

HOW CAN WE IMPROVE THE PERFORMANCE OF CAPITAL PROJECTS? WHY DO SO MANY OF OUR PROJECTS EXPERIENCE OVERRUNS, DESPITE OUR BEST EFFORTS? WHAT CAN WE DO TO MITIGATE THE RISK OF PROJECTS?

These are all questions that owners and contractors have been asking themselves for decades, but productivity and performance levels in the engineering and construction industry still lag behind other sectors by a considerable margin. What is responsible?

THE HUMAN FACTOR

In its report on improving project outcomes and predictability, the Construction Industry Institute (CII) identified the human factor as the most significant component of project success.

The human factor means not only the people working on a project, but also the organizational culture and the incentive structure built around projects. If not properly managed and aligned with organizational strategy, the human factor can have a negative effect on projects.

Some of the causes of low predictability and project ineffectiveness are directly attributable to the human factor:

- Insufficient effort or attention
- Inadequate experience and expertise
- Optimism bias
- · Poor transparency and accountability Now what? Realizing the human factor

is critical to project success is a first step, but how can you ensure the human factor is improving project predictability and performance rather than hindering?

INCENTIVIZATION

While the human factor is notoriously difficult to change, improvement can be achieved through properly aligning incentives with organizational needs and goals.

Most organizations utilize an outcome-centric performance measurement - that is, the project team is measured based upon the deviation from cost and schedule at the end of the project, i.e. if it is close to planned budget and schedule at completion (good) or far away (bad).

But this is too simplistic, and it inadvertently sends the wrong message. It contributes to optimism bias, while limiting transparency and accountability.

To illustrate, imagine a project team discovers an issue that will likely cause a 20 percent overrun when the project is 40 percent complete. The team has two

- A) Report the issue to management
- B) Don't report the issue and try to get back on track

CII found most often, project teams will choose Option B out of fear that if they report the issue to management, they will be subject to more scrutiny for the



duration of the project and on future projects. Another reason they choose Option B is that they fall victim to optimism bias, telling themselves that they will be able to right the ship.

And why wouldn't they choose Option B? If team members are measured solely on project outcomes, there is no reason to tell management the bad news early in the project. Nobody is eager to tell their boss bad news, especially when there is disincentive to do so.

Now imagine instead that the project team was measured based on predictability, incentivized to report project outcomes early, AND be as accurate as possible. The project team would be much more likely to choose Option A, leaving management with ample time for course correcting measures – possibly

shifting resources from another project, valuing engineering efforts, renegotiating contracts, using contingency funds, etc. This proactivity, in turn, stands to significantly improve project cost performance across the enterprise, as organizational culture shifts to foster transparent and predictable projects.

THE MISSING LINK

According to KPMG, the missing link in transforming the performance of projects-driven organizations is integrating people, governance, and technology.

"It's not enough to address these components independently — we have to find new ways to make them work together in an integrated fashion ... When these three critical performance drivers work in harmony, the sum can truly be greater than the parts." according to KPMG's Global Construction Survey Report.

But how can integrating technology with your people and governance help improve incentivization and ultimately the performance of your enterprise?

Technology can help you accurately and consistently measure project outcomes. By utilizing a projects performance based software system such as EcoSys, you can go a step further. The software serves as the basis for ensuring all the pillars of predictability are supported across your organization. These pillars encompass well-developed processes for (1) portfolio management, (2) integrated change and risk management, (3) project and contract controls, and (4) performance management, including progress measurement and the "Living Forecast". The software can then synthesize predictability metrics such as Normalized Cost Timeliness (NCT), measuring how timely cost variances are predicted, and Cost Predictability (CP), a metric that combines NCT with overall cost variance. CP ensures both factors are taken into account in one universal metric that can be applied across the enterprise at any level of aggregation.

When teams are scored based on predictability, it becomes much easier to incentivize them based on early identification of issues and accurate forecasting of project outcomes. Another added benefit is the ability to analyze, benchmark and compare project teams based on predictability - knowing which project teams, divisions and regions are delivering the most predictable projects. That provides a catalyst to change the culture in an organization to one that rewards transparency and predictability rather than secrecy.

Even the best project teams face issues that are beyond their control; what matters is how you deal with those issues.

When properly integrated and utilized, technology can help change the culture of an organization, turning the human factor into a competitive advantage. By utilizing the predictability metrics available in software like EcoSys, you can incentivize early identification of issues and help drive better projects (and financial) performance.

>> hexagonppm.com/ecosys >> ecosys.net

Justin Lucas is the Marketing Manager for EcoSys, projects performance software. He is based in Huntsville, AL, USA.