



SNS COLLEGE OF TECHNOLOGY

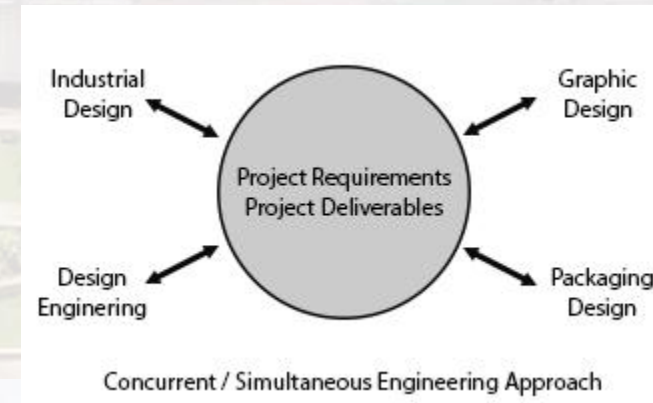
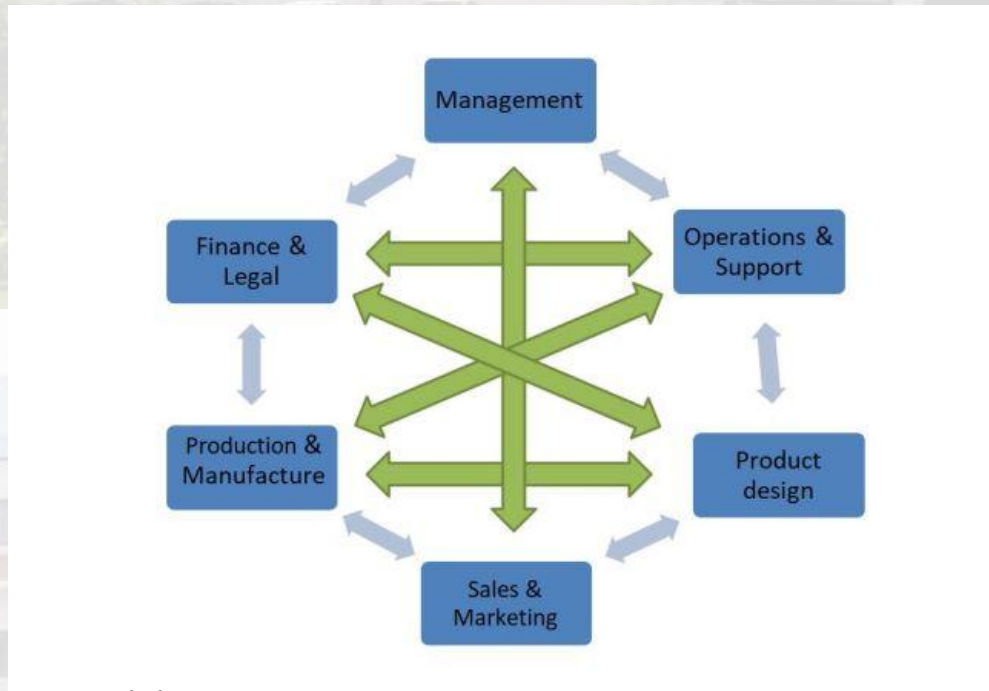
(AN AUTONOMOUS INSTITUTION)



Department of Mechanical Engineering

19MEB301/CADA

Concurrent engineering



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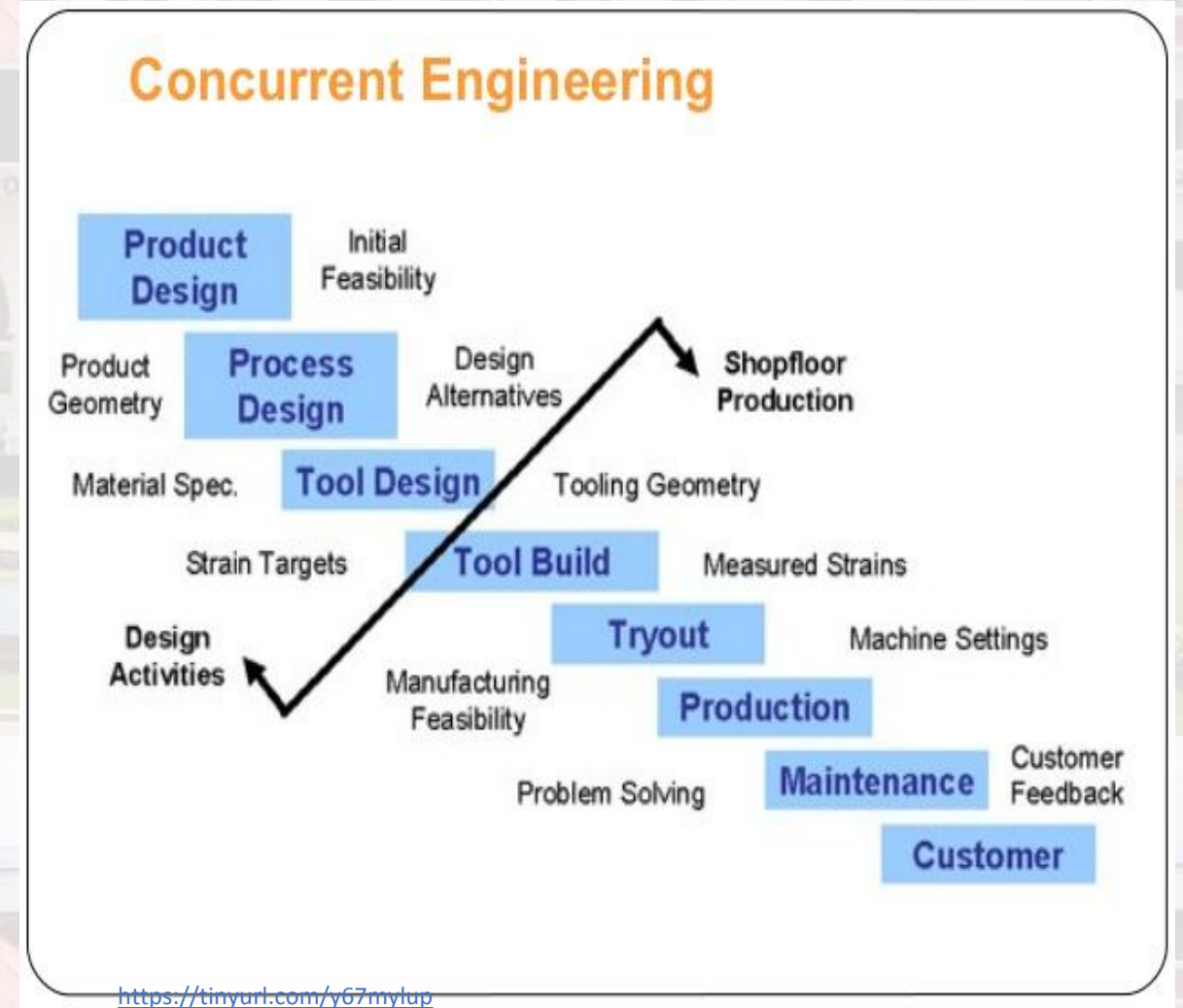
SNS College of Technology, Coimbatore



Concurrent engineering



- **Concurrent engineering** refers to an approach used in product development in which the functions of design engineering, manufacturing engineering, and other functions are integrated to reduce the elapsed time required to bring a new product to market
- Also called **simultaneous engineering**, it might be thought of as the organizational counterpart to CAD/CAM technology



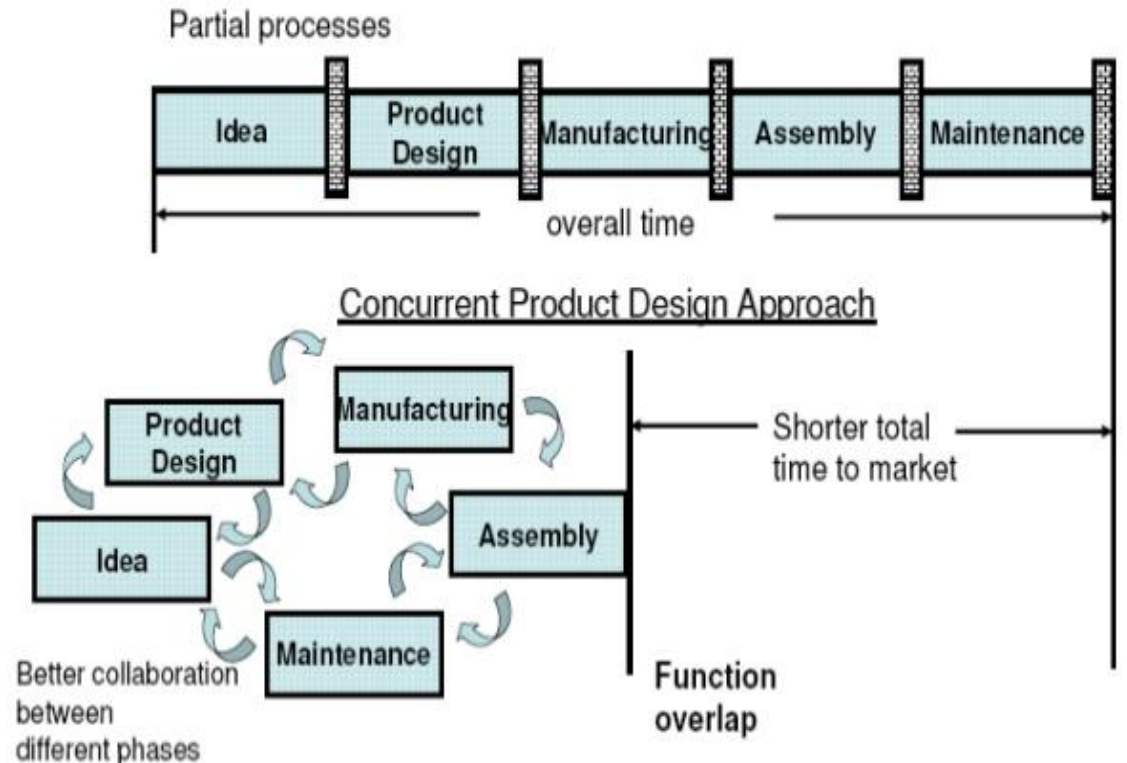


Concurrent engineering(Cont..)



- Concurrent engineering methodologies permit the separate tasks of the product development process to be carried out simultaneously rather than sequentially
- Product design, testing, manufacturing and process planning through logistics, for example, are done side-by-side and interactively
- Potential problems in fabrication, assembly, support and quality are identified and resolved early in the design process

Concurrent Engineering



<https://tinyurl.com/y67mylup>



Brainstorming



- Brainstorm some ideas about Concurrent Engineering

Brainstorming combines a relaxed, informal approach to problem solving with lateral thinking.

It encourages people to come up with thoughts and ideas that can, at first, seem a bit crazy. Some of these ideas can be crafted into original, creative solutions to a problem, while others can spark even more ideas.

- How can this tool be used in your organization?

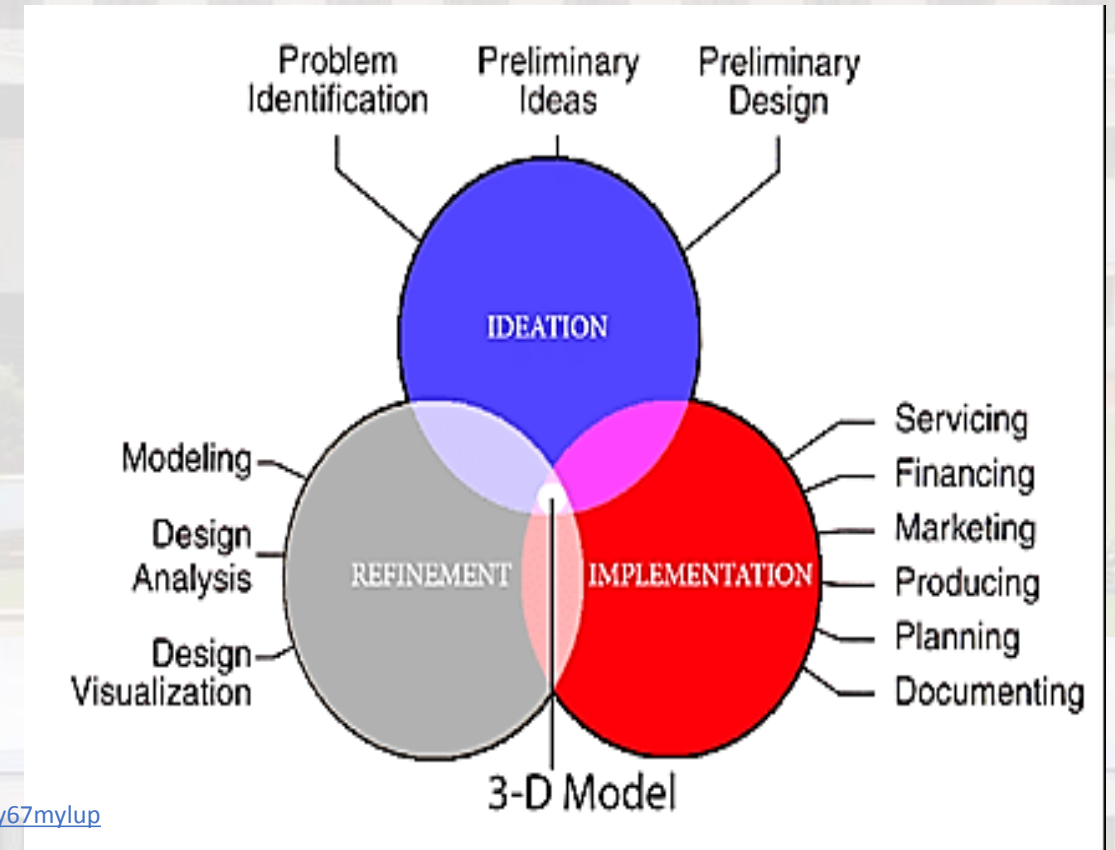


<https://tinyurl.com/y2e899cq>



Nuts and Bolts

- Basic Tenets of Concurrent Engineering
 - Doing things simultaneously
 - Focusing on the Process
 - Converting hierarchical organizations into teams
- Basic Goals of Concurrent Engineering
 - Dramatic improvements in time to market and costs
 - Improvements to product quality and performance
 - Do more with less



<https://tinyurl.com/y67mylup>



Nuts and Bolts (Cont...)

- Concurrent Engineering = Teamwork
 - The more communication exists, the better the product
- Balances Needs
 - Customer, Supplier, Engineers, Marketing, and Manufacturing needs
- Management
 - Good mgmt is vitally important
 - Encourage communication
 - Strong mgmt support



Areas to Concurrent Engineering



Main Areas to Concurrent Engineering

- 1) People
- 2) Process
- 3) Technology

Area 1: People

- Formation of teams
- Training



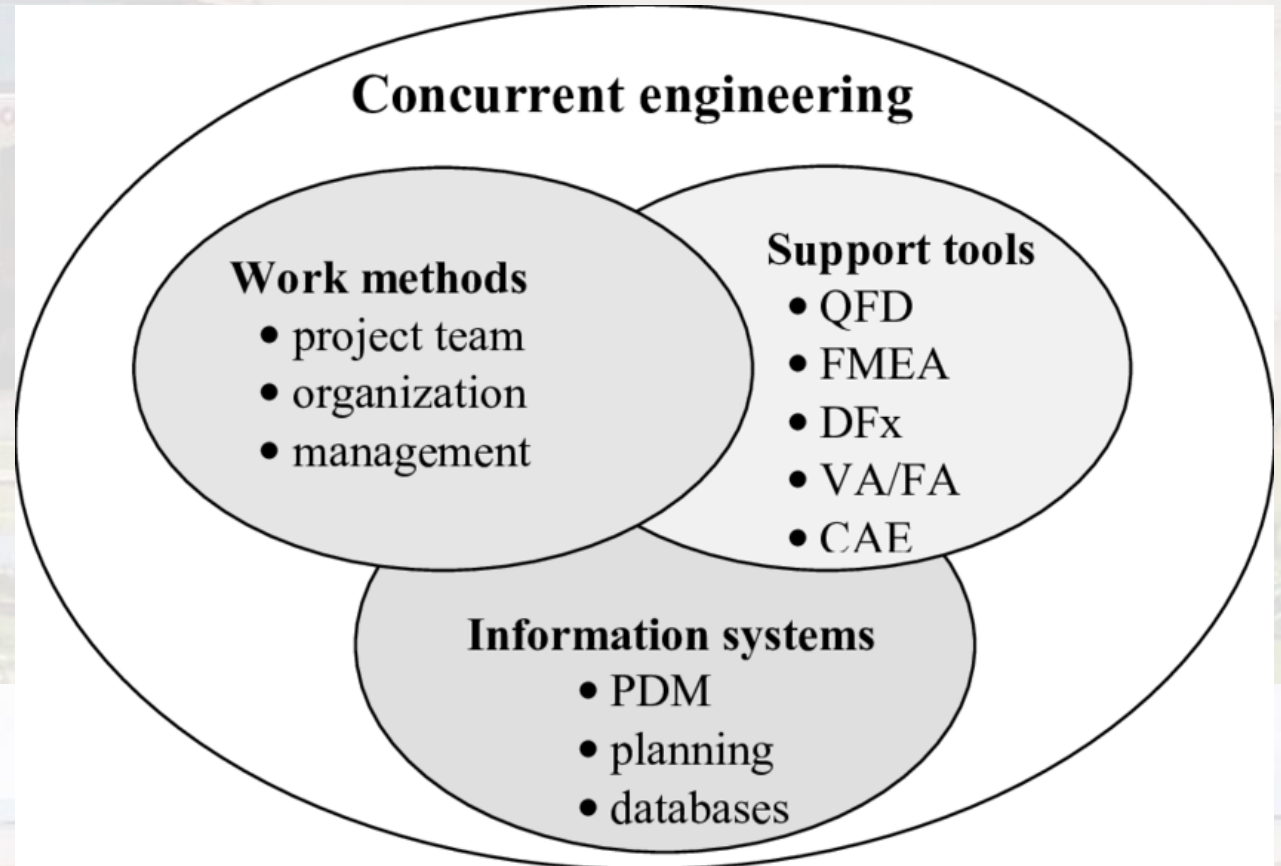
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Areas to Concurrent Engineering(Cont..)



- Area 2: Process
 - Changes in your processes
 - Be open to change
- Area 3: Technology
 - CAD/CAM
 - Software. Hardware, and Networking



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Assessment



1. Concurrent Engineering deals with carrying out the following activities at the same time while designing the product:

- (A) Design and Sales
- (B) Manufacturing and Sales
- (C) Design and Re-engineering
- (D) Design and Manufacturing**

2. Job evaluation is the method of determining the

- (A) relative worth of a job**
- (B) skills required of a worker
- (C) contribution of a worker
- (D) effectiveness of various alternatives

3. Brainstorming plays a vital role in Pre-Writing, Making headways in-----

Ans: Gathering Data



A Short Exercise



1. Come up with some ideas as to how implementing Concurrent Engineering could be useful in your organization?
2. How will you form teams? Open communication? Change processes? Implement technology?



THANK YOU