



One Venture
Infinite
Possibilities

WATERS QBR – 22nd July 2021



AGENDA (1500 - 1700)

- INTRODUCTIONS
- BUSINESS UPDATES (Presenter : Loo Kok Leong)
- MATERIAL UPDATES (Presenter : Lee Lean Lye)
- NPI & ENGINEERING UPDATES (Presenter : Teo Yiek Tiong)
- QUALITY UPDATES (Presenter : Bernadette Balan)
- GENERAL DISCUSSIONS

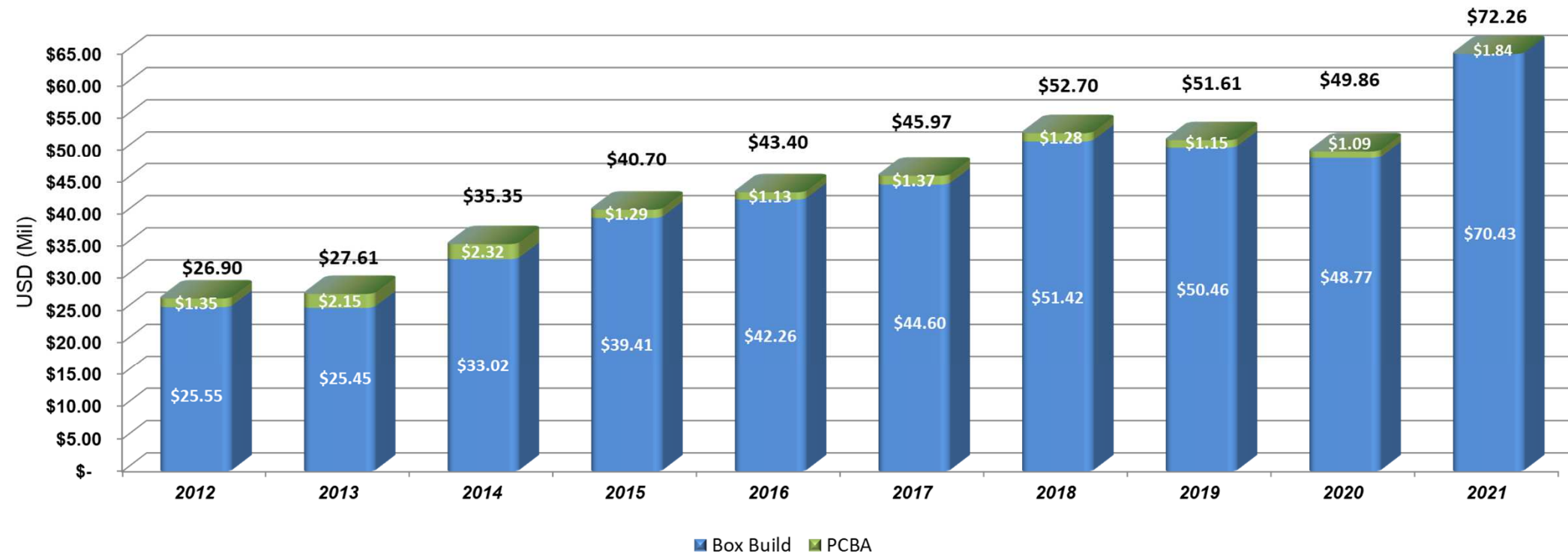
BUSINESS OVERVIEW

Presenter : Loo Kok Leong



REVENUE YOY COMPARISON

Forecast as of 13 Jul



Revenue YOY Growth	LC					LC + MS				
	NA	3%	28%	15%	7%	6%	15%	-2.1%	-3.4%	44.9%

- Revenue Q2 closed at 16.66 mil.
- FY2021 Increased \$22.4 mil compare to FY2020
- Strong FY2021 forecast with grow across various models

REVENUE BREAKDOWN BY PRODUCT GROUP

<i>Revenue by Product Group</i>	<i>Total Rev. (Y2020)</i>	<i>Percentage (Y2020)</i>	<i>Total Rev. (Y2021)</i>	<i>Percentage (Y2021)</i>	<i>2020 vs 2021 Rev.</i>	<i>Total Rev. (Y2022)</i>	<i>Percentage (Y2022)</i>
UPLC H & I	\$ 22,594	45.3%	\$ 26,876	37.2%	\$ 4,282	\$ 23,137	32.0%
ARC	\$ 4,288	8.6%	\$ 12,952	17.9%	\$ 8,664	\$ 18,662	25.8%
QDa / Radian	\$ 6,618	13.3%	\$ 10,790	14.9%	\$ 4,172	\$ 9,070	12.6%
HPLC	\$ 4,501	9.0%	\$ 6,632	9.2%	\$ 2,131	\$ 6,771	9.4%
SPARE KIT	\$ 4,149	8.3%	\$ 4,402	6.1%	\$ 253	\$ 4,317	6.0%
UPLC COMMON	\$ 2,547	5.1%	\$ 3,925	5.4%	\$ 1,378	\$ 3,793	5.2%
PCBA	\$ 1,094	2.2%	\$ 1,835	2.5%	\$ 741	\$ 481	0.7%
SIT	\$ 2,554	5.1%	\$ 1,347	1.9%	\$ (1,207)	\$ 68	0.1%
ACQUITY PREMIER	\$ 287	0.6%	\$ 1,329	1.8%	\$ 1,042	\$ 1,933	2.7%
ARC PREMIER		0.0%	\$ 1,170	1.6%	\$ 1,170	\$ 1,839	2.5%
BEACON	\$ 211	0.4%	\$ 580	0.8%	\$ 368	\$ 194	0.3%
UPC2 & APC	\$ 176	0.4%	\$ 136	0.2%	\$ (40)	\$ 163	0.2%
LEGACY LC	\$ 41	0.1%	\$ 115	0.2%	\$ 75	\$ 169	0.2%
UPLC CLASSIC	\$ 486	1.0%	\$ 100	0.1%	\$ (386)	\$ -	0.0%
Misc	\$ 318	0.6%	\$ 76	0.1%	\$ (242)	\$ 1	0.0%
	\$ 49,864		\$ 72,264		\$ 22,400	\$ 70,598	

- ARC contributed 18% of the sales with huge increase from new product Arc HPLC QSM
- Strong grow on QDa and New products (Acquity and Arc Premier) for 2021
- HPLC and UPLC Common increased are from Detectors and Heater/Cooler models

OTD (ON-TIME DELIVERY) FY21

Target ≥ 98 %

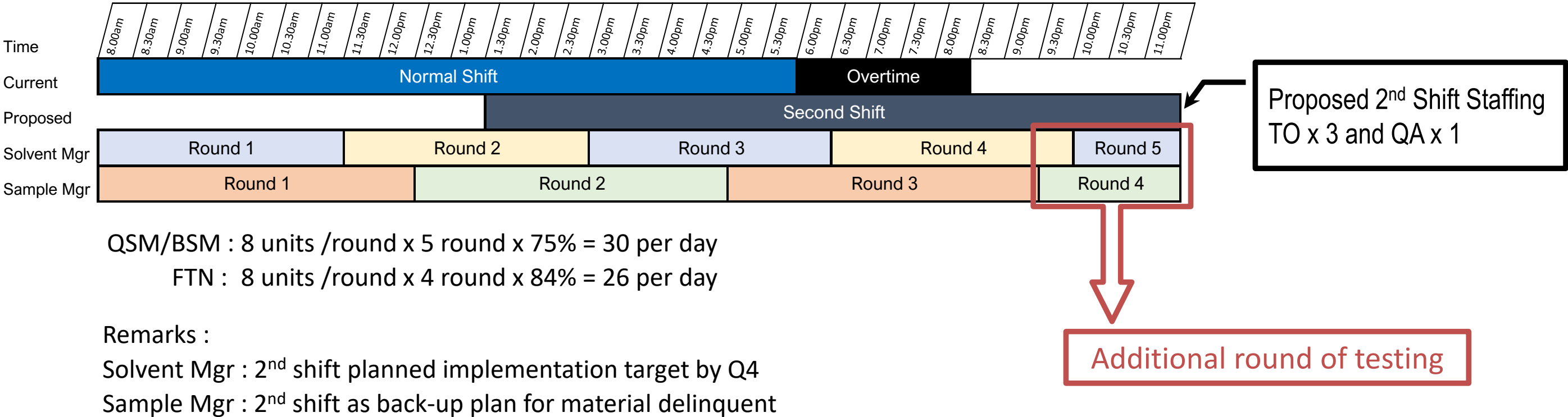
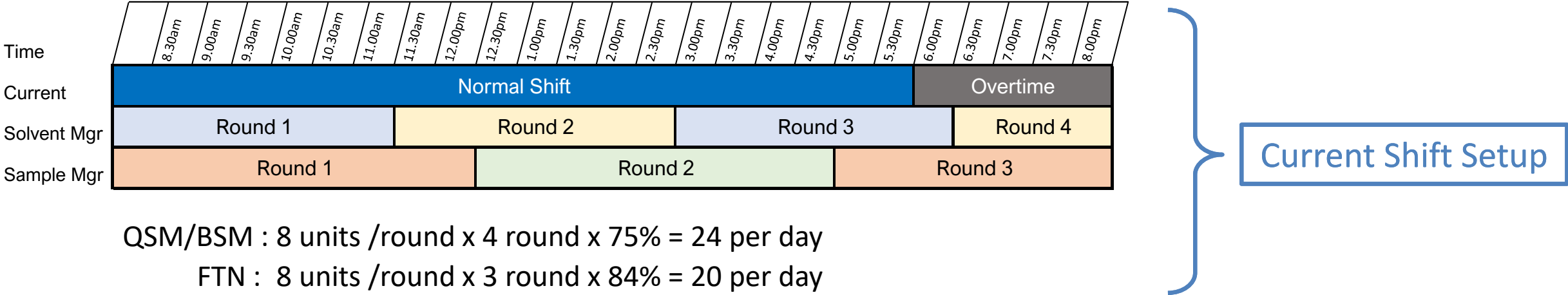
OTD (Instruments & Spares)	Q3'20	Q4'20	Q1'21	Q2'21	Average till date
%	100.00%	98.93%	78.53%	98.70%	94.04%

Proposed Staff Plan for 2021/2

LOCATION	Headcount as of 16 Jul	Headcount Requirement (Base on capacity calculator and forecast@13 Jul)						Proposed	Hiring Plan
		Q3 2021	Q4 2021	Q1 2022	Q2 2022	Q3 2022	Q4 2022	Q3 / Q4 2021	Q3 / Q4 2021
COLUMN HEATER	2	2	2	2	2	2	2	2	
ALLIANCE	6	6	6	5	5	5	6	6	
COLUMN MANAGER	4	5	4	4	4	4	4	4	
FTN/I-CLASS	7	9	8	7	6	7	7	8	+1, mid Aug
BSM/QSM	7	8	9	9	10	9	11	9	+2, mid Aug
DETECTOR	6	6	6	5	6	6	7	6	
QDA / Radian	5	5	4	3	3	3	4	4	-1
BEACON	1	1	1	1	1	1	1	1	
SIT	0	0	0	0	0	0	0	0	
Sub Total	38	42	40	36	37	37	42	40	
Spare/Sub	0	1	1	1	1	1	1	1	+1, end Aug
PACKER	2	2	2	2	2	2	2	2	
MATERIAL HANDLER	1	1	1	1	1	1	1	1	
Sub Total	41	46	44	40	41	41	46	44	
QA	3	4	4	4	4	4	4	4	+1, end Aug
Total	44	50	48	44	45	45	50	48	4

OTD (ON-TIME DELIVERY) FY21

Proposed Staff Plan for 2021/2



COST REDUCTION FOR FY2021/2022

No	CR opportunities	EAU 2021/2022	Subtotal	Target Date
1	QDa Labor Process and test improvement	723	\$36,894.69	Q1'2021
2	Beacon Labor Process and test improvement	333	\$34,303.80	Q1'2021
3	Proposed of removing 400002466 (PSU shield)	490	\$2,042.42	Q1'2021
4	Consolidation CRs from various suppliers	multiple	\$6,580.00	Q1'2021
5	BSM, QSM and HPLC Arc QSM packaging redesign palletization (W1290001182/E-R)	2418	\$20,601.36	Q2'2021
6	QDa PCBA test reduction	597	\$9,850.50	Q2'2021
7	Arc HPLC with higher MOQ	960	\$10,321.54	Q3'2021
8	Door hinge localization for Heater/Cooler	3638	\$10,477.44	Q3'2021
9	Mitigate cost PPV for Trend immediate phase in price in Q3'21 205001412, 400001346, 289005997, 400001347	multiple	\$30,804.15	Q3'2021
10	Foreign exchange rate (July'20-June'21 average)	multiple	\$68,040.50	2021
11	FTN packaging redesign palletization	723	\$5,061.00	Q4'2021
		Total	\$234,977.39	

No	CR opportunities	EAU 2022	Subtotal	Target Date
1	405001385 housing lamp localization	804	\$6,834.00	Q1'2022
2	QDa top cover 289010376 CR - replace alignment block(405016262) to moulded part(415002837)	586	\$2,930.00	Q1'2022
		Total	\$9,764.00	

- Challenging market situation with material cost pressure .
- Continuous work on CR in plan and look for VAVE opportunities.

KEY SUPPLIERS & MATERIALS OUTLOOK



Presenter : Lye Lee Lean

Q2'21 Supply Assessment

Q2'21 Achievement.

- Hit revenue of 16.66 Mil in Q2'21 with increase within the quarter.
- OTD improved to 98.70

Q2'21 Key Challenges

- Material shortages (due to parts depleted in Q1'21 upside)
- Logistic Congestion
- Tight time line in both NPI (Radian & Arc Premier) and mass production models.

PART NUMBER	Material Description	Final	Previous 19 Mar	VAR	%
186179100	Alliance Column Heater Cooler (Blue)	950	768	182	24%
186015043	ACQUITY UPLC CM-A	439	400	39	10%
186008511	ACQUITY QDa Detector	180	144	36	25%
186015085	ACQUITY UPLC H-Class FTN-H PLUS	535	500	35	7%
186018004	ACQUITY Premier CH-A	70	37	33	89%
186015082	ACQUITY UPLC I-Class BSM PLUS	312	280	32	11%
186017016	Arc HPLC QSM-R	385	355	30	8%
186015049	ACQUITY UPLC H-Class CM-AUX	102	80	22	28%
186247500	2475 Fluorescence Detector (blue)	138	127	11	9%
186017015	ACQUITY Arc Bio 30cm Col. Heater/Cooler	30	19	11	58%

- Top 10 instrument upside in Q2'21

Supply Risk Assessment

Q3'21- Upside Instruments

PART NUMBER	Material Description	Final	Previous 9 Apr	VAR	%
186017016	Arc HPLC QSM-R	469	350	119	34%
186015085	ACQUITY UPLC H-Class FTN-H PLUS	604	500	104	21%
186015042	ACQUITY UPLC CH-A	546	450	96	21%
186015043	ACQUITY UPLC CM-A	507	427	80	19%
186179100	Alliance Column Heater Cooler (Blue)	898	844	54	6%
186186301	Alliance Column Heater (Blue)	634	596	38	6%
186015049	ACQUITY UPLC H-Class CM-AUX	107	88	19	22%
186015045	ACQUITY UPLC CH-30A	69	54	15	28%
186247500	2475 Fluorescence Detector (blue)	136	127	9	7%
186018004	ACQUITY Premier CH-A	89	80	9	11%

*Top 10

- Based on latest Production plan change 13 July'21.
- Increase in various model through out the months.
- Major increase in QSM and FTN .

Q3'21 Challenges

- Material shortages due to upside
- Shortages of raw material – example Resin and Powder, Electronic component(IC).
- Port Congestion (Vessel delay, longer clearance lead time)

Supply Risk Assessment

Q3'21 Suppliers In focus

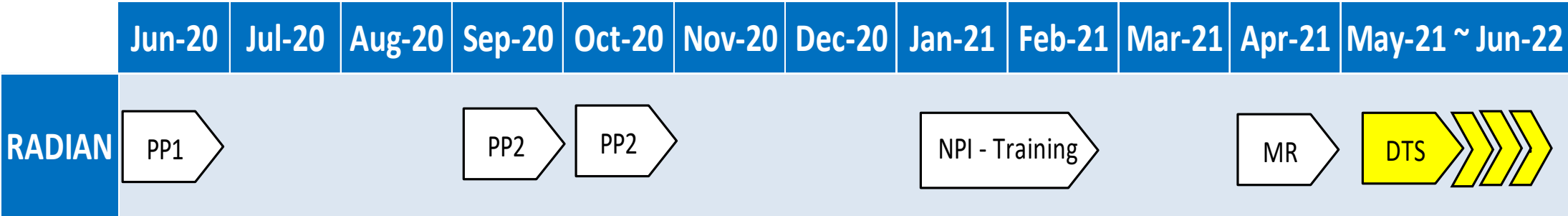
Supplier	Commodity	Issues	Models affected
Haydon Kerk	Motor	Short of material (Gear box)	Detector
Delta Electronics	Power Supply	Short of material (MPS IC)	Detector
Oneida	Plastic	Short LT (Manpower issue)	Detector
GTI Power	Power Supply	Short of material (Resistor)	Detector
Trend	Metal Part	Short of material (Powder)	Column Manager, Alliance
FOAMTEC	Gasket	Short of material (Foam)	Column Manager
ABB	Power Supply	Vessel delay	Column Manager
HBK	Electro- Mech	Short of material (Element)	FTN
Fuyu	Plastic	Short of Material (Resin)	FTN
NSK	Ball Screw	Capacity issue	FTN
Waters Milford	Machining	Short LT	QSM, FTN ,Column Manager
CEI	PCA	Short LT	QSM, BSM
TT Electronic	Cables	Short LT	QDA
SL Power	Power Supply	Short of Material (Wire)	Alliance

NPI & ENGINEERING UPDATES

Presenter : Teo Yiek Tiong



Waters NPI – Radian



Arc Premier – DTS Inspection	
Model	Radian
MR Start Build Date	31-Mar
MR Provisional Approval	19-Apr
1 st Production Shipment (DTS) Issue : ASAP- Breakdown Cause : Nitrogen Solution : N2 tank for ASAP+ & ASAP-	07-May

Nitrogen	AMITs (20L/min)	ASAP+ (3L/min)	ASAP- (3L/min)
N2 Generator (N2 >= 95%)	Passed	Passed	Breakdown
N2 Tank (N2 >= 99.99%)	Passed	Passed	Passed



 Corona Current & Voltage Instability

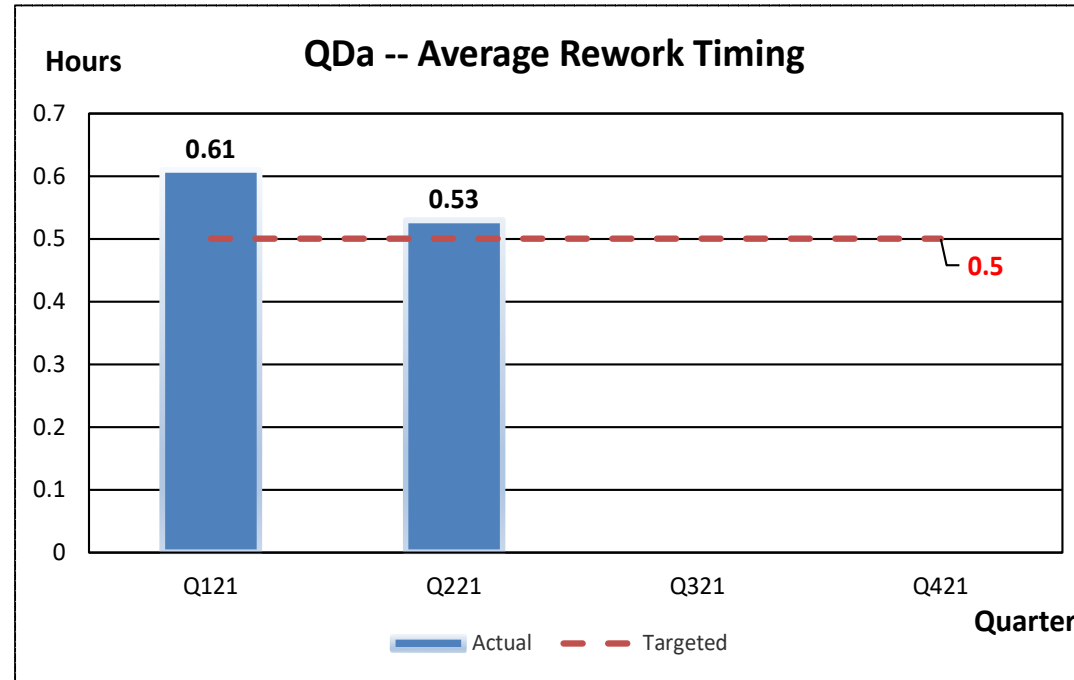
Waters NPI – Arc Premier

	Jan-21	Feb-21	Mar-21	Apr-21	May-21	Jun-21	Jul-21	Aug-21	Sep-21	Oct-21	Nov-21	Dec-21
Arc Premier	NPI - Training			MR		DTS						

Arc Premier – DTS Inspection					
Model	CH30-A	CM-AUX	FLR	CH-A	CM-A
MR Start Build Date	21-Apr	23-Apr	12-May	14-May	25-May
MR Provisional Approval	23-Apr	23-Apr	01-Jun	19-May	27-May
1 st Production Shipment (DTS)	31-May	16-Jun	28-Jul	25-May	14-Jun

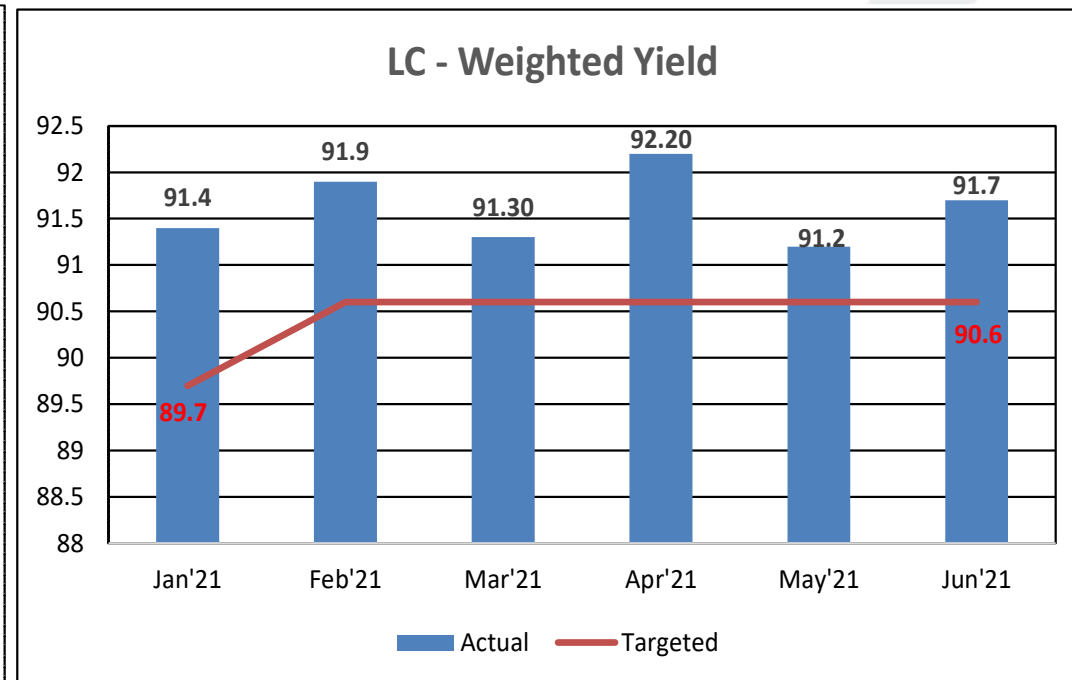


MS and LC – Rework Timing & FPY Trend



Rework Timing

- Materials Improvement :
 - Pumping Block (Venture) – Charging & Benchmark Sensitivity.
 - Ion Guide Connector (TT) – No Beam, flex cable trace broken.
 - Calibrant Heater Cable (Watlow) – No Int Calibrant Beam.



Yield Improvements

- FTN : Communication, system reboot.
- BSM : Dynamic Leak (Check Valve) and Priming.

Moving Forward – Q3 and Q4 2021

Productivity

- Stack-Up Re-layout – Done, May'21
- N2 Backup System – Done, May'21
- BSM & QSM Re-layout – Done, Jul'21
- BSM & QSM 2X Testers – In progress, Aug'21
- FPY Improvements – In progress, Q1 ~ Q4'21



Packaging

- Solvent Manager RSC – Done, Apr'21, \$21K
- Stack-up Packaging Redesign – Hold, Apr'21
- Redesign of Spare Packaging – In progress, Q3'21, \$1.5K
- Sample Manager RSC packaging – In progress, Q4'21, \$20K



Digitization

- Quality Performance Dashboard
- Real Time Visibility of FPY and Failure Modes
- 1st draft : Nov'20
- Waters Power BI Access : ~~Mar'21~~ Sep'21
 - > Standardization and Validation of Debugging Data – Done, May'21
 - > Setup of Dashboard & Guest Account – In progress, Sep'21



Moving Forward – Productivity



Moving Forward – Productivity

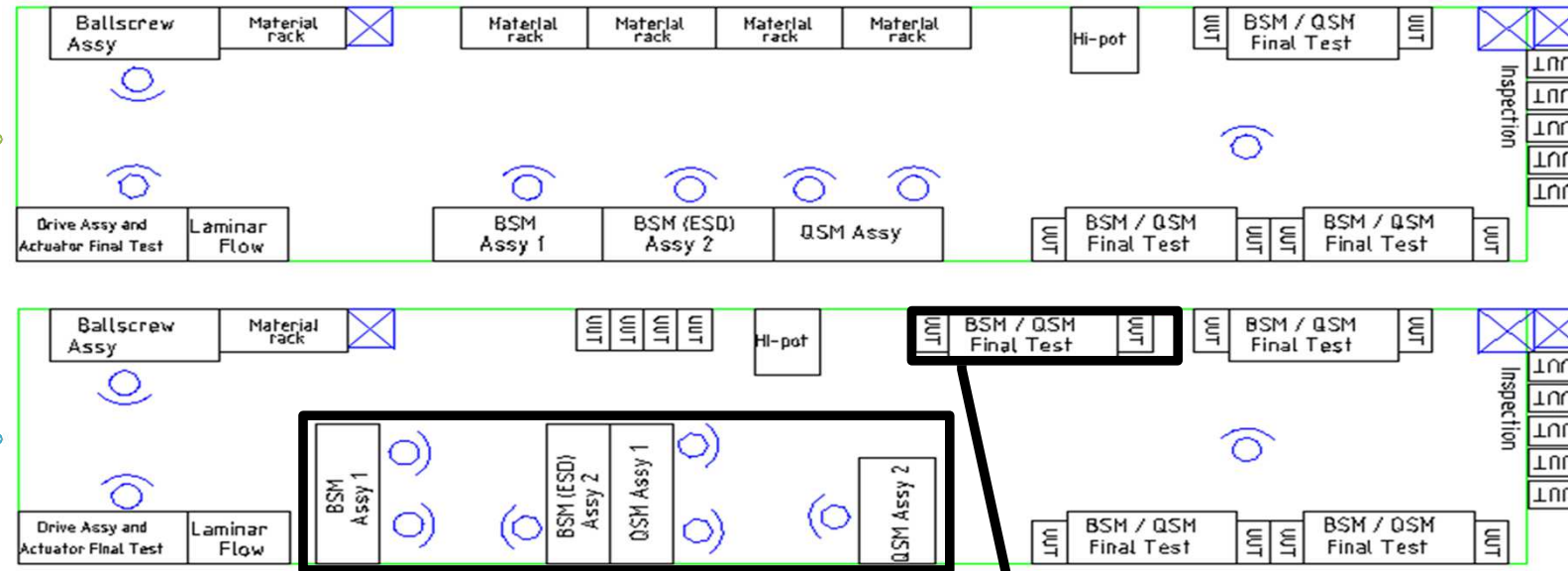
BSM / QSM

Previous Setup

Requirement = 822/Qtr
Max Headcount = 7
Max Assembly Output = **15**
Max Testers = 6
Max Test Output = 14

Current Setup

Requirement = 1152/Qtr
Max Headcount = 9
Max Assembly Output = **23**
Max Testers = 8
Max Test Output = 18



▪ Re-layout completed : 9 July

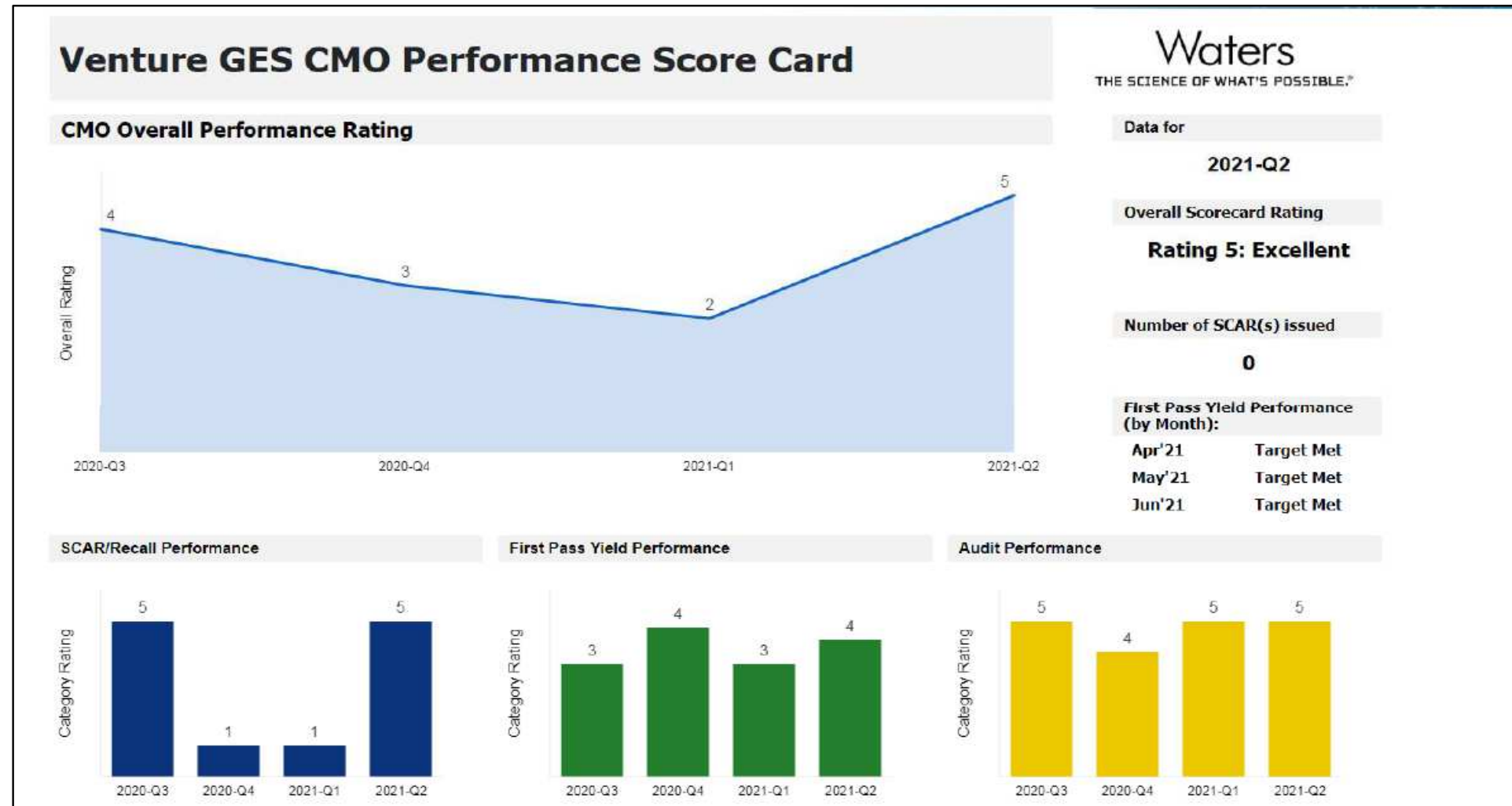
- Additional 2X testers : ETA 21 July.
- Qualification completion, Targeted : 6 August.

QUALITY UPDATES

Presenter : Bernadette Balan



Quality Dashboard



- ❑ Venture received an overall weighted rating of 5 (EXCELLENT!) in Q2' 2021
- ❑ No SCAR in Q2'21 and FPY Average at 91.7%
- ❑ Quality Improvement Projects (eDHR/eChecklist) – Ongoing Validation review and approval and targeting the full implementation by mid quarter of Q3'2021.
- ❑ Quality Improvement Project (Optimization for Standard Repair RMA) – Completed

Ongoing Key Improvement Activities in 2021

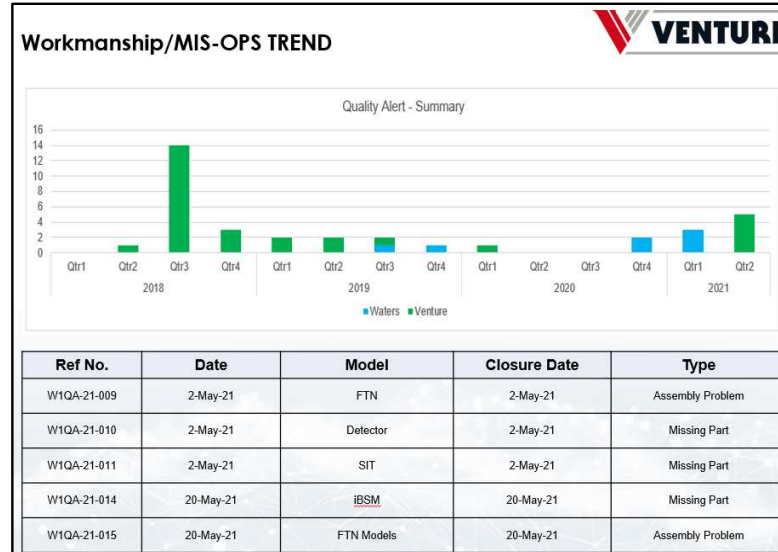
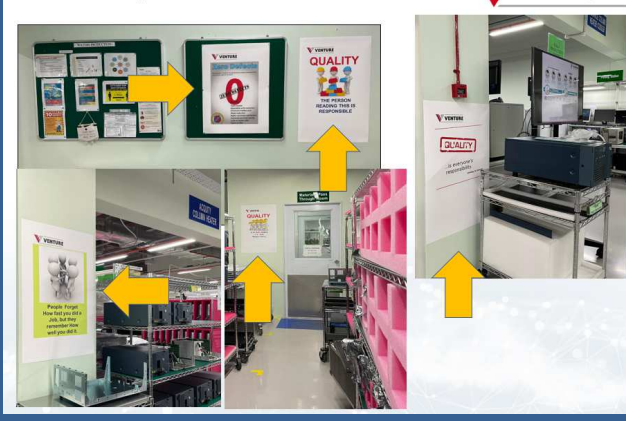
ZERO MIS-OPS CAMPAIGN

- Top-of-Mind** – Heightened awareness for Operator through
- Briefing and reviewing days with Zero Mis-Ops
 - Team scoreboard
 - Posters on production floor

- Encouragement and Recognition**
- Team-based competition and celebration
 - Recognition by top management

- Kaizen and Quick Implementation**
- Sponsorship to encourage implementation of valid ideas

ZERO Mis-Ops Posters



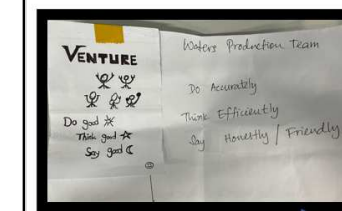
Towards Zero – Mis OPS Tabulation – Q2'21

Group Name	No of Mis-Ops	No of Submitted Ideas	Submitted Posters	No of weeks without Workman ship (\$3)	No of Detected Material Issue	Total Earnings
FTN Line	-2		1	4		\$ 12
iBSM/QSM/	-1		1	4		\$ 62
CM/CH/MH	0			13		\$ 89
Detector/MS	0	+1	1	13	+2	\$ 94
Alliance/ Packing/Accy	0		1	13		\$ 89
QA Team	NA	+1	1	NA		\$ 52

As of 30-Jun-2021 - Wednesday



BSM/QSM Team!



VENTURE – WATERS Production Team



Key Improvement Activities in Q2'2021

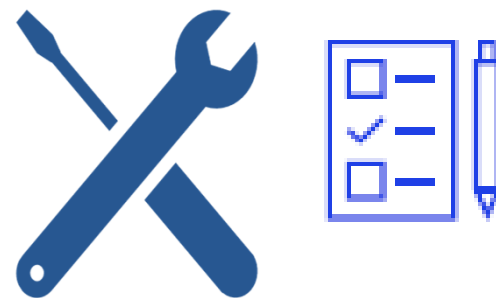
eDHR/ e-Checklist

Application



- Completion on: Project proposal and submission, Project benefits, Project realization/Application design and workflow/User Application Test, Pilot Run, Enhancement/Validation, Change Notification/SCN
- Left with joint Validation review and approval
- **BENEFIT:** Better Quality Documentation, Enable Data Analytics and Faster DHR retrieval, Enhances Productivity
- **Ongoing** – Test validation sample by phase for submission for approval – Targeting to complete on full implementation by Q3'2021

Optimization in Standard Repair RMA



- **Kick Start:** *May2021* Streamline requirements and process for standard instrument and spare repair at Venture by Q2'21
- **BENEFIT:** Documentation streamline to enhance productivity. Reduce redundancy by 20% for documentation submission and approval for TMPCN process for each standard repair at Venture.
- **Completed** – Work Instruction Update to kick start to use on next RMA return for Needle Carriage Assembly

GENERAL DISCUSSIONS



THANK YOU



APPENDIX



Instruments by Product Group

Product Group	Material	Material Description
UPLC H & I	186015000	ACQUITY UPLC I-Class BSM
	186015017	ACQUITY UPLC Sample Manager FTN
	186015042	ACQUITY CH-A
	186015043	ACQUITY UPLC CM-A
	186015045	ACQUITY HTCH-30A
	186015046	ACQUITY UPLC I-Class Sample Manager-FTN
	186015049	ACQUITY UPLC H-Class CM-AUX
	186015085	ACQUITY UPLC H-Class PLUS SM FTN-H
	186015088	ACQUITY UPLC I-Class PLUS SM FTN-I
	186015082	ACQUITY UPLC I CLASS PLUS BSM
HPLC	186001791	ALLIANCE COL. HEATER COOLER
	186001863	ALLIANCE COL.HEATER
	186002475	2475 FLUOROMETER
	186179100	Alliance Column Heater Cooler
	186186301	Alliance Column Heater
	186247500	2475 Multichannel Fluorescence Detector
UPLC COMMON	186015011	ACQUITY UPLC 30cm Col Htr/Clr.
	186015029	ACQUITY FLR Detector
ARC	186017000	ACQUITY Arc QSM-R
	186017006	ACQUITY Arc 2475 FLR Detector
	186017008	ACQUITY Arc 30cm Column Heater
	186017009	ACQUITY Arc 30cm Column Heater / Cooler
	186017014	ACQUITY ARC BIO 30CM COLUMN HEATER
	186017015	ACQUITY ARC BIO 30CM COL. HEATER/COOLER
UPLC CLASSIC	186015007	ACQUITY UPLC Column Mgr - Right Inlet
	186015008	ACQUITY UPLC Column Htr./Cooler
	186015009	ACQUITY UPLC Column Mgr.-Left Inlet
	186015010	ACQUITY UPLC Column Heater HT
LEGACY LC	186001500	1500 COLUMN HEATER
	186002441	Temperature Control Module II
	186002449	PCM II - PUMP CONTROL MODULE
UPC2 & APC	186015038	ACQUITY Active Column Manager
	186015039	ACQUITY Auxiliary Column Manager
QDA	186008511	ACQUITY QDA DETECTOR