

How GHD revolutionised productivity reporting

James Gallagher



At a glance

GHD leading engineering, architecture and environmental consulting company

operating in **5** continents

100+ offices worldwide

85+ years in operation

5500+ people

2013 revenue: AUD **1.04** billion

serving **5** global markets

70+ service lines



Where are we?



About James Gallagher

- ❑ Joined GHD in 1997
- ❑ From April 2009 - Finance Manager Victoria
- ❑ From July 2012 - Finance Manager Victoria and Sydney
- ❑ From July 2013 became part of a team to roll out a BI solution within GHD Group
- ❑ Experience of local business reporting requirements and a drive for simplification and improvement
- ❑ Basic user of TM1 and Cognos and have increased my understanding over the last 11 months through various projects.



Business Challenge



Business Challenge

- ❑ Current utilisation reporting was introduced in 2001
- ❑ Business has grown from 1000+ people to 5500+
- ❑ Structures has changed
- ❑ Regions have been added
- ❑ Local reporting has been developed in each office due to no changes in standard reporting to a adapt with business change
- ❑ Each office looks at utilisation in local way rather than one uniformed way
- ❑ Reports are done at different times
- ❑ Reports have different features and information
- ❑ Business wanting more information than currently provided

Existing Report – Created in 2001

F3 Report (A, B, D and S staff only) - Time Report Version

Period from 7 / 2013 to 7 / 2013

James Gallagher

Page: 1 of 5

Service Group	Utilisation		Est Client %	Int Client %	Prop Ven %	Corp Admin %	Other Admin P/Claim %	Other Mktg %	Prop-ocac %	OHD Svc Behav %	Unac gned %	Total Ohead %	Total Avail %	Annual Leave %	Long Service Leave %	Public Holiday %	Sick Leave %	Other Leave %	Total Leave %	Paid vs Budget Variance %	Missing T/B %	Total Paid %																				
	Prp %	Chg %																																								
42C002 Cairns Environment																																										
26871	Dave Faulkner (FTD)	1.8%	26.6%	66.1	0.0	1.3		1.1	6.1	4.0		11.2	76.3	20.0		4.0			24.0	0.0		100.0																				
19964	Melissa Goszalko (FTD)	0.0%	73.5%	46.7	0.0	0.0	0.5	1.3	10.9			12.2	59.5	24.0		3.0	2.5		40.5			100.0																				
21244	Bronwyn Hooke (FTD)	0.0%	99.0%	56.5	0.0	0.0			0.5			0.5	56.0			3.0			44.0			100.0																				
42451	Matthew Jordan (FTD)	0.0%	0.0%	0.0	0.0	0.0		4.0				4.0	4.0			3.0			96.3	0.0		100.0																				
23990	Kristin Keane (FTD)	0.0%	76.1%	56.2	0.0	0.0		2.9	2.0	12.9		17.9	75.1	16.0		3.0	3.5		27.5	0.0		100.0																				
44116	Andrew Small (FTD)	0.0%	98.3%	31.5	0.0	0.0		0.5				0.5	32.0	64.0		4.0			68.0			100.0																				
26874	Wilee Geoffrey Tookey (FTD)	0.0%	0.0%	0.0	0.0	0.0						0.0	0.0			3.0			100.0			100.0																				
Total for 42C002 Cairns Environment																																										
0.3%																						84.1%	34.2	0.0	0.1		1.3	0.8	4.1	0.4		6.6	40.8	80.9		6.8	1.6	59.3	0.0		100.0	
42C004 Cairns Project Management																																										
19869	Joseph Ertrada (FTD)	0.0%	96.2%	61.1	0.0	0.0			1.1	1.6		2.7	65.7	23.2		3.0	5.1		36.3			100.0																				
44054	Neal Morrow (FTD)	0.0%	96.0%	16.2	0.0	0.0				0.8		0.8	16.0			3.0			34.0			100.0																				
23629	Samuel Thomas (FTD)	0.0%	98.9%	61.9	0.0	0.0			0.3	9.9		10.1	72.0			3.0	4.0		28.0			100.0																				
Total for 42C004 Cairns Project Management																																										
0.0%																						91.7%	39.7	0.0	0.0				0.4	3.2		3.6	45.3	46.3		3.0	2.4	56.7			100.0	
42C005 Cairns Building																																										
28433	Marla Betarte (FTD)	0.0%	100.0%	58.9	0.0	0.0						0.0	58.9	32.0		3.0	1.1		41.1			100.0																				
28437	Aaron Best (FTD)	0.0%	98.9%	49.3	0.0	0.0				0.5		0.1	55.5	36.5		3.0			44.5			100.0																				
23687	Andrew Bassett (FTD)	0.0%	92.9%	66.4	0.0	0.0		1.6		3.5		5.1	71.5	20.5		3.0			28.5			100.0																				
28436	Mark Birn (FTD)	5.1%	60.6%	44.3	0.0	3.7			26.6	3.2		28.2	75.1	18.9		3.0			26.9			100.0																				
28423	Rob Birn (FTD)	16.5%	41.9%	23.5	0.0	3.7		7.5	4.9	20.1		32.5	56.0	36.0		3.0			44.0			100.0																				
28424	Joe Catalano (FTD)	10.5%	73.7%	40.3	0.0	5.8			8.8	5.6		14.4	54.7	36.0		3.0	1.3		45.3			100.0																				
28446	Kate Edward Hart (FTD)	6.7%	57.3%	52.0	0.0	6.0			6.0	32.0		38.0	56.0			10.0			100.0			100.0																				
16301	Callia Heggle (FTD)	0.0%	90.2%	54.1	0.0	0.0				5.9		5.9	60.0	24.0		16.0			40.0			100.0																				
28430	Sonia Holzemer (FTD)	7.2%	93.5%	38.5	0.0	5.2		8.7	5.1	18.1	1.6	30.5	72.0	20.0		4.0	4.0		28.0			100.0																				
18516	Reza Karth-Pati (FTD)	0.0%	92.6%	70.4	0.0	0.0				5.6		5.6	76.0	16.0		3.0			24.0			100.0																				
29729	Dave Maiba (FTD)	0.0%	98.0%	38.0	0.0	0.0				62.0		62.0	100.0						100.0			100.0																				
48042	Jim Reid (FTD)	0.0%	90.2%	58.2	0.0	0.0			4.0			4.0	59.2	16.0		3.0	16.8		40.8			100.0																				
28435	Michael Steeles (FTD)	2.9%	80.3%	50.3	0.0	1.9			7.5	3.2		10.7	64.0	12.0	16.0	3.0			36.0			100.0																				
28426	Christine Sandrick (FTD)	0.0%	0.0%	0.0	0.0	0.0						0.0	0.0		92.0				100.0			100.0																				
28429	Alex Taylor (FTD)	5.6%	60.1%	44.3	0.0	4.2			19.2	10.1		29.3	75.6	14.4		3.0	4.0		26.4			100.0																				
28440	Cassie Taylor (FTD)	1.2%	29.2%	22.7	0.0	0.9		30.7		2.8		33.5	76.1	16.0		3.0			24.0	0.0		100.0																				
28431	Karen Hlatky (FTD)	0.0%	98.9%	71.2	0.0	0.0				0.8		0.8	72.0	20.0		3.0			28.0			100.0																				
Total for 42C005 Cairns Building																																										
4.5%																						71.9%	42.8	0.0	2.7		3.6	2.1	7.8	3.3		16.8	59.6	20.1	10.7	7.9	1.7	40.4	0.0		100.0	
42C007 Cairns Urban Development & Transport																																										
28565	Cameron Broadway (FTD)	0.0%	96.7%	66.1	0.0	0.0		2.4		0.5		2.9	65.0	16.0		3.0	8.0		32.0			100.0																				
23929	Mark Clancy (FTD)	0.0%	93.7%	14.7	0.0	0.0		20.2	2.7	6.7		30.1	44.5	20.0		3.0	6.1	21.1	55.2			100.0																				
24099	Emma Fitzgibbon (FTD)	0.0%	90.2%	61.3	0.0	0.0		6.4	2.9	2.1	1.6	6.7	65.0	20.0		3.0	4.0		32.0			100.0																				
28288	John Hall (FTD)	0.0%	36.1%	26.7	0.0	0.0			44.3	5.1		49.3	76.0	16.0		3.0			24.0			100.0																				
29740	Amanda Jill Maddocks (FTD)	0.0%	26.0%	20.0	0.0	0.0				60.0		60.0	30.0			20.0			20.0			100.0																				
24473	Joel Tomaso (FTD)	0.0%	96.2%	63.6	0.0	0.0				0.5		0.5	64.0	16.0		3.0		12.0	36.0			100.0																				
Total for 42C007 Cairns Urban Development																																										
1.5%																						66.1%	39.9	0.0	0.9		6.1	16.0	3.9	2.1		28.1	64.0	17.2		8.4	3.0	7.3	36.0			100.0
42C008 Cairns Water																																										
24097	Bibi Brown (FTD)	0.0%	96.7%	54.1	0.0	0.0			1.3	0.5		1.9	56.0	32.0		3.0	4.0		44.0			100.0																				
40460	Joseph Duggan (FTD)	0.0%	0.0%	0.0	0.0	0.0		20.0				20.0	25.0	64.0		3.0			72.0			100.0																				
29736	Amy Patrice Elba (FTD)	0.0%	31.7%	31.7	0.0	0.0				68.3		68.3	100.0						100.0			100.0																				
29738	Clare Ireland (FTD)	0.0%	26.7%	26.7	0.0	0.0		1.7		71.7		73.3	100.0						100.0			100.0																				

As GHD grew – so did local adhoc reporting

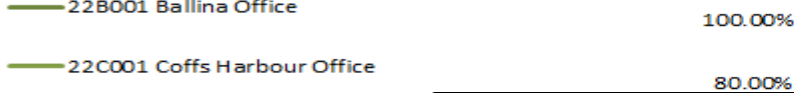
F3 Report (A, B, D and S staff only) - Time Report Version

Period from 7/2013 to 7/2013 Page: 1 of 5

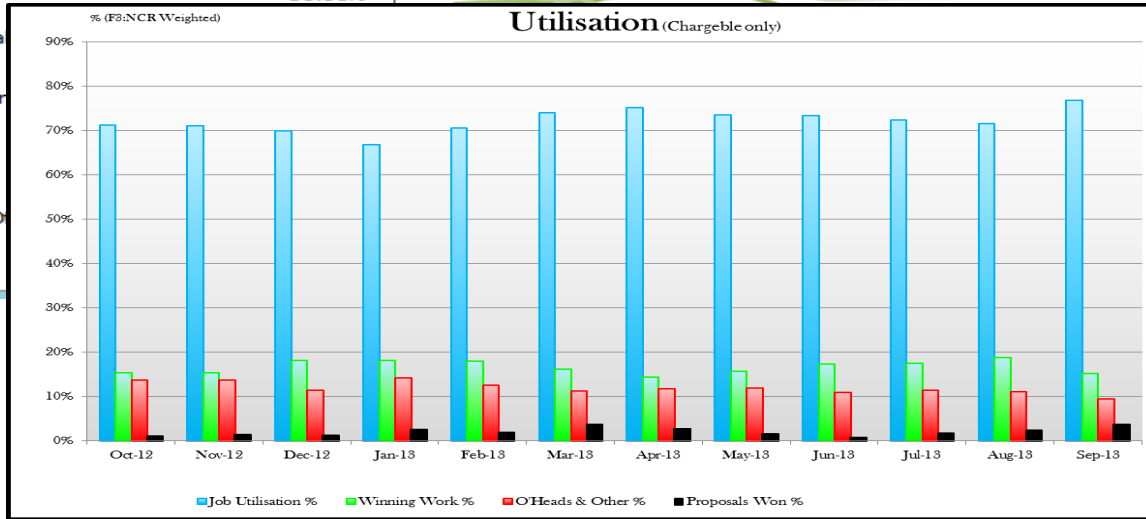
Division	Sub-Division	Proj	Off	Proj	Off	Proj	Off	Proj	Off	Proj	Off	Proj	Off	Proj	Off	Proj	Off	Proj	Off	Proj	Off
----------	--------------	------	-----	------	-----	------	-----	------	-----	------	-----	------	-----	------	-----	------	-----	------	-----	------	-----

SG Name	BG	Target	Prior Month	Week 1	Week 2	Week 3	Week 4	Week 5	Month Variance	Oct YTD Utilization
Operations	Business Services	13.5%	11.6%	8.0%	9.0%	7.2%	6.9%	8.4%	-5.1%	8.2%
	Business Services Total	13.5%	11.6%	8.0%	9.0%	7.2%	6.9%	83.2%	69.7%	8.2%
Risk Management	Energy	81.9%	67.8%	74.3%	78.6%	78.6%	71.4%	71.4%	-10.5%	70.7%
	Energy	68.9%	66.2%	49.9%	45.1%	48.0%	42.5%	65.7%	-3.2%	61.9%

Environment & Coastal Offices



Utilisation (Chargeable only)



Time for Change

- Simplification
- Consistency
- Improved Accuracy
- Remove local reporting
- Need one version of the truth



Support for BI solution



How did we get the support within GHD?

- ❑ The business was calling for improvement and simplification
- ❑ CFO has a drive for this change and sold the opportunity for improvement internally.
- ❑ Business case written in early 2013 to identify what our options were for improvement;
- ❑ Already using TM1;
- ❑ Business case approved;
- ❑ Budget allocation included to support development in FY 2014;

Utilisation change journey



Utilisation change journey



Business calling for change



Decision made for TM1 & BI solution



Engaged with stakeholders



Decision to get external help - Tridant



Scoping/project management plan

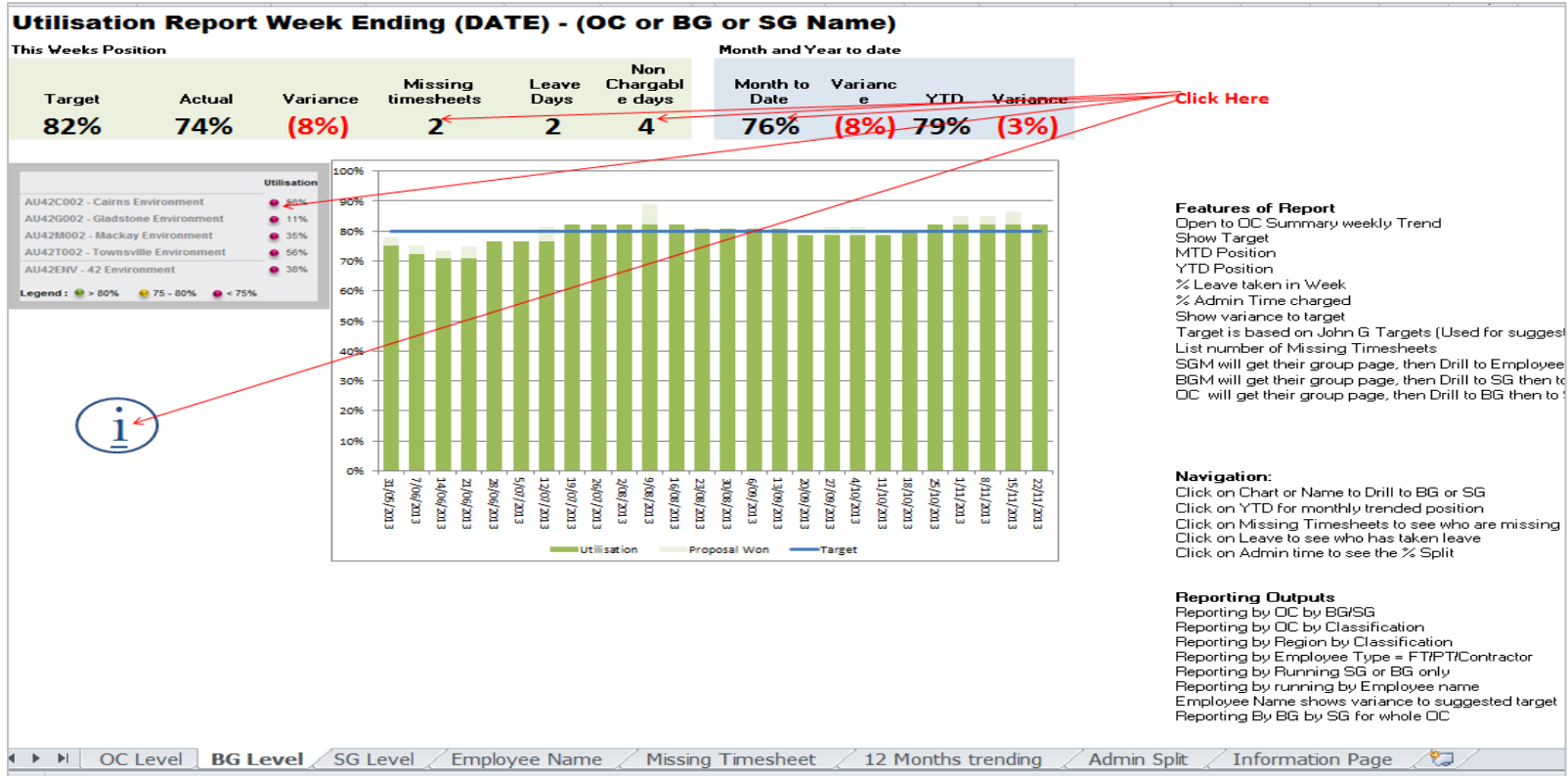


Report completed January for Go Live

Solution overview



Started with internal Mockup



Then got Tridant who worked on this Wireframe

Utilisation Dashboard (All Levels Exc. Employee)

See Additional Metrics Slide

Drill to 12-Month Trend

Drill between levels (Group, Region - OC - BG - SG - Employee)

Switch between Operating Centre/Employee and Employee Class

Parameters to Slice Data by:

- Operating Group
- Employee Class
- Business Group / Service Group

26 week rolling chart (more periods will be assessed)

Target	Actual	Variance	YTD	Variance
80%	75%	(5%)	75%	(7%)

TRIDANT
data driving decision making

Utilisation Dashboard (Additional Metrics)

Drill to missing timesheet report

Drill to Paid vs Booked Report

Drill to Leave Hours Report

Drill to Overtime Hours Report

Drill to Admin Split Report

Missing Timesheet	Leave Hours	Overtime Hours	FTS	Booked v Paid	Non-chargeable Hours
66	112	12	45	224	47

TRIDANT
data driving decision making

OC, BG, SG Design Considerations

TRIDANT

Design Considerations

TRIDANT

Utilisation Dashboard (Employee Level)

See Additional Metrics Slide

Drill to 12-Month Trend

Introduce parameters to slice change between:

- Operating Group
- Employee Class
- Business Group / Service Group

Spark line to represent utilisation trend

Control to change report between utilisation and admin split views

Introduce Back Button to drill back to BG Report

Admin	Training	Marketing	Proposals
120	30	100	10
150	90	110	10
145	20	105	20
120	20	90	40

TRIDANT
data driving decision making

Utilisation Dashboard (Drill Hierarchy)

Group

Region

OC

Business Group

Service Group

Employee

TRIDANT
data driving decision making

OC, BG, SG Design Considerations

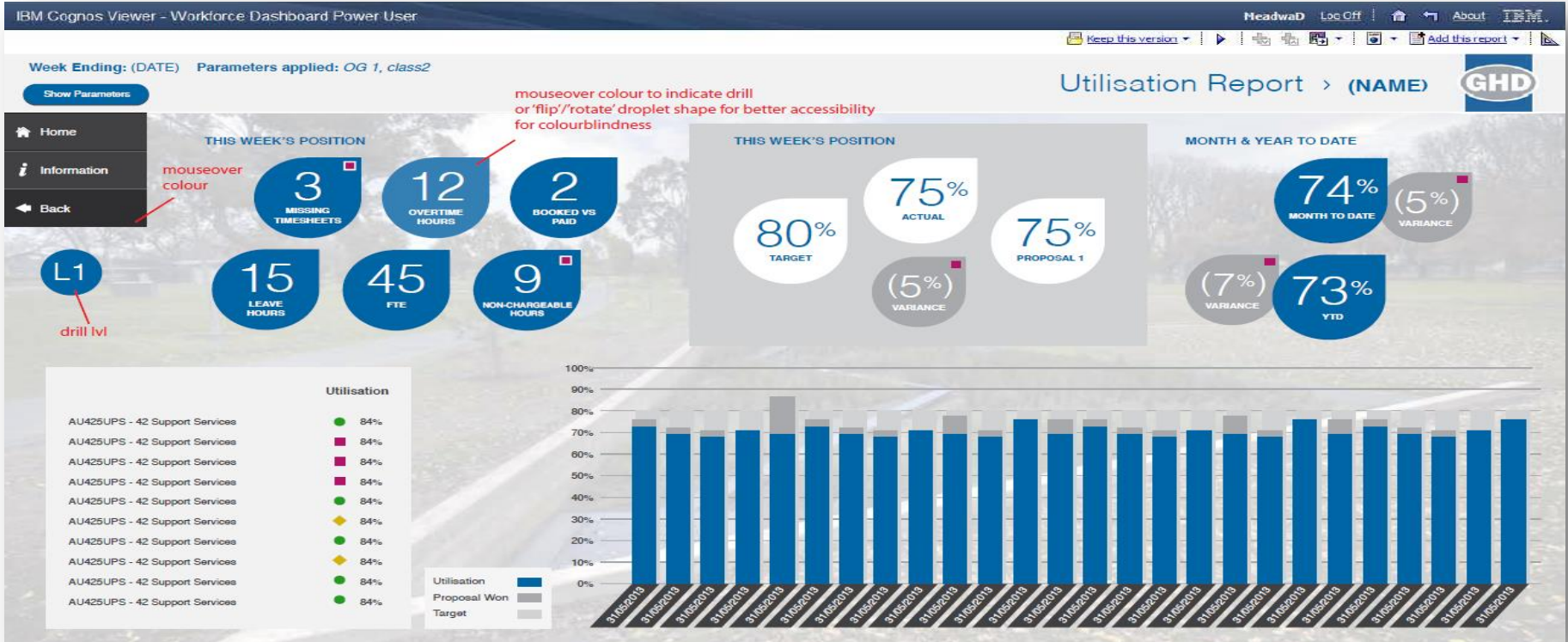
TRIDANT

Other Design Considerations

- Colour Palette
- Colour blind friendly
- HTTLC Support
- This Report will be consumed online via a pc (not an iPad report)
- Print friendly (print on ink)
- PDF version of the report will be emailed out and most likely printed
- Level indicator
- Somewhat of knowing at which level the user is in the drill hierarchy
- Information Page
- Not available on each page to allow drill to information page
- Back button
- Available on drill pages to allow navigation back to previous page

TRIDANT

Then got to see it!



Final Solution





Utilisation Dashboard

Group ▾

Region ▾

Operating Centre ▾

Business Group ▾

Service Group ▾





Utilisation Report

Week Ending : 01-11-13

Region : 42 - North Queensland

Operating Centre : All Business Units

Employee Class : All

Operating Centre

WEEKLY UTILISATION %



MONTH AND YEAR UTILISATION %



THIS WEEK'S POSITION

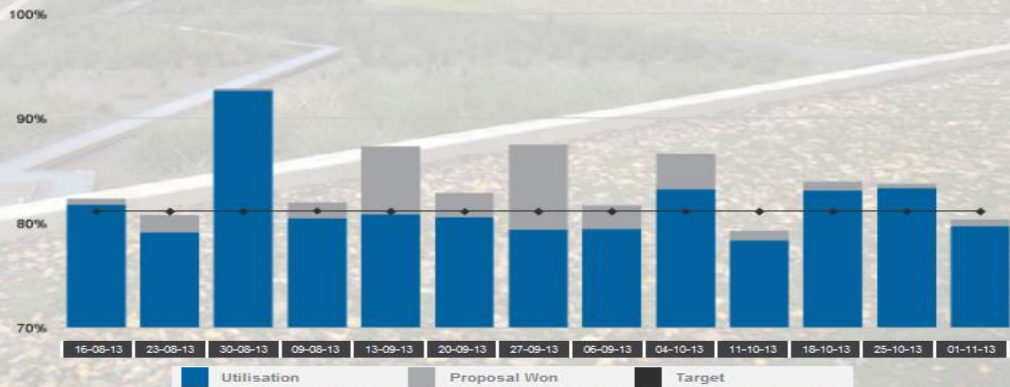


- Home
- Information
- Parameters

● - Meets Target
 ◆ - Within 5%
 ■ - Below 5%

Utilisation

	WTD	MTD	YTD
AU42BLDSTRS - 42 Building and Structures	87%	89%	87%
AU42ENV - 42 Environment	77%	79%	77%
AU42PRJMGNT - 42 Project Management	83%	79%	83%
AU42SUPS - 42 Support Services	45%	49%	47%
AU42URBTRNS - 42 Urban Development and Transport	85%	85%	88%
AU42WAT - 42 Water	90%	86%	85%





Utilisation Report

Week Ending : 01-11-13

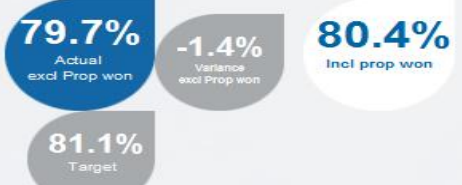
Region : 42 - North Queensland

Operating Centre : All Business Units

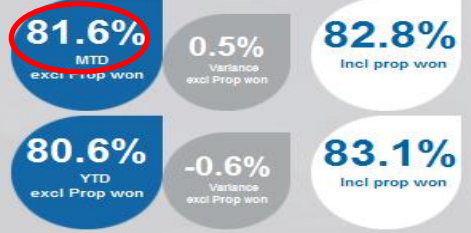
Employee Class : All

- Home
- Information
- Parameters

WEEKLY UTILISATION %



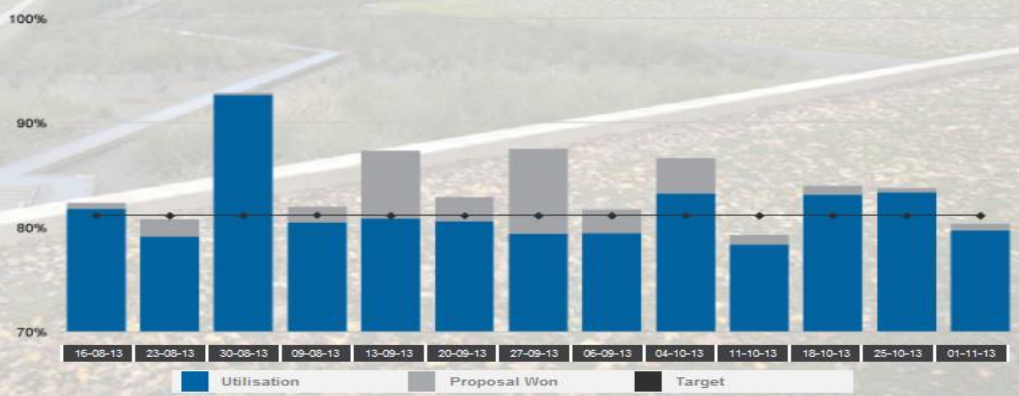
MONTH AND YEAR UTILISATION %



THIS WEEK'S POSITION



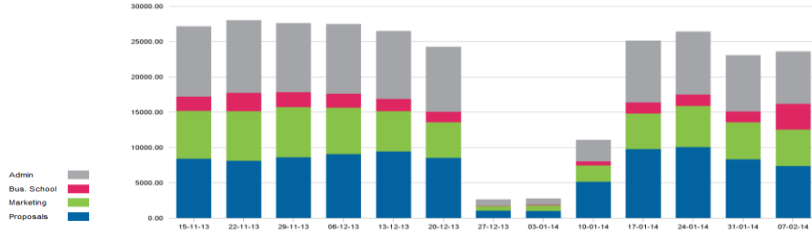
	Meets Target	Within 5%	- Below 5%
AU42BLDSTRS - 42 Building and Structures	87%	89%	87%
AU42ENV - 42 Environment	77%	79%	77%
AU42PRJMGNT - 42 Project Management	83%	79%	83%
AU42SUPS - 42 Support Services	45%	49%	47%
AU42URBTRNS - 42 Urban Development and Transport	85%	85%	88%
AU42WAT - 42 Water	90%	86%	85%



Utilisation Report

Admin Split

Week Ending : 07-02-14
 Region : Group
 Operating Centre : All Business Units
 Employee Class : All



Drill through options

Keep this version



Utilisation Report

Overtime Hours

Home

Information

Parameters

Employee Name	Overtime Hours
Danny Fleming (13491)	7.50
Tristan Thomas (18413)	3.00
Parham Foomanni (25907)	9.50
Ray Hills (65045)	14.50
Ryan Dodds (15487)	6.00
Amy Patricia Elkington (19290)	7.50
Mazyar Razmavar (25293)	7.50
Steve Gunawan (23954)	7.50
Adrian White (30743)	7.50
Fengting Chen (25920)	12.00
Doug Lewis (28848)	5.00
John Maddison (26310)	4.50



Utilisation Report

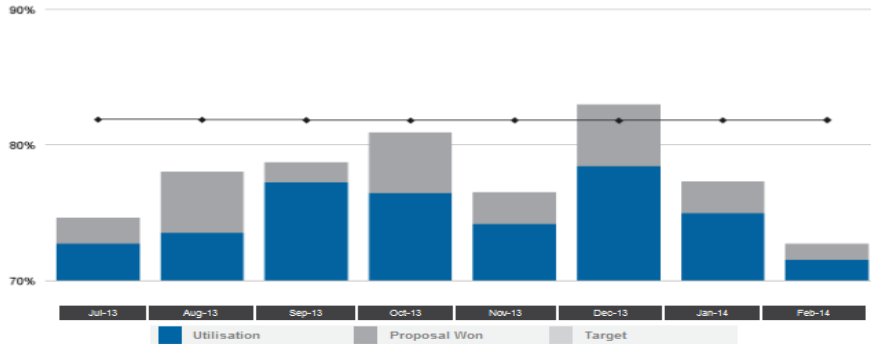
Missing Timesheets

Home

Information

Parameters

Employee Name	Week Ending
Kevin Carr (26243)	07-02-14
Shahab Eddin Hossaini (19822)	07-02-14
Frederic Saint-Cast (23240)	07-02-14
Adam Wilmot (16763)	07-02-14
Nahin Ahmed (23323)	07-02-14
Chris Grant (29118)	07-02-14
Avind Malik (29822)	07-02-14
Stanley Tan (69212)	07-02-14
Heather Curley (69375)	07-02-14
Neal Smith (14464)	07-02-14
Cameron McDonald (68161)	07-02-14
Liam Donnelly (21185)	07-02-14
Erik Geidans (66085)	07-02-14
Alex Piper (66668)	07-02-14
John White (66106)	07-02-14
John Kotula (21992)	07-02-14



Drill through options

IBM Cognos Viewer - UtiliDash - Leave Taken Hours

James Gallagher Loc. Off

Keep this version

GHD

Utilisation Report

Leave Taken Hours

Week Ending : 07-02-14
Region : Gr
Operating Centre : All
Employee Class : All

Home
Information
Parameters

Employee Name	Annual	Long Service	Personal	LWOP / Other	Total Leave	Total Leave YTD (excl Public HO)
AU13485				-8.00	8.00	0.00
AU30807				15.00	15.00	15.00
Munawar A Kaware (UA76110)						392.00
John Aaltonen (15682)						228.00
Michael Gamil Samuel Abadir (UA76312)						104.00
Abbas Abbasi (29846)						16.00
Michael Abbott (15513)	7.50			2.00	9.50	347.75
Hesham Abdalla (QT75381)						142.50
Nechiyil Abdul (QT75061)	16.00				16.00	217.00
Roberto Abeliuk (85010)						220.50
Fouad Abo (32726)						130.50
Chris Acevski (28761)	15.00		18.50		33.50	276.00
Graham Arkere (13894)						105.00

IBM Cognos Viewer - UtiliDash - Time Above Std Hours

James Gallagher Loc. Off

Keep this version

GHD

Utilisation Report

Time Above Standard Hours

Week Ending : 07-02-14
Region : 21 - Sydney
Operating Centre : All Business Units
Employee Class : All

Home
Information
Parameters

Employee Name	WTD	MTD	YTD
Elena Bullo (21138)			1.00
Cristina Cabanillo (20250)			-1.00
Tara Caffrey (29938)			4.50
Barbara Campany (25813)	4.00	4.00	5.00
John Campbell (22004)			5.00
Pete Carson (22628)			3.50
Sherrie Castaldini (25089)			2.00
Roger Chance (26959)			18.80
Ian Chapman (21500)			1.50
Tim Chapman-Mortimer (14339)	3.50	3.50	58.00



Alternate BG views

The screenshot shows the IBM Cognos Viewer interface for a report titled "4. UtiliDash - BusinessGroup". The interface includes a navigation menu on the left with "Home", "Information", and "Parameters" (circled in red). The main area contains a "Please Select Parameters:" section with several dropdown menus: "Period" (circled in red), "Region" (listing Americas, ANZ, China, Europe, Middle East, SE Asia), "Employee Class" (listing various classes like A 1, A 10, etc.), and a "Crosstab View" dropdown (circled in red). A "Change to prior Periods" annotation points to the "Period" dropdown. A "Change to another BG" annotation points to the "Region" dropdown. A "Report just on a Class" annotation points to the "Employee Class" dropdown. A "Change output" annotation points to the "Crosstab View" dropdown. Below the parameter selection, there is a table of utilization data and a bar chart.

Annotations:

- Change to prior Periods
- Change to another BG
- Report just on a Class
- Change output

Utilisation Data Table:

Item	Utilisation		
	WTD	MTD	YTD
AU21S023 - Sydney Architecture & Building Engineering	67%	67%	73%
AU21S024 - Sydney Rail	71%	71%	69%
AU21S025 - Sydney Project Management	89%	89%	90%
AU21S026 - Sydney Roads	88%	88%	80%
AU21S043 - Sydney Materials Technology	68%	68%	83%
AU21S044 - Sydney Civil Structures	87%	87%	75%
AU21S050 - Sydney (DO NOT USE) Building Engineering	N/A	N/A	48%
AU21S051 - Sydney Integrated Transport Planning	80%	80%	85%
AU21S052 - Sydney Marine	86%	86%	79%

Service Group level



Utilisation Report

Week Ending : 01-11-13

Region : 42 - North Queensland

Operating Centre : AU42G003 - Gladstone Building

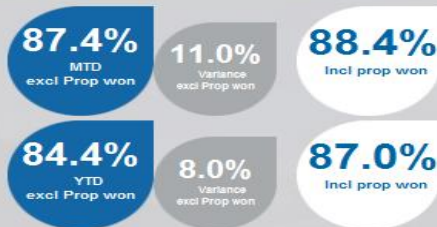
Employee Class : All

Service Group

WEEKLY UTILISATION %



MONTH AND YEAR UTILISATION %



THIS WEEK'S POSITION



Home

Information

Parameters

Employee	Classif.	Class	Target	06-09-13	04-10-13	11-10-13	18-10-13	25-10-13	01-11-13	MTD	YTD	
Dean Tasson	Casual	A11	95%	100%	100%	100%	82%	97%	100%	94%	96%	
John Anderson	Full Time	A7	65%	100%	100%	100%	100%	97%	97%	99%	88%	
Dean O'Connell	Full Time	A4	65%	59%	88%	45%	75%	85%	80%	76%	76%	
Michael Sway	Part Time	B4	95%	100%	100%	100%	100%	100%	100%	100%	99%	
Michael Sway	Full Time	A9	95%	96%	100%	75%	100%	100%	100%	95%	93%	





Utilisation Report

Week Ending : 31-01-14

Region : Group

Operating Centre : AU33A008 - AdI Building Engineering

Employee Class : All

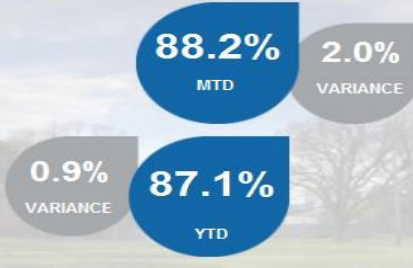
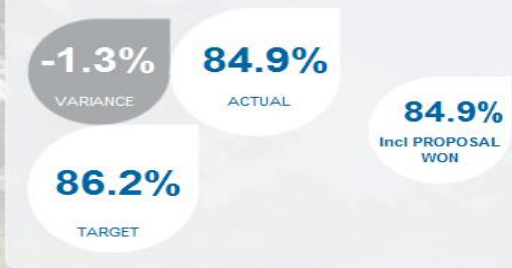
Service Group

WEEKLY UTILISATION %

MONTH AND YEAR UTILISATION %

THIS WEEK'S POSITION

- Home
- Information
- Parameters



Employee	Classif.	Class	Target	Actual	MTD	YTD	Administration Split					Total Admin
							Bus. Service	Office	Marketing	Proposals	Bus. School	
Debra Tasson	Full Time	A7	85%	98%	93%	85%			0			0
John Anderson	Full Time	B2	95%	100%	100%	92%						
Debra Tasson	Full Time	A5	75%			50%						
Nicole Law	Full Time	A5	75%	100%	98%	97%						
		A6				94%						

Hours each week charged to overhead type



Where are we today



Where are we today

- Embraced by Senior Management
- Report has been launched
- Listening to feedback
- Some enhancements have been made post launch
- Some slow to transition



Challenges post implementation

Challenges post implementation

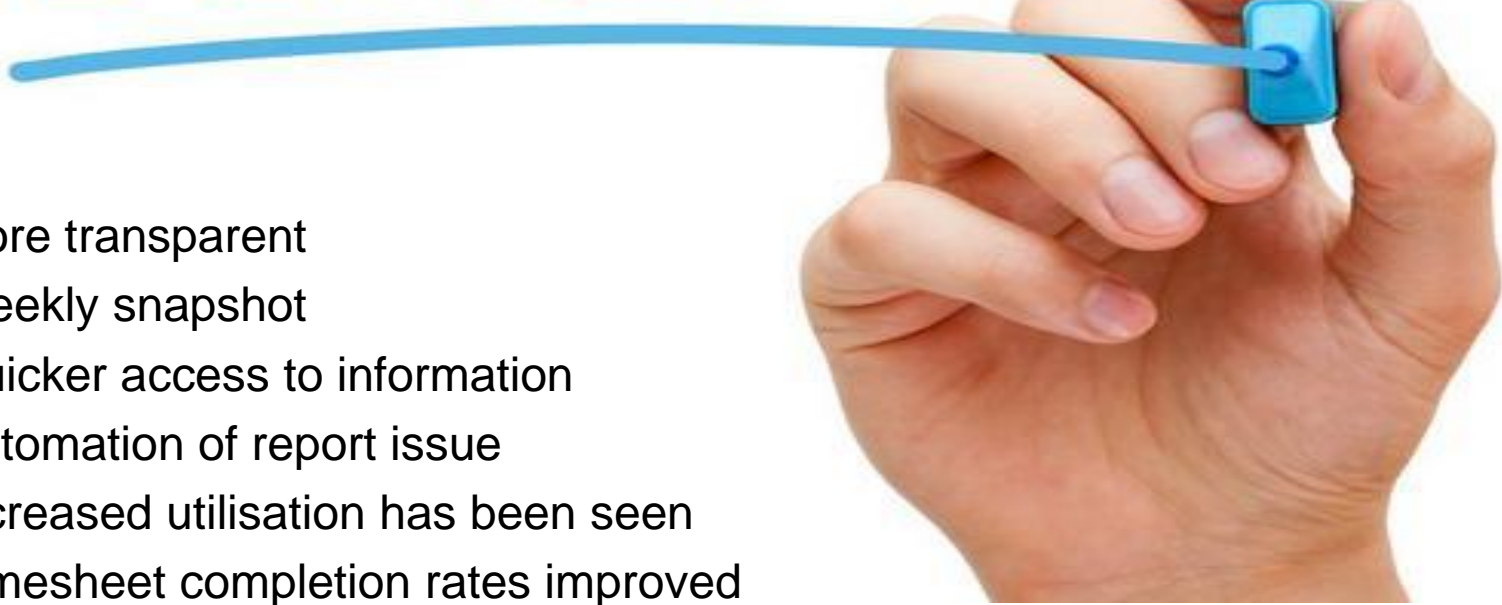
- ❑ Allowing office to launch when ready
- ❑ February vs July launch
- ❑ Resistant to change
- ❑ Detail engineers



Benefits



BENEFITS



- More transparent
- Weekly snapshot
- Quicker access to information
- Automation of report issue
- Increased utilisation has been seen
- Timesheet completion rates improved



Thank You