# **Scenario analysis** How to deal with uncertainty?

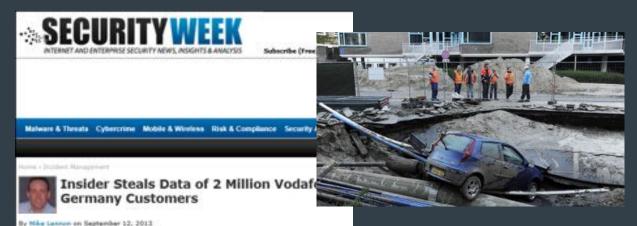
Hans Bikker

IOR - 10 September 2015

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## Did you see it coming?



### VU Medical Center



#### Very heavy snow fall



A Vodafone incident

### Regulatory risk

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#### Banken blijven struikelen over renteswaps

#### 29 mei 2015



Banken onderschatten de urgentie in de rentederivatenproblematiek. Dat zegt de Nederlandse financieel expert en vaste medewerker aan cm: dr. Victor Macrae in zijn boek *Mastering interest rate risk strategy*: Financial Times Publishing lanceert volgende week zijn boek over mis-selling van derivaten en derivatenblunders. Volgens Macrae moeten banken proactiever zijn om het rentederivatenprobleem op te lossen anders gaat het hen veel geld en reputatieschade kosten.

### Reputation risk because of a product

# What about the future? Blurry or clear?



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## Uncertainty – you expect something but..



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### Insight is required...

#### CRD IV

#### Article 85

#### **Operational** risk

 Competent authorities shall ensure that institutions implement policies and processes to evaluate and manage the exposure to operational risk, including model risk, and to cover low-frequency high-severity events. Institutions shall articulation what constitutes operational risk for the purposes of tho policies and procedures.

# Guidelines on Forward Looking assessment of own risks - ORSA

#### Guideline 12 - Assessment of the overall solvency needs

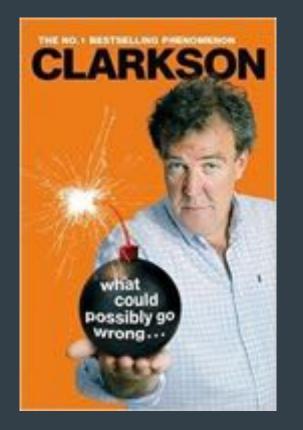
- 1.39. In accordance with Article 45 of Solvency II Directive, national competent authorities should ensure that the undertaking assesses its overall solvency needs and then expresses the overall solvency needs in quantitative terms and complements the quantification by a qualitative description of the material risks.
- 1.40. Where appropriate, national competent authorities should ensure that the undertaking subjects the identified material risks to a sufficiently wide range of stress test or scenario analyses in order to provide an adequate basis for the assessment of the overall solvency needs.

#### Guideline 13 - Forward-looking perspective of the overall solvency needs

1.41. In accordance with Article 45 of Solvency II Directive, national competent authorities should ensure that the undertaking's assessment of the overall solvency needs is forward-looking, including a medium term or long term perspective as appropriate.

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# How to get insight? Scenario analysis

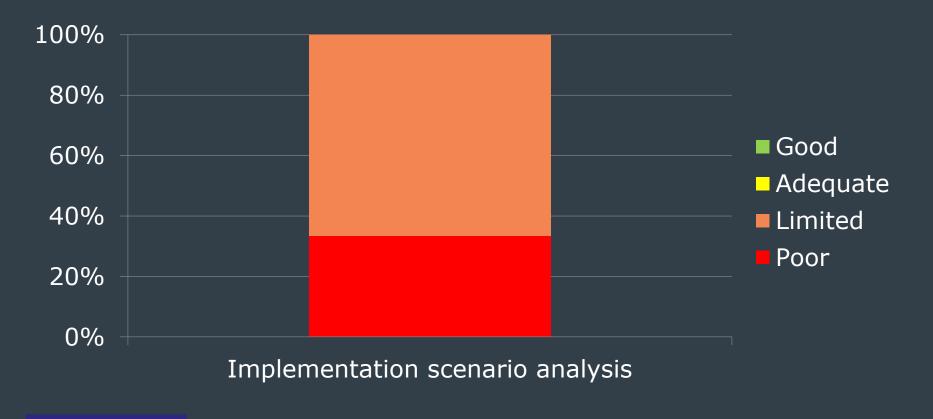


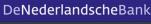


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# How well are non-AMA banks doing in NL? DNB investigation 2014 shows poor results





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# Some charateristics of scenario analysis

"Scenario analysis is a process of obtaining expert opinion of business line and risk managers to identify potential operational risk events and assess their potential outcome".

Source: BCBS Principles for the Sound Management of Operational Risk, 2011

- Subjective process
- Involvement of first and second line
- Focus on plausible events
- Focus on extreme events

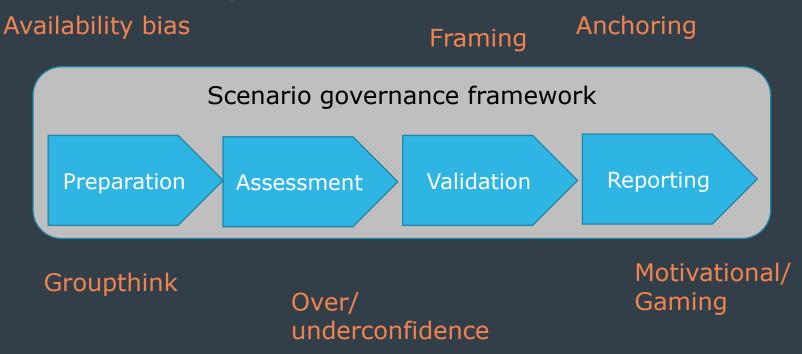
8 - IOR / Scenario analysis for ORM

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Basic elements robust scenario analysis process Without, biases could harm a reliable outcome

#### Representativeness

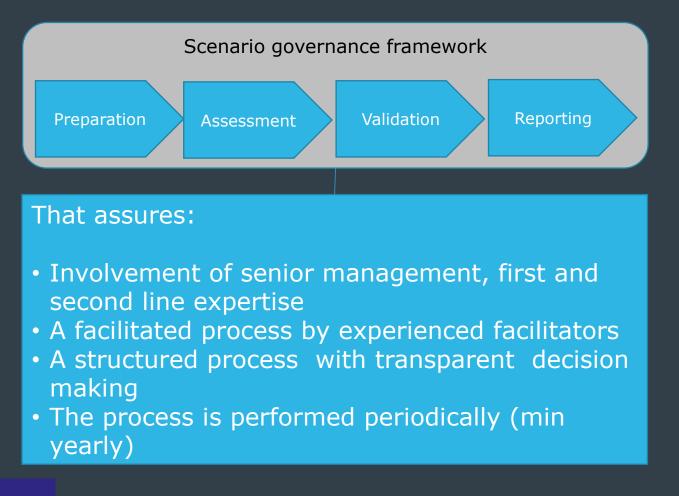


Source: KPMG & ORX, Preparing for the Unexpected. Leading practices for Operational Risk Scenarios, 2011

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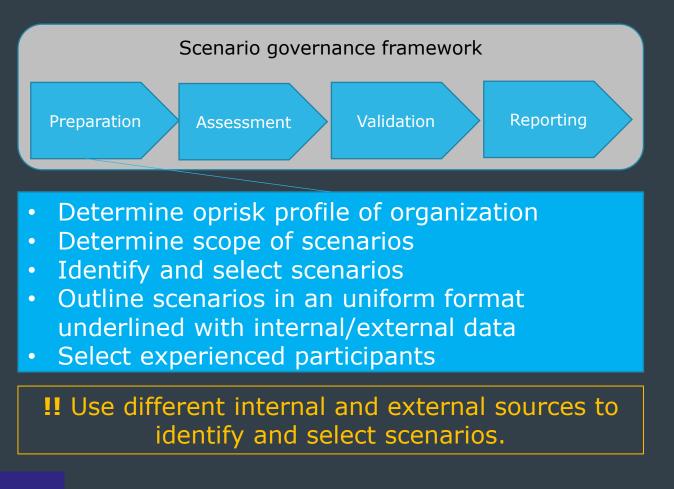
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### Basic elements robust scenario analysis process Scenario governance framework



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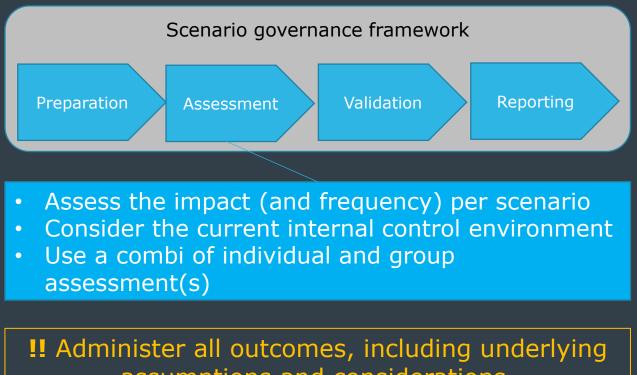
## Basic elements robust scenario analysis process Preparation



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## Basic elements robust scenario analysis process Assessment

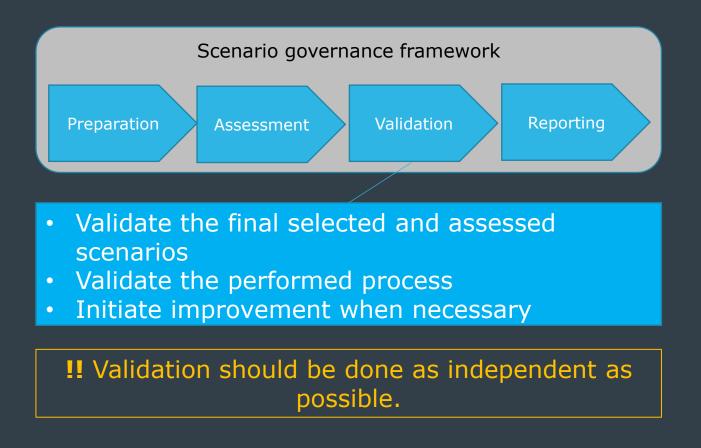


#### assumptions and considerations.



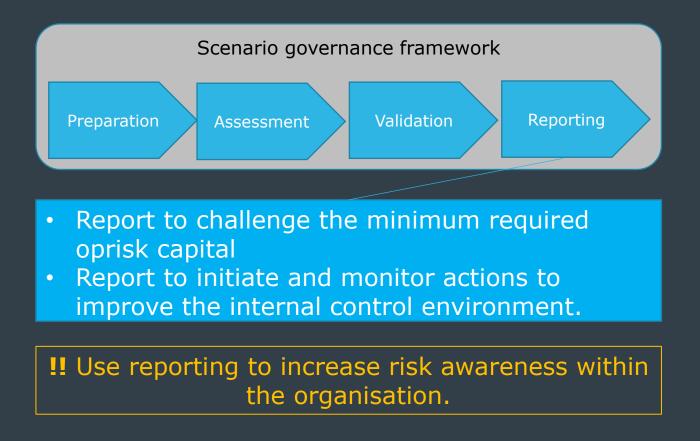
12 - IOR / Scenario analysis for ORM

## Basic elements robust scenario analysis process Validation



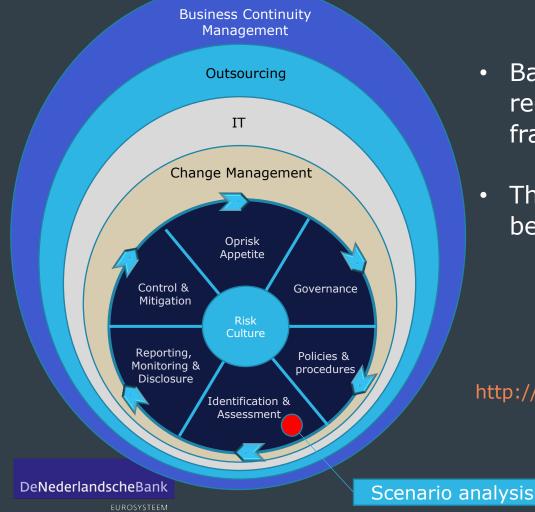


## Basic elements robust scenario analysis process Reporting





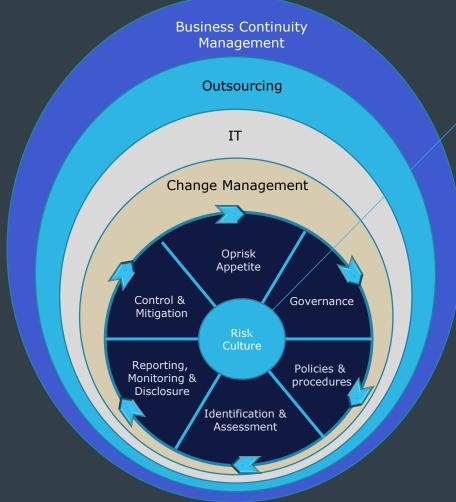
# Scenario analysis stands not alone It is part of the ORM framework



- Based on the PSMOR, DNB has recently published a reference framework on Openboek.
- This reference framework can be used as a self-assessment.

http://obtinternlive.dnb.nl/3/50-229146.jsp

# ORM reference framework / self-assessment For a bank with a standardized approach



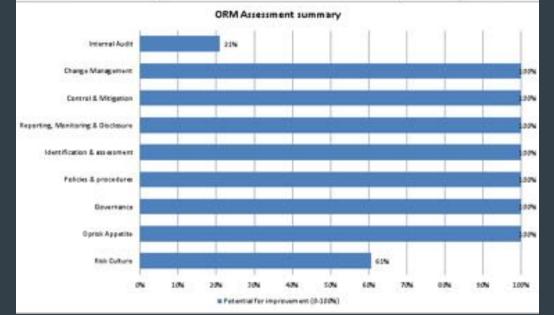
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- The core including Change Management has already been worked in a selfassessment. Other components will be ready by begin 2016.
- Each component is worked out in one or more topics with related controls which can be scored ('not comply, partly comply', 'almost comply' or 'fully comply').

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# ORM reference framework / self-assessment Useful for communication, prioritization and insight

Assessment summary	cause of institution>								
High level overview									
Tepic	Potential for improvement (0-300%)	Priority	% (connectity) filled in						
Risk Culture	61%	8	100%						
Oprisk Appetite	100%	1	0%						
Governance	100%	1	0%						
Policies & procedures	100%	1	0%						
Identification & assessment	100%	1	0%						
Reporting, Monitoring & Disclosure	100%	1	0%						
Control & Mitigation	100%	1	0%						
Change Management	100%	1	0%						
Internal Audit	21%	9	100%						



The results are presented in tables and graphs showing:

- Potential for improvement
- Priority
- % (correctly) filled in

Besides the overall level, this presentation is also available per component.

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# End of presentation. Thank you!

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