

# Positioning Indian Leather Industries in Global Landscape



**C. Narasimhan**

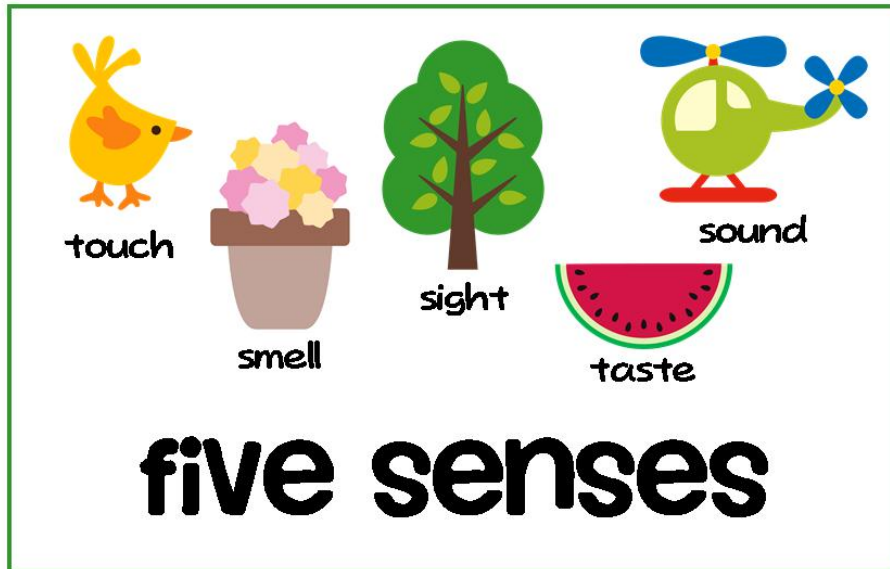
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## Process of improvement : Visibility

# Use 5 Senses to create visibility



## 5 Senses

- See ( Sight )
- Hear
- Feel
- Smell
- Touch

Identify and remove all **abnormalities**

Process of improvement : Visibility

Hospital clean **Inside**

Garden green **outside**



## Process of improvement : Visibility

# Jogging track across company





Process of improvement : Visibility

# See through layouts



## Total Clear Path

Process of improvement : Visibility

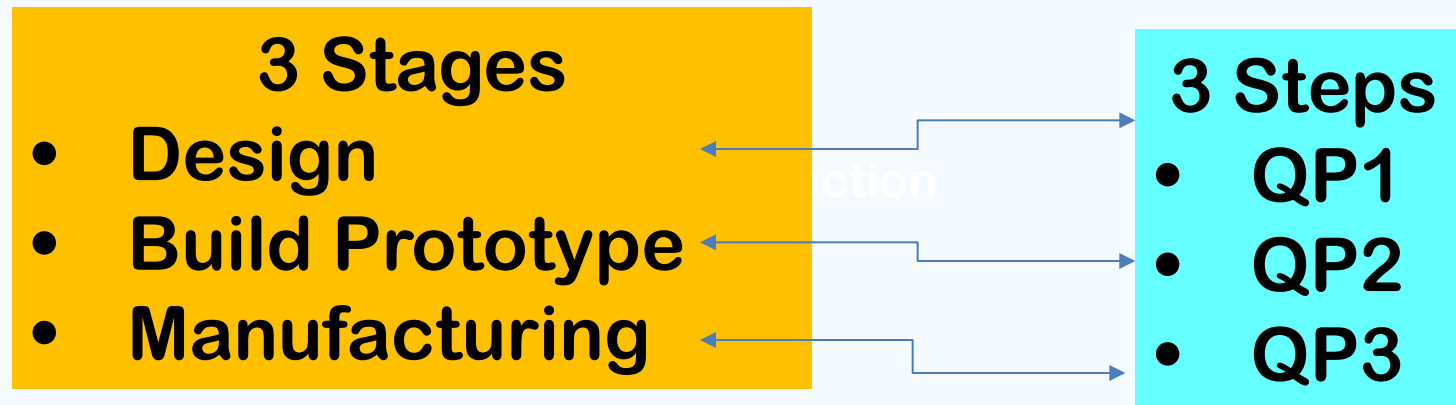
Wet to dry



Touch free = Scratch free

## New Product Introduction Process

### 3 X 3 Model



## Process of improvement : NPD Road Map



### ACMA NPD FOUNDATION CLUSTER ROAD MAP

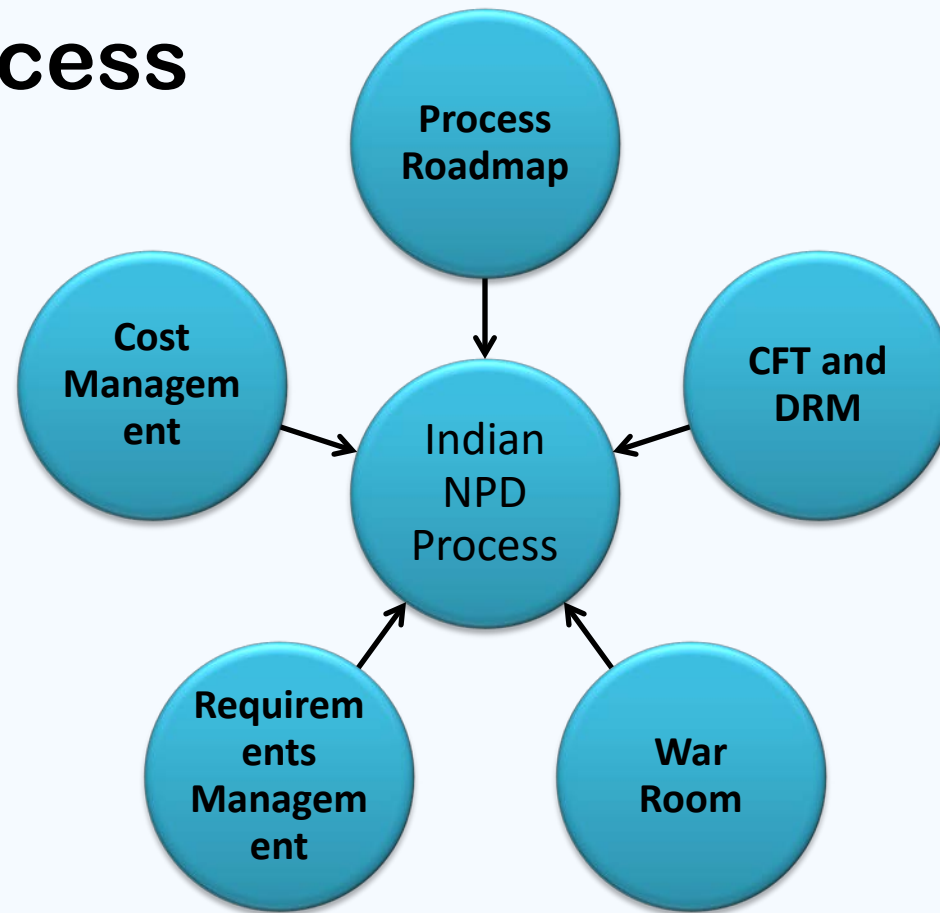
PM\_46\_G 8 Rev. No.: 0 May 2014  
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Time in Months	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Deliverables	Expected Outcome during 2 years
DFM / DFA VA/VE Customer voice / QFD - basic concepts DOE														Product Optimization											Improved quality Reduced cost Improved customer satisfaction	Deployment of all initiatives for one product project.
Target cost Cost models Detail cost estimation												Product Cost Management											Setting and achieving target costs		Achieve Target cost for one product project	
Project management Gate and Project reviews Red box management							New Product Delivery Assurance													On time delivery of projects High perpetuity ratio					Achieve on time delivery of one product project	
Requirements management FMEA and control plan Product validation and quality proving Technical reviews			New Product Quality Assurance														First time right products Consistent product quality							Achieve First Time Right and Consistent product Quality for one product		
NPD process establishment Organizational alignment Cross functional teams	Basic NPD process and organization setup						Controlled process																	Establishing NPD process for one product		
																									8	



**Process of improvement : NPD Process**

# NPD Process



## Process of improvement : Visibility

# Quality of Packing & Packaging



## Shelf Appeal



Process of improvement : Zero Defect

## Zero **Defect** design for manufacturing

- Quality means zero defect business processes /activities and not PPM
- **Quality at what cost**



# Process of improvement : Engineering Excellence Road Map

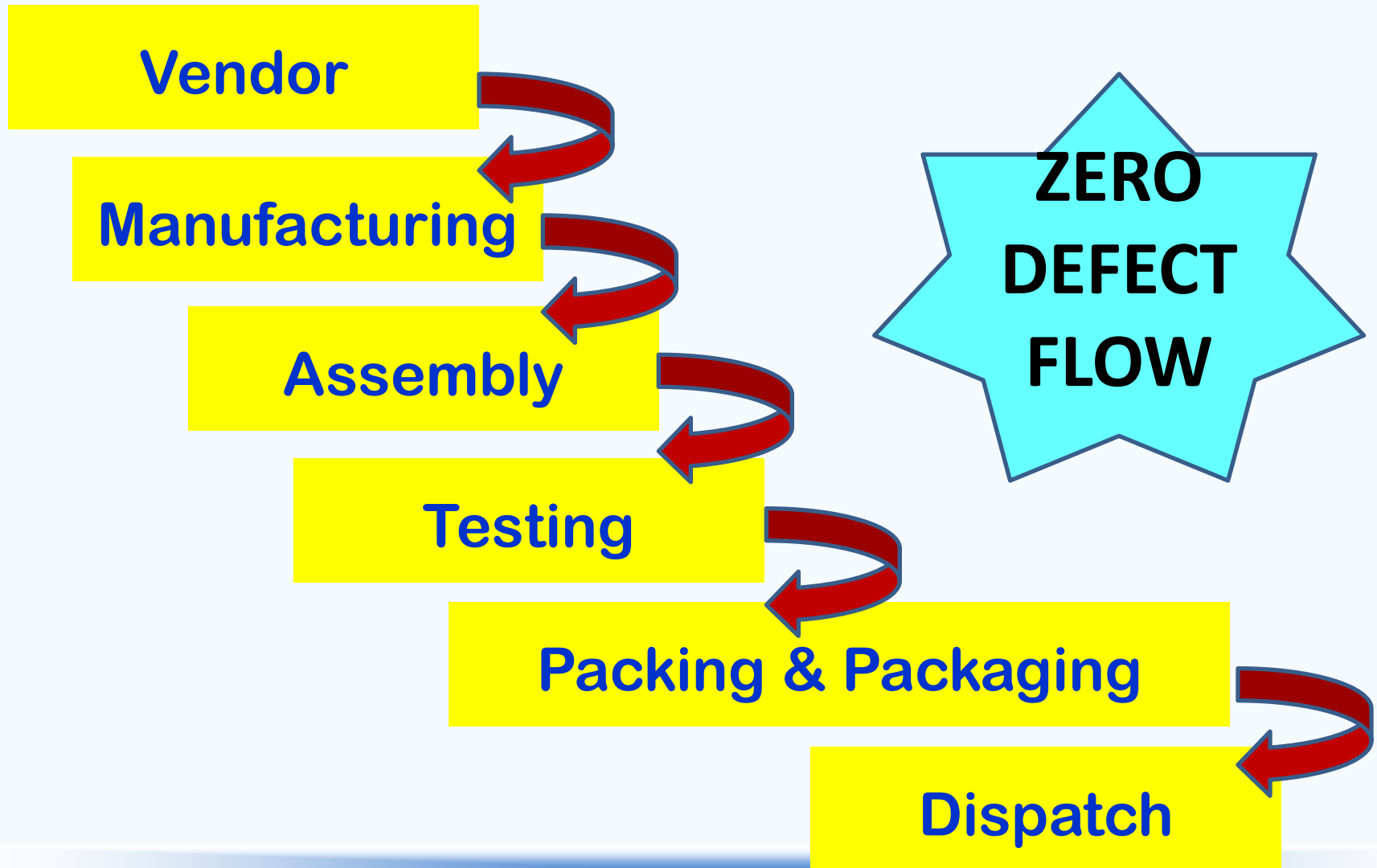


## ACMA ENGINEERING EXCELLENCE CLUSTER ROAD MAP

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Time in Months *	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Deliverables	Implementation during 2 years																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																											
1. Horizontal Deployment Plans 2. Holding Gains ( Audits ) 3. Training Manuals																					Institutionalization	Sustenance Culture Competent Teams Documentation	Process for Horizontal Deployment will be taught . Recap of all topics Documentation & Closing booklet																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																														
1. Understanding of Fixtures and Accessories 2. Derive Requirements of Fixtures and Accessories 3. Re-design of Fixtures and Accessories 4. Standardization of Fixtures and Accessories 5. Burr Management											Tool Engineering (Through Advance 5S)													Lean Intelligent Fixtures Creation of Lean Fixture guidelines  Minimize burr generation	One Model Fixture will be designed and implemented if applicable																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																												
1. Lean Machine & Accessories 1.1 Lean Coolant System 1.2 Lean Electrical System 1.3 Lean Hydraulic System 1.4 Lean Lubrication System 2. Chip free machines and Components 3. New Machine Procurement guidelines 4. Optimisation of Resources - 6Ms. ( Man, Machine, Material , Material Handling , Measurement , Method & processes )											Total Lean Manufacturing (Through Advance 5S)										Optimum utilization of resources for Sr. No. 1.1 to 1.4 as applicable  Self cleaning machines and chip free components Quality Proving QP 1 , 2, 3 & Reduction in Capital Investment Awareness on resource optimization				Process for Certifying machines will be taught & One Machine will be certified As Model Machine as per Certification Guidelines for Sr. No. 1.1 to 1.4 , 2 , 3																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																												
1. Line Balancing w.r.t Customer demand 2. Lean Layouts 3. Lean parts handling 3.1. Mapping of Containers / Trans-shipment 3.2 Soft Handling mapping											Parts Handling & Logistics										TAKT time based Operations Inventory Less production and Enhanced VAR Dent and damage free parts handling Container standardization				One Case study implementation on Model line																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																												
1. Life Cycle Assessment 2. Waste Management & Control 3. Carbon Footprint											Green Manufacturing										Awareness on Life cycle Conducive Work Environment Nature's Delight				Mapping and monitoring of Sr. no. 2 & 3																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																												
1. Kaizen & QCC / Problem Solving ( Recap ) 2. Must be Facilities 3. UNDO List - Bad Habits 4. UNDO List - Undesirable Practices						TEI					Total Employee Involvement Enhanced Employee motivation Elimination of bad habits Elimination of undesirable practices														One line / Cell TEI = 100 % and achieve score > 85 % during 2 year course for Sr. 2,3,& 4 implementation for Model Line																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																												
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Process of improvement : Zero Defect Process





## Conclusion

- Create good **visibility** in the plant through **5 senses**
- Packing, Packaging & Shelf appeal
- **Zero Defect design** to manufacture
- **Zero Effect design** to Manufacture

**Industry & CLRI Interaction**

## Conclusion

- Homegrown system makes us leader
- Design capabilities ( In-house )
- Traditional to scientific manufacturing
- Say NO to **REWORK & WASTE**
- Only First Time Pass Quality