Tailoring Project Management for Highly Uncertain Environment

- **People**
- **Process**
- **Business**

To Do Things Differently – or – To Do Different Things

Nice to meet you

Rafi Cohen MBA, MSc, PMP®

- VP Consulting Programs at RBS Projects
- Colonel (res.) at the IDF/Technology & Logistics
- Extensive experience in business units management, management of large and complex arrays, project\program management
- Highly experienced consultant and lecturer in Project Management courses, Risks & Opportunities, and more…
- Lecturer certified by the PMI® , ATP - Instructor

A smile is a powerful weapon; you can even break ice with it.

THIS IS TO CERTIFY THAT

Rafael Cohen

HAS BEEN FORMALLY EVALUATED FOR DEMONSTRATED EXPERIENCE, KNOWLEDGE AND PERFORMANCE IN ACHIEVING AN ORGANIZATIONAL OBJECTIVE THROUGH DEFINING AND OVERSEEING PROJECTS AND RESOURCES AND IS HEREBY BESTOWED THE GLOBAL CREDENTIAL

Project Management Professional (PMP)®

IN TESTIMONY WHEREOF, WE HAVE SUBSCRIBED OUR SIGNATURES UNDER THE SEAL OF THE INSTITUTE

ייעוץ - מטמיעים מתודולוגיות Waterfall/Agile/Hybrid ומסייעים לחברות בתכנון, ביצוע, מעקב ובקרה של פורטפוליו, תוכניות ופרויקטים

ניהול פרויקטים במיקור חוץ - צוות מקצועי ומנוסה הכולל מנהלי פרויקטים, מנהלי תוכניות ו-PMOs, תוך מתן ליווי ותמיכה מקצועית שוטפת

הדרכה, קורסים וסדנאות - היצע רחב של הדרכות, בהתאמה מדויקת לצורכי הלקוח, כגון ניהול פרויקטים בסיסי ומתקדם, הכנה להסמכת PMP®, סדנאות Agile, ניהול סיכונים, מיומנויות בינאישיות ועוד

לקוחות שלנו

Session Objectives

The relationships between project management methodology and project success – **why do we need PM Methodology** ? How the Methodology can help in extreme **complex and uncertain environment** ?

Introduction to the PMI® methodology, tools, principles and knowledge areas, as reflected in the *PMBOK ® Guide* (creating a common PM language based on **shared practical knowledge**)

The full workshop enhances project management competency in real projects, **significantly increases project success** in all aspects

Why Do We Need Methodology?

Common language in the organization that allows communication, coordination and synchronization between the departments who work for the project

Implementation of the methodology increases project success

Base for high standard control of the project in different aspects such as schedule, budget, scope, quality, stakeholder satisfaction.

When project management culture was implemented **71%*** of projects achieved their original goals and business target

Projects that are managed with methodology, processes and supportive tools **triple their success and meeting goals chances** against projects without tools and methods

- 8th Global Project Management Survey, PMI® Pulse of the Profession, 2016
- The High Cost of Low Performance…, PMI
- The impact of PMBOK Guide Use and project Success, M. Keil & L. Budescu
- Project Management Methodologies…, M. Zahid & M. Waseem

ABS PROJECTS

VODAFONE
Using PMI Standards to Deliver
A Complex Technology Project

Test Case

At the end of 2017, one of Vodafone's strategic customers requested that Vodafone replace its existing, obsolete network with a highly capable, fully managed Global Local Area Network (GLAN) in 42 different sites across the world.

Using a project management approach based on PMI standards:

- **Workshops were conducted with suppliers** to agree on the needed resources listed in the resource management plan.
- Part of the project **budget was dedicated for a walkthrough** of the customer's top priority sites.
- A **communication plan** was set to ensure timely and effective communication was established.
- A **formal change control process** was formulated.
- **Tailored project documentation** was created to report and control the progress of the delivery.
- A **tailored risk management plan** and an issue log were set to track all the risks and issues within the project.
- **Dependencies and impact** were measured.
- A regular **project analysis and a governance model** were set and agreed.
- The project team agreed to capture **lessons learned** regularly instead of documenting these at the end of the project.

……And more….

VODAFONE - RESULTS
ON-TIME PROJECT DELIVERY WITH COST SAVINGS

The first batch of customer site migrations to the new GLAN was delivered with a 90% success rate, and 100% of the sites migrated at the second attempt.

The Vodafone GLAN project was **successfully delivered on time** and ahead of the team's target completion dates.

Through the use of proven project management methodology standardized by PMI:

- The customer gave Vodafone a **10/10 Net Promoter Score (NPS).**
- Vodafone was **able to deliver the project on time**.
- Vodafone had **cost savings in the resources budget**.
- The project team **captured the lessons learned** to be used as a best practice for other future GLAN projects.
- Lessons learned sessions were conducted with the product team to share with them the best practice used for the GLAN product and what is its needs.

VODAFONE -   RESULTS (Contd.)
ON-TIME PROJECT DELIVERY WITH COST SAVINGS

"The project managers' skillful execution, which was aligned with PMI's standards, enabled the success of this project."
-Ahmed ElGedwany, Senior Customer Portfolio Lead

"Our project team worked with the customer to understand how the solution would benefit their business. Then using the PMI standards, they implemented the solution on time with high quality."
-Adam Hyde, Head of Customer Design & Delivery

Methodology and Tools Enhance Project Success

Several Researches provide a strong case for the conclusion that project success is influenced by:

- The level of knowledge, skills, and experience of the **project manager** and project team
- Appropriate and **consistent** use of project management **tools**, processes and **methodologies**
- Alignment of the outcomes of the project to **organization strategy**
- Managing the expectations of project stakeholders
- Appropriate, timely and consistent **involvement** by users and managers
- Timely management of **risk**.

Research of Jiang and Klein (1999); Lemon, Bowitz, Burn and Hackney (2002); Bourne and Walker (2003)

Critical Success Factors in Project Management
(Survey Findings − <u>essential</u> influence)

- Formal establishing of Project Manager (93% influence on project success).

- Project Manager competencies (88%).

- High authority of the Project Manager (85%).

- The project goal set in a clear and measurable way (90%).

- Formally establishing a project team (86%).

- Top management support for the project (84%).

- Examples of other CSF (<u>large</u> influence) – competence of the project team, effective communication procedures, monitoring and change control, risk management…

Critical Success Factors in Project Management, Spalek S., 2005 (Survey with 82 experts)

Project Manager as Integrator, Facilitator and …..
(shall be revisited)

!?

Project Management Tools & Techniques

Coordination (people and processes)

Prioritization (resources, activities)

Stakeholder identification and **engagement**

Decisive

Check & Balance

Monitor & Control (all aspects)

Emphasize **business goals**

Risks & Opportunities management

Focus on delivery of **value** and benefits

Allow professionals to focus on their job

See the whole picture and light the black spots

Team Player with added value and **accountability**

Need to agree on R&R

Cause of Project Failures

Source :2017, PMI, Pulse of the Profession ®

- Inaccurate requirement gathering (39%)
- Inaccurate cost estimates (28%)
- Undefined opportunities and risks (27%)
- Inaccurate task time estimates (26%)
- Inadequate resource forecasting (23%)

How can we do it better ?

Poor Planning, M&C, And Integration Management

Causes of Project Failures − How can we do better ?

- **Requirement gathering** − not only from "contract" or "management document"

- **Inaccurate cost estimates** − what are the tools & techniques to make better and updated estimates, for different situations

- **Undefined opportunities and risks** − how can we manage risks and opportunities effectively and efficiently ?

- **Inaccurate task time estimates** - ….. *

- **Inadequate resource forecasting** - …..*

- And much more (better **reserves allocation and management**… **managing stakeholder satisfaction**… **cost of quality**…) *

* How can we do it right ?

RBS
PROJECTS

What is PMI® ?

PMI is the world's largest not-for-profit membership association for the project management profession. Methodology is based on **shared practical experiences**.

Executive Offices in the **USA**

Website **www.pmi.org**

Established **1969**

A global organization - chapters in **210+ countries** **300+ chapters**

660,000+ members in different industries worldwide

Methodology

- We are implanting the updated project management methodologies by the Project Management Institute (PMI®), the leading global organization for PM

- PMBOK® Guide is the formal body of knowledge for project management and the American standard (ANSI)

- Includes systematic tailored processes in 10 knowledge areas, and **simple Tools**

- We are also using the PMI's Disciplined Agile (DA) tool kit, the best practice of Agile mindset and methodologies

PMBOK® Knowledge Areas

Benefits of PMP ® Certification

- Gold standard of project management
- Globally valued and recognized
- Enhanced knowledge and project success
- Significant edge in global job market, prerequisite for project management jobs of leading industries…
- Higher salary…

- Project Management Salary survey (by PMI), 2020
- Global Knowledge IT Skills and Salary Report, 2020
- Robert Half Salary Guide
- Indeed.com Salary Data

Project Management and Tailoring

Tools

- Templates
- Updated work PM Toolbox
- PM Portal
- Dashboards
- Workflows

Methodology

- Best Practice
- Processes
- PMP® & PMBOK®

Implementation

- Training
- Coaching
- Knowledge Leaders
- PMO
- PM-COE

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PMBOK 6th & 7th Edition
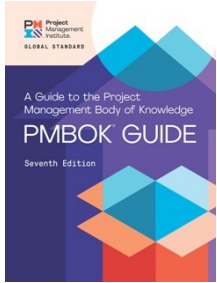
- **People**
- **Process**
- **Business**

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LEAN

PMBOK® Guide – Sixth Edition

A Guide to the Project Management Body of Knowledge:

- Introduction, Project Environment, and Role of the Project Manager
- Knowledge Areas
  - Integration
  - Scope
  - Schedule
  - Cost
  - Quality
  - Resources
  - Communications
  - Risk
  - Procurement
  - Stakeholders

The Standard for Project Management:

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

Appendixes, Glossary, and Index

+

PMBOK® Guide – Seventh Edition

The Standard for Project Management:

- Introduction
- System for Value Delivery
- Project Management Principles
  - Stewardship
  - Team
  - Stakeholders
  - Value
  - Systems Thinking
  - Leadership
  - Tailoring
  - Quality
  - Complexity
  - Risk
  - Adaptability and Resiliency
  - Change

A Guide to the Project Management Body of Knowledge:

- Project Performance Domains:
  - Stakeholders
  - Team
  - Development Approach and Life Cycle
  - Planning
  - Project Work
  - Delivery
  - Measurement
  - Uncertainty
- Tailoring
- Models, Methods, and Artifacts

Appendixes, Glossary, and Index

PMIstandards+™ Digital Content Platform

- The platform links to the *PMBOK® Guide* via the Models, Methods, and Artifacts section while further expanding on that content.
- Platform incorporates content from all PMI standards as well as content developed specifically for the platform.
- Content reflects "how to…" in actual practice, including emerging practices.

RBS PROJECTS

PROJECT MANAGEMENT: INTRODUCTION

Project

Temporary endeavor undertaken to create a unique product, service, or result

Product

An artifact that is produced, is quantifiable, and can be either an end item, or a component item

Value

The worth, importance, or usefulness of something
Business Value: The net quantifiable benefit derived
from a business endeavor

(Tangible/Intangible)

Project Business Case

A documented economic feasibility study used to establish the validity of the benefits of a selected component lacking sufficient definition and that is used as a basis for the authorization of further project management activities.

Market Analysis

Business needs

Alternatives Evaluation

Recommendations

Program

Related projects, subsidiary programs, and program activities that are managed in a coordinated manner to obtain benefits not available from managing them individually
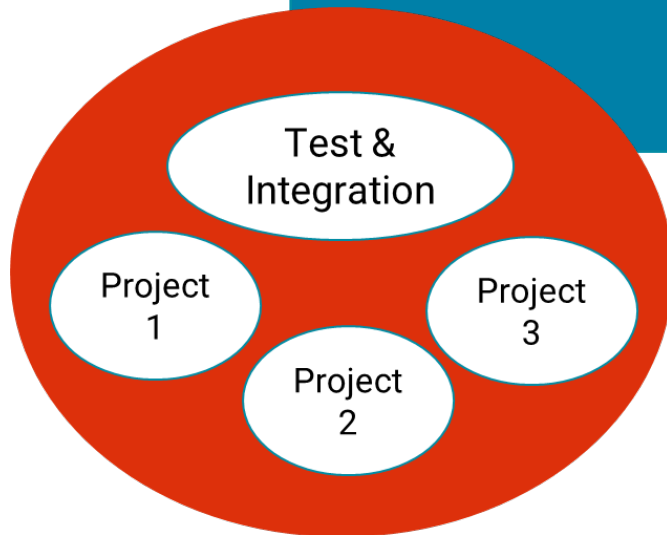
Portfolio

Projects, programs, subsidiary portfolios and operations managed as a group to achieve a strategic objectives
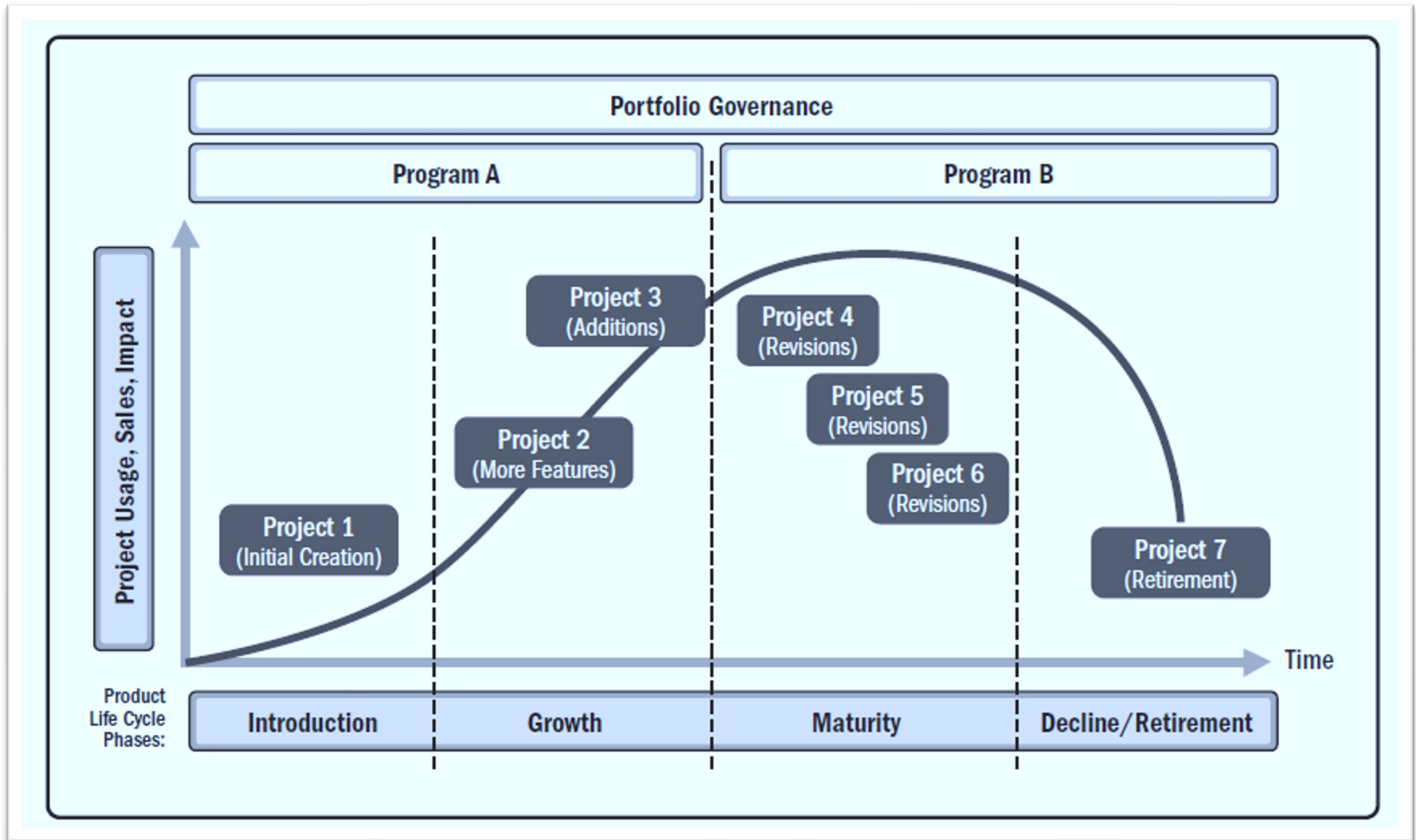
| Technology | Product | Customer | Vendor | Geography |

Product Life Cycle Management

Project Constraints

Cost

Scope

Time

Resources

Risk

Quality

Stakeholders
Satisfaction

And more….

Project Manager

The person assigned by the performing organization to lead the team that is responsible for achieving the project objectives

Accountability

PMI ® Talent Triangle - Project Manager
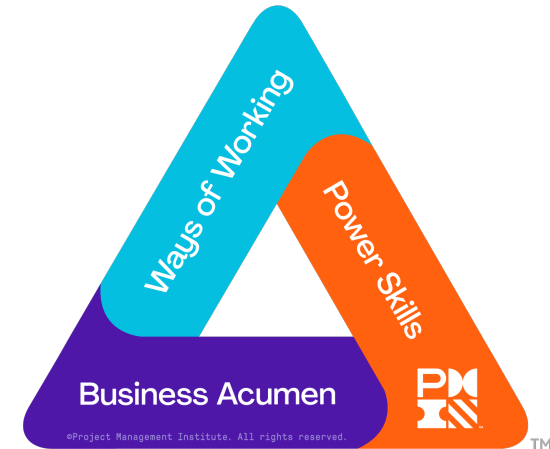
PM Knowledge Areas

PMI PMBOK 6th Ed.

- Integration
- Scope
- Schedule
- Cost
- Quality
- Resource
- Communication
- Risk
- Procurement
- Stakeholders

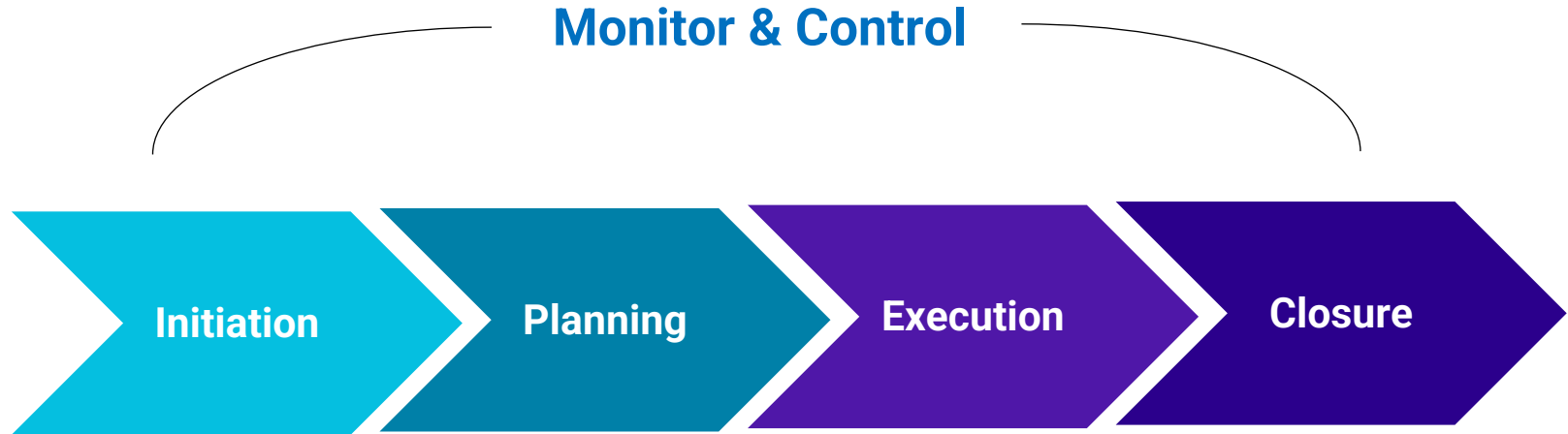**People, Process, Business**

PM Knowledge Areas

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- Integration
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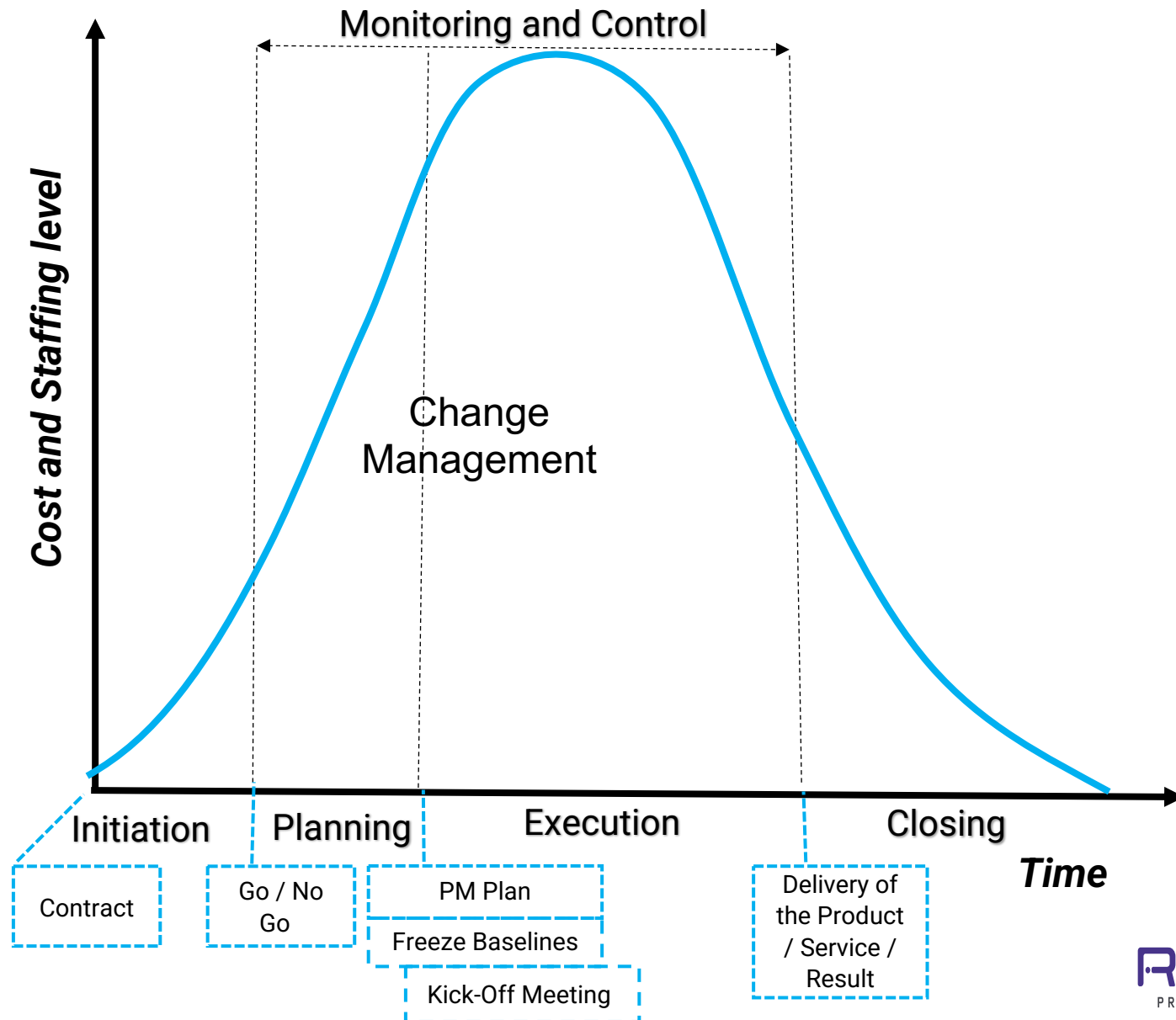- Resource
- Communication
- Risk
- Procurement
- Stakeholders

People, Process, Business

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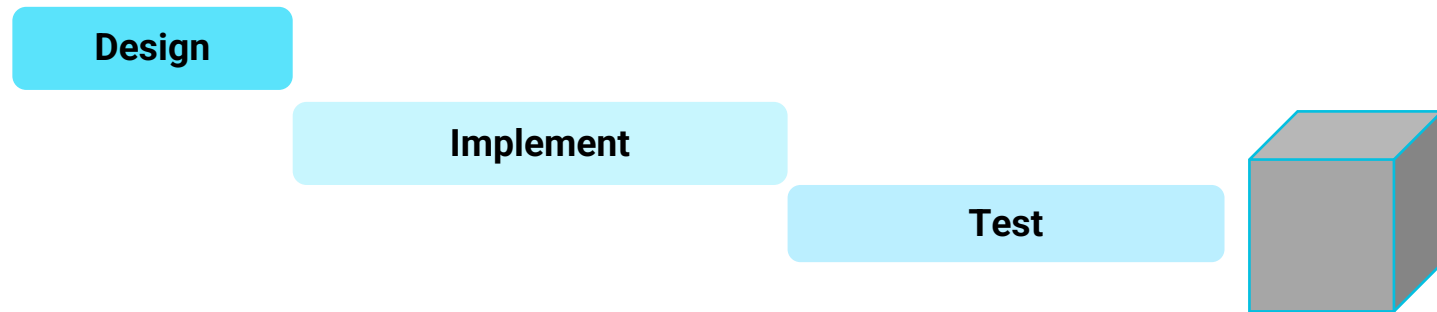# Generic Project Process Groups

PMI PMBOK 6th Ed.

Monitor & Control

| Initiation | Planning | Execution | Closure |

RBS PROJECTS

Schematic **Predictive** Project Life Cycle

Predictive vs Agile Life Cycle

Predictive/Waterfall

Design

Implement

Test

Adaptive/Agile
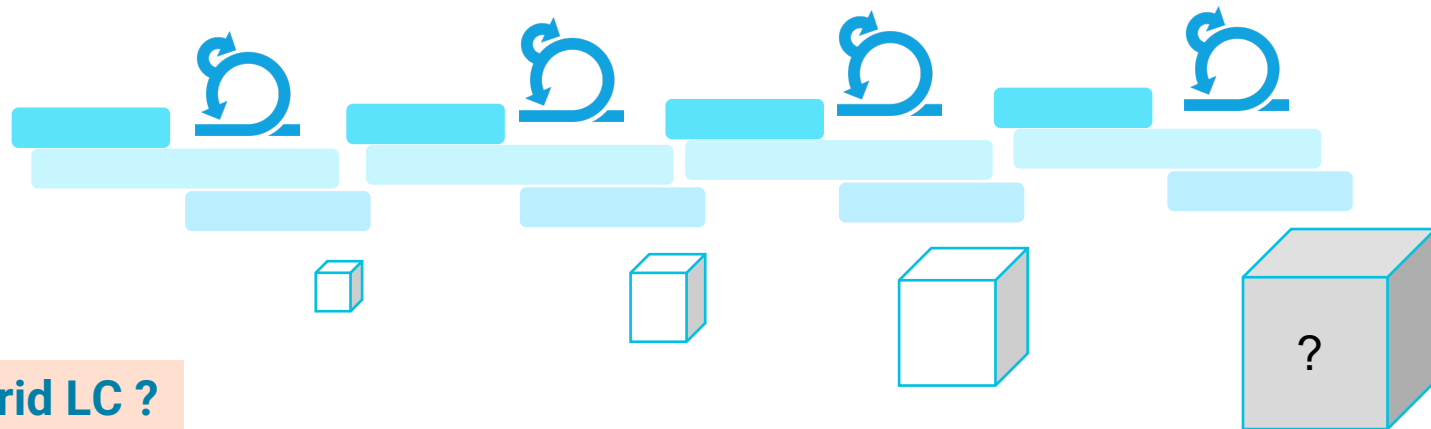
What about Hybrid LC ?

Project Influences


```
                    ┌─────────────────┐
                    │   Influences    │
                    └────────┬────────┘
         ┌───────────────────┴───────────────────┐
┌──────────────────────┐              ┌──────────────────────────┐
│ Internal Organizational│              │ Enterprise Environmental  │
│   Process Assets - OPAs│              │     Factors - EEFs        │
└───────────┬────────────┘              └────────────┬─────────────┘
    ┌────────┴────────┐                      ┌────────┴────────┐
┌──────────────┐ ┌──────────────┐      ┌──────────┐   ┌──────────┐
│ Processes,   │ │ Corporate    │      │ External │   │ Internal │
│ Policies, and│ │ Knowledge    │      └──────────┘   └──────────┘
│ Procedures   │ │ Base         │
└──────────────┘ └──────────────┘
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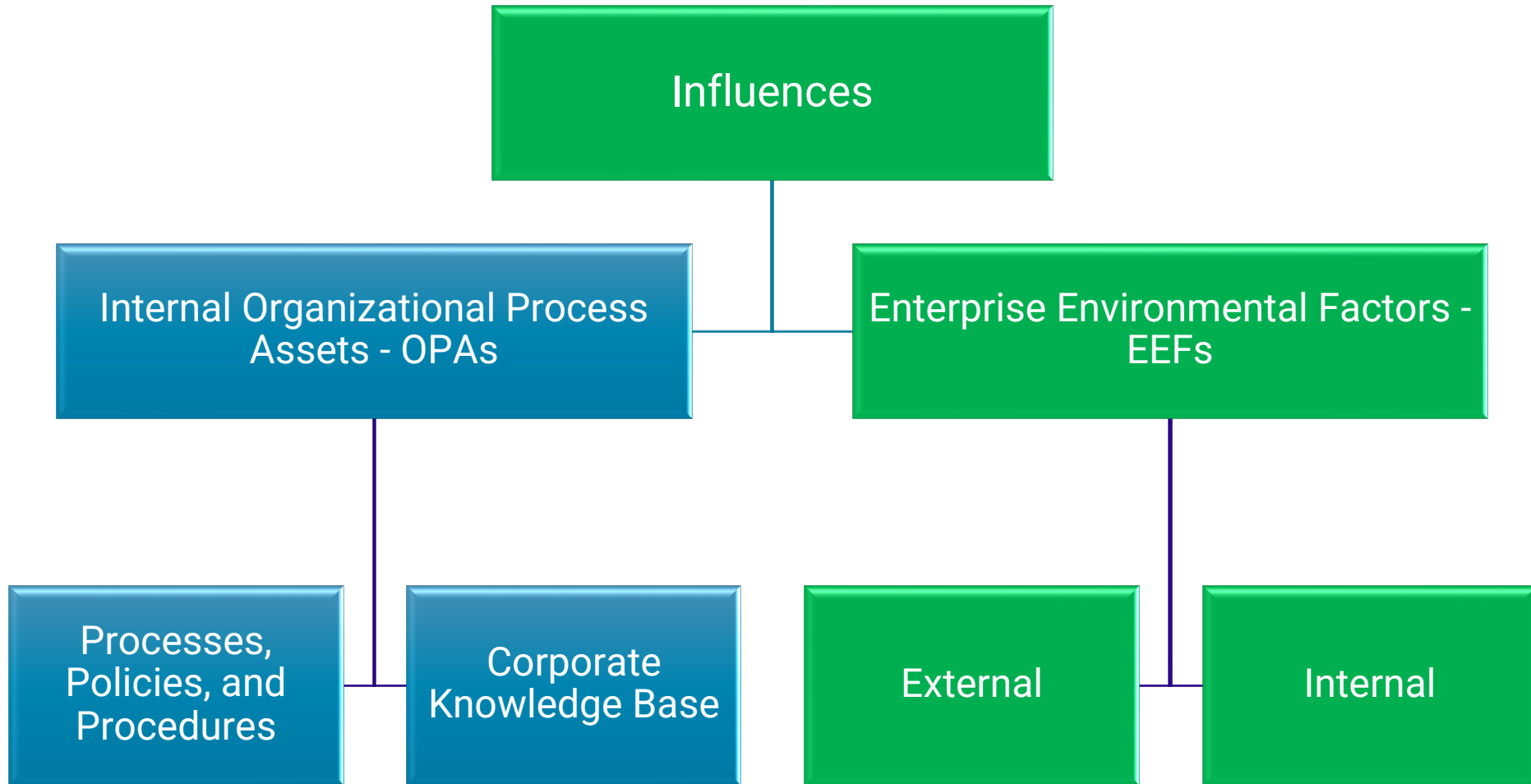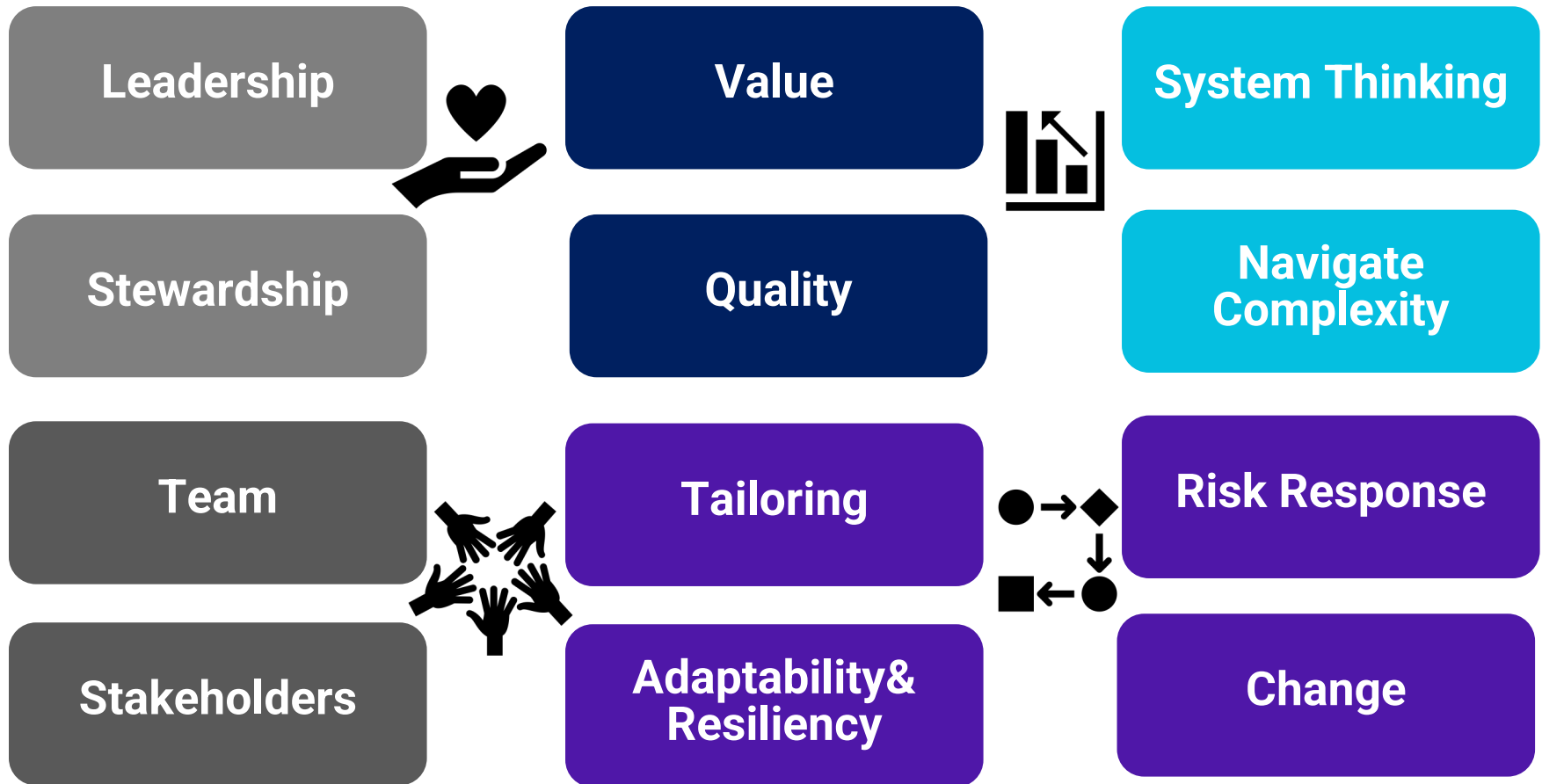
"Change is The Only Constant…"

Enterprise Environmental Factors (EEFs)

Internal	External
✓ Organizational culture, structure, and governance	✓ Marketplace conditions
✓ Geographic distribution of facilities and resources	✓ Social and cultural influences and issues
✓ Infrastructure	✓ Legal restrictions
✓ Resource availability	✓ Commercial databases
✓ Employee capability	✓ Academic research
✓ And more…	✓ Government or industry standards
	✓ Financial considerations
	✓ Physical environmental elements

Check the PESTLE
Political, Economical, Social, Technological, Environmental, Legal and more…

Project Management Principles

|		
Leadership	**Value**	**System Thinking**
Stewardship	**Quality**	**Navigate Complexity**
Team	**Tailoring**	**Risk Response**
Stakeholders	**Adaptability& Resiliency**	**Change**

Project Management Principles - Implementation

1. Be a diligent, respectful and caring **steward**

2. Recognize, evaluate and respond to **system** interactions

3. Navigate **complexity**

4. Create a **collaborative** project team environment

5. Demonstrate **leadership** behaviors

6. Optimize **risk responses**

7. Effectively engage with **stakeholders**

8. **Tailor** based on context

9. Embrace **adaptability** and resiliency

10. Focus on **value**

11. Build **quality** into processes and **deliverables**

12. Enable **change** to achieve the envisioned **future state**

Project Performance Domains

Development approach & Lifecycle
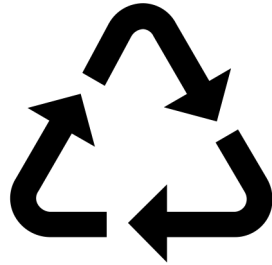
Planning
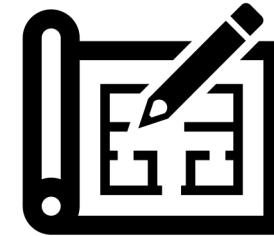
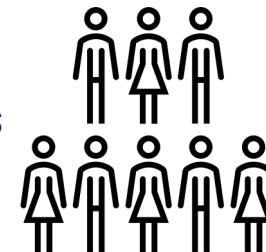**Project Work**　　**Uncertainty**　　**Measurement**　　**Delivery**

Team

Stakeholders

12 Agile Principles

- **Customer satisfaction** by early and continuous delivery of valuable software
- **Welcome changing requirements**, even in late development
- Working software is **delivered frequently** (weeks rather than months)
- Close, daily **cooperation** between business people and developers
- Projects are built around **motivated individuals**, who should be trusted
- **Face-to-face conversation** is the best form of communication (co-location)
- **Working software** is the primary measure of progress
- Sustainable development, able to maintain a **constant pace**
- Continuous attention to technical **excellence** and good design
- **Simplicity**—the art of maximizing the amount of work not done—is essential
- Best architectures, requirements, and designs emerge from **self-organizing teams**
- Regularly, the team reflects on how to become more **effective**, and adjusts accordingly

Agile - "Big Picture"

Agile = Mindset

AGILE IS A **MINDSET**

DESCRIBED BY **4 VALUES**

DEFINED BY **12 PRINCIPLES**

MANIFESTED THROUGH **UNLIMITED NUMBER OF PRACTICES**

Being Agile

Doing Agile

Mindset   Values   Principles   Practices

Tailoring Project Management for Extreme Uncertain Environment

- **Focus** on early **delivery** – the "MUST" features, MBI.

- **Communicate** with stakeholders, **support** team members.

- **Consult** with SMEs.

- Planning - detailed plan for short terms/sprints, subject to adjustable high level plan and roadmap

- Risk Management – more **monitoring** and reviews, optimize reserves, risk response - contingency plans & mitigation, **avoid** "low value" requirements.

- Opportunity Management – be proactive, share.

- Embrace innovation

MoSCoW

Kanu

VUCA

PESTLE

Tools (Examples) – Managing Team and Stakeholders (need to update in times of increased uncertainty)

RACI Chart - **update**

	Project Manager	Engineering Manager	Quality Assurance Manager	Purchasing Manager	Manufacturing Manager
Create blueprints	A	R	C		C
Man. circuit board	I	A	C		R
Test circuit board	I	R	A		C
Order components	C	C	I	R	A
Assemble	I	C	C		A, R

Stakeholder Analysis

Power/Interest grid
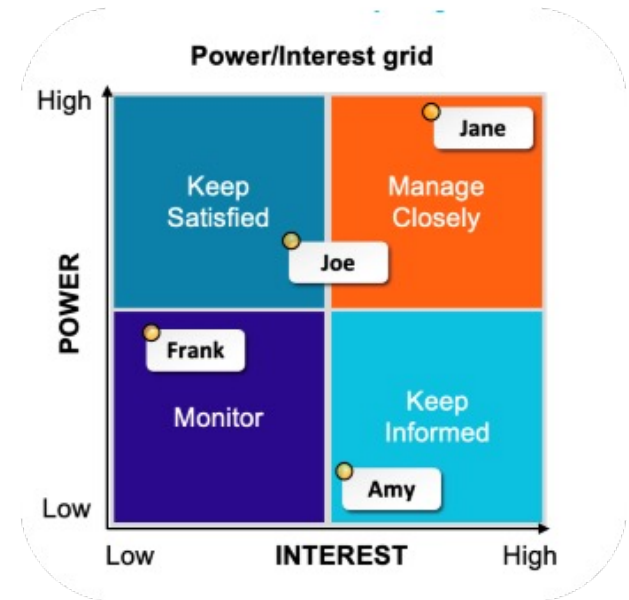
STAKEHOLDER REGISTER

| Name	Organization	Project Role	Major Requirements	Expectations	Influence	Areas of Interest	Internal/External	Supporter?
Linda Michaels	CEO	Sponsor	Budget, schedule, quality	Community involvement	Major	Community	Internal	Yes
Ron Gordon		Mortgage lenders		Growth	Major	Development	External	Yes
	Community		Neighborhood improvements		Minor	House	External	Yes
Andrews family		Homeowners		Engage family and friends				Yes
	Lumber warehouse	Vendor			Major	Locally sourced supplies		
		Project Manager		Project goes as planned	Major	All	Internal	Yes

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Tools (Examples) − Managing Scope, Communication….
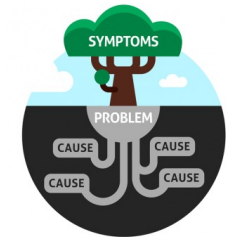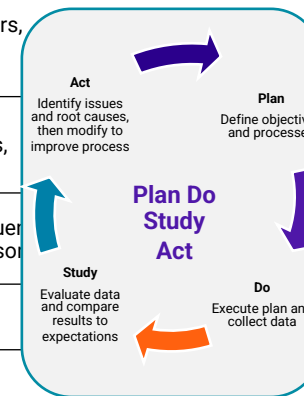
Work Breakdown Structure (**WBS**)

Issue Log

ID	Description	Opened	Due Date	Priority	Owner	Response	Status	Comments
25	Truck strike	10/15/20xx	11/01/20xx	High	R. Smith	TBD	Open	Tasks are on the critical path
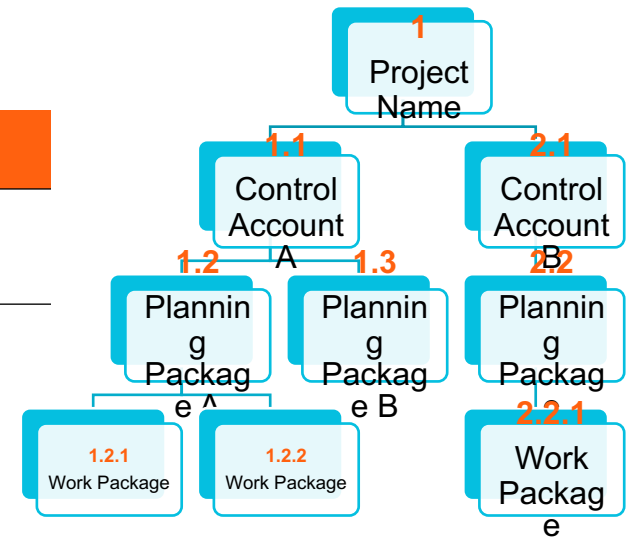
Communication Management Plan

Communication	Frequency	Responsibility	Stakeholder	Notes
Project Kickoff Meeting	Start of project	PMO	Key Stakeholders	Both team and client kickoff meetings recommended
Executive Steering Committee	Monthly – first Wednesday of each month	Account Manager	Client Executive	Review status, milestones met, earned value indicators, key issues
Status Meetings Status Report (Email)	Weekly – Friday 2 p.m.	Project Manager	Client Sponsor	Review project status, schedule, change requests, issues
Status Meetings	Weekly – Friday 11 a.m.	Project Manager	Development Team	Provides input for subsequent meetings with client sponsor
Newsletter (Email)	Weekly – Friday	PMO	Client Managers	
Client Satisfaction Survey	Monthly/end of each phase	Account Manager/Project Manager	Client Sponsor/Key Client Stakeholders	Informal (Monthly) Formal (End of each phase)

WBS diagram:

- 1 Project Name
  - 1.1 Control Account A
    - 1.2 Planning Package A
      - 1.2.1 Work Package
      - 1.2.2 Work Package
    - 1.3 Planning Package B
  - 2.1 Control Account B
    - 2.2 Planning Package
      - 2.2.1 Work Package

Plan Do Study Act cycle:
- **Plan** – Define objectives and processes
- **Do** – Execute plan and collect data
- **Study** – Evaluate data and compare results to expectations
- **Act** – Identify issues and root causes, then modify to improve process

SYMPTOMS / PROBLEM / CAUSE

The 5 why technique

Let's Get to Work!

Thank You!

E-mail: HQ@RBSprojects.co.il

Office Phone: +972-52-7-33-77-77