

Process Improvement for Laboratories

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Continual Process Improvement





The Requirement

ISO/IEC 17025: 2017

5.6.a: The laboratory shall have personnel who, irrespective of other responsibilities, have the authority and resources needed to carry out their duties, including implementation, maintenance and improvement of the management system.

8.6: The laboratory shall identify and select opportunities for improvement and implement any necessary actions. Opportunities for improvement can be identified through the review of the operational procedures, the use of the policies, overall objectives, audit results, corrective actions, management review, suggestions from personnel, risk assessment, analysis of data, and proficiency testing results.

8.9.2: The inputs to the management review shall be recorded and shall include information related to the following: effectiveness of any implemented improvements.



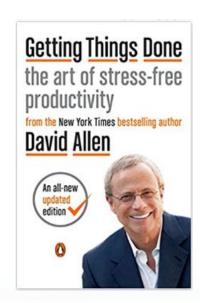
Management





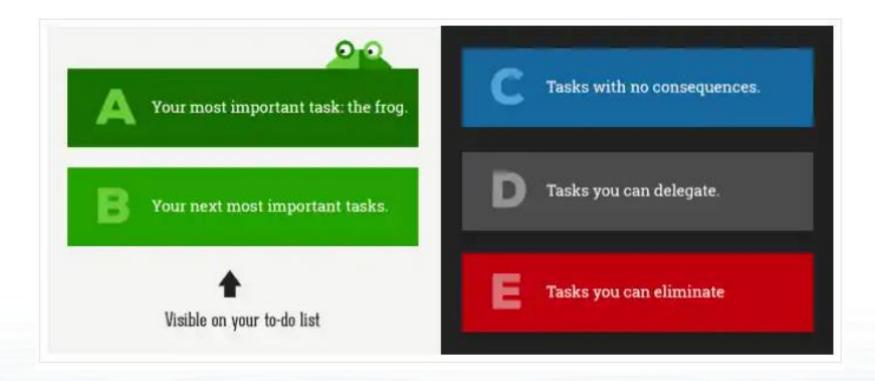
Management of Email

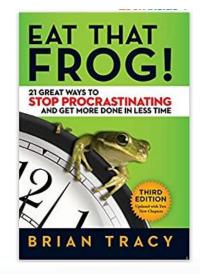
- Turn off notifications (icon and pop up)
- Designate certain times of the day to read email
- Only address emails if they take less than 2 minutes
- Categorize and prioritize the rest





ABC Prioritization







Meeting Management





Meeting Management



The Facilitator



The Time-Keeper



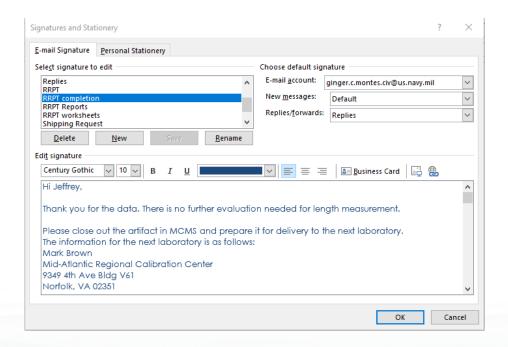
The Scribe





2 Second Lean





Are there processes you or your team can implement to reduce a process by 2 seconds?



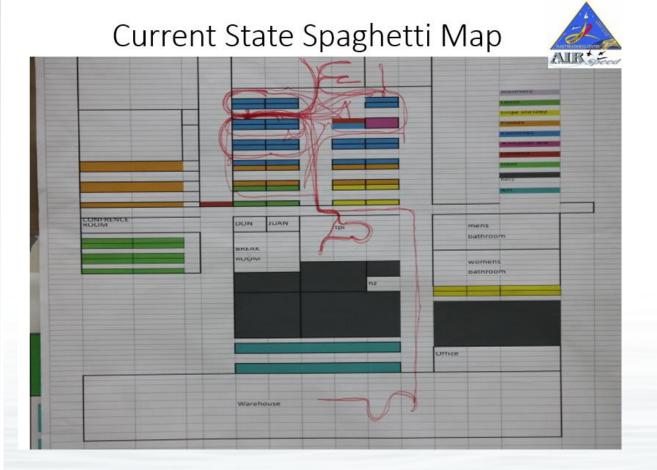


Coffee House Mindset

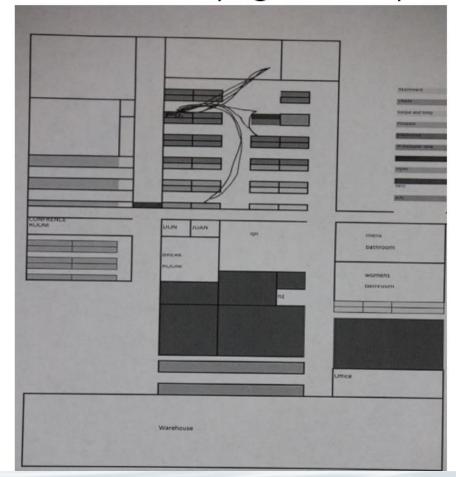




Spaghetti Chart Lab Processes



Future State Spaghetti Map





Five "S"

- Sort
- Straighten
- Shine
- Standardize
- Sustain







Value Added vs Non Value Added

Value-Added Flow Analysis

Name: Produce Aluminum Parts

Process Name: Produce parts

Time

Minutes Hours Days

(select units)

					(select units)	
	#	Process Step	Step Label (VA, NVA, NVAr)	Value Added Process Time	NVA & NVA- Required Process Time	NVA - Wait Time
	1	Extrude parts in dies	VA	0.1		
		Inspect parts for defect	NVA		0.1	
П		Rework parts	NVA		0.5	
П	2	Move parts to Anodizing	NVA		1.5	30.0
Г	3	Anodize parts	VA	0.25		
1		Inspect parts for defect	NVA		0.1	
3		Rework parts	NVA		0.5	
ľ	4	Move parts to Paint	NVA		1.0	15.0
1	5	Paint parts	VA	0.1		
		Inspect parts for defect	NVA		0.1	
		Rework parts	NVA		0.5	
20	6	Move parts to Packing	NVA		1.0	15.0
	7	Pack parts for Order	VA	0.5		

	Time	% of total
Total Value-Added Process Time	0.95	1.43%
Total Non-Value-Added or NVA-r Process Time	5.3	8.00%
NVA - Wait Time	60	90.57%
Total Lead Time	66.25	100.00%

Value-Added Flow Analysis

The Value-Added Flow Analysis assesses which steps add value in the eyes of the customer and where time and effort are wasted in the process.







Time Spent on the Customer

Wasted Time

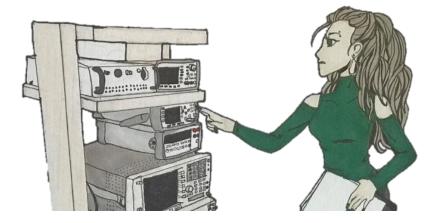


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Other Lab Considerations

In Service Checks



Business Case Analysis for lab equipment



What other cost or time savings?



Questions?



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