

Return On Investment

Is AWP worth the cost?

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Today's Discussion



AWP costs money to do on a project.

Today we want to look at whether the value provided outweighs the cost.

We will also look at:

- What are the costs?
- What are the tangible benefits?
- Implementation timing
- Difficulties with assessing ROI
- What are the intangible benefits?
- Reference material for finding your project's ROI.



What are the costs?



Earlier involvement of construction and C&SU personnel.

- Extends the cost of those people on the project.

AWP Manager / Lead

- Typically a dedicated role for larger projects.

Engineering model data / attribution.

- More data needed in the model, and higher model administration.

WorkFace Planners.

- Dedicated professionals to build the work packages.

AWP / WFP software.

- Model-based construction software for creating and managing packages.



Benefits (Tangible)

- The measurable benefits come as a result of savings in craft labor in the field.
- Full AWP implementation has been shown to save up to 25% of labor costs.
- This can be as much as 10% of the Total Installed Cost of the project.

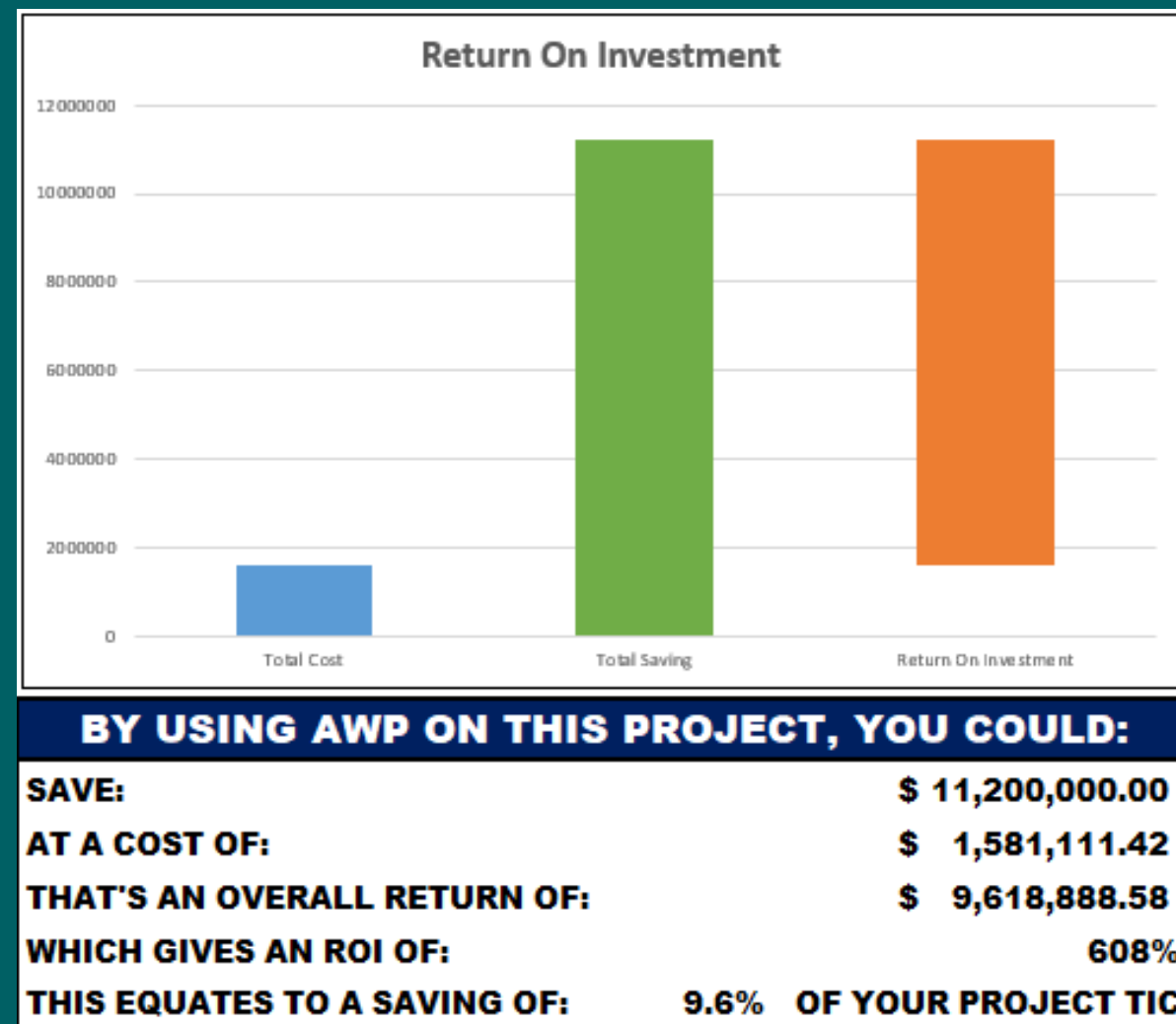


Performance Dimension	Maturity Stage		
	1 – AWP Early Stage	2 – AWP Effectiveness	3 – AWP Business Transformation
Productivity	Around 10% improvement	Around 25% improvement	Around 25% improvement
Cost	Project on budget	TIC 10% below estimates	Around 10% below TIC
Safety	0 lost-time accident (TRIR below company average)	0 lost-time accident (TRIR improves with sporadic first-aids / near misses)	0 lost-time accident (sporadic first-aids and near misses)
Predictability	Project experienced minor delays	Project slightly ahead of schedule during execution	Project slightly ahead of schedule during both planning and execution
Quality	Significant deviation from baseline estimates	Minor changes to execution schedule	Execution schedule to plan
Schedule	Rework in line with previous quality performance	Rework slightly below company's average	Rework substantially below company average + substantial reduction in RFIs



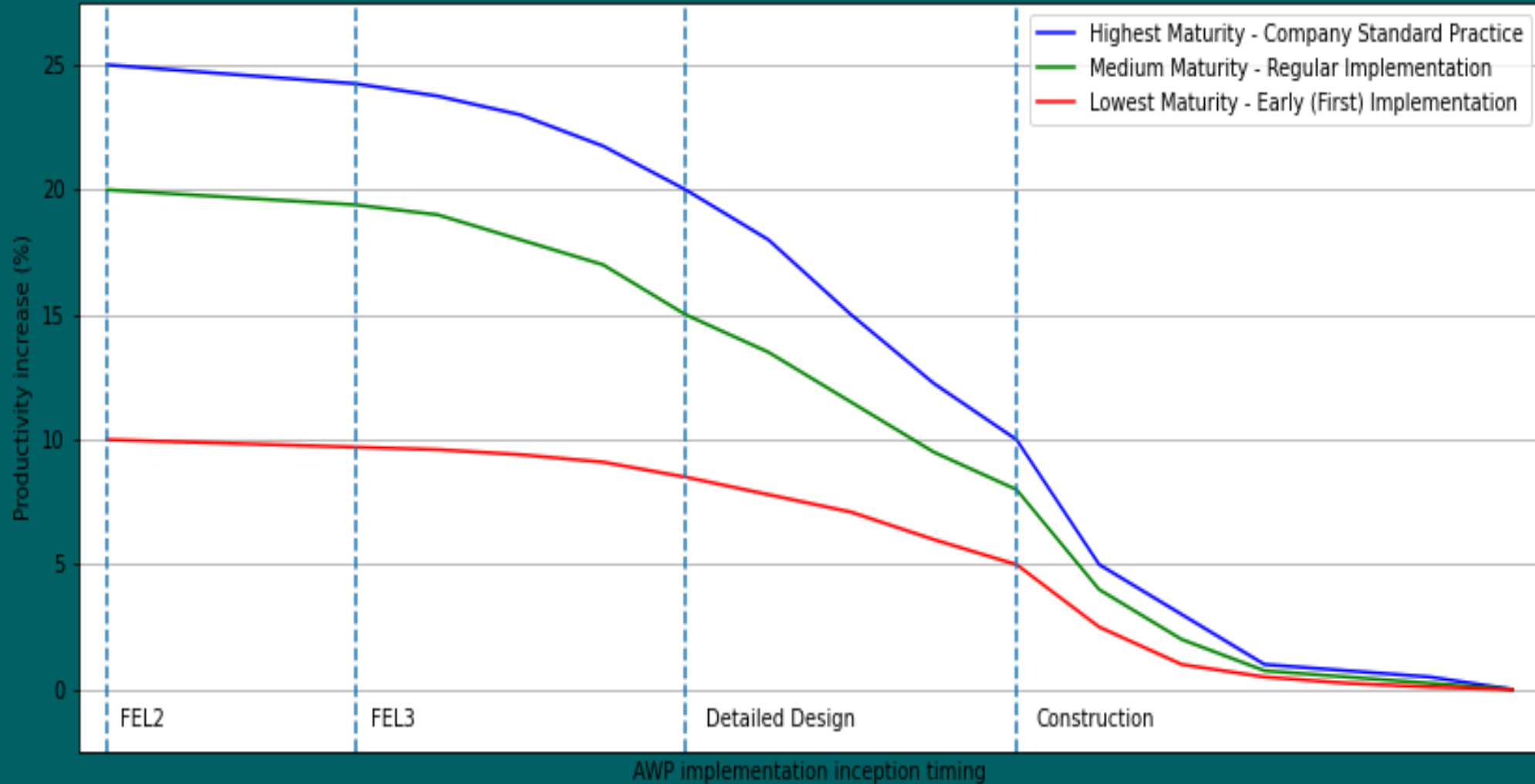
Return On Investment (ROI)

- In this example, a project with a \$100 million TIC shows:
- Cost - \$1,581,111
- Saving - \$11,200,000
- Return - \$9,618,888
- That's an ROI of 608%
- 9.6% saving on project TIC



Timing is Critical

Productivity gain versus AWP implementation inception timing



Difficulties with Assessing ROI



- To truly understand the ROI of AWP on a project, it would be necessary to run parallel projects in exact same conditions, with only one using AWP.
- Until then, we are reliant on historical information and comparisons with past projects.
- This will, inevitably, always raise the question of whether or not AWP was responsible for those gains.
- The only way to address this is to show continuing improvement over previous project performance, on project after project.



Benefits (Intangible)



It's not just all about money. AWP, and a well planned project, can provide value in other ways, that are harder to see and measure:

- Safety – A lot of incidents come from unplanned changes to work. Better planning will lead to a reduction in safety incidents.
- Quality – Discrete work packages with fixed scope and end dates will ease the burden on inspections and turnover, reducing the last minute paperwork panic.
- Morale – Trades personnel want to perform well and efficiently. By giving them everything they need, frustration is reduced and morale improves.

Others – Communication, reporting, information visibility, predictability, trust....
The list is way too long for a single slide.



Reference Material – Benefits & ROI



- The CII Performance and Benchmarking Sub-Committee recently released a detailed benefits tool, which categorizes all the improvements that AWP can bring to a project, and group them by implementation type.
- The tool is available to CII Members.
- This Sub-Committee, which is being chaired by O3, is now working to develop a detailed ROI tool for CII member use.
- This will be rolled out by June of this year.



QUESTIONS?



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