Management of IT

Reporting standard

Public consultation version

March 2023

About this version

This document serves the **public consultation** phase which ends at 31 May 2023. During the consultation phase NOREA invites a wide variety of stakeholders to review this NRI standard and provide answers to the following:

1. Are the disclosure requirements and guidance sufficiently clear to allow an organization to report on its management of IT in a consistent and meaningful manner?
2. Is this NRI-standard sufficiently useful for all kind of organizations e.g. enterprises, government institutions or other types of organizations?
3. Which body should ideally be responsible for issuing and maintaining such reporting standard?

You are kindly requested to provide your consultation comments to NOREA via norea@norea.nl. Many thanks in advance for your participation in this consultation.

Acknowledgement

This reporting standard is issued by NOREA, the professional association of IT auditors in the Netherlands and was developed to guide Dutch chartered IT auditors (Register IT auditor, RE) and their international equivalents in issuing reports on the Management of IT.

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Version control		
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0.9	June 2022	Consultation Draft
0.10	January 2023	Second Consultation Draft OOB audit firms
0.11	March 2023	Public Consultation Draft

Contents

Preface NOREA Reporting Initiative – Management of IT

Introduction

Digitization of our society is happening at an increasing pace. Currently organizations are receiving a variety of requests from different parties to report on how they control their IT and their digital products and services, varying from clients and suppliers to supervisory entities and other stakeholders, each with their own specific requirements. Looking ahead, NOREA anticipate a steep increase in legislation and regulations coming into force on an international (i.e. EU) and national level regarding digital products and services and IT in general. A common denominator in all these legislations and regulations is that they require organizations to report on the (digital) resilience of their digital products and services, and an organization as a whole. Furthermore, the sustainability of an organization as being part of our society is becoming more of interest. Responding to this multitude of reporting requirements places a significant administrative burden on organizations, which is likely to increase even further in the coming years.

Given that there is a common denominator in most, if not all of these reports (i.e. they tend to look at a limited number of digital resilience topics), we believe there is value in adopting a standardized framework for reporting on topics that are most common under these requirements. NOREA, the professional association of chartered IT auditors in the Netherlands has therefore taken the initiative to develop a practical guidance for reporting on the management of IT that can be drafted by organizations. The ultimate objective of this reporting initiative is to develop disclosure criteria for organizations regarding governance, risk and compliance of their IT-related material topics. Currently there are no legal requirements regarding the content of such reports on the management of IT. This standard aims to provide a coherent set of disclosures supported by reporting requirements that ensure a consistent reporting on the management of IT for a wide range of stakeholders and apply a reference to identify and report points of improvement within the context of the IT of the organization.

The content of such report on the management of IT focuses on the measures taken to ensure that an organization has organized its IT in such a controlled manner that it contributes to its strategic goals. This reporting initiative covers the following topics:

- Digital Innovation and Transformation;
- Data Governance & Ethics;
- Outsourcing;
- Cybersecurity;
- IT Continuity Management;
- Privacy.

This reporting standard pays specific attention to elements that are crucial for an organization and its stakeholders including customers, suppliers, employees and other workers, regulators, investors and society. A report on the management of IT should also look at developments in the

near future as well as how an organization plans to respond to these. The report on the management of IT therefore covers the past year as well as the current year.

The disclosures, requirements and guidance in this standard find their origin in generally accepted standards and best practices for each of the topics. Thereby making use of the input from industry, public authorities, experts and other stakeholders in developing sound standards and best practices. See Bibliography for further details.

This NOREA reporting initiative (NRI in short) will be complemented with an audit guidance to provide a practical guidance for independent IT auditors to allow them to provide an assurance opinion. The opinion of the independent IT auditor enhances the degree of confidence the intended users of the report on the management of IT about the reliability of the report and encourages the compiling organization to pay continued attention to the adequate management of IT to safeguard the IT continuity of the organization.

With this reporting initiative, NOREA contributes to the strengthening of sustainability, compliance, confidentiality, integrity and availability of IT of an organization. It does also contribute to the resilience of digital eco systems and to the protection of our economic system. On the one hand by making organizations more aware of the challenges they are facing and on the other hand by increasing transparency towards their stakeholders. NOREA has consulted various regulators, government agencies and representative organizations in the Netherlands about the continued interpretation of the report on the management of IT and to obtain broad support. The outcome of this consultation shows an increasing need for transparency regarding the way organizations manage their IT topics and address the expectations from stakeholders including customers, suppliers, employees and other workers, regulators, investors and society. Especially because NRI uses standards and best practices as a reference it provides top management with a solid perspective on how to address these IT topics in their organization from a management point of view.

Analogy with GRI Standards

NRI has been developed similar to the structure of the GRI Sustainability Reporting Standards (GRI Standards). The GRI Standards enable an organization to report information about its most significant impacts on the economy, environment, and people, which includes impact on human rights and how it manages these impacts. Although NRI is not a GRI Standard, NOREA has decided to adopt the structure of the GRI standards and has designed their NRI for reporting on the management of IT accordingly. This allows a reporting organization to integrate the report on their management of IT more easily into its wider report, if based upon these GRI Standards.

The GRI Standards can support organizations in their wider (sustainability) reporting and are structured as a system of interrelated standards that are organized along three separate series: GRI Universal Standards, GRI Sector Standards, and GRI Topic Standards.

- GRI 1: Foundation 2021 specifies the requirements that an organization must comply with to report in accordance with the GRI Standards. The organization begins using the GRI Standards by consulting GRI 1.
- GRI 2: General Disclosures 2021 contains disclosures that an organization uses to provide information about its reporting practices and other organizational details, including its activities, governance, and policies.
- GRI 3: Material Topics 2021 provides guidance on how to determine material topics. It also contains disclosures that an organization uses to report information on its processes in determining material topics, a list of material topics, and how it manages each topic.

An important element in the analogy is the use of ''Disclosures''. These "Disclosures" cover the attestation by top management towards stakeholders regarding the management of IT as a material topic and the IT topics identified as being of specific importance for the organization. With these disclosures the top management can proclaim their commitment to having their IT effectively contribute to the strategic objectives of the organization and to being in control.

Topic Standards

In line with the GRI Standards framework, NRI has been designed by using the form for Topic Standards. The Topic Standards contain disclosures that an organization uses to report on its impacts in relation to particular material topics.
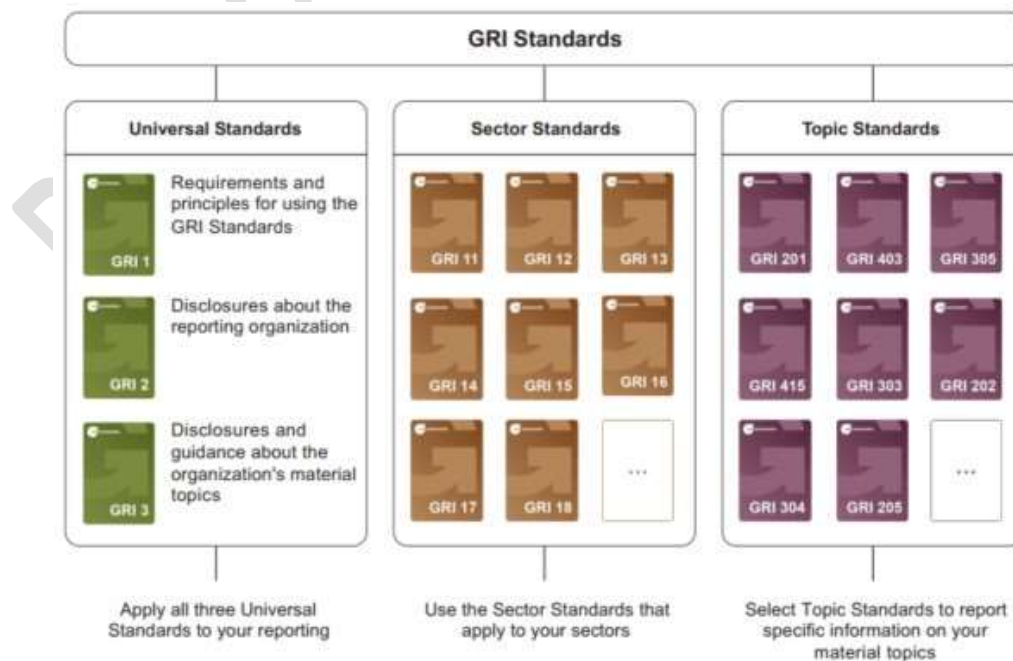
Reading guide

This document includes two sections. Section 1 contains a general introduction to the management of IT topics and the structure of topic standards. It contains disclosures for the management of the IT topics identified, further defined in requirements about what to report to provide information regarding the management of IT practice-related <u>impacts</u> of the organization. Guidance is added to provide support in reporting on these generic topics. Section 1 also includes considerations on the sustainability <u>impacts</u> of the management of IT topics that could be relevant when addressing the topics in section 2.

Section 2 contains the topic standard. So far NOREA has developed one topic standard consisting of six IT sub-topic standards that are expected by the NOREA working group to be relevant to many organizations, based on their research activities and consultations with a broad group of potential stakeholders. In GRI terms these are referred to as 'likely material topics'. These sub-topic standards contain disclosures per identified IT (sub-)topic, which provides information about the organization's (sub-)topic related practice <u>impacts</u>, following the same structure for reporting requirements and guidance.

The six sub-topics are:

1. Digital Innovation and Transformation;
2. Data Governance & Ethics;
3. Outsourcing;
4. Cybersecurity;
5. IT Continuity Management;
6. Privacy.

The Glossary contains defined terms with a specific meaning when used in the GRI Standards. The terms are underlined in the text of the GRI Standards and linked to the definitions.

The Bibliography lists references used in developing this Standard.

Appendix A contains a set of requirements for Disclosure 3-3 in GRI 3: Material Topics 2021 that organizations shall use to determine their disclosures as per IT-topic.

Using this standard

This standard can be used by any organization, regardless of size, type, sector, geographic location, or reporting experience, to report information on how it manages its IT topics related <u>impacts</u>.

An organization reporting in accordance with this standard, which has been drafted along the lines of the GRI Standards framework, is required to report the disclosures of the IT sub-topics

(hereinafter referred to as IT topic) that it has identified as being a <u>material topic[1]</u> . If the management of IT has been determined as a material topic, the organization shall further list its material IT topics in accordance with the requirements stated in GRI 3-1 and 3-2. By doing so organizations provide relevant information to their stakeholders regarding the importance of IT topics for their operations and continuity of the organization.

If an organization cannot comply with a disclosure that is in scope under the definitions of the NRI or with a requirement in a disclosure (e.g. because the required information is confidential, creates a risk or is subject to a legal prohibition), the organization is required to specify this disclosure or the requirement it cannot comply with and provide a reason for the omission thereof.

If an organization cannot report the required information about an item specified in a disclosure because the item (e.g. committee, policy, practice, process) does not exist, it can comply with the requirement by reporting this to be the case. The organization can explain the reasons for not having this item in place, or describe any plans they may have to develop it. The disclosure does not require the organization to implement an item such as development of a policy, but to report that the item does not exist.

The NRI emphasizes that IT is a building block that has become critical for a number of other processes in organizations and needs to be aligned with these processes. In case the organization reports its continuity management in a more wider scope as business continuity, NRI provides requirements to report on the integration of IT in those topics while the IT-specific elements are addressed in the IT topic part.

Requirements, guidance and defined terms

As this standard has been drafted in line with the GRI Standards framework, the structure per topic is a follows:

- Scope paragraph: depicts the IT topic within the organization;
- Disclosures: mandatory management assertions regarding the specific IT topic;
- Requirements: reporting elements that are mandatory to clarify the disclosure in the report;
- Guidance: information to assist in the reporting process.

The following applies throughout this standard:

- Requirements are presented in **bold font** and are indicated by the word 'shall'. An organization must comply with the requirements to report in accordance with this standard.
- Requirements may be accompanied by guidance.
- Guidance includes background information, explanations, and examples to help the organization better understand the requirements. The organization is not required to

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[1] See Requirements 4 and 5 in GRI 1: Foundation 2021.

comply with guidance although some important reporting elements are expected to be reported, indicated with "should".

- The standard may also include recommendations. These are cases where a particular course of action is encouraged but not required.

- In the wording of requirements and guidance, "shall", "should", "could" and "may" are intentionally used to make clear how the requirement or guidance should be handled in the reporting:

    - "shall" is used in requirements and indicates a mandatory requirement to be addressed in the report;

    - "should" is used in guidance and indicates a strict recommendation, meaning that it is addressed in the report and if not, this is explained in the report;

    - "could" is used in guidance and indicates a possibility or option, meaning that it is not required to be addressed in the report or clarified for reasons of non-reporting;

    - "may" is used in guidance, indicates a possibility and is mostly used for the reporting of specific, possible occurrences, as reporting about these occurrences generally does not provide essential information for stakeholders and might have a negative impact if known by all readers of the report.

- Defined terms are <u>underlined</u> in the text of the standard and are linked to their definitions in the Glossary. Organizations are required to apply these definitions in the Glossary.

Responsibility

This standard is issued by NOREA, the professional association for chartered IT auditors in the Netherlands. Any feedback on this standard can be submitted to norea@norea.nl for consideration by the taskforce Reporting on Management of IT.

Due Process

This document has been developed by the Dutch professional association for IT auditors (NOREA) through a unique multi-<u>stakeholder</u> consultative process involving representatives from organizations and report information users within the Netherlands. While the board of NOREA encourages the use of this standard and related interpretations by all organizations, the preparation and publication of reports based fully or partially on this standard and related interpretations are for the full responsibility of those producing them.

Legal liability

Neither NOREA Board of Directors nor the taskforce Reporting on Management of IT can assume responsibility for any consequences or damage resulting directly or indirectly from the use of this standard and related interpretations in the preparation of reports, or the use of reports based on this standard and related interpretations.

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SECTION 1: MANAGEMENT OF IT TOPICS

Introduction

For most organizations, IT plays an (increasingly) important role in achieving their strategic and operational objectives. Due to the growth in possibilities that digital technology offers, as well as the related shift in consumer/customer behavior and expectations that are driven by these digital possibilities, the use of digital technology in products and services has become a success factor to win or survive in the marketplace. Furthermore, digital technology allows for extensive connectivity between parties in the demand- and supply chains and sectors throughout the economy, both public and private, which has led to and still offers potential for new products and services, as well as new business models for existing products and services.

As a natural reciprocal of these increased possibilities, the dependency of digital products, services and business models on technological components and capabilities that enable them requires sufficient care to establish their ongoing safety and resilience. This is true not only for individual organizations, but also across their ecosystems, demand- and supply chains and sectors. And to protect the safety and human rights of the consumers of these digitally enabled products and services.

In answer to the increasing role IT plays in identifying, preventing, mitigating, and accounting for how organizations address actual and potentially negative impact on the economy, the environment, and people, including impact on human rights, a need has emerged for providing information to business partners and other stakeholders regarding the identified impacts and the ways in which the organization has addressed these impacts. By providing this information, organizations can contribute to a more sustainable society. This NRI allows organizations to report on their material IT topics identified as an integral part of an organization-wide report regarding sustainability as the inter-relationships with these other topics exist with IT being a backbone or opportunity to in realizing sustainability goals. By using the GRI framework as a starting point and referenced standard, the reporting organization is supported to make the reporting for the management of IT for multiple stakeholders an integral part of their general reporting. As its requirements and complementing guidance are derived from standards and best practices, the reporting provides information on the IT topic identified in comparison with these standards and best practices, providing guidance for further development of the organization on the IT topic.

This NRI contains disclosures for organizations to report information on IT in general and specifically on material topics identified in that domain. It provides guidance on the reporting regarding related impacts and on how a reporting organization manages these impacts. In defining disclosures and requirements, the following GRI principles are leading (list and definitions to be found in GRI 1) being:

- accuracy;
- balance;
- clarity;
- comparability;

- completeness;
- sustainability context;
- timeliness;
- verifiability.

Background to Management of IT as material topic
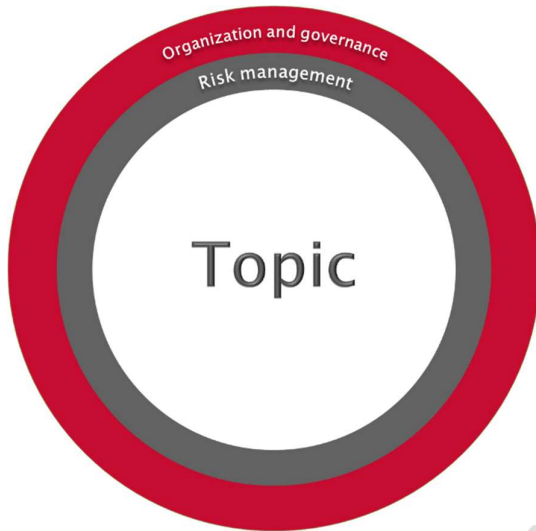
This standard addresses the topic of management of information technology (IT) practices. IT plays a dominant role in realizing business goals and creating new opportunities. Moreover, IT has a significant impact on society and a sustainable operation of organizations. It is inevitable that organizations will address IT as a material topic. This reporting standard provides a basis for reporting on the control and development of IT in organizations in their role within the external environment. Every organization is likely to have its own specific IT aspects it will address as material when describing the generic management of IT as a condition for the effectiveness of its IT operations. Therefore this reporting standard focuses on the generic management of IT topics, its alignment with the organization's strategy and opportunities and the domain specific topics identified.

Critical for the management of IT topics identified are "Organization and governance" and "Risk management". These reporting elements set the conditions for the management and operation of IT that are continuously involved in the 'direction of' and 'control over' the specific material IT topic.

Every IT-related topic needs to be addressed by and managed through controls in the implemented organization and governance structure and is to be empowered by risk management to ensure that the right actions are executed in the most efficient and effective way for the organization in realizing its strategy and its role in the external environment.

For the following identified material IT (sub-domain) topics disclosures, requirements and guidance have been developed.

- Digital Innovation and Transformation;
- Data Governance & Ethics;
- Outsourcing;
- Cybersecurity;
- IT Continuity Management;

- Privacy.

Sustainability impact of Management of IT

When an organization prepares to report in accordance with this NRI, which has been developed along the lines of the GRI framework, it is recommended that they evaluate the sustainability impact of IT. The relationship between sustainability and the management of IT is twofold:

1. The use of IT in organizations has several sustainability impact in its use of resources including the following categories;
   a. Environmental impact;
      i. Firstly, consumption of raw materials and energy. As IT relies on electronic devices that contain scarce resources such as metals and that consumes energy to operate, organizations need to consider the environmental impact such as the raw materials consumption and carbon footprint of the IT resources used by the organization which includes its suppliers of IT products and services;
      ii. Secondly, the reduction of e-waste. It is important to implement sustainable practices in the management of IT, considering the lifecycle of IT products and services. This includes the reduction of physical e-waste, through for example circular use of IT devices and re-use of valuable materials and the reduction of virtual e-waste by the reduction of legacy systems and underlying infrastructures that are no longer in the core focus but that cannot be decommissioned because of a knock-on effect this will or might have on core processes;
      iii. Furthermore, management of IT, as a positive impact contributes to a sustainable environment as it limits the use of scarce resources like paper and the need for transport from deliverer to receiver.
   b. Social impact, such as the human rights of workers and users of IT products and services, including labour rights and privacy-related aspects of digital products and services.
   c. Other sustainability impact from the IT industry, including the economic impact from the IT industry as a whole on economic development of (vulnerable) regions.
2. Sustainability of organizations if IT is not properly managed.
   Since availability of IT systems and services is a critical prerequisite for operational activities in almost any organization, flaws in the management of IT can lead to operational disruptions that, if not addressed adequately, can have serious consequences for the organization, including reputational, operational, financial and even existential risks, as well as for the demand- and supply chains, eco systems and the sectors they are part of.

Management of IT topics

As NRI follows the structure of the GRI reporting framework, an organization that has established the management of IT practices to be a _material topic_ as a result of the process defined in GRI 3-1 is required to list the derived IT topics as well (using Disclosure 3-2 in GRI 3) and report how it manages the NRI IT topics and its additionally identified and derived IT topics using Disclosure 3-3 in GRI 3: Material Topics 2021[2] and clause 1.1, 1.2 and 1.3 in this section).

For the reporting on these IT topics it is important to emphasize that the NRI is developed using the reporting conditions and structure as defined by the GRI standards. Especially for the management of IT topics it is important to take into consideration of GRI 3-2 and 3.3. In this NRI the additional disclosures and requirements specific for the management of IT topics have been defined.

In this NRI, the management of IT topics is structured around disclosures for the organization and governance of IT and risk management related to IT.

The organization of the management of IT aims to fill in the conditions necessary to identify material _impact_ of IT and prioritize the order to _remediate_ potentially negative _impact_ or new opportunities for realizing the overall organizational strategy.

Governance of IT is inter-related with organization and risk management as it is meant to guide and align IT goals with business goals in an effective and efficient way. As a result, it ensures quality of content, evaluates IT performance, ensures legal compliance and identifies business benefits.

The purpose of risk management is the creation and protection of values and the ability to act on the most significant _impact_ on the economy, the environment, and people, including _impact_ on _human rights_.

This section is therefore designed to **supplement** – and not replace – Disclosure 3-3 in GRI 3 and Appendix A.

Disclosures	
MGT.1	Organizing and governing management of IT to have effective, efficient and acceptable use of information technology (IT).
MGT.2	IT risk management ensures the creation and protection of value while improving performance, encouraging innovation and supporting the achievement of objectives.

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[2] For reasons of convenience to the user the disclosures 3-3 in GRI 3: Material Topics 2021 haven been included in Appendix A to this NRI. In this NRI reference is made to this Appendix.

MGT.3	Transparency about identified material IT topics and changes to the list of material IT topics compared to the previous <u>reporting period</u>.

Organization and Governance

The reporting organization shall report the following information regarding the organization and governance of its IT:

Requirements	
Organization and governance	
MGT.1.1	The reporting organization shall report how it organizes and governs the management of the IT topics using Appendix A, including: • The internal and external context of IT; • The organizational structure regarding responsibilities, authorities and communication in respect of demand- and supply chain; • IT acquisitions with impact for the implementation of the business strategy; • The monitoring of the IT topics and respond from strategic level.
MGT.1.2	The reporting organization shall report on the current and future capabilities of IT as part of the current and on-going needs of the organization's business strategy specified for (future) material IT topics.
MGT.1.3	The reporting organization shall confirm the compliance of its IT with all mandatory legislation and regulations.

Guidance	
Organization and governance	
MGT.1.1a	The reporting organization should report the internal and external context of the management of the IT topics and considers: • Organization IT related strategic objectives; • stakeholder expectations; • business needs; • regulatory obligations; • IT acquisitions; • business processes.
MGT.1.1b	The reporting organization should report about the policy and activities to ensure that individuals and groups within the organization understand and accept their

	responsibilities in respect of supply and demand for IT. Those with responsibility for actions also have the authority to perform those actions and make notice.
MGT.1.1c	The reporting organization should describe competency management of those given responsibility to make decisions for IT regarding acceptable use, effectivity, efficiency, integrity and availability.
MGT.1.1d	The reporting organization should describe its activities regarding the respect for human rights and human behavior, including the current and evolving needs of all the 'people in the process'. And could report on: • customer survey outcomes; • user satisfaction survey outcomes; • training and development; • analysis of service requests.
MGT.1.1e	The reporting organization should report the objectives set for monitoring each material IT topic and the current status of each material IT topic.
MGT.1.1f	The reporting organization could provide information regarding performed ongoing and/or separate evaluations (by internal audit or external audit) to ascertain whether the components of internal control are present and functioning. The subjects that could be addressed are: • organization and governance of the IT; • IT capabilities; • IT acquisitions; • IT service levels; • legal compliance of IT; • human behaviour and organization culture.
MGT.1.1g	The reporting organization should report on their efforts to ensure deficiencies found in the evaluations are notified timely at the board, management, and control owners.
MGT.1.2a	The reporting organization should describe: • how and what the organization's business strategy takes into account for current and future capabilities of IT; The reporting organization could describe: • the identified current and future capabilities;

	• the plans to satisfy the current and on-going needs of the organization's business strategy; • the status of the plans.
MGT.1.2b	The reporting organization should report which key elements make the IT fit for purpose in supporting the organization, providing the services, levels of service and service quality required to meet current and future IT requirements.
MGT.1.3a	The reporting organization should describe which legislation and regulation is applicable for its IT environment.
MGT.1.3b	The reporting organization should report the effectiveness of compliance controls regarding IT for: • design and implementation of compliance controls; • monitoring of compliance controls; • review of the effectiveness of compliance controls. And could report on: • executed compliance audits (external/internal); • results from ad follow-up on those audits.

Risk Management

The reporting organization shall report the following information regarding the risk management of its IT:

Requirements	
Risk management	
MGT.2.1	**The organization shall report IT related risks are managed using Appendix A, including:** • the scope and boundaries of the risk management process; • integration into all organizational activities; • Commitment of top management and governance bodies; • the risk management framework regarding the planning, decision making, executing, necessary modification and communication.
MGT.2.2	The reporting organization shall report on the continuous monitoring and adaptation of the risk management framework to address external and internal changes.

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MGT.2.3	The reporting organization shall report on the evaluation of the effectiveness of the risk management framework based upon periodically measuring and determining its suitability to support achieving the objectives of the organization.

Guidance	
Risk management	
MGT.2.1a	The reporting organization should describe the scope and boundaries of its IT risk management and could consider: • the maturity level of the risk management process; • the basic criteria underlying IT risk management; • the risks that can arise because of the boundaries applied; • identification of critical assets; • the organization's strategic business objectives and IT policy; • expectations of stakeholders; • the geographical locations; • socio-cultural environment; • interfaces; • regulatory obligations; • business pressures (from opportunities and threats).
MGT.2.1b	The reporting organization could describe the main roles, responsibilities and accountabilities regarding: • development of the risk management process; • identification and analysis of the stakeholders; • roles and responsibilities of internal and external parties (such as business partners) and interface with organization & governance; • interface with the enterprise risk management; • escalation paths; • documentation of risk management policies and procedures.
MGT.2.1c	For describing the risk management framework the reporting organization should consider: • risk management approach; • risk identification; • risk evaluation criteria; • impact criteria; • risk acceptance criteria.
MGT.2.1d	The reporting organization could report about risk identification by considering:

		- identification of critical assets; - identification of threats and other possible <u>impacts</u>; - identification of existing controls; - identification of vulnerabilities; - identification of consequences (of unidentified risks).
MGT.2.1e	The reporting organization could report about risk analysis by considering: - the risk analysis methodology; - assessment of the threats, possible <u>impacts</u> and other consequences; - assessment of the incident likelihood; - level of risk determination.	
MGT.2.1f	The reporting organization could report about risk evaluation by considering: - risk evaluation criteria; - risks with value levels (e,g, low, moderate, high, critical) assigned; - the importance of the business process supported by the asset / set of assets.	
MGT.2.1g	The reporting organization could report about the executing of, and results from, risk treatment that consist of options: - risk mitigation or remediation; - risk modification; - risk retention; - risk avoidance; - risk sharing.	
MGT.2.1h	The reporting organization should report about the risk acceptance that was made formally and documented.	
MGT.2.1i	The reporting organization should include a commitment statement by top management and <u>governance bodies</u> on risk management considering: - the purpose to manage risks in relation to the organization's strategic objectives and other policies; - the need to integrate IT risk management in the enterprise management and culture of the organization; - making necessary resources available; - measurement and reporting within the organization's performance indicators; - review and improvement.	
MGT.2.1j	The reporting organization should report on the risk communication with the decision makers (including <u>governance bodies</u>) and other <u>stakeholders</u>.	

MGT.2.2a	The reporting organization should report on the execution of, and results from, risk assessments, consisting of risk identification, risk analysis and risk evaluation, which can be an iterative process.
MGT.2.2b	The reporting organization should report on the changes to (the context of) the organization as a result of the outcome of the risk assessment process and could provide an overview of the updated risk picture.
MGT.2.2c	The reporting organization should report on the changes to the risk management process due to results of that process.
MGT.2.2d	The reporting organization could provide information regarding performed ongoing and/or separate evaluations (by internal audit or external audit) of the risk management process. The subjects that could be addressed are: • effectiveness of the risk management process; • identified critical assets; • identification of risks; • evaluation of risks; • monitoring and review of the risk management process; • communication about risks and risk treatment; • effectiveness of the follow-up.

SECTION 2: LIKELY MATERIAL IT TOPICS

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Likely material topics

This section comprises the likely material topics for IT. When developing this NRI the NOREA working group conducted research activities and consultations with a broad group of potential stakeholders to discuss their views and expectations for the usability of the report on management of IT topics. This included the list of IT topics to be included in such report that are relevant for most organizations; In GRI terms 'likely material topics'. The resulting six topics are:

1.   Digital Innovation and Transformation;
2.   Data Governance & Ethics;
3.   Outsourcing;
4.   Cybersecurity;
5.   IT Continuity Management;
6.   Privacy.

Each topic describes the IT most significant impacts related to the topic and lists disclosures that have been identified as relevant for reporting on the topic by reporting organizations. The organization is required to review each topic in this section and determine whether it is a material topic for the organization, and then to determine what information to report for its material topics.

Topic NRI-1 Digital Innovation and Transformation

Scope

Digital innovation & transformation (DI&T) is about the way the organization develops itself in its use of digital means to improve itself and realize its (strategic) objectives. Any organization that uses digital means has a requirement to determine, plan and execute changes to its organization and digital capabilities in order to develop to a desired future state, supporting the realization of its strategic business objectives.

Digital innovation & transformation should set the preconditions for an organization:

- to accomplish their strategic goals;
- to anticipate to new (digital driven) revenue models and create lasting value for all stakeholders (this goes beyond financial value alone);
- preserve or improve the ability and capability to anticipate on technological, sectoral and regulatory developments and alike;
- to protect digital related investments and intellectual property;

- to guarantee business continuity and going concern, high-performing people and efficient processes;
- to establish a culture of adaptability;
- to preserve or improve competitiveness and to remain relevant in the market.

Digital innovation and transformation interacts with Management of IT topics in the following manner:

- Innovation initiatives can lead to consequences in the management of IT topics. Specifically in case of disruptive innovation these consequences can be substantial;
- Stakeholder objectives and concerns are likely input for the architecture principles used.
- Portfolio/program and project management also applies to transformation of the IT governance structures within the organization.

The management of the IT topic digital innovation and transformation is addressed in section 1 "Management of IT topics" specifying "IT Organization and governance" and "Risk management". The requirements regarding specific roles, responsibilities and accountability for digital innovation and transformation are to be defined in this IT topic digital innovation and transformation as a result of the disclosure "MGT-1.1: IT organization and governance".

In the context of this standard the generic aspects for IT organization and governance are described at the level of the "Management of IT topics". The reporting organization can decide to describe the topic specific aspects of "IT Organization and governance" in the paragraph about "Management of IT topics" or can describe this at the IT topic digital innovation and transformation.

The risk management aspects of digital innovation and transformation, as part of the enterprise risk management, are addressed in the "IT Risk management". Although the conditions for the risk management for digital innovation and transformation are set by "IT Risk management" and fulfilled, it is important that the monitoring of the digital innovation and transformation provides risk relevant information to the "IT Risk management" processes as well. This is part of the reporting on IT topic digital innovation and transformation.

A separate scope paragraph in the report by the reporting organization should describe how the scope of digital innovation and transformation is included in this report on the management of IT. The scope paragraph should include clarification that the report on the management of IT covers the past year and the current year.

Separate from the organization and governance and risk management, digital innovation and transformation has three main aspects that are important to address, including the interrelationship between these aspects to describe a resilient digital innovation and transformation management system:

Digital Innovation: is about the way the organization introduces changes (to its organization, processes, products and services, etc.) in order to realize additional value. These changes are reflected in its digital architecture.

Digital Architecture: is the sum of the organization's Business-, Information- and (supporting) Technology-architecture. It describes the digital capabilities the organization needs and plans to deliver value, as well as the organizational, systems and technology landscapes to enable these capabilities.

Transformation: is about the way the organization manages change to its digital architecture to accomplish its strategic objectives. For this it can maintain portfolios of change initiatives such as programs and projects. Where projects are temporary change initiatives at the lower lever aimed at achieving one or more defined objectives; programs are groupings of projects and other change activities aimed at realizing specific benefits for the organization; and portfolios are groupings of programs, projects and other change activities to realize strategic objectives. If an organization uses alternative setups to manage change, such as agile delivery, these are included as well.
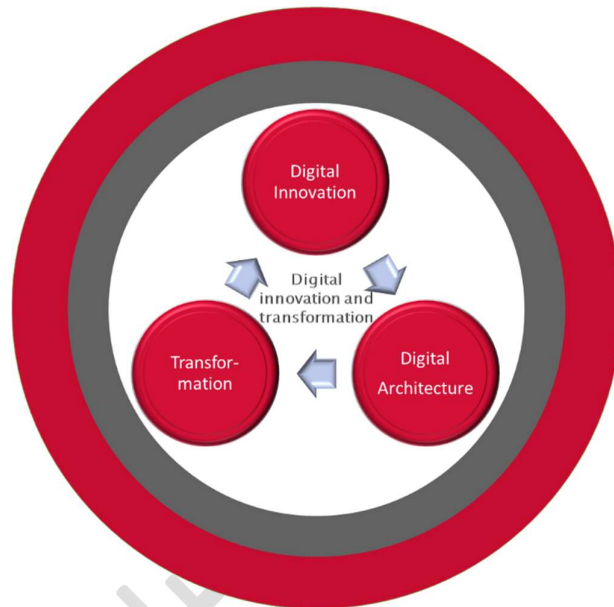
Digital Innovation and Transformation – disclosures on the management of the topic

An organization reporting in accordance with the GRI Standards is required to report how it manages each of its material topics. An organization that has determined digital innovation and transformation practices to be a material topic in the domain of the use and the management of IT is required to report how it manages the topic using Appendix A.

This section is therefore designed to **supplement** – and not replace the disclosures determined using Appendix A and the Management of IT topics.

Requirements	
Management of IT topic digital innovation and transformation	
MGT-DI&T-1.1	The reporting organization shall report how it manages digital innovation and transformation using the requirements in Appendix A and the context and scope of digital innovation and transformation in addition to

	Management of IT topics 1.1. This scope includes innovation, digital architecture and transformation.
MGT–DI&T–1.2	The reporting organization shall report how it manages the risk inherent to digital innovation and transformation in addition to Management of IT topics 1.2.

Guidance	
Management of digital innovation and transformation	
MGT–DI&T–1.1a	The scope description should include the scope and context of the innovation management system, architecture management and change management system, considering: • how business objectives are set; • how innovation ideas or value opportunities are generated; • the role of architecture to align different perspectives around digital innovation and transformation initiatives; • how said initiatives are converted into projects, programs and portfolios, or equivalent change initiatives; • scope limitations and exclusions of digital innovation and transformation.
MGT–DI&T–1.1b	The reporting organization could describe the integration of digital innovation and transformation in the wider organization, considering: • top management approval; • communication with relevant business partners; • supply chain initiatives; • documented digital innovation and transformation policies;
MGT–DI&T–1.1c	The organization could describe the roles and responsibilities regarding digital innovation and transformation in the organization, considering: its digital innovation organization; • the role of architecture, e.g. as a separate function. And how stakeholder needs (objectives and concerns) are translated into the architecture framework of the organization, e.g. as architecture principles. • its project, program and portfolio management organization; • the awareness around innovation and transformation in general; • the various lines of defense within the organization; • the collaboration with business partners and other external parties.

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MGT–DI&T–1.1d	The reporting organization could describe the results from analyzing the monitoring information regarding digital innovation and transformation, explicating identified points of improvement and which of them have been implemented in the <u>reporting period</u>. The organization may refer to the detailed monitoring and evaluation as per DI&T–1–1.1a and DI&T–1–3.1b.
MGT–DI&T–1.2a	The organization could describe: • its activities to prevent or reduce undesired outcomes of its innovation activities, taking into account the uncertainties associated with the innovation opportunities and the types of risk that can occur. • how it responds in case review of innovation initiatives uncovers deviations from innovation policies, planning and/or budgets that carry material risk of nonconformity.

Digital Innovation and Transformation – topic disclosures

An organization is expected to compile information regarding the management of digital innovation and transformation and provide figures regarding the occurrence of innovation events and the <u>impact</u> for the reporting organization and its demand and <u>supply chain</u>.

Disclosures Digital innovation and transformation	
DI&T–1	Digital innovation is applied to realize business objectives. Opportunities are identified and pursued to bring innovations to life and their value/success is measured, monitored and evaluated by management.
DI&T–2	Digital architecture is used in digital innovation and transformation.
DI&T–3	Transformation is applied to manage change to realize strategic objectives at three levels; individual projects, programs (comprising multiple projects) and the overarching portfolio(s).

When compiling the information specified in the disclosures, the reporting organization shall include the following requirements.

Requirements	
Topic Digital innovation and transformation	
DI&T–1.1	The reporting organization shall report on its digital innovation process.

DI&T-2.1	**The reporting organization shall report on the role and application of architecture in its digital innovation & transformation.**
DI&T-3.1	**The reporting organization shall report on its framework for realization of changes.**

Guidance	
Topic Digital innovation and transformation	
DI&T-1.1a	The organization should set out the highlights of its digital innovation & transformation vision and policy, which could include: • its strategic business vision in relation to the identified relevant technological, sectoral and regulatory IT related developments that could provide opportunities for innovation; • its commitment to innovation activities; • the innovation management principles it applies; • its commitment to consider ethical and sustainability aspects in its innovation activities. • how it acquires strategic intelligence it uses as input for its digital innovation and transformation. • how it sets innovation objectives and how these are planned (and budgeted) for; • how innovation opportunities are identified, how concepts are created and validated, and how solutions are developed and deployed; • how the innovation initiatives are evaluated in the context of the innovation objectives; • how the innovation process is evaluated. outcomes of the evaluation of the innovation initiatives lead to changes to the innovation management system of the organization.
DI&T-1.1b	The organization may describe how it makes sure the plans for innovation are: • consistent with the innovation policy, aligned with the innovation vision and are consistently applied across the organization; • communicated to <u>stakeholders</u> in order to create awareness and support; • measured, monitored and reviewed on a regular basis.
DI&T-1.1c	The organization could describe: • the organizational units and processes it has in place to set its innovation objectives; • how it considers creativity and exploration versus efficiency and timeliness of its innovation initiatives;

	• how it handles innovation initiatives that can become disruptive or radical; • how it establishes and maintains the leadership style and culture of innovations; • how it considers the needs and expectations of <u>business partners</u> and other external parties (<u>stakeholders</u>). • How it considers its end-customers and their <u>human rights</u>. • how it manages its intellectual property as part of its digital innovation and transformation.
DI&T-1.1d	The organization may describe initiatives in collaboration with <u>business partners</u> and other external parties in its ecosystem(s) to improve innovation capabilities.
DI&T-1.1e	The organization could describe the highlights of its innovation process. This may include the following: • how their innovation initiatives ideas are converted into concepts and how these concepts are explored, evaluated and refined towards solution design. • how solutions are developed, tested and deployed. • how the value generated by innovation initiatives and their resulting concepts and solutions is measured and how their evaluation is organized. This can include formal reviews by management and/or internal (or external) audit. • how it reviews the innovation management system and how management is involved in this process.
DI&T-1.1f	The organization may include the following aspects of the innovation management system: • suitability, how well does it fit in the organization's environment, culture, etc.; • adequacy, does it cover all aspects of innovation sufficiently; • effectiveness, does it achieve its goals; • efficiency, does it use affordable (and minimal) resources
DI&T-1.1g	The organization may include the following: • changes in the organization and its environment since the previous <u>reporting period</u>; • the way in which innovation objectives have been achieved; • the performance of the innovation management system, i.e. through the value created by its most significant outcomes; • the capabilities created for the organization; • deviations and nonconformities that have occurred; • the appropriateness of the evaluation and review cycle and changes that need to be made to it, if any.

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DI&T-2.1a	The organization should describe: • the (types of) architecture descriptions it uses to describe its architecture from business, information and technology angles; • how it keeps alignment between the target architecture layers, including dependencies with business partners, suppliers or other third parties; • its mechanisms to align its innovation and change initiatives with the realization of its target architecture (architecture roadmap).
DI&T-2.1b	The organization could describe (to a certain extent, not revealing competitive information): • what its target architecture looks like; • what architecture standards it has adopted and how these standards are applied in its digital innovation and transformation; • how architecture principles are set, approved and maintained. This may include alignment with organization strategy and objectives and stakeholder expectations; • how it aligns newly developed solutions and other changes with the existing architecture.
DI&T-2.1c	The organization may describe how it updates, maintains and communicates the current architecture on the level of its: • strategic target architecture; • organizational target architecture; • process target architecture; • system (technology) target architecture; • data target architectures.
DI&T-2.1d	The organization could describe how its change initiatives (e.g. portfolios, programs and projects) in the reporting period have contributed to realization of its target architecture.
DI&T-2.1e	The organization may describe how it periodically reviews the progress of its target architecture realization.
DI&T-3.1a	The organization should describe its policies and procedures regarding the execution of change initiatives (such as projects, programs and portfolios).
DI&T-3.1b	The organization could describe how it conducts project, program & portfolio management to a certain level of detail, including: • analysis and management of the proposed solutions, to determine and define the optimal mix of change initiatives (portfolio components);

	• how it monitors progress, impediments and outcomes including continuous validation of alignment with the strategic direction, operational and financial goals: • the monitoring and reporting on portfolios and their components; • financial budget and benefit tracking of portfolios and their components;
DI&T–3.1c	The organization could describe: • how it monitors the performance of change initiatives (such as projects, programs and portfolios); • how it produces and uses management information about its change initiatives. digital innovation & transformation. This may include the progress of portfolios and their components and value creation in relation to the strategical objectives; • how it monitors alignment between the change execution (at project, program, portfolio level combined), the target architecture and the realization of the strategic objectives to avoid IT debt and waste of change capacity.
DI&T–3.1d	The organization should describe the following: • monitoring of progress versus plan; • monitoring of critical dependencies between portfolio components and/or with business partners and external parties; • tracking and measuring benefits realized by projects/programs and portfolios; • monitoring of project budgets; • monitoring of changes in risk profile and actions taken to address these changes; • ongoing alignment with strategic, operational and financial goals.
DI&T–3.1e	The reporting organization should describe its digital innovation & transformation workforce management (as the availability of motivated and skilled resources is pivotal for the success of digital innovation & transformation). This may include qualitative and quantitative aspects of its workforce requirements and how these are sourced and maintained.
DI&T–3.1f	When describing its digital innovation & transformation workforce management the organization may describe: • whether the workforce composition (employees, contractors and other workers), knowledge & skills (learning culture, specialisms), (digital) mindset and recruitment (talent attraction, retaining scarce expertise, career opportunities, development path) are in line with the strategic ambition of the organization; • whether IT changes are executed by a competent IT workforce.

	• whether sourcing preferences for developing IT solutions are clear and monitoring of alignment is in place.
DI&T-3.1g	The organization may describe whether its management reporting includes aspects like: • overall IT service performance development; • digital portfolio progress & impediments; • finance (IT debt, IT spend/investments in innovation, budget overruns, IT costs (like employees, vendor services, licenses, run and security costs, generic back-office services like HR and housing); • IT change fail rate.
DI&T-3.1h	The reporting organization should provide information regarding, if any, performed ongoing and/or separate evaluations (by internal audit or external audit) of the change initiatives (project, program & portfolio management) and the effectiveness in practice.

Topic NRI-2 Data governance & ethics

Scope

The objective of data governance & ethics is to extract the value of data processing for its stakeholders through the exercise of authority, control, and shared decision-making (planning, monitoring, and enforcement) over data management including setting data risk appetite and constraints, protecting civil liberties, minimizing risks to individuals and society, and maximizing the public good.

Data Governance provides oversight to data management, concerning the development, execution and supervision of plans, policies, programs, and practices that deliver, control, protect and enhance the value of data and information assets throughout their lifecycle, from their origin, collection, transformation and/or aggregation, reporting, storage, distribution, retention, retrieval until their disposal or decommissioning.

While the governing body sets the direction for data strategy in alignment with the overall organizational strategy, policies, the data management team is responsible for implementation of the strategy.

The management of this topic is addressed in the "Management of topics for IT" of this standard as part of the "IT organization and governance" structure. The requirements regarding specific roles, responsibilities and accountability for data governance & ethics are to be defined in this IT topic data governance & ethics as a result of the disclosure "MGT-1.1: IT organization and governance".
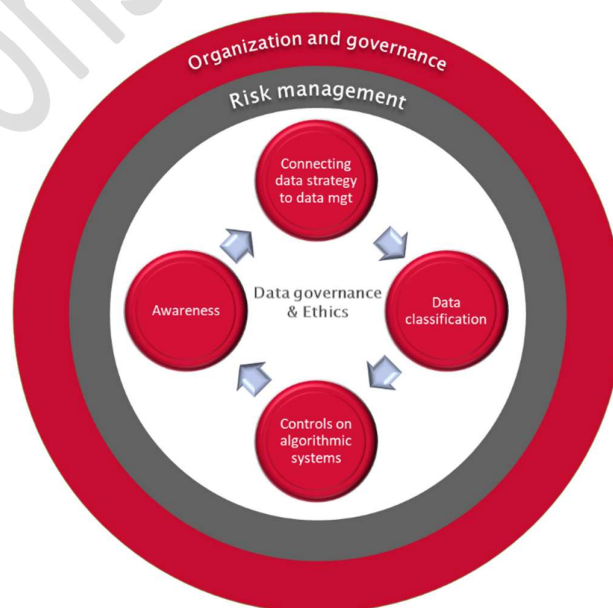
In the context of this standard the generic aspects for IT organization and governance are described at the level of the "Management of IT topics". The reporting organization can decide to describe the topic specific aspects of "IT Organization and governance" in the paragraph about "Management of IT topics" or can describe this at the IT topic data governance & ethics.

The IT risk management as part of the enterprise risk management covers the specific risks involved with this topic. For data governance & ethics the disclosures and requirements have been determined under the assumption that generic IT risk management attributes are addressed in the "IT Risk management". Although the conditions for the risk management for data governance & ethics are set by "IT Risk management" and fulfilled, it is also important that the monitoring of the data governance & ethics provides risk relevant information to the "IT Risk management" processes as well. This is part of the Topic description of data governance & ethics.

A separate scope paragraph, should describe how the scope of data governance & ethics is included in this report on the management of IT. It is recommended to report on the data governance and ethics of the reporting organization rather than limit it to the IT responsibilities. The scope paragraph should include clarification that the report on the management of IT covers the past year and the current year.

For data governance & ethics the following aspects are important to address for each aspect and the interrelationship between the aspects to build, operate and maintain a resilient data governance & ethics system:

Improving (including innovation):
- Business processes;
- Services;
- Products;
- Accountability;
- Compliance.

Enabling:
- Customers;
- Employees;
- Supply chain partners;
- Suppliers.

Following principles of good governance, governing bodies assist management in ensuring that the use of data throughout the organization contributes positively to the performance of the organization through:
- innovation in services, markets and business;
- appropriate implementation and operation of data assets;
- clarity of responsibility and accountability for both the protection and potential to add value;
- minimization of adverse or unintended consequences.

These organizations with good governance of data are expected to be:
- trustworthy organizations for data owners and data users to transact with;
- able to provide reliable data for sharing;
- protectors of intellectual property and other value derived from data;

- organizations with policy and practice in place to deter hackers and fraudulent activity;
- prepared to minimize the impact of data breaches;
- aware of when and how data can be reused;
- able to demonstrate good data handling practices.

Data governance & ethics – disclosures on the management of the topic

An organization reporting in accordance with this standard is required to report how it manages each of its material topics. An organization that has determined data governance & ethics practices to be a material topic in the domain of the use and the management of IT is required to report how it manages the topic.

This section is therefore designed to **supplement** – and not replace – requirements for the Management of topics.

Requirements	
Management of IT topic data governance & ethics	
MGT-DATA-1.1	**The reporting organization shall report how it manages the integration of data governance & ethics in the organization.**
MGT-DATA-1.2	**The reporting organization shall report how it addresses risks related to data governance & ethics and depending business processes.**

Guidance	
Data governance & ethics	
MGT-DATA-1.1a	The organization should describe the role of data to keep track of the business (such as people, accounting inventory and so on) and as a raw material for information products, knowledge, innovation and insight.
MGT-DATA-1.1b	The organization should describe how: • it has assessed the risk and impact of the use of data based on a stakeholder analysis; • it has defined objectives regarding data governance and ethics in relation to the identified stakeholders; • the data governance & ethics policies and procedures are documented and approved; • the data governance & ethics policies and procedures set the rules to protect the use of organization's critical data and data products,

	in line with its business goals, strategy and risk appetite and whether they are applicable to all employees and stakeholders who are affected or could be affected by the data assets of the organization; • the implementation of the data governance & ethics policies and procedures is supported by appropriate investments in human and technical resources; • it has established a structure for conflict resolution regarding the use of data and data related products, which ties back into possibly improving existing policies and procedures.
MGT–DATA–1.1c	The organization should describe whether: • Roles and responsibilities are documented; • The organization internally communicates information, including objectives and responsibilities for internal control, necessary to support the functioning of internal control to prevent fraud, sabotage, theft, misuse of data and other compromises; • The organization obtains or generates and uses relevant, quality information to support the functioning of internal control; • The single Senior Responsible Owner (SRO) has approved the use of critical data before deployment and implementation; • The organization has established a mechanism allowing others to flag issues related to privacy or data protection; • Third party assurance on data processing is managed.
MGT–DATA–1.1d	When reporting on the result of the analysis of monitoring data governance & ethics and identifying and implementing points of improvement the organization should describe the use of appropriate measurement systems, the performance of data use of the organization, further the way strategies relating to data are being implemented an the use of the data conforms internal policies and external requirements such as regulations and stewardship requirements, including: • data retention and disposal requirements • reuse, sharing or selling of data and its associated rights, licensing or copyright; • accounting for cultural norms, ethical standards, bias, discrimination or profiling in decision making.
MGT–DATA–1.2a	When reporting on risks related to data governance & ethics and depending business processes the organization should describe whether: • The risk associated with data is examined to ensure an appropriate level of data risk aligns with the overall risk appetite;

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	• Not using available data for the benefit of manage operational risks, such as financial risks, safety data and new types of customer organizations is examined; • Lack of trustworthy or business relevant data impacts the ability to carry out critical organizational functions; • Decision making on data meets ethical standards and counteract bias, discrimination or profiling.

Data governance & ethics – topic disclosures

An organization is expected to compile information regarding the management of data governance & ethics and provide figures regarding the occurrence of data breach events and the impact for the reporting organization and its supply chain.

Disclosures IT topic data governance & ethics	
DATA-1	**Data strategy is aligned to data management**
DATA-2	**Employees are aware of the safe use and protection of the organization's data assets.**
DATA-3	**Algorithmic systems and other decision supporting systems are controlled.**
DATA-4	**Data is classified based on criticality/sensitivity.**

When compiling the information specified in the disclosures, the reporting organization shall include the following requirements.

Requirements	
Topic data governance & ethics	
DATA-1.1	**The organization shall report on the way it aligns its data strategy and data management.**
DATA-2.1	**The organization shall report on activities to promote awareness on data governance & ethics.**
DATA-3.1	**The organization shall report the control activities concerning the use of algorithmic and other decision supporting systems.**

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DATA-4.1	The organization shall report on data classification policies and procedures and what measures are applied based on the classified criticality/sensitivity of the information.

When reporting on its approach of data governance & ethics the reporting organization should apply the following guidance.

Guidance	
Topic data governance & ethics	
DATA-1.1a	When reporting on the way it connects data governance to data management the organization should describe the way the governing body and management teams work together to implement the policy to support the organizational data strategy and take value, risk and constraints concerning the collection, storage, reporting, decision making, distribution and disposal of data into account.
DATA-1.1b	When reporting on governance of data management the organization could describe the way it manages the quality of transaction data, product data and business master data through: • data operations processes that focus on data quality and the usage of data, including data architecture management, data design and data processing; • data quality monitoring defining a systematic approach to assess the levels of data quality, including data quality planning, data quality criteria setup and data quality measurement; • data quality improvement processes, including data stewardship and data flow management, data error cause analysis and data error correction.
DATA-1.1c	The reporting organization could provide information regarding, if any, performed ongoing and/or separate evaluations (by internal audit or external audit) of the effectiveness of controls related to data management and ethics, and the follow-up to findings addressing nonconformities, their causes and the verification of the actions taken on these findings.
DATA-2.1a	When reporting on data governance & ethics awareness and information campaigns the organization should describe: • the regular data governance & ethics awareness and information campaigns it has in place to inform all employees in the organization; • the safe use and protection of the organization's data assets, IT systems and the data governance & ethics (and other) risks employees should be aware of, including GDPR non-compliancy, fundamental human rights,

	possible internal or external violations and their role in mitigating data governance & ethics breaches;
	• mandatory training for newcomers on data governance and training on data ethics;
	• specific training for senior management on data governance & ethics;
	• If the Intranet site has a dedicated section on data governance & ethics topics, guidelines and best practices, including a (whistle blower) hotline to report any issues.
DATA-3.1a	The organization should describe how the organization has performed an assessment on:
	• the impact of its algorithmic systems, in line with the criticality of the area to be protected and the data processed, to assess its broader societal impact (e.g., impact beyond the individual (end)user, such as potentially indirectly affected stakeholders) and the steps the organization has taken to counteract identified risks;
	• the legal compliancy of the algorithmic system and its underlying technology.
DATA-3.1b	When reporting on the use of algorithmic systems the organization should describe how:
	• The organization has involved stakeholders that are impacted by the algorithmic system during development and implementation;
	• The organization has considered the task allocation between the system and humans for meaningful interactions and appropriate human oversight and control;
	• The organization has implemented an appropriate level of human control to control the risks of the algorithmic system and its outcomes;
	• The organization implemented measures to ensure fairness, transparency in profiling and traceability of the algorithmic system;
	• The organization measures, mitigates and monitors regularly how the model performs against prohibited discrimination grounds (including how this monitoring is performed);
	• How the organization regularly monitors the outcome of the algorithmic system against bias.
DATA-4.1a	When reporting on data classification the organization should describe whether:
	• The organization maintains documented, approved and enforced data classification policies and procedures, describing how to classify information based on confidentiality, integrity, availability and legal/ regulatory requirements (e.g. data protection);

	• Clear owners of the information (categories) are determined, to properly conduct the data classification; • Data classification policies and procedures describe what control measures are applied based on the classified criticality/sensitivity of the information.

Topic NRI-3 Outsourcing

Scope

Outsourcing means an arrangement in the form of a <u>business relationship</u> of any form between an organization and a service provider by which that service provider performs a process, a service or an activity that would otherwise be undertaken by the organization itself (ref: <u>EBA</u>). Reasons for organizations to use outsourcing can include managing their cost, transfer risks, obtain access to scarce knowledge or realize strategic business objectives.

Outsourcing is an important means to optimize <u>value chains</u> across organizations, where comparative advantages in terms of economies of scale and use of scarce resources or knowledge can be shared between organizations. In today's world where digitization enables seamless connectivity between organizations, their ecosystem partners, clients and <u>suppliers</u>, outsourcing has become a common way to manage <u>supply chains</u>, build market platforms and other types of business models. As the business processes and/or functions that are outsourced often rely on IT regarding continuity and security, this standard focuses on the management of outsourced services and processes for an IT perspective. Meaning that in this NRI outsourcing is regarded to entail the IT aspects of the outsourced services and processes.

Looking at (the IT aspects of) outsourcing in the context of optimizing an organizations <u>value chain</u> it is important to note that where tasks and processes can be outsourced, the responsibilities that an organization has towards its <u>stakeholders</u> cannot. This requires the outsourcing party to establish appropriate oversight over its providers of outsourced services. And to assess and monitor risks related to outsourcing, perform <u>due diligence</u> as well as monitoring of the overall performance in terms of strategic value and financial and operational outcomes.

In certain sectors outsourcing is bound to specific supervisory regulations. Where regulatory requirements apply, these requirements should be regarded as a minimum level in the reporting of organizations and be regarded as integral part of the reporting requirements.

Governance of outsourcing is seldom the sole domain of the IT function. Due to the possibilities it offers to achieve strategic advantages and/or financial benefits most organizations that have reached a certain level of maturity often treat outsourcing as a strategic means, involving appropriate levels of management to oversee and steer it. This includes organization wide competencies (such as business, finance, compliance, legal, risk, IT, IT risk) across various lines of defense. For the purpose of reporting on the management of IT topics the involvement of all these disciplines is in scope, provided they are applicable to processes or services that the organization has outsourced or is looking to outsource in the foreseeable future.

The management of the IT topic outsourcing is addressed in section 1 "Management of IT topics" specifying "IT Organization and governance" and "Risk management". The requirements regarding

specific roles, responsibilities and accountability for outsourcing are to be defined in this IT topic outsourcing as a result of the disclosure "MGT–1.1: IT organization and governance".

In the context of this standard the generic aspects for IT organization and governance are described at the level of the "Management of IT topics". The reporting organization can decide to describe the topic specific aspects of "IT Organization and governance" in the paragraph about "Management of IT topics" or can describe this at the IT topic outsourcing.

The risk management aspects of outsourcing, as part of the enterprise risk management, are addressed in the "IT Risk management". Although the conditions for the risk management for outsourcing are set by "IT Risk management" and fulfilled, it is important that the monitoring of the outsourcing provides risk relevant information to the "IT Risk management" processes as well. This is part of the reporting on IT topic outsourcing.

The report section on outsourcing should contain a separate scope paragraph where the scope of outsourcing is included. It is recommended to report this scope from the (wider) business view on outsourcing of the reporting organization rather than limit it to the IT perspective of outsourcing. The scope paragraph should include clarification that the report on the management of IT covers the past year and the current year.

For the structure of IT reporting about outsourcing three aspects are distinguished that, including their interrelationships, are used to describe a resilient outsourcing management system:

- Oversight and evaluation: describes how outsourcing is overseen and managed, how outsourcing opportunities are identified, how the overall value and other objectives of outsourcing are monitored and evaluated, and how the outsourced services portfolio is connected to the rest of the organization;
- Implementation and completion: describes the evaluation and selection of (candidate) providers, the contracting of the services and the subsequent implementation of the outsourced services, as well as the decommissioning of the services upon completion or termination of the outsourcing;
- Operation & monitoring: describes the delivery of services, including the connections (interfaces and handovers) with the rest of the organization, and service management.
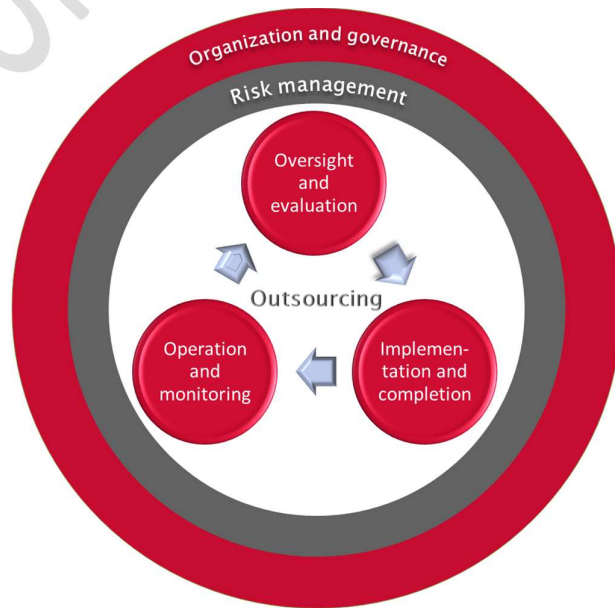
Outsourcing – disclosures on the management of the topic

An organization that has determined outsourcing of processes or services to be a material topic in the use and management of IT is required to report how it manages the topic using Appendix A (see requirement MGT-OUTS-1.1 in this section).

This section is therefore designed to **supplement** – and not replace – requirements in Appendix A and section 1: Management of IT topics.

Requirements	
Outsourcing	
MGT-OUTS-1.1	**The reporting organization shall report how it manages outsourcing using requirements in Appendix A and the context and scope of the outsourcing in addition to 'Management of IT topics' 1.1.**
MGT-OUTS-1.2	**The reporting organization shall describe how it manages risks related to its outsourcing of processes and services in addition to 'Management of IT topics' 1.2.**

Guidance	
Management of IT topic outsourcing	
MGT-OUTS-1.1a	The reporting organization should describe the internal and external context and considers: • stakeholders and their relevant requirements; • legal and regulatory requirements; • mission, goals and internal and external obligations; • the parts of the organization that are impacted by outsourcing; • products, processes and/or services that are included.
MGT-OUTS-1.1b	The reporting organization should describe the integration of outsourcing as a tool of management in the overall value chain of the organization considering: • impact on customer experience including their human rights; • impact on (IT) employees and other workers, including their human rights; • impact on the organization's ecosystem; • approval by governance bodies; • scope limitations and exclusions. The organization could report on:

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	• communication with relevant <u>business partners</u>; • documented outsourcing policy; • reviewed in conjunction with the organization strategic goals and objectives.
MGT–OUTS–1.1c	The reporting organization should report on the roles and responsibilities regarding outsourcing of (IT) <u>employees</u> and other <u>workers</u>, including management and <u>governance bodies</u>, which are documented and implemented in order to support the (IT) Strategic objectives. The organization could report on: • IT and information security key roles, such as Chief Information Officer (CIO's), Chief Operating Officer (COO) and Chief Information Security Officer (CISO), and whether these are well supported and have adequate access to the management body in order to escalate IT topics when needed. • whether the organization maintains a register of outsourcing parties and outsourced processes and services. • whether the outsourcing policy defines roles and responsibilities, as well as competencies required to monitor and manage the risks from the IT outsourced service.
MGT–OUTS–1.1d	The reporting organization could describe the results from analyzing the monitoring information regarding outsourced processes and services, such as service level reporting, performance/value management, incident information, contract management topics, etc., regarding points of improvement and which of them have been implemented in the <u>reporting period</u>.
MGT–OUTS–1.2a	The reporting organization should report how it identifies, assesses, monitors and manages all risks related to outsourcing, where it could consider the IT related risks regarding the outsourced processes and services from angle of the following risk domains: • cyber security risks; • operational risks; • continuity risks; • data related risks such as confidentiality, integrity, availability and portability of data; • compliance risks, e.g. with applicable regulatory requirements, including data privacy; • governance risks; • legal risks, including the contractual arrangements;

	- how it assesses the risk that outsourcing <u>impacts</u> the experience by the customer; - third-party risks; - financial risks.

Outsourcing - topic disclosures

If an organization, when reporting in conformity with this standard, uses outsourcing of processes or services where these are supported by IT it is expected to compile information regarding the management of outsourcing, at least from a perspective of the IT support of these processes or services, and provide information about the <u>impact</u> the outsourcing has for the reporting organization and its demand and <u>supply chain</u>.

Disclosures Outsourcing	
OUTS-1	**Outsourcing is governed and managed and the value and other overall objectives of outsourcing are monitored and evaluated.**
OUTS-2	**Candidate providers for outsourcing of processes and services are selected, evaluated (to determine preferred candidate) and services are contracted, implemented and (eventually) terminated based on identified requirements;**
OUTS-3	**The delivery of services is managed based on identified requirements, including the connections (interfaces and handovers) with the rest of the organization, and service management;**

Requirements	
Topic Outsourcing	
OUTS-1.1	**The organization shall report how it conducts ongoing oversight over its outsourcing portfolio, including the ongoing evaluation of the overall outsourcing performance against objectives.**
OUTS-2.1	**The reporting organization shall report on its processes, policies and procedures for the initiation, implementation and termination of outsourcing.**
OUTS-3.1	**The reporting organization shall report on its policies and procedures on the ongoing monitoring of the performance of outsourced processes and services. This includes responding to occurrences (e.g. incidents) and other service management aspects.**

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Guidance	
IT topic Outsourcing	
OUTS-1.1a	The organization should describe how it handles, in the context of its outsourcing ambitions, the following topics: • its outsourcing strategy, which includes alignment with the overall organization strategy; • the outsourcing governance, which includes decision making by <u>senior executives</u> and involvement of <u>governance bodies</u>.
OUTS-1.1b	The organization could describe how it handles, in the context of its outsourcing ambitions, the following topics: • value management; • organizational change management; • people management; • service level management and contract management; • incident management; • knowledge management; • technology management; • threat management.
OUTS-1.1c	The organization could describe how it handles the following topics: • the identification of outsourcing opportunities to realize strategic goals by outsourcing processes and/or services to external service providers • its outsourcing approach, which includes the types of outsourcing considered, the business case approach, the <u>impact</u> and risk analyses and decision making process; • its outsourcing planning, which includes the sourcing implementation plan; • communication to stakeholders about (changes in) the portfolio of outsourced services.
OUTS-1.1d	The organization should describe its portfolio of planned and realized outsourced services, stipulating the services that have been initiated, transferred or terminated during the reporting period.
OUTS-2.1a	The organization should describe how it handles the initiation of outsourcing. This could include: • setting requirements for outsourcing opportunities;

	• identifying candidate providers; • selection criteria, including sustainability topics (ESG); • selecting providers, including due diligence; risk assessment of outsourcing opportunities; establishing outsourcing agreements.
OUTS-2.1b	When reporting on its approach of initiating outsourced services, if applicable in the reporting period, the organization should describe how it handles the service transfer. This should include: • if applicable, the possible transfer of employees and other workers, including their human rights. This could include: • the planning and design of the transfer activities; • the possible transfer of staff and assets and the related legal and change management procedures; • the communication aspects related to the start of the services by the outsourcing provider.
OUTS-2.1c	The organization should describe, when applicable, how it adheres to the regulatory requirements for outsourcing. This could include describing how it provides for the following items in the agreements with outsourcing providers: • direct audit rights at the provider; • direct access by supervising / regulating bodies to the provider (if applicable); • availability, integrity and security of data and information; • appropriate exit plans in case of planned/unplanned termination.
OUTS-2.1d	The organization should describe, when applicable, how it handles the following topics: • decommissioning of the service in general; • the (re-)transfer of workers including their human rights; • the continuity of the business process supported by the outsourcing.
OUTS-2.1e	The organization could describe how it handles the following topics: • the (re-)transfer of assets and data; • documentation and archiving of the results of the termination efforts; • fulfilment of contractual, compliance and regulatory obligations.

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OUTS-3.1a	When reporting on its approach of managing operational outsourced processes and services (if any) the organization should describe how it handles service management. This could include the following topics: • performance monitoring of the processes and services; • financial management; • agreement management; • incident management; • managing changes.
OUTS-3.1b	The organization should describe, if applicable in the reporting period, how it obtains assurance over the outsourced processes and services, e.g. through Service Organization Control reports or other types of reporting.
OUTS-3.1c	The organization could describe how it applies, based on the outcomes of ongoing monitoring of the performance, and potential changes on the demand side of the processes and services, a change cycle, e.g. according to plan-do-check-act.

Topic NRI 4 – IT Topic Cybersecurity

Scope

Cybersecurity is primarily concerned with *[Source ISO 27100:2018]* safeguarding of people, society, organizations and nations from cyber risks. Cyber risks occur where digital interaction takes place among organizations and people with public or private entities take place, including formal and informal interactions. Therefore, cybersecurity differs from information security by perspective and concerns while they are closely related. Information security addresses maintaining the confidentiality, integrity and availability of information while cybersecurity focuses on managing cyber risks that can have <u>impact</u> on environment, humans and economy and is not only restricted to information.

Any interaction made possible through cyberspace potentially has a near-instantaneous <u>impact</u> anywhere in the world and could <u>impact</u> organizations. The interaction with other entities and <u>business partners</u> through cyberspace and the dependencies on this interaction for the reporting organization, result in the necessity to have a fair view on cyber risks in <u>business relationships</u>. Therefore, the effectiveness of cybersecurity depends on the level of cybersecurity throughout the <u>value chain</u> of closely operating <u>business partners</u>. It is the responsibility of the reporting organization to control its connections and activities in cyberspace, perform <u>due diligence</u> and contribute to the cybersecurity of the <u>value chain</u> of <u>business partners</u> on which it relies for achieving its business objectives.

The objective of adequate cybersecurity is *[Source ISO 27100:2018]* to maintain an acceptable level of stability, continuity and safety of <u>business partners</u> and people operating in cyberspace. For current business and future development it is important that the organization proofs to be a valuable and trusted partner in <u>business relationships</u> and determines in its <u>due diligence</u> the potential <u>impact</u> that cyber risks, if not adequately addressed by the organization and its <u>business partners</u>, may have a negative effect on economy, environment, and people, including <u>impacts</u> on their <u>human rights</u>.
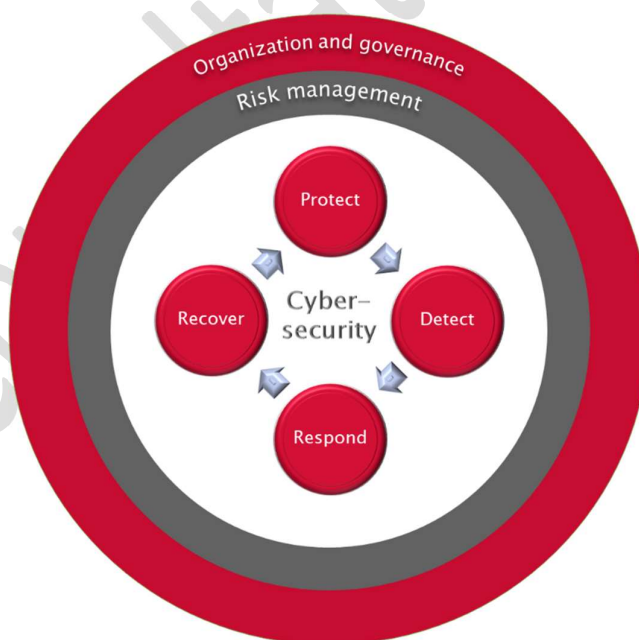
Given the constraint that the reporting organization needs to realize this objective against affordable cost, several <u>stakeholders</u> are interested in the decision making and level of cybersecurity of the organization. While it is not possible to always achieve this objective, cybersecurity aims to reduce cyber risks to an acceptable level. Although cybersecurity is a goal for the reporting organization as a whole, IT provide numerous services to <u>mitigate</u> (<u>impacts</u> from) cyber risks. In this reporting initiative the scope is management of IT regarding cybersecurity, although this should be aligned with the corporate strategy that covers cybersecurity from an enterprise perspective. This alignment is addressed in disclosures MGT-CYBER-1.1 and MGT-CYBER-1.2. If such a corporate strategy does not exist, this reporting initiative still provides a reporting standard to inform stakeholders.

The IT management determines the identified goals for the department regarding cybersecurity based upon the strategic goals of the reporting organization.

The management of the IT topic cybersecurity is addressed in section 1 "Management of IT topics" specifying "IT Organization and governance" and "Risk management". The requirements regarding specific roles, responsibilities and accountability for cybersecurity are to be defined in this IT topic cybersecurity as a result of the disclosure "MGT-CYBER-1.1: IT organization and governance". In the context of this standard the generic aspects for T organization and governance are described at the level of the "Management of IT topics". The reporting organization can decide to describe the topic specific aspects of "IT Organization and governance" in the paragraph about "Management of IT topics" or can describe this at the IT topic cybersecurity.

The risk management aspects of cybersecurity, as part of the enterprise risk management, are addressed in the "IT Risk management". Although the conditions for the risk management for cybersecurity are set by "IT Risk management" and fulfilled, it is important that the monitoring of the cybersecurity provides risk relevant information to the "IT Risk management" processes as well. This is part of the reporting on IT Topic Cybersecurity.

A separate scope paragraph, in the report from the reporting organization, should describe how the scope of cybersecurity is included in this report on the management of IT. It is recommended to report on the cybersecurity of the reporting organization rather than limit it to the IT responsibilities. Furthermore it is, given the implicit attribute of cyber risks to have potential impact for everyone connected to cyber space, necessary to identify the scope from a demand and supply chain perspective as well. Especially for the IT topic cybersecurity, the reporting organization needs to be aware that sharing information about the cybersecurity status can imply an increase of vulnerability. As business partners should be adequately informed the reporting organization should determine the level of required detail to inform other stakeholders in general. If requirements are not addressed in the report, it is required to specify this in the GRI content index (if GRI is used), and provide a reason for omission with an explanation according to GRI-3 "Using this Standard". The scope paragraph should include clarification that the report on the management of IT covers the past year and the current year.

The following elements of cybersecurity are the foundation to address relevant controls and their interrelationship to build, operate and maintain a resilient cyber security management system:
- Protect for cyber risks;
- Detection of potential threats;
- Respond to a cyber incident;

- Recover from a cyber incident.

Cybersecurity – disclosures on the management of the topic

An organization reporting in accordance with the GRI Standards is required to report how it manages each of its material topics. An organization that has determined Cybersecurity practices to be a material topic in the domain of the use and the management of IT is required to report how it manages the topic using Appendix A (see requirement MGT–CYBER 1.1 in this section).

This section is therefore designed to **supplement** – and not replace – the disclosures determined using Appendix A and the Management of IT topics.

Requirements	
Management IT topic Cybersecurity	
MGT–CYBER–1.1	**The reporting organization shall report how it manages cybersecurity using Appendix A and the context and scope of the cybersecurity management in addition to 'Management of IT topics' 1.1.**
MGT–CYBER–1.2	**The reporting organization shall report how it manages (potential) cyber risks in addition to Management of IT topics 1.2.**

Guidance	
Management IT topic Cybersecurity	
MGT–CYBER–1.1a	The scope description should include the context of the cybersecurity management system considering: • business activities, product and/or services that are potentially impacted by cyber risks; • its relation with other entities that operate in the same cyberspace for which the organization is dependent regarding its own continuity and protection of assets and resources; • applicable law and specific regulatory requirements; • the intended readers of the report; • disclaimer: cyberspace is constantly evolving and a complex environment with public components and other people and entities attached.
MGT– CYBER–1.1b	The reporting organization could describe the integration of the cybersecurity with the information security in the organization considering: • top management approval;

	• scope including limitations and exclusions; • communication with relevant <u>business partners</u>; • documented cybersecurity management policy; • reviewed in conjunction with the enterprise information security and (IT) continuity management policy and planning.
MGT– CYBER–1.1c	The reporting organization could describe the cybersecurity policy and plan considering: • accountability for the cybersecurity management; • current cyber risk posture; • resource availability in terms of timely, quality and quantity; • awareness and training; • testing the effectiveness; • potential costs and benefits; • technological limitations and/or opportunities; • involved <u>business partners</u> and (security) service providers; • identified regulatory obligations.
MGT– CYBER–1.1d	The reporting organization could report the results from analyzing the monitoring information regarding protection safeguards, detecting potential cyber risk events, responses to occurred incidents and executed recoveries regarding points of improvement and which of them have been implemented in the <u>reporting period</u>.
MGT– CYBER–1.2a	The reporting organization should describe the integration of the cyber risk management in the enterprise risk management process in addition to Management of IT topics 1.2 considering: • determined critical IT; • (cyber related) threats and vulnerabilities; • results from impact analysis; • cyber risk monitoring; • options for protection, resilience, recovery and restoration; • risk responses; • role and responsibilities in the demand and supply chain; • maintaining sufficient IT cybersecurity skills and knowledge • legal and regulatory requirements regarding cybersecurity and cyber risk management including civil liberties obligations
MGT– CYBER–1.2b	The reporting organization could describe the goals and the changes in cyber risks, and/or cybersecurity management, compared to the former <u>reporting period</u> considering: • identification of new critical IT; • new identified threats;

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	• potential <u>impacts</u> of identified threats for critical IT; • the organization's risk appetite; • technical requirements (segmentation, back-up, encryption, outsourced etc.).
MGT- CYBER-1.2c	The reporting organization could also report about: • the interaction with the public authorities regarding occurred cybersecurity events and the follow-up by the reporting organization;

Cybersecurity - topic disclosures

An organization is expected to compile information regarding the management of cyber risks and figures regarding the occurrence of cyber risk events and the <u>impact</u> for the reporting organization and its demand and <u>supply chain</u>.

Disclosures IT topic cybersecurity	
CYBER-1	**Developed and implemented safeguards to ensure sufficient delivery of products and services that limit or contain the <u>impact</u> of a potential cybersecurity event.**
CYBER-2	**Identified occurrence of cybersecurity events in a timely fashion.**
CYBER-3	**Appropriate actions regarding detected cybersecurity events to sufficiently contain the <u>impact</u> of these events.**
CYBER-4	**Maintained and tested plans for resilience and to restore any capabilities or services that were impaired due to cybersecurity events.**

Requirements	
IT Topic Cybersecurity	
CYBER-1-1	**The reporting organization shall report the status of, and the activities for, protection safeguards that limit cyber risks.**
CYBER-2-1	**The reporting organization shall report the activities for detecting cyber risk events timely.**
CYBER-3-1	**The reporting organization shall report the activities with regards to the response on cyber risk incidents.**

CYBER-4-1	**The reporting organization shall report the activities to recover from cyber risk incidents and the impact on:** • **business partners;** • **economy;** • **environment and /or ;** • **people, including impacts on their human rights.**

Guidance	
Topic Cybersecurity	
CYBER-1-1a	The reporting organization should describe how its access control establishes that: • employees, business partners and other involved external persons and workers are aware, informed and managed for securing access to critical IT; • identities and credentials are managed for authorized devices and users including secure authentication of users; • physical access and remote access (including for maintenance purposes) are managed and protected; • the organization manages access permissions by using the principles of least privilege and segregation of duties; • the network integrity is protected, including network segregation as appropriate.
CYBER-1-1b	The reporting organization should describe how it manages that: • all users are informed and trained and; • roles and responsibilities of senior executives, privileged users, employees and other workers and third party stakeholders (e.g. suppliers, customers, business partners) towards both physical security and information security are understood.
CYBER-1-1c	The reporting organization should describe how it establishes that: • data at rest is protected; • data-in-transit is protected; • assets are formally managed through removal, transfers and disposition; • capacity is planned to ensure availability. The organization may describe its activities regarding: • data leakage protection; • integrity checking mechanisms to verify software, firmware, and information integrity; • protection of communications and control networks;

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	• securing logfiles.
CYBER–1–1d	The reporting organization could report on the system development life cycle to manage systems and could report on the change control process. The organization may include in the description the use of separate environments for at least development, test and production and specific controls regarding the change control using these separate environments.
CYBER–1–1e	The reporting organization should report on the patch management process. The organization could report about: • identification of patch sensitive software and assets; • routine patching; • emergency patching; • emergency mitigation; • unpatchable assets (if any); • patch management security impact and controls; • impact for maintenance plans.
CYBER–1–1f	The reporting organization should report on the backup strategy and activities to ensure that backups are conducted, secured, maintained and tested periodically.
CYBER–1–1g	The reporting organization could report on the monitoring of the effectiveness of the protective controls and on the process improvements as result of this monitoring, including the communication about the status of the protective controls with appropriate partners and management.
CYBER–2–1a	The reporting organization should report on the detection controls. The organization may report on: • implemented audit / log records; • installed logging of sensors, and their review; • changes in critical business applications, data and databases; • changes in digital infrastructure; • tested detection processes and the results; • the required and available skills and competencies for analyzing logs; • involvement of third party services; • the use of Security information and event management solutions; • enabling technologies and/or equipment.
CYBER–2–1b	The reporting organization could report on the analytical use of logging to identify and understand attack targets and methods.

	The organization may report about: • the involvement of an internal or external provided Security Operations Centre; • the type and volume of identified hacks during the <u>reporting period</u>; • setting thresholds based upon the outcome of the risk management process; • addressed threats in conjunction with connected partners.
CYBER–2–1c	The organization should report about the monitoring, and could report on: • monitoring for unauthorized access to connections, devices and software; • external service provider activity; • malicious code.
CYBER–2–1d	The reporting organization may report on detected events with identified potential <u>impact</u> and follow–up considering the <u>impact</u> on: • business partners; • economy; • environment; • people, including impacts on their human rights.
CYBER–2–1e	The reporting organization could report on their activities for vulnerability management. The organization may report on performed vulnerability scans including follow up, status of <u>mitigation</u> and the involvement of appropriate partners.
CYBER–2–1f	The reporting organization could provide information regarding, if any, performed ongoing and/or separate evaluations (by internal audit or external audit) of the effectiveness of detection controls and the follow–up to findings addressing nonconformities, their causes and the verification of the actions taken on these findings.
CYBER–3–1a	The reporting organization should report the response planning, and testing the effectiveness of these plans in practice, including the collaboration with appropriate partners and relevant business <u>partners</u>.
CYBER–3–1b	The reporting organization should report on the response process for incidents that have arisen. The organization could report on: • the investigation of notifications from the detection system(s);

	• the categorization of incidents with identification of their (potential) <u>impact</u>;
	• the involvement of <u>employees</u> and other <u>workers</u> and appropriate <u>business partners</u> with their responsibilities, role and order of operations when an incident occurs;
	• the security during the disruption caused by an incident;
	• the collection of evidence;
	• the containment of incidents;
	• the <u>impact</u> on:
	○ business partners;
	○ economy;
	○ environment;
	○ people, including <u>impacts</u> on their <u>human rights.</u>
CYBER-3-1c	The reporting organization could report on the information communicated regarding the execution and results of responses. The organization can make this specific for: • informing top management including <u>governance bodies</u>; • informing involved <u>employees</u> and other <u>workers</u>; • information provided to <u>business partners</u> and other <u>stakeholders</u>; • information provided to oversight bodies and/or supervisory entities.
CYBER-3-1d	The reporting organization may report about occurrences of executed response plans, their effect, <u>impact</u> and identified (potential) improvements.
CYBER-3-1e	The reporting organization could provide information regarding, if any, performed ongoing and/or separate evaluations (by internal audit or external audit) of the response processes and the effectiveness in practice.
CYBER-4-1a	The reporting organization should report on the process to restore its IT after incidents.
CYBER-4-1b	The reporting organization may report about: • period of unavailability; • data loss; • financial <u>impact</u> for recovering ; • the wider economic <u>impact</u>; • <u>impact</u> on humans.
CYBER-4-1c	The reporting organization may report on occurrences of executing response plans, their effect and <u>impact</u>.

CYBER-4-1d	The reporting organization could provide information regarding the communication of executing restore plans and can make that explicit for: • improvements of the process to be addressed by the top management; • dependencies from <u>business partners</u>; • the joint efforts in the relevant <u>supply chain</u> to limit the <u>impact</u> of incidents;
CYBER-4-1e	The reporting organization could provide information regarding, if any, performed ongoing and/or separate evaluations (by internal audit or external audit) of the recovery processes and the effectiveness in practice.

Topic NRI 5 – IT Continuity Management

Scope

Business Continuity Management can be defined as the management system that provides the capability of an organization to continue the delivery of products and services within acceptable time frames at predefined capacity during a disruption. *[ISO 22300:2018]*.

Failures of IT services do have an increasing <u>impact</u> on the continuity of business operations. As critical business functions, that require business continuity, are generally reliant on IT the management of IT regarding continuity and security becomes a key part of the enterprise continuity management. Separate from the <u>impact</u> on the organization, unavailability of IT may have a negative effect on the wider economy, environment, and people, including <u>impacts</u> on their <u>human rights</u>.

Given the constraint that the reporting organization needs to realize these objectives against affordable cost and continuity management of IT contributes to the business continuity of the organization, several <u>stakeholders</u> are interested in the decision making and level of control over IT continuity by the organization.

The objective of business continuity management is to protect against, reduce the likelihood of the occurrence of, prepare for, respond to and recover from disruptions when they arise. Although business continuity management is a goal for the reporting organization as a whole, IT provide numerous of services to <u>mitigate</u> the risks for unavailability of the IT that has <u>impact</u> on critical business functions. IT continuity management should be part of the business continuity management of the reporting organization. A business continuity management system can effectively protect against harm to humans, assets and environment and can limit costs that arise from disruptions. Furthermore it can contribute to competitive advantages by continuing operations during disruptions, resilience of the organization and trust of <u>stakeholders</u> in the operations of the organization.

The IT management determines the identified goals from strategic management of the reporting organization regarding IT continuity. As a consequence the reporting requirements in this standard need to be made specific for the organization within the scope of the reporting.

The management of the topic IT continuity management is addressed in the section 1 "Management of IT topics" specifying "IT Organization and governance" and "Risk management". The requirements regarding roles, responsibilities and accountability for IT continuity management are to be defined in this IT topic IT Continuity management as a result of the disclosure "ITCM-1: T Organization and governance". In the context of this standard the generic aspects for IT organization and governance are described at the level of the "Management of IT topics". The reporting organization can decide to describe the topic specific aspects of "IT

Organization and governance" in the paragraph about "Management of IT topics" or can describe this in the IT topic IT Continuity management paragraph.

The IT risk management, as part of the enterprise risk management, covers the specific risks involved with this topic. For T continuity management the disclosures and requirements have been determined under the assumption that generic IT risk management attributes are addressed in the "2 – IT Risk management". Although the conditions for the risk management for continuity of IT are set by "IT Risk management" and fulfilled, it is important that the monitoring of the IT continuity measures provides risk relevant information to the "IT Risk management" processes as well. This is part of the Topic IT Continuity management.
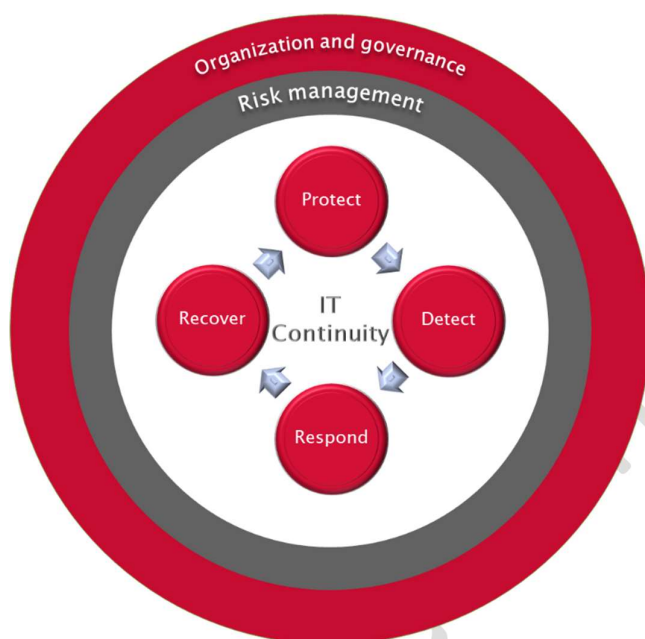
A separate scope paragraph, in the report from the reporting organization, should describe how the scope of IT continuity is included in this report on the management of IT. It is recommended to report on the business continuity of the reporting organization rather than limit it to the IT responsibilities.

Furthermore it is, given the implicit attribute of non-availability of IT to have potential impact for business processes and humans, necessary to identify the scope from a demand and supply chain perspective as well.

If requirements are not addressed in the report it is required to specify this in the GRI content index (if GRI is used), and provide a reason for omission with an explanation according to GRI-3 "Using this Standard". The scope paragraph should include clarification that the report on the management of IT covers the past year and the current year.

For IT continuity management the following aspects are important to address relevant controls and their interrelationship to build, operate and maintain a resilient IT continuity management system:

- Protect for disruptions;
- Detection of potential threats;
- Respond to an incident;
- Recover from unavailability.

IT continuity management – disclosures on the management of the topic

An organization reporting in accordance with this NRI is required to report how it manages each of its material IT topics. An organization that has determined IT continuity practices to be a material IT topic in the use and management of IT is required to report how it manages the topic using Appendix A (see requirement MGT-ITCM 1.1 in this section).

This section is therefore designed to **supplement** – and not replace – the disclosures determined using Appendix A and section 1: Management of IT topics.

Requirements	
IT Continuity management	
MGT-ITCM 1.1	**The reporting organization shall report how it manages IT continuity using Appendix A and the context and scope of the cybersecurity management in addition to 'Management of IT topics' 1.1.**
MGT-ITCM 1.2	**The reporting organization shall report how it manages risks related to intention and unintentional disruptions of the IT and depending business processes in addition to Management of IT topics 1.2.**

Guidance	
IT Continuity management	
MGT-ITCM-1.1a	The reporting organization should include the internal and external context of IT continuity management and could consider: • stake holding parties and their relevant requirements; • legal and regulatory requirements; • mission, goals and internal and external obligations; • the parts of the organization that are included in the IT continuity management; • the dependency on the IT continuity of other entities; • products and/or services that are included; • the intended readers of the report; • disclaimer: 100% IT availability cannot be achieved at acceptable cost.
MGT- ITCM-1.1b	The reporting organization should describe the integration of the IT continuity management with enterprise business continuity management (if available) considering: • top management approval; • scope including limitations and exclusions;

	• communication with relevant <u>business partners</u>; • <u>supply chain</u> initiatives; • documented IT continuity policy; • reviewed in conjunction with the enterprise continuity management policy and planning.
MGT– ITCM–1.1c	The reporting organization could describe the IT continuity policy and continuity plan considering: • accountability for the IT continuity management; • current IT continuity posture; • target state of continuity; • resource availability in terms of timely, quality and quantity; • awareness and training; • testing the effectiveness; • potential costs and benefits (affordability); • technological limitations and/or opportunities; • involved <u>business partners</u> in the continuity plan; • identified regulatory obligations.
MGT–ITCM–1.1d	The reporting organization could report the results from analyzing the monitoring information regarding protection safeguards, detecting potential disruption events, responses to occurred incidents and executed recoveries, regarding points of improvement and which of them have been implemented in the <u>reporting period</u>.
MGT–ITCM–1.2a	The reporting organization should report how it addresses risks related to intention and unintentional disruptions of the IT and depending business processes considering: • determined critical IT for which unavailability could have material impact on economy, human and/or environment; • identified threats that can have material impact on environment, human, societal and the IT demand and <u>supply chain</u>; • potential <u>impacts</u> of identified threats for critical IT; • options for protection, resilience, recovery and restoration; • monitoring the risk for disruption; • maintaining sufficient IT continuity skills and knowledge;
MGT–ITCM–1.2b	The reporting organization could describe the goals and the changes in IT continuity risks, and/or IT continuity management, compared to the former <u>reporting period</u> considering: • identification of new critical IT; • new identified threats;

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	• the organization's risk appetite; • identified RTO's and RPO's for critical IT services; • technical requirements (back-up, locations, sites, power, telecom, encryption, outsourced etc.).
MGT-ITCM-1.2c	The reporting organization could also report about: • the interaction with the public authorities regarding occurred cybersecurity events and the follow-up by the reporting organization;

IT continuity management – topic disclosures

An organization is expected to compile information regarding the management of availability risks and figures regarding the occurrence of disruptions and the impact for the reporting organization and its supply chain.

Disclosures IT continuity management	
ITCM-1	Developed and implemented appropriate safeguards to ensure disruptions are prevented.
ITCM-2	Disruptions are detected at the earliest stage to minimize the impact to IT services, reduce the recovery effort and maintain the quality of service.
ITCM-3	Appropriate response to disruptions to minimize downtime and allow effective and efficient recovery.
ITCM-4	Maintained and tested recovery strategy and process to ensure timely availability of services and to maintain the integrity of data.

Requirements	
Topic IT continuity management	
ITCM-1-1	The reporting organization shall report the implementation, status and activities regarding appropriate safeguards to ensure that disruptions are prevented or undesired effects are reduced.
ITCM-2-1	The reporting organization shall report the efforts regarding detection of (potential) disruptions.

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ITCM-3-1	The reporting organization shall report the efforts for responding to (potential) disruptions.
ITCM-4-1	The reporting organization shall report the recovery from disruptions with impact on: • business partners; • economy; • environment and/or; • people, including impacts on their human rights.

Guidance	
Topic IT Continuity management	
ITCM-1-1a	The reporting organization should describe its activities regarding the implementation of controls that provide protection safeguards for IT continuity: • back-up arrangements including use of external location(s) and storage off-site and testing the effectiveness; • access control including remote access and access by business partners and other external persons; • availability of sufficient expertise and competencies; • awareness and training specific for user groups defined by role and impact for availability including business partners; • specific resilience control measures in the change management process; • coordination with business partners. And could report on how it handles IT continuity in relation to: • data protection at-rest against unauthorized access and/or leakage during disruptions; • maintenance of the digital infrastructure; • technological solutions; • competency management.
ITCM-1-1b	The reporting organization could describe the results of the monitoring of the controls that provide protection safeguards and improvements that have been implemented to make these controls more effective.
ITCM-1-1c	The reporting organization may describe occurrences of controls providing protection safeguards being effective in preventing incidents and/or disruptions caused by deviation in the executing of the preventive controls.

ITCM-1-1d	The reporting organization could report on the communication regarding the setup and objective of controls within the organization and with the <u>business partners</u>. Including the sharing of detection information in the <u>supply chain</u>.
ITCM-1-1e	The reporting organization should provide information regarding, if any, performed ongoing and/or separate evaluations (by internal audit or external audit) of the effectiveness of controls that have the objective to provide protection safeguards.
ITCM-2-1a	The reporting organization should report on the detection controls. The organization could report on: • the required and available skills and competencies; • the involvement of the <u>supply chain</u>; • the identification and logging of anomalies and events that could cause (potential) disruptions. The organization may report on: • the (detected) changes in critical business applications, data and databases; • changes in supporting detection technology, equipment and networks; • enabling technologies and/or equipment; • redundancy applied in the IT to ensure continuity of IT services; • the documentation of potential disruptive events; • the communication and sharing of detective information in the <u>supply chain</u>.
ITCM-2-1b	The reporting organization could describe the results of the monitoring of detection controls. The reporting organization may report on: • the monitoring of the quality of detection data; • the changes in critical supporting IT systems identified by detection controls; • the follow-up on information from internal and external data sources describing events with potential effect on availability; • the analysis of the result of detection and subsequent improvements made to increase effectiveness of the detection; • the assessment of the identified events with potential effect on availability.
ITCM-2-1c	The reporting organization may report occurrences of detected incidents that could have caused disruptions with <u>impact</u> for critical assets and business processes considering the <u>impact</u> on: • business partners; • economy; • environment;

	• people, including impacts on their human rights.
ITCM-2-1d	The reporting organization could report how it communicates on the setup and objective of detection controls within the organization and with business partners.
ITCM-2-1e	The reporting organization could provide information regarding, if any, performed ongoing and/or separate evaluations (by internal audit or external audit) of the effectiveness of detection controls and the follow-up to findings addressing nonconformities, their causes and the verification of the actions taken on these findings.

ITCM-3-1a	The reporting organization should describe activities regarding the controls to respond to an IT service disruption or detection of one or a series of related events that became incidents.
	
	The reporting organization could report on:
	• the incident response plan;
	• identified strategies for response;
	• testing the incident response plan.
	
	And may report on:
	• the identification of severity and IT roles involved, including priority setting and timescales for availability;
	• the impact on:
	    ○ business partners;
	    ○ economy;
	    ○ environment and;
	    ○ people, including impacts on their human rights;
	• the implications from legal and compliance perspective;
	• access by third parties to render support during the response;
	• coordination with business partners.

ITCM-3-1b	The reporting organization could describe the results of the monitoring of the incident response process and controls considering: • documentation of incidents; • classification of the incidents; • applied strategies; • speed of reaction compared to the risk involved; • effectiveness of the incident response; • communication between involved employees and other workers, accountable management and (where applicable) business partners and other external organizations;

	• preparation for recovery.
ITCM-3-1c	The reporting organization may describe executed response plans and to what extent the responses effectively limited the <u>impact</u> of incidents and/or disruptions considering: • the identification of the incident; • <u>severity</u> identification including potential <u>impact</u> and identified response; • the response(s) made immediately, in real-time or in near real-time and whether investigation was involved; • follow-up on the response regarding the identified effect of the incident for the availability of IT and need for recovery; • review of the response and identification of lessons learned, cause analysis and (where needed) adjustment to the existing controls; • informing all parties (<u>employees</u>, <u>workers</u>, <u>business partners</u>, <u>suppliers</u>) involved and (potentially) affected.
ITCM-3-1d	The reporting organization could report on the communication regarding the setup and objective of the response process within the organization as well as with <u>business partners</u>. This can include sharing of incident and response information in the <u>supply chain</u>.
ITCM-3-1e	The reporting organization could provide information, if any, regarding performed ongoing and/or separate evaluations (by internal audit or external audit) of the effectiveness of incident response plans and processes.
ITCM-4-1a	The reporting organization should report on the process for recovery from IT service disruption(s). The reporting organization could report on: • its recovery plan; • identified renewal strategies; • involvement of resilience partners; • timelines for recovery; • and communication with involved management and <u>business partners</u>. And may report on: • availability of integer data in time and other information security requirements; • identifying the <u>impact</u> on business processes; • analysis and planning of activities to recover, their dependencies and the availability of necessary resources; • the restore process.

| ITCM-4-1b	The reporting organization may report recovery activities due to IT incidents with disruptive impact considering: • the impact of the incident and outcome of the response, within the organization, on its clients and within the demand and supply chain; • involved organizations executing the recovery plans; • impact on people, economy and environment; • impact on the organization and its business partners; • determined effectiveness of the recovery plan; • communication within the supply chain.
ITCM-4-1c	The reporting organization could report about the communication regarding the setup and objective of the recovery process within the organization and with the involved organizations, business partners, regulatory authorities and other stakeholders. The reporting organization may consider reporting about: • impact on people, economy and environment; • support from the reporting organization to affected victims. survivors and displaced residents; • how the business functions of responding organizations involved in the recovery activities were supported; • benefits for vulnerable groups / communities.
ITCM-4-1d	The reporting organization could provide information regarding, if any, performed ongoing and/or separate evaluations (by internal audit or external audit) of the effectiveness of recovery process and independent determination of the impact of incidents that caused disruption of the IT and had impact on critical business processes.

NRI 6 – IT Topic Privacy

Scope

Extensive and innovative uses of personal data bring greater economic and social benefits, but also increase privacy risks. The objective of Privacy is to protect the use of personal data processed by the organization, in line with its business goals, strategy and risk appetite and applicable to all <u>employees</u> and <u>stakeholders</u> who are <u>impacted</u> or could be <u>impacted</u> by the personal data processed by the organization.

Rapid technological developments and globalization have brought new challenges for the protection of personal data. The scale of the collection and sharing of personal data has increased significantly. Technology allows both private companies and public authorities to make use of personal data on an unprecedented scale in order to pursue their activities. Natural persons increasingly make personal information available publicly and globally. Technology has transformed both the economy and social life, and should further facilitate the free flow of personal data between countries and international organizations, while ensuring a high level of the protection of personal data and respecting the <u>human rights</u> of all natural persons involved.

For privacy the following aspects and their interrelationships are important to address to build, operate and maintain a resilient privacy management system:
- Create and maintain awareness in the organization;
- Classify data to identify personal data;
- Apply appropriate controls for processing of personal data.

The management of this topic is addressed in the section 1 "Management of IT topics" of this standard, specifying "IT Organization and governance" and "Risk management". The roles, responsibilities and accountability for privacy are to be defined in "IT Organization and governance". The IT risk management as part of the enterprise risk management covers the specific risks involved with this topic. The privacy disclosures and requirements have been determined under the assumption that generic IT risk management attributes are addressed in the "IT Risk management". Although the conditions for the risk management for privacy are set by "IT Risk management" and fulfilled, it is also important that the monitoring of the privacy provides risk
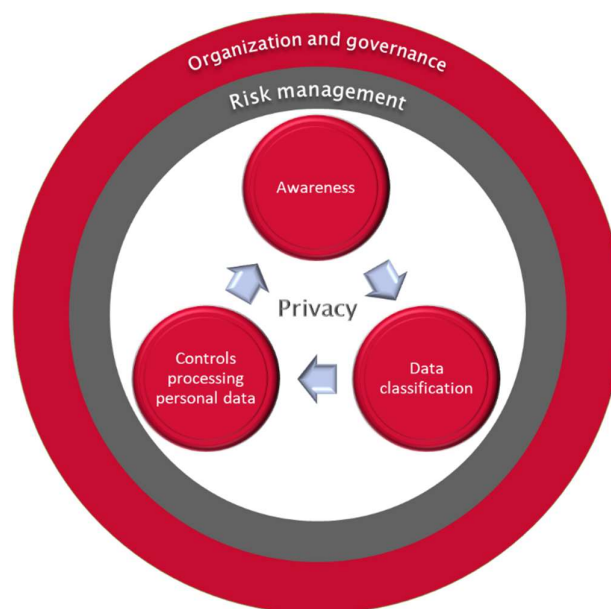
relevant information to the "IT Risk management" processes as well. This is part of the topic description of privacy.

A separate scope paragraph, should describe how the scope of privacy is included in this report on the management of IT. It is recommended to report on the privacy aspects of the reporting organization as a whole rather than limit it to the IT responsibilities. The scope paragraph should include clarification that the report on the management of IT covers the past year and the current year.

Privacy – disclosures on the management of the topic

An organization reporting in accordance with this NRI is required to report how it manages each of its <u>material IT topics</u>. An organization that has determined privacy to be a <u>material IT topic</u> in the domain of the use and the management of IT is required to report how it manages the topic using Appendix A and disclosure MGT-PVCY-1.1 in this standard).

This section is therefore designed to **supplement** – and not replace – the requirements in Appendix A and section 1: Management of IT topics.

Requirements	
Privacy	
MGT–PVCY–1.1	**The reporting organization shall report how it manages the integration of privacy management in the organization.**
MGT–PVCY –1.2	**The reporting organization shall report how it addresses risks related to privacy and depending business processes.**

Guidance	
Privacy	
MGT–PVCY –1.1a	The organization should describe how the scope of privacy applies to the (types of) personal data the organization collects, processes and maintains, whether in the public or private sectors, which, because of the manner in which they are processed, or because of their nature or the context in which they are used, pose a risk to privacy and individual liberties of data subjects.
MGT–PVCY –1.1b	The organization should describe how: • business strategic goals are realized by use of personal data; • the organization uses a privacy by design framework; • the organization has performed a data protection impact assessment (e.g. risk and impact of the use of personal data on the

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	rights and freedoms of data subjects, based on a <u>stakeholder</u> analysis);
	• the organization has defined objectives regarding privacy in relation to the identified <u>stakeholders</u>;
	• the implementation of the personal data policies and procedures is supported by appropriate investments in human and technical resources;
	• the organization has established a structure for conflict resolution regarding the use of personal data, which ties back into possibly improving existing policies and procedures;
	• the organization has established documented policies and procedures to prevent, <u>mitigate</u> and respond to unauthorized or accidental access to someone's personal information;
	• the organization has established documented policies and procedures to disclose personal data breaches that occurred during the <u>reporting period</u>, e.g. based on their <u>severity</u>.
MGT–PVCY –1.1c	The organization should describe how: • the roles and responsibilities are organized throughout the personal data lifecycle; understanding, preparation, modelling, evaluation, deployment, maintain, run and remove; • the single Senior Responsible Owner (SRO) has approved the use of personal data before collection and processing; • the organization internally communicates information, including objectives and responsibilities for internal control, necessary to support the functioning of internal control to prevent privacy compromises; • duties are segregated to prevent fraud, sabotage, theft, misuse of personal data and other compromises; • third party assurance of data processors is managed.
MGT–PVCY –1.1d	The organization should describe how: • the organization obtains or generates and uses relevant, quality information to support the functioning of internal control; • the organization has established a mechanism allowing others to flag issues related to privacy protection; • protection against data leaks is implemented, properly managed and continuously monitored; • data leaks are reported to the appropriate Data Protection Authority in the respective country; • it discloses the number of material cyber–related data leaks that occurred during the <u>reporting period</u> and are required to be disclosed.

MGT-PVCY -1.2a	The organization should describe how: • it assesses risk on loss of or unauthorised access to personal data as a result of a failure of the organisation, destruction, use modification or disclosure of personal data; • it assesses risk on theft, unauthorised copying or the like; • it assesses risk on intrusion from outside sources; • the organization incorporates Privacy Impact Assessments and Data Protection Impact Assessments into the organisation's risk management and how it uses this to promote accountability.

Privacy – topic disclosures

An organization is expected to compile information regarding the management of Privacy and provide figures regarding the occurrence of personal data breach events and the impact for the reporting organization and its stakeholders.

Disclosures Privacy	
PVCY-1	Employees are aware of the safe use and protection of personal data.
PVCY-2	Processing of personal data is controlled in work and labor processes.
PVCY-3	Personal data is classified based on confidentiality, integrity, availability and legal/regulatory requirements (including GDPR).

Requirements	
Topic Privacy	
PVCY-1.1	The organization shall report on activities to promote awareness on privacy.
PVCY-2.1	The organization shall report on privacy controls in work and labor processes.
PVCY-3.1	The organization shall report on classification of personal data.

Guidance	
Topic Privacy	
PVCY-1.1a	The organization should describe: • the privacy awareness and information activities it has in place to inform all <u>employees</u> and other <u>workers</u> in the organization; • how newcomers receive mandatory training on privacy; • <u>any</u> specific trainings <u>senior executives</u> and members of <u>governance bodies</u> receive on privacy; • if the intranet site has a dedicated section on privacy topics, guidelines and best practices, including a (whistle blower) hotline to report any issues.
PVCY-1.1b	The organization could describe the way awareness efforts include explaining the safe use and protection of the organization's personal data, IT systems and the privacy risks they should be aware of, including OECD privacy principles, GDPR non-compliancy, fundamental <u>human rights</u>, possible internal or external violations and their role in <u>mitigating</u> and <u>remediating</u> privacy breaches;
PVCY-2.1a	The organization should describe: • what limits it applies to the collection of personal data and if any such data is obtained by lawful and fair means and, where appropriate, with the knowledge or consent of the data subject; • how it establishes that personal data is relevant to the purposes for which it is to be used, and, to the extent necessary for those purposes, is accurate, complete and kept up-to-date; • how personal data is protected by reasonable security safeguards against such risks as loss or unauthorized access, destruction, use, modification or disclosure of data; • the role of the data controller, who is accountable for complying with measures which give effect to the principles stated above.
PVCY-2.1b	The organization should describe: • whether the purposes for which personal data are collected and processed is specified not later than at the time of data collection and the subsequent use limited to the fulfilment of those purposes or such others as are not incompatible with those purposes and as are specified on each occasion of change of purpose; • personal data is not disclosed, made available or otherwise used for purposes other than those specified in accordance with the above control, except when one of the following conditions applies: o consent of the data subject has been obtained; or

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	o by the authority of law; • there is a general policy of openness about developments, practices and policies with respect to personal data. Means should be readily available of establishing the existence and nature of personal data, and the main purposes of their use, as well as the identity and usual residence of the data controller.
PVCY-2.1c	The organization could describe whether individuals have the right: • to obtain from a data controller, or otherwise, confirmation of whether or not the data controller has data relating to them; • to have communicated to them, data relating to them within a reasonable time; • at a charge, if any, that is not excessive; • in a reasonable manner; and • in a form that is readily intelligible to them; • to be given reasons if a request made under subparagraphs (a) and (b) is denied, and to be able to challenge such denial; and • to challenge data relating to them and, if the challenge is successful to have the data erased, rectified, completed or amended.
PVCY-3.1a	The organization should describe how: • the organization maintains documented, approved and enforced data classification policies and procedures, describing how to classify personal information based on confidentiality and legal/ regulatory requirements; • ownership of the personal information (categories) is determined, to properly conduct the data classification.
PVCY-3.1b	When reporting on data classification policies and procedures the organization should describe what control measures are applied based on the classified criticality/sensitivity of the information.
PVCY-3.1c	The reporting organization could provide information regarding, if any, performed ongoing and/or separate evaluations (by internal audit or external audit) of the effectiveness of privacy related controls and the follow-up to findings addressing nonconformities, their causes and the verification of the actions taken on these findings.

Glossary of GRI terms

This chapter includes the Glossary of terms as per GRI 1 – Foundation 2021.

Glossary

This glossary provides definitions for terms used in this Standard. The organization is required to apply these definitions when using the GRI Standards.

The definitions included in this glossary may contain terms that are further defined in the complete *GRI Standards Glossary*. All defined terms are underlined. If a term is not defined in this glossary or in the complete *GRI Standards Glossary*, definitions that are commonly used and understood apply.

business partner
entity with which the organization has some form of direct and formal engagement for the purpose of meeting its business objectives

Source: Shift and Mazars LLP, *UN Guiding Principles Reporting Framework*, 2015; modified

Examples: affiliates, business-to-business customers, clients, first-tier suppliers, franchisees, joint venture partners, investee companies in which the organization has a shareholding position

Note: Business partners do not include subsidiaries and affiliates that the organization controls.

business relationships
relationships that the organization has with business partners, with entities in its value chain including those beyond the first tier, and with any other entities directly linked to its operations, products, or services

Source: United Nations (UN), *Guiding Principles on Business and Human Rights: Implementing the United Nations "Protect, Respect and Remedy" Framework*, 2011; modified

Note: Examples of other entities directly linked to the organization's operations, products, or services are a non-governmental organization with which the organization delivers support to a local community or state security forces that protect the organization's facilities.

child
person under the age of 15 years, or under the age of completion of compulsory schooling, whichever is higher

Note 1:   Exceptions can occur in certain countries where economies and educational facilities are insufficiently developed, and a minimum age of 14 years applies. These countries of exception are specified by the International Labour Organization (ILO) in response to a special application by the country concerned and in consultation with representative organizations of employers and workers.

Note 2:   The ILO *Minimum Age Convention,* 1973, (No. 138), refers to both child labor and young workers.

due diligence
process to identify, prevent, mitigate, and account for how the organization addresses its actual and potential negative impacts

Source: Organisation for Economic Co-operation and Development (OECD), *OECD Guidelines for Multinational Enterprises*, 2011; modified
United Nations (UN), *Guiding Principles on Business and Human Rights: Implementing the United Nations "Protect, Respect and Remedy" Framework*, 2011; modified

Note: See section 2.3 in *GRI 1: Foundation 2021* for more information on 'due diligence'.

employee
individual who is in an employment relationship with the organization according to national law

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or practice

governance body
formalized group of individuals responsible for the strategic guidance of the organization, the effective monitoring of management, and the accountability of management to the broader organization and its stakeholders

highest governance body
governance body with the highest authority in the organization

Note: In some jurisdictions, governance systems consist of two tiers, where supervision and management are separated or where local law provides for a supervisory board drawn from non-executives to oversee an executive management board. In such cases, both tiers are included under the definition of highest governance body.

human rights
rights inherent to all human beings, which include, at a minimum, the rights set out in the *United Nations (UN) International Bill of Human Rights* and the principles concerning fundamental rights set out in the *International Labour Organization (ILO) Declaration on Fundamental Principles and Rights at Work*

Source: United Nations (UN), *Guiding Principles on Business and Human Rights: Implementing the United Nations "Protect, Respect and Remedy" Framework*, 2011; modified

Note: See Guidance to 2-23-b-i in *GRI 2: General Disclosures 2021* for more information on 'human rights'.

impact
effect the organization has or could have on the economy, environment, and people, including on their human rights, which in turn can indicate its contribution (negative or positive) to sustainable development

Note 1:   Impacts can be actual or potential, negative or positive, short-term or long-term, intended or unintended, and reversible or irreversible.

Note 2:   See section 2.1 in *GRI 1: Foundation 2021* for more information on 'impact'.

indigenous peoples
indigenous peoples are generally identified as:

- tribal peoples in independent countries whose social, cultural and economic conditions distinguish them from other sections of the national community, and whose status is regulated wholly or partially by their own customs or traditions or by special laws or regulations;
- peoples in independent countries who are regarded as indigenous on account of their descent from the populations which inhabited the country, or a geographical region to which the country belongs, at the time of conquest or colonization or the establishment of present state boundaries and who, irrespective of their legal status, retain some or all of their own social, economic, cultural and political institutions.

Source: International Labour Organization (ILO), *Indigenous and Tribal Peoples Convention*, 1989 (No. 169)

local community
individuals or groups of individuals living or working in areas that are affected or that could be affected by the organization's activities

Note: The local community can range from those living adjacent to the organization's operations to those living at a distance.

material topics
topics that represent the organization's most significant impacts on the economy, environment, and people, including impacts on their human rights

Note: See section 2.2 in *GRI 1: Foundation 2021* and section 1 in *GRI 3: Material Topics 2021* for more information on 'material topics'.

mitigation
action(s) taken to reduce the extent of a negative impact

Source: United Nations (UN), *The Corporate Responsibility to Respect Human Rights: An Interpretive Guide*, 2012; modified

Note: The mitigation of an actual negative impact refers to actions taken to reduce the severity of the negative impact that has occurred, with any residual impact needing remediation. The mitigation of a potential negative impact refers to actions taken to reduce the likelihood of the negative impact occurring.

remedy / remediation
means to counteract or make good a negative impact or provision of remedy

Source: United Nations (UN), *The Corporate Responsibility to Respect Human Rights: An Interpretive Guide*, 2012; modified

Examples: apologies, financial or non-financial compensation, prevention of harm through injunctions or guarantees of non-repetition, punitive sanctions (whether criminal or administrative, such as fines), restitution, restoration, rehabilitation

reporting period
specific time period covered by the reported information

Examples: fiscal year, calendar year

severity (of an impact)
The severity of an actual or potential negative impact is determined by its scale (i.e., how grave the impact is), scope (i.e., how widespread the impact is), and irremediable character (how hard it is to counteract or make good the resulting harm).

Source: Organisation for Economic Co-operation and Development (OECD), *OECD Due Diligence Guidance for Responsible Business Conduct*, 2018; modified
            United Nations (UN), *The Corporate Responsibility to Respect Human Rights: An Interpretive Guide*, 2012; modified

Note: See section 1 in *GRI 3: Material Topics 2021* for more information on 'severity'.

stakeholder
individual or group that has an interest that is affected or could be affected by the organization's activities

Source: Organisation for Economic Co-operation and Development (OECD), *OECD Due Diligence Guidance for Responsible Business Conduct*, 2018; modified

Examples: business partners, civil society organizations, consumers, customers, employees and other workers, governments, local communities, non-governmental organizations, shareholders and other investors, suppliers, trade unions, vulnerable groups

Note: See section 2.4 in *GRI 1: Foundation 2021* for more information on 'stakeholder'.

supplier
entity upstream from the organization (i.e., in the organization's supply chain), which provides a product or service that is used in the development of the organization's own products or services

Examples   brokers, consultants, contractors, distributors, franchisees, home workers, independent contractors, licensees, manufacturers, primary producers, sub-contractors, wholesalers

Note: A supplier can have a direct business relationship with the organization (often referred to as a first-tier supplier) or an indirect business relationship.

supply chain

range of activities carried out by entities upstream from the organization, which provide products or services that are used in the development of the organization's own products or services

sustainable development / sustainability

development that meets the needs of the present without compromising the ability of future generations to meet their own needs

Source: World Commission on Environment and Development, *Our Common Future*, 1987

Note: The terms 'sustainability' and 'sustainable development' are used interchangeably in the GRI Standards.

value chain

range of activities carried out by the organization, and by entities upstream and downstream from the organization, to bring the organization's products or services from their conception to their end use

Note 1: Entities upstream from the organization (e.g., suppliers) provide products or services that are used in the development of the organization's own products or services. Entities downstream from the organization (e.g., distributors, customers) receive products or services from the organization.

Note 2: The value chain includes the supply chain.

vulnerable group

group of individuals with a specific condition or characteristic (e.g., economic, physical, political, social) that could experience negative impacts as a result of the organization's activities more severely than the general population

Examples: children and youth; elderly persons; ex-combatants; HIV/AIDS-affected households; human rights defenders; indigenous peoples; internally displaced persons; migrant workers and their families; national or ethnic, religious and linguistic minorities; persons who might be discriminated against based on their sexual orientation, gender identity, gender expression, or sex characteristics (e.g., lesbian, gay, bisexual, transgender, intersex); persons with disabilities; refugees or returning refugees; women

Note: Vulnerabilities and impacts can differ by gender.

worker

person that performs work for the organization

Examples: employees, agency workers, apprentices, contractors, home workers, interns, self-employed persons, sub-contractors, volunteers, and persons working for organizations other than the reporting organization, such as for suppliers

Note: In the GRI Standards, in some cases, it is specified whether a particular subset of workers is required to be used.

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Bibliography

This section lists authoritative intergovernmental instruments and additional references used in developing this Standard, as well as resources that can be consulted the organization.

NRI – Management of IT topics

Authoritative instruments Management of IT Topics:

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    1.1. *ISO/IEC 27001:2013 Information technology — Security techniques — Information security management systems — Requirements;* 2017 [Recently superseded by ISO 27001:2022]
    1.2. *ISO/IEC 27005:2018 Information technology — Security techniques — Information security risk management, 2018*
    1.3. *ISO/IEC 27014:2020 Information security, cybersecurity and privacy protection — Governance of information security*, 2020
    1.4. *ISO 31000:2018 Risk management — Guidelines*, 2018
    1.5. *ISO/IEC 38500:2015 Information technology — Governance of IT for the organization*, 2015
    1.6. *ISO/IEC TS 38501:2015 Information technology — Governance of IT — Implementation guide*, 2015
    1.7. *ISO/IEC TR 38502:2017 Information technology — Governance of IT — Framework and model*, 2017
    1.8. *ISO/IEC 38506:2020 Information technology — Governance of IT — Application of ISO/IEC 38500 to the governance of IT enabled investments,* 2020
2. Committee of Sponsoring Organizations of the Treadway Commission (COSO)
    2.1. COSO Enterprise Risk Management (ERM) Framework, 2017
3. National Institute of Standards and Technology (NIST)
    3.1. *Framework for Improving Critical Infrastructure Cybersecurity Version 1.1*, 2018
    3.2. *NISTIR 8286: Integrating Cybersecurity and Enterprise Risk Management (ERM)*, 2020
    3.3. *NIST Special Publication 800-37 rev. 2: Risk Management Framework for Information Systems and Organizations*, 2018
4. Global Sustainability Standards Board (GSSB),
    4.1. GRI 1: Foundation 2021
    4.2. GRI 2: General Disclosures 2021
    4.3. GRI 3: Material Topics 2021

Resources Management of IT Topics:

1. Committee of Sponsoring Organizations of the Treadway Commission (COSO)

    1.1. *Managing Cyber Risk in a Digital Age,* 2019

    1.2. *Enhancing Board Oversight,* 2012

    1.3. *Developing key risk indicators to strengthen enterprise risk management,* 2010

2. International Organization for Standardization (ISO):

    2.1. *ISO/IEC 27035-1:2016 Information technology — Security techniques — Information security incident management, all parts 2016 -2020*

NRI-1 Digital Innovation and Transformation

Innovation

- ISO 56002, Innovation management — Innovation management system — Guidance

Architecture

- The Open Group Architecture Framework (TOGAF), version 9
- ISO 42010:2011, Systems and software engineering – Architecture Description

Transformation

- ISO 21500:2021, Project, programme and portfolio management — Context and concepts
- ISO 21502:2020, Project, programme and portfolio management — Guidance on project management
- ISO 21503:2017, Project, programme and portfolio management — Guidance on programme management
- ISO 21504:2022, Project, programme and portfolio management — Guidance on portfolio management

NRI-2 Data Governance and Ethics

Data governance & ethics

- ISO 38505 1 and 2, Governance of data
- NOREA Guiding Principles Trustworthy AI investigations Guiding principles for investigations of enterprise artificially intelligent algorithmic systems (concept)
- ISO/IEC JTC 1/SC 42: Artificial Intelligence
- Data Management International (DAMA)

- Data Management Body of Knowledge (DMBOK)
- Federal Data Strategy (USA) Data Ethics Framework
- General Data Protection Regulation (EU) 2016/679
- Digital rights and principles (EU) January 2022

Data management
- ISO-8000 Data Quality, Exchange of complex data
- ISO-25010 Product Quality, Data Quality Usability (Replaces ISO-9126)
- ISO-25012 Data Quality (Computer Aided)
- ISO27001/ISO27002/ISO31000 – Data Security

NRI-3 Outsourcing

- ISO 37500:2014 – Guidance on outsourcing
- EBA Guidelines on outsourcing arrangements, EBA/GL/2019/02
- Bill Hefley, Ethel A. Loesche, eSourcing Capability Model for Client Organizations (eSCM-CL), 2009
- Good practices for managing outsourcing risks (dnb.nl)

NRI-4 Cybersecurity

Authoritative instruments Cybersecurity:

1. International Organization for Standardization (ISO):
    1.1. *ISO 22301:2019 Security and resilience — Business continuity management systems — Requirements, 2019*
    1.2. *ISO/IEC 27001:2013 Information technology — Security techniques — Information security management systems — Requirements;* 2017 [Recently superseded by ISO 27001:2022]
    1.3. *ISO/IEC 27002:2013 Information technology — Security techniques — Code of practice for information security controls*, 2013 [Recently superseded by ISO 27001:2022]
    1.4. *ISO/IEC 27005:2018 Information technology — Security techniques — Information security risk management, 2018*
    1.5. *ISO/IEC 27014:2020 Information security, cybersecurity and privacy protection — Governance of information security*, 2020
    1.6. *ISO 27031:2011 Information technology — Security techniques — Guidelines for information and communication technology readiness for business continuity,* 2011

    1.7. *ISO/IEC TS 27100:2020 Information technology — Cybersecurity — Overview and concepts*, 2020

    1.8. *ISO/IEC TS 27110:2021 Information technology, cybersecurity and privacy protection — Cybersecurity framework development guidelines*, 2021

    1.9. *ISO/IEC 29146:2016 Information technology — Security techniques — A framework for access management*, 2016

    1.10. *ISO/IEC 29115:2013 Information technology — Security techniques — Entity authentication assurance framework*, 2013

2. National Institute of Standards and Technology (NIST)

    2.1. *Framework for Improving Critical Infrastructure Cybersecurity Version 1.1*, 2018

    2.2. *NISTIR 8286: Integrating Cybersecurity and Enterprise Risk Management (ERM)*, 2020

    2.3. *NIST Special Publication 800-37 rev. 2: Risk Management Framework for Information Systems and Organizations*, 2018

3. Center for Internet Security (CIS.),

    3.1. *CIS Critical Security Controls (CIS Controls) V8*, 2021

    3.2. *Establishing Essential Cyber Hygiene*, 2022

4. Nationaal Cyber Security Centrum (NCSC)

    4.1. *Aandachtspunten crisismanagement en crisiscommunicatie bij digitale incidenten*, 2022

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    1.1. *ISO/IEC 27019:2017 Information technology — Security techniques — Information security controls for the energy utility industry, 2017*

    1.2. *ISO/IEC TR 27103:2018 Information technology — Security techniques — Cybersecurity and ISO and IEC Standards, 2018*

    1.3. *ISO/IEC 27033-1:2015 Information technology — Security techniques — Network security, 2015*

    1.4. *ISO/IEC 27035-1:2016 Information technology — Security techniques — Information security incident management, all parts 2016 -2020*

    1.5. *ISO/IEC 27036-1:2021 Cybersecurity — Supplier relationships, 2021*

    1.6. *ISO/IEC 27040:2015 Information technology — Security techniques — Storage security, 2015*

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    2.1. *NIST Special Publication (SP) 800-40 Revision 4, Guide to Enterprise Patch Management Planning: Preventive Maintenance for Technology*, 2022

    2.2. *NIST SP 1800-31, Improving Enterprise Patching for General IT Systems: Utilizing Existing Tools and Performing Processes in Better Ways*, 2022

    2.3. *NIST Special Publication SP 800-161r1: Cybersecurity Supply Chain Risk Management Practices for Systems and Organizations*, 2022

Resources Cybersecurity:

1. European Union Agency for Cybersecurity (ENISA)
   1.1. *ECSF EUROPEAN CYBERSECURITY SKILLS FRAMEWORK, 2022*
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   1.4. *ENISA Report – Cybersecurity for SMES Challenges and Recommendations*, 2021
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3. Information Systems Audit and Control Association (ISACA)
   3.1. *The Cyberresilient Enterprise: What the Board of Directors Needs to Ask*, 2015
   3.2. *Auditing cyber security: evaluating risk and auditing controls*, 2017
   3.3. *Optimizing risk response*, 2021
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5. Committee of Sponsoring Organizations of the Treadway Commission (COSO), *Managing Cyber Risk in a Digital Age*, 2019

NRI–5 IT Continuity Management

Authoritative instruments IT continuity management:

1. International Organization for Standardization (ISO):
   1.1. *ISO 22301:2019 Security and resilience — Business continuity management systems — Requirements, 2019*
   1.2. *ISO/IEC 27001:2013 Information technology — Security techniques — Information security management systems — Requirements; 2017 [Recently superseded by ISO 27001:2022]*
   1.3. *ISO 27031:2011 Information technology — Security techniques — Guidelines for information and communication technology readiness for business continuity, 2011*

    1.4. *ISO/IEC 29146:2016 Information technology — Security techniques — A framework for access management,* 2016

    1.5. *ISO/IEC 29115:2013 Information technology — Security techniques — Entity authentication assurance framework,* 2013

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   2.1. *Framework for Improving Critical Infrastructure Cybersecurity Version 1.1,* 2018
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   3.1. *CIS Critical Security Controls (CIS Controls) V8,* 2021
   3.2. *Establishing Essential Cyber Hygiene,* 2022

Additional references IT Continuity management:

1. International Organization for Standardization (ISO):
   1.1. *ISO/IEC 27033-1:2015 Information technology — Security techniques — Network security, 2015*
   1.2. *ISO/IEC 27035-1:2016 Information technology — Security techniques — Information security incident management,* all parts 2016 -2020
   1.3. *ISO 22313:2020 Security and resilience — Business continuity management systems — Guidance on the use of ISO 22301,* 2020
2. National Institute of Standards and Technology (NIST),
   2.1. *NIST Interagency Report NIST IR 8286D Using Business Impact Analysis to Inform Risk Prioritization and Response,* 2022
   2.2. *NIST Special Publication 800-34 Rev.1 Contingency Planning Guide Federal Information Systems,* 2010

NRI-6 Privacy

- The OECD Privacy framework 2013
- NOREA Privacy Control Framework 2019
- ISO 27701_2019 Privacy information management
- NOREA Guiding Principles Trustworthy AI investigations Guiding principles for investigations of enterprise artificially intelligent algorithmic systems (concept)
- General Data Protection Regulation (EU) 2016/679
- Digital rights and principles (EU) January 2022
- GDPR-CARPA-Criteria-for-certification-v10

Appendix A: Requirements for determining disclosures on material IT topics

This appendix contains the list of requirements that GRI Disclosure 3-3[3] prescribes in order to determine the disclosures per material topic. When using this NRI, which has been set up in analogy with the GRI reporting framework, organizations are required to determine their disclosures for reporting on their material topics based on their specific situation, using this list of requirements and taking this NRI into account.

For each material topic reported under Disclosure 3-2, the organization shall:

a. describe the actual and potential, negative and positive impacts on the economy, environment, and people, including impacts on their human rights;

b. report whether the organization is involved with the negative impacts through its activities or as a result of its business relationships, and describe the activities or business relationships;

c. describe its policies or commitments regarding the material topic;

d. describe actions taken to manage the topic and related impacts, including:

   i.   actions to prevent or mitigate potential negative impacts;
   ii.   actions to address actual negative impacts, including actions to provide for or cooperate in their remediation;
   iii. actions to manage actual and potential positive impacts;

e. report the following information about tracking the effectiveness of the actions taken:

   i.   processes used to track the effectiveness of the actions;
   ii.   goals, targets, and indicators used to evaluate progress;
   iii. the effectiveness of the actions, including progress toward the goals and targets;
   iv.   lessons learned and how these have been incorporated into the organization's operational policies and procedures;

f. describe how engagement with stakeholders has informed the actions taken (3-3-d) and how it has informed whether the actions have been effective (3-3-e).

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[3] Courtesy of GRI, see Disclosure 3-3 in GRI 3: Material Topics 2021 for details and guidance.