

University of Massachusetts Enterprise Risk Management Program

Audit and Risk Committee

May 31, 2023



University of Massachusetts

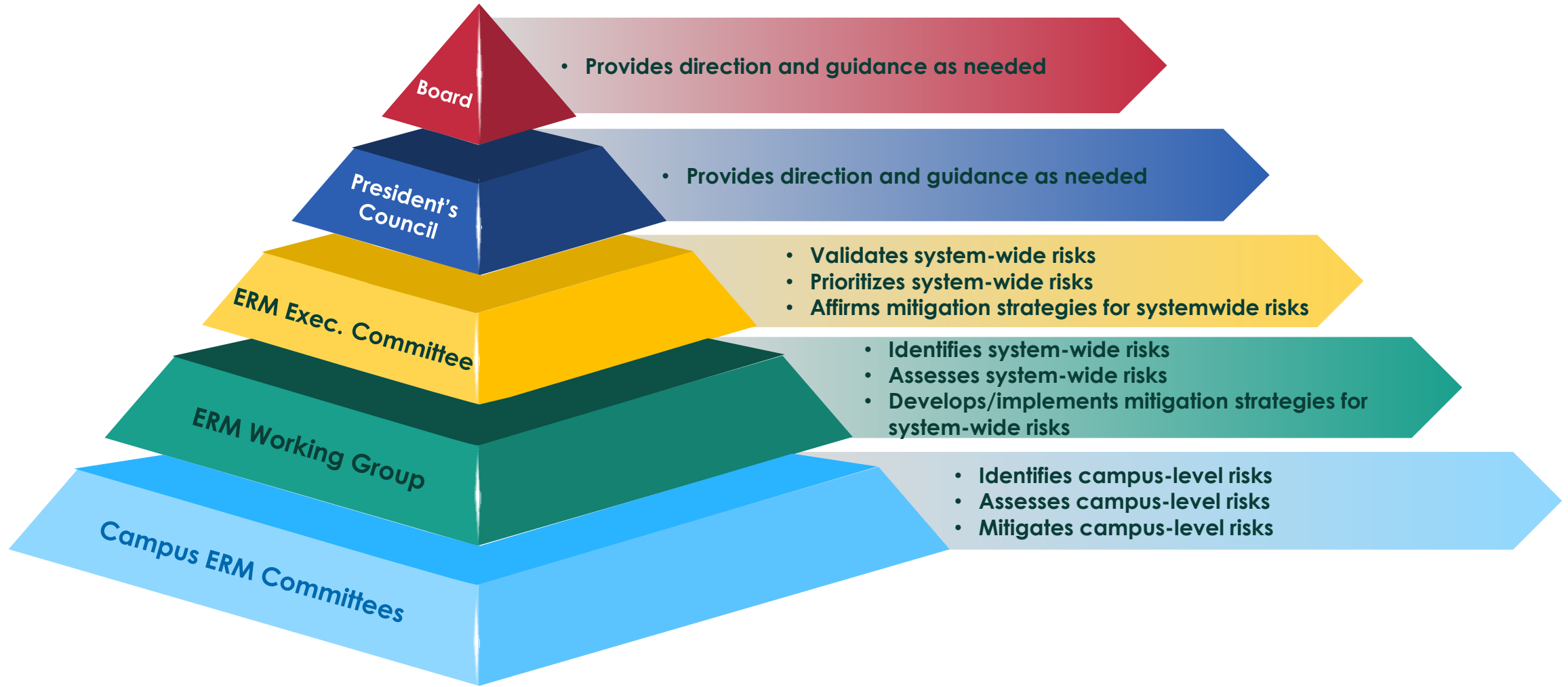
Amherst • Boston • Dartmouth • Lowell • Medical School • UMassOnline

Agenda

- **ERM Program Recap**
- **MATRX and Updates on Risk Mitigation Strategies**
- **Next Steps**

ERM Program Recap

Systemwide ERM Program Governance Structure



Two-Year ERM Program Cycle

FY24 Q4

Develop and Issue biennial ERM Report

Currently Underway:

Continue to focus on mitigation strategy identification and assessment

- MATRX
- Develop baseline of mitigation strategies that can be reviewed in future cycles
- Create transparency on mitigation strategies and their effectiveness
- Better understand residual risk to inform decision making



FY24 Q2 - Q3

Develop FY24 Systemwide Risk Registry

- ERM Working Group will conduct risk assessment on systemwide risk exposures
 - Assesses inherent risk
- ERM Executive Committee will prioritize risks

Risk Assessment Process

- Focused on systemwide impacts
- Evaluates **inherent** exposure of the University to the risk
 - Does **not** account for mitigation strategies
 - Generates an Inherent Risk Score for each risk
- Rates risks across three factors
 - Values are assigned to each rating
 - Likelihood: Could the University system experience this risk?
 - Consequence: How much would the University system be impacted by this risk (service/operations disruption, financial, legal/compliance, workforce, reputation, life safety)?
 - Urgency: How soon does the University system need to prioritize this risk?

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



■ Assessed by ERM Working Group




■ Assessed by ERM Executive Committee

FY 2022 Systemwide Risk Registry

■ Priority Risks

Rank	Risk	Rank	Risk	Rank	Risk
1	Enrollment	11	All Hazards Planning & Response Capabilities	21	Alcohol and Substance Abuse
2	Information Security	12	Multi-State Payroll Tax	22	Crisis Communications
3	Financial Sustainability	13	Labor Relations	23	Immigration Rules and Regulations
4	Facilities and Deferred Maintenance	14	Data Management	24	Fraud, Waste, and Abuse
5	Student Health & Mental Health Support	15	Research	25	Uninsured Loss
6	Vendor Risk Management	16	Multi-State Business Tax	26	Employment Laws and Regulations
7	Attract, Recruit, Retain Faculty and Staff	17	Sexual Assault Policies & Response Procedures	27	NCAA Regulations
8	International Activities	18	IT Disaster Recovery	28	Policies and Procedures Regarding Minors on Campus
9	Information Privacy	19	Continuity Planning	29	Academic Quality and Standards
10	Diversity, Equity, Inclusion and Accessibility	20	Environmental Health, Public Health, & Safety Regulations	30	Oversight of Student Organizations

Increasing Program Visibility

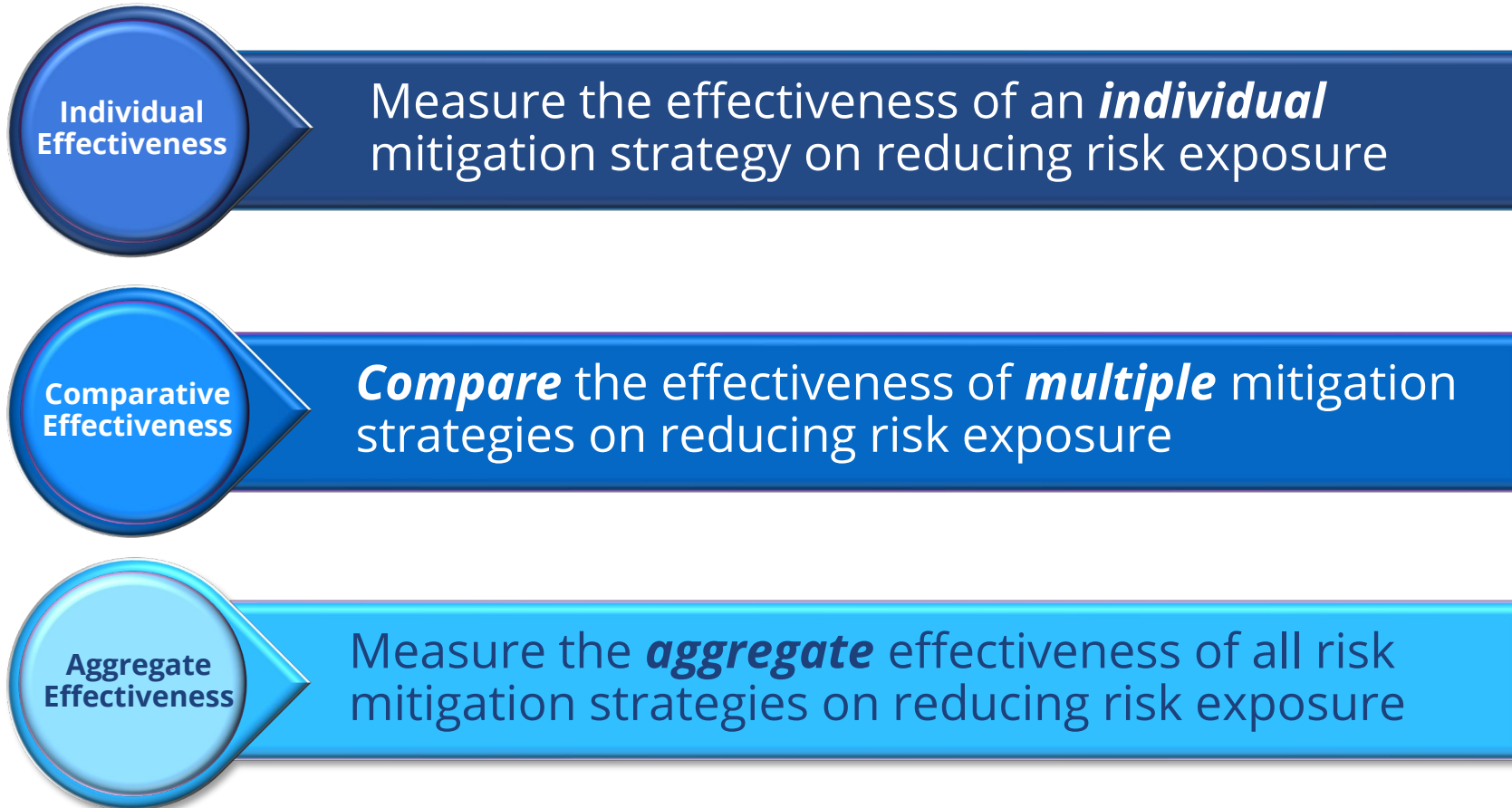
	<ul style="list-style-type: none">▪ Conducted “Best of Conference” webinar in February 2023▪ Presented at northeast regional conference in April 2023▪ Asked to conduct Roundtable on use of data in an ERM Program▪ At URMIA’s request, developed two sections for their new ERM best practices white paper▪ Selected to present at URMIA National in September 2023
 <p>Canadian Higher Education Community of Practice for ERM</p>	<p>Presented to membership (50+ institutions) in February 2023</p>
 <p>Public Risk Management Association</p>	<p>Presenting at PRIMA National Conference in June 2023</p>
 <p>SCCE[®] Society of Corporate Compliance and Ethics</p>	<p>Presenting at SCCE Higher Education Conference in June 2023</p>



& Updates on Risk Mitigation Strategies

MATRIX Methodology

MATRIX assesses the effectiveness of mitigation strategies through three lenses against each risk's specific range of exposure.



- What It Does and Does Not Tell Us

MATRX provides leadership with information to inform discussion about whether to accept the residual risk or take additional actions to avoid, transfer or further reduce risk

Does

- 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

- 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



Information Security

# Strategies	17
Risk Mitigation Partners	<ul style="list-style-type: none"> • Campus Chief Information Security Officers • UITS

Individual Mitigation Effectiveness Scale



Preliminary Individual and Comparative Mitigation Strategy Assessment

Rank	Mitigation Title	Implementation Status
1	Incident Detection and Response	Fully
2	Attack Resistance	Fully
3	Communications Protection	Fully
	Identity and Access Management	Fully
	Vulnerability Management	Fully
4	Business Continuity/Disaster Recovery	Fully
	Data Management	Fully
	Data Theft Resistance	Fully
5	Data Loss Prevention	Fully
	Network Protection	Fully
	Third-Party Assessment	Fully
6	Administrative System Access	Fully
	Managed Cloud Environments (IaaS)	Fully
	Third Party Penetration Testing	Fully
	Training/Awareness	Fully
7	Cyber Security Insurance	Fully
	Optimization	Fully



Financial Sustainability

Preliminary Individual and Comparative Mitigation Strategy Assessment

# Strategies	20
Risk Mitigation Partners	<ul style="list-style-type: none"> • UMPO A&F Team • Campus Budget Directors • Campus Controllers

Rank	Mitigation Title	Implementation Status
1	State Financial Support	Fully
	State Funding of CBA Increases	Planned
2	Reporting: Q'ly Budget Projections & Annual Budget Reporting	Fully
	Reporting: Q'ly Capital Reporting & Biennial Capital Plan	Fully
3	Reaching/Maintaining 2% Operating Margin	Fully
	Cash Flow Modeling and Projections	Fully
	Reporting - Annual Five-Year Forecast Refresh	Fully
	Reserve Policy	Fully
	SPARC Dashboard	Fully
	UMass Global Financial Reporting	Fully
4	Maintaining Availability of Line of Credit	Fully
	Operating Cash Invested with Foundation	Fully
	Implementation of UMPlan for Annual Budgeting	Fully
	UMPlan - Financial Forecast Module	Fully
	UMPlan - Tuition Planning Module	Fully
5	Chart of Accounts Update	Partially
6	Compliance with Federal Grants	Fully
7	Monitoring Standard Metrics	Fully
	Adoption and Forecasting of Changes in GASB	Fully
	Appropriate Account Treatment for P3s	Fully

Individual Mitigation Effectiveness Scale





Facilities & Deferred Maintenance

Preliminary Individual and Comparative Mitigation Strategy Assessment

# Strategies	7
Risk Mitigation Partners	Facilities and Deferred Maintenance Working Group (EE)

Individual Mitigation Effectiveness Scale



Rank	Mitigation Title	Implementation Status
1	Reaching/Maintaining Keep Up Targets	Partially
	Reaching/Maintaining Catch Up Targets	Partially
2	Reporting - Biannual Capital Plan	Fully
	Reporting - Quarterly Capital including Catch Up and Keep Up	Fully
	Annual Update of Campus Deferred Maintenance (Gordian)	Fully
	Capital Policy & Standards	Fully
3	Tracking Spending Against DCAMM Contracts	Fully



Vendor Risk Management

# Strategies	9
Risk Mitigation Partners	<ul style="list-style-type: none"> • UPST (primary) • Innovation and Operations • Human Resources • Office of General Counsel • UITS

Individual Mitigation Effectiveness Scale



Preliminary Individual and Comparative Mitigation Strategy Assessment

Rank	Mitigation Strategy Title	Implementation Level
1	Procurement Policy and Standards	Fully
	Updated Vendor Performance Guidelines and Resources	Fully
	Restricted Party Screening	Fully
	Streamlined Procurement Contracts Process/Technology	Fully
2	Vendor Management Training	Planned
3	Strategic Sourcing – Supplier Partnerships	Partially
	Strategic Sourcing – Category Management	Partially
4	Vendor IT Security Compliance	Partially
5	Independent Contractor Compliance	Partially



International Activities

Preliminary Individual and Comparative Mitigation Strategy Assessment

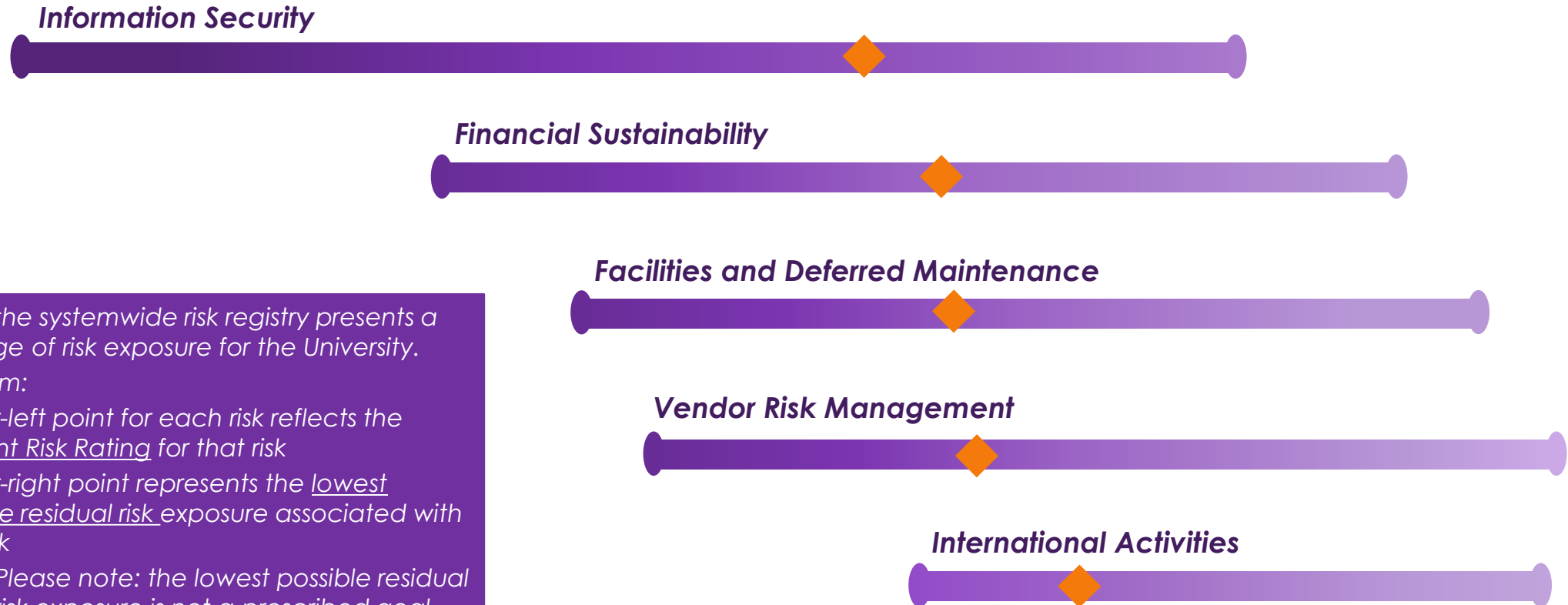
# Strategies	7
Risk Mitigation Partners	<ul style="list-style-type: none"> • Campus Global Programs • ERM • Innovation & Operations • IRAC • OGC • Treasury

Mitigation Effectiveness Scale



Rank	Mitigation Strategy Title	Implementation Level
1	Travel Registry	Fully
2	New Travel Policy and Standards	Fully
3	Business and Travel Expense Policy and Standards	Fully
	International Travel Accident and Sickness Services and Insurance	Fully
4	International Tax Advisory Services	Partially
	Globalization Partners Engagement	Partially
5	International Employment Issues Evaluation	Partially

Movement in Reducing Risk Exposure



- Each risk on the systemwide risk registry presents a different range of risk exposure for the University.
- In this diagram:
 - The far-left point for each risk reflects the Inherent Risk Rating for that risk
 - The far-right point represents the lowest possible residual risk exposure associated with that risk
 - Please note: the lowest possible residual risk exposure is not a prescribed goal, but merely a reflection of lowest possible rating
- The orange diamond reflects the current residual risk having accounted for existing mitigation strategies.

◆ Residual Risk

Next Steps

ERM Program Look Ahead

- PRIMA and SCCE Presentations (June 2023)
- Complete mitigation assessment of top 10 risks (FY24 Q1)
- Conduct FY24 risk assessment (FY24 Q2)

Appendix A

ERM Governance Structure Membership

ERM Working Group Membership

Last Name	First Name	Campus	Title	ERM Working Group Member		
				Campus ERM Lead	SME	SME Topic
Britton	Kirsten	Amherst	Senior Associate Athletic Director		X	Athletics
Carragher	Candyce	UMPO	Senior Executive Associate to the Senior Vice President		X	Academic Affairs Student Affairs
Cho	David	UPST	Chief Procurement Officer		X	Procurement
Coleman	Brian	Medical	Associate CIO – Information Security	X		
Comeau	Justin	Boston	Manager, Emergency Planning & Business Continuity	X		
Conklin	Shane	Amherst	Associate Vice Chancellor for Facilities and Campus Services		X	Facilities
Culverwell	Marcy	Medical	Associate Vice Chancellor, Administration and Finance	X		
Dunlap	John	UMPO	Chief Human Resources Officer		X	Human Resources
Edelman-Blank	Deborah	Lowell	Director, Counseling Services		X	Health & Mental Health
Hescock	Jeff	Amherst	Executive Director EHS and Emergency Management	X	X	Safety and Security
Hitchcock	Patrick	UMPO	Controller		X	Controller
Hoey	John	UMPO	Executive Director of Communications		X	Communications
Karberg	Andrew	UMPO	Associate Counsel, Compliance, Ethics, International Affairs		X	Legal
LaGrassa	Michael	Dartmouth	Associate Vice Chancellor of Administrative Operations & Compliance	X		
Majewski	Deborah	Dartmouth	Vice Chancellor of Human Resources	X		
Mayers	Darryl	Boston	Assistant Vice Chancellor for Contracts and Compliance	X		
Packard	Christine	UMPO	Director, Enterprise Risk Management	X		
Patel	Tejal	OGC	Assistant Counsel, International Affairs and Immigration		X	International Activities
Russell	Andrew	UMPO	Senior Assistant VP of Operations and Associate Treasurer		X	Tax
Scano	Derek	UMPO	Assistant Director, Internal Audit		X	Internal Audit
Skrzek	Joe	UMPO	Director, Budget & Planning		X	Finance
Smith	Bradford	UITS	Chief Information Security Officer		X	IT
Stockwell	Joshua	UMPO	Associate Counsel for IP and Research		X	Research
Sullivan	June	Medical	Senior Director, Compliance and Policy	X		
Tucker	Josh	UMPO	Insurance Analyst		X	Insurance
Wood	Rick	Lowell	Director, Office of Life Safety and Emergency Management	X		
Yanka	Ruth	Amherst	Executive Director A&F Operations, Vice Chancellor A&F	X		

ERM Executive Committee Membership

Last Name	First Name	Campus	Title	Executive Committee Seat
Calise	Lisa	UMPO	Senior Vice President and Treasurer, Administration and Finance	SVP, Administration and Finance
Culverwell	Marcy	Medical	Associate Vice Chancellor, Administration and Finance	Medical School
David	Kyle	UMPO	Director, Internal Audit	Director, Internal Audit
Giuliani	Chris	Boston	Associate Vice Chancellor for Administration and Finance	Boston
Hescock	Jeff	Amherst	Director, Environmental Health and Safety	Amherst
Karberg	Andrew	UMPO	Associate Counsel, Compliance, Ethics, International Affairs	Research
Leone	Gerry	UMPO	General Counsel	General Counsel
Miliano	Tom	Lowell	Associate VC, Administrative Services	Lowell
Milligan	Michael	UITS	Interim Chief Information Officer	Chief Information Officer
Newman	Katherine	UMPO	SVP and Chancellor, Academic Programs	SVP, Academic Affairs
Packard	Christine	UMPO	Director, Enterprise Risk Management	ERM Director/Chair
Pasquini	LeeAnn	UMPO	Associate Vice President Administration and Finance	AVP, Administration and Finance
Piggot	Robyn	Dartmouth	Chief of Staff	Dartmouth