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FFIEC Cybersecurity Assessment Tool

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Agenda

- Risk Trends
- FFIEC Cybersecurity Efforts
- Cybersecurity Assessment Tool

Risk Trends

- **Existing vulnerabilities continue to be exploited**

  Easily exploitable vulnerabilities persist

- **New platforms create new cyber attack opportunities**

  New ways to exploit financial institutions and their customers

- **Lines between cyber actors are blurring**

  Commercialization of tools, resources, and infrastructure

Risk Trends

- **Tactics evolve in response to online behavior**

  Social networks enable more effective and targeted attacks

- **Trends in malware are evolving**

  Destructive malware and cryptographic ransomware

- **Global unrest results in changing motivations**

  Regions that either have cyber capabilities or resources to purchase them may turn their focus towards U.S. financial institutions during political and social unrest.

Risk Trends

Potential Impacts

- Financial
- Operational
- Legal
- Reputational

FFIEC CYBERSECURITY EFFORTS

FFIEC Cybersecurity Efforts

- Cybersecurity and Critical Infrastructure Working Group
- Joint statements and alerts
- Cybersecurity awareness website and CEO webinar
- Cybersecurity assessment of community institutions

FFIEC Cybersecurity Efforts

- Issue a Cybersecurity Assessment Tool
- Enhance incident analysis
- Align, update and test crisis management protocols
- Develop training programs for staff
- Update and supplement the *Information Technology Examination Handbook*
- Enhance focus on Technology Service Providers
- Collaborate with law enforcement and intelligence agencies

FFIEC CYBERSECURITY ASSESSMENT TOOL

FFIEC Cybersecurity Assessment Tool

Objective

To help institutions identify their risks and determine their cybersecurity maturity.

The Assessment provides institutions with a repeatable and measureable process to inform management of their institution's risks and cybersecurity preparedness.

FFIEC Cybersecurity Assessment Tool

Consistent with the principles in

- *FFIEC Information Technology Examination Handbook (IT Handbook)*
- National Institute of Standards and Technology (NIST) Cybersecurity Framework
- Industry accepted cybersecurity practices

FFIEC Cybersecurity Assessment Tool

Consists of two parts

Part One: Inherent Risk Profile

Part Two: Cybersecurity Maturity

FFIEC Cybersecurity Assessment Tool

Inherent Risk Profile Categories

- Technologies and Connection Types
- Delivery Channels
- Online/Mobile Products and Technology Services
- Organizational Characteristics
- External Threats

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Inherent Risk Profile Risk Levels

Type, volume, and complexity of operations and threats directed at the institution

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Inherent Risk Profile Excerpt

Activity, Service or Product

Risk Levels

Category: Technologies and Connection Types	Risk Levels				
	Least	Minimal	Moderate	Significant	Most
Total number of internet service provider (ISP) connections (including branch connections)	No connections	Minimal complexity (1–20 connections)	Moderate complexity (21–100 connections)	Significant complexity (101–200 connections)	Substantial complexity (>200 connections)
Unsecured external connections, number of connections not users (e.g., file transfer prototype (FTP), Telnet, rlogin)	None	Few instances of unsecured connections (1–5)	Several instances of unsecured connections (6–10)	Significant instances of unsecured connections (11–25)	Substantial instances of unsecured connections (>25)

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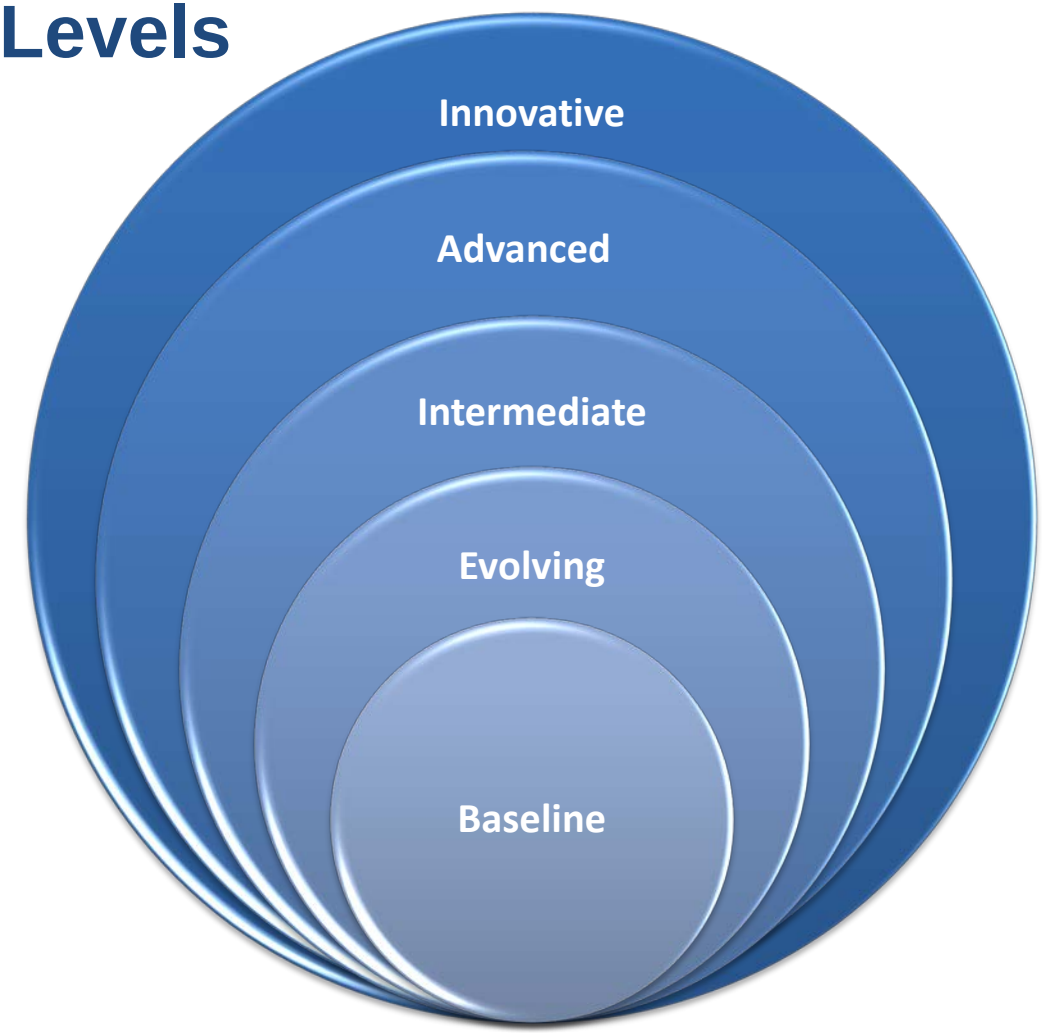
Maturity Levels



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Cybersecurity Domains

- Cyber Risk Management and Oversight
- Threat Intelligence and Collaboration
- Cybersecurity Controls
- External Dependency Management
- Cyber Incident Management and Resilience

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	Domain	Assessment Factors
1	**Cyber Risk Management & Oversight**	• Governance • Risk Management • Resources • Training and Culture
2	**Threat Intelligence & Collaboration**	• Intelligence Sourcing • Monitoring and Analyzing • Information Sharing
3	**Cybersecurity Controls**	• Preventative Controls • Detective Controls • Corrective Controls
4	**External Dependency Management**	• Connections • Relationships Management
5	**Cyber Incident Management & Resilience**	• Incident Resilience Planning and Strategy • Detection, Response and Mitigation • Escalation and Reporting

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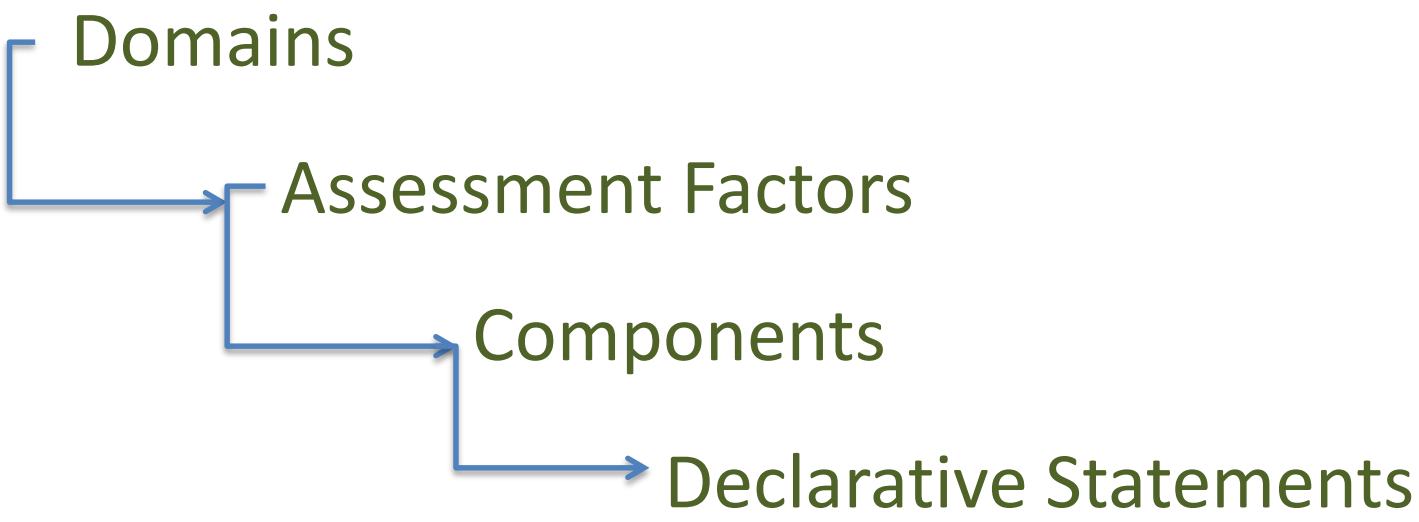
Cybersecurity Maturity



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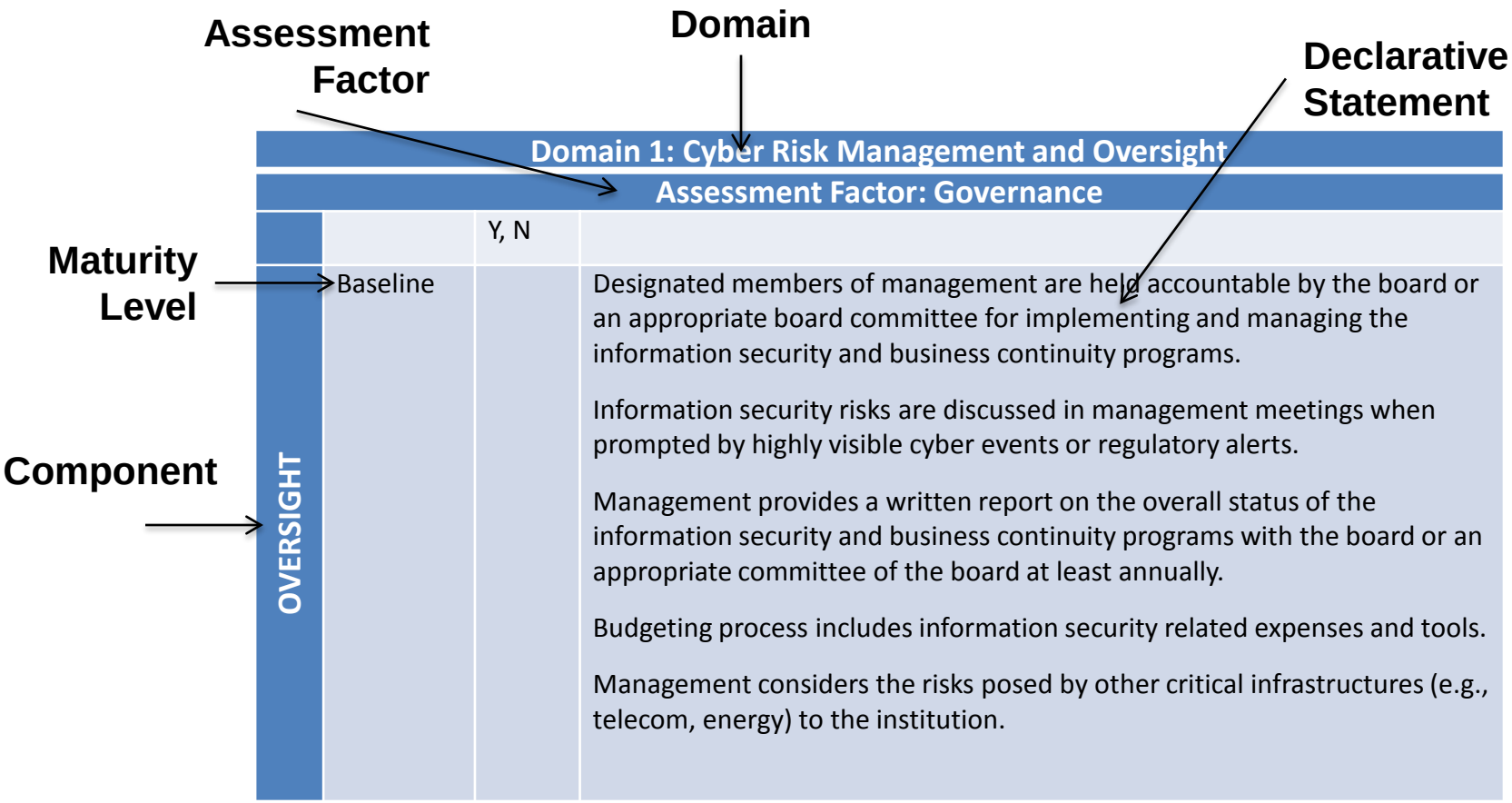
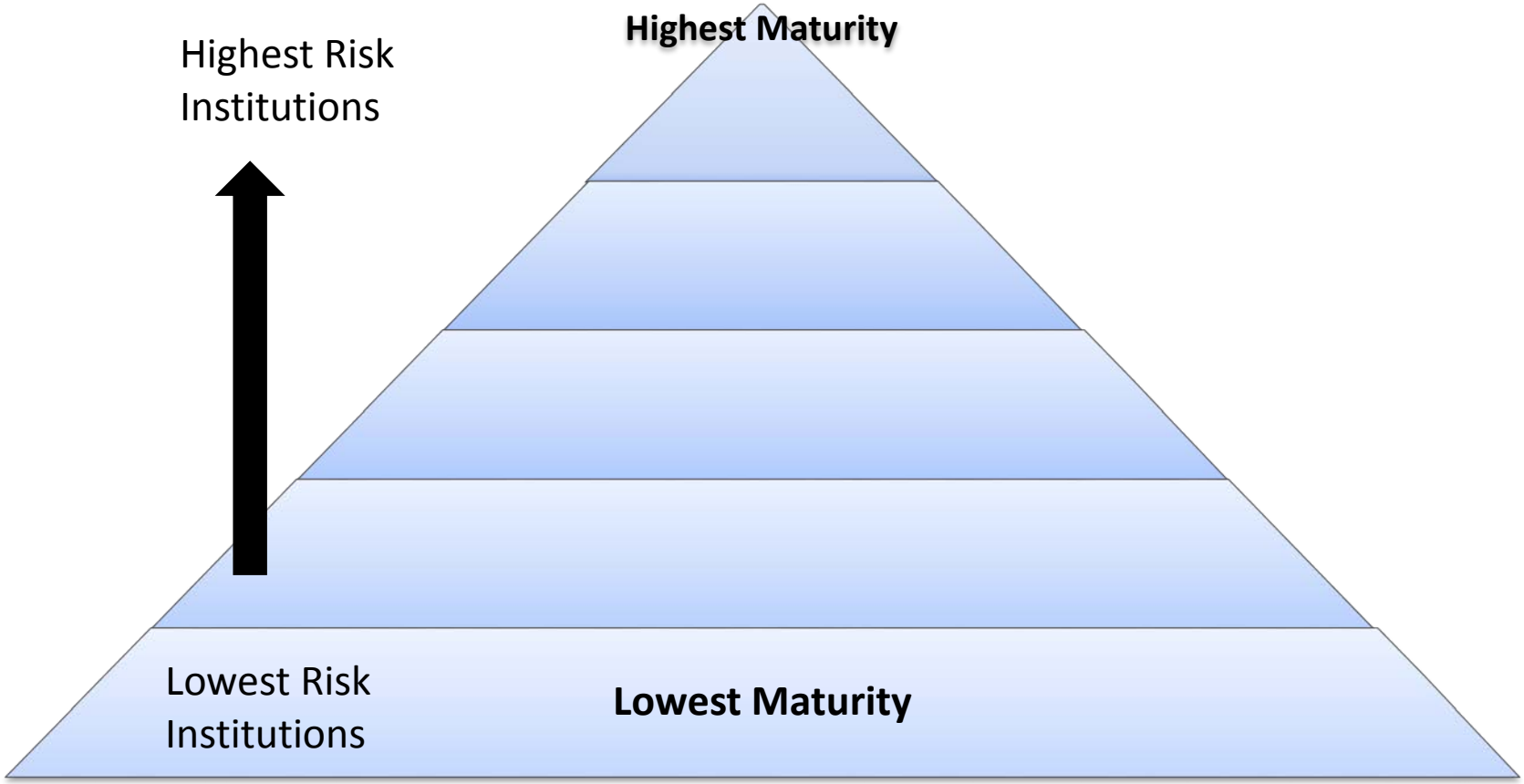
Cybersecurity Maturity Excerpt



Cybersecurity Maturity/Risk Relationship



Patch Management

MATURITY PROGRESSION

BASELINE

- Timely Patching
- Patch Testing
- Missing Patch Report Review

EVOLVING

- Formal Program
- Impact Evaluated
- Automated Retrieval
- Missing Patches: Automated Comprehensive Tracking/Prioritization

INTERMEDIATE

- High-Risk Patches Tested/Applied or Accountability Assigned

ADVANCED

- Comprehensive Patch Software on Servers
- Aggressive Testing & Application (0-30 days)

INNOVATIVE

- Develops Patches, Fixes or Open Source Code.
- Redundant Systems for Testing, Deployment, and Fallback.

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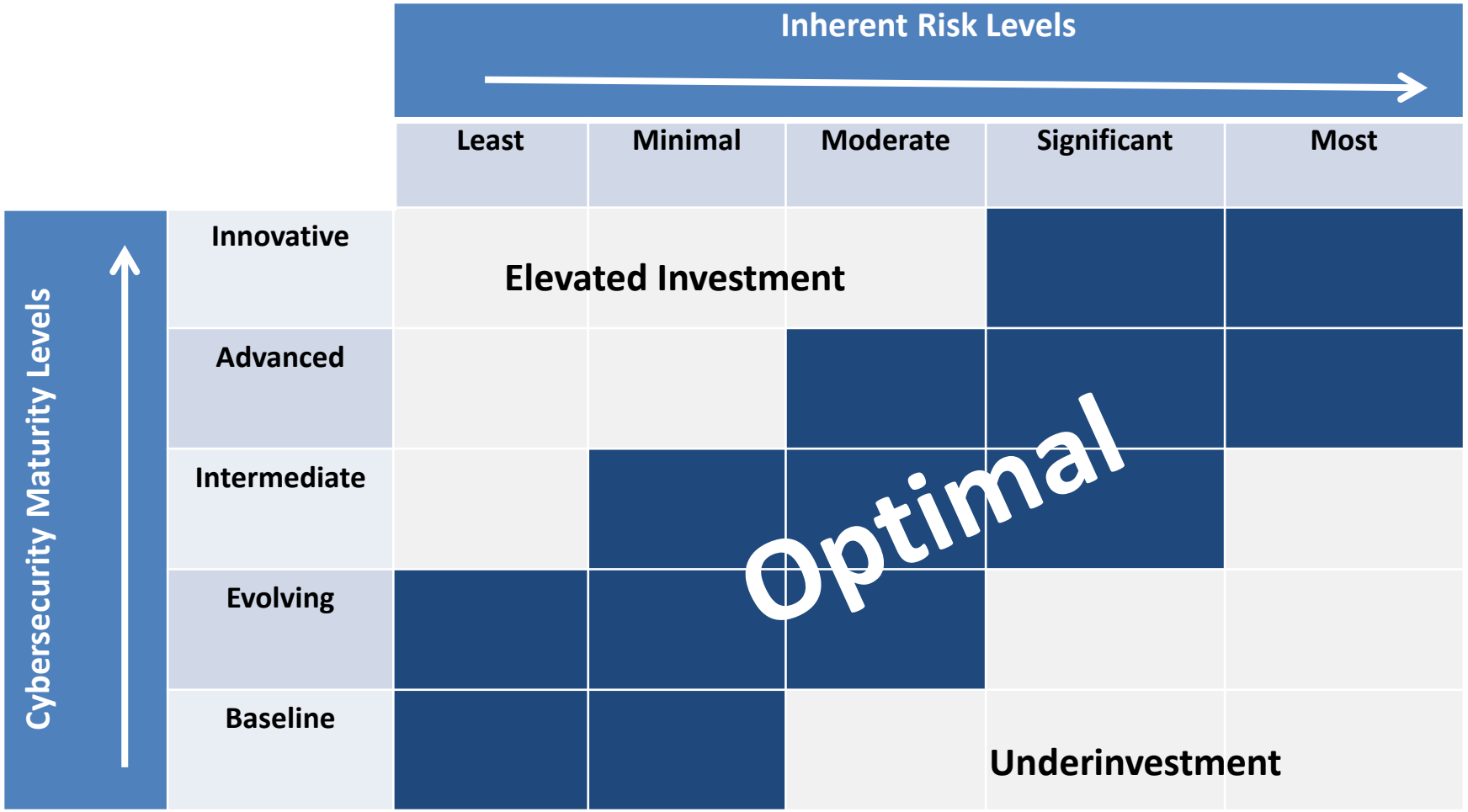
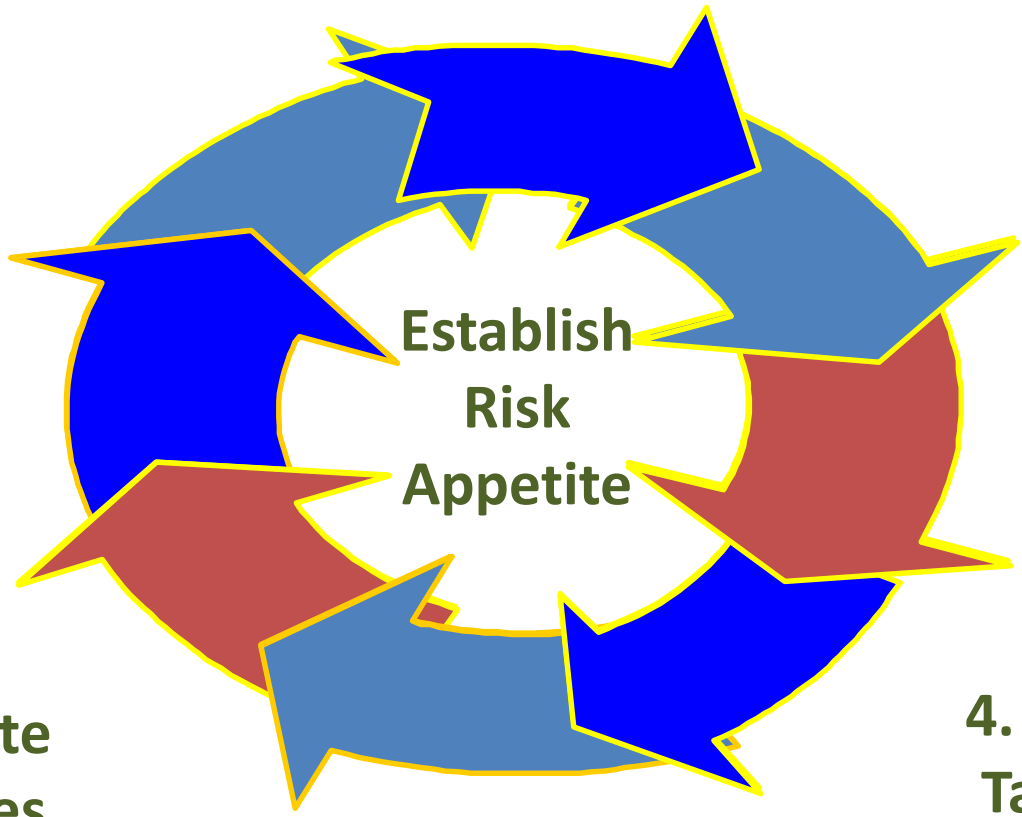


Assessment Process

1. Identify Critical Functions & Vendors

Involve BOD Throughout



2. Complete Inherent Risk Profile

3. Assess Maturity

4. Determine Target State

5. Develop Plan to Address Gaps

6. Allocate Resources

7. Adjust Program

FFIEC Cybersecurity Assessment Tool

Supporting Materials

- User's Guide
- Overview for CEOs and Boards of Directors
- Appendix A: Mapping Baseline Statements to *FFIEC IT Handbook*
- Appendix B: Mapping Cybersecurity Assessment Tool to the NIST Cybersecurity Framework
- Appendix C: Glossary

FFIEC Cybersecurity Assessment Tool

Benefits to Institutions

- Identifying factors contributing to and determining the institution's overall cyber risk.
- Assessing the institution's cybersecurity preparedness.
- Evaluating whether the institution's cybersecurity preparedness is aligned with its risks.
- Determining risk management practices and controls that could be enhanced and actions that could be taken to achieve the institution's desired state of cyber preparedness.
- Informing risk management strategies.

Thanks For Your Time!

Questions/Comments About the Tool

Dedicated NCUA email for your questions:

CU_cybersecurity@ncua.gov

Office Contact Page

Feel free to contact our office with questions or comments.

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