# Visual Management deployment MRO – Dynamic Components

DEPLOYMENT IN PRODUCTION WORKSHOP

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#### <u> Visual Management MRO – Dynamic Components</u>

- Duration: November 2013 to December 2014
- Scope: Setup of the Airbus Helicopters Visual Management system in the MRO activity
- Objectives: Setup of the Airbus Helicopters Visual Management system in the production workshops
- **Team:** A.Gomez: Transfo Plan manager, S.Daufes: Project manager & deployer, R.Froger: Sponsor

# QUALITY ➤ Ensure compliance with AH VM standard ➤ Appropriation of VM and SQCDP as a management tool for teams ➤ Ensure relevant and up-to-date KPIs



Self-financed boards and means

**COST** 

 Sustainable savings on Security, Quality, Cost, Delivery and People

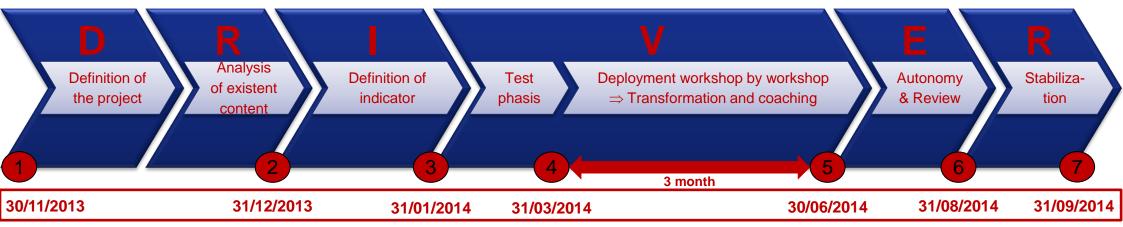


Operational boards at the

**DELIVERY** 

- end of August 2014
- Improvement of 0.1 point on the maturity assessment

Planning:



- Main achievements: 100% boards setup: Heavy gear boxes workshop, Rotors workshop, Light gear boxes workshop, Sub-modules workshop, Stripping & Painting workshops, Surface treatment & NDI workshops
- Next weeks targets: Office of the production manager, basement workshop, support functions.
- Risks: Keep the pressure and daily coaching required

# **Assessment of the situation**

BEFORE	NOW
<ul> <li>Diversity and non-regulated boards in workshops</li> </ul>	<ul> <li>Each unit of product has its own visual management harmonized and standardized</li> </ul>
<ul> <li>Scheduled boards already deployed</li> </ul>	<ul> <li>Very useful, key tools for the local work organization:</li> <li>WHO DOES, WHAT and WHEN?</li> <li>Am I on time or late compared to the forecast?</li> <li>Team leaders are the best support to update the boards</li> </ul>
■ Few KPIs for the activity	<ul> <li>Relevant KPIs for each unit of product:</li> <li>KPI that can generate action plan</li> <li>KPI not always red or green</li> <li>Flexible KPI</li> <li>Objectives linked to each KPI</li> </ul>
PARTIAL INFORMATION	<ul> <li>TRANSPARENCY OF INFORMATION</li> <li>Everybody has same level of information.</li> <li>Problems are shared and discussed</li> </ul>
<ul> <li>KPI = INFORMATIVE BOARD</li> <li>Passive attitude:</li> <li>Information for high-level manager or for specific events</li> <li>Not always up-to-date</li> </ul>	<ul> <li>KPI = MANAGEMENT TOOL</li> <li>Active attitude:</li> <li>It is what you put on your board that makes it interesting</li> <li>Showing and explaining problems give 50% of the solution</li> <li>Improvement tool</li> </ul>
Monthly update	Daily tool of management

# "Welcome to the problem attitude"

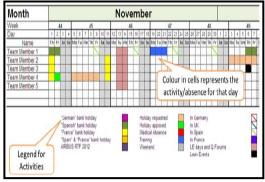
#### **Context**

- VM integrated in Airbus Helicopters Transformation Plan
- Lean maturity assessment

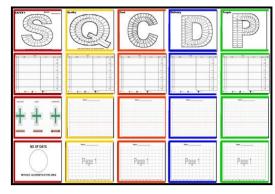
#### **VISUAL MANAGEMENT SYSTEM – 4 PILLARS**

#### Manage Activities

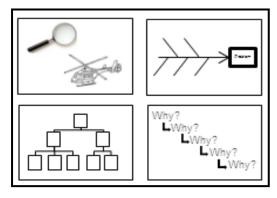
#### Manage Teams



#### Manage Performance



#### Manage Problems



- Visual planning and scheduling systems
- Time Time charts
- Visual Q-Gates
- . . .

- · Task allocation boards
- Qualification Matrix
- Team Planning
- ..

SQCDP Standard

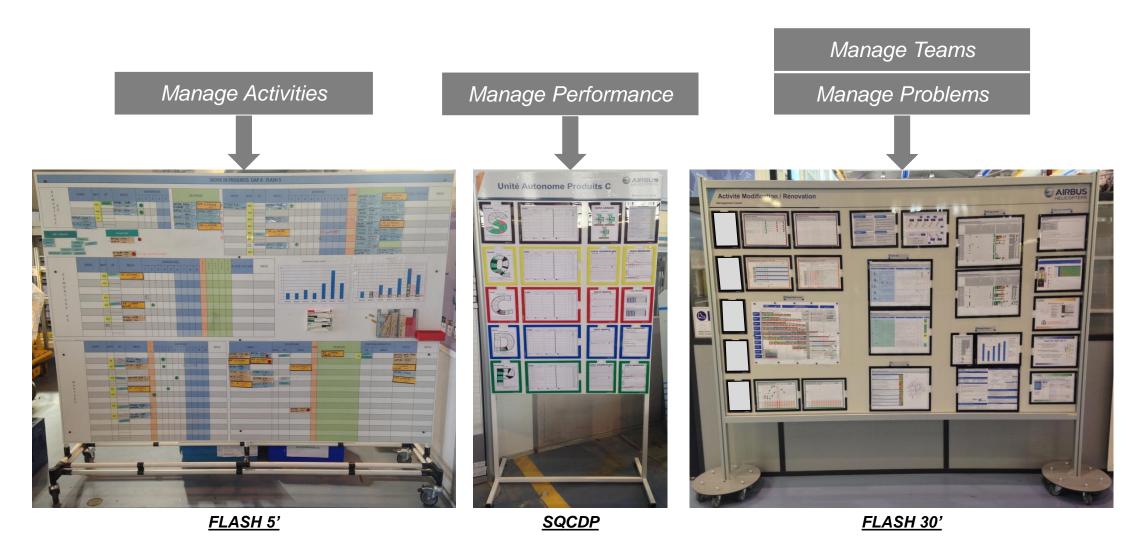
- Pareto chart
- Priority matrix
- Practical Problem Solving (using 8D standard)

Exhibit 4.1 - Visual Management guide G007A

# **Deployment planning**

Deployment planning													Check	Do
DEPLOYMENT			2013			2014								
DE. ESTIMENT		Q4		Q1			Q2			Q3		Q4		
PLAN phase														
Phase analyses "As is" / Maturity of 4 pillars of VM and define "To Be"	X													
Detailed action plan for each pillar		Х												
Focal points with managers and operational people		Х	X											
Do phase														
Kick-off meeting				X										
Definition of indicators and processes				Χ										
Rework & adjustment of indicators (CP/CE)				X										
Feedback and integrating changes				X										
Validation of indicators and targets				X										
Pilot case study on UAP C – Light gear boxes					Х	Х								
Progress report with managers and operational people					Х	Х								
Feedback and integrating changes					Х	Х								
Validation of indicators and targets					Х	Х								
Format definition of the panels					Х									
Quote launched and control panels					Х									
Review and adjusting the operation panels					Х									
Deployment workshop after workshop: Transformation and coaching							Х	Х	Х	X				
UAP A – Heavy gear boxes							Х							
UAP B – Rotors								Х						
UAP G – Sub-modules									X					
UAS – Transversal operations: Stripping & Painting										X				
UAS – Transversal operations: Surface treatment & NDI										X				
CHECK phase														
VM Process Confirmation, use of VM checklist with Lean focal points and A.Gomez										Х	Х	X		
Act phase														
VM System autonomous & continuous improvement process													х х	X

# <u>Visual Management on MRO Dynamic Components</u>





# <u>Indicators SQCDP – MRO Dynamic Components</u>

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	Visual Sheet	Issue Sheet	Daily/Weekly/Monthly Sheet	Trend Sheet				
Sécurité tous	1st KPI: Work accident  ✓ Red: if accident and risks ✓ Green: if no accident	✓ If accident is written, Team Leader gives a nb to the HSE and summarizes facts	✓ Monthly monitoring of <b>5S</b>	✓ Annual monitoring of				
STORY CONTROL OF THE PARTY OF T	2 <sup>nd</sup> KPI: 5S area assessment  ✓ Red: if the rating is below 3.5 / 5  ✓ Green: if the rating is higher than 3.5 / 5	✓ If the score is less than 3.5 / 5, fast actions are taken on the 3 lowest scores	evaluation	work accidents and risks				
Qualité ma de la companya de la comp	<ul> <li>✓ Red: if more than 5 non-conformities are identified with an impact on the quality of the product and / or process</li> <li>✓ Green: if less than 5 non-conformities detected 1st KPI: Flow assembly 2nd KPI: Flow dismantling</li> </ul>	<ul> <li>✓ List of new problems</li> <li>Resolved at workshop level</li> <li>Or escalated to the higher level</li> </ul>	<ul> <li>✓ Histogram of daily monitoring</li> <li>1st KPI: Flow assembly</li> <li>2nd KPI: Flow dismantling</li> </ul>	<ul> <li>✓ Histogram of monthly monitoring</li> <li>1st KPI: Flow assembly 2nd KPI: Flow dismantling</li> </ul>				
Coot mm231. houses	<ul> <li>✓ Red: if the performance of the workshop is below 80% for the week</li> <li>✓ Green: if the performance of the workshop is over 80% for the week</li> <li>1st KPI: Flow assembly</li> <li>2nd KPI: Flow dismantling</li> </ul>	<ul> <li>✓ List of new problems</li> <li>✓ Analysis of the causes of non-performance</li> </ul>	<ul> <li>✓ Histogram of weekly monitoring</li> <li>1st KPI: Flow assembly</li> <li>2nd KPI: Flow dismantling</li> </ul>	<ul> <li>✓ Histogram of monthly monitoring</li> <li>1st KPI: Flow assembly</li> <li>2nd KPI: Flow dismantling</li> </ul>				
Dolai  Manager James 1	<ul> <li>✓ Red: if the rate of the commitments workshop is below 80% for the week</li> <li>✓ Green: if the commitments workshop is over 80% for the week</li> <li>1st KPI: Flow assembly</li> <li>2nd KPI: Flow dismantling</li> </ul>	<ul> <li>✓ List of new problems</li> <li>✓ Analysis of the causes of non-compliance with commitments</li> </ul>	<ul> <li>✓ Histogram of weekly monitoring</li> <li>1st KPI: Flow assembly</li> <li>2nd KPI: Flow dismantling</li> </ul>	<ul> <li>✓ Histogram of monthly monitoring</li> <li>1st KPI: Flow assembly 2nd KPI: Flow dismantling</li> </ul>				
Personal management of the second of the sec	<ul> <li>✓ Red: if variation of more than 5 persons between forecasts and reality</li> <li>✓ Green: if variation of less than 5 persons between forecasts and reality</li> <li>1st KPI: Flow assembly</li> <li>2nd KPI: Flow dismantling</li> </ul>	<ul> <li>✓ List of new problems</li> <li>✓ Analysis of the problem:         absences, understaffed, means         failure, unplanned emergency</li> </ul>	<ul> <li>✓ Histogram of daily monitoring</li> <li>1st KPI: Flow assembly 2nd KPI: Flow dismantling</li> </ul>	<ul> <li>✓ Histogram of monthly monitoring</li> <li>1st KPI: Flow assembly 2nd KPI: Flow dismantling</li> </ul>				

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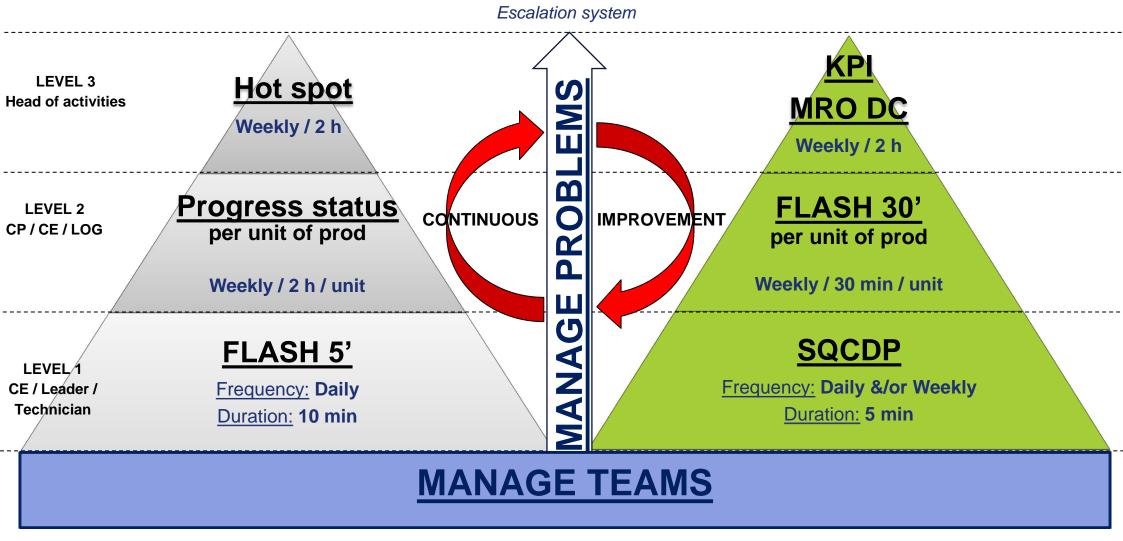
# Flash 5' and Flash 30' communication

Flash 5'	Flash 30'
Manage activities:	Manage activities:
- detail process	- vision of the production unit process
- organize daily work	- display of FOD organization and SGS
- monitor WIP	
- mobilize the team on the objectives	<ul> <li>Continuous improvement:</li> </ul>
- commit to deliver the operation on time	<ul> <li>communicate on quality, unit performance and continuous improvement (Flash Quality/Security)</li> </ul>
Manage teams:	- reminder of 10 golden rules of quality
- allocation of the dedicated person to specific	- Share the strong unit messages
operations	- display ideas from "ide@box"
<ul> <li>Manage problems:         <ul> <li>identify and track the resolution of sticking points encountered</li> </ul> </li> <li>Manage productivity indicators:         <ul> <li>commitment to the objectives: OTD &amp; OTQ</li> </ul> </li> </ul>	<ul> <li>Manage teams:</li> <li>develop involvement and commitment of the staff</li> <li>vision of the organization within the production unit,</li> <li>the planning and the Airbus Helicopters objectives</li> <li>qualification matrix of the team</li> </ul>
- rates of the production output	Manage problems:
	- Pareto chart
	- priority matrix
	- Practical Problem Solving (using 8D standard)
	<ul> <li>Manage productivity indicators:</li> <li>indicators of the global TAT, flows (assembly and dismantling)</li> <li>performance indicators of the unit production (tbd)</li> </ul>

## **The Visual Management System:**

# **MANAGE ACTIVITIES**

# **MANAGE PERFORMANCE**



Every manager solves problems at HIS level "everyone does its own job"



#### First experience feedbacks

#### **Positive feedbacks:**

- People and team leaders are happy with their own boards, it is not "the boss board"
- Problem are now visible and everyday they can be weighted in euro
- Now, we discuss together about a problem or about what we have to deliver
- Fear of red => it is a warning: I DO have a problem today that takes time, that costs money to the company, that makes visible that, now, I am late
- Flash 5' & SQCDP take 5 to 15 min per shift

#### Points to be secured:

- Difficulty to debrief each team with 2 or 3 different shifts and one single manager and different boards
- To complete the action plan
- To sum up clearly a problem into a simple sentence

### **Next achievements:**

#### **Visual Management in workshops:**

- Finalize implementation
- Audit & check phases to be done

#### **Visual Management in offices:**

- Deployment of VM in support functions (procurement, supply chain, quality...)
- Deployment of VM in Technical center, Logistics ...

# Thanks for your attention Do you have any question?