



مدیریت پروژه بر اساس PMBOK به همراه الحاقیه ساخت (ویرایش هفتم)

بخش چهارم:

بررسی تفصیلی راهنمای پیکره دانش مدیریت پروژه PMBOK + الحاقیه ساخت

ارائه دهندگان:

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(PhD, PMP, CMIT)

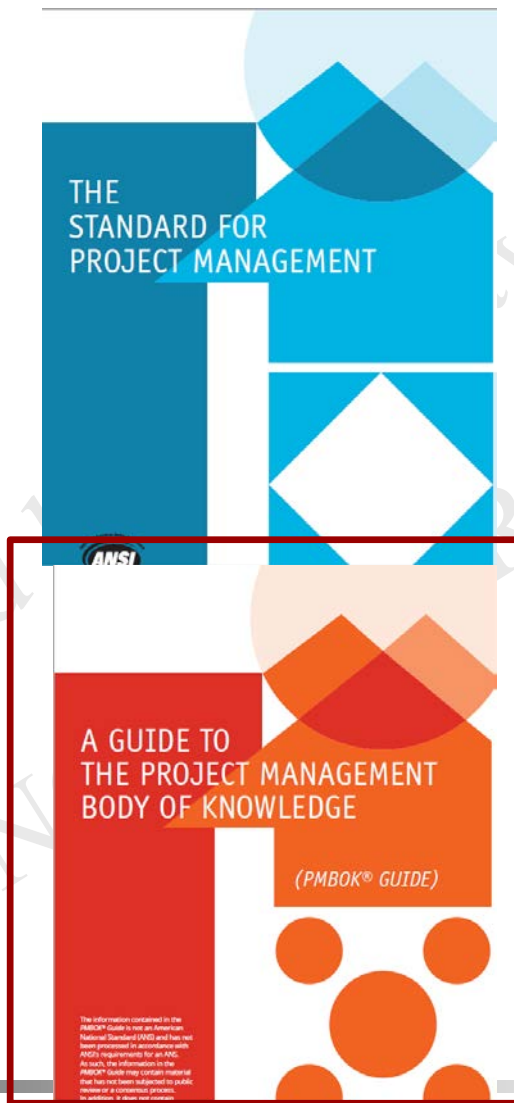
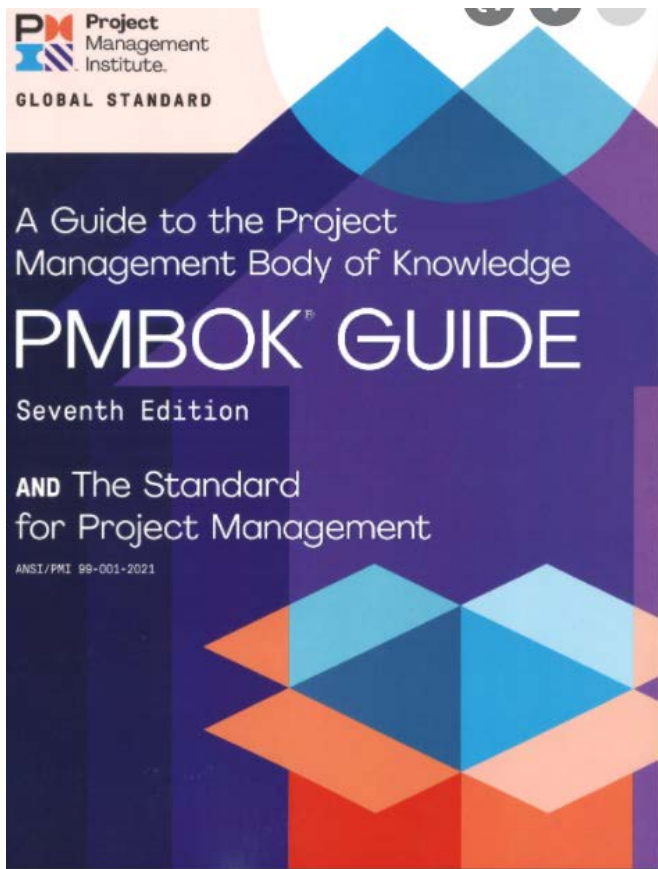
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What we will learn?

- ❑ Introduction
- ❑ A Guide To the Project Management Body of Knowledge
 - ❖ 7th Edition – Project Performance Domains
 - ❖ Domain 1 (7th edition + PMBOK Construction Extension)
 - ❖ Domain 2 (7th edition + PMBOK Construction Extension)
 - ❖ Domain 3 (7th edition + PMBOK Construction Extension)
 - ❖ Domain 4 (7th edition + PMBOK Construction Extension)
 - ❖ Domain 5 (7th edition + PMBOK Construction Extension)
 - ❖ Domain 6 (7th edition + PMBOK Construction Extension)
 - ❖ Domain 7 (7th edition + PMBOK Construction Extension)
 - ❖ Domain 8 (7th edition + PMBOK Construction Extension)

Introduction

A guide to the project management body of knowledge in PMBOK 7th Edition



What is the difference with 6th Edition?

(Domain 4: Planning Performance Domain)

Construction Extension to the PMBOK Guide
(Project Schedule Management)

Introduction

❑ The **construction industry** is one of only a few industry sectors that involve the **meticulous detail** of Project Schedule Management.

❑ The scheduling method, the level of detail, the project parameters, and the planning factors

all should be considered and demonstrated as defined by the **contract conditional requirements**.

Scheduling in construction is a complicated and serious effort with a major contract clause being “time is of the essence.”

Project schedule management in construction

Project Schedule Management in construction involves complex challenges mainly due to the magnitude of stakeholders involved such as the owner, prime contractor, subcontractors, vendors, material suppliers, end users, regulatory agencies, etc. Some of the factors that give rise to this complexity are:

- The vast number of activities and their durations that need to be scheduled such as procurement and installation of equipment and materials, contract submittals, approvals, and performance inspections, procurement bidding process, and contract execution;
- Types of relationship between activities with leads and lags and complex interrelationships between work sequences and material interfaces;
- Integration of schedules from a multitude of stakeholders that are both directly and indirectly involved in the construction performance;
- Activity durations for periods of time for contingency due to potential lost time as a result of inclement weather conditions and material installation restrictions;
- Level of detail in different types of schedules such as master project schedule, weekly contractor work activity schedules, two-week look-ahead schedules; and
- Monitoring and controlling construction and administration activities for all of the involved stakeholders.

Project schedule management in construction

Other schedule management considerations in construction include:

- Number and type of resources needed for each project activity;
- Existing and imposed environmental site conditions and regulations;
- Influences of weather conditions;
- Scheduling method;
- Constructability or critical sequence constraints, including partial use by the owner or public for infrastructure projects like roadways;
- Allowances for owner-occupied facilities during construction;
- Considerations and potential impacts on external stakeholders and social groups;
- Time and work access constraints to avoid impact on the environment and satisfy regulatory requirements;
- Restrictions arising from third parties such as permit and design approvals, and right of way acquisitions;
- Availability and procurement time factors for specialized contractors, equipment, and material;
- Requirements for labor, material, and equipment; and
- Local, state, federal, and international regulations.

**Remember I fully discussed these items in
Planning and Scheduling course?**

Project schedule management planning

1. Define activities

- ❖ Work breakdown structure
- ❖ Decomposition
- ❖ Activity attributes
- ❖ Progress measurement plan and criteria

2. Sequence activities

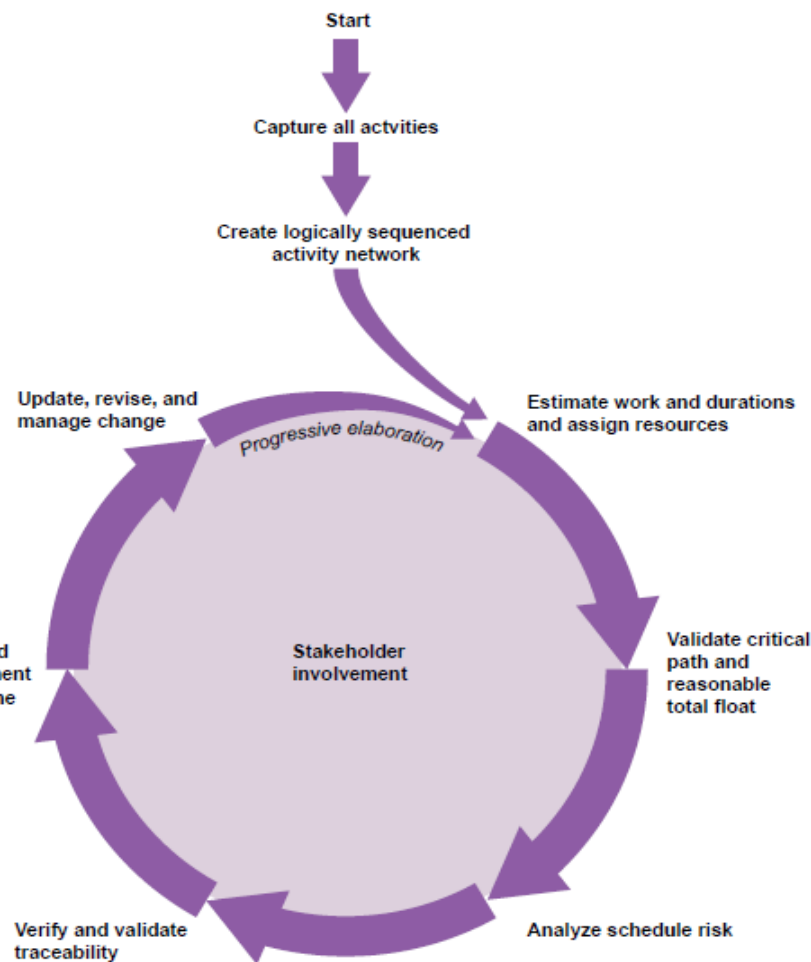
3. Estimate activity resources

4. Estimate activity durations

5. Activity weightage definition

6. Develop schedule

- ❖ Vendor or subcontractor schedule analysis
- ❖ Constraints
- ❖ Schedule baseline
- ❖ Use of metrics
- ❖ Schedule dictionary
- ❖ Schedule risk analysis (SRA)
- ❖ Progress curves development and update
- ❖ Mathematical analysis



Remember I fully taught these items in Planning and Scheduling course?

Project schedule management monitoring and control

- ❑ **Control Schedule** is the process of **monitoring the status** of project activities to update project progress and manage changes to the schedule baseline in order to achieve the planned project completion date.
- ❑ **Documentation**, such as site logs and daily/weekly progress reports, are checked to **verify progress**.
- ❑ Schedule updates are produced on a predetermined **frequency as outlined** in the **schedule management plan**.

Remember I fully taught these items in Planning and Scheduling course?

Project schedule management monitoring and control

1. Progress curve updates
2. Schedule impacts
3. Progress and performance reviews

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Project schedule management monitoring and control

1. Progress curve updates

Progress curves are used as a basis for comparing the schedule baseline. A progress curve update indicates the progress information occurring in a work period. When the project schedule, WBS, or both are modified through integrated change control, the progress curves are revised to indicate the new progress curve information. Appropriate stakeholders should be notified as needed. Progress curve updates may or may not require adjustments to other aspects of the project plan.

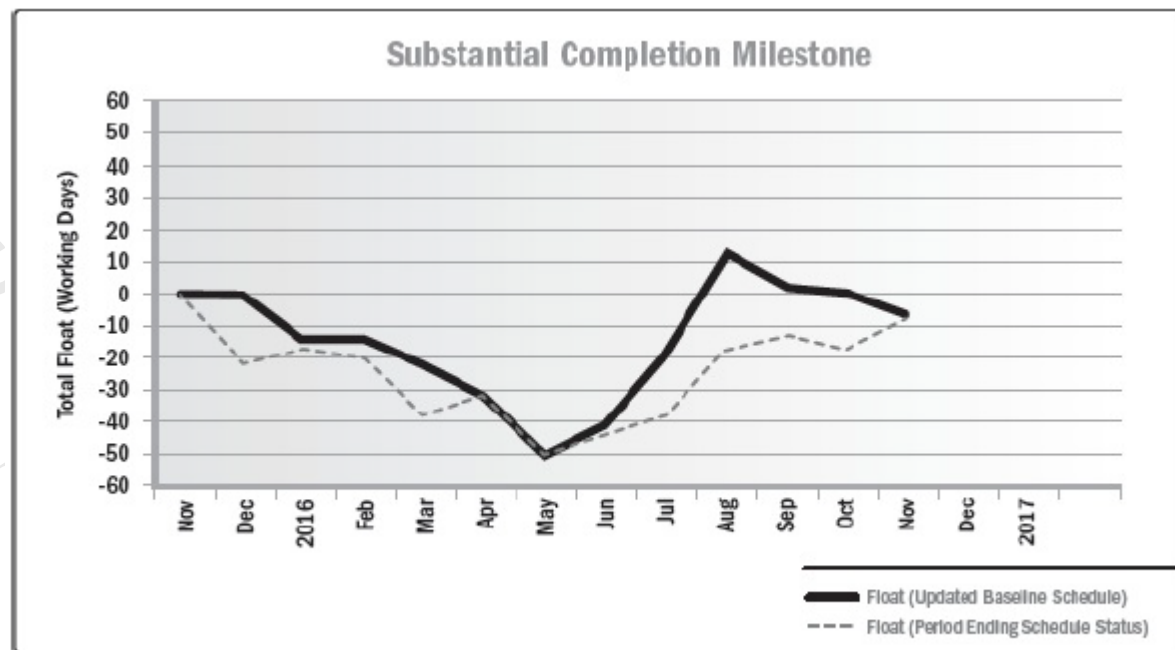


Figure 6-2. Milestone Slip Chart

Project schedule management monitoring and control

2. Schedule impacts

Unplanned situations occur for a variety of reasons and impact the construction schedule (e.g., the emergence of unforeseen new issues or changes in known or unknown conditions on the project site). These changes should include the quantification of the impact on project time, cost, and resources. Contractors often have to demonstrate to the owner the need for time extensions by providing a detailed schedule analysis. This may involve a complex and comprehensive review and comparison using one of several techniques, such as comparing the as-built and the as-planned schedule. There can be consequential effects that should be evaluated, which could require changes to the project or may result in claims.

Organizations should have in place the knowledge and industry-recognized scheduling practices when it comes to documenting and evaluating a schedule impact situation. These practices are essential for assessing and presenting the outcomes through a change request and integrated change control in order to avoid unwanted construction claims.

Project schedule management monitoring and control

3. Progress and performance reviews

Progress and performance reviews compare schedule performance over time and are often used in conjunction with contract progress payments. Success factors in time management reflect the effective use of change management. Controlling the ramifications of changes to the project baseline is done through the use of special techniques, such as time impact analysis (TIA). This technique is used with critical path methodology (CPM) schedules by producing an up-to-date model of the construction plan, inserting activities designed to model the changed condition, adding appropriate logic, and recalculating the schedule. The difference in milestone completion shows the impact of the changed condition on the baseline milestone time frame (see also [Section 10.4.1](#)).

One of the main sources of claims is the failure to provide timely and accurate analysis for time extension requests, even when the contractor is entitled to a time extension. A rejection of a requested time extension may be due to inappropriate submissions by contractors, but may result in a breakdown in the relationship between the owner and contractor. These breakdowns commonly show up in claims, so it is important that all parties deal with requests for extensions of time in a fair and timely manner.

(Domain 4: Planning Performance Domain)

Construction Extension to the PMBOK Guide
(Project Cost Management)

Introduction

- ❑ Project **Cost Management in construction** includes
 1. Cost estimating,
 2. Cost budgeting,
 3. Cost monitoring and control, and
 4. Further entails managing the day-to-day project costs

- ❑ This is **considerably different** from financial management, which deals with
 1. **Revenue sources** for **financing** the construction project,
 2. **Return on investment**,
 3. **Cash flow**, and
 4. **Investment payback analysis**,

to name a few.

Project cost management in construction

- ☐ **Construction estimates** are different from estimates in other industries.
- ☐ Direct and indirect costs
- ☐ In EPC projects,
 1. **Direct costs** are organized by **disciplines**.
 - ❖ These disciplines are **specialized scopes** of work such as civil, structural, mechanical, piping, electrical, and instrumentation.
 2. **Indirect costs** are
 - ❖ Management and supervisory costs plus general expenses for the organization that are allocated to a particular project.

Given that the construction industry is fragmented, there is no general agreement on whether to include certain categories as direct or indirect costs.

Project cost management in construction

- ❑ **Cost monitoring and control** is proactive and
is used to **predict the final outcome** of a project based on **actual costs**,
which allows preventive or corrective actions to avoid variations in
final cost.
- ❑ **Cost control techniques** may differ on some projects, depending on the **type of
contracting strategy** used.

How to perform project cost management planning?

Project cost management planning

- ❑ **Cost management planning** is a function that should be managed throughout the design process in an effort to
 1. **Enhance** the ability to “**design to cost**”
 2. **Determine** how the **bill of quantities** (sometimes referred to as BoQ) will be prepared
 - ❖ The **BoQ** is a specific document of **measured quantities** for the work identified by the drawings and specifications

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Project cost management planning

1. Estimating costs and techniques

- ❖ Analogous (conceptual) estimating
- ❖ Parametric estimating
- ❖ Bottom-up (detailed) estimating
- ❖ Three-point estimating
- ❖ Monte Carlo simulation

2. Bill of materials (bill of quantities)

3. Allowance, contingency, and management reserve

4. Escalation, inflation, and currency exchange

5. Metrics

6. Additional considerations in estimating

7. Determine budget

- ❖ Construction work package (CWP)
- ❖ Cost baseline

Remember I fully taught these items in **Construction accounting and financial management course?**

Project cost management monitoring and control

- ☐ Many complex and ambitious megaprojects run the risk of project cost overruns due to ineffective cost control.
- ☐ Many companies are seeking ways to **improve cost predictability** and contain costs.
- ☐ For most, the answer may lie in integrated tools that provide visibility for **proactive management such as earned value management (EVM)**.
- ☐ **Much** of the cost monitoring and control effort in **construction** involves using either true EVM or variations of EVM to analyze the relationship among all the components.

Project cost management monitoring and control

1. Actual cost
2. Earned value management
3. Progress and performance review
4. Forecasting or estimate at completion

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Project cost management monitoring and control

1. Actual cost

Most organizations have a set schedule (cut-off date) for capturing the actual cost at the end of a work period (weekly, biweekly, or monthly) depending on the activity or project. The project accounting system captures the actual labor, material, equipment, and subcontractor costs from that work period. The accounting report is reviewed and analyzed for completeness and accuracy by the project team.

On large and megaprojects involving many subcontractors and vendors, it can be difficult to capture actual costs for the same work period when each entity may utilize a different cut-off date. A work around that handles this issue is the use of an accrual method to capture revenue and costs as work in progress (WIP). Construction work in progress becomes a general ledger account where the asset costs that are directly associated with the construction are recorded.

Once that asset is placed in service, all costs associated with it are tracked in the construction WIP account and are shifted to the code of accounts line item that is most appropriate for that work component.

Remember I fully taught these items in **Construction accounting and financial management course?**

Project cost management monitoring and control

2. Earned value management

In construction, EVM can be based on quantities to measure physical progress, which is done by measuring installed quantities and comparing them to planned quantities on a period-by-period basis.

Many government projects utilize earned value as a method in which progress payments are made to the contractor. The contractor gets paid by achieving predetermined contractual milestones or per the cost loaded schedule activity in which quantities of actual work in place are paid per the contract unit price for each quantified item.

Remember I fully taught these items in **Construction accounting and financial management course?**

Project cost management monitoring and control

3. Progress and performance review

Progress can be measured in several ways, such as units completed, real and approved use of resources, incremental milestones, start or finish of work activities, or based on an inspector or supervisor opinion. Progress and performance reports (PPR) showing the EVM values are published for management review and, if needed, any responsive actions.

**Remember I fully taught these items in
Construction accounting and financial management course?
Planning and Scheduling course?**

Project cost management monitoring and control

4. Forecasting or estimate at completion

Forecasts are generated, updated, and reissued based on work performance data provided during project execution. Estimate at completion (EAC) is typically based on the actual costs incurred for work completed, plus an estimate to complete (ETC) the remaining work. It is incumbent on the project team to predict what it may encounter to perform the ETC, based on its experience to date. Where actual quantity measurements are available, ETC can be calculated based on remaining quantities.

The most common EAC forecasting approach is a manual, bottom-up summation by the project manager and project team. Project management software is often used to monitor the three EVM dimensions (PV, EV, and AC), to display graphical trends and to forecast a range of possible final project results.

As work on the project progresses, cost control captures more precise information and these contingency reserves may be used, reduced, increased, or eliminated. As changes needing the use of management reserves arise, the change control process is used to obtain approval to transfer the applicable management reserve funds to the cost baseline.

Remember I fully taught these items in Construction accounting and financial management course?

(Domain 4: Planning Performance Domain)

Construction Extension to the PMBOK Guide
(Project Resource Management)

Project resource management in construction

❑ Construction projects feature unique characteristics

that **affect** how resources are managed,

some of which are described here.

1. Resource types
2. Project location
3. Project size and type

Let's see

1. Project resource management planning
2. Project resource management executing
3. Project resource management monitoring and controlling
4. Project resource management closing

Resource management planning

- ❑ Once the types and quantities are estimated,
alternative for managing those resources selected.
- ❑ **Contract** is important
Owner may be responsible for purchasing **long-lead-time equipment**
- ❑ **Construction strategy** determines the quantities, locations, and time frames
when each resource will be stored and made available.

Resource management planning involves the logistics of bringing resources to the site and storing or distributing them to each construction front. Special cases in logistics are the placement of telecommunications facilities, energy and water points, and the handling of oversize and overweight loads. Other unique logistics involve the daily transportation of workers in and out of the site and, in some projects, between the different construction fronts.

Resource management planning

- ❑ The **unique characteristics** related to project location and nature of the project team require that

special attention be paid to at least **two components** of that plan in a construction project:

human resource policies and staffing management plan.

Table 9-1. Example of Equipment Histogram Data in Tabular Format

Machine Type	Period							
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug
Backhoe loader	3	5	8	8	5	3	2	2
Boom truck	2	2	3	4	4	4	3	2
Bulldozer	1	2	3	3	1			
Crane			1	1	2	4	4	2
Dump truck	3	6	9	9	5	3	1	1
Forklift	1	2	2	3	3	3	2	1
Fuel truck	1	3	5	5	4	3	2	1
Manlift				1	2	3	3	3
Track hoe	2	4	6	6	2	1	1	1

Note: The values in this table reflect the number of each type of machinery required during the specified period.

Resource management planning

As each construction site has its particular characteristics, contractors' corporate human resource policies tend to be broader or more general to leave flexibility for the project to determine aspects that are affected by those particular characteristics. It is not uncommon for construction projects to have their own human resource policy, which should make reference to a general or corporate policy. Some examples of topics that may vary from one project to another and may be covered by a project human resource policy for corporate construction personnel are:

- Incentives or restrictions for team members to move to the region of the project, with or without their families;
- Schedule of periodic visits to the members' home locations, allowable time off, and trip costs reimbursement;
- Currency in which salaries will be paid, as well as the local labor taxes involved;
- Site campus conditions; and
- Site personnel fringe benefits.

Resource management planning

Let's see **resource management** executing

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Resource management executing

- ☐ Take place **as soon as** resources are procured and delivered to the project job site.
- ☐ **All materials** and **equipment** should be **coordinated for delivery**,
including off loading and storage
until these building components are **permanently installed**.
- ☐ The **continual movement and storage** of these components leads to **higher job site costs** until permanently installed.

Resource management executing

Let's see **resource management monitoring and controlling**

Resource management monitoring and controlling

☐ Primary concerned with

1. Productivity and consumption rates
2. Process of allocation and reallocation of human resources

**Remember I fully taught these items in
Construction accounting and financial management course?**

However lets see some supplementary points about

1. Productivity control
2. Reporting
3. Consumption materials
4. Turnover rate

Resource management monitoring and controlling

Productivity control is performed by measuring executed quantities in work packages and then measuring and relating workforce, machinery, and materials usage to those work packages. For the productivity control process to actually work, construction strategy should be accurately translated into a matching set of work breakdown structure, cost breakdown structure, and time schedule. The success of the productivity control process is established during planning.

Reporting is another key factor for controlling productivity rates. For example, knowing which equipment worked for which work package allows the comparison of productivity rates for different equipment, eventually detecting a need for maintenance or operator retraining.

Remember this?

How consumption controlled when resources cannot be individualized?

Resource management monitoring and controlling

Consumption materials and resources are controlled by inventory as they cannot be individualized. The focus of controlling those types of resources is in savings rather than productivity. Reducing resource usage is beneficial not only to project cost objectives, but also to environmental management, both by reduction of use and by reduction of waste.

Remember this??

Is there any other point?

Resource management monitoring and controlling

Another factor that may affect the ability to accomplish the project's cost objectives—and should be monitored—is the turnover rate. The turnover rate is the ratio of the number of workers that are replaced in a given time period to the average number of workers and is usually expressed as a percentage. Hiring and firing on a higher rate than the one considered in the budget may lead to higher costs in payroll, productivity, and training.

Let's see **resource management closing**

Resource management closing – General resources

- ❑ The closing process includes **handing over to the owner** those spare parts and all other items that, **per contract**, belong to the owner.
- ❑ It is common for the **contractor** to purchase a **surplus of some materials**, such as steel rebar and electric cables, to account for accidental damage of materials.
 1. **Remainder of bulk materials** in the ownership of the contractor and the stock of consumption materials and tools should be **disposed** of, either by sending them to another construction project or selling them to the market.
 2. **Rented machinery** is returned to the owner, and the **respective rental contract** is closed.
 3. **Owned machinery** is returned to the **performing organization** for employment in other projects.

(Domain 4: Planning Performance Domain)

Construction Extension to the PMBOK Guide
(Project Communication Management)

Project communication management in construction

- ❑ Very important in the design and construction of a project

From a communications perspective, the project team in the construction industry has **unique complex characteristics** such as:

- The **project team is working on site**, usually in an **unfamiliar environment**; this is an added difficulty for communications.
- The project team is formed by **diverse individuals and organizations** from a wide range of occupational backgrounds, needs, and cultures that form a **temporary relationship** with other **unfamiliar individuals and organizations** that sometimes have **competitive needs and objectives**.
- **Contractors** tend to rely on **casual labor and subcontractors** with **shared project objectives**, but **individual interests and goals**.
- Various **formal and informal technical language and jargon** are used within the **fragmented structure** of the project team.

What is the most common form of communication?

Project communication management in construction

One of the most common forms of communication in construction projects occurs between individuals using face-to-face interpersonal communication (e.g., meetings) or through other media such as email, text, instant and voice messaging, and multimedia communications over the internet.

Do we usually govern communications procedures?

Project communication management in construction

Construction projects develop strong informal networks of communication channels where designers, engineers, managers, and the workforce belong to different organizations that have their own formal and informal communication procedures. Communication channels are dependent upon the contractual arrangement and procurement routes adopted for the project that define the relationship between parties; however, they rarely govern the communications procedures and may even constrain the natural development of relationships.

What is a **typical basic type** of network in **traditional** construction projects?

Project communication management in construction

What is a **typical basic type** of network in **traditional** construction projects?

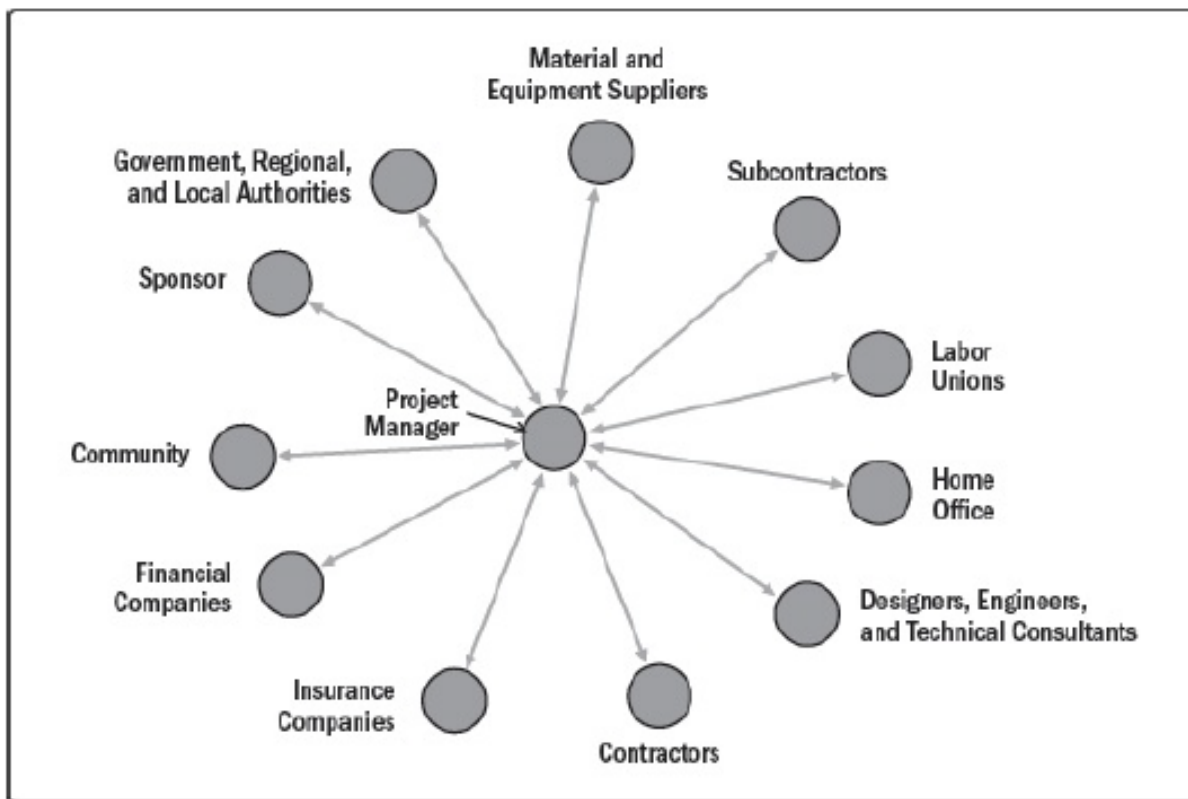


Figure 10-1. Basic Model of Construction Centralized Formal Communication Network

Project communication management in construction

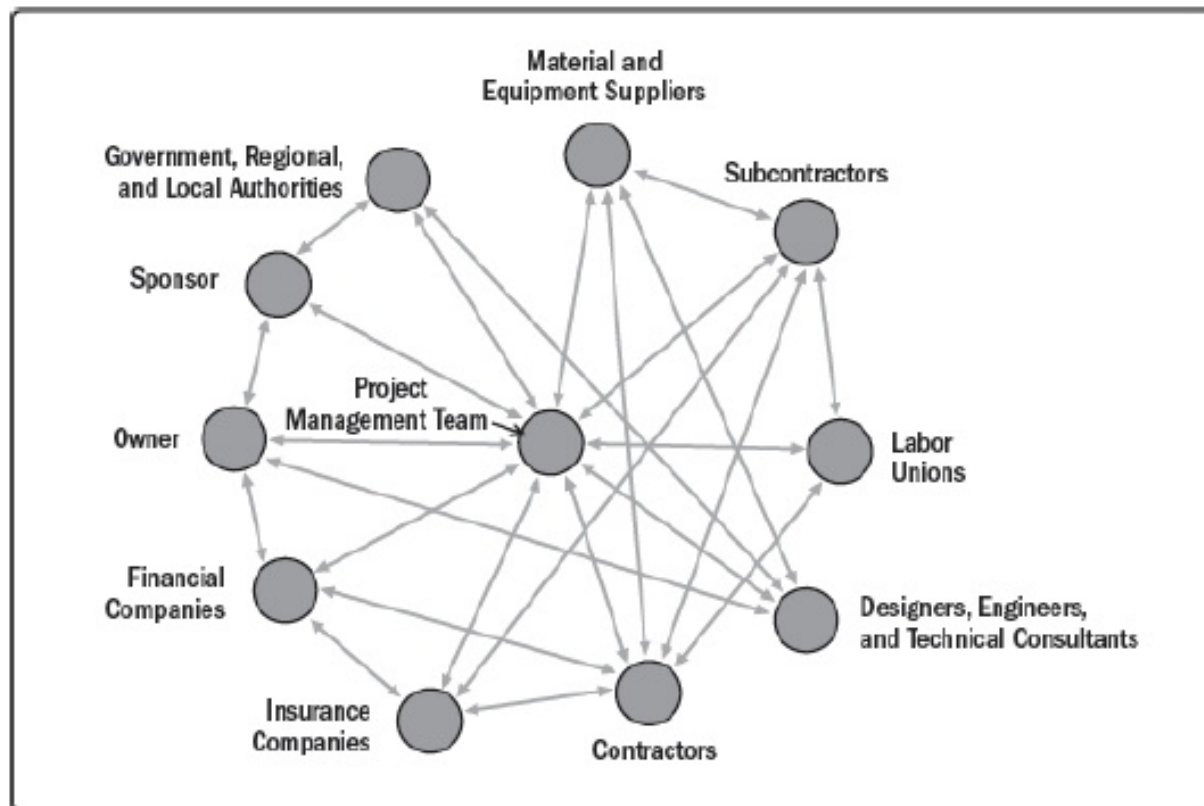


Figure 10-2. Example of Construction Communication Network

Project communication management in construction

Let's see

1. Project communications management planning
2. Project communications management executing
3. Project communications management monitoring and controlling

Project communications management planning

1. Communications management plan
2. Project documentation assessment
3. Communications skills
4. Corporate communication and social responsibility
5. Communication flow for construction change orders, request for information (RFIs), instructions, and variation requests
6. Daily report
7. Information and communication technology (ICT) and project management information system (PMIS)

Remember all details you have learned in ACEMI Courses?

Project communications management executing

1. Managing conflict
2. Managing meetings
3. Project documentation and information distribution

Remember all details you have learned in IQ, EQ, VQ?

Project communications management monitoring and control

1. Performance and progress reports
2. Other reporting systems
3. Contractor performance evaluation (CPE)

Remember all reports presented in ACEMI Courses??

(Domain 4: Planning Performance Domain)

Construction Extension to the PMBOK Guide
(Project Financial Management)

Introduction

- ❑ **How** the project will be financed
- ❑ **Process** of **acquiring** and **managing** the financial resources of project
- ❑ **Revenue** sources and monitoring **net cash flows**
- ❑ While **construction professionals** are skilled in the technical side of their work, they often **lack financial management knowledge** and understanding.

*Research has shown that **project managers in construction** need to know **financial management fundamentals** in order to better understand and navigate the financial decisions that are **part of every construction project**.*

Project financial management in construction

- ❑ Owner's and contractor's perspective
- ❑ Traditional construction projects
 - ❖ Advance payment
 - ❖ Short-term loan for contractors
 - ❖ Initial working capital to pay in advance to the contractor
- ❑ New construction projects
 - ❖ Different types of project delivery methods (BOT, DBOO, DBOM, etc.)
 - ❖ Public-private partnership (PPP) financing

What project managers do here?

Project financial management in construction

❑ Project manager's responsibilities for **financial management** may be broken down into **four broad areas**:

1. Accounting for financial resources of the project,
2. Managing costs and profits,
3. Managing cash flows, and
4. Making financial decisions or providing the necessary verified information to the project sponsor for making such decisions.

Let's see

1. Project financial management planning
2. Project financial management monitoring and controlling

Project financial management planning

- ❑ Financial planning is no different from standard project planning
 - 1. Sources of funds for construction projects
 - 2. Short-term financial fluctuations
 - 3. Economic environment
 - 4. Analytical techniques, feasibility study, and sensitivity analysis
 - 5. Construction project finance and corporate finance
 - 6. Legal entity
 - 7. Contract requirements
 - 8. Financial impact risk factors
 - 9. Tax planning as a financial factor



Hierarchical - سلسله مراتبی

Departmental - واحدهای سازمانی

Functional - کارکردی

Matrix - ماتریسی

- Suppliers
- Customers
- End Users
- Regulatory Bodies

- Governing Bodies
- PMOs
- Steering Committees

- Project Manager
- Project Management Team
- Project Team

✓ لزوم تعریف محدوده پروژه در ابتدای چرخه عمر پروژه ✓ همراهی سازی سلايق اعضای تیم با اهداف پروژه	تفاوت در اولويت‌ها، سلايق و قضاوت‌ها
✓ لزوم تعريف دقيق نقش‌ها، اقدامات و زیر سیستم‌ها ✓ اختصاص صحيح نقش‌ها	تداخل نقش‌ها
✓ لزوم درک صحيح اعضای تیم از اهداف کلان و داخلی پروژه ✓ درک صحيح و ارتباط مناسب با مدیریت ارشد و مشتریان پروژه	نامشخص بودن اهداف پروژه
✓ لزوم ایجاد آگاهی در مورد بروز تغییرات غیرقابل پیش بینی در مدیریت ارشد و مشتریان ✓ پیش بینی عوامل اثرگذار خارجی و داشتن برنامه های احتمالی	شرایط محیطی داینامیک

رقابت برای رهبری تیم

✓ لزوم انتخاب مدیر پروژه با تعریف دقیق نقش ها و مسئولیت ها توسط مدیریت ارشد سازمان
✓ لزوم تعریف دقیق نقشها و مسئولیت های اعضای تیم توسط مدیر پروژه

کمبود تعاریف و ساختار سازی تیم

✓ لزوم برگزاری جلسات منظم به منظور تشکیل ساختار تیم با تعریف مسئولیت ها و اختیارات

نحوه انتخاب افراد تیم

✓ لزوم انتخاب افراد دارای صلاحیت فنی و تجربه کاری و تبیین دقیق اهداف پروژه

مشکلات در برقراری ارتباطات

✓ لزوم برگزاری جلسات مستمر و منظم با اعضای تیم، مدیریت ارشد و مشتریان به منظور اطلاع رسانی از آخرین وضعیت اقدامات و گزارشات پروژه

سال ۱۳۹۹ - دستگاه نظارت رتبه ۱

تعداد صورتجلسات تعیین تکلیف نشده : ۱۳۶ مورد

ادعای ریالی پیمانکار : ۴۹۸ میلیارد ریال

ادعای زمانی پیمانکار : ۲۷۸ روز تاخیرات مجاز

سال ۱۴۰۱ - خاتمه قرارداد با دستگاه نظارت حقوقی و استخدام نیروهای متخصص

تعداد صورتجلسات تعیین تکلیف شده : ۱۲۸ مورد - باقیمانده ۸ مورد

ادعای رسیدگی شده و توافق شده با پیمانکار: ۳۱۶ میلیارد ریال (عدم توافق در خصوص ۱۸۲ میلیارد ریال)

ادعای رسیدگی شده و توافق شده با پیمانکار : ۱۶۱ روز تاخیرات مجاز (۱۱۷ روز تاخیرات غیرمجاز)



The APM BoK 6ed (2012) defines **Leadership** as: *The ability to establish vision and direction, to influence and align others towards a common purpose, and to empower and inspire people to achieve success. It enables the project to proceed in an environment of change and uncertainty.*

The PMBOK defines **Leadership** as: *Developing a vision and strategy, and motivating people to achieve that vision and strategy.*

The IPMA defines **Leadership** as: *Providing direction and motivating others in their role or task to fulfil the project's objectives.*

[Project Management Leadership: Building Creative Teams, Rory Burke, Steve Barron](#) · 2014

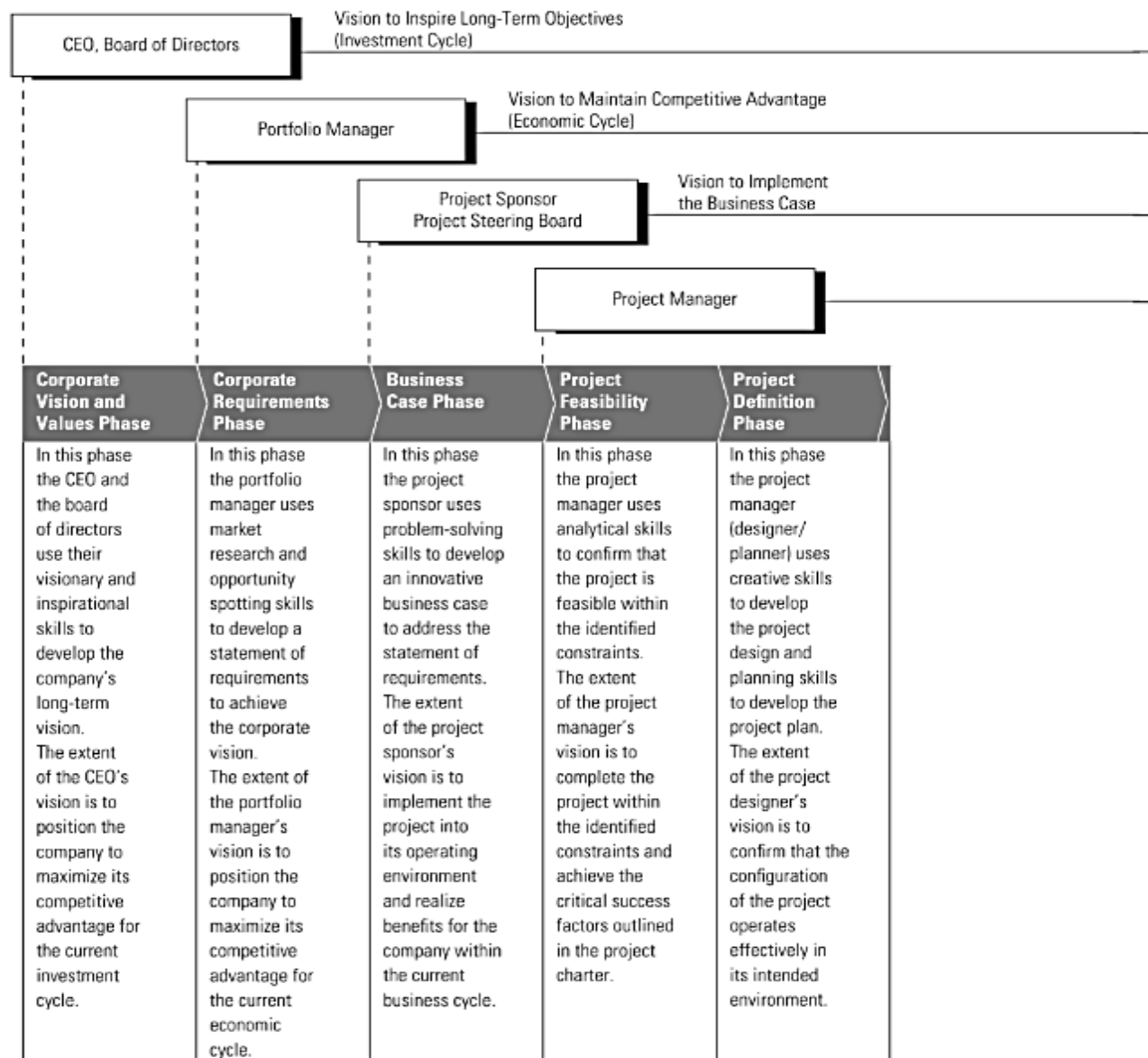
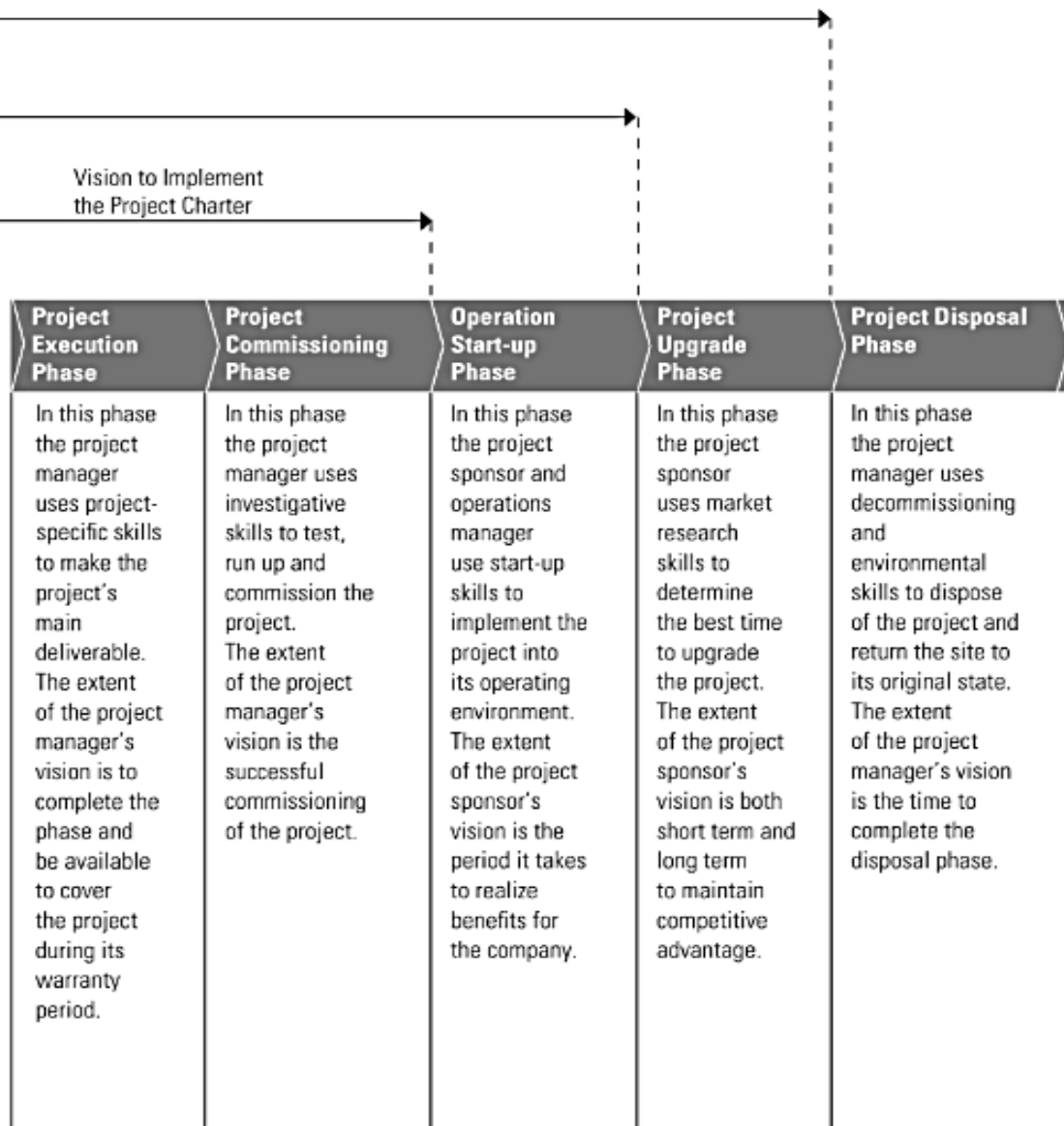


Figure 3.1: Leadership Vision vs. Project Lifecycle

[Project Management Leadership: Building Creative Teams, Rory Burke, Steve Barron · 2014](#)



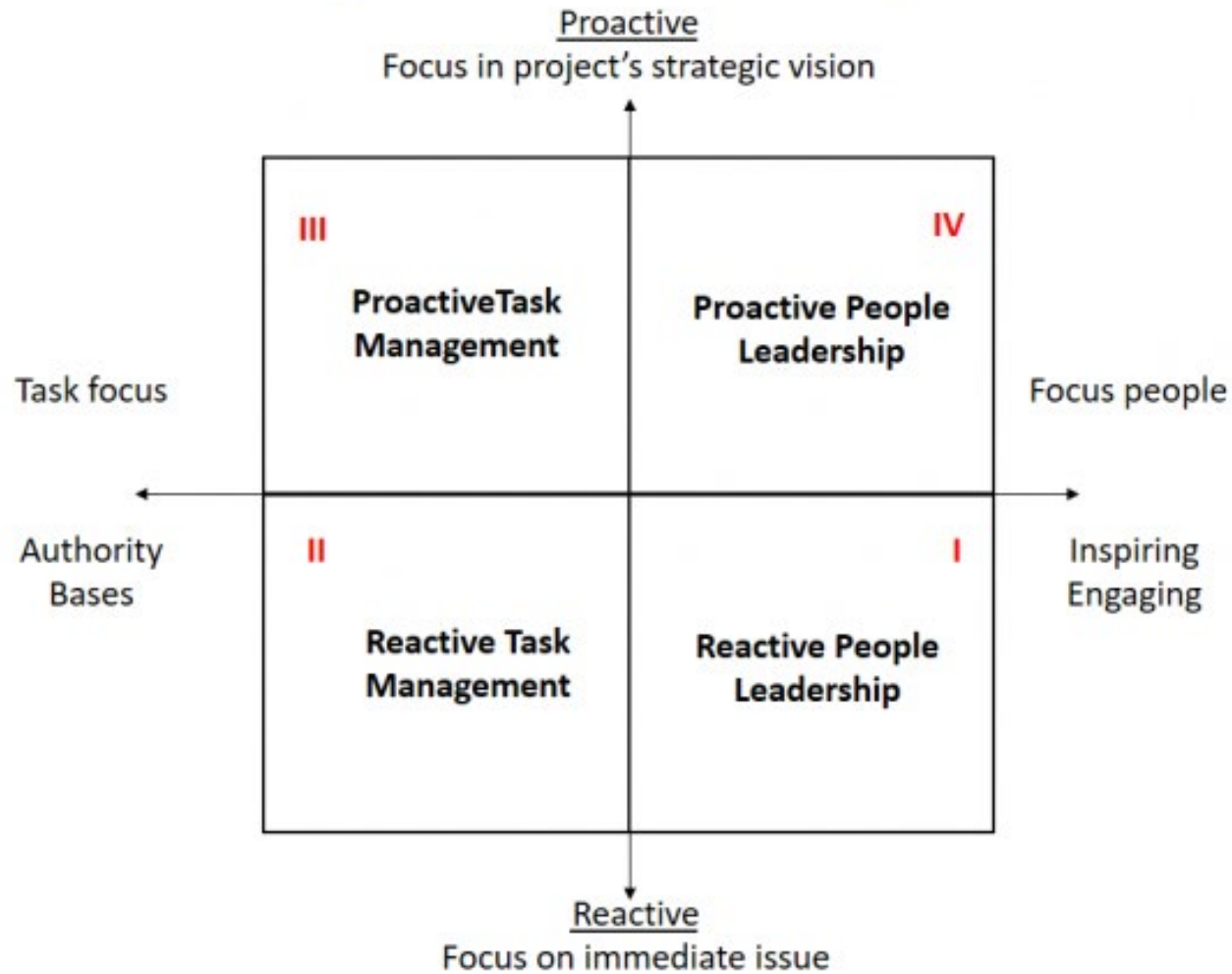
[Project Management Leadership: Building Creative Teams, Rory Burke, Steve Barron · 2014](#)

Leaders...	Managers...
Innovate	Administer
Seek challenges	Seek to maintain the status quo
Think long term	Think short to mid term
Motivate and inspire	Control
Worry about doing the right things	Worry about doing things right
Have a wide circle of influence	Have limited influence

Kumar, V. S. (2009). Essential leadership skills for project managers. Paper presented at PMI® Global Congress 2009—North America, Orlando, FL. Newtown Square, PA: Project Management Institute.

Manager Focus	Leadership Focus
Goals & Objectives	Vision
Telling how to do and when to do	Convincing and selling the what and why
Short term	Long term
Autocratic	Democratic
Restraining role	Enabler role
Maintain	Develop
Conform	Challenge
Follow trend	Innovate
Direct & Control	Motivate and inspire trust
Risk avoidance motto	Risk –opportunity
Bottom line	Top line

The Project Leadership Matrix



- ✓ **Leaders Innovate; Managers Administer**
- ✓ **Leaders Seek Challenges; Managers Seek to Maintain the Status Quo**
- ✓ **Leaders Think Long Term; Managers Think Short-to Mid-Term**
- ✓ **Leaders Motivate and Inspire; Managers Control**
- ✓ **Leaders Worry about Doing the Right Things; Managers Worry about Doing Things Right**
- ✓ **Leaders Have a Wide Circle of Influence; Managers Have Limited Influence**

Kumar, V. S. (2009). Essential leadership skills for project managers. Paper presented at PMI® Global Congress 2009—North America, Orlando, FL. Newtown Square, PA: Project Management Institute.

Leadership Skills for Project Managers

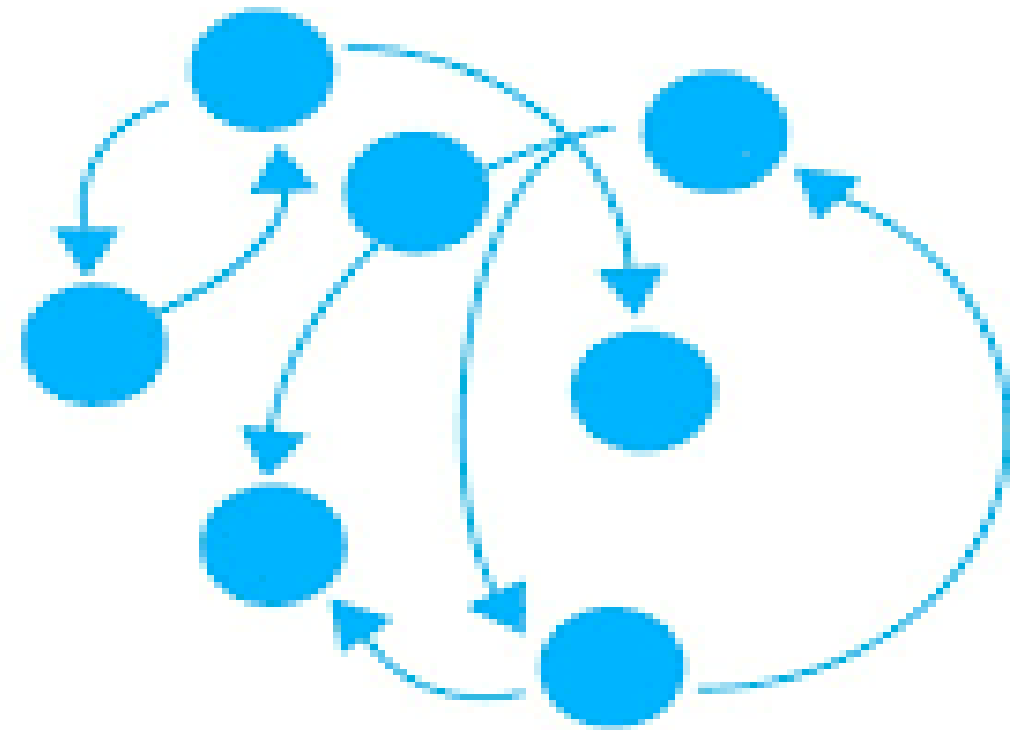
- ✓ Motivating and inspiring
- ✓ Team building
- ✓ Listening and influencing
- ✓ Negotiating and communicating

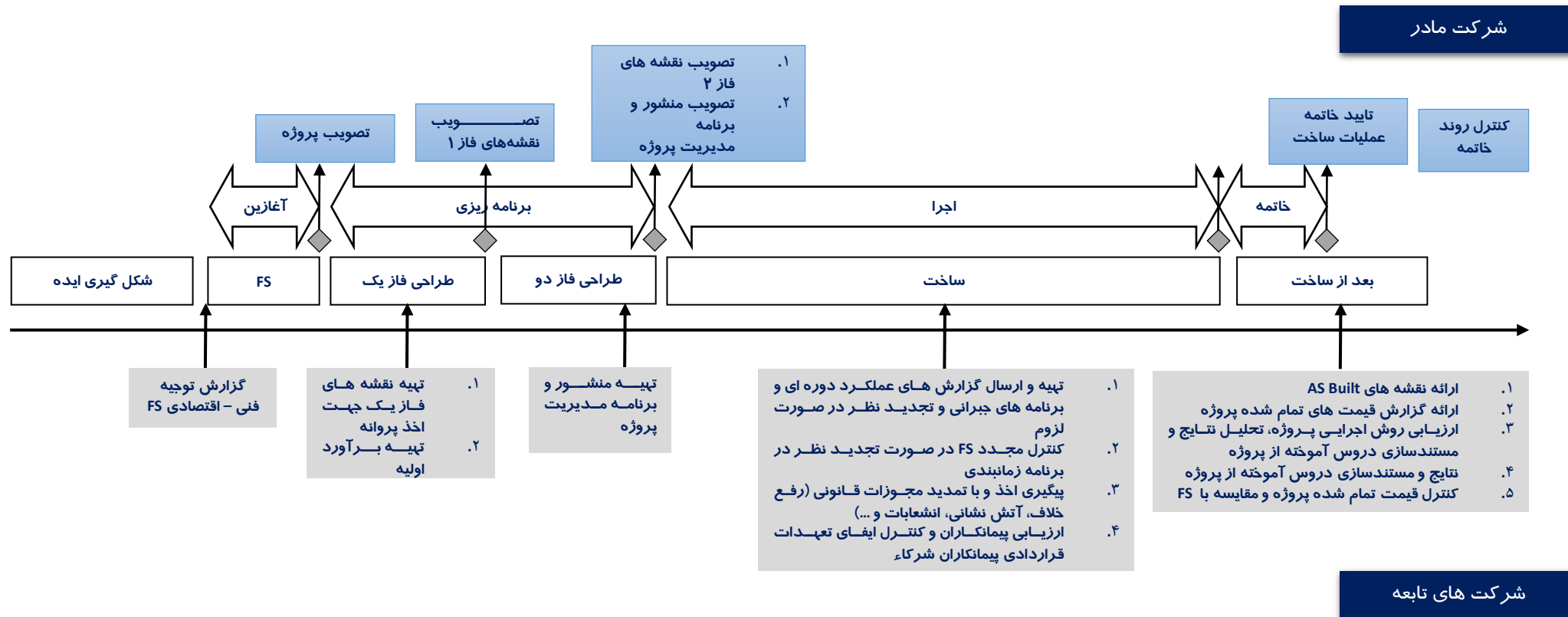
Kumar, V. S. (2009). Essential leadership skills for project managers. Paper presented at PMI® Global Congress 2009—North America, Orlando, FL. Newtown Square, PA: Project Management Institute.

Traditional thinking

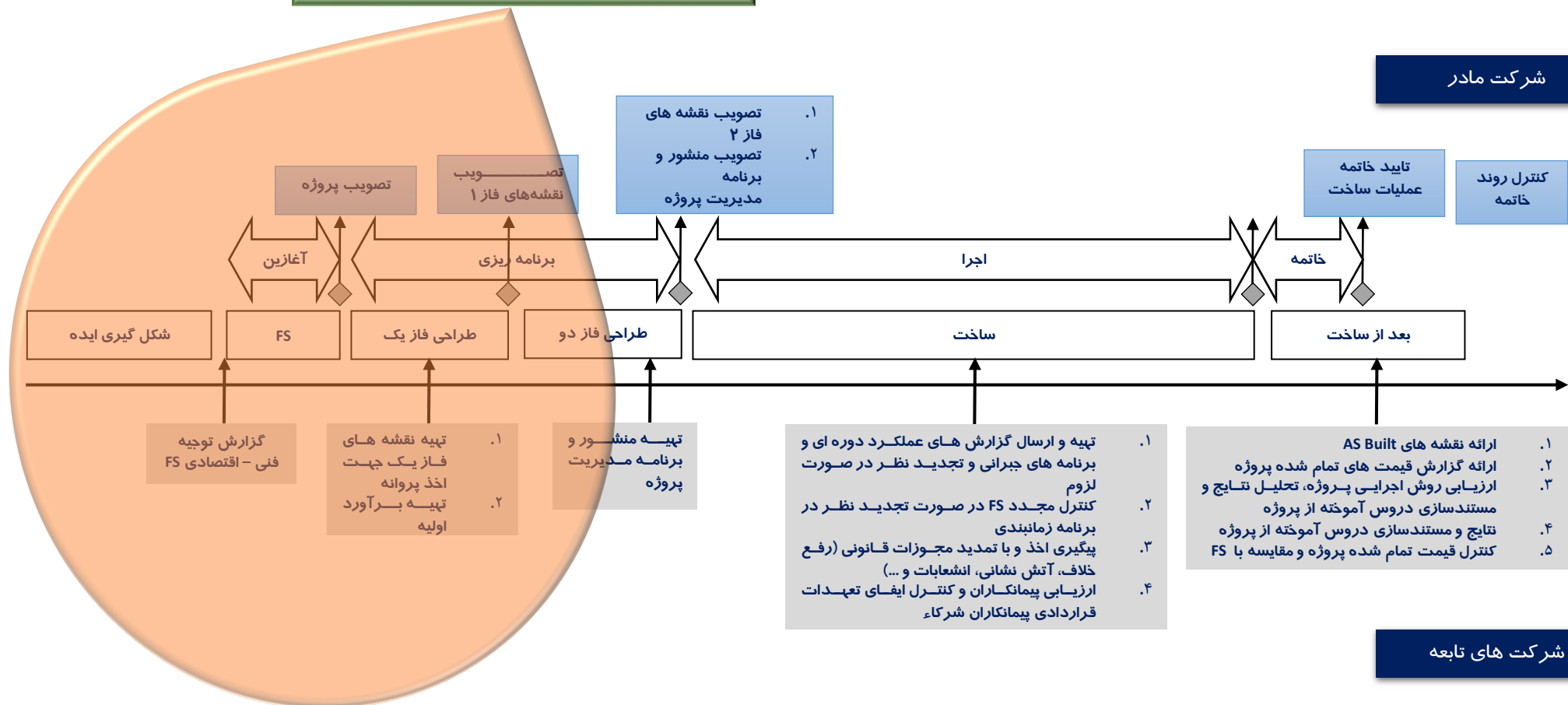


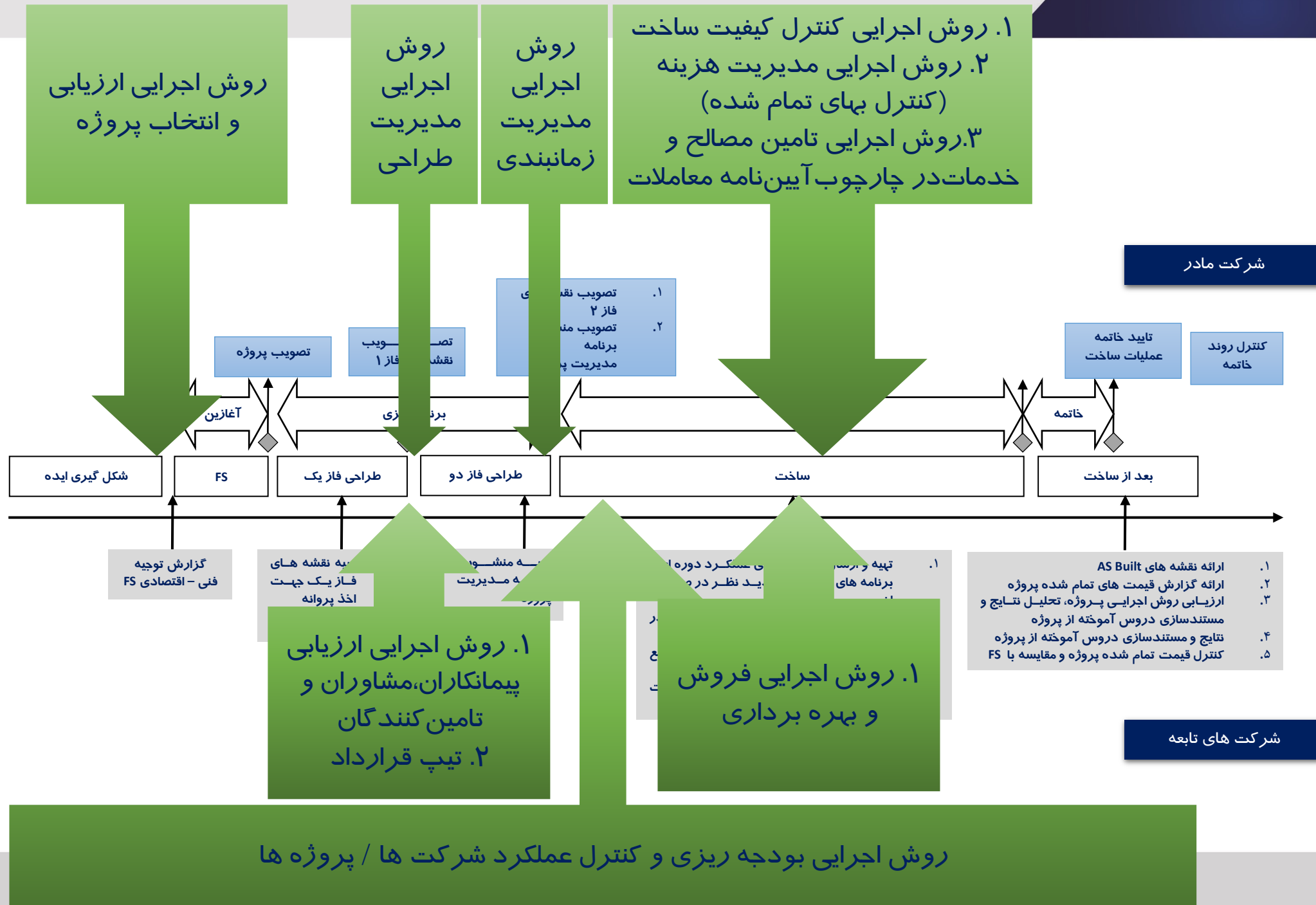
Systems thinking

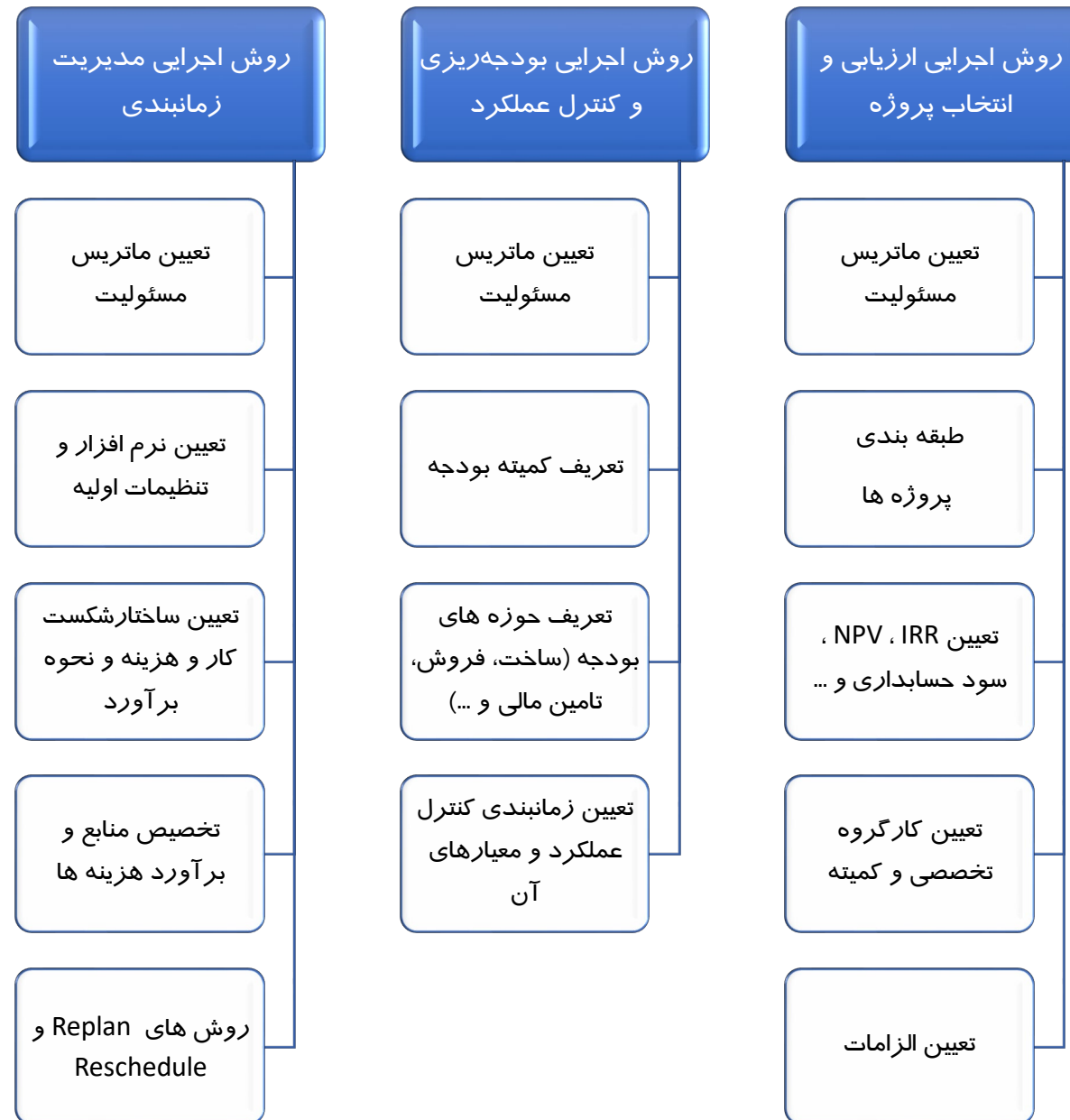




بازنگری طرح امکانسنجی با رویکرد حداکثر نمودن بازده اقتصادی







نام فرآیند	عنوان فعالیت	هلدینگ			شرکت تابعه				
		مدیر عامل	معاونت طرح و برنامه	کمیته راهبردی بودجه و پایش	هیئت مدیره	مدیر عامل	معاون / مدیر فروش و توسعه بازار	معاون / مدیر مالی	کمیته بودجه و پایش شرکت تابعه (مدیر کمیته مدیر برنامه پیری و کنترل)
بودجه ریزی گروه	تدوین الزامات بودجه	S		R					
	برآورد برنامه تولید							R	V
	برآورد هزینه تولید							R	A
	برآورد هزینه های مالی و سر بار							R	V
	پیش بینی برنامه فروش						R		V
	جریان منابع و مصارف							R	V
	برآورد سود و زیان							R	V
	جمع بندی بودجه پیشنهادی شرکت		V			S			R
	بررسی رعایت الزامات و اعمال اصلاحات			R					A
	تعیین برنامه های اقدام	V	R						
پایش عملکرد شرکت های تابعه	تصویب و نهایی سازی بودجه	S	A	V	R				
	تهیه گزارش عملکرد تولید		I					R	V
	تهیه گزارش عملکرد فروش		I				R		V
	تهیه گزارش هزینه های عملیاتی و مالی		I					R	V
	تهیه گزارش تسهیلات		I					R	V
	تهیه گزارش وضعیت برنامه های اقدام		I			V			R
	ارایه گزارش عملکرد ماهانه	I	I			S	R	R	V
	کنترل و به روز آوری بیای تمام شده پروژه ها		I				R		V
	ارایه گزارش عملکرد سه ماهه	I	I			S	R	R	V
	بررسی وضعیت عملکردی و تحقق اهداف			R					
	درخواست اصلاح بودجه / بازنگری طرح امکانسنجی و بررسی آن		I	A	C	V	S		R
	جمع بندی عملکرد و رتبه بندی شرکت ها	V	R						
	پرداخت پاداش شرکت ها	S							

موسسه مهندسی و مدیریت ساخت علوی پور (ACEMI)

دفتر آموزش



تهران، بلوار فردوس شرق، مجتمع آبگینه، طبقه سوم اداری، واحد C42



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