



SNS COLLEGE OF TECHNOLOGY

(An autonomous institution)



Department of Mechanical Engineering

New Product Development

Unit – I

Product Development and Customer Needs

Topic

Modern Product Development Process

Text book

Kevin Otto and Kristin Wood ,” Techniques in Reverse Engineering and New Product Development”

Prepared by

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Assistant Professor / Mechanical Engineering

SNS College of Technology, Coimbatore



Modern production development process

- ✓ Tasks of creating
- ✓ Tasks of understanding
- ✓ Tasks of communication
- ✓ Tasks of testing
- ✓ Tasks of persuasion





Stage – gate development process



- A gate is an **evaluation** by upper management or within the team structure to ensure the next stage is worth carrying forward





Modern production development process



Three phases

Understand
the
Opportunity

Develop a
Concept

Implement a
Concept



Understand the opportunity



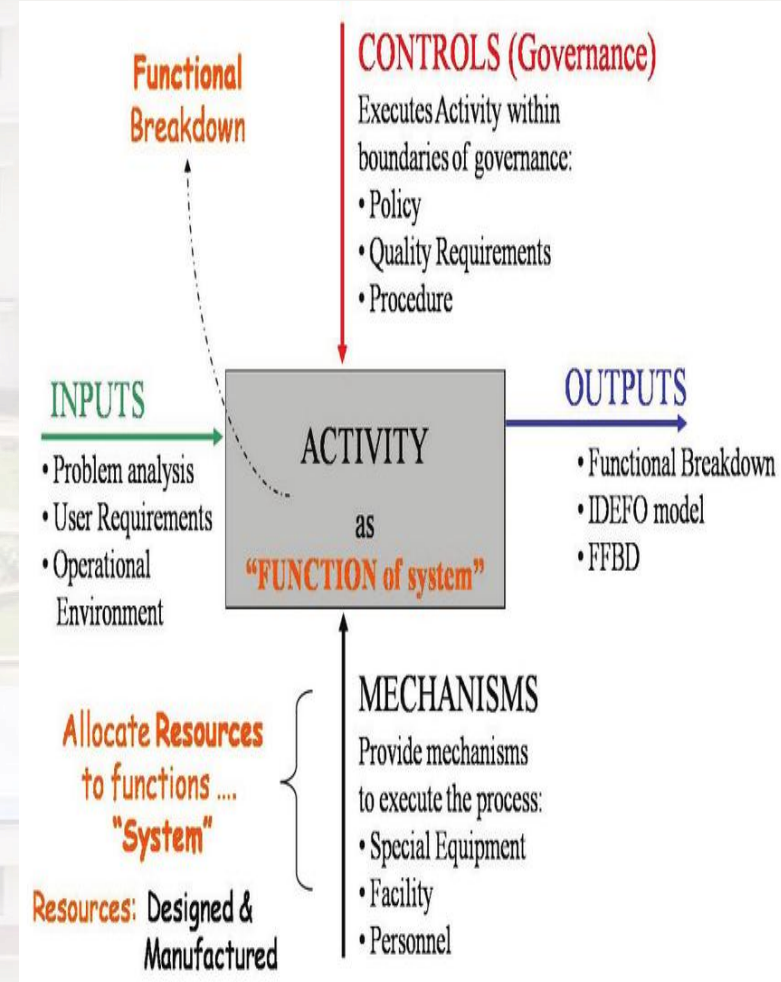
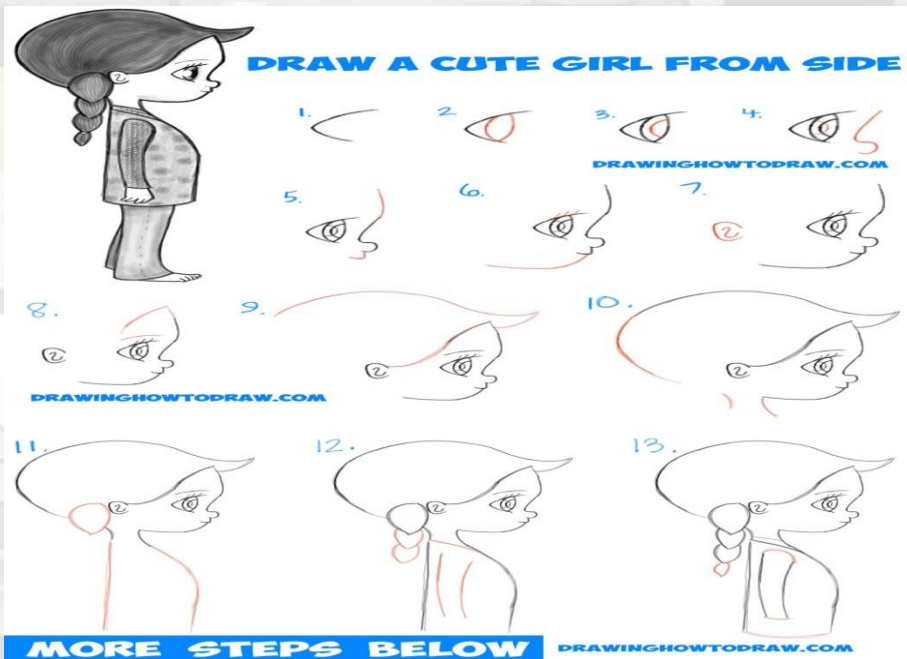


Understand the opportunity

- Develop a vision
- Market opportunity analysis
- Customer need analysis
- Competitive analysis



Develop a concept





Develop a concept

- Portfolio planning
- Functional modelling
- Product architecture development
- Concept engineering



Implement a concept



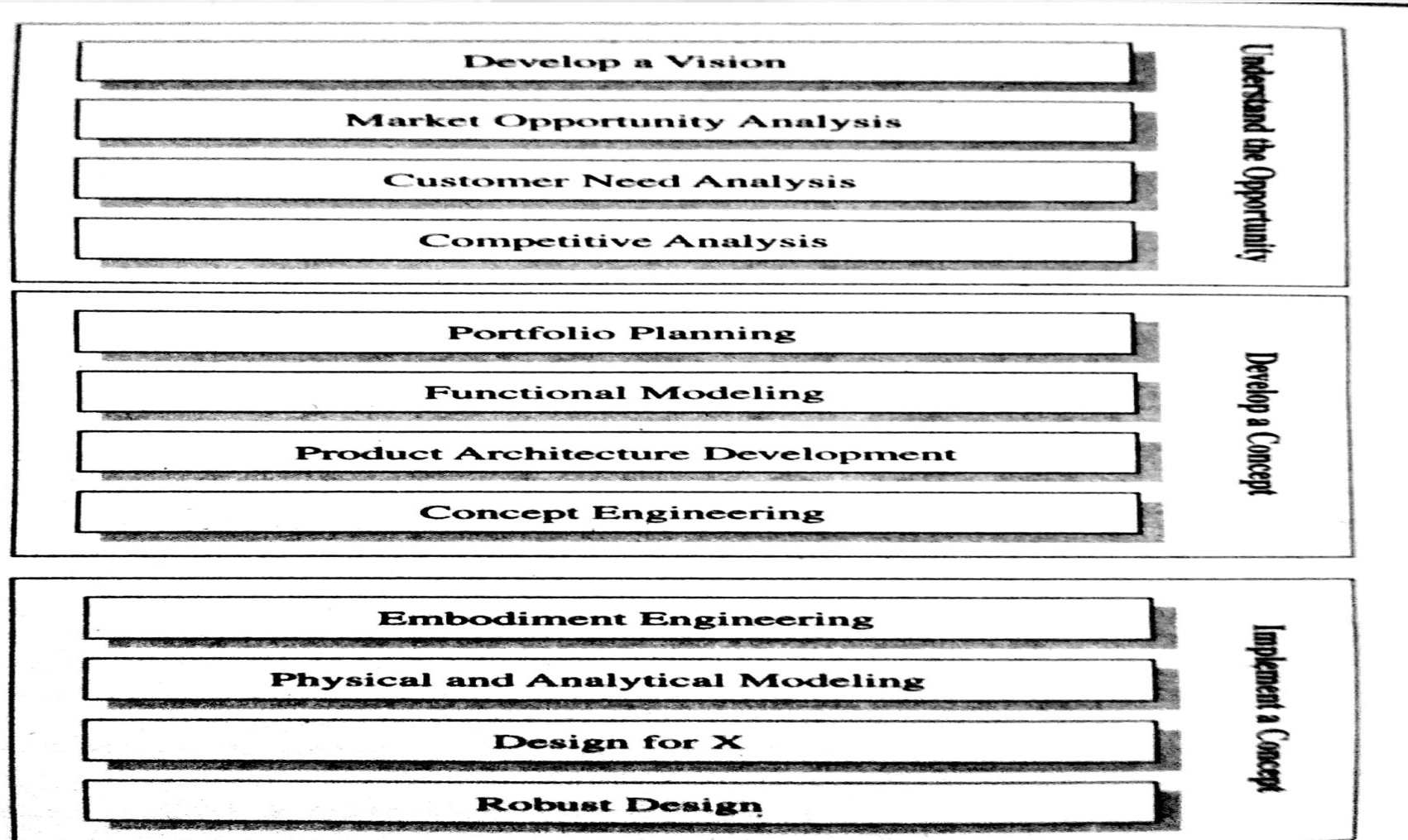


Implement a concept

- Embodiment engineering
- Physical and analytical modelling
- Design for X
- Robust design



Modern production development process






Modern production development process




Understand the opportunity

- Develop a vision
- Market Opportunity Analysis
- Customer Need Analysis
- Competitive Analysis



Develop a concept

- Portfolio Planning
- Functional Modeling
- Product Architecture Development
- Concept Engineering

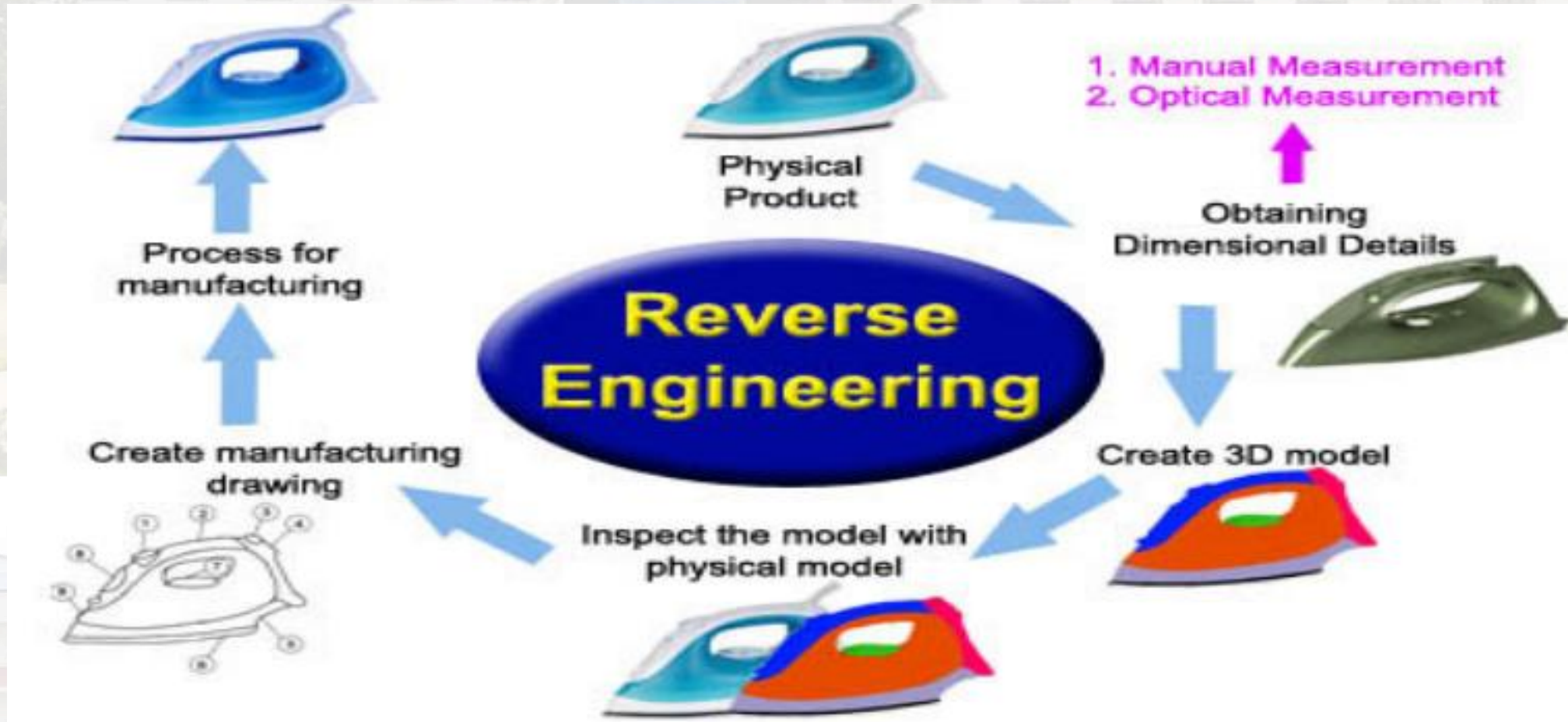


Implement a Concept

- Embodiment Engineering
- Physical and Analytical Modeling
- Design for X
- Robust Design.

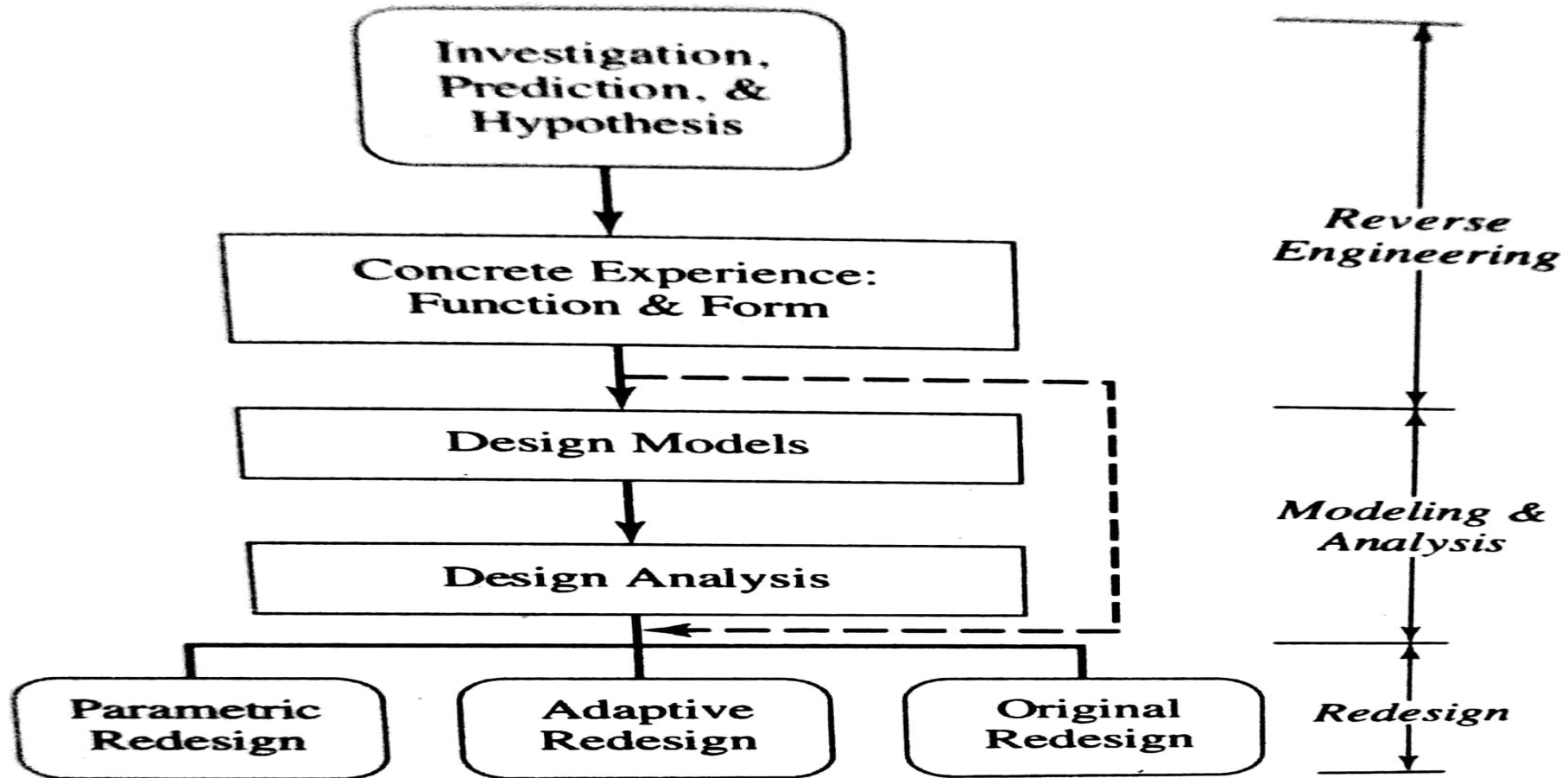


Reverse Engineering





Reverse Engineering



Source: Text book(kevin Otto)

MPDP/ 19MEO301 - NPD /P.DIVYAKUMAR/MECH/SNSCT



Reverse Engineering

Reverse Engineer

- Select a Product
- Develop a Vision
- Customer need Analysis
- Market Opportunity Analysis

Develop a Redesign

- Functional Modeling
- Competitive Analysis
- Product Architecture Development
- Concept Engineering

Implement a Redesign

- Embodiment Engineering
- Physical and Analytical Modeling
- Design for X
- Robust Design



Practice quiz

1. _____ is a new-product development approach in which one company department works to complete its stage of the process before passing the new product along to the next department and stage.

- a. Micromarketing
- b. Simultaneous product development
- c. Sequential product development
- d. Team based product development

Ans:C





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THANKYOU