“What makes a good plan and how do you know you’ve got one?”

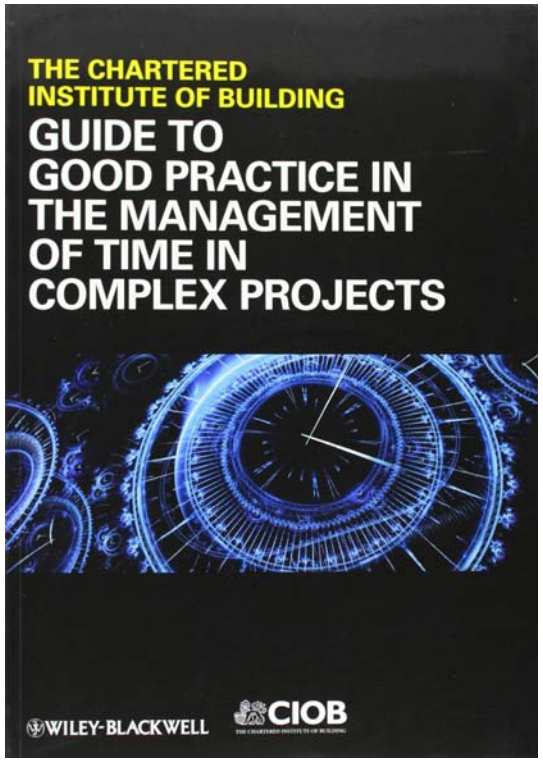
Paul Kidston

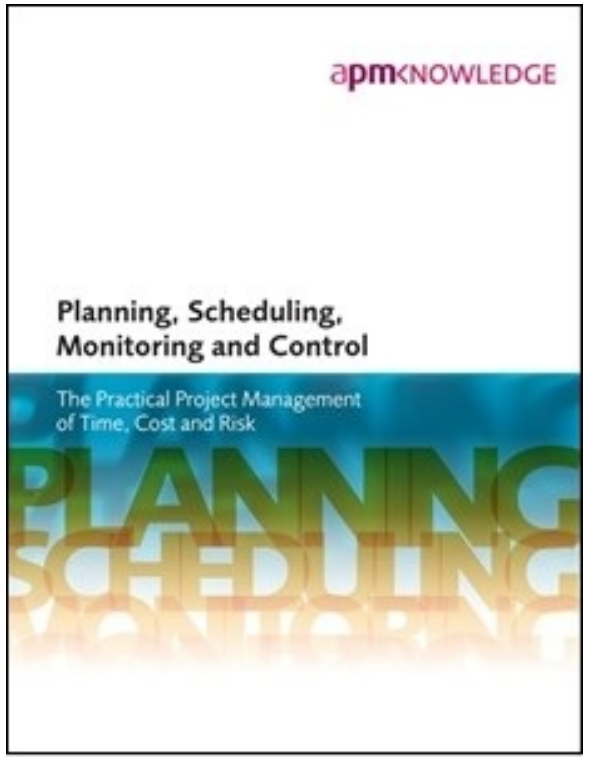
16th November2017

Meeting national needs through people and innovation

Paul Kidston FCIOB

Paul Kidston FCIOB, MAPM





"A learning experience is one of those things that say, "You know that thing you just did, Don't do that""

- Douglas Adams

What makes a good plan and how do you know you've got one?

What is Planning…and Project Control

What is it for?

What MUST you do to do it?

How do you know if you're doing it well?

What is Planning?

"Planning is an unnatural science; it is much more fun to go and do something…

And the nice thing about not planning is that failure comes as a complete surprise rather than being preceded by months of worry and depression."

Sir John Harvey Jones

What is Planning?

- Definition of Planning…the management of:
  - Scope
  - Cost
  - **Time/output**
  - **Resource**
  - Risk
  - Change
  - Reporting

What is Planning for?

What does good planning do?

- Decision making tool
- Winning Work
- **Directs effort: Communicates method, sequenc**
- **Determines resources**
- **Manages dependencies**
- Forecasts – early warning (CPA)
- Forecasting – e.g. Cash flow
- Assurance…or Escalation

But only where there is active participation…

"Failing to Plan is Planning to Fail" - Alan Lakelin

What is Control?

"The trouble with plans was that they tended to be expressions of hope. So plans only reveal what people wish for.

The only way of finding out what they will actually do is by watching them. Then you would know what they might do in the future – because most people did what they have always done."

-Mma Ramotswe paraphrased from Alexander McCall Smith.

What is Planning…and Control?

- Definition of Project Controls…the management of:
  - Scope
  - Cost
  - Time/output
  - Resource
  - Risk
  - Change
  - Reporting

"Project Control is the creation of cost and time plans, the setting of targets and checking achievement of those targets. It can forecast outcomes, and promote decision making to improve the outcome of the project."

“You can’t manage what you don’t measure” – Peter Drucker

What is it for?

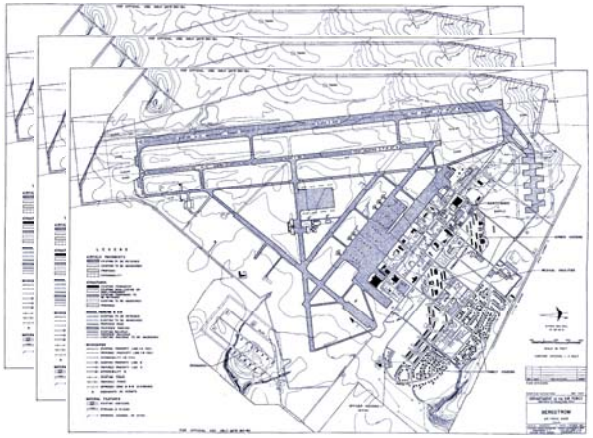
What does good project controls do?

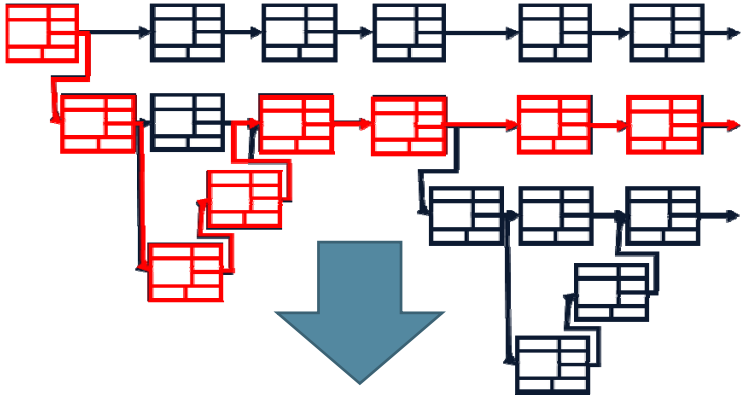
- Exerts Control
- Holds to account
- Informs decisions
- Drives improvement
- Forecasts – early warning (EVA…v CPA)
- Forecasting – e.g. Cash flow
- Assurance…or Escalation

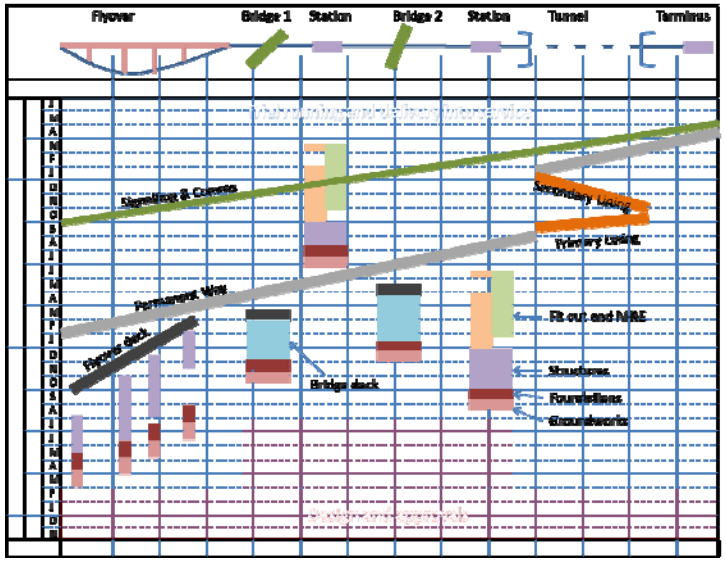
"Project Control is a Catalyst for Action."

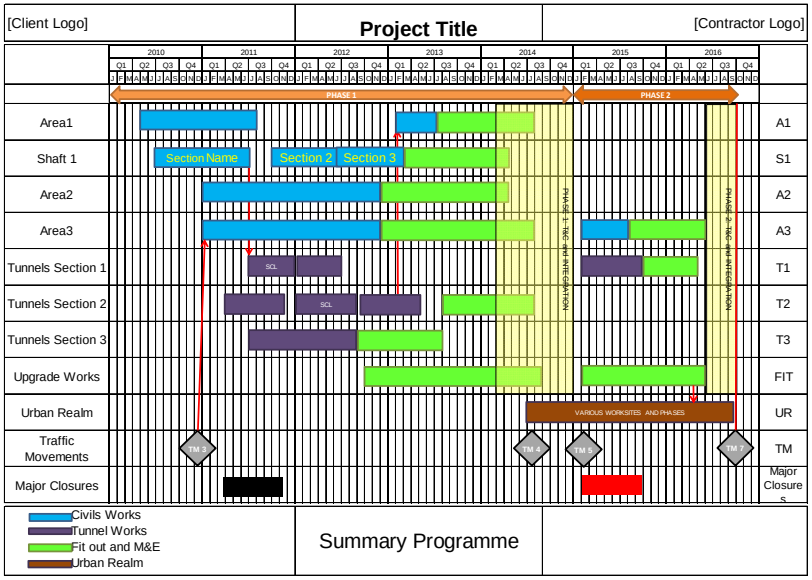
But only where there is active participation…

Planning: What must you do?









Planning: What must you do?

Look at drawings/specs/requirements etc.

Identify tasks/durations/ working periods

Sequence & method

Communicate the plan…by best means possible

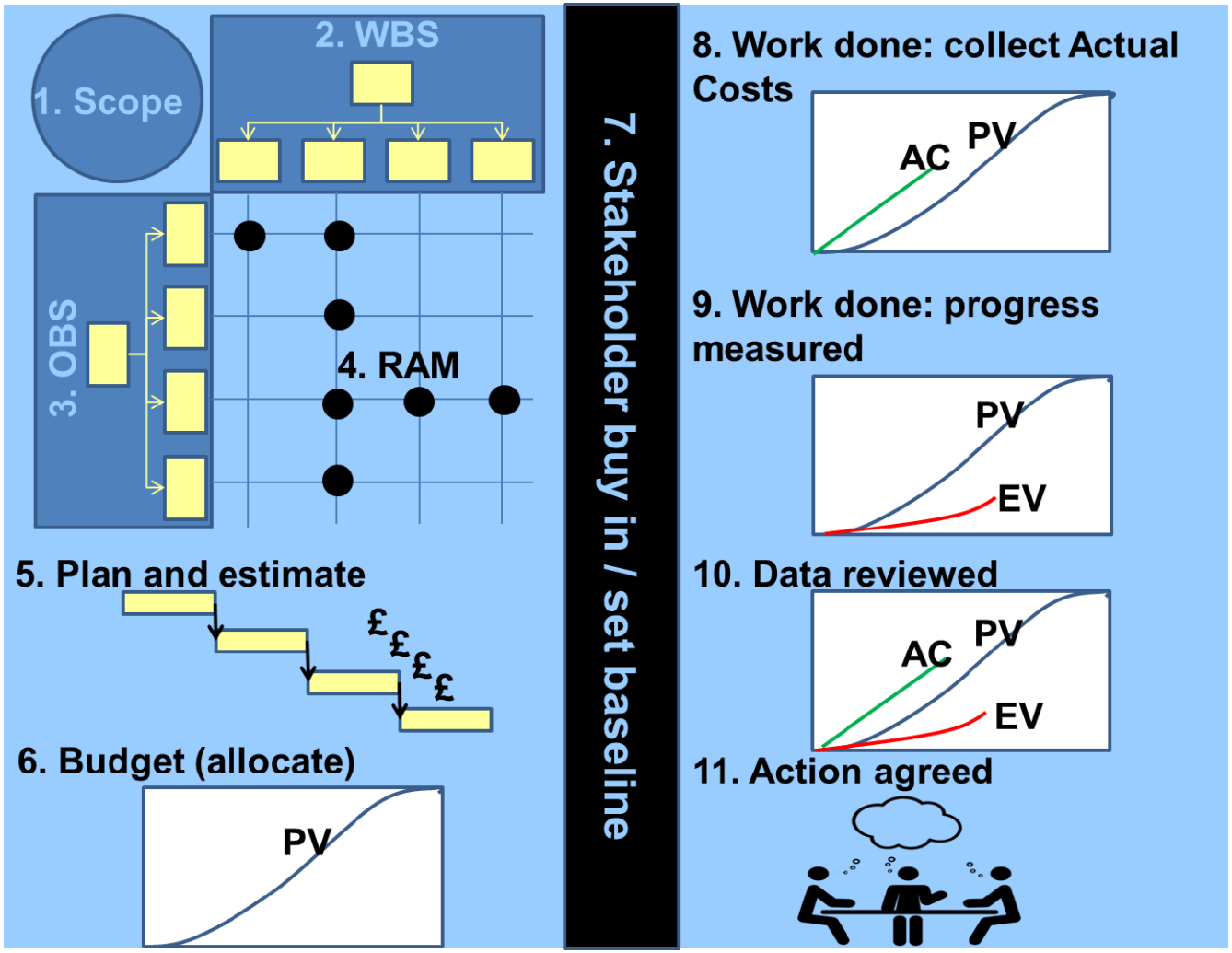
Then

Method of measuring progress

Interpreting, forecasting, analysis (CPA, EVA)

Corrective action

Control: What must you do?

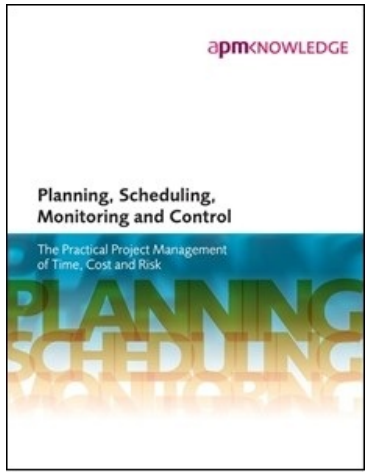


How do you know if you're doing it well?

COSTAIN

"Fundamental checks of the schedule should confirm that the full project scope has been included; that the schedule describes a practical methodology for delivering the work; and that all contract deliverables, constraints, key dates and milestones are included."

scope
methodology
contract deliverables constraints key dates



How do you know if you're doing it well?

The APM book talks about

- Planning Checks (Scope, Admin)
- Scheduling Checks (like DCMA)

There are also:

- Engineering Checks (Method, duration, resources, sequence)
- Process Checks (Procedures, tools)

Planning Checks

Admin issues

Management Issues

Contract Requirements

Scope captured

Associated Documents

Float (Strategic)

Communication

Scheduling Checks

1. Logic	5% is acceptable??
2. Leads	}@ all densities??
3. Lags	} compromises showing intent??
4. Relationships (FS)	90% acceptable
5. Hard Constraints	5% is acceptable??
6. High Float	A good thing?/ Warning!
7. Negative Float	A fact?/ Warning!

Scheduling Checks

8. High Durations	?Density/Rolling Wave Planning
9. Invalid Dates	✓
10. Resources	✓...
11. Missed Activities	Performance
12. Critical Path Test	✓?
13. CPLI	?
14. BEI	Performance

What is an activity?

Engineering Checks

Method

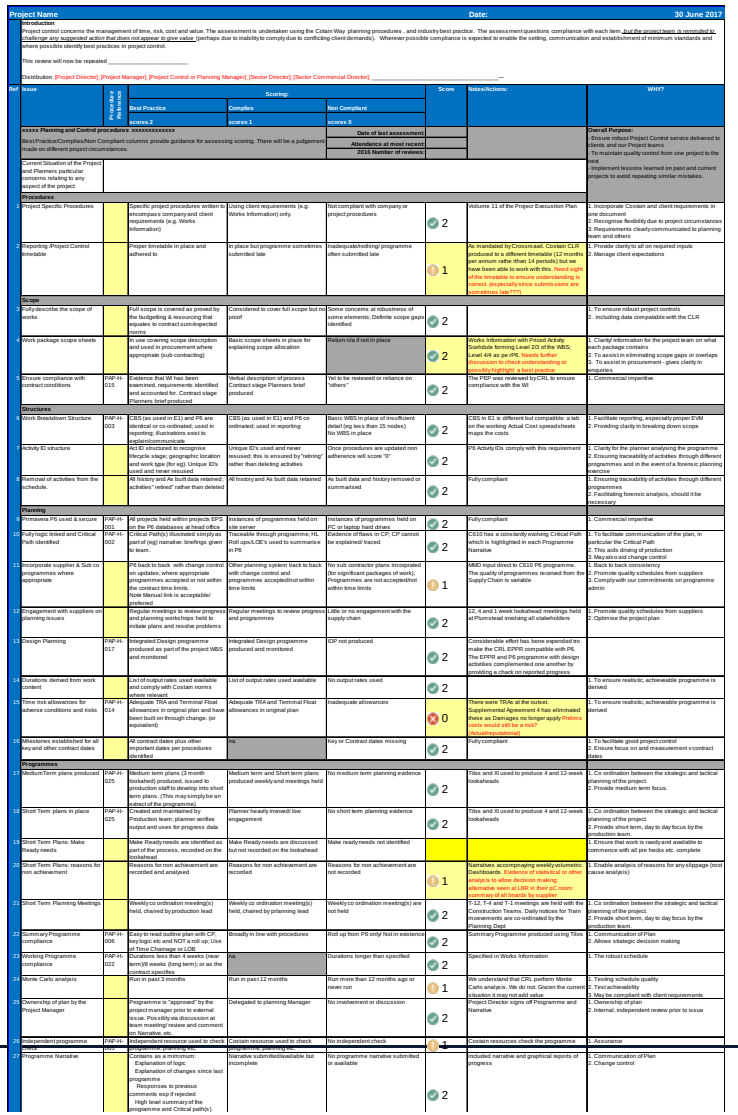
Sequence

Resources

Safety

Risk

Process Checks



Project Name							Date:		30 June 2017
	Introduction Project control concerns the management of time, risk, cost and value. The assessment is undertaken using the Cotain Way planning procedures , and industry best practice. The assessment questions compliance with each item *but the project team is reminded to challenge any suggested action that does not appear to give value* (perhaps due to inability to comply due to conflicting client demands). Wherever possible compliance is expected to enable the setting, communication and establishment of minimum standards and where possible identify best practices in project control. This review will now be repeated _____ Distribution: [Project Director], [Project Manager], [Project Control or Planning Manager], [Sector Director], [Sector Commercial Director] _____ --								
Ref	Issue	Protection Procedure	Scoring: Best Practice scores 2	Complies scores 1	Non Compliant scores 0	Score	Notes/Actions:	WHY?	
	xxxxx Planning and Control procedures xxxxxxxxxxxxx Best Practice/Complies/Non Compliant columns provide guidance for assessing scoring. There will be a judgement made on different project circumstances. Current Situation of the Project and Planners particular concerns relating to any aspect of the project.				Date of last assessment: Attendance at most recent: 2016 Number of reviews:			Overall Purpose: --Ensure robust Project Control service delivered to clients and our Project teams --To maintain quality control from one project to the next --Implement lessons learned on past and current projects to avoid repeating similar mistakes.	
	Procedures								
1	Project Specific Procedures		Specific project procedures written to encompass a company and client requirements (e.g. Works Information)	Using client requirements (e.g. Works Information) only	Not compliant with company or project procedures	2	Volume 11 of the Project Execution Plan	1. Incorporate Costain and client requirements in one document 2. Recognise flexibility due to project circumstances 3. Requirements clearly communicated to planning team and others	
2	Reporting /Project Control timetable		Proper timetable in place and adhered to	In place but programme sometimes submitted late	Inadequate/nothing/ programme often submitted late	1	As mandated by Crossrail. Cosstain CLR produced to a different timetable (12 months per annum rather than 14 periods) but we have been able to work with this. Need sight of the timetable to ensure understanding is correct. (especially since submissions are sometimes late???)	1. Provide clarity to all on required inputs 2. Manage client expectations	
	Scope								
3	Fully describe the scope of works		Full scope is covered as proved by the budgeting & resourcing that equates to contract sum/expected income	Considered to cover full scope but not proof	Some concerns at robustness of some elements; Definite scope gaps identified	2		1. To ensure robust project controls 2. including data compatable with the CLR	
4	Work package scope sheets		In use covering scope description and used in procurement where appropriate (sub contracting)	Basic scope sheets in place for explaining scope allocation	Return n/a if not in place	2	Works Information with Priced Activity Sorehdule forming Level 2/3 of the WBS; Level 4/4 as pe rP6. Needs further discussion to check understanding or possibly highlight; a best practice	1. Clarity/ information for the project team on what each package contains 2. To assist in eliminating scope gaps or overlaps 3. To assist in procurement - gives clarity in enquiries	
5	Ensure compliance with contract conditions	PAP-Hi-015	Evidence that WI has been examined, requirements identified and accounted for. Contract stage Planners brief produced	Verbal description of process Contract stage Planners brief produced	Yet to be reviewed or reliance on "others"	2	The PEP was reviewed by CRL to ensure compliance with the WI	1. Commercial imperitive	
	Structures								
6	Work Breakdown Structure	PAP-Hi-003	CBS (as used in E1) and P6 are identical or co-ordinated; used in reporting; illustrations exist to explain/communicate	CBS (as used in E1) and P6 co ordinated; used in reporting	Basic WBS in place of insufficient detail (eg les s than 15 nodes) No WBS in place	2	CBS in E1 is different but compatible: a tab on the working Actual Cost spreadsheets maps the costs	1. Facilitate reporting, especially proper EVM 2. Providing clarity in breaking down scope	
7	Activity ID structure		Act ID structured to recognise lifecycle stage; geographic location and work type (for eg). Unique ID's used and never reissued	Unique ID's used and never reissued; this is ensured by "retiring" rather than deleting activities	Once procedures are updated non adherence will score "0"	2	P6 Activity IDs comply with this requirement	1. Clarity for the planner analysing the programme 2. Ensuring traceability of activities through different programmes and in the event of a forensic planning exercise	
8	Removal of activities from the schedule.		All history and As built data retained; activities" retired" rather than deleted	All history and As built data retained	As built data and history removed or summarised	2	Fully compliant	1. Ensuring traceability of activities through different programmes 2. Facilitating forensic analysis, should it be necessary	
	Planning								
9	Primavera P6 used & secure	PAP-Hi-001	All projects held within projects EPS on the P6 databases, at head office	Instances of programmes held on site server	Instances of programmes held on PC or laptop hard drives	2	Fully compliant	1. Commercial imperitive	
10	Fully logic linked and Critical Path identified	PAP-Hi-002	Critical Path(s) illustrated simply as part of (eg) narrative: briefings given to team.	Traceable through programme; HL Roll ups/LOE's used to summarise in P6	Evidence of flaws in CP; CP cannot be explained/ traced	2	C610 has a constantly evolving Critical Path which is highlighted in each Programme Narrative	1. To facilitate communication of the plan, in particular the Critical Path 2. This aids driving of production 3. May also aid change control	
11	Incorporate supplier & Sub co programmes where appropriate		P6 back to back with change control on updates; where appropriate programmes accepted or not within the contract time limits. Note Manual link is acceptable/ preferred	Other planning system back to back with change control and programmes accepted/not within time limits	No sub contractor plans incorporated (for significant packages of work); Programmes are not accepted/not within time limits	1	MMD input direct to C610 P6 programme. The quality of programmes received from the Supply Chain is variable	1. Back to back consistency 2. Promote quality schedules from suppliers 3. Comply with our commitments on programme admin	
12	Engagement with suppliers on planning issues		Regular meetings to review progress and planning workshops held to initiate plans and resolve problems	Regular meetings to review progress and programmes	Little or no engagement with the supply chain	2	E2, 4 and 1 week lookahead meetings held at Plumstead involving all stakeholders	1. Promote quality schedules from suppliers 2. Optimise the project plan	
13	Design Planning	PAP-Hi-017	Integrated Design programme produced as part of the project WBS and monitored	Integrated Design programme produced and monitored	IDP not produced	2	Considerable effort has bene expended to make the CRL EPPR compatible with P6. The EPPR and P6 programme with design activities complemented one another by providing a check on reported progress		
14	Durations derived from work content		List of output rates used available and comply with Costain norms where relevant	List of output rates used available	No output rates used	2		1. To ensure realistic, achievable programme is derived	
15	Time risk allowances for adverse conditions and risks	PAP-Hi-014	Adequate TRA and Terminal Float allowances in original plan and have been built on through change. (or equivalent)	Adequate TRA and Terminal Float allowances in original plan	Inadequate allowances	0	There were TRAs at the outset. Supplemental Agreement 4 has eliminated these as Damages no longer apply Problem, costs would still be a risk? (Actual/speculative)	1. To ensure realistic, achievable programme is derived	
16	Milestones established for all key and other contract dates		All contract dates plus other important dates per procedures identified	na	Key or Contract dates missing	2	Fully compliant	1. To facilitate good project control 2. Ensure focus on and measurement v contract dates	
	Programmes								
17	Medium Term plans produced	PAP-Hi-025	Medium term plans (3 month lookahed) produced, issued to production staff to develop into short term plans. (This may simply be an extract of the programme)	Medium term and Short term plans produced weekly and meetings held	No medium term planning evidence	2	Titles and XI used to produce 4 and 12-week lookaheads	1. Co ordination between the strategic and tactical planning of the project. 2. Provide medium term focus.	
18	Short Term plans in place	PAP-Hi-025	Created and maintained by Production team; planner writes output and uses for progress data	Planner heavily involved/ low engagement	No short term planning evidence	2	Titles and XI used to produce 4 and 12-week lookaheads	1. Co ordination between the strategic and tactical planning of the project. 2. Provide short term, day to day focus by the production team.	
19	Short Term Plans: Make Ready needs		Make Ready needs are identified as part of the process, recorded on the lookahead	Make Ready needs are discussed but not recorded on the lookahead	Make ready needs not identified			1. Ensure that work is ready and available to commence with all pre hecks etc. complete	
20	Short Term Plans: reasons for non achievement		Reasons for non achievement are recorded and analysed	Reasons for non achievement are recorded	Reasons for non achievement are not recorded	1	Narratives accompnaying weekly volumetric Dashboards. Evidence of stats/stat or other analysis is to allow decision making; alternative seen at LSR in their pC room: Summary of all boards by supplier	1. Enable analysis of reasons for any slippage (root cause analysis)	
21	Short Term Planning Meetings		Weekly co ordination meeting(s) held, chaired by production lead	Weekly co ordination meeting(s) held, chaired by planning lead	Weekly co ordination meeting(s) are not held	2	T-12, T-4 and T-1 meetings are held with the Construction Teams. Daily notices for Train movements are co-ordinated by the Planning Dept	1. Co ordination between the strategic and tactical planning of the project. 2. Provide short term, day to day focus by the production team.	
22	Summary Programme compliance	PAP-Hi-006	Easy to read outline plan with CP, key logic etc and NOT a roll up; Use of Time Chainage or LOB	Broadly in line with procedures	Roll up from P6 only/ Not in existence	2	Summary Programme produced using Titos	1. Communication of Plan 2. Allows strategic decision making	
23	Working Programme compliance	PAP-Hi-022	Durations less than 4 weeks (near term)/8 weeks (long term); or as the contract specifies	na	Durations longer than specified	2	Specified in Works Information	1. The robust schedule	
24	Monte Carlo analysis		Run in past 3 months	Run in past 12 months	Run more than 12 months ago or never run	1	We understand that CRL perform Monte Carlo analysis. We do not. Given the current situation it may not add value	1. Testing schedule quality 2. Test achievability 3. May be compliant with client requirements	
25	Ownership of plan by the Project Manager		Programme is "approved" by the project manager prior to external issue. Possibly via discussion at team meetings/ review and comment on Narrative, etc.	Delegated to planning Manager	No involvement or discussion	2	Project Director signs off Programme and Narrative	1. Ownership of plan 2. Internal, independent review prior to issue	
26	Independent programme check	PAP-Hi-022	Independent resource used to check programme, planning etc.	Contain resource used to check programme, planning etc.	No independent check	1	Costain resources check the programme	1. Assurance	
27	Programme Narrative		Contains as a minimum: - Explanation of logic - Explanation of changes since last programme - Responses to previous comments esp if rejected - High level summary of the programme and Critical path(s)	Narrative submitted/available but incomplete	No programme narrative submitted or available	2	Included narrative and graphical reports of progress	1. Communication of Plan 2. Change control	

Project Controls							
Earned Value Management tool	PAP-Hi-023	"Catalyst" or "COSEVA" or other robust tool used.	Bespoke Spreadsheet used	EV not used/ Operated to suit/ny client without sufficient detail for our own uses	2	EV Produced from P6 and exported to XI. This was manadate dby CRL although it is interesting to note that they do not do this themselves (an ex-CRL planner has recently joined our team). Using COBRA or similar would involve som additional resource but may be more robust; CRL use PRISM	1. Mandated tool
Earned Value Management deployment	PAP-Hi-023	Buy-in from Project leadership (Project and Commercial Managers) and team is demonstrated. Regular review meetings; challenge mechanisms etc.	Buy-in from Project leadership (Project and Commercial Managers) is demonstrated, but not shared with team	No project buy in, going through the motions or not used at all	2	Regular Review meetings are held. The buy in to EV is variable (depe nt on being a contract requirement) but all managers attend meetings and are held accountable for performance	1. Professional and informed project management and decision making 2. Performance assessment and challenge/ accountability, leading to improvement
EVM and commercial reporting	PAP-Hi-023	EVM data and CLR data from the same source, programme informs cash flow reporting	Full input from Commercial team to developing budget loaded programmes	Budgeting undertaken by Planning team or external source without commercial buy-in	2	Fully compliant	1. Commercial awareness. 2. Consistent reporting 3. Challenge to commercial/ reporting/forecasting leading to greater robustness
Actual costs	PAP-Hi-023	Cost data traceable to E1 with necessary commercial adjustments	Cost data traceable to E1	AC reporting not part of Project Control, or below required standards	1	The coding of E1 by Finance/Commercial is poor with PC staff often having to expend effort correcting these. In addition, PC staff end up calculating accruals. Stitts/demurrahwee a lack of commercial support has not scores 50?	1. Enables credible project control
Labour used data		Biometric system collects and records and collates actual hours on site/office.	Fully compliant return system	No or inaccurate data collection	1	Biometric System does not allocate costs. We have online Daily Allocation Sheets to do this (implemented after 1 year of Construction)	1. Good project controls: facilitate measurement of productivity planned v achieved
Accountability for EV	PAP-Hi-003	Accountability driven down to section level with Section Managers answering questions on SV, CV in particular	(e.g.) Education of team through lunch and learn sessions or similar	Responsibility at Project Level	1	Buy-in from Project Managers is variable: some are fully/roughly in; others, particularly Costain's JV partners less so	Mandated position; Drives commercial awareness and control
Project Control of Design		Design Part of project WBS and managed with a full EVA system alongside the rest of the works (ie plans incorporated). A separate EPPR may exist at either E2 the two levels described	Design Deliverables or EPPR system in place that measures planned v achieved v cost	Design Deliverables or EPPR system in place that measures planned v achieved only	2	Fully compliant	1. Professional and informed project management and decision making 2. Performance assessment and challenge/ accountability, leading to improvement
Progress measurement	PAP-Hi-004	Assessment tied into Short term planning system and/or backed up by Physical measure/ Quantity surveyor's report	Physical percentage complete and remaining durations, actual start finish dates recorded each period	No physical check of progress or actual start & finish dates not recorded	2	Physical Measure is the basis of % complete for all progress/site, CRL sometimes get too hung up on non-progress-sable items	1. Enables Project control 2. Commercial protection
History recorded		Actual start and completion dates recorded weekly for each activity, full history maintained in working schedule through to the end of the project	Actual start and completion dates recorded monthly/fortnightly for each activity, full history maintained in working schedule through to the end of the project	Non compliance	2	Fully compliant	Commercial protection - to enable forensic planning or other claims processes
Reporting periods		Weekly	Weekly programme update with Fortnightly reports	Less than fortnightly	2	P6 is 4-weekly; XI and This used to produce weekly programmes	1. Enables Project control 2. Commercial protection
Contract Management							
Change Management	PAP-Hi-009	Change management process in place; briefing given to team at the start and on going if necessary	Change management process in place	No change management process in place	2	Change Management process as per contractual conditions. ICEs and NCEs uploaded to P6 4-weekly	Commercial protection
Change Control process		Weekly change review meetings held; Change register in place and automated warnings (specialist software)	Ad hoc change review meetings held; Change register in place in spreadsheet	No regular meetings; little visibility of change register to wider team (eg planner)	2		Commercial protection
Change control of design		Weekly drawing/ information review meeting process in place; changes reviewed and controlled	Information reviewed by design manager/ commercial manager/ planner etc. in isolation	Information issued without or with limited review	1	Regular drawings reviews did not take place during Design phase	Commercial protection
Change Control in the programme	PAP-Hi-009	All change implemented or otherwise included in the programme, with the former only captured	Change not incorporated/ up to date	Change not incorporated/ up to date	2	Clause 32 programmes incorporate change	1. Enables Project control 2. Commercial protection
NEC (& Similar) Contract change process	NEC3 Contract	Programmes submitted with all quotations, or it is confirmed that there is no time effect/ all up to date	Processes inplace but outwith time limits	Planner not involved in NCE process	1	Not all quotations are accompanied by a Clause 62 programme. Resource constraints together with the level of change has bene an issue	Commercial protection
Schedule Checking Process	PAP-Hi-005	A Formal Process exists to check the programme against a set of criteria prior to submission to client to ensure it meets. WI and other quality requirements	Checks undertaken but no formal or documented process to check against	No checks undertaken	2	16 separate integrity Reports are run as detailed below; programme and narrative reviewed by Planning Manager and Project Controls Manager. Narrative reviewed by Project Director Discuss template (inc'in chunky to be issued NEC doc?).	Aids programme accuracy and acceptance
Weather records		Weather records maintained and utilised	Comprehensive weather records collected through daily diaries or logs	No formal data collection	2	Not generally maintained; bulk of work is underground. Where relevant it is highlighted on Site Diaries	1. Commercial protection 2. Future planning records
Procurement Schedule	PAP-Hi-018	In place and linked to latest programme	Stand alone in place	No use of a procurement schedule	2	C606 is the best current example of this. Procurement now substantially complete on C610/644/650	1. Management tool for key part of project processes
Document Control							
Programme layout & numbering	Project PEP	Complies or n/a (eg conflicting requirements) Issue register in place	Complies or n/a (eg conflicting requirements)	Does not	2	Mandated by CRL	1. Contract admin for commercial protection
Issue through Document control processes	Project PEP	Yes	Paper or other record of trans/mitsi	No	2		1. Contract admin for commercial protection
Archive of issued programmes in Projects EBS, with we're securely backed up		Yes	na	No	2	EPS has archived programmes+; also on ed (client) and Acones (internal JV)	1. Contract admin for commercial protection
Risk Management							
Regular Risk Meetings		Full Sector team	Updates from key person(s)	No regular review	2		1. Facilitate focus of management attention proactively
Risk Log kept up to date		Each (4 week) period	Quarterly	Not regularly updated	1	Discuss next time	1. Develop the live risk register and in management practices
Risk Workshops		First held within 8 weeks of contract start	First held later than 8 weeks after contract start	Not held	1	Discuss next time	1. Facilitate focus of management attention proactively
Time Risks reflected in Risk Register		Yes	na	No	1	Discuss next time	1. Facilitate focus of management attention proactively
Metric: Float greater than last report		Yes	no change	No	2		Improving risk profile, or not
Metric SPI greater than last report		Yes	no change	No	2		Improving risk profile, or not
Metric CPI greater than last report		Yes	no change	No	2		Improving risk profile, or not
Communication							
Productivity Feedback	PAP-Hi-008	On going feedback supplied through out project	Fee-Back on output rates supplied at end of project	No feedback provided and project more than 12 months from start	1	There is a lack of buy-in to Weekly trackers from Project Managers (some more so than others)	1. Improve future planning/plotting. 2. Personal development of planners/ PMs
HL Critical Path descriptions		Included in relevant docs such as Programme Narrative, progress reports etc.	P6 roll ups exist	Nothing in place	2		2. Communicates the plan, promotes discussion 3. Demonstrates understanding (or not)
Productivity targets and performance displayed on notice boards etc.		Yes	na	No	2	Regularly emaile dto all stakeholders	Promote targets and sense of achievement
Key dates displayed in prominent place around offices/site		Yes	na	No	1	This used to be the case. Dates are now 'ot large	Promote targets and sense of achievement
Level 1 programme displayed in prominent place around offices/site		Yes	na	No	2	This is in main meeting room; 12-week lookahead updated and distributed weekly	Promote targets and sense of achievement
Volumetric Dashboard Reports							
Acceptance of programme							
Acceptance of programme		Less than 4 w since last	4-8w since last	more than 8w since last	0	See Registers	1. Commercial imperitive
Percentage of programmes Accepted		>90%	>80%	<80%	0	See Registers	Ditto
Available Quality check (using "PrePCheckers" spreadsheet or Acumen Fuse)							
Project calendars used		Limited number of project calendars in use Procedure rules define what may be used	Limited number of project calendars in use	No control; calendars created on an ad hoc basis; confusing array of calendars result; use of global calendars.	2	Calendars agreed/ed.	To maintain clarity in the schedule, making critical paths easier to read
Summary activities used for budgeting		0%	>5%	>6%	0	Costs are often held on WBS Summary Items (except for Procurement deliveries). This maintains maximum flexibility in Programme Management	Indicative of inadequate planning or short cuts
Actual dates Greater Than Data Date		0%	1%	>5	2	See separate tab details= C610 P6 Integrity Reports	Scheduling errors
Logic Links per activity		>3.0	na	>2.0	2	See separate tab details= C610 P6 Integrity Reports	Average of less than two implies missing logic; average of greater than 4 implies over complexity
Open Ends			2%	>3	2	See separate tab details= C610 P6 Integrity Reports	Poor scheduling practice no critical path analysis
High duration activities		>3%	>5%	>6%	2	See separate tab details= C610 P6 Integrity Reports	Indicative of inadequate planning or short cuts
Hard Constraints		>5%	na	>6%	2	See separate tab details= C610 P6 Integrity Reports	Poor scheduling practice
High Float		>6%	>8%	>10%	2	See separate tab details= C610 P6 Integrity Reports	Indicative of inadequate planning or short cuts
Negative float		>3%	>5%	>6%	2	See separate tab details= C610 P6 Integrity Reports	High risk programmes; project goals cannot be achieved
Positive lags		>3%	>5%	>6%	2	See separate tab details= C610 P6 Integrity Reports	Use of lags indicative of poor practice; (used to adjust CPM dates) Difficult to manage, status and control Hide detail (not as visible)
Negative lags("Leads")		zero	zero	any	2	See separate tab details= C610 P6 Integrity Reports	Illogical and will fail any integrity test

Golden Rules

Programmes must:

Cover the full scope of the works

Recognise sectional completion and other key dates.

Be based on contract working hours. (Calendars)

Allow for documentation and handover

Be agreed with, and owned by, the project manager

Have a critical path (Logic, constraints).

Plan the resources required and the flow of these resources.

Golden Rules

Have activities with a unique ID that is never revised or reused.

No activity covers more than one trade/ subcontractor.

Have a baseline.

The baseline must be maintained, not static

Have a narrative that explains key logic, strategy, risk etc.

Be updated with progress on a weekly basis

Be updated with change as the contract changes.

And

Records of output rates must be collected and collated

How do you know if you’re doing it well?

You're doing it well if you have communicated: (but)

How do you know if you're doing it well?

"The most common problem with communication is the illusion that it has taken place"

George Bernard Shaw

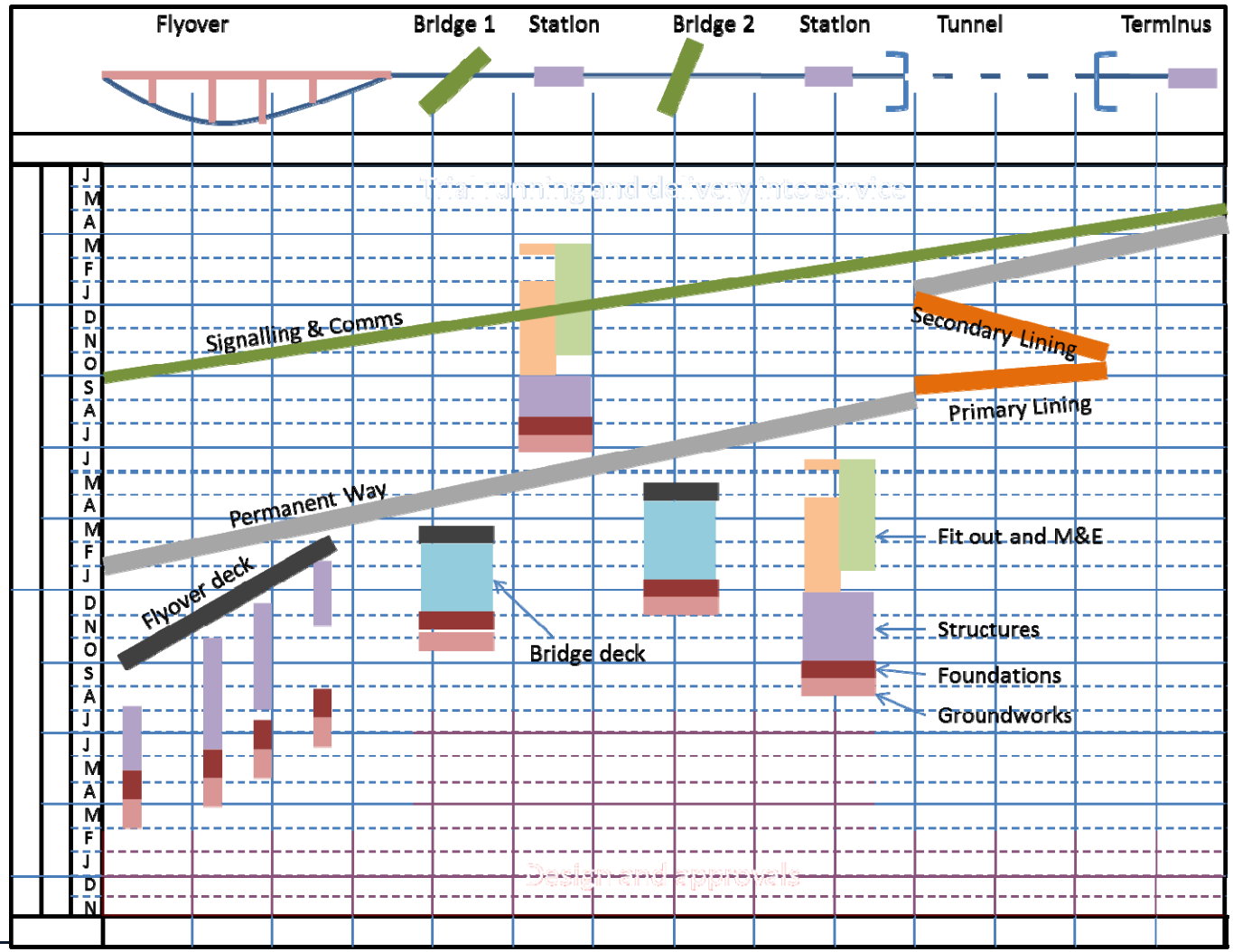
How do you know if you're doing it well?

COSTAIN

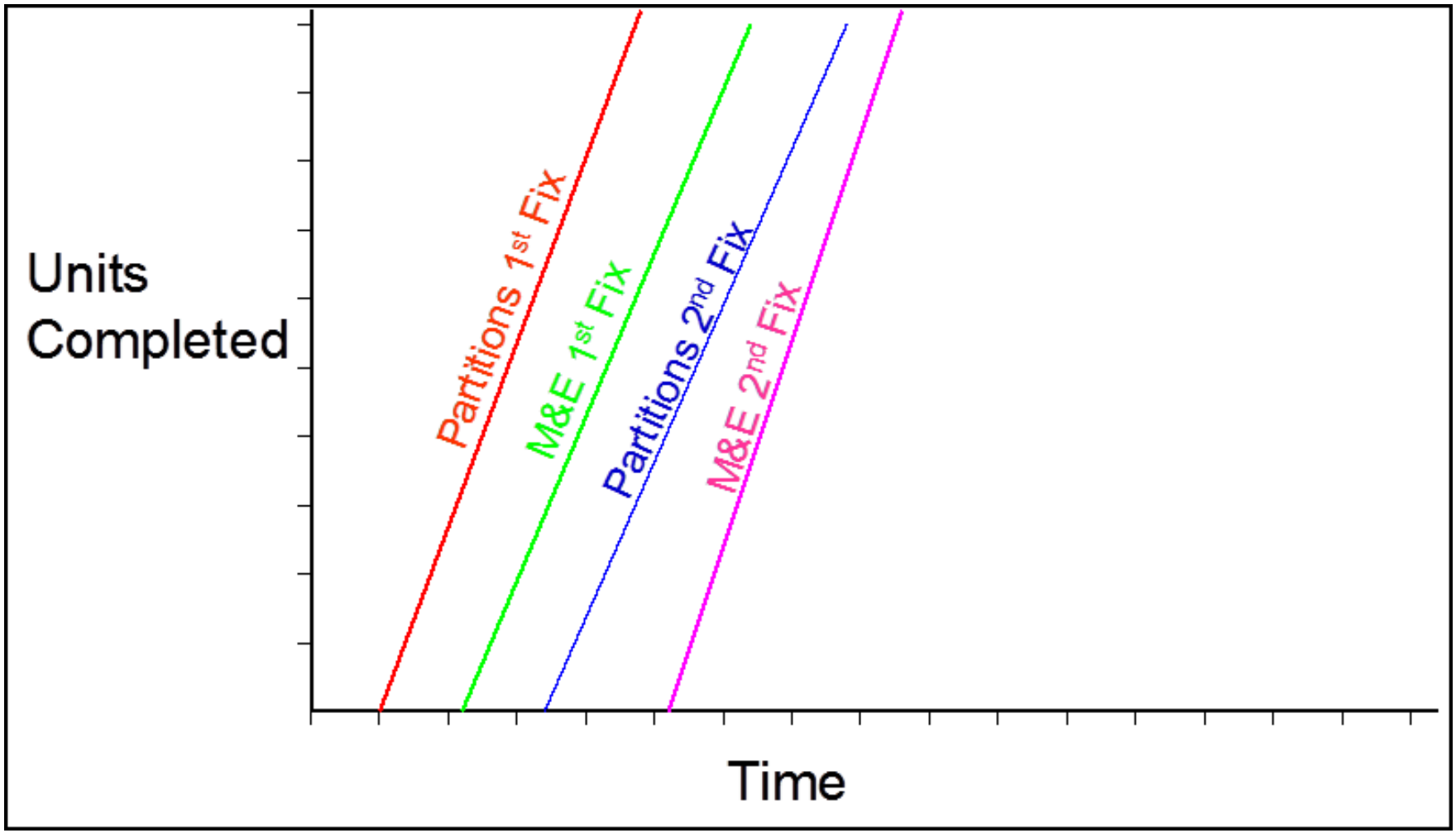
You're doing it well if you have communicated:

- Tailored to your audience
- Simple is generally best
- Gantt charts…

How do you know if you're doing it well?



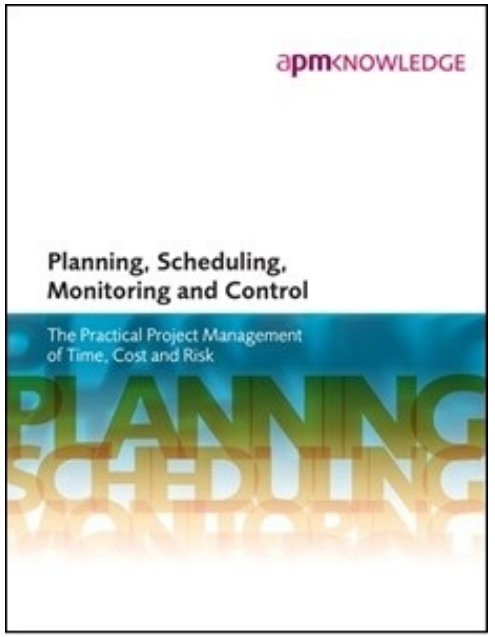
How do you know if you're doing it well?



How do you know if you're doing it well?

You're doing it well if you have communicated:

- Tailored to your audience
- Simple is generally best
- Gantt charts…
- …or Time Chainage…
- …LOB…
- …Marked up drawings…



How do you know if you're doing it well?

Things that make for a bad plan:

Team not involved (or bought in)

Too much detail part 1 (what is appropriate?)

Too much detail part 2 (the wrong stuff…)

(Keep separate trackers – why?)

Poor schedule design (and lack of structure)

Poorly defined calendars etc.

How do you know if you're doing it well?

Things that make for a bad control:

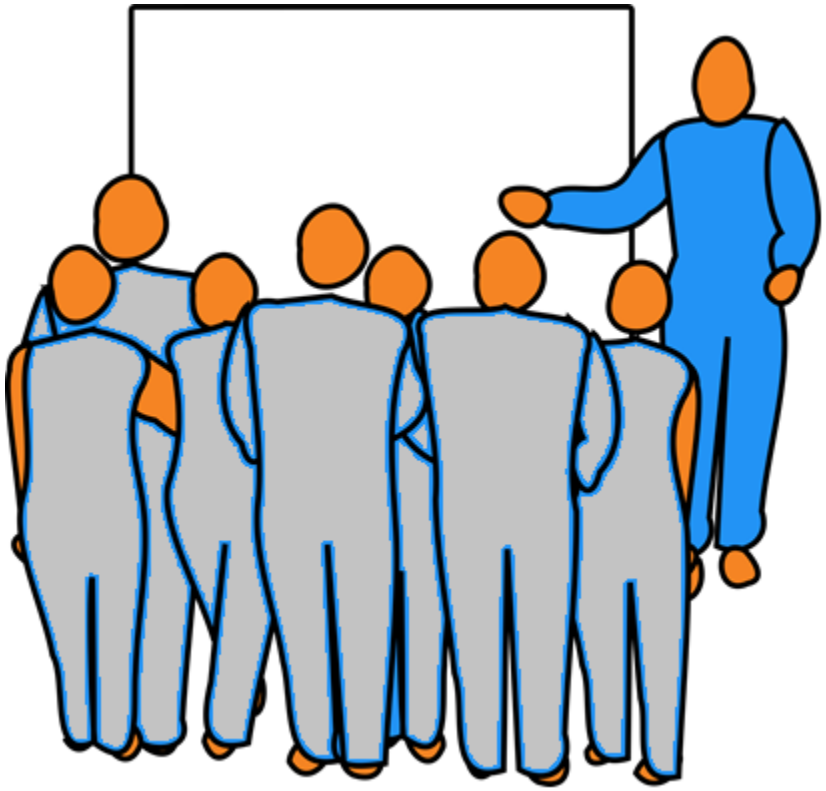
- Reporting to period end…2 weeks in advance please
- As a result … please forecast 2 weeks of progress
- Wrong level of detail
- Many sources of data
- Many overlapping reports
- Automation
- Poor Record Keeping
- Work Breakdown structures considered too late…
- Producing data, not doing anything with it.

How do you know if you're doing it well?

"I have always found that plans are useless, but planning is indispensable"

Eisenhower

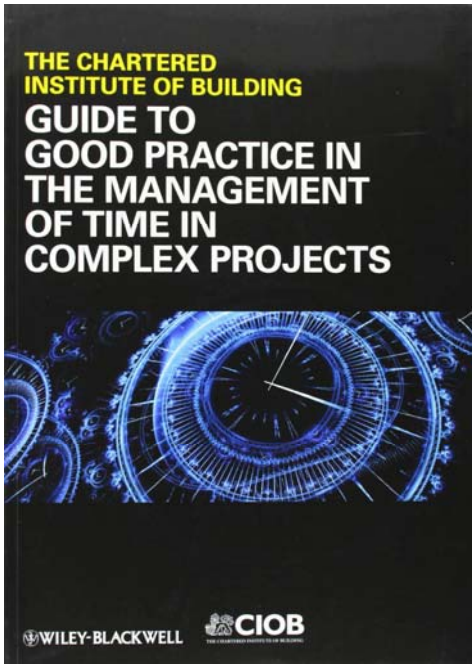
How do you know if you're doing it well?

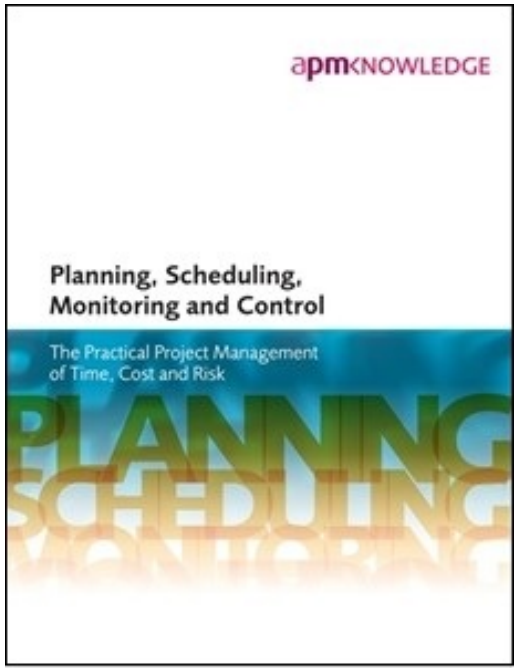


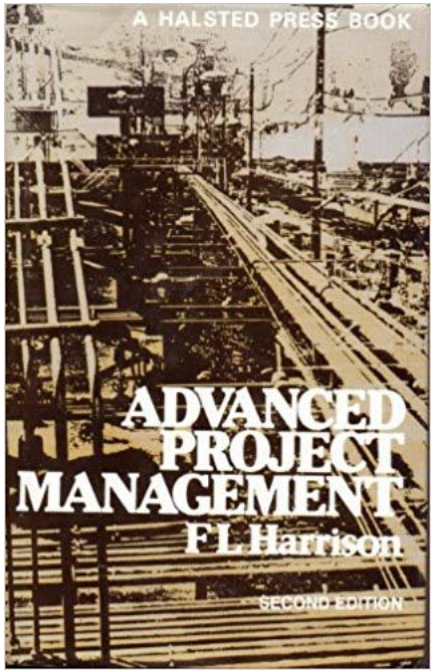
"I have always found that plans are useless, but planning is indispensable"

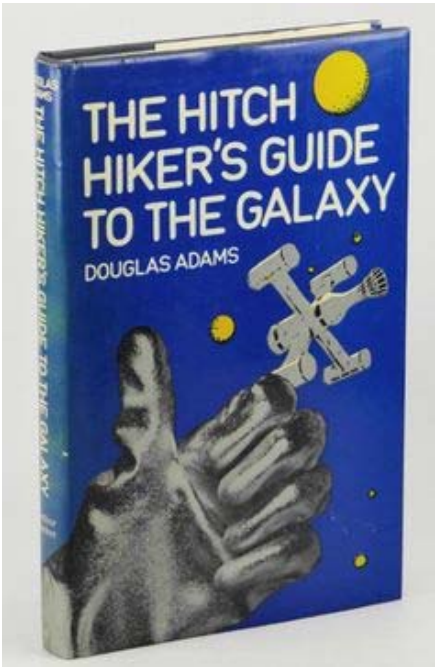
Eisenhower

Paul.Kidston@costain.com









"Begin at the beginning…go on until you come to the end, then stop" - Lewis Carroll

The End

“You may not control all the events that happen to you, but you can decide not to be reduced by them”

-Maya Angelou

Paul.Kidston@costain.com