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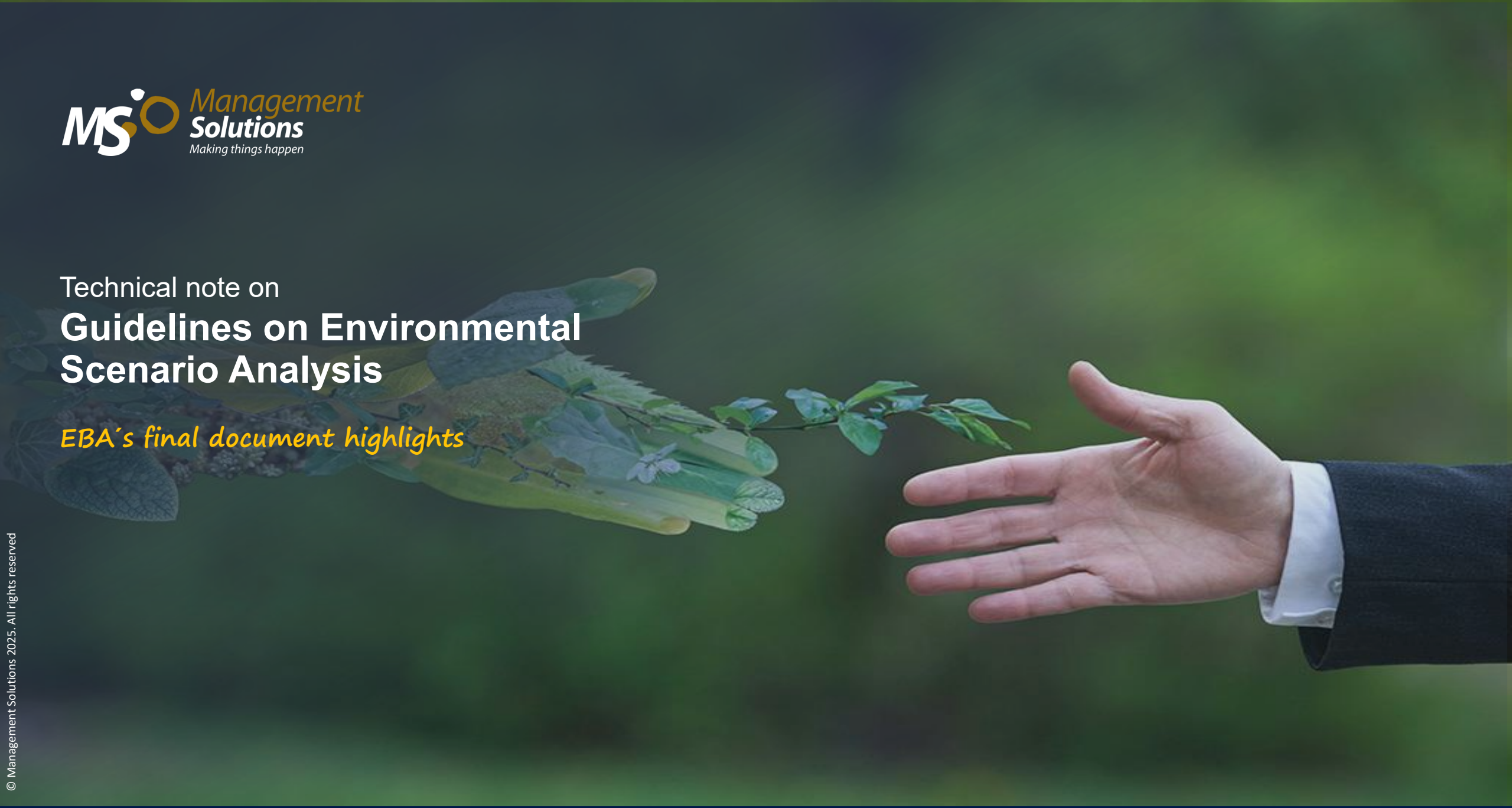
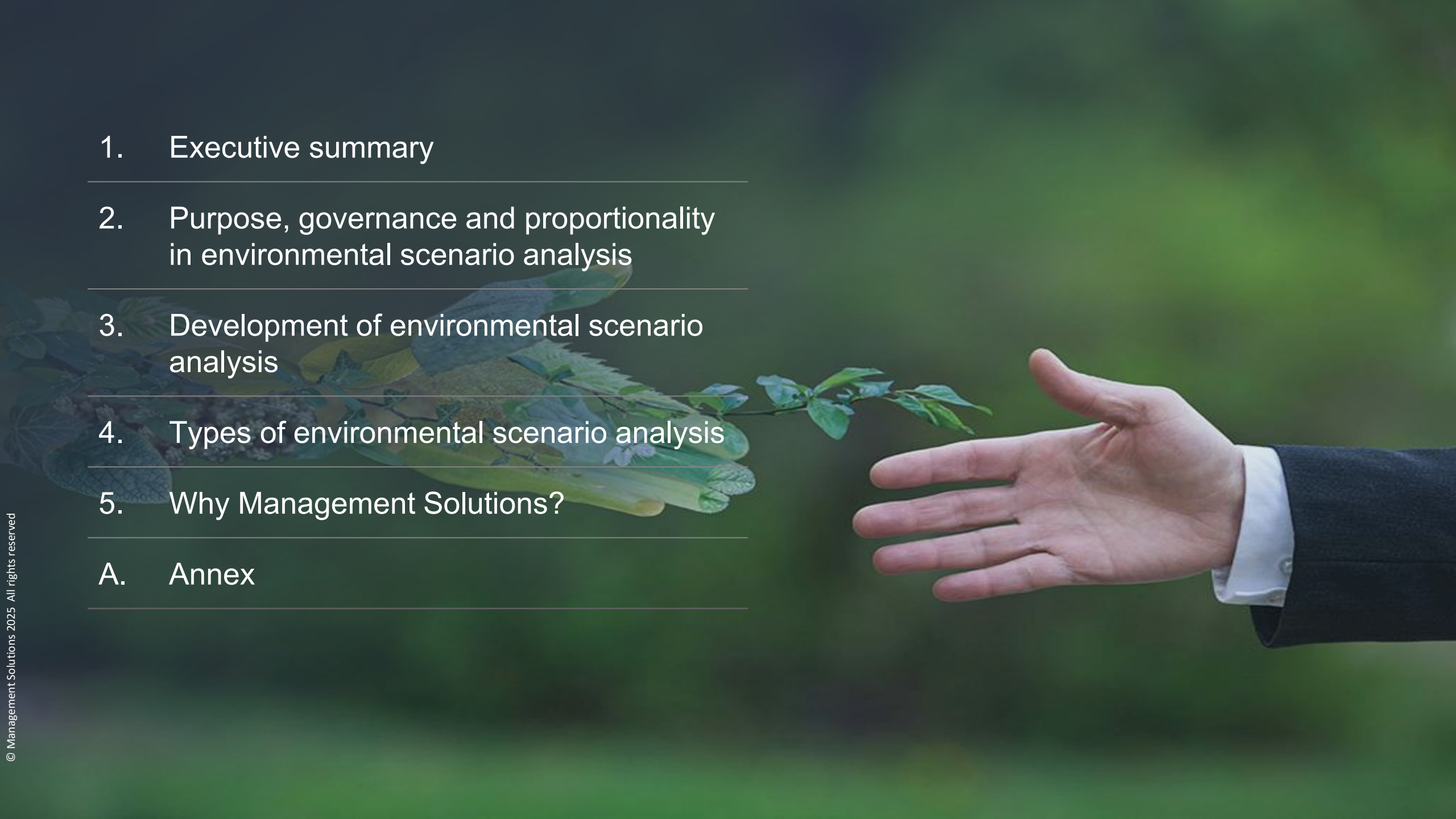
Technical note on

Guidelines on Environmental Scenario Analysis

EBA´s final document highlights





1 Executive summary
General overview

The EBA GL on Environmental Scenario Analysis complement the ESG Risks GL by providing a framework for the analysis of environmental risks across a range of scenarios, through common criteria, methodologies and stress testing

Context

- Factors such as **climate change, environmental degradation and loss of biodiversity** are prompting significant transformations within the economic and financial sectors, calling for a **transition** towards **sustainable and forward-looking management practices**. Institutions must enhance their ability to anticipate changes and incorporate the forward-looking dimension into their management frameworks.
- Capital Requirements Directive (CRD) 6, article 87a, requires the EBA to develop guidelines that set minimum standards and methodologies for managing **environmental risks**.
- Within this framework, the EBA has issued the **final Guidelines on Environmental Scenario Analysis**, which are derived from the Guidelines on ESG risk management published in January 2025, while narrowing the scope to **environmental** (particularly climate-related) risks.

Objective

- **Define** the **standards** for **setting** environmental **scenarios institutions must employ** in assessing their resilience against the negative impacts, focusing on **climate-related physical and transition risks**.
- **Clarify** how these **scenarios** should **capture relevant environmental drivers**, **assess impacts over the short, medium, and long term, and analyse institutions' capacity to adapt**.
- Clarify complementarity between **Climate Stress Testing (CST)** and **Climate Resilience Analysis (CRA)**.

Next steps

- **1st January 2027:** Application date for all entities.
  - **Large or complex institutions** must fully implement all aspects of the guidelines.
  - **Small and non-complex institutions (SNCIs)** can apply simplified approaches or lighter requirements, as long as they still meet the core objectives.

Main content

Purpose, governance and proportionality in environmental scenario analysis

- Institutions should use **environmental scenario analysis** to assess **material risks** and test their resilience. They should ensure **strong governance** and apply **proportionality** by aligning the sophistication of their analysis with their size, capabilities, and risk exposure.

Development of environmental scenario analysis

- Institutions should identify **transmission channels** to understand how **environmental risks affect their portfolios**, **design credible scenarios** that reflect relevant environmental drivers over different time horizons and complement this work with **sensitivity analysis.**

Types of environmental scenario analysis

- Institutions should use **stress tests** to **assess resilience** to sudden environmental shocks, apply **resilience analysis** to **evaluate the long-term viability under evolving environmental conditions** and **ensure ongoing monitoring and expert judgment** to refine their assessments.

1 Executive summary
Draft vs final version

Area	Consultation Paper	Final Guidelines
Scope (ESG vs E-only)	Scope covered Environmental, Social and Governance (ESG) factors for scenario analysis.	Scope streamlined to environmental risks only, with climate as the priority; S and G explicitly removed at this stage.
Application date	Application expected from 11 January 2026 (and 11 January 2027 for SNCIs).	Application postponed to 1 January 2027 for *all* institutions.
Proportionality	Recognised but less articulated; CP explored several proportionality options.	Strongly reinforced: large institutions progressively move to full quantitative methods; other institutions and SNCIs may rely on simplified or qualitative approaches (including sensitivity analysis).
Sensitivity analysis	Mentioned but not formalised as a tool.	Included explicitly as simplified quantitative method for non-large institutions and early stages of resilience analysis; recognised as a proportional option.
Reverse stress testing	Ambiguity due to references to stress testing GLs; not explicitly clarified.	Clarified through consultation responses: reverse stress testing is not required for environmental scenario analysis (EBA response clarifying expectations).
Transmission channels	Detailed lists located in main text sections on transition and physical risks.	Transmission channels moved to an Annex, becoming non-exhaustive reference lists and reducing prescriptiveness. (Described in EBA's response on simplifying technical requirements.)
Distinction CST vs CRA	Distinction present but not fully clear; industry requested clarity.	Sections restructured; CST = short-term stress test, CRA = long-term resilience analysis; complementary tools; reference scenario for CRA built on CST baseline.
Time horizons	Examples included (e.g. <5 years and >10 years) but led to confusion.	Clarified that horizon references (5 years, 10 years) are illustrative, not prescriptive; institutions may choose suitable horizons.
Scenario terminology ("central", "baseline")	Used "central scenario" for CRA and "baseline scenario" for CST; unclear whether they relate.	Adopted "reference scenario" in the final text; CRA's reference scenario = extension of CST baseline, ensuring coherence.
Interaction with transition planning (CRD art. 76(2))	Mentioned only indirectly; institutions asked how CRA aligns with transition plans and CSRD.	Explicitly aligned: the resilience analysis informs and challenges the transition plan and must be consistent with ESRS/CSRD expectations.
Insurance, value chain, macro/micro treatment	Institutions requested clarifications on insurance coverage, macro vs micro, and value chain.	Clarifications integrated; lists re-positioned in annexes; guidance made less prescriptive but emphasised to consider material channels, including insurance gaps and value chain dependencies.
Use of scenarios from international bodies	Required "credible scenarios" from recognised international providers (NGFS, JRC, IEA, i.e.).	Broadened: institutions may use international, regional, or national bodies, with flexibility to adapt scenarios to their own characteristics.
Integration in ICAAP/ILAAP	Industry challenged feasibility; CP implied integration.	EBA clarified that scenario analysis supports ICAAP/ILAAP but does not prescribe how results feed into capital planning; depends on other regulations, as CRD or the EBA Guidelines on the management of ESG risks.

2 Purpose, governance and proportionality in environmental scenario analysis

Purpose, governance, proportionality

The Guidelines outline the introduction of clearer expectations on the purpose and limitations of scenario analysis, the requirement for a credible narrative endorsed by senior management, and the use of both short-term stress tests and long-term resilience assessments

Purpose

- Institutions should use scenario analysis to **identify risks and opportunities**, assess **portfolio vulnerabilities**, and test **resilience to environmental impacts**, particularly climate-related ones. This supports a forward-looking view of environmental risk.
- Scenario analysis should inform **strategic planning** and the **transition planning process**, helping test the **long-term resilience** of the business model under evolving environmental conditions.
- Institutions may use scenario analysis to build **internal awareness** of environmental risks and embed these elements into their **corporate culture**.
- Institutions should ensure **clarity of purpose, expectations, and limitations** when conducting scenario analysis to improve consistency and interpretation. NEW
- Institutions must develop a **credible, coherent narrative** endorsed by **senior management**, serving as a foundation for the **reference scenario** across the organisation. NEW
- Scenario analysis should be integrated **progressively across governance, strategy, risk management, and operations**, using **short-term stress tests** for immediate shocks and **long-term resilience analysis** for structural environmental shifts. NEW

Governance

- Institutions should implement scenario analysis within governance frameworks aligned with the **EBA Internal Governance Guidelines** and the **EBA ESG Risk Guidelines**. This ensures robust oversight and proper ownership of the process. NEW
- They must maintain **robust, coherent, and regularly reviewed narratives and scenarios**. Reviews are especially important when there are **significant changes** in the internal or external business environment.
- Scenario analysis should rely on a **cross-functional approach** involving risk, strategy, sustainability, finance, and business lines. This collaboration ensures consistent assumptions, better expertise integration, and **credible scenario outcomes**. NEW
- Institutions should **thoroughly document** their scenario analysis, including modelling choices, assumptions, proxies used, and factors included or excluded. Such documentation strengthens **transparency, auditability, and supervisory dialogue**. NEW

Proportionality

- Institutions should concentrate their scenario analysis on **material environmental risks**, based on the materiality assessment in the EBA ESG Guidelines. This ensures efforts are focused where exposures are most significant.
- The **degree of sophistication, scope, and frequency** of scenario analysis should match the institution's risk materiality, methodological maturity, internal capabilities, and expected benefits. Where a detailed quantitative approach is disproportionate, a **simplified approach** may be justified.
- **Small and non-complex institutions (SNCIs)** may rely mainly on **qualitative approaches** for both short- and long-term analyses. This allows them to manage environmental risks effectively without excessive modelling requirements.
- **Non-large, non-SNCI institutions** may use **sensitivity analysis** to assess short-term financial resilience and rely on **predominantly qualitative methods** for long-term resilience. This approach balances proportionality with meaningful risk insights.
- **Large institutions** may use simplified methods only for **long-term or non-climate environmental risks**, where sensitivity analysis can serve as an initial step. As their **capabilities evolve**, they are expected to adopt **more sophisticated quantitative approaches**. NEW

NEW New requirements included in the final version of the EBA guidelines.

3 Development of environmental scenario analysis
Transmission channels, Scenarios and Sensitivity Analysis

Institutions should map material transmission channels and design coherent environmental scenarios aligned with their risk profile. They may complement this work with sensitivity analysis to explore key risk drivers and long-term uncertainties

Transmission Channels

- Institutions should identify the **key channels** through which environmental risks affect exposures, using a **structured and regularly reviewed** process.
- They should rely on **reliable data sources**, transparent methods, and assumptions aligned with their **materiality assessment**. NEW
- Both **transition** and **physical risk** drivers must be considered, drawing on micro and macro channels listed in the Annex.
- Institutions should assess **indirect exposures**, including value-chain effects and local economic spillovers, especially for **large or concentrated counterparties**.
- Depending on time horizons, institutions should consider **mitigating or amplifying factors**, such as insurance coverage, counterparties' **transition/adaptation plans**, and realistic expectations of **government actions**.
- They should analyze how these risks propagate into traditional **risk categories**, including credit, market, liquidity, operational, and strategic risks.

Scenarios

- When designing scenarios, institutions should integrate **socioeconomic context**, **technological evolution**, and **consumer preferences**, ensuring scenarios reflect multiple interconnected factors.
- For climate risks, they must incorporate **climate policies**, **energy system pathways**, **sectoral transition trajectories**, and **emissions-driven climate impacts**. NEW
- For other environmental risks, scenarios should consider **environmental regulation**, **ecosystem conditions**, **land and resource use**, and **ecosystem-dependent supply chains**. NEW
- Institutions should use **credible, science-based scenarios** from recognised bodies such as the **IPCC**, **NGFS**, **IEA**, **UNEP**, **IPBES**, or **EEA**, and adapt them to the scope and granularity of the exercise.
- Short-term stress tests may focus more on **acute physical risks** and market disruptions, while long-term analyses capture **structural shifts** and chronic environmental pressures.

Sensitivity Analysis NEW

- In developing scenario analysis, institutions may consider using **sensitivity analysis as a simpler, practical tool**. While less complex than a full scenario analysis, this approach can provide institutions with an estimate of the most material impacts associated with environmental risks.
- Additionally, institutions may use sensitivity analysis to explore **emerging risks** (e.g. nature, resource scarcity), or **very long-term risks** (e.g. impacts of the increase in frequency and severity of physical risks in 2050 and beyond).

NEW New requirements included in the final version of the EBA guidelines.

4 Types of environmental scenario analysis
Stress Tests, Resilience Analysis, Ongoing Monitoring and Expert Judgment

The EBA outlines the key features of environmental stress tests and long-term resilience analysis, and highlights the role of continuous monitoring and expert judgment in strengthening scenario design and implementation

Stress Tests

- Institutions should integrate **environmental factors** into their stress-testing framework in line with EBA guidance.
- They should use a **baseline scenario** and a set of **severe but plausible adverse scenarios**.
- Institutions should perform **gap analyses** to identify where models must be upgraded to capture environmental risks.
- New environmental modules should be **tested separately** before being fully incorporated into existing models. Stress tests should reflect **sectoral and geographic exposures** and apply shocks at the appropriate level of granularity. NEW
- Institutions should progressively extend environmental stress testing to **all relevant risk categories**. NEW

Resilience Analysis

- Institutions should assess the **long-term resilience** of their strategy under changing environmental conditions.
- They should build a **reference scenario** and multiple **alternative scenarios** covering a wide range of futures.
- Resilience analysis should consider **feedback loops**, including insurance gaps and capital reallocation effects.
- Institutions should identify key **business-model drivers** and project performance over **at least ten years**. NEW
- They should use **multiple time horizons**, with more precise projections in the short term and ranges in the long term. NEW
- Projections should follow a **constrained dynamic portfolio** aligned with the institution's approved strategy.

Ongoing Monitoring and Expert Judgment

- Institutions should regularly **challenge their assumptions** using external data and supervisory benchmarks.
- They should use **sensitivity analysis** to test model stability and identify non-linear effects.
- **Expert judgment** should be applied to address data gaps and risks not yet captured in models.
- Institutions should continuously monitor **environmental developments and counterparty strategies** to keep scenarios relevant.
- Scenario frameworks should remain **modular and adaptable**, allowing updates as science and data evolve.
- Institutions should ensure **proper validation** of any third-party models used.

NEW New requirements included in the final version of the EBA guidelines.

5 Why Management Solutions?
Key aspects and differential value

Management Solutions has an expert working group that supports its clients in the implementation of their sustainability framework within each of the 6 defined lines of activity, bringing expertise in each business area

MS capabilities on sustainability

1 Strategy, Governance and Culture

- Diagnosis, strategic framework and general action plan.
- Definition of the Framework: Governance, methodologies, reporting.
- Change Management: Project Management (PMO), Regulation Observatory, Training.

2 Methodologies for measuring climate risks

- Implementation of climate risk measurement methodologies.
- Scenario analysis and evaluation of the impact on the portfolio.
- Climate stress test exercises, Regulatory – ECB, BoE and Internal. Integration in ICAAP.
- Financed emissions calculation and alignment to NZBA.

3 Sustainable business and Social Impact

- Taxonomy definition and marking of sustainable operations according to international standards.
- Social Impact measurement methodologies
- Market diagnosis and analysis.
- Sustainable business strategy design (industries, products, services).

4 Risks

- ESG risk management.
- Integration of the ESG dimension within the Risk Appetite, Credit Risk (admission and monitoring, models, pricing...), Operational Risk (continuity plans), Market Risk and Liquidity.

5 Data and Technology

- Requirements and definition of the ESG information model.
- Metrics model definition and KPIs.
- Functional and technological architecture.
- Analysis of alternatives (Vendors vs. in-house).
- Implementation.

6 Reporting

- Analysis of information requirements (CSRD, Pilar 3, TCFD, GRI Standards, GHG Protocol + Local regulation and best practices).
- Definition and implementation of reporting models.
- Governance and mechanisms data quality.

Business

- *Wholesale Banking*
- *Retail*
- *Consumer*
- *Transaction*
- *Servicing*
- *Asset Management and Private Banking*

5 Why Management Solutions?
Key aspects and differential value

Management Solutions possesses robust expertise in initiatives aimed at incorporating ESG into risk management

Proven ESG experience

Extensive experience in the field of **sustainability and climate and environmental risk management** in **large financial institutions, non-financial sector companies and the World Bank**. We offer services in all areas of sustainability and climate risks with a **360º vision** (framework, governance, organisation, methodologies, management processes, tools, data and reporting).

Extensive experience in the field of risk management

Extensive experience in projects in different areas such as risk appetite, risk identification and assessment, limit setting, implementation of regulatory requirements in the granting and monitoring of credit, collateral management, regulatory stress testing exercises, ...

Experience in the field of integration of ESG factors in credit risk management

Proven experience in the integration of ESG factors in credit risk management based on the several projects undertaken: definition and implementation of the target operating model of integration in the management of ESG factors, materiality analysis, development of ESG policies, embedding of KPIs ESG in strategical plans, risk appetite and portfolio management, development of ESG assessment workflow of clients, climate stress testing exercises (EBA Climate data, ECB & PRA Climate ST).

ESG data

Holistic view of the ESG reporting model to cover both regulatory requirements (e.g. Pillar 3 ESG, ECB climate ST, CSRD...) and management requirements (e.g. annual report, sustainability reporting, green finance reporting...).

Benchmark capability

***Benchmarking* capacity** in the field of ESG and specifically in the integration of credit management as a result of extensive **experience in various financial institutions in Europe and America, having carried out more than 200 projects.**

Specialist team

Specialist sustainability team with **extensive experience in regulatory requirements, supervisory expectations and market best practices.**

Annex I
Abbreviations

Abbreviation	Meaning
CSRD	Corporate Sustainability Reporting Directive
CSDD	Corporate Sustainability Due Diligence Directive
CRA	Climate Resilience Analysis
CRD	Capital Requirements Directive
CST	Climate Stress Test
EBA	European Banking Authority
EC	European Commission
ESG	Environmental, Social and Governance
ESRS	European Sustainability Reporting Standards
EU	European Union
GL	Guidelines
ICAAP	Internal Capital Adequacy Assessment Process
ILAAP	Internal Liquidity Adequacy Assessment Process
LSI	Less Significant Institutions
SNCI	Small and Non-Complex Institutions

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Maximum Commitment

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