

NC State University
Business Continuity & Disaster Recovery



In Coordination with



Enterprise Risk Management Workshop

July 16, 2003

12:30 – 4:30 p.m.

Nelson Hall - Room 2405



Who are we?

- New Business Unit under Environmental Health and Safety Center
 - Endorsed by Chancellor Fox in March 2003
- Governed by NC State BC DR Planning Committee
- NC State is considered the pilot for the other 15 State universities to follow for BCP



Services

- Assist all campus departments (academic and administrative) in developing, testing, and maintaining business continuity plans.
 - Education/Workshops
 - Providing business continuity planning templates
 - Implementing Best Practices of Business Continuity principles
 - Defining and implementing recovery strategies
 - Finding resources to support business recovery needs



Contact Information

Katina Blue, *Director*

515-5201

Katina_Blue@ncsu.edu

NC State BCP Web Site

<http://www.ncsu.edu/ehs/BCP/bcp.htm>

NC STATE UNIVERSITY

Environmental
Health & Public Safety
 Center

[Index](#)

[MSDS](#)

[Training](#)

[Emergency Info.](#)

NC State University
 Business Continuity & Disaster Recovery



MISSION STATEMENT

The Mission of the Department of Business Continuity is to provide leadership in coordinating, assessing, developing and communicating business continuity planning principles to campus departments and colleges (including education on developing Business Continuity Plans) to ensure the continued operation of critical processes, resource and asset protection, and loss mitigation in the event of a disruption.

The Director's Corner

 [Executive Approval](#)

 [BCP Regulation](#)

 [Planning Committee](#)

 [Department Objectives](#)

 [Cohorts and Coordinators](#)

 [BCP Stages](#)

 [Planning Templates](#)

 [IT Disaster Recovery](#)

 [UNC Office of the President](#)

 [FAQ](#)

 [Campus Presentations](#)

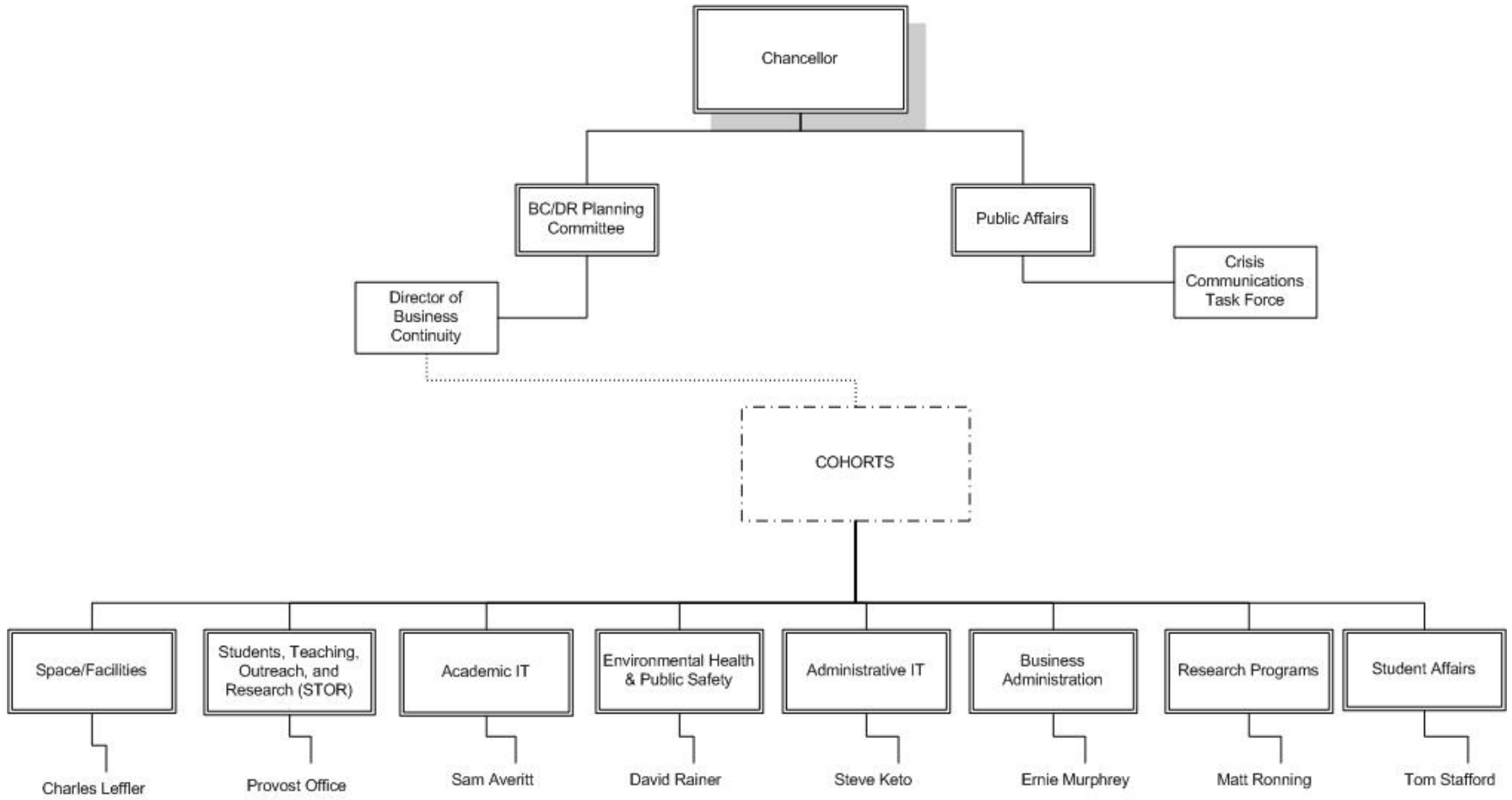
What is a Cohort

A cohort represents a *community* of interest and expertise and a mission critical aspect of business continuity in the event of a disruption in services.

COHORTS

- 1. Space/Facilities**
- 2. STOR (Student, Teaching, Outreach, Research)**
- 3. Academic IT**
- 4. Administrative IT**
- 5. EH& PS**
- 6. Business Administration**
- 7. Research Programs**
- 8. Student Affairs**

Cohorts Organizational Chart



Responsibilities of Cohort Coordinator

- Work with Dept. of BCP to develop departmental BCP
 - Available for interview
 - Participate in Risk Assessment
 - Participate in annual testing
 - Participate in annual plan update

Goal of Today's Workshop

- Provide you with a background perspective and tools to assist with your BCP responsibilities.
- Overview the process of verifying the risks to NC State to help you
 - assess critical functions necessary for NC State to continue business operations during/after a disruption
 - define controls to reduce exposure and evaluate the costs for such controls
- Describe how to evaluate the *probability* and *impact* of a particular event
- To help you write BCPs based on risks with

Dr. Mark Beasley



- **Mark S. Beasley** is an Associate Professor in the Department of Accounting at North Carolina State University.
- 1994 PhD Graduate of Michigan State University
- Member of The Committee of Sponsoring Organizations of the Treadway Commission (COSO)
 - Serves on the Advisory Council
 - *Enterprise Risk Management Framework Project*
- Director of the Enterprise Risk Management Program in the College of Management at NC State

Providing Leadership in Enterprise Risk Management



Mark Beasley
Department of Accounting
College of Management
July 16, 2003

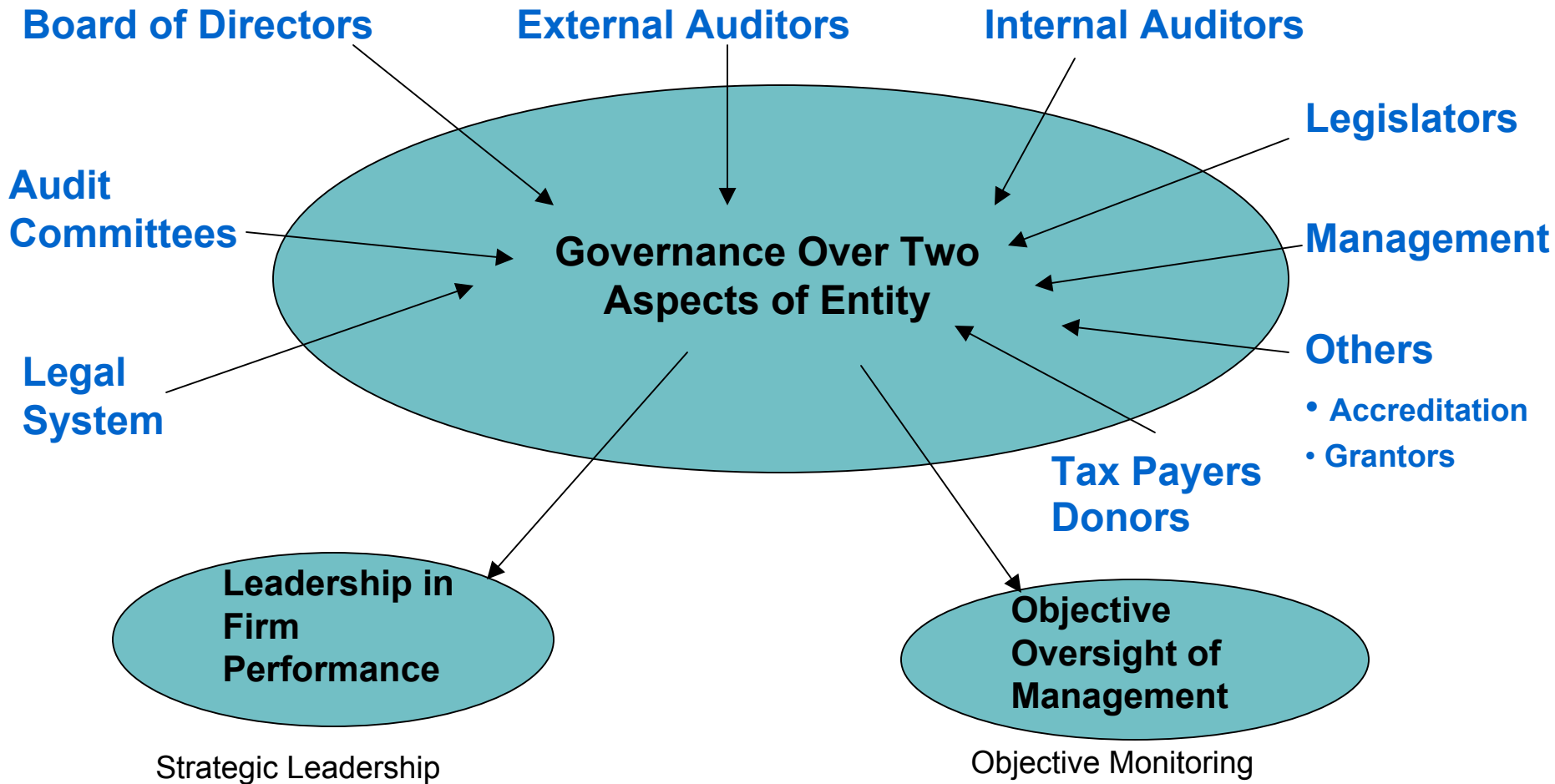
Oh, the World of Corporate Governance is Changing...

- Congress Passes Sarbanes-Oxley Act of 2002
 - Most far-reaching regulatory changes affecting public companies since the 1930's
 - Greater disclosures about risks and related controls
 - Management certifications of financial statements
 - Management assertion about internal controls
- “Trickling” to all types of entities
 - *“There is a need for procedures and practices within companies themselves to change their governance policies”* The Conference Board 2003
 - *“The high-risk society is not going to disappear. If anything, it is going to intensify”* Mike Mandel, The New York Times

Specific Calls for Management of Risks

- Among the core responsibilities of the board are understanding the issues forces and risks that define and drive the company's business
 - *The Conference Board 2003*
- The audit committee should understand the corporation's risk profile and oversee the corporation's risk assessment and management practices.
 - *The Business Roundtable 2002*
- Management required to certify they have programs and controls to disclose developments and risks pertaining to business
 - Securities and Exchange Commission Final Rules 2003
- 73% of directors support increasing audit committee's responsibility for risks
- 43% of directors believe they cannot effectively identify, safeguard against, and plan for key risks
 - *McKinsey Survey May 2002*
- Audit committees should define and use timely, focused information that is responsive to important performance measures and to the key risks they oversee
- Audit committees should develop an agenda that includes a periodic review of risk by each significant business unit.
 - *National Association of Corporate Directors 1999*

Key Players in Corporate/University Governance



What We've Learned from Entities

- **Need:** Current scandals heightening awareness for tracking risks
- **Problem:** Mgt struggle – “risk management” is in eye of beholder
 - Financial risks
 - IT risks – disaster recovery, privacy, security
 - Insurance
- **Experience:**
 - CEOs spending days with key segment execs to address risk areas – lack of good systems
 - No single approach is used – but most now believe ERM adding significant value
 - Non-traditional risks (customer loyalty, competitive threats, and operational risks) pose the greatest threat and are among the most poorly managed risks.

What is Enterprise Risk Management?

A process, effected by an entity's board of directors, management, and other personnel, applied in strategy setting and across the enterprise designed to identify and manage potential events that may affect the entity and to provide reasonable assurance regarding the achievement of entity objectives.

- Proposed by COSO (2003)

Testimonies About ERM...

- “Enterprise risk management is a great, great process. I could not say more about it.”
 - *Mario Pillozzi, COO, Wal-Mart Canada*
- “An organization cannot shrink its way to greatness – it must grow and one of the keys to successful growth is excellent risk management.”
 - *Jacqueline Wagner, General Auditor, General Motors Corporation*
- Risk management is a strategic process.”
 - *Susan Stalnecker, V.P and Treasure, E.I. du Pont de Nemours*
- “We are in the business of taking risk, but we’re in the business of getting paid for the risks that we take.”
 - *Marc Shapiro, Vice Chairman, Chase Manhattan Corporation*
- “The point to risk management is not to operate your business in a risk-free environment...It’s to tip the scale to your advantage. So it becomes strategic, rather than defensive.”
 - *Peter G. M. Cox, CFO, United Grain Growers Limited*
- “Risk management is an essential element of effective control.”
 - *Canadian Institute of Chartered Accountants*

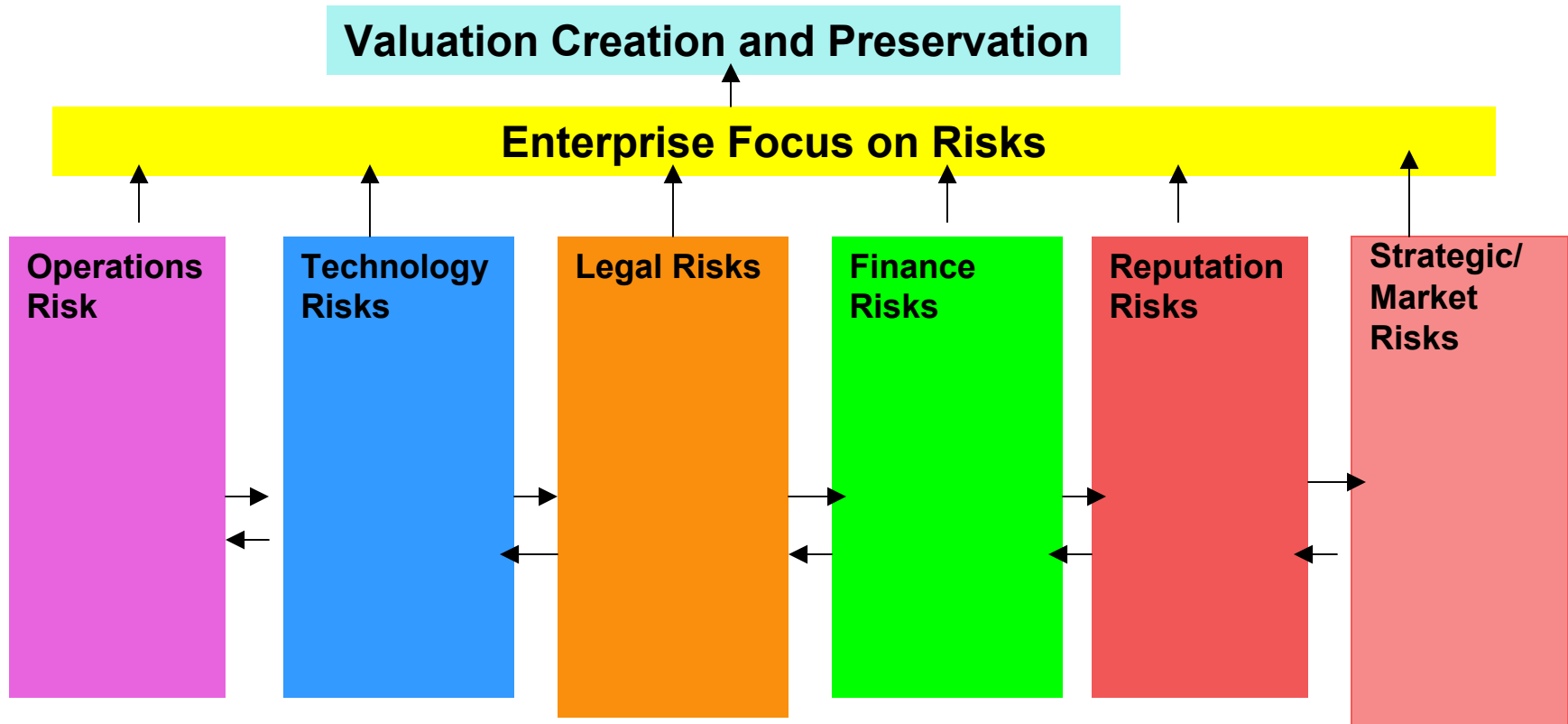
Goal of Enterprise Risk Management

- Critical to “corporate governance”
- Risk is not always “bad”
 - Can lead to opportunities
- Key is to “manage” risks – not eliminate them
- Goal:

$$\text{Risks Present} \leq \text{Risk Appetite}$$

Ultimately = Increase Public Trust, Perceived Value

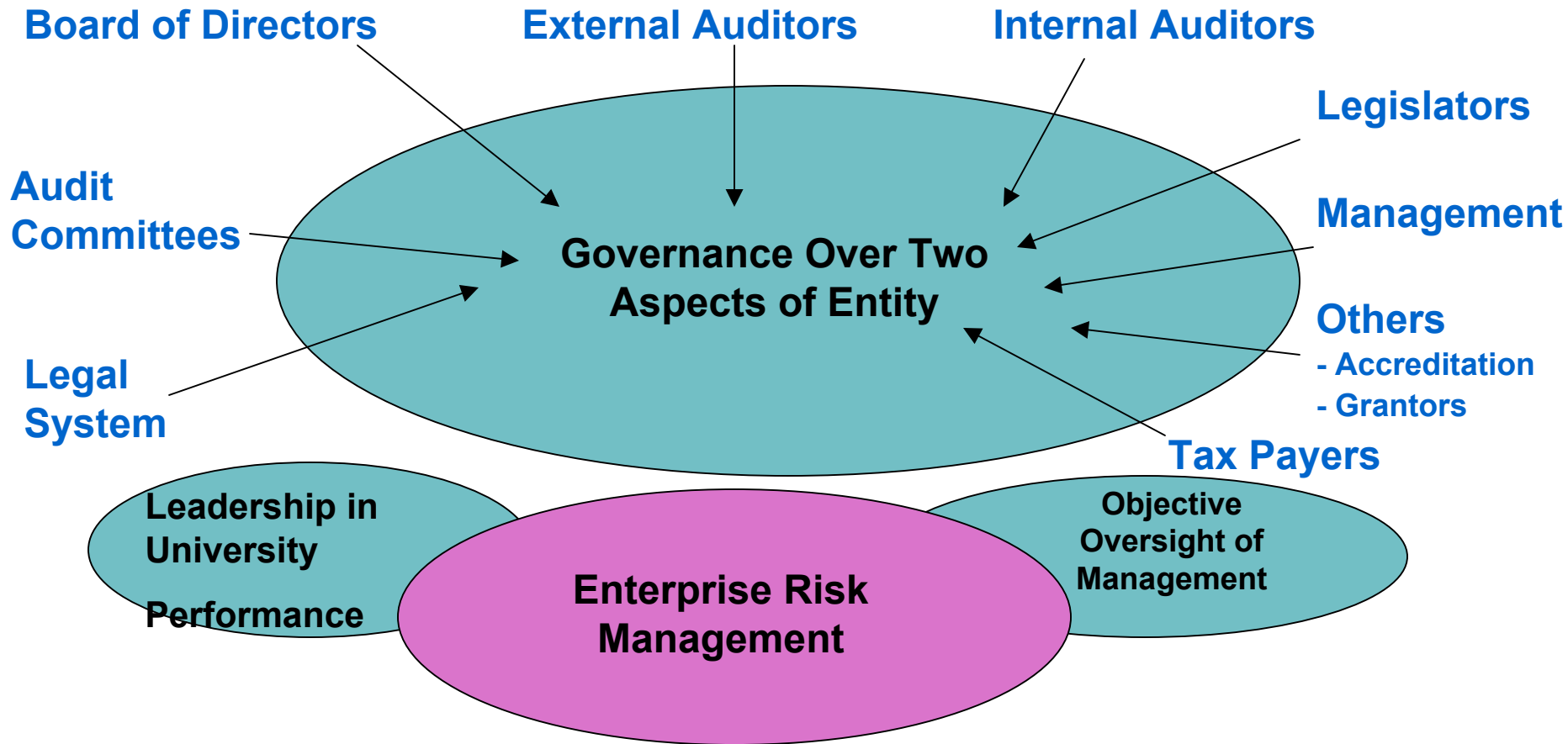
ERM Brings Together All Risks



Key Elements to ERM

- Emphasizes
 - “**Enterprise**” – not just selected “silos of risk”
 - Consideration of risks on “**portfolio**” basis
 - Collection of risks
 - Interactions of risks
 - Done to enhance entity value
 - Heavily integrated with **business strategy**
 - Focus is on identification, measurement, assessment, and response to risks primarily across 2 dimensions
 - Probability (Likelihood)
 - Impact/Criticality (Consequence)
 - Key part of entity’s **corporate governance**
 - Responsibility of senior management and board
 - But, applied and managed by key business segment management

How ERM Fits in University Governance



COSO' Enterprise Risk Management Project

Membership on Advisory Council Development of
COSO's Enterprise Risk Management Project (2003)

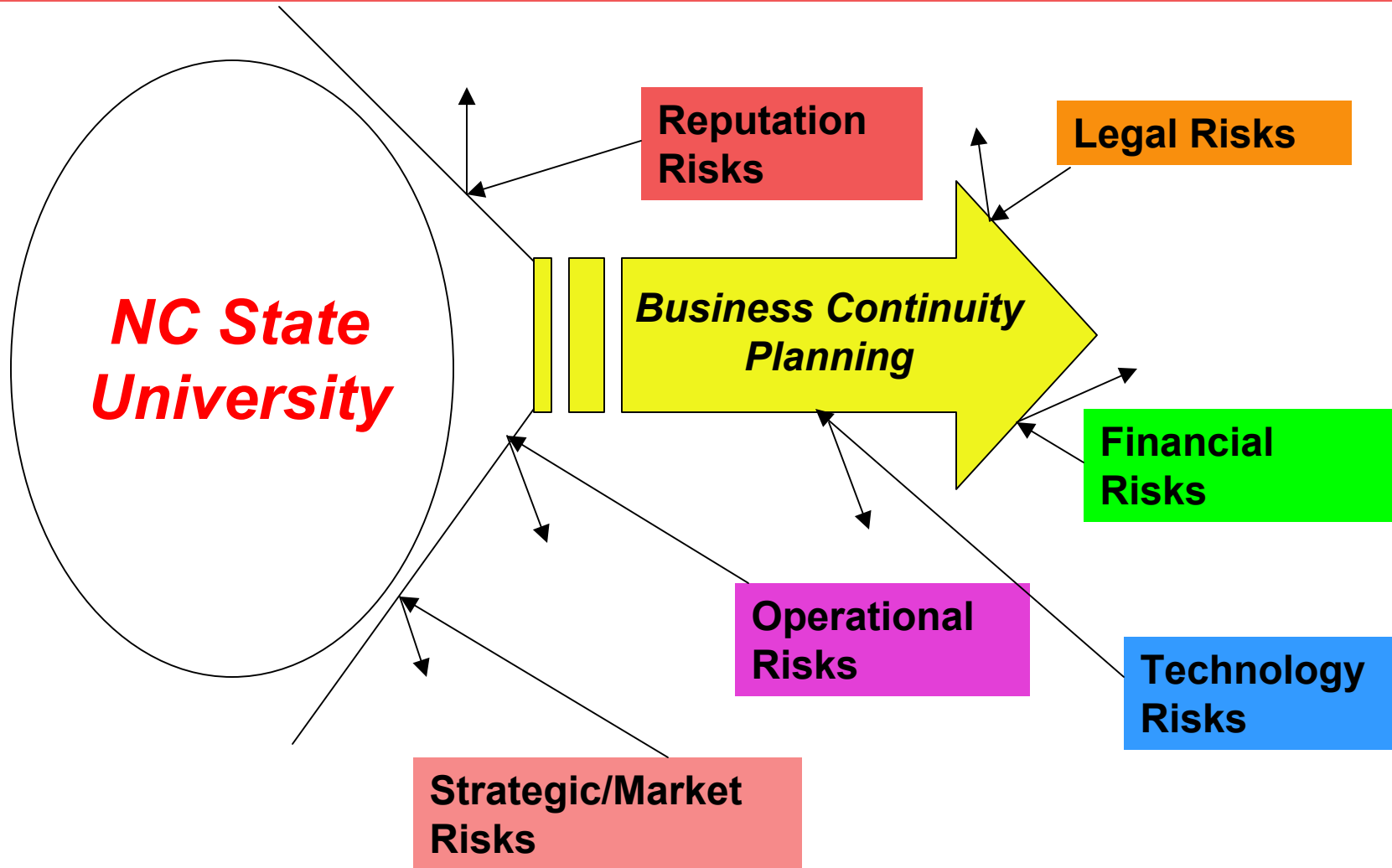


The Committee of Sponsoring Organizations of the Treadway Commission

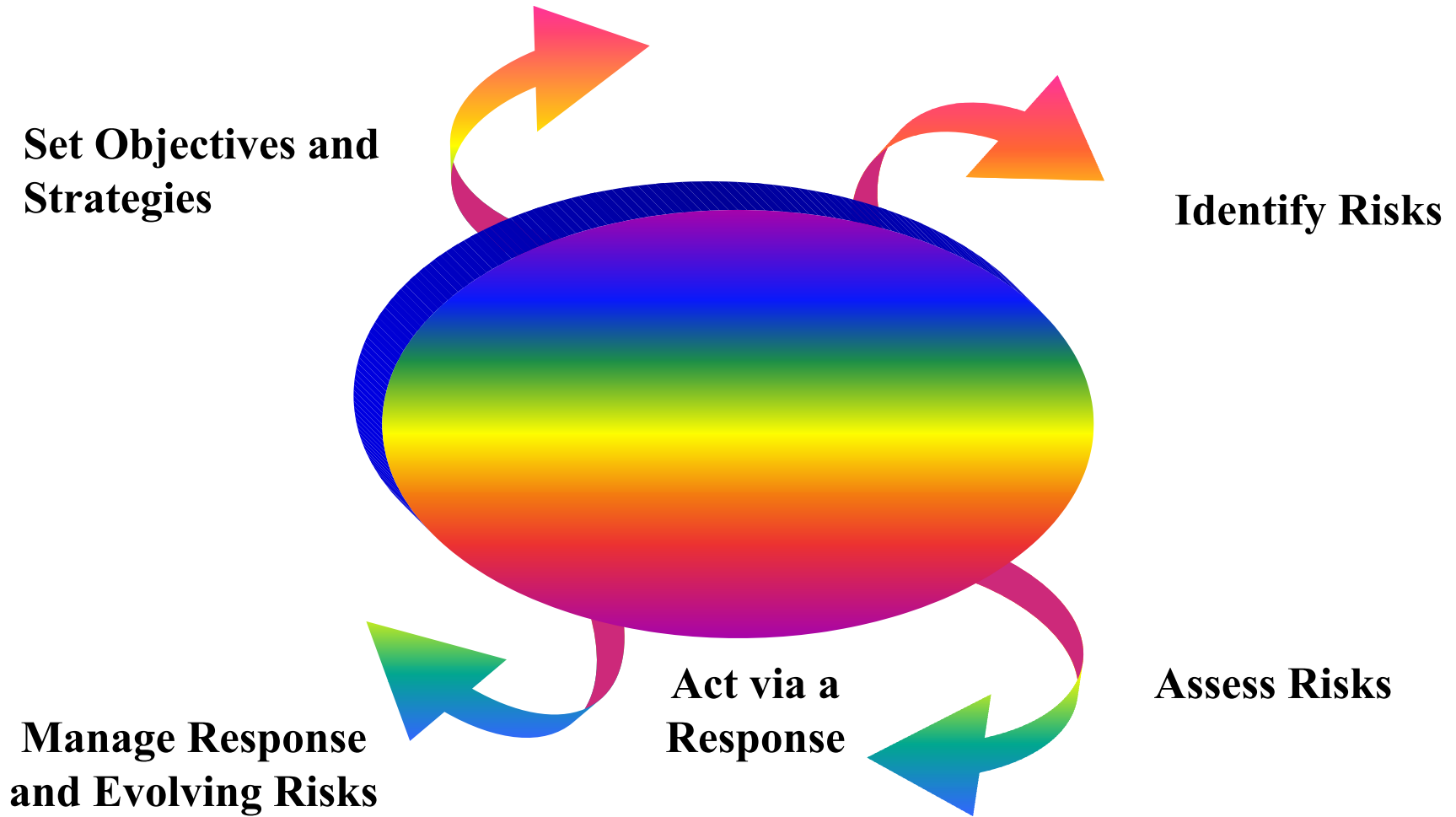


- Development of ERM Conceptual Framework
 - For Boards and Senior Executives
 - Focuses on entity-wide risk management
 - Emphasis on development of “portfolio” analysis of all risks
 - Builds on existing 1992 I/C Framework
- Development of ERM Application Guidance

Goal of Business Continuity Planning



The Enterprise Risk Management BCP Process



The Role of Objectives and Strategies in Risk Management

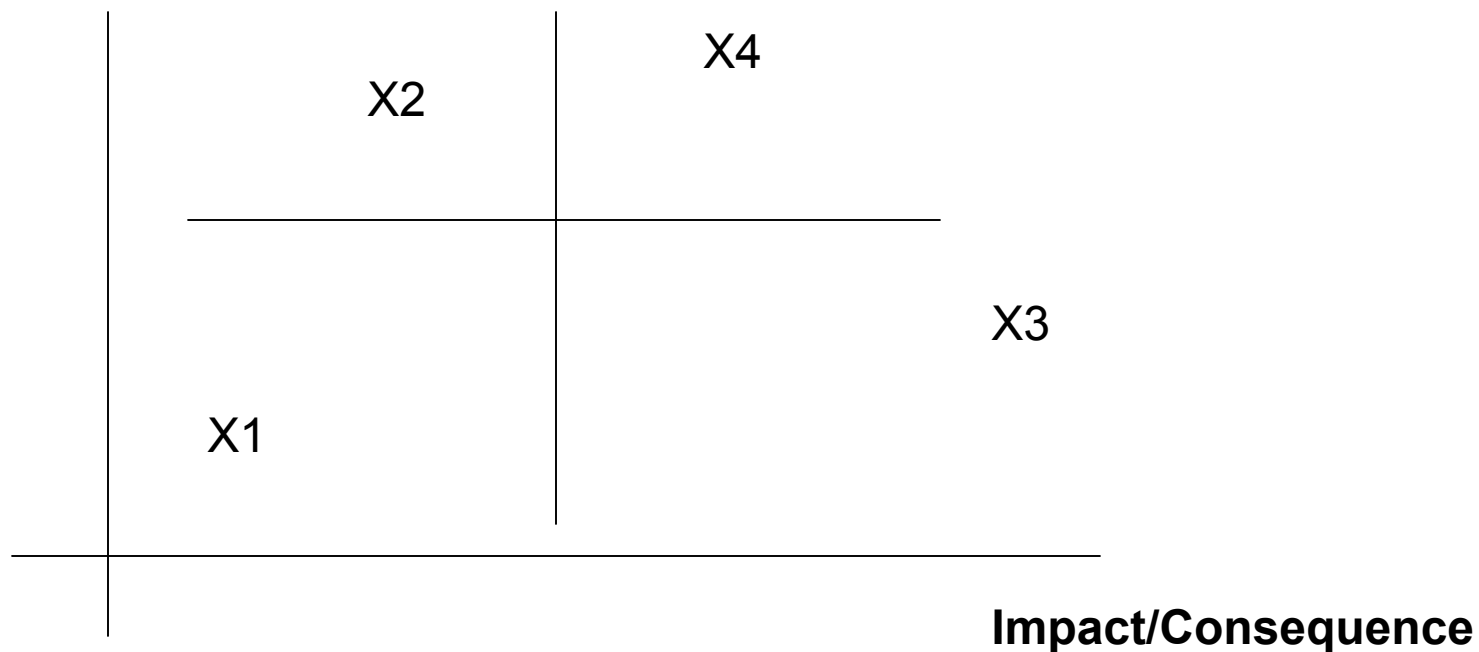
- Need a framework to identify collective risks
 - Hard to start with “what are my risks?”
- Best starting point is with entity’s “objectives and strategies”
 - Most likely what’s on the action list of management
 - Drives day-to-day tasks
- Then, look for “threats” to accomplishing objectives and strategies = “risks”
 - Opportunities – some risks lead to return
 - Risks – some risks derail strategies/objectives

Identify Collective Risks

- **Operational Risks**
 - Consider needs for delivery of core operations, such as space/facilities, personnel, student participation, research labs, resource needs, etc.
- **Technology Risks**
 - Consider not only academic and administrative IT system needs, but also unique systems/databases/spreadsheet tools
- **Legal Risks**
 - Consider “legal” broadly to include outside demands and restrictions, such as grant, donor, regulator requirements
- **Finance Risks**
 - Consider budget, financing, and other cash flow sources and issues – management of inflows and outflows
- **Reputation Risks**
 - Consider political and outside perception of unit and university – “goodwill”
- **Strategic/Market Risks**
 - Consider what needs to be done to maintain and enhance unit’s and university’s unique value and comparative advantage, forward-looking

2 Dimensions of Risk Assessment

Probability/
Likelihood



Quantitative and Qualitative Measurement

- Some risks easier to measure than others
- Many require qualitative assessment
 - Low, Medium, High
- *“The approach we have taken in financial risk and business risk is to try to quantify what we can and not necessarily worry about that we are unable to capture everything in our measurement.”*
 - George Zinn, Director of Corporate Finance, Microsoft

Risk Responses

- 4 Basic Responses:
 - *Accept risks* – proceed anyway
 - *Avoid risks* – decide to not go that way
 - *Share risks* – insurance, outsourcing
 - *Reduce risks* – programs and controls
- Biggest Challenge
 - Assessing adequacy of existing responses
 - Can't assume it's best or most cost effective
 - Is response really in place?

Keys to Risk Management Process

- Monitoring implementation of risk response
 - Implemented in stages
 - Ensure not addressing easier, low risk first
- Monitoring operating effectiveness of response over time
 - Need for ongoing assessment
 - Frequency of monitoring dependent on the nature of risk and process
 - Accountability and testing is key to ERM success
- Remember - change is inevitable so risks continually shift and evolve
 - ERM is an ongoing process – needs to be part of management culture – not point in time exercise

Local Resources

- ***Business Continuity and Disaster Recovery Department*** can assist with assessing responses and residual risks
- Emerging ***Center for Enterprise Risk Management*** to provide leadership and training in the management of entity-wide risks

