations in the public and private sector are looking to initiatives that will contribute to an enhanced state of organizational resilience.

This document provides guidelines on how organizations should be alerted to risks. It supports the measure whereby an organization determines necessary tactics so that its vision and strategic direction provide a lasting advantage, thus avoiding being complacent of its past or current success.

Figure 1 illustrates the framework for an organizational resilience policy and strategy.

The guidelines in this document are based on the principles of organizational resilience and the development of essential attributes as set out in ISO 22316.
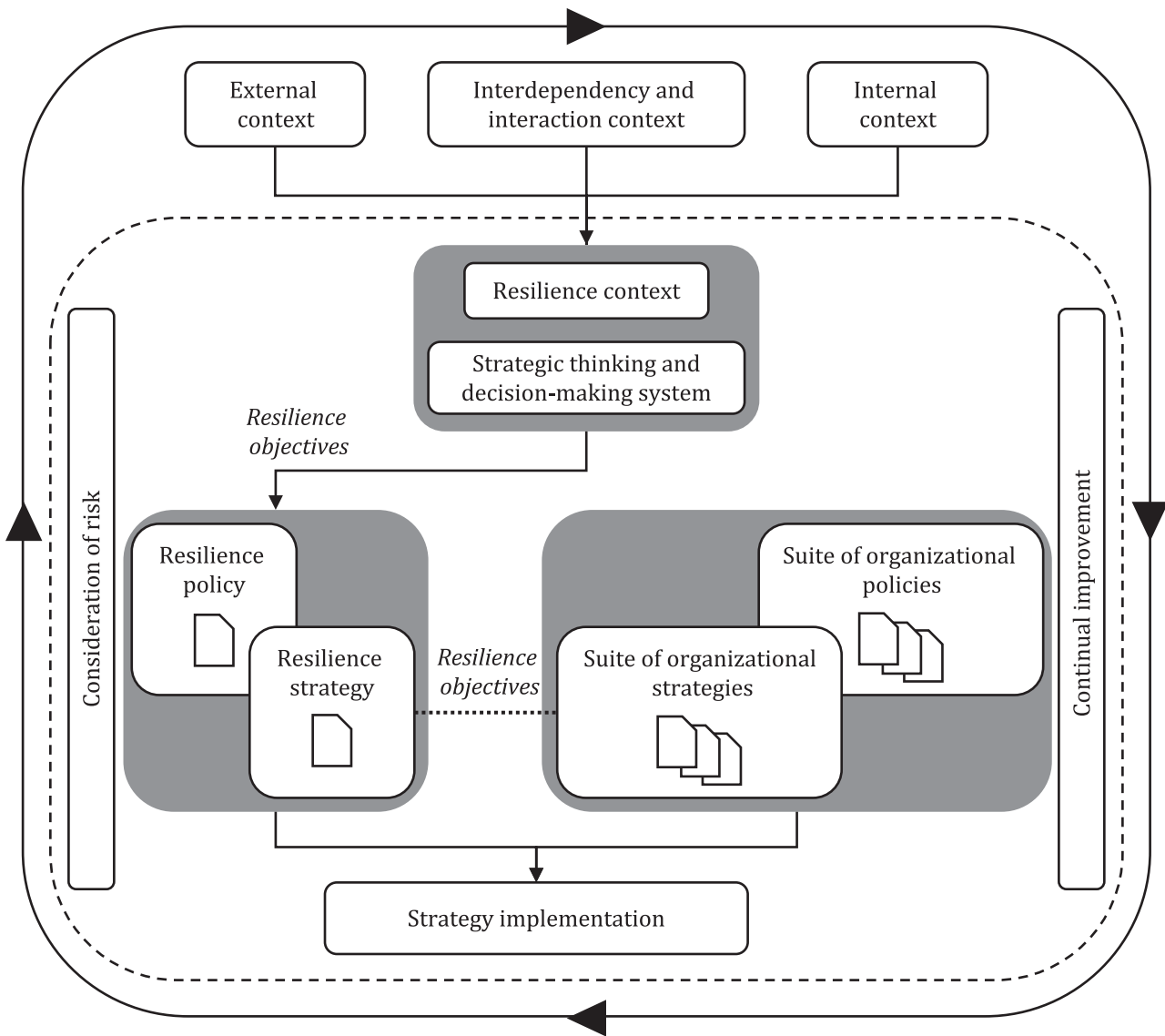
Figure 1 — Organizational resilience policy and strategy framework

Indian Standard

SECURITY AND RESILIENCE — ORGANIZATIONAL RESILIENCE — GUIDELINES FOR RESILIENCE POLICY AND STRATEGY

1 Scope

This document provides guidelines on the design and development of an organizational resilience policy and strategy. It includes:

— how to design and formulate a resilience policy;

— how to design strategy to achieve the objectives of a resilience policy;

— how to determine priorities for implementation of the organization's resilience initiatives;

— how to establish a cooperative and coordinated capability to enhance resilience.

This document is applicable to organizations seeking to enhance resilience. It is not specific to any industry or sector. It can be applied throughout the life of an organization to enhance resilience.

This document does not provide guidance on the development of an organizational resilience capability.

2 Normative references

The following documents are referred to in the text in such a way that some or all of their content constitutes requirements of this document. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

ISO 22300, *Security and resilience — Vocabulary*

3 Terms and definitions

For the purposes of this document, the terms and definitions in ISO 22300 apply.

ISO and IEC maintain terminology databases for use in standardization at the following addresses:

— ISO Online browsing platform: available at https://www.iso.org/obp

— IEC Electropedia: available at https://www.electropedia.org/

4 Principles

4.1 General

The resilience policy sets parameters for top management to embed resilience objectives into organizational strategies.

The resilience strategy, part of the overall organizational strategy, establishes objectives and corresponding activities in accordance with the policy. The resilience strategy and activities should allow the organization to develop implementation plans and deliver its broader set of organizational objectives. This should contribute to the strategic capability to anticipate and respond to change in order to survive and prosper.

There are three key principles that are the foundation for designing and implementing a resilience policy and strategy. These principles, which are explained in detail in 4.2 to 4.4 and Clause 6, underpin the framework for the process that will deliver the organization's policy objectives.

Figure 2 illustrates the principles, attributes and enabling behaviours for designing and implementing the organizational resilience strategy.
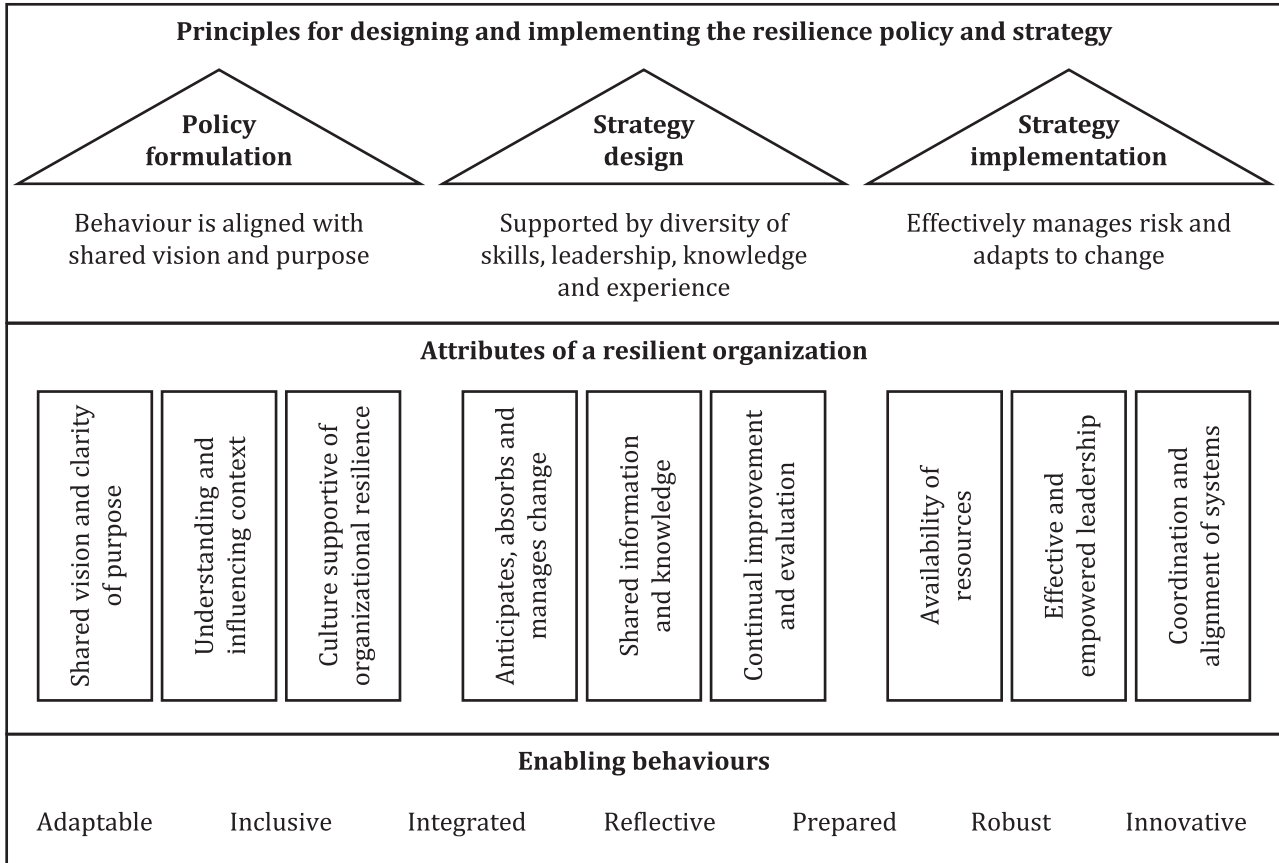
Figure 2 — Designing and implementing the organizational resilience policy and strategy

4.2 Policy formulation

The organization should document its intention to enhance its resilience in a resilience policy and assign accountability for delivery of the resilience strategy.

The organization should establish a resilience policy that aligns the organization's values and behaviours with a shared vision and purpose. Such a policy aims to encourage a shared understanding of the organization's vision and purpose among all interested parties and leverage positive elements of its culture during the design and implementation of the strategy.

4.3 Strategy design

The organization should design a resilience strategy that considers its governance structure and supports a diversity of skills, leadership, knowledge, and experience. Top management should be effective and empowered, understand the importance of sharing information and knowledge, and how the resilience strategy influences other organizational strategies.

4.4 Strategy implementation

When implementing the resilience strategy, the organization should consider how it can effectively manage risk and adapt to change. The organization should provide adequate resources to implement the strategy and consider how it can anticipate, identify, absorb, and manage change, and coordinate and align its systems.

5 Organizational context

In highly interconnected societies, which are becoming increasingly common at the time of publication of this document, organizations exist within a complex environment. The organization operates and achieves its objectives in multiple global, social, economic and technological systems.

Each of these systems that interface with the organization contains a set of elements or parts interconnected in such a way that their relationships can produce their own, potentially unexpected patterns of behaviour over time and become the source of abnormal or extraordinary events, and unstable conditions that can influence organizational resilience.

The interdependencies between these various systems and the interaction of the systems' respective components establishes the contexts that an organization should take into consideration when formulating policy and strategy for resilience.

Sources of opportunity, vulnerability and threats to organizations can arise out of changes in organizational context. These changes can affect critical interdependencies and their influences on people, organizations, communities and domains. Understanding the effects of changing context can contribute to more effective policy formulation, and strategy and plans for resilience.

Threats to organizational resilience can emerge directly from changes in context. The volatility, uncertainty, complexity, and ambiguity associated with unstable conditions affecting an organization can significantly influence the rate at which these changes in context can transition to threats to organizational resilience.

The organization should continually scan the relationships and interdependencies between the elements of its contexts to identify any changes in the conditions of the overall environment of the systems. Early indicators of change can signify potential opportunities or identify emerging threats to organizational objectives. By scanning multiple dimensions of the context, organizations can build knowledge that can be applied as intelligence to formulate effective policies and strategies for organizational resilience.

The significance of any changes in organizational context and their potential impact should be assessed from a strategic, tactical and operational perspective, as changes can have significant consequences at each of these levels.

6 Attributes of policies and strategies for resilience

6.1 General

The organization should align the three key principles of policy formulation, strategy design and strategy implementation with the common attributes and activities described in ISO 22316.

This alignment establishes the importance of applying the resilience attributes to anticipate and respond to changing circumstances or conditions in an organization's environment which define its context and enable it to survive and prosper.

NOTE   ISO 22316 identifies the common attributes and activities that support an organization in enhancing its resilience.

6.2 Policy formulation

6.2.1 General

The organization should consider the attributes described in 6.2.2 to 6.2.4 in the resilience policy.

6.2.2 Shared vision and clarity of purpose

The resilience policy should articulate the organization's vision and purpose with respect to its strategic objectives and commitment to continual improvement. These should be shared and understood by all interested parties.

6.2.3 Understanding and influencing context

The organization should align its organizational resilience policy and strategy with its contexts, recognizing multiple interdependencies and interactions across all dimensions of the environment in which it achieves its objectives.

The potential for changes in the organizational context is central to an effective resilience policy and to influence future conditions.

6.2.4 Culture supportive of organizational resilience

The resilience policy should confirm top management commitment to a diverse culture at all levels of the organization.

6.3 Strategy design

6.3.1 General

The organization should consider the attributes described in 6.3.2 to 6.3.4 in the resilience strategy.

6.3.2 Anticipates, absorbs, and manages change

The organization should anticipate, identify, absorb and manage change, and effectively manage risk to consistently deliver on its commitments.

6.3.3 Shared information and knowledge

The organization should share information and knowledge and implement systems so that personnel are appropriately equipped to perform their roles.

6.3.4 Continual improvement and evaluation

The organization should assign roles to evaluate the effectiveness of the strategy design to achieve continual improvement, so that performance management criteria are responsive to change.

6.4 Strategy implementation

6.4.1 General

The organization should consider the attributes specified in 6.4.2 to 6.4.4 when implementing the resilience strategy.

6.4.2 Availability of resources

The organization should allocate adequate resources and systems to support the effective implementation of the resilience strategy. These resources should be available when required and their suitability and application routinely reviewed.

6.4.3 Effective and empowered leadership

The organization should assign responsibility to coordinate the resilience activities in the governance structure and define roles and responsibilities, so that the purpose of the resilience-enhancing activities is understood and decision-making is effective.

Those responsible for designing and implementing the strategy should come from different areas of the organization and cover all aspects of the business, contributing a diversity of skills, knowledge, experience and leadership capabilities.

6.4.4 Coordination and alignment of systems

The organization should align and coordinate systems and eliminate silos that create barriers among functions as the strategy is implemented to facilitate the sharing of information and skills throughout the organization.

7 Enabling behaviours

7.1 General

The organization should underpin organizational resilience using the following enabling behaviours (see Figure 2) that affect how the organization and its personnel interact both internally and externally. The benefits of the strategy will improve as more enabling behaviours are adopted.

Some enabling behaviours are widely relevant and should therefore be promoted and prioritized across all organizational systems. Other enabling behaviours however, are more specific and only relevant to certain organizational systems. For example, being inclusive and integrated enables the organization to implement each of its systems to enhance resilience, while being prepared and robust can address specific system vulnerabilities.

7.2 Adaptable

The organization should demonstrate its adaptability by the following factors:

a) accepting uncertainty and change, ability to change, evolve, and adapt in response to changing circumstances and to apply existing resources to new purpose;

b) having processes to promote the evolution of the organization by improving the efficiency and effectiveness of activities rather than seeking solutions based on the status quo;

c) designing adaptability and flexibility into the organization's systems so it can evolve and manoeuvre quickly, understand and adapt to the rapid pace of change and be fit for the future with the agility to make decisions quickly, manage risks, minimize potential threats and capitalize on opportunities.

7.3 Inclusive

The organization should demonstrate inclusiveness, by the following factors:

a) seeking collaboration with and engagement of its interested parties and working together toward a common purpose or goal. The inclusion of its personnel in the collaboration creates a sense of shared ownership or a joint vision to build resilience;

b) conducting broad consultation and engagement activities with interested parties, creating cohesion, strengthening social contracts and empowering personnel to participate;

c) believing in the vision for its future, being aware of the risks it faces and its role in protecting and developing the organization into the future;

d) addressing the risks across locations or line of business in isolation to be consistent with resilience;

e) distributing benefits and impacts justly and equitably across the organization to reduce stress and disproportionately poor outcomes, providing a high quality of life for personnel, building cohesion and empowering them to play an active role in its future.

7.4 Integrated

The organization should demonstrate integration by the following factors:

a) recognizing the importance of the diverse nature and characteristics of its personnel and other interested parties, including a range of capabilities, information sources, and technical elements;

b) implementing diversity by bringing disparate thoughts and strategies into cohesive solutions and actions, when opportunities arise;

c) integrating and aligning its systems to reduce silos, bringing together decision makers, sectors, organizational units, budgets, activities, and agendas, making investments that are mutually supportive of a common outcome and promoting consistency in decision-making;

d) working across the organization to achieve gains in efficiency and effectiveness by taking initiatives that address more than one issue or realize multiple gains;

e) exchanging information between systems, thereby enabling them to function collectively and respond rapidly through shorter feedback loops throughout the organization.

7.5 Reflective

The organization should demonstrate reflectiveness by the following factors:

a) understanding its systems and risks, allowing resources to be prioritized to provide maximum benefit, and applying shared knowledge and learning to innovate and enhance resilience;

b) gathering information; harnessing real-time data and horizon scanning to improve situational awareness; anticipating change and considering future conditions to inform evidence-based decision making and build knowledge capital;

c) continuously evolving processes and improving standards or norms based on emerging evidence;

d) examining and systematically learning from their past, leveraging this learning to inform future decision-making;

e) thinking beyond its current activities, processes, strategy, and organizational boundaries to increase the organization's capabilities.

7.6 Prepared

The organization should demonstrate preparedness by the following factors:

a) investing when required in the capability to anticipate and respond quickly to changing circumstances;

b) being aware of its priorities, timescales and resource requirements;

c) demonstrating resourcefulness by finding different ways to achieve its goals or meet its needs during an incident by anticipating future conditions, setting priorities, and mobilizing and coordinating wider human, financial and physical resources;

d) making provision to make failure predictable, safe, and not disproportionate to the cause;

e) being prepared and resourceful to restore functionality of processes and systems, potentially under severely constrained conditions and making use of opportunities that arise.

7.7 Robust

The organization should demonstrate robustness by the following factors:

a) having systems that address vulnerabilities through design, redundancy and fail-safe measures, balancing risk, performance and cost;

b) having systems that are well-conceived, constructed, and managed to withstand significant impacts without damage or loss of function and anticipate potential failures;

c) avoiding over-reliance on a single asset where cascading failure and design thresholds can lead to catastrophic collapse;

d) having intentional, cost-effective, diverse prioritized redundancies at an organization-wide scale that provide multiple ways to achieve a given need or fulfil a particular function;

e) purposely creating spare capacity within systems to withstand disruption, extreme pressures, or surges in demand;

f) considering suppliers, routes to the end customer and, where appropriate, competitors and regulators, so that the overall ecosystem (see Clause 5) is robust.

7.8 Innovative

The organization should demonstrate innovation by the following factors:

a) rapidly finding different ways to achieve its objectives or meet its needs under changing circumstances, transcending traditional ideas, roles, and patterns by using originality of thought and demonstrating imagination to create something new;

b) fostering creativity by seeking out and promoting new and innovative ideas to achieve its objectives, adapting and transforming after disasters so that its systems thrives.

8 Framework for resilience policy and strategy

8.1   General
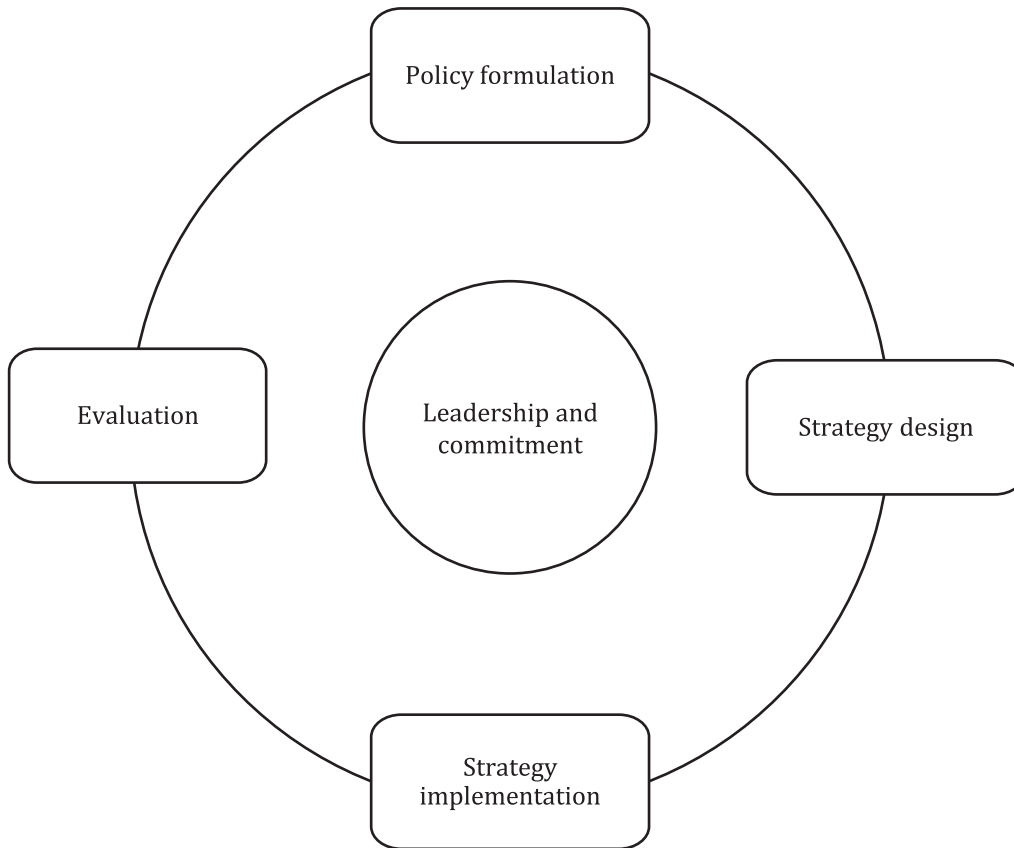
Figure 3 — Framework

Top management should establish a framework, as shown in Figure 3, to assist the organization in implementing its resilience policy into significant functions and activities across the organization. The framework ensures the resilience policy objectives are actionable via the resilience strategy design and implementation. The framework is integrated into other organizational policies and strategies.

Top management should also consider the previously described principles (see Clause 4), attributes (see Clause 6) and enabling behaviours (see Clause 7) in establishing its framework for implementing its resilience policy and strategy.

8.2   Leadership and commitment

8.2.1   General

Top management should demonstrate a strong and sustained commitment to design, develop and coordinate management systems to enhance resilience.

Components of the policy and strategy should be adapted and arrangements supported to the extent necessary for effective implementation.

Top management should:

a)   formulate, endorse and maintain the resilience policy, strategy and implementation plan;

b)   align the policy and strategy with the strategic direction of the organization;

c)   ensure the resilience policy is consistent with other organizational policies;

d)   develop objectives for the resilience policy;

e)   determine performance criteria for each strategic objective and initiative, and align them with the interests of organization;

f)   embed resilience objectives in all organizational policies and strategies;

g)   provide organizational commitment, collaboration and contribution at all levels;

h)   assign accountabilities and responsibilities to achieve the resilience objectives;

i)   empower all levels of the organization to make decisions that protect and enhance the resilience of the organization;

j)   take accountability for the effectiveness of the implementation of the strategy;

k)   allocate necessary resources to the implementation of the strategy;

l)   communicate the importance, benefits and expected outcomes of the policy and strategy;

m)   monitor the progress of implementation of the resilience strategy;

n)   confirm that the policy and strategy achieve the intended outcome(s).

8.2.2   Commitment to enhancing resilience

Top management should demonstrate its continual commitment to enhance resilience. The commitment should include, but is not limited to:

a)   identifying the purpose for enhancing resilience and links to its strategic objectives and other policies and strategies;

b)   fostering a culture that supports enhancing resilience;

c)   establishing resilience leadership roles and responsibilities within the organization and assigning authorities, responsibilities and accountabilities;

d)   coordinating and aligning systems and functions across the organization and linking these to strategic objectives;

e)   providing the necessary resources;

f)   dealing with conflicting objectives;

g)   measuring and reporting against key performance indicators;

h)   continually reviewing and improving resilience.

Decisions on enhancing the policy and strategy design framework should be based on the monitoring and reviewing of results, and lead to improvements in the resilience culture.

The organization should communicate its commitment to enhancing resilience within the organization and to external interested parties as appropriate.

8.3   Policy formulation

The organization should formulate its resilience policy by considering its objectives and expectations. Top management should confirm that the policy:

a)   is a high-level statement of its intention and direction for enhancing resilience;

b)   calls for commitment from all interested parties to satisfy the organization's expectations;

c) authorizes and empowers those responsible for supporting the design and implementing the resilience policy and strategy;

d) specifies the alignment of the objectives of the policy to the desired enhancement of resilience attributes and enabling behaviours (see Clauses 6 and 7) relevant to the organization;

e) aligns with behaviours that shape organizational culture and foster creativity and innovation, and transformative thinking;

f) refers to or integrates with new or existing organizational policies and strategies;

g) communicates the importance, benefits and outcomes of the policy;

h) commits to continual improvement and maintenance of the resilience policy.

Top management should communicate the policy, make it available, and maintain it as documented information, so that it is understood and applied within the organization.

8.4 Strategy design

The resilience strategy should be designed to achieve the objectives of the policy. Top management should:

a) analyse gaps between the current state and the intended outcome(s) of the strategy;

b) develop an appropriate strategy and implementation plan including annual action plans, time frames and allocate resources;

c) embed resilience objectives into new and existing organizational policies and strategies;

d) create a culture supportive of resilience against which it can be assessed;

e) consult interested parties so that the framework remains appropriate;

f) develop and set objectives and align decision-making with the outcomes of the resilience policy.

8.5 Strategy implementation

Successful implementation of the strategy requires the engagement and awareness of interested parties to achieve ongoing enhancement of resilience for the organization.

The organization should develop a process to implement its resilience strategy that includes:

a) identifying key products and services, customer segments/markets, channels, obligations and financial/value-added outcomes;

b) establishing the scope of the implementation;

c) developing action plans to deliver the strategy objectives.

8.6 Evaluation

8.6.1 General

The organization should evaluate the effectiveness of the framework by:

a) measuring the performance of the framework against its purpose, implementation plans, indicators and expected behaviours;

b) confirming that it remains suitable to support achieving the objectives of the organization.

NOTE   The intention is not to evaluate the resilience of an organization. The focus is on the effectiveness of the framework to formulate a resilience policy, the strategy implementation, and the cultural level of the organization's operations.

8.6.2   Key performance indicators

The organization should create clear objectives and adequate key performance indicators to monitor its resilience policy and strategy on an ongoing basis. The key performance indicators and the resilience strategy implementation progress should be reviewed at an agreed upon frequency.

Key performance indicators should be applied to clear, measurable and achievable objectives. Desired results should be measured against key performance indicators.

The review frequency of the key performance indicators determines the historical trend of any anomaly or improvement of the resilience strategy implementation.

The following questions may focus on areas subject to key performance indicators and are used to evaluate the successful implementation of the resilience strategy:

a)   are the projects respecting their deadlines?

b)   are expenditures within the pre-defined budget?

c)   do the systems implemented demonstrate efficacy for the organization?

d)   how many organizational resilience awareness sessions have been held this year for other interested parties?

e)   how many organizational resilience meetings have been held to harmonize the implementation of the resilience systems?

f)   is the concept of continual improvement effectively pursued in the coordination and alignment of its systems?

9   Process

9.1   General

Top management should establish a process (see Figure 4) to formulate the resilience policy and design a resilience strategy and implementation plan.
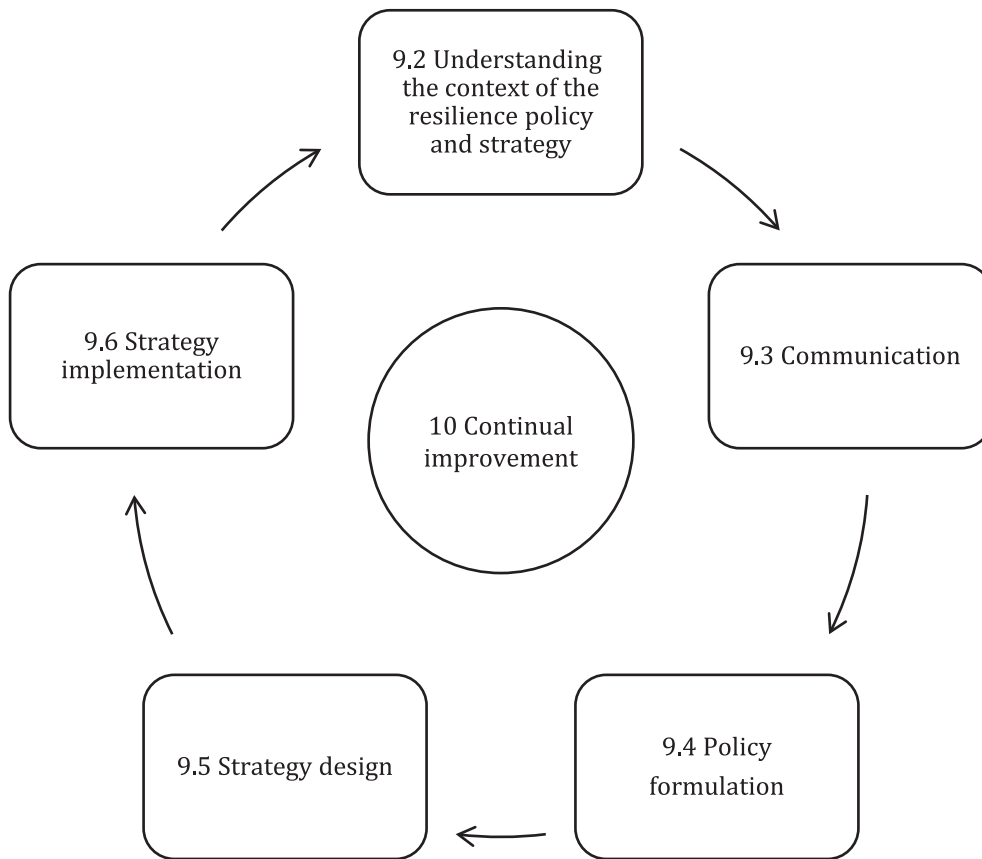
Figure 4 — Process

9.2 Understanding the context of the resilience policy and strategy

9.2.1 General

An organization's ability to absorb and adapt to change and realize competitive advantage from changing circumstances is dependent upon its understanding of the relationships, interdependencies and complexities associated with the multiple global, social, economic and technological systems in which the organization operates and achieves its objectives.

The organization should continually scan its contexts and the multiple system elements that influence the delivery of its objectives to identify potential changes that can impact upon organizational resilience.

It should identify the key elements and multiple aspects of each element to create a profile of its contexts. Characteristics of each of the multiple dimensions of all systems which influence its objectives provides the baseline from which relationships can be established and interdependencies determined.

Continual scanning of the organizations context defines characteristics, relationships, interdependencies and shared practices that contribute to effective organizational resilience policy and strategy.

The policy objectives and strategy should reflect the potential threats to organizational objectives or create value from emerging opportunities arising out of changes in circumstances or conditions that can affect resilience.

9.2.2 Determining the internal context

The internal context of an organization is largely influenced by its corporate objectives, policies and strategic business plans and its chosen field of endeavour. The internal context is reflected by its:

— vision, mission and values;

— organizational culture and leadership;

— corporate policies, objectives and strategies;

— environmental, social and governance responsibilities;

— assumptions and expectations of interested parties;

— operational requirements of its core products, services, systems and resources;

— business as usual and emergency management capabilities.

The internal context is influenced by elements of the organization's natural and built environment within its sphere of responsibility including:

— facilities construction;

— workforce demographics;

— geographic locations.

9.2.3   Determining the external context

An organizations external context is a reflection of its interactions and interfaces with other elements that are frequently outside of the organization's direct influence and control. The external context comprises multiple systems and components that govern societal behaviours and impact political, regulatory, legal and financial objectives at a macro level. The organizations external context has the potential to be a source of organizational vulnerabilities with higher levels of volatility, uncertainty, complexity and ambiguity in threats to organizational resilience.

The following typical aspects of the organization's external context require consideration in organizational resilience policy formulation and strategy design:

— socio-economic conditions;

— effects of climate change;

— the impacts of global or regional conflicts;

— geo-political influences;

— legal and regulatory obligations;

— population distributions and migration;

— religious, cultural, race and ethnicity;

— natural and built environment.;

— societal expectations;

— emerging or disruptive technologies.

9.2.4   Horizon scanning

The organization should continually scan its contexts to identify emerging issues and early warning signals of impending changes. Horizon scanning establishes the basis for evaluation and assessment of the impact of changes observed in elements or multiple aspects in its contexts.

Horizon scanning can provide useful information to guide the monitoring of further possible changes in the current context. It provides identification of early warnings or signals where changes in conditions could impact upon resilience objectives.

9.3 Communication

The organization should establish an approved approach to communication to facilitate awareness of the resilience policy and strategy. A combination of communication methods should be used so messages are accessible and can be understood by all interested parties, including personnel with disabilities, non-native speakers of the language used in the organization and personnel with differing levels of literacy.

Communication involves sharing information about the policy and strategy with targeted audiences both internal and external to the organization and can include oversight bodies and government, where appropriate.

9.4 Policy formulation

The organization should understand that resilience is a capability, a state of being, achieved by an organization rather than a discipline, function or process activity.

Enhanced resilience should be a strategic organizational goal and an outcome of the capacity and agility of an organization to manage change and uncertainty while achieving its strategic and operational objectives.

The organization should consider its context (see Clause 5) in formulating its resilience policy. Policy statements on resilience should reflect the nature of the operating environment and establish a clear understanding among all interested parties, of the internal and external complexities in which the organization seeks to achieve its objectives.

Factors associated with organizational contexts will influence the nature and scope of its resilience policy objectives. Furthermore, the organization should determine its desired state of enhanced resilience and identify and prioritize its policy objectives to achieve this.

When formulating a resilience policy, top management should:

a) examine its current internal, interdependency, interaction and external environment to determine the organization's vulnerabilities and opportunities to achieve an enhanced state of resilience;

b) establish an approved approach to consultation;

c) develop a shared vision and purpose for the policy that aligns with its overarching organizational vision;

d) establish its governance model, organizational structure, roles and accountabilities to develop the strategy and implementation plan;

e) identify human resources with the required capabilities and knowledge (i.e. diversity of skills, leadership, knowledge and experience);

f) set direction for the organization to enhance its ability to absorb, adapt and effectively respond to change;

g) establish protocols for coordination across management functions and contributions from technical and scientific areas of expertise;

h) establish relationships with, and perceptions and values of, interested parties and their cultures;

i) consider the influence and validity of assumptions in its policy objectives;

j) identify any risks in achieving its organizational resilience policy objectives;

k) establish its monitor and review processes;

l) determine its continual improvement approach.

9.5 Strategy design

9.5.1 General

Strategy design requires cross-functional collaboration. When designing the resilience strategy, the organization should collaborate with personnel at all levels of the organization regardless of position or role, and interested parties including community representatives, customers, governments, supply chain operators and even competitors.

9.5.2 Designing strategy to achieve resilience policy objectives

When designing a resilience strategy, top management should consider:

a) alignment of the strategy to the organization's shared vision, organizational values, behaviours and purpose;

b) alignment of, and the potential conflicts between, the resilience strategy and other organizational strategies;

c) the flexibility and agility of the strategic objectives to respond to changes in organizational contexts;

d) setting strategic objectives to achieve an enhanced state of desired resilience;

e) establishing strategic initiatives and targets to implement the strategy;

f) evaluating the success of the strategy;

g) monitoring and reporting.

In addition, the strategy should:

h) embrace change;

i) foster participation;

j) enable transformation and adaptation.

9.5.3 Ensuring alignment with organizational goals

The organization should establish and communicate resilience objectives so they will be planned and executed accordingly.

When the strategy is aligned with the objectives, personnel involvement is encouraged. Personnel should understand the organization's aims, recognize the value of common objectives and contribute to their implementation.

9.5.4 Establishing resilience objectives

When identifying objectives, top management should:

a) determine its desired capabilities to achieve an enhanced state of resilience that aligns with its strategic objectives;

b) set clear goals to achieve its policy aligned with its shared vision and purpose;

c) develop a list of objectives with discrete and measurable steps for accomplishing a specific goal;

d) develop objectives that are specific, measurable, actionable, realistic and time bound;

e) identify any risks to achieving the objectives;

f) allocate an owner to each objective;

g) allocate adequate resources to deliver each objective.

9.5.5 Prioritizing objectives

When prioritizing resilience objectives, top management should:

a) align the objectives directly to one of more critical success factors;

b) ensure the best allocation of resources by dependency relationships across all objectives;

c) identify rapidly implementable objectives to provide short term gains;

d) identify the objectives that require a sustained level of resource and effort for the life of the policy;

e) continually review, update and where appropriate, re-prioritize policy objectives.

9.6 Strategy implementation

9.6.1 General

The organization's approach to implementing the strategy should be flexible so it can quickly and easily respond to changes in the environment in which it operates (see Clause 5 and Clause 6).

The organization should monitor and adapt its approach as necessary to address internal and external changes to enhance resilience over time.

The strategy implementation should be:

a) Open and transparent. The organization communicates openly with all interested parties to promote buy-in and ownership of the strategic plan and is transparent with all oversight committees and governments through its monitoring and reporting of formulation and implementation.

b) Situationally aware. The organization has situational awareness to enhance the effectiveness of strategic thinking and implementation. Management is aware of its current competencies and those needed to deliver the objectives of the strategic plan.

c) Technically competent. The organization has the technical competencies in place to deliver the strategy.

d) Integrated horizontally and vertically. The organization aligns and integrates the resilience strategic plan with existing organizational strategies, government legislation and external initiatives supportive of enhanced resilience.

e) Continually improved. The resilience policy and strategy continually improve based on the application of learnings and experiences.

9.6.2 Developing a strategic implementation plan

When developing a strategic implementation plan, the organization should:

a) establish key focus areas for delivery (e.g. based on the resilience attributes in ISO 22316);

b) establish key performance indicators;

c) develop action plans to deliver the strategy;

d) allocate appropriate resources to deliver the plan;

e) communicate and consult with interested parties so the plan is effectively developed;

f) inform top management on ongoing progress and delivery of the plan.

The plan should cover all areas and objectives should be common to all the sectors of the organization, as one of the primary objectives of implementing the policy is to align behaviours to foster creativity and innovation and transformative thinking.

9.6.3 Allocating resources

Top management should allocate appropriate resources to support capabilities that enhance resilience considering the capabilities of, and constraints on, existing resources. Resources should include but are not limited to:

a) personnel with leadership, experience and competence who demonstrate the attributes of adaptive capacity and agility;

b) applicable processes and procedures;

c) information and knowledge management systems;

d) professional development and training needs.

9.6.4 Roles and responsibilities

Top management should assign and communicate roles, responsibilities, authorities and accountabilities with respect to organizational resilience. They should:

a) emphasize that enhancing resilience is a core responsibility;

b) identify individuals, possibly senior members within the organization, who have the accountability and authority to deliver resilience policy objectives and initiatives;

c) empower individuals representing all the organization's functions to achieve a shared vision and identity of purpose through collaboration among all organizational units;

d) appoint a competent resilience lead who is empowered to facilitate, communicate, coordinate and promote resilience initiatives, build a strategic capability, anticipate and respond to change and better manage disruptions.

The role of the resilience lead can include:

e) implementation of policy objectives and initiatives to satisfy the intention and direction expressed in the policy;

f) promoting awareness of resilience throughout the organization;

g) supporting effective communication among interested parties;

h) reporting on the performance of the resilience implementation programme to top management, to be used as the basis for improvement (see Clause 10).

10 Continual improvement

10.1 General

Continual improvement is a fundamental principle of managing risk (see ISO 31000) whereby it is seeks to enhance behaviours and performance through learning and experience. The organization should continually improve the suitability, adequacy and effectiveness of the process and framework and the integration of the resilience policy into strategic objectives and initiatives.

10.2 Performance evaluation

10.2.1 Monitor and review

The organization should include requirements for monitoring and reviewing the resilience policy and strategy as part of the planned process for regular or ad hoc reviews and define responsibilities for monitoring and review. This can be integrated into existing governance structures.

The monitoring and review process should encompass all aspects of the process so that:

a) resilience objectives are delivered and effective to achieve an enhanced state of resilience;

b) lessons learnt from activities, changes, trends, successes and failures are analysed and considered as part of the policy review;

c) changes in the context are detected;

d) emerging risks are identified and managed to enhance resilience.

10.2.2 Measuring progress against resilience key performance indicators

The organization should develop performance indicators that measure the performance of its resilience approach. Enhancing resilience is a substantial and complex task involving a wide range of activities with different priorities for different organizations and different contexts. These priorities can also change over time.

The prioritizing of performance indicators should be based on what is most important to the organization over the perceived life of the strategy. Priorities can require adjustment during the term of the strategy and in future formulation of resilience-related strategies.

Performance indicators provide an indication of how processes are conducted, the relevance, adequacy of the outputs of those processes, and the acceptability of the outcomes of the resilience policy and strategy that are achieved.

Performance indicators should provide ongoing insight to allow decisions that continue to support or strengthen the chosen direction for enhancing resilience, or redirect effort to achieve desired outcomes. A suite of performance indicators should provide an understanding of:

a) The resilience-thinking approach

How effectively strategic thinking about resilience was undertaken, for example:

— the relative balance of efficiency versus thoroughness in the exploration and establishment of resilience in a strategic context;

— the extent to which relevant analytical tools were employed in developing the problem definition (what must the organization be resilient to, which parts of the organization are relevant, and why);

— the extent to which the different types of contextual uncertainty were considered;

— the range, diversity, and balance of expert opinion sought and incorporated into the strategic thinking.

b) The resilience design approach

How effectively and efficiently the resilience design process have been and are being undertaken, including:

— the level of conformance to resilience design principles;

— whether processes have been applied in a systemic and methodical manner;

— whether strategic decisions about resilience are based upon validated relevant information and the use of key decision-making tools such as strategic risk assessment, options analysis, margin analysis, feasibility analysis and scenario analysis;

— whether the assumptions underpinning key decisions have been thoroughly surfaced and validated;

— the recognition and accounting for reversible versus irreversible decisions;

— whether remaining uncertainty has been addressed in decisions about resilience-related strategy;

— the adequacy of resourcing allocated to the processes;

— the timelines of the delivery of outputs from the processes.

c) The establishment of strategies for resilience

Resilience principles and attributes are effectively incorporated into the design of resilience-related strategies, for example:

— the resilience strategy establishes objectives aimed at incorporating these principles and attributes;

— resilience principles and attributes are considered in the formulation and implementation of other organizational strategies;

— resilience objectives are aligned with and support the achievement of other organizational strategic objectives.

d) The implementation and mobilization of resilience-related strategies:

— the extent and level of commitment to achieving the objectives of resilience-related strategies;

— the progress made towards achieving the resilience-related strategic objectives;

— the extent to which resilience objectives are still relevant to any changing context and risk profile;

— the effectiveness of the conduct of strategy evaluation, redirection, and control.

e) The achievement of continued resilience capability as an outcome:

— team and individual values and behavioural change incorporates resilience principles and attributes;

— the organization can pivot or adjust its changing strategic and operational contexts and cope with potential disruptions;

— waste, harm, and failure due to unplanned events has been reduced;

— overall organizational objectives have been achieved in the face of strategic and operational uncertainty.

10.2.3 Reporting

The organization should document the effectiveness of the resilience implementation plan and report through existing governance arrangements. Reporting aims to:

a) communicate to top management on the progress of activities from the resilience strategic plan;

b) ensure that decision makers accountable for the resilience strategic plan are aware of, coordinate and provide updates on actions;

c) inform interested parties of initiatives and decisions that enhance resilience.

10.3 Implementing continual improvement

The organization should identify gaps or improvement opportunities, develop plans and tasks and assign them for implementation. Implemented improvements should contribute to the enhancement of resilience.

Resilience policy and strategies should be included in the organization's continual improvement programme.

Resilience can change as the strategic and operating contexts change. Resilience capabilities will degrade and become increasingly irrelevant unless resilience arrangements are continually monitored and reviewed.

The organization should regularly evaluate and continually approve its strategic thinking and decision-making, resilience capabilities and potential.

Continual improvement of the resilience approach should be informed by the reporting against key performance indicators.

Continual improvement requires leadership at all levels of the organization that encourages trust, openness, collaboration, sharing of information, and acceptance of error as a learning opportunity.

The approach for resilience-thinking, decision-making, and strategy formulation processes should be continually reviewed to ensure that:

a) the design of the strategic thinking, decision-making, and strategy formulation processes are still fit for purpose, appropriate to a changing context, sufficient to satisfy organizational needs, and undertaken within organizational constraints;

b) these processes are sufficiently resourced and conform to the design principles;

c) resilience-related strategies are formulated to facilitate implementation.

Resilience-related strategies should be continually reviewed so that:

d) resilience objectives are adjusted, redirected, or replaced if their relevance and acceptability is declining;

e) the outputs of resilience-related strategies continue to enhance current resilience capability and potentiality for the future;

f) an acceptable cost-benefit margin is maintained as resilience-related strategies are adjusted;

g) embedded resilience objectives continue to be relevant and can be realized when other organizational strategies are modified;

h) potential conflicts with other resilience objectives are addressed as organizational strategies are modified.

The organization should assess, value and action the outcomes from the review so that they continue to be beneficial, desirable and align with the organizations purpose and strategic direction.

Bibliography

[1]   ISO 22316, *Security and resilience — Organizational resilience — Principles and attributes*

[2]   ISO 31000, *Risk management — Guidelines*

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