
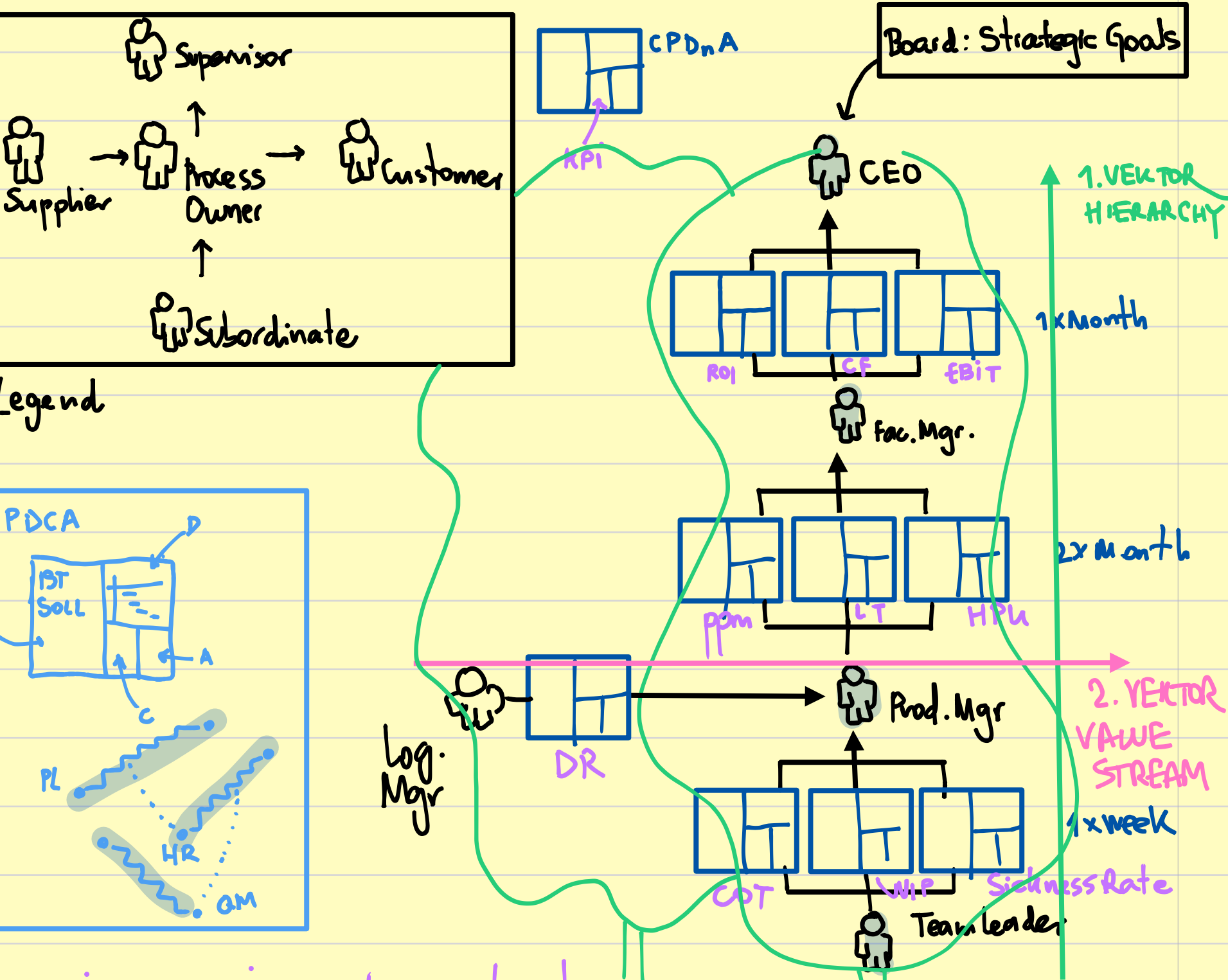


Hoshin Kanri Forest.

HOSHIN. 方針 NEEDLE  DIRECTION } Management by giving direction.
KANRI. 管理 MANAGEMENT
FOREST. 森林 HIERARCHICAL NETWORKS



KPi. Roi. Return on Invest
CF. Cash Flow
EBIT. Earnings before Income Tax
ppm. parts per Million
HK Tree logistics
HK Tree Production

LT . Lead time

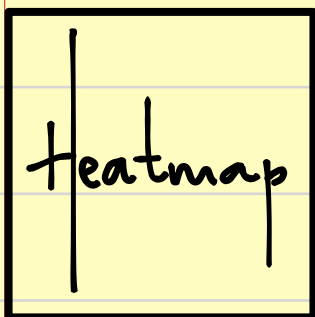
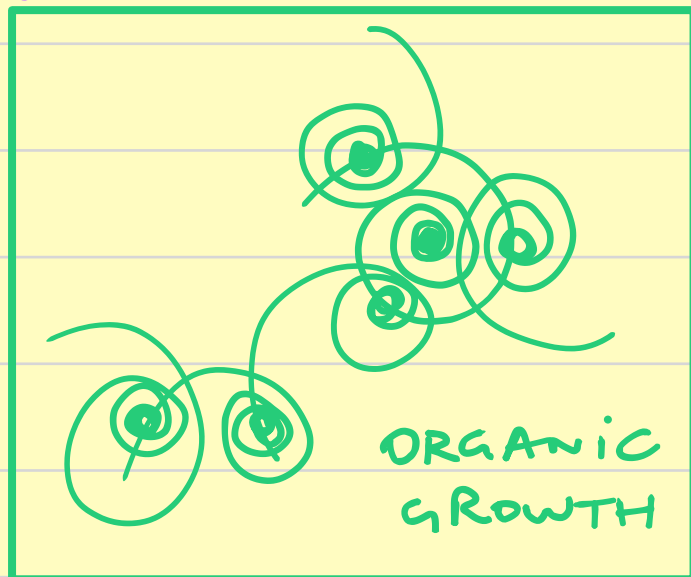
HPU . Hours per Unit $\left[\frac{\text{paid hours}}{\# \text{good units}} \right]$

COT . Change Over Time

WIP . Work in progress

SicknessRate $\left[\frac{\# \text{hours Sick People}}{\text{total hours}} \right]$

DR . Delivery Rate (%)



From a process owner perspective (Prod. Mgr), we create a ..heatmap to decide what KPIs are relevant in the hierarchy.

Step 1. Make a list of possible relevant KPIs. [ppm / LT / COT]

Step 2. How does KPI_i influence KPI_j? ↗

0. no influence

1. weak influence

2. strong influence

	ppm	LT	COT	Σ PROCESS
ppm		2	0	2
LT	2		0	2
COT	1	2		3
	3	4	0	
	Σ OUTPUT			

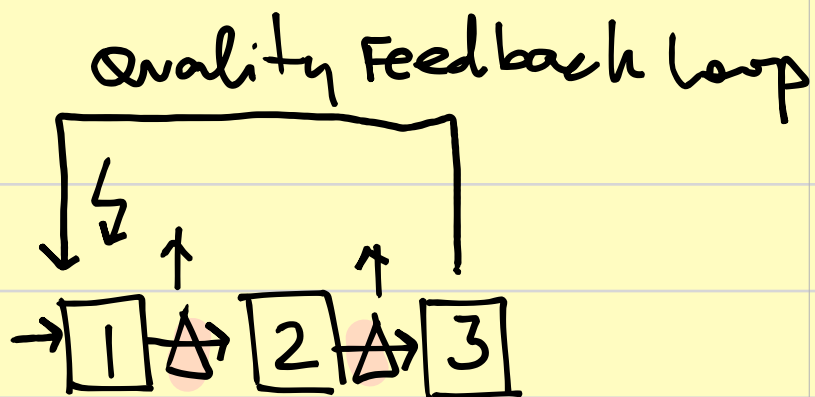
Step 3. Σ columns importance as output KPI

Σ Rows . importance as process KPI

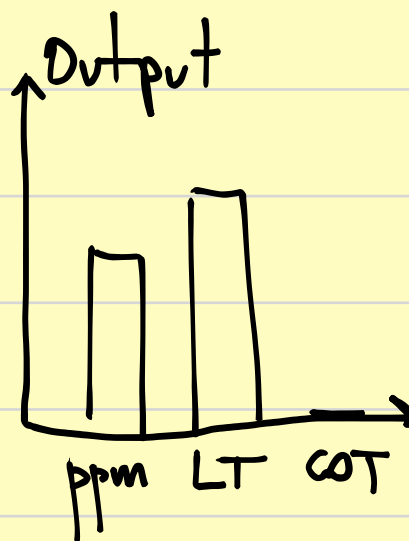
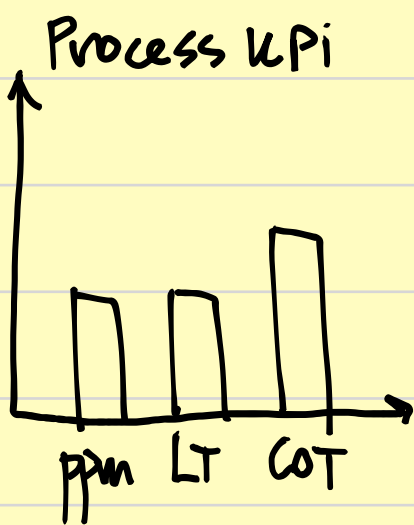
Little's law

$$LT = \frac{WIP \text{ (Parts)}}{Output \text{ (Parts/Time Unit)}}$$

. If $LT \uparrow$ \rightarrow $WIP \uparrow \rightarrow ppm \uparrow$
 \searrow $Output \downarrow$



Step 4.



Step 5.

