

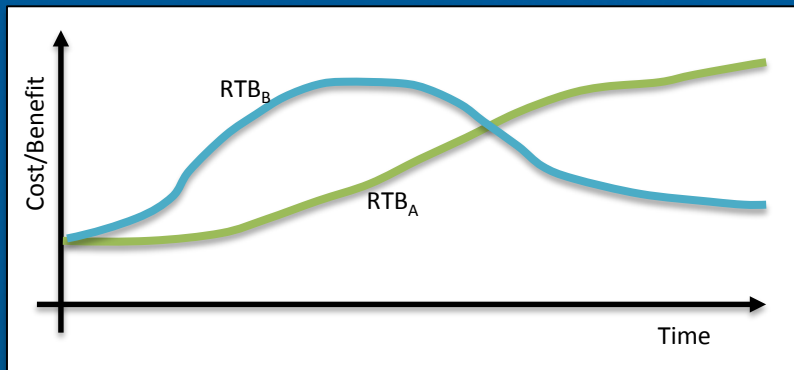
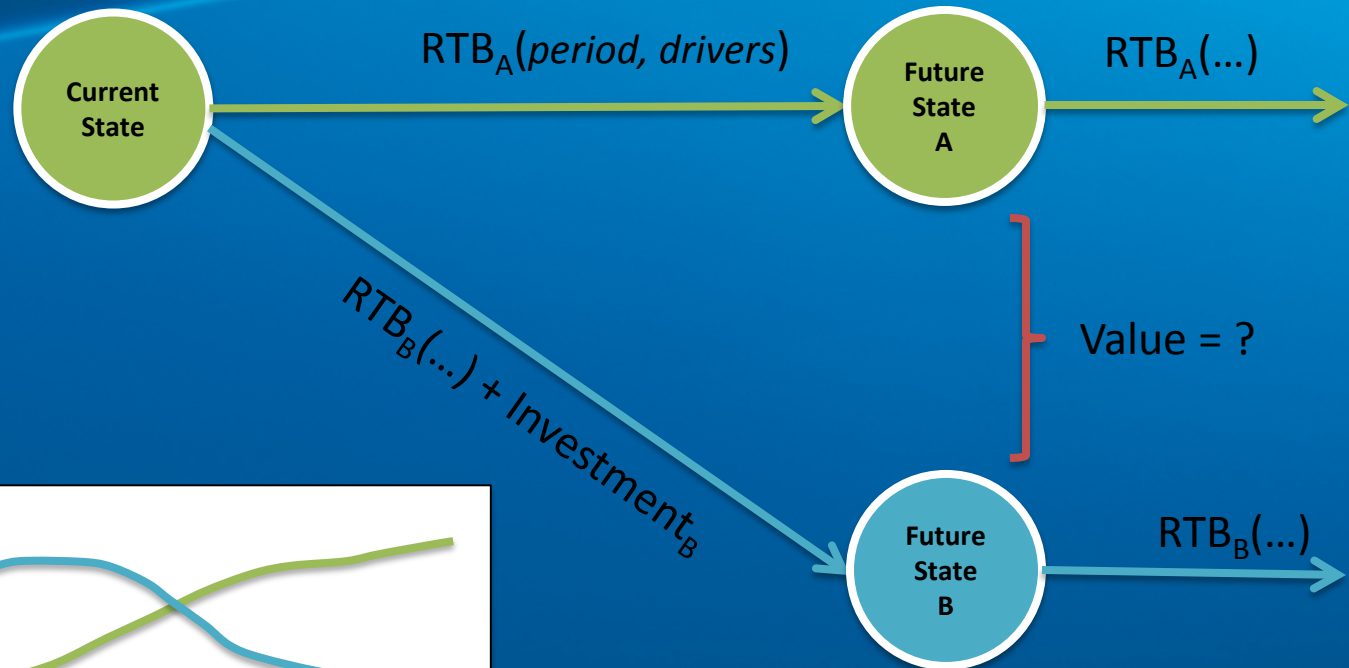
# Making Better Architectural Choices

with the Architecture Valuation Framework

Voytek Janisz



# Value of Architecture



RTB = Run-the-Business

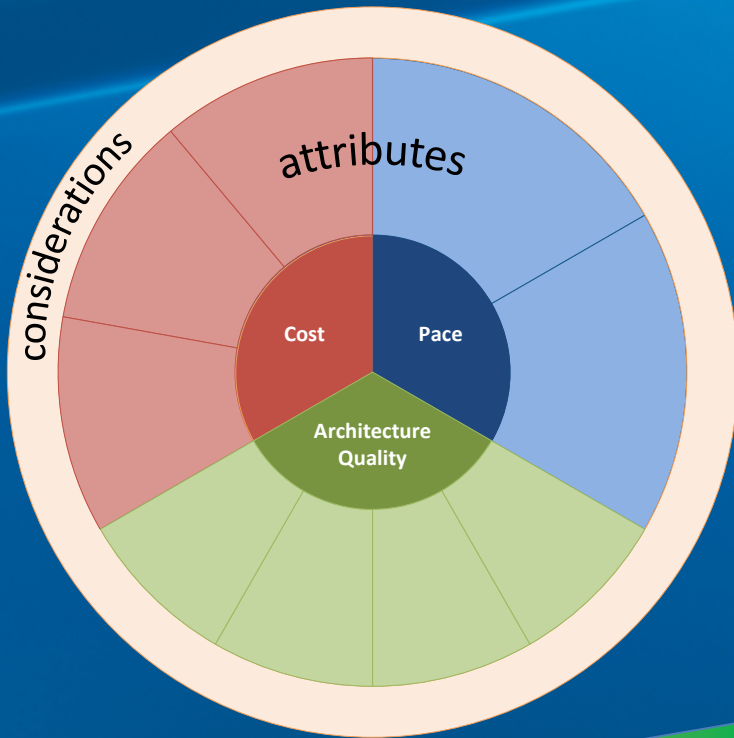
# Our Need



- Force consideration of options
- Drive meaningful discussions
- Expose “hidden” costs and benefits
- Recognize that tradeoffs are necessary
- Express value consistently whenever architecture options are considered
- Express value in terms that resonate with business
- Inform decisions, not force them



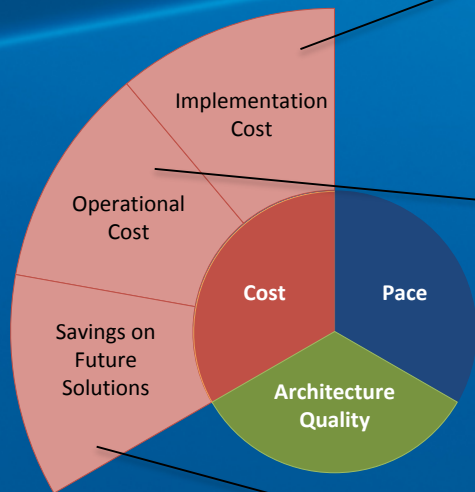
# Architecture Valuation Framework



- Three dimensions for categorization
- Each dimension has several attributes
- Each attribute is scored on the scale of 0 to 4, with 4 being most favorable
- No assumptions about relative importance of attributes
- Overarching considerations across all attributes influence scoring



# Cost Dimension



Estimated cost of implementation, including capital expenditures, and all labor costs throughout the entire implementation lifecycle.

SCORE	ESTIMATE RANGE	*illustrative
0	> \$4M	
1	\$2M - \$4M	
2	\$500K - \$1.99M	
3	\$100K - \$499K	
4	< \$100K	

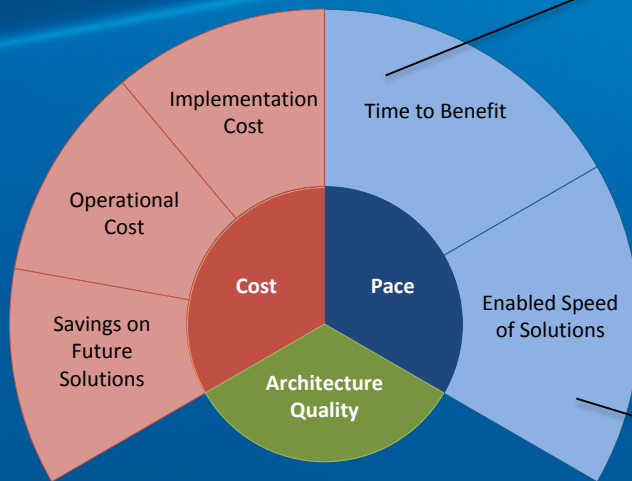
Estimated cost of running the IT systems once architecture/solution is put in place.

SCORE	ESTIMATE RANGE	*illustrative
0	> \$400K	
1	\$150K - \$399K	
2	\$50K - \$149K	
3	\$5K - \$49K	
4	< \$5K	

Estimated as the reduction in cost of implementation and deployment of future solutions as a consequence of implementing THIS architecture/solution.

SCORE	ESTIMATE RANGE	*illustrative
0	< -10%	
1	-10% - 0%	
2	0% - 20%	
3	20% - 50%	
4	> 50%	

# Pace Dimension



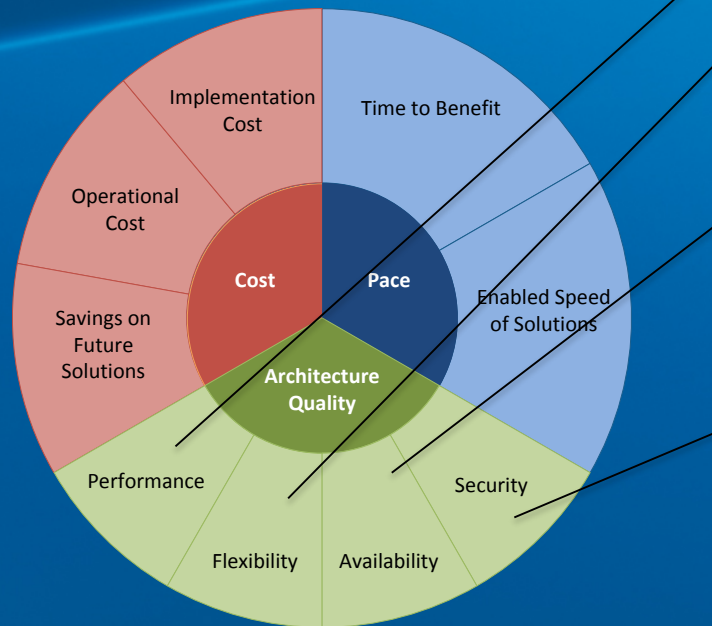
Projected amount of time necessary to begin realizing the benefits of the architecture/solution from inception to deployment.

SCORE	TIME RANGE	
0	> 60 Months	*illustrative
1	49 - 59 Months	
2	25 - 48 Months	
3	12 - 24 Months	
4	< 12 Months	

Projected change in the speed of delivery of future solutions that leverage THIS architecture/solution compared to the current state.

SCORE	SCORE TERM
0	Significantly Longer Duration of Delivery Time
1	Longer Duration of Delivery Time
2	Comparable Duration of Delivery Time
3	Shorter Duration of Delivery Time
4	Significantly Shorter Duration of Delivery Time

# Architecture Quality Dimension



Cumulative measure of Manageability, Throughput, and Latency

Cumulative measure of Maintainability, Scalability, Reusability, and Testability

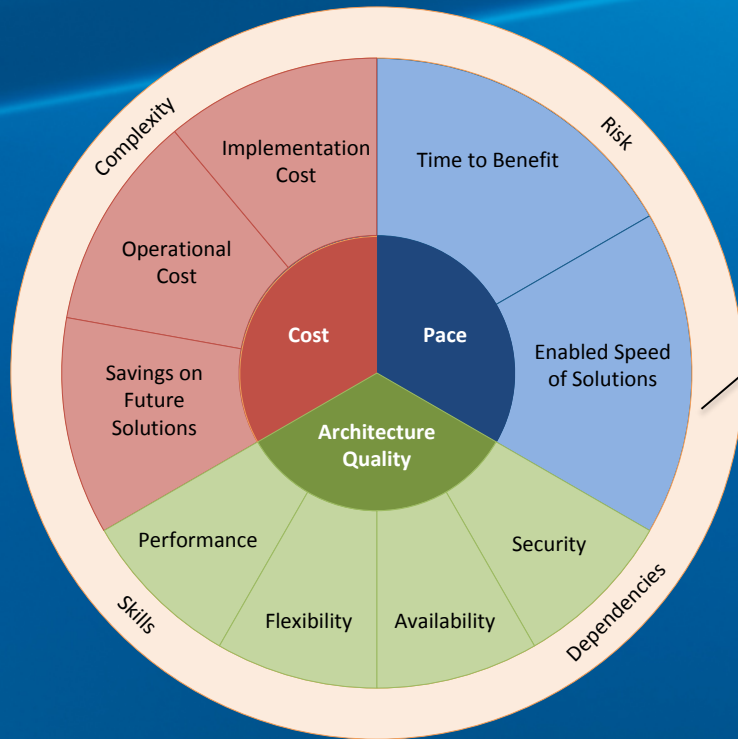
Cumulative measure of Downtime, Capacity, Utilization, and Recoverability.

Measure of the ability of the architecture/solution to prevent malicious or accidental actions outside of the designed usage, and to prevent disclosure or loss of information.

SCORE	SCORE TERM
0	Very Low
1	Low
2	Comparable
3	High
4	Very High



# General Considerations

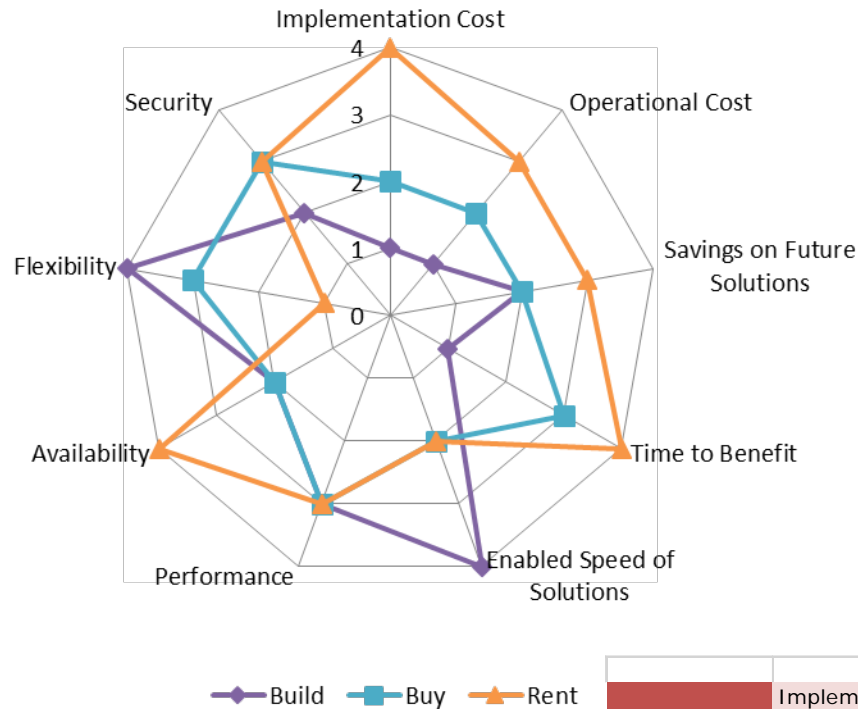


- General uncertainty
- Total complexity and transitional complexity
- Inter-component and inter-organization dependencies
- Number of new skills, time to acquire skills, rate of skill obsolescence
- Other considerations

SCORE	SCORE TERM
0	Very Low
1	Low
2	Comparable
3	High
4	Very High



# Visualization of Results

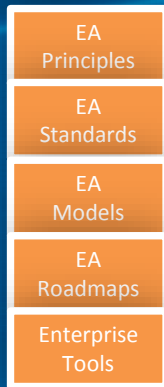


Score  
rationale

		Build	Buy	Rent
Cost	Implementation Cost	1	2	4
	Operational Cost	1	2	3
	Savings on Future Solutions	2	2	3
Pace	Time to Benefit	1	3	4
	Enabled Speed of Solutions	4	2	2
Architecture Quality	Performance	3	3	3
	Availability	2	2	4
	Flexibility	4	3	1
	Security	2	3	3

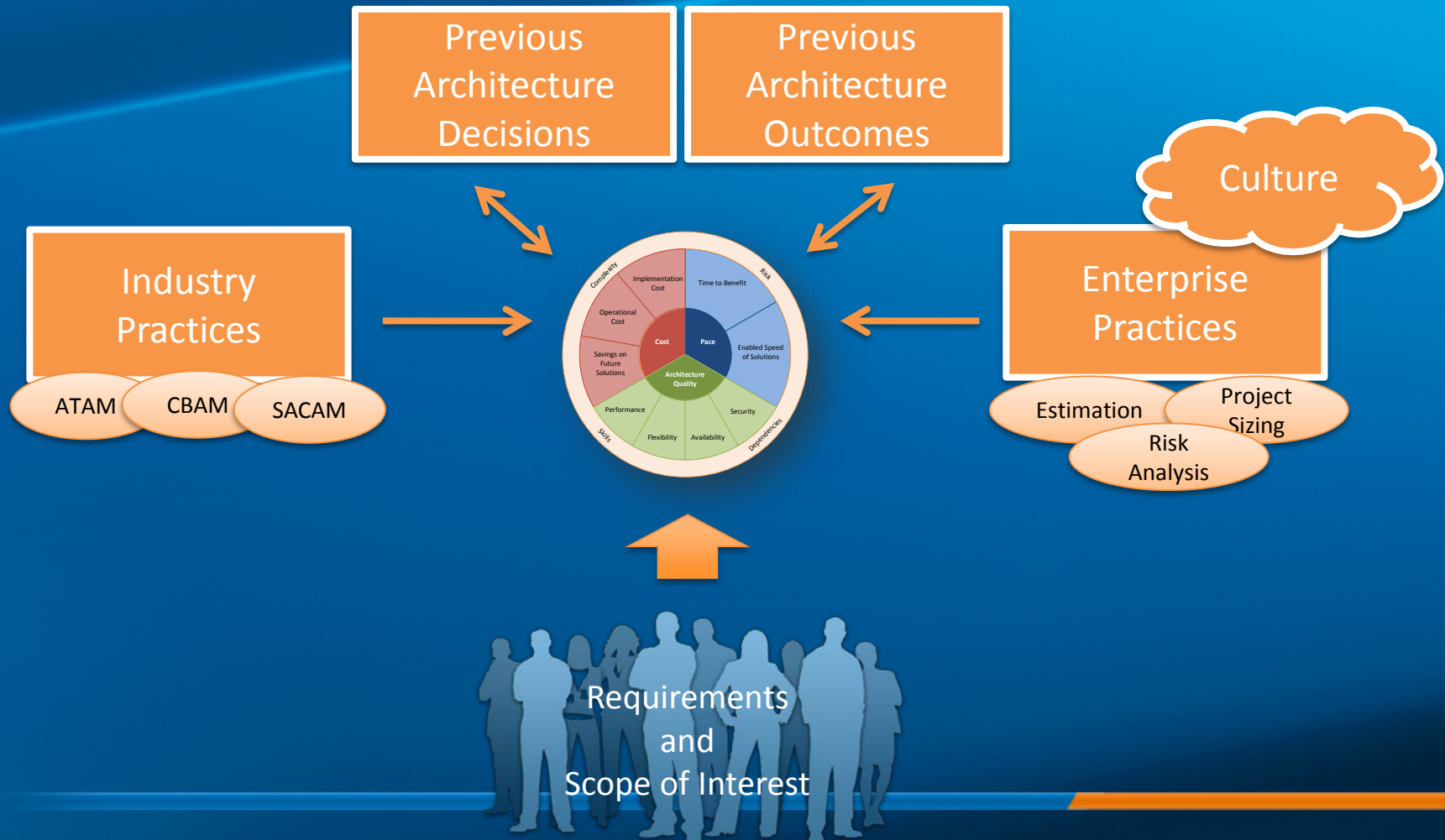
# Using the Framework

## During Target Architecture Definition



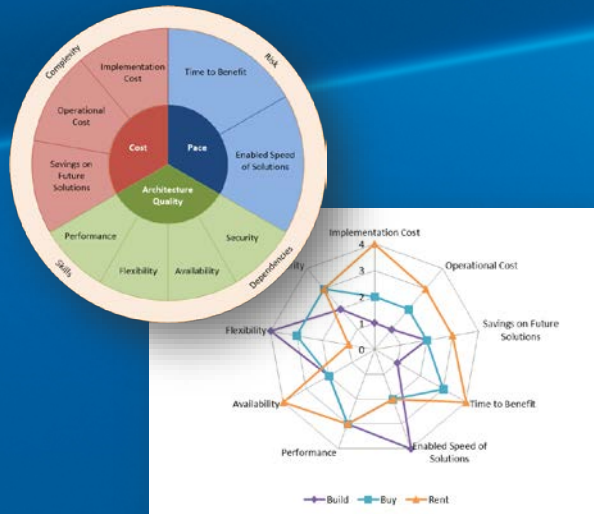
- Focus on evaluating architectures of a long-term target state
- Typically larger effort with broad implications
- Valuation steps aided with ATAM/SACAM – like workshops
- Output mandated as a standard artifact
- Output is key to target architecture approval
- Key recipients = business unit leaders + Enterprise Architecture Review Board

# Building the Framework





# Key Takeaways



- Frame recommendations as choices rather than imperatives
- Use to influence stakeholder decisions
- Visualize in a way that resonates
- Survey past experiences to define the set of key attributes
- Reuse existing assessment mechanisms to feed the scoring
- Continuous improvement by tracking the factors associated with winning architecture decisions



K.I.S.S. principle



# Thank You



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**PROGRESSIVE**