

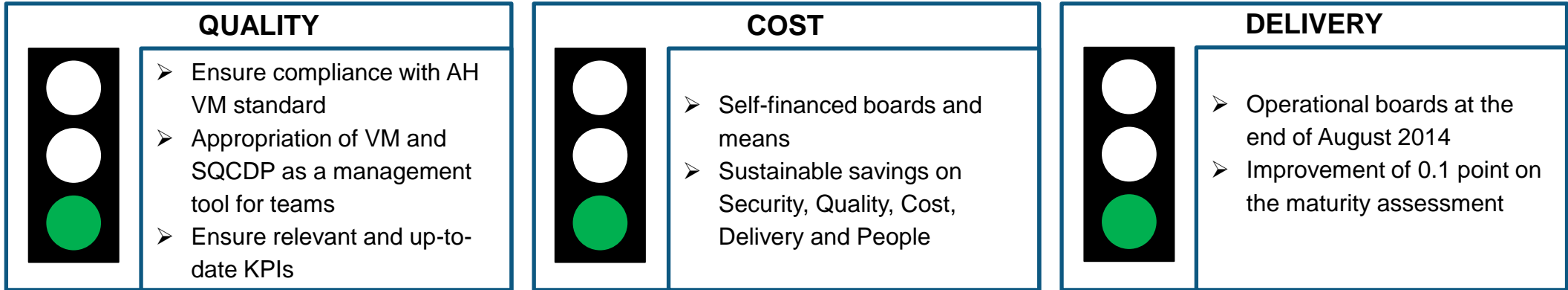
# Visual Management deployment MRO – Dynamic Components

*DEPLOYMENT IN PRODUCTION WORKSHOP*

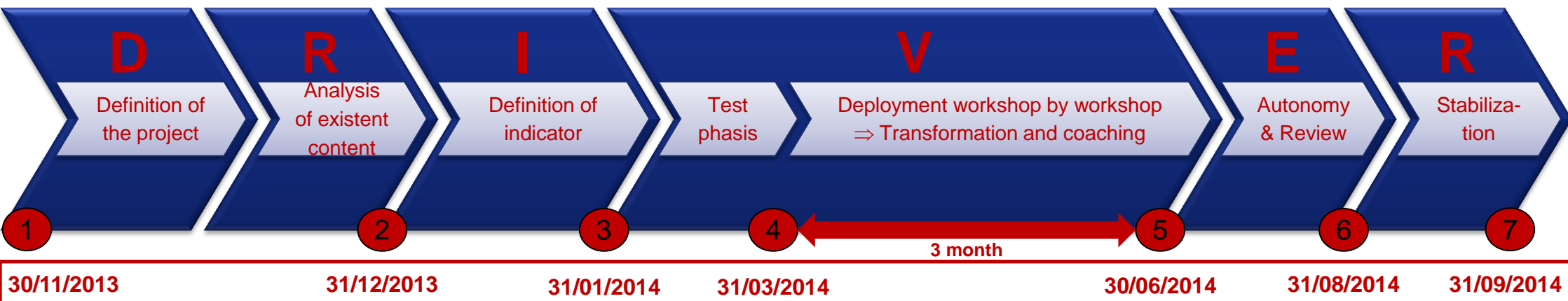
Sebastien Daufes / EBSRL

# Visual Management MRO – Dynamic Components

- **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



## ▪ **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 style="list-style-type: none"> <li>▪ Diversity and non-regulated boards in workshops</li> </ul>	<ul style="list-style-type: none"> <li>▪ Each unit of product has its own visual management harmonized and standardized</li> </ul>
<ul style="list-style-type: none"> <li>▪ Scheduled boards already deployed</li> </ul>	<ul style="list-style-type: none"> <li>▪ Very useful, key tools for the local work organization:   <p style="text-align: center;"><b>WHO DOES, WHAT and WHEN?</b>  <b>Am I on time or late compared to the forecast?</b></p> <p><b>Team leaders</b> are the best support to update the boards</p> </li> </ul>
<ul style="list-style-type: none"> <li>▪ Few KPIs for the activity</li> </ul>	<p><b>Relevant KPIs for each unit of product:</b></p> <ul style="list-style-type: none"> <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>
<p><b>PARTIAL INFORMATION</b></p>	<p><b>TRANSPARENCY OF INFORMATION</b></p> <ul style="list-style-type: none"> <li>▪ Everybody has same level of information.</li> <li>▪ Problems are shared and discussed</li> </ul>
<p><b>KPI = INFORMATIVE BOARD</b>  <b>Passive attitude:</b></p> <ul style="list-style-type: none"> <li>▪ Information for high-level manager or for specific events</li> <li>▪ Not always up-to-date</li> </ul>	<p><b>KPI = MANAGEMENT TOOL</b>  <b>Active attitude:</b></p> <ul style="list-style-type: none"> <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>
<p><b>Monthly update</b></p>	<p><b>Daily tool of management</b></p>

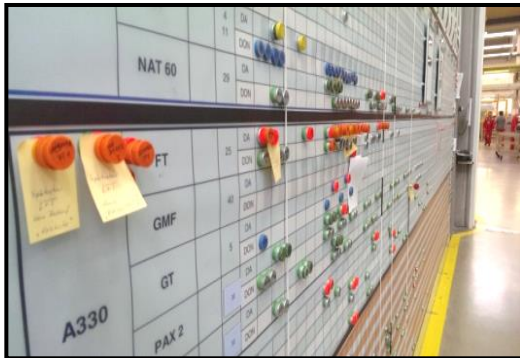
***“Welcome to the problem attitude”***

# Context

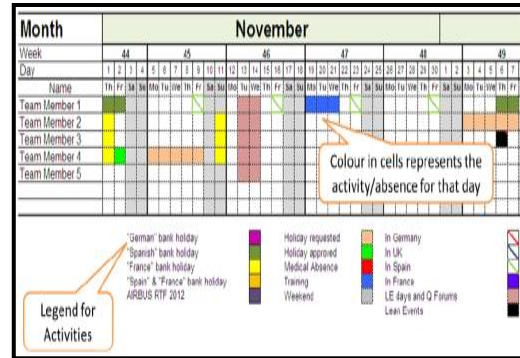
- VM integrated in Airbus Helicopters Transformation Plan
- Lean maturity assessment

## VISUAL MANAGEMENT SYSTEM – 4 PILLARS

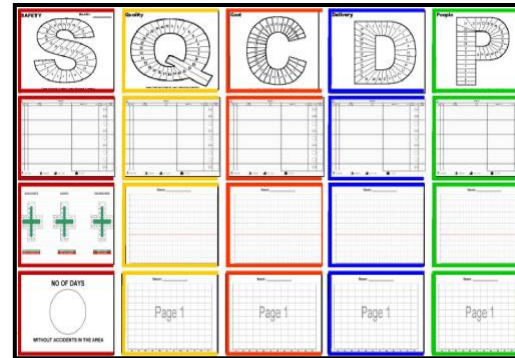
### Manage Activities



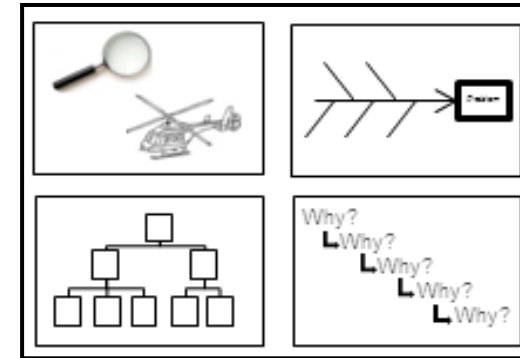
### Manage Teams



### 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





# Visual Management on MRO Dynamic Components

*Manage Activities*



**FLASH 5'**

*Manage Performance*



**SQCDP**






*Manage Teams*

*Manage Problems*



**FLASH 30'**

# Indicators SQCDP – MRO Dynamic Components

	Visual Sheet	Issue Sheet	Daily/Weekly/Monthly Sheet	Trend Sheet
	<p><b>1st KPI: Work accident</b>                      ✓ Red: if accident and risks                      ✓ Green: if no accident</p> <p><b>2nd KPI: 5S area assessment</b>                      ✓ Red: if the rating is below 3.5 / 5                      ✓ Green: if the rating is higher than 3.5 / 5</p>	<p>✓ If accident is written, Team Leader gives a nb to the HSE and summarizes facts</p> <p>✓ If the score is less than 3.5 / 5, fast actions are taken on the 3 lowest scores</p>	<p>✓ Monthly monitoring of <b>5S evaluation</b></p>	<p>✓ Annual monitoring of <b>work accidents and risks</b></p>
	<p>✓ Red: if more than 5 non-conformities are identified with an impact on the quality of the product and / or process                      ✓ Green: if less than 5 non-conformities detected</p> <p><b>1st KPI: Flow assembly</b>  <b>2nd KPI: Flow dismantling</b></p>	<p>✓ List of new problems</p> <ul style="list-style-type: none"> <li>- Resolved at workshop level</li> <li>- Or escalated to the higher level</li> </ul>	<p>✓ Histogram of daily monitoring</p> <p><b>1st KPI: Flow assembly</b>  <b>2nd KPI: Flow dismantling</b></p>	<p>✓ Histogram of monthly monitoring</p> <p><b>1st KPI: Flow assembly</b>  <b>2nd KPI: Flow dismantling</b></p>
	<p>✓ Red: if the performance of the workshop is below 80% for the week                      ✓ Green: if the performance of the workshop is over 80% for the week</p> <p><b>1st KPI: Flow assembly</b>  <b>2nd KPI: Flow dismantling</b></p>	<p>✓ List of new problems</p> <p>✓ Analysis of the causes of non-performance</p>	<p>✓ Histogram of weekly monitoring</p> <p><b>1st KPI: Flow assembly</b>  <b>2nd KPI: Flow dismantling</b></p>	<p>✓ Histogram of monthly monitoring</p> <p><b>1st KPI: Flow assembly</b>  <b>2nd KPI: Flow dismantling</b></p>
	<p>✓ Red: if the rate of the commitments workshop is below 80% for the week                      ✓ Green: if the commitments workshop is over 80% for the week</p> <p><b>1st KPI: Flow assembly</b>  <b>2nd KPI: Flow dismantling</b></p>	<p>✓ List of new problems</p> <p>✓ Analysis of the causes of non-compliance with commitments</p>	<p>✓ Histogram of weekly monitoring</p> <p><b>1st KPI: Flow assembly</b>  <b>2nd KPI: Flow dismantling</b></p>	<p>✓ Histogram of monthly monitoring</p> <p><b>1st KPI: Flow assembly</b>  <b>2nd KPI: Flow dismantling</b></p>
	<p>✓ Red: if variation of more than 5 persons between forecasts and reality                      ✓ Green: if variation of less than 5 persons between forecasts and reality</p> <p><b>1st KPI: Flow assembly</b>  <b>2nd KPI: Flow dismantling</b></p>	<p>✓ List of new problems</p> <p>✓ Analysis of the problem: absences, understaffed, means failure, unplanned emergency...</p>	<p>✓ Histogram of daily monitoring</p> <p><b>1st KPI: Flow assembly</b>  <b>2nd KPI: Flow dismantling</b></p>	<p>✓ Histogram of monthly monitoring</p> <p><b>1st KPI: Flow assembly</b>  <b>2nd KPI: Flow dismantling</b></p>

SUPPORT FOR FLASH 5

1 meeting per shift

# Flash 5' and Flash 30' communication

## Flash 5'

- **Manage activities:**
  - detail process
  - organize daily work
  - monitor WIP
  - mobilize the team on the objectives
  - commit to deliver the operation on time
- **Manage teams:**
  - allocation of the dedicated person to specific operations
- **Manage problems:**
  - identify and track the resolution of sticking points encountered
- **Manage productivity indicators:**
  - commitment to the objectives: OTD & OTQ
  - rates of the production output

## Flash 30'

- **Manage activities:**
  - vision of the production unit process
  - display of FOD organization and SGS
- **Continuous improvement:**
  - communicate on quality, unit performance and continuous improvement (Flash Quality/Security)
  - reminder of 10 golden rules of quality
  - Share the strong unit messages
  - display ideas from "ide@box"
- **Manage teams:**
  - develop involvement and commitment of the staff
  - vision of the organization within the production unit, the planning and the Airbus Helicopters objectives
  - qualification matrix of the team
- **Manage problems:**
  - Pareto chart
  - priority matrix
  - Practical Problem Solving (using 8D standard)
- **Manage productivity indicators:**
  - indicators of the global TAT, flows (assembly and dismantling)
  - performance indicators of the unit production (tbd)

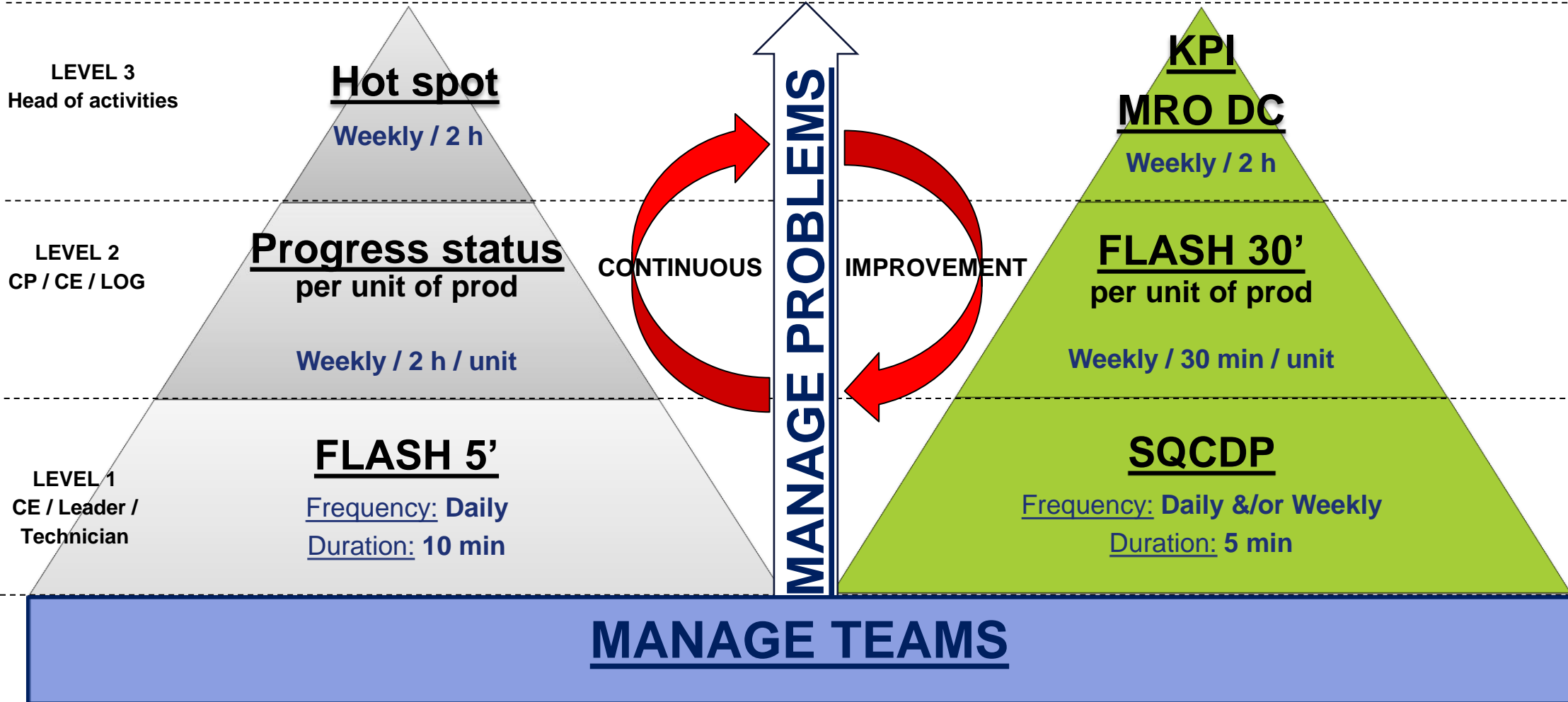


# The Visual Management System:

## MANAGE ACTIVITIES

## MANAGE PERFORMANCE

Escalation system



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?