

# ***Leaders educational interaction***

## ***Introduction to the Project Management in HE***

### ***Project Leaders interact with function leaders in HE***

***prof. Alessandro Silvestri***



## Short Biography about Project Management (1/2)



**MEMBER of PMI – Project Management Institute (ID: 9164332):**

Collaborations with the Southern Italy Chapter and with the Central Italy Chapter

**MEMBER of ISIPM – Italian Institute of Project Management (ID: 4492):**

Project Manager Certification and Senior Teacher Accreditation

**MEMBER of Engineers List of Frosinone (ID: 1099):**

Member of the Project Management Commission

**AUTHOR of National and International articles (more than 90):**

Last article on PM:

*«Un tool per la rendicontazione dei progetti cofinanziati dall'Unione Europea». Rossi, G., Silvestri, A. Il Project Manager – Portfolio-Program-Project. N° 39 luglio-settembre 2019. Ed. Franco Angeli*

## Short Biography about Project Management (2/2)



### TEACHER of PROJECT MANAGEMENT in:

- Master degree in **Managerial Engineering**
- Master of second level in **Production System 4.0**
- Executive Master of second level in **Management of Innovation, Quality and Organizational Wellness of School System**
- Executive Master of second level in **Management of Teaching, Research and Organizational Wellness of University**
- Executive Master of second level in **Management of Public Administration**
- Executive Master of second level in **Anti-corruption and Transparency**
- **Summer Camp Course**
- Executive Master of first level in **Healthcare and Socio-educational Project Management**
- Executive Master of first level in **Selection, Development and Innovation in Human Resource Management: application of Intelligent Technologies**
- **Many courses in private companies and public administrations**

## AGENDA

- ***PROJECT MANAGEMENT Introduction***
- ***Background: PMI & ISO - UNI & ISIPM***
- ***Organizational Principles***
- ***Function Leaders***
- ***Project Leaders***
- ***Leaders interactions***
- ***Basic Tools***



### *PMI PROJECTS DEFINITION:*

A project is a **temporary** endeavour undertaken to create a **unique** product, service, or result



## Project Management Institute - 50th anniversary in 2019

*Project Management Institute (PMI) is the world's leading association for those who consider project, program or portfolio management their profession.*

*Through global advocacy, collaboration, education and research, we work to prepare more than three **million professionals** around the world for the Project Economy: the coming economy in which work, and individuals, are organized around projects.*

## **COMMERCIAL STANDARDS**

### **Old Waterfall Certifications:**

- ***PMP® Project Management Professional***
- ***CAPM® Certified Associate in Project Management***
- ***PMI-PBA® Professional in Business Analysis***
- ***PgMP® Program Management Professional***
- ***PfMP® Portfolio Management Professional***
- ***PMI-RMP® PMI Risk Management Professional***
- ***PMI-SP® PMI Scheduling Professional***
- ***PMI Project Management Ready™***

### **New Agile Certifications:**

- ***Disciplined Agile Scrum Master (DASM) Certification***
- ***PMI Agile Certified Practitioner (PMI-ACP)® Certification***
- ***Disciplined Agile Senior Scrum Master (DASSM) Certification***
- ***Disciplined Agile Coach (DAC) Certification***
- ***Disciplined Agile Value Stream Consultant (DAVSC) Certification***

## ISO 21500:2012 - Guidance on Project Management

*ISO 21500:2012 provides guidance for project management and can be used by any type of organization, including public, private or community organizations, and for any type of project, irrespective of complexity, size or duration.*

*ISO 21500:2012 provides high-level description of concepts and processes that are considered to form good practice in project management. Projects are placed in the context of programmes and project portfolios, however, ISO 21500:2012 does not provide detailed guidance on the management of **programmes and project portfolios**. Topics pertaining to general management are addressed only within the context of project management.*



## UNI 11648:2016 - Unregulated Professional Activities - Project manager

***The UNI 11648 standard identifies the skills and abilities that must be possessed by the project manager, in addition to a broad knowledge of the specific sector. These are transversal skills ranging from the ability to select human resources for the composition of the team to the analysis of deviations, from the risk manager to reporting to customers and stakeholders.***

## **3 KNOWLEDGE GROUPS**

### ***CONTEST KNOWLEDGES***

Same Language

### ***TECHNICAL KNOWLEDGES***

Tools and techniques

### ***BEHAVIORAL KNOWLEDGES***

Internal and external relations

***Project Leaders***

***Project Teams***

***Project Stakeholders***

# 5 PROCESS GROUPS and 10 KNOWLEDGE AREAS

Knowledge Areas	Project Management Process Groups				
	Initiating Process Group	Planning Process Group	Executing Process Group	Monitoring and Controlling Process Group	Closing Process Group
4. Project Integration Management	4.1 Develop Project Charter	4.2 Develop Project Management Plan	4.3 Direct and Manage Project Work 4.4 Manage Project Knowledge	4.5 Monitor and Control Project Work 4.6 Perform Integrated Change Control	4.7 Close Project or Phase
5. Project Scope Management		5.1 Plan Scope Management 5.2 Collect Requirements 5.3 Define Scope 5.4 Create WBS		5.5 Validate Scope 5.6 Control Scope	
6. Project Schedule Management		6.1 Plan Schedule Management 6.2 Define Activities 6.3 Sequence Activities 6.4 Estimate Activity Durations 6.5 Develop Schedule		6.6 Control Schedule	
7. Project Cost Management		7.1 Plan Cost Management 7.2 Estimate Costs 7.3 Determine Budget		7.4 Control Costs	
8. Project Quality Management		8.1 Plan Quality Management	8.2 Manage Quality	8.3 Control Quality	
9. Project Resource Management		9.1 Plan Resource Management 9.2 Estimate Activity Resources	9.3 Acquire Resources 9.4 Develop Team 9.5 Manage Team	9.6 Control Resources	
10. Project Communications Management		10.1 Plan Communications Management	10.2 Manage Communications	10.3 Monitor Communications	
11. Project Risk Management		11.1 Plan Risk Management 11.2 Identify Risks 11.3 Perform Qualitative Risk Analysis 11.4 Perform Quantitative Risk Analysis 11.5 Plan Risk Responses	11.6 Implement Risk Responses	11.7 Monitor Risks	
12. Project Procurement Management		12.1 Plan Procurement Management	12.2 Conduct Procurements	12.3 Control Procurements	
13. Project Stakeholder Management	13.1 Identify Stakeholders	13.2 Plan Stakeholder Engagement	13.3 Manage Stakeholder Engagement	13.4 Monitor Stakeholder Engagement	

### Major contributions

- **Socrates** – Generic Management;
- **Adam Smith** – Of the Division of Labor;
- **Owen and Babbage** – On the Division of Labor;
- **Daniel McCallum** – Superintendent's Report;
- **Henry R. Towne** – The Engineer as Economist;
- **James Watt** – Steam Engine;
- **Captain Henry Metcalfe** – The Cost of Manufactures and the Administration of Workshops;
- **Henri Fayol** – General Principles of Management;
- **Frederick Winslow Taylor** – The Principles of Scientific Management;
- **Henry Gantt** – Gantt Chart;
- **Frank Gilbreth & Lillian Gilbreth** – THERBLIGs;
- **Carl O. Barth** – Taylorism model for modern management;
- **Max Weber** – Bureaucracy;
- **Luther Gulick** – POSDCORB;
- **Chester Bernard** – The Economic of Incentives;
- **Robert Merton** – Bureaucratic Structure and Personality;
- **Herbert A Simon** – The proverbs of Administration;
- **Philip Selznick** – Foundations of the Theory of Organization;
- **Richard M. Cyert and James G. March** – A Behavioral Theory of Organizational Objectives;
- **Elton Mayo** – Hawthorne Experiments;
- **Mary Parker Follett** – The Giving of Orders;
- **Abraham Harold Maslow** – A Theory of Human Motivation;
- **McGregor** – The Human Side of Enterprise;
- **Irving Janis** – Groupthink: The Desperate Drive for Consensus at Any Cost;
- **Tom Burns & G. M. Stalker** – Mechanistic and Organic Systems;
- **Peter M. Blau & W. Richard Scott** – The Concept of Formal Organization;
- **Arthur H. Walker and Jay W. Lorsch** – Organizational Choice: Product vs. Function;
- **Henry Mintzberg** – The Five Basic Parts of the Organization;
- **Richard M. Burton and Borge Obel** – Technology as a Contingency Factor.

## Most pervasive themes

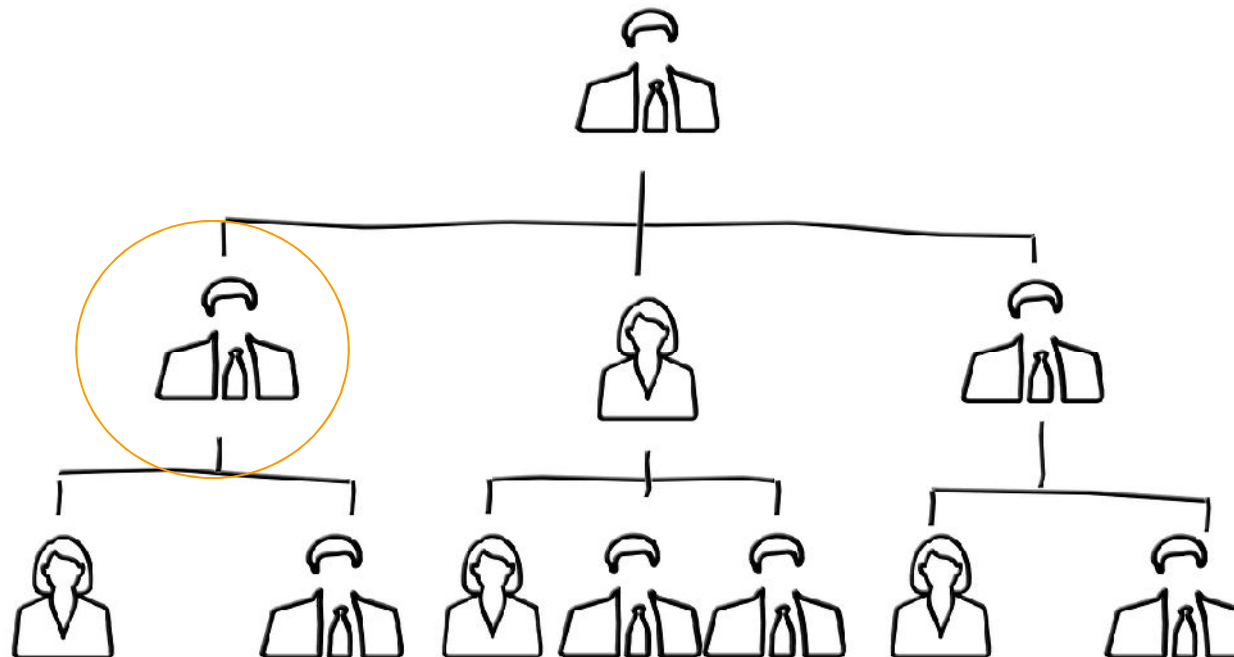
- Leadership;
- Individuals in teams and groups;
- Motivation;
- Power and influence.

## The Division of Labour

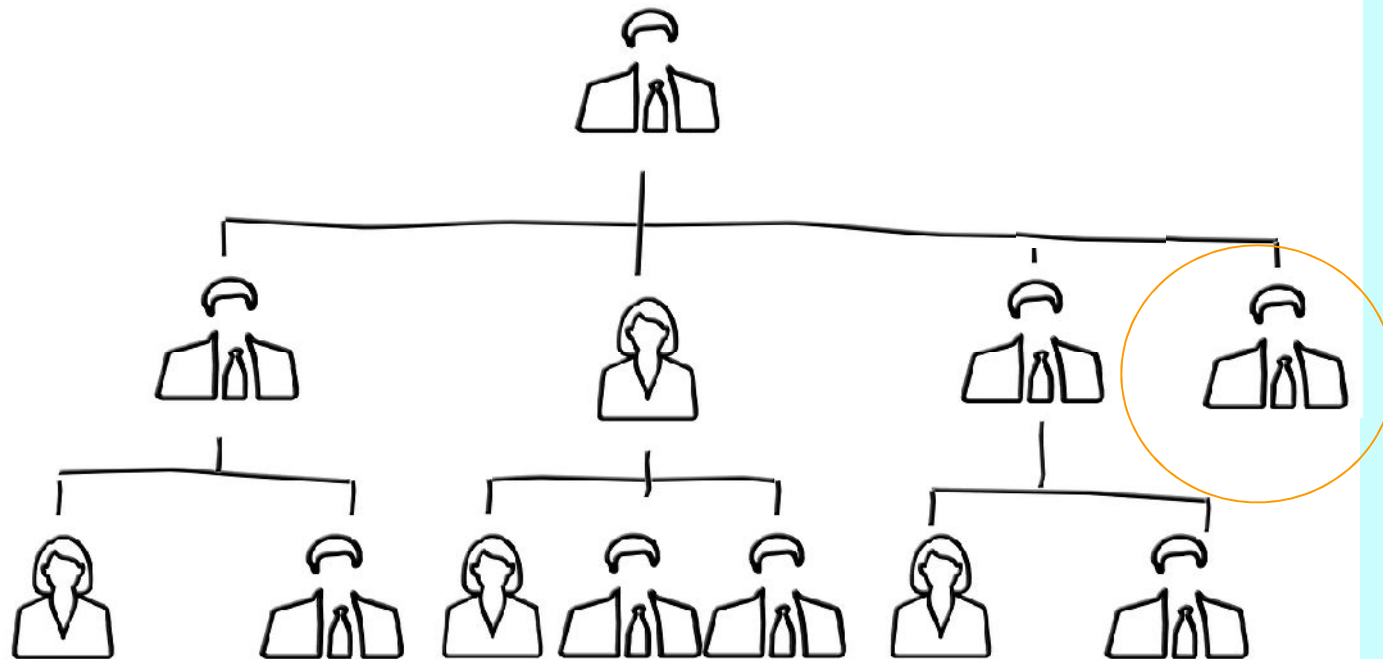
some principles to guarantee effectiveness and efficiency

- **Authority vs Responsibility** (delegation of authority only):  
the right to give orders and its natural consequence of obedience;
- **Scalar Chain** (decision pyramid and time horizon):  
the chain of superiors and the line of authority;
- **Unity of Direction** (general interest over partial interest):  
one head and one plan for a group of activities having the same objective;
- **Unity of Command** (the line of command):  
one employee to have orders from one superior only;
- **Width of Command** (maximizing of teamwork):  
the golden rule of  $5 \pm 2$  people;

## Organization Chart – Function Leader



## Organization Chart – Project Leader





# ***BASIC TOOLS***

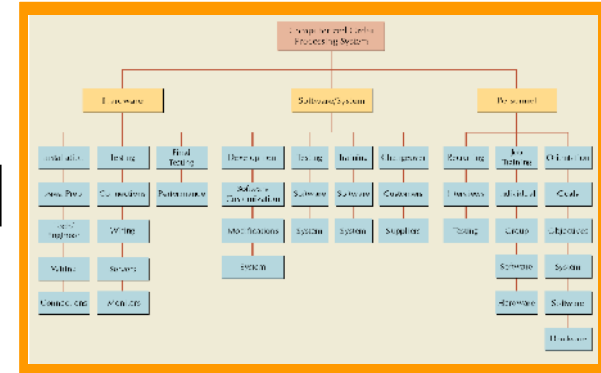
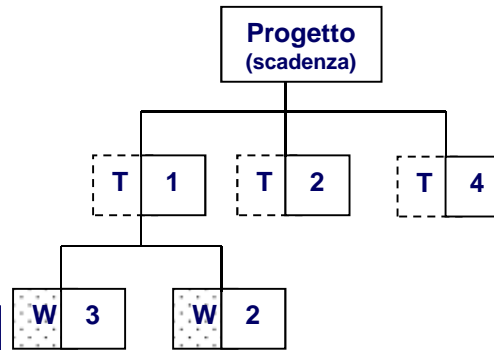
## **8 Questions to Answer**

- WHAT
- WHO
- WHO/WHAT
- WITH
- HOW MUCH
- HOW
- WHEN
- WHERE

## THREE DIFFERENT BREAKDOWN STRUCTURES

## Work BS – Subdivision into levels [Time]:

- Program [year]
- Project [month]
- Task [week]
- Sub-task [day]
- **Work package**

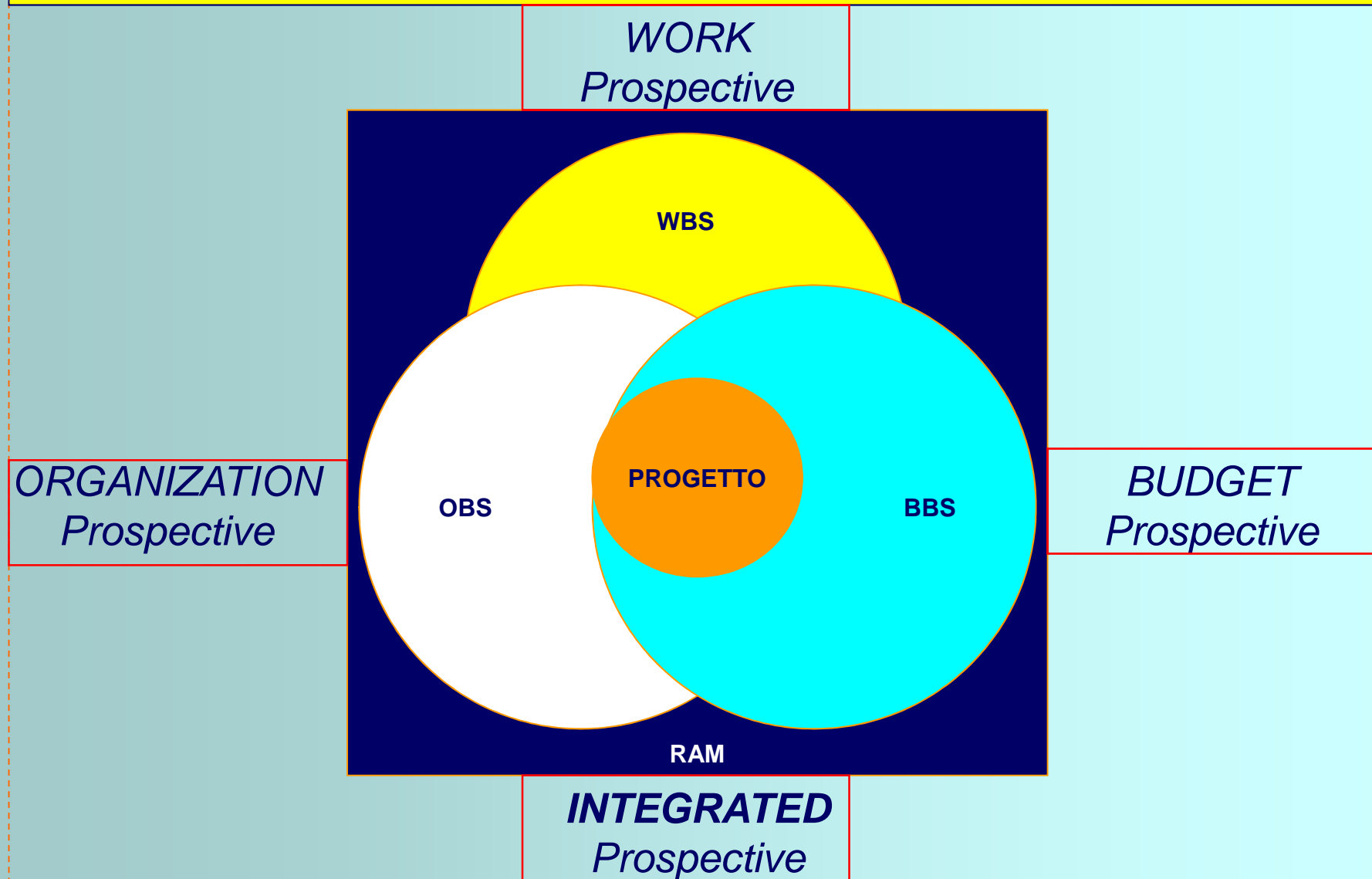


## Organizational BS – Human Resources *prospective*

**Budget BS – Budget (Cost) prospective**

## RAM (Responsibility Assignment Matrix) (WBS+OBS+BBS)

**BREAKDOWN STRUCTURE**



## RESPONSIBILITY ASSIGNMENT MATRIX

*WORK  
Prospective*

	<i>WP1</i>	<i>WP2</i>	<i>WP3</i>	<i>WP4</i>
<i>R1</i>		<i>B1</i>		
<i>R2</i>			<i>B2</i>	
<i>R3</i>	<i>B3</i>			
<i>R4</i>				<i>B4</i>

*ORGANIZATION  
Prospective*

*BUDGET  
Prospective*

*INTEGRATED  
Prospective*

**TIMETABLE**

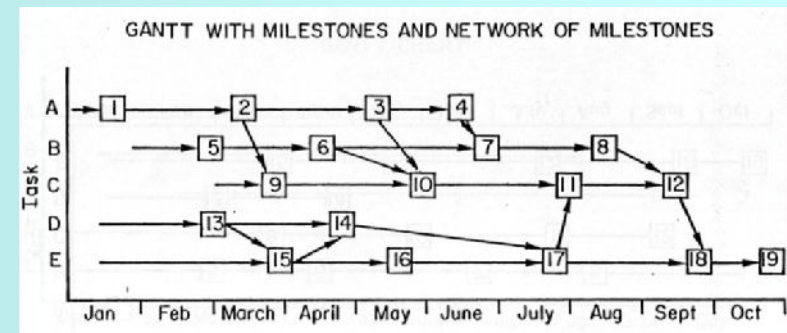
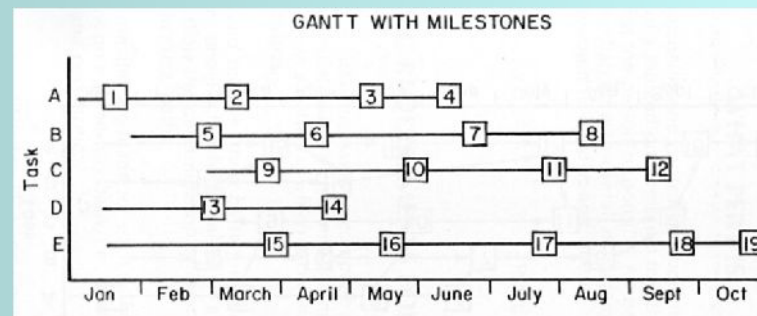
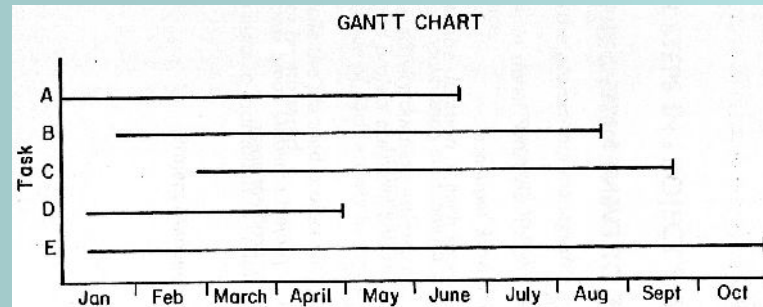
***Activity Duration***

	<i>Time</i>	<i>Precedence</i>
<i>WP1</i>		
<i>WP2</i>		
<i>WP3</i>		
<i>WP4</i>		

***Work Package***

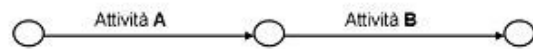
***Precedence  
Hierarchy***

# GANTT Diagram



## PERT Graph

Primo metodo



Secondo metodo

