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Visual Plannig

What is a project?

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Differences between a dream and a project



- Plan
- Resources



DREAM



PROJECT

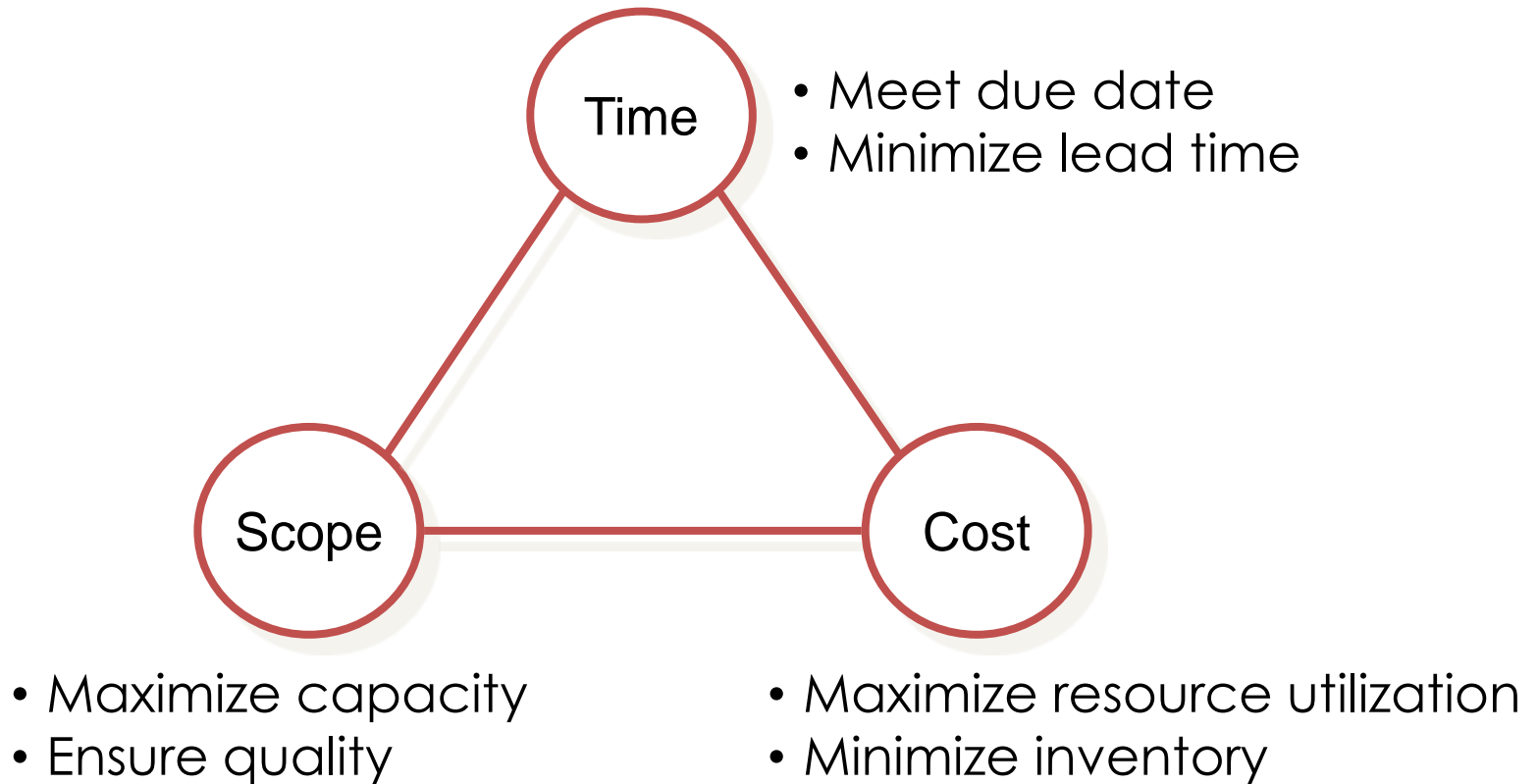


What is a project

- From latin: *pro* (forward) + *jacere* (stay), something that stays in the future.
- A project is a temporary effort undertaken to create a unique result (Project Management Institute)
- Project is a unique process consisting of a set of coordinated and controlled activities, with start and finish dates, undertaken to achieve an objective conforming to specific requirements including constraints of time, cost and resources (ISO 10006)



The triple bond

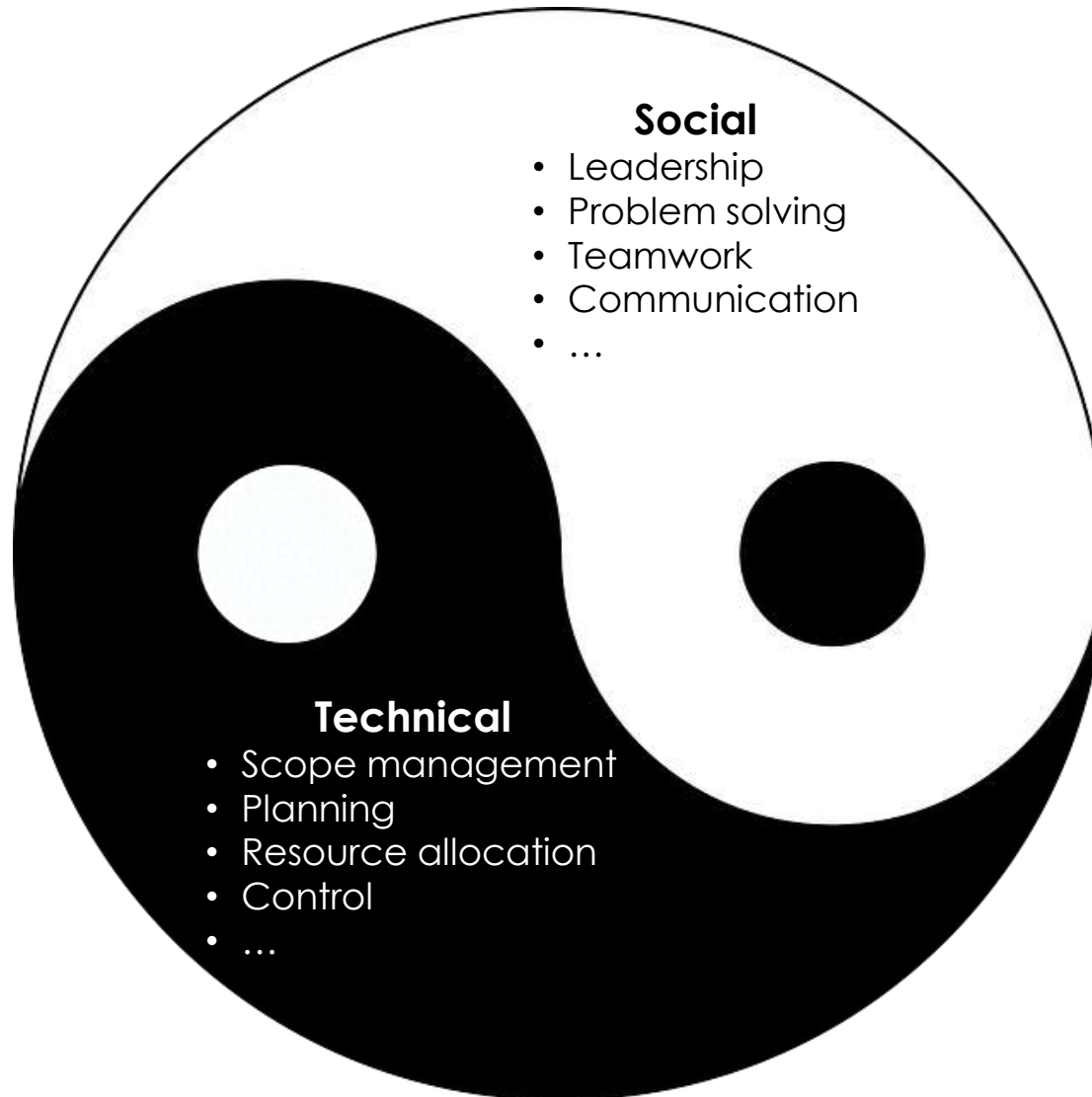


What is project management

- Project management is the application of knowledge, skills and techniques to execute projects effectively and efficiently.
- It's a strategic competency for organizations, enabling them to tie project results to business goals — and thus, better compete in their markets.
(Project Management Institute)



Project management knowledge areas



A short project management history - 1

- **1910-1915: The Gantt chart Developed by Henry Gantt (1861-1919)**

One of the forefathers of project management, Henry Gantt is best-known for creating his self-named scheduling diagram, the Gantt chart. It was a radical idea and an innovation of worldwide importance in the 1920s. One of its first uses was on the Hoover Dam project started in 1931. Gantt charts are still in use today and form an important part of the project managers' toolkit.

- **1957: The Critical Path Method (CPM) Invented by the Dupont Corporation**

Developed by Dupont, CPM is a technique used to predict project duration by analysing which sequence of activities has the least amount of scheduling flexibility. Dupont designed it to address the complex process of shutting down chemical plants for maintenance and then with maintenance completed restarting them. The technique was so successful it saved the corporation \$1 million in the first year of its implementation.

- **1958: The Program Evaluation Review Technique (PERT) Invented for the U.S. Navy's Polaris Project**

The United States Department of Defense's US Navy Special Projects Office developed PERT as part of the Polaris mobile submarine launched ballistic missile project during the cold war. PERT is a method for analysing the tasks involved in completing a project, especially the time needed to complete each task and identifying the minimum time needed to complete the total project.

- **1962: United States Department of Defense Mandate the Work Breakdown Structure (WBS) Approach**

The United States Department of Defense (DOD) created the WBS concept as part of the Polaris mobile submarine launched ballistic missile project. After completing the project, the DOD published the work breakdown structure it used and mandated that this procedure be followed in future projects of this scope and size. WBS is an exhaustive, hierarchical tree structure of deliverables and tasks that need to be performed to complete a project. Later adopted by the private sector, the WBS remains one of the most common and effective project management tools.

- **1965: The International Project Management Association (IPMA) Founded**

IPMA was the world's first project management association, started in Vienna by a group as a forum for project managers to network and share information. Registered in Switzerland, the association is a federation of about 50 national and internationally oriented project management associations. Its vision is to promote project management and to lead development of the profession. Since its birth in 1965, IPMA has grown and spread worldwide with over 40,000 members in more than 40 countries.

Source: Duncan Haughey <http://www.projectsmart.co.uk/brief-history-of-project-management.html>



A short project management history - 2

- **1969: Project Management Institute (PMI) Launched to Promote the Project Management Profession**

Five volunteers founded PMI as a non-profit professional organisation dedicated to advance the practice, science and profession of project management. The Commonwealth of Pennsylvania USA issued Articles of Incorporation for PMI in 1969 which signified its official start. During that same year, PMI held its first symposium in Atlanta, Georgia and had an attendance of 83 people. Since then, the PMI has become best known as the publisher of "A Guide to the Project Management Body of Knowledge (PMBOK)," considered one of the most essential tools in the project management profession today. The PMI offers two levels of project management certification, Certified Associate in Project Management (CAPM) and Project Management Professional (PMP).

- **1975: The Mythical Man-Month: Essays on Software Engineering by Fred Brooks**

In his book on software engineering and project management, Fred Brooks's central theme is that "Adding manpower to a late software project makes it later." This idea is known as Brooks's law. The extra human communications needed to add another member to a programming team is more than anyone ever expects. It naturally depends on the experience and sophistication of the programmers involved and the quality of available documentation. Nevertheless, no matter how much experience they have, the extra time discussing the assignment, commitments and technical details as well as evaluating the results becomes exponential as more people are added. These observations are from Brooks's experiences while managing development of OS/360 at IBM.

- **1986 Scrum Named as a Project Management Style**

Scrum is an agile software development model based on multiple small teams working in an intensive and interdependent manner. In their paper "The New New Product Development Game" (Harvard Business Review, 1986), Takeuchi and Nonaka named Scrum as a project management style. Later they elaborated on it in "The Knowledge Creating Company" (Oxford University Press, 1995). Although Scrum was intended for management of software development projects, it can be used to run software maintenance teams, or as a general project and programme management approach.



A short project management history - 3

- **1987: A Guide to the Project Management Body of Knowledge (PMBOK Guide) Published by PMI**

First published by the PMI as a white paper in 1987, the PMBOK Guide was an attempt to document and standardise accepted project management information and practices. The first edition was published in 1996, followed by a second in 2000, and third in 2004. The guide is one of the most essential tools in the project management profession today and has become the global standard for the industry.

- **1989: Earned Value Management (EVM) Leadership Elevated to Under-secretary of Defense for Acquisition**

Although the earned value concept has been around on factory floors since the early 1900s, it only came to prominence as a project management technique in the late 1980s early 1990s. In 1989, EVM leadership was elevated to the Under-secretary of Defense for Acquisition, thus making EVM an essential part of programme management and procurement. In 1991, Secretary of Defense Dick Cheney cancelled the Navy A-12 Avenger II Programme because of performance problems detected by EVM. The PMBOK Guide of 1987 has an outline of Earned Value Management (EVM) subsequently expanded on in later editions.

- **1989: PRINCE Method Developed From PROMPTII**

Published by the UK Government agency CCTA, PRojects IN Controlled Environments (PRINCE) became the UK standard for all government information systems projects. A feature in the original method, not seen in other methods, was the idea of "assuring progress" from three separate but linked perspectives. However, the PRINCE method developed a reputation as being too unwieldy, too rigid and applicable only to large projects, leading to a revision in 1996.

- **1994: CHAOS Report First Published**

The Standish Group collects information on project failures in the IT industry with the objective of making the industry more successful, showing ways to improve its success rates and increase the value of IT investments. The CHAOS report is a biennial publication.

A short project management history - 4

- **1996: PRINCE2 Published by CCTA**

An upgrade to PRINCE was considered to be in order and the development was contracted out, but assured by a virtual committee spread among 150 European organisations. Originally developed for IS and IT projects to reduce cost and time overruns; the second revision was made more generic and applicable to any project type.

- **1997: Critical Chain Project Management (CCPM) Invented**

Developed by Eliyahu M. Goldratt, Critical Chain Project Management is based on methods and algorithms drawn from his Theory of Constraints (TOC) introduced in his 1984 novel titled "The Goal." A Critical Chain project network will keep the resources levelly loaded, but will need them to be flexible in their start times and to switch quickly between tasks and task chains to keep the whole project on schedule.

- **1998: PMBOK Becomes a Standard**

The American National Standards Institute (ANSI) recognises PMBOK as a standard in 1998, and later that year by the Institute of Electrical and Electronics Engineers (IEEE).

- **2008: 4th Edition of PMBOK Guide Released**

The fourth edition of the guide continues the PMI tradition of excellence in project management with a standard that is easier to understand and implement, with improved consistency and greater clarification. The updated version has two new processes not in the previous versions.

- **2009: Major PRINCE2 Revision by Office of Government Commerce (OGC)**

A major revision has seen the method made simpler and more easily customisable, a common request from users. The updated version has seven basic principles (not in the previous version) that contribute to project success. Overall the updated method aims to give project managers a better set of tools to deliver projects on time, within budget and to the right quality.



Plans are useless, but planning is needed



To plan
means
to imagine
the process
toward
the result

Project management creates a model of the project complexity



ID	Task Name	Start	End	Duration
1	PROJECT PHASE	01/01/2020	31/12/2020	365
1.1	Design	01/01/2020	31/03/2020	90
1.1.1	Design concept	01/01/2020	15/02/2020	45
1.1.2	Design development	16/02/2020	31/03/2020	45
1.2	Production	01/04/2020	31/12/2020	300
1.2.1	Production setup	01/04/2020	31/05/2020	60
1.2.2	Production run	01/06/2020	31/12/2020	240

