

# What Makes a Project / Commissioning Successful?



*Does an Experienced  
project team make a  
project successful?*

Mark Tranfield  
**OCS Group**  
Managing Director (Singapore)



## What Makes a Project / Commissioning Successful?



I have been told on many occasions that, “an experienced project team is what will make a project successful”.

Is this comment correct?

What constitutes a successful project?

- Does a successful project mean that the rig / asset will be fully functional and operational as designed, or
- Does it mean that the project is delivered on time, or
- Does it mean both the above, or something else?

Well, it depends on what you mean by a successful project and the object of the company concerned.

I have been involved in many projects and come across various objectives what a company wants, i.e. a project not to be finished before a certain date, a project that is fully operational but not necessary on time, and of course the most common a fully operational, functional asset delivered on time.

Projects can be, more bias to meeting schedule than quality, or may be more bias to quality, a lot depending on contract terms and schedule for operations. Each party may have a separate objective, and items like penalties for late completion will have an impact, or even cancelation of contracts. If the rig has no contract then delivery schedule may not be so important, and time can be spent on quality.

In saying the above in most cases, it would be fair to say a project to be delivered on schedule and fully functional, operational, and delivered on schedule, so let's make this assumption.

### Fully Functional



### Fully Operational



### Delivered on Schedule



## Does an Experienced Project Team make for a Successful Project?



The short answer is NO, it is will not guarantee a successful project to achieve the criteria just stated.

The assumption here is for a new build rig or asset, while an upgrade, reactivation have similar aspects there are quite a few key differences and a different approach will be required.

Let's list a few key items for consideration for a new construction.

1. Engineering
2. Procurement
3. Planning
4. Construction
5. Equipment Installation
6. Mechanical / Electrical Completion
7. Commissioning
8. Is the asset to be constructed a new generation, new technology or a number 1 design, or has there been several similar models built previously?
9. Team selection
10. When are the Project team members to be involvement, at what stage and what priority?
11. Experience of the company and what processes and procedures are in place.
12. Shipyard Experience
13. Does the rig have a contract or not?

As can be seen from the list, a fair amount of consideration required.

To date I have been involved in well over 100 projects from this being the from the Operator acceptance/project team (Shell, BP, Chevron etc.), or the drilling contractor (Transocean, Seadrill, Ensco etc.) and at all different stages, from Front End Engineer Design (FEED) to taking the asset into initial operations. The starting stage will generally depend on item 8, in the previous list.

It not possible to go through all the scenarios listed as this would be an extensive manual, however we can generally view some of items that will greatly enhance a project success, and list some mistakes I have seen repeatedly.



## **Project Team Selection**



It's fair to say that every company / party, will look at obtaining the best p their purpose.

The project teams members may join the project at various stages but normally at the time of construction, and some later during construction, if a new design, No.1 maybe earlier during aspects of engineering.

Project Teams are pretty much made up of standardized positions, i.e., project manager, commissioning manager, commissioning engineers, technicians, scheduler/planner, and admin.

The project team in all positions are usually busy just looking after their own scope of work, i.e., the PM is dealing with project contractual issues, budget, meetings etc. The leads are busy approving/writing procedures, planning for the project, for the next commissioning system, inspecting, commissioning and have meetings, The actual QA team are usually out in the field most of the day witnessing the inspections with little time to plan.

The project activities are normally managed and scheduled by the yard, except if the owner is managing OFE (owner furnished Equipment).

So, everyone is busy doing their job. The commissioning Manager is planning all the commissioning activities, meeting with various parties and planning the commissioning schedules and maybe also involved in some commissioning.

The scheduler inputting information what he is given from the yard, or project team if a company is conducting their own commissioning which is usually not the case these days as most projects, or the majority of the project will be turnkey.

There is something missing in most cases – someone to manage the actual project planning and tie things together, someone not busy with other items as stated above.

Let's look at a simple analogy that everyone understands.

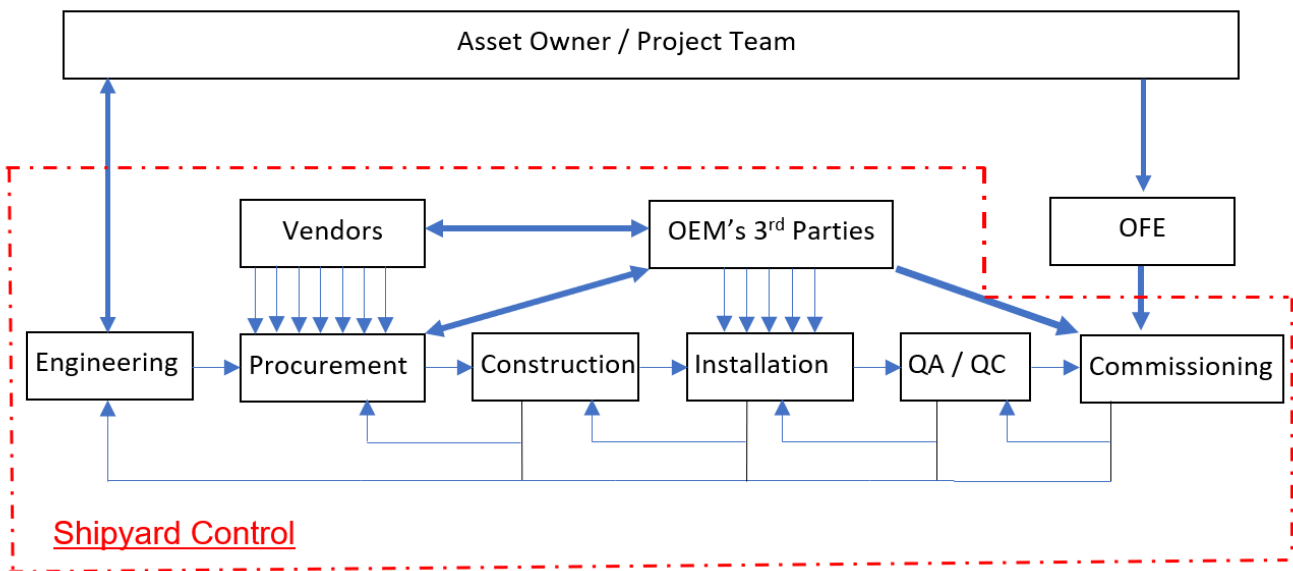
### **A project is only as strong as the weakest link.**

The diagram below shows the complexity of information flow and links between parties, collating this is almost impossible and many times there is no record or communications between parties



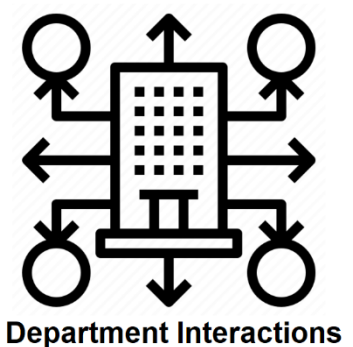
While the project team will interface with the shipyard and be involved in the various inspection and activities they will not be involved in the internal communications between the shipyard and vendors etc.

In addition to this in many cases the yard will not want all information to the asset owner known for many reasons. For the foresaid reason it is essential for the yard and project team to have good relations and free information flow. Mistake for project teams to start fighting with the yard as little cooperation will be received.



Shipyards are very segmented as shown above and work in their own department without a great deal of interaction between other departments except for handover. In most cases the project team is usually governed by the yard call out system, i.e. (remembering the project is likely to be turnkey in most cases)

Engineering Department, Procurement Department, Construction Department, QA Department and Commissioning Department, vendors etc., the number of times one department does not communicate to the other party or requires the preceding department to rectify work goes into the hundreds or even thousands of times, with each occurrence possibly causing a delay.



No matter how strong the project team is, a breakdown in one departments/groups affects the following department/group and hence the schedule, no matter the strength of the project team. There requires to be systems put in place to minimize any delays and breakdowns in information (Links) across the project as they are all interconnected for schedule.

Many projects miss this process of the integration between departments.

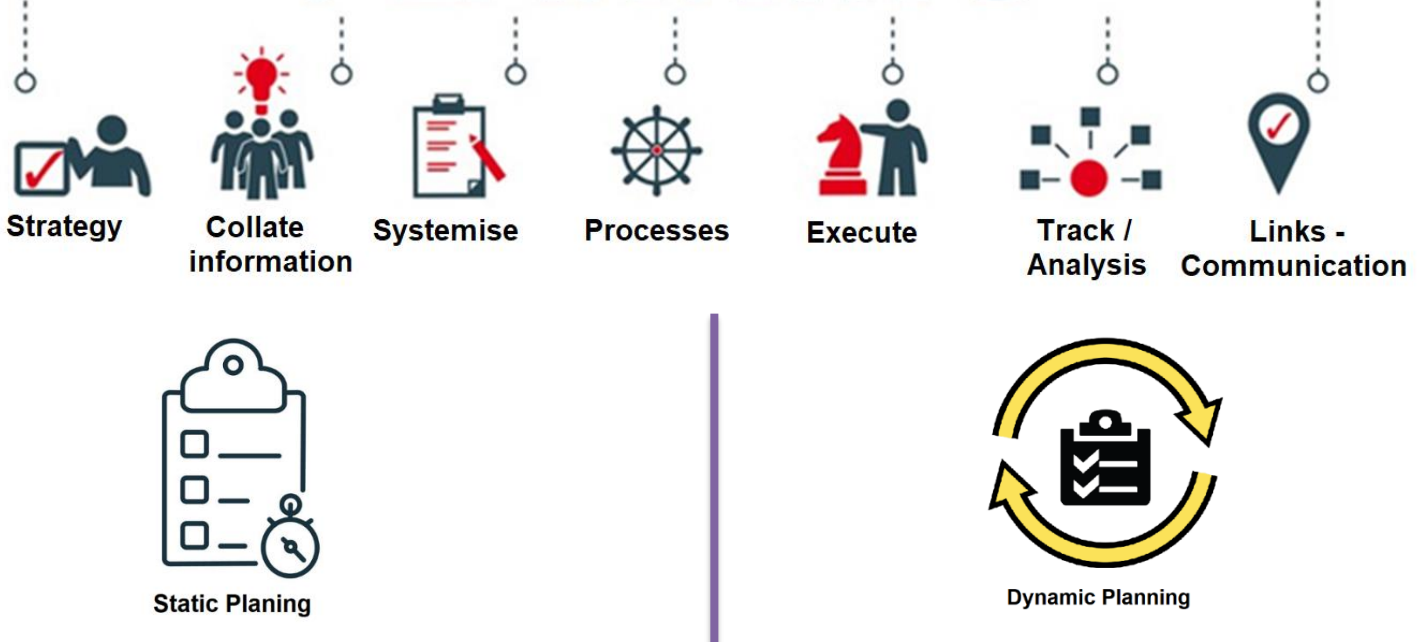
Usually, the various breakdowns maybe small, however each breakdown may mean a delay, of maybe only an hour, less than a day, day or more. Delays will not show on a schedule until they accumulate and too late to recuperate the lost time, i.e. the project has dropped behind schedule.

There requires to be a methodology (process) put in place and a person or persons for this part of the project to join the dots better this is required especially for item 3 below. Various management and planning processes required for complex projects are listed below.

### Project Execution Planning

1. Static Planning – normally completed on all projects
2. Management Software Tracking system – not used by many companies except a basic system in excel is adopted and schedule.
3. Dynamic Planning – seldom used.

# PLANNING





## 1. Static Planning



Static planning is usually carried out by all projects – i.e. develop schedule, procedures (Engineering, procurement, inspections, schedule, tracking, manpower etc. etc.),

This is information that is available for planning and used at the beginning of a project. It is Static as the information does not change once development.

This planning is necessary but in most cases greatly under planned, I have previously discussed this in other articles and detailed planning required, but I have really seen put into action.

## 2. Management Software System

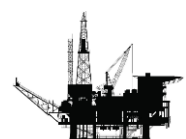
Rarely have I seen a company use this system on drilling rigs but is used on most FPSO projects and in the process industry.

When adopted such planning can shaved months off a project and can prevent costly expenses – for example in a project for Transocean we advised the project manager that the heavy lift was two months early compared to the rigs status. After several meetings with the shipyard to verify status information from their schedule and more realistic information used from the software, delivery date was delayed and the heavy lift was able to delay for a further 6 weeks, fortunately.

This system will track everything in a project down to the cable installation, valves and piping, progress and inspections, testing, through to mechanical completion and commissioning plus all pertinent information on the project, i.e., inspection history and status, construction, punch lists, technical queries, etc. etc. The INFORMATION in this system is exceptionally powerful.

This is an exceptionally detailed system, well planned process and is required to manage a schedule closer to that what is required to maintain a “realistic schedule”, i.e. what needed to be completed and made visible to see the true status of a system.

Most projects will use a scheduler which is only of a hierarchy system and not detailed enough for proper management, plus an excel sheet which maintains a basic status. Projects greatly rely on the yard information which in many cases is somewhat over estimated.



### 3 Dynamic Planning

This is the area where the inter-department Breakdowns and information flow often occurs. These are items that cannot be pre-planned, often no records exist, and they happen during a project for various reasons, i.e., why it's called Dynamic as it changes on a daily basis.

The Dynamic planning is the process developed for identifying issues before, or as they occur which may affect the project schedule. This can be achieved in many cases. These processes are both short and longer range lookaheads and requires a great deal involvement by various parties and information digging and is basically a full-time position to manage to dig out the information.

In many project teams there is often no one used for this, or even the position has not been identified.

Mainly for the above reasons a good project team is unlikely to ensure a project will complete on schedule. There is an exception here and that is if there are several rigs built of the same design, then all the lessons on the previous project may have been captured on the later projects, however but no means certain.

The more complex a project, a new design, number 1 build, new technology usually must go through the teething problems unless additional planning is required to resolve the information breakdowns. If the correct planning is conducted minimum delays can be achieved. It is essential that this Dynamic process by put in use.



Finding Issues - Links



### Lessons Learned



The number of projects that I have witnessed that are conducted differently, pending the project manager and project team, even within the same company.

After a project there are obviously lessons learned which should be recorded and developed into a project strategy, however often a new project management or team may start the process a different way losing any lessons learned from previous projects.

Improvements are made by building upon previous projects lessons learned and if not, improvement in overall project strategy will be minimal or nonexistent.

### Conclusion

Detailed Planning, Systems Strategies & Information is essential.





## Our Main Services

### Project Management



### Commissioning



### Rig Inspections



### Ex inspection & Maintenance



### Technical Training



### Technical Software



### Engineering Audit and Inspections



2 Jurong East Street 21 | Unit 04-27 IMM Building | Singapore 609601

Tel +65 6896 3343 | Mobile +65 90888844 Fax +65 6896 0400

[mark.tranfield@ocsgroup.com](mailto:mark.tranfield@ocsgroup.com)

[www.ocsgroup.com](http://www.ocsgroup.com)

