

Prof. Bruce M Wood

Managing the Design Process

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8		New Fixed Assets		
9		95,000		
10				
11	MONTHLY BALANCE SHEETS	31/12/05	01/01/06	02/28/06
12				03/31/06
13				
14	ASSETS	Previous month end		
15	Cash plus Short term Securities	317,505	487,876	284,111
16	Accounts receivable	967,500	917,076	991,475
17	Inventories	642,550	694,966	746,064
18	Notes receivable	0	0	0
19	Prepaid expenses and other current assets	8,000	10,000	0
20	TOTAL CURRENT ASSETS	1,935,555	2,109,917	2,021,650
21	Long term securities	50,000	60,000	0
22	Investments at cost	75,000	85,000	0
23	Property, Plant & Equipment			
24	At Cost	682,709	682,709	717,709
25	Accumulated depreciation & amortization	96,570	102,070	108,153
26	Net Property, plant & equipment	586,139	580,639	609,556
27	Investments/Advances to subsidiaries	10,000	12,500	0
28	Other non-current assets	43,500	44,567	53,500
29	Deferred charges	1,000	5,000	0
30	Deposits & other assets	15,000	25,000	0
31	TOTAL ASSETS	2,716,194	2,922,623	2,684,705
32				
33	LIABILITIES			
34				
35	Accounts payables	461,500	541,223	585,130
36	Short term loans	150,000	150,000	150,000
37	Long term debt-payable within 12 months	20,000	30,000	0
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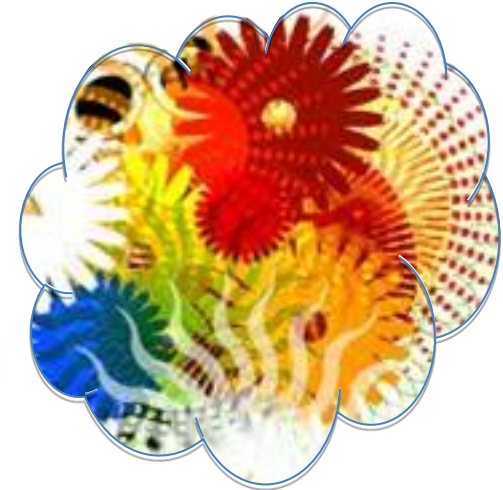
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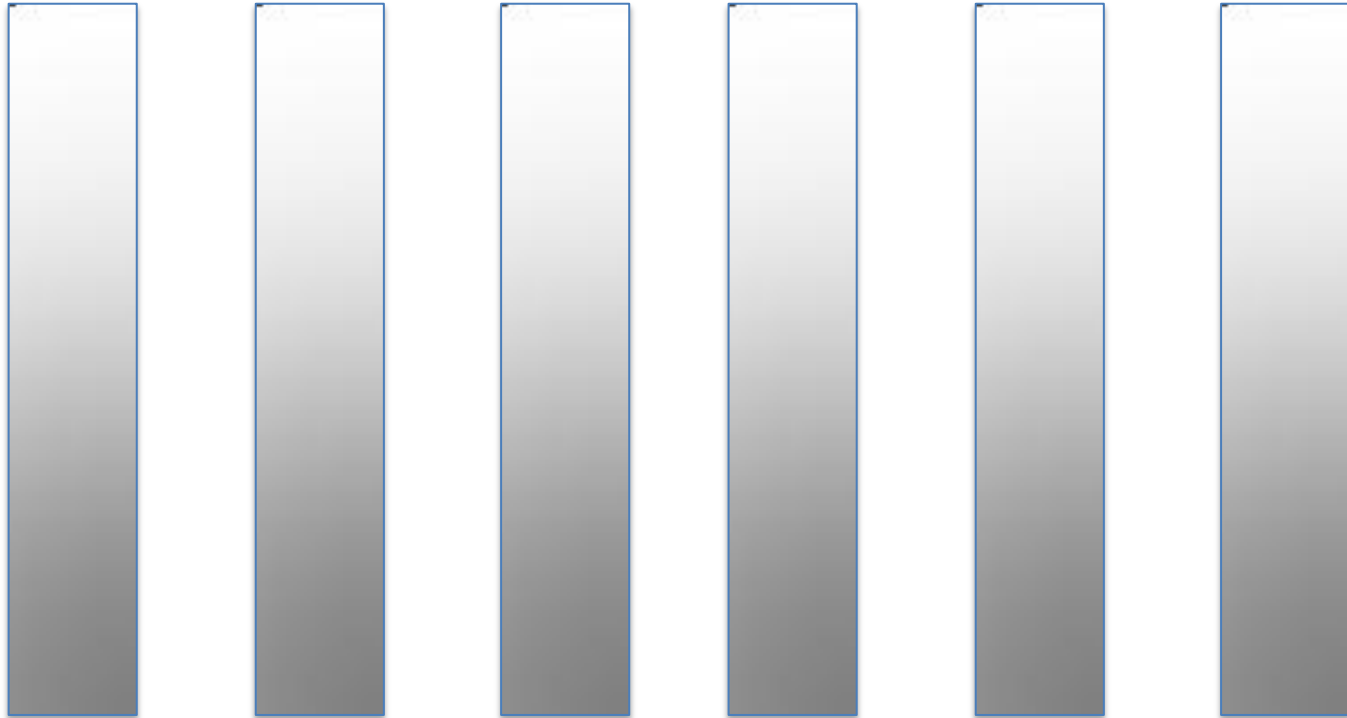
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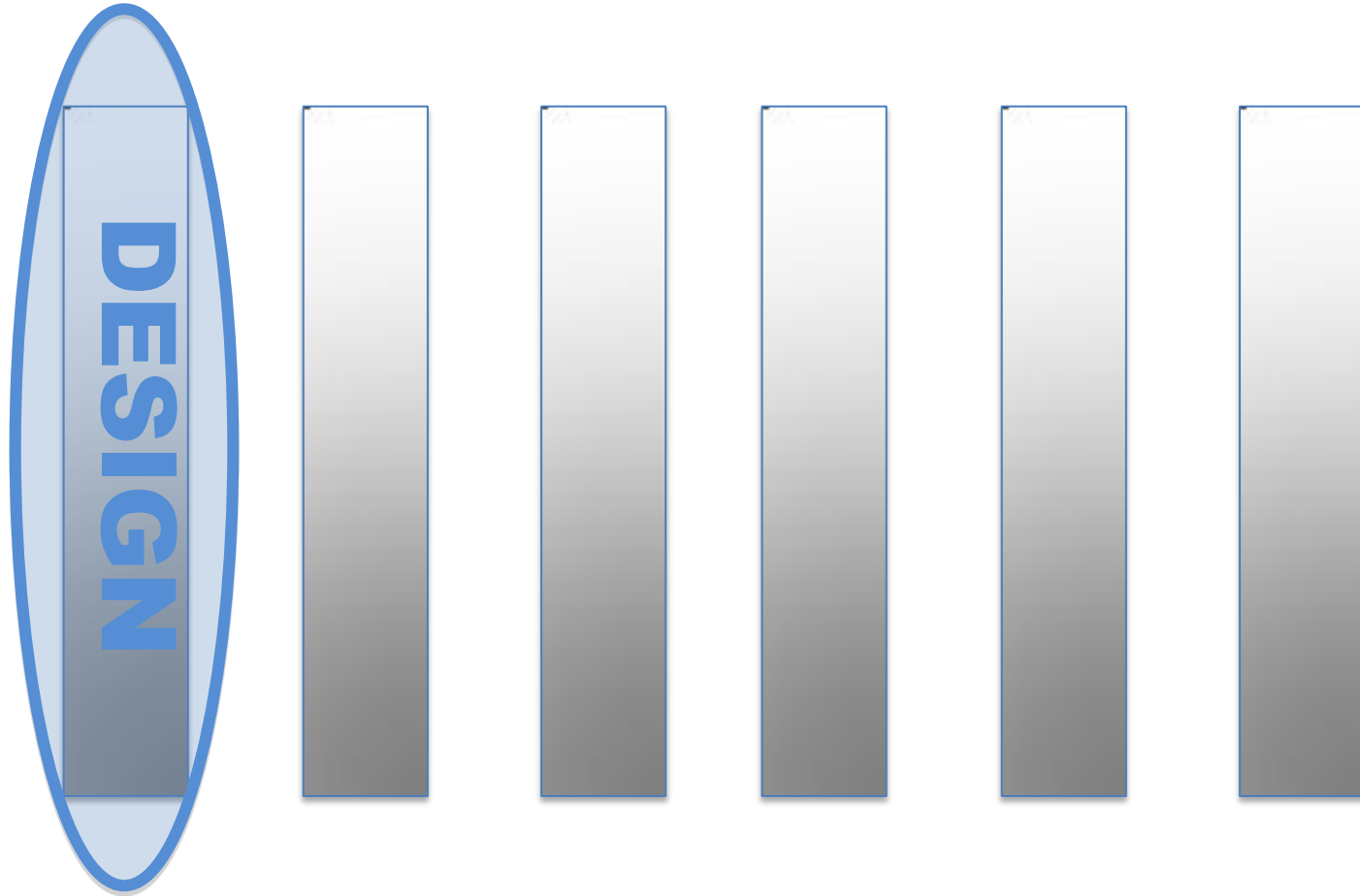


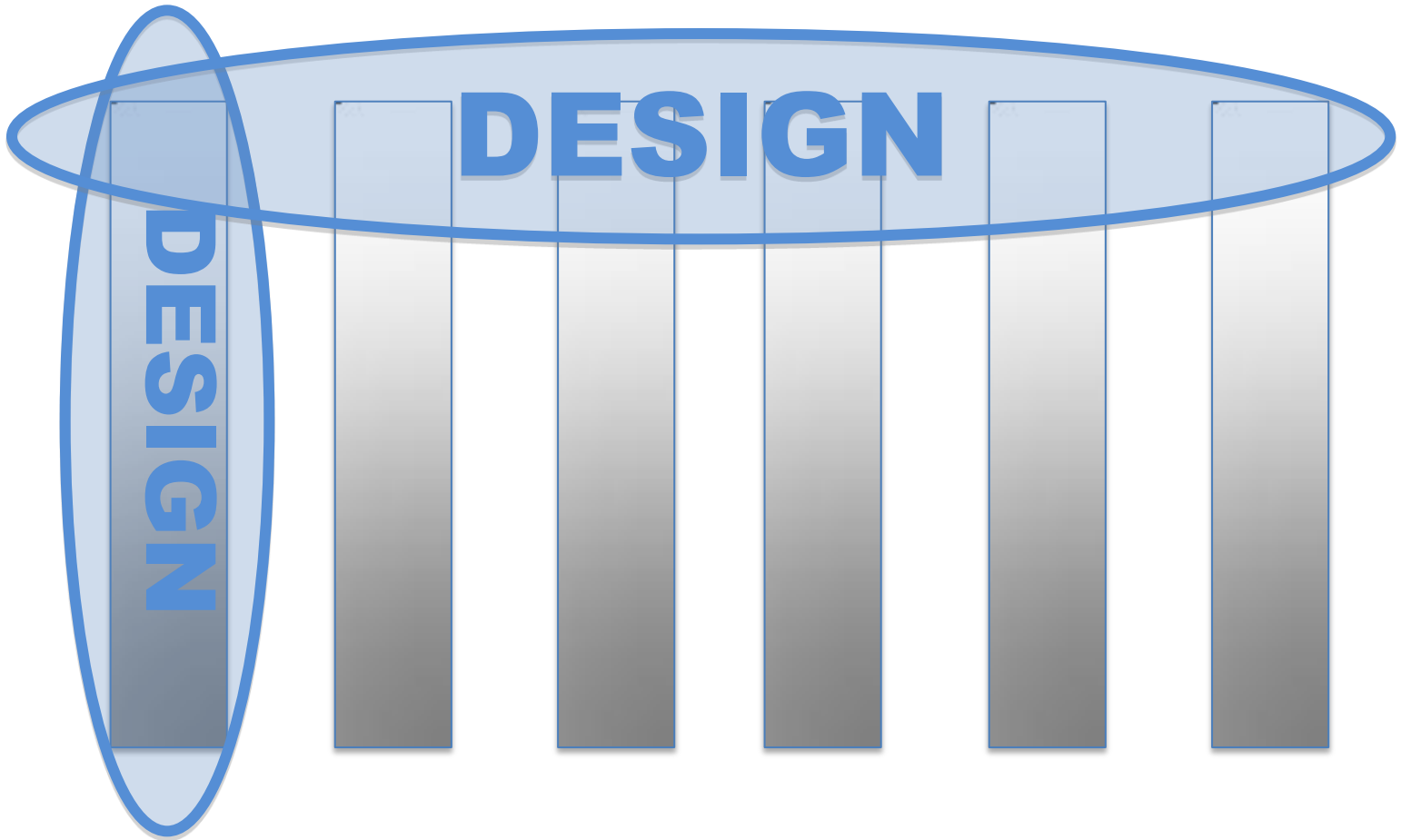
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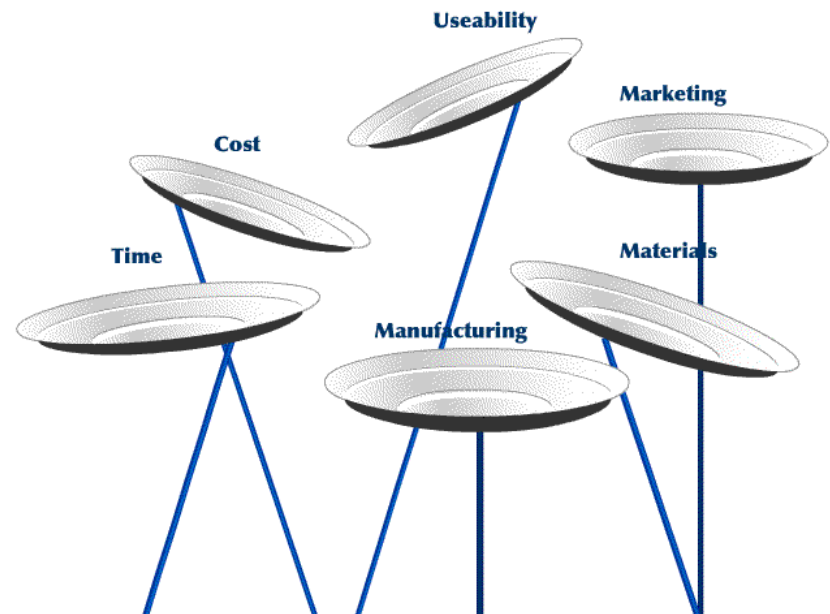






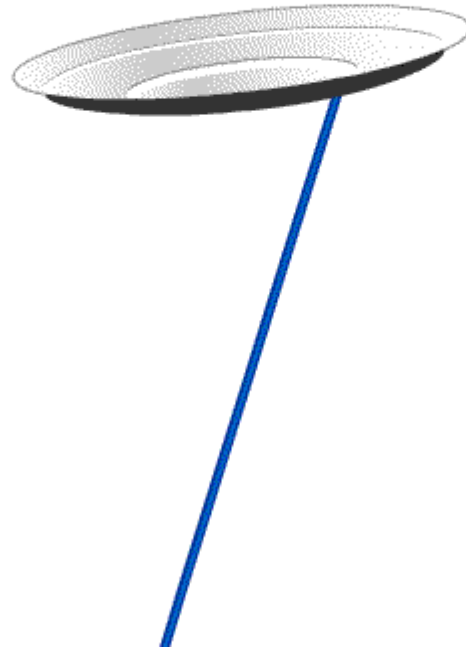
Project Management

- Most Design projects involve many people and businesses completing many different tasks
- All this has to be controlled to ensure nothing is missed
- Successful Design projects result in high quality, cost effective solutions delivered by effective use of time and money
- Project management is the activity of planning an coordinating resources and task to achieve this goal

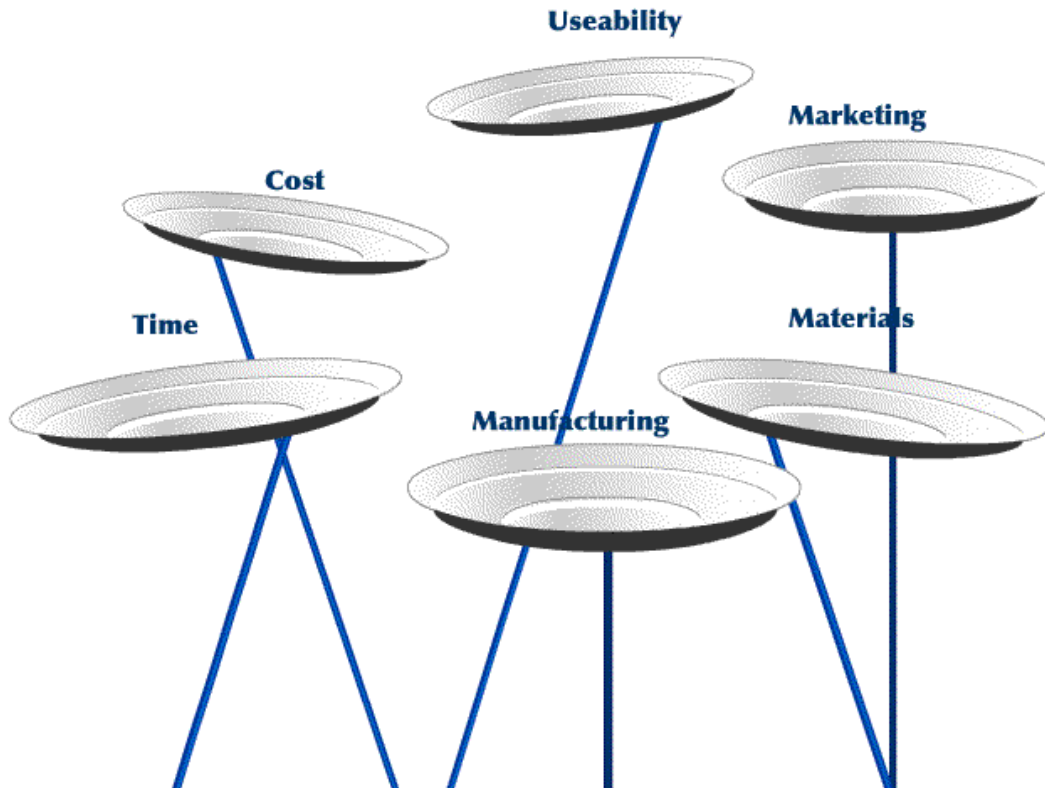


Design Managing Chaos

Concept



Design Managing Chaos



Structure

- What is a project?
- Why does it need to be managed?
- The tools and techniques of project management
- Example project
- Recap



Why is it important to you?

- Recognised approach for control within business
- All support agencies require a plan prior to giving assistance
- Enhances your professionalism and chances of success

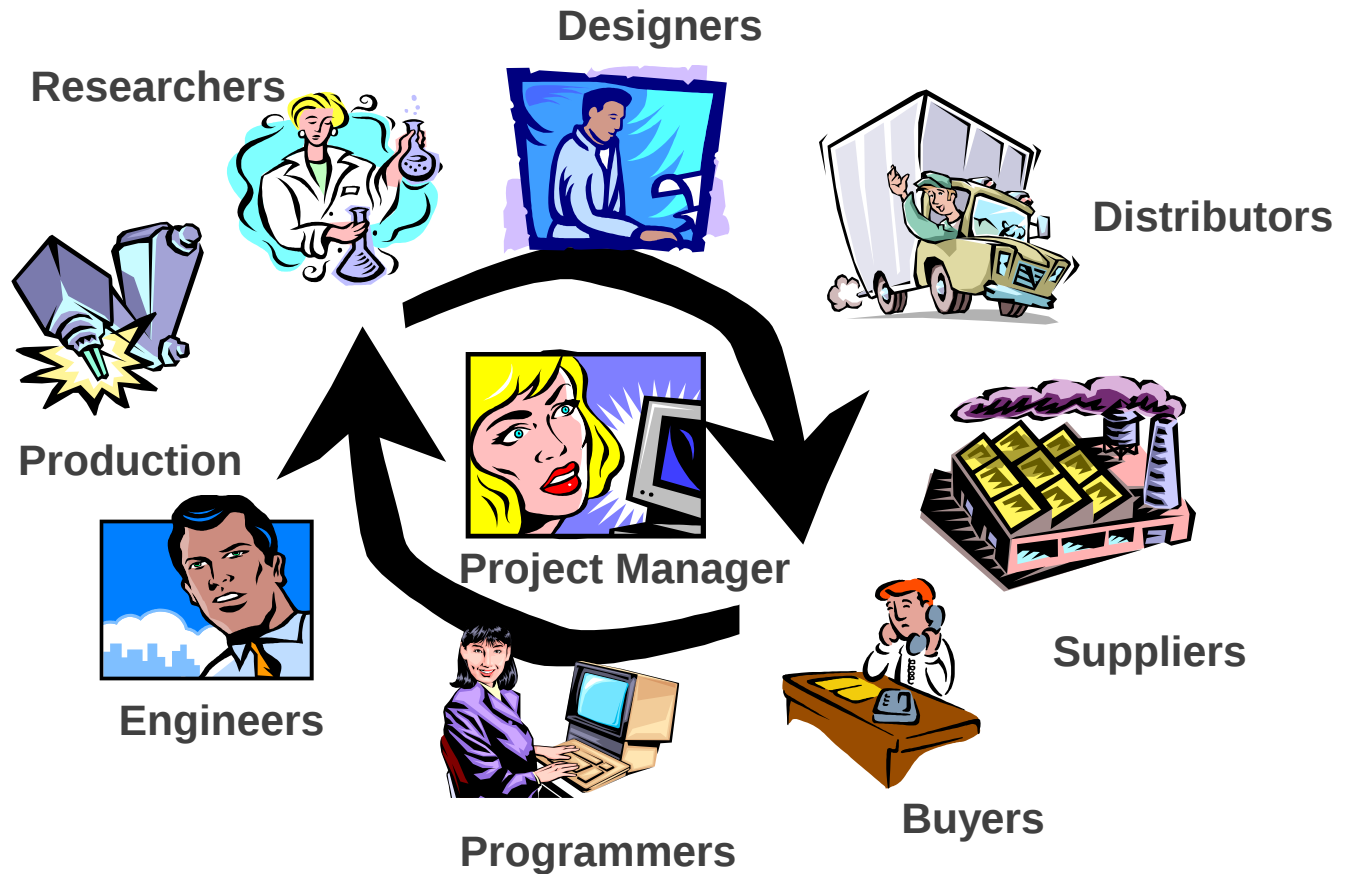


What is a project?

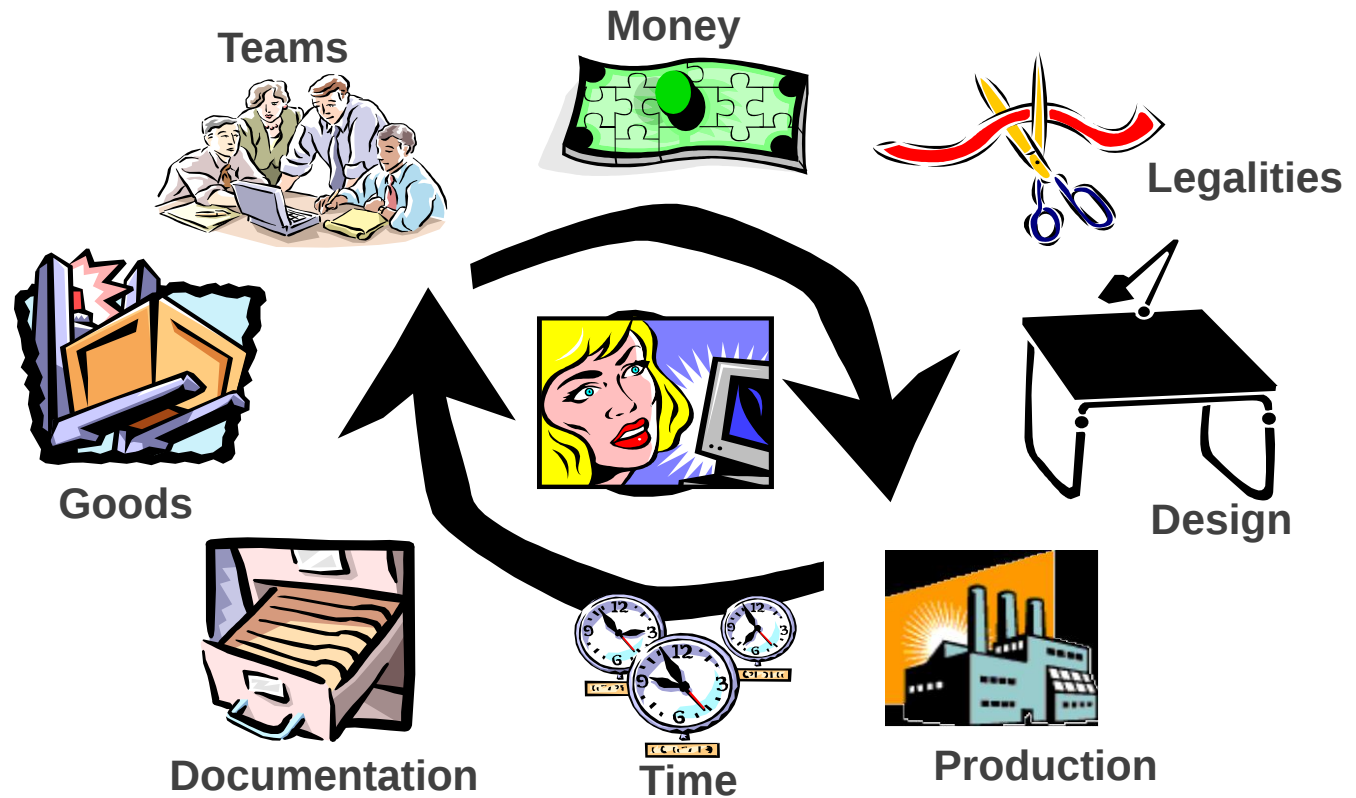
“A set of activities undertaken to achieve a defined purpose or goal, and for which the start and completion dates are well defined”



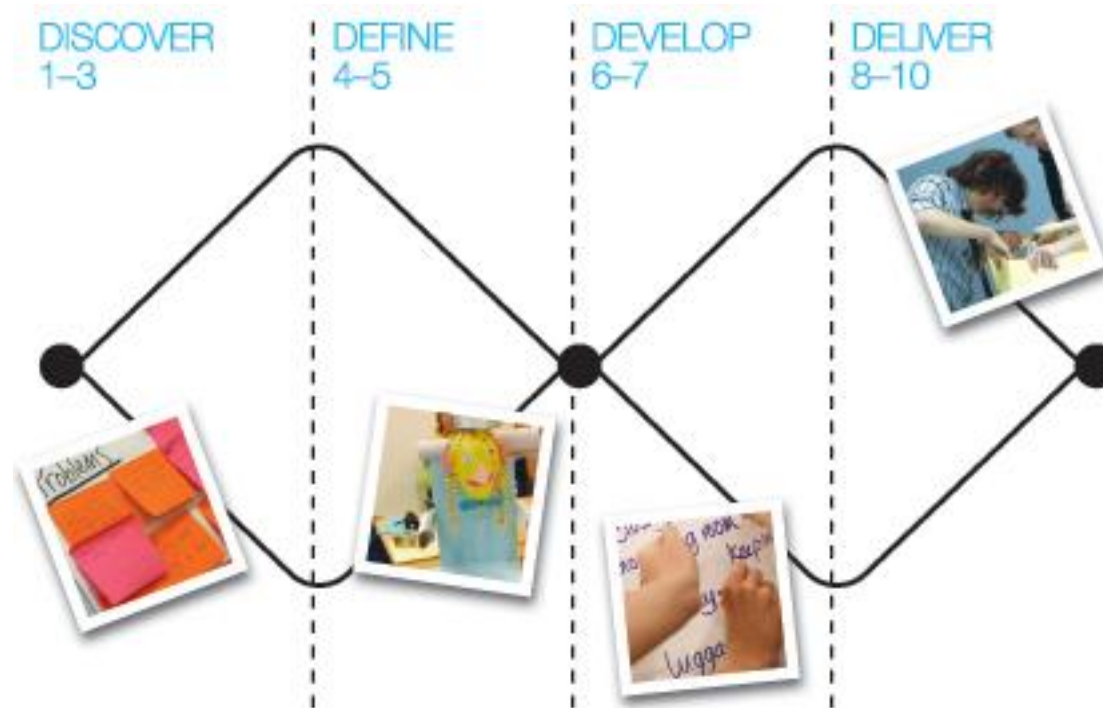
Who are you managing?



What are you managing?



Design Managing Chaos



How to start?

- You will need
Business plan
Resources, budget, timescales
Specification
Tasks and deliverables
- You will “probably” know the end date

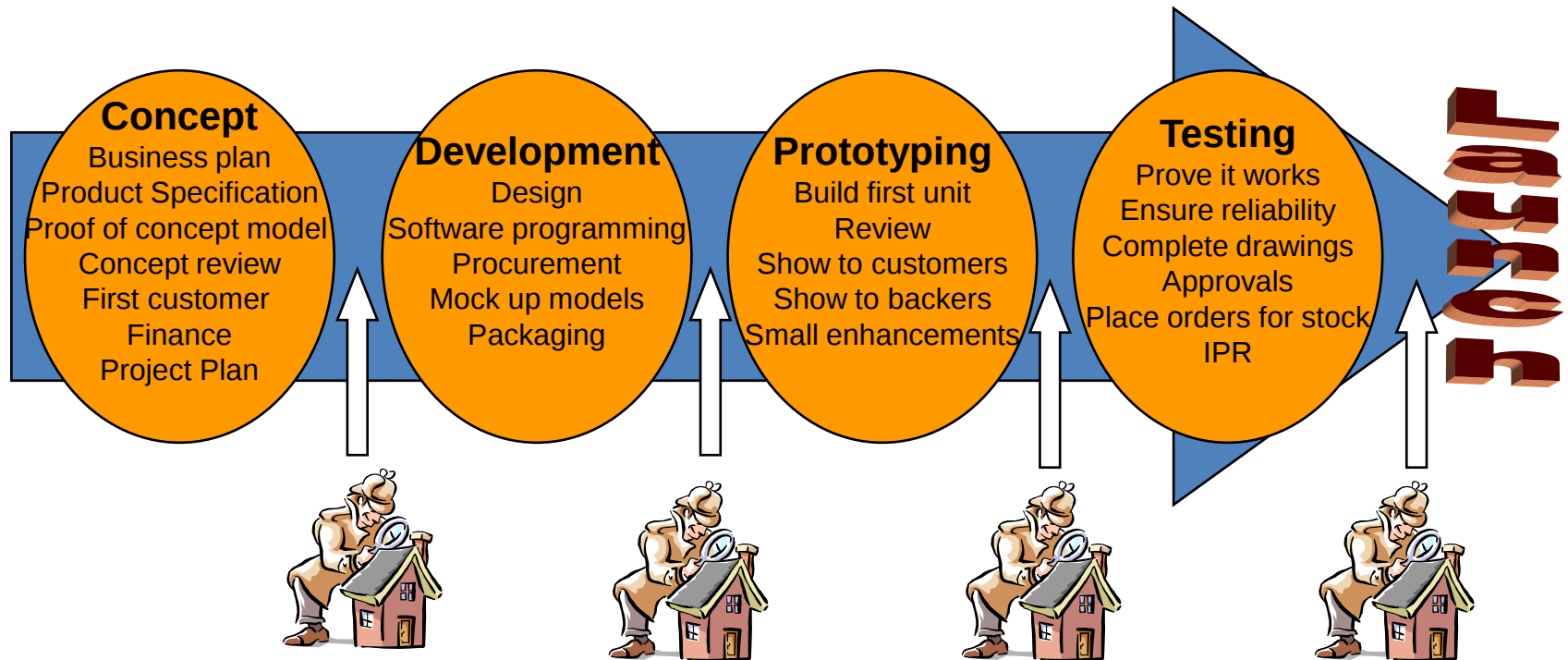


Stepped Approach

- Divide project into manageable steps
 - Concept
 - Development
 - Prototype
 - Testing
 - Production
- List the tasks required to complete each step

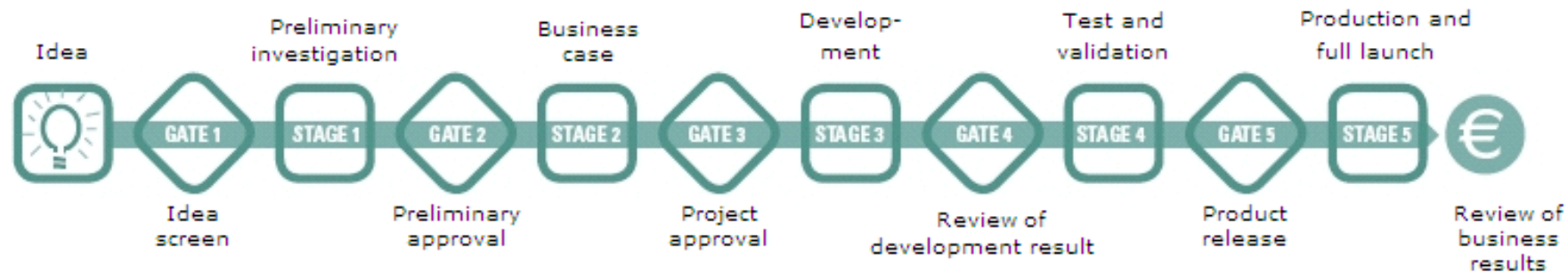


Steps and Tasks

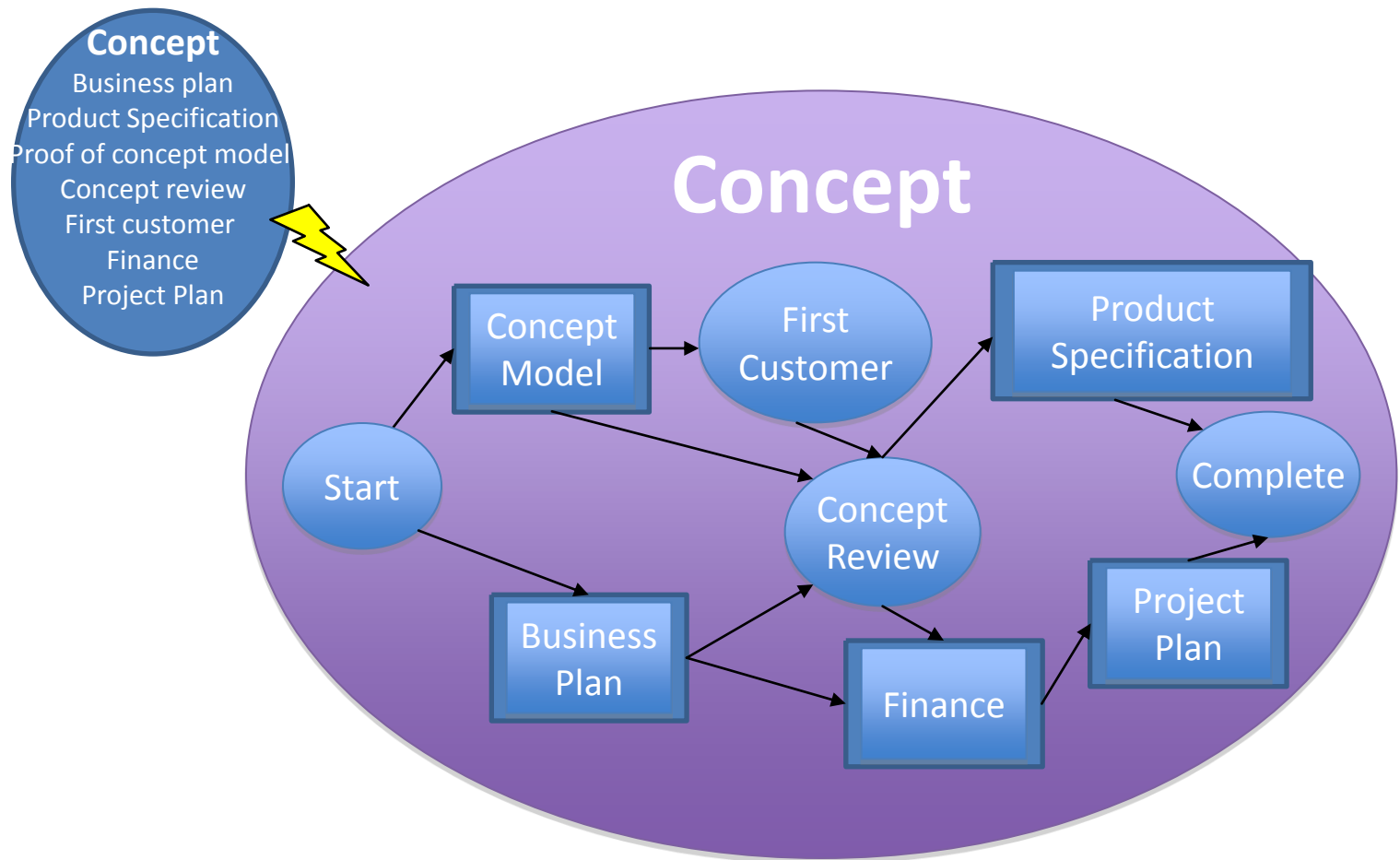


Review points - Milestones

Stage and Gate

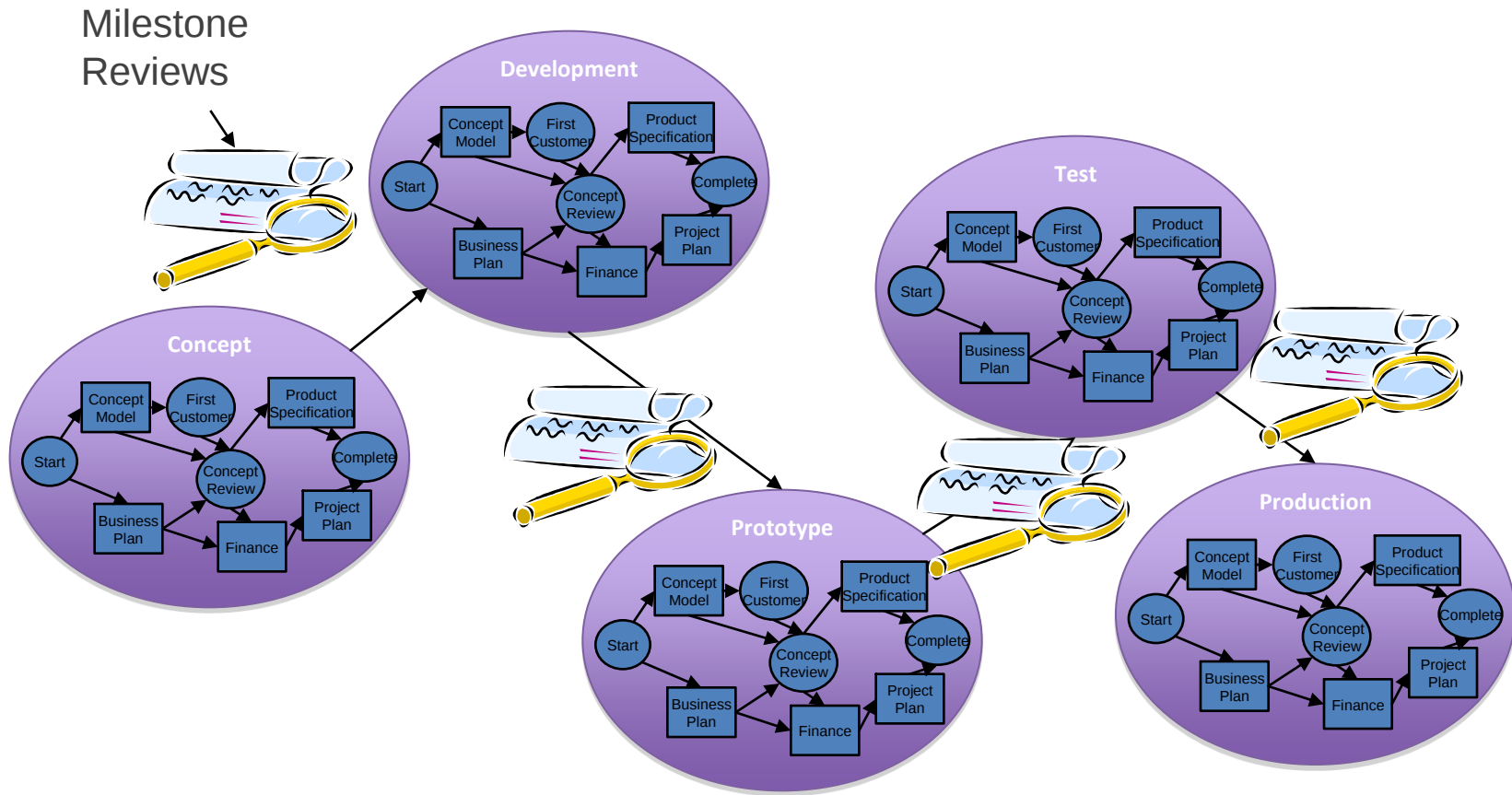


Task Relationships

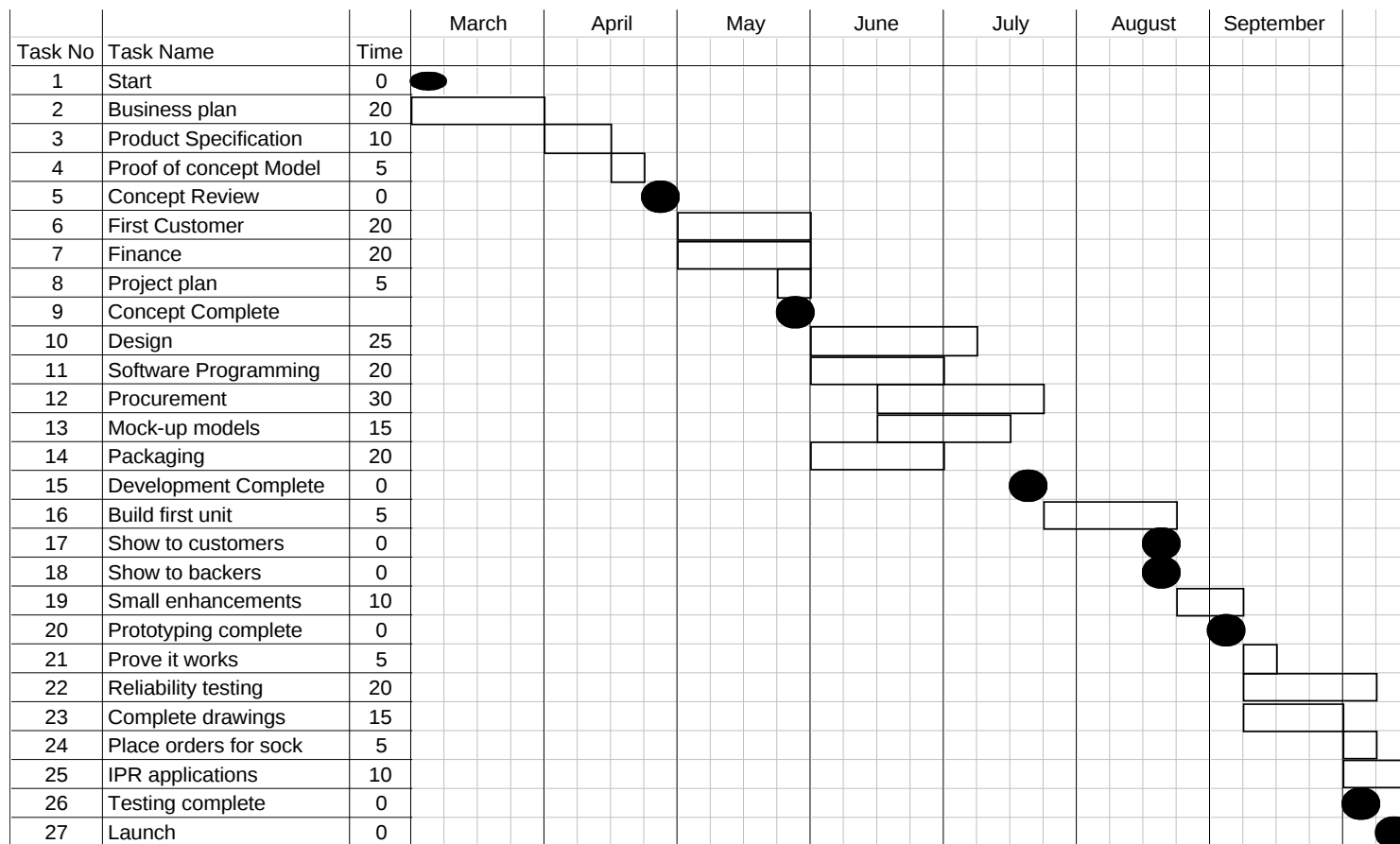


PERT Chart

Probability Evaluation & Review Technique



Gantt Chart



Pros and Cons

- **Pert Charts Pros**
Highlight relationships
Easy graphical view
- **Pert Chart Cons**
No idea of time
- **Gantt Chart Pros**
View task time on calendar
- **Gant Chart Cons**
No easy relationship viewing



Risk Assessment

- Identify potential sources of risk
- Determine impact
- How can risk be reduced or avoided



Managing Risk

- **Example**

- **Problem** - product may fail safety test
- **Solution** – use designer with track record in this field
- **Problem** – insufficient time to complete design work
- **Solution** – identify contract resource in case it is required



Accelerating Projects

- **Start the project early**
Time often wasted on agreeing schedules, start concept
- **Manage the scope**
Avoid “creeping elegance”
- **Effective communication**
Use small teams and informal dialogue where appropriate
- **Overlap certain tasks**
- **Outsource certain tasks**



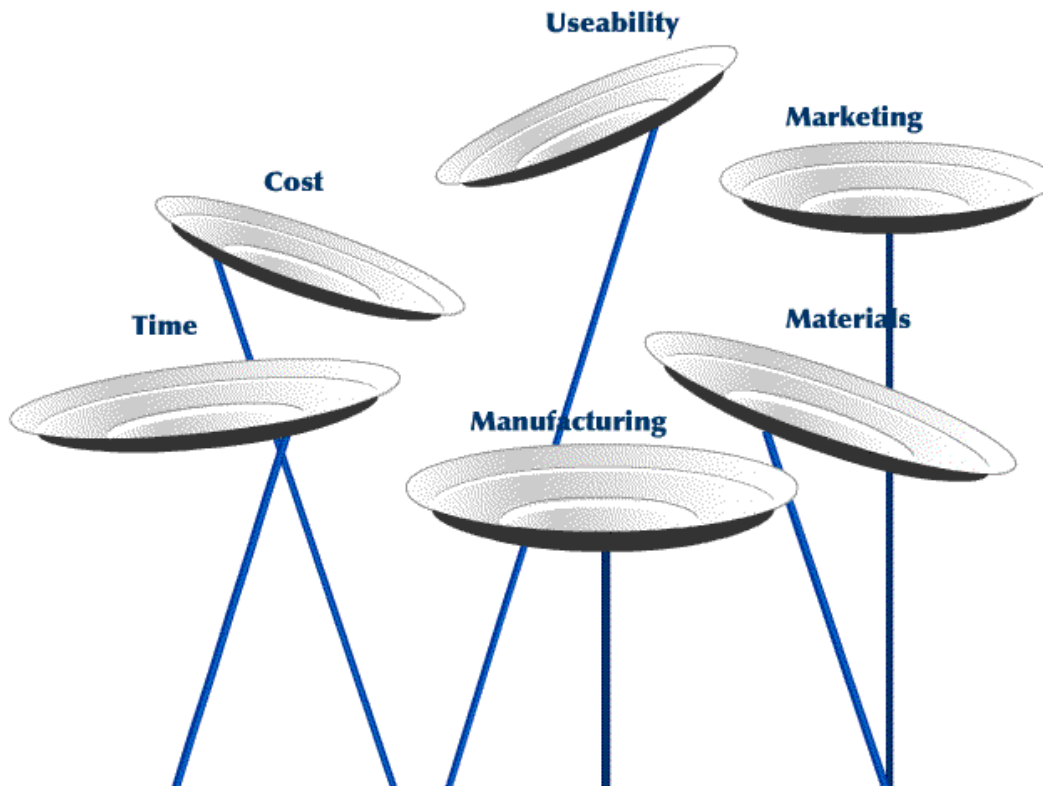
Laws of Project Management

- No project is ever installed on time, within budget, and with the same staff that started it. Yours will not be the first.
- Projects progress quickly until they become 90% complete then they remain 90% complete forever.
- When things are going well, something will go wrong.
When things cannot get any worse, they will.
When things appear to be getting better, you have overlooked something.
Murphy was an optimist.
- If the project specification is allowed to change freely, the rate of change will exceed the rate of progress.
- Project teams detest progress reporting because it vividly manifests the lack of progress.
- A carelessly planned project takes three times longer to complete than expected. A carefully planned project will only take twice as long.

Summary

- Agree deliverables and fix these as much as possible
- Divide the project into manageable phases
- Breakdown these phases into manageable tasks
- Produce Gantt & PERT charts
- Identify risks
- Review project at milestones - phase exits

Design Managing Chaos



Conclusion

- Considered Managing Design
- Different perspectives
- The scope of the problems
- Some methods to manage risks
- Considered some Guidelines

Thank You