

BEVINGTONGROUP

The Use of XeP3 at SupplyChain1

Increasing Resource Utilisation
at Reduced Cost

Understand • Engage • Evolve

www.bevingtongroup.com

The Client Background

- ❑ SupplyChain1* is the supply chain operation of one of Australia's largest retail networks. It is under constant pressure to improve its financial performance within increasingly stringent SLA targets
- ❑ Core issues that concerned management included
 - On-time delivery
 - Stock-levels
 - Breakages
 - Staffing levels
- ❑ SupplyChain1* wanted to make the distribution process more efficient by increasing resource utilisation, while also reducing the total cost of the operation.

The XeP3 Approach

Client staff were trained in the XeP3 methodology in order to own the outcomes

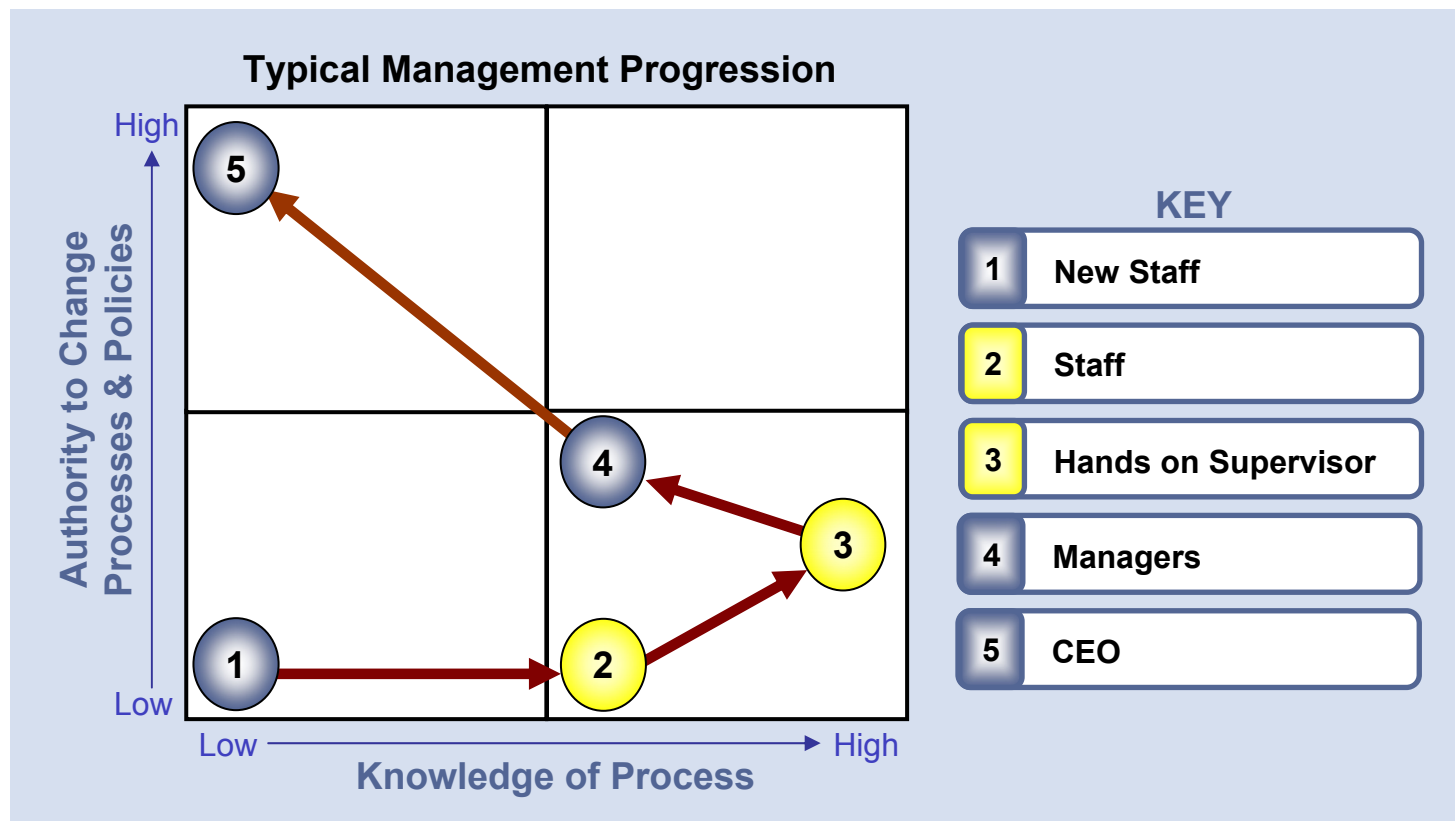
Conducted in 3 project phases: Understand, Engage and Evolve



It was important to collect the data from the people who actually do the work

Typically organisations find that with increased authority to change comes less knowledge of the detailed process ...

The people who do the job are best placed to tell us about it...



Capturing the actual activity of the people who perform the work identifies the 'real' problems



Warehouse1 Supply Chain

Tasks and Activities



Status:		AU3 - Receiving Floor
Completed by:		Date: Monday, 6 December 2004
Team Member Check: <input type="checkbox"/>		
Quantified Tasks	Quantified Services	
Unloading 120 trucks per day		
Checking 1000 orders per day		
Processing 120 - 180 pallet dickets per day		
Porting 1000 pallets per day		
General Administration		
Main and Sub-Activities		

A) Unloading 120 trucks per day

1 Getting Equipment

- 1.1 Receiving Team Member goes to Maintenance to get Manual Handling Equipment
- 1.2 If no MHE available, then Receiving Team Member walk the Distribution Centre to find one
- 1.3 Unplug MHE
- 1.4 Complete pre-operational check
- 1.5 If pre-operational check fails complete fault register, report to maintenance
- 1.6 If pass, Receiving Team Member signs log book recording name, date and pre-operational ok
- 1.7 Take MHE to Receiving department ready for use

3.3 Check brands on con-notes

3.4 Manually sort con-notes into like brands to facilitate in checking deliveries per brand

3.5 Place con-notes on table until stock comes off truck

4 Unload Rear trucks

4.1 Check the driver's paperwork has been checked and stamped prior to unloading the stock to ensure stock isn't rejected

4.2 If the paperwork hasn't been checked and stamped, send driver to the Receiving Office, then proceed unloading

4.3 Assess the load

4.4 If stock not on chep or loscam (skids) driver must rectify with the help of the

We then classified the value of the activities to understand what needed to change

- ❑ Categorising the activity identified steps that needed to be treated differently

Category	Definition	Examples
Core (Value Added)	<ul style="list-style-type: none"> • Core increase revenue • Reduce costs 	<ul style="list-style-type: none"> → Run preventative maintenance on the sorter out of hours to ensure no breakdowns occur during change over → Ensure correct labeling of all inbound goods
Support (Value Enabling)	<ul style="list-style-type: none"> • Deliver service • Support core activities 	<ul style="list-style-type: none"> → Sort cartons to relevant brand and store pallet → Print work sheets and labels from the system
Discretionary	<ul style="list-style-type: none"> • Management discretion 	<ul style="list-style-type: none"> → Check content against reports eg care labels on items, correct APN, correct retail prices, country of origin, correct stock, correct quantities packed → Complete daily report for daily reconciliations
Noise (Non-Value Adding)	<ul style="list-style-type: none"> • Re-work • Chasing Up • Process Failure 	<ul style="list-style-type: none"> → If labels not recorded in record book, find invoice and write details in → If book-in code is incorrect, a reject slip is written and given to driver

The Findings

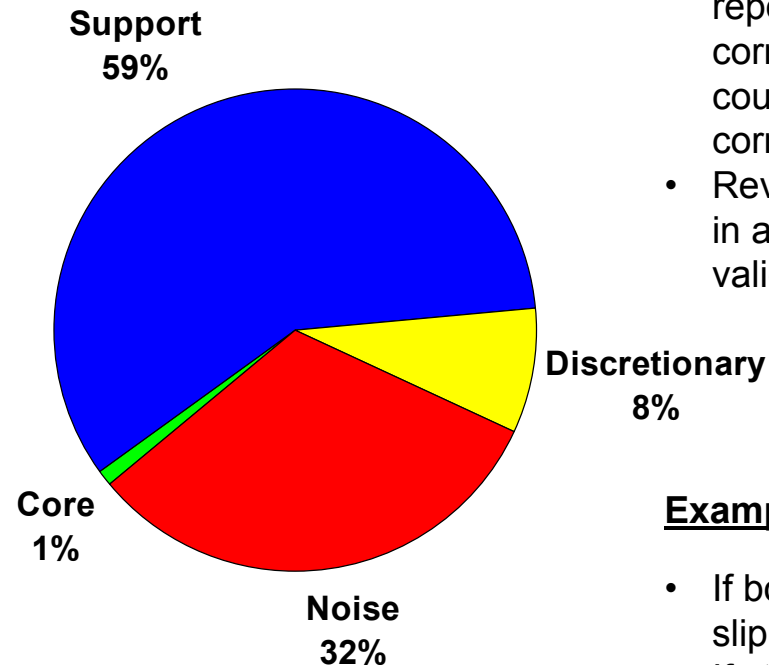
The overall Noise level within SupplyChain1 was significant (32% or 55 FTE)

Examples of Support

- Sort cartons to relevant brand/store pallet
- Print work sheets and labels from system
- Sort bags by state and separate country stores

Examples of Core

- Run preventative maintenance on the sorter out of hours, to ensure no breakdowns during change over
- Ensure correct labeling of all inbound goods



**Total Hrs - 22,643 per month
FTE: 174**

Examples of Discretionary

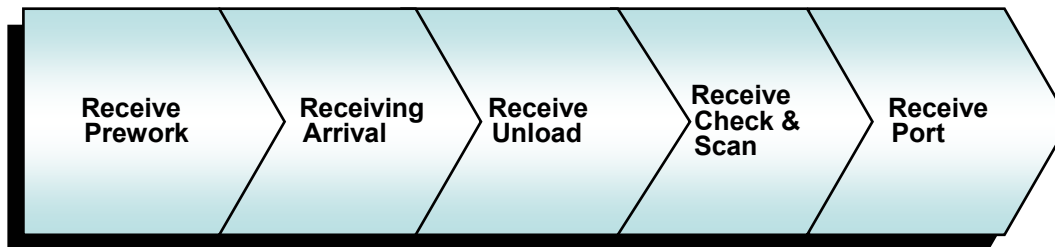
- Check content against system reports. eg. Care labels on items, correct APN, correct retail prices, country of origin, correct stock, correct quantities packed
- Review in priority order, orders faxed in and check that Shipping Notice is valid

Examples of Noise

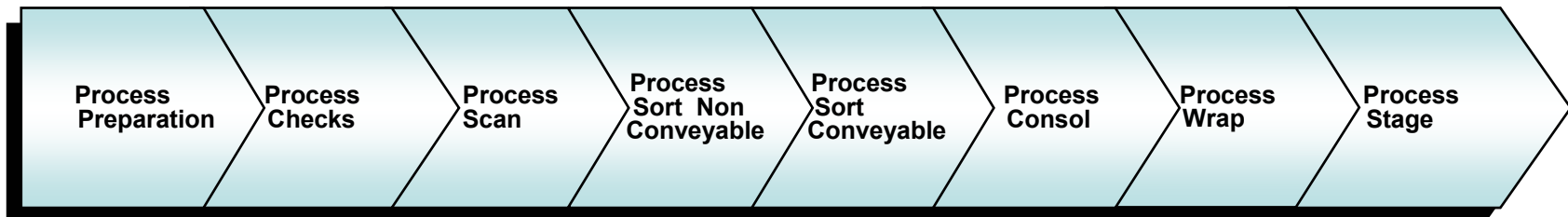
- If book-in code is incorrect, a reject slip is written and given to the driver
- If stretch wrap breaks whilst wrapping the pallet, re-apply
- If APN does not scan or is incorrect, print contents report
- If labels not recorded in record book, find invoice and write details in

The analysis identified that 78.6% (17,792 hours) of supply chain resources was consumed in Receive, Process and Despatch

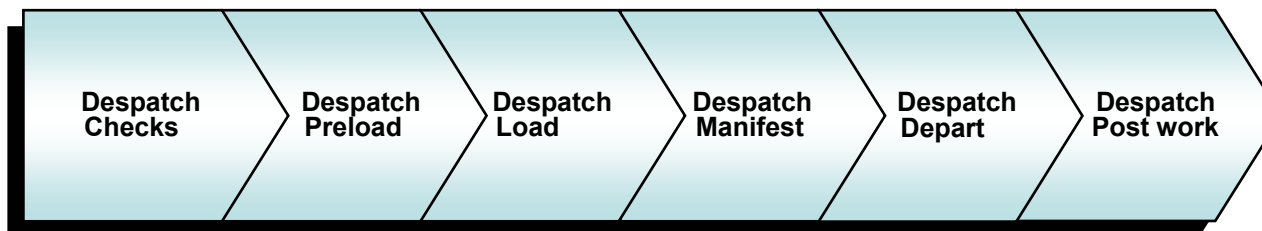
Receive - high level process arrow (4,369 Hours)



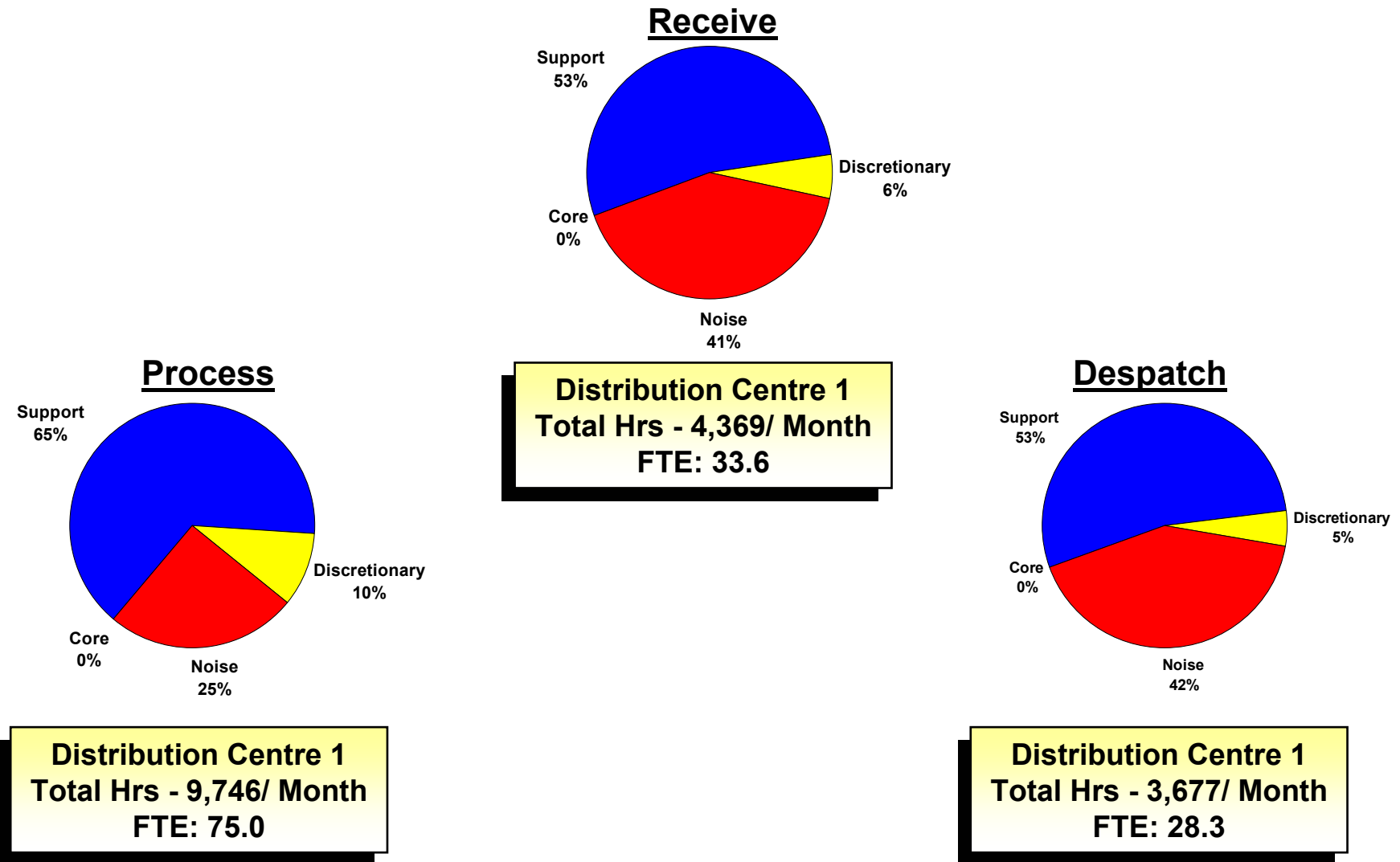
Process - high level process arrow (9,746 Hours)



Despatch - high level process arrow (3,677 Hours)



Each of these processes experienced different Noise levels



Further analysis showed the majority of the Noise was driven internally - addressing the key problems was under immediate control

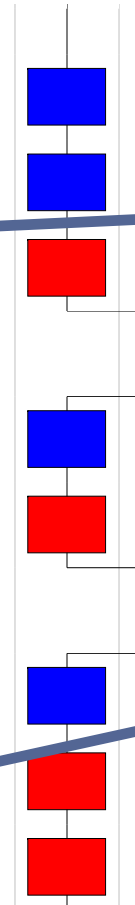
Receive, Process & Despatch – High-level (Meta) Noise Drivers

	Total Hours
2 - External Process Issues	1753.9
1 - Internal Process Issues	1542.41
5 - Site Equipment Problems	864.37
3 - Label Issues	613.7
8 - Duplication of Work	310.88
4 - Unallocated IT Solution	300.48
6 - Enquiries	174.92
7 - Communication Issues	127.51
Grand Total	5688.15

There were many individual Noise Drivers underlying the Meta Drivers

With the identified changes linked back to the root causes

26	Select the Brand Table.			
26.1	Close the last table.	S	2.13	0.7
26.2	Open the next brand table required for sorting	S	2.13	0.7
26.3	Call Maintenance if there is a problem.	N	0.99	0.3
26.4	Maintenance rectifies issue		0.0	0.0
26.5	Reboot the scanners if changing to different brands when required	S	2.84	0.9
26.6	If fails, contact Maintenance.	N	0.99	0.3
26.7	Maintenance rectifies issue		0.0	0.0
26.8	Open the inducts.	S	2.13	0.7
26.9	Allocate a person to watch the inducts.	N	1.42	0.5
26.10	Team Member ensures no double cartons are inducted onto the sorter system	N	48.99	15.9

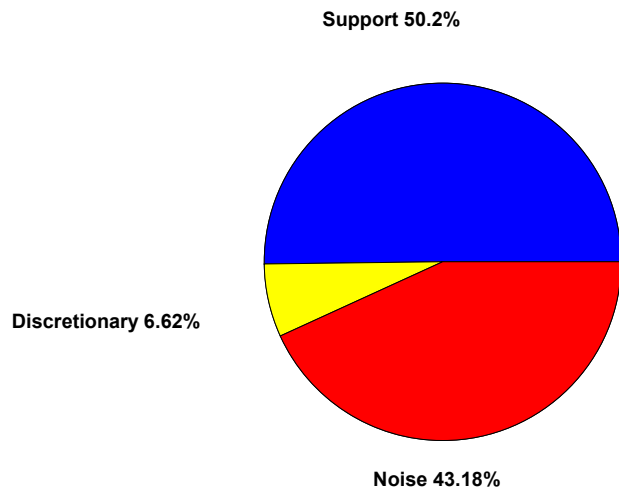


Run preventative maintenance on the sorter out of hours to ensure no breakdowns during change over

Maximise sorter throughput by ensuring no double cartons are processed prior to the commencement of a brand change

For example, analysis of the receiving process showed a significant performance improvement would result from 3 key initiatives.

Receive (Pre work to Unload) – CSDN



Opportunity: $827/2837$ (monthly hours) = 30%

+ Optimisation of additional Support Activities (14%)

Total Opportunity = 43%
 = 1225hrs monthly
 = 8 FTE

CSDN Data

Description	Core	Support	Discretionary	Noise	CSDN Totals	AU Totals
Hours:	0.0	1,424.2	187.7	1,225.2	2,837.1	2,837.1
% Hours	0.0%	50.2%	6.6%	43.2%	100%	100%
pa Costs (000s)	0.0	5.3	1.5	20.0	26.8	26.8

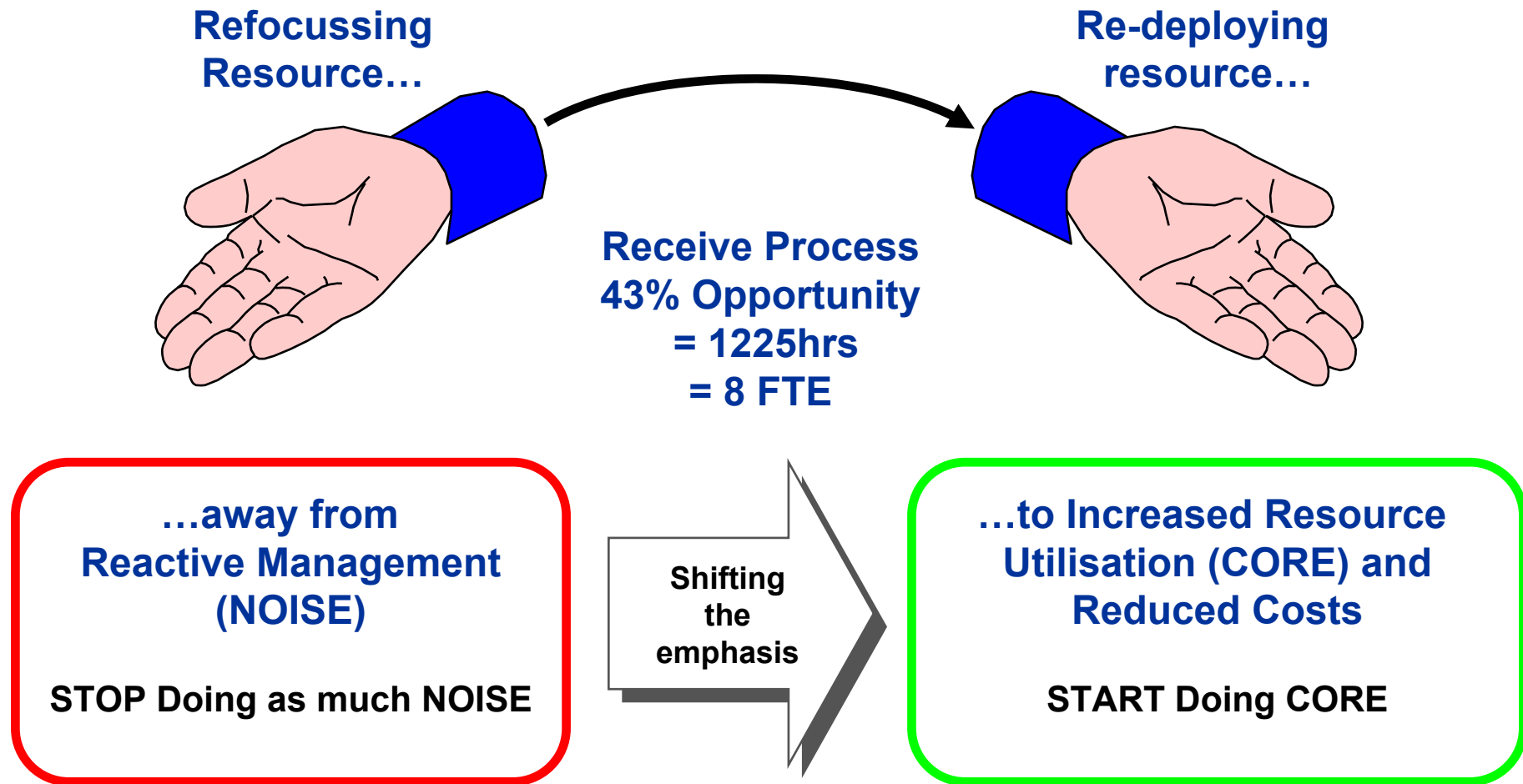
Receive – High-level Solutions	Total Hours
2 - Implement regular education program for external parties on DC criteria	826.7
3 - Implement regular education and communication program for internal parties	390.07
1 - Improve maintenance of site equipment	8.4
Grand Total	1225.17

Each initiative was built (and supported) from a set of detailed solutions

Receive, Process & Despatch – Detailed Solutions

		Total Hours
Opportunity	2 - Implement regular education program for external parties on DC criteria	
Solution	43 - Reinforce DC guidelines in manual to external parties	408.49
Solution	5 - Re-inforce External parties on booking in requirements	192.53
Solution	40 - Advise drivers to sort con notes into like brands prior to delivery	70.39
Solution	33 - Enforce site safety procedures with external parties at gatehouse	64.82
Solution	4 - Enforce use of email and other electronic formats with External parties	32.3
Solution	26 - Ensure Brands allocate within DC timeframes	26.51
Solution	13 - Ensure DIFOT is adhered to by external parties	13.82
Solution	48 - Adhere to IFS Inbound Brand limits	10.0
Solution	18 - Ensure Buying Office provide accurate store breakup allocations	4.5
Solution	20 - Reinforce to internal / external parties Purchase Order & ASN requirements	2.18
Solution	11 - Reinforce external parties on invoicing requirements	0.88
Solution	49 - Ensure driver contact details are available at Receiving Office	0.28
	Opportunity Subtotal	826.7
Opportunity	3 - Implement regular education and communication program for internal parties	
Solution	15 - Enhance current IFS and communicate to relevant parties	127.87
Solution	31 - Ensure efficient response to enquiries	73.11
Solution	7 - Enhance current ARS and communicate to external parties	58.47
Solution	12 - Ensure maintenance of data records within systems	41.83
Solution	1 - Communicate system enhancement to employees	36.41
Solution	9 - Enforce use of email and other electronic formats internally	17.82
Solution	2 - Gatehouse to key directly into excel spreadsheet	17.23
Solution	38 - Return MHE to maintenance after use	7.28
Solution	3 - Automate spreadsheet	6.98
Solution	10 - Assess requirement of report with National Office	2.77
Solution	24 - Investigate potential to send labels and allocations from Target to Westgate	0.29
	Opportunity Subtotal	390.07
Opportunity	1 - Improve maintenance of site equipment	
Solution	39 - Ensure maintenance of MHE	4.21
Solution	6 - Ensure maintenance of office equipment	3.63
Solution	29 - Ensure correct levels of stationery maintained	0.57
	Opportunity Subtotal	8.4
	Grand Total	1225.17

We reduced Noise and refocused Support activities to increase the resource utilisation and removed cost from the end-to-end process



Summary

- ❑ SupplyChain1 achieved its objectives of increased resource utilisation while reducing overall costs
- ❑ The project utilised XeP3 to:
- ❑ Highlight Cost Drivers through the XeP3 detailed activity data which allowed identification, and quantification of Process failure (Noise)
- ❑ Pinpoint where profit driving activities should occur for optimal performance and maximised bottom-line benefits
- ❑ Develop dynamic business cases using XeP3 Scenario Modeling functionality
- ❑ Compare different processes (by brand, function or geographical location)
- ❑ Capture and report on Key Performance Indicators (KPIs) and Behavioural Change Indicators (BCIs)