

DORA

Link'n Learn 2023 – 25 October 2023

Getting Started

Here with you today



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Agenda

- 1 Context and the 5 DORA Pillars
- 2 Let's explore more DORA
- 3 Closing words

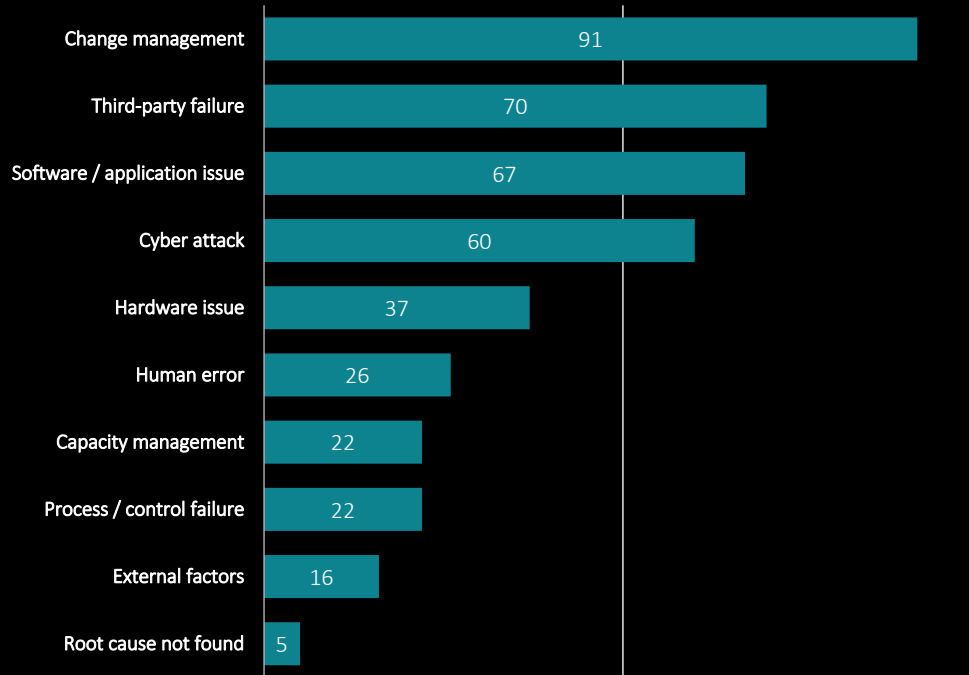
Context and the 5 DORA Pillars

The ICT Earthquakes

Most significant risks in technology in financial services

Known root cause of major technology outages and cyber-attacks

Known root cause of the major technology outages and cyber-attacks reported to the FCA (Financial Conduct Authority) between Oct. 2017 and Sept 2018:



Source: Financial Conduct Authority, 'Cyber and technology resilience: themes from cross-sector survey 2018'

Examples of publicly disclosed major ICT & Security incidents



A major Cloud Provider – **Major IT outages due to technical software or hardware issues (2019)**: A nearly **three-hour global outage** affecting core cloud services that occurred during the migration of a legacy system.



TSB bank - **Change management process failure (2018)** - TSB took all its internet and mobile services offline after a migration to a new platform. **Up to 1.9 million customers locked out of their accounts for six day**. Cost the bank £330m, while 80,000 customers switched their account to a competitor.



Central bank of Bangladesh – **Cyber attack (2016)**: Five successful **fraudulent instructions were issued by hackers** via the SWIFT network to illegally transfer US\$ 101 million.



Equifax – **Major data breach (2017)**: Private records of **148 million customers were compromised** in the breach. Many banks had to reissue millions of credit and debit cards that were compromised in the breach.

Digital Operational Resilience

The ever-increasing reliance on ICT poses a challenge to the digital operational resilience of the EU financial services.

1 AN EVOLVING LANDSCAPE



Digital revolution



System complexity and proliferation of data



Massive ICT outsourcing and Cloud adoption

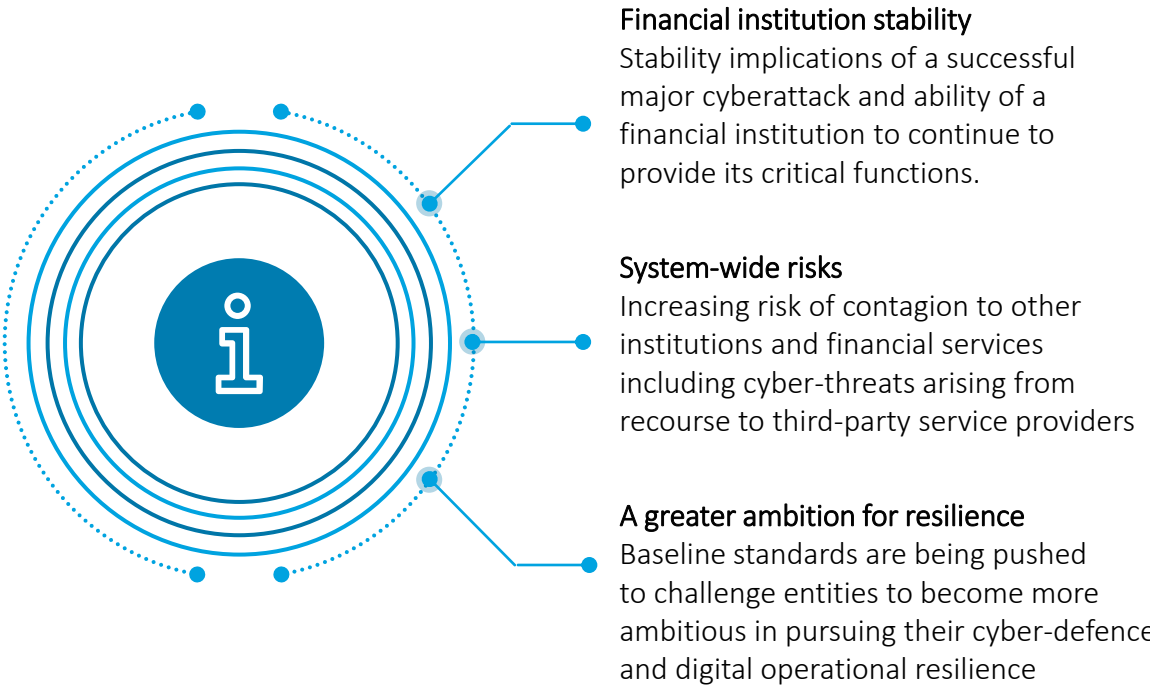



Globally-distributed and interconnected nature of ICT



New types of cyber-threats

2 FOCUS FROM REGULATORS GOES NOW BEYOND THE ABILITY OF INSTITUTIONS TO ABSORB LOSSES RESULTING FROM ICT INCIDENTS

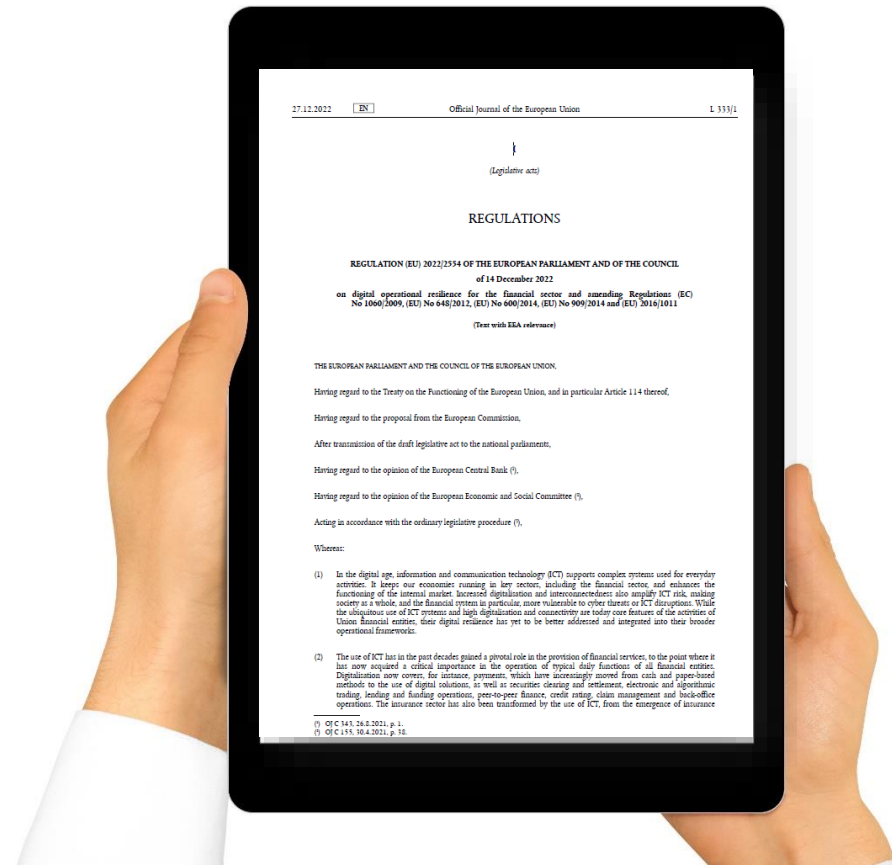


 **Digital operational resilience** is the ability enabling an institution to (i) **identify and protect** itself from ICT threats and potential failures, **respond and adapt** to, as well as (ii) **recover and learn** from disruptive events in order to minimize their impact on the delivery of critical operations through disruption*

* Source: Basel Committee on Banking Supervision (BCBS) consultative Principles for operational resilience, August 2020

DORA is the first comprehensive EU Regulation on digital operational resilience

The DORA contains the future architecture of the technical digital requirements needed to support the widespread arrival of technologies, digital assets, and the increased use of data.



PROPOSAL FOR A DIGITAL OPERATIONAL RESILIENCE ACT (DORA)

- In September 2020, the EU Commission published a legislative proposal for a Digital Operational Resilience Act (DORA). **The DORA entered into force on 16 January 2023.**
- The **objective is to consolidate and upgrade ICT risk requirements** throughout the financial sector (incl. Insurance Companies, Asset management, Payment Institutions) to ensure that all participants of the financial system are subject to a common set of standards **to mitigate ICT risks.**
- **DORA builds on the NIS2 directive** and addresses possible overlaps via a **lex specialist exemption.**
- **Choice of a Regulation to guarantee a homogenous and coherent application** of all components of the ICT risk management by the Union financial sectors.
- Subsequently, the European Supervisory Authorities (ESAs), through the Joint Committee and in consultation with ENISA and the ECB, **will develop common draft regulatory technical standards to specify further the requirements applicable to financial entities.**



The DORA legislation proposed by the Commission is an important first step in creating a **regulatory framework for financial services' operational resilience in EU law**

Road to implementation

Regulation ratified by the European Parliament and publication in the Official Journal of the European Union will come soon together with the start of the implementation period (24 months).



Scope, objectives and implications of DORA

The DORA, is the first piece of legislation at the EU level addressing the topic of digital operational resilience across the full financial sector.



It applies across the full financial sector as well as it brings within the regulatory perimeter “critical ICT third-party providers” (CTPPs) who will be supervised by European Supervisory Authorities (ESAs)

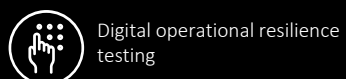
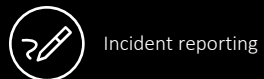
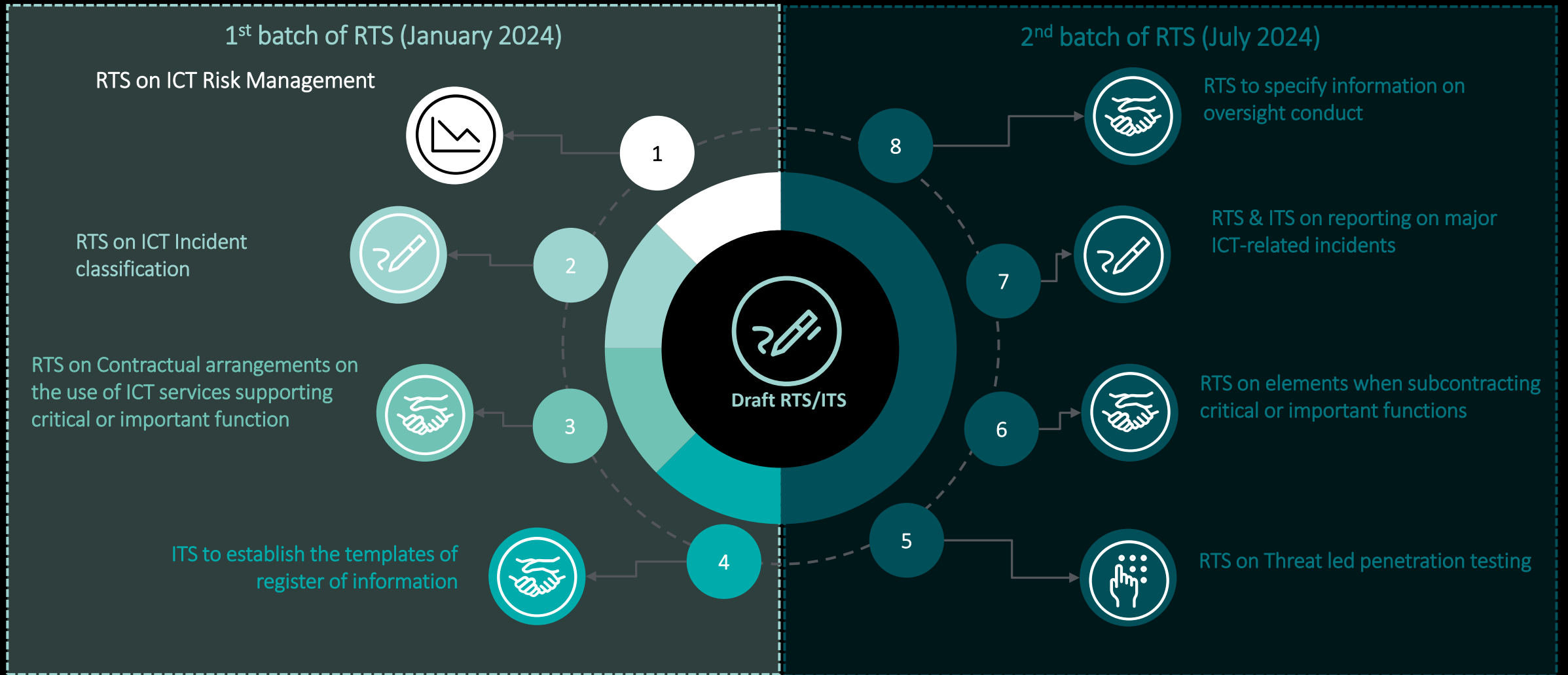
FIVE PILLARS

	OBJECTIVES	KEY REQUIREMENTS AND IMPLICATIONS	PROPORTIONALITY PRINCIPLE
<p>ICT risk management</p>	<p>Creating an ICT risk management framework around a set of key principles and requirements</p>	<ul style="list-style-type: none"> Setting-up an ICT risk governance aligned with the 3 Lines of Defense model Implementing a proportionate ICT risk management framework to ensure that ICT risks are identified and managed in a prompt and effective manner Board/Top management extended role and responsibility/accountability 	<p>Measures shall be proportionate to the size and overall risk profile, and to the nature, scale and complexity of services, activities and operations</p>
<p>Incident reporting</p>	<p>Harmonising ICT incident classification and reporting</p>	<ul style="list-style-type: none"> Harmonizes multiple incident reporting rules into a single classification and reporting standard that mandates firms to carefully collect, manage and disseminate incident data. Mandate for EU supervisors to investigate the potential for a single EU reporting hub. 	
<p>Digital operational resilience testing</p>	<p>Setting EU-wide standards for digital operational resilience testing</p>	<ul style="list-style-type: none"> EU-wide requirement for resilience testing, including duty to test all critical functions at least annually and “fully address” any vulnerabilities identified. Creates a binding “advanced testing” requirement for larger firms (Threat-Led Penetration testing) Require that Critical Third-Party Parties be involved in some advanced testing 	
<p>ICT third-party risk</p>	<p>Harmonising FS firm’s management of third-party risk</p> <p>Creating a direct oversight framework for critical third-party providers</p>	<ul style="list-style-type: none"> Firms to adopt a proactive approach stance in ICT Third-Party Risk Management Optional “Holistic Multi-Vendor Strategy”, but many levers for supervisors to push large firms Sets up a regime for allowing FS authorities to oversee and direct Critical Third-Party Providers Designated CTPPs to demonstrate their resilience to the ESAs, which will be able to issue recommendations on improving resilience, and impose fines, etc. 	
<p>Information Sharing</p>	<p>Information-sharing arrangements on cyber threat information and intelligence</p>	<ul style="list-style-type: none"> Financial entities may exchange amongst themselves cyber threat information and intelligence, including indicators of compromise, tactics, techniques, and procedures, cyber security alerts and configuration tools 	

Let's explore more DORA

















DRAFT Regulatory Technical Standards

The ESAs launched in Summer 2023 a consultation on the first batch of Regulatory Technical Standards



Draft RTS on ICT risk management tools methods processes & policies

DORA was highly inspired by existing Guidelines (e.g. CSSF Circular 20/750) but RTS provides a higher level of details in the expectations.

RTS Chapter & Article ref.	Chapter I ICT security policies, procedures, protocols and tools									Chapter II Human resources policy and access control (Art. 20 – 22)	Chapter III ICT-related incident detection and response (Art. 23 – 24)	Chapter IV ICT Business Continuity (Art.25– 27)	Chapter V Report on the ICT risk management framework review (Art. 28)
	Provision and governance (Art. 1 & 2)	ICT Risk Management (Art. 3)	ICT Asset Management (Art. 4 & 5)	Encryption and cryptography (Art. 6 & 7)	ICT Operations security (Art. 8-12)	Network security (Art. 13 & 14)	ICT Project and change management (Art.15-17)	Physical and environmental security (Art. 18)	ICT and Information security awareness and training (Art. 19)				
Nb of policies & proc. required		 	 	 x2	  x5	 x2  x2	 x2 			 x3			
Mapping with policies and procedures complying with EBA GL	Ref. to EBA Guideline on ICT and security risk management (EBA/GL/2019/04 & CSSF Circular 20/750)												
	3.2. Governance and strategy	3.3. ICT and security risk management framework	3.5. ICT operations management	3.4.4. ICT operations security	3.4.4. ICT operations security & 3.5. ICT operations management	3.4.4. ICT operations security	3.6. ICT project and change management	3.4.3. Physical security	3.4.7. Information security training and awareness	3.4.2. Logical security	3.4.5. Security monitoring & 3.5.1 ICT incident and problem management	3.7. Business continuity management	NEW
Increase in the requirement's detail level from EBA GL to DORA's RTS													

 Policies  Procedures

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Provision and governance	ICT Risk Management	ICT Asset Management	Encryption and cryptography	ICT Operations security	Network security	ICT Project and change management	Physical and environmental security	ICT and Information security awareness and training				

CSSF Circular 20/750

3.4.4. ICT operations security

Financial institutions should implement procedures to prevent the occurrence of security issues in ICT systems and ICT services and should minimise their impact on ICT service delivery. These procedures should include the following measures:
[...]
f) encryption of data at rest and in transit (in accordance with the data classification).

From 1 sentence...

RTS on ICT Risk Management

Encryption and cryptography (Art. 6 & 7)

Encryption and cryptography policy must include:

- Rules for encryption of data at rest/ in transit/ in use
- Rules for encryption of internal network connections and traffic with external parties
- Criteria to select cryptographic techniques, use practices considering leading practices
- Provisions to monitor developments in cryptoanalysis

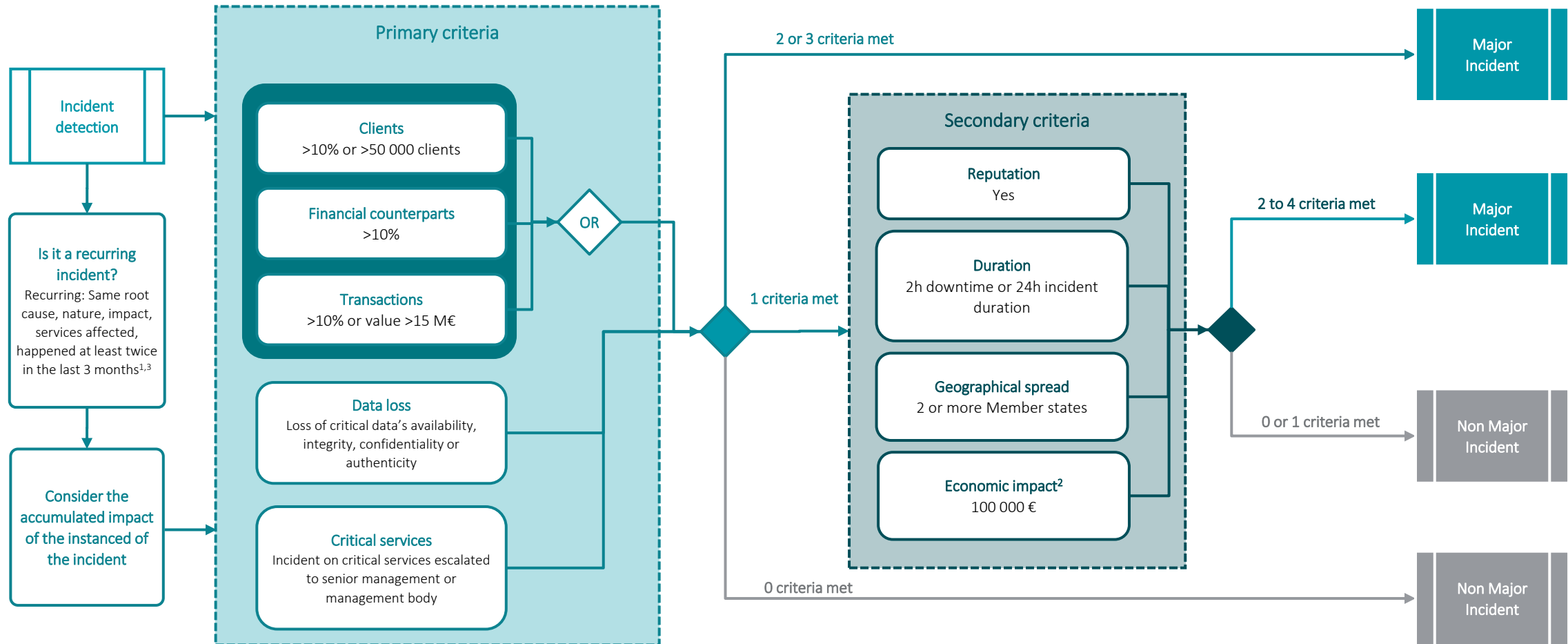
Cryptographic key management policy must include:

- the correct use, protection and lifecycle of cryptographic keys
- Controls to protect cryptographic keys
- **Methods to recover cryptographic keys**
- Create and keep up to date a register for all certificates and certificate storing devices

... to 1,5 pages

Draft RTS on classification of ICT incidents

Decision tree for classifying an incident or recurring incident¹ as major (Art. 8 to 16)



(1) Incidents or Recurring incidents with criteria in aggregate within the last 3 months.

(2) Direct or indirect gross cost & loss incurred as result of incident.

(3) Up to 12 months for central securities depositories, central counterparties, trading venues, trade repositories, data reporting service providers, credit rating agencies, administrators of critical benchmarks and securitization repositories.



Draft RTS on contractual arrangements on the use of ICT services supporting critical or important function

Draft RTS on contractual arrangements on the use of ICT services supporting critical or important function					
ICT Services <ul style="list-style-type: none"> Complexity & risk considerations (Art.1): location of 3rd party, nature of shared data, location of data processing & storage, impact of service disruptions Group application (Art.2): if consolidation of financial statements, DORA Article 28 (2) to be implemented for all subsidiaries 	Governance framework (Art. 3 & Art. 5)				
A function is critical or important if it impacts: <ul style="list-style-type: none"> Compliance, financial performance or continuity of services and activities Internal control 	<p>Management body of a financial entity shall adopt & regularly review a written policy on the use of ICT services supporting critical or important functions provided by ICT third-party service providers. The policy shall include:</p> <ul style="list-style-type: none"> Definition of criticality assessment methodology for ICT services supporting critical or important functions Assignment of roles & responsibilities, but also ensure appropriate skills, experience & knowledge Oversight over contracted services but also assessment of the provider capacities to avoid legal or regulatory breach Definition of role of senior member to monitor contractual arrangements, including reporting to management body Consistency of contractual agreements with: ICT risk framework, IS policy, BCM policy and incident reporting requirements Requirement for such services to be subject to independent review and part of internal audit plan Contracts keep ultimate responsibility with management body, provision cooperation and access of competent authority (CA) & internal audit Life cycle of ICT services: decision making / planning / involvement of BU / implementation & monitoring / exit & termination 				
ICT TPP (Article 4): differentiation between <ul style="list-style-type: none"> ICT TPPs authorized & supervised by CA VS those that are not ICT TPPs intra-group VS outside group ICT TPPs EU located VS outside EU (location of services & location of data) 	<div style="display: flex; justify-content: space-around; align-items: center; margin-bottom: 10px;"> <div style="background-color: #4db6ac; padding: 10px; border-radius: 5px; text-align: center; width: 20%;"> Planning (Art. 6, 7, 8) </div> <div style="background-color: #4db6ac; padding: 10px; border-radius: 5px; text-align: center; width: 20%;"> Implementation (Art 9) </div> <div style="background-color: #00838f; padding: 10px; border-radius: 5px; text-align: center; width: 20%;"> Operation (Art. 10) </div> <div style="background-color: #00838f; padding: 10px; border-radius: 5px; text-align: center; width: 20%;"> Termination (Art. 11) </div> </div> <table border="0" style="width: 100%;"> <tr> <td style="width: 25%; vertical-align: top;"> This phase requires: <ul style="list-style-type: none"> Criticality assessment of the ICT Services Risk Assessment Supervisory condition for contract ICT services Due Diligence Conflict of interest Approval </td> <td style="width: 25%; vertical-align: top;"> This phase requires: <ul style="list-style-type: none"> Contractual agreement Competent authority notification (if required) Sub-contracting Security measures Audit rights Termination rights Exit Strategy </td> <td style="width: 25%; vertical-align: top;"> This phase requires: <ul style="list-style-type: none"> Oversight of contracted ICT services Exercise Audit rights Maintain continuity of ICT services </td> <td style="width: 25%; vertical-align: top;"> This phase requires: <ul style="list-style-type: none"> Activation of termination clause Activation of exit plan Service transition </td> </tr> </table>	This phase requires: <ul style="list-style-type: none"> Criticality assessment of the ICT Services Risk Assessment Supervisory condition for contract ICT services Due Diligence Conflict of interest Approval 	This phase requires: <ul style="list-style-type: none"> Contractual agreement Competent authority notification (if required) Sub-contracting Security measures Audit rights Termination rights Exit Strategy 	This phase requires: <ul style="list-style-type: none"> Oversight of contracted ICT services Exercise Audit rights Maintain continuity of ICT services 	This phase requires: <ul style="list-style-type: none"> Activation of termination clause Activation of exit plan Service transition
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Draft ITS to establish the templates of register of information

Structure and methodology of the register of information: mandatory templates on entity level and (sub)consolidated level

Article 28(9) of the DORA mandates the European Supervisory Authorities (ESAs) to develop draft implementing technical standards to establish the standard templates for the purposes of the register of information, including information that is common to all contractual arrangements on the use of ICT services.



Scope

The ITS on register of information applies to all ICT third party service providers and not only to ICT/Cloud outsourcing (defined in CSSF 22/806).



Register of information at entity level

Contractual arrangements that cover functions of which the financial entity makes use of and is composed of 10 templates. The templates includes information about the financial entity, contractual arrangements (general and specific information), third party service providers, functions identification (including RTO and RPO), etc.



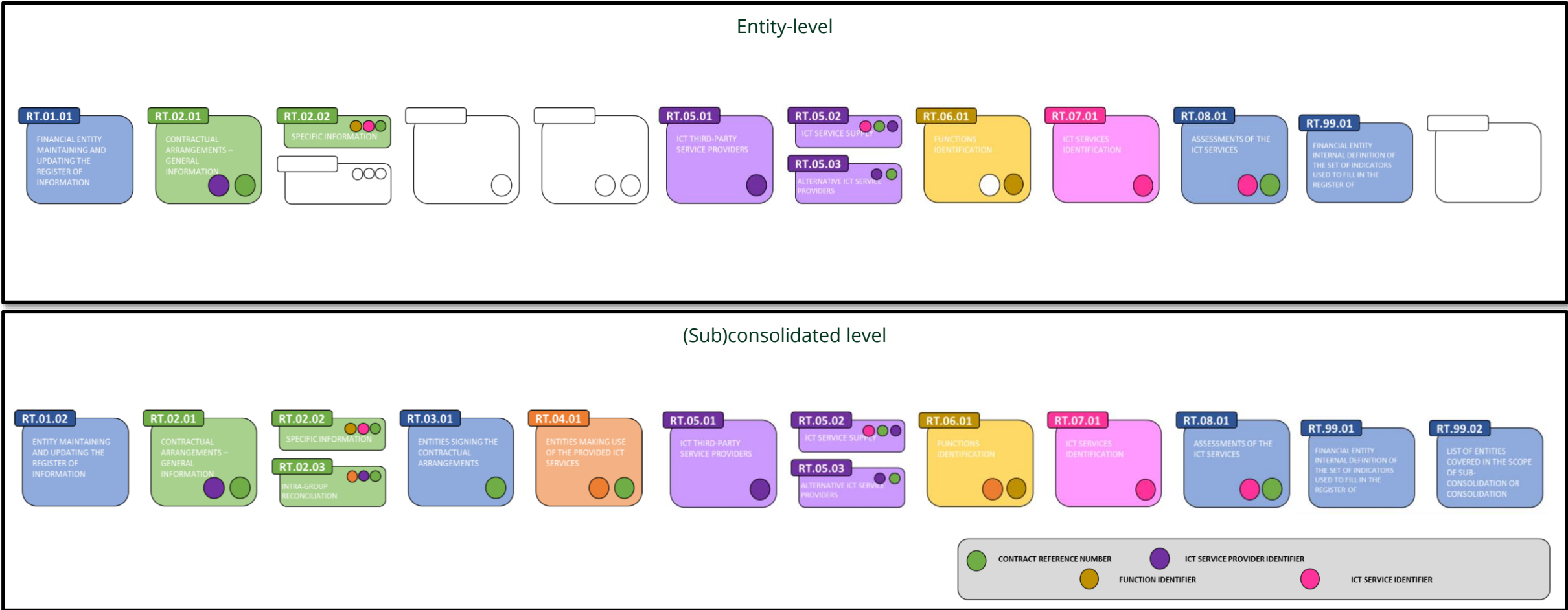
Register of information at sub-consolidated and consolidated level

This contains 14 templates, where 10 out of these 14 templates are the same templates used by financial entities at entity level. The other templates are used to link the registers of information of the various entities in scope of the group and to ensure no double counting (i.e. entities signing the contractual arrangements, entities covered in the scope of the consolidation, etc.)



Draft ITS to establish the templates of register of information

Structure and methodology of the register of information: mandatory templates on entity level and (sub)consolidated level



DORA vs. NIS2 – Lex specialis

European Commission published Guidelines on the equivalence of Cybersecurity requirements in DORA (sector-specific union legal act) with requirements in NIS2 and confirmed Lex Specialis of DORA over NIS2 for Banks & Financial Market Instruments.

DORA Chapter and Article	Entities in scope			NIS2 Chapter and Article
DORA	Investment funds, Insurance, Payment institutions, etc... ¹	Bank & Financial Market Instruments	ICT service providers	Transport, Energy, Health, etc... ²
Chapter I	N/A			Chapter I to III
Chapter II – ICT Risk Management Art 5. Governance and organisation				Chapter IV - Cyber Security Risk Management Measures and reporting Art 20. Governance
Chapter II – ICT Risk Management Art 6 - 16. ICT Risk Management framework				Chapter IV - Cybersecurity risk management measures Art 21. Cybersecurity risk management measures
Chapter III – ICT Related incident management, classification and reporting Art 17-23				Chapter IV - Cybersecurity risk management measures Art 23. Reporting obligations
Chapter IV – Digital Operational resilience testing Art 24-27				Chapter IV - Cybersecurity risk management measures Art 24. Use of European cybersecurity certifications scheme
Chapter V – Managing of ICT Third-party risk Art 28-30. Key principles for a sound management				Chapter V - Jurisdiction and Registration Art 26-28.
Chapter V – Critical Third-Party Provider Oversight Art 31-44. Oversight Framework				Chapter IV – Cybersecurity risk management measures Art 22 – Union level coordinated security risk assessment of critical supply chains
Chapter VI – Information sharing arrangement Art 45. Information sharing arrangement on cyber threat				Chapter VI - Information sharing Art 29-30
Chapter VII – Competent authorities Art 46 - 56				Chapter VII - Supervision and enforcement Art 31-37
Chapter VIII to IX	N/A			Chapter VIII to IX

1 – Investment funds, Insurance, Payment institutions, crypto...

2 – Digital infrastructures, Energy, transport, health, drinking water, wastewater, public administration, space

● DORA only applies ● NIS2 only applies ● Both DORA and NIS2 may apply

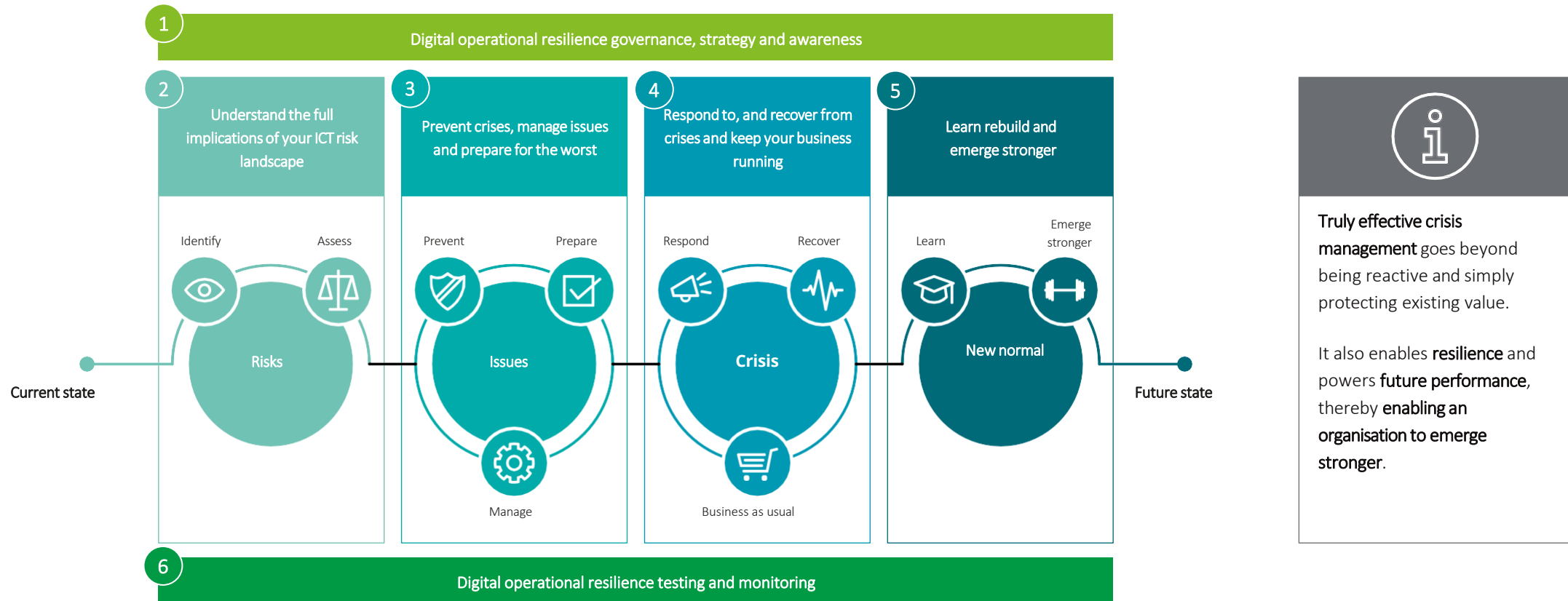
Source: [EUR-Lex - 52023XC0918\(01\) - EN - EUR-Lex \(europa.eu\)](#)

Closing words

How can Deloitte help?

Deloitte can help along the entire journey towards digital operational resilience and compliance with DORA requirements

By taking a **holistic lifecycle** approach, we can be proactive in meeting financial institution needs and make an impact on their business by helping them to: **identify** and **assess** those ICT risks that can lead to crises; **prevent** controllable risks from escalating; **prepare** for crisis events; and **respond** and **recover** to build the new normal and emerge stronger.



How can Deloitte help?

A comprehensive set of services to improve ICT Risk management and resilience capabilities, and to ensure compliance with DORA requirements

Deloitte can assist your organization throughout the resilience program to ensure compliance with DORA requirements. In particular, we can (i) **assess your current ICT Risk and resilience posture** (and thus the current level of compliance with DORA requirements), (ii) **define the future desired state**, (iii) **define the roadmap** to reach this future state (and compliance with DORA) and (iv) **to assist in the execution of the roadmap**. Below are some examples of assistance that Deloitte can provide either as part of a comprehensive resilience program or as point solutions:

1 Resilience governance, strategy and awareness	<ul style="list-style-type: none">Define the digital operational resilience governance and strategyDefine and conduct the ICT Risk and Resilience awareness & education program
2 Understand the full implications of your risk landscape	<ul style="list-style-type: none">Evaluate the threat landscape, identify critical operations and map internal and external assets that are necessary for their deliverySet risk tolerances for disruptions to critical operations, and establish service contingencies to maintain business services based on these risk tolerancesDevelop/improve the ICT Risk management framework (specifically through a critical operation lens) and perform regular risk assessments on legacy systemsAssistance in third party risk management, including updates to the contracts and creation of an oversight framework
3 Prevent crises, manage issues and prepare for the worst	<ul style="list-style-type: none">Define the right set of preventive measures (risk-based approach) to prevent incidents from happening
4 Respond to, and recover from crises and keep your business running	<ul style="list-style-type: none">Enhance the incident management framework to comply with DORA requirementsAssistance in reporting ICT related incidents to competent authoritiesImprove continuity and recovery capabilities (BCP, DRP, etc.) in the light of the threat landscape and risk tolerances for disruptionsImprove crisis management capability and conduct simulation exercises
5 Learn rebuild and emerge stronger	<ul style="list-style-type: none">Lessons learned from past incidents and from testing exercises results, and improvement of the digital operational resilience framework
6 Digital operational resilience testing and monitoring	<ul style="list-style-type: none">Design, implement and execute a comprehensive security testing and assessment programPerform Threat-Led Penetration Testing: Threat Intelligence and Red-teaming operations following the TIBER-LU frameworkDesign and implement relevant key risk indicators and dashboard to measure the effectiveness of ICT risk and resilience capabilities

Questions and answers



Next Link'n Learn webinar

Date: 08/11/2023

**Topic: Investment Funds |
Asset Servicing Survey 2023**





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