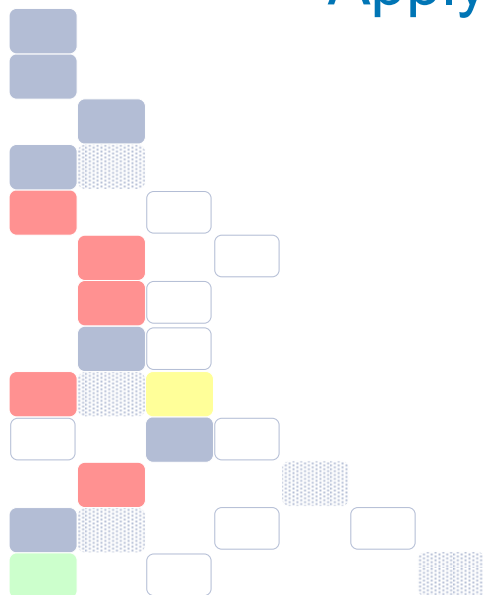


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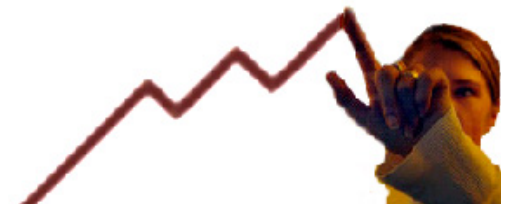
Cycle Time Reductions

Applying Detailed Reengineering Methods to
Cycle Time Challenges



Understand • Engage • Evolve

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Most organisations can benefit from some sort of cycle time improvements

- ❑ Supply chain velocity can
 - Reduce inventory levels
 - Reduce quality risks (e.g. where the goods are perishable)
- ❑ Financial services processes can deliver faster responses to the customers
 - Shorter branch queues
 - Faster call centre responses
 - Prompt loan approval / adjustment
- ❑ Product Management process velocity can result in
 - Faster product launches
 - Rapid responses to competitor activity
 - More campaign activity per year relative to competitors

Regardless of the cycle time problem, the same key elements often contribute to delays

Noise / Process Failures

- Errors
- Rework
- Chasing information
- Expediting lagging forms
- Complaints

Poorly Designed Flows

- Unnecessary hand-offs
- Long batch wait times
- Poor cell structure
- Inappropriate policies

Inadequately Disciplined Execution

- Training
- Poor application of standards
- Inappropriate measures

Problematic Interfaces

- Poor understanding of downstream needs
- Failure to apply “fault tolerance” techniques

Two related methods are often used to enhance velocity – both using the same underlying process data

□ Process Re-engineering

- Remove process steps
- Collapse cycle times (e.g. batching)
- Free up people hours
- Reduce errors
- Improve quality
- Improve key operating metrics
- Engage staff in the improvement program

□ Task Restructuring

- Define roles
- Align tasks with strategy
- Remove marginal tasks
- Redirect tasks to appropriate personnel
- Develop performance measure

Coles - Supply Chain Finance

XeP3 Process Chart Report

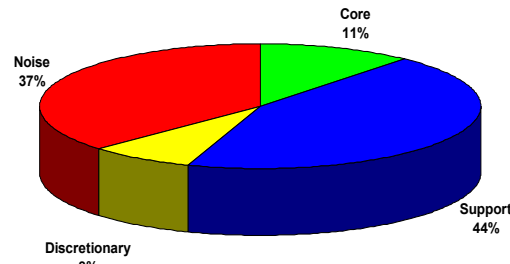
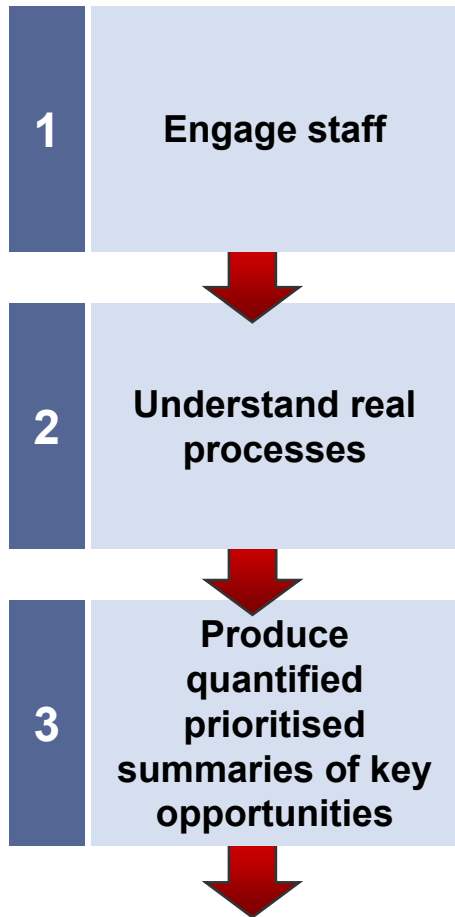
Process 1 - Internal Processing Date: Friday, 15 September 2006

Step No	Step	Cat	Hours	Annual Cost per Step (\$000s)	1 Internal Processing
a) GAPS (HALF YEARLY) ADJUSTMENTS					
1 Obtain Timetable From GAPS (Group Accounting and Planning Services)					
1.1	Receive notification of half year requirements from GAPS	S	0.01	0.0	Blue
1.2	Attend review session re/ ½ year issues (future)	S	0.05	0.0	Blue
2 Prepare Accounts in Accordance with Accounting Stes					
2.1	Prepare a series of adjustment to reflect corporate requirements	S	0.36	0.0	Blue
2.2	(eg annual leave, leave provisions, IT rebates, workers comp, release of provisions)		0.0	0.0	White
3 Post Adjustments					
3.1	Create journal if required for adjustments post investigation	S	0.05	0.0	Blue
3.2	Send journal to SC admin box	S	0.01	0.0	Blue
4 Check Adjustments					
4.1	Run Ebit report/ECR/DCR reports to ensure adjustment have been captured	D	0.07	0.0	Yellow
4.2	If adjustments haven't been captured establish why and resolve	N	0.05	0.0	Red
b) REVIEW STORAGE COSTS (MONTHLY)					
5 Download DC Storage Cost Data From TM1 & RSP (SAP)					
5.1	Run view in TM1	S	0.0	0.0	Blue
5.2	Snapshot into excel	S	0.0	0.0	Blue
5.3	Filter RSP (Retail Support Production in SAP) for those entries to get more detailed information	D	0.0	0.0	Yellow
5.4	If costs haven't been allocated correctly then email DC to make adjustments	N	0.0	0.0	Red
5.5	Receive an adjustment journal from DC	N	0.0	0.0	Red
5.6	Download required information from SAP into excel	S	0.0	0.0	Blue
5.7	Check adjustment journal	D	0.0	0.0	Yellow
5.8	If incorrect then adjust and send DC back corrected journal	N	0.0	0.0	Red
5.9	Create Journal (splitting out costs into brands) if DC has not done so or cannot wait for DC to do so	S	0.0	0.0	Blue

15/09/2006 Process 1 - Internal Processing © Bevington Group Page: 1

Our approach starts with collecting data in order to map processes...

Engaging the staff, identifying and summarising the opportunity...



XeP3 Tasks and Activities MF2	
Status:	AI1 - Admin Support
Completed by:	
Team Member Check:	Date: Wednesday, 6 December 2006
Quantified Tasks	
Receive 40 leave applications per month	
Process Recreational Leave weekly	
Process 5 special leave applications per month	
Process 6 Annual leave applications per month	
Process 25 sick leave applications per month (must carry without read card)	
Process 4 other types of leave applications per month	
General Administration	
Main and Sub-Activities	
A) Receive 40 leave applications per month	2.12 If insufficient leave (1-2 days), contact facility
1 Receive Applications	2.13 If not authorised, highlight form for letter
1.1 Sort to leave trays	2.14 Generate letter if more than 3 days
1.2 Sort to priority (pay periods)	2.15 Generate proforma
1.3 Distribute and allocate work	2.16 If future events are booked, phone manager to request if amendment required
1.4 If 12 days before pay, pull out pay critical forms (TC009) e.g. LWOP, Rec Leave	2.17 Enter requirements
1.5 Put into trays	2.18 May send letter to request
B) Process Recreational Leave weekly	2.19 Print
2 Processing Rec Leave	2.20 If not enough leave available, generate letter to advise of options
2.1 Receive application for rec leave	2.21 If old leave forms used, return form with letter
2.2 Enter ABC no / name	2.22 Enter leave details (form)
2.3 Check ABC matches name on System	2.23 Check if bonus indicated
2.4 Check leave balance, future events and other leaves	2.24 Note claim of bonus penalties
2.5 If cannot locate, contact facility	2.25 If yes make sure for current year leave event!
2.6 If any ASD, note and pay out in 1st leave event!	2.26 If noted, indicate payout via timesheet
2.7 If cannot read signature, contact Facility	2.27 If not noted no bonus to be paid
2.8 Manually calculate hrs available	2.28 Handle queues from Call Centre re Rec Leave processed
2.9 If ABC not supplied, locate by name and unique contact employee	2.29 If penalties and bonus locked, look at history
2.10 Check if employee has taken LWOP - note not to count as service	2.30 If always paid bonus, give bonus not to count as service
2.11 Check administration	2.31 Check if pay in advance requested

4.6	Receive call via 1800 call centre number and review customer info via system pop-up (if available)	S	7.5	3.1
4.7	If not available, search SAP for customer	N	5.0	2.1
4.8	Check email account for EDI advice and review request	S	6.5	2.7
4.9	If received by fax request (imged via email), distribute assigned accounts to whom they belong to	S	3.0	1.2
4.10	If not for own area, move fax email to diff folder for supervisor to allocate	N	3.0	1.2
4.11	If not on Distribution List, check if Trad or non-Trad account information (if non-Trad, ignore)	N	3.5	1.5
4.12	Go into system, view customer order entries	S	6.0	2.4
4.13	Phone customer if unclear / missing information	N	7.0	2.9
5	Enter order when received	S	5.5	3.2
5.1	Enter order	S	5.5	3.2
5.2	Validate pricing	D	3.0	1.7
5.3	If pricing looks wrong / customer questions, check source (eg. CC, scheduled pricing)	N	5.0	2.9
5.4	Save order	S	1.0	0.6
5.5	If customer on credit hold, contact customer for past dues and advise credit	C	3.5	2.0
5.6	Enter request delivery date	S	1.0	0.6
5.7	If delivery date is less than 3 days and is required, raise emergency order	N	1.0	0.6
5.8	Send request to customer to check availability	N	2.75	1.6
5.9	If available, rack schedule	N	1.75	1.0
5.10	If not available, contact customer to negotiate delivery date	N	3.0	1.7

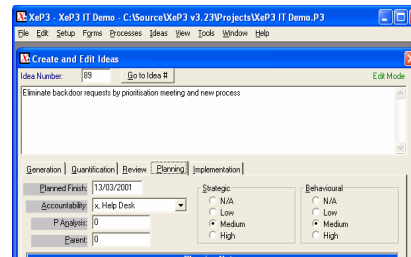
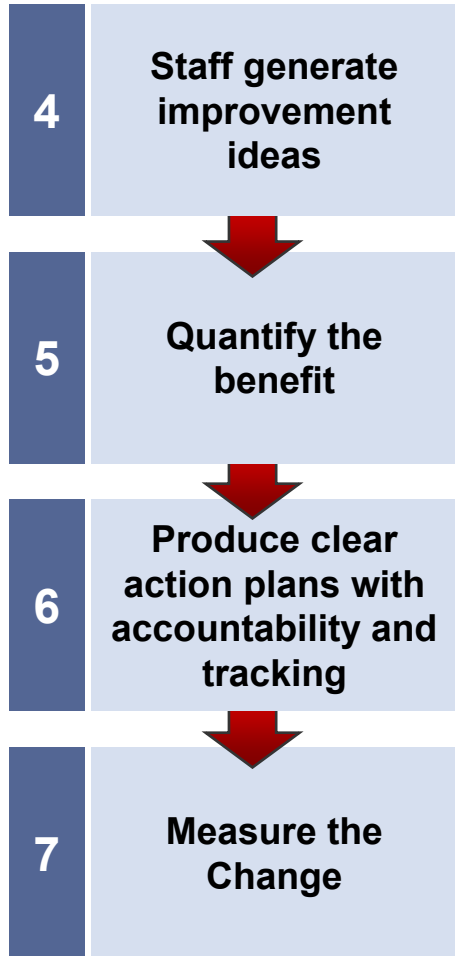
	C	S	D	N	CSDN
% Hours:	2.7%	35.2%	7.6%	54.4%	100.0%
Total Hours:	27.2	352.5	76.5	543.8	1,000.0
pa Cost:	15.1	187.2	46.6	268.3	517.2

Top 6 Activity Drivers for this Process		
2	Product not available or in stock by require date	7.4%
12	Customer not happy with product and wants to return	7.1%
1	Missing/unclear information from customer eg. locati	4.0%
9	Manual look-up of product number or calculation due	2.4%
7	Customer on credit hold and required follow up	1.7%
4	Customer has unreasonable delivery request (ie. not	1.4%

Supporting technology provides a fast, visual and structured understanding of opportunities

...and continues with strong engagement of staff to generate incremental as well as radical solutions

Engaged staff generate the improvement ideas; and a plan with clear accountability is produced



Management Report Implementation Monitor

Status:
Completed by: _____
Team Member Check:

Idea #	Description	Total Hours	Hours Saved	Hours Added	Planned Completion	Current Est. Completion	Accountability
5	Proactively seek on-sell during interaction with customer	20.51			4/04/2004	30/04/2004	Miller, Brad
6	Order forms to be completed and sent electronically to suppliers	42.38	7.74		4/04/2004	29/05/2004	Miller, Brad
3	Develop Supplier Agreements with performance measures to improve service	35.96	14.39		2/02/2004	2/06/2004	Miller, Brad

Action Plan

Idea No: 715

Process: Despatch Process Co-owners: Steve Hardy

Idea: Install internal direct line telephone between despatch area and office to reduce wasted staff travel time to and from office when despatch queries occur.

Step	Action	Person Responsible	Start Date	Estimated Completion Date	Actual Completion Date
1	Formalise request to facilities management	Steve Hardy	5/01/2006	5/01/2006	5/01/2006
2	Inform despatch team of change	Steve Hardy	6/01/2006	6/01/2006	6/01/2006
3	Install phone	Steve Hardy	7/01/2006	7/01/2006	7/01/2006
4	Place notice by the phone with instructions and internal numbers	Steve Hardy	8/01/2006	8/01/2006	8/01/2006
5		Steve Hardy	9/01/2006	9/01/2006	9/01/2006

Number of enquiry visits to office vs Number of enquiry telephone calls

Week	Weekly total	Comments
1	235 office, 10 Phone	Need to monitor and enforce use of phone
2	100 office, 150 Phone	Staff utilizing phone facility much more effectively
3	70 Office, 200 Phone	Few despatch visits to office, mostly telephone queries

Supporting technology quickly provides an integrated implementation plan and benefits tracking tool for managers, plus clear and simple-to-use "to-do" lists for staff

To help us prioritise where to start analysis we examine a “White Space” report



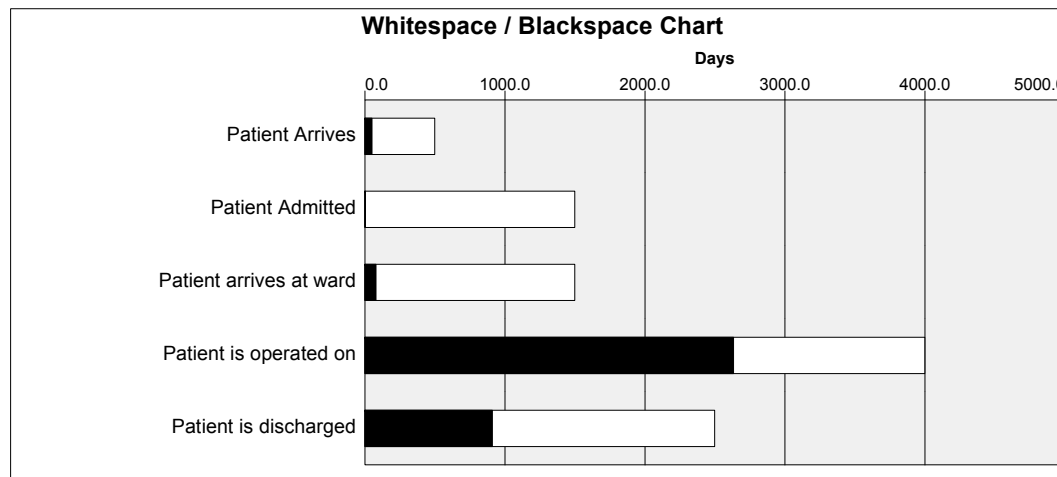
PLAY Hospital

White Space Report

Process 13 - The Patient Journey

Date: Thursday, 23 June 2005

Workflow - 1 - Patient Journey



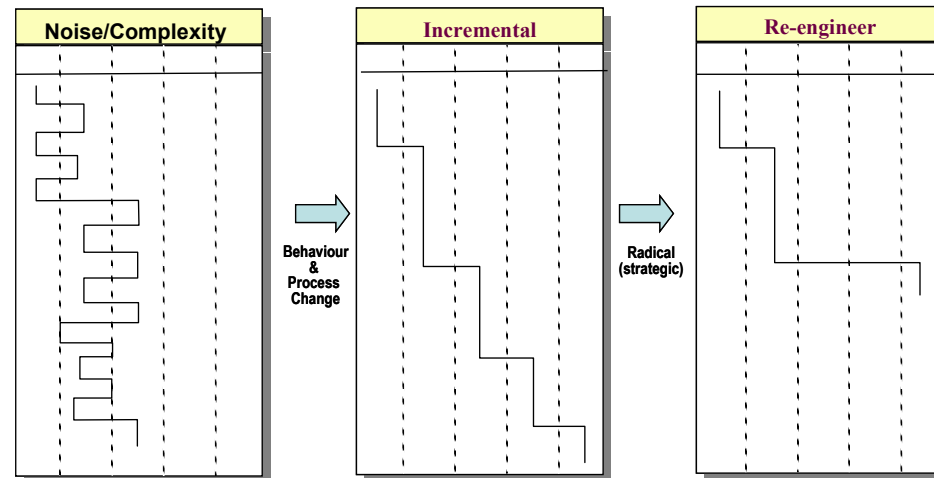
- Key process elements can be broken up to examine wait times
 - The Black elements are value-added activity
 - The White elements are wait time

Checkpoint	Description	Elapsed Days (White)	Process Days (Black)				Totals
			Core	Support	Discretion	Noise	
Arrive	Patient Arrives	500.0	0.0	34.99	1.93	14.12	51.04
Admit	Patient Admitted	1500.0	0.0	1.05	0.19	1.91	3.15
Ward	Patient arrives at ward	1500.0	0.0	54.37	2.81	22.5	79.69
Operate	Patient is operated on	4000.0	29.59	1653.45	83.38	867.68	2634.11
Discharge	Patient is discharged	2500.0	19.75	581.1	59.5	251.32	911.66
Totals:		10000	49.34	2324.96	147.82	1157.53	3679.64

We are looking for Noise, inefficient Support processes, and inappropriate Discretionary steps

Code	Definition	Example	
Noise <small>25%+</small>	Non-value adding activities which cost the organisation money, reduce service levels and waste staff time. Usually symptomatic of process failure	<ul style="list-style-type: none"> • Rework/recovery from error • Duplicated activity • Request sent to wrong location • Wrong Information • Activity performed at wrong point 	}
Non Value Adding			
Discretionary <small>10%</small>	Activities that manage risk to the organisation and/or introduce management approval/checking steps. Usually their frequency or level is adjustable and is at management's discretion	<ul style="list-style-type: none"> • Checks • Approvals/ delegation signoff • Audits • Reports 	}
Policies			
Support <small>60%</small>	These activities enable efficient delivery of a current service – they represent the normal, actual work being done right	<ul style="list-style-type: none"> • Processing • Data entry (the first time!) • Make payment • Answer query 	}
Automation Opportunity			
Core / Value Driving <small>5%</small>	These few activities directly increase service, reduce cost or enhance capability. They positively change the status quo to <i>drive</i> performance improvement in the organisation	<ul style="list-style-type: none"> • Core delivers organisation objectives • Often that which enhances efficiency, effectiveness or revenue 	}
DNA of Business and BCIs			

We distinguish between “incremental” and “reengineering / radical” changes



- ❑ Incremental Changes can be achieved in the first 6-8 weeks from implementation kick-off
 - They can be characterised as fast, low risk, actions to improve cycle times and reduce error rates
 - Often low or no capex is required
- ❑ Radical / reengineering changes often take longer to implement because of the need to
 - Explore policy implications
 - Make system changes

An examination of Noise Drivers can produce radical as well as incremental solutions

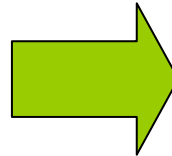
Step No	Step	Cat	Hours	Annual Cost per Step (\$000s)	Activity (Noise) Driver	15 Forks - Night	16 Pickers - Night
20.3	If congestion in aisles then wait or take time to negotiate around blockage (major cause is pickers not aware of location eg start of aisle)	N	233.27	78.4	66 - Congestion in the aisles		Red
20.4	Check if inner or master carton pick (displayed)	D	58.32	19.6			Yellow
20.5	If inner and carton not cut properly then pull carton out of gravity feed, pick inner and then replace carton	N	0.0	0.0			Red
20.6	Pick order	S	1,457.92	490.2			Blue
20.7	Ensure pick is done from a level pick bin by taking carton from the back of the pallet	D	58.32	19.6			Yellow
20.8	(Some bins have raised pallets and these work well - can they be included elsewhere)	S	0.0	0.0			Blue
20.9	If packaging is thin and breaks whilst picking then clean up the mess (eg Marmalade cartons)	N	87.48	29.4	143 - Carton packaging is thin & breaks easily		Red
20.10	If carton not cut (should be done by letdown) cut open	N	87.48	29.4	117 - Carton has not been cut		Red
20.11	Check to ensure right stock	D	29.16	9.8			Yellow
20.12	If wrong stock in location write on the pick sticker and go to next order or notify Despatch/Line Manager	N	58.32	19.6	106 - Incorrect stock in the pick bin		Red
20.13	If bulk pick is required and not all stock in location, amend label to the actual pick	N	58.32	19.6	144 - Not enough stock in location		Red
20.14	On the last label write how many left to be picked (short chase will follow up with)	N	58.32	19.6	144 - Not enough stock in location		Red
20.15	If stock not there, leave sticker on task and go to next task.	N	29.16	9.8	139 - Incomplete stock available		Red



66	Congestion in the aisles	5.1%
139	Incomplete stock available when picking leads to chase of missing stock	4.7%
158	Poor synchronization of putaways and letdowns	3.2%
143	Carton packaging is thin & breaks easily	2.9%
96	Bay did not accommodate all stock & therefore default stock was produced	2.7%
117	Carton has not been cut	2.1%
144	Not enough stock in location for bulk pick	1.7%
105	Incorrect stock in reserve location	1.4%
134	Incorrect number of items in pick or reserve location found while performing defaults	1.3%
106	Incorrect stock in the pick bin	1.2%

This is often supported by Task Restructuring – another way of removing or reducing low value activity

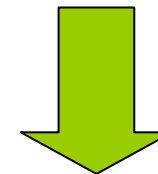
Task	Activity	CSDM	Hours	Review Classification	Hours Saved	Notes
4	Budget to Actual Results Analysis (Months)		0.5	MAINTAIN	0.0	
6	1. Receive ECR Report from FA	D	0.1			
7	2. Receive DTR Report from FA	D	0.1			
8	3. (DTR Report Generation) (See below as it completes all information)	D	0.0			
9	4. Receive (via SAP system) Transaction Listings FA	D	0.1			
10	5. Request ECR Report from FA	D	0.1			
11	6. Receive ECR Report from FA	D	0.1			
12	Analyse Reports		2.7	REDUCE	90.0%	-1.4 Data Analyst will help reduce queries back from management
13	1. Line by Line look for variations to budget	D	2.7			
14	Investigate Significant Variances		4.4	ADD	90.0%	-2.3 LR write extra investigation and commentary will reduce the amount of queries back to finance
15	1. If find variation drill down on the item	D	0.3			
16	2. Investigate causes for variations	D	3.0			
17	3. If required, determine who to contact for more information on the transaction	N	0.3			
18	4. If required contact originator or person responsible and resolve	N	0.3			
19	5. (A lot of focus on REM items, storage review, occupancy)	N	0.0			
20	6. If originator is not available then follow up next period	N	0.3			
21	Make Adjustments with Journals		0.5	REDUCE	90.0%	0.5
22	1. Make assessment if variation is acceptable	D	0.3			
23	2. If acceptable then make notes on reasons for variance (for future reference)	D	0.3			
24	3. If not acceptable then prepare journal and send to SC admin mail box	N	0.0			
25	4. If not acceptable then instruct FA to create journal	N	0.0			
26	Approve Results for Issue		0.5	REDUCE	90.0%	0.2
27	1. Receive updated reports from FA	D	0.0			
28	2. Consider the review	D	0.3			
29	3. If required then further investigate an issue	N	0.0			
30	4. If required then instruct FA to make change	N	0.0			
31	5. (More focus on PSPP D)	D	0.0			
32	6. Approve for release (to FA)	D	0.0			
33	7. (Exports then get distributed)	D	0.0			



“SMART”	MEANING	COMMENT
S TOP	Stop this task (Do not do it anywhere any more)	(stop means <i>eliminate from the operation completely</i>)
M AINTEIN	Keep this task in this team	(you may still reengineer to improve it though...)
A DD	Do more of this task (New effort – not currently being done elsewhere)	Effectively a core injection
R EDUCE	Do less of this task (lower volume/lower frequency)	(Reduce is usually in response to a change in environment or need for a task – This is not an efficiency saving due to noise reduction or saving due to redirection)
T RANSFER	Do this task in another team (benefit in cost to perform or focus)	(Redirection may deliver a saving either by more appropriate resource doing the work or via ‘consolidation’ where we can get economies of scale)

Start with a precise knowledge of what is done today (see Appendices)

Ensure that the tasks are appropriately allocated to roles (See Appendices)



Develop Job Descriptions with Appropriate Measures

The Implementation approach has strong philosophical underpinnings

- ❑ Starts with a very strong **focus on Quick Wins**
- ❑ **Implements in Waves** (up to 5) – usually starting with the easiest ideas to implement
- ❑ Early victories are internally promoted to **build credibility** – earning the right to proceed to more difficult changes
- ❑ **Measures are used at 6 levels** (see Measures section) – with particular focus on leading indicators (especially Behavioural Change Indicators)
- ❑ **Strong communication**, including visual measures, is maintained throughout the implementation
- ❑ Governance through an active Steering Committee is used to help drive changes, with the mantra **momentum is your friend**

Conclusion

- ❑ Cycle time issues are often caused by
 - Noise
 - Poorly designed flows
 - Inadequately disciplined execution
 - Problematic interfaces
- ❑ As time is a significant basis for competition, it is fortunate that there are well tested methods to improve cycle times
 - Process Reengineering
 - Task Restructuring
- ❑ These methods can be used in a way which engages staff to deliver Quick Wins with low capital spend – as well as delivering more radical solutions for management action.