



Project Management Body of Knowledge (PMBOK 6th Ed.)

Fereydoun Fardad

*(MSc, PE, PMP, RMP, PBA, ACP, PRINCE2, IPMA-C, PSM, SFC, SFPC, EBCL *A, ICPA, OCB A)*

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مدرس، سخنران، نویسنده و مشاور بهبود فردی و مدیریت پروژه، کسب و کار و تعالی سازمانهای پروژه محور
مدیر PMO، مدرس و مدیر پروژه‌های موسسه مدیریت پروژه آریانا

مدیر EPMO شرکت ریل‌پرداز سیستم، مدیر PMO شرکت مهندسين مشاور سازه‌پردازي ايران
کارشناس عمران و کارشناس ارشد مهندسی و مدیریت پروژه و ساخت از دانشگاه صنعتی امیرکبیر

عضو موسسه PMI، انجمن مدیریت پروژه ایران و سازمان نظام مهندسی ساختمان استان تهران

عضو تیم بازنگري ویرایش‌های ششم و هفتم استاندارد مدیریت پروژه PMBOK، مدیریت ریسک، تخمین و زمانبندی PMI

عضو کمیته‌های گواهی‌نامه مشاوران و جایزه ملی مدیریت پروژه ایران (انجمن مدیریت پروژه ایران)

دارای مدارک مدیریت پروژه PMP و RMP و PBA از موسسه مدیریت پروژه آمریکا (PMI)

دارای مدرک مدیریت پروژه PRINCE2 از OGC انگلستان

دارای مدرک مدیریت پروژه سطح C از انجمن بین‌المللی مدیریت پروژه (IPMA-C)

دارای مدرک مدیریت پروژه اسکرام مستر حرفه‌ای (PSM) از Scrum.org آمریکا

دارای مدرک مدیریت پروژه چابک SFC از موسسه PM Study آمریکا

دارای مدرک مدیریت پروژه چابک CASF از موسسه SkillFront آمریکا

دارای مدارک مدیریت پروژه چابک SMPC, SFPC از موسسه CertiProf آمریکا

دارای گواهی‌نامه سطح A شایستگی مدیریت اتحادیه اروپا (EBCL*A)

دارای مدرک ارزیاب حرفه‌ای ICIPA از IMI-ADC

دارای مدرک سرممیزی ISO 21500 از موسسه G-Certi.

دارای مدرک ارزیاب حرفه‌ای مدل (OCB) PM-Delta از انجمن بین‌المللی مدیریت پروژه (IPMA)

ارزیاب و سرارزیاب جایزه تعالی مدیریت پروژه ایران (PEM) و جایزه ملی بهره‌وری و تعالی سازمانی (EFQM)

ارزیاب مستقل مدل بلوغ مدیریت پروژه پتروشیمی (CPM3)، ارزیاب سیستم مدیریت کیفیت ISO 9001

مدیر سیستم و کیفیت گروه پیمانکاری بام، مدیر کنترل پروژه و HSE شرکت مهندسين مشاور گذرراه

مدرس دارای صلاحیت انجمن مدیریت پروژه ایران (همکار آموزشی انجمن مدیریت پروژه ایران) و سازمان مدیریت برنامه‌ریزی (TOT)

عضو تیم مولفین اولین کتاب مدل تعالی پروژه (PEM) در ایران

سابقه تدریس بیش از ۴۵۰ دوره آموزشی در سازمانها و صنایع مختلف

ارایه مقالات و سخنرانی‌های متعدد علمی در کنفرانس‌های ملی و بین‌المللی



۳

Contact me!

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FardadPM

فریدون فرداد
Fereydoun.Fardad



Fartik
Personal &
Organizational
Development Academy
فریتیک

**روزی که یادگرفتن را
متوقف کنید، روزی
است که شروع به مردن
می کنید**

رابرت کیوساکی

نویسنده کتاب پدر پولدار، پدر بی پول



Copyright ©



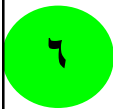
با سلام

دوست و سرور گرامی

تمامی حقوق این اثر متعلق به نگارنده می باشد و هرگونه نسخه برداری از آن، اعم از کپی، اسکن، تکثیر، نسخه برداری الکترونیکی و یا ترجمه بخش و یا تمام آن منوط به اجازه کتبی از نگارنده می باشد.

لذا با توجه به اینکه برای تهیه جزوه فوق زمان، هزینه و انرژی بسیار زیادی صرف شده تا از هر نظر ممتاز باشد، از شما تقاضا دارم اصول کپی رایت را رعایت کرده و در صورت نیاز، سفارش خرید آن را به تهیه کننده بدهید.
با تشکر

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Course Schedule



Day	Content
1	<i>Course Start and Chapter 1-2-3</i>
2	<i>Chapter 1-2-3</i>
3	<i>Chapter 1-2-3 & Initiating & Planning PG</i>
4	<i>Planning PG</i>
5	<i>Planning PG</i>
6	<i>Planning PG</i>
7	<i>Planning PG & Executing PG</i>
8	<i>Executing PG</i>
9	<i>Monitoring & Controlling PG, Closing PG</i>
10	<i>Agile Practice Guide</i>

Welcome



Introduction

- **The Standard for PM**
- **Projects**
- **Relationship of 3P**
- **Tailoring**
- **PM Business Documents**





History of Project Management



21st Century

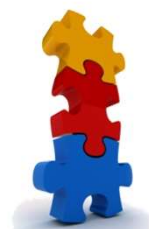
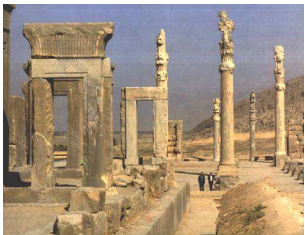
Agile Project Management

1965-2005

IPMA (1967), PMI (1969) OGC (1989)- Maturity Models (CMMI , ...) Program, Portfolio CCM, EVMS, ...

1900-1965

1900. Henry Gantt CPM, PERT, GERT EVM



Alternatives to PMI



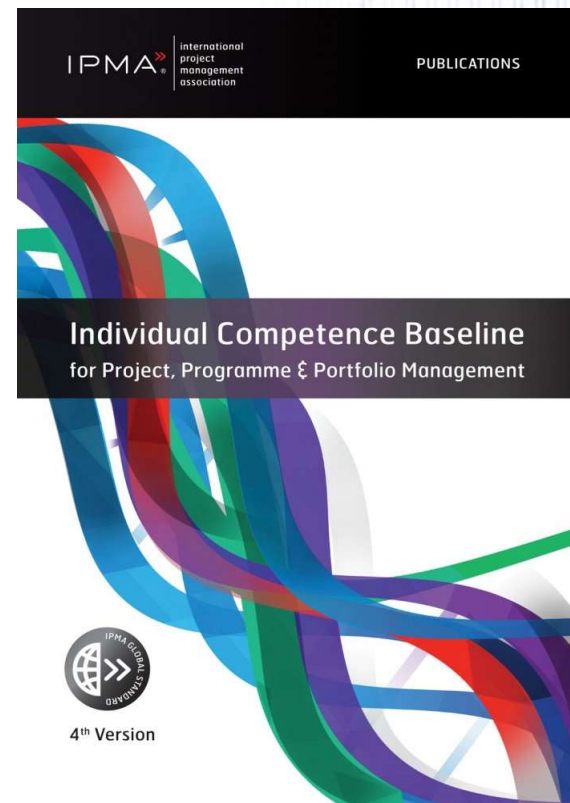
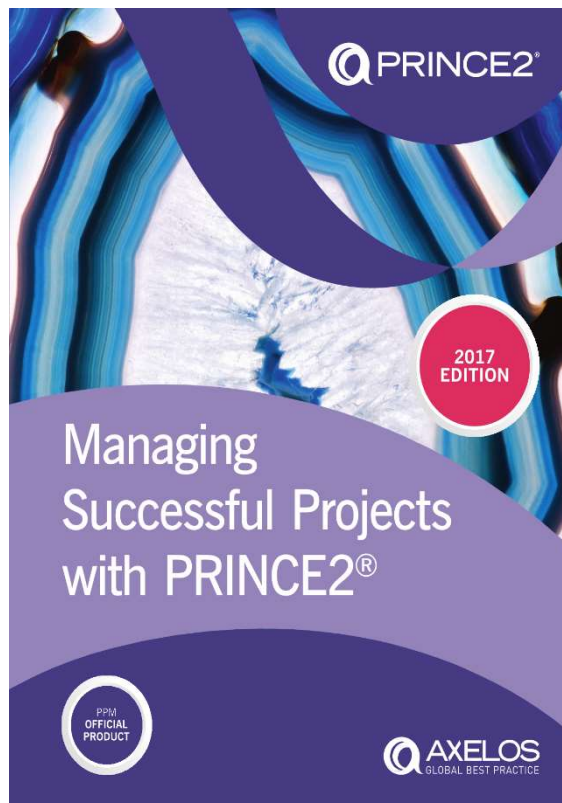
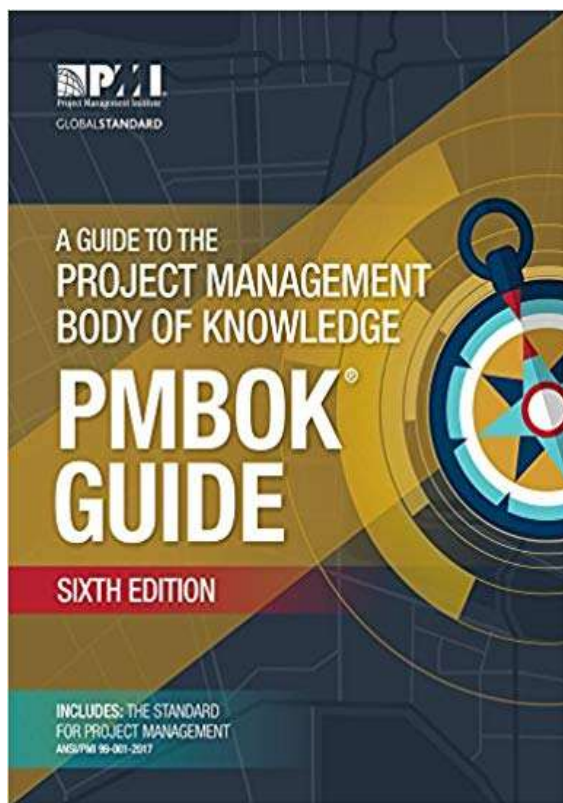
PM Organization	Head Office	Famous PM Standard	# of Members
PMI  Project Management Institute	USA	PMBOK	240,000
IPMA  international project management association	Europe	ICB	30,000
AXELOS  GLOBAL BEST PRACTICE	UK	PRINCE II	15,000
AIPM  Australian Institute of Project Management	Australia	-	7,100

Numbers from Craig Brown (sep. 2007)

- ICB: IPMA (Individual) Competency Baseline
- PRINCE2: Project In Controlled Environment

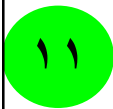
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Famous PM Standards



- ICB: IPMA (Individual) Competency Baseline
- PRINCE2: Project In Controlled Environment

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Introduction to PMI



- A professional institute specializing in project management.
- PMI Offices is in Newtown Square, Pennsylvania in the USA.
- Founded in 1969 by working project managers.
- **Website: www.pmi.org**
- Activities:
 - Project Management Standards;
 - Project Management Books
 - A Monthly Magazine (PM Network)
 - A Monthly Newsletter (PMI Today)
 - A Quarterly Journal (Project Management Journal)
 - Supervision on Training (PMI Registered Education Providers (REP))
 - Professional Certification



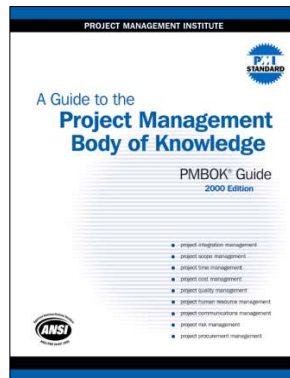
History of PMBOK®



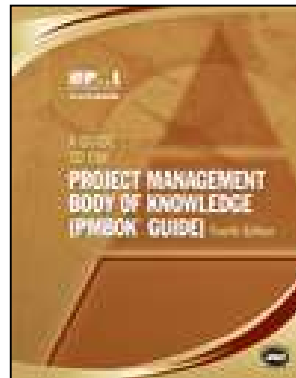
1987



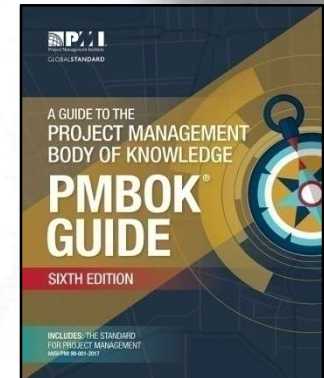
1999



2000

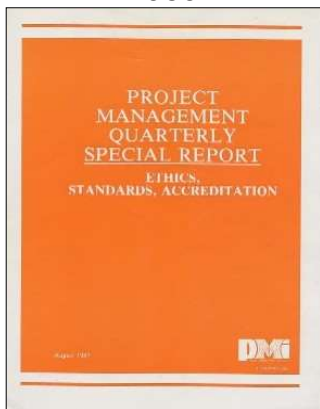


2008

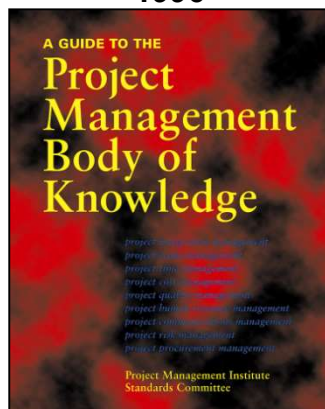


2017

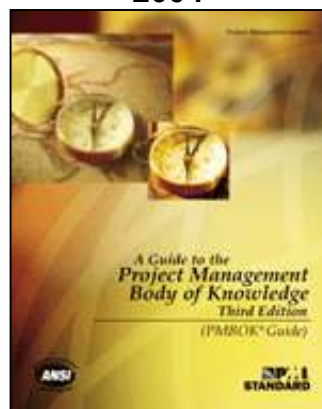
1983



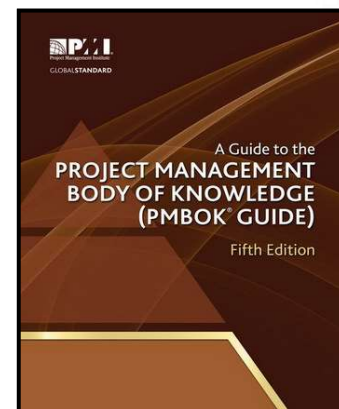
1996



2004



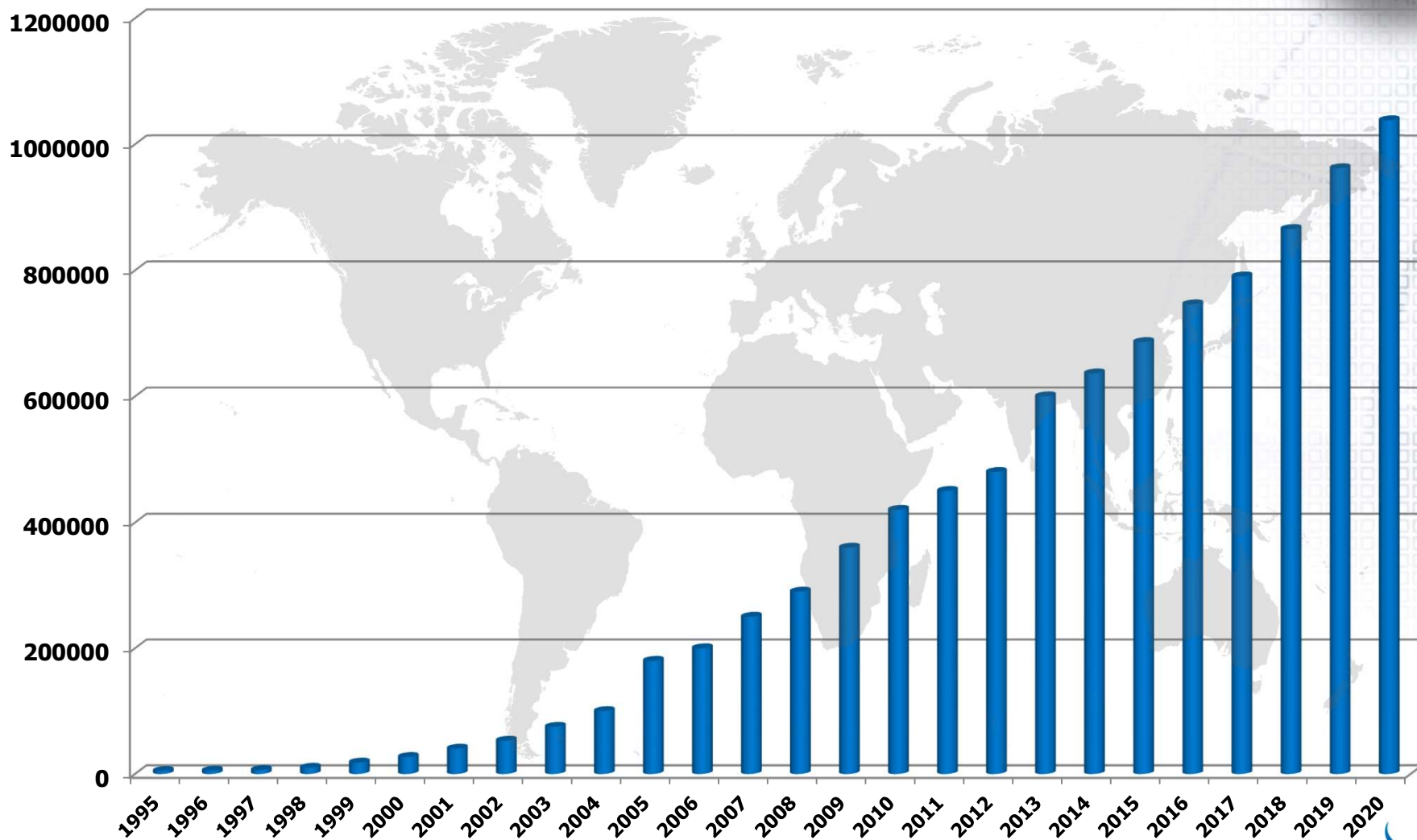
2013



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PMP Trend



Today Statistics



PMI Fact File

Statistics through 31 May 2020

TOTAL MEMBERS

602,213

...in 214 countries and territories

PMI has
301 chartered
and
10 potential
chapters

CERTIFICATIONS

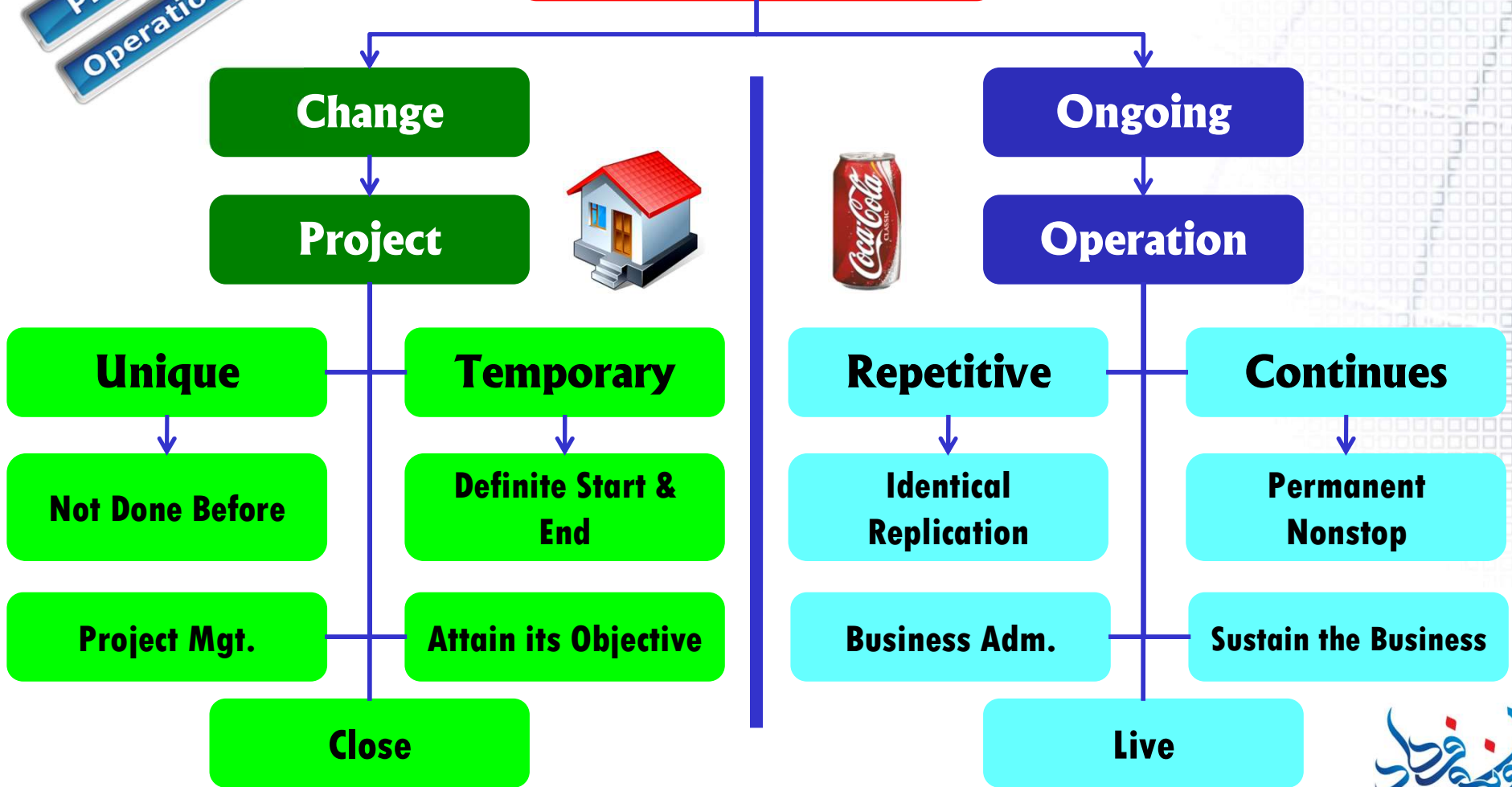
Total Active Holders of:

CAPM [®] Certified Associate in Project Management	42,647
PMI-ACP [®] PMI Agile Certified Practitioner	35,182
PMI-PBA [®] PMI Professional in Business Analysis	4,159
PMI-RMP [®] PMI Risk Management Professional	5,715
PMI-SP [®] PMI Scheduling Professional	2,103
PMP [®] Project Management Professional	1,037,653
PgMP [®] Program Management Professional	2,907
PfMP [®] Portfolio Management Professional	823

Operations & Project Management



Organizational Work





What Is Project?



A Project is a **Temporary Endeavor** undertaken to create a **Unique Product, Service, or Result.**



Project's Characteristics



01 Unique Product, Service or Result

02 Temporary Endeavor

03 Progressive Elaboration



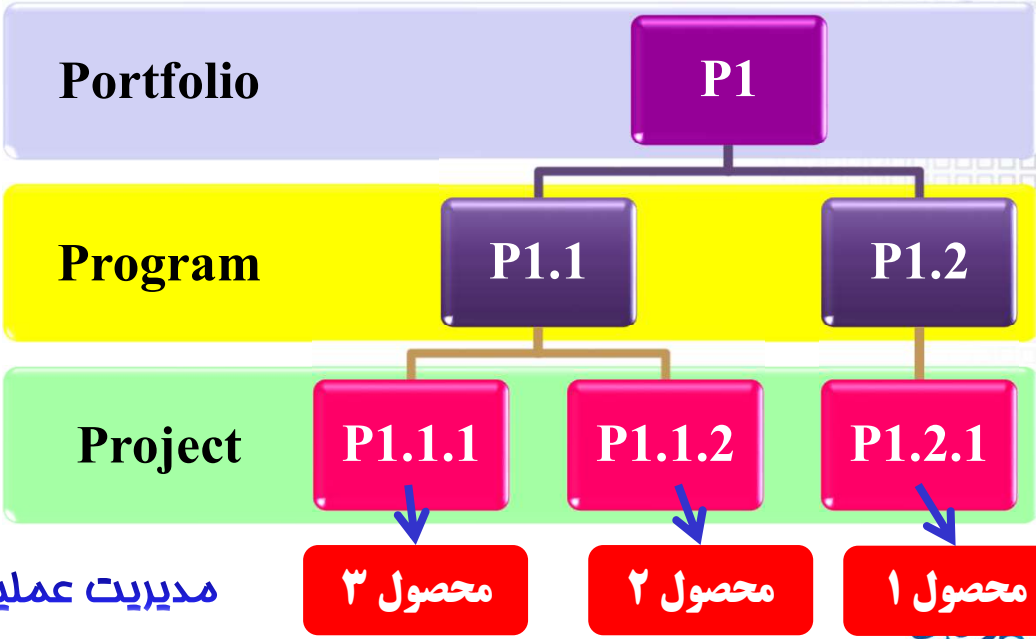
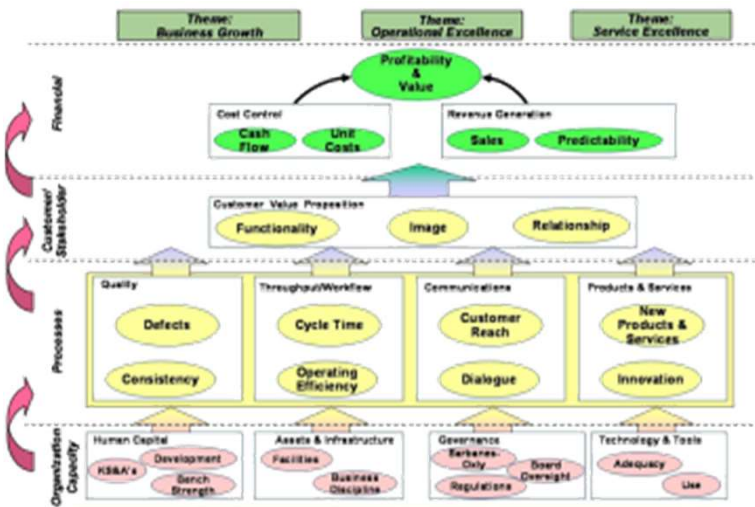
Projects Drive Change **04**

Projects Enable Business Value Creation **05**

Project Initiation Context **06**



What Is Business Value?



مدیریت عملیات

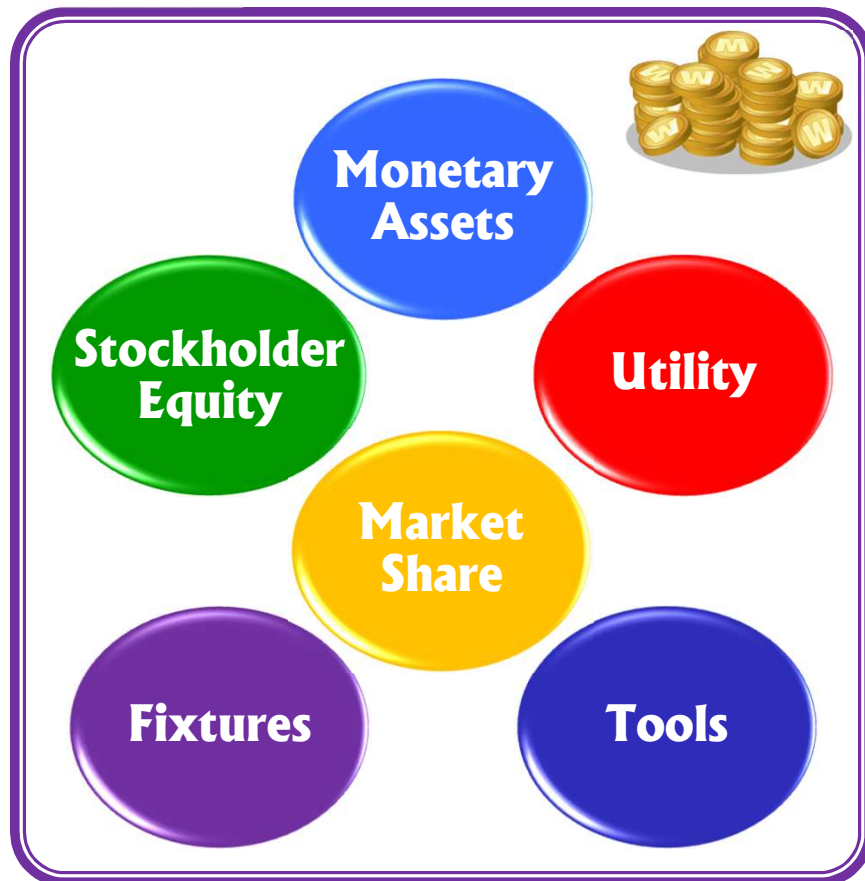
Projects Enable BV Creation



TANGIBLE



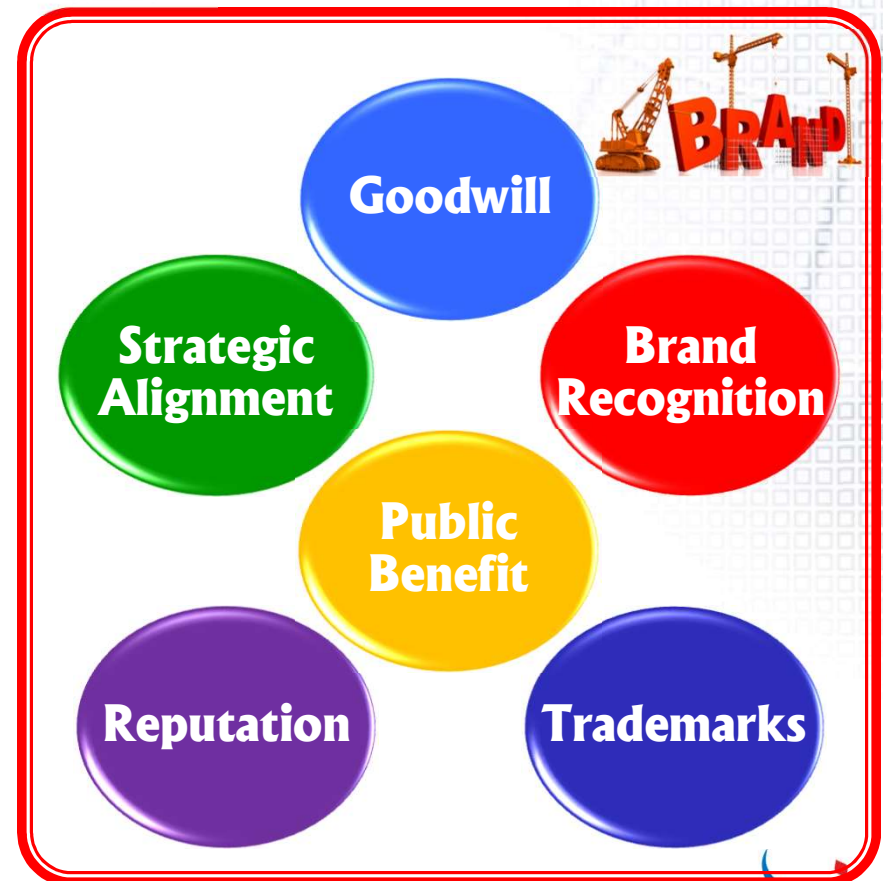
TANGIBLE



INTANGIBLE



INTANGIBLE





Project Initiation Context



Organizational leaders initiate projects in response to factors acting upon their organizations

**Meet Regulatory,
Legal, or Social
Requirements**



**Satisfy
Stakeholder
Requests or Needs**



Projects



**Create, Improve,
or Fix Products,
Processes, or
Services**



**Implement or
Change Business
or Technological
Strategies**

Project Management



- The application of **Knowledge, Skills, Tools and Techniques** to project activities to meet **Project Requirements**.
- Project management enables organizations to execute projects **effectively and efficiently**.
- Project management is accomplished through the appropriate application and integration of the **49** logically grouped project management processes, which are categorized into **5 Process**

Groups:

- Initiating,
- Planning,
- Executing,
- Monitoring and Controlling, and
- Closing.



Project Constraints



What Is Program?



- ❖ A program is defined as a **Group of Related** projects, subsidiary programs, and program activities managed in a coordinated manner to obtain **Benefits** not available from managing them individually.
- ❖ Programs include program related work outside the scope of the discrete projects in the program.
- ❖ Programs may also include work that is operational in nature.
- ❖ Programs are not large projects.
- ❖ A very large project may be referred to as a megaproject.
- ❖ As a guideline, megaprojects cost US\$1billion or more, affect 1 million or more people, and run for years.



Program Management



- Actions related to these program and project-level interdependencies may include:
- **Aligning** with the organizational or strategic direction that affects program and project goals and objectives;
 - **Allocating** the program scope into program components;
 - Managing **interdependencies** among the components of the program to best serve the program;
 - Managing **program risks** that may impact multiple projects in the program;
 - **Resolving constraints** and **conflicts** that affect multiple projects within the program;
 - **Resolving issues between component projects** and the program level;
 - Managing **change requests** within a shared governance framework;
 - Allocating **budgets** across multiple projects within the program; and
 - Assuring **benefits realization** from the program and component projects.

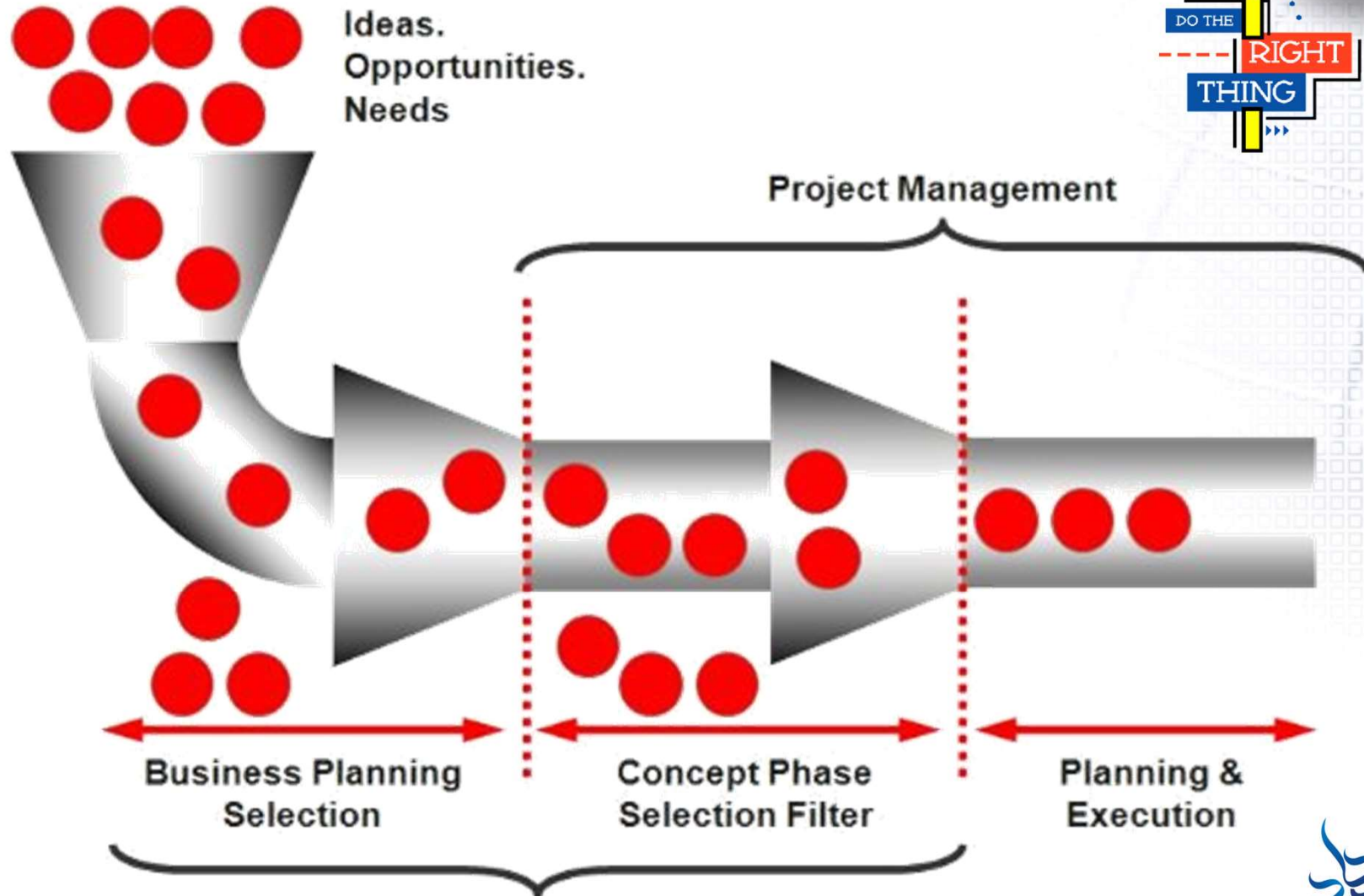
Portfolio & Portfolio Management



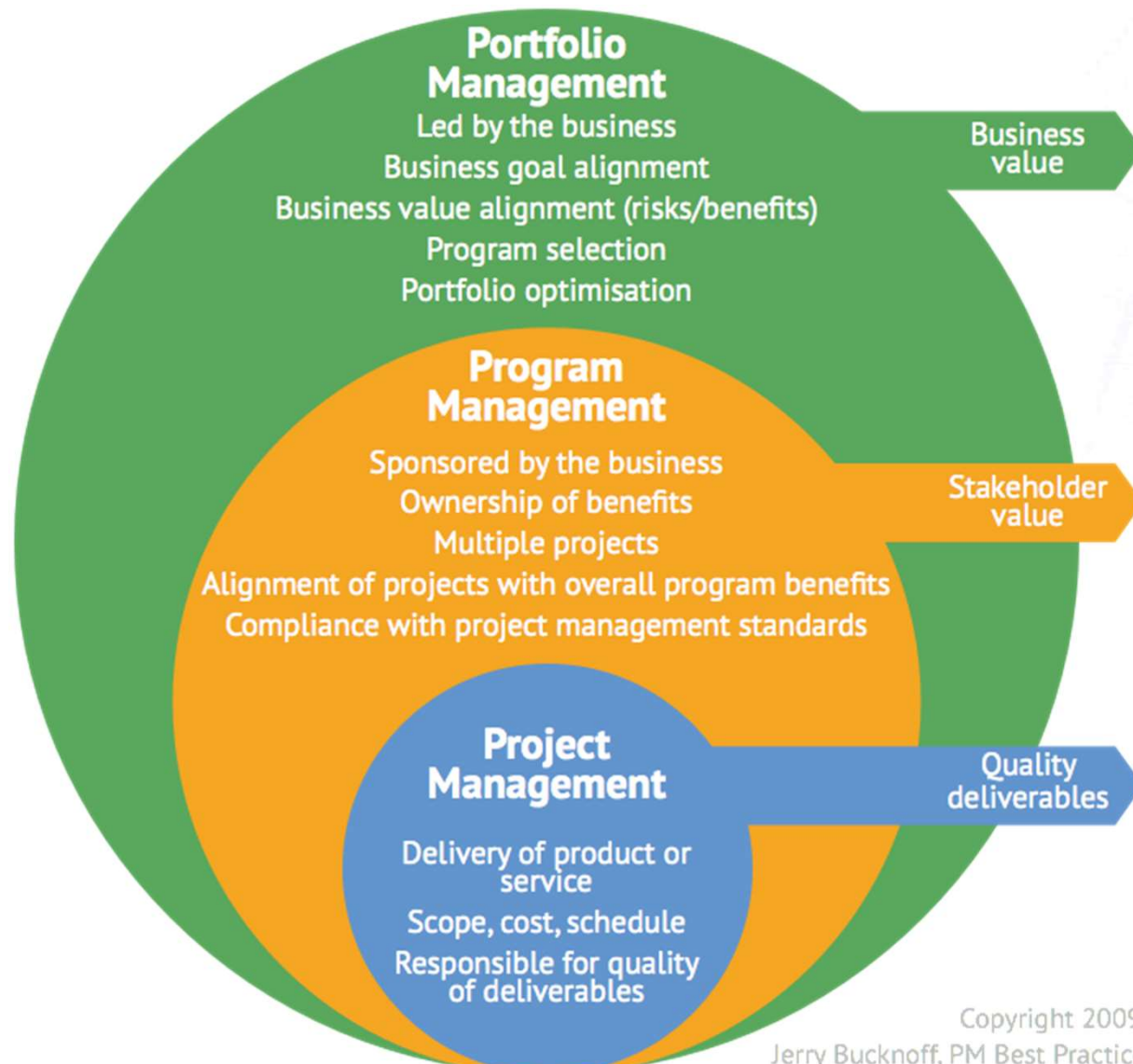
- A portfolio is defined as projects, programs, subsidiary portfolios, and operations **Managed as a Group** to achieve **Strategic Objectives**.
- The projects or programs of the portfolio may not necessarily be **interdependent** or directly related.
- **Portfolio Management** is defined as the **centralized management** of one or more portfolios to achieve strategic objectives.
- The **Aim** of portfolio management is to:
 - Guide organizational **investment decisions**.
 - **Select** the **optimal** mix of programs and projects to meet strategic objectives.
 - Provide **decision-making** transparency.
 - **Prioritize** team and physical resource allocation.
 - Increase the likelihood of realizing the desired **return on investment**.
 - **Centralize** the management of the aggregate risk profile of all components.



Portfolio Management



Relationships Among 3P



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 Jerry Bucknoff, PM Best Practice

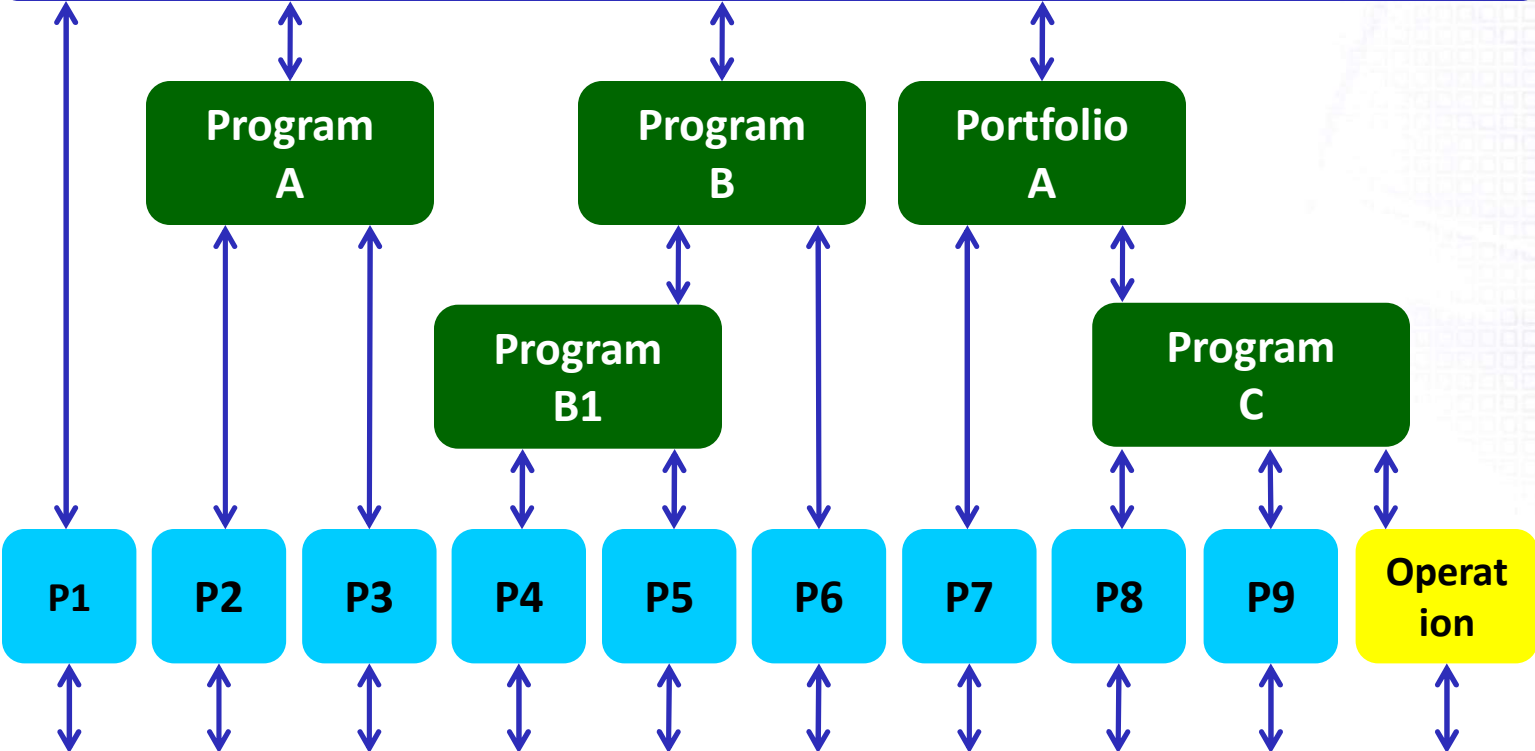


Relationships Among 3P

Organization Strategy



Sample Portfolio



Shared Resource and Stakeholders



Relationships Among 3P



- The portfolio view allows organizations to see **how the strategic goals are reflected in the portfolio.**
- This coordinated governance allows authorized allocation of human, financial, and physical resources based on expected performance and benefits.
- Looking at project, program, and portfolio management from an organizational perspective:

- **Program and Project Management** **focus** on doing programs and projects the **“Right” Way**; and
- **Portfolio Management** focuses on **Doing the “Right” Programs and Projects.**

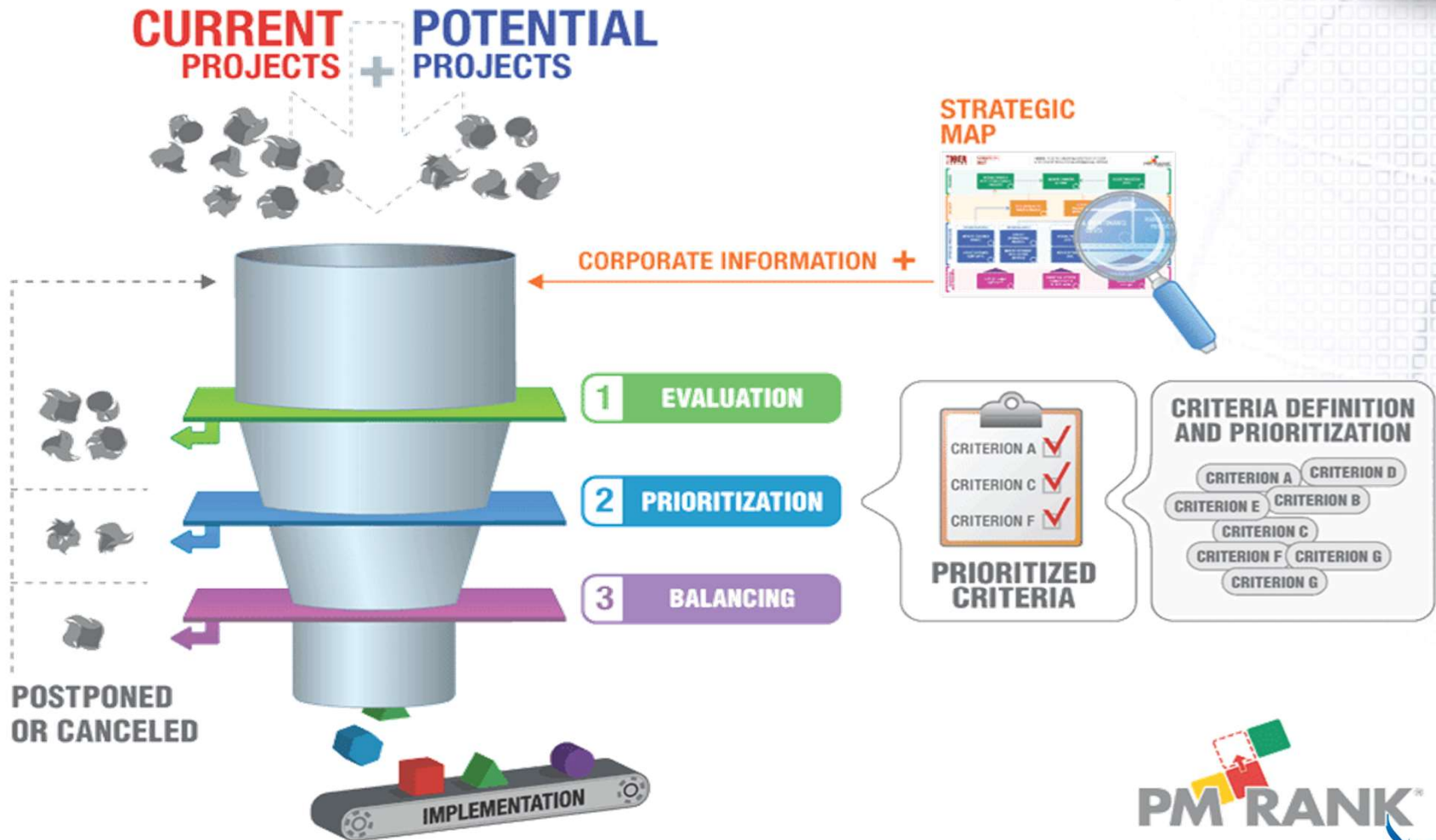




The Link with Corporate Strategy



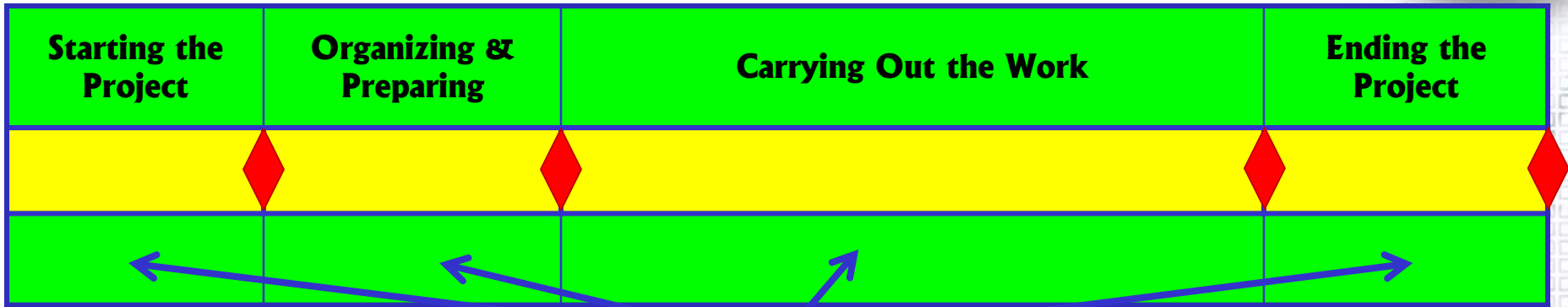
The Link with Corporate Strategy



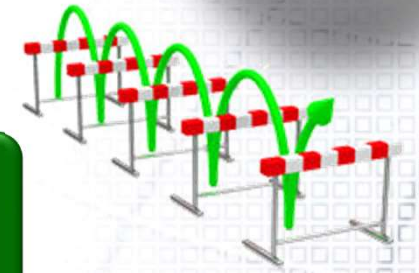
Interrelationship of PMBOK[®] Key Components in Projects



← Project Life Cycle →



Life Cycle Types



Iterative

Incremental

Predictive

Adaptive

PLC



MANIFESTO FOR AGILE SOFTWARE DEVELOPMENT

We are uncovering better ways of developing software by doing it and helping others do it. Through this work we have come to value:

INDIVIDUALS AND INTERACTIONS —OVER PROCESSES AND TOOLS
WORKING SOFTWARE —OVER COMPREHENSIVE DOCUMENTATION
CUSTOMER COLLABORATION — OVER CONTRACT NEGOTIATION
RESPONDING TO CHANGE —OVER FOLLOWING A PLAN

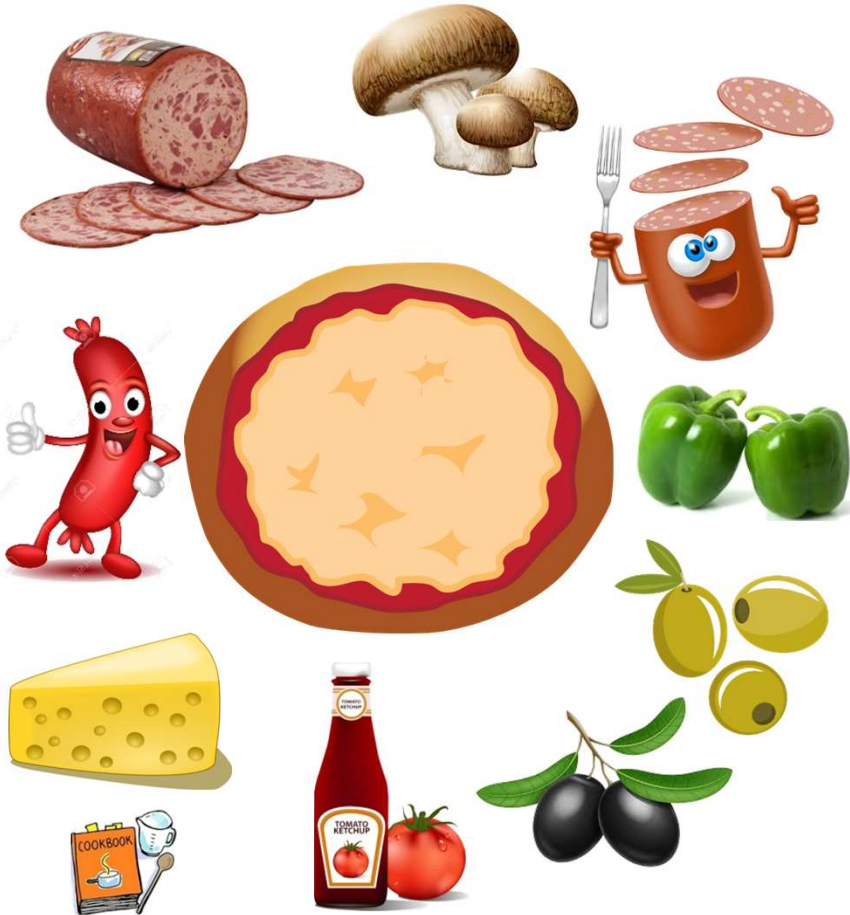
That is, while there is value in the items on the right, we value the items on the left more





Lets Make a Pizza!

INPUTS



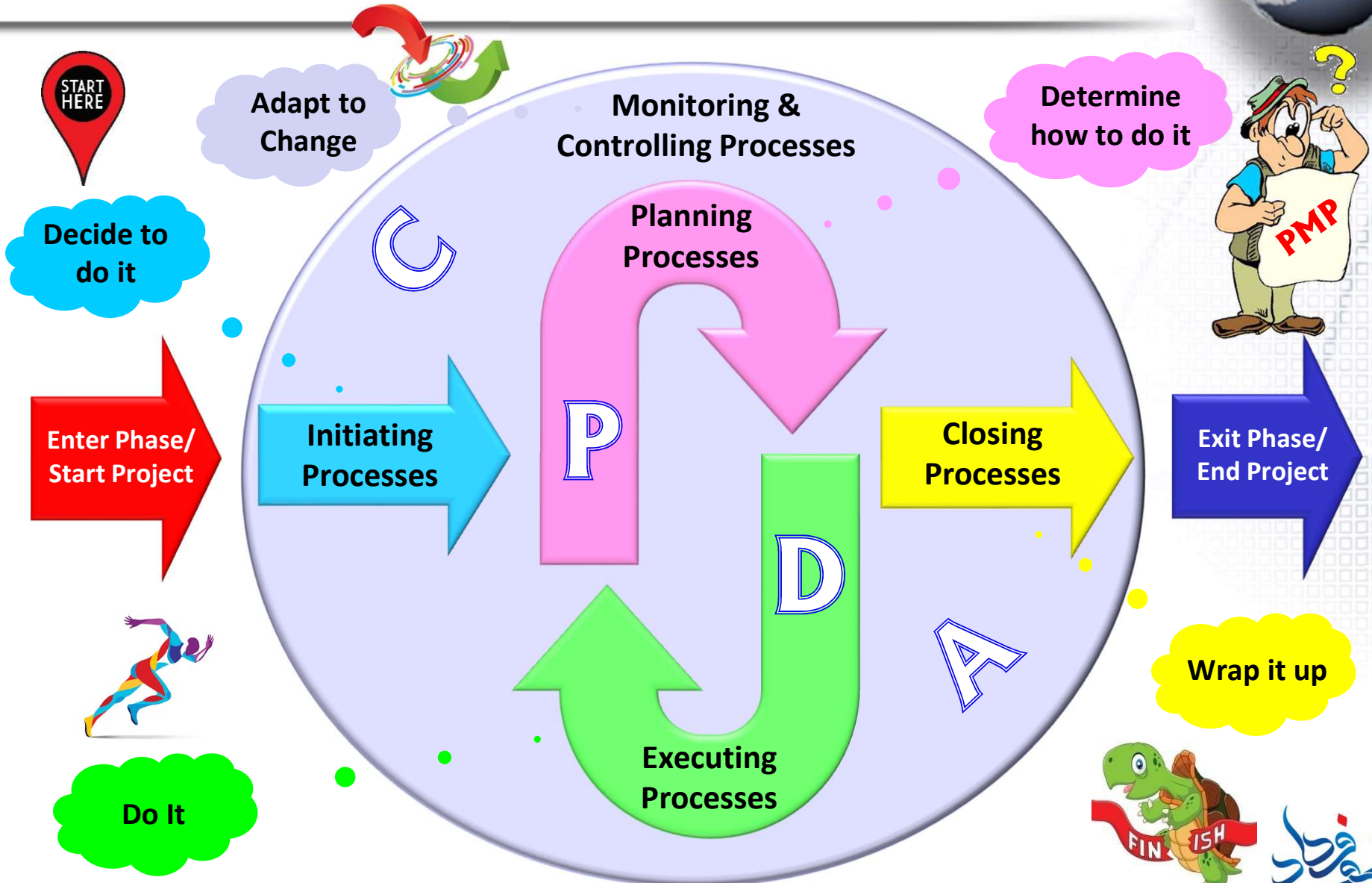
T&T



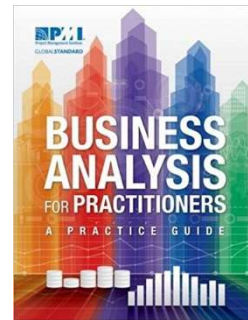
OUTPUT



PM Processes Groups



Project Business Case



Needs Assessment



Project Management Office



- Is a **Management Structure** that standardizes the project-related governance processes and facilitates the sharing of resources, methodologies, tools, and techniques.
- The responsibilities of a PMO can range:
 - From providing project management support functions to
 - Actually being responsible for the direct management of one or more projects.
- There are several types of PMO structures in organizations, each varying in the degree of control and influence they have on projects within the organization.





Types of PMO



Supportive

- Provide a **consultative** role to projects by **supplying templates, best practices, training**, access to information and **lessons learned** from other projects.
- This type of PMO serves as a **project repository**.
- The **degree of control** provided by the PMO is **low**.



Controlling

- Provide **support** and require **compliance** through various means.
- **Compliance** may involve:
 - Adopting project management frameworks or methodologies,
 - Use of specific templates, forms and tools,
 - Conformance to governance framework.
- The **degree of control** provided by the PMO is **moderate**.

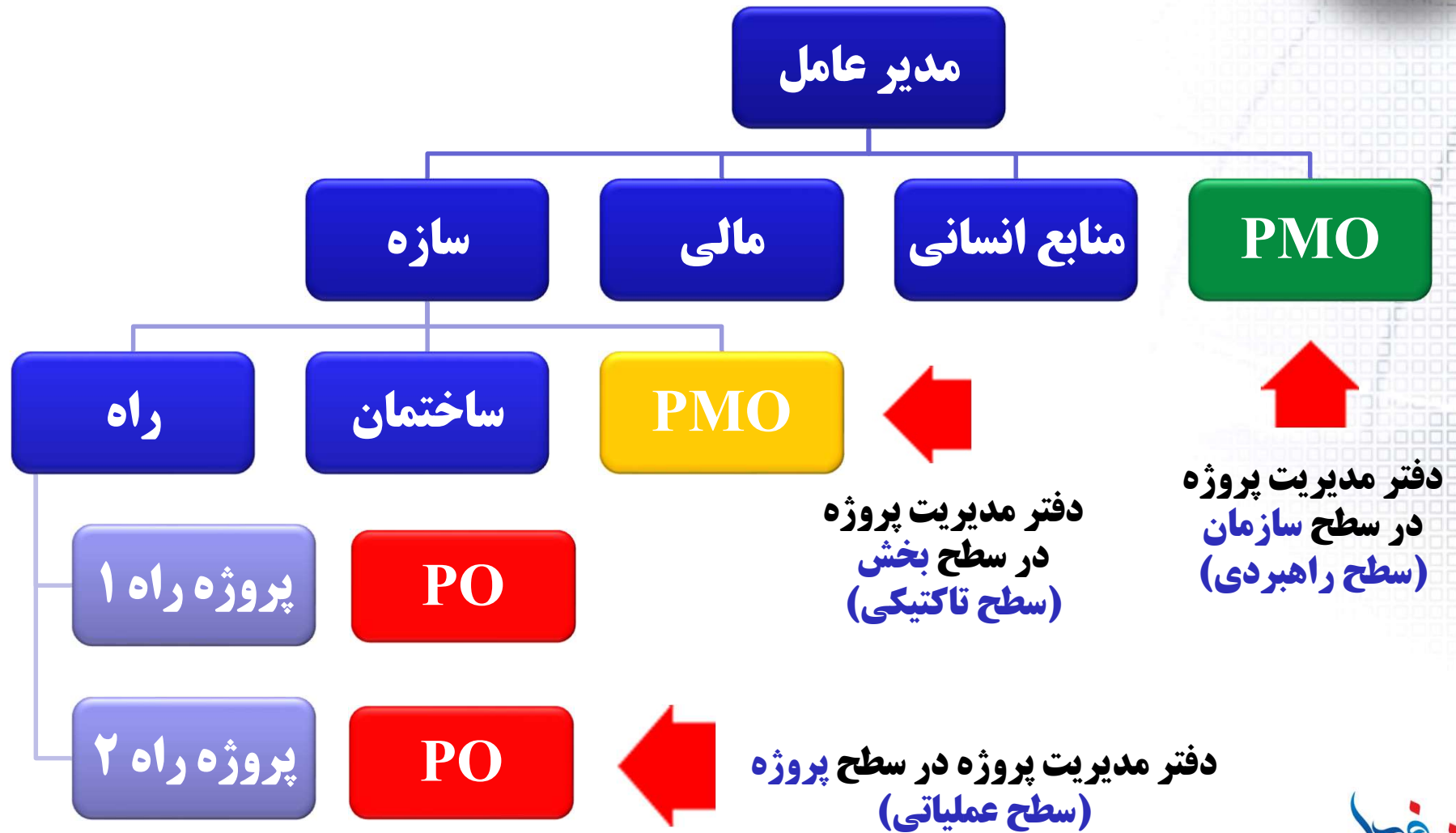


Directive

- Take **control** of the projects by **directly** managing the projects.
- Project managers are assigned by and report to the PMO.
- The **degree of control** provided by the PMO is **high**.



PMO Organizational Structure



Benefits Realization: From Strategy to Projects

Mission / Vision Strategy Map / Balanced Scorecard

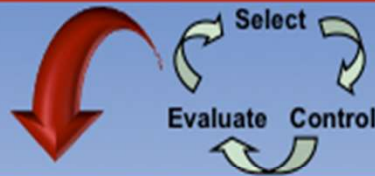
Strategic Planning



ORGANIZATIONAL GOVERNANCE (EPMO)

Business Unit Planning

Portfolio Management (PfM)



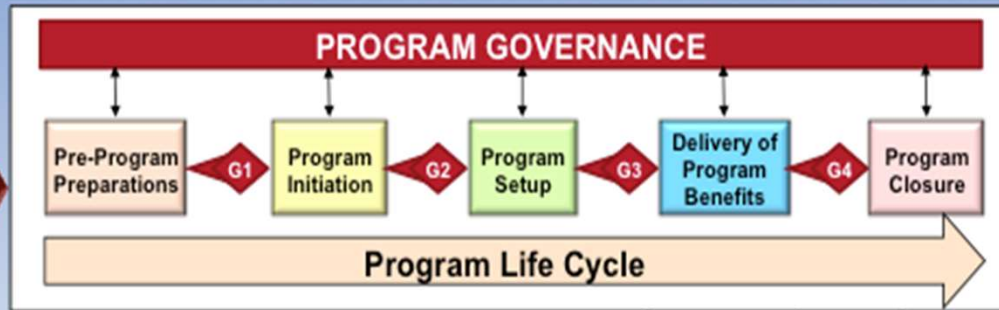
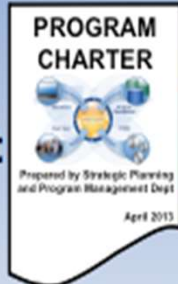
Portfolio Management Process

"Build the right things"

Strategy Implementation

Program Management (PgMO)

Program is Chartered



Program Completion Certificate



Project Management (PMO)



Project Filter



"Build things right"

REED INTEGRATION, INC.

Organizational Resources



The Environment In Which Projects Operate

- **Project Influences**
- **Internal EEFs**
- **External EEFs**
- **Organizational Systems**



Project Influences



- Projects **exist and operate** in environments that may have an **influence** on them.
- These influences can have a **favorable** or **unfavorable** impact on the project.
- **Two major** categories of influences are **Enterprise Environmental Factors (EEFs)** and **Organizational Process Assets (OPAs)**.

OPA

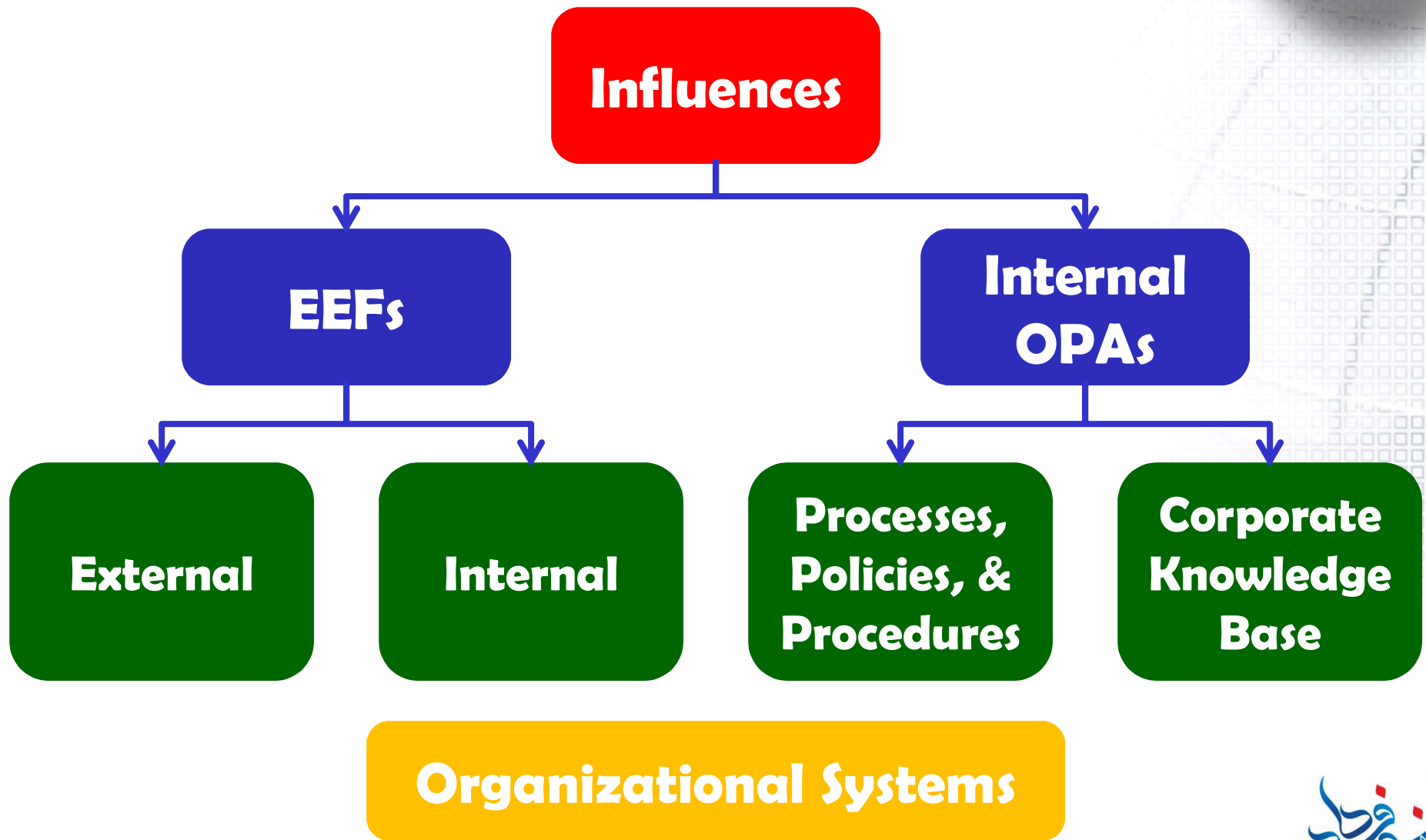
- Are **internal** to the organization.
- These may **arise** from the **organization itself**, a portfolio, a program, another project, or a combination of these.

EEF

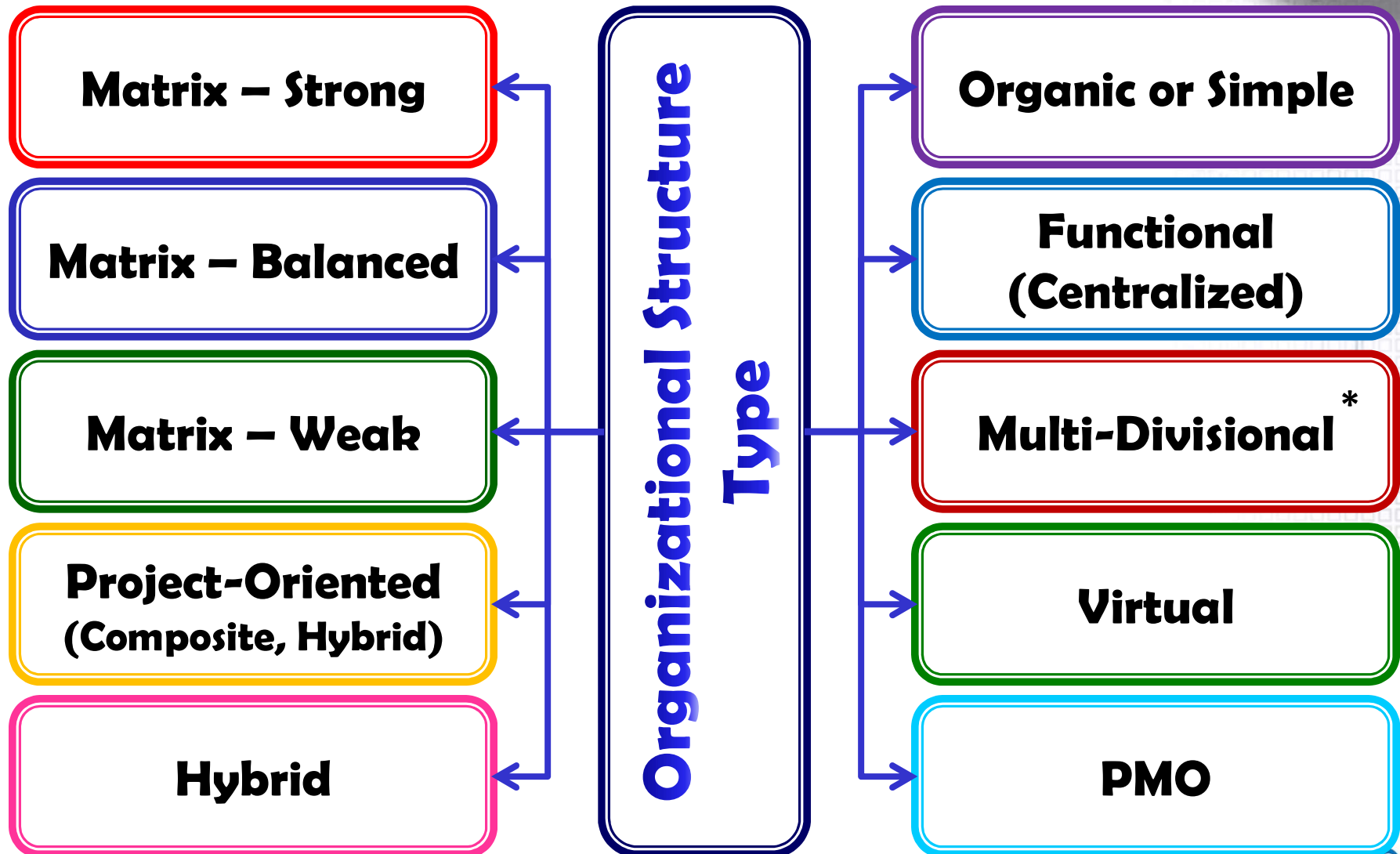
- Originate from the environment **outside** of the project and often **outside** of the enterprise.
- May have an **impact** at the organizational, portfolio, program, or project level



Project Influences



Organizational Structure Type



* (may replicate functions for each division with little centralization)



The Role Of The Project Manager

- The Role Of The PM
- The PM'S Sphere of Influence
- Project Manager Competency
- Power of Project Manager



The Role Of The PM



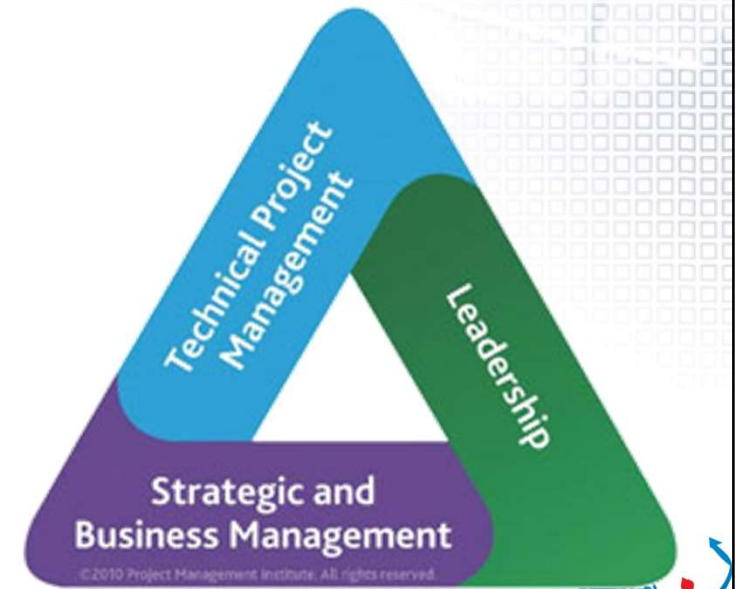
- ❖ In some organizational settings, the project manager may also be called upon to manage or assist in **business analysis, business case development,** and aspects of **portfolio management** for a project.
- ❖ A project manager may also be involved in **follow-on activities related to realizing business benefits** from the project.
- ❖ The role of a project manager may vary from organization to organization.
- ❖ Ultimately, the project management role is **tailored** to fit the organization in the same way that the project management processes are tailored to fit the project.



Project Manager Competency



- While **technical project management** skills are **core** to program and project management, PMI research **indicates** that they are **not enough in today's increasingly** complicated and competitive global marketplace.
- Organizations are seeking **added skills in leadership and business intelligence**.
- Members of various organizations state their belief that these competencies can support **longer-range strategic** objectives that contribute to the bottom line.
- To be the most effective, project managers need to have a **balance of these three skill sets**.



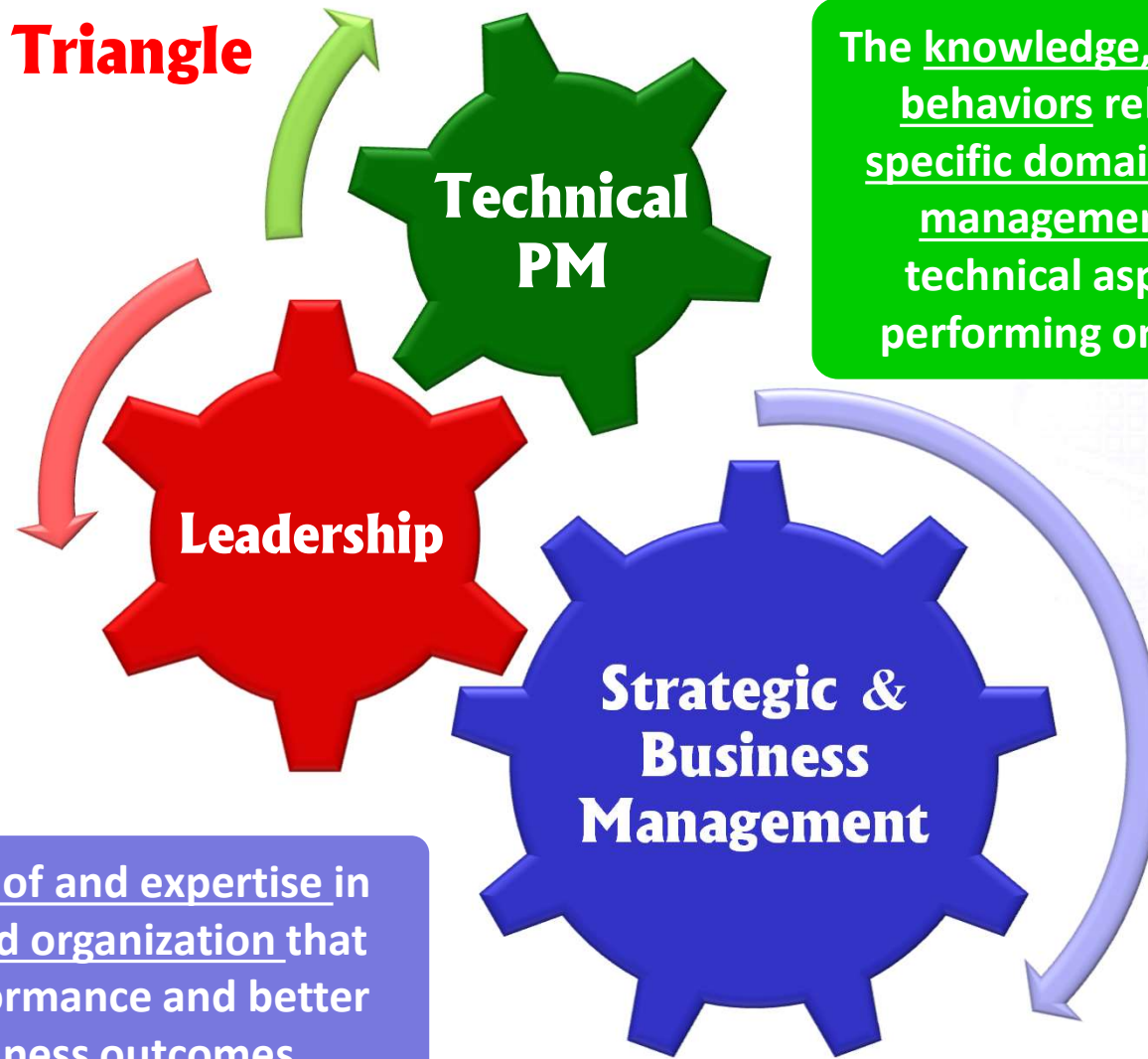
Project Manager Competency



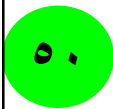
The PMI Talent Triangle

The knowledge, skills, and behaviors needed to guide, motivate, and direct a team, to help an organization achieve its business goals.

The knowledge of and expertise in the industry and organization that enhanced performance and better delivers business outcomes.



The knowledge, skills, and behaviors related to specific domains of PPP management. The technical aspects of performing one's role.



Project Manager Competency



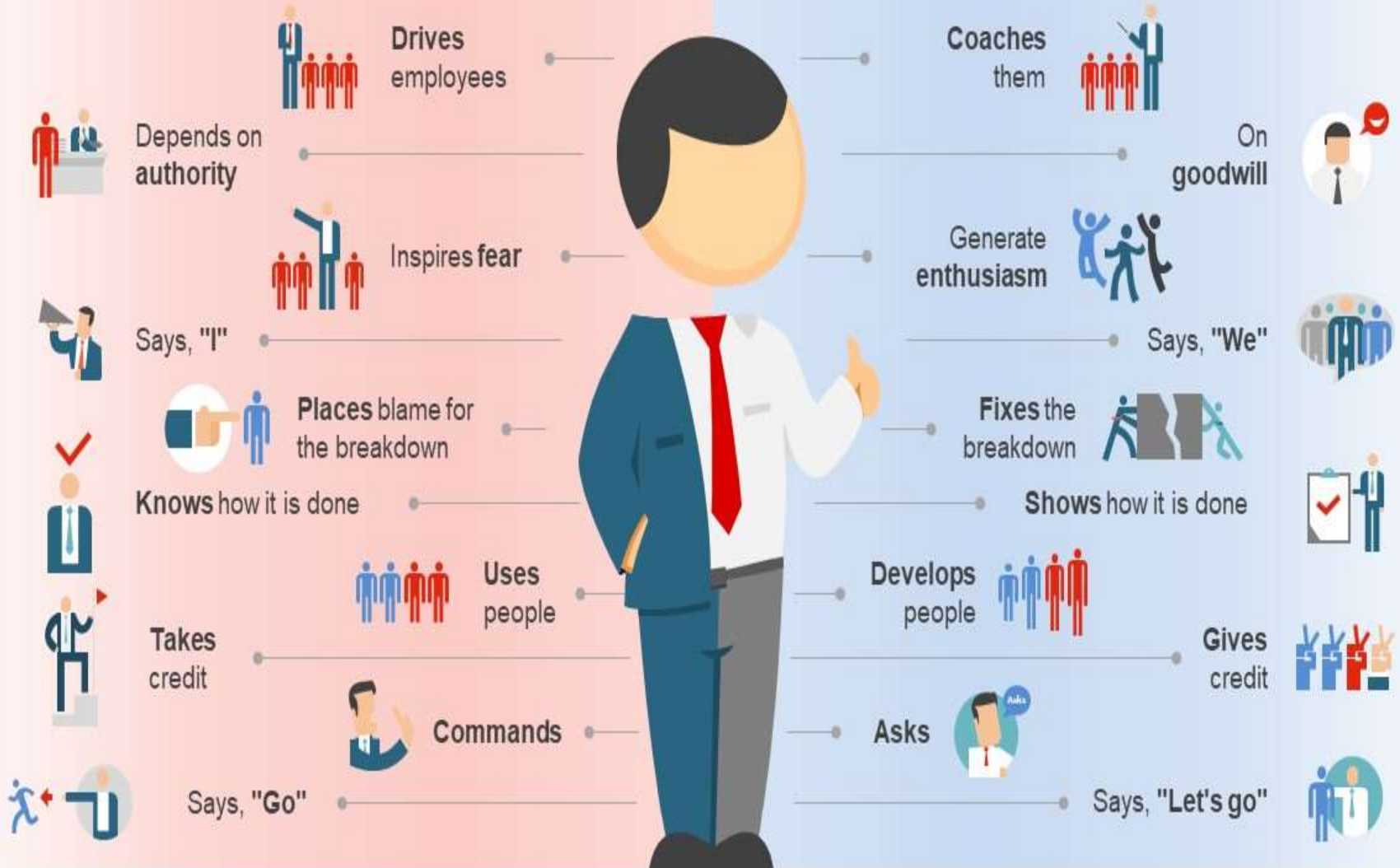
Leadership Vs Management



Management	Leadership
Direct using positional power	Guide, influence, & collaborate using relational power
Maintain	Develop
Administrate	Innovate
Focus on systems and structure	Focus on relationships with people
Rely on control	Inspire trust
Focus on near-term goals	Focus on long-range vision
Ask how and when	Ask what and why
Focus on bottom line	Focus on the horizon
Accept status quo	Challenge status quo
Do things right	Do the right things
Focus on operational issues & Problem solving	Focus on vision, Alignment, Motivation, & Inspiration

BOSS

LEADER



DIFFERENCE BETWEEN