

# **PORTFOLIO OPTIMIZATION SUCCESS ACROSS FEDERAL GOVERNMENT**

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#SGP16



# QUANTIFYING DECISION MAKING

## PORTFOLIO GOAL: OPTIMIZE CYBER INVESTMENTS

Conflicts in traditional domains were much more predictable;

Protection of information assets largely driven by intuition, experience, and intuition;

Cyber conflicts require an entirely different mindset.

# THE WORLD IN WHICH WE LIVE

Attackers get inside organization's infrastructure by attacking the\*:

- Network;
- Devices connected to the network;
- People who use the network and devices.

• \* Angel Investing in Cybersecurity: Understanding the Technology, Mach37

# THE WORLD IN WHICH WE LIVE

The uncertainty about the location of sensitive and confidential data is more of a worry than a hacker or malicious employee\*\*

- 57% do not know where sensitive or confidential data is located;
- Only 7% know where unstructured data resides;
- 79% believe that not knowing where sensitive information is represents a significant security risk;
- 51% believe that securing and/or protecting data is a high priority in organization

\*Informatica, <http://www.ponemon.org/index.php>

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# GOALS

- Enhance the “gut”, intuition, and experience features that drive so much decision making with real data;
- Move from the status quo—Embrace the Change;
- Do not put this all on the network!
  - If 70+% of the investments to protect information at the Infiltration Phase; then .....
- Value data standards and the role they play in establishing normalcy and facilitating continuity
- Establish “Conduits for Information Sharing”



# DECISION LENS

## Criteria

- Reduce Vulnerabilities
- Adapt New Technologies
- Increase Workforce Skillsets

## Alternatives

- Processes
  - Invest in processes to better enable the organization to protect its information assets
- Technology
  - Invest in new technologies to better enable mitigation against and reduce attacks
- Training
  - Invest in training to build a more qualified workforce to address current and future cyber T&V



**Criteria Tree**

John Hurley's Priorities

- 1.000 Portfolio Goal: Optimize Cybe...
- 0.603 Reduce vulnerabilities
- 0.082 Adapt new technologies
- 0.315 Increase workforce skillsets

Local Priorities  Global Priori...

**Criteria Weights Inputs**

All Participants' Weightings

Individual Participants 4

- Andy Gravatt
- John Hurley
- Sean Ginty
- Veronica Wendt

Participant Groups 0

Custom Priorities 0

**Alternative Ratings Inputs**

**Criteria**

Filtered by weightings of: **John Hurley**

Name	Value
Reduce vulnerabilities	60.3 %
Adapt new technolog...	8.2 %
Increase workforce s...	31.5 %

**Alternatives** Hold 'Control' key while hovering over segments to toggle isolation mode.

Comparing with: **All Participants Criteria and Ratings** Set As Current

Change	Name	Value
	Training	0.654
	Technology	0.466
	Processes	0.341

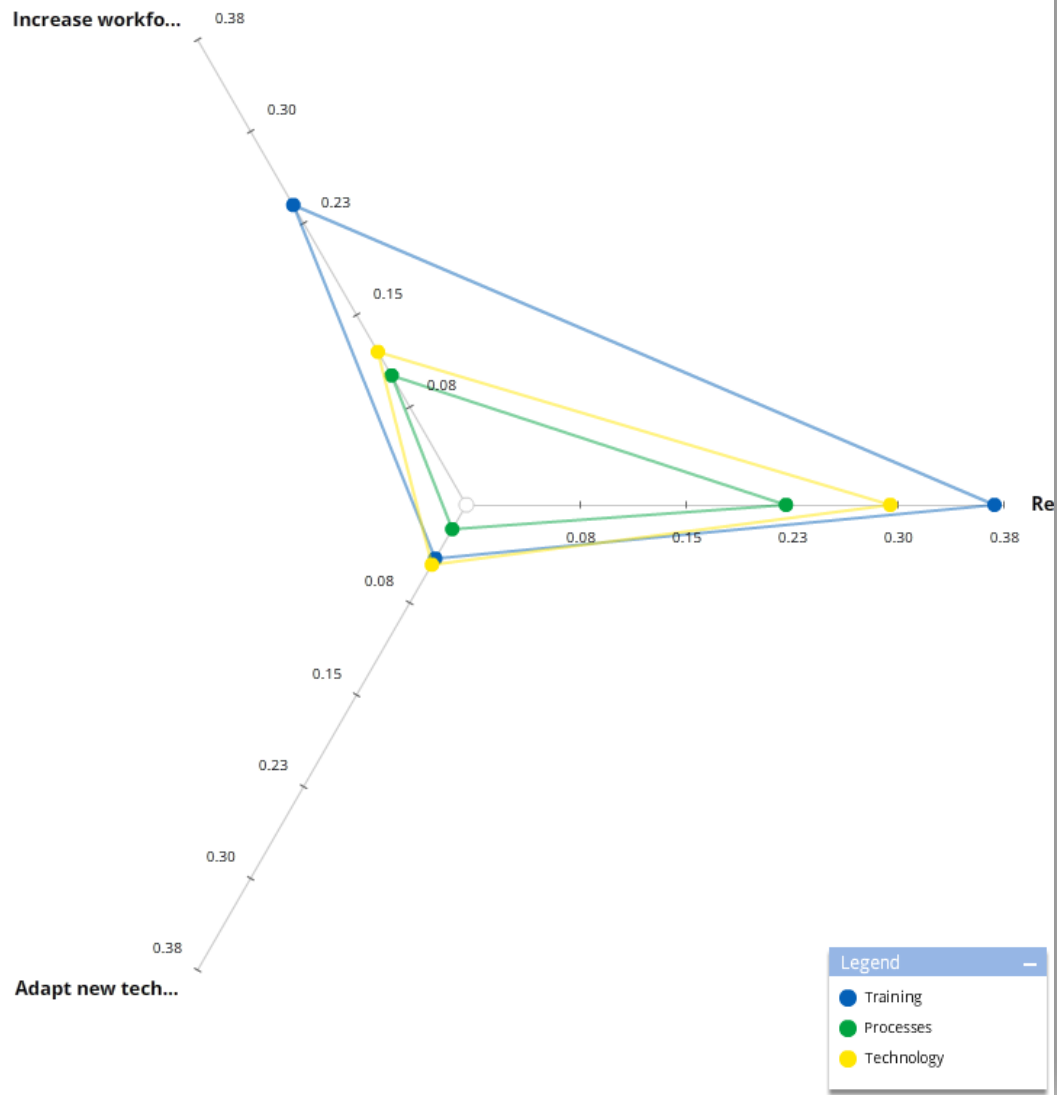
Criteria Tree

Priorities Set: **All Participants' Weightings**

- Portfolio Goal: Optimize Cyber Inv...
  - Reduce vulnerabilities
  - Adapt new technologies
  - Increase workforce skillsets

Alternatives

- Training
- Processes
- Technology





# CONCLUSION

- This is not to eliminate the value of intuition, experience, and the “gut”
  - They have significant value in the DM process
- Data-driven decisions
  - Credibility;
  - Risk;
  - Consensus;
- Acknowledgement
  - Decision Lens

