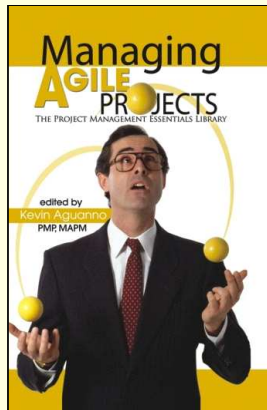


Improving Project Governance Using Agile and Metrics



Kevin Aguanno
PMP, IPMA-B, MAPM, Cert.APM

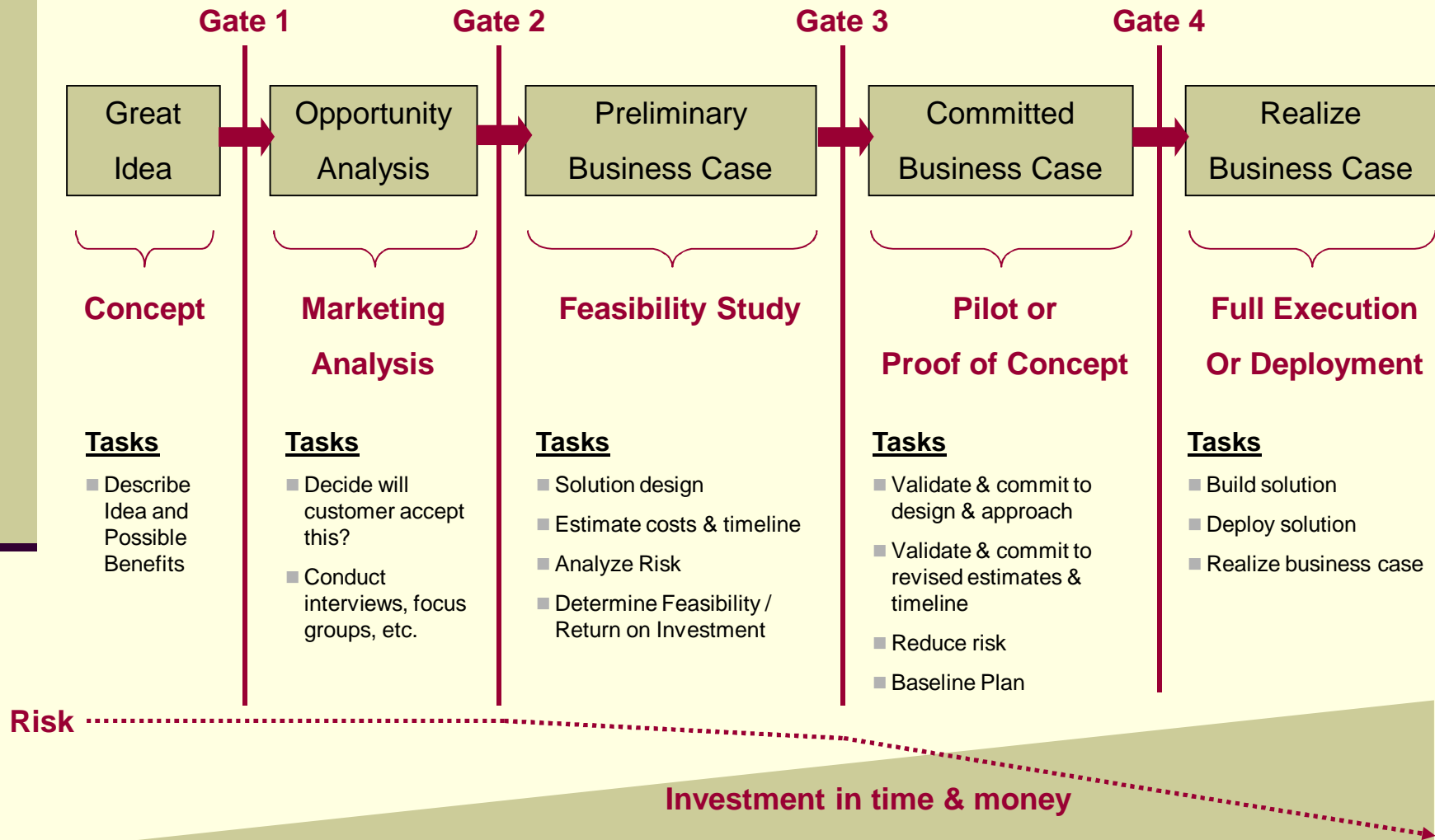
Your Presenter: Kevin Aguanno



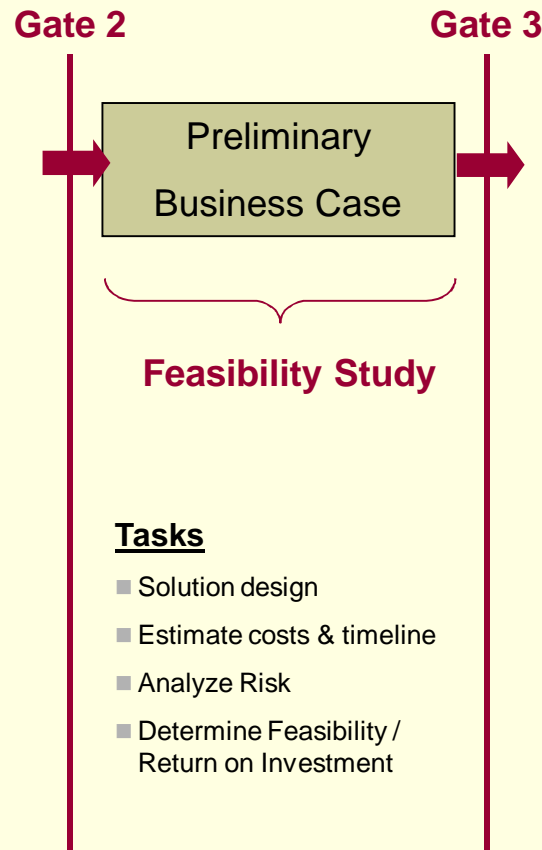
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- 20+ years of PM experience
- 20+ published books, audiobooks, DVDs, and CD-ROMs – most on agile and PM-related topics
- IBM Certified Executive PM
- IPMA Certified Senior PM (IPMA B)
- Was IBM's Agile Centre of Competency Lead for many years
- IPMA-Accredited PM Competency Assessor for Canada and USA

A Standard Corporate Governance Model



Aligning Agile Methods to the Standard Governance Model

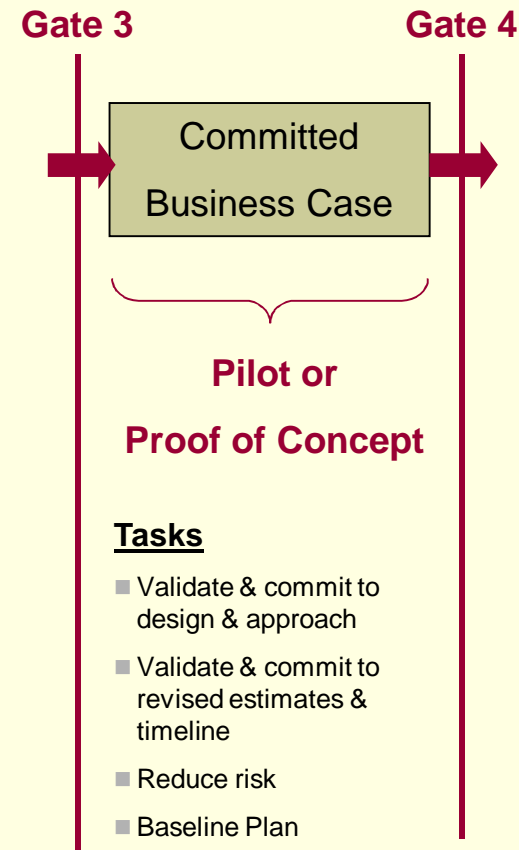


- In Waterfall / Linear models, *DETAILED* design and estimates.
- Relatively **high cost** and **long time** to plan up front.

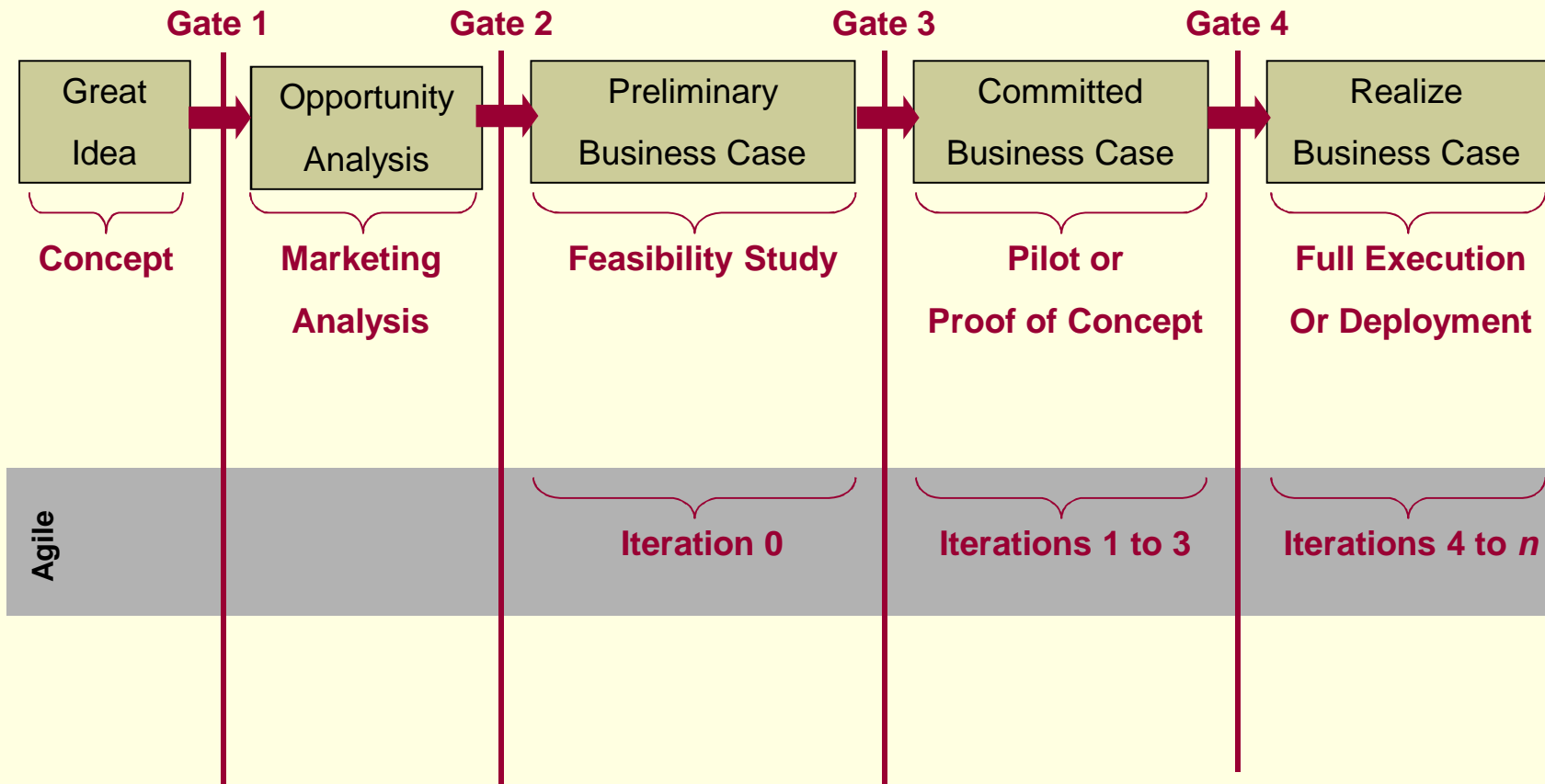
- In Agile models, only *HIGH LEVEL* design and estimates.
- Relatively **small cost** and **short time** to plan up front.
- Often called “**Iteration Zero**”

Aligning Agile Methods to the Standard Governance Model

- Waterfall / Linear models *may* conduct a pilot or go directly to full execution depending upon *risk*.
- Agile models *usually* perform a short pilot to reduce risk.
- After *2-3 iterations*, actual performance (“velocity”) can be used to forecast completion with reasonable accuracy, similar to Earned Value.
- Detailed design is completed in waves, during each iteration.



Aligning Agile Methods to the Standard Governance Model



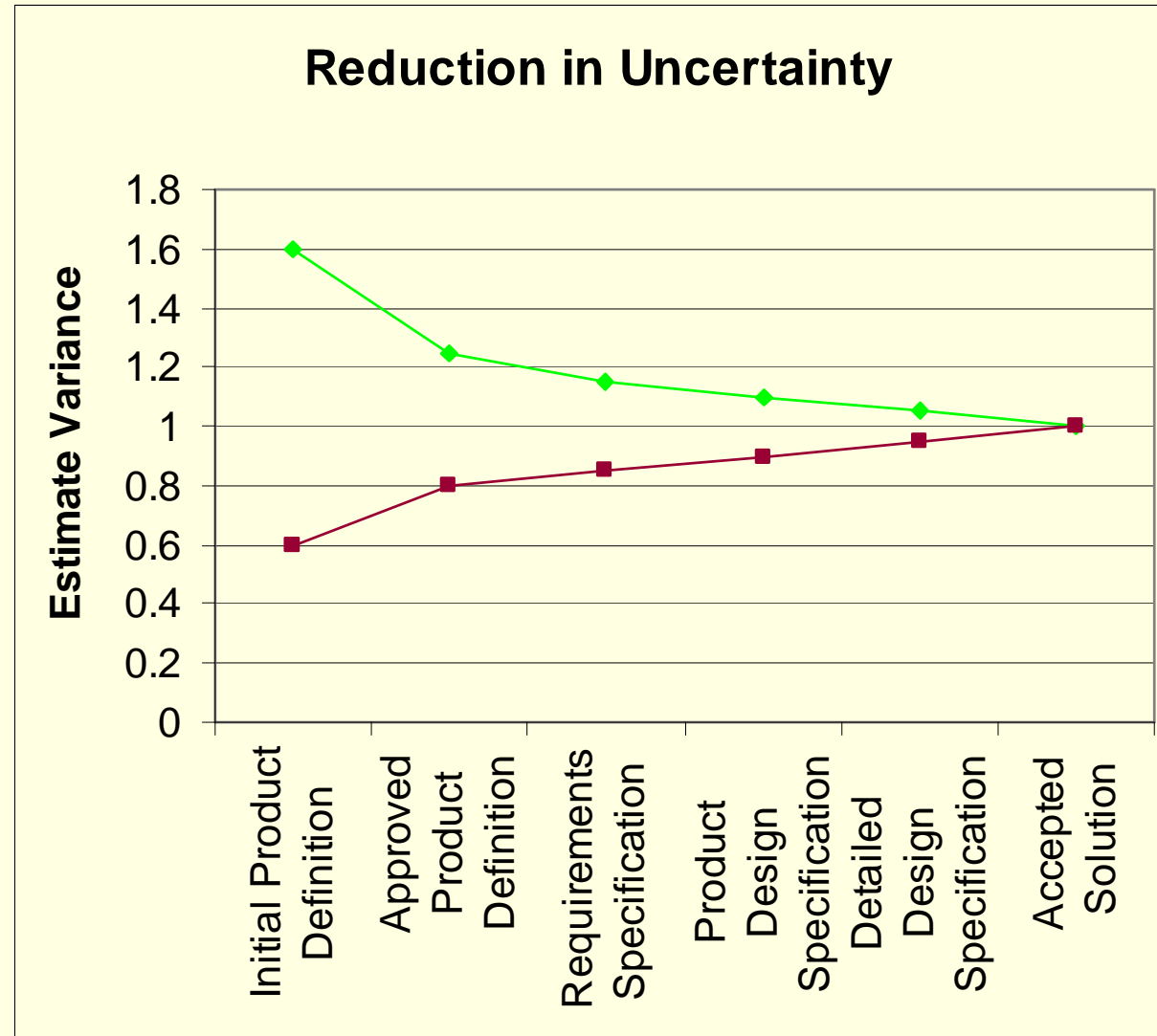
What is Agile Planning?

- “Plan” vs. “Planning”
- Happens throughout the project
- Effort vs. Value
- Designed to be easily updated as scope and productivity change

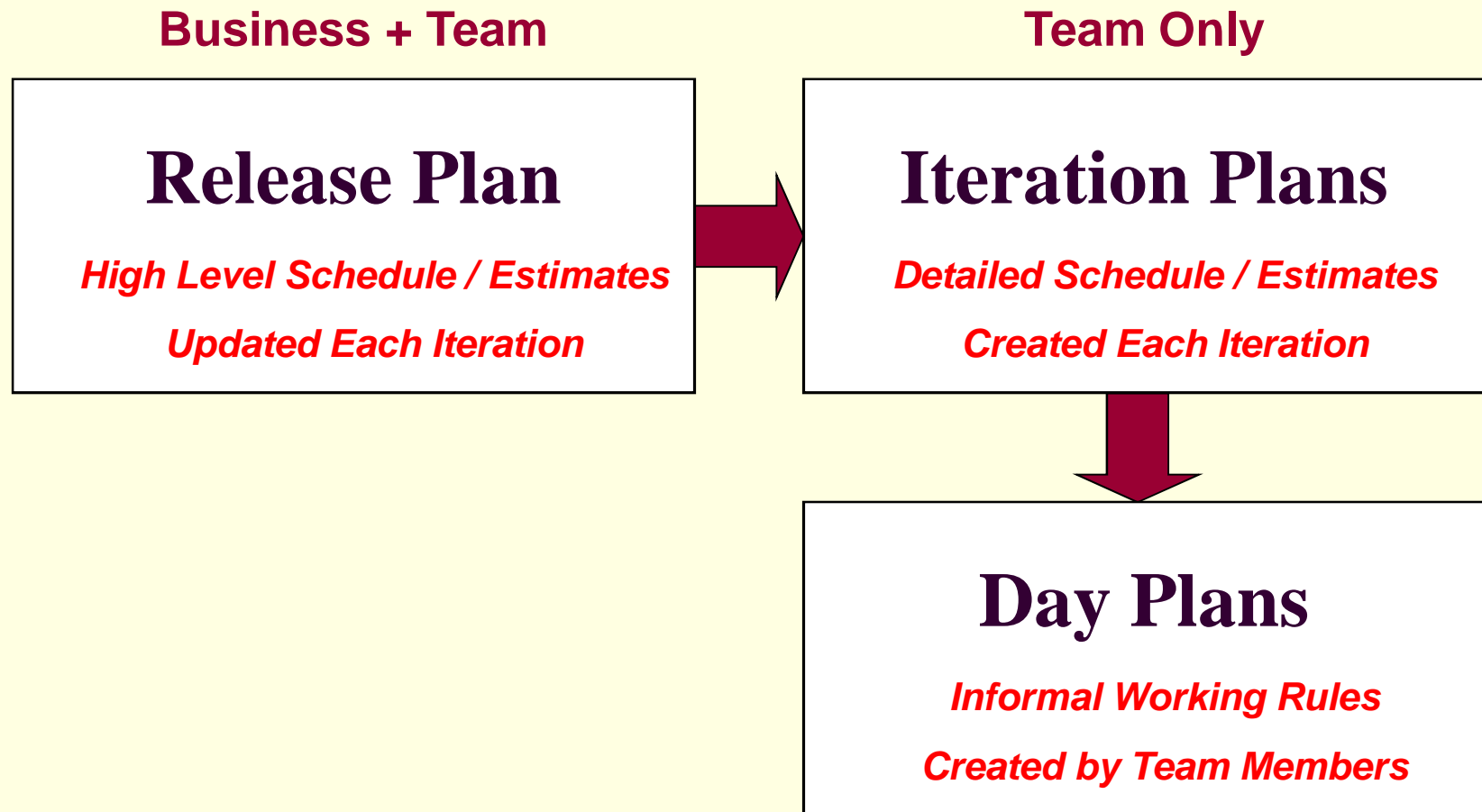
Agile approach to projects

- Plan on a multi-disciplinary team.
- Break project into short iterations.
- Deliver something each iteration.
- Focus on business priorities.
- Inspect and adapt.

“Strategic Procrastination”



Agile teams have three levels of planning



Turning a Project Backlog into a Release Plan

1. Prioritize
2. Adjust for Dependencies
3. Estimate
4. Choose an Iteration Length
5. Forecast Initial Velocity
6. Assign Scope to Iterations
7. Adjust for Constraints

Step 3: Estimate in Points

- Can be based on:
 - “Story points” via Planning Poker™
 - “Ideal” days
 - Function points

The agile community typically uses story points.

Step 4: Choose an Iteration Length

- Common iteration lengths: 2-4 weeks
- There is no “magic number”
- Factors to consider:
 - Nature of the work & the need for feedback
 - Size of features
 - Team experience level
 - Available automation tools

For our example, let's choose two-weeks.

Step 5: Forecast Initial Velocity

- A measure (or prediction) of the team's performance/productivity.
- To forecast velocity for new projects, you can use:
 - historical values
 - actuals from a short pilot/proof of concept
 - estimates based on a quick analysis of team capacity and feature complexity

For our example, let's say it is ten (10).

Step 6: Assign Scope to Iterations

Book Writing Project						
Project Backlog						
Feature ID	Description	Business Priority	Dependencies	Complexity (in Points)	Iterations	
20	Book Marketing Plan	H		7	Iteration 1 10 points	
21	Back Cover Marketing Blurb	H		1		
3	Introduction	H		2		
4	Chapter on Agile Requirement Gathering	H		5	Iteration 2 11 points	
5	Chapter on Agile Estimating	H		6		
6	Chapter on Agile Planning	H	5	7	Iteration 3 9 points	
7	Chapter on Backlog Maintenance/Replanning	H	5,6	2		
9	Chapter on Daily Meetings	H		3	Iteration 4 9 points	
10	Chapter on Velocity	H		6		
11	Chapter on Reporting	H	10	4	Iteration 5 10 points	
23	List of Possible Early Endorsers	M		1		
19	Solicitation Package for Early Endorsements	M	23	3		
22	List of Final Book Reviewers	M		2	Iteration 6 10 points	
24	Book Review Package	M	22	3		
16	About the Authors	M		1	Iteration 7 10 points	
8	Chapter on Agile Change Management	M		6		
13	Chapter on Agile Testing	M		5		
1	Acknowledgements	L		1	Iteration 8 12 points	
12	Chapter on Dealing with Stakeholders	L		4		
14	Conclusion	L		2	Iteration 9 3 points	
17	Index	L	3,4,5,6,7,8,9,10,11,12,13,14	10		
18	Additional Resources	L		2	Iteration 9 3 points	
15	Bibliography	L		1		
2	Dedication	L		0		
				TOTAL	51	

Step 7: Adjust for Constraints

Usually done using the “Wall Planning” Method

Book Writing Project								
Release Plan (Final)								
2-week iterations								
Release 1 (Early Draft)					Release 2 (Final)			
October		November		December		January		February
Iteration 1	Iteration 2	Iteration 3	Iteration 4	Iteration 5	Iteration 6	Iteration 7	Iteration 8	Iteration 9
20	4	6	9	11	24	8	1	Buffer
21	5	7	10	23	16	13	12	
3				19			14	
				22			18	
							15	
							2	
10 points	11 points	9 points	9 points	10 points	4 points	11 points	10 points	0 Points
					Christmas			Project End
						Early Endorsements Sent Out		

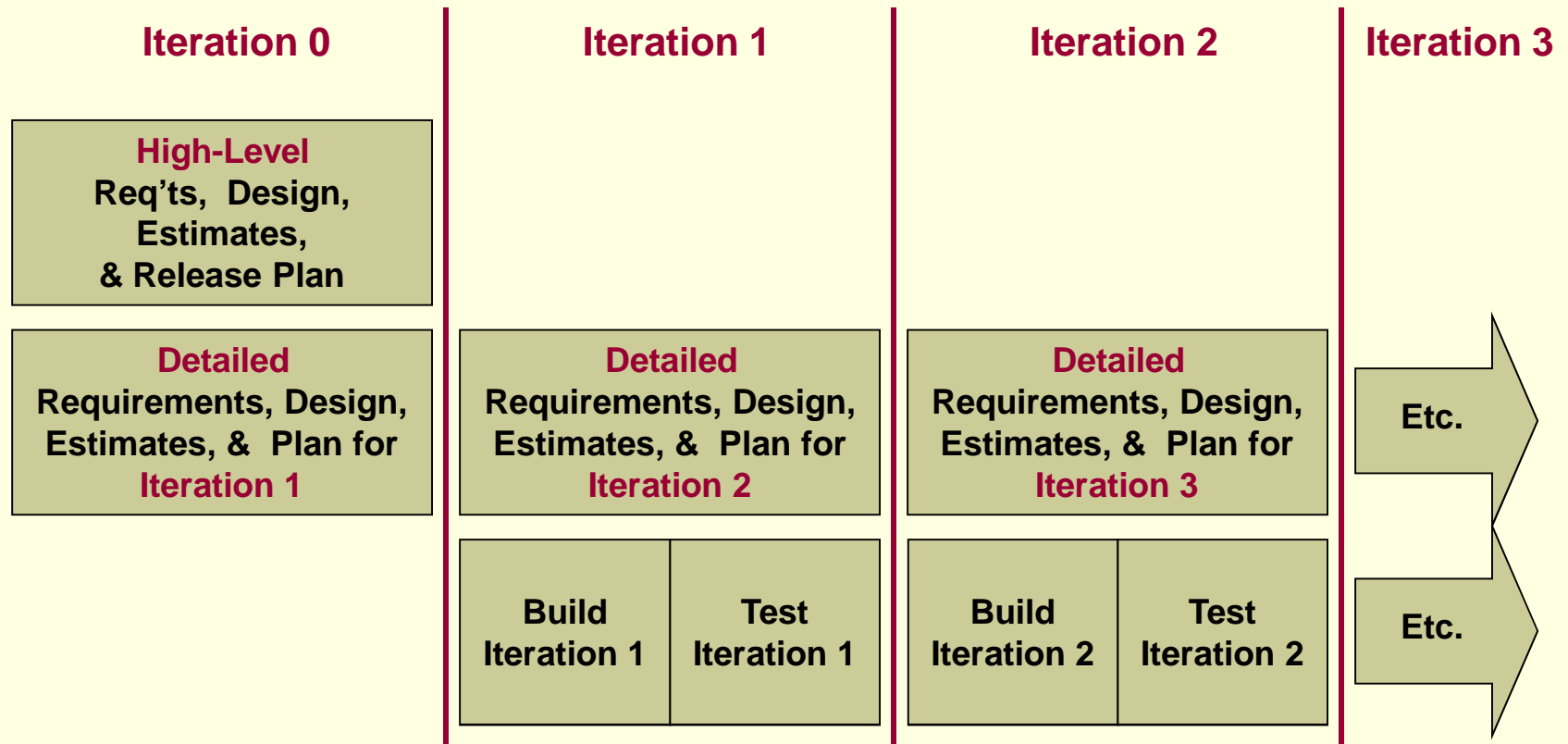
Keep the Release Plan Current

- Update at end of each iteration:
 1. Include new scope items
 2. Reprioritize
 3. Re-allocate scope using observed **actual velocity**

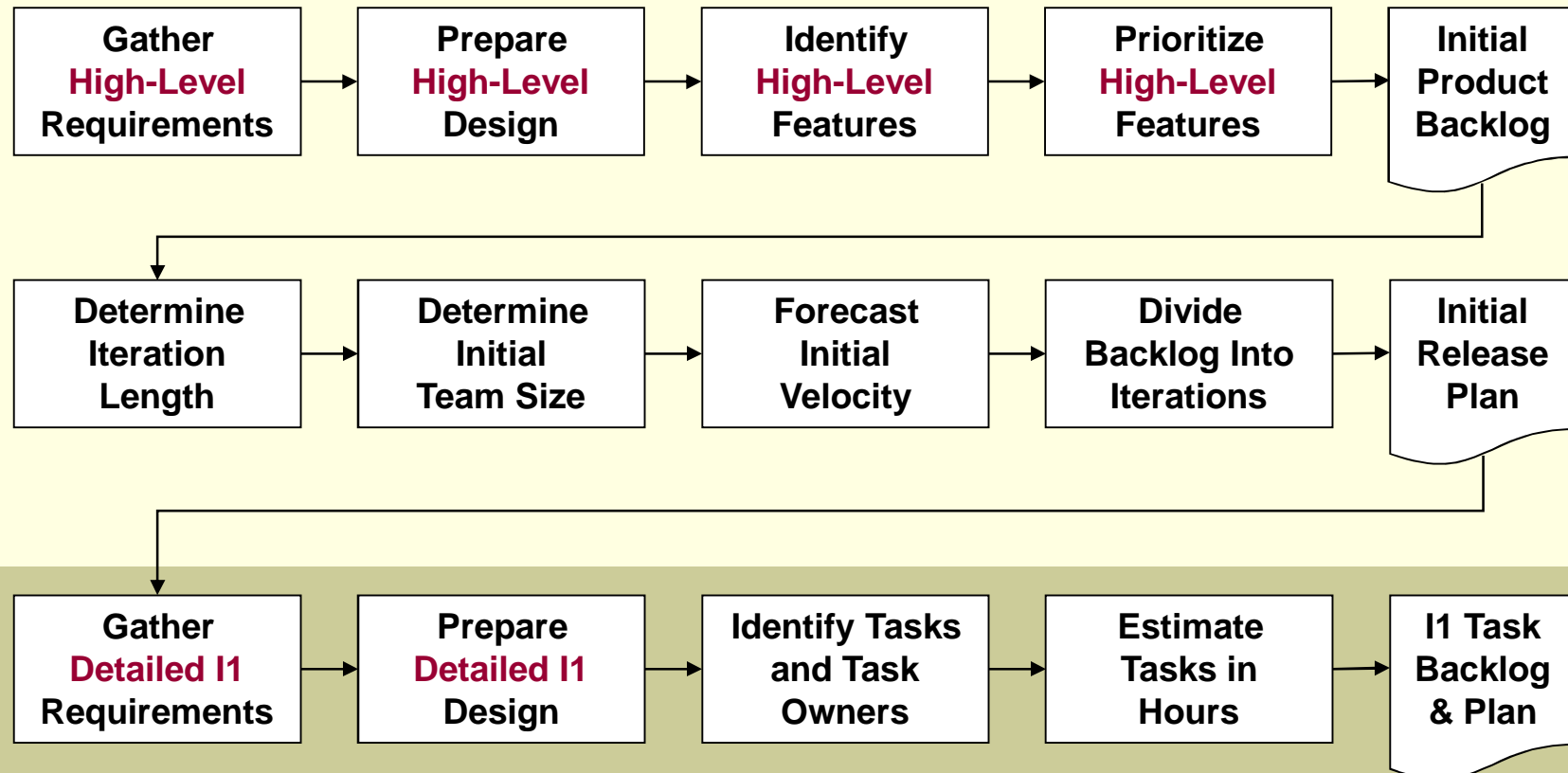
Iteration Plans Verify Release Plan Velocity Assumptions

- PMI: “Rolling-Wave Planning”
- Traditional planning, but only one iteration at a time:
 - Develop a WBS
 - Identify task dependencies
 - Identify task owners
 - Owners estimate work effort in hours (or days)
- Outputs: Project schedule, iteration backlog, and initial iteration burndown (tracking) chart

We double-check our top-down estimates with a bottom-up I_0 estimate



In Agile Projects, the Work in Iteration Zero Becomes Critical to Success



Double-Check High-Level Estimates with Detailed I1 Estimates

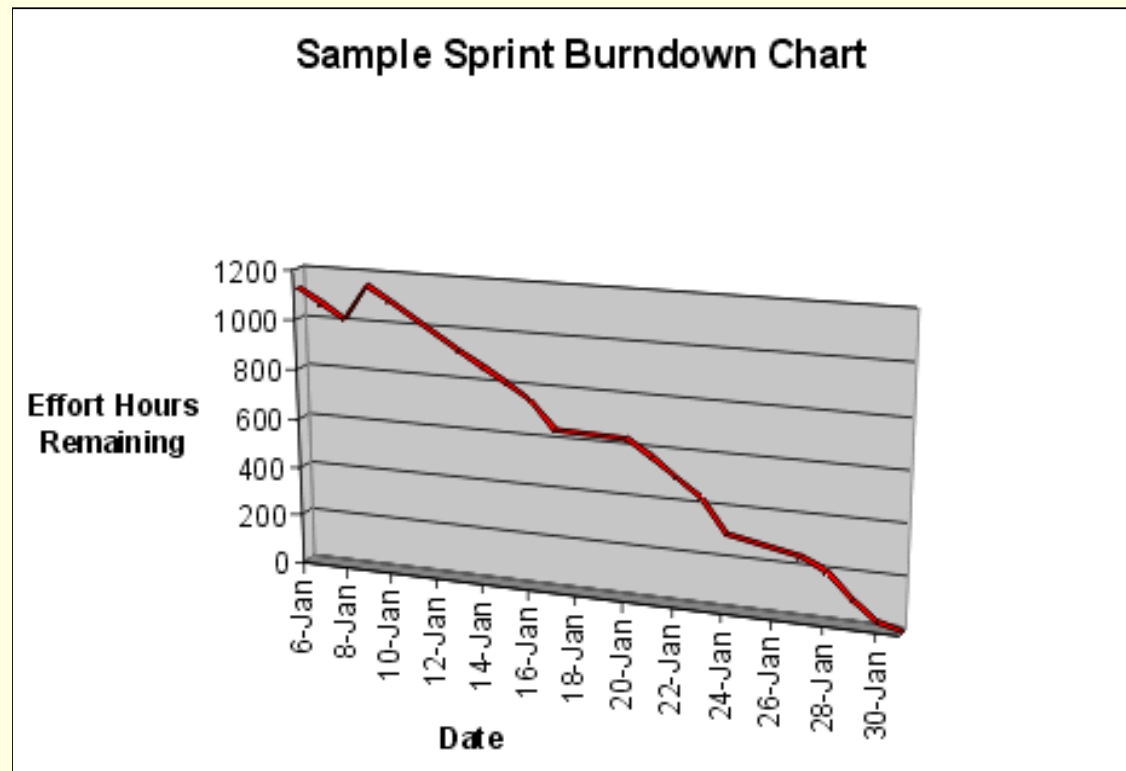
Agile Reporting Techniques: Iteration Level (Sprint Backlog)

- Within an iteration, we track #hours or #days remaining to complete each task and sum them up into a total estimate to complete.

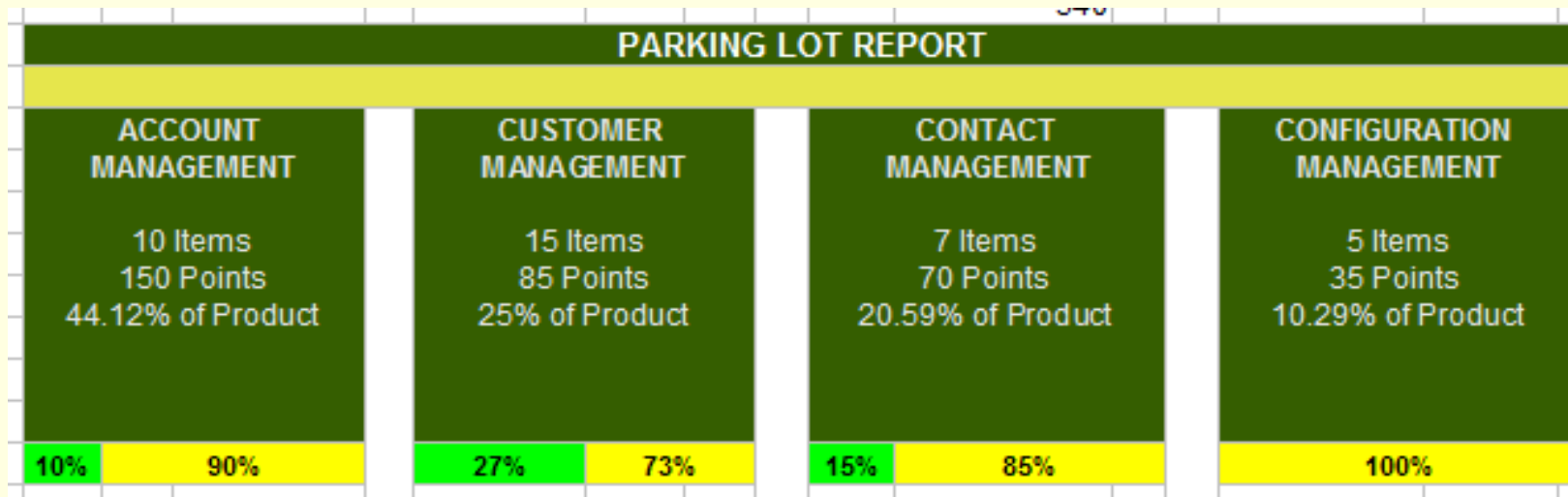
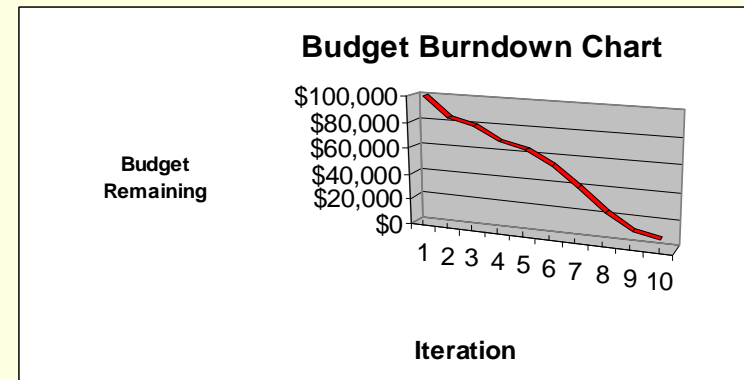
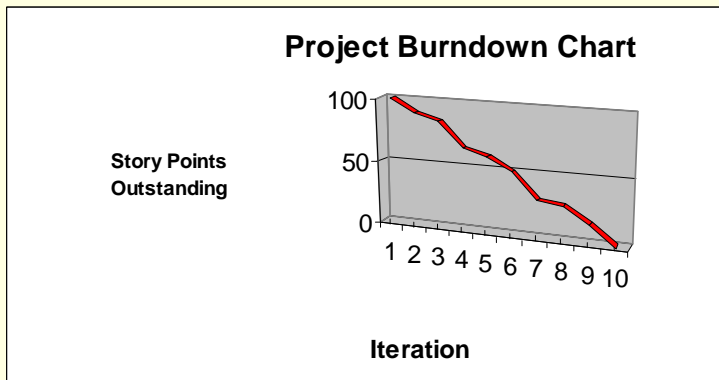
Book Writing Project					
Iteration 4 (Theme: "Write the chapter on agile testing")					
Task ID	Task Name	Assigned	Original Effort	Effort Remaining	Story #
4.1	Prepare chapter outline	Kevin	3	0	22
4.2	Gather editorial feedback	Kevin	5	0	22
4.3	Write chapter body	Kevin	65	25	22
4.4	Copy editing	Francis	10	10	22
4.5	Prepare illustrations	Carrie	2	1	22
4.6	Index chapter	Tony P.	1	1	7
TOTALS			86	37	

Agile Reporting Techniques: Iteration Level (Sprint Burndown)

- We plot this total on a chart periodically (every day is ideal) and use the slope of the line to forecast a completion date.



Agile Reporting Techniques: Project Level



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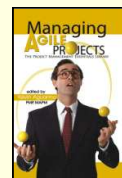
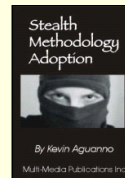
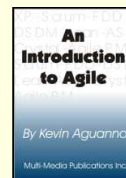
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Questions?

- Kevin Aguanno (your speaker) is available via email at kevin@AgilePM.com.
- He is the author of over 20 books, audiobooks, DVDs, and CD-ROMs related to this subject matter:

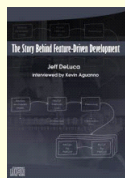
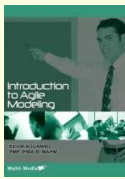
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