Lessons Learned from Implementation of a Risk Mitigation Assessment Program

Presentation Team

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Objectives

- Learn how to integrate a risk mitigation assessment program into your ERM program

- Leverage lessons learned from the implementation of a risk mitigation assessment program

- Evaluate how a risk mitigation assessment program can enhance your ERM Program

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Agenda

- University of Massachusetts System Overview

- Systemwide Enterprise Risk Management Program Overview

- Risk Assessment Process and Systemwide Risk Registry

- Risk Mitigation Assessment and MATRX

- Influence of Mitigation Assessment Data

- Conclusion and Take Aways

- Questions?

Overview: University of Massachusetts System

About UMass

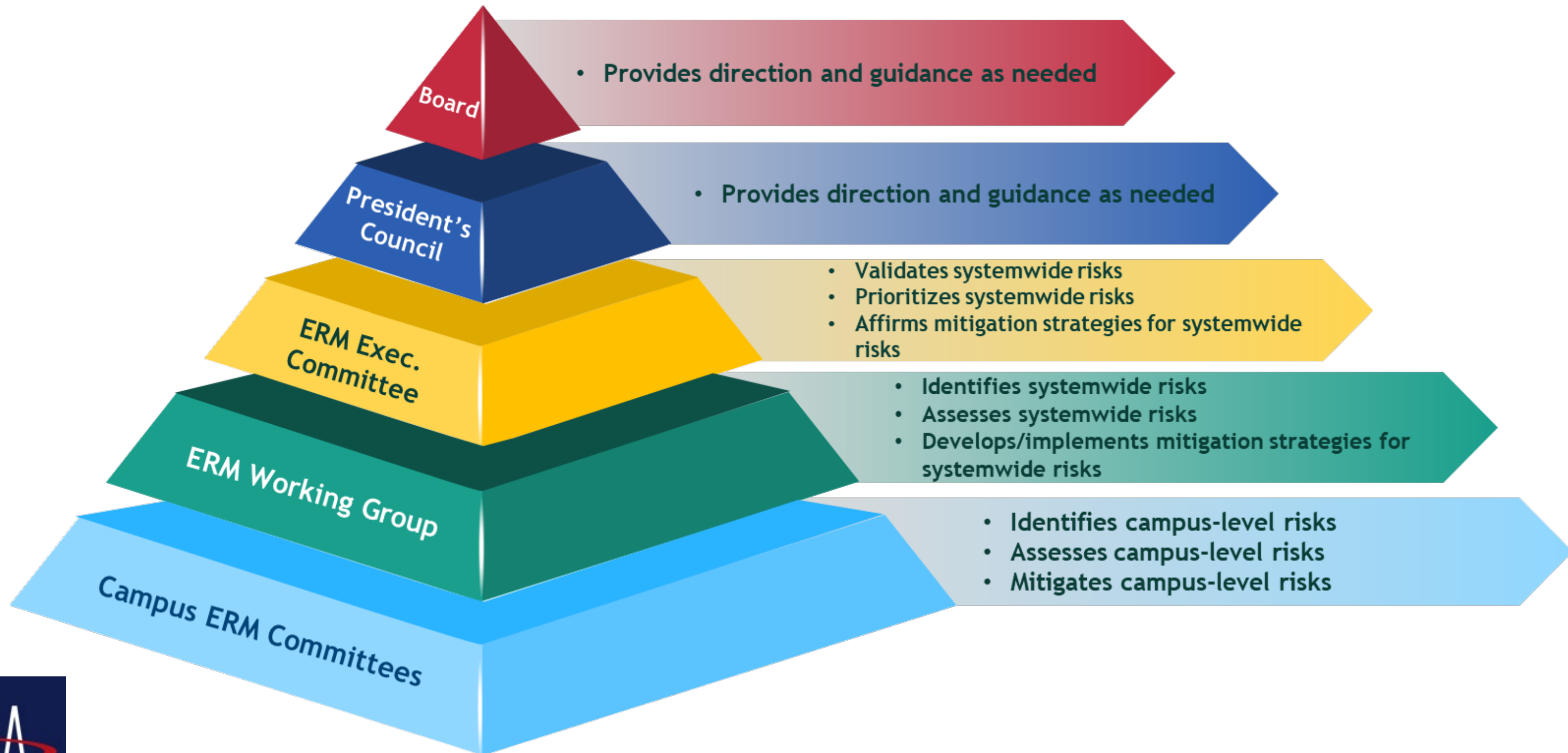|	
Ranking	#1 Public University in New England
Campuses	Five undergraduate & graduate
Students	74,000 students
New Graduates	19,000 annually
Alumni	• 330,000 in MA • 530,000 worldwide
Employees	• 24,000 employees • 3rd largest employer in MA
Research	$813M • 3rd largest in MA • 4th largest in New England
Budget	$4.1B annually
Economic Impact	$8.3B across Massachusetts

UMass Systemwide Enterprise Risk Management Program

Systemwide ERM Governance Structure

- **Board** — Provides direction and guidance as needed

- **President's Council** — Provides direction and guidance as needed

- **ERM Exec. Committee**
  - Validates systemwide risks
  - Prioritizes systemwide risks
  - Affirms mitigation strategies for systemwide risks

- **ERM Working Group**
  - Identifies systemwide risks
  - Assesses systemwide risks
  - Develops/implements mitigation strategies for systemwide risks

- **Campus ERM Committees**
  - Identifies campus-level risks
  - Assesses campus-level risks
  - Mitigates campus-level risks

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Two-Year Systemwide ERM Program Cycle

How the Systemwide Enterprise Risk Management Program Functions at the University of Massachusetts

- Identify and assess risks with systemwide implications
- Support informed decision-making
  - Transparency of information/activity
  - Normalized review/prioritization of risk
- Facilitate systemwide coordination on risk identification and assessment
- Assist in identifying risk owners
- Facilitate coordination of mitigation activities for crisis response
- Facilitate the assessment of effectiveness of mitigation activities on risk

- Own risk
- Own risk mitigation strategies
- Implement risk mitigation strategies
- Own compliance review or monitoring
- Own campus ERM programs or plans

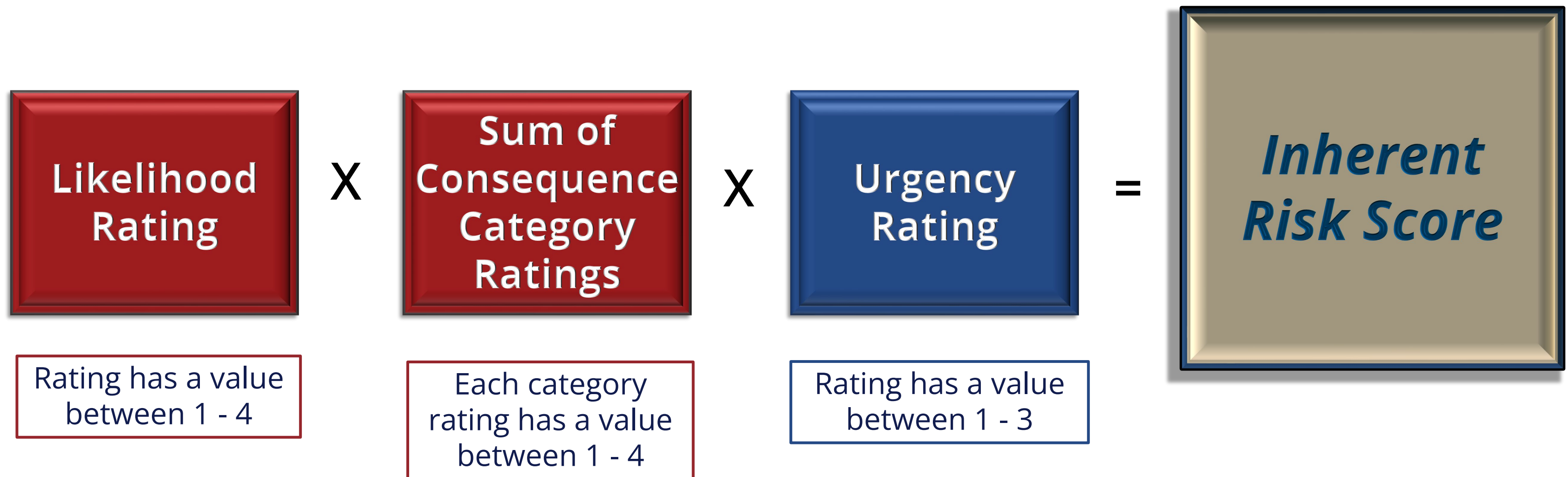# Risk Assessment Process & Systemwide Risk Registry

Poll

1. My institution's risk registry is a living document

2. My institution's risk registry collects dust

3. My institution's risk registry is a pipe dream

Risk Assessment Process

- Focused on systemwide impacts
- Evaluates inherent exposure* of the University to the risk
  - o Risk assessment does not account for mitigation strategies for likelihood and consequence
- Rates risks across three factors

  - o <u>Likelihood</u> *: Could the University system experience this risk?

  - o <u>Consequence</u> *: How much would the University system be impacted by this risk?
    - Service/Operations Disruptions
    - Financial
    - Legal/Compliance
    - Workforce
    - Reputation
    - Life Safety

  - o <u>Urgency</u>: How soon does the University system need to prioritize this risk?

- Generates an Inherent Risk Score for each risk

Inherent Risk Score Calculation

Likelihood Rating

X

Sum of Consequence Category Ratings

X

Urgency Rating

=

Inherent Risk Score

Rating has a value between 1 - 4

Each category rating has a value between 1 - 4

Rating has a value between 1 - 3

Assessed by ERM Working Group

Assessed by ERM Executive Committee

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FY2022 Systemwide Risk Registry

*Since this presentation we have conducted our FY2024 Risk Assessment

🟦 Priority Risks

Rank	Risk
1	Enrollment
2	Information Security
3	Financial Sustainability
4	Facilities and Deferred Maintenance
5	Student Health & Mental Health Support
6	Vendor Risk Management
7	Attract, Recruit, Retain Faculty and Staff
8	International Activities
9	Information Privacy
10	Diversity, Equity, Inclusion and Accessibility

Rank	Risk
11	All Hazards Planning & Response Capabilities
12	Multi-State Payroll Tax
13	Labor Relations
14	Data Management
15	Research
16	Multi-State Business Tax
17	Sexual Assault Policies & Response Procedures
18	IT Disaster Recovery
19	Continuity Planning
20	Environmental Health, Public Health, & Safety Regulations

Rank	Risk
21	Alcohol and Substance Abuse
22	Crisis Communications
23	Immigration Rules and Regulations
24	Fraud, Waste, and Abuse
25	Uninsured Loss
26	Employment Laws and Regulations
27	NCAA Regulations
28	Policies and Procedures Regarding Minors on Campus
29	Academic Quality and Standards
30	Oversight of Student Organizations

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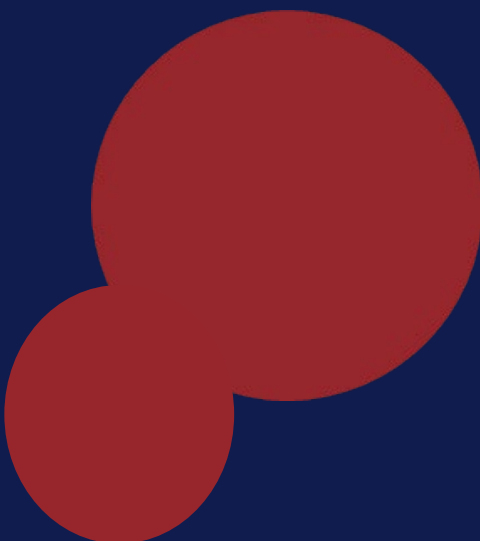
Using Risk Assessment Data

FY22 Risks Ranked Based on Highest Legal/Compliance Exposure

Listed by highest legal/compliance exposure, and then by Inherent Risk Score

Highest Legal/Compliance Exposure	Medium Legal/Compliance Exposure	Lower Legal/Compliance Exposure
Information Security	Facilities & Def. Maintenance	Financial Sustainability
International Activities	Student Hlth & Mental Hlth Support	Attract, Recruit, Retain Faculty/Staff
Research	Vendor Risk Management	Labor Relations
Employment Laws & Regulations	Information Privacy	IT Disaster Recovery
Academic Quality & Standards	DEIA	Continuity Planning
	All Hazards Plans & Response Cap.	Crisis Communications
	Multi-State Payroll Tax	Policies/Proced. Minors on Campus
	Multi-State Business Tax	Oversight of Student Organizations
	Sex. Assault Policies & Rspns Proced.	Enrollment
	Env. Hlth, Pub. Hlth, & Safety Regs	Data Management
	Alcohol and Substance Abuse	Uninsured Loss
	Immigration Rules and Regulations	
	Fraud, Waste, and Abuse	
	NCAA Regulations	

Key

- Highest Legal/Compliance Exposure
- Medium Legal/Compliance Exposure
- Lower Legal/Compliance Exposure

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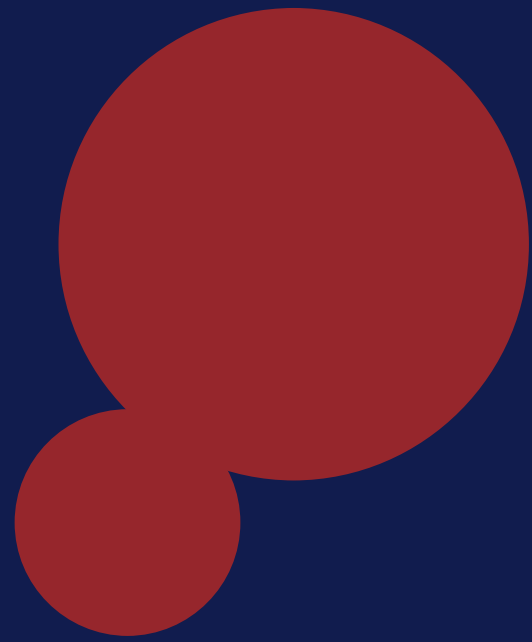
Risk Mitigation Assessment

POLL

1. My institution documents and assesses mitigation/treatment strategies **as part of** the risk assessment process

2. My institution documents and assesses mitigation/treatment strategies **separately from** the risk assessment process

3. My institution does not formally document or assess mitigation/treatment strategies

Goals of the Mitigation Assessment Program

- Document risk mitigation strategies for *transparency*

- *Correlate* assessment of risk mitigation strategies to a risk's assessed inherent risk exposure

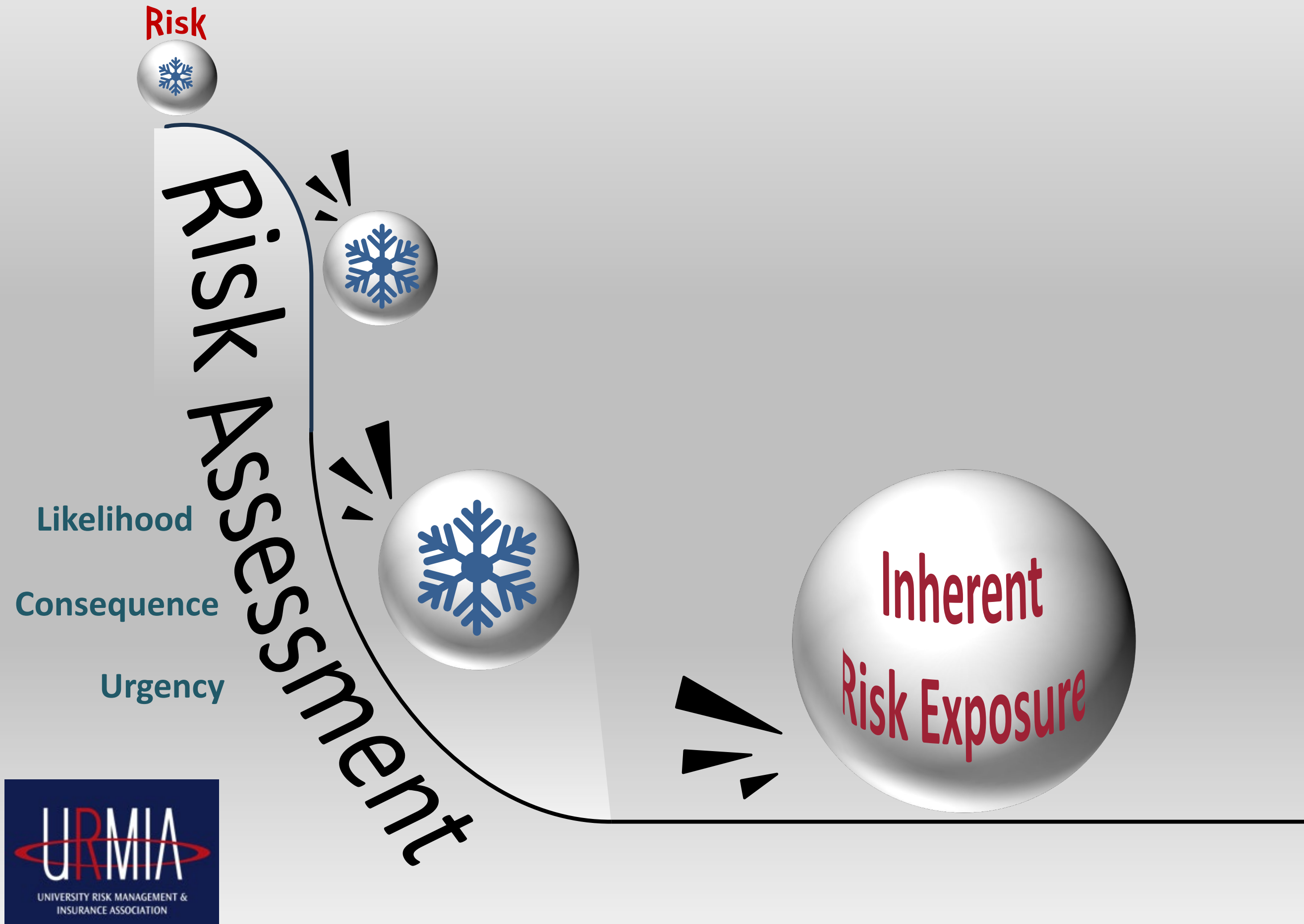- Demonstrate *impact* of mitigation strategies on risk exposure

Transparency

- Create a common operating picture for the University system

- Increase awareness of risk and risk mitigation

- Ground-truth the degree of risk exposure

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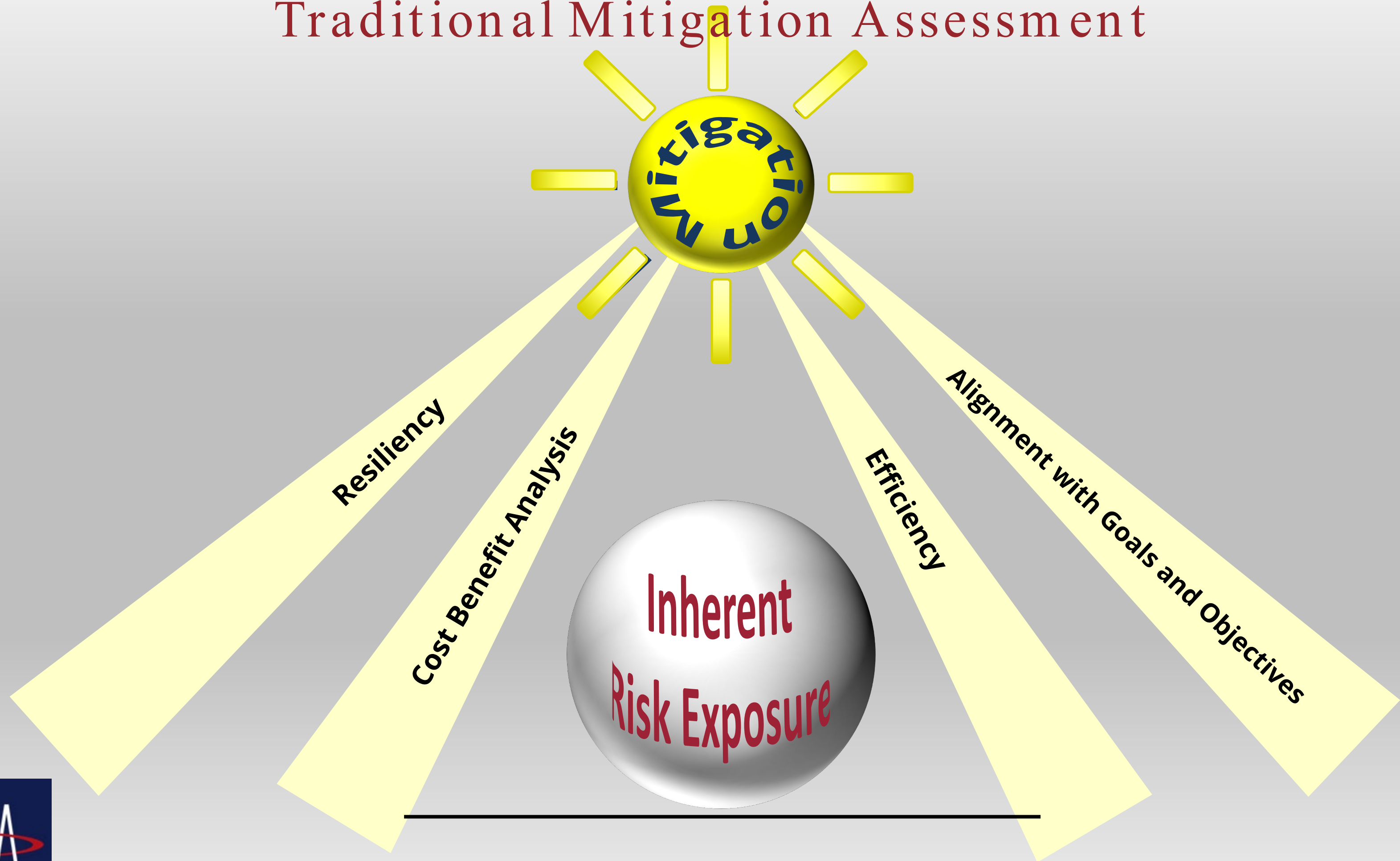INSURANCE ASSOCIATION

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Correlation

- Traditional mitigation assessment considers important organizational factors, but these factors do not directly correlate to risk exposure

- Needed to identify the impacts mitigation measures have in reducing the exposures identified in the risk assessment process

Assessment of Risk Exposure

Risk

Likelihood

Consequence

Urgency

Risk Assessment

Inherent
Risk Exposure

Traditional Mitigation Assessment

Correlation of UMass Risk Assessment and Mitigation Assessment

Mitigation

Likelihood

Consequence

Urgency*

Residual Risk Exposure

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Demonstrate Impact of Mitigation Strategies

Individual Effectiveness — Measure the effectiveness of an *individual* mitigation strategy on reducing risk exposure

Comparative Effectiveness — *Compare* the effectiveness of *multiple* mitigation strategies on reducing risk exposure

Aggregate Effectiveness — Measure the *aggregate* effectiveness of all risk mitigation strategies on reducing risk exposure

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UMass Mitigation Assessment Tool for Reducing Risk Exposure

Initial Data Capture

- All data is provided by risk mitigation partner(s) conducting the mitigation assessment
- Members of the ERM Governance Structure help identify partners for each risk

Data Point	Description	Why
Title	Title of mitigation strategy being documented/assessed	Unique Identifier
Description	Brief description of mitigation strategy	Understand what the strategy is and does
Type	• Operational: Everyday or regularly occurring activity • Project-based: Initiative or project with finite timeframe	Understand if strategy is ongoing or timebound
Status	• Proposed: Strategy is not yet approved/funded • Planned: Strategy is approved/funded, but not yet implemented • Ongoing: Strategy is underway • Complete: Strategy has concluded	Determines whether strategy is included in the mitigation assessment calculation
Implementation Level	• Fully: Mitigation strategy is fully implemented • Partially: Mitigation strategy is not yet implemented at full capacity • N/A: Not applicable or not yet implemented	Determines whether weightings are applied to the mitigation assessment calculation

Consequence

What effect does or would the mitigation strategy have on each of the following risk consequence categories?

- Service Disruption, Process Impact on Operations
- Finance
- Legal/Compliance

- Workforce
- Reputation
- Life Safety

Rating	Description
Significant Effect	Greatly reduces the University's exposure in this risk category.
Moderate Effect	Somewhat reduces the University's exposure in this risk category.
Little to No Effect	Neutral - barely or does not reduce the University's exposure in the risk category.
Adverse Effect	Creates additional/increases exposure in the risk category.

Consequence rating value is dependent upon the calculation being generated

- For individual effectiveness calculation, value is assigned based on level

- For aggregate effectiveness calculation are relative to the Inherent consequence rating values for the risk

Likelihood

Does or would this risk mitigation strategy impact the likelihood of the risk occurring?

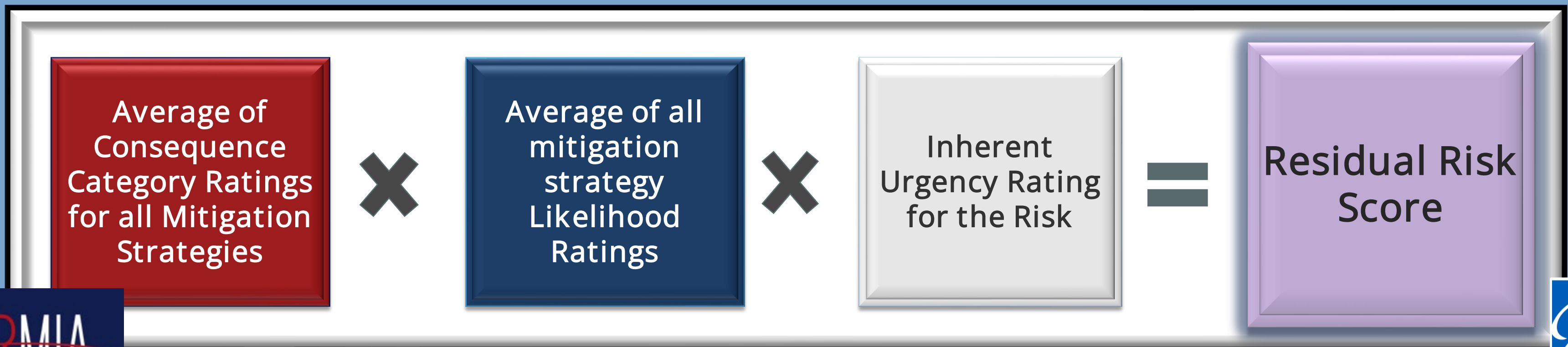| Rating	Description
Decreases Likelihood	Improves: Mitigation strategy has decreased the likelihood that the risk will occur
No Impact	Neutral: Mitigation strategy has made no impact on the likelihood that the risk will occur
Increases Likelihood	Worsens: Mitigation strategy has increased the likelihood that the risk will occur.

Likelihood rating value is relative to the inherent likelihood rating for both the individual effectiveness calculation and aggregate effectiveness calculation

Mitigation Assessment Calculations

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Individual Effectiveness Calculation

| Sum of Consequence Category Ratings | ✕ | Likelihood Rating | = | Individual Effectiveness Score |

Aggregate Effectiveness Calculation

| Average of Consequence Category Ratings for all Mitigation Strategies | ✕ | Average of all mitigation strategy Likelihood Ratings | ✕ | Inherent Urgency Rating for the Risk | = | Residual Risk Score |

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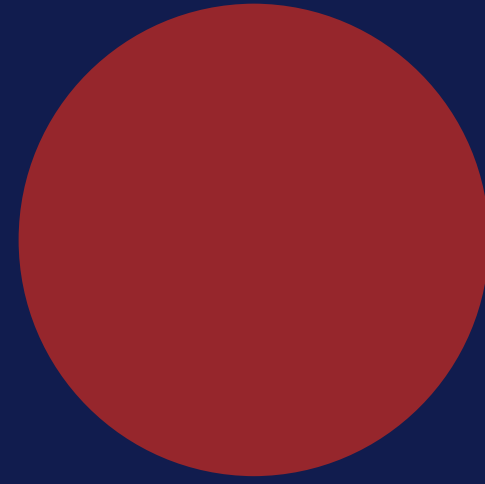
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What MATRX Does and Does Not Accomplish

- Provides transparency on risk mitigation strategies

- Demonstrates progress on mitigating risk or depicts areas that may require additional attention

- Enables more robust discussions on risk and risk mitigation

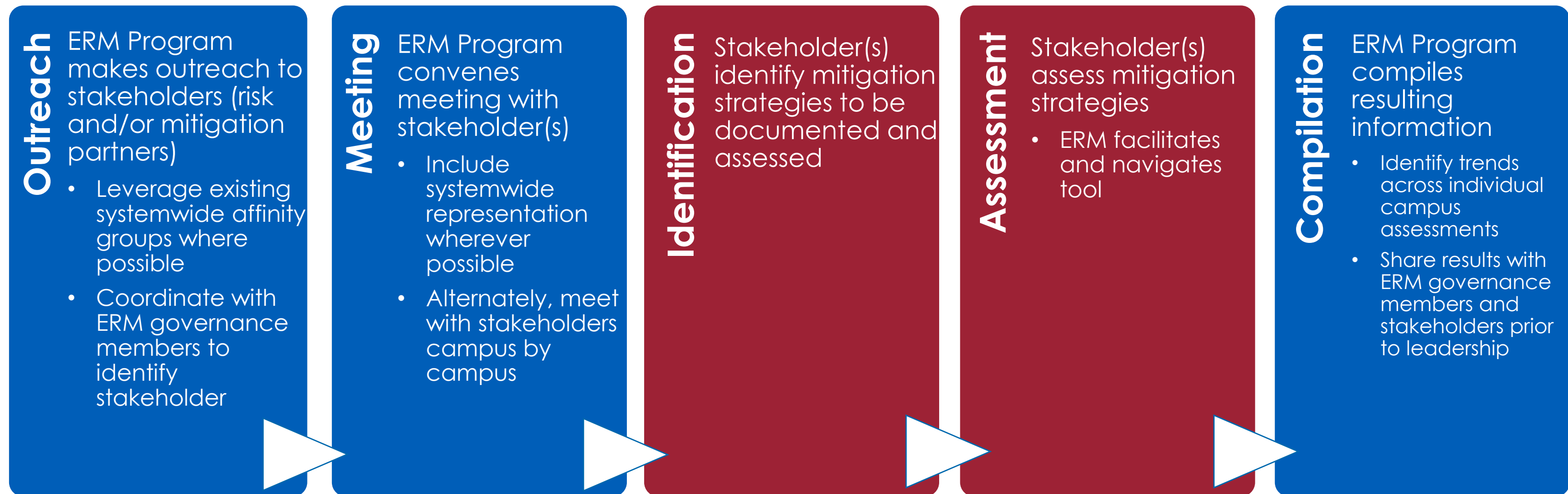- Demonstrates movement in addressing risk

- Does not track key performance indicators

- Does not define risk tolerance

- Does not define specific follow-on actions needed

- Does not conclude satisfaction or dissatisfaction with status of addressing risk

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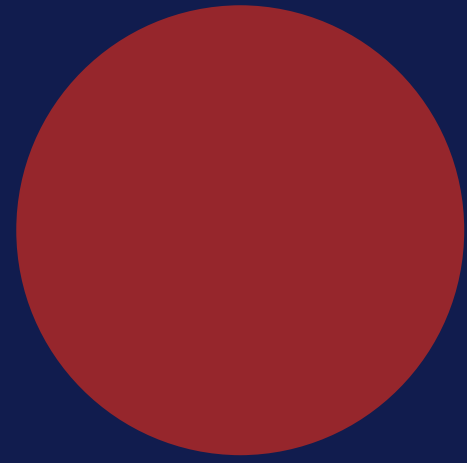UNIVERSITY RISK MANAGEMENT & INSURANCE ASSOCIATION

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Stakeholder Engagement

Mitigation Assessment – Stakeholder Engagement Process

Outreach
ERM Program makes outreach to stakeholders (risk and/or mitigation partners)
- Leverage existing systemwide affinity groups where possible
- Coordinate with ERM governance members to identify stakeholder

Meeting
ERM Program convenes meeting with stakeholder(s)
- Include systemwide representation wherever possible
- Alternately, meet with stakeholders campus by campus

Identification
Stakeholder(s) identify mitigation strategies to be documented and assessed

Assessment
Stakeholder(s) assess mitigation strategies
- ERM facilitates and navigates tool

Compilation
ERM Program compiles resulting information
- Identify trends across individual campus assessments
- Share results with ERM governance members and stakeholders prior to leadership

| ERM | Stakeholders |

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Mitigation Assessment Data

International Activities

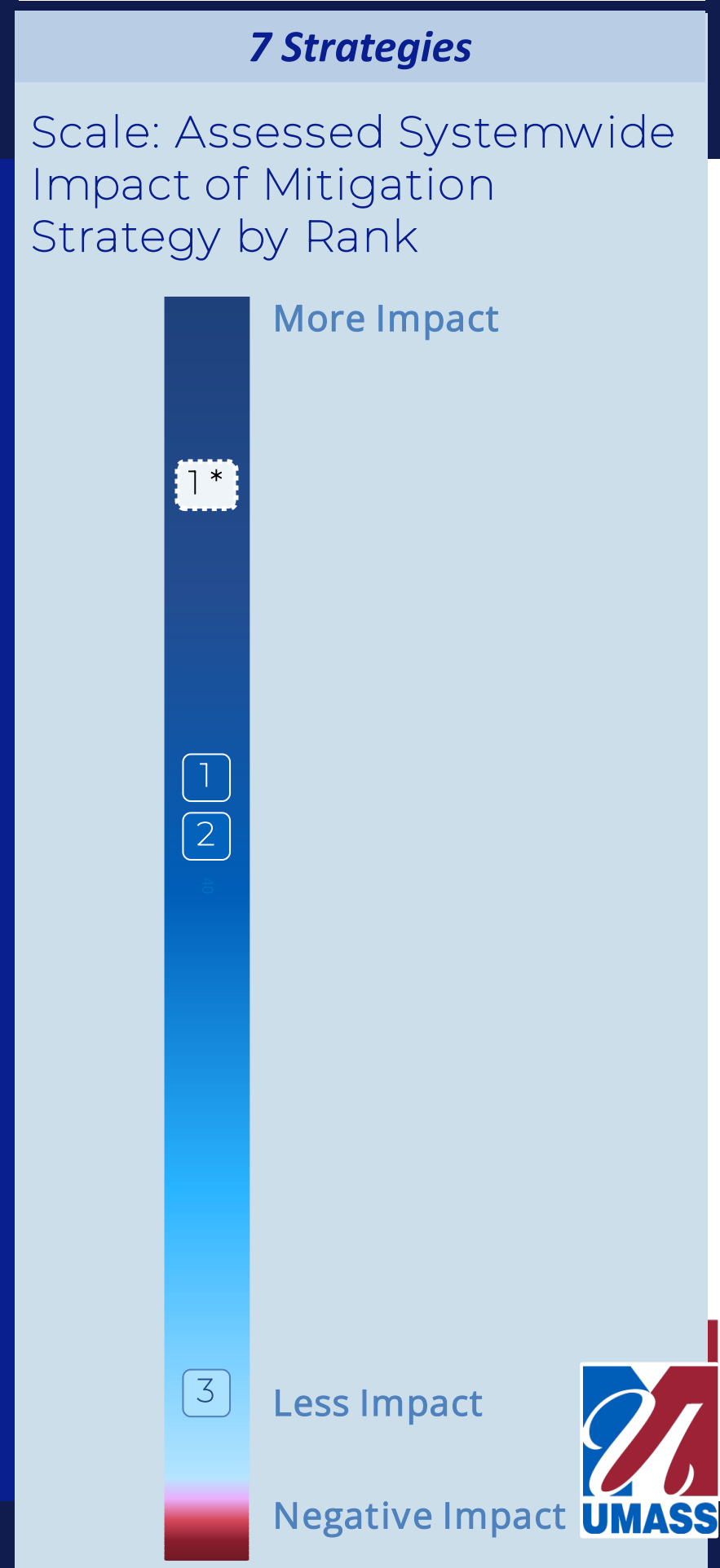| Rank	Mitigation Strategy as of June 30, 2023	Systemwide Status
1	Travel Registry	Fully
2	New Travel Policies and Standards	Fully
3	Systemwide International Employment Guidelines	N/A
4	Business Travel and Expense Policy and Standards	Fully
4	International Travel Accident and Sickness Services and Insurance	Fully
5	International Tax Advisory Services	Fully
6	International Employment Issues Evaluation	Fully
7	International Hires Pilot	Partially

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8 Strategies

Scale: Assessed Systemwide Impact of Mitigation Strategy by Rank

More Impact

1
2
3

4
5
6
7

Less Impact

Negative Impact
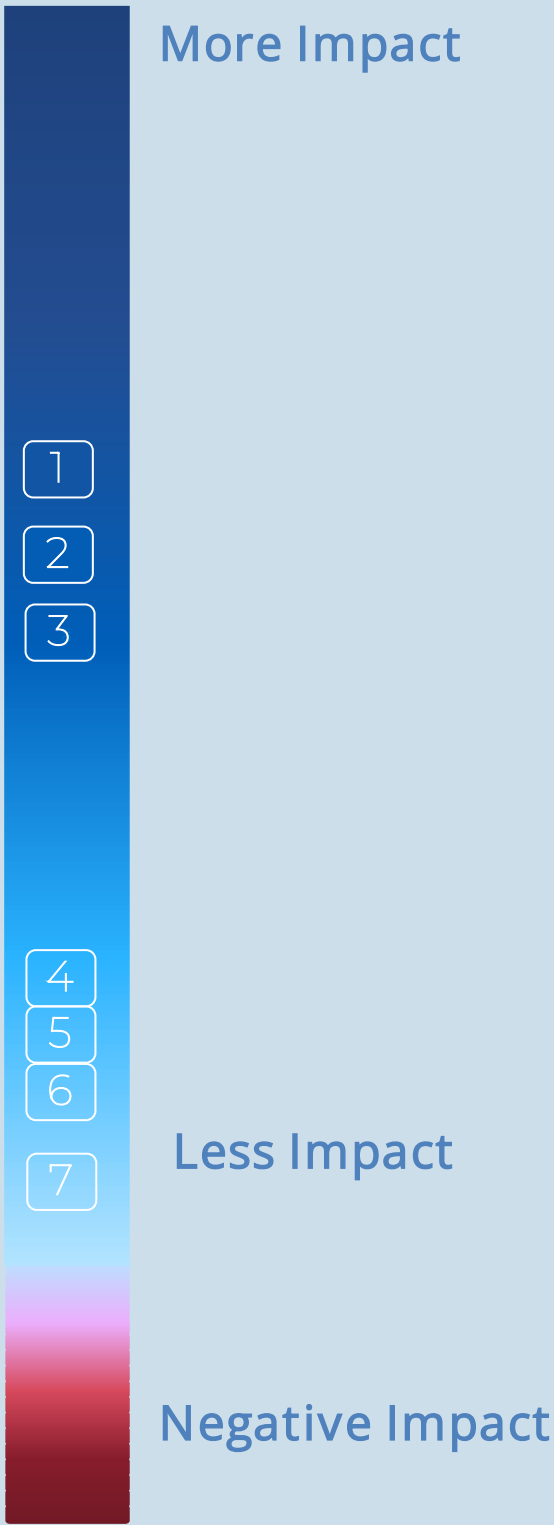
Facilities & Deferred Maintenance

Rank	Mitigation Strategy as of June 30, 2023	Systemwide Status
1	Reaching/Maintaining Keep Up Targets	Partially*****
	Reaching/Maintaining Catch Up Targets	Partially*****
2	Annual Update of Campus Deferred Maintenance (Gordian)	Fully
	Capital Policy & Standards	Fully
	Reporting – Biannual Capital Plan	Fully
	Reporting – Quarterly Capital Reporting Including Keep Up and Catch Up	Partially
3	Tracking Spending Against DCAMM Contracts	Partially

* T ... er if these strategies were fully implemented. See scale.

Scale: Assessed Systemwide Impact of Mitigation Strategy by Rank

More Impact

1*

1

2

3   Less Impact

Negative Impact

Movement in Reducing Risk Exposure

Highest Inherent Risk — Range of Potential Risk Exposure — Lowest Residual Risk

- Enrollment
- Information Security
- Financial Sustainability
- Facilities and Deferred Maintenance
- Student Health and Mental Health Support
- Vendor Risk Management
- Attract, Recruit, Retain Faculty and Staï
- International Activities
- Information Privacy
- Diversity, Equity, Inclusion and Accessibility

Legend:
- FY22 Assessed Inherent Risk
- FY23 Assessed Residual Risk
- Lowest Possible Residual Risk

MATRX

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Mitigation Assessment Program Triumphs & Turbulences

| Triumphs	Turbulences
• MATRX has been well received by both internal and external stakeholders • Results to date have been shared with leadership and our Board of Trustees • Results have driven additional discussion around priority risks • Adaptability of the tool to capture additional detail on mitigation strategies	• Lengthier process than originally anticipated • Challenges in identifying stakeholders and mitigation strategies for risks that do not have existing affinity groups

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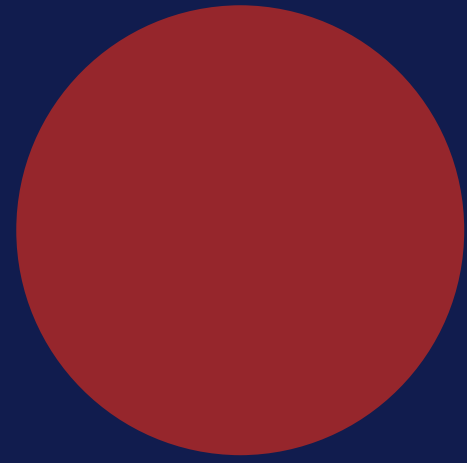
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# Influence of Mitigation Assessment Data

ERM Data Empowers UMass to Better Understand & Prioritize Risk

Data gathered through the assessment of both risk and risk mitigation strategies enables UMass to contemplate risk through multiple viewpoints.
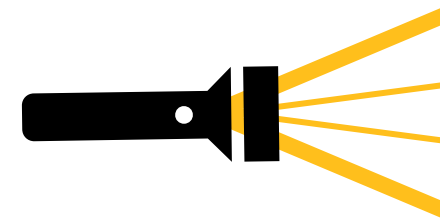
Spotlight: Consequence Categories

Consequence categories assists UMass in understanding how risk affects the University and how effective mitigation strategies are in reducing exposure. These are evaluated for six categories of impact:
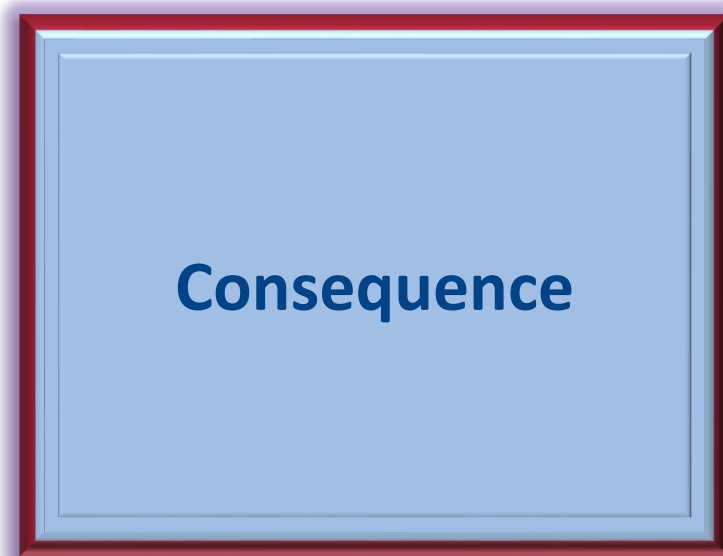
Consequence

- Operations/Service Disruption
- Financial
- Legal/Compliance
- Workforce
- Reputation
- Life Safety

Operations Consequence Category

Risk	FY22 Risk Assessment Assessed Rating	FY23 Mitigation Assessment Assessed Rating (Average)
Enrollment	High	Neutral
Information Security	Medium	Moderate
Financial Sustainability	Medium	Moderate
Facilities and Deferred Maintenance	Medium	Moderate
Student Health & Mental Health Support	Negligible	Neutral
Vendor Risk Management	Medium	Moderate
Attract, Recruit, Retain Faculty & Staff	Medium	Neutral
International Activities	Medium	Neutral
Information Privacy	Medium	Moderate
...ty, Equity, Inclusion & Accessibility	Negligible	Neutral

Risk Exposure	Mitigation Strat. Impact
Negligible	**Better** Significant
Low	Moderate
Medium	Neutral
High	**Worse** Adverse

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Legal/Compliance Consequence Category

Risk	FY22 Risk Assessment Assessed Rating	FY23 Mitigation Assessment Assessed Rating (Average)
Enrollment	Negligible	Neutral
Information Security	High	Significant
Financial Sustainability	Low	Moderate
Facilities and Deferred Maintenance	Medium	Moderate
Student Health & Mental Health Support	Medium	Moderate
Vendor Risk Management	Medium	Significant
Attract, Recruit, Retain Faculty & Staff	Low	Moderate
International Activities	High	Moderate
Information Privacy	Medium	Moderate
Diversity, Equity, Inclusion & Accessibility	Medium	Moderate

Risk Exposure	Mitigation Strat. Impact
Negligible	Significant
Low	Moderate
Medium	Neutral
High	Adverse

Better — Worse

Reputation Consequence Category

Risk	Assessed Reputation Risk Exposure	Impact of Assessed Mitigation Strategies on Reputation Exposure
Enrollment	High	Neutral
Information Security	Medium	Moderate
Financial Sustainability	High	Neutral
Facilities and Deferred Maintenance	Low	Neutral
Student Health & Mental Health Support	Medium	Moderate
Vendor Risk Management	Low	Neutral
Attract, Recruit, Retain Faculty & Staff	Medium	Moderate
International Activities	Medium	Neutral
Information Privacy	Medium	Moderate
Diversity, Equity, Inclusion & Accessibility	Medium	Moderate

Risk Exposure	Mitigation Strat. Impact
Better	
Negligible	Significant
Low	Moderate
Medium	Neutral
High **Worse**	Adverse

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Mitigation Assessment's Influence on Risk Assessment Process

- Influenced ERM Executive Committee discussion on Urgency Rating

  - Are we satisfied with where we are, or do we need to continue to prioritize?

    - Does not mean mitigation stops

- Identified risks that need to be reviewed with more granularity

  - Added sub-elements

FY2024 Risk Assessment: International Activities

FY23 Mitigation Assessment

- 🟥 *FY22 Assessed Inherent Risk*
- 🔶 *FY23 Assessed Residual Risk*
- 🟪 *Lowest Possible Residual Risk*

FY24 Risk Assessment

Risk Name	Risk Definition	Likelihood	Consequence						Urgency
			Operations	Financial	Legal/ Compliance	Workforce	Reputation	Life Safety	
International Activities	Inability to effectively implement a consistent approach across to the University's international activities across the system, including travel, devices and data, students, employment, trade and sanctions, and business engagements.	Certain	Low	Low	Med.	Low	Med.	Neg.	Moderate
University Travel		Certain	Low	Neg.	Low	Low	Med.	High	
Devices, Data and Property Management		Certain	Med.	Low	Med.	Low	Med.	Neg.	
Students		Certain	Low	Low	Med.	Low	High	Neg.	
Employment in US		Certain	Med.	Low	Low	Med.	Med.	Neg.	
Employment outside US		Certain	Low	Neg.	Med.	Neg.	Low	Neg.	
Trade and Sanctions Compliance		Certain	Med.	Low	Med.	Neg.	Medium	Neg.	
Business Engagements		Certain	Low	Low	Med.	Neg.	Low	Neg.	

FY2024 Risk Assessment: Facilities and Deferred Maintenance

FY23 Mitigation Assessment

- 🟥 **FY22 Assessed Inherent Risk**
- 🔶 **FY23 Assessed Residual Risk**
- 🟪 **Lowest Possible Residual Risk**

FY24 Risk Assessment

Risk Name	Risk Definition	Likelihood	Consequence						FY22 Urgency	FY24 Urgency
			Ops	Fin	Lgl/ Cmpl	Wrkfrc	Rep.	Life Safety		
Facilities and Deferred Maintenance	Inability to maintain facilities, including the prioritization of ongoing and deferred maintenance, and/or develop facilities and infrastructure to attract and retain students, staff and faculty, and to support critical research.	Certain	Med.	High	Med.	Low	Low	Low	Moderate	High

FY2024 Systemwide Risk Registry

FY24 Rank	Risk	FY22
1	Enrollment	1
2	Information Security	2
3	Facilities and Deferred Maintenance	4
4	Financial Sustainability	3
5	Student Health & Mental Health Support	5
6	Artificial Intelligence	New
7	International Activities	8
8	Research	15
9	Diversity, Equity, Inclusion and Accessibility	10
10	Attract, Recruit, Retain Faculty and Staff	7

FY24 Rank	Risk	FY22
11	Information Privacy	9
12	All Hazards Planning & Response Capabilities	11
13	Labor Relations	13
14	Data Management	14
15	Vendor Risk Management	6
16	Sexual Assault Policies & Response Procedures	17
17	NCAA Regulations	27
18	IT Disaster Recovery	18
19	Continuity Planning	19
20	Environmental Health, Public Health, & Safety Regulations	20

FY24 Rank	Risk	FY22
21	Alcohol and Substance Abuse	21
22	Fraud, Waste, and Abuse	24
23	Crisis Communications	23
24	Uninsured Loss	25
25	Multi-State Payroll Tax	12
26	Multi-State Business Tax	16
27	Employment Laws and Regulations	26
28	Policies and Procedures Regarding Minors on Campus	28
29	Academic Quality and Standards	29
30	Oversight of Student Organizations	30

■ Priority Risks

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Conclusion & Take Aways

- Aligning assessment of risk mitigation strategies to risk assessment methodology allows for contextual comparison of risk exposure and risk mitigation

- Transparency on risk mitigation strategies and visibility on progress in reducing risk exposure is empowering

- Volume of mitigation strategies have intuitively been implemented around highest areas of risk exposure

- ERM can be a cornerstone for creating risk-informed priorities and strategies

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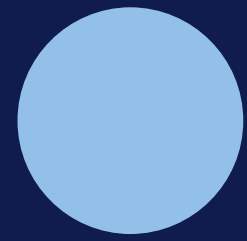
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Thank you for attending!
Please contact us with follow-up:

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University of Massachusetts President's Office