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Session 1D

Risk Appetite and Risk Tolerance – What's the Difference?

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AGENDA

- Why bother with risk appetite and risk tolerance?
- Terminology
- Articulating and applying risk criteria
- Getting over the common hurdles

Culture is the #1 ingredient for effective risk management

What is Risk Management?

“The culture, processes and structures that are directed towards realising potential opportunities whilst managing adverse effects.”

AS/NZS 4360: 2004

Without a risk appetite statement, each individual manager must infer it



You'll get wide-range of :

- interpretations of risk criteria
- Leading to corresponding (mis) alignment with desired risk appetite and risk tolerance.

The blind men and the elephant



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Definitions

	HM Treasury 2006	AIRMIC 2009	ISO 31000 2009	<i>Risk Wise</i> 2010	COSO 2012	RIMS 2012
Risk Appetite	The amount of risk that an organization is prepared to accept, tolerate, or be exposed to at any point in time	How much risk a company is willing to take	Amount and type of risk that an organization is prepared to pursue, retain or take	How much risk an organization is willing to take on to ensure it has ample opportunity to achieve its objectives.	The amount of risk an organization is willing to accept in pursuit of value.	The total exposed amount that an organization wishes to undertake on the basis of risk-return trade-offs for one or more desired and expected outcomes.
Risk Tolerance	Not defined	maximum threshold before real financial distress (risk bearing capacity)	Risk Criteria: Terms of reference against which the significance of a risk is evaluated	The level to which a risk must be managed to be considered acceptable	Acceptable level of variation to accept regarding the pursuit of its objectives.	The amount of uncertainty an organization is prepared to accept in total or more narrowly within a certain business unit, a particular risk category or for a specific initiative

Objectives of ERM at Hydro One

- Formal:
 - Uniform processes, language, and tools for all risks
 - Support corporate governance
 - Strengthen management practices in a demonstrable manner
- Informal:
 - Provide solutions to problems
 - Provoke useful conversations, increase understanding
 - Build comfort with taking MORE risk
 - Influence the management culture of the company

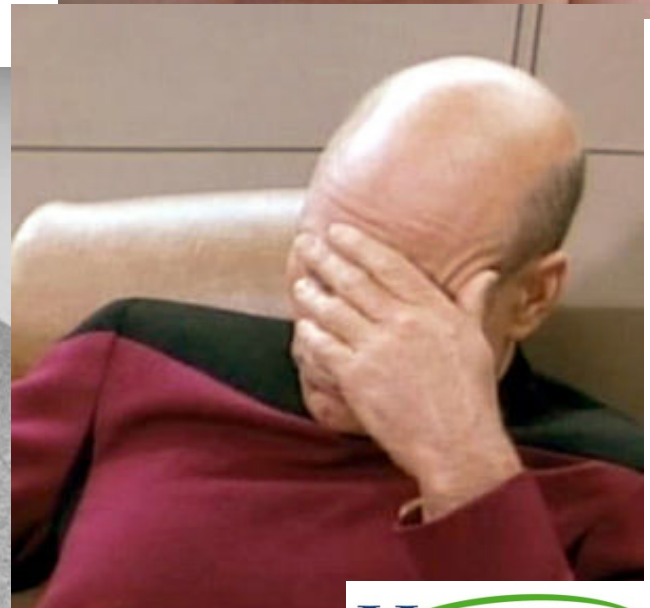
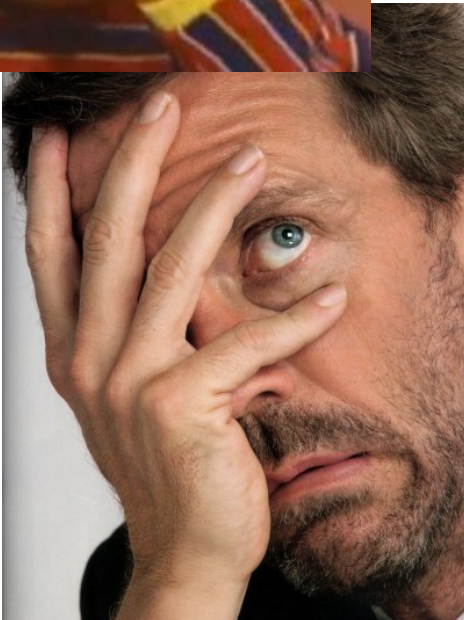
Risk Appetite?

Risk Capacity?

Risk Tolerance?

Risk Limits?

Risk Criteria? *



Clarity –

what do the terms mean at Hydro One?

- **Risk Attitude:** Hydro One's general risk philosophy that drives it to pursue, retain, take or turn away from risk. (per ISO 31000)
- **Risk Appetite:** the specific expression of Risk Attitude in the context of individual Strategic Objectives.
- **Risk Tolerances:** the set of impact criteria, used in assessing risk magnitude, that reflect Hydro One's risk appetite. Risk Tolerances are the guidelines that establish levels of acceptable and unacceptable exposure from any risk.
- **Risk Criteria:** the set of metrics (standards, measures or expectations) used to assess risk (e.g. Risk Tolerances, Strength of Controls, Probability/likelihood, Velocity, Resilience). (similar to ISO 31000)

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Risk criteria – a many splendoured thing

- Setting boundaries on an impact-likelihood grid
- Economic capital measures (e.g., financial institutions set aside 'buffer' capital to help absorb unexpected losses)
- Changes in credit ratings
- Profit and loss measures
- Corporate value (e.g., probability of ruin or default)
- Limits / targets or thresholds for key indicators (e.g., $\pm 5\%$ in profit or 1-2.5% variation in revenue)

Source: "Research into the Definition and Application of the concept of risk appetite", Marsh and University of Nottingham, commissioned & published by airmic 2009

A simple approach to articulating an organization's "Risk Appetite"

1. Ask leaders and managers for examples of:
 - a) Past risk-taking decisions that were appropriate, i.e., good balance of threat and reward; that most people in the organization and stakeholders would agree were appropriate
 - b) Past risk-taking decisions that were inappropriate
2. Probe the examples to discover what are the hallmarks of good vs. bad risks for your.
 - a) Ask the leaders "What made that an appropriate (or inappropriate) decision?"

Another way to define & apply an organization's "Risk Appetite"

1. Define parameters (principles) for risk-taking.
2. Calibrate the organization's appetite for each major category of risk.
3. Verify that the organization's risk taking culture is aligned with the risk appetite statement.
4. Apply the risk appetite statement when evaluating risks.
5. Review risk appetite statements on a periodic basis.

SAMPLE: Risk Appetite Scale

Definition: Recognizing that risk and reward are inextricably linked, risk appetite represents the balance between exposure to downside risk (threat) and upside risk (opportunity) with which we are comfortable in order to attain our objectives.

1	“Zero Risk”	Not willing to accept risk (threats or opportunities).
2	Low	Unwilling to accept even a very limited amount of downside risk (threat) in most circumstances unless the upside risk (opportunities) exceed the downside risk.
3	Moderate	Willing to accept some downside risk (threats) in certain circumstances that include opportunity.
4	Modest	Willing to accept downside risks (threats) commensurate with the potential upside risk (opportunity).
5	High	Willing to accept a high level of downside risk (threats) in circumstances where there are significant or important opportunities.

EXAMPLE: Risk Appetite Statement for a Nonprofit Agency

Description of Risk		Risk Appetite
1.1	Strategy/Policy/Performance: We are willing to accept a high level of downside risk where there are significant opportunities to serve our core stakeholders and achieve our mission.	High
1.2	Stakeholder and Public Perception: As a new agency, we are willing to accept some downside risk commensurate with assessed opportunities to meet our strategic objectives and build our reputation.	Modest
2.1	Governance/ Accountability/ Organizational Risk: Given the nature of our activities, we are willing to accept some downside risk with regards to governance commensurate with opportunities to serve our core stakeholders and fulfill our mandate.	Modest
2.2	Legal/Contractual Compliance We are not willing to accept uncertainty with regards to compliance with contracts, legislation and policies.	Low
2.3	Controllershship/Accounting Risk: We are not willing to accept much risk with regards to compliance with financial and accounting policies, our budget and the stewardship of donor funds.	Low
3.1	Program Workload/Utilization: As a new agency, we are not willing to accept risk with regards to fulfilling our service and research obligations.	Low
3.2	Service/Operational Risk: Given the nature of our activities and the balancing of its resources, we are willing to accept some downside risk that specific services or products may not be delivered as planned commensurate with assessed opportunities to meet strategic objectives.	Modest
4.1	Compensation Risk: Given the long-term implications, we are willing to accept some downside compensation risk commensurate with assessed opportunities to meet strategic objectives.	Modest
4.2	Skills/Talent Risk: Given its strategic importance, we are not willing to accept much risk with regards to the agency's human capital.	Low
5.1	Information Technology: Given its strategic importance, we are not willing to accept much risk with regards to the our information technology needs.	Low
5.2	Capital Project Delays: We are willing to accept some downside risk with regards to premises and capital project delays commensurate with opportunities for better facilities.	Moderate

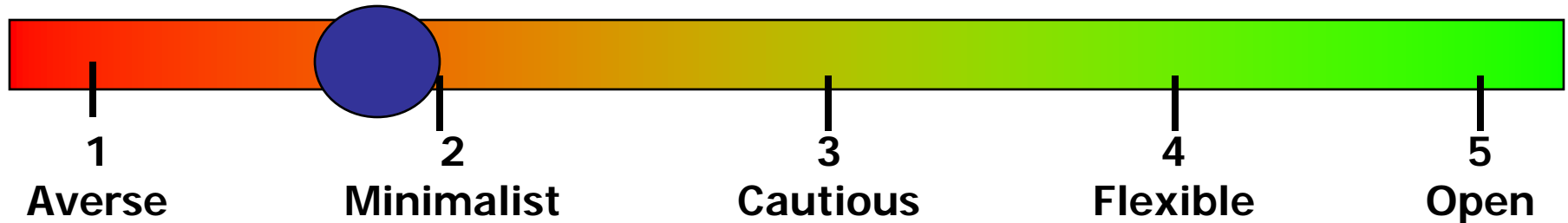
Risk Appetite – Hydro One's Approach

- Risk appetite is defined in the context of individual strategic objectives
- Risk appetite is not expressed in terms of a hard limit or ratio
- Instead, risk appetite expressed in broad relative terms

How we arrive at Risk Appetite

- For each objective, ask:
 - How “sacred” is achievement?
 - How much uncertainty or volatility are we willing to accept?
 - When faced with more than one option, how willing are we to choose one that places this objective at risk?
 - How willing are we to trade this objective off against the others?

Risk Appetite Continuum



- "Sacred"
- Extremely
- When fac
- lowest ris
- Will neve

- Will take justified risks
- Fully anticipate uncertainty or volatility in results
- When faced with multiple options, will choose the one with the highest return and accept the possibility of failure
- Willing to trade off this objective against others

Illustration (1)

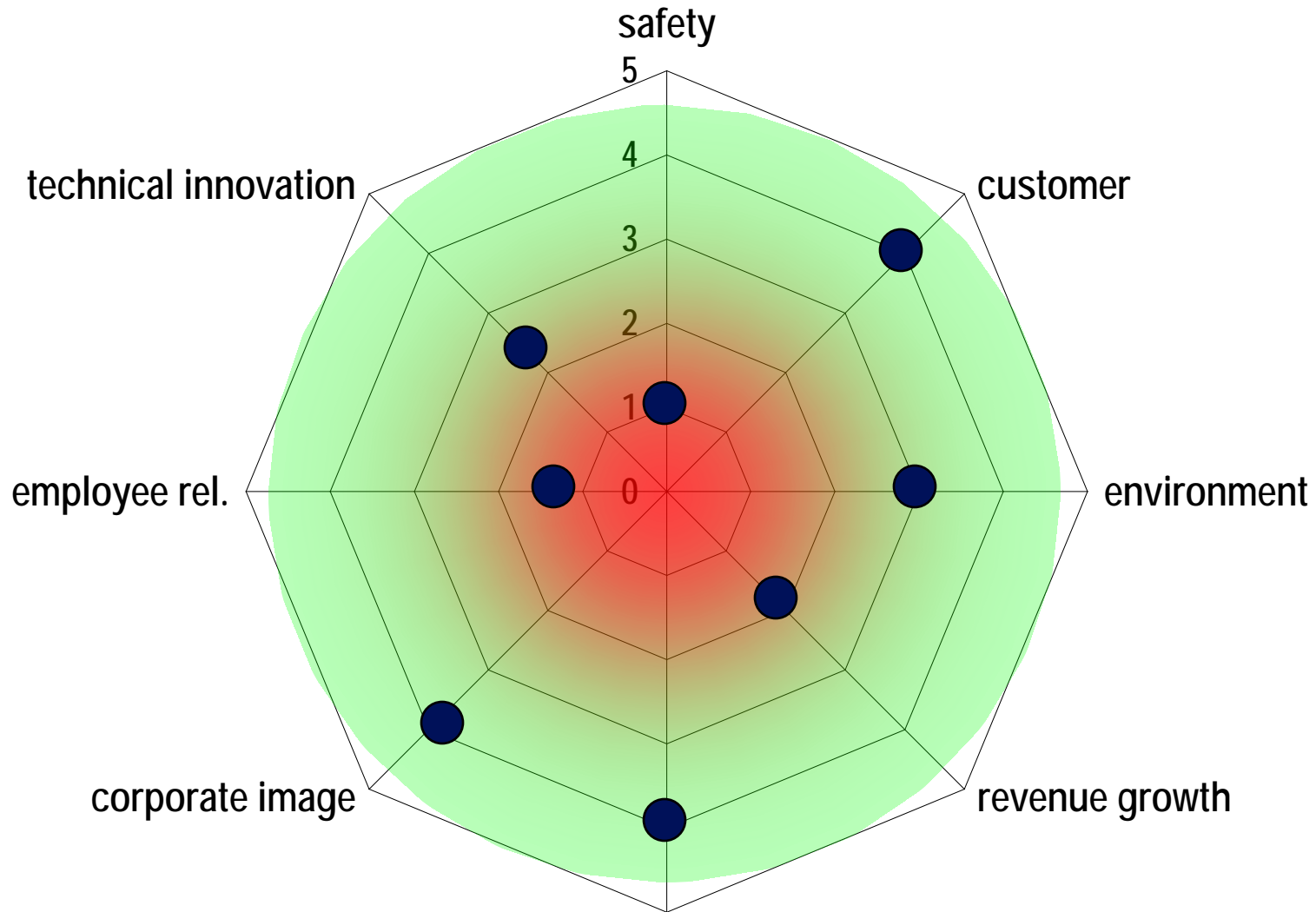


Illustration (2)

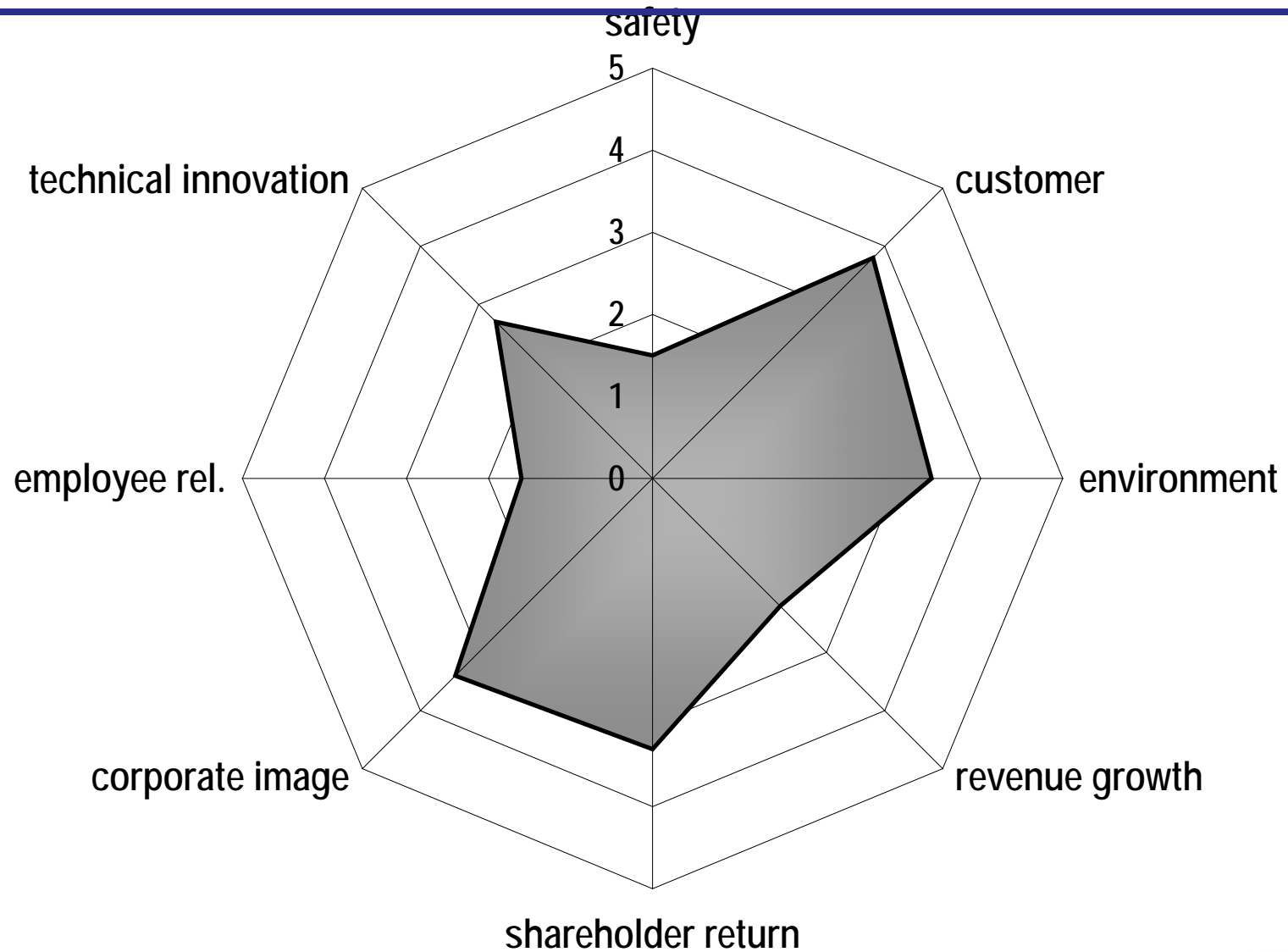
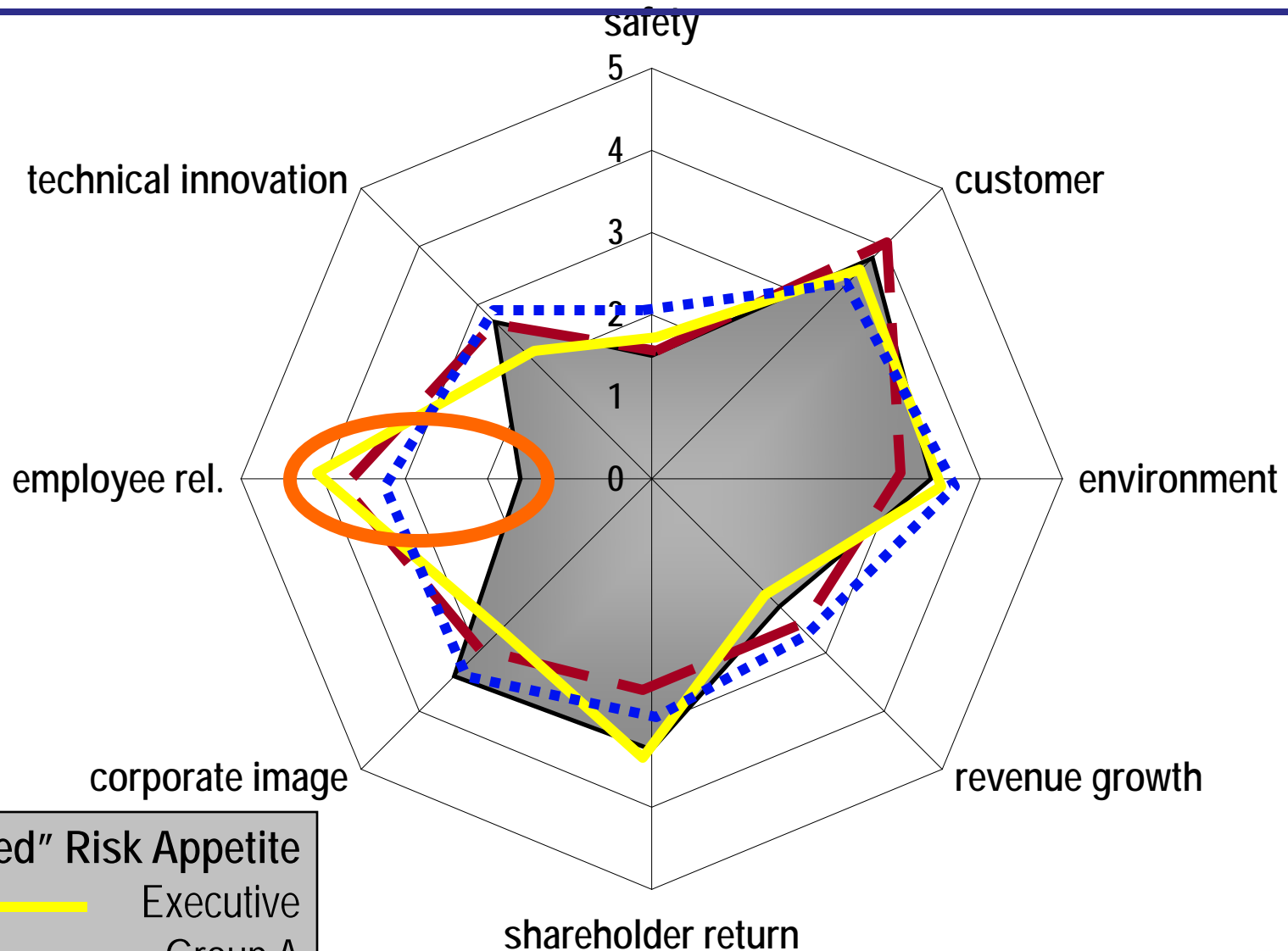
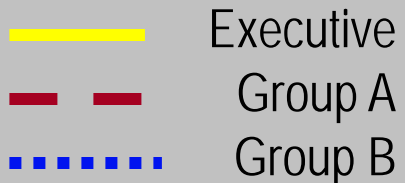


Illustration (3)



"Exhibited" Risk Appetite



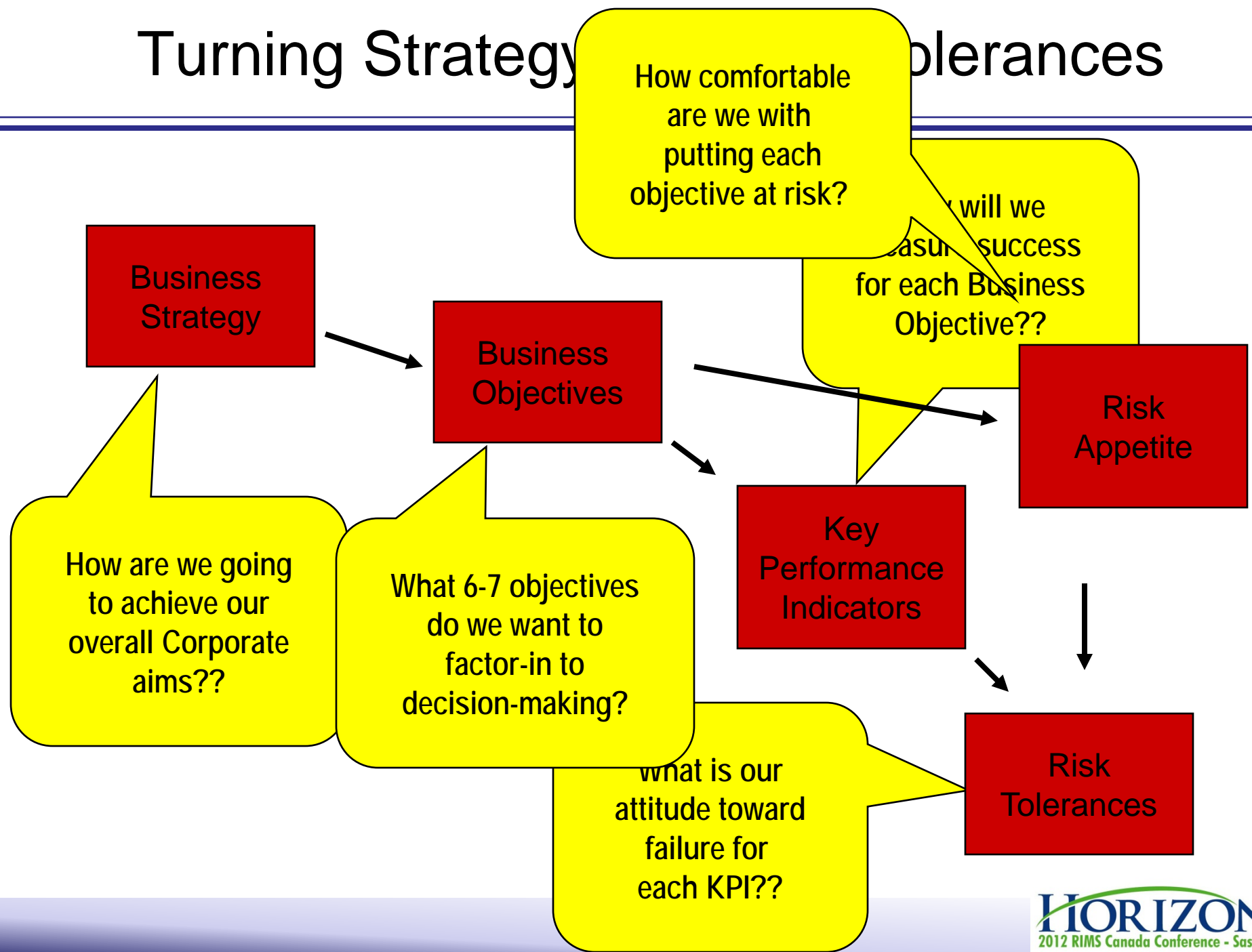
Observations about this approach

- Stimulates deep discussion on the significance of Strategic Objectives
- Helps clarify the meaning of Strategic Objectives and their connection with higher level values
- Useful diagnostic tool – compare perceptions and understanding of the ‘exhibited’ appetite
 - May drive action, improvement, changes in controls

Risk Tolerances – Hydro One's Approach

- Definition: the set of impact criteria, used in assessing risk magnitude, that reflect Hydro One's risk appetite.
- This approach has been in place since 2000
- (we did it **backwards**)

Turning Strategy into Tolerances



Examples

Catastrophic:

- threatens the survival of our company in its current form

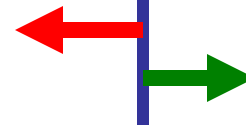
Major:

- significant deterioration in results

Minor:

- just-noticeable deterioration in results

Business Objective	KPI	Risk Tolerances				
		5 Catastrophic	4 Severe	3 Major	2 Moderate	1 Minor
Unit Cost Reduction	Unit Cost	Unit Costs Increase by >25%	Unit Costs Increase by 15% - 25%	Unit Costs Increase by 10% - 15%	Unit Costs Increase by 5% - 10%	Unit Costs Not Reduced
Work Program Accomplishment	Critical project/ work pgm completion	>10 Critical Projects late or; <50% of non critical work completed	5-10 Critical Projects late or; 50%-70% of non critical work completed	3-5 Critical Projects late or; 70%-85% of non critical work completed	1-3 Critical Projects late or; >85% of non critical work completed	No Critical Projects late; >85% of non critical work completed



For all business objectives, we wind up with something that looks like this...

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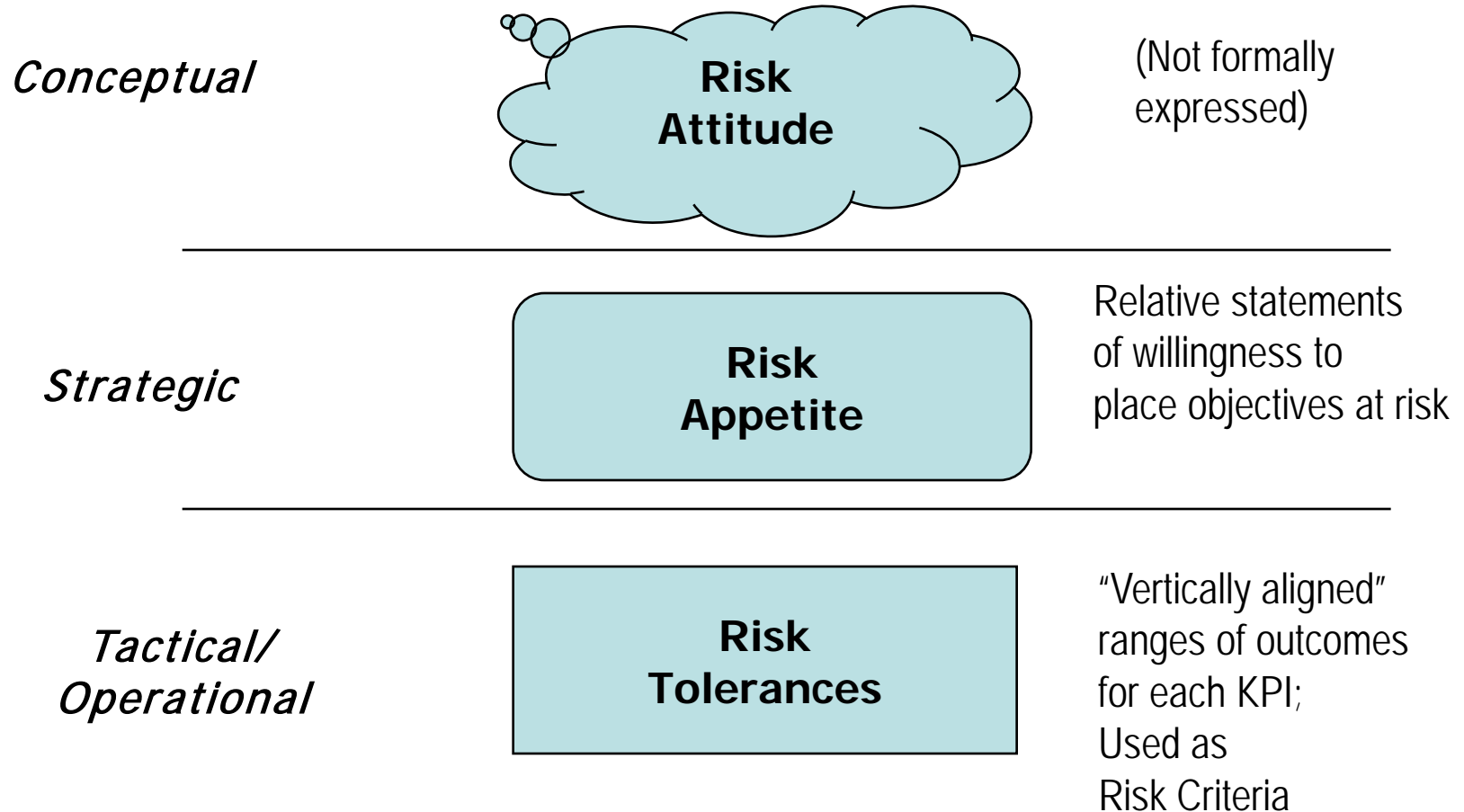
Maintenance of tolerances

- Single Corporate set
 - Approved by CEO; reviewed with Board of Directors
- Revised annually to reflect changes in or better understanding of business circumstance, strategy, or risk appetite.
- Each entity (Line of Business, project) that conducts a risk assessment starts with development of tolerances based on Corporate set
 - Aligned
 - Scaled

Benefits of formal tolerances

- Established limits (revised and approved annually by CEO)
- Consistent basis of evaluation of all risks; allows comparison like-for-like
- Enables risk-aware decision-making
 - Used to allocate resources on a risk basis

To summarize



EXAMPLE:

Applying a Risk Appetite Statement

- Include in ERM policy
- Educate/advise senior managers on Risk Appetite Statement
- Regular reporting against Risk Appetite Statement
- Regular reporting of risks by risk categories
- Regular reporting of new and emerging risks
- Board and senior management engagement in reviewing risks and mitigation strategies
- Consider as part of long-term Strategic Plan

Source: CANADA MORTGAGE AND HOUSING CORPORATION

AGENDA

- Why bother with risk appetite and risk tolerance?
- Terminology
- Articulating and applying risk criteria
- Getting over the common hurdles

3 common reasons executives fail to articulate their risk criteria

1. They fear that articulating risk appetite and risk tolerance gives permission for “risky” behaviour
2. They don’t know how to develop a reliable gauge of risk appetite (and risk tolerance)
3. They aren’t clear on how to apply risk appetite (and risk tolerance) at the operational level.

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