



**U.S.NRC**

United States Nuclear Regulatory Commission

*Protecting People and the Environment*

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**Be**

**riskSMART**

*A GTRP Operational Risk Management Initiative*



# THE AGENCY'S VISION.....

## THE FOCUS AREAS MAP TO SEVEN ONGOING INITIATIVES

### FOCUS AREAS

**Our People**

**Accepting Risk**

**Technology**

**Innovation**



### INITIATIVES





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# **Be riskSMART**

## ***An OEDO Futures Transformation Initiative***

### ***Why another risk-informed decisionmaking effort?***

Provide a common high-level framework, applicable to all disciplines (e.g., technical, legal, corporate)

### ***What is success?***

- Confidence to use risk-informed decisionmaking
- Understand that the NRC mission is maintained
- Realize benefits by appropriately focusing resources to the most important endeavors

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## Obstacles Identified by the Staff

Siloed organization

Limited awareness of guidance

Potential flexibilities not reflected in guidance

\*Treatment of low likelihood events

\*Reluctance to adapt processes

\*Limited consideration of benefits

\*Applied too late in process

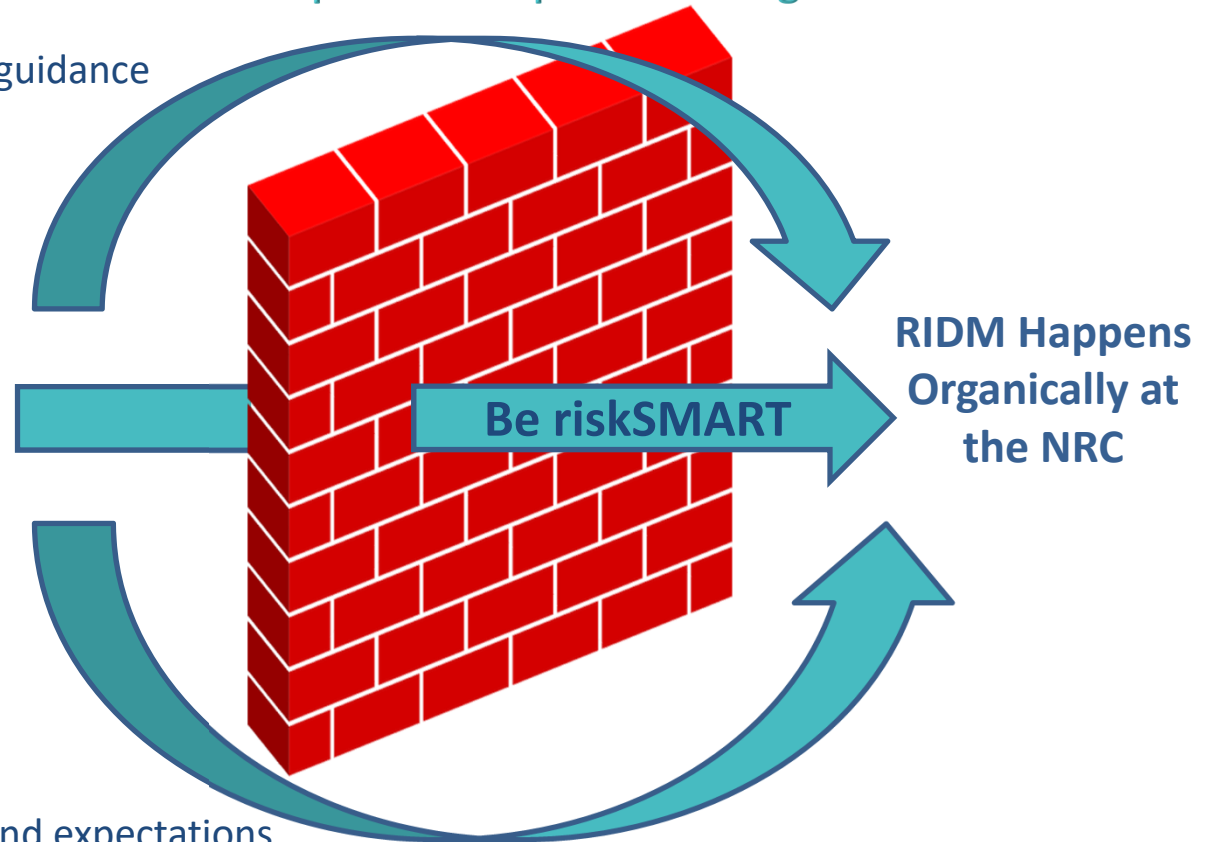
\*Presence of uncertainties

Lack of guidance

\*Rigid interpretation of regulations

Inconsistent management support and expectations

Each path is unique to the organization



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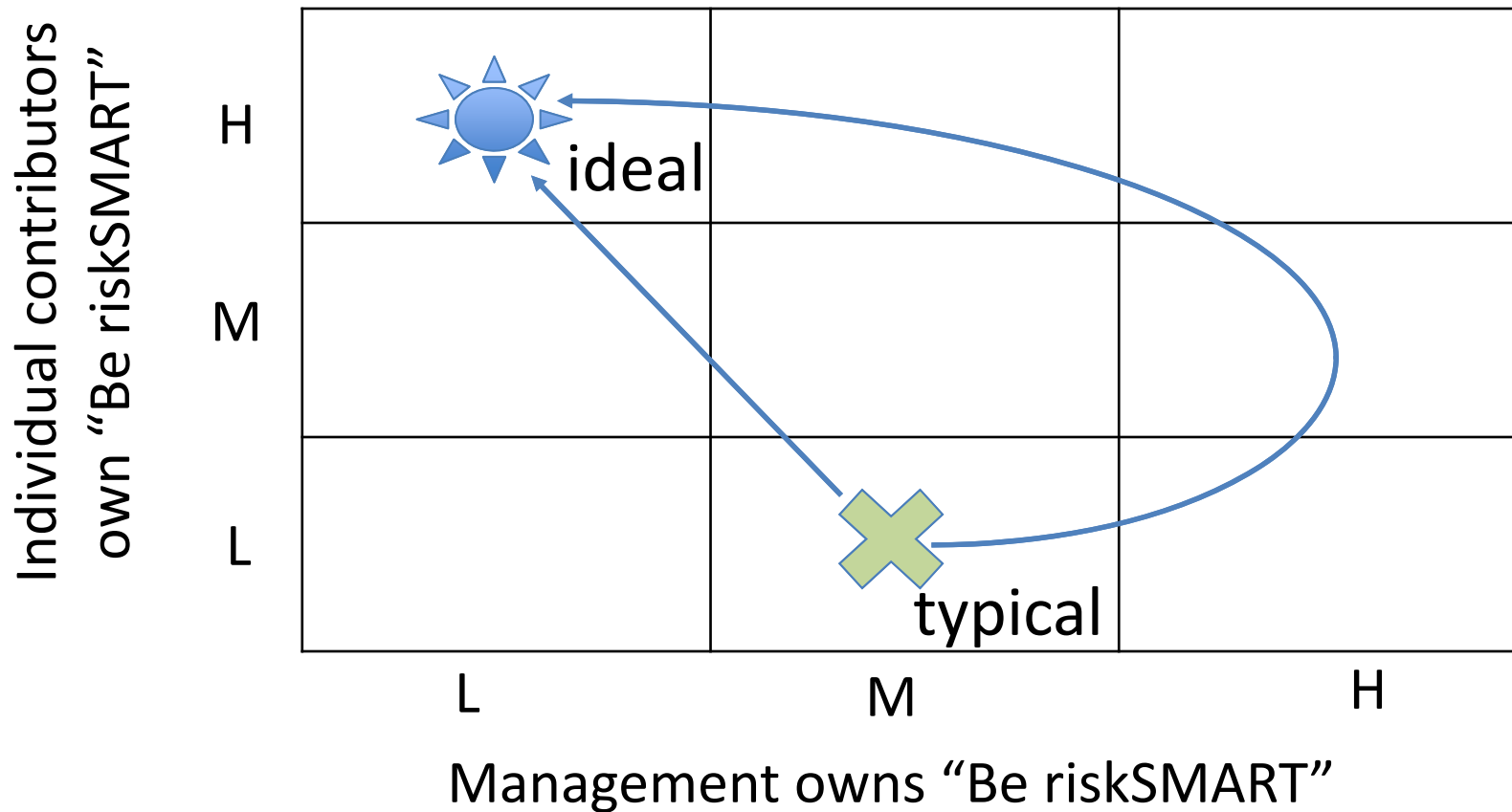
Summarized from: "Implementing Commission Direction on Applying Risk-Informed Principles in Regulatory Decision Making," [ML19319C832](#)

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## Gauging Success: Risk Informed Decisionmaking Starts with YOU!

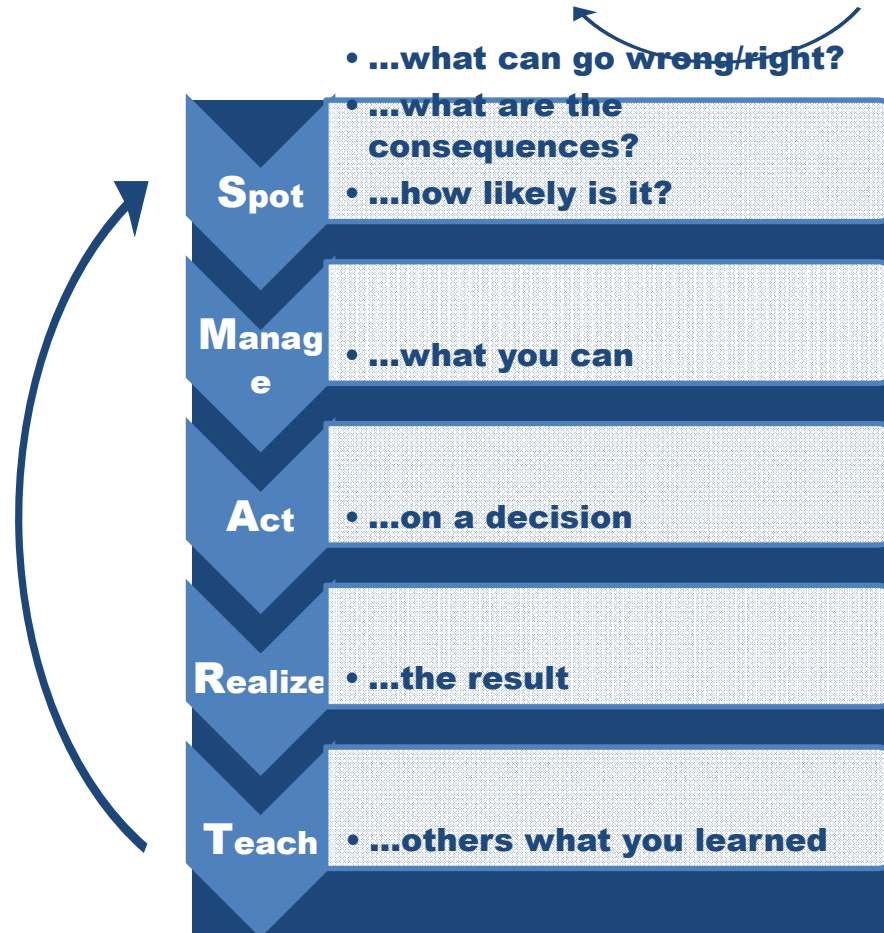


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*Let's be a part of the change together!*

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# *Be riskSMART*



**Spot**

## ...the problem statement

*Articulate the Problem Statement*

Should I commute to work using a bike to get more exercise?



Consider:

- Do I need to ask the question
- Is there a pre-determined answer (e.g., employer commuting policy, law)



**Spot**

## ...what can go wrong/right?

*What event(s) or circumstance(s) present a challenge or opportunity?*

**Challenge**



**Opportunity**

Need exercise to stay healthy

Get exercise while commuting

Fall

Save Gas

**Spot**

## ...what are the consequences?

*What are the possible outcomes of the challenges or opportunities?*

**Challenge**



**Opportunity**

Health Declines

Health Improves

**INJURY**

Increased Income

Better for Environment

**Spot**

## ...how likely is it?

*Using the best available information (could be quantitative and/or qualitative), what is the chance of event(s) or circumstance(s) leading to a particular consequence*

### Challenge



### Opportunity

Health Declines: ~100%

Health Improves: % Depends on technique, equipment and commute conditions

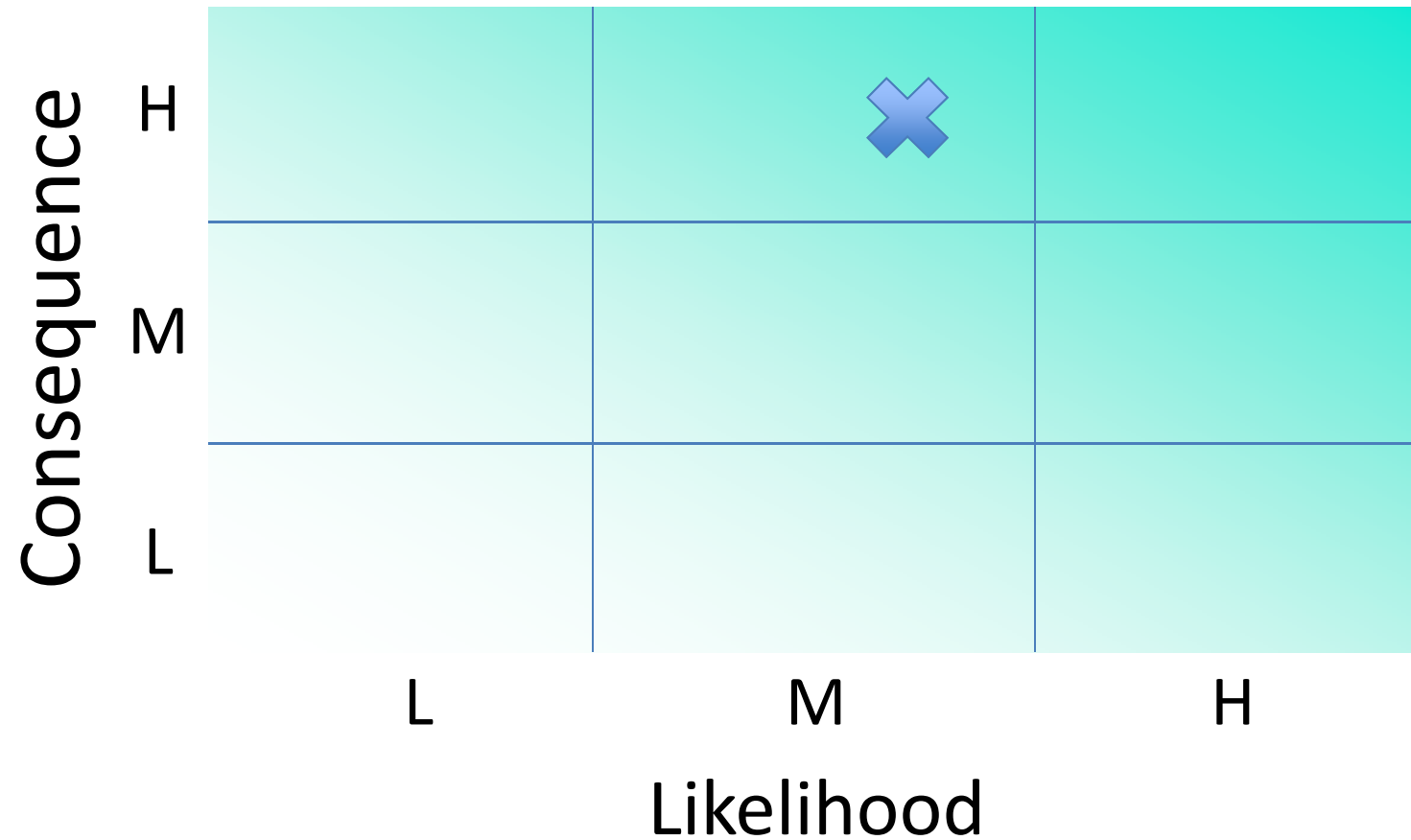
Injury: % Depends on severity, traffic, terrain, proficiency

Increased Income: ~100%

Better for Environment: ~100%

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## Document Spotting Results Using a Heat Map



**Manag  
e**

## ...what you can

*How can I mitigate, prevent, prepare for, and transfer challenges and/or enhance the opportunities?*

### Challenge (Mitigate)



### Opportunity (Enhance)

No Exercise → Health Declines:  
engage in other types of exercise  
instead

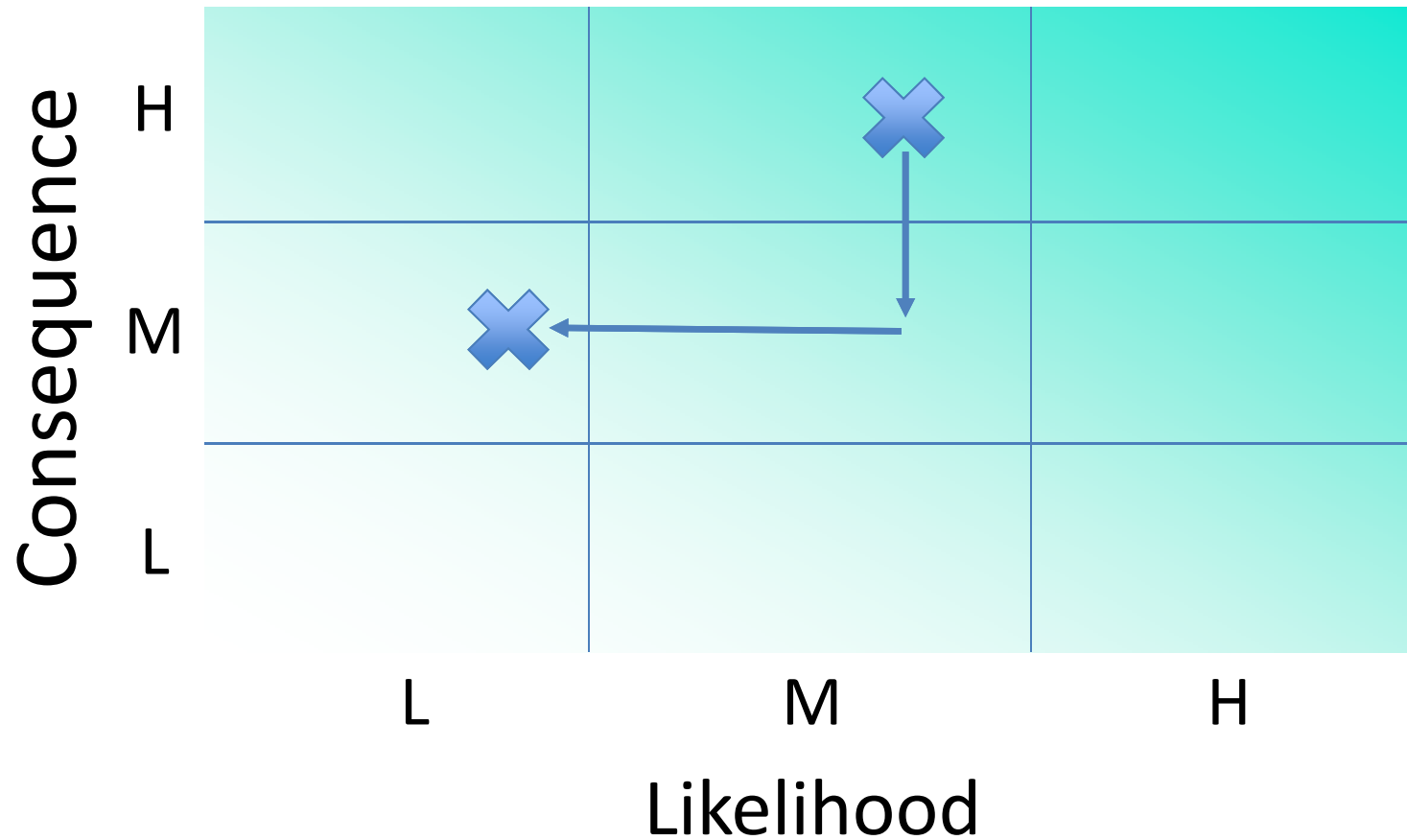
Fall → Injury: buy protective gear, get  
better bike, don't ride in bad weather,  
carry first aid kit, ride on better roads

Exercise → Health Improves: work on  
technique to get more benefits

Save Gas → Increase Income & Better  
for Environment: nothing to manage

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# Adjust Results Based on Management Strategies



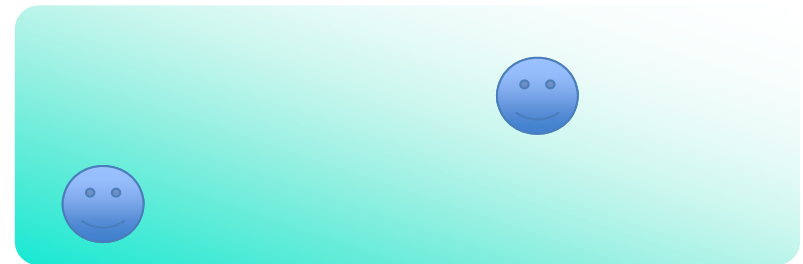
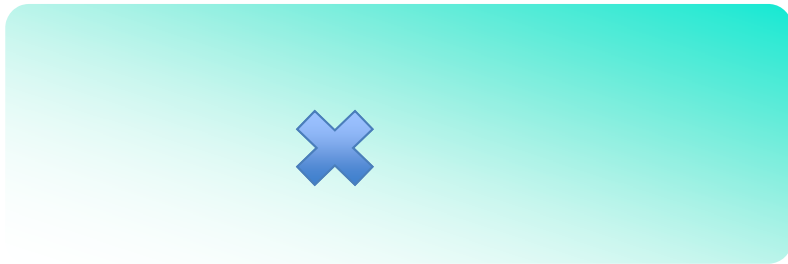
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# Collate “Heat Map” Inputs

Challenge



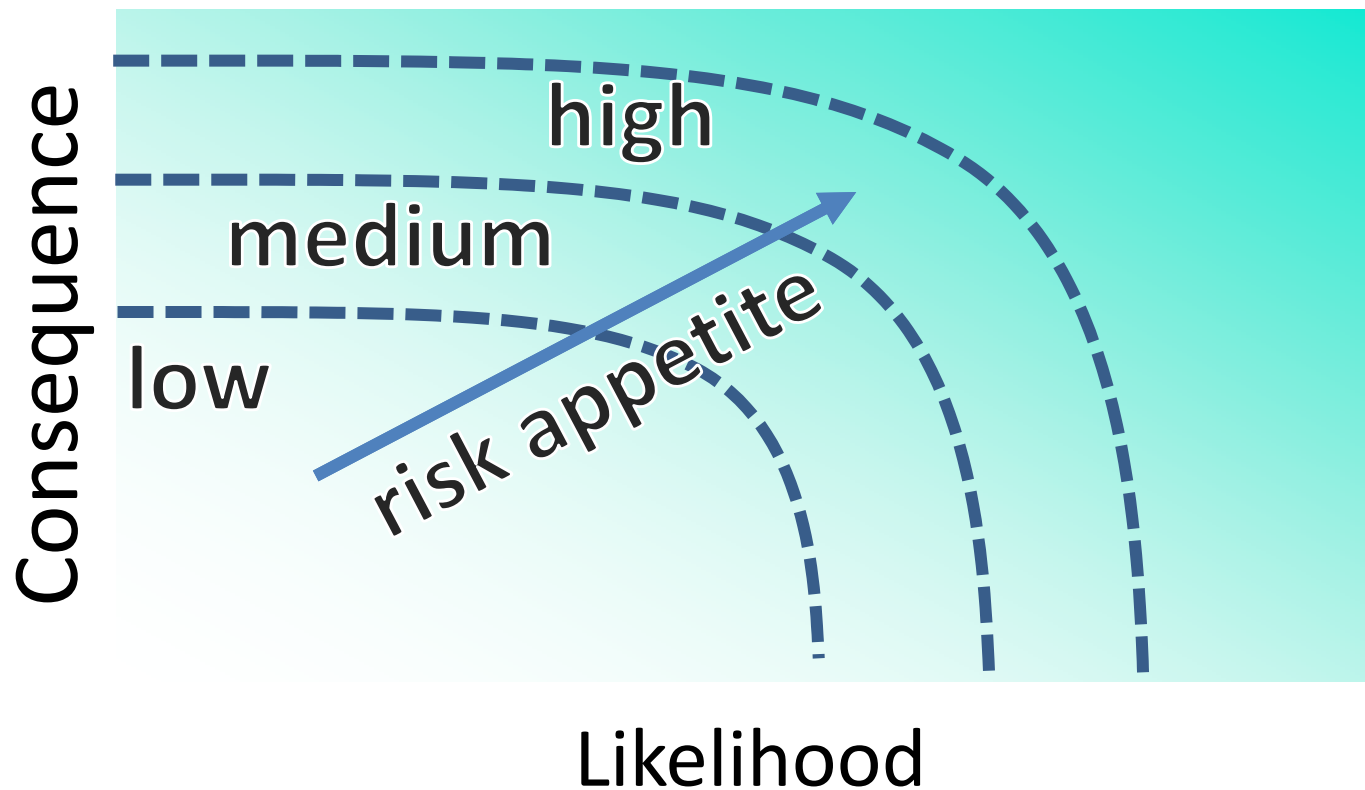
Opportunity



## ...on the decision

### Act

*After hearing everyone and evaluating the information, document what you “spotted” and “managed,” and make a decision.*

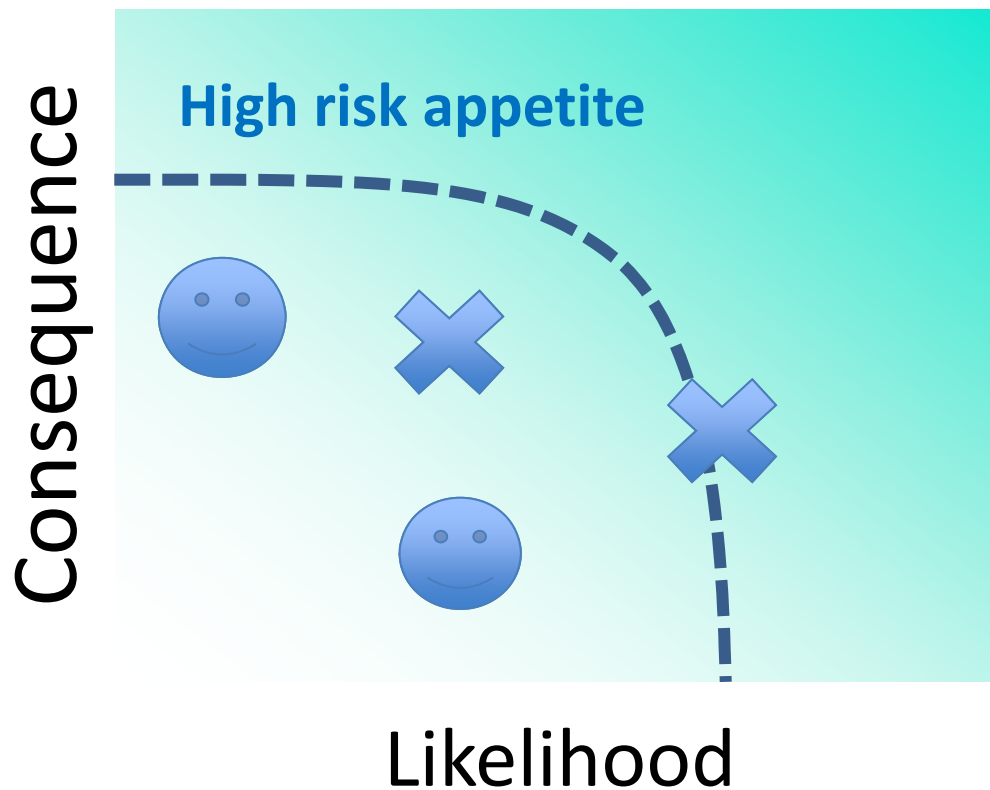




## ...on the decision

### Act

*After hearing everyone and evaluating the information, document what you “spotted” and “managed,” and make a decision.*



**Go Biking!**

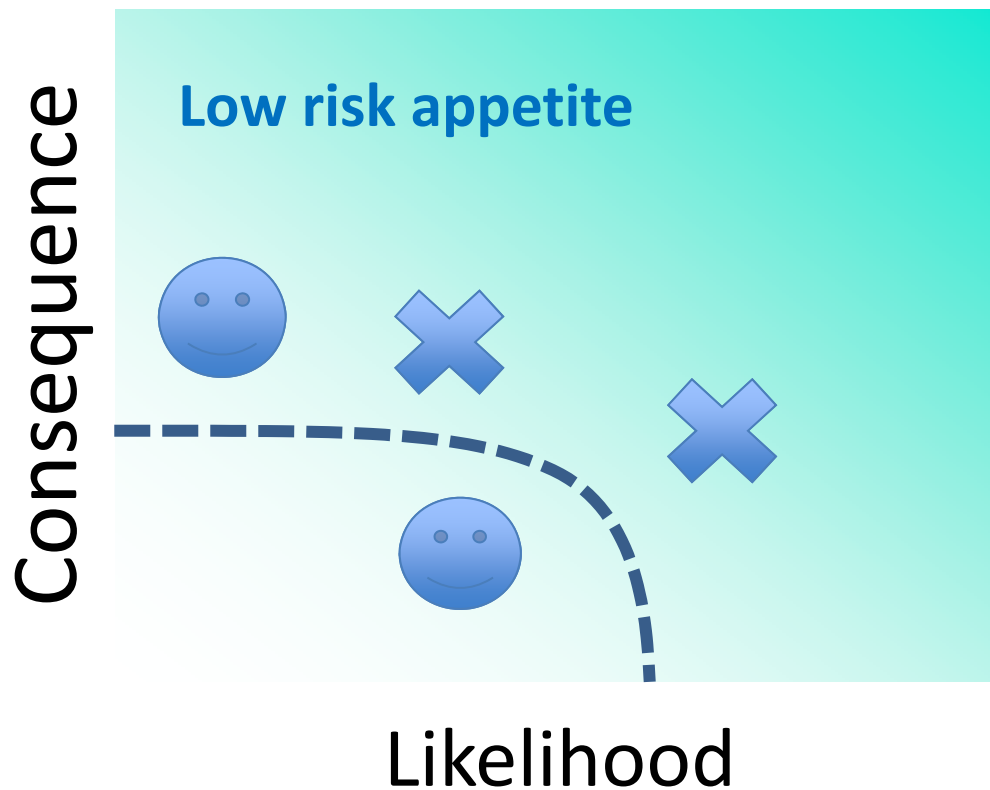
Nah... not worth it—continue to go to the gym



## ...on the decision

### Act

*After hearing everyone and evaluating the information, document what you “spotted” and “managed,” and make a decision.*



Go Biking!

Nah... not worth it—continue to go to the gym



**Realiz  
e**

## **...the result**

*Now it's time to implement and ascertain efficacy!*



Do what you decided under “Act” while

**managing what you can** and

**measuring your performance and progress**

**Teach**

## **...others what you learned**

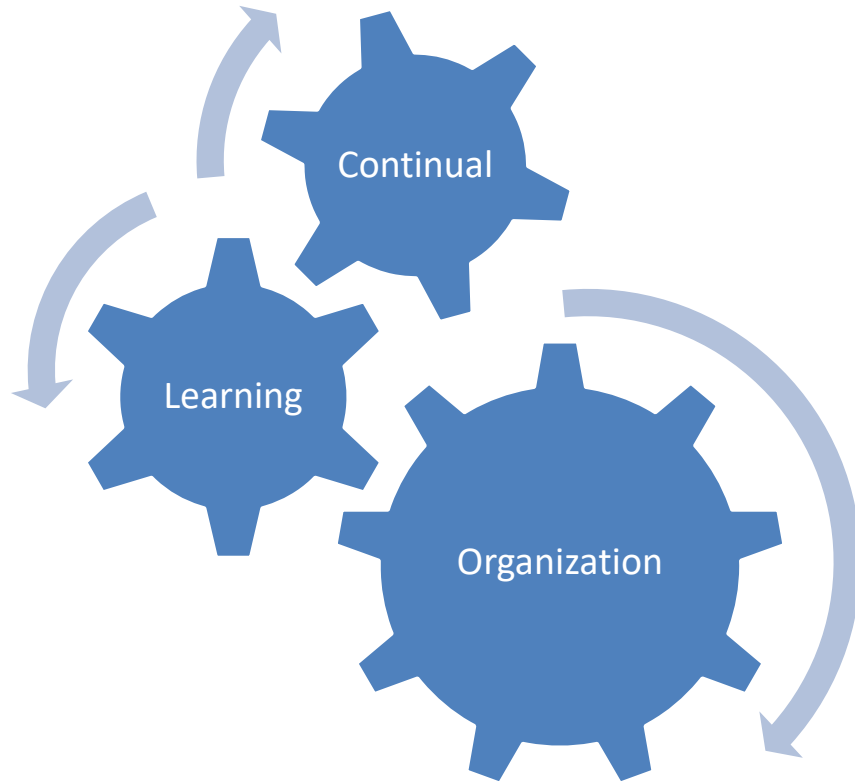
*Take the time to manage knowledge by synthesizing lessons-learned and insights, and disseminating to a broader audience—spread the word!*



- **Bring a colleague next time**
- **Share information on best gear, routes, sites with biking group/blog**
- **Apply lessons-learned to a new activity**

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# Be *risk*SMART



Make adjustments as things change (weather) and you learn new things (traffic pattern)

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## Obstacles Identified by the Staff

\*Reluctance to adapt processes (T)

Inconsistent management  
support and expectations (A)

Potential flexibilities not  
reflected in guidance (S)

\*Treatment of low likelihood events (S)

\*Applied too late in process (S)

Siloed organization (SMART)

\*Rigid interpretation  
of regulations (S)

Limited awareness  
of guidance (T)

\*Presence of uncertainties  
(M and S)

Lack of guidance (T)

\*Limited consideration of  
benefits(S)

*Let's be a part of the change together!*

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Summarized from: "Implementing Commission Direction on Applying Risk-Informed Principles in Regulatory Decision Making," [ML19319C832](#)

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## Be on the lookout for these next steps...

Milestone	Date
Develop Diagnostic Tool	February 2020
Conduct Pilot Tests	April 2020
Finalize Framework	May 2020
Deliver Functional Area Training	September 2020
Perform Knowledge Check	December 2020
Collect Staff Examples	March 2021
Conduct a Jam	March 2021
Perform a Survey	April 2021

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# Questions?

Reach out to anyone on the

***Be riskSMART***

*OEDO Initiative Team*



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# **Be riskSMART**



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