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Operationalizing Risk Quantification in Business Processes

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Bank of America

Why this talk?

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FAIR is useful “out of box”

FAIR can be easier

FAIR can be better

“Successful Program” goes far beyond “FAIR”

Who am I?

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- Co-Founded (Sheronas!) FAIR Team at the bank 3 years ago as first analyst, now leading a team of 8
- Board Vice President of Society of Information Security Risk Analysts (SIRA)
- 4 years at a non-profit
  - Building risk frameworks, teaching risk and how to build risk frameworks
  - Aiding information sharing in the Energy Sector
  - Occasional contributor to international cyber security policy discussions
- Several years in government coordinating Transportation Cybersecurity Public/Private Partnerships
  - Including launching a pipeline sector collaborative risk assessment
- National Critical Infrastructure Incident Response & Coordination (INL/DHS/NCCIC)
- Security Architect, Data Analysis & Visualization Artist, Builder of SOCs, Open Source Honeypot
- Backpacker, Cybersecurity Psychologist, Conceptual Lens Maker, Frequent Vagabond, Online 1987

About This Talk

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- **Slicing and Dicing the topic in three ways:**

  1. Program Success Attributes: What's a good program?
  2. Problem Spaces: How to think through your program
  3. Solution Spaces: Modularized ideas for Successful program

- We'll go through high level, use open questions to target detail

- **How to process this information:**

  - You are different; cherry pick ideas
  - The links between "Success Criteria", "Problems", "Solutions" is intentionally NOT made explicit (complex relationships)

Risk Quantification & Forecasting Program Success Qualities

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Meaning (Context)	Defensibility	Scalable	Sustainable	Impact
Technology	Problem / Scope Consensus	Modularity	Analysis Timelines	Decision Targets
Culture	Data Consensus	Coherence	Resource Burn	Information Arrangement
Language	Method Consensus	Availability	Focus	
Decision Frameworks	Resource Consensus		Quality	

Success Barrier Framework

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Program Management & Business Integration

Modeling Development & Enhancement

Team Structure & Dynamics

Program Management & Business Integration Barriers

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What problem?	Target Coordination	Process Shifting	Consensus & Defense	Human Brain Mgt
InfoSec History: Tech	Topics of Interest	Risk as a Namespace	Beliefs & Memes	Uncertainty
Implicit vs Explicit Risk	Shared Pain	Frontal Assaults	Engagement & Inclusion	Calibration
“It is known, Khaleesi!”	Scope Coherence	Augment or Supplant	Complex Unintegrated Views	Decomposition

Modeling Development & Enhancement

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Explicit Risk Management Framework	Decision Frameworks	Loss & Appetite	Metrics	Aggregation & LEGOs
Risk “Architecture”	Binary	Businesses Don’t Feel Risk	Measures vs Metrics	What ARE controls?
Measurement & Forecasting	Budget	A Dollar Isn’t a Dollar	Tail Wagging the Tail	Kill….Chains?
Risk Management Execution	Agility	Outcome vs Certainty	Inappropriate context	Scope Potatoe Scope Pototo
	Attrition			

Try Not Using the Word Risk

Team Structure & Dynamics

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Decomposition		
Converging Skills	T Shaped	Pairing

"Obvious" Skills	
FAIR	InfoSec
Cognitive Science	"MBA" / Business Ops
Facilitation	Decomposition

Less Obvious Skills	
Teaching	Modeling
Conflict Mgt	Anthropology
Comms	Hacker Mindset
Library Sci	

Yes. These, too.	
Storytelling	Kindness
Empathy	Humor
Curiosity	

Working Model of a FAIR Program

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Explicit Risk Management Question Framework

- Risk Architecture
- Measuring & Forecasting
- Risk Management Execution

Engagement Vehicles

- Governance
- Scenario & Targeting
- Data & Modeling

Analysis Team

- Front End
- Mid
- Back

Building Blocks

- Scenario Templates
- Loss Models (RCSA + Red Team?)
- Control Impact Models
- Aggregation & Scope Heuristics
- Articles of Risk Faith

Products & Services

- Tools
- Reference Quantities
- Analysis

Training & Socialization

- FAIR
- Decision Theory
- Branding /Marketing

Recap and Important Points

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- Problem Spaces
  - You're solving a largely unrecognized problem
  - A Dollar isn't the same dollar for everyone
  - InfoSec is entirely about implicit risk management; controls and metrics need translation
  - Consensus Management is Hard & Key, but Modularized Pre-Consensus Processes can help
    - Timeline management
    - Resource management
    - Acceptance and defensibility

- Solution Spaces
  - Your program as an iterative operational excellence tool making risk management explicit
  - Have an explicit risk management Goal/Question/Indicator/Measure framework
  - Have a Governance Process (Certification/Consensus, Priorities, Resourcing)
  - Have Targeting Process (Topics most likely to be analyzed pre-identified, pre-gathered)
  - Operate in context: Articles of Risk Faith and Decision Modeling
  - Operate at sustained scale: Data Tokenization/Modularization
  - Manage Long Term Data/Estimation Provisioning Assignments: It takes a village (Everyone is relevant)
  - Hire for culture shifting

- Think through your program and organization without using the word "Risk"

You can do it, don't be overwhelmed. Decompose, address gaps

Legal Disclaimer

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- If you have questions regarding your particular IT system or information security concerns, please contact your IT or information security advisor.

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Questions?

Thanks for listening!

Jack Whitsitt | john.Whitsitt@bofa.com | September 2019

Now with more Detail

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Program Management & Business Integration Barriers

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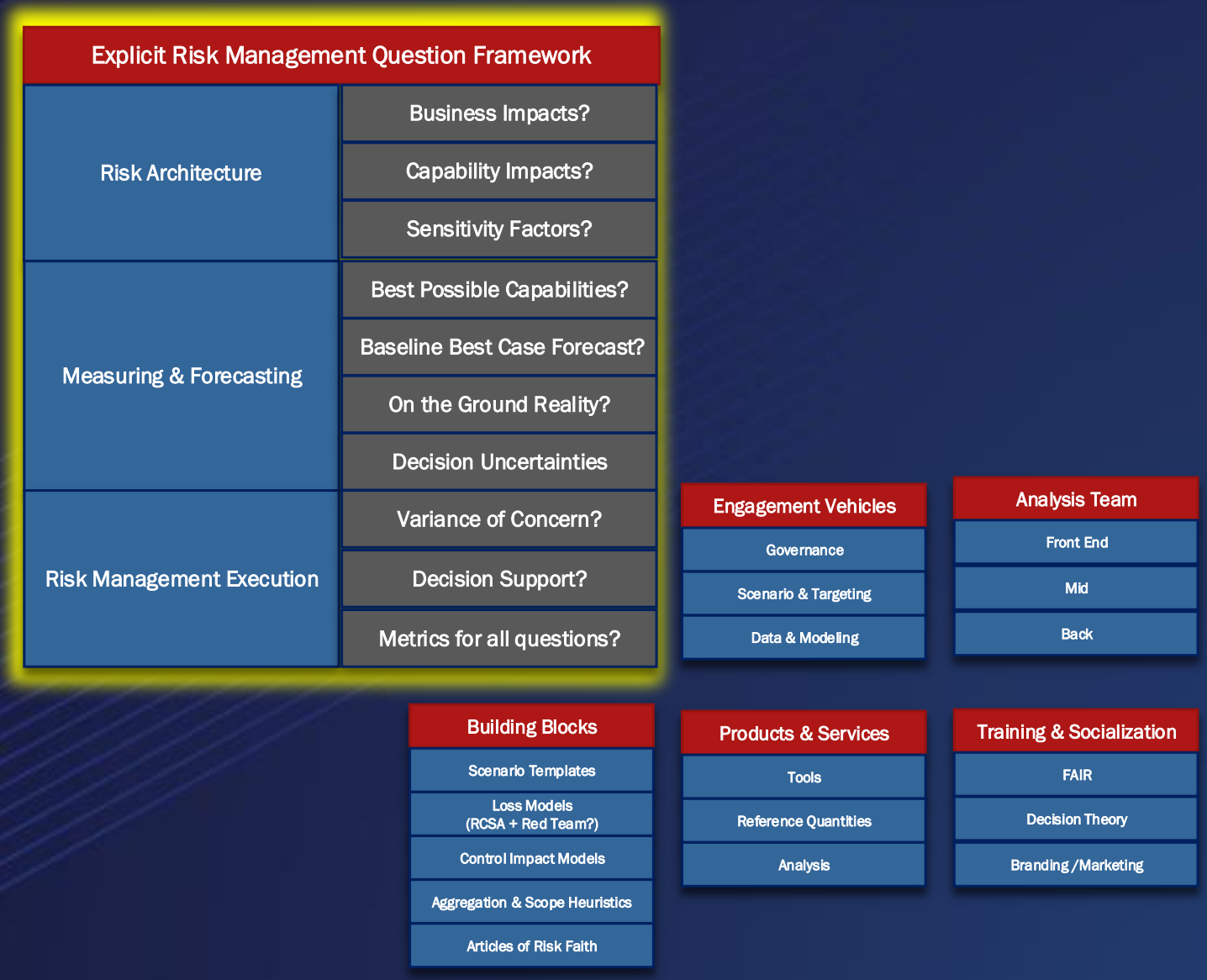
Working Model of a FAIR Program



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- Aggregation & Scope Heuristics
- Articles of Risk Faith
  - We believe what?
  - Meme/Tokenization
  - Measurable Attributes
  - Data/Estimation

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