

Risk Based Supervision

Technical training on
From Rules to Risk:
Advancing Risk-Based Supervision
in Africa

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Outline of the presentation

1. RBS in the pension context
2. How does RBS differ from “traditional” supervision approach?
3. Motivation for introducing RBS
4. Risk-based Supervision Process
5. Revised IOPS Toolkit for Risk-based Pension Supervision (2024)
6. Challenges in moving to RBS
7. Lessons learnt
8. Conclusions

1. Risk-based supervision (RBS) in the pension context

- some of the elements of the original concept of RBS
- **IOPS definition** of pension risk-based supervision (<https://www.iopsweb.org/rbstoolkit/#d.en.408992>):

“a structured approach that focuses on the **early identification of potential risks** faced by pension plans or funds and **the assessment** of the financial and operational factors in place **to manage and mitigate** those risks. This process then allows the supervisory authority to **direct its resources** towards the issues and the institutions that pose the greatest threat **thereby supporting timely action and escalation where determined necessary**” (emphasis own)

1. RBS in the pension context

RBS...

- **maximises the use** of scarce regulatory resources;
- **increases the probability** that significant problems will be spotted in a timely fashion and remedied in the most effective manner; and
- **encourages pension funds** to run their business well, so they receive minimum attention from the supervisory authorities

...but

- **transition and organizational costs**
- **higher preconditions** to be met
- problem with **reputational risk** if something goes wrong

1. RBS in the pension context (Brunner et al., 2008):

The Basic Risk Management Architecture

For the institution:

- Risk management strategy
- Board committees
- Risk management functions in the managerial structure
- Internal controls
- Reporting responsibilities

For the supervisor:

- Regulations, including minimum risk management standards
- Risk-based solvency rule
- Risk scoring model guiding supervisory actions
- Internal organization of the agency, with specialist risk units

Market Discipline:

The contribution of the actuary, auditor, fund members, rating companies, and market analysts to sound risk management

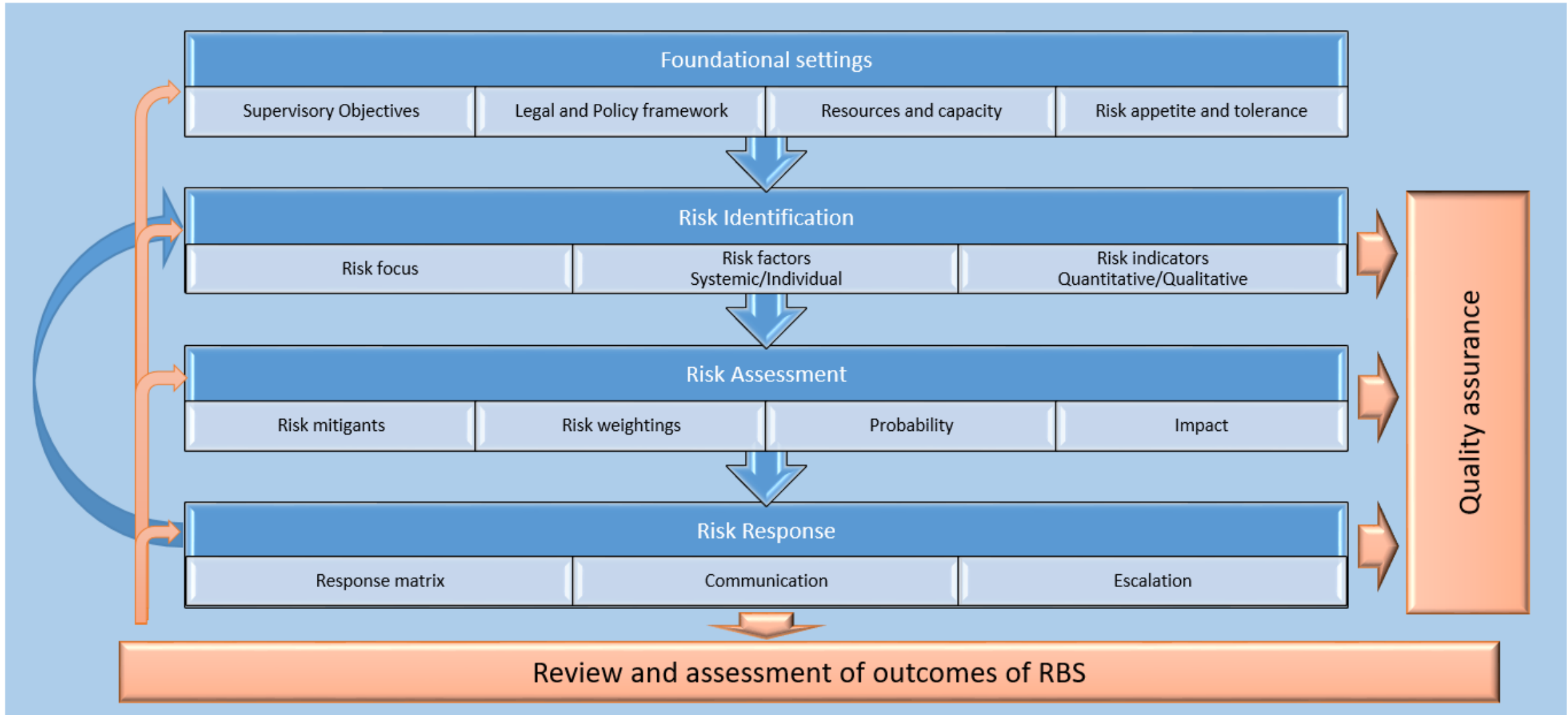
2. How does RBS differ from “traditional” supervision approach?

Risk-based approach	Compliance-based approach
<ul style="list-style-type: none"> • Identifies potential risks • Assesses mitigating factors • Seeks proper management of all risks • Allows scarce supervisory resources to be targeted at funds seen as most at risk 	<ul style="list-style-type: none"> • Focus on compliance with e.g. tax and labour laws and (often) quantitative investment rules • All funds get same degree of attention
<ul style="list-style-type: none"> • Forward looking and principles-based legislation • Flexible 	<ul style="list-style-type: none"> • Detailed, often rigid, rules that are difficult to change to meet urgent regulatory needs
<ul style="list-style-type: none"> • Incentives for institutions to strengthen risk management practices 	<ul style="list-style-type: none"> • Institution’s focus is on compliance with rules, not risk management

3. Motivation for introducing RBS

- **to improve supervisory effectiveness** by using scarce resources more efficiently;
- **to improve risk-management by pension funds** (supervisors' feedback)
- **to address internal organisational concerns** (e.g. when establishing an integrated financial authority);
- **to adapt to changes** / developments in the overseen industry;
- **to gain legitimacy** following supervisory failure;
- **to meet requirements** imposed by legislation; and
- **to adapt to the changing nature of financial risks** themselves (becoming more complex, DC: transfer to individuals)

4. RBS Supervision Process (1/3)



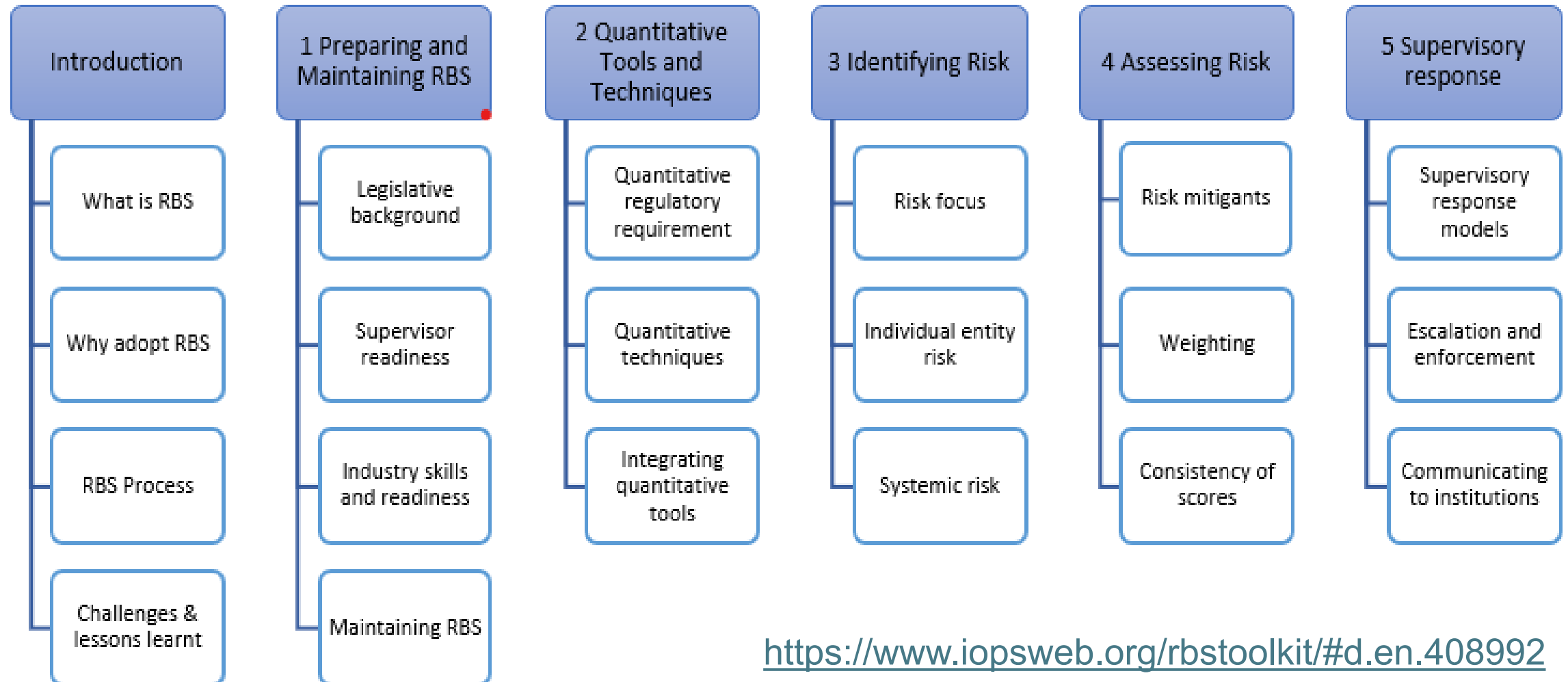
4. Risk-based Supervision Process (2/3)

1. **Setting up the objectives** of supervising authority (SA) and **its risk focus**
2. **Identifying the risks** faced by individual funds and the pension industry that may have impact on SA objectives
 - risks and their correlation
 - risk indicators (quantitative and qualitative)
 - risk mitigants
3. Establishing a methodology for **mapping and weighting risks** faced to SA's objectives
 - probability and likely impact of adverse events
 - quantitative and qualitative assessment

4. Risk-based Supervision Process (2/3)

4. Establishing a **quality assurance process**
5. Forming a **methodology** for allocating supervisory resources based on the risk assessments
 - supervised entities risk matrix
 - SA response policy
6. **Reviewing and assessing** the outcomes of RBS

5. IOPS Toolkit (revised in 2024) for Risk-based Pension Supervision



<https://www.iopsweb.org/rbstoolkit/#d.en.408992>

5. Module 1: preparation for RBS

Legislation

- discretion in the interpretation of legislation
- discretion in the enforcement of legislation
- prudent-person legislation

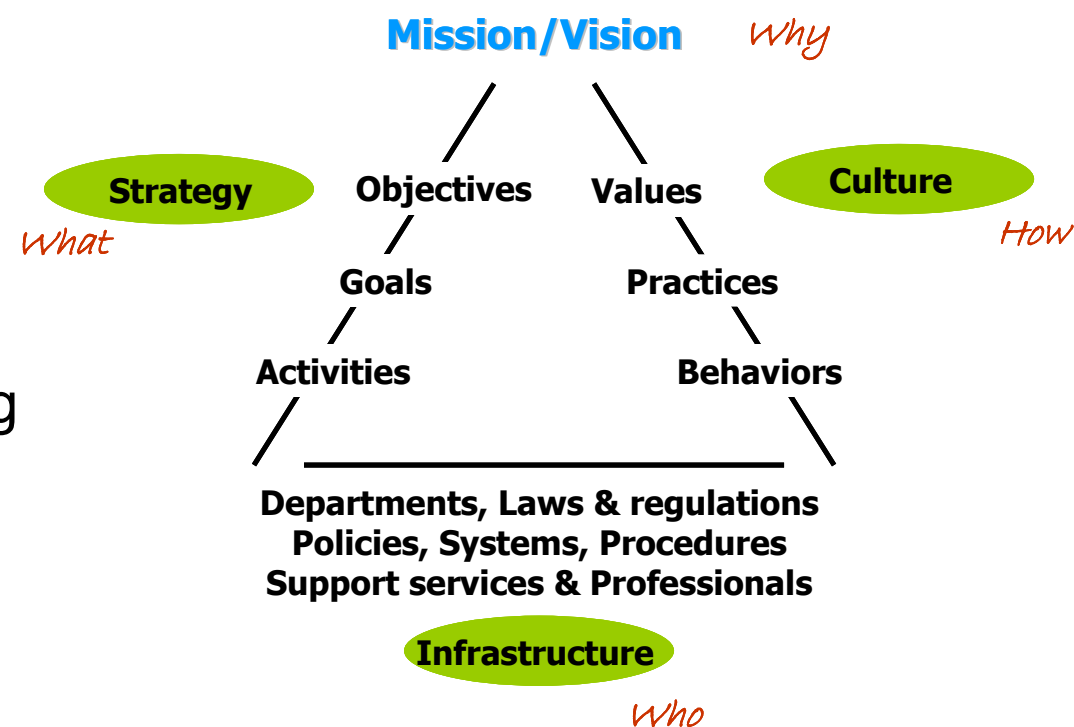
Supervisory readiness

- organisational alignment and strategic planning

Industry skills and readiness

- communication and guidance
- quality of supporting professionals
- capital market development

Maintaining and assessment RBS



5. Module 2: quantitative tools and techniques

Quantitative regulatory requirements

- straightforward limits or risk-based regulations
- regulation for DB vs DC funds

Techniques for quantitative risk assessment

(comparison of valuation assumptions, analysis of surplus, roll-forward calculations, duration analysis, sensitivity testing, deterministic/stochastic stress testing, VaR)

Integrating quantitative tools

5. Module 3: identifying risk



5. Module 3: risk focus vs nature of pension system

- *DB funds* – focus on **funding + solvency**, as well as **trustee oversight ability**
- *DC funds* – focus on **investment risk, costs** and **operational risks**.
The degree of competition dictates the focus within DC systems (e.g. an open market conflict of interest issues, misselling problems, information provision and cost control will be major issues on the supervisor's radar)

5. Module 3: risk factors (1/2)

- Investment (market) risk
- Counterparty default risk / credit risk
- Funding and solvency risk
- Liquidity risk
- Mismatch risks
- Actuarial risk
- Market conduct (competition, member outcomes) risk
- Operational risk

5. Module 3: risk factors (2/2)

- IT risk
- External and strategic risk
- Legal and Regulatory risk
- Contagion and related party / integrity risk
- Governance risk

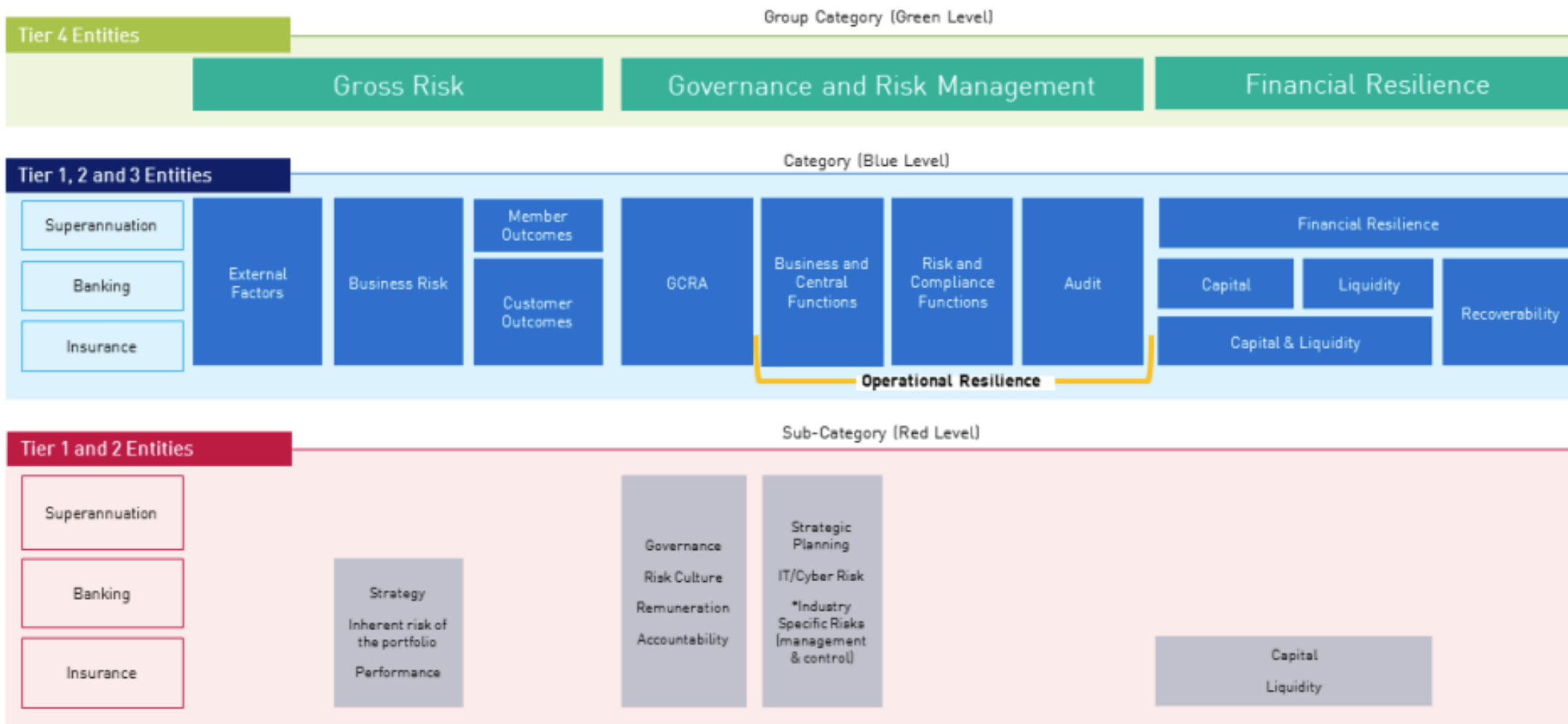
5. Module 3: risk indicators

Supervisory Objectives	Risk Focus	Risk Factors	Risk Indicators
<p>Prevent Fund Failure</p> <p>Ensure Promised Benefits Delivered</p> <p>Promote member outcomes</p>	<p>Funding and Solvency</p> <p>Sustainability</p>	<p>Investment /market risks</p> <p>Mismatch risks</p> <p>Actuarial risks</p> <p>Liquidity risks</p> <p>Operational risks (including IT risks)</p> <p>Governance risks</p>	<p>Funding Levels</p> <p>Results of stress tests</p> <p>Results of ALM tests</p> <p>Volatility measures</p> <p>Portfolio concentration</p> <p>Asset correlation measures</p> <p>Trustee /fiduciary knowledge</p> <p>IT Security</p> <p>Sensitivity to fraud</p> <p>Net investment returns /- forecasted ability to deliver on <u>promises</u></p> <p>Fees and expenses</p>
<p>Prevent Excess Consumer Loss</p>	<p>Risk-management Systems</p>	<p>Investment /market risks</p> <p>Operational risks (including IT risks)</p> <p>Governance risks</p>	<p>Investment strategy</p> <p>Results of <u>VaR</u> tests</p> <p>Management ability</p> <p>Outsourcing</p> <p>Non/late payment of contributions</p>
<p>Ensure Fair, Competitive Markets</p> <p>Promote Market Stability</p> <p>Prevent Financial Crime</p> <p>Promote Market Development</p>	<p>Conflicts of Interest</p>	<p>Governance risks</p> <p>Market conduct risks</p> <p>Counterparty /- credit risk</p> <p>External /strategic risks</p> <p>Law /regulatory risks</p> <p>IT risk</p> <p>Operational risk</p>	<p>Outsourcing</p> <p>Probability of default</p> <p>Concentration and correlation</p> <p>Enforceability of contracts</p> <p>IT Security</p> <p>Sensitivity to fraud</p> <p>Custody arrangements</p> <p>Management ability</p> <p>Money laundering and other financial crime</p>

5. Module 4: risk mitigating and scoring

- Governance
 - Quality of governing board / trustees
 - Management controls
 - Risk/compliance culture
- Risk management
 - Effectiveness of operational management
 - Strategic planning
 - Investment strategy
 - Adequacy of risk management systems
 - Adequacy of independent review
- Role of administrator
- Financial resources and support
 - Sponsor
 - Insurance

5. Module 4: risk assessment categories (APRA, Australia)



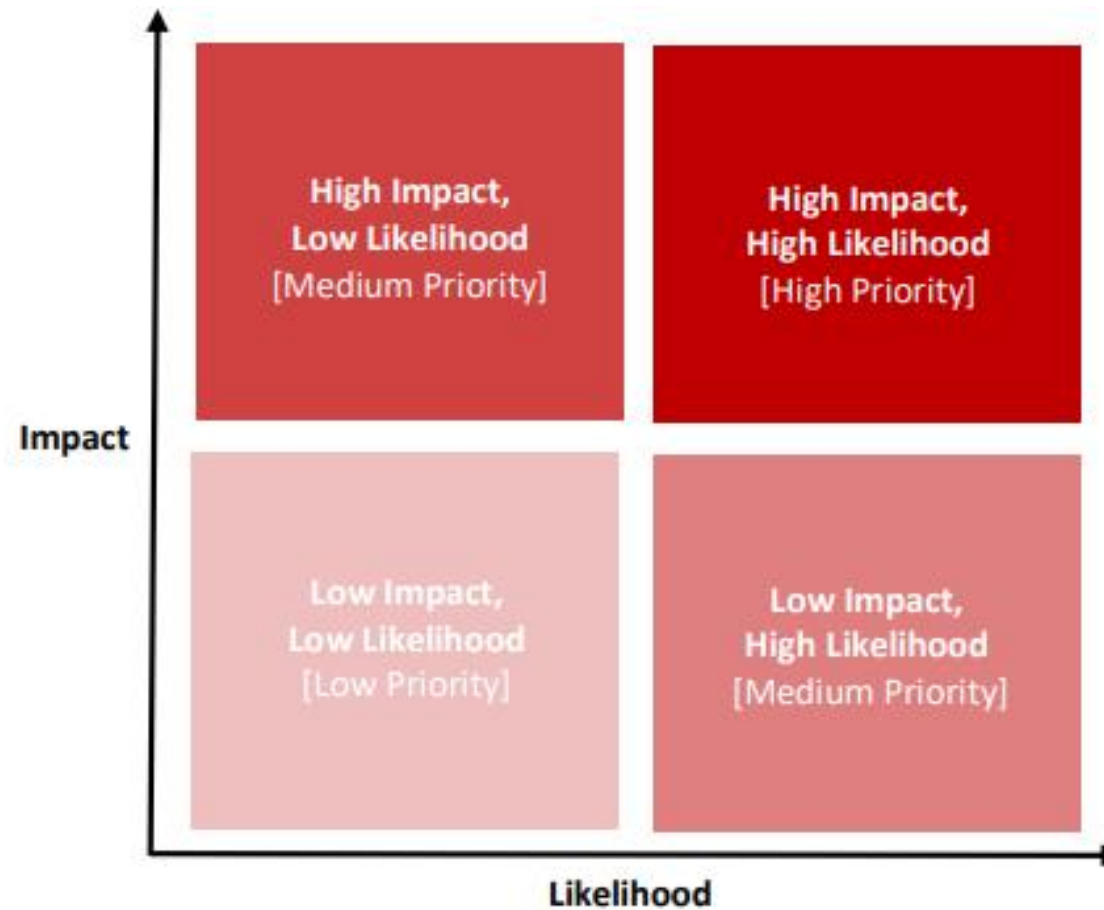
* Superannuation (Investments, Business Operations), Banking (Credit, Market, Operational), Insurance (Insurance, Credit, Investments, Operational)

5. Module 4: example of net risk scoring

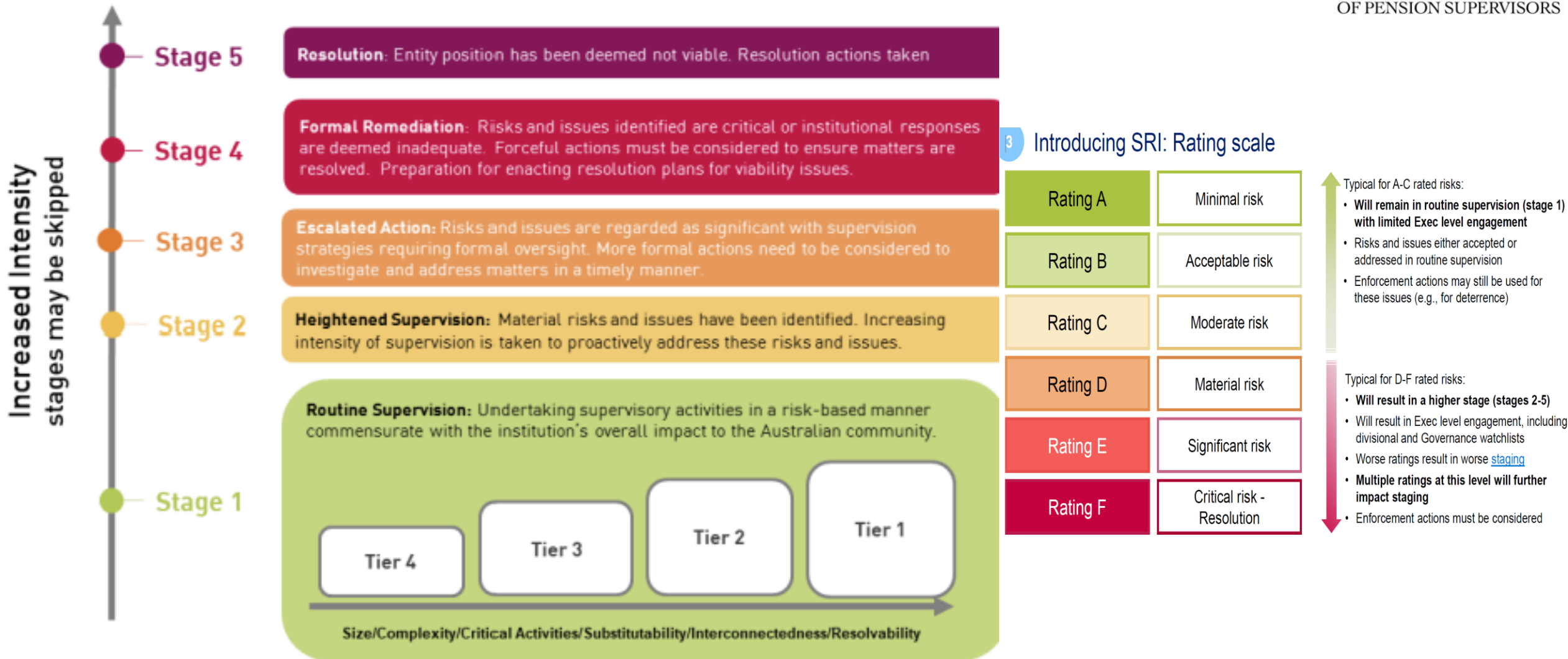
QUALITY OF RISK MANAGEMENT FOR SIGNIFICANT ACTIVITY	LEVEL OF INHERENT RISK FOR SIGNIFICANT ACTIVITY			
	Low	Moderate	Above average	High
Strong	Low	Low	Moderate	Above average
Acceptable	Low	Moderate	Above average	High
Needs improvement	Moderate	Above average	High	High
Weak	Above average	High	High	High

Source: Toronto Centre

5. Module 5: Supervisory response (RBA, Kenya)

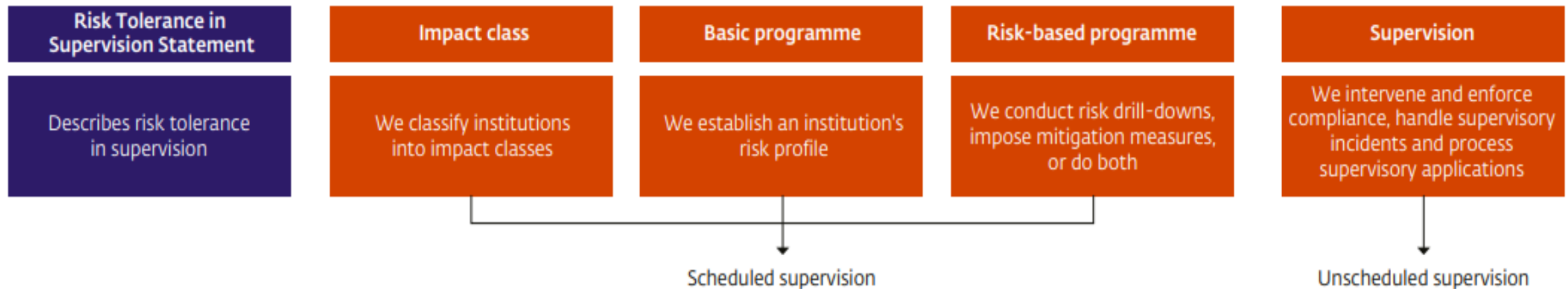


5. Module 5: Supervisory response (APRA, Australia)



5. Module 5: Supervisory response (DNB, the Netherlands)

In the Netherlands, all entities within an impact category are subjected to the same **basic supervisory programme**. The scope of the basic program differs between impact classes and is smaller for lower impact entities. The basic programme's purpose is to identify risks and concerns and where it exposes risks outside of risk tolerance, additional activities are undertaken in accordance **with a risk-based program**.



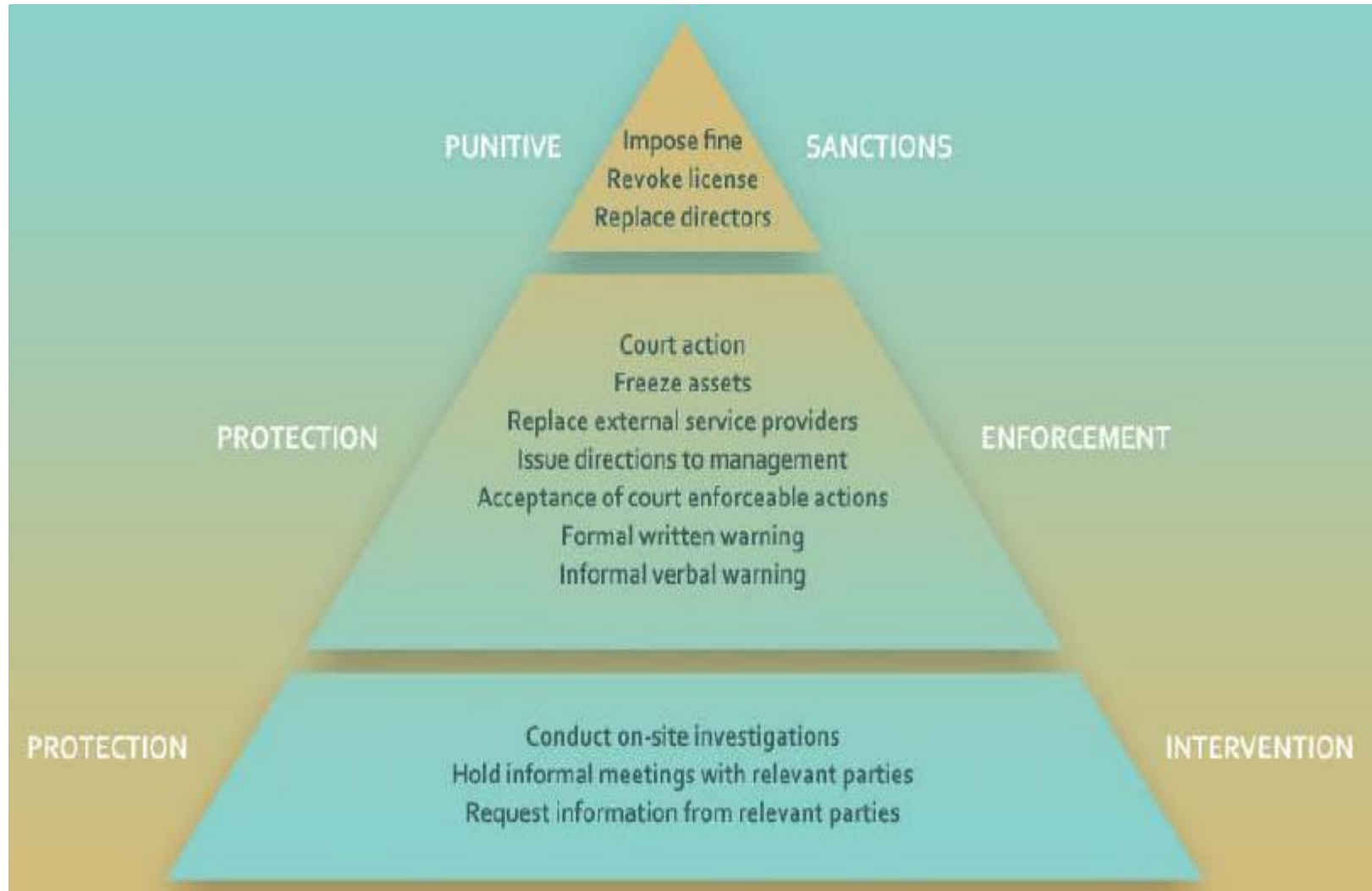
5. Module 5: Communication assessment (1/2)

- A risk-based approach to supervision involves different dynamics in terms of communication between the supervisory authority and the supervised entity
- Rather than simply notifying the entity that a rule has been broken, **the assessment** of supervisory judgement needs to be communicated
- The SA has to **decide whether to disclose the results** of the risk assessment to the institution itself and, if so, the extent to which details are communicated
- Conditions under which public disclosure of risk assessments might be appropriate must also be considered

5. Module 5: Communication assessment (2/2)

- When it comes to releasing a risk-score to the public as a whole, clearly **a balance needs to be struck** between clarity and dialogue between the authority and the institution (and publicity acting as a deterrent factor) and confidentiality (so that panic and flight from institutions is not induced)

5. Module 5: Supervisory response pyramid



6. Challenges in moving to RBS

- Adaptation of **existing models**
- **Re-organisation** of the supervisory authority
- New **data collection** (and its use)
- Change of the **mind set** of supervisory staff + Managing **the blame**
- **Industry understanding** and acceptance
- Appropriate **powers**
- Ensuring that assessments of entities **are forward-looking**
- **Going beyond the individual** entity in assessing risk
- Structure and operation of **internal risk governance process**

7. Lessons learnt (1/3)

- **Adaptation** of models (consult, tailor, engage with peers to learn)
- **Application** of models (be aware of weaknesses, sound supervisory judgment)
- **Data** collection (power to ask for more, digitalisation & automatization, pilot/stages, cut down on unnecessary ones)
- **Independence** of the supervisory body
- **Reorganisation** of the supervisory body (project management, allow plenty of time, gradual process)
- **Staff** (training, rearrange, learnt from international/sector experience)

7. Lessons learnt (2/3)

- **Industry** (explain RBS externally, talk, focus on risk management systems of entities – esp. alternative investments/derivatives)
- **SA powers** (flexibility, quality legislation/mandate, talk to stakeholders, resources, prepare industry)
- **Risk-based solvency** (flexibility in times of crisis, counter-cyclical rules)
- **Systemic risk** (monitor contagion channels, analysis, system-wide responses)
- **Thematic supervision** (combined with specific supervision, consistency)

7. Lessons learnt (3/3)

- Think in terms of **achievability** (strategies alternative to inspection to influence behaviour)
- RBS is **not** a set and forget approach to supervision (ongoing evolution, review/assess)
- It is **worth** doing (explicit framework, benefits)

8. Conclusions (1/2)

- Risk-based supervision originates from „classical” supervision approach
- RBS approach to pensions needs to be adapted to take into account the socio-economic aspects and market organisation issues
- RBS in pensions offers the chance to supervisors to use scarce resources effectively (=prioritise) and to monitor all risk
- However, RBS is a difficult and gradual process that requires meeting pre-conditions both from authority, participants and market itself

8. Conclusions (2/2)

- RBS in pensions experience is covered in IOPS Toolkit for Risk-based Pension Supervision
- Several important lessons were identified by IOPS Members
- RBS in pensions in the context of DC should probably further evolve toward target-retirement income approach