



White Paper 2018-08

How To Measure an Organization's Project Management Maturity level for Large Complex Infrastructure Projects

Following up on our [White Paper 2018-07 'Project Management Maturity level for Large Complex Infrastructure Projects'](#) this White Paper develops the techniques and approaches to be used when attempting to measure the actual maturity level of a project-driven organization.

There is no single maturity level in a large project-driven organization

Measuring the maturity level of large project-driven organizations is fraught with difficulty, in particular because of the following observations based on experience:

- The maturity of the organization can depend on the project office. Even in large, mature and well-established organizations, long-established remote offices can often demonstrate a lower maturity (poor application of processes, limited usage of corporate systems...),
- Very large projects in the organization can demonstrate a different maturity level while influencing a large part of the organization, by setting up their own systems and processes under the pretence of project-specific requirements,
- Very large projects are often executed in Joint-Ventures. These project organizations will only use part of the available systems and processes, use a mix of the different partners' systems and sometimes even develop their own; they might also be located elsewhere. Therefore, the actual maturity level of those project-specific organizations might differ substantially from the mother companies,
- Newly established subsidiaries in new countries will often demonstrate a lower maturity at least temporarily
- Post-merger organizations will often temporarily see a diminution of their maturity level while the systems and processes get merged; in general, all business transitions will temporarily affect the maturity level.

Therefore, the concept of a single maturity level for a very large international organization is of limited validity. There is a 'theoretical maturity level' based on the theoretical development level of the processes, systems, people; it is generally observable at the headquarters. And for each office or project office, there is an 'office maturity level' which can differ. The 'office maturity level' can sometimes be higher but is more frequently lower than the 'theoretical maturity level'.

Therefore, when attempting to measure a maturity level, the context of the measurement must be carefully assessed.

Measuring the 'theoretical maturity level'

We recommend starting by measuring the 'theoretical maturity level'. A benefit of performing this evaluation first is to give as a baseline what are the practices that are intended to be used in the company.

This evaluation takes place at the main office (generally the headquarters, or the location of the historical headquarters or main office). The standard company processes and

systems are used as a basis for the evaluation, as demonstrated by the process and systems owners. Projects that are known to be compliant (generally middle-sized projects) can be used as a basis for actual business records of usage of processes and systems, and

evaluation of competencies of project staff.

During this evaluation it is important to interview executive management and process owners as to their view of the current processes, systems and competency levels; and as to their plans for the short to middle term future in terms of changes or enhancements.

The evaluation process should also include interviews of actual project practitioners to evaluate the actual implementation of processes and systems.

Measuring a project management maturity level thus requires some dedication. It is absolutely essential to measure the actual maturity level of practice using some actual project data, and therefore, to be physically present in the target office for the evaluation process.

Measuring the 'office maturity level'

The diffusion of the theoretical maturity level to remote offices or very large project offices should not be taken for granted. Therefore, measurement of an 'office maturity level' require also a substantial involvement including presence in the actual office. Although a theoretical baseline will be available as a reference point, evaluation of each element is still required using actual project data where possible.

a consistent maturity level is required across several phases including estimating, tendering, and project definition build-up.

The art of measuring a Project Management Maturity Level

Measuring on the 3 dimensions of People (Soft Power), Processes and Systems

A maturity level must be appreciated on the 3 dimensions commonly used by Project Value Delivery: People (Soft Power), Processes and Systems. An alignment of those three components is essential because:

- Systems and processes cannot be implemented by people who do not understand them or have the necessary competency level,
- In Large, Complex Projects specifically, well-conceived Information Systems are mandatory to achieve maturity levels higher than 3 and to handle the volume of data related to those projects; they need to be aligned with the processes and handled by competent personnel.

The distinction is particularly important for remote offices which might officially use standard systems and processes, but not in reality due to deployment or basic technical issues; or who suffer from the competency level of local hires. People, processes and systems maturity must be consistent; otherwise the least mature is driving the overall maturity level.

Found maturity evidence on business records

As in any audit situation it is essential to found one's opinion on the actual business records or investigation on the manner with which systems and processes are actually being used, and not just the theoretical situation.

For higher maturity levels particularly, a good understanding of the Information Systems mapping and flow of information throughout project execution is essential. Higher maturity levels are characterized by the capability of the organization to optimize its operations across traditional departmental borders. This capability must be measured.

Consider the full project lifecycle

The maturity level of a project-driven organization must be measured on the full project lifecycle starting from project definition (or tendering for Contractors) up to project completion and hand-over. Should one of these phases be weaker, significant consequences will be incurred on the final result of the projects. Therefore, a consistent maturity level is required across several phases including estimating, tendering, and project definition build-up.

Include project governance in the maturity measurement

Project governance is present as a specific item in our Project Management Maturity Model. It is actually essential for higher degrees of maturity that project governance be at least as mature as the project execution side itself. It is a decisive factor for project success in terms of delivering the expected value. A specific focus needs to be put on the review of project governance maturity, as an organization cannot be more mature in terms of project management than its project governance.

Conclusion

Measuring the Project Management Maturity Level of an organization is complicated by the fact that it might not be identical in all locations and by the fact that it requires a comprehensive review of the organizations capabilities. Still it is a useful indicator of overall efforts to be performed by the organization as well as for specific issues faced in some project offices. In that sense, the exercise is very beneficial to organizations inasmuch that it sometimes uncovers blind spots that might be extremely prejudicial to business performance. Inconsistencies in maturity levels across offices is also a key indicator of efforts to be made internally to improve consistency of delivery.

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