Program Management Organization (PMO) Requirements Management (RqM)
&
Systems Thinking Thinking

Federal Aviation Administration

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Ann McDonald, ASQ-CSQE, CSM®, MBA
Volpe, The National Transportation Systems Center
U.S. Department of Transportation

Jennafer Miller, PMP
Evans Incorporated

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Today's Goals

Present an Overview of Requirements Management (RqM)	Share a brief history of the FAA RqM Process Improvement	Connect "Systems Thinking" elements with RqM

How many of you…?

- **… have been involved in a Requirements Management (RqM) process?**

- **… see a connection between Systems Thinking and RqM?**

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FAA Program Management Organization (PMO)

RqM Process Improvement

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FAA PMO Introduction

Creation endorsed Sept. 19, 2011

Focused on:

- **Collaboration**
- **Program Management**
- **Process Improvement**
  - Assessed RqM
  - Identified gaps
  - Developed improvement plan

Operational groups now more mission-focused

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RqM Definitions

- **What is a requirement?**
  - An unambiguous statement of a capability that a system must provide
  - May be expressed in operational terms
- **What is Requirements Management?**
  - Control system
  - Framework or process
  - Throughout the lifecycle of a program

"What if we don't change at all ... and something magical just happens?"

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The Purpose of RqM

Volatility

RqM

Safeguards and Protects

Program

Baseline

Architecture

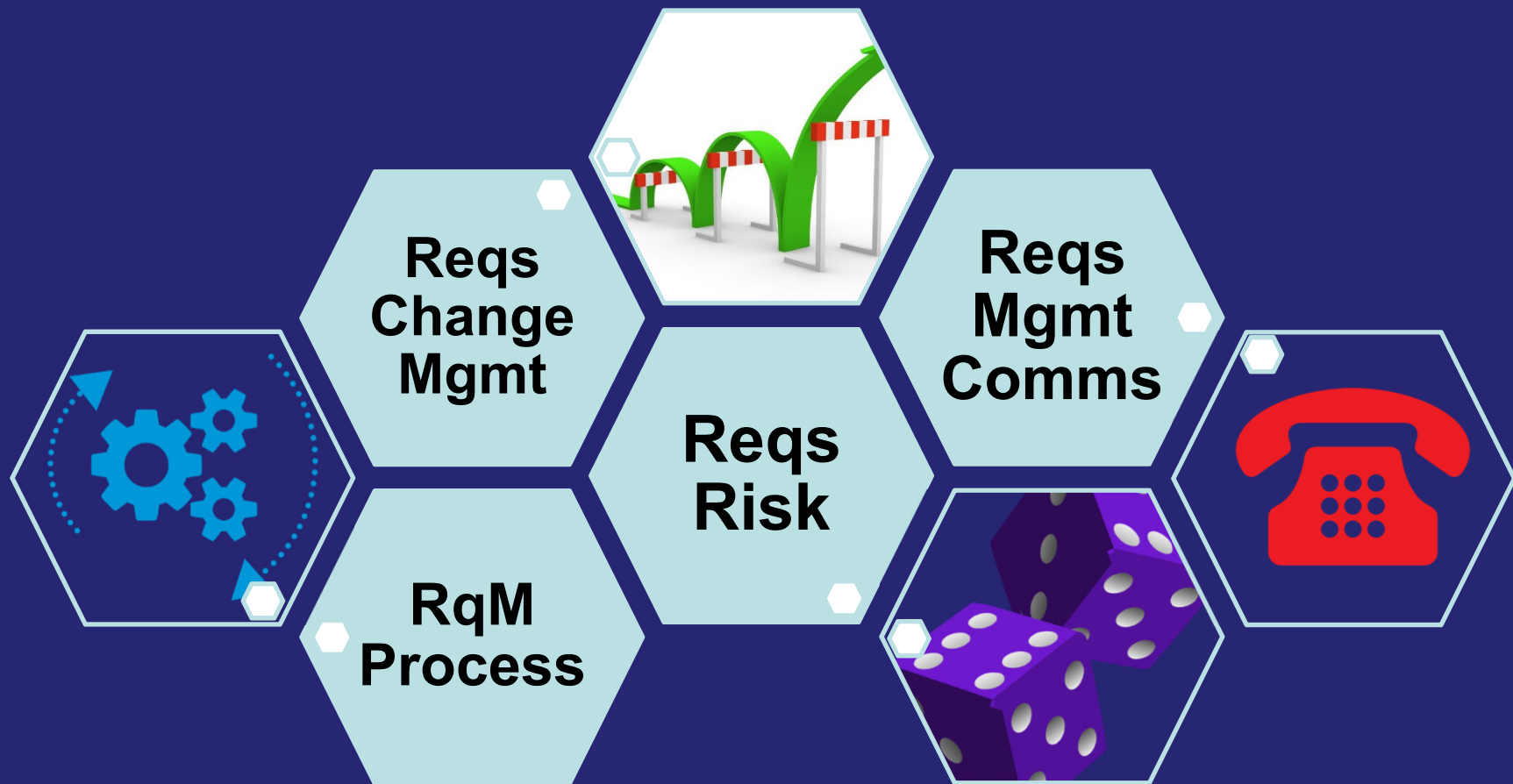Federal Aviation Administration

Conducted Assessments

Phase 1:

Identified programs &

Developed questionnaire

Phase 2:

Interviewed Subject Matter Experts (SMEs)

Phase 3:

Summarized findings:

Gap Analysis

Questionnaire Focused on Four (4) Primary Areas:

Reqs Change Mgmt

Reqs Mgmt Comms

Reqs Risk

RqM Process

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Findings

Identified:

- **Areas of Strength**
- **Opportunities for Growth**

Less than half programs had:

- **RqM Plans**
- **Stakeholder Comms Plans**

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Process Improvements

- **Chartered PMO RqM Board (PRMB)**
- **PMO RqM SOP**
- **RqMP Template & Guidance**
- **RqM Metrics & Guidance**
- **RqM Educational Platform**

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Training and Education

2015	2016 Updates	2017 Updates	2018
1-hour overview for Leadership and Mgmt Workshop Pilot for Plan Writers	Continued to collaborate with other Orgs Added support tools	Linked with other process areas	Went beyond FAA HQ Delivered Overview at William J. Hughes Technical Center (WJHTC) in May

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Requirements Management Plans (RqMPs)

APPROVED REQUIREMENTS MANAGEMENT PLANS

PMO programs are actively engaging in the process of writing and updating their Requirements Management Plans

- 11 approved in 2015
- 8 approved in 2016
- 9 approved in 2017
- 6 approved to date in 2018

REQUIREMENTS MANAGEMENT ASSESSMENTS LAUNCHED IN 2017

Nine assessments have been conducted with Programs with completed Board-approved Requirements Management Plans and are continuing in 2018

Programs found to be following their plans and shared that they are useful tools in managing requirements, escalations, and stakeholder engagement

Evolution

The PMO Leadership

drove Requirements Management

and the establishment of it as a best practice.

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RqM and
Systems Thinking
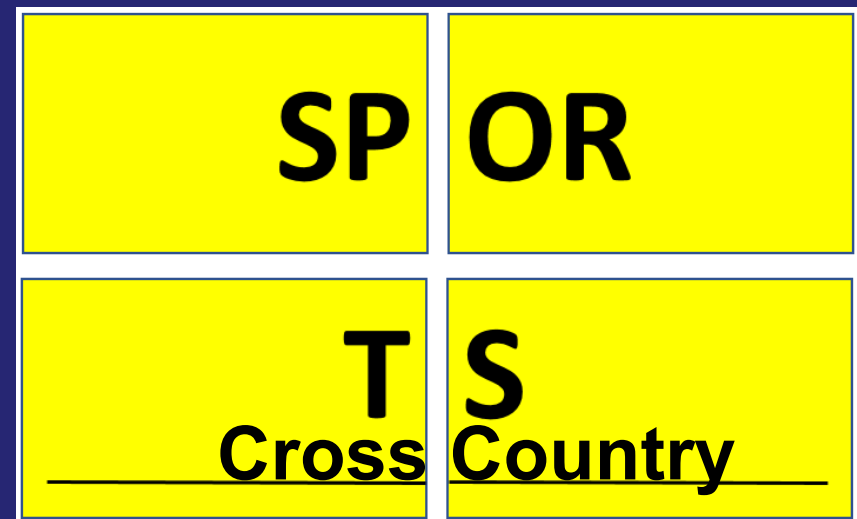
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The Systems Thinking / RqM Puzzle

1. With the people in your group, look at the Systems Thinking / RqM cards in front of you

2. 5 minutes: Decide if the puzzle pieces are Systems Thinking or RqM

3. Turn the puzzle pieces over to rearrange them to spell out your group's word

4. Fill in the blank with an example of that puzzle piece from the work you do

5. We will share your examples as we put the puzzle together
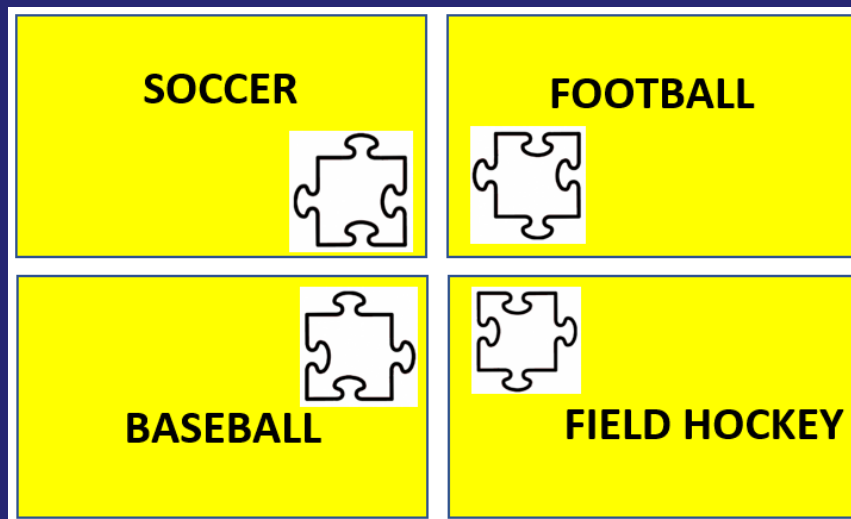
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SOCCER	FOOTBALL
BASEBALL	FIELD HOCKEY

SP	OR
T	S
Cross	Country

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Putting the Puzzle Together

ADOPTION
OF
PROCESS

- Buy-In
- Training
- Discipline
- Roles and Responsibilities

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Putting the Puzzle Together

- **Definition of Scope**
- **Success Measures**
- **Metrics Usage**
- **Bi-Directional Traceability**

CLARITY

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Putting the Puzzle Together

- Collaboration
- Reach Back
- Engage Forward
- Stakeholder Engagement

FEEDBACK LOOP

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Putting the Puzzle Together

TOOLS

- **Process**
- **Systems Mapping**
- **Synthesis**
- **Diagrams**

Putting the Puzzle Together

What is the framework for Systems Thinking in RqM?

RqM &
Systems Thinking
In a …

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Better, Smarter, Faster!

- **Process and process frameworks are our friends**

- **Identifying new needs daily**

- **Planning and Managing**

"YOU SAID WE NEEDED MORE COMMUNICATION, SO I HAD ANOTHER PHONE LINE INSTALLED."

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Points of Contact

Ann McDonald, ASQ-CSQE, CSM®, MBA
Volpe, The National Transportation Systems Ctr,
U.S. Department of Transportation

Office: 617-494-2276
Cell: 857-270-8959
ann.mcdonald@dot.gov

Jennafer Miller, PMP
Evans Incorporated

Cell: (571) 276-8381
jmiller@evansincorporated.com

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