

PROGRAMME LIFECYCLE							
STRATEGIC PHASE				DELIVERY PHASE			
INITIATION STAGE	DEFINITION STAGE	ESTABLISHMENT STAGE	MANAGEMENT STAGE	DELIVERY STAGE			CLOSE
PROGRAMME OBJECTIVES	PROGRAMME SCOPING	PROGRAMME PRIORITISATION	PROGRAMME OPTIMISATION	FEASIBILITY	DESIGN	IMPLEMENTATION	CLOSEOUT STAGE
				PDR1			



Applying targeted programme governance drives gateway consistency

By the Introduction of a Projects Definition Ratings Index (PDR1).

Why Do We Need PDR1?

When developing a large scale capital programme the projects within it, companies usually introduce a standard WBS and project lifecycle. The more consistency we develop within a programme the more predictability forms around the outcomes. Therefore points where subjectivity emerges have to be reduced, One of these points of subjectivity is the lifecycle gateways. PDR1 is a methodology that creates consistency around the content and quality of information provided at each of a project lifecycle gateways and how the specific information should be measured.

What is PDR1?

The PDR1 is a methodology that assesses a project's maturity at key lifecycle intervals i.e. It highlights quickly whether the project has made enough advancement to move to the next stage. Using a PDR1 approach removes preferential engineering and subjective decisions at the lifecycle gate and allows the formation of programme level consistency.

The PDR1 creates an approach of maturity assessment for the project team to follow in each stage, it also sets the rules for the steering boards/reviewing panels at the intervention points. The design of the PDR1 is unique to each portfolio of work, the individual programme within the portfolio, and the project types.

Using a PDR1 approach allows for:

1. Benchmarking all project types on the same basis.
2. The removal of subjective assessment on the project's maturity.
3. A programme wide consistency of approach to the projects.

There are many deliverables and work packages needed to bring each project to fruition. The PDR1 is an approach that forces consistency into how and when the work packages and deliverables are produced and what is the standard of information required at that point.

The History of PDR1

PDR1 was originally developed by Construction Industry Institute based in Austin Texas and is widely used throughout engineering and construction, in various guises. From a Programme perspective handling many projects, the development consistent processes and standard methods of measurement are essential.

Where Does PDR1 Fit into the Overall Programme Cycle?

PDR1 is used in the delivery phase of the overall programme lifecycle, the methodology is specifically tailored for individual project gateways where it allows more effective health checks to be carried out.



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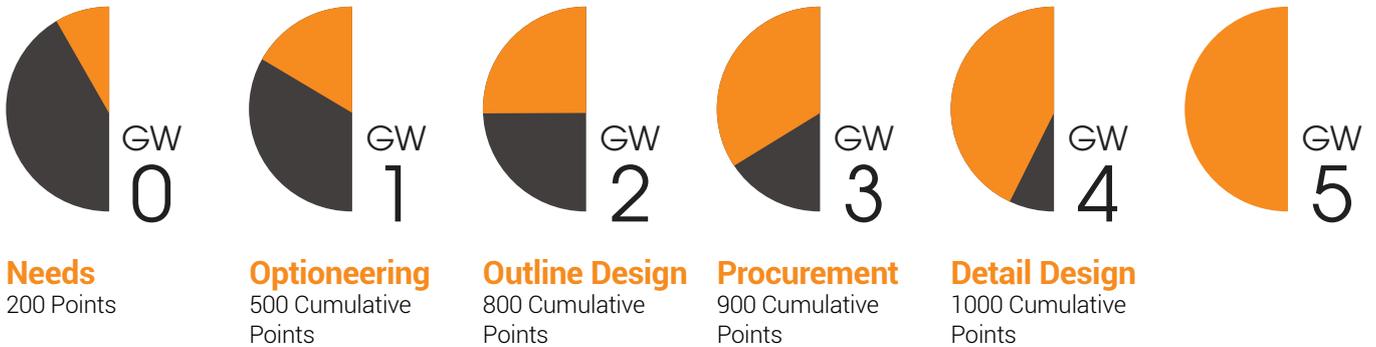
How Does PDRI work?

Task Identification

The way PDRI works is very simple; the first task is to identify the key standard deliverables in each of the project's design workstages that assist in confirming the maturity of scope. These tasks are allocated maturity points and the points are collected over the design stages of the project lifecycle.

PDRI Scoring

The PDRI score for each project totals at 1000, but the value used for each project lifecycle stage is dependent on the programme and the project type. The project gathers maturity points as it moves through the pre-defined lifecycle.



All Project Partners use PDRI

From a programme management perspective, the PDRI process should be used throughout the design lifecycle and the various value transition points. This maintains consistency even when the delivery responsibility changes to a different team / partner.

Typical Mid-Size Project Lifecycle				
Entry Gate	Exit Gate	Lifecycle Stage	Score	Typical Responsible partner
GW 0	GW 1	Needs	200	Internal Design team
GW 1	GW 2	Optioneering	500	
Value Transition Point				
GW 2	GW 3	Outline Design	800	External Design
GW 3	GW 4	Tender Package	900	
Value Transition Point				
GW 4	GW 5	Detail Design (Usually D & B Partner)	1000	External Design and Build Contractor

Quantifying Maturity values

All documents and information required for the PDRI are given a maturity rating. If the document is developed in more than one of the project lifecycle stages it will have a different required maturity in each of the stages, it then only reaches level 5 maturity in the later stages of the lifecycle.

This scoring process is known as rules "Rules of Credit" (ROC) and is very widely used in engineering and construction to measure all types of progress. It also provides consistent benchmarking. It's use in PDRI is to target the key elements which confirm a project's maturity.

Criteria	Not Applicable	Not started	Initiate	Step 1	Step 2	Step 3	Completion
Maturity	0	0	1	2	3	4	5
Task	Work has not started	Work has not started	Work has been initiated	Complete preliminary documentation	Final draft of working documentation	Check and approve working documentation	Issue Documents, complete.
%	0%	0%	5%	40%	80%	95%	100%

Once the project commences the progress of each of the key deliverables is then measured to the preset PDRI maturity values.

Health and Safety	
D1	HAZOP
D2	Hazard Classification
D3	Safety Documentation
D4	Security
D5	ES&H safety plan
D6	Emergency Response Processes

Management / Engineering Work Packages

Each set of key deliverables is grouped into management work packages. These management work packages will be agreed at a programme level.

Table 1 Example of some Health and Safety Deliverables

A weighting is then applied to each deliverable and a level of maturity for each design work stage is agreed. For each lifecycle gate there is a target score set for the overall gate, and for the management stream within it, allowing early identification of problem areas.

By clearly identifying all the deliverables that can judge a project's maturity, it ensures that when a project is taken to a gate for review, the strengths and weaknesses are clearly visible and the performance can be related back to specific parts of the project team. This allows the gateway review team to help achieve a more constructive output and removes potential subjectivity. It also allows the project team to self-assess itself before it goes to the gate increasing confidence of success.

Score for Management Work Packs	Needs	Optioneering		Outline Design		Detail Design		Key Deliverables
	In Stage	In Stage	Cumulative	In Stage	Cumulative	In Stage	Cumulative	
Project Management	40	65	105	50	155	10	165	15
Procurement	15	15	30	45	75	5	80	5
Engineering	40	110	150	100	250	20	270	30
Commissioning	5	10	15	20	35	10	45	5
Health and Safety	10	10	20	20	40	20	60	5
Estimating	15	15	30	60	90	5	95	5
Cost Management	15	15	30	15	45	10	55	5
Planning	20	20	40	50	90	15	105	10
Third Party Management	40	40	80	40	120	5	125	5
Total	200	300	500	400	900	100	1000	85

If a project fails to reach the target score at the gate it does not mean the project is halted. It allows for options and discussions such as:

- Whether to accommodate the lack of detail in the project or programme risk registers,
- Is there enough float in the schedule which will allow for time for a resubmission
- Have we underspent to-date, allowing for recovering the deliverables in the next stage
- Is their major issues with the project

The scoring process as it is cumulative can selfcorrect as the Project moves through the lifecycle

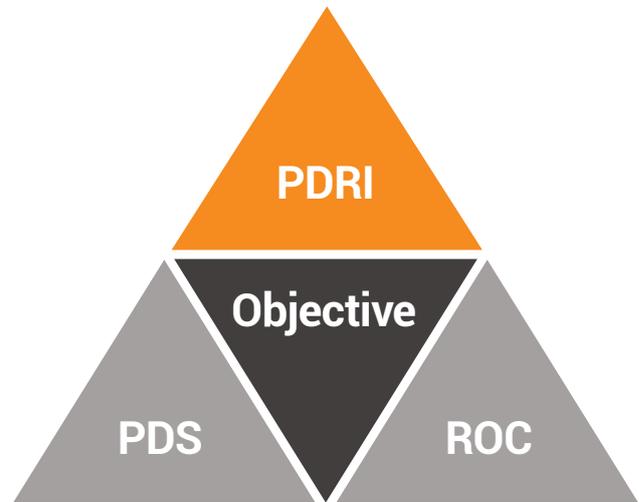
Key Benefits

- Simple to use
- Consistent information is provides at gateway reviews
- Creates intense focus on being readfor gateways
- Reduces subjectivity at gateways
- Clearly identifies management problem areas
- Allows all parties to fully understand their role in delivery

PDRI works more effectively with other processes.

A PDRI approach has far greater impact and improved adoption if it's used in conjunction with the following two items:

- Project Delivery System
- ROC "Rules of Credit" for progress measure"



By identifying known key deliverables during each of the projects design stages that improve the overall project definition, including setting the level of information required that is proportional to that stage, the risk of project not meeting its overall objective is reduced considerably. Therefore the PDRI in conjunction with a Project Delivery System and Rules of Credit form an effective and consistent Programme wide governance through a specific project stage.

The PDS (Project Delivery System) sets the delivery framework, the ROC (Rules of Credit) set the measurement rules. The PDRI (Project Definition Ratings Index) using a weighted checklist format provides an approach for measuring the completeness of the definition of the project scope. It effectively applies and understanding to how the deliverables within the stage provide surety on the project having a successful outcome.



Contact Information

Paul Taylor

Technical Director of Programme Management

t: 44 (0)1925 845 131

m: 44 (0)7595 448 772

e: Paul.Taylor@stantec.com

Contact Us

Stantec
Dominion House, Temple Court,
Warrington, WA3 6GD

Tel: 01925 845000

www.stantec.com

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