MaintenancePlanning and Scheduling Process and Outcomes with Ideal Skills, Competencies

MAINTENANCE PLANNING AND SCHEDULING SIPOC DIAGRAM

Supplier
-Operator
-CMMS generated
-Technician

Supplier
-Operator Supervisor
-Planner (from CMMS and Technician)

Supplier
-Operator Supervisor
-Planner

Supplier
-Operator Supervisor
-Planner

Supplier
-Planner

Supplier
-Planner

Supplier
-Planner

Supplier
-Planner
-(Other Specialist)

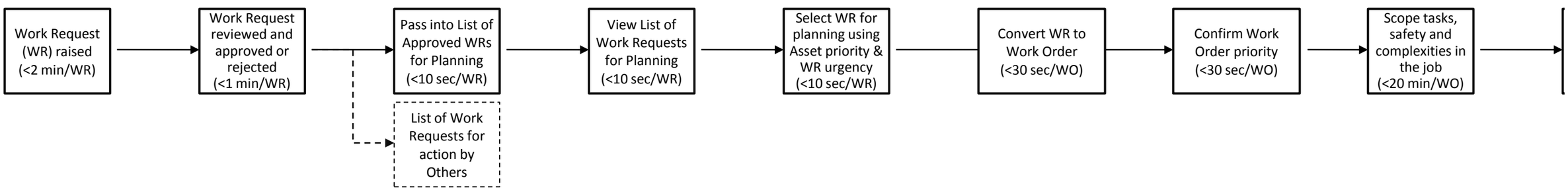
Skill/Knowledge Set
-Navigate CMMS
-Navigate asset hierarchy structure
-Process and asset performance specifics

Skill/Knowledge Set
-Expertly navigate CMMS
-Proficient in asset hierarchy structure
-Understands operating risk management and how to use work priority and job urgency

Skill/Knowledge Set
-Competently create and write WO
-Masterly use the CMMS

Skill/Knowledge Set
-Competently understands business and operating risk analysis and control
-Correctly confirms WO priority using risk methodology

Skill/Knowledge Set
-Thoroughly know maintenance tasks required
-Know asset engineering and construction
-Know asset operation and service performance



Customer
-Planner

Customer
-Planner

Customer
-Planner

Customer
-Planner

Customer
-Technician
-Vendors
-Operator

Customer
-Technician
-Vendors
-Operator

Customer
-Technician
-Vendors
-Operator

Customer
-Technician
-Vendors
-Operator

Output Quality
-Asset correctly identified
-Requirement fully described
-Valid maintenance work

Output Quality
-Approved by Operating Department
-Job fully described with correct scope of work and necessary outcomes specified

Output Quality
-Correct Asset ID
-Correct work priority set
-Complete and full scope of work (SOW)

Output Quality
-All WR are entered into a list of approved work that can now be planned

Output Quality
-WRs are selected so that the most urgent work on the most highest priority assets are clearly identified in the order for planning

Output Quality
-WO content correctly specified and job to be done is clearly explained

Output Quality
-Correct work order risk priority set

Output Quality
-Correct identifies all job requirements that affect safety, asset performance, maintenance work quality and job schedule

MaintenancePlanning and Scheduling Process and Outcomes with Ideal Skills, Competencies

Supplier
-Planner

Skill/Knowledge
-Compile full list of job tasks and expertly explain each task
-Competently select PM-PdM strategies from first principles
-Do Value Stream Mapping to minimise work process waste

Develop Job Plan with all milestone tasks (<30 min/WO)

Customer
-Technician
-Vendors
-Operator

Output Quality
-All job tasks and trades correctly identified and allocated
-Work Order time estimate accurate to ±30 minute

Supplier
-Planner

Skill/Knowledge Set
-Thorough task knowledge
-Know asset engineering
-Know asset operation
-Develop detailed instructions
-Include all safety, work quality and technical information

Select correct trade task skills (<30 sec/task)

Identify all milestone task quality standards (<2 min/task)

Diagnose all necessary special tools (<1 min/task)

Diagnose all necessary parts correctly (<1 min/task)

Diagnose all safety/access requirements correctly (<1 min/task)

Customer
-Technician
-Vendors
-Operator

Output Quality
-Full and accurate task by task details to do the job right-first-time

Supplier
-Planner

Skill/Knowledge Set
-Schedule correct time to task
-Sound understanding of failure cause/modes
-Able to research engineering options to prevent failure and select appropriate solutions

Set correct task times (<2 min/task)

Identify Specialist contractors (<1 min/task)

Set all quality standards for all milestones (<2 min/task)

Customer
-Technician
-Operator

Output Quality
-Correct time and work quality specified for the work to be done

Supplier
-Planner

Skill/Knowledge Set
-Expert understanding of task quality standard
-Able to specify and set correct task quality controls
-Develop ITPs

Identify all technical documents (<30 sec/task)

Specify specialist contractors scope/quality (<30 min)

Develop and write quality control ITPs (<15 min/WO)

Customer
-Technician
-Vendors
-Operator

Output Quality
-Complete and correct work standards and engineering details complied for tasks

Supplier
-Planner

Skill/Knowledge Set
-Develop quality procedures
-Expertly navigate Stores Catalogue
-Catalogue parts to Auslang
-Negotiate with Contractors and Vendors

Select and gather all technical documents (<2 min/doc)

Select specialist contractors to do Scope of Work (SOW) (<2 min/task)

Write detailed procedures for high risk tasks (<30 min/WO)

Select correct special tools for tasks (<1 min/task)

Select correct parts (<1 min/part)

Select correct safety/access equipment requirements (<2 min/equip)

Customer
-Technician
-Store
-Vendors
-Operator

Output Quality
-Complete, fully detailed Work Pack
-Agreements in place with Vendors and Contractors

Supplier
-Planner
-Technician

Skill/Knowledge
-Understand and apply Risk Assessment-Control process
-Select risk mitigation to ALARP
-Chair risk review team and get consensus

Review risks & use right task controls for ALARP Job Plan (<5 min/task)

Customer
-Technician
-Vendors
-Operator

Output Quality
-Risks in each task identified and controlled to ALARP
-Agreement reached on how to do the job

Supplier
-Planner

Skill/Knowledge
-Contract writing skills
-Bargaining & negotiation skills
-Compile purchasing specification and set appropriate technical requirements

Finalise correct task skills (<1 min/task)

Finalise correct task quality standards and ITPs (<2 min/task)

Procure specialist contractors (<10 min/WO)

Procure or reserve special tools and delivery (<2 min/WO)

Procure or reserve correct parts and delivery (<1 min/part)

Procure or reserve safety/access equipment (<2 min/equip)

Customer
-Technician
-Vendors
-Operator

Output Quality
-All materials/parts are ordered to agreed delivery requirements
-Contracted services are booked and committed to do their work

Supplier
-Vendors
-Contractors

Skill/Knowledge Set
-Job financial budgeting
-Job costing

Complete d and fully correct Job Plan c/w all documents

Agreement from specialist contractors to deliver SOW

Supply special tools (as agreed)

Supply and deliver parts (as agreed)

Agreement to supply and deliver safety/access equipment

Customer
-Planner
-Store

Output Quality
-WO is correctly prepared and fully specified
-All contracted services will be available on time

MaintenancePlanning and Scheduling Process and Outcomes with Ideal Skills, Competencies

Supplier
-Planner
-Store

Supplier
-Planner

Supplier
-Scheduler

Supplier
-Scheduler

Supplier
-Scheduler

Supplier
-Scheduler
-Operator Supervisor
-Maintenance Supervisor
-SHE Officer

Supplier
-Scheduler

Supplier
-Scheduler

Skill/Knowledge Set
-Conversant with best purchasing receival practices
-Conversant with best Stores Management practices

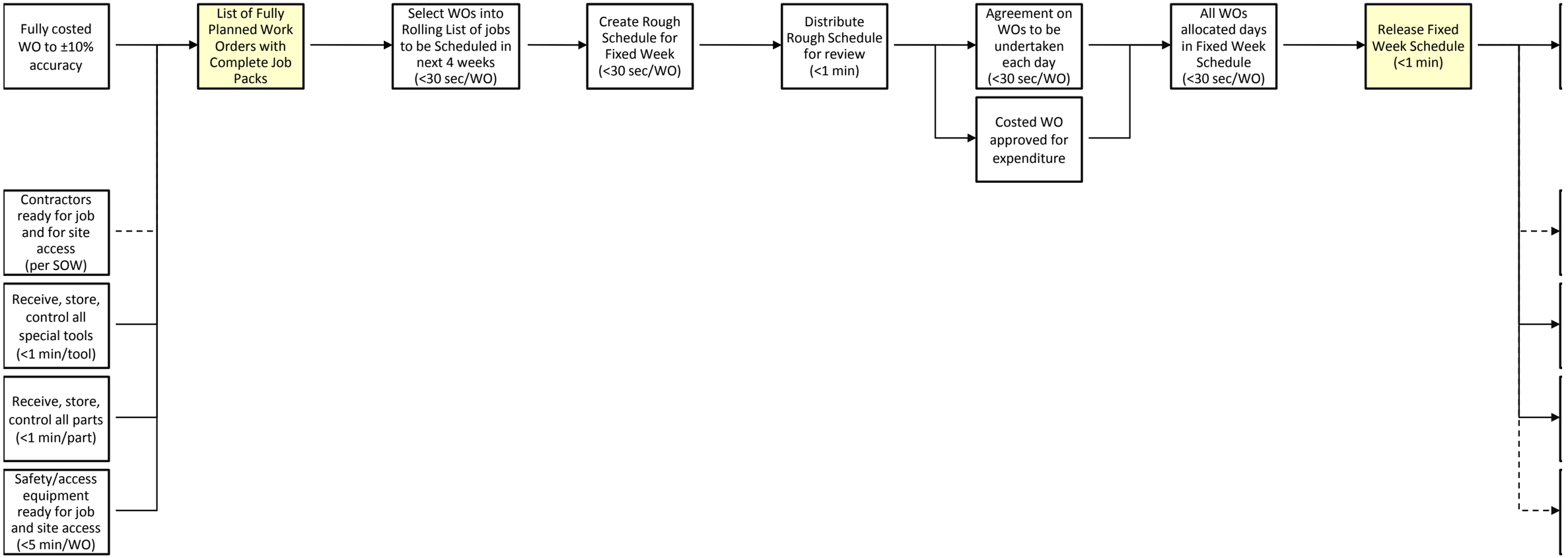
Skill/Knowledge Set
-Expertly navigate CMMS
-Knows asset hierarchy structure

Skill/Knowledge Set
-Knows how to develop bar charts and PERT charts
-Conducts manpower and resource levelling to confidently achieve weekly schedule

Skill/Knowledge Set
-Proficient User of the Operation's computerised information management systems

Skill/Knowledge Set
-Proficiently prepare for and run meetings in a well organised way
-Able to get meetings to arrive at a consensus to action decisions

Skill/Knowledge Set



Customer
-Planner
-Technicians
-Operator

Customer
-Operator Supervisor
-Maintenance Supervisor
-SHE Officer

Customer
-Operator Supervisor
-Maintenance Supervisor
-SHE Officer

Customer
-Operator Supervisor
-Maintenance Supervisor
-SHE Officer

Customer
-Operator Supervisor
-Maintenance Supervisor
-SHE Officer
-Vendors

Customer
-Technician
-Operator
-Vendors
-Store

Customer
-Technician
-Operator
-Vendors
-Store

Customer
-Technician
-Operator
-Vendors
-Store

Output Quality
-All ordered items are in Store
-All Contracted services are committed to do the work

Output Quality
-Every work order can be scheduled
-The correct work priority is on each work order

Output Quality
-Draft schedule for next four weeks

Output Quality
-Draft schedule for next week

Output Quality
-People attending the Weekly Scheduling Meeting are prepared with the necessary information to make binding decisions

Output Quality
-Finalise Fixed Week Schedule and provide necessary plant, equipment, resources and time

Output Quality
-Completed bar chart showing WOs due for each day of the Fixed Week

Output Quality
-Fixed Week Schedule is available to all of the Operation

MaintenancePlanning and Scheduling Process and Outcomes with Ideal Skills, Competencies

Supplier
-Scheduler
-Store

Skill/Knowledge Set
-Organise, coordinate, control resources, parts, materials, people and contractors
-Use project management
-Reduce schedule risk to ALARP

Supplier
-Maintenance Supervisor
-Operator Supervisor

Skill/Knowledge Set
-Organise and control people and resources for each job
-Coordinates with Operations for safe and time access
-Organise asset isolation plan and recommissioning plan

Supplier
-Scheduler
-Maintenance Supervisor
-Operator Supervisor
-Store

Skill/Knowledge Set
-Applies time management best practices
-Coordinates the correct people, parts, tools and information to complete scheduled work

Supplier
-Scheduler
-Maintenance Supervisor
-Operator Supervisor

Skill/Knowledge Set
-Organise and control access to parts and materials
-Understands workflow and task management
-Reduces work task risks to ALARP

Supplier
-Maintenance Supervisor
-Operator Supervisor

Skill/Knowledge Set
-Correct isolation points and preparations for a completely safe handover

Supplier
-Technician
-Planner

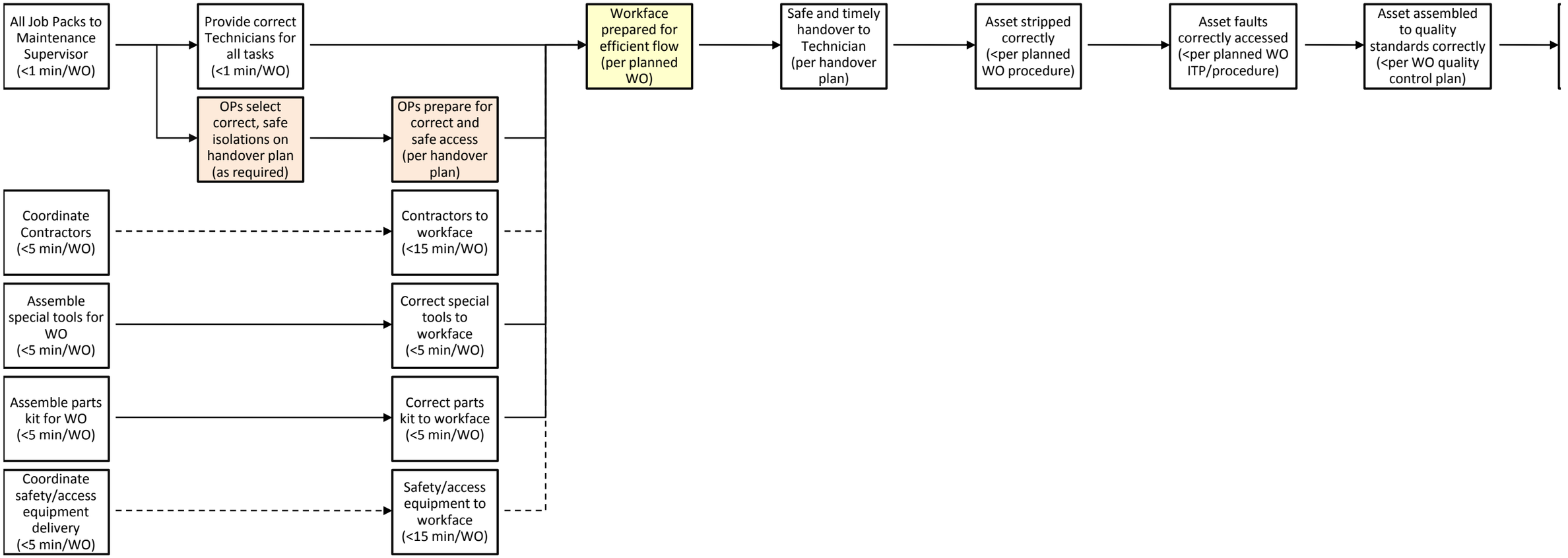
Skill/Knowledge Set
-Understands the engineering design of the asset
-Correctly rebuilds asset
-Specify and confirm a component is right to reliably perform its functions

Supplier
-Technician
-Planner

Skill/Knowledge Set
-Complete and correct engineering and technical parameters are identified and provided

Supplier
-Technician
-Planner

Skill/Knowledge Set
-Quality control and work quality assurance tests for engineering and technical parameters are identified and provided



Customer
-Technician
-Operator
-Vendors

Output Quality
-Each Fixed Week WO is prepared in readiness for the day it is due

Customer
-Technician

Output Quality
-Each Fixed Week WO is resourced with competent people
-Isolations for WOs are planned ahead and time loss minimised

Customer
-Technician

Output Quality
-All preparations are made to start WO on schedule

Customer
-Technician

Output Quality
-WO starts on time with all preparations completed correctly

Customer
-Technician

Output Quality
-Asset safely handed over on time

Customer
-Operator

Output Quality
-Maintenance work is done to a planned, methodical process

Customer
-Operator

Output Quality
-The Asset condition is correctly diagnosed

Customer
-Operator

Output Quality
-The Asset problem and issues are correctly rectified for full operating service and reliability

MaintenancePlanning and Scheduling Process and Outcomes with Ideal Skills, Competencies

Supplier
-Technician
-Planner

Skill/Knowledge Set
-Complete and correct operating parameters are identified and provided

Supplier
-Technician
-Operator Supervisor
-Planner

Skill/Knowledge Set
-Clearly identifies the parameters and factors that confirm the Asset is operating properly and has long reliability

Supplier
-Technician

Supplier
-CM Technician
-Planner

Skill/Knowledge Set
-Appropriate condition monitoring to prove asset condition

Supplier
-Technician
-Maintenance Supervisor
-Operator Supervisor

Skill/Knowledge Set
-Run 'lessons learnt' meetings
-Ensure necessary asset condition information is recorded

Supplier
-Planner

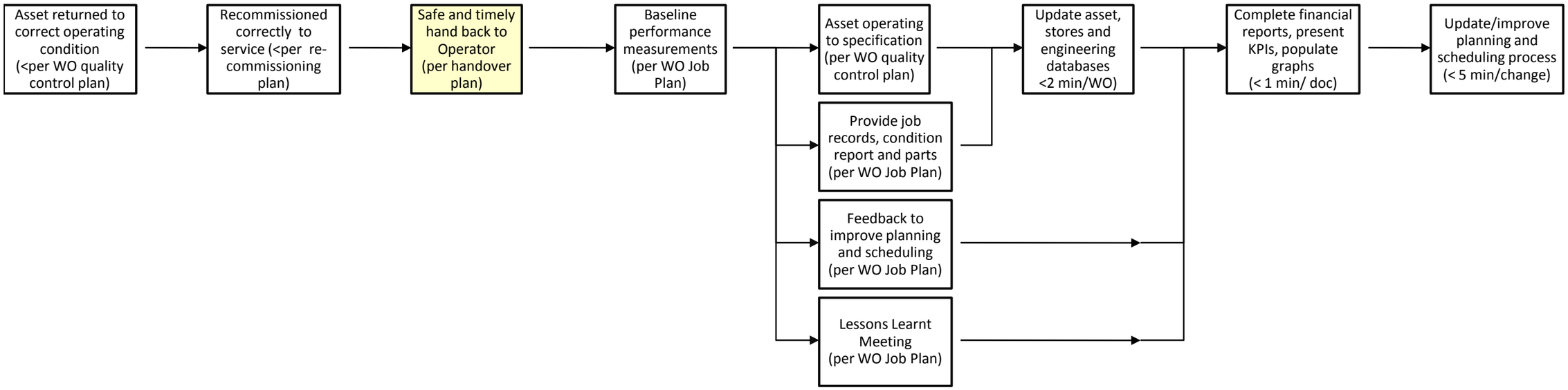
Skill/Knowledge Set
-Database management
-Records cataloguing
-Records management

Supplier
-Planner

Skill/Knowledge Set
-Develop KPI charts, graphs and financial reports
-Manipulate data to present important information

Supplier
-Planner

Skill/Knowledge Set
-Expert on document management system
-Expert on knowledge configuration management



Customer
-Operator

Output Quality
-Asset is built correctly
-Asset will operate properly

Customer
-Operator

Output Quality
-Asset proven to operate properly and maintenance work was done correctly

Customer
-Operator

Output Quality
-Asset safely back in service

Customer
-Operator
-Planner

Output Quality
-Evidence collected that asset runs correctly and reliably

Customer
-Operator
-Planner

Output Quality
-Confirm Asset is able to perform at service duty
-Record useful information on asset condition
-Continuous improvement

Customer
-Operator
-Technician

Output Quality
-Databases accurate

Customer
-Manager

Output Quality
-Provide sound understanding of planning process performance
-Identify opportunities to improve maintenance delivery

Customer
-Operator
-Technician
-Manager
-Planner

Output Quality
-Process documents updated
-Planner/Schedulers trained on changes