



EASITRAIN Training Project Management – Part 1

March 19-20 2018
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enable2change

Contents Part 1

- Project, Project Management:
 - Definitions
 - Different approaches in Project Management
- Project Initiation:
 - Definition of project boundaries & context
 - Project stakeholder analysis: Stakeholder orientation as success factor
- Project Start:
 - List of Deliverables // Objects of consideration plan
 - Project objectives plan
 - Work breakdown structure

Contents Part 2 by Martina Huemann (Outlook)

- Project scheduling methods
- Resource and cost planning: overview
- Design of project organisations
 - The role of the project manager, project owner, project team members
 - Specific challenges and potentials of research projects
 - Project leadership in research projects
- Examples of research projects
- Summary and assignment for Vienna module

Working Approach

- ➊ Inputs, case studies
- ➋ Group works
- ➌ Feedback, reflections, discussions
- ➍ „Training on the Project“
 - Working situations as in real projects
 - Benefit for own practice
- ➎ Cyclic learning approach
 - Theoretical inputs
 - Application on „real“ cases
 - Common reflection
 - Further inputs
- ➏ Documentation: additional slides, flip charts

„Rules of Cooperation“

- 🕒 Acting in a respectful manner during co-operation between students, between students and lecturer (including being in time, etc.)
- 🕒 Accepting different “Englishes”
- 🕒 Applying active listening rules
- 🕒 Accepting feedback as learning chance
- 🕒 Addressing each other with family name (students and lecturer)
- 🕒 **NOT using electronic devices** (students will have dedicated time to document the results of the group works, respectively will do this as part of the homework)

...accepting co-responsibility for the „learning success“



Context Project

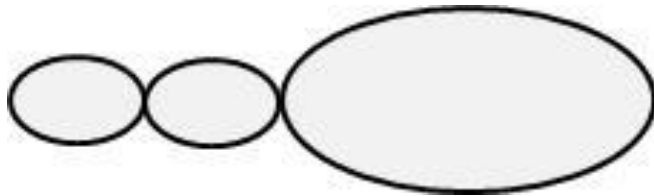
Project

- 2 "A project is a temporary endeavor undertaken to create a unique product, service, or result" (*PMBOK*® Guide, 2017:13)
- 2 "A temporary organization that is created for the purpose of delivering one or more business products according to an agreed Business Case." (PRINCE2, 2017:8)
- 2 "A project consists of a unique set of processes consisting of coordinated and controlled activities, with start and end dates, performed to achieve project objectives." (ISO 21500)

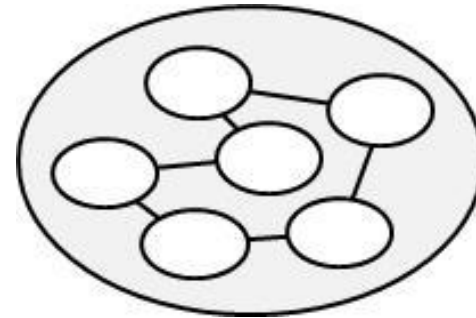
Project definition depending on the context: example

criteria	small project	project	programme
strategic relevance	low	average-high	high
duration	at least 2 months	4-18 months	at least 12 months
organizations (- units)	at least 2	at least 4	at least 7
internal ressources	at least 100 person days	at least 200 person days	at least 500 person days
costs	at least € 50.000	at least € 200.000	at least € 1.000.000

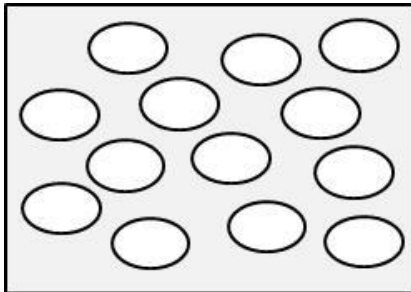
Possibilities to cluster projects and programmes



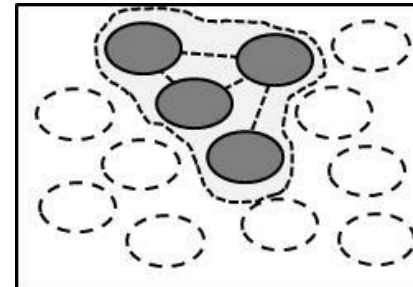
„A project chain is a set of sequential projects“



“A programme is a temporary organisation for the execution of a unique, medium to long term process of large scope that involves many organisational units“



“A project portfolio is a set of all projects and programmes in a project-oriented organisation at a given point in time“



“A project network is a subset of closely linked projects and programmes of the project portfolio“

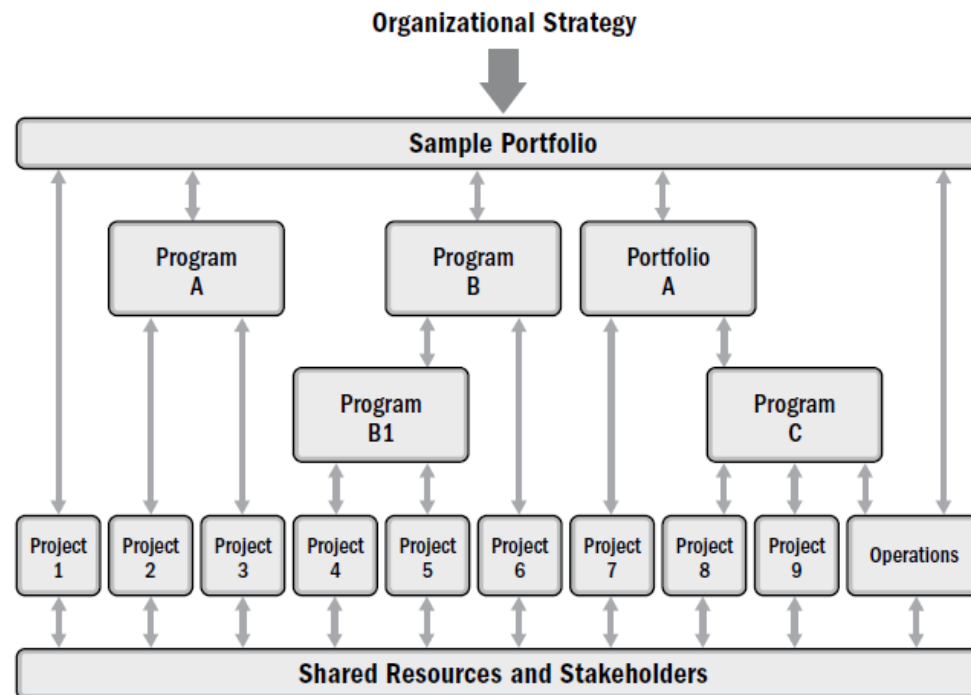
(pm baseline, 2009:7-10)

Project, Program & Portfolio

- 🔗 **Project** – A project is a temporary endeavor undertaken to create a unique product, service, or result
- 🔗 **Program** – A program is a group of related projects, subsidiary programs, and program activities that are managed in a coordinated manner to obtain benefits not available from managing them individually.
- 🔗 **Portfolio** – A portfolio is a collection of projects, programs, subsidiary portfolios, and operations managed as a group to achieve strategic objectives.

Definitions taken from Project Management Institute, A Guide to the Project Management Body of Knowledge (PMBOK® Guide), Sixth Edition, Inc., 2017: Page 13

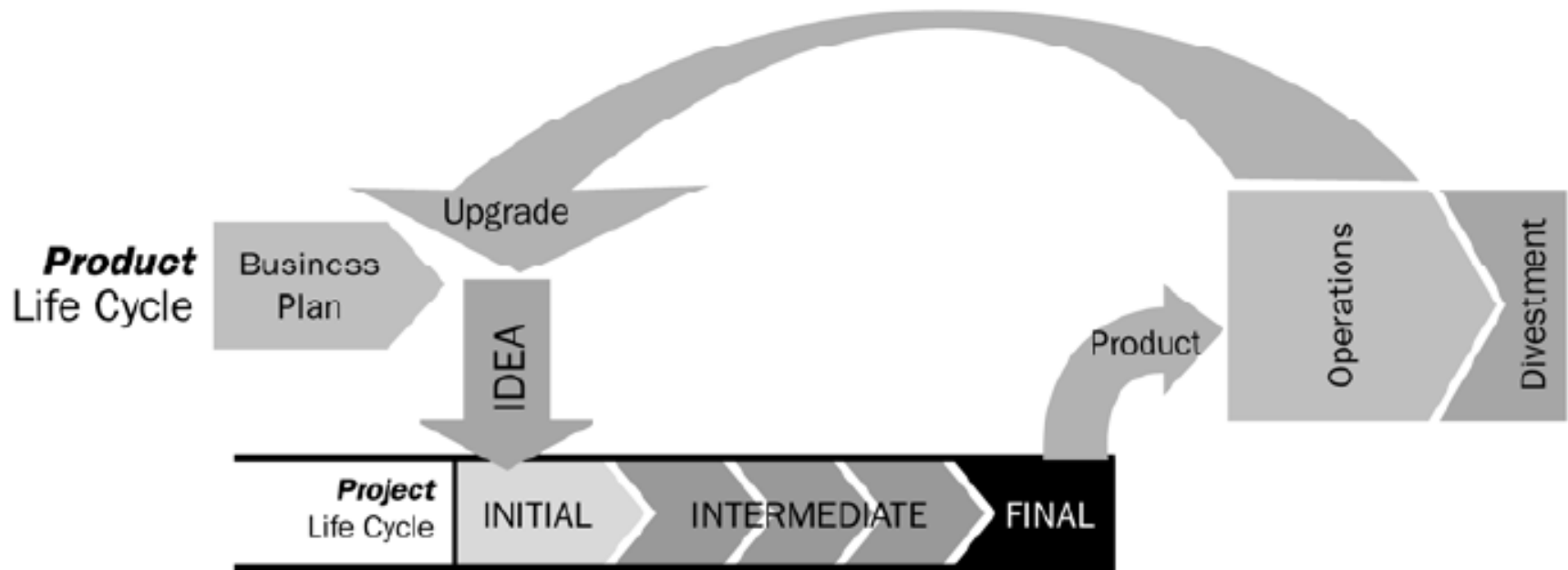
Project, Program & Portfolio



„Program and project management focus on doing programs and projects the „right“ way; and portfolio management focuses on doing the „right“ programs and projects.“

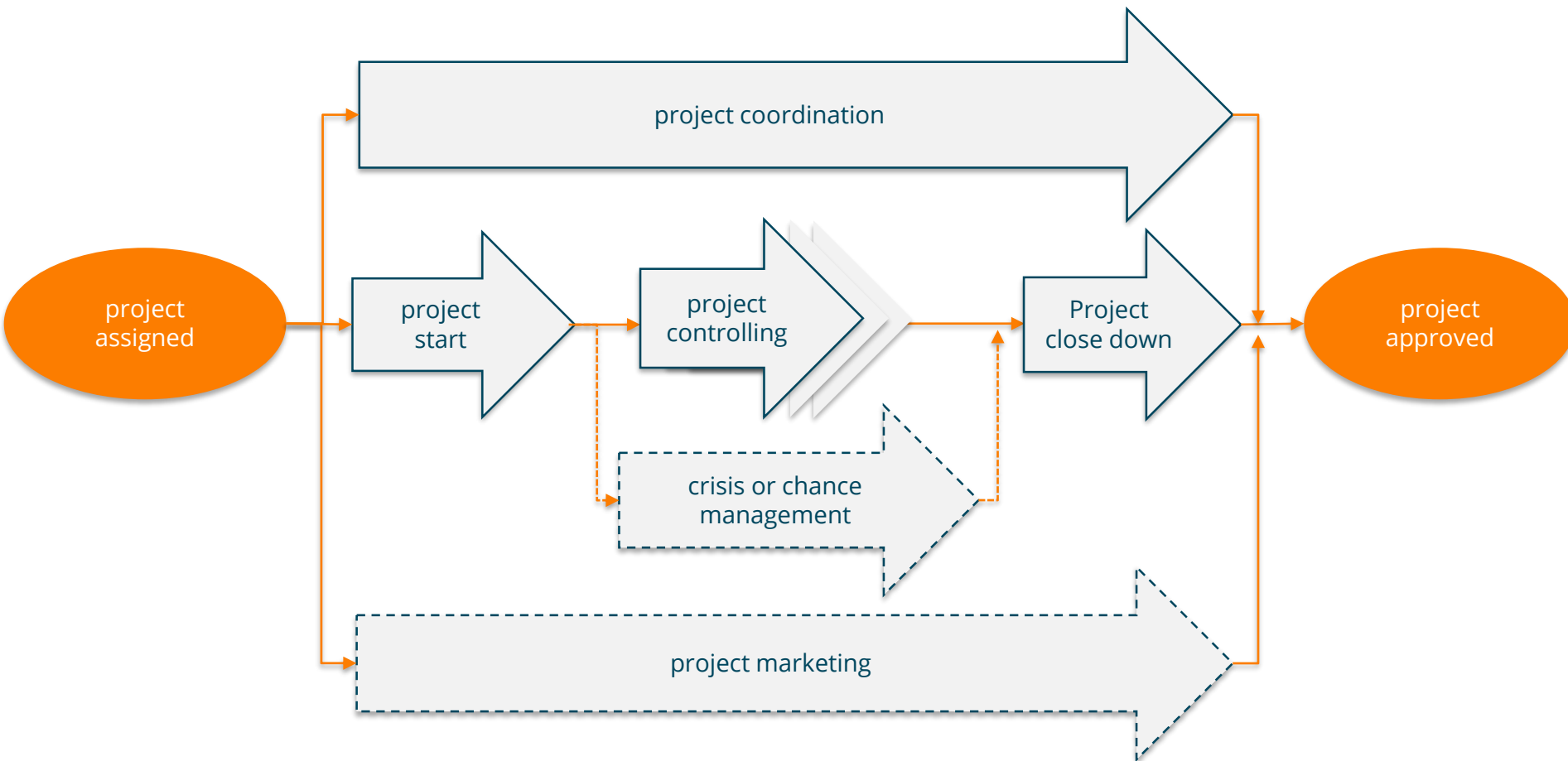
Project Management Institute, A Guide to the Project Management Body of Knowledge (PMBOK® Guide), Sixth Edition, Inc., 2017: Figure 1-3, Page 12

Product Life Cycle and Project Life Cycle



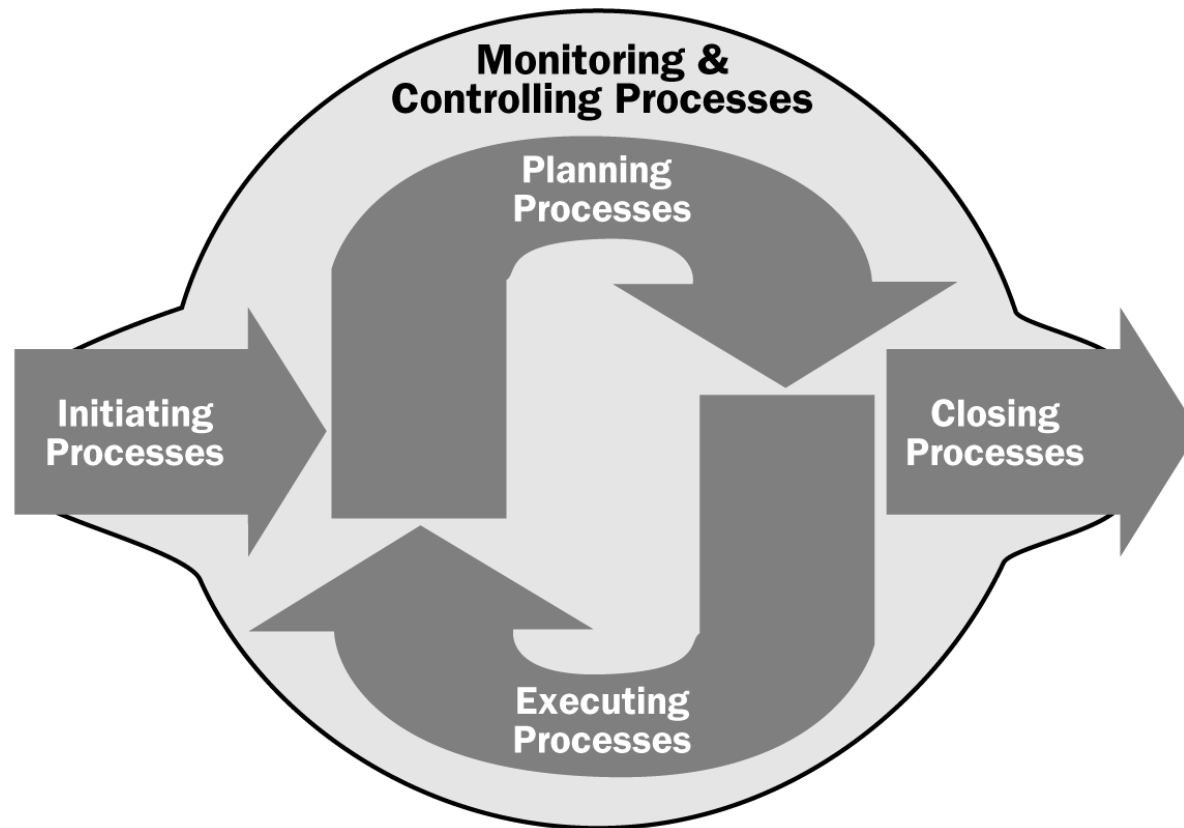
Project Management Institute, A Guide to the Project Management Body of Knowledge, (*PMBOK*® Guide) – Fourth Edition, Project Management Institute, Inc., 2008, Figure 2-6, Page 24

Project Management



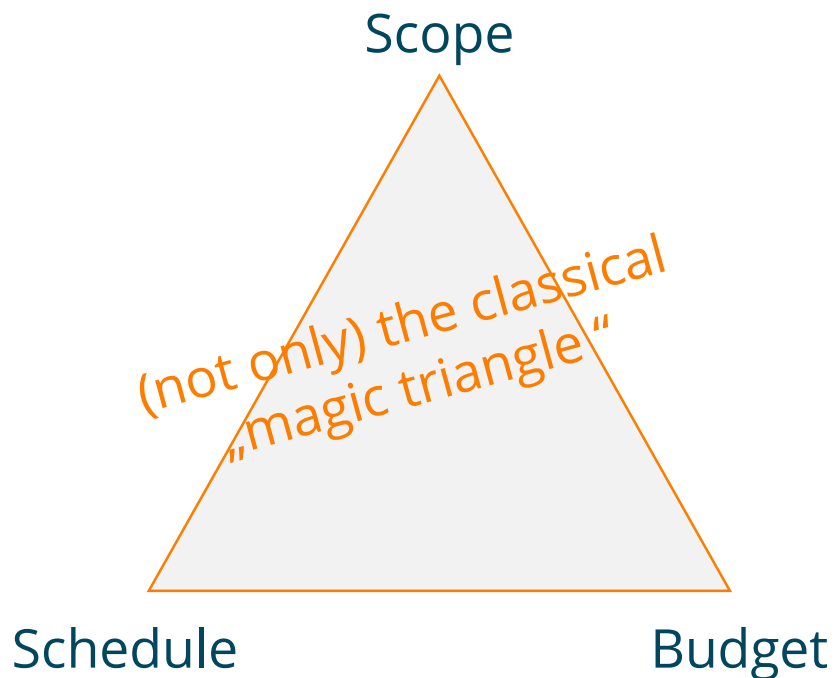
(cp. pm baseline, 2009:13)

Process Groups in a Project



Project Management Institute, A Guide to the Project Management Body of Knowledge, (*PMBOK*® Guide) – Fifth Edition, Project Management Institute, Inc., 2013, Figure 3-1, Page 50

Project Management: Objects of Consideration



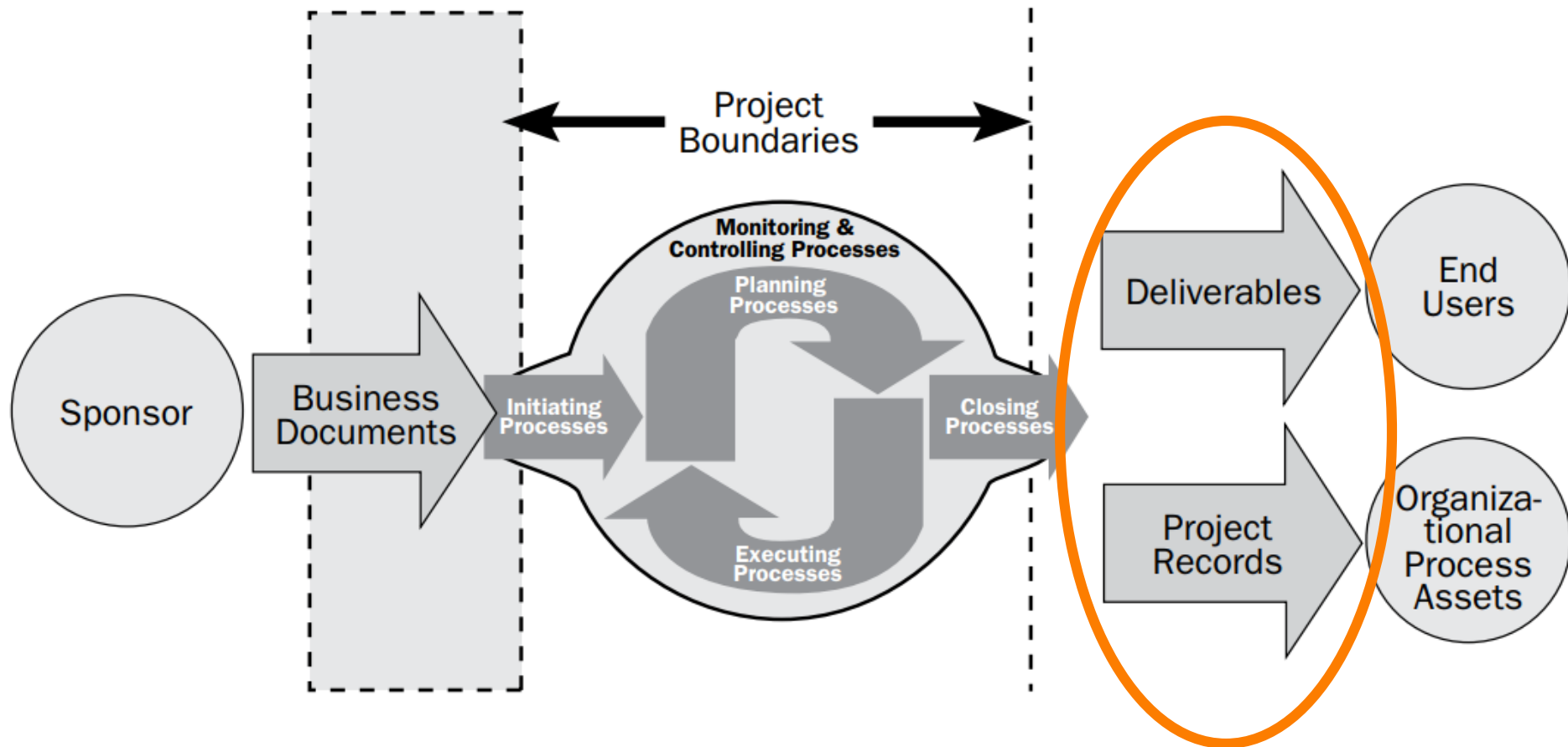
- ② Project structures
 - Objectives, scope, schedule
 - Resources, budget
 - Risks
 - Organization, culture
 - Personell
 - Infrastructure
- ② Project Context
 - Pre- and post project phase
 - Stakeholder
 - Other projects
 - Company strategies
 - Investment, Business Case

Knowledge Areas	Project Management Process Groups				
	Initiating Process Group	Planning Process Group	Executing Process Group	Monitoring & Controlling Process Group	Closing Process Group
Project Integration Management	<ul style="list-style-type: none"> Develop Project Charter 	<ul style="list-style-type: none"> Develop Project Management Plan 	<ul style="list-style-type: none"> Direct and Manage Project Work Manage Project Knowledge 	<ul style="list-style-type: none"> Monitor and Control Project Work Perform Integrated Change Control 	<ul style="list-style-type: none"> Close Project or Phase
Project Scope Management		<ul style="list-style-type: none"> Plan Scope Management Collect Requirements Define Scope Create WBS 		<ul style="list-style-type: none"> Validate Scope Control Scope 	
Project Schedule Management		<ul style="list-style-type: none"> Plan Schedule Management Define Activities Sequence Activities Estimate Activity Durations Develop Schedule 		<ul style="list-style-type: none"> Control Schedule 	
Project Cost Management		<ul style="list-style-type: none"> Plan Cost Management Estimate Costs Determine Budget 		<ul style="list-style-type: none"> Control Costs 	
Project Quality Management		<ul style="list-style-type: none"> Plan Quality Management 	<ul style="list-style-type: none"> Manage Quality 	<ul style="list-style-type: none"> Control Quality 	
Project Resources Management		<ul style="list-style-type: none"> Plan Resource Management Estimate Activity Resources 	<ul style="list-style-type: none"> Acquire Resources Develop Team Manage Team 	<ul style="list-style-type: none"> Control Resources 	
Project Communications Management		<ul style="list-style-type: none"> Plan Communications Management 	<ul style="list-style-type: none"> Manage Communications 	<ul style="list-style-type: none"> Monitor Communications 	
Project Risk Management		<ul style="list-style-type: none"> Plan Risk Management Identify Risks Perform Qualitative Risk Analysis Perform Quantitative Risk Analysis Plan Risk Responses 	<ul style="list-style-type: none"> Implement Risk Responses 	<ul style="list-style-type: none"> Monitor Risks 	
Project Procurement Management		<ul style="list-style-type: none"> Plan Procurement Management 	<ul style="list-style-type: none"> Conduct Procurements 	<ul style="list-style-type: none"> Control Procurements 	
Project Stakeholder Management	<ul style="list-style-type: none"> Identify Stakeholders 	<ul style="list-style-type: none"> Plan Stakeholder Management 	<ul style="list-style-type: none"> Manage Stakeholder Engagement 	<ul style="list-style-type: none"> Monitor Stakeholder Engagement 	

Project Initiation



PMI: Project Boundaries



Project Management Institute, A Guide to the Project Management Body of Knowledge (PMBOK® Guide), Sixth Edition, Inc., 2017: Part 2 - The Standard for Project Management – Figure 2-1, Page 562

Project initiation

➤ Required decisions

- Investment: yes/no (fex via a business case analysis)
- In case of „yes“: adequate organization type (permanent organization, working group, small project, project, project network, programme)

➤ In case of a small project/project

- Nomination of a project sponsor, project manager
- Description via a definition of the project boundaries and context (project proposal)
- Formal assignment via signature (project assignment)

Project Assignment

- ➊ Analysis of the project boundaries and the project context for the common development of the „big project picture“
 - Time related
 - Boundaries: project start date, project end date
 - Context: pre- and post-project phase
 - Scope related
 - Boundaries: project objectives, non objectives, deliverables, project budget
 - Context: relations to company strategies, relation to other projects, business case objectives
 - Social related
 - Boundaries: project roles
 - Context: project stakeholders

- ➋ Project proposals and assignments are adapted to company standards

Project Assignment: Example

PROJECT ASSIGNMENT „concept and first implementations in a transformation“	
Project start date	Project end date
15.01.2014	12.12.2014
Objectives of the project	
<ul style="list-style-type: none"> • Potentials for a re-structuring of the organisation (respectively organisational units) analysed • An implementable concept for the re-structuring of the organisation developed and decided, in alternatives and with the following foci: <ul style="list-style-type: none"> ○ Strategies ○ Clients and marks ○ Services, products and technologies ○ Organisational structure (organisation chart, processes) ○ Personell structure ○ Infrastructure (facilities, IT, telecommunication) ○ Finances, budget • Coordination of the concept with managers and relevant stakeholders performed, decisions concerning the concept induced • Acceptance by relevant stakeholders via appropriate communication and stakeholder engagement measures supported • First implementation measures for the new organisation performed • The next steps for the transformation of the organisation planned and agreed on • 	

(example taken from Zuchi, 2014:51-52)

Non-objectives of the project	
<ul style="list-style-type: none"> • Recruitment and lay-offs in the concept considered • New legal form designed • Detailed process description of the new or adapted processes made • 	
Relationship to the company strategies	
<ul style="list-style-type: none"> • speed, growth 	
Expected deliverables	
<ul style="list-style-type: none"> • Analysis document about the optimization potentials within the organisation • Concept for the new designed organisation • Decision for the next steps • Initial implementation successes • Communication events 	
Project sponsor	Project manager
<ul style="list-style-type: none"> • CEO 	<ul style="list-style-type: none"> • Head of the department „organisational development“
Project team	
<ul style="list-style-type: none"> • Project team member production • Project team member sales • Project team member marketing • Project team member finance/controlling • Project team member HR • Project team member employees representant 	

(example taken from Zuchi, 2014:51-52)

Project Initiation: Sustainable Development

- ➊ Consideration of sustainable development aspects in the formulation of the investment proposal **and** the project proposal
- ➋ Sustainable development „... a development that meets the needs of the present without compromising the ability of future generations to meet their own needs..“ (Our Common Future, 1987)
- ➌ Sustainable development principles
 - values-based
 - economic, ecologic, and social orientations
 - short-, mid-, and long-term orientations
 - local, regional, and global orientations
 - (Gareis/Huemann/Martinuzzi, 2013:39)

Project Initiation: Best Practice

- ➊ Clear differentiation between investment and project
- ➋ According to the complexity and level of knowledge: considering an own project for the initiation of a project (see the concept of project chains)
- ➌ Integration of relevant stakeholders in the project initiation
- ➍ Signature of the project assignment as symbolic act



Project Stakeholder Analysis

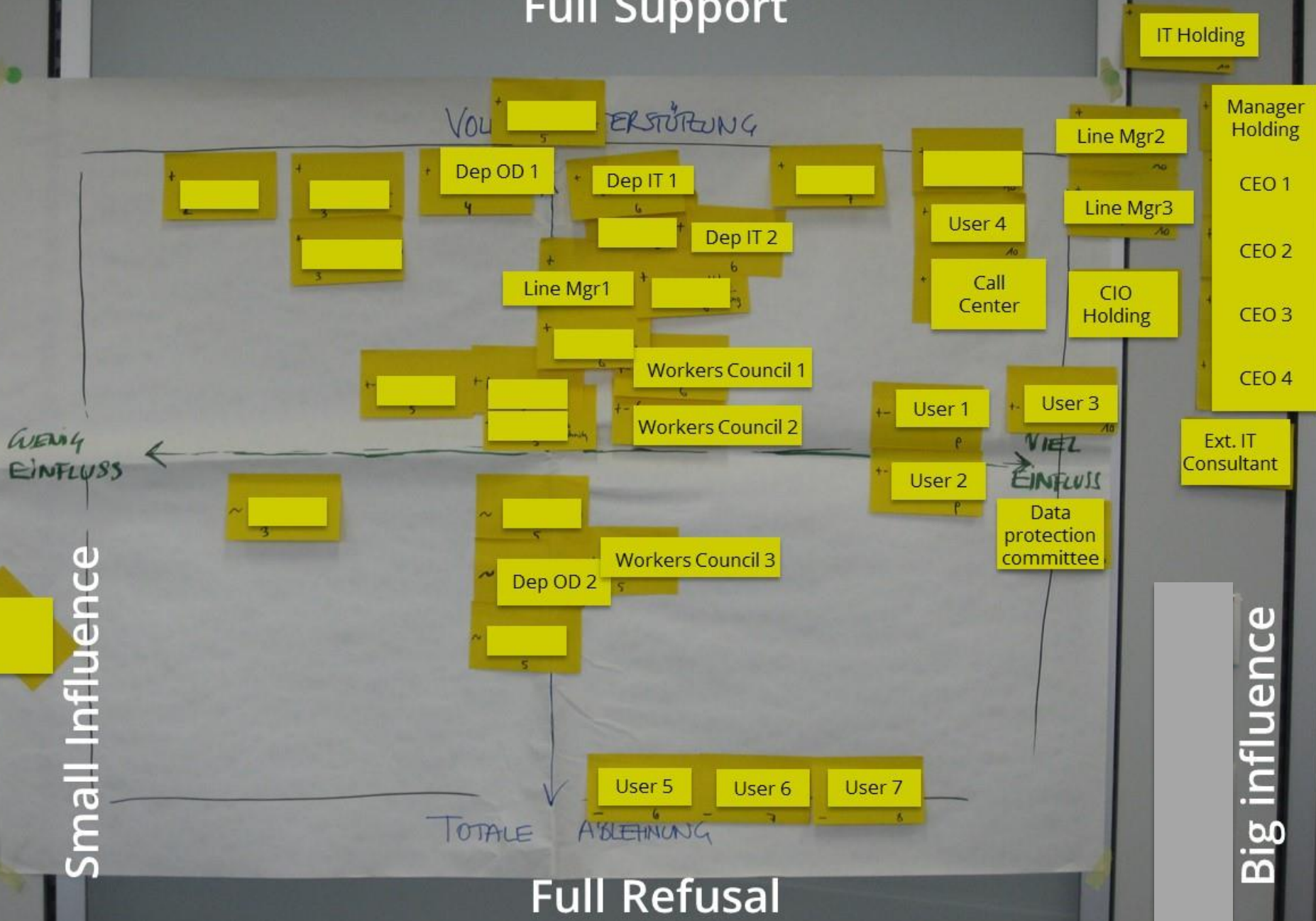
why shall we consider
stakeholders in projects?

why shall we consider
stakeholders in projects?

„Success means different things
to different people“

(Freeman and Beale)

Full Support



Small Influence

Big influence

Full Refusal

Project Stakeholders

- No project is an island, the interior processes of a project are influenced by its historical and **organizational context** (Engwall, 2003:789)

- “Person, group or organization that has interests in, or can affect, be affected by, or perceive itself to be affected by, any aspect of the project”
(Guidance on project management, ISO 21500:2012, First Edition 2012-09-01, page 2 & 7)

- Main Attitude (Freeman)
 - Management OF Stakeholder versus **Management FOR Stakeholder**
 - Stakeholder Management versus **Stakeholder Engagement**



Project Stakeholder Management

Table 1 — Project management processes cross-referenced to process and subject groups

Subject groups	Process groups				
	Initiating	Planning	Implementing	Controlling	Closing
Integration	4.3.2 Develop project charter	4.3.3 Develop project plans	4.3.4 Direct project work	4.3.5 Control project work 4.3.6 Control changes	4.3.7 Close project phase or project 4.3.8 Collect lessons learned
Stakeholder	4.3.9 Identify stakeholders		4.3.10 Manage stakeholders		
Scope		4.3.11 Define scope 4.3.12 Create work breakdown structure 4.3.13 Define activities		4.3.14 Control scope	
Resource	4.3.15 Establish project team	4.3.16 Estimate resources 4.3.17 Define project organization	4.3.18 Develop project team	4.3.19 Control resources 4.3.20 Manage project team	
Time		4.3.21 Sequence activities 4.3.22 Estimate activity durations 4.3.23 Develop schedule		4.3.24 Control schedule	
Cost		4.3.25 Estimate costs 4.3.26 Develop budget		4.3.27 Control costs	
Risk		4.3.28 Identify risks 4.3.29 Assess risks	4.3.30 Treat risks	4.3.31 Control risks	
Quality		4.3.32 Plan quality	4.3.33 Perform quality assurance	4.3.34 Perform quality control	
Procurement		4.3.35 Plan procurements	4.3.36 Select suppliers	4.3.37 Administer procurements	
Communication		4.3.38 Plan communications	4.3.39 Distribute information	4.3.40 Manage communications	

NOTE The purpose of this table is not to specify a chronological order for carrying out the activities. Its purpose is to map subject groups and process groups.

(Guidance on project management, ISO 21500:2012, First Edition 2012-09-01, page 10).

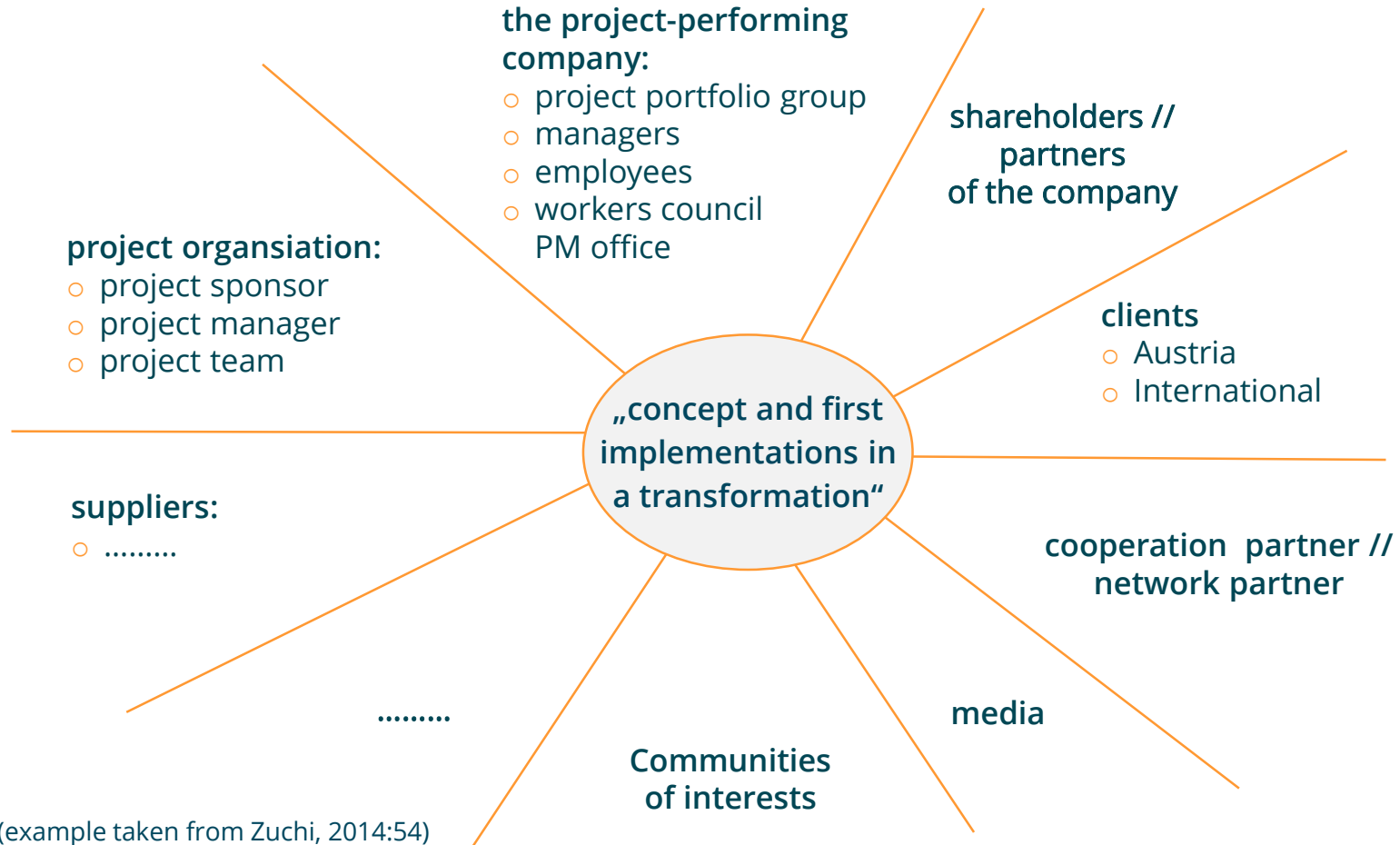
Project Stakeholder Analysis: Process

1. Identification and „understanding“ of all relevant stakeholders
 2. Evaluation of the attitude or relationship of particular stakeholders
 3. Development of measures to design the relationships (project communication / project marketing, organisational involvement)
-
- Basis for strategic project management and social project controlling
 - Related terms: relevant environment, interested parties

Short Videos: Stakeholder Management

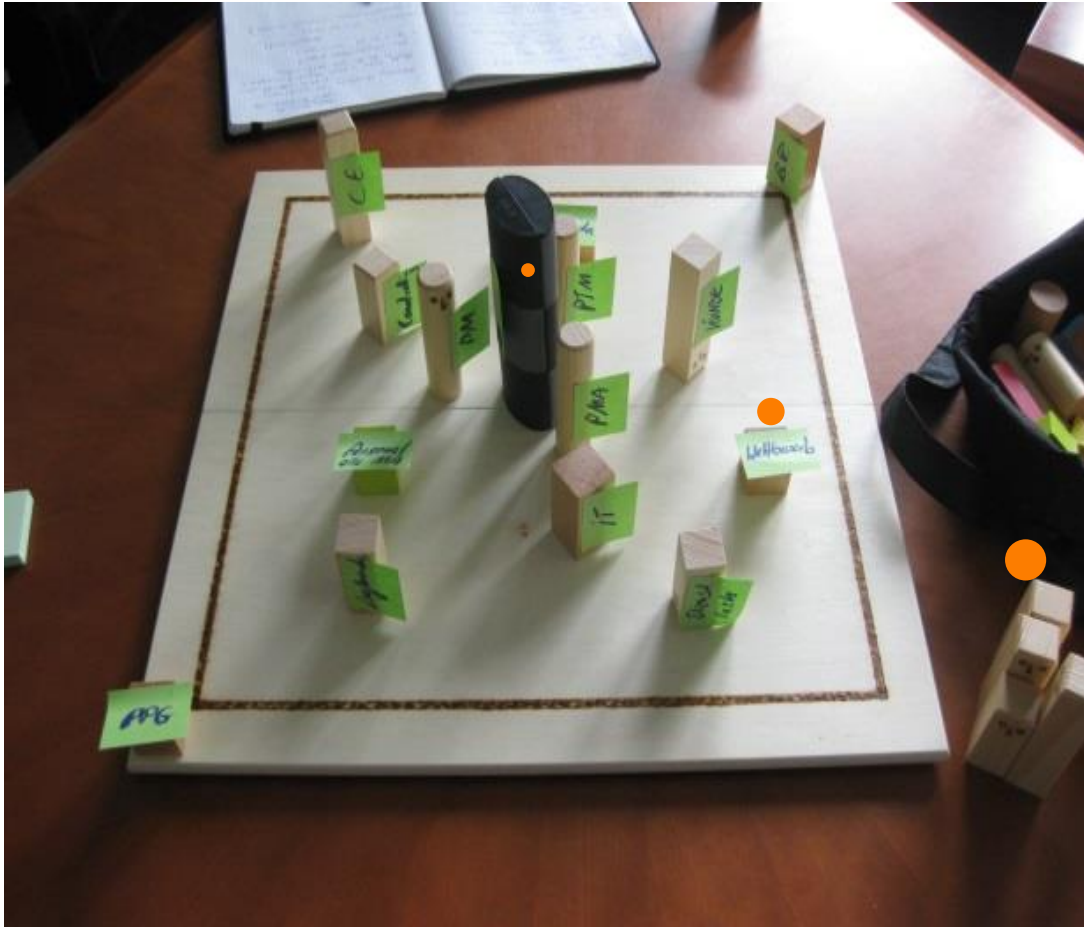
- ❖ What is stakeholder theory?
<https://www.youtube.com/watch?v=bIRUaLcvPe8>
- ❖ Stakeholders are people
<https://www.youtube.com/watch?v=keED9l3zVi8>
- ❖ What is stakeholder engagement?
<https://www.youtube.com/watch?v=VHGTSewbOJY>

Identification: Example (Depiction: Grid, "Bubbles", Segments

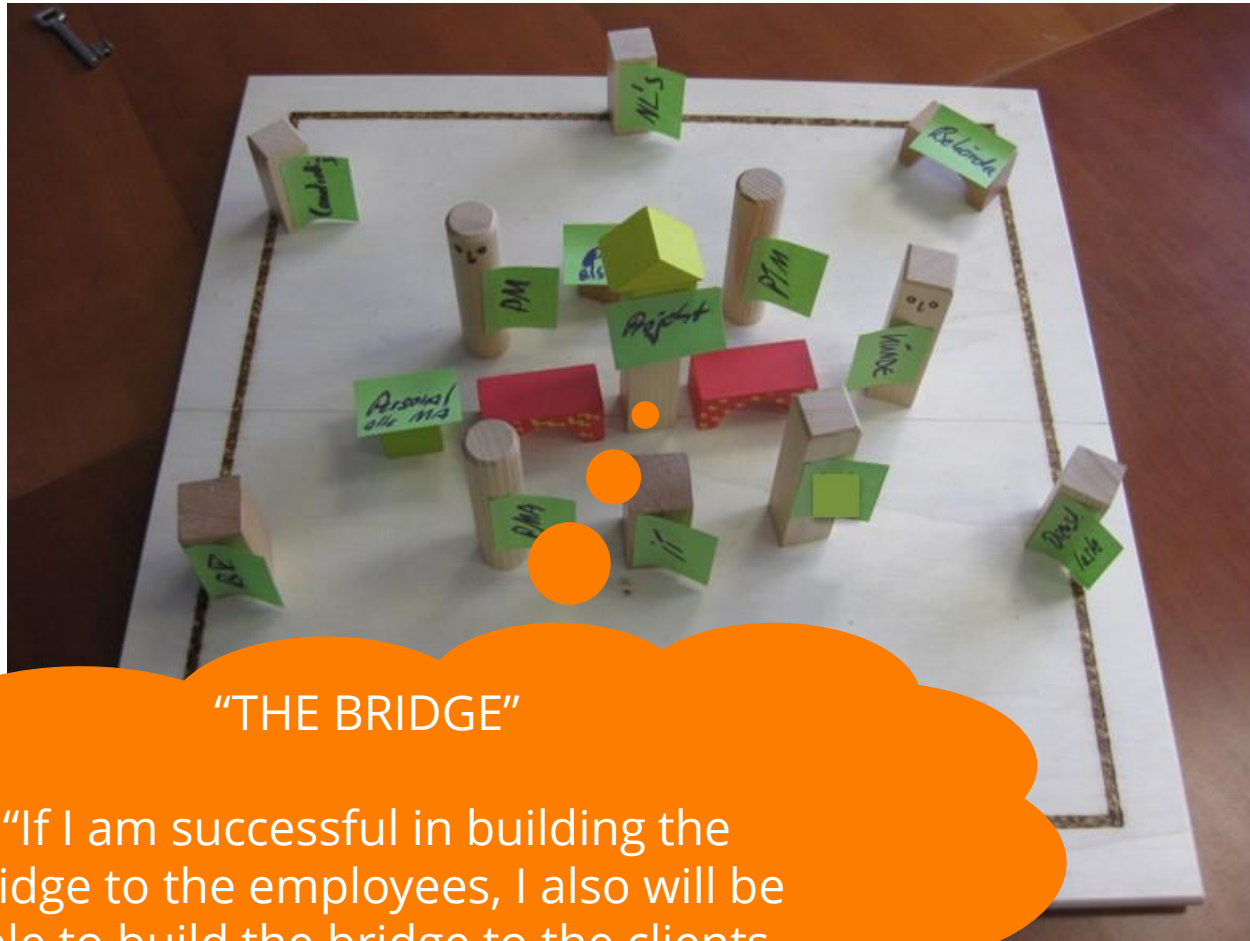


(example taken from Zuchi, 2014:54)

The stakeholder analysis with a systemic board



„This (the project)
is something BIG“

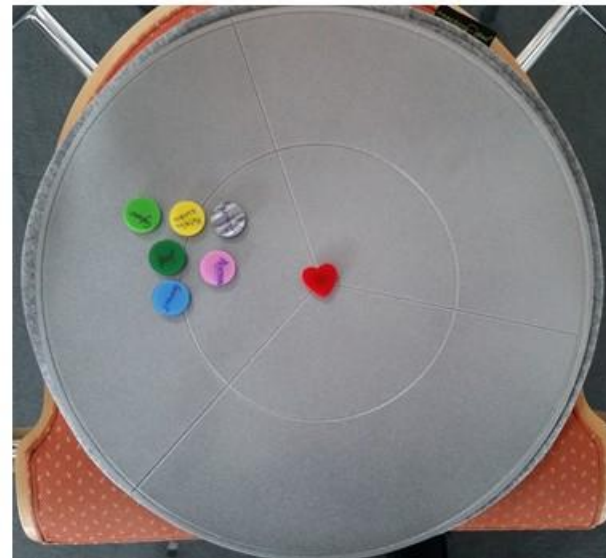
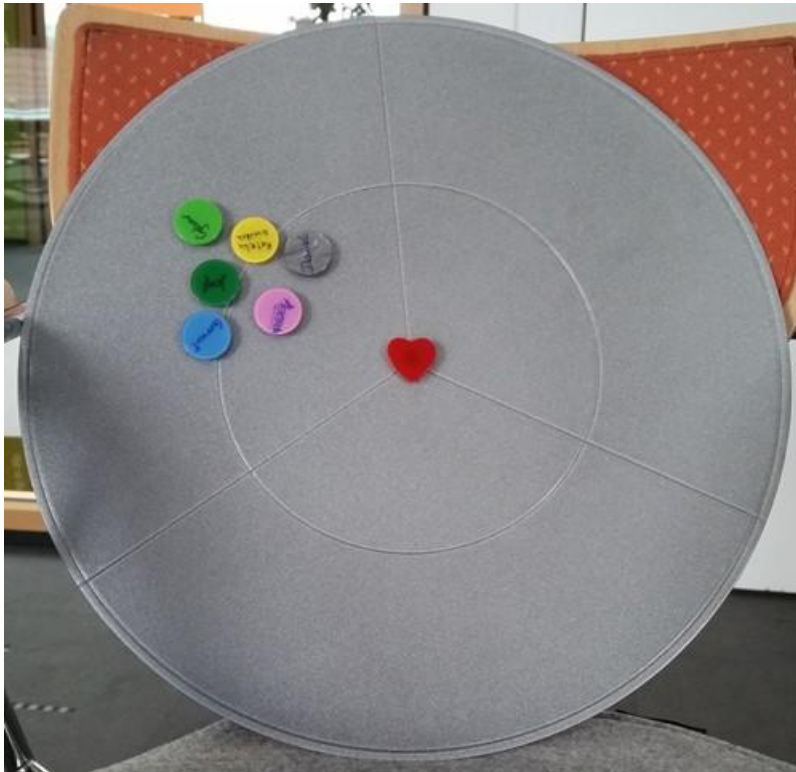


“THE BRIDGE”

“If I am successful in building the bridge to the employees, I also will be able to build the bridge to the clients. Then, the project will be successful”.

Coaching Disc

“The Project Team and its Context”



- red heart => the project sponsor,
„the strategic orientation of the company“

Development of Measures: Example

stakeholder	expectation towards the project	expectation towards the stakeholder	strategies	measures
employees	development of a common language and a common understanding about SCM (inter-divisional)	openness and interest (no constraints to ask questions or to contribute in the project work)	open communication and sufficient information spreading	as opening intervention: sending out an email to all employees of the company, and in parallel (for those not having access to the internet/emails) a publication on the bill-boards of the company, by the CEO/project sponsor and the project manager
	alleviation of the future work, and at the same time uncertainty that in the future more or less work has to be taken over	openness towards changes (employees AND line managers)	in the general project communication, this target group has to be especially respected and the communication has to be altered according to the phase in the change	creation of a specific monthly project-newsletter (electronically in German and English, and as print out for the bill-boards and the canteen)
	negative consequences and implications for the individual workplace (especially by those employees that are not actively involved in the project work) (= > the project stands for expected change in/for the company)	positive attitude towards the project		

(Huemann/Zuchi, 2014:409)

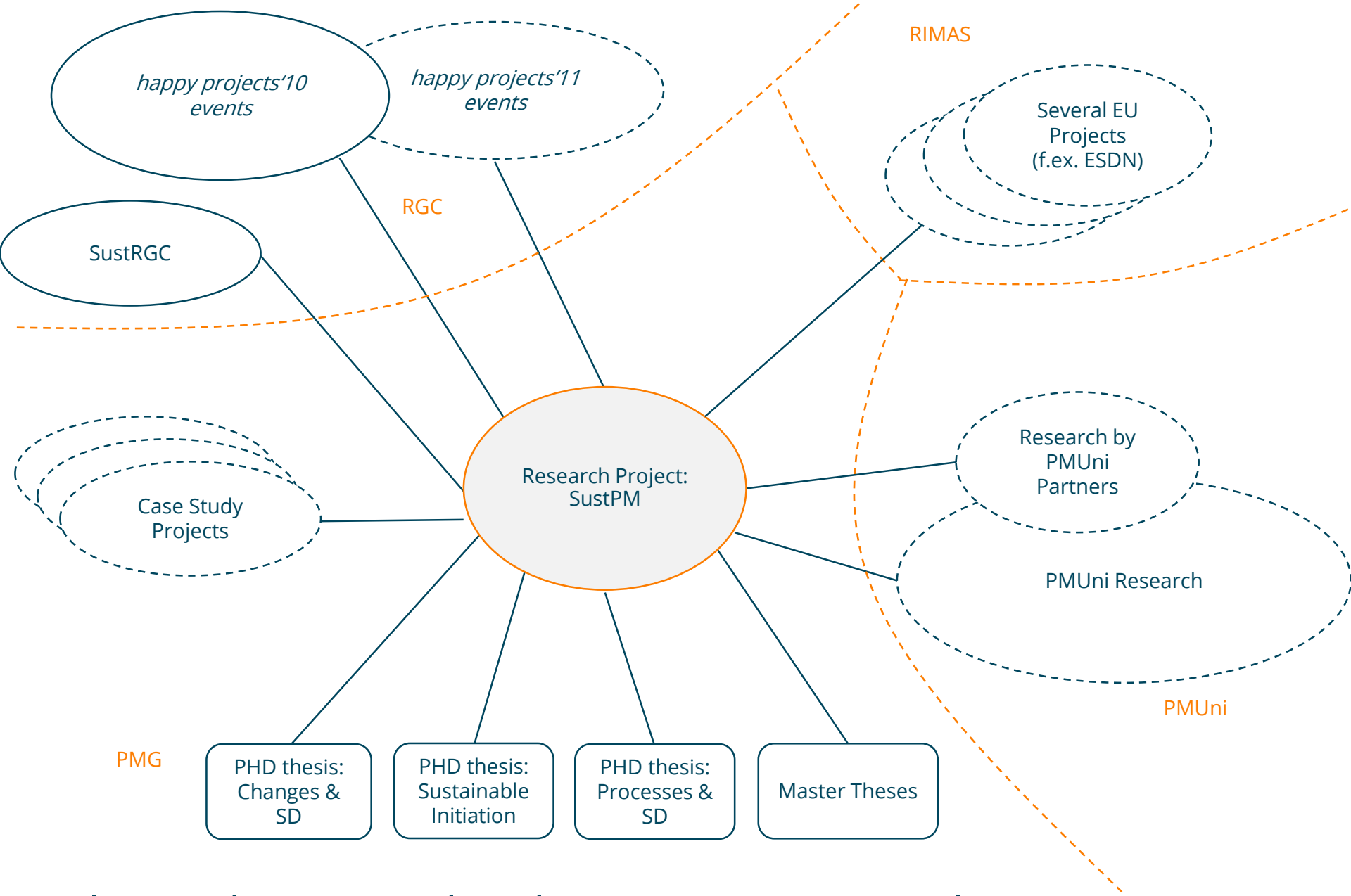
Communication Plan: Example

Medium	Contents	Participants	Responsibility	Schedule
december 2012				
christmas party of the company	short information about the project, briefing about the planned kick off in january	all employees	CEO/project sponsor, project manager	december 2012
january 2013				
project specific information event: kick off	information about the topic and the project (project chain, project team, duration, approach)	all employees (at least 2 events, considering shifts)	project manager	start of the year, the "xxx" year
flyer	information about the project (approach, schedule, the project team with short statements about "what does the project mean for you?", benefit arguments	all employees	marketing manager, project manager	shall be ready for the kick off meeting in january
...				
february				
...				

(Huemann/Zuchi, 2014:413)

Projektstakeholderanalyse: Best Practice

- ➊ Consideration of **all** relevant (project) internal and (project) external stakeholders
- ➋ Development of appropriate measures for the engagement of stakeholders and building of relationships
- ➌ Integration of the defined measures in all relevant project plans
 - Work breakdown structure, responsibility matrix
 - Project resource, and –cost plan
 - Project organisation chart, project communication plan
 - Project risk analysis
- ➍ Application of alternativ working formats for the identification and decision for appropriate engagement measures
 - Systemic board
 - Systemic constellation
 - Reflecting Positions



Relationship towards other Projects: Example

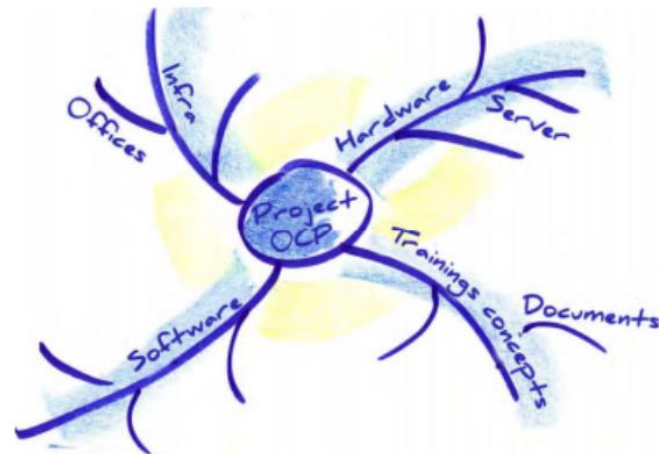
(Gareis/Huemann/Martinuzzi, 2013:180)



Project Objects of Consideration & Objectives

Project Objects of Consideration

- ➊ „... is a method that structures the material and immaterial objects of consideration (e.g. results, interim results) to be considered and created in a project into their components“ (pm baseline, 2009:29)
- ➋ Shows all deliverables (final and intermediate)
- ➌ Is the basis for the specification of project objectives, the development of work packages, the definition of needed expertises in the project team
- ➍ Depiction: As mind map or as list



(pm baseline, 2009:29)

Project Objective Plan

- ➊ Project Objectives describe the desired status at the end of the project
- ➋ Differentiation into
 - Main objectives: help for measuring the success of a project
 - Additional objectives: additional „nice to have“, as they are made visible they gain more attention
 - Non-objectives: help to clarify expectations
- ➌ Differentiation in project objectives and investment / business case objectives
- ➍ „SMART“ formulation
 - Helps to define the evaluation of success and create a common understanding
 - Specific, Measurable, Achievable, Realistic, Time-bounded

Project objects of Consideration and Objectives: Best Practice

- The terms used in the objects of consideration plan can be consistently used in all other project plans and supports thus the creation of a common language within the project team
- A common development of the objects of consideration plan and project objectives in the team supports a consistent understanding about the project
- SMART formulated project objectives supports the development and steering of expectations
- Supports a comprehensive look on the project
 - Technical objects, HR aspects, organisational aspects, Marketing ...
 - As Checklist, the identity modell of organisations can be used

Work Breakdown Structure



Project Work Breakdown Structure

- ➊ One of the most important communication instruments
- ➋ Depicts all activities that have to be performed in a project
 - PM related activities, content related activities
 - Activities by the investor, activities by the supplier
- ➌ Is the basis for adequate target agreements in the project start and the evaluation of status quo in the project controlling
 - Basis for the estimation of schedule, resource, costs, and the agreement on responsibilities
 - Possibly further detailing of work packages by breaking down into a next level of work packages or by developing work package specifications
- ➍ Depiction
 - “Tree” structure (possibly in a list)
 - Structuring according to phases or deliverables

concept and first implementations in a transformation				
1				
project management	is analysis of optimization potentials	development of a concept for the new-positioning of the company	coordination and finalization of concept	performance of first implementation measures
1.1	1.2	1.3	1.4	1.5
project assigned 1.1.1 15.01.2014 15.01.2014	performance SWOT company 1.2.1 20.01.2014 07.02.2014	definition of possible new clients and markets 1.3.1 31.03.2014 04.04.2014	summarizing the discrete concepts to one final concept 1.4.1 30.06.2014 04.07.2014	performance of implementation measure X 1.5.1 06.10.2014 31.10.2014
project start 1.1.2 15.01.2014 28.01.2014	performance SWOT selected departments 1.2.2 20.01.2014 07.02.2014	identification and short description of new or adapted services 1.3.2 31.03.2014 18.04.2014	coordination of the concept with top management 1.4.2 07.07.2014 18.07.2014	performance of implementation measure Y 1.5.2 06.10.2014 31.10.2014
project coordination 1.1.3 29.01.2014 28.10.2014	performance of a market analysis 1.2.3 10.02.2014 07.03.2014	development of a "process landscape new" 1.3.3 21.04.2014 16.05.2014	revision and further detailing of the concept 1.4.3 21.07.2014 08.08.2014	performance of implementation measure Z 1.5.3 06.10.2014 31.10.2014
project controlling 1.1.4 10.02.2014 17.10.2014	analysis and interpretation of selected KPIs 1.2.4 10.03.2014 21.03.2014	"process landscape new" developed 1.3.4 16.05.2014 16.05.2014	coordination of the concept with middle management and the employee representations 1.4.4 11.08.2014 22.08.2014	first evaluation and communication of implementation successes 1.5.4 03.11.2014 14.11.2014
project close down 1.1.5 24.11.2014 05.12.2014	summary and presentation of results 1.2.5 24.03.2014 28.03.2014	rough description of (new or adapted) processes 1.3.5 19.05.2014 20.06.2014	concept with essential stakeholders coordinated 1.4.5 22.08.2014 22.08.2014	first implementation measures performed 1.5.5 14.11.2014 14.11.2014
project approved	presentation to project sponsor performed	development of a optimized organisation chart	further revision and detailing of the concept	detail planning of next steps after implementation

(example taken from Zuchi, 2014:56)

		concept and first implementations in a transformation							
		1							
project management		analysis of optimization potentials		development of a concept for the new-positioning of the company		coordination and finalization of concept		performance of first implementation measures	
1.1		1.2		1.3		1.4		1.5	
project assigned		performance SWOT company		definition of possible new clients and markets		summarizing the discrete concepts to one final concept		performance of implementation measure X	
1.1.1	15.01.2014 15.01.2014	1.2.1	20.01.2014 07.02.2014	1.3.1	31.03.2014 04.04.2014	1.4.1	30.06.2014 04.07.2014	1.5.1	06.10.2014 31.10.2014
project start		performance SWOT selected departments		identification and short description of new or adapted services		coordination of the concept with top management		performance of implementation measure Y	
1.1.2	15.01.2014 28.01.2014	1.2.2	20.01.2014 07.02.2014	1.3.2	31.03.2014 18.04.2014	1.4.2	07.07.2014 18.07.2014	1.5.2	06.10.2014 31.10.2014
project coordination		performance of a market analysis		development of a "process landscape new"		revision and further detailing of the concept		performance of implementation measure Z	
1.1.3	29.01.2014 28.10.2014	1.2.3	01.02.2014 07.03.2014	1.3.3	21.04.2014 16.05.2014	1.4.3	21.07.2014 08.08.2014	1.5.3	06.10.2014 31.10.2014
project controlling		analysis and interpretation of selected KPIs		"process landscape new" developed		coordination of the concept with middle management and the employee representations		first evaluation and communication of implementation successes	
1.1.4	10.02.2014 17.10.2014	1.2.4	10.03.2014 21.03.2014	1.3.4	16.05.2014 16.05.2014	1.4.4	11.08.2014 22.08.2014	1.5.4	03.11.2014 14.11.2014
project close down		summary and presentation of results		rough description of (new or adapted) processes		concept with essential stakeholders coordinated		first implementation measures performed	
1.1.5	24.11.2014 05.12.2014	1.2.5	24.03.2014 28.03.2014	1.3.5	19.05.2014 20.06.2014	1.4.5	22.08.2014 22.08.2014	1.5.5	14.11.2014 14.11.2014
project approved		presentation to project sponsor performed		development of a optimized organisation chart		further revision and detailing of the concept		detail planning of next steps after implementation	

(example taken from Zuchi, 2014:56)

PM related Scope

Content related Scope

Project Work Breakdown Structure: Best Practice

- Logical flow – by phases
- Completeness - regarding the project boundaries and context definition
- Visualisation – as main communication instrument
- Understandability – in the formulation of the work packages
- Unambiguousness – by numbering / coding

literature

- Axelos , Managing Successful Projects with PRINCE2, 2017
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- The Report of the World Commission on Environment and Development, Our Common Future, 1987
- Zuchi, Prozessmodell ISO 21500 in *Basiswissen Projektmanagement – Prozesse und Vorgehensmodelle*, Symposion Publishing, 2014

An abstract graphic on the left side of the slide, featuring a large orange circle and several teal shapes, including a curved segment at the top and a trapezoidal shape below it.

! enable change
Dr. Dagmar Zuchi



**Annex 1:
PMI® Project Management
Body of Knowledge**

What is a Project?

- 🔗 **Project** – A project is a temporary endeavor undertaken to create a unique product, service, or result
- 🔗 **Program** – A program is a group of related projects, subsidiary programs, and program activities that are managed in a coordinated manner to obtain benefits not available from managing them individually.
- 🔗 **Portfolio** – A portfolio is a collection of projects, programs, subsidiary portfolios, and operations managed as a group to achieve strategic objectives.

Definitions taken from Project Management Institute, A Guide to the Project Management Body of Knowledge (PMBOK® Guide), Sixth Edition, Inc., 2017: Page 13

Project: Foundational Elements

(Project Management Institute, A Guide to the Project Management Body of Knowledge (PMBOK® Guide), Sixth Edition, Inc., 2017: Page 4-7)

🌀 Unique Product, Service, or Result

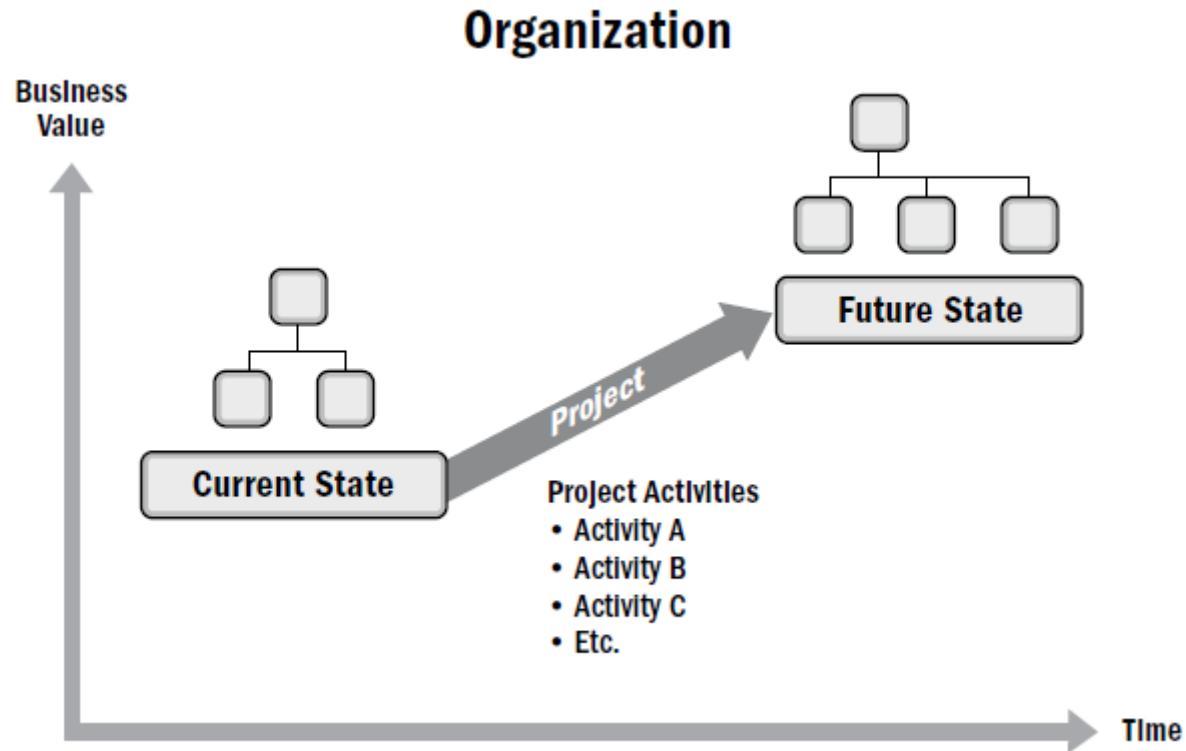
- ... although repetitive elements may be present in some project deliverables)
- A service or a capability to perform a service, such as business functions supporting production or distribution
- A result such as outcomes or documents (e.g. research project develops knowledge)
- A unique combination of one or more products, services, or results (e.g. a software application, its associated documentation, and help desk services)

🌀 Temporary endeavor

- Definite beginning and definite end
- (... does not necessarily mean short in duration)

🌀 Projects drive change

Projects drive change



Project Management Institute, A Guide to the Project Management Body of Knowledge (PMBOK® Guide), Sixth Edition, Inc., 2017: Figure 1-1, Page 6

Project: Foundational Elements

(Project Management Institute, A Guide to the Project Management Body of Knowledge (PMBOK® Guide), Sixth Edition, Inc., 2017: Page 4-7)

🌀 Unique Product, Service, or Result

- ... although repetitive elements may be present in some project deliverables)
- A service or a capability to perform a service, such as business functions supporting production or distribution
- A result such as outcomes or documents (e.g. research project develops knowledge)
- A unique combination of one or more products, services, or results (e.g. a software application, its associated documentation, and help desk services)

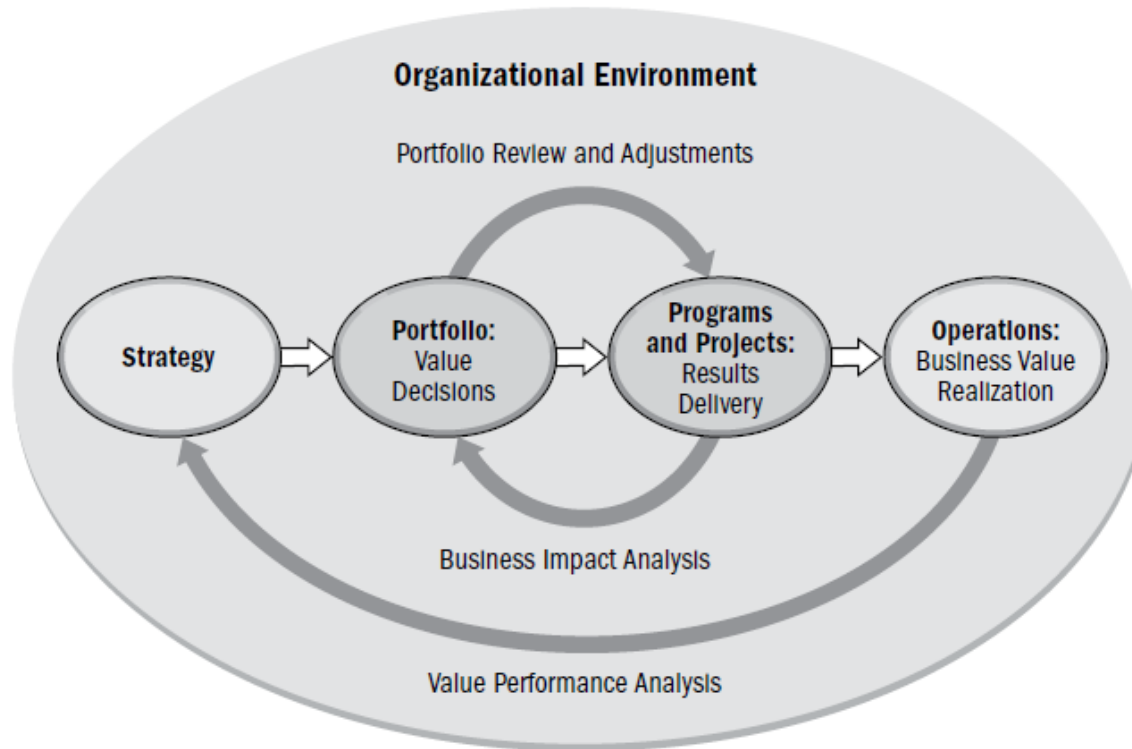
🌀 Temporary endeavor

- Definite beginning and definite end
- (... does not necessarily mean short in duration)

🌀 Projects drive change

🌀 Projects enable business value creation

Organizational Project Management (OPM)



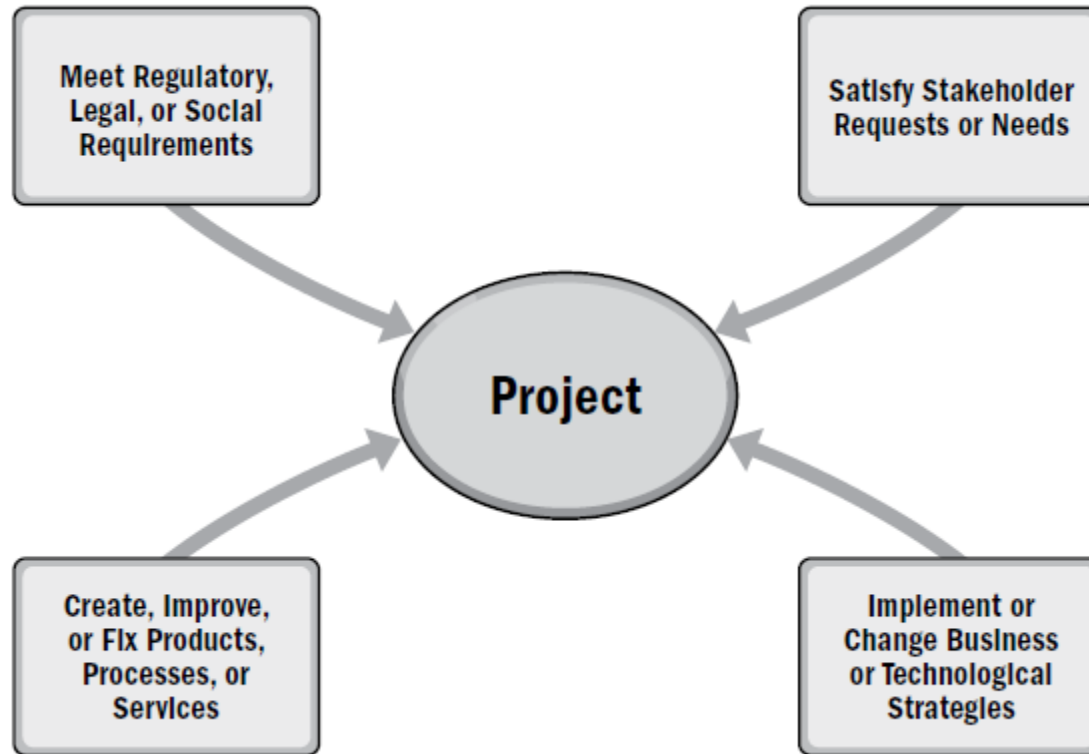
Project Management Institute, A Guide to the Project Management Body of Knowledge (PMBOK® Guide), Sixth Edition, Inc., 2017: Figure 1-4, Page 17

Project: Foundational Elements

(Project Management Institute, A Guide to the Project Management Body of Knowledge (PMBOK® Guide), Sixth Edition, Inc., 2017: Page 4-7)

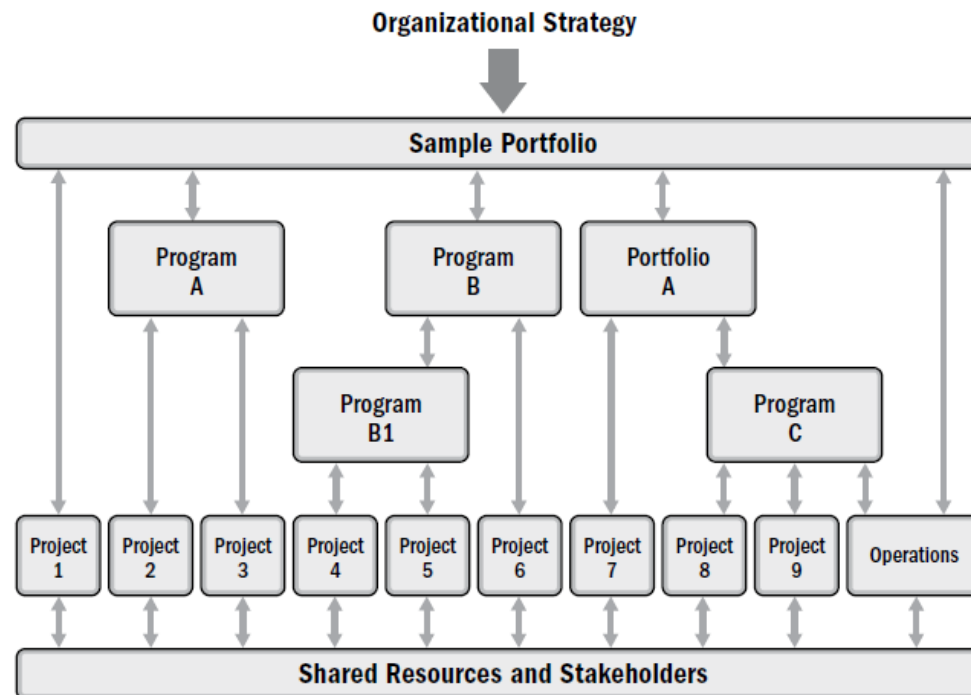
- 🌀 **Unique Product, Service, or Result**
 - ... although repetitive elements may be present in some project deliverables)
 - A service or a capability to perform a service, such as business functions supporting production or distribution
 - A result such as outcomes or documents (e.g. research project develops knowledge)
 - A unique combination of one or more products, services, or results (e.g. a software application, its associated documentation, and help desk services)
- 🌀 **Temporary endeavor**
 - Definite beginning and definite end
 - (... does not necessarily mean short in duration)
- 🌀 **Projects drive change**
- 🌀 **Projects enable business value creation**
- 🌀 **Project Initiation Context**

Project Initiation Context



Project Management Institute, A Guide to the Project Management Body of Knowledge (PMBOK® Guide), Sixth Edition, Inc., 2017: Figure 1-2, Page 8

Project, Program & Portfolio



„Program and project management focus on doing programs and projects the „right“ way; and portfolio management focuses on doing the „right“ programs and projects.“

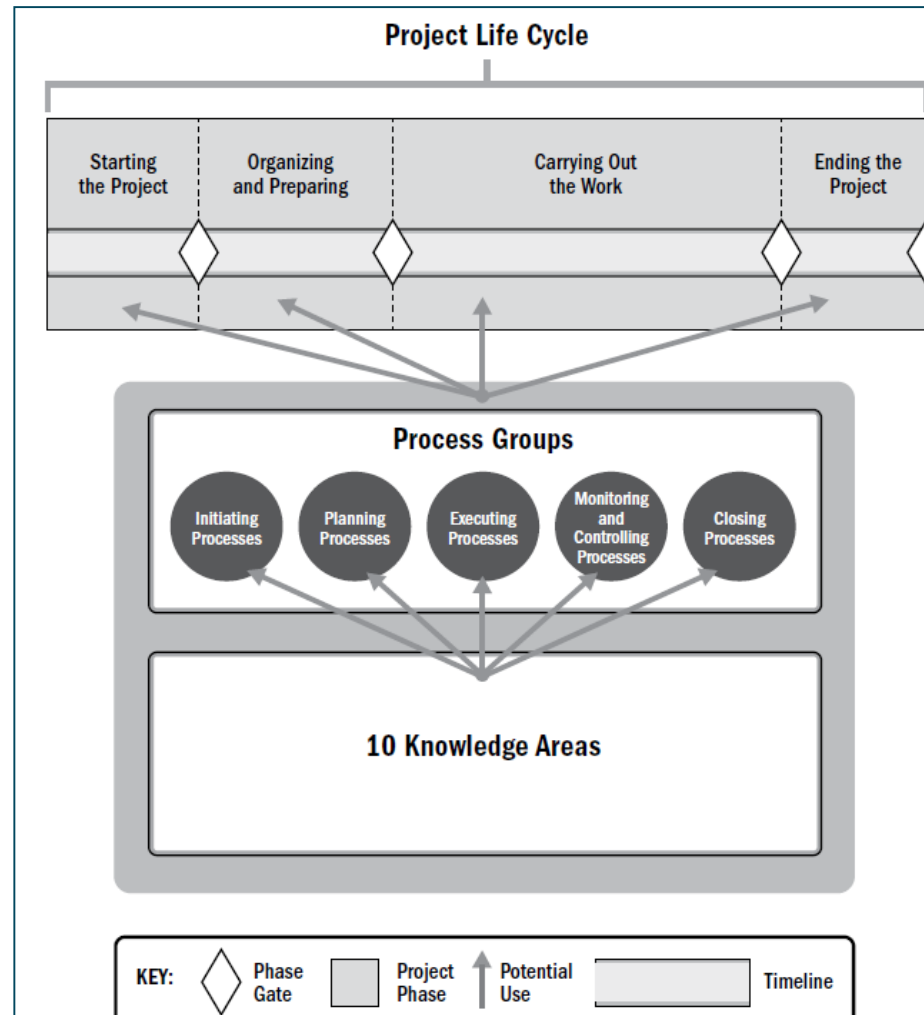
Project Management Institute, A Guide to the Project Management Body of Knowledge (PMBOK® Guide), Sixth Edition, Inc., 2017: Figure 1-3, Page 12

Project Management Processes

- ➊ Project Management is the application of knowledge, skills, tools, and techniques to project activities to meet project requirements.
- ➋ Project Management is accomplished through the appropriate application and integration of logically grouped project management processes (in total: 49).
- ➌ The PMBOK Guide groups the processes into the following five categories (=Process Groups): Initiating, Planning, Executing, Monitoring & Controlling and Closing.
- ➍ In addition to the Process Groups, processes are also categorized by Knowledge Areas, such as Scope Management, Schedule Management.

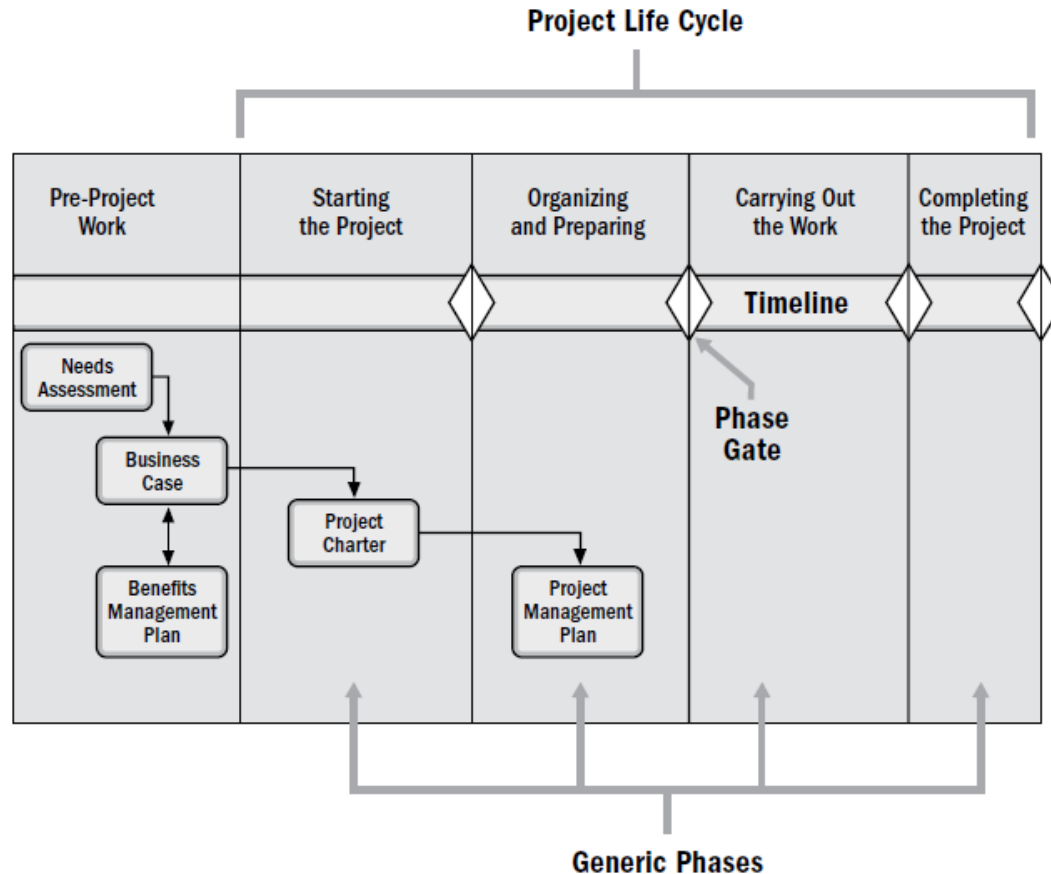
Project Management Institute, A Guide to the Project Management Body of Knowledge (PMBOK® Guide), Sixth Edition, Inc., 2017: Glossary/Definitions & Page 22

Project, Program & Portfolio



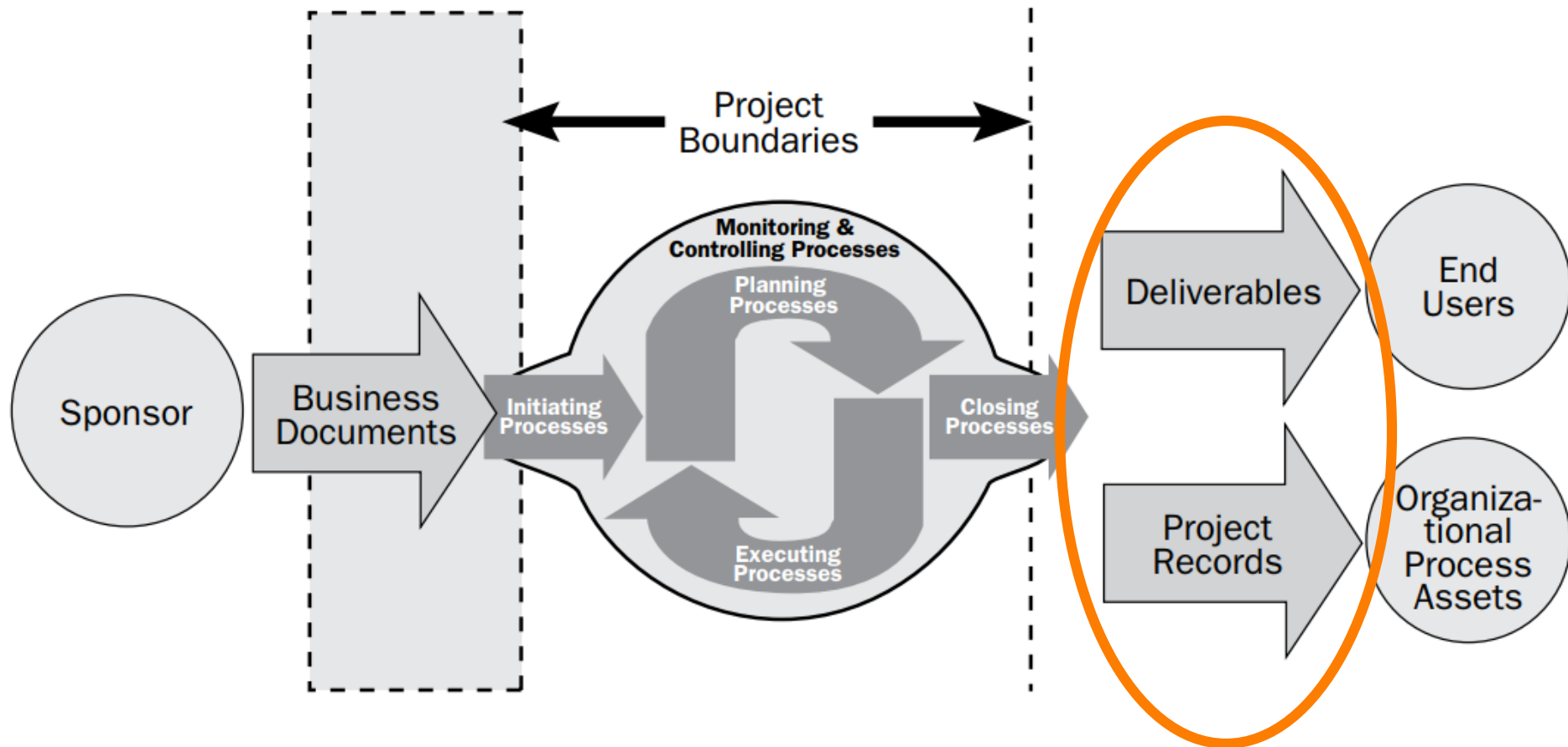
Project Management Institute, A Guide to the Project Management Body of Knowledge (PMBOK® Guide), Sixth Edition, Inc., 2017: Figure 1-5, Page 18

Project Life Cycle



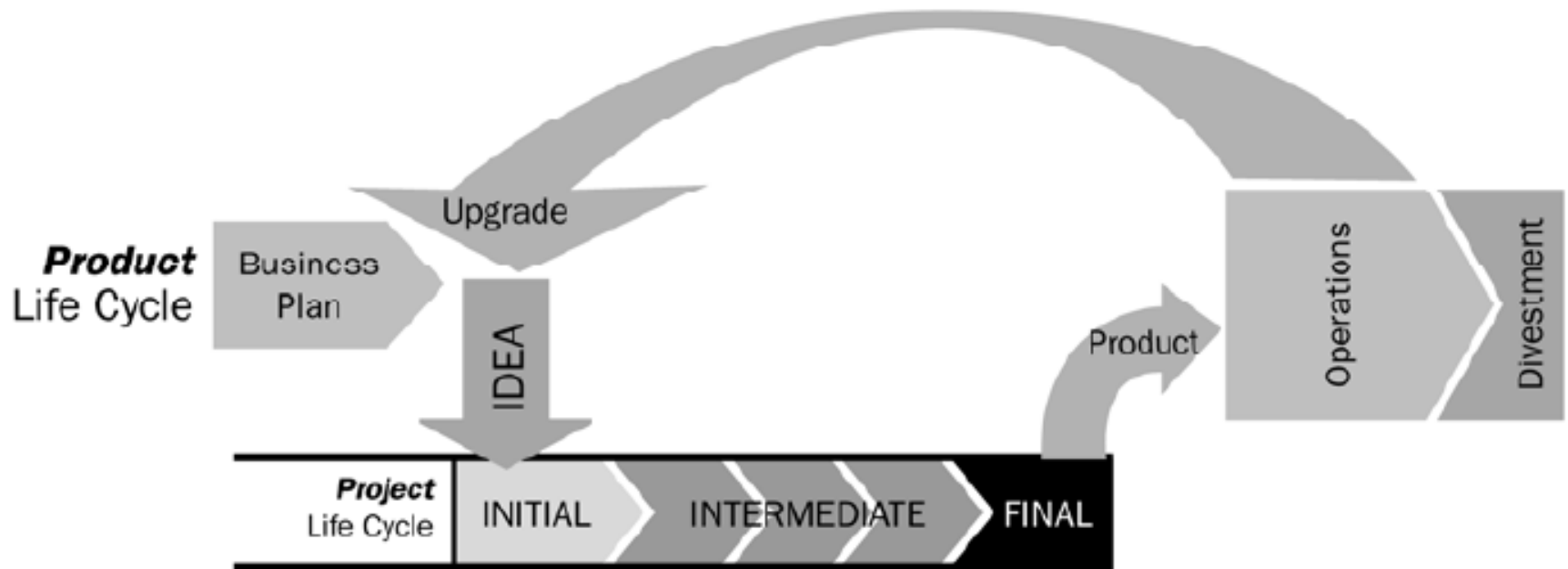
Project Management Institute, A Guide to the Project Management Body of Knowledge (PMBOK® Guide), Sixth Edition, Inc., 2017: Figure 1-5, Page 30

PMI: Project Boundaries



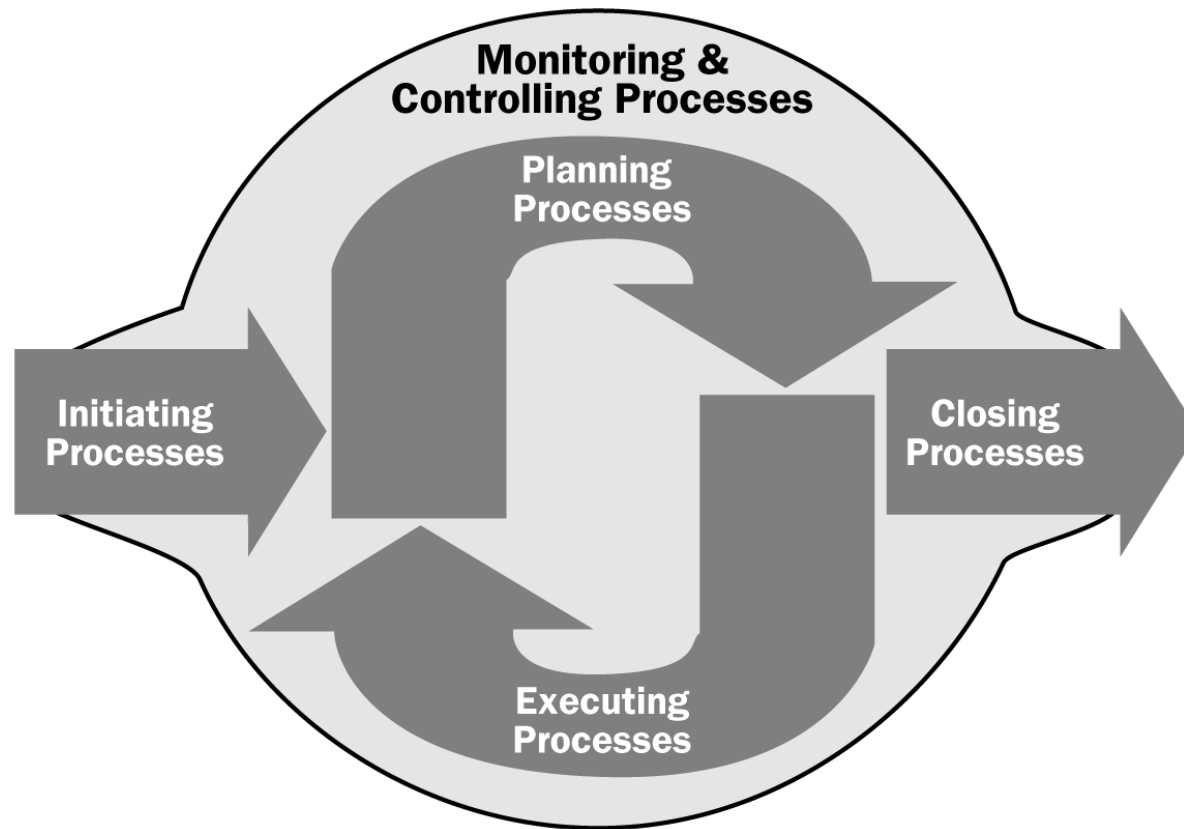
Project Management Institute, A Guide to the Project Management Body of Knowledge (PMBOK® Guide), Sixth Edition, Inc., 2017: Part 2 - The Standard for Project Management – Figure 2-1, Page 562

Product Life Cycle and Project Life Cycle



Project Management Institute, A Guide to the Project Management Body of Knowledge, (*PMBOK*® Guide) – Fourth Edition, Project Management Institute, Inc., 2008, Figure 2-6, Page 24

Process Groups in a Project



Project Management Institute, A Guide to the Project Management Body of Knowledge, (*PMBOK*® Guide) – Fifth Edition, Project Management Institute, Inc., 2013, Figure 3-1, Page 50

Knowledge Areas	Project Management Process Groups				
	Initiating Process Group	Planning Process Group	Executing Process Group	Monitoring & Controlling Process Group	Closing Process Group
Project Integration Management	<ul style="list-style-type: none"> Develop Project Charter 	<ul style="list-style-type: none"> Develop Project Management Plan 	<ul style="list-style-type: none"> Direct and Manage Project Work Manage Project Knowledge 	<ul style="list-style-type: none"> Monitor and Control Project Work Perform Integrated Change Control 	<ul style="list-style-type: none"> Close Project or Phase
Project Scope Management		<ul style="list-style-type: none"> Plan Scope Management Collect Requirements Define Scope Create WBS 		<ul style="list-style-type: none"> Validate Scope Control Scope 	
Project Schedule Management		<ul style="list-style-type: none"> Plan Schedule Management Define Activities Sequence Activities Estimate Activity Durations Develop Schedule 		<ul style="list-style-type: none"> Control Schedule 	
Project Cost Management		<ul style="list-style-type: none"> Plan Cost Management Estimate Costs Determine Budget 		<ul style="list-style-type: none"> Control Costs 	
Project Quality Management		<ul style="list-style-type: none"> Plan Quality Management 	<ul style="list-style-type: none"> Manage Quality 	<ul style="list-style-type: none"> Control Quality 	
Project Resources Management		<ul style="list-style-type: none"> Plan Resource Management Estimate Activity Resources 	<ul style="list-style-type: none"> Acquire Resources Develop Team Manage Team 	<ul style="list-style-type: none"> Control Resources 	
Project Communications Management		<ul style="list-style-type: none"> Plan Communications Management 	<ul style="list-style-type: none"> Manage Communications 	<ul style="list-style-type: none"> Monitor Communications 	
Project Risk Management		<ul style="list-style-type: none"> Plan Risk Management Identify Risks Perform Qualitative Risk Analysis Perform Quantitative Risk Analysis Plan Risk Responses 	<ul style="list-style-type: none"> Implement Risk Responses 	<ul style="list-style-type: none"> Monitor Risks 	
Project Procurement Management		<ul style="list-style-type: none"> Plan Procurement Management 	<ul style="list-style-type: none"> Conduct Procurements 	<ul style="list-style-type: none"> Control Procurements 	
Project Stakeholder Management	<ul style="list-style-type: none"> Identify Stakeholders 	<ul style="list-style-type: none"> Plan Stakeholder Management 	<ul style="list-style-type: none"> Manage Stakeholder Engagement 	<ul style="list-style-type: none"> Monitor Stakeholder Engagement 	

**Annex 2:
ISO 21500
Guidance on
project management**



Point of Departure for ISO 21500

- A lot of existing national and international standards, such as (not limited to)
 - DIN 69 901 (Projektmanagement; Projektmanagementsysteme)
 - BS 6079 (Project Management)
 - GA X 50 – 118 (Management des Projets)
 - ISO 10 006 (Quality in Project Management)
 - ANSI/PMI 99-001 PMBoK
 -
- But no globally accepted harmonisation of project management

- Spring 2007: Initiative from UK and US
- Fall 2007: 1st plenary meeting of ISO PC236
- Spring 2008 – January 2012: 2nd – 6th plenary meetings

Status

- ➊ ISO 21500 is published as guiding standard in Fall 2012 (and not normative standard, as consequence not basis for certification)
- ➋ ISO 21500 was developed by more than 100 experts, from more than 30 countries
- ➌ ISO 21500 is published as Austrian ÖNORM (as a 1:1 translation into German)



Status (2)

- 2011 establishment of the Technical Committee
TC 258 Project, programme and portfolio management



- Objective: to further develop standards connected with project management
- Published: Project Portfolio Management, Governance on projects, programmes and project portfolios & Programme Management
- In development: Competencies, WBS, EVM.... Update of ISO 21500

ISO 21500 Contents

- Clause 1 Scope
- Clause 2 Terms and definitions
- Clause 3 Project management concepts
- Clause 4 Project management processes
- Annex A (informative) Process group processes mapped to subject groups

ISO 21500 Project Definition

3.2 Project

A project consists of a unique set of processes consisting of coordinated and controlled activities with start and end dates, performed to achieve project objectives. Achievement of the project objectives requires the provision of deliverables conforming to specific requirements. A project may be subject to multiple constraints, as described in 3.11.

Although many projects may be similar, each project is unique. Project differences may occur in the following:

- deliverables provided;
- stakeholders influencing;
- resources used;
- constraints;
- the way processes are tailored to provide the deliverables.

Every project has a definite start and end, and is usually divided into phases, as described in 3.10. The project starts and ends as described in 4.3.1.

Guidance on project management (ISO 21500:2012 (E), first edition 2012-09-01), page 3

ISO 21500

Project management concepts

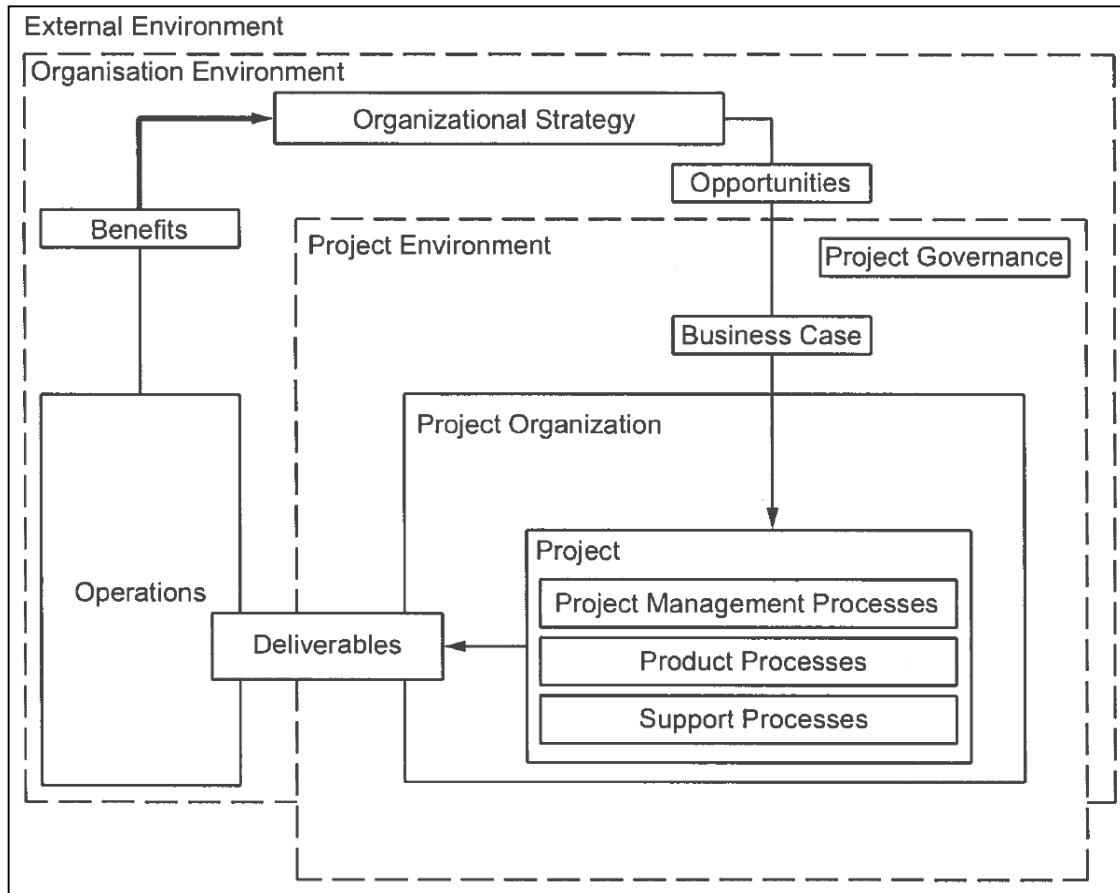


Figure: Guidance on project management (ISO 21500:2012 (E), first edition 2012-09-01), page 3

ISO 21500 Project stakeholders

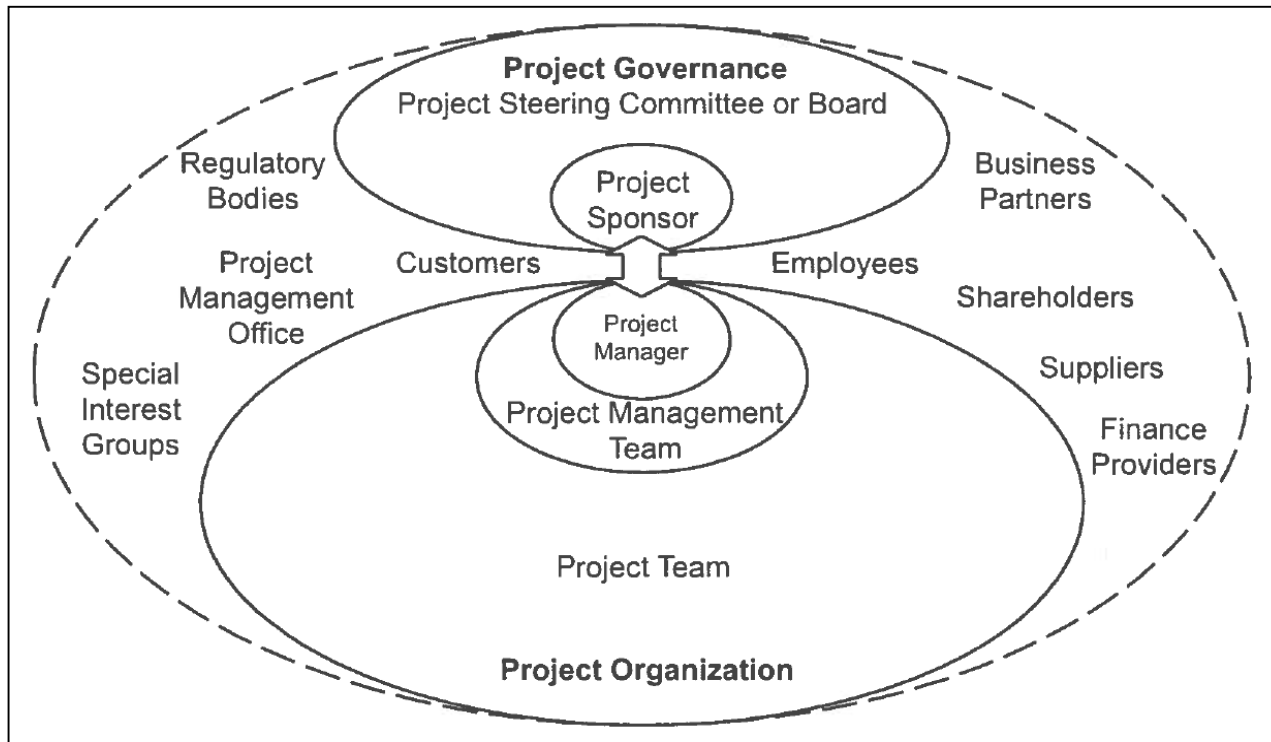


Figure: Guidance on project management (ISO 21500:2012 (E), first edition 2012-09-01), page 7

ISO 21500 Project Organisation

The project organization is the temporary structure that includes project roles, responsibilities and levels of authority and boundaries that need to be defined and communicated to all stakeholders of the project. The project organization may be dependent on legal, commercial, interdepartmental or other arrangements that exist among project stakeholders.

The project organization may include the following roles and responsibilities:

- a) the project manager, who leads and manages project activities and is accountable for project completion;
- b) the project management team, which supports the project manager in leading and managing the project activities;
- c) the project team, which performs project activities.

Project governance may involve the following:

- the project sponsor, who authorizes the project, makes executive decisions and solves problems and conflicts beyond the project manager's authority;
- the project steering committee or board, which contributes to the project by providing senior level guidance to the project.

ISO 21500

Competencies of project personnel

- “Project management competencies can be categorized into, but are not limited to, the following:
 - **technical** competencies, for delivering projects in a structured way, including the project management terminology, concepts and processes defined in this International standard.
 - **behavioural** competencies, associated with personal relationships inside the defined boundaries of the project.
 - **contextual** competencies, related to the management of the project inside the organizational and external environment. “

Guidance on project management (ISO 21500:2012 (E), first edition 2012-09-01), page 7-8

ISO 21500 Project Management

3.3 Project management

Project management is the application of methods, tools, techniques and competencies to a project. Project management includes the integration of the various phases of the project life cycle, as described in 3.10.

Project management is performed through processes. The processes selected for performing a project should be aligned in a systemic view. Each phase of the project life cycle should have specific deliverables. These deliverables should be regularly reviewed during the project to meet the requirements of the sponsor, customers and other stakeholders.

Guidance on project management (ISO 21500:2012 (E), first edition 2012-09-01), page 4

Project management processes

Table 1 — Project management processes cross-referenced to process and subject groups

Subject groups	Process groups				
	Initiating	Planning	Implementing	Controlling	Closing
Integration	4.3.2 Develop project charter	4.3.3 Develop project plans	4.3.4 Direct project work	4.3.5 Control project work 4.3.6 Control changes	4.3.7 Close project phase or project 4.3.8 Collect lessons learned
Stakeholder	4.3.9 Identify stakeholders		4.3.10 Manage stakeholders		
Scope		4.3.11 Define scope 4.3.12 Create work breakdown structure 4.3.13 Define activities		4.3.14 Control scope	
Resource	4.3.15 Establish project team	4.3.16 Estimate resources 4.3.17 Define project organization	4.3.18 Develop project team	4.3.19 Control resources 4.3.20 Manage project team	
Time		4.3.21 Sequence activities 4.3.22 Estimate activity durations 4.3.23 Develop schedule		4.3.24 Control schedule	
Cost		4.3.25 Estimate costs 4.3.26 Develop budget		4.3.27 Control costs	
Risk		4.3.28 Identify risks 4.3.29 Assess risks	4.3.30 Treat risks	4.3.31 Control risks	
Quality		4.3.32 Plan quality	4.3.33 Perform quality assurance	4.3.34 Perform quality control	
Procurement		4.3.35 Plan procurements	4.3.36 Select suppliers	4.3.37 Administer procurements	
Communication		4.3.38 Plan communications	4.3.39 Distribute information	4.3.40 Manage communications	

NOTE The purpose of this table is not to specify a chronological order for carrying out the activities. Its purpose is to map subject groups and process groups.

Figure: Guidance on project management (ISO 21500:2012 (E), first edition 2012-09-01), page 10

ISO 21500 Project management processes

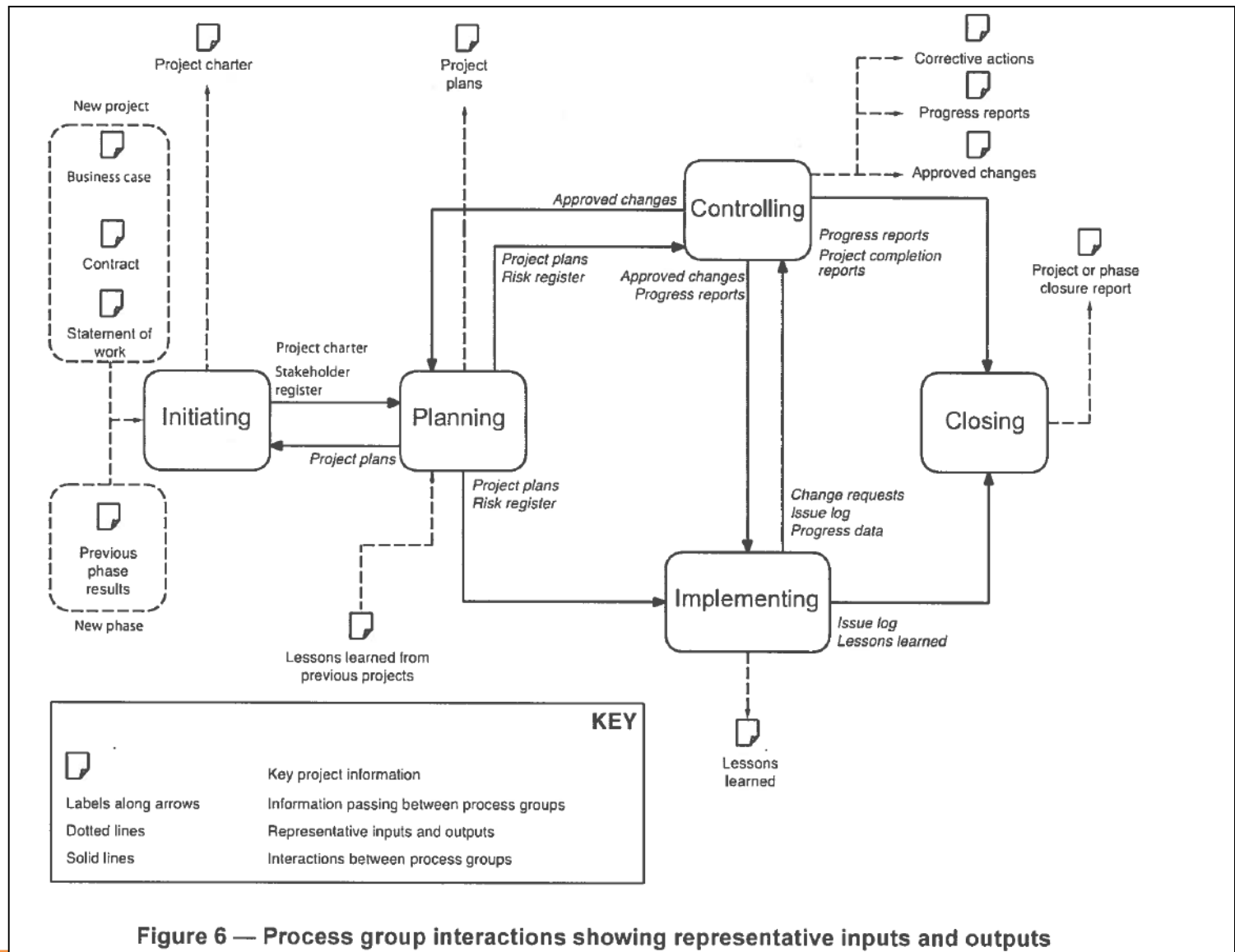


Figure: Guidance on project management (ISO 21500:2012 (E), first edition 2012-09-01), page 12

Annex 3: Managing Successful Projects with PRINCE2



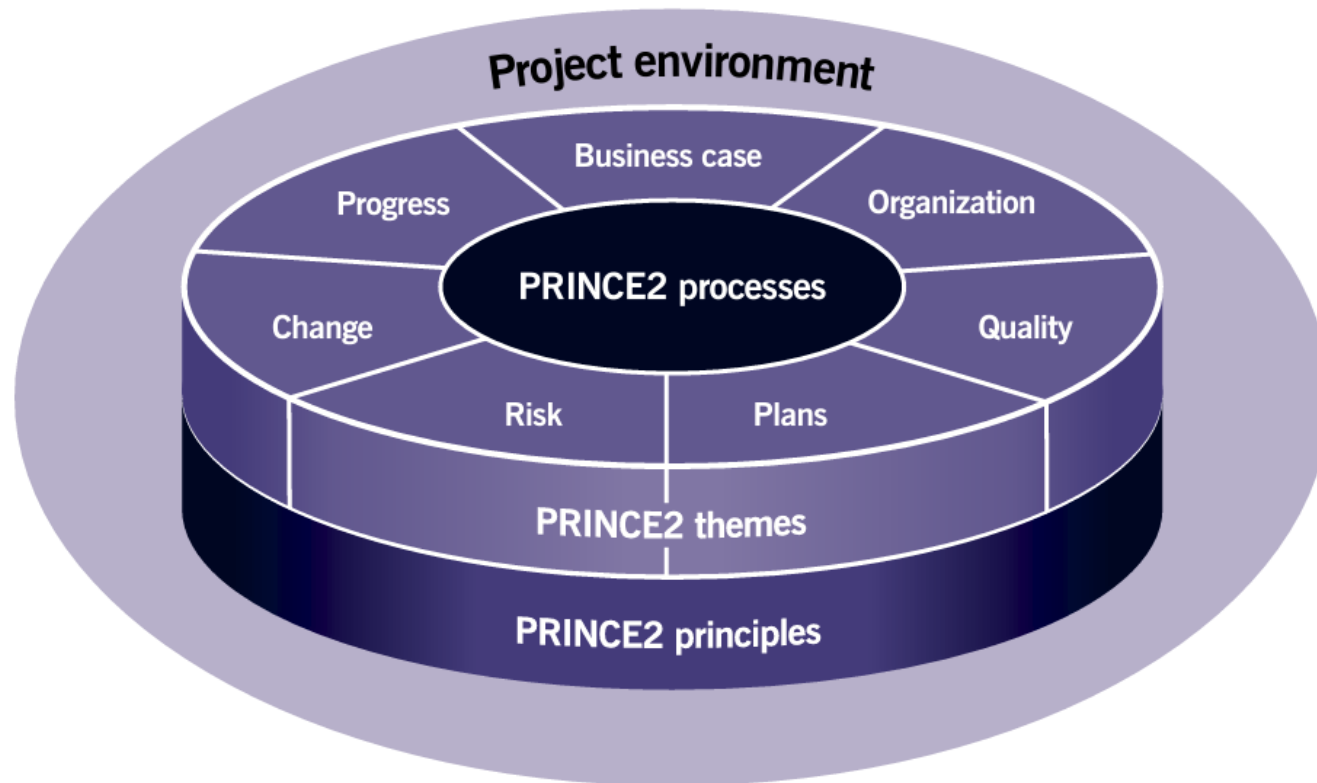
What is a Project?

- 🔗 „A temporary organization that is created for the purpose of delivering one or more business products according to an agreed Business Case.”
(PRINCE2, Axelos 2017, p. 8)
- 🔗 *“Project management is the planning, delegating, monitoring and control of all aspects of the project, and the motivation of those involved, to achieve the project objectives within the expected performance targets for time, cost, quality, scope, benefits and risk.”*
(PRINCE2, Axelos 2017, p. 9)

Project Characteristics

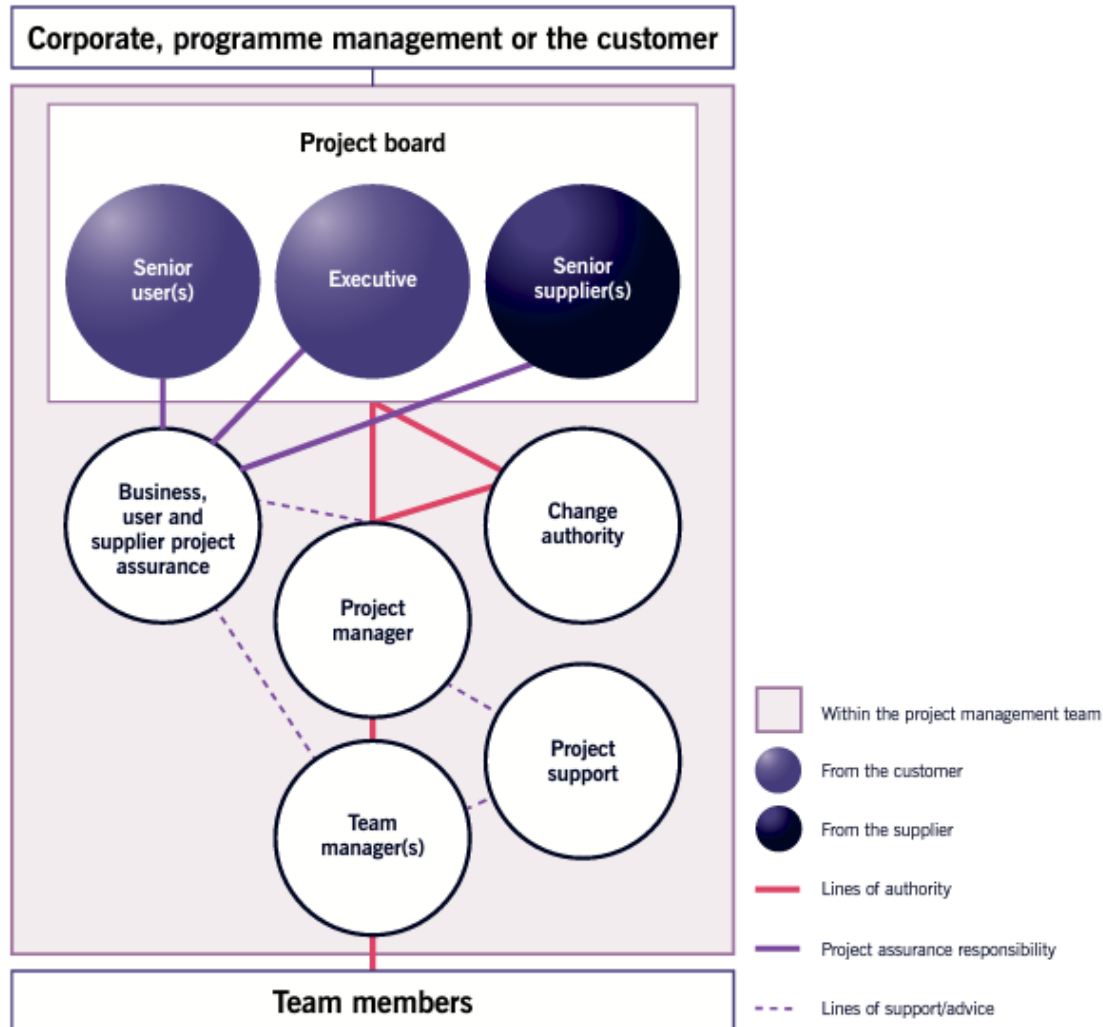
- Change
 - (“Projects are the means by which we introduce change”)
- Temporary
- Cross-functional
- Unique
- Uncertainty

The structure of PRINCE2



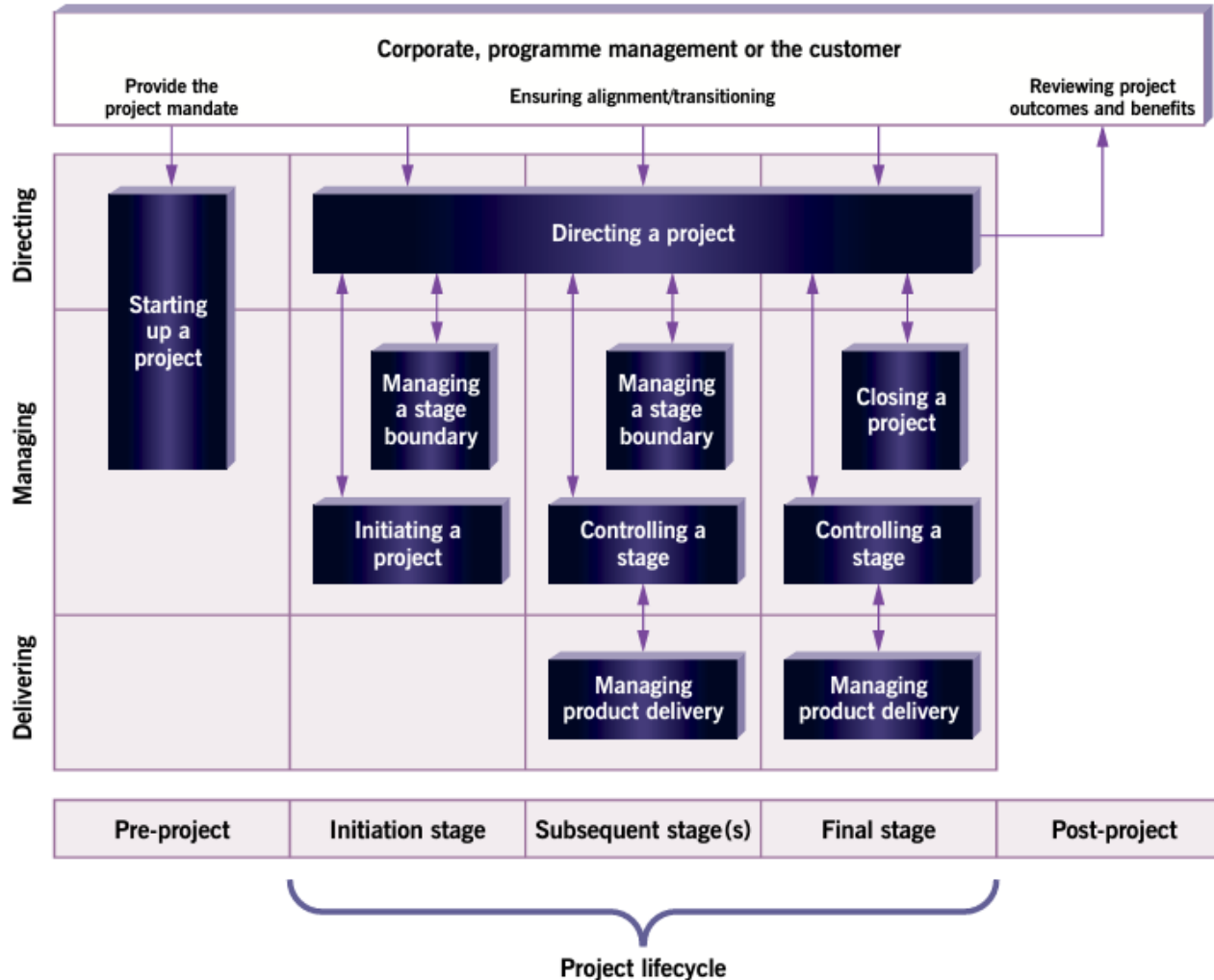
(PRINCE2, Axelos 2017, p. 3)

PRINCE2: Project Organisation



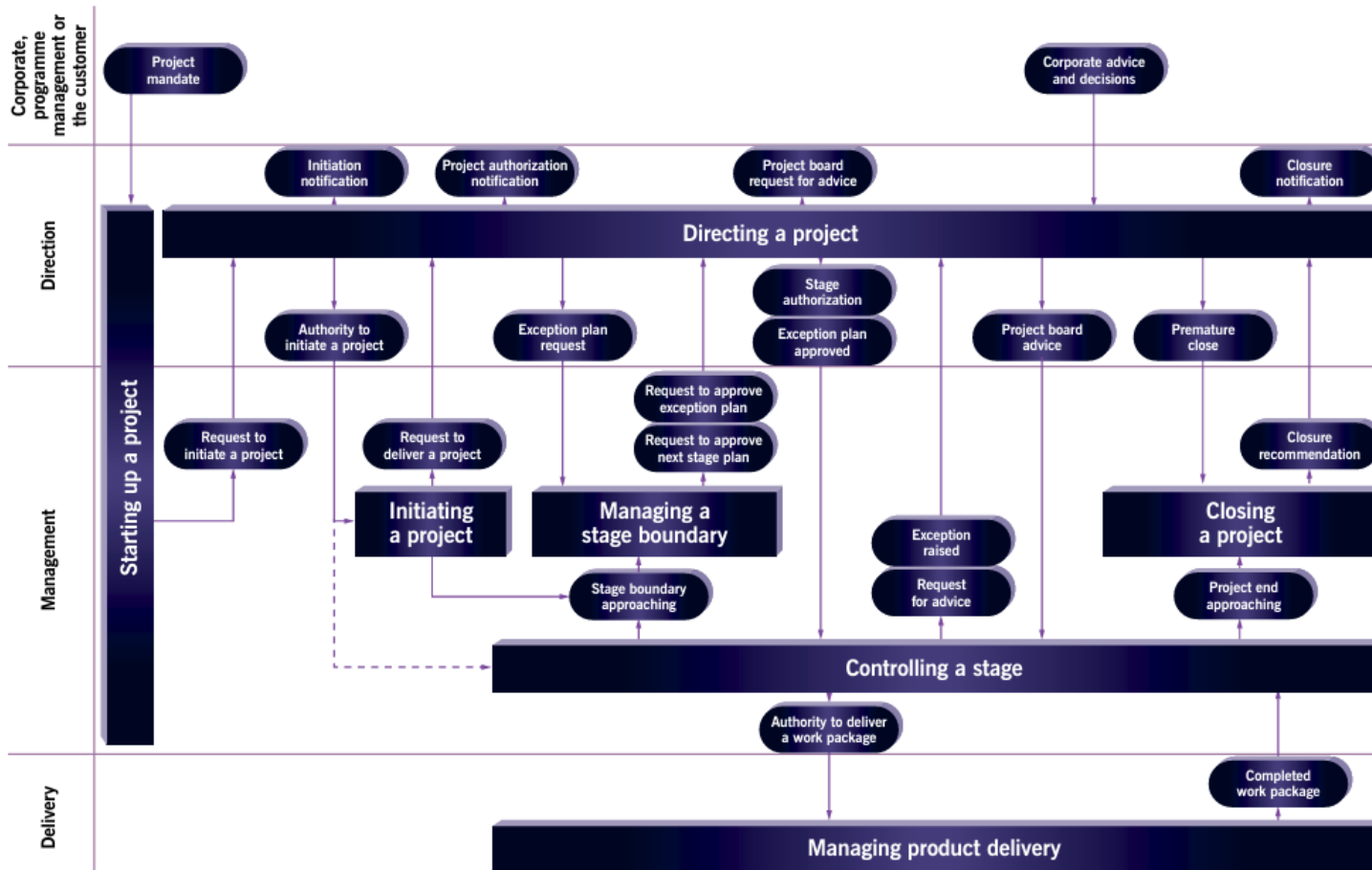
PRINCE2: Processes

(PRINCE2, Axelos 2017, p. 158)



PRINCE2: Processes

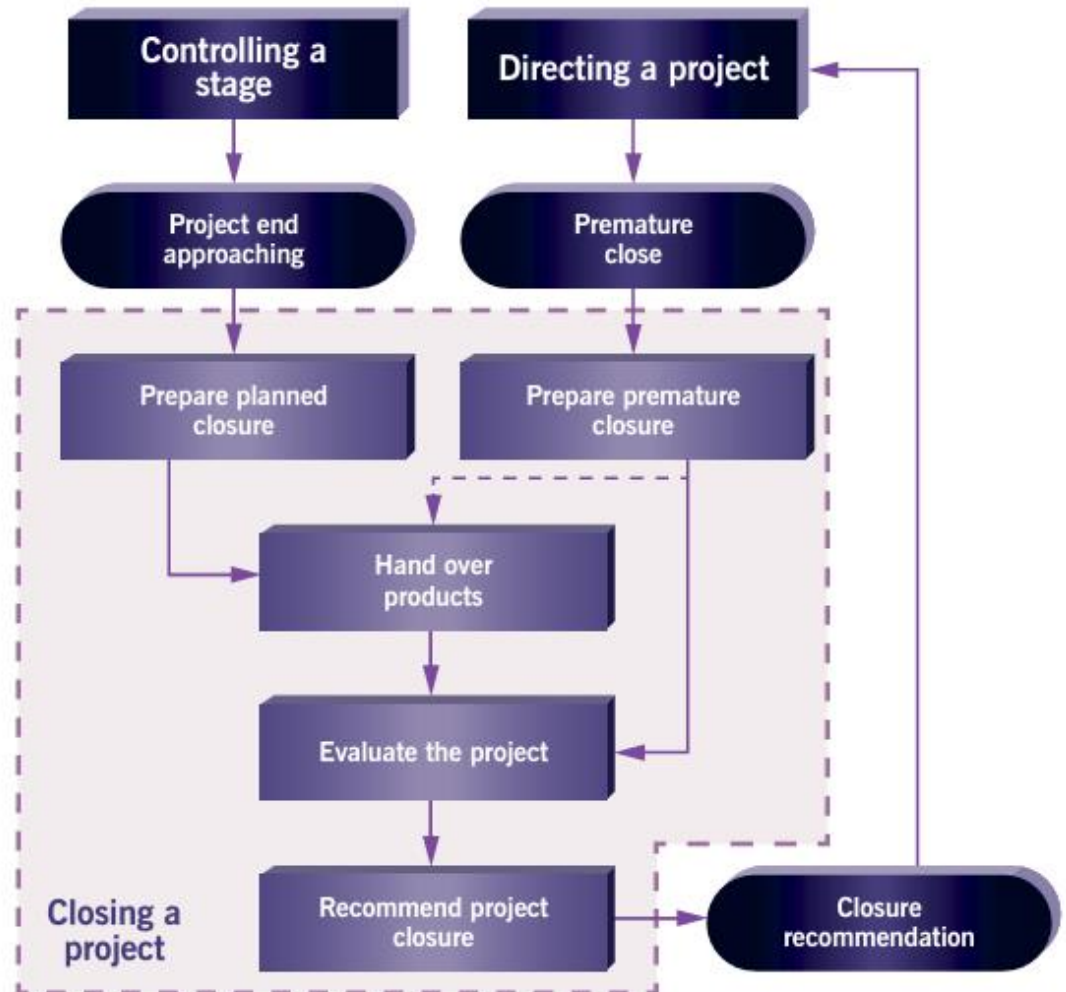
(PRINCE2, Axelos 2017, p. 161)



Note 1: At the end of the initiation stage, the initiating a project process is used to request project board approval to deliver the project (with the submission of the PID), and in parallel the managing a stage boundary process is used to request project board approval of the stage plan for the second management stage.

Note 2: The closure activities are planned and approved as part of the stage approval for the final stage, therefore the closing a project process takes place in the final stage.

PRINCE2: Overview of Closing a Project (PRINCE2, Axelos 2017, p. 261)





**Annex 4:
IPMA® Competence Baseline**

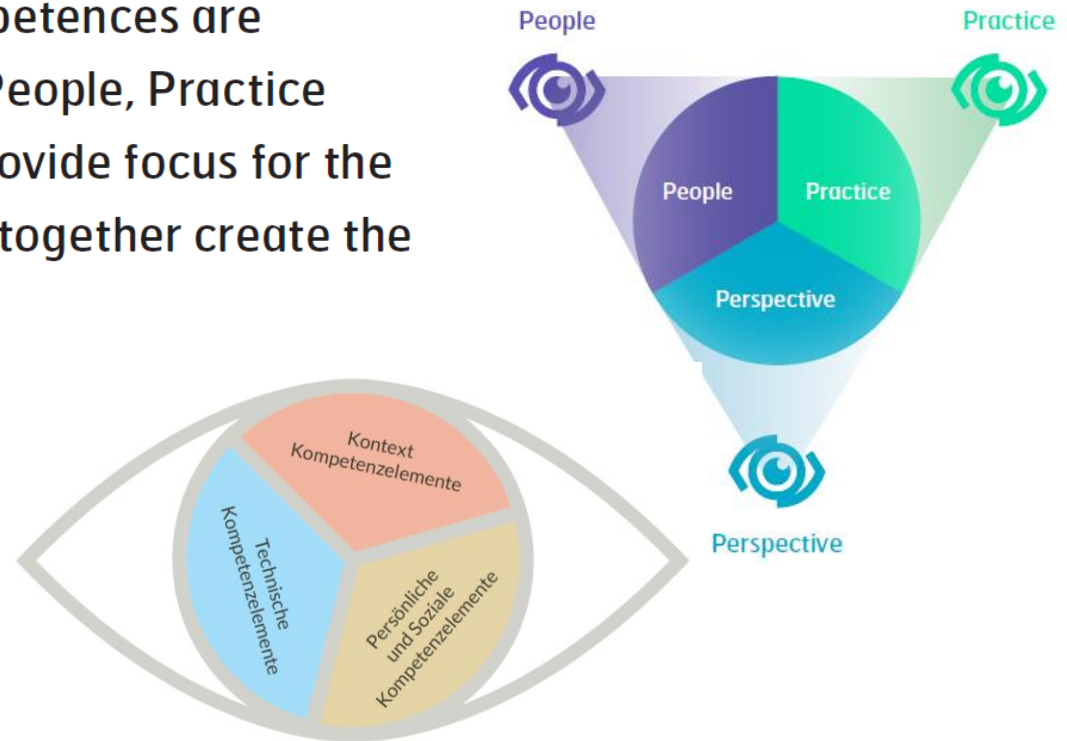
What is a Project?

Source: ICB® 4.0, page 27

- **A project** is a unique, temporary, multi-disciplinary and organised endeavour to realise agreed deliverables within predefined requirements and constraints. Project management typically involves personnel from project management associates up to senior project managers.
- **A programme** is set up to achieve a strategic goal. A programme is a temporary organisation of interrelated programme components managed in a coordinated way to enable the implementation of change and the realisation of benefits. Programme management typically involves senior project managers or project directors.
- **A portfolio** is a set of projects and/or programmes, which are not necessarily related, brought together to provide optimum use of the organisation's resources and to achieve the organisation's strategic goals while minimising portfolio risk. Important issues on a portfolio level are reported to the senior management of the organisation by the portfolio manager, together with options to resolve the issues.

“The Eye of Competence” ICB® 4.0

The Eye of Competence represents the universe of competences for Project, Programme, and Portfolio Management. Competences are divided into three domains: People, Practice and Perspective. Domains provide focus for the aspects of competence, and together create the whole, balanced individual.



Source: ICB® 4.0, page 25

The 3 Competence Areas

- **The three competence areas are as follows:**
 - **People competences:**
these consist of the personal and interpersonal competences required to successfully participate in or lead a project, programme or portfolio
 - **Practice competences:**
these are the specific methods, tools and techniques used in projects, programmes or portfolios to realise their success
 - **Perspective competences:**
under this heading come the methods, tools and techniques through which individuals interact with the environment, as well as the rationale that leads people, organisations and societies to start and support projects, programmes and portfolios

Source: ICB® 4.0, page 26

4.3. Perspective	
4.3.1.	Strategy
4.3.2.	Governance, structures and processes
4.3.3.	Compliance, standards and regulation
4.3.4.	Power and interest
4.3.5.	Culture and values
4.4. People	
4.4.1.	Self-reflection and self-management
4.4.2.	Personal integrity and reliability
4.4.3.	Personal communication
4.4.4.	Relationships and engagement
4.4.5.	Leadership
4.4.6.	Teamwork
4.4.7.	Conflict and crisis
4.4.8.	Resourcefulness
4.4.9.	Negotiation
4.4.10.	Results orientation
4.5. Practice	
4.5.1.	Project design
4.5.2.	Requirements and objectives
4.5.3.	Scope
4.5.4.	Time
4.5.5.	Organisation and information
4.5.6.	Quality
4.5.7.	Finance
4.5.8.	Resources
4.5.9.	Procurement
4.5.10.	Plan and control
4.5.11.	Risk and opportunity
4.5.12.	Stakeholders
4.5.13.	Change and transformation

Competence Elements ICB 4.0



Perspective competences

Every project, programme and portfolio is started, driven, supported and governed by external drivers. People, organisations and societies demand things, varying extraordinary. Somewhere along that line, realising what people want gets so complicated that a project or programme is considered. It is rare that any project or programme is executed in a vacuum – they are influenced by their organisational, societal and political context.

The drivers for every project or programme can be roughly divided into the formal and explicit goals and needs of the organisation and/or society, and more informal and implicit motives and interests.

A clear example of a set of formal, explicit and present drivers of projects, programmes and portfolios is the strategy of an organisation. **The Strategy (Perspective 1)** generally has clear goals and objectives and, more often than not, projects and programmes contribute to these goals and objectives, while project and programme portfolios are prioritised according to these goals and objectives.

Organisational and external **Governance, structures and processes (Perspective 2)** create the formal context of a project, programme or portfolio. The amount and interdependency of the project, programme or portfolio interfaces with this context defines an important part of the complexity. It may mean that a project, programme or portfolio has to deal with legacy processes or structures that served clear goals when they were established but are cumbersome to use in the present situation.

Compliance, standards and regulations (Perspective 3) also contain relevant perspectives and drivers. They comprise the relevant laws, regulations, standards and tools that reflect priorities, best practices and demands of the organisation, industry, society and professional regulatory bodies.

The informal Power and interest (Perspective 4) of people within an organisation can have a huge influence on the success of any project, programme and portfolio. This is the informal and implicit counterpart of the organisation's strategy. People are not just driven by the formal rules and objectives of an organisation; they also have personal goals and objectives.

The Culture and values (Perspective 5) of an organisation (or society) are by definition for the most part informal and implicit. Of course, an organisation may try to influence the informal culture by formal and explicit mission statements and corporate values. Yet the majority of cultural values remain implicit and informal, although they influence all other perspective elements

– admissible strategies, rules and regulations, etc. Understanding the mores, customs, conventions and practices of an organisation or society is therefore an essential requisite for the success of any project, programme or portfolio.



People competences

This competence area describes the personal and social competences an individual working in the project, programme or portfolio needs to possess to be able to realise success.

All personal competence starts with the ability to self-reflect. In the end, an individual's competence is proven by realising the agreed tasks successfully, that is, to the satisfaction of the stakeholders. Between these extremes eight other competence elements are defined.

Basic personal attributes are discussed in **Self-reflection and self-management (People 1)** and **Personal integrity and reliability (People 2)**.

Communicating with others is described in **Personal communication (People 3)**, and building relations in **Relations and engagement (People 4)**.

Projects, programmes and portfolios increasingly rely on **Leadership (People 5)**. And two specific aspects of leadership are also presented: **Teamwork (People 6)** and how to handle **Conflict and crisis (People 7)**.

Resourcefulness (People 8) describes ways of thinking (conceptual and holistic) and sets of techniques (analytic and creative), but above all focuses on the ability to create an open and creative team environment, where each can work and contribute optimally. **Negotiation (People 9)** describes how to reach results that are both in the interest of the project, programme or portfolio and acceptable to other parties; and **Results orientation (People 10)** describes the ways an individual can stimulate and steer his team to realise optimal results.



Practice competences

All contextual influences and demands come together when the organisation initiates a new project, programme or portfolio. The individual working in project, programme or portfolio management has to take into account all these influences and demands.

The individual prioritises and translates these into **a project, programme or portfolio Design (Practice 1)**. The project, programme or portfolio design is a 'charcoal sketch' that defines the high-level choices for this project, programme or portfolio (e.g. make or buy, linear or iterative, possible funding or resourcing options, how to manage the project, programme or portfolio). In the other technical competence elements, each of these basic decisions will be specified, implemented and managed.

Goals, objectives, and benefits (Practice 2) include the various demands and expectations regarding the outcomes and the objectives, and how these are prioritised. **Scope (Practice 3)** describes the specific boundaries of the project, programme or portfolio.

Time (Practice 4) focuses on the order and planning of the delivery; **Organisation and information (Practice 5)** deals with the organisation of the project, programme or portfolio and its internal information and communication flows; and **Quality (Practice 6)** describes the demands and organisation of both process and product quality and its controls.

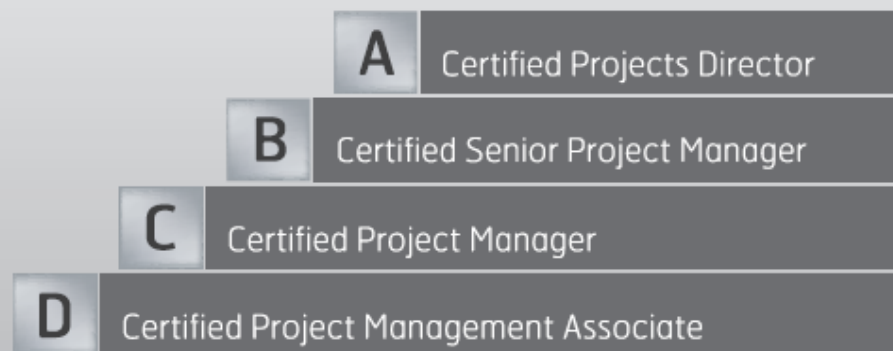
Of course projects, programmes and portfolios are dependent on the input of people, material and money. These input constraints include money, **Finance (Practice 7)** and (human and other)

Resources (Practice 8). Often, acquiring resources requires **Procurement (Practice 9)**.

Integration and control of all activities is described in the competence element **Plan and control (Practice 10)**. Apart from that, the individual has to identify, prioritise and mitigate the main **Risk and opportunity (Practice 11)** and to assess, and engage with, **Stakeholders (Practice 12)**.

Another output is **Change and transformation (Practice 13)** – changes in the organisation necessary for, or part of, realising the benefits. And finally, the competence **Select and balance (Practice 14; only for programme and portfolio management)** describes the selecting and balancing of components of programmes and portfolios.

IPMA Competence Levels



Level A: Certified Projects Director able to manage complex project portfolios and programmes.

Level B: Certified Senior Project Manager able to manage complex projects. Minimum five years of experience.

Level C: Certified Project Manager able to manage projects with limited complexity. Minimum three years of experience.

Level D: Certified Project Management Associate able to apply project management knowledge when working in a project.

Source: <http://www.ipma.ch/SiteCollectionDocuments/Certification%20folder.pdf>