DoD Risk Management Deficiencies… And How to Fix Them

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education research consultation

Our student inputs…

- Issue management is “daily normal”
- RM is centered on checking boxes
- Too much focus on complying with reporting directives
- Measurement of activity, not achievement
- Misplaced incentives

Recommendations

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- Know your organization's measureable objectives
- Think about tolerance to the uncertainty that matters
- Measure uncertainty – ranges and confidence… not ordinal values or red/yellow/green
- Consider how to get best return on resource investment to reduce uncertainty

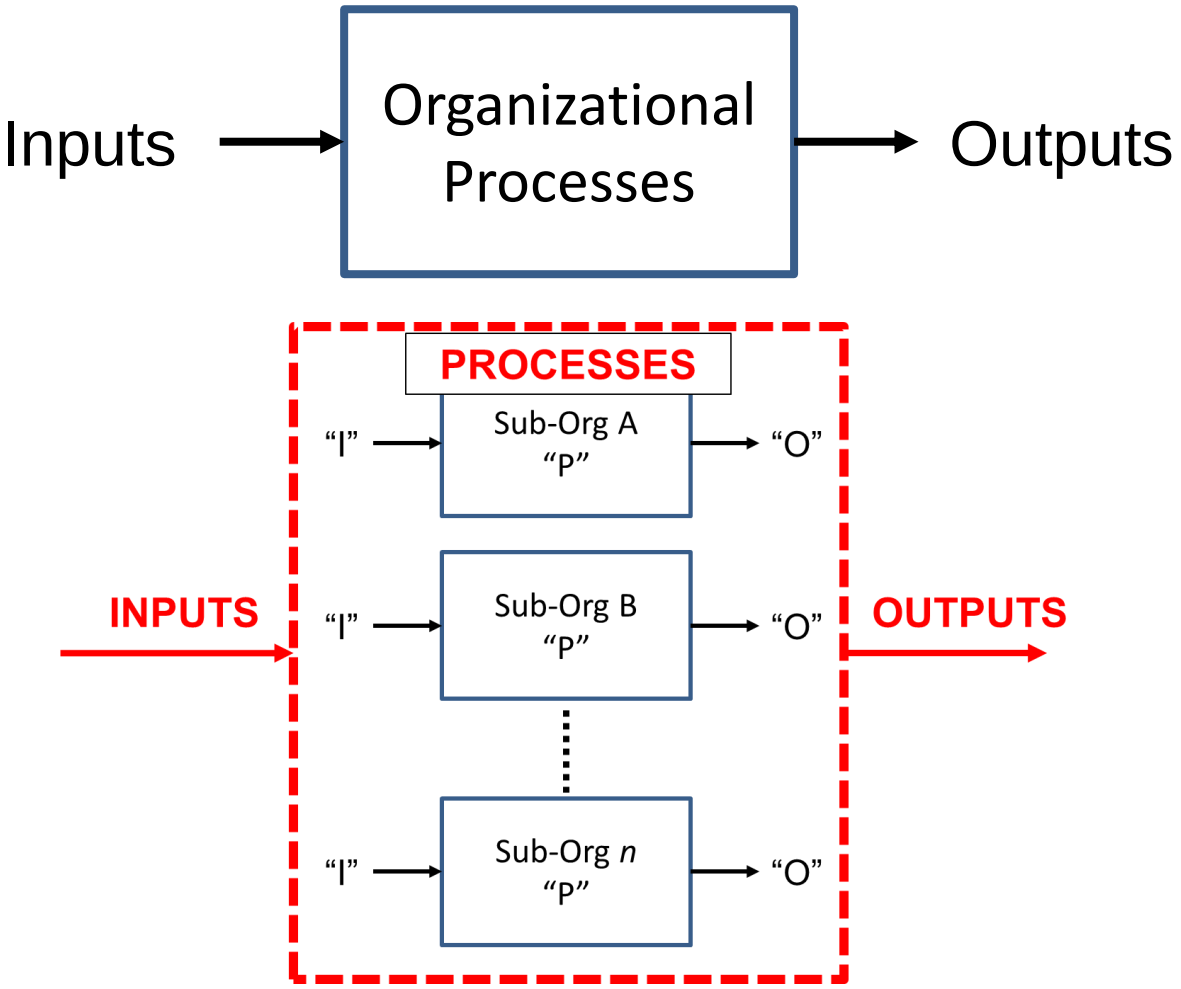
RM is about **Decisions**…

…which starts with knowing organizational objectives!

Note: Outputs = measureable objectives

Recommendation #1

Know your org's measureable objectives



What is Risk?

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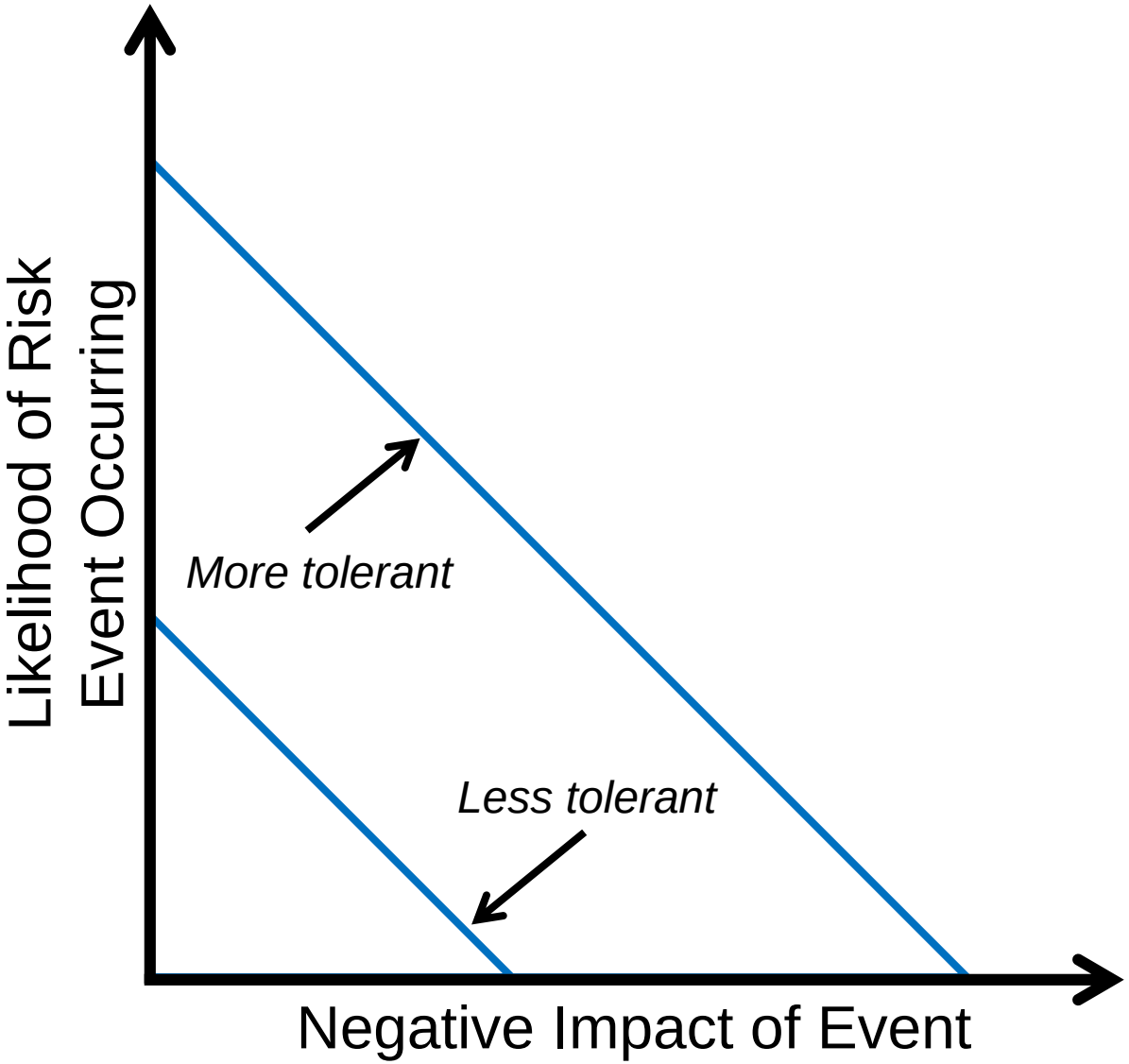
“Uncertainty That Matters”

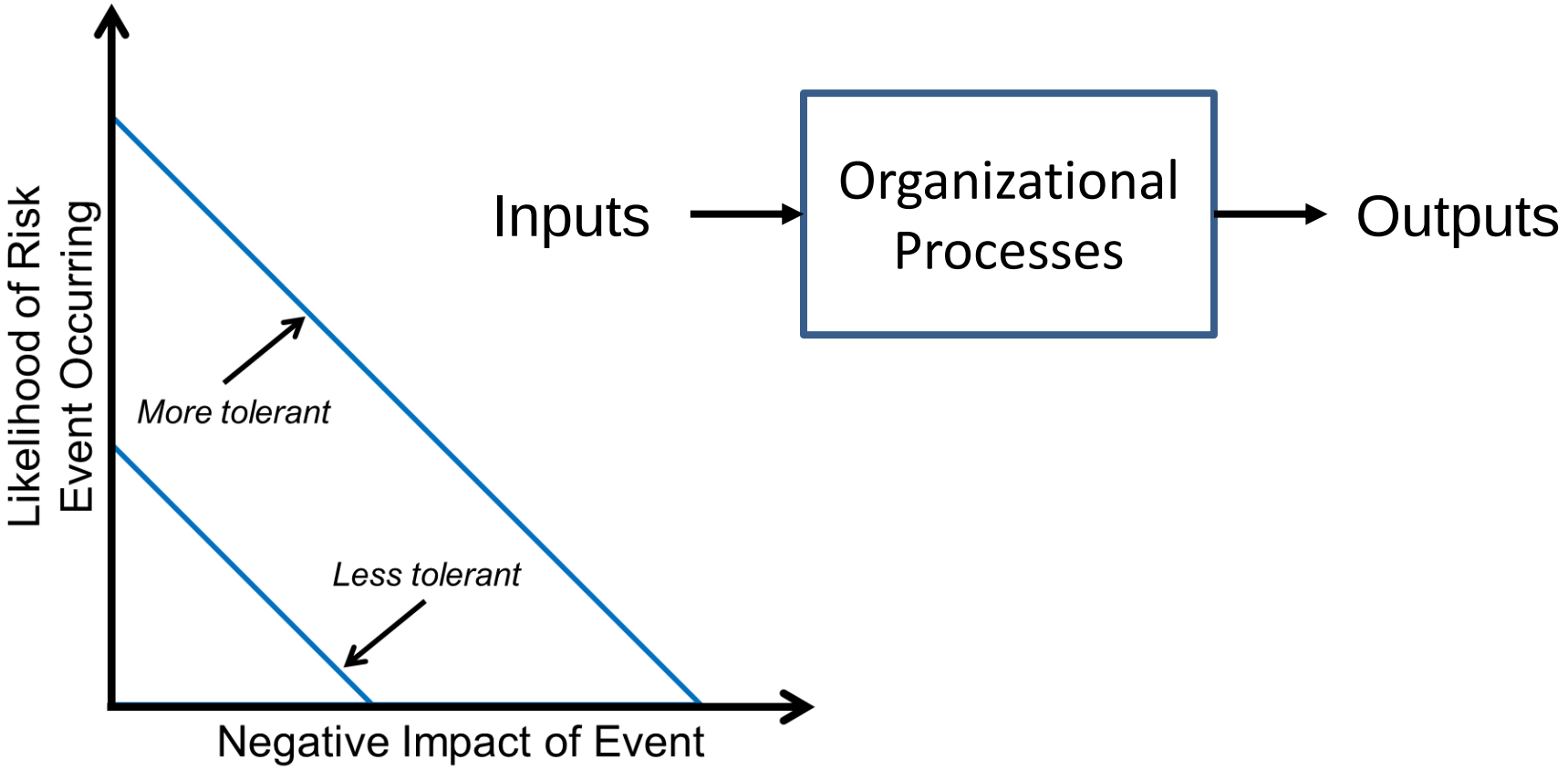
* Definition from Dr. David Hillson, www.risk-doctor.com

How much RM do I need?

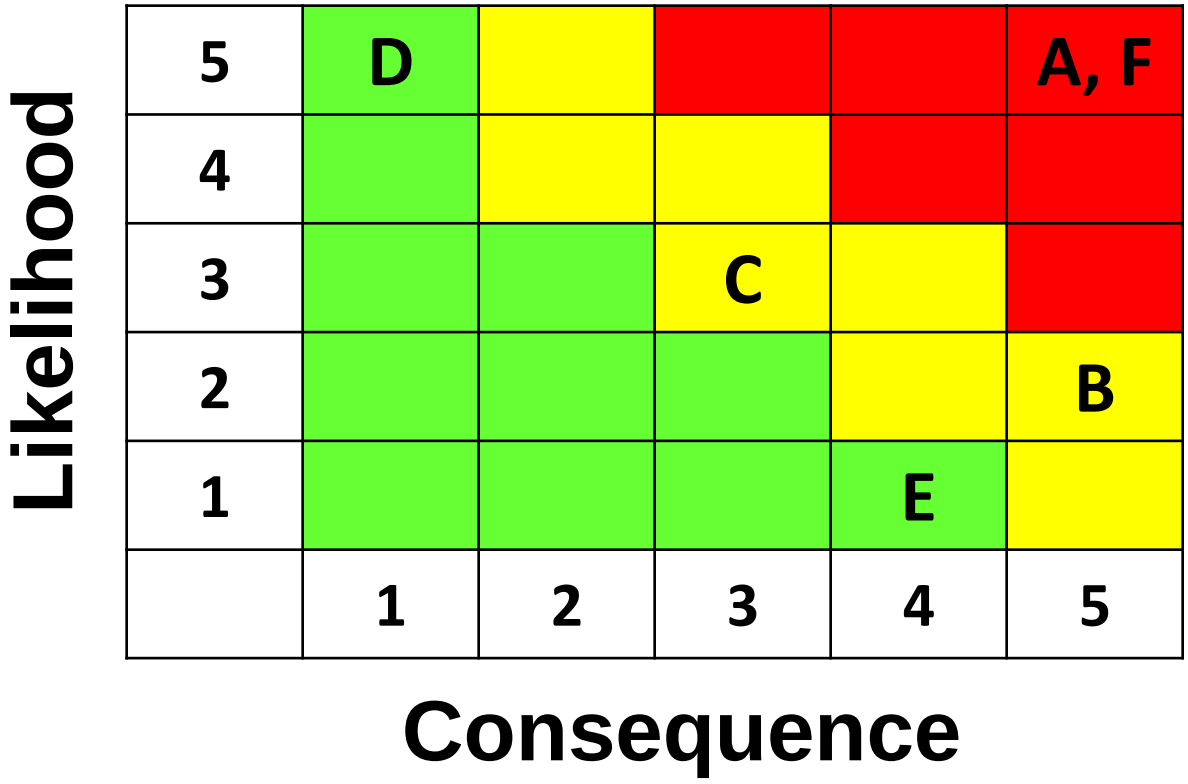


Recommendation #2

Think about tolerance to the uncertainty that matters



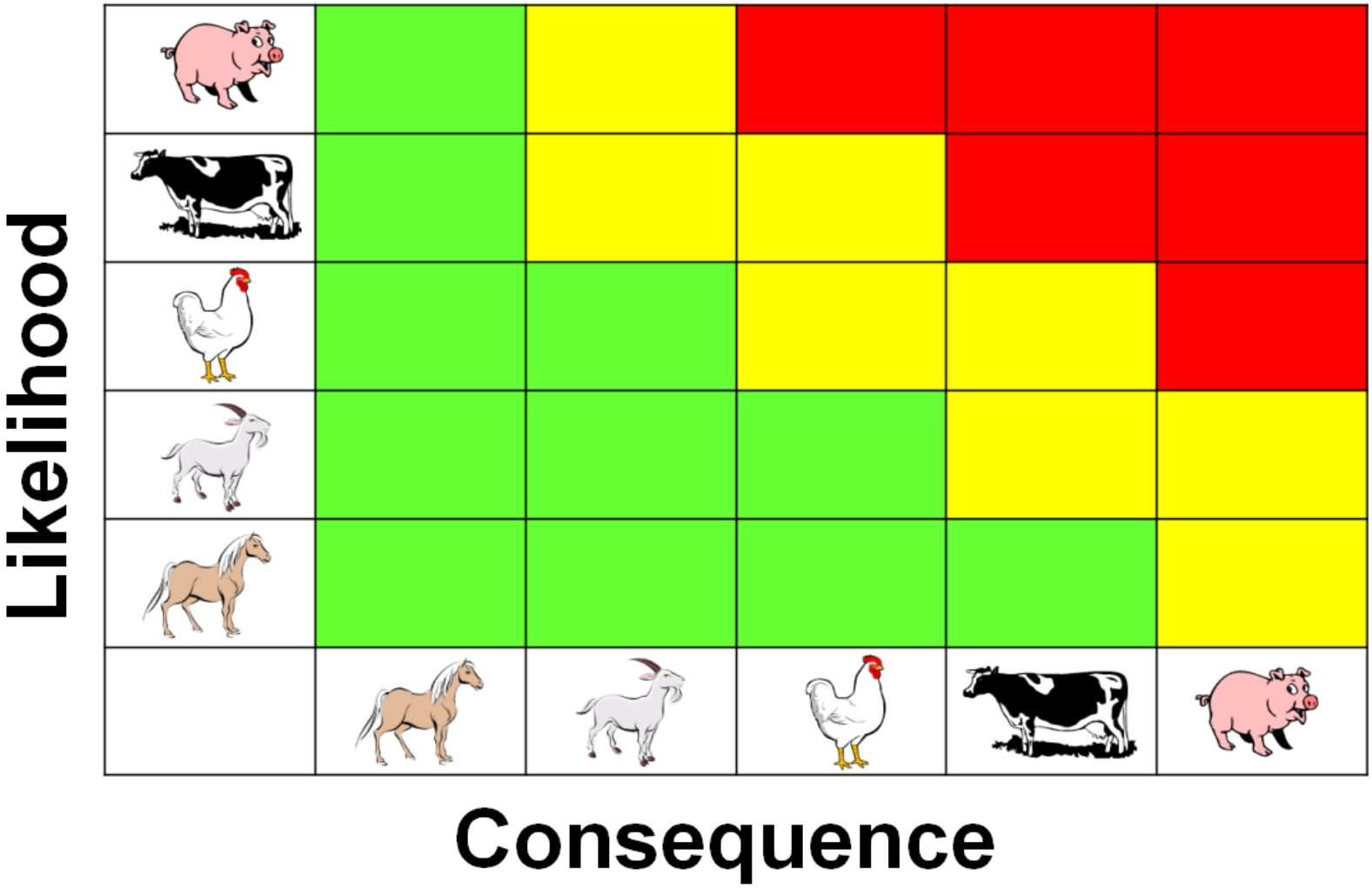
Which risk is “the worst”?
Which has the greatest uncertainty?



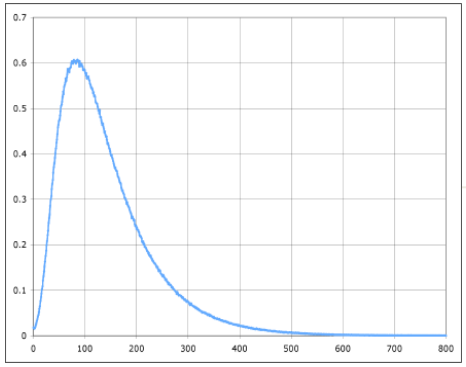
Is a risk rated “25” really 2.5 times worse than a risk rated “10”?

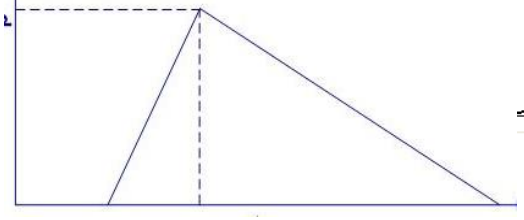
Likelihood					
5	5	10	15	20	25
4	4	8	12	16	20
3	3	6	9	12	15
2	2	4	6	8	10
1	1	2	3	4	5
	1	2	3	4	5
			Consequence		

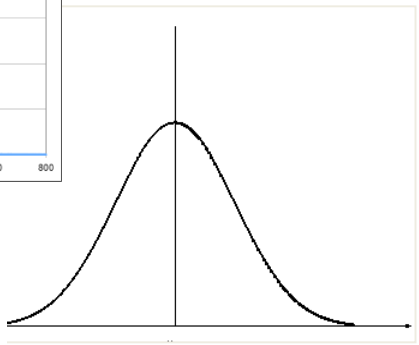
NO! Ordinal values, so…



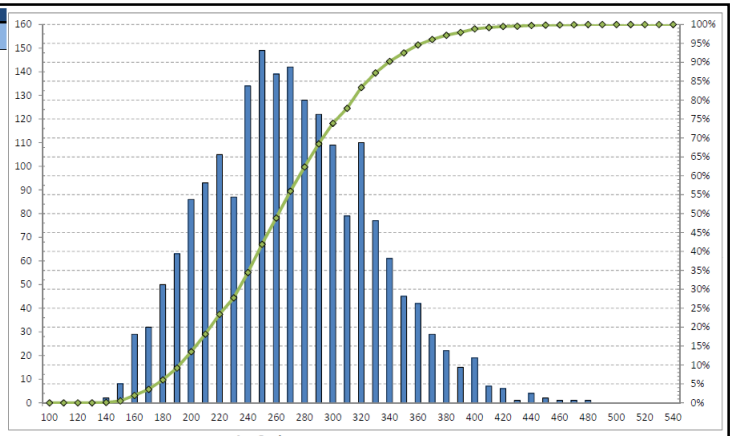
Better ways to think about uncertainty



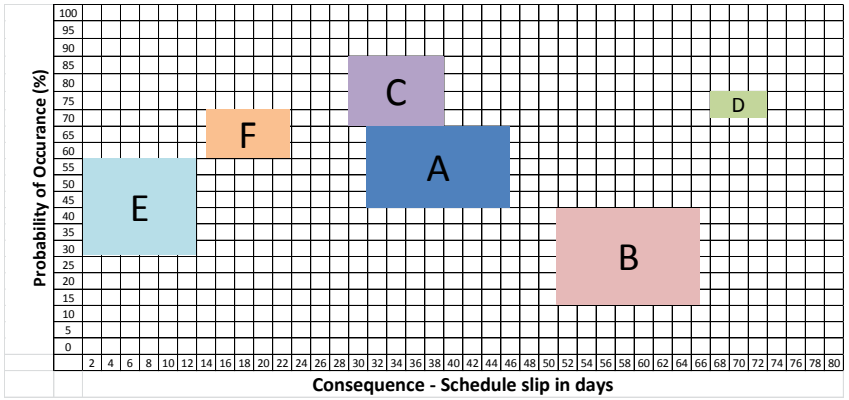




Histogram				
Bin	Cumul Freq	% Cuml Freq	Bin Freq	% Bin Freq
100	0	0.0%	0	0.0%
110	0	0.0%	0	0.0%
120	0	0.0%	0	0.0%
130	0	0.0%	0	0.0%
140	2	0.1%	2	0.1%
150	10	0.5%	8	0.4%
160	39	2.0%	29	1.5%
170	71	3.6%	32	1.6%
180	121	6.1%	50	2.5%
190	184	9.2%	63	3.2%
200	270	13.5%	86	4.3%
210	363	18.2%	93	4.7%
220	468	23.4%	105	5.3%
230	555	27.8%	87	4.4%
240	689	34.5%	134	6.7%
250	838	41.9%	149	7.5%
260	977	48.9%	139	7.0%
270	1119	56.0%	142	7.1%
280	1247	62.4%	128	6.4%
290	1369	68.5%	122	6.1%
300	1478	73.9%	109	5.5%
310	1557	77.9%	79	4.0%
320	1667	83.4%	110	5.5%
330	1744	87.2%	77	3.9%
340	1805	90.3%	61	3.1%
350	1850	92.5%	45	2.3%
360	1892	94.6%	42	2.1%
370	1921	96.1%	29	1.5%
380	1943	97.2%	22	1.1%
390	1958	97.9%	15	0.8%
400	1977	98.9%	19	1.0%
410	1984	99.2%	7	0.4%
420	1990	99.5%	6	0.3%
430	1991	99.6%	1	0.1%
440	1995	99.8%	4	0.2%



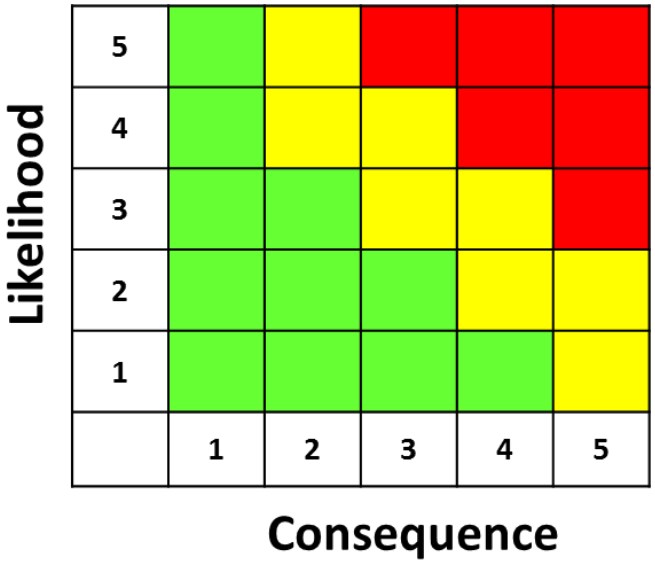
Mean	265	Ave Design	62
Median	262	Ave Code	67
		Ave Test	135



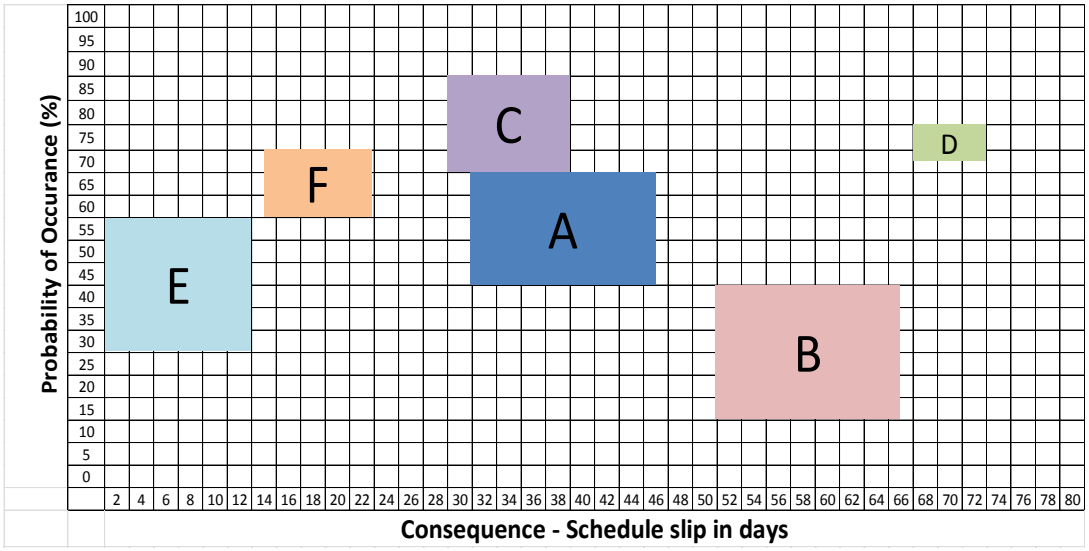
Recommendation #3

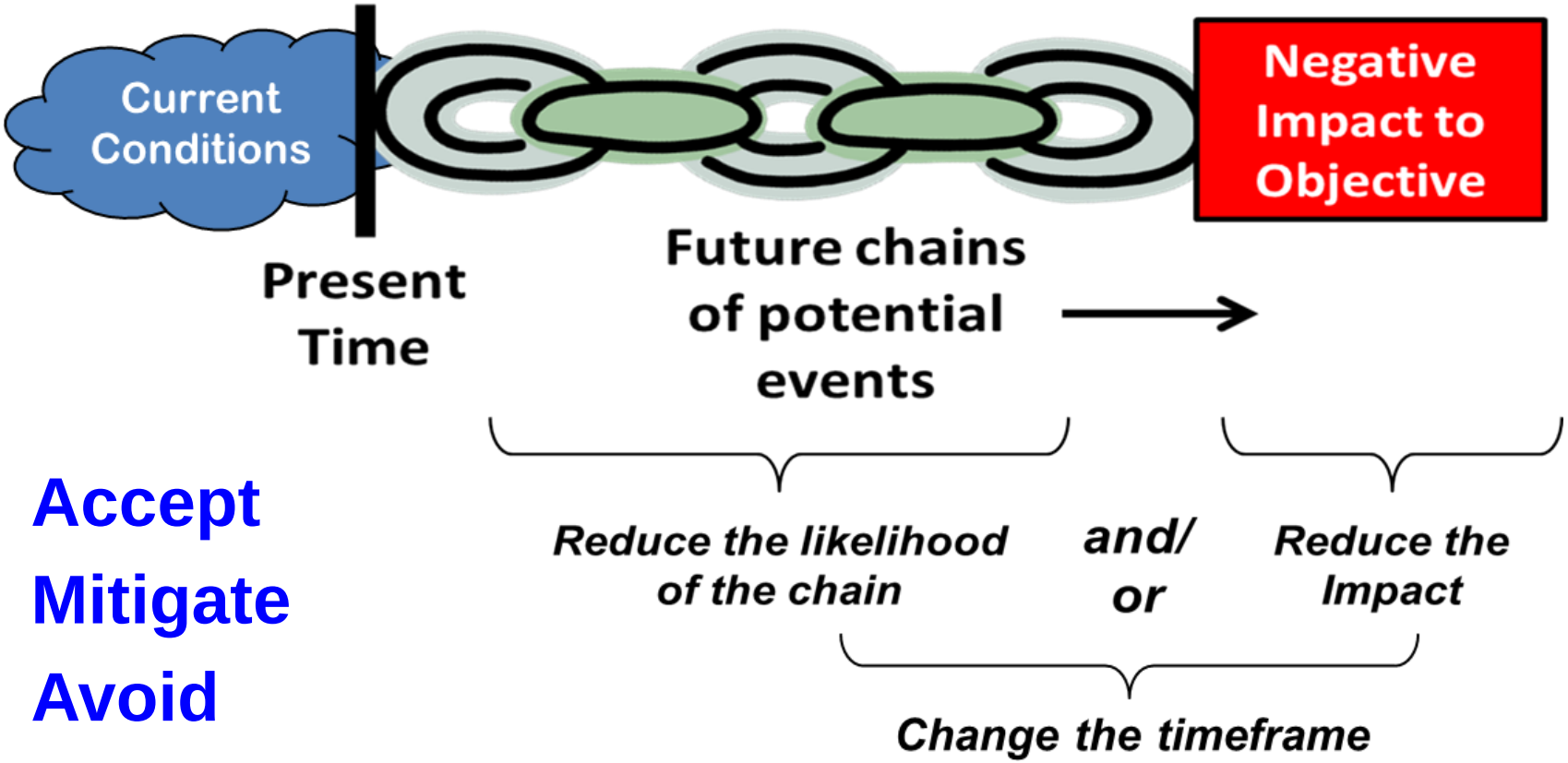
Measure uncertainty = ranges and confidence
…not ordinal levels or red/yellow/green

NO!! ↓ ☹



YES!! ↓ ☺

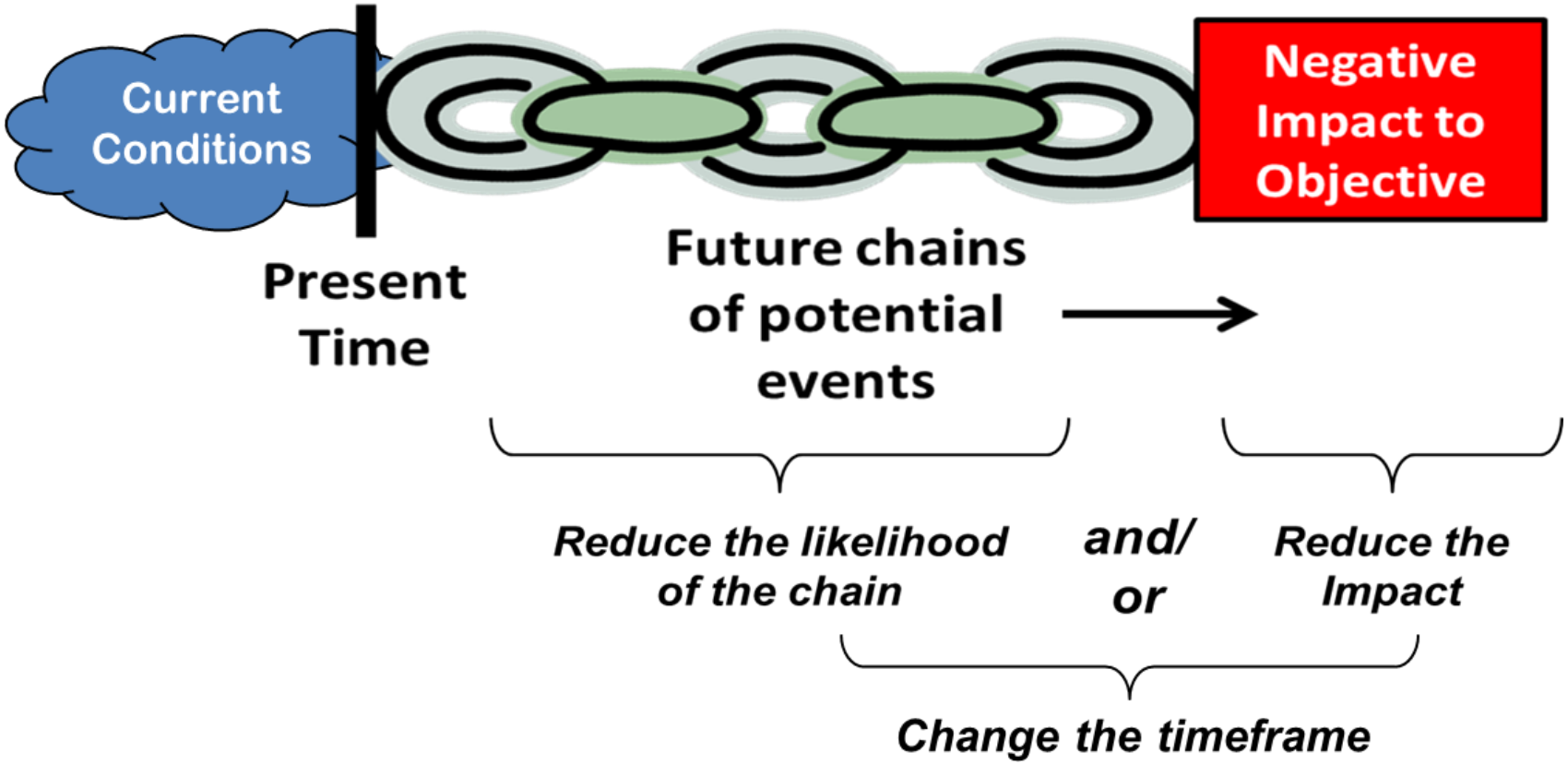




- Accept
- Mitigate
- Avoid
- Transfer
- Monitor
- Research

Recommendation #4

Consider how to get best return on resource investment to reduce uncertainty



"Never attribute to malice or stupidity that which can be explained by moderately rational individuals following incentives in a complex system of incentives."

— Douglas W. Hubbard

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"Earned Autonomy"

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Thank you!

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