

Process Increments: An Agile Approach to Software Process Improvement

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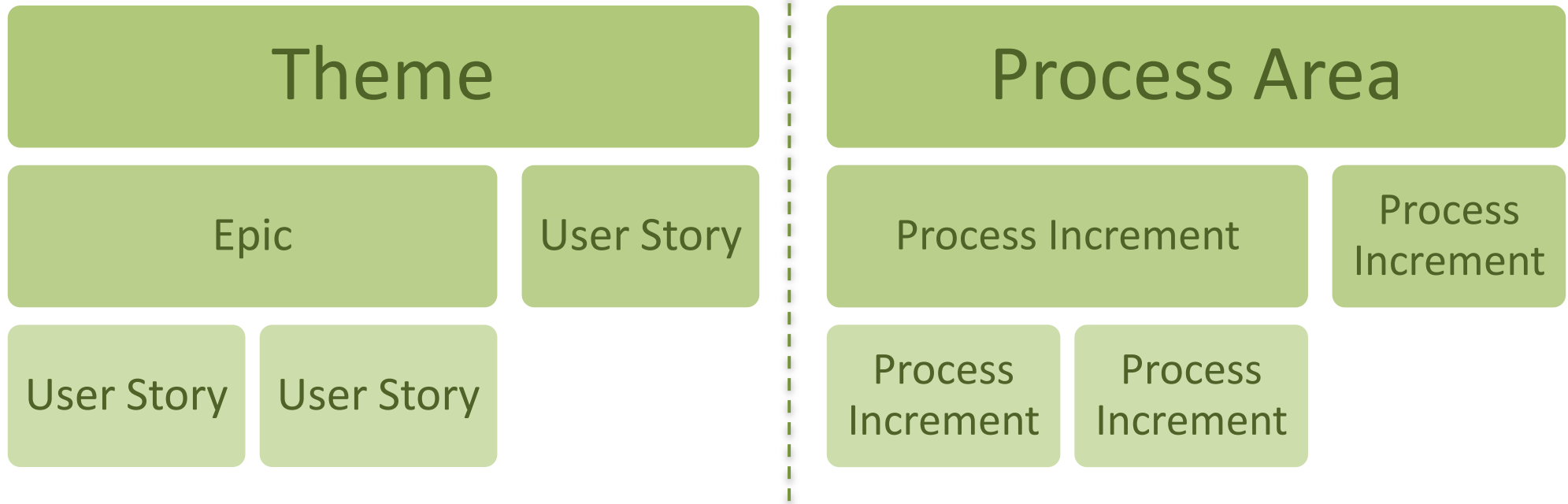
Agenda

- Process Increments
- Experience Report Overview
- Observations and Findings

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Process Increments



- A *process increment* is a process improvement chunk which can be implemented in a relatively **small** time (1-2 weeks) and still provide **value** for the organization

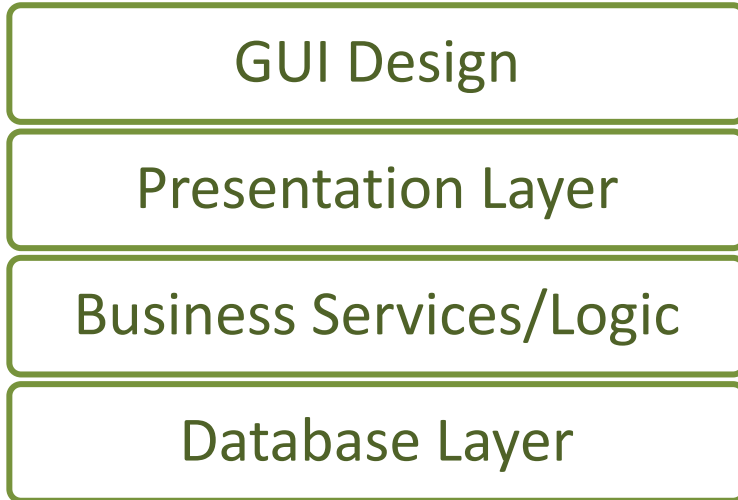
Process Increment Example

Version Control

- Verify that code of at least one project is on version control
- Verify that VC tool is integrated with the IDE
- Verify that team is using check-out check-in (copy-update-merge) procedure to update code
- Verify that the code update procedure is documented in the CM guidelines

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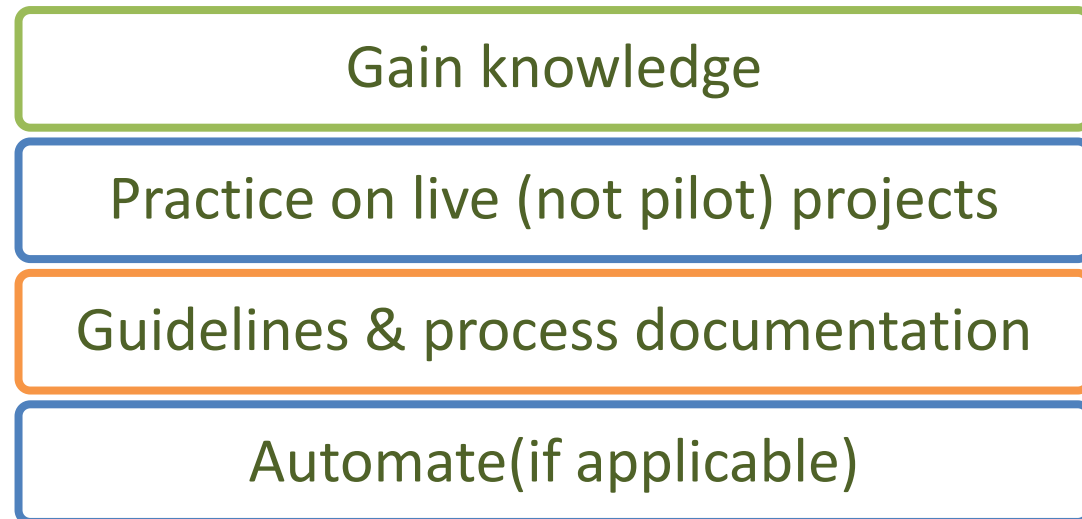
Slicing/Splitting Process Increments



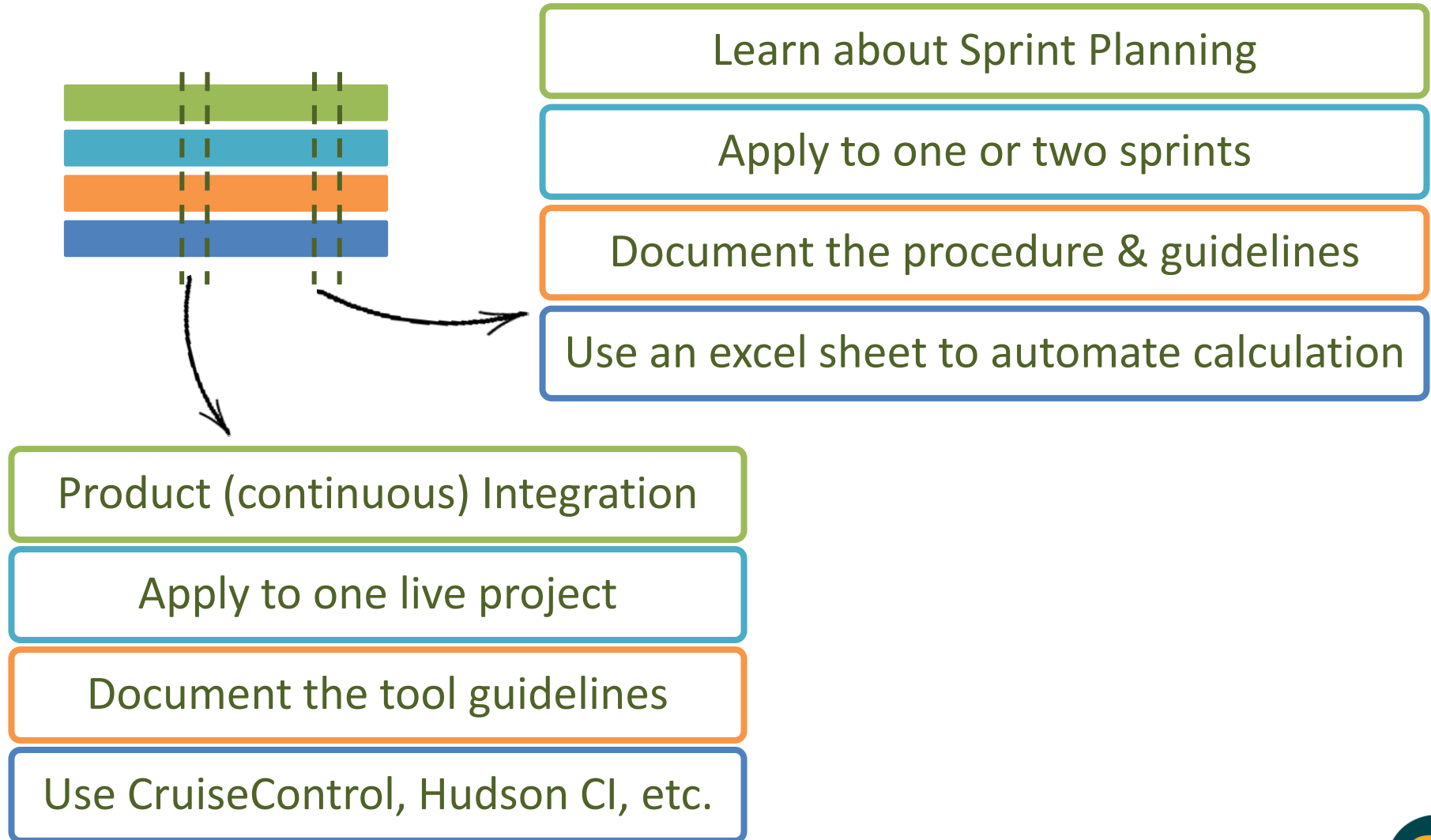
Typical vertical slicing
in a **User Story**



Typical areas/layers in
a **Process Increment**



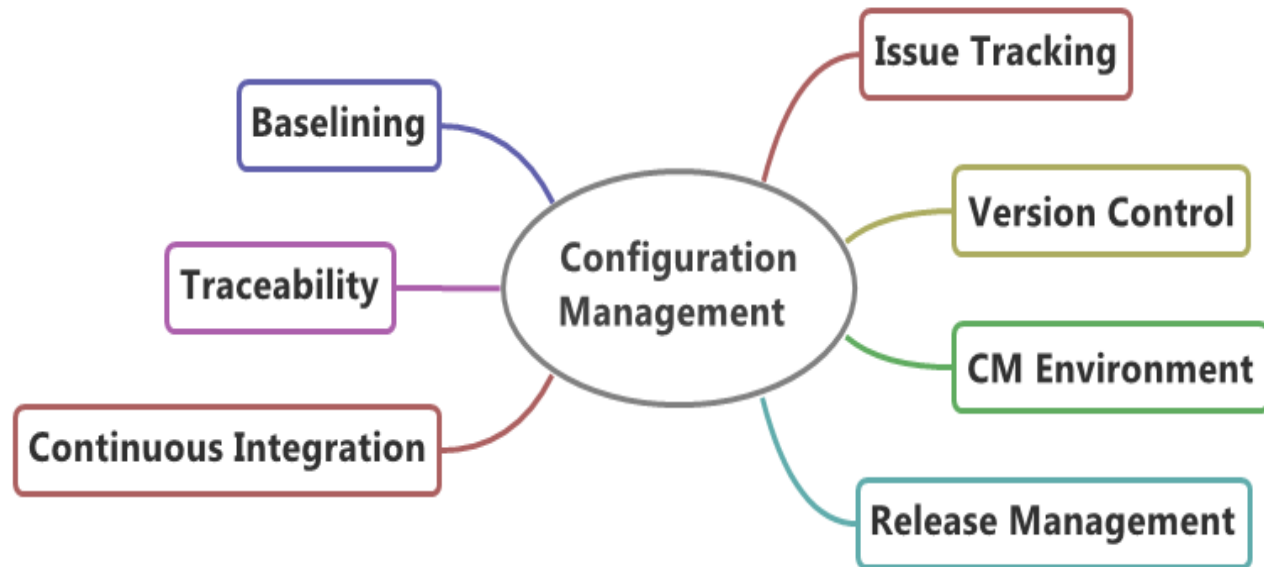
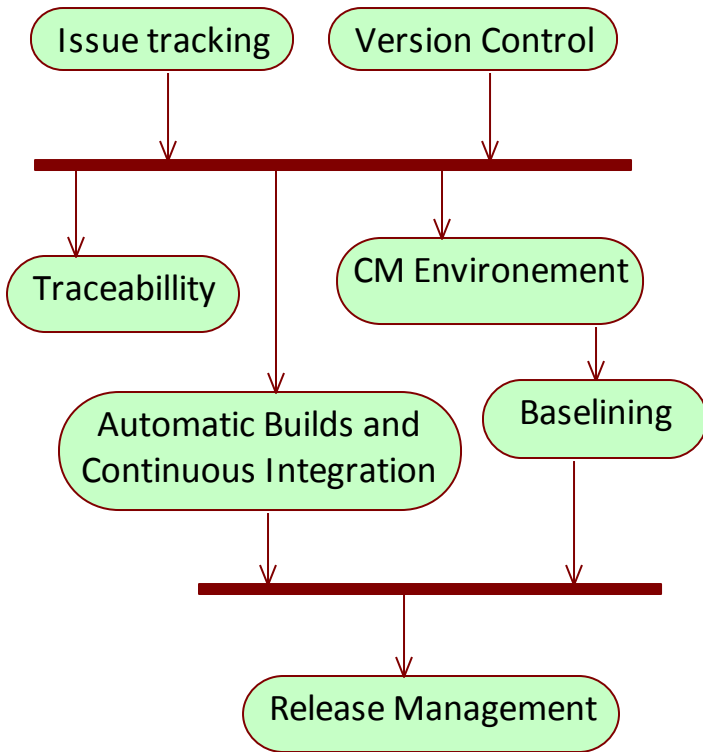
Slicing/Splitting Process Increments



Slicing/Splitting Process Increments

- Let's take an example: **Configuration Management**
- In software engineering, software configuration management (SCM) is **the task of tracking and controlling changes in the software** (Wikipedia)
- It is not about change prevention, but waste prevention

Slicing Process Areas – The Process Increments Way



Agenda

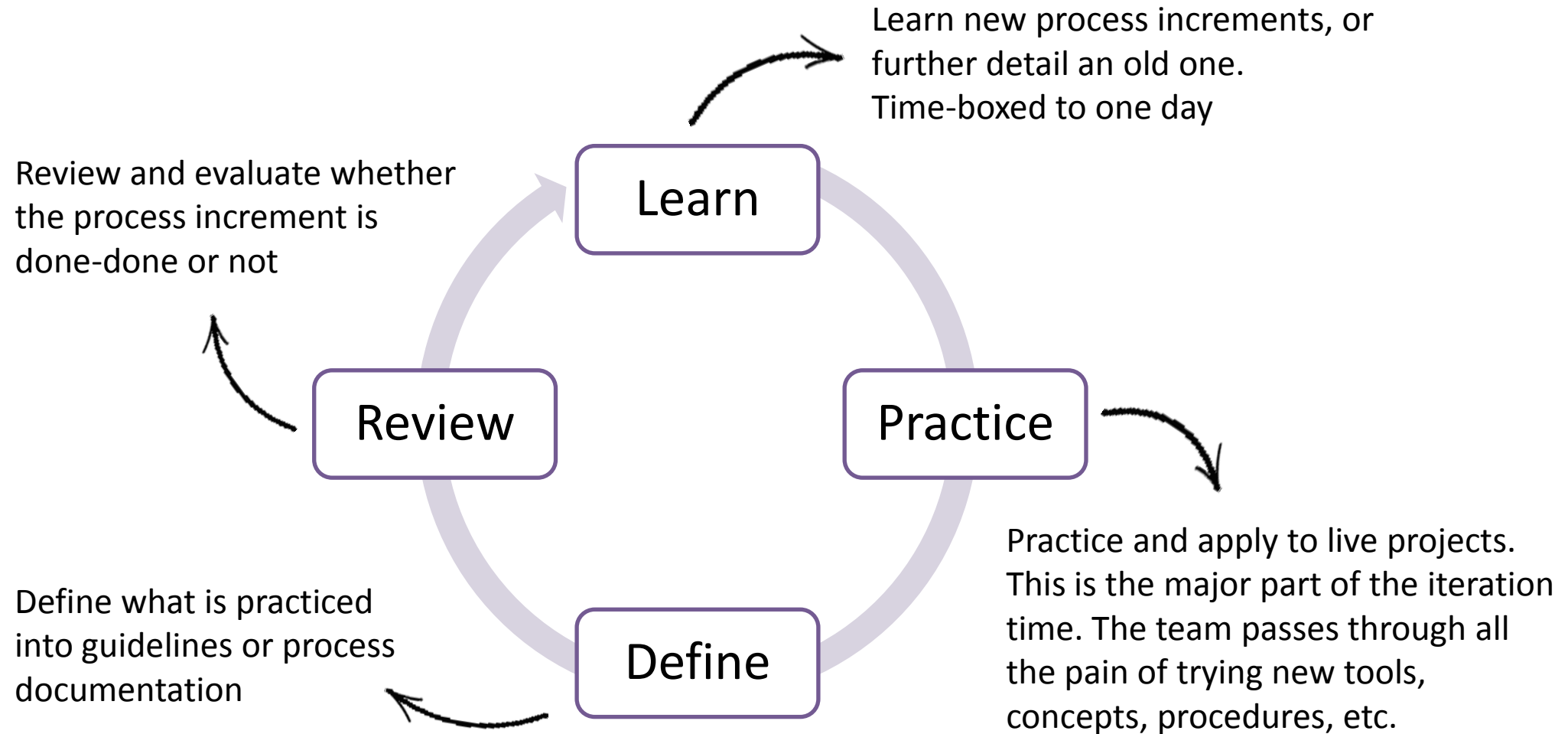
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SPI Projects are Typical Agile Project

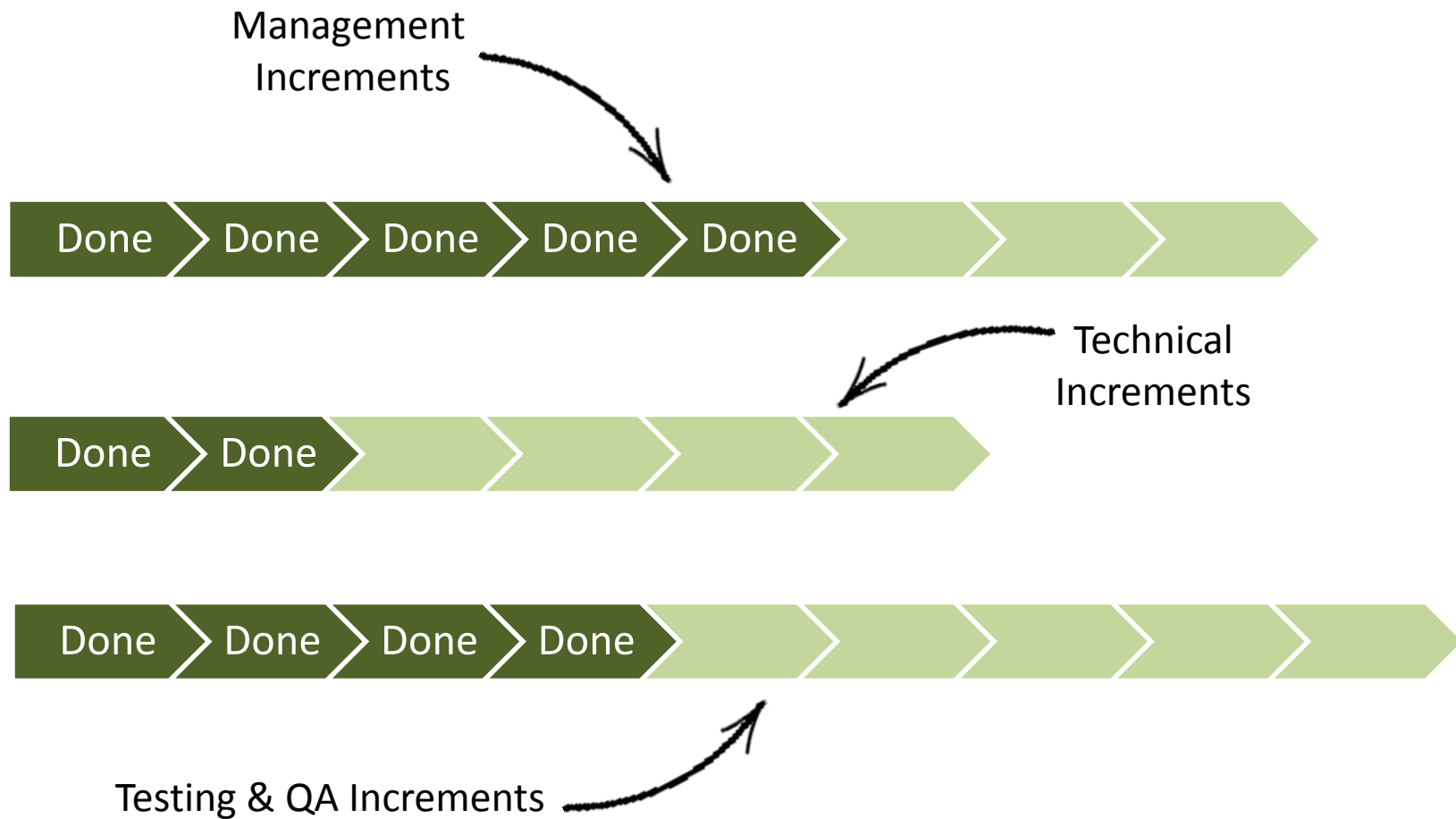
- Project scope is vague
- Progress is usually not visible
- High risks (usually related to changing the mindset)



Inside an Iteration



Working with Multiple Functional Teams & Projects

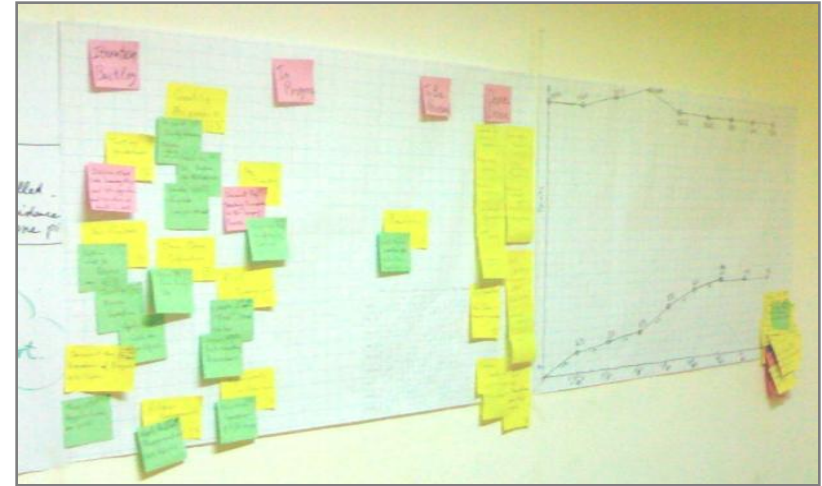


Estimating & Planning The Improvement Project

- Process Increments are size-estimated using Planning Poker
- The whole project is planned as one release
- Improvement Velocity:
 - The size of completed process increments in an iteration

Tracking the Improvement Project

- Burn-up chart in SPI projects
 - Added a sense of achievement
 - The project progress is visible to the whole team
 - 'Other' teams/departments get involved
- Risks, thresholds, and corrective actions



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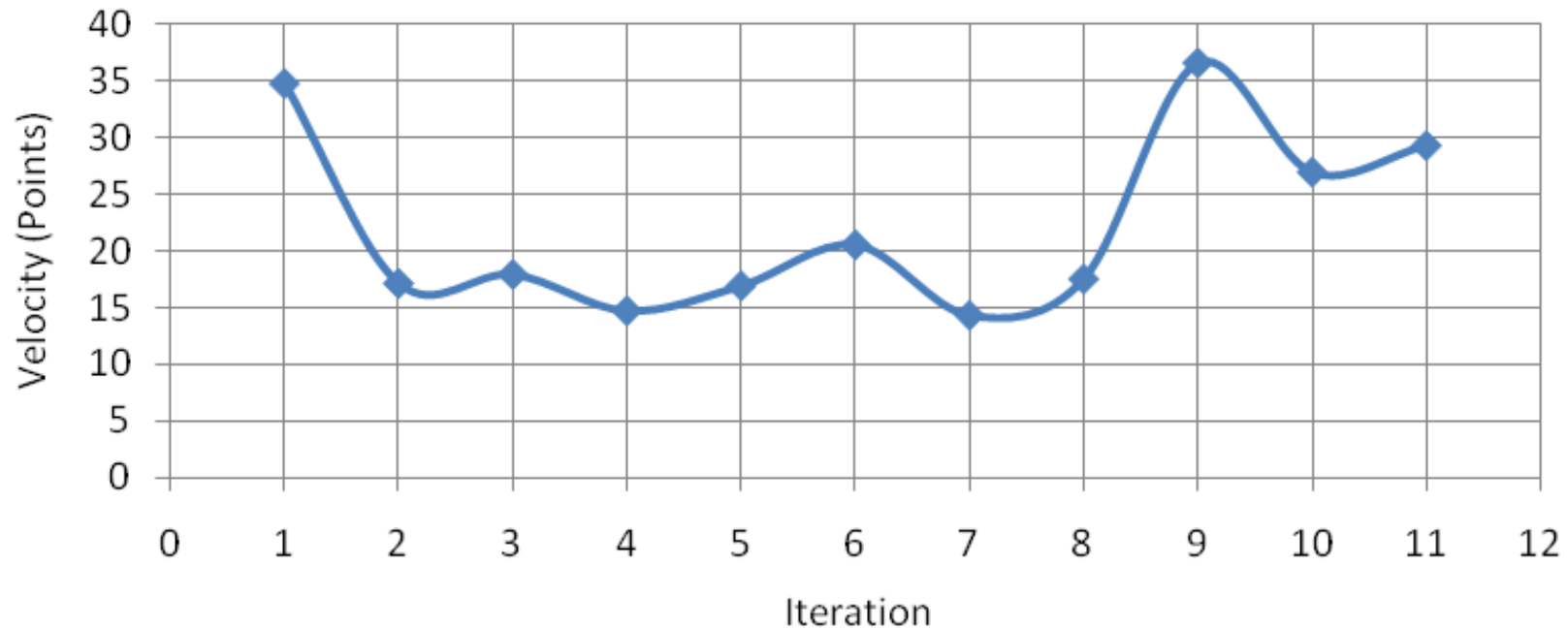
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Improvement Velocity Readings

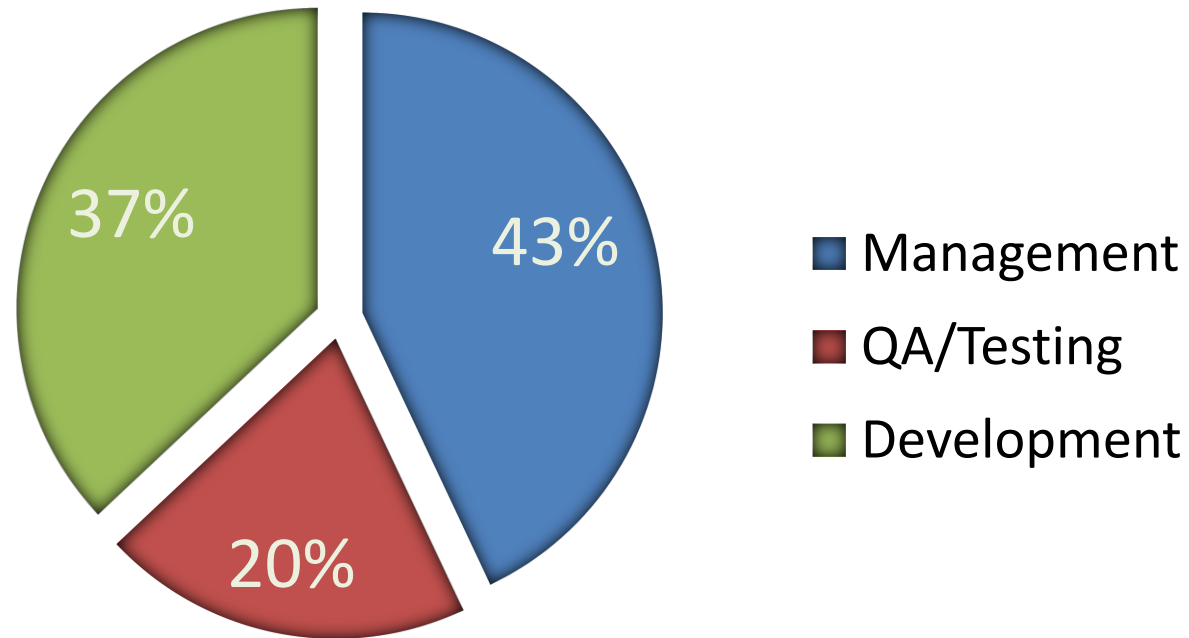
Company	Total Scope (points)	Total Completed (points)	Accomplished	Average Velocity (points/iteration)
1	251	182	72.5%	18.2
2	301	231	76.7%	23.1
3	283	278	98.2%	25.3
4	297	268	90.2%	24.4
5	230	222	96.5%	20.2

Improvement Velocity Run Chart

Average Improvement Velocity of All Companies



Role Contribution in Actual Improvement



Learning by Example

- Walk the talk and talk the walk
- The SPI experience is a typical project model for the team

Conclusion

- Process Increments is a more structured way for organizing SPI projects
- Process Increments clearly identifies the project scope
- Process Increments enhances project visibility
- Process Increments get the whole team involved, not a single role or group
- The SPI experience is a typical Agile project model for the team