Enterprise Resiliency

“A Sustainable Growth Imperative”

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Just a new buzzword?

- Why a **new concept** and **new terminology**?

- Existing practices (Risk Management, Business Continuity Planning, Emergency Planning, Strategic Planning) tend to be practiced in silos and not cover the full spectrum of relevant issues.

- Resilience provides a **paradigm or framework** for thinking about an organisation survival potential

- RM, BCP, Strategic Planning etc are in the **toolkit** for achieving greater resilience.
Turbulence ahead?

My new five-year plan looks like this.

How can you have a five-year plan when you don't know what will happen in five minutes?

We have this room now.

Bad timing. Shoo! Shoo!

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A Resilience Paradigm

• Resilience is not something you do…it is something you are (or try to become).

• Waves of Adversity (Glavovic)

• Learning to Surf (van der Walt)

A Resilient Organization is one that is not only able to survive but to thrive, still achieving it’s core objectives, even in the face of adversity.
Defining Resilience

A Resilient Organization is one that is not only able to survive but to thrive, still achieving it’s core objectives, even in the face of adversity.

Four Pillars of Organizational Resilience

– Resilience Ethos
– Situation Awareness
– Management of Keystone Vulnerabilities
– Adaptive Capacity
Regional Event | Events that cause significant **physical damage** to buildings, contents, or resources. At the same time, community infrastructure services, such as transportation, electricity, water and telecommunications may be disrupted.
Crises can take many forms...

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### Regional Event
Events that cause significant **physical damage** to buildings, contents, or resources. At the same time, community infrastructure services, such as transportation, electricity, water and telecommunications may be disrupted.

### Societal Event
Events that result in extended **staffing** absences. For these events physical infrastructure is intact, but staff are either unable or unwilling to be at work.

### Localized Event
**Organization specific incidents** resulting in, for example, loss of life, severe disruption to normal operations or major reputation damage. For these events, everyone is watching…!
The heating system failed in the night. The whole place has scabbed up.
## Crises can take many forms...

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<td>Distal Event</td>
<td>Disruption somewhere in the network that the organization operates within. These events impact <strong>business flow</strong> through key suppliers or customers and their impact can be creeping rather than immediate.</td>
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Resilience Ethos

A culture of resilience that is embedded within the organization across all hierarchical levels and disciplines; where the organization is a system managing its presence as part of a network and where resilience issues are key considerations for all decisions that are made.

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<th>Resilience Ethos</th>
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<tr>
<td>Commitment to resilience as a Goal for the Organization</td>
</tr>
<tr>
<td>Commitment to Supporting Greater Network Resilience</td>
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Situation Awareness

An organization’s understanding of its’ business landscape; its’ awareness of what is happening around it, and what that information means for the organization, now and in the future.

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<tr>
<td>Internal &amp; External Situation Monitoring &amp; Reporting</td>
</tr>
<tr>
<td>Informed Decision Making</td>
</tr>
<tr>
<td>Shared Recovery Priorities</td>
</tr>
<tr>
<td>Understanding &amp; Analysis of Hazards &amp; Consequences</td>
</tr>
<tr>
<td>Awareness of Connectivity and Interdependencies</td>
</tr>
<tr>
<td>Clarity around BAU and Crisis Roles &amp; Responsibilities</td>
</tr>
<tr>
<td>Awareness of Insurance Cover and its Limitations</td>
</tr>
</tbody>
</table>
Managing Keystone Vulnerabilities

The identification, proactive management, and treatment of vulnerabilities that, if realized, would threaten the organization’s ability to survive.

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<th>Mgmt of Vulnerabilities</th>
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<tbody>
<tr>
<td>Robust Processes for Identifying &amp; Analyzing Vulnerabilities</td>
</tr>
<tr>
<td>Planning Strategies</td>
</tr>
<tr>
<td>Participation in Exercises</td>
</tr>
<tr>
<td>Capability &amp; Capacity of Internal Resources</td>
</tr>
<tr>
<td>Capability &amp; Capacity of External Resources</td>
</tr>
<tr>
<td>Organizational Connectivity</td>
</tr>
<tr>
<td>Staff Engagement &amp; Involvement</td>
</tr>
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</table>
Adaptive Capacity

The organization’s ability to constantly and continuously evolve to match or exceed the needs of its operating environment before those needs become critical.

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<tbody>
<tr>
<td>Strategic Vision &amp; Outcome Expectancy</td>
</tr>
<tr>
<td>Leadership, Management &amp; Governance</td>
</tr>
<tr>
<td>Minimization of Silo Mentality</td>
</tr>
<tr>
<td>Communications &amp; Relationships</td>
</tr>
<tr>
<td>Information &amp; Knowledge</td>
</tr>
<tr>
<td>Innovation &amp; Creativity</td>
</tr>
<tr>
<td>Devolved &amp; Responsive Decision Making</td>
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Putting Resilience Concepts into Practice

Du Pont’s Resilience Programme
Enterprise Resiliency Dimensions

- Core Values
- Right Future Goals
- Risk Management
- Integrated Security
- Knowledge Management
- Work Process Design
- Operating Discipline
- Crisis Management
- Felt Leadership
Safety

• A Core Value
• A Source of Value
• A Platform / Managing Process for:
  - Environmental Excellence
  - Security
  - Operational Excellence
  - Sustainable Growth
Example Corporate Goals

• Serving the Marketplace
  - Environmentally smart market opportunities
  - Products that reduce greenhouse gas emissions
  - Revenues from renewable resources
  - Products that protect people

• Reducing Environmental Footprint
  - Greenhouse Gas Emissions
  - Water Conservation
  - Fleet Fuel Efficiency
  - Air Carcinogens
  - Independent Verification
# Risk Management Transformation

<table>
<thead>
<tr>
<th>Traditional Risk Management</th>
<th>Enterprise Risk Management</th>
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<tbody>
<tr>
<td>Risks as individual hazards</td>
<td>Risk in context of business strategy</td>
</tr>
<tr>
<td>Risk identification and assessment</td>
<td>Risk “portfolio” development</td>
</tr>
<tr>
<td>Focus on all risks</td>
<td>Focus on critical risks</td>
</tr>
<tr>
<td>Risk mitigation</td>
<td>Risk optimization</td>
</tr>
<tr>
<td>Risk limits</td>
<td>Risk strategy</td>
</tr>
<tr>
<td>Risks with no owners</td>
<td>Defined risk responsibilities</td>
</tr>
<tr>
<td>Haphazard risk quantification</td>
<td>Monitoring and measurement</td>
</tr>
<tr>
<td>Risk is not my responsibility</td>
<td>Risk is everyone’s responsibility</td>
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Risk Domains

Business Model Risk
Total Business Risk
Event Risk
Operational Risk

Business Model Risk
- Business Model Risk
- Event Risk
- Operational Risk
- IT Risk
- Employee Relations Risk
- Product Risk

Total Business Risk
- Financial Risk
- Market Risk
- Competition Forces
- Environmental Risks
- Shareholders requirements
- Partnerships breakdowns
- Litigations
- Criminal acts
- Regulatory
- Political Risks

Event Risk
- Equity Risk
- Financial Risk
- Market Risk
- Competition Forces
- Environmental Risks
- Shareholders requirements
- Partnerships breakdowns
- Litigations
- Criminal acts
- Regulatory
- Political Risks

Operational Risk
- Business Model Risk
- Total Business Risk
- Event Risk
- Operational Risk
- IT Risk
- Employee Relations Risk
- Product Risk

Financial Risk
- Capital markets risk
- Volatility risk
- Dividend risk
- Interest rates
- Tax disputes
- Credit ratings

Market Risk
- Shareholder management
- Settlement mechanisms
- Market share risk
- Pricing risk
- Business risk
- Brand protection
- Industry consolidation
- Development
- Technology advancement
- Product complexity
- Power

Competition Forces
- Value chain complexity
- Customer supplier
- R&D risks
- Technology process
- Outsourcing risk
- Capacity utilization risk
- Technology choices
- Regulatory
- Political Risks

Environmental Risks
- Shareholders requirements
- Partnerships breakdowns
- Litigations
- Criminal acts
- Regulatory
- Political Risks

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Process Safety & Risk Management Model

- Auditing
- Management of Change
- Incident Investigation and Reporting
- Contractor Safety and Performance
- Training and Performance
- Management of "Subtle" Change
- Mechanical Integrity
- Prestart-Up Safety Reviews
- Process Hazards Analysis
- Quality Assurance
- Operating Procedures and Safe Practices
- Management of Change
- Emergency Planning and Response

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When Choosing a Production Model, Weigh the Value of Scale Against the Degree of Risk...

- Mass production
- Flexible automation
- Disposable factory
- Batch production
- Craft production

Source: Boston Consulting Group
Security extends to enterprise-wide risk management and strategic planning and includes protection of all assets: people, property, processes, information, and supply chain issues.

Senior management sets the leadership vision and monitors implementation, recognizing that security is a key driver of shareholder value.

Security is business-driven rather than compliance driven.

Security is “baked into” every decision.

Accountability and lines of authority are clear, with a senior executive at or near the CEO Suite.

Metrics are in place to quantify risk, losses, performance and opportunities, with track and trend management information systems—aligning resources with risk.
Information Security
Policy and Goals

• All high and medium risk Process Control Networks must be fire-walled or disconnected from any external network.

• All business units participate:
  – Standard firewall
  – Centralized monitoring
  – Centralized backup for disaster recovery
Knowledge Management Vision

Create a strategy and managing process for accelerating knowledge management that will introduce a culture change as well as effective tools and processes to further enable employees as “knowledge workers,” improve productivity, reduce risks, and use knowledge intensity to achieve sustainable growth.
Facilities Engineering Process

Global Customer Needs & Requirements

Business Objectives, Capital Forecasts

Project Basis, Capital Budget

Production Des Basis, CAC, Project Auth

Competitive Facility That Meets Business Needs

Products That Continuously Meet Global Customer Needs & Requirements Better Than All Competitive Products

Business Planning FEL-1

Facility Planning FEL-2

Project Planning FEL-3

Project Implementation

Facility Startup

Operate
Maintain
Improve

Front-End Loading

Owner Leads

Contractor Involved

Execution/Operation

Owner Audits

Owner Leads

Contractor Leads

Contractor Supports

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Strong Operating Discipline Creates Zero Incident Cultures
Eleven Operational Disciplines

1. Leadership by Example - “walking the talk”
2. Functioning Capability/Sufficient Resources
3. Full Employee Involvement
4. Active Lines of Communication
5. Strong Teamwork - common objectives
6. Common, Shared Values - zero incidents goal
7. Up-to-date Documentation
8. Practice Consistent with Procedures
9. No Shortcuts
10. Excellent Housekeeping
11. Organizational Pride
Goal of the Crisis Management Program: A Resilient and Flexible Crisis System

- Core Values & Crisis Mgmt Principles
- Quality Decision Making
- Confident & Competent Leaders - CMC - CAT - Business
- Functional processes that work well together
- Crisis Processes (not all-inclusive)
  - Notification system
  - Escalation process
  - Records management
  - Facilities
  - Database system
  - Emergency response
  - Internal communications
  - External communications

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What Matters Most in a Crisis?

• Act with caring compassion and concern.
• Act morally and ethically; laws & regulations are minimum standards.
• Place the highest priority on human health and safety.
• Ensure actions guided by respect for the environment.
• Be open, straightforward and accessible.
• Consider all stakeholders when taking action.
• Communicate fully and timely using normal business channels.
• Acknowledge appropriate responsibility immediately.
• Determine liability after the facts are known.
• Make crisis response a priority over other needs.
Sustainable Resilience Requires a Comprehensive Management System...

- **Strong Leadership**
  - Visible, Demonstrated Commitment
  - Clear, Meaningful Policies and Principles
  - Challenging Goals and Plans
  - High Standards of Performance

- **Right Structure**
  - Line Management Accountability
  - Talented Supportive Staff
  - Integrated for Key Goals
  - Progressive Motivation
  - Change-Management Processes

- **Focused Action**
  - Robust Two-way Communication
  - Continuous Training and Development
  - Timely Investigations and Reports
  - Effective Audits and Re-evaluation

Felt Leadership

...Operating on a Foundation of Felt Leadership
Dynamics of a “Zero” Incident
Culture Change......

Dependent
Zero is Difficult
Management

Independent
Zero by Chance
Self

Interdependent
Zero by Choice
Team

Management Commitment
Condition of Employment
Discipline
Rules
Supervisory Control
Value for People

Personal Commitment
Self-Managing
Self-Discipline
Personal Goals
Care for Self

Team Commitment
Teaming
Value for Each Other
Team Goals

Incidents

Time

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Resilience / Trust Relationships

\[\text{Trust} = f \left( \frac{\text{Intimacy} \times \text{Competency}}{\text{Risk}} \right)\]
My Reflections

• Business processes must be seen holistically.
• Businesses must see enterprise resiliency as a key component of their financial success.
• Best practices define the pathway and guarantee good results.
• Felt leadership cannot be delegated.
The End Goal....

Resilience as the 4th bottom line?

- Resilience Ethos
- Situation Awareness
- Management of Keystone Vulnerabilities
- Adaptive Capacity

How would YOUR organisation measure up?