Project Management

The appropriate approach to streamlining the business processes

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European Bank
for Reconstruction and Development

A Project

is the process and activity of:

- Planning
- Organising
- Motivating
- and controlling resources, procedures and protocols – to achieve specific goals in scientific or daily problems
- A project - temporary endeavour to produce a unique product, service or result
  - a defined beginning and end (usually time-constrained
  - often constrained by funding or deliverables
  - undertaken to meet unique goals and objectives,
- Usually to bring about beneficial change or added value.

Why is it important in business?

- ## The business environment changes so quickly
  - ◦ Need to utilise funding and resources to make projects pay within your business programme
- ## Technologies change
  - ◦ Need to review technologies and make the best decisions at the time and make them work for you
- ## Skills are changing that are needed
  - ◦ Need to be flexible on obtaining special skills to ensure programmes are met

Different Approaches to Projects

▸ Traditional approach – 5 Phases
  ◦ 1. initiation
  ◦ 2. Planning and design
  ◦ 3. Execution and construction
  ◦ 4. Monitoring and controlling systems
 ◦ 5. Completion

BUT

The Project Manager

- Project managers
  - responsibility of the planning, execution, monitoring/control and closing of any project
  - (he may be involved in initiation too)
- It's the Key to project success but needs:
  - A strong definition of project manager:
  - WHAT ARE HIS Responsibilities
    - Reporting route (up and down management structure)
    - Authorities (ability to agree contracts)
    - The potential Budget and business case**
  - Access to information to:
    - Agree scope with Clients
    - Associated costs
    - Sub contract partners
    - 'On costs'
   - 'Profit' required
    - Control costs

1. Initiation

- Analysing the business needs/requirements in measurable goals
- Reviewing of the current operations
- Financial analysis of the costs and benefits including a budget
- Stakeholder analysis, including users, and support personnel for the project
- Project procedure - including costs, tasks, deliverables, and schedule
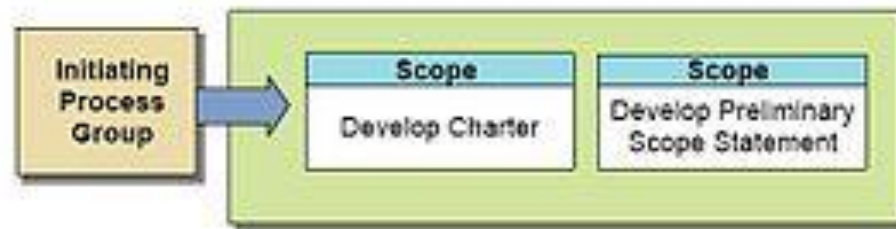
Agree - WHAT NEEDS TO BE DONE and WHEN

2. Planning and design

▸ Determining how to plan (e.g. by level of detail)
▸ Developing the scope statement;
▸ Identifying deliverables and creating the work breakdown structure;
▸ Identifying the activities needed – sub contracts?
▸ Deliverables and networking the activities
▸ Logical sequence
▸ Estimating the resource requirements for the activities;
▸ Estimating time and cost for activities;
▸ Use Project Cost System
▸ Detail Design
▸ Developing the budget;
▸ Risk planning
▸ Formal approval to begin work.
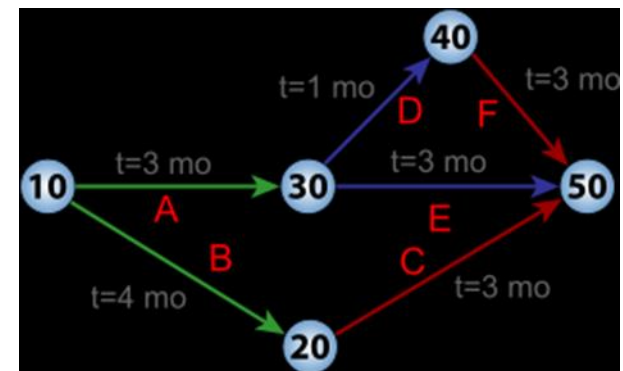
'Pert' network for a seven-month project with five milestones

3. Executing

- Direct and manage project execution
  - REGULAR PROJECT MEETINGS – SHORT!
- Quality assurance of deliverables
- Acquire, develop and manage Project Team
- Distribute information
- Communicate and Manage expectations
- Organise procurement
- Test the deliverables against the initial design
  - Commissioning
  - Snagging
  - Performance and guarantee

4. Monitoring and Controlling

- Measuring the ongoing project activities ('where we are');
- Monitoring the project variables
  - Cost
  - Effort
  - scope, etc.
  - Check against the project management plan and the project performance baseline (where we should be)
- Identify corrective actions to address issues and risks properly (How can we get on track again)
- Influencing the factors that could change the project scope.
  - Control so only approved changes are implemented.
- Scope change nearly always costs money and delays the project.

5. Closing (including snagging)

- Closing – includes the formal acceptance of the project
- Administrative activities – include archiving the files and documenting lessons learned.
- Contract closure: Complete and settle each contract and close each contract applicable to the project or project phase.
- Project close – Finalise all activities across all of the process groups to FORMALLY close the project or a project phase
- Tell the organisation that the project is closed

Tools

- 1. Must have a Cost analysis system to:
  - Develop the Total Project Budget
  - To agree Project Costs internally
    - COMPANY OVERHEADS
    - PROFIT?
  - Monitor ongoing costs at high level and in detail
  - To communicate to the 'team'
  - To learn from history
- To build up cash flow requirements/financial control
- To forward plan 'own business development plans' and cash requirements

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Management Cost Control Report

Need to be updated and controlled Monthly

Quartz Matrix Project Financial Report						Agreed Budget	Expenditure in month	Total to date	Variance	Variance available %
Main	Sub	Cost detail	Cost (*1000L)	Euro (*1000L)	Cost in other currency					
100		Civil								
	101	Civil design								
	102	Architects								
	103	Surveying								
	103	Buildings								
	104	Earth works								
	105	Painting								
Sub total	100									
200		Mechanical								
	201	Design								
	202	Modelling								
	203	Structural analysis								
	204	Equipment etc								
	205	Pipework								
	206	lagging								
Subtotal	200									
300		Electrical								
	301									
	302									
Subtotal	300									
400		Instrumentation/control								
Subtotal	400									
500		Computers/communication								
Subtotal	500									
600		Commissioning								
Subtotal	600									
700		Training Clients								
Subtotal	700									
800		Contingency								
Sub Total	800									
900	901	Project Management								
	902	Travel								
Sub Total	900									
1000	1001	Inflation @ ... %								
Grand Total										

Project Manager

Month   Year

PM, CEO e.t.c. can control very quickly

Plotting monthly allows 'S' curve

Section leader/PM can see rate of expenditure and investigate

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EBRD – Quartz Matrix

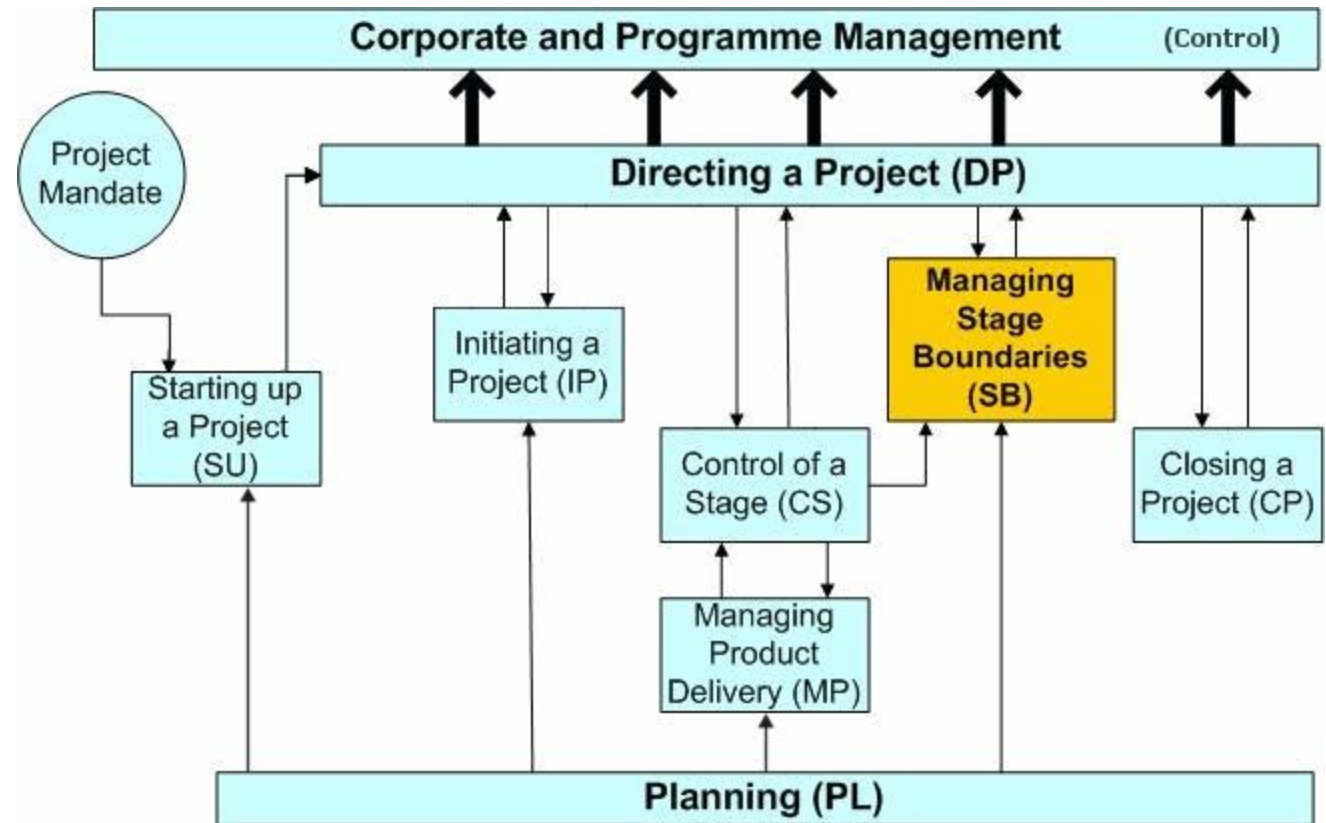# 2. Planning Tool/Programme
Gannt Chart
▸ Vital for COMMUNICATING to team, clients and sub contractors
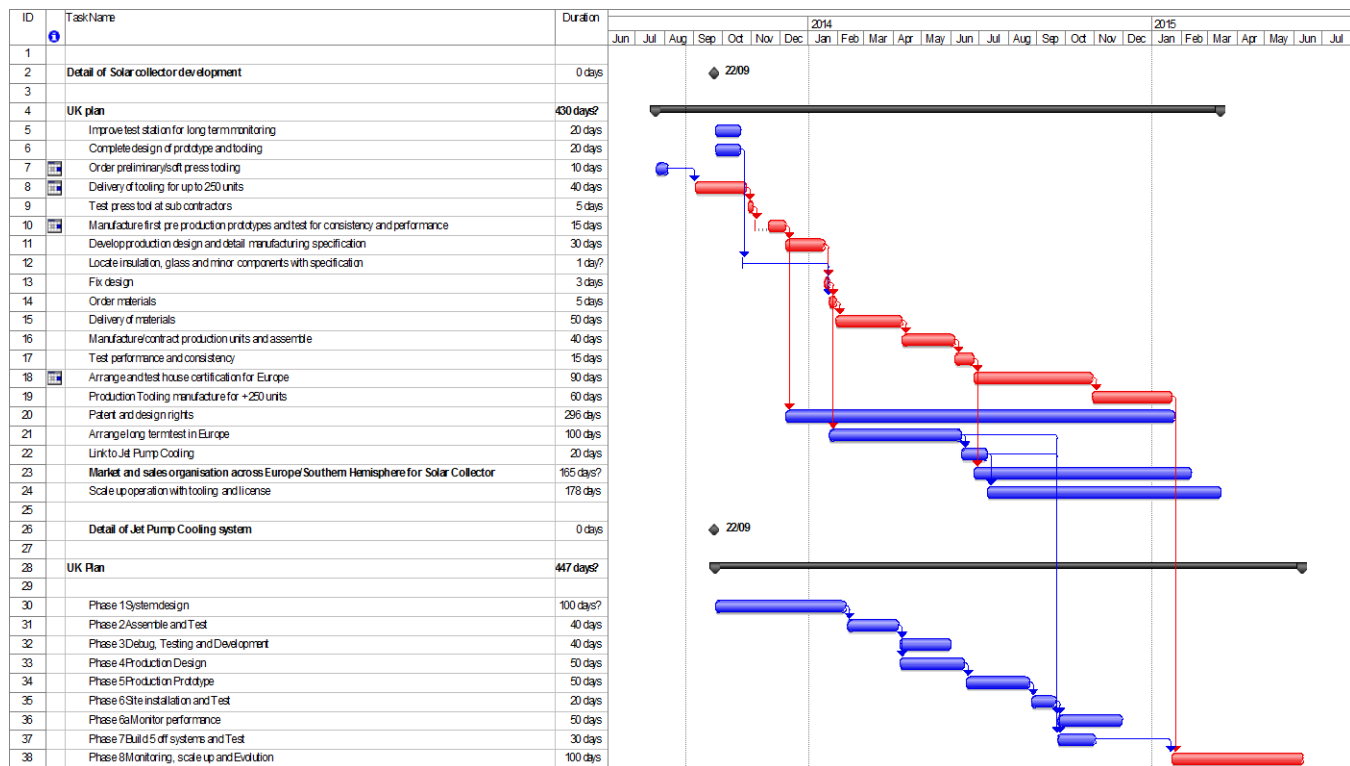
Other project systems

PRINCE2 (also used in EU proposals)

The PRINCE2 process model

PRINCE2 focuses on the definition and delivery of products, in particular their quality requirements.

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Critical chain project management

- A method designed to deal with uncertainties while taking into consideration:
  - limited availability of resources (physical, human skills
  - management & support capacity
  - Time
- A project plan or work breakdown structure (WBS) The plan is worked backward from a completion date with each task starting as late as possible

Event chain methodology

▸ Event chain methodology is the next advance beyond critical path method and critical chain project management

▸ Event chain methodology helps to mitigate the effect of motivational and cognitive biases in estimating and scheduling.
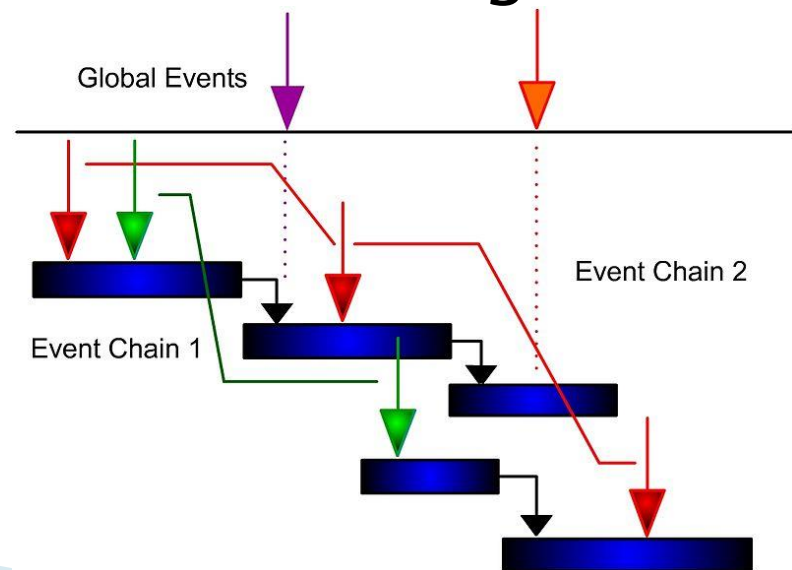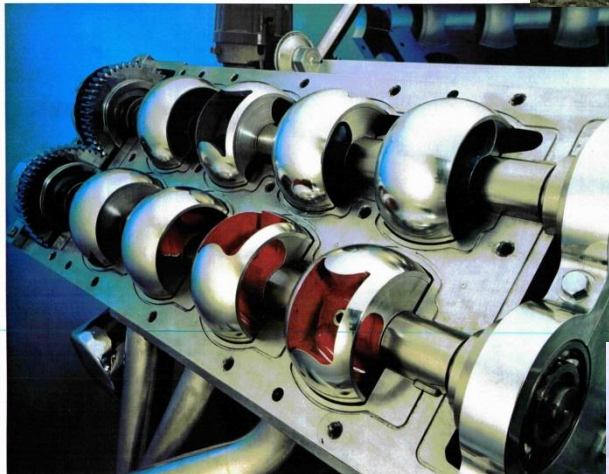
'Back to TRADITIONAL'

- Things go wrong – risk assessment/know how to 'go round' problems
- Once funds are committed – important to complete project within budget and on time.
- Delayed projects nearly always cost more!
- 'Late spend' costs your company more (financing costs)
- Your image with your Clients is valuable!
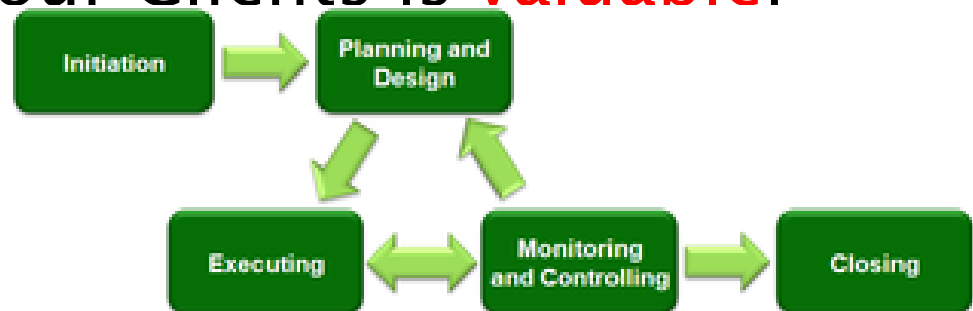
EBRD – Quartz Matrix

Some Projects

SPHERICAL ROTARY VALVE IN PLACE · SINGLE PORT ROTARY VALVES

EBRD – Quartz Matrix