

# ΕΙΣΑΓΩΓΗ ΣΤΗ ΔΙΑΧΕΙΡΙΣΗ ΕΡΓΩΝ

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# Δομή μαθήματος

<b>Ημερομηνία</b>	<b>Περιγραφή</b>
1 <sup>η</sup> διάλεξη	Εισαγωγή στη διαχείριση έργων
2 <sup>η</sup> διάλεξη	Κύκλος ζωής λογισμικού, Διαχείριση απαιτήσεων
3 <sup>η</sup> διάλεξη	Χρονοπρογραμματισμός έργων
4 <sup>η</sup> διάλεξη	Οικονομική διαχείριση έργων
5 <sup>η</sup> διάλεξη	Εκτίμηση κόστους Παρουσιάσεις εργασιών

# Βιβλία

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# Περιεχόμενα Σημερινής διάλεξης

- Βασικοί ορισμοί
- Πρότυπα διαχείρισης έργων
- Οι συμμετέχοντες
- Οργανωτικές δομές
- Βασικές διαδικασίες

# Τι είναι έργο

- Προσωρινό εγχείρημα που στοχεύει στη δημιουργία ενός μοναδικού προϊόντος ή υπηρεσίας .
  - **Προσωρινό** σημαίνει ότι κάθε έργο έχει καθορισμένο τέλος.
  - **Μοναδικό** σημαίνει ότι το προϊόν ή η υπηρεσία διαφέρει κατά διακριτό τρόπο από όλα τα παρόμοια προϊόντα ή υπηρεσίες
- Εγχείρημα κατά το οποίο ανθρώπινοι πόροι, μηχανές , οικονομικοί πόροι και πρώτες ύλες οργανώνονται κατά καινοφανή τρόπο, με στόχο την ανάληψη συγκεκριμένου αντικειμένου εργασιών που έχουν συγκεκριμένες προδιαγραφές και υπόκεινται σε δεδομένους κοστολογικούς και χρονικούς περιορισμούς, ώστε να παραχθεί μια επωφελής μεταβολή η οποία ορίζεται μέσω ποσοτικών και ποιοτικών στόχων.

# Παραδείγματα έργων

- Κάθε μεταβατική περίοδος στην διάρκεια της οποίας συντελούνται αλλαγές
- Η μελέτη και η κατασκευή κτιρίου, σπιτιού.
- Ο σχεδιασμός νέου μοντέλου αυτοκινήτου.
- Η εισαγωγή νέων προϊόντων στην αγορά.
- Η υλοποίηση συστημάτων πληροφορικής.
- Ο σχεδιασμός και υλοποίηση νέων οργανωτικών δομών.
- Ο σχεδιασμός και άσκηση επιθεωρήσεων.
- Η περιοδεία ενός μουσικού συγκροτήματος.
- Δημιουργία μια κινηματογραφικής ταινίας.
- Μετακόμιση.
- Διακοπές.
- Γάμος.

# Άλλοι Ορισμοί

- Ο Maylor ορίζει το έργο ως:
  - A non-repetitive activity;
  - Low volume, but high variety activity;
  - A temporary endeavour to create a unique product or service;
  - Any activity with a start and a finish.
- BS 6079, 2000 gives this definition:
  - A unique set of co-ordinated activities, with a defined starting and finishing points, undertaken by an individual or an organisation to meet specific performance objectives within a defined schedule, cost and performance parameters.



How the customer explained it



How the Project Leader understood it



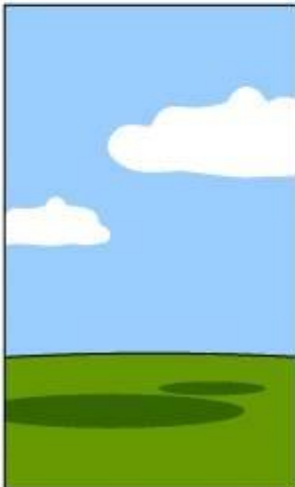
How the Analyst designed it



How the Programmer wrote it



How the Business Consultant described it



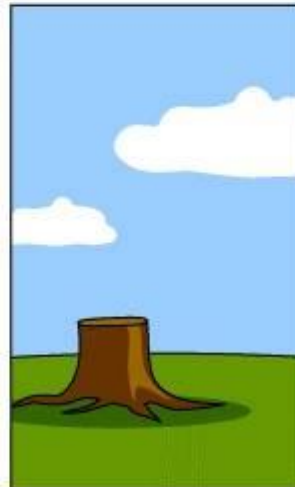
How the project was documented



What operations installed



How the customer was billed



How it was supported



What the customer really needed



# Project Success

**Απαιτήσεις πελάτη  
satisfied/exceeded**

**Σύμφωνα με το  
διαθέσιμο χρόνο**



**Σύμφωνα με τον  
προυπολογισμό**

**Αποδεκτό από τον πελάτη**

# Project Failure

Δεν καλύπτονται οι  
απαιτήσεις

Λανθασμένη καταγραφή  
απαιτήσεων

Μη ρεαλιστικός  
σχεδιασμός

Έλλειψη πόρων





# Chaos Report 2012

**Project Success:** Type 1. The project is completed on-time and on-budget, with all features and functions as initially specified. **(2012: 39%)**

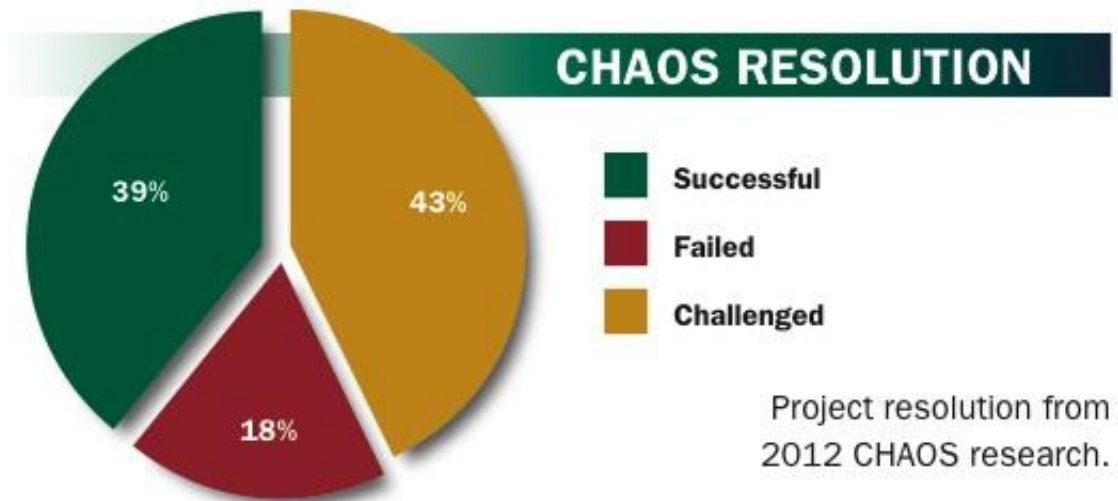
**Project Challenged:** Type 2. The project is completed and operational but over-budget, over the time estimate, and offers fewer features and functions than originally specified. **(2012: 43%)**

## Project Impaired:

Type 3.

The project is canceled at some point during the development cycle.

**(2012: 18%)** (Are ALL impaired projects failures???)



Project resolution from 2012 CHAOS research.

# What Went Right? – Improved Project Performance

- The Standish Group's CHAOS studies show improvements in IT projects in the past decade

## RESOLUTION

	2004	2006	2008	2010	2012
<b>Successful</b>	29%	35%	32%	37%	39%
<b>Failed</b>	18%	19%	24%	21%	18%
<b>Challenged</b>	53%	46%	44%	42%	43%

Project resolution results from CHAOS research for years 2004 to 2012.

# Τι είναι project management

- Είναι η διαδικασία κατά την οποία εφαρμόζουμε **γνώσεις** (knowledge), **δεξιότητες** (skills), **εργαλεία** (tools) και **τεχνικές** (techniques) κατά την εκτέλεση των δραστηριοτήτων του έργου με στόχο να ικανοποιήσουμε τις απαιτήσεις και τις προσδοκίες των συμμετεχόντων
  - Αντικείμενο εργασιών, χρόνος, κόστος και ποιότητα
  - Συμμετέχοντες (stakeholders) έχουν διαφορετικές ανάγκες και απαιτήσεις (expectations)
- Διαδικασία ενσωμάτωσης όλων όσων πρέπει να γίνουν καθώς το έργο διανέμει τον κύκλο ζωής ώστε να ικανοποιηθούν οι στόχοι του έργου.



# Ερώτηση

- Πως διαφέρει η διοίκηση/διαχείριση έργων από τη γενικότερη διοίκηση;

# Projects *vs.* operations/production

## Similarities

### ***Both Projects & Operations***

- Consume resources
- Are constrained by budget, time, resources, etc.
- Are planned, executed, & controlled

### ***Projects***

- Are unique
- Are temporary
- *Example:* Developing v1.0 of a new cloud-based software product (e.g., Adobe Creative Cloud)

## Differences

### ***Operations***

- Are repetitive
- Are on-going
- *Example:* Maintenance and delivery of cloud-based software product





# Ερώτηση

- Πως και γιατί διαφέρουν τα IT έργα ?

# Απάντηση /1

- IT products and services possess greater complexity
  - IT products and services are intrinsically complex by nature
  - Computing + communication + diverse data ⇒ complexity
- IT projects have tight schedules
  - Tight schedules are the norm in IT development
  - Scheduling is aggravated by a pervasive ‘rush to market’ mentality
- IT is an integral part of enterprise infrastructure
  - IT is no longer an auxiliary element of the enterprise
  - A business’s success is often critically dependent upon IT support
- IT is permeated by quickly-changing technology
  - Technology evolves (and may even become obsolete) during the lifetime of a major project

*Dennis Mumough* , Software and Systems Project Management

## Απάντηση /2

- Consists of hardware and software.
- Software is [usually] custom written and one-of-a-kind.
- Hard to determine progress. [One can see how far the Freedom Tower (World Trade Center) has progressed. One cannot see how far a piece of software has progressed]
- Difficult to estimate schedule.
- Difficult to determine cost.

# Τα ΠΡΟΤΥΠΑ

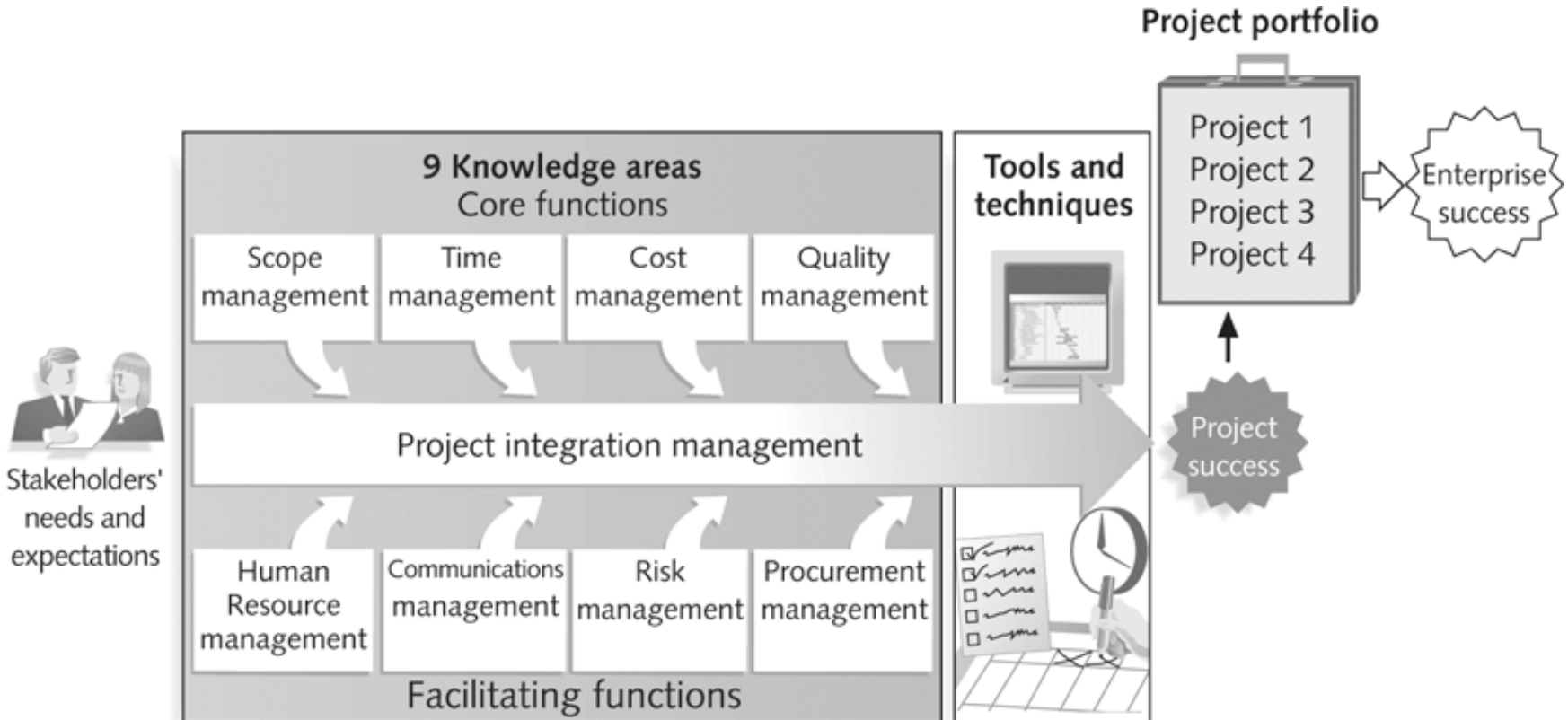




# Τα ΠΡΟΤΥΠΑ ΔΙΑΧΕΙΡΙΣΗΣ ΕΡΓΩΝ

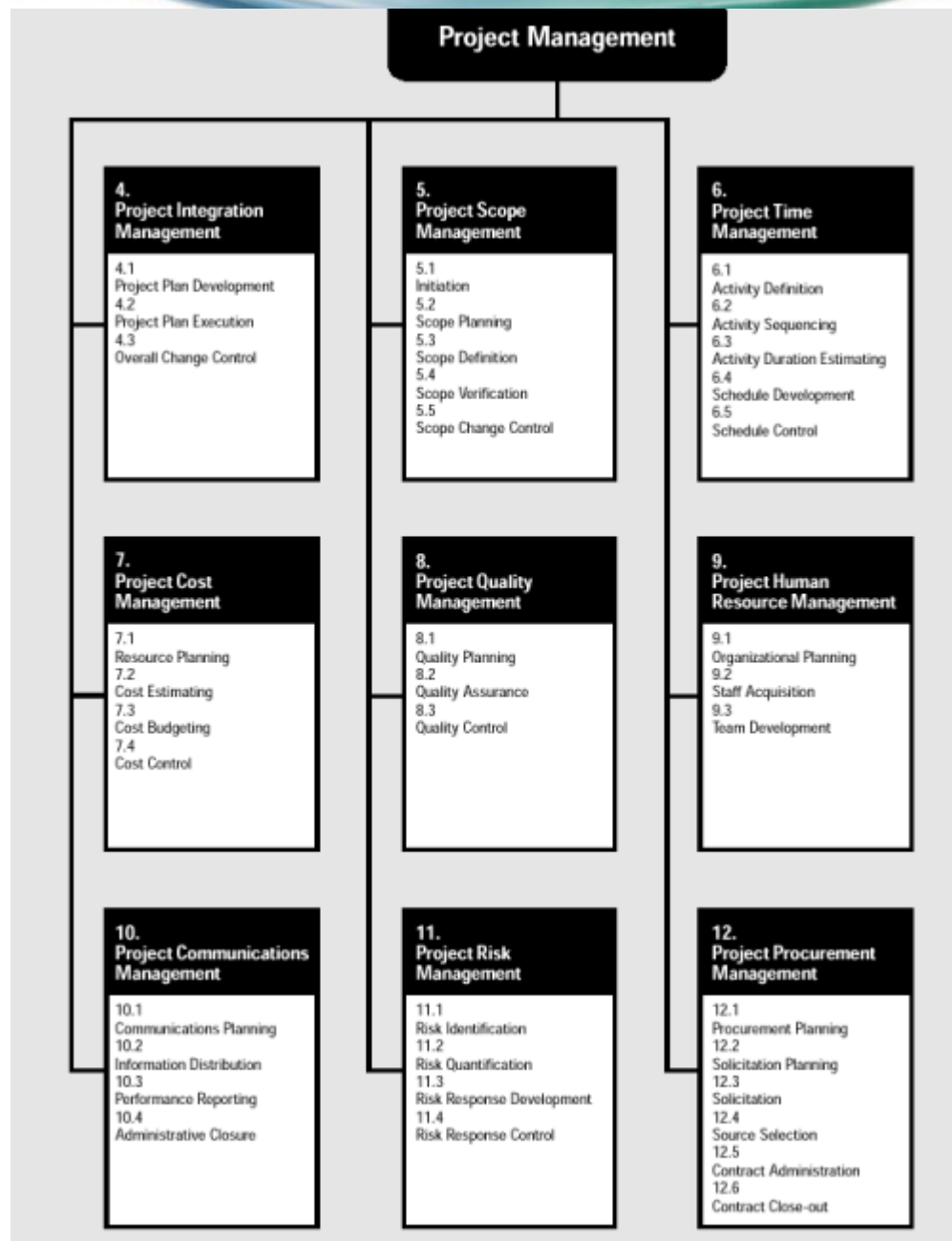
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- Κυπριακό
- Ελληνικό

# Project Management Framework (PMI)



# Διαχείριση έργων PMI

- Ενοποίηση έργου
- Διαχείριση αντικειμένου εργασιών
- Διαχείριση χρόνου
- Διαχείριση κόστους
- Διαχείριση ποιότητας
- Διαχείριση ανθρωπίνων πόρων
- Διαχείριση επικοινωνίας
- Διαχείριση κινδύνου
- Διαχείριση προμηθειών
- Διαχείριση συμμετεχόντων

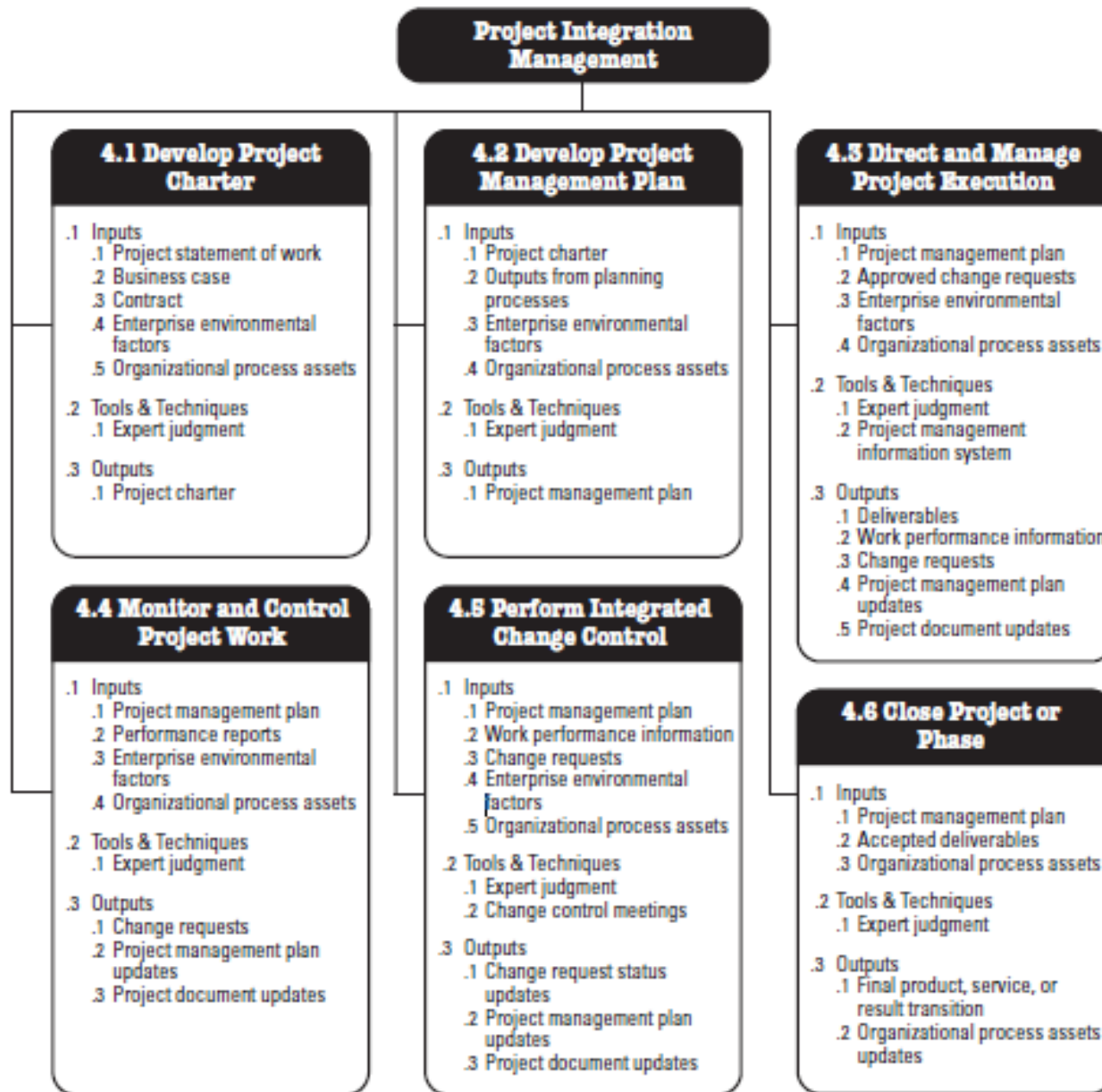


# PMBOK

1







# Change Control Management

- Define how changes to the project scope will be executed

## Scope Change



## Technical Specification Changes



## Schedule changes

All changes require collaboration and buy in via the project sponsor's signature prior to implementation of the changes

PMBOK

2



# Scope Management

- Primarily it is the definition and control of what ***IS*** and ***IS NOT*** included in the project.



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## Project Scope Management

### 5.1 Collect Requirements

- .1 Inputs
  - .1 Project charter
  - .2 Stakeholder register
- .2 Tools & Techniques
  - .1 Interviews
  - .2 Focus groups
  - .3 Facilitated workshops
  - .4 Group creativity techniques
  - .5 Group decision making techniques
  - .6 Questionnaires and surveys
  - .7 Observations
  - .8 Prototypes
- .3 Outputs
  - .1 Requirements documentation
  - .2 Requirements management plan
  - .3 Requirements traceability matrix

### 5.4 Verify Scope

- .1 Inputs
  - .1 Project management plan
  - .2 Requirements documentation
  - .3 Requirements traceability matrix
  - .4 Validated deliverables
- .2 Tools & Techniques
  - .1 Inspection
- .3 Outputs
  - .1 Accepted deliverables
  - .2 Change requests
  - .3 Project document updates

### 5.2 Define Scope

- .1 Inputs
  - .1 Project charter
  - .2 Requirements documentation
  - .3 Organizational process assets
- .2 Tools & Techniques
  - .1 Expert judgment
  - .2 Product analysis
  - .3 Alternatives identification
  - .4 Facilitated workshops
- .3 Outputs
  - .1 Project scope statement
  - .2 Project document updates

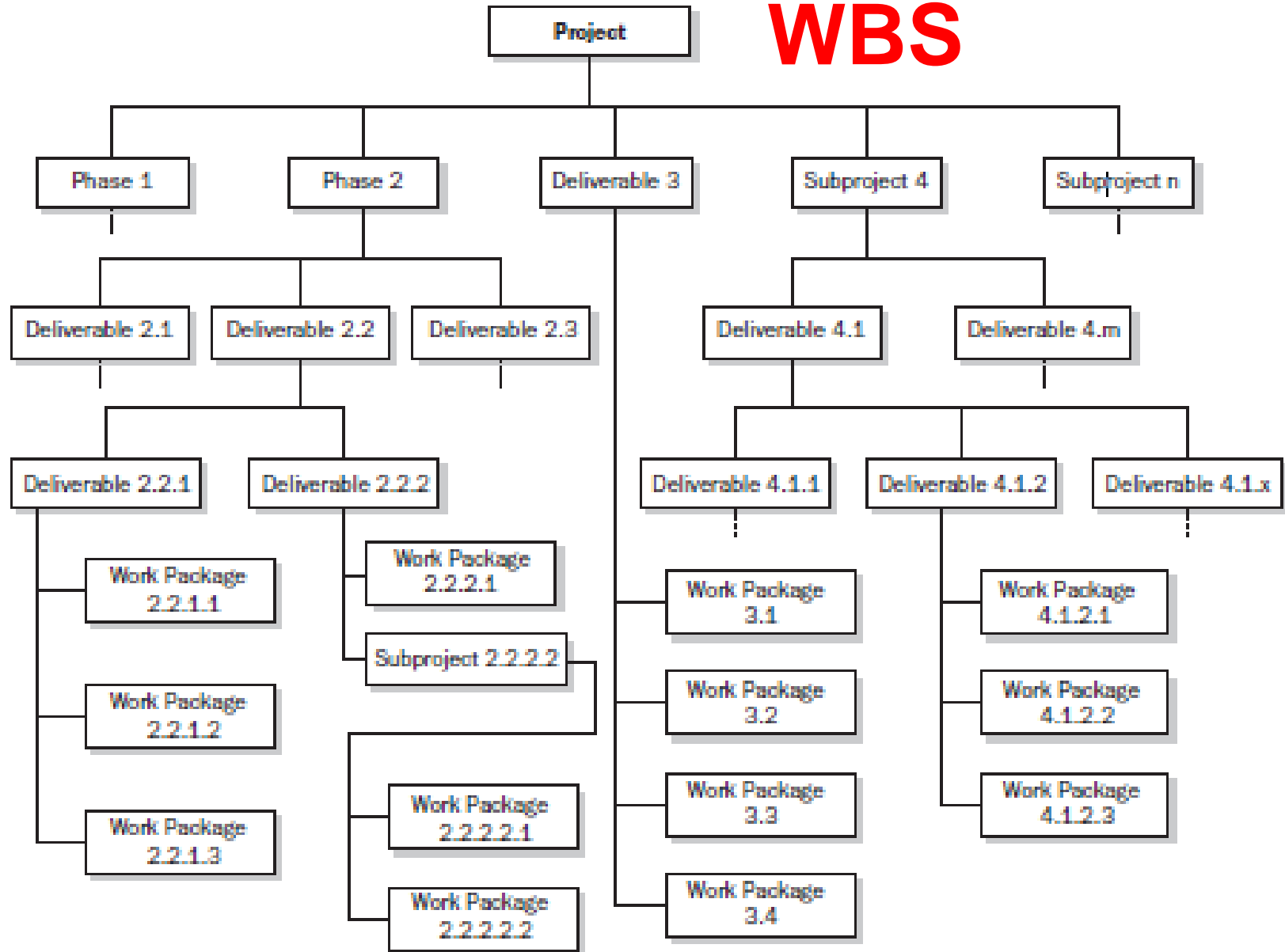
### 5.5 Control Scope

- .1 Inputs
  - .1 Project management plan
  - .2 Work performance information
  - .3 Requirements documentation
  - .4 Requirements traceability matrix
  - .5 Organizational process assets
- .2 Tools & Techniques
  - .1 Variance analysis
- .3 Outputs
  - .1 Work performance measurements
  - .2 Organizational process assets updates
  - .3 Change requests
  - .4 Project management plan updates
  - .5 Project document updates

### 5.3 Create WBS

- .1 Inputs
  - .1 Project scope statement
  - .2 Requirements documentation
  - .3 Organizational process assets
- .2 Tools & Techniques
  - .1 Decomposition
- .3 Outputs
  - .1 WBS
  - .2 WBS dictionary
  - .3 Scope baseline
  - .4 Project document updates

# WBS



3



## Project Time Management Overview

### 6.1 Define Activities

- 1 Inputs
  - 1 Scope baseline
  - 2 Enterprise environmental factors
  - 3 Organizational process assets
- 2 Tools & Techniques
  - 1 Decomposition
  - 2 Rolling wave planning
  - 3 Templates
  - 4 Expert judgment
- 3 Outputs
  - 1 Activity list
  - 2 Activity attributes
  - 3 Milestone list

### 6.4 Estimate Activity Durations

- 1 Inputs
  - 1 Activity list
  - 2 Activity attributes
  - 3 Activity resource requirements
  - 4 Resource calendars
  - 5 Project scope statement
  - 6 Enterprise environmental factors
  - 7 Organizational process assets
- 2 Tools & Techniques
  - 1 Expert judgment
  - 2 Analogous estimating
  - 3 Parametric estimating
  - 4 Three-point estimates
  - 5 Reserve analysis
- 3 Outputs
  - 1 Activity duration estimates
  - 2 Project document updates

### 6.2 Sequence Activities

- 1 Inputs
  - 1 Activity list
  - 2 Activity attributes
  - 3 Milestone list
  - 4 Project scope statement
  - 5 Organizational process assets
- 2 Tools & Techniques
  - 1 Precedence diagramming method (PDM)
  - 2 Dependency determination
  - 3 Applying leads and lags
  - 4 Schedule network templates
- 3 Outputs
  - 1 Project schedule network diagrams
  - 2 Project document updates

### 6.5 Develop Schedule

- 1 Inputs
  - 1 Activity list
  - 2 Activity attributes
  - 3 Project schedule network diagrams
  - 4 Activity resource requirements
  - 5 Resource calendars
  - 6 Activity duration estimates
  - 7 Project scope statement
  - 8 Enterprise environmental factors
  - 9 Organizational process assets
- 2 Tools & Techniques
  - 1 Schedule network analysis
  - 2 Critical path method
  - 3 Critical chain method
  - 4 Resource leveling
  - 5 What-if scenario analysis
  - 6 Applying leads and lags
  - 7 Schedule compression
  - 8 Scheduling tool
- 3 Outputs
  - 1 Project schedule
  - 2 Schedule baseline
  - 3 Schedule data
  - 4 Project document updates

### 6.3 Estimate Activity Resources

- 1 Inputs
  - 1 Activity list
  - 2 Activity attributes
  - 3 Resource calendars
  - 4 Enterprise environmental factors
  - 5 Organizational process assets
- 2 Tools & Techniques
  - 1 Expert judgment
  - 2 Alternatives analysis
  - 3 Published estimating data
  - 4 Bottom-up estimating
  - 5 Project management software
- 3 Outputs
  - 1 Activity resource requirements
  - 2 Resource breakdown structure
  - 3 Project document updates

### 6.6 Control Schedule

- 1 Inputs
  - 1 Project management plan
  - 2 Project schedule
  - 3 Work performance information
  - 4 Organizational process assets
- 2 Tools & Techniques
  - 1 Performance reviews
  - 2 Variance analysis
  - 3 Project management software
  - 4 Resource leveling
  - 5 What-if scenario analysis
  - 6 Adjusting leads and lags
  - 7 Schedule compression
  - 8 Scheduling tool
- 3 Outputs
  - 1 Work performance measurements
  - 2 Organizational process assets updates
  - 3 Change requests
  - 4 Project management plan updates
  - 5 Project document updates



4



# Cost Management

- This process is required to ensure the project is completed within the approved budget and includes:



## Resources

people  
equipment  
materials

## Quantities



## Budget

## Project Cost Management Overview

### 7.1 Estimate Costs

- .1 Inputs
  - .1 Scope baseline
  - .2 Project schedule
  - .3 Human resource plan
  - .4 Risk register
  - .5 Enterprise environmental factors
  - .6 Organizational process assets
- .2 Tools & Techniques
  - .1 Expert judgment
  - .2 Analogous estimating
  - .3 Parametric estimating
  - .4 Bottom-up estimating
  - .5 Three-point estimates
  - .6 Reserve analysis
  - .7 Cost of quality
  - .8 Project management estimating software
  - .9 Vendor bid analysis
- .3 Outputs
  - .1 Activity cost estimates
  - .2 Basis of estimates
  - .3 Project document updates

### 7.2 Determine Budget

- .1 Inputs
  - .1 Activity cost estimates
  - .2 Basis of estimates
  - .3 Scope baseline
  - .4 Project schedule
  - .5 Resource calendars
  - .6 Contracts
  - .7 Organizational process assets
- .2 Tools & Techniques
  - .1 Cost aggregation
  - .2 Reserve analysis
  - .3 Expert judgment
  - .4 Historical relationships
  - .5 Funding limit reconciliation
- .3 Outputs
  - .1 Cost performance baseline
  - .2 Project funding requirements
  - .3 Project document updates

### 7.3 Control Costs

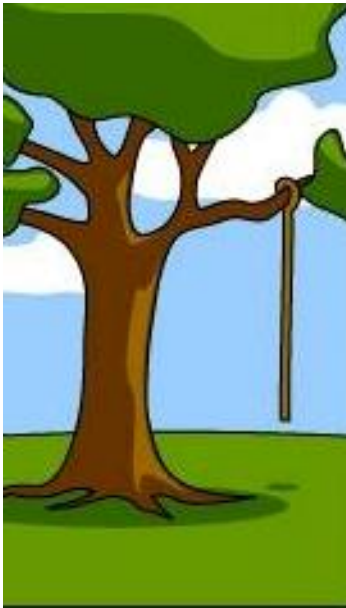
- .1 Inputs
  - .1 Project management plan
  - .2 Project funding requirements
  - .3 Work performance information
  - .4 Organizational process assets
- .2 Tools & Techniques
  - .1 Earned value management
  - .2 Forecasting
  - .3 To-complete performance Index (TCPI)
  - .4 Performance reviews
  - .5 Variance analysis
  - .6 Project management software
- .3 Outputs
  - .1 Work performance measurements
  - .2 Budget forecasts
  - .3 Organizational process assets updates
  - .4 Change requests
  - .5 Project management plan updates
  - .6 Project document updates

5



# Quality Management

- Quality Management is the process that insure the project will meet the needs



“conformance to requirements” - **Crosby**

“fitness for use” - **Juran**

“the totality of characteristics of an entity that bear on its ability to satisfy stated and implied need’ - **ISO 8402:1994**

## Project Quality Management Overview

### 8.1 Plan Quality

- .1 Inputs
  - .1 Scope baseline
  - .2 Stakeholder register
  - .3 Cost performance baseline
  - .4 Schedule baseline
  - .5 Risk register
  - .6 Enterprise environmental factors
  - .7 Organizational process assets
- .2 Tools & Techniques
  - .1 Cost-benefit analysis
  - .2 Cost of quality
  - .3 Control charts
  - .4 Benchmarking
  - .5 Design of experiments
  - .6 Statistical sampling
  - .7 Flowcharting
  - .8 Proprietary quality management methodologies
  - .9 Additional quality planning tools
- .3 Outputs
  - .1 Quality management plan
  - .2 Quality metrics
  - .3 Quality checklists
  - .4 Process improvement plan
  - .5 Project document updates

### 8.2 Perform Quality Assurance

- .1 Inputs
  - .1 Project management plan
  - .2 Quality metrics
  - .3 Work performance information
  - .4 Quality control measurements
- .2 Tools & Techniques
  - .1 Plan Quality and Perform Quality Control tools and techniques
  - .2 Quality audits
  - .3 Process analysis
- .3 Outputs
  - .1 Organizational process asset updates
  - .2 Change requests
  - .3 Project management plan updates
  - .4 Project document updates

### 8.3 Perform Quality Control

- .1 Inputs
  - .1 Project management plan
  - .2 Quality metrics
  - .3 Quality checklists
  - .4 Work performance measurements
  - .5 Approved change requests
  - .6 Deliverables
  - .7 Organizational process assets
- .2 Tools & Techniques
  - .1 Cause and effect diagrams
  - .2 Control charts
  - .3 Flowcharting
  - .4 Histogram
  - .5 Pareto chart
  - .6 Run chart
  - .7 Scatter diagram
  - .8 Statistical sampling
  - .9 Inspection
  - .10 Approved change requests review
- .3 Outputs
  - .1 Quality control measurements
  - .2 Validated changes
  - .3 Validated deliverables
  - .4 Organizational process assets updates
  - .5 Change requests
  - .6 Project management plan updates
  - .7 Project document updates

# PMBOK

6



## Project Human Resource Management Overview

### 9.1 Develop Human Resource Plan

- .1 Inputs
  - .1 Activity resource requirements
  - .2 Enterprise environmental factors
  - .3 Organizational process assets
- .2 Tools & Techniques
  - .1 Organization charts and position descriptions
  - .2 Networking
  - .3 Organizational theory
- .3 Outputs
  - .1 Human resource plan

### 9.2 Acquire Project Team

- .1 Inputs
  - .1 Project management plan
  - .2 Enterprise environmental factors
  - .3 Organizational process assets
- .2 Tools & Techniques
  - .1 Pre-assignment
  - .2 Negotiation
  - .3 Acquisition
  - .4 Virtual teams
- .3 Outputs
  - .1 Project staff assignments
  - .2 Resource calendars
  - .3 Project management plan updates

### 9.3 Develop Project Team

- .1 Inputs
  - .1 Project staff assignments
  - .2 Project management plan
  - .3 Resource calendars
- .2 Tools & Techniques
  - .1 Interpersonal skills
  - .2 Training
  - .3 Team-building activities
  - .4 Ground rules
  - .5 Co-location
  - .6 Recognition and rewards
- .3 Outputs
  - .1 Team performance assessments
  - .2 Enterprise environmental factors updates

### 9.4 Manage Project Team

- .1 Inputs
  - .1 Project staff assignments
  - .2 Project management plan
  - .3 Team performance assessments
  - .4 Performance reports
  - .5 Organizational process assets
- .2 Tools & Techniques
  - .1 Observation and conversation
  - .2 Project performance appraisals
  - .3 Conflict management
  - .4 Issue log
  - .5 Interpersonal skills
- .3 Outputs
  - .1 Enterprise environmental factors updates
  - .2 Organizational process assets updates
  - .3 Change requests
  - .4 Project management plan updates



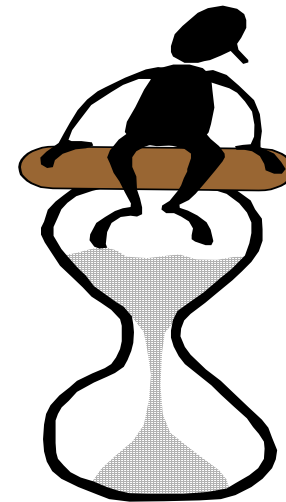
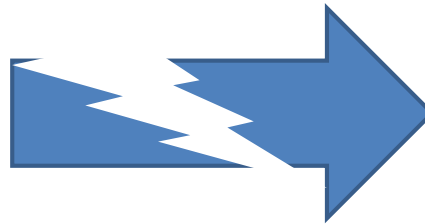
# PMBOK

7



# Communications Management

- This process is necessary to ensure timely and appropriate generation, collection, dissemination, and storage of project information



## Project Communications Management Overview

### 10.1 Identify Stakeholders

- .1 Inputs
  - .1 Project charter
  - .2 Procurement documents
  - .3 Enterprise environmental factors
  - .4 Organizational process assets
- .2 Tools & Techniques
  - .1 Stakeholder analysis
  - .2 Expert judgment
- .3 Outputs
  - .1 Stakeholder register
  - .2 Stakeholder management strategy

### 10.4 Manage Stakeholder Expectations

- .1 Inputs
  - .1 Stakeholder register
  - .2 Stakeholder management strategy
  - .3 Project management plan
  - .4 Issue log
  - .5 Change log
  - .6 Organizational process assets
- .2 Tools & Techniques
  - .1 Communication methods
  - .2 Interpersonal skills
  - .3 Management skills
- .3 Outputs
  - .1 Organizational process assets updates
  - .2 Change requests
  - .3 Project management plan updates
  - .4 Project document updates

### 10.2 Plan Communications

- .1 Inputs
  - .1 Stakeholder register
  - .2 Stakeholder management strategy
  - .3 Enterprise environmental factors
  - .4 Organizational process assets
- .2 Tools & Techniques
  - .1 Communication requirements analysis
  - .2 Communication technology
  - .3 Communication models
  - .4 Communication methods
- .3 Outputs
  - .1 Communications management plan
  - .2 Project document updates

### 10.5 Report Performance

- .1 Inputs
  - .1 Project management plan
  - .2 Work performance information
  - .3 Work performance measurements
  - .4 Budget forecasts
  - .5 Organizational process assets
- .2 Tools & Techniques
  - .1 Variance analysis
  - .2 Forecasting methods
  - .3 Communication methods
  - .4 Reporting systems
- .3 Outputs
  - .1 Performance reports
  - .2 Organizational process assets updates
  - .3 Change requests

### 10.3 Distribute Information

- .1 Inputs
  - .1 Project management plan
  - .2 Performance reports
  - .3 Organizational process assets
- .2 Tools & Techniques
  - .1 Communication methods
  - .2 Information distribution tools
- .3 Outputs
  - .1 Organizational process assets updates

8



## Project Risk Management Overview

### 11.1 Plan Risk Management

- .1 Inputs
  - .1 Project scope statement
  - .2 Cost management plan
  - .3 Schedule management plan
  - .4 Communications management plan
  - .5 Enterprise environmental factors
  - .6 Organizational process assets
- .2 Tools & Techniques
  - .1 Planning meetings and analysis
- .3 Outputs
  - .1 Risk management plan

### 11.4 Perform Quantitative Risk Analysis

- .1 Inputs
  - .1 Risk register
  - .2 Risk management plan
  - .3 Cost management plan
  - .4 Schedule management plan
  - .5 Organizational process assets
- .2 Tools & Techniques
  - .1 Data gathering and representation techniques
  - .2 Quantitative risk analysis and modeling techniques
  - .3 Expert judgment
- .3 Outputs
  - .1 Risk register updates

### 11.2 Identify Risks

- .1 Inputs
  - .1 Risk management plan
  - .2 Activity cost estimates
  - .3 Activity duration estimates
  - .4 Scope baseline
  - .5 Stakeholder register
  - .6 Cost management plan
  - .7 Schedule management plan
  - .8 Quality management plan
  - .9 Project documents
  - .10 Enterprise environmental factors
  - .11 Organizational process assets
- .2 Tools & Techniques
  - .1 Documentation reviews
  - .2 Information gathering techniques
  - .3 Checklist analysis
  - .4 Assumptions analysis
  - .5 Diagramming techniques
  - .6 SWOT analysis
  - .7 Expert judgment
- .3 Outputs
  - .1 Risk register

### 11.5 Plan Risk Responses

- .1 Inputs
  - .1 Risk register
  - .2 Risk management plan
- .2 Tools & Techniques
  - .1 Strategies for negative risks or threats
  - .2 Strategies for positive risks or opportunities
  - .3 Contingent response strategies
  - .4 Expert judgment
- .3 Outputs
  - .1 Risk register updates
  - .2 Risk-related contract decisions
  - .3 Project management plan updates
  - .4 Project document updates

### 11.5 Perform Qualitative Risk Analysis

- .1 Inputs
  - .1 Risk register
  - .2 Risk management plan
  - .3 Project scope statement
  - .4 Organizational process assets
- .2 Tools & Techniques
  - .1 Risk probability and impact assessment
  - .2 Probability and impact matrix
  - .3 Risk data quality assessment
  - .4 Risk categorization
  - .5 Risk urgency assessment
  - .6 Expert judgment
- .3 Outputs
  - .1 Risk register updates

### 11.6 Monitor and Control Risks

- .1 Inputs
  - .1 Risk register
  - .2 Project management plan
  - .3 Work performance information
  - .4 Performance reports
- .2 Tools & Techniques
  - .1 Risk reassessment
  - .2 Risk audits
  - .3 Variance and trend analysis
  - .4 Technical performance measurement
  - .5 Reserve analysis
  - .6 Status meetings
- .3 Outputs
  - .1 Risk register updates
  - .2 Organizational process assets updates
  - .3 Change requests
  - .4 Project management plan updates
  - .5 Project document updates

9



## Project Procurement Management Overview

### 12.1 Plan Procurements

- .1 Inputs
  - .1 Scope baseline
  - .2 Requirements documentation
  - .3 Teaming agreements
  - .4 Risk register
  - .5 Risk-related contract decisions
  - .6 Activity resource requirements
  - .7 Project schedule
  - .8 Activity cost estimates
  - .9 Cost performance baseline
  - .10 Enterprise environmental factors
  - .11 Organizational process assets
- .2 Tools & Techniques
  - .1 Make-or-buy analysis
  - .2 Expert judgment
  - .3 Contract types
- .3 Outputs
  - .1 Procurement management plan
  - .2 Procurement statements of work
  - .3 Make-or-buy decisions
  - .4 Procurement documents
  - .5 Source selection criteria
  - .6 Change requests

### 12.2 Conduct Procurements

- .1 Inputs
  - .1 Project management plan
  - .2 Procurement documents
  - .3 Source selection criteria
  - .4 Qualified seller list
  - .5 Seller proposals
  - .6 Project documents
  - .7 Make-or-buy decisions
  - .8 Teaming agreements
  - .9 Organizational process assets
- .2 Tools & Techniques
  - .1 Bidder conferences
  - .2 Proposal evaluation techniques
  - .3 Independent estimates
  - .4 Expert judgment
  - .5 Advertising
  - .6 Internet search
  - .7 Procurement negotiations
- .3 Outputs
  - .1 Selected sellers
  - .2 Procurement contract award
  - .3 Resource calendars
  - .4 Change requests
  - .5 Project management plan updates
  - .6 Project document updates

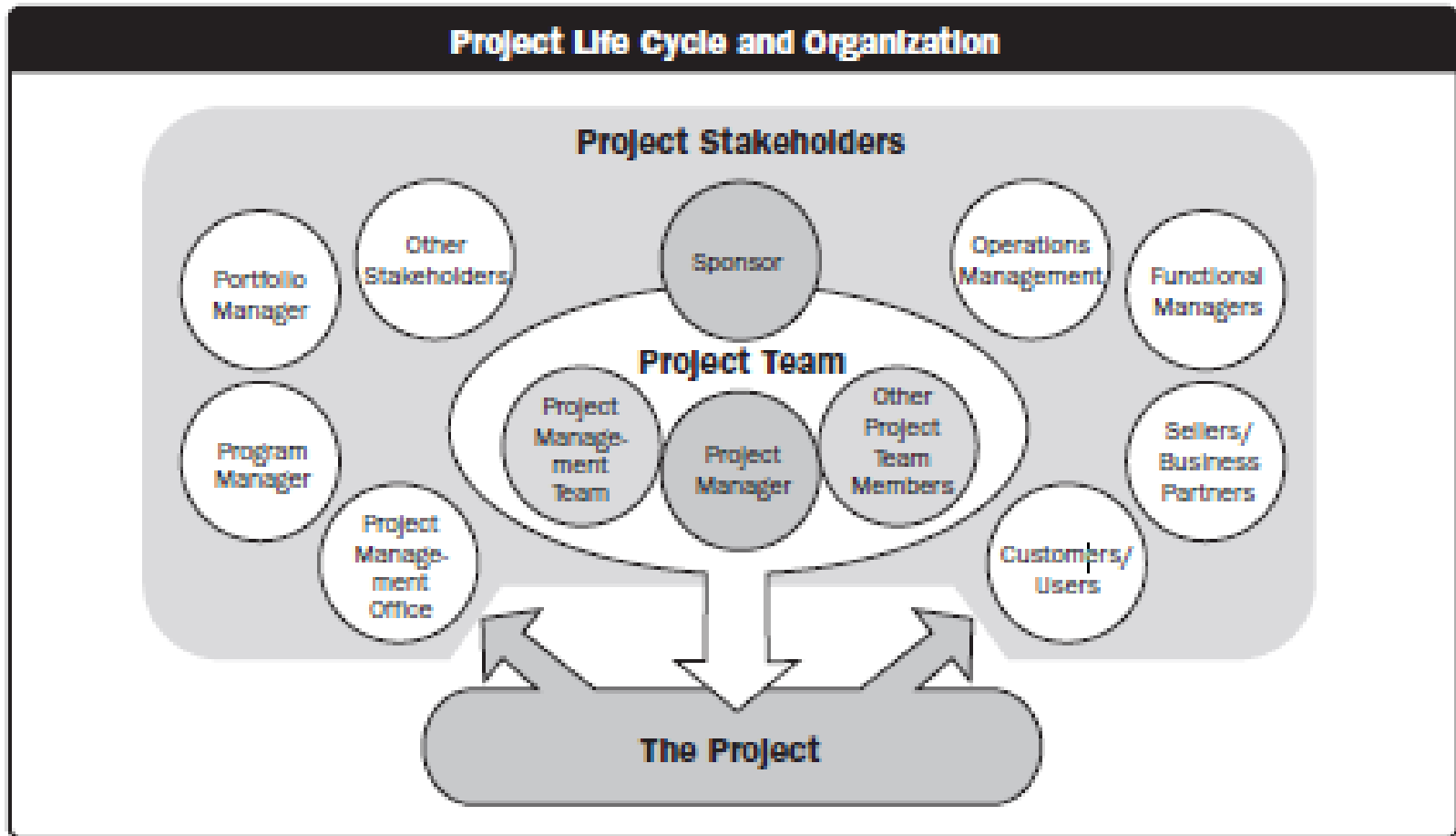
### 12.3 Administer Procurements

- .1 Inputs
  - .1 Procurement documents
  - .2 Project management plan
  - .3 Contract
  - .4 Performance reports
  - .5 Approved change requests
  - .6 Work performance information
- .2 Tools & Techniques
  - .1 Contract change control system
  - .2 Procurement performance reviews
  - .3 Inspections and audits
  - .4 Performance reporting
  - .5 Payment systems
  - .6 Claims administration
  - .7 Records management system
- .3 Outputs
  - .1 Procurement documentation
  - .2 Organizational process assets updates
  - .3 Change requests
  - .4 Project management plan updates

### 12.4 Close Procurements

- .1 Inputs
  - .1 Project management plan
  - .2 Procurement documentation
- .2 Tools & Techniques
  - .1 Procurement audits
  - .2 Negotiated settlements
  - .3 Records management system
- .3 Outputs
  - .1 Closed procurements
  - .2 Organizational process assets updates

# 10





## Project Stakeholder Management Overview

### 13.1 Identify Stakeholders

- .1 Inputs
  - .1 Project charter
  - .2 Procurement documents
  - .3 Enterprise environmental factors
  - .4 Organizational process assets
- .2 Tools & Techniques
  - .1 Stakeholder analysis
  - .2 Expert judgment
  - .3 Meetings
- .3 Outputs
  - .1 Stakeholder register

### 13.2 Plan Stakeholder Management

- .1 Inputs
  - .1 Project management plan
  - .2 Stakeholder register
  - .3 Enterprise environmental factors
  - .4 Organizational process assets
- .2 Tools & Techniques
  - .1 Expert judgment
  - .2 Meetings
  - .3 Analytical techniques
- .3 Outputs
  - .1 Stakeholder management plan
  - .2 Project documents updates

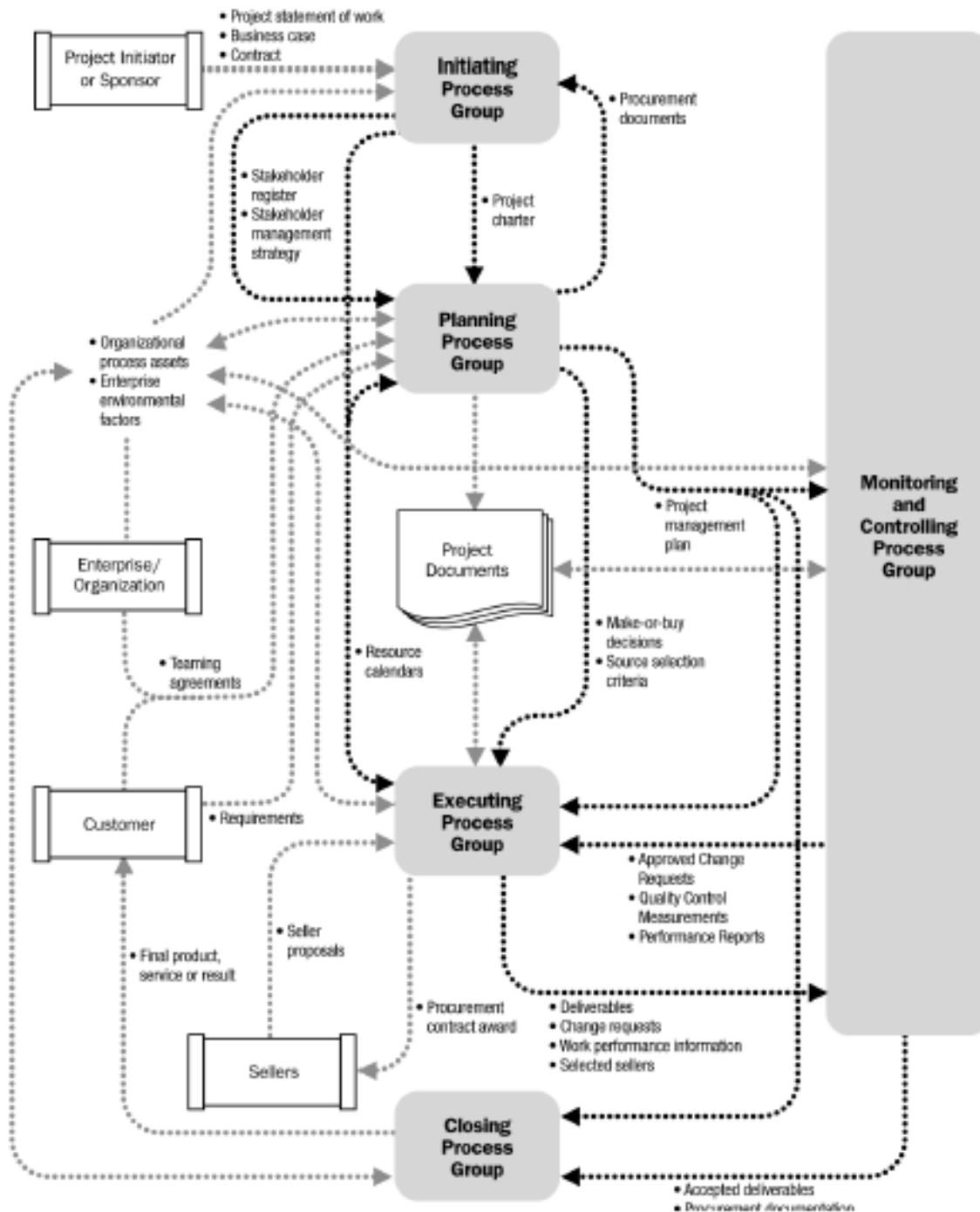
### 13.3 Manage Stakeholder Engagement

- .1 Inputs
  - .1 Stakeholder management plan
  - .2 Communications management plan
  - .3 Change log
  - .4 Organizational process assets
- .2 Tools & Techniques
  - .1 Communication methods
  - .2 Interpersonal skills
  - .3 Management skills
- .3 Outputs
  - .1 Issue log

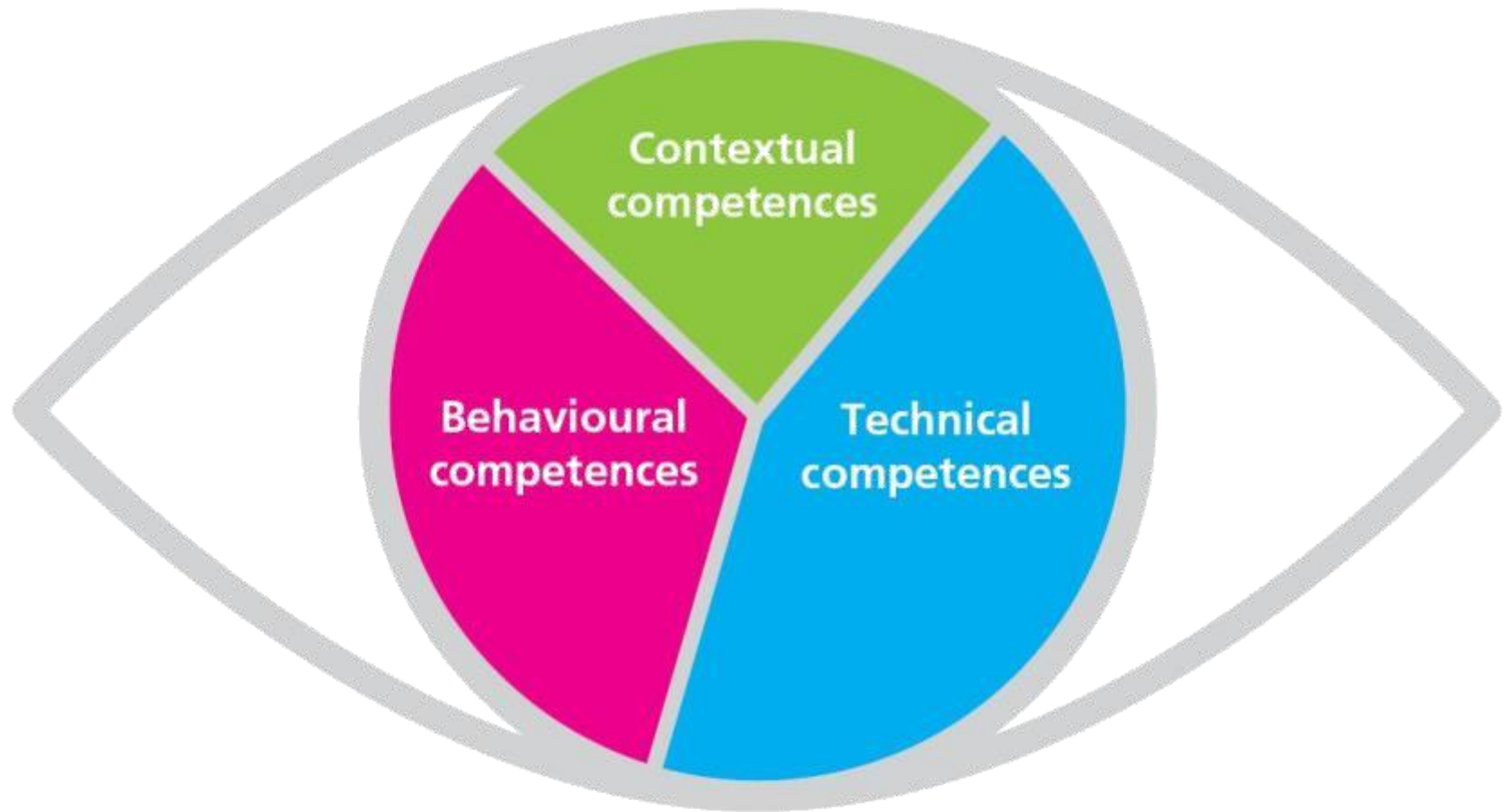
### 13.4 Control Stakeholder Engagement

- .1 Inputs
  - .1 Project management plan
  - .2 Issue log
  - .3 Work performance data
  - .4 Project documents
- .2 Tools & Techniques
  - .1 Information management systems
  - .2 Expert judgment
  - .3 Meetings

# Process groups



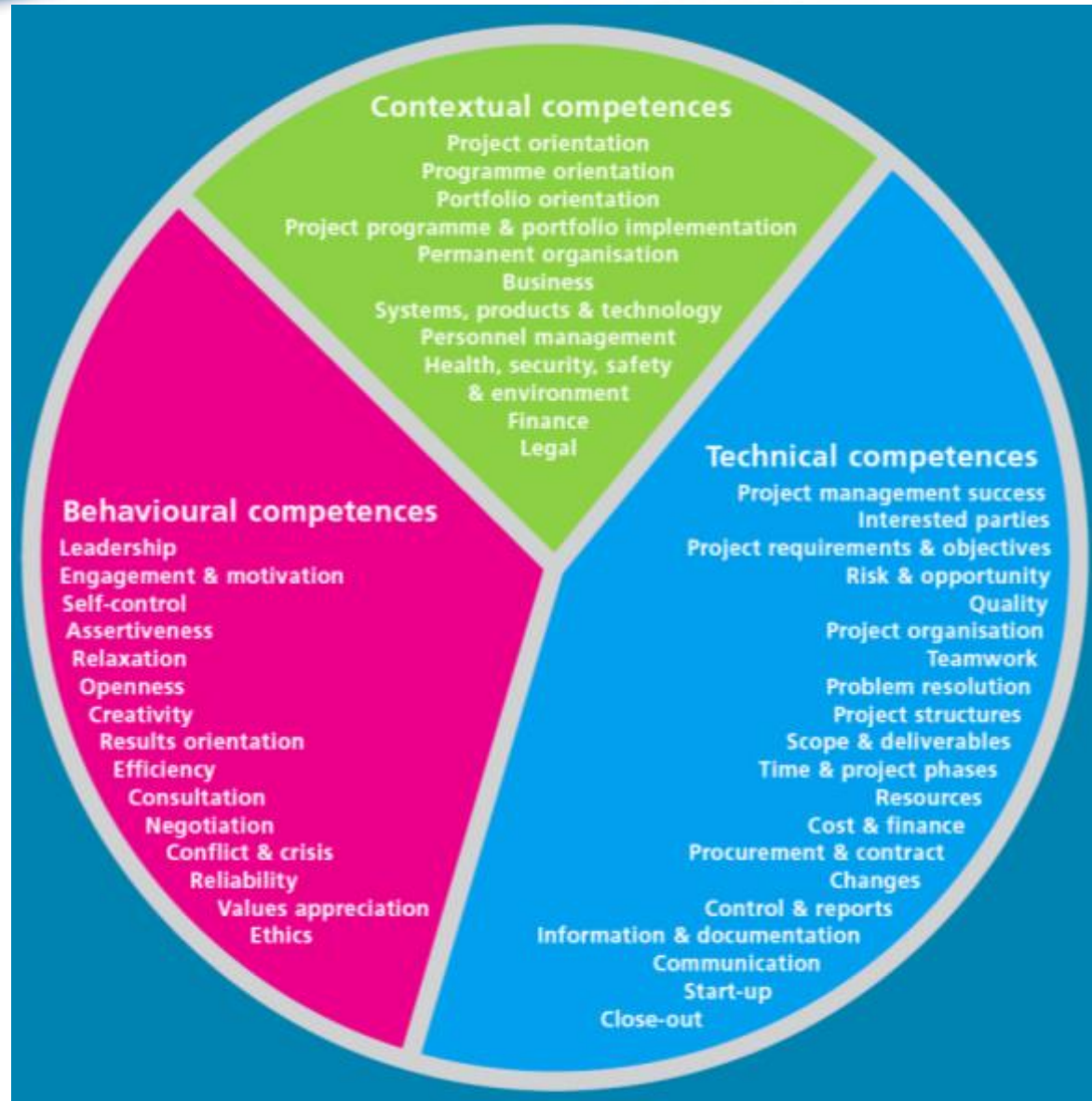
# IPMA Competence Baseline



**The Eye of Competence**

# Types of competence

20 Technical competencies  
15 Behavioural competencies  
11 Contextual competencies  
=> 46 competencies



# ICB 3<sup>rd</sup> – Structure of competence

Range of competences (*technical, behavioural, contextual*)

- Elements of competence
  - Description of a competence
    - ✓ Every competence element in each range is described in terms of the knowledge and experience required.
    - ✓ General description (stating the meaning and the importance of the competence element)
    - ✓ Possible process steps (how the competence element can be applied in a project)
    - ✓ Topics addressed (to aid further reading and internet searching)
    - ✓ Key competence at Level statements
    - ✓ Main relations (related competence elements)
    - ✓ Adequate behaviours versus Behaviours requiring improvement (for the behavioural competence elements)

# ICB 3<sup>rd</sup> – Example

## 1.08 Problem resolution

Most of the work in the project life-cycle deals with the definition of work tasks and **problem resolution**. Most of the problems that arise are likely to involve the time-frame, cost, risks or deliverables of the project or an interaction between all four factors. Options to resolve problems may involve reducing the scope of project deliverables, increasing its time-frame, or providing more resources.

Various methods of problem solving can be used. These may involve adopting systematic procedures for: identifying the problem and its root cause; developing ideas and options (such as 'brainstorming', 'lateral thinking', and 'thinking hats') for solving the problem; evaluating the ideas and selecting a preferred option; and for taking the appropriate steps to implement the chosen option. However, before deciding on what course of action to take, the interested parties must be consulted and their approval sought.

If obstacles arise during the problem solving process, they may be overcome by negotiation, escalation to an appropriate interested party for decision, conflict resolution or crisis management.

The project team can use problem solving sessions as a learning exercise for the team. Successful problem resolution also tends to unite the team.

### Possible process steps:

1. Include procedures for detecting problems in the project plan.
2. Identify when situations arise where there is a need for problem solving.
3. Analyse the problem and identify its root cause.
4. Apply creative methods to capture ideas to solve the problem.
5. Evaluate the ideas and select a preferred option, involving interested parties at appropriate steps in the process.
6. Implement and review the effectiveness of the selected solution and make adjustments as necessary.
7. Document the whole process and ensure that lessons learnt are applied to future projects.

### Topics addressed:

Identifying and assessment of alternative options  
Moving between the whole project to the detail and back again  
Thinking in terms of systems  
Total benefit analysis

Value analysis

### Key competence at level:

- A Has successfully directed the management of problem resolution for important programmes and/or portfolios of an organisation or an organisational unit.
- B Has successfully managed the problem resolution situations of a complex project.
- C Has successfully managed the problem resolution situations of a project with limited complexity.
- D Has the knowledge required concerning the management of problem resolution in projects and can apply it.

### Main relations to:

1.03 Project requirements & objectives, 1.04 Risk & opportunity, 1.05 Quality, 1.07 Teamwork, 1.09 Project structures, 1.14 Procurement & contract, 1.15 Changes, 2.05 Relaxation, 2.06 Openness, 2.07 Creativity, 2.08 Results orientation, 2.09 Efficiency, 2.10 Consultation, 2.12 Conflict & crisis, 2.14 Values appreciation, 3.01 Project orientation, 3.03 Portfolio orientation, 3.06 Business

# ISO 21500



International  
Organization for  
Standardization



# ISO Standard – The Drivers

- More **international** projects
- **Contractual** issues
- Develop a common **terminology**
- Alignment of **other standards** PMBOK, BS 6079-1:2002, German Standard etc. ~

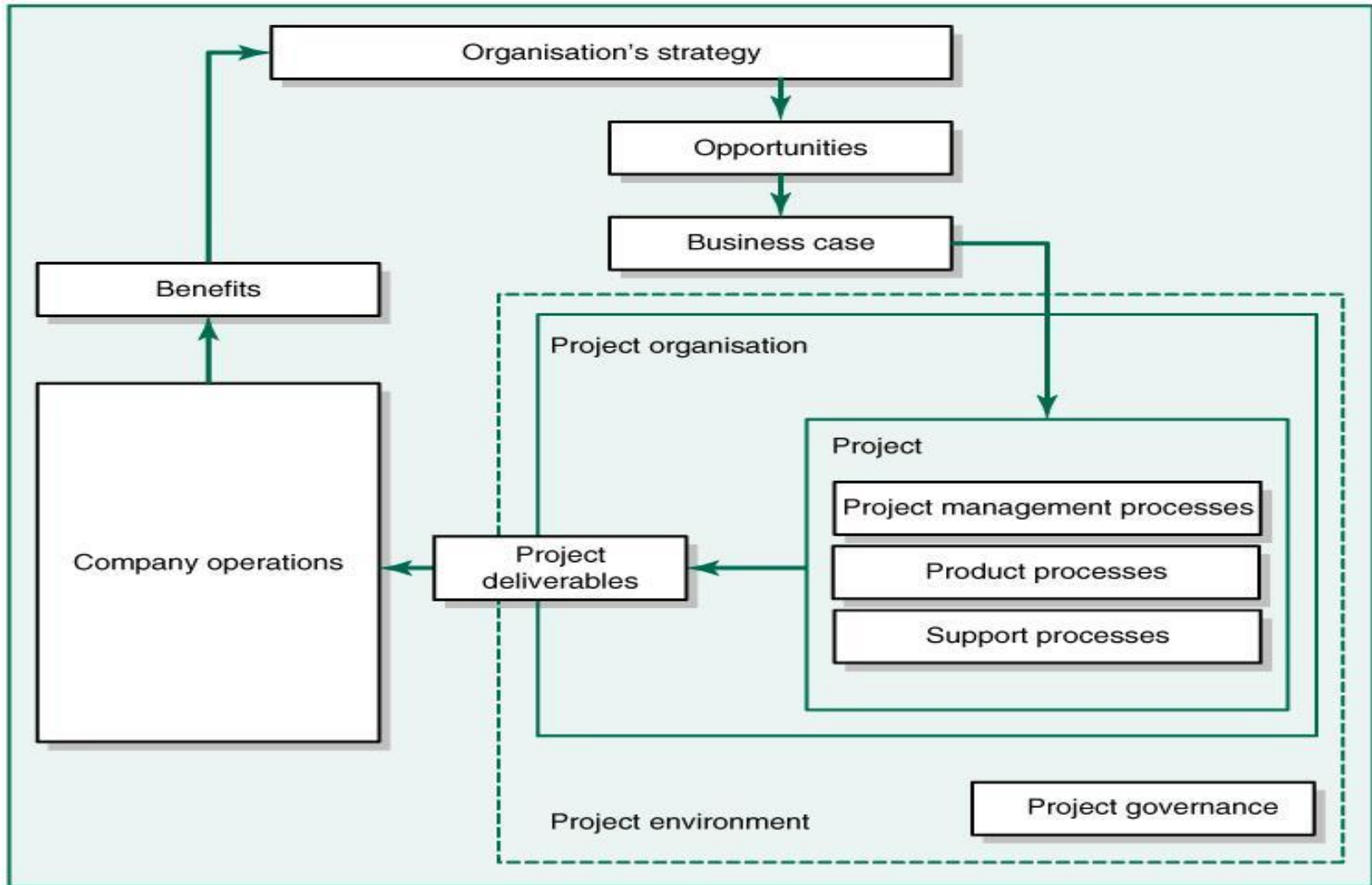




# What it means to You

- **Understand** the ISO standard when working on projects  
(contractual, best practice issues)
- Changed **terminology**
- Industry **standard practices**
- Potentially **skills/qualifications** ~

# ISO 21500: 2012 Overview



# Standard structure

- 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

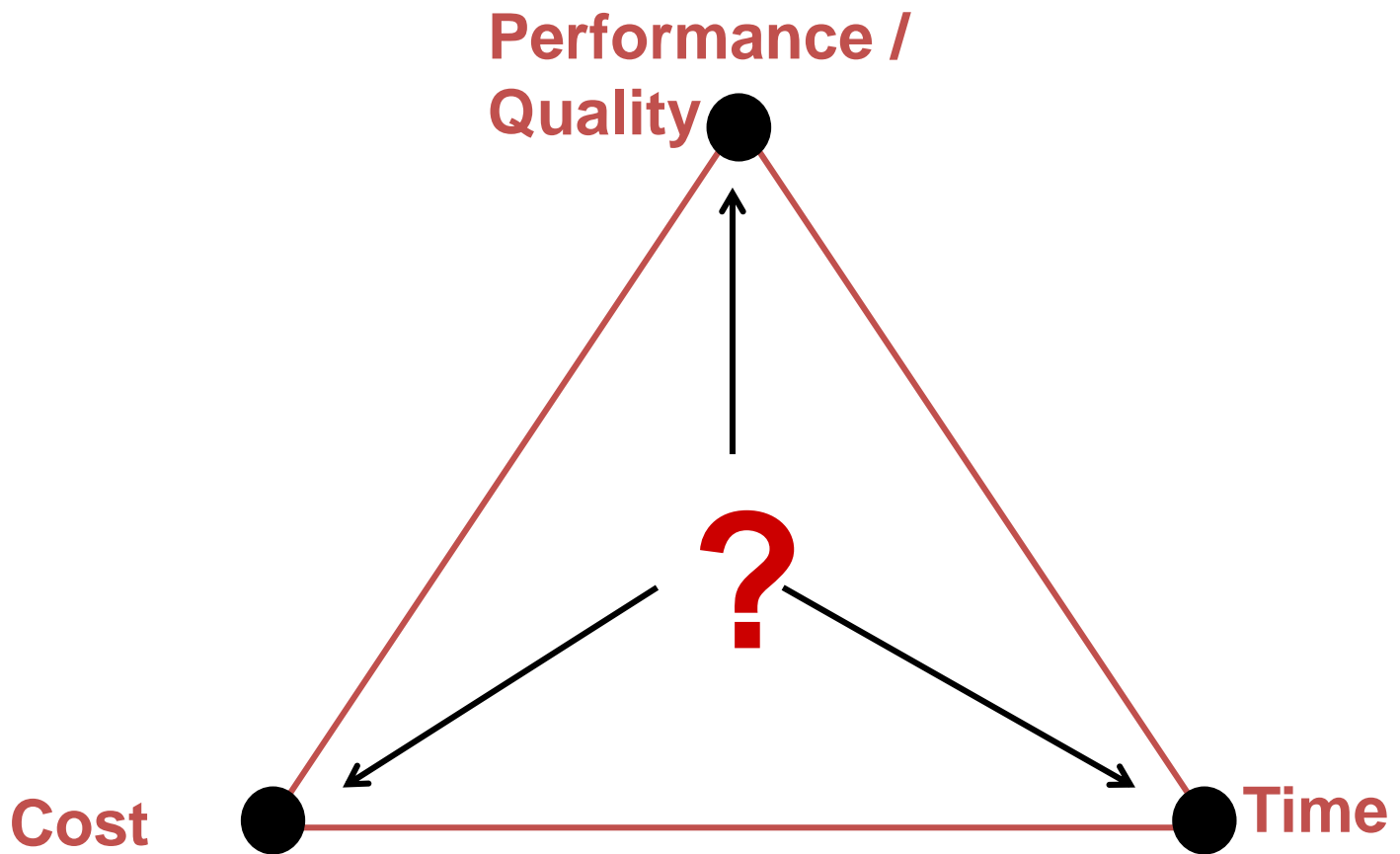


Identical to  
PMBOK

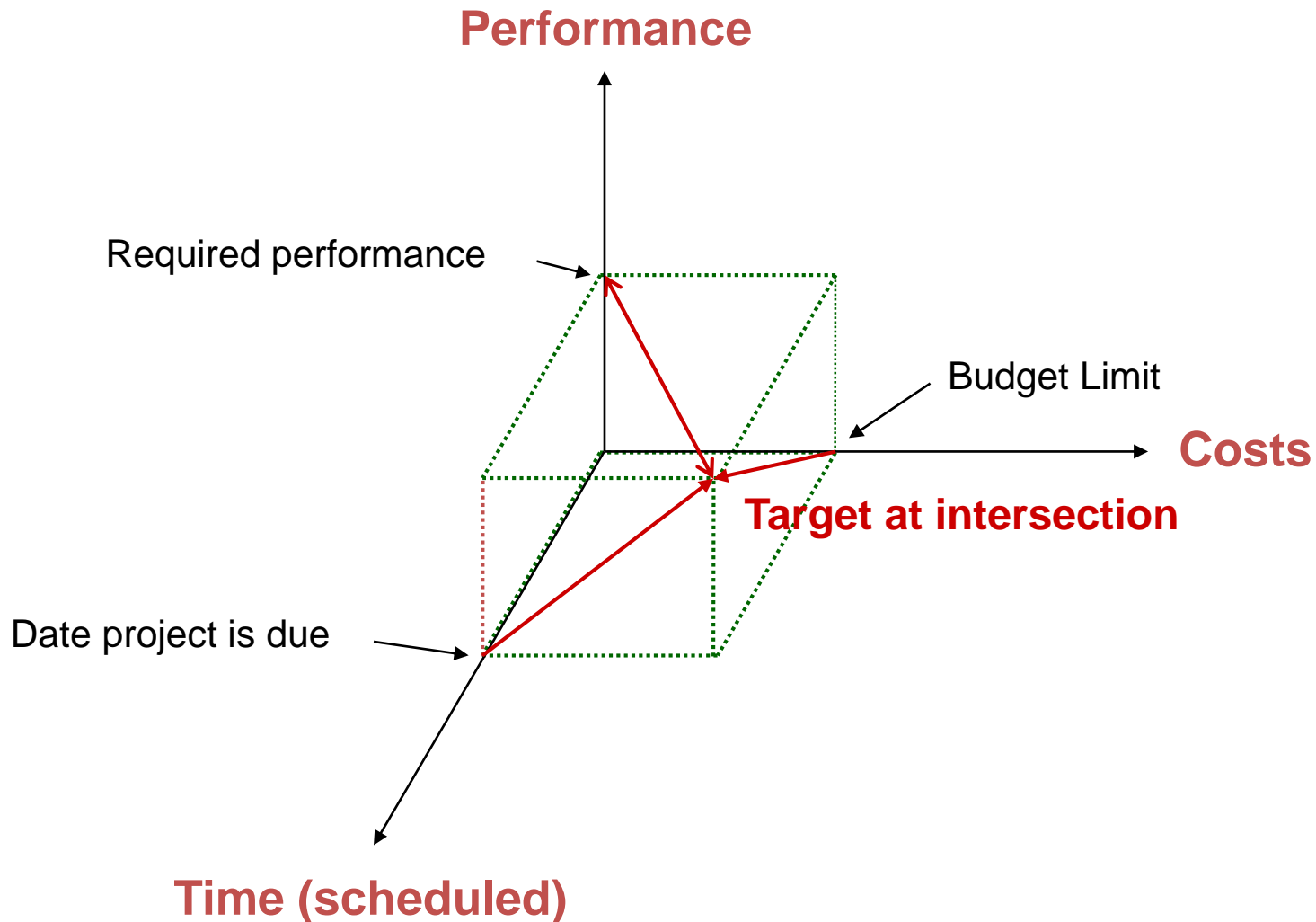
Ποιο είναι οι στόχοι του έργου



# Το τρίγωνο των στόχων



# Οι στόχοι του έργου





## Triple Constraint

- Increased **Scope** = increased time + increased cost
- Tight **Time** = increased costs + reduced scope
- Tight **Budget** = increased time + reduced scope.

# Οι Συμμετέχοντες (stakeholders)







# Ερώτηση

- Γιατί χρειάζεται να προσδιορίσουμε τους συμμετέχοντες;

# Ορισμοί


- [Ανάδοχος Εργολήπτης ή Ανάδοχος](#)
  - Ο Εργολήπτης (φυσικό πρόσωπο ή εργοληπτική επιχείρηση), στον οποίο έχει ανατεθεί με Σύμβαση η κατασκευή ενός έργου. Πηγή : Άρθρο 3 του Ν. 1418/1984 «Δημόσια Έργα και ρυθμίσεις συναφών θεμάτων»
- [Ανάδοχος Μελετητής ή Ανάδοχος](#)
  - Ο Μελετητής (φυσικό πρόσωπο ή μελετητική εταιρεία), στον οποίο έχει ανατεθεί με Σύμβαση η μελέτη ενός έργου.
- [Διαχειριστική Αρχή](#)
  - Κάθε Εθνική, Περιφερειακή ή Τοπική Αρχή ή φορέας δημοσίου ή ιδιωτικού δικαίου, που ορίζεται από κράτος μέλος ή το κράτος μέλος, εφόσον ασκεί τα σχετικά καθήκοντα, για να διαχειρίζεται μια παρέμβαση για τους σκοπούς του Κανονισμού (ΕΚ) 1260/1999. Στην περίπτωση που το κράτος - μέλος ορίζει διαφορετική από το ίδιο Διαχειριστική Αρχή, καθορίζει όλες τις λεπτομέρειες της σχέσης του με αυτή την αρχή καθώς και όλες τις λεπτομέρειες της σχέσης της Διαχειριστικής Αρχής με την Ευρωπαϊκή Επιτροπή. Στην Ελλάδα, η διαχείριση κάθε Επιχειρησιακού Προγράμματος ασκείται μέσω Ειδικής Υπηρεσίας Διαχείρισης (Διαχειριστική Αρχή) η οποία συνιστάται στο οικείο Υπουργείο ή Περιφέρεια. Πηγές : 1) Κανονισμός (ΕΚ) αριθ. 1260/1999 του Συμβουλίου της 21.6.1999 για τα Διαρθρωτικά Ταμεία, 2) Ν. 2860/2000 (ΦΕΚ 251Α/14.11.2000)
- [Διευθύνουσα Υπηρεσία ή Επιβλέπουσα Υπηρεσία](#)
  - Η τεχνική υπηρεσία του Φορέα Κατασκευής του Έργου που είναι αρμόδια για την παρακολούθηση, τον έλεγχο και τη διοίκηση της κατασκευής του έργου. Πηγή : Άρθρο 3 του Ν. 1418/84 «Δημόσια Έργα και ρυθμίσεις συναφών θεμάτων»
- [διευθυντής έργου \(project manager\)](#)
  - άτομο του οργανισμού που ορίζεται ως υπεύθυνο για την υλοποίηση του έργου.

# Ορισμοί

- οργανισμός υλοποίησης (implementing organization)
  - οργανισμός που συμβατικά αναλαμβάνει την υλοποίηση του έργου.
  - Συνώνυμα: φορέας υλοποίησης, δικαιούχος.
- Επιτροπή
  - Επιτροπή ανάθεσης
  - Επιτροπή παρακολούθησης
  - Επιτροπή παραλαβής
- κύριος έργου (project owner)
  - οργανισμός για λογαριασμό του οποίου καταρτίζεται η σύμβαση ή υλοποιείται το έργο.
- ωφελούμενοι έργου
  - οι τελικοί χρήστες του προϊόντος του έργου ή οι αποδέκτες τους αποτελέσματος του έργου.

# Φορείς ..

- [Φορέας Επίβλεψης Κατασκευής](#)
  - Η (Τεχνική) Υπηρεσία την οποία ο Φορέας Υλοποίησης έχει καταστήσει αρμόδια για την παρακολούθηση και τον έλεγχο ή επίβλεψη της κατασκευής ενός Έργου / Ενέργειας. Ταυτίζεται με την Διευθύνουσα Υπηρεσία του Ν. 1418/1984.
- [Φορέας Επίβλεψης Μελέτης](#)
  - Η (Τεχνική) Υπηρεσία την οποία ο Φορέας Υλοποίησης έχει καταστήσει αρμόδια για την παρακολούθηση και τον έλεγχο εκπόνησης της Μελέτης ενός Έργου / Ενέργειας.
- [Φορέας Επίβλεψης Προμήθειας](#)
  - Η Υπηρεσία την οποία ο Φορέας Υλοποίησης έχει καταστήσει αρμόδια για την παρακολούθηση και τον έλεγχο των προμηθειών του Έργου.
- [Φορέας Κατασκευής του Έργου](#)
  - Η αρμόδια Αρχή ή Υπηρεσία που έχει την ευθύνη παραγωγής του έργου. Πηγή: Άρθρο 3 του Ν.1418/1984 «Δημόσια Έργα και ρυθμίσεις συναφών θεμάτων»
- [Φορέας Λειτουργίας](#)
  - Ο Φορέας ο οποίος εκμεταλλεύεται ή λειτουργεί το Έργο το οποίο παράγεται από το Φορέα Υλοποίησης.
- [Φορέας Προγραμματισμού](#)
  - Ο Φορέας που έχει αναλάβει την υλοποίηση ενός Επιχειρησιακού Προγράμματος. Αντιστοιχεί σε Υπουργείο (Προγράμματα Εθνικού σκέλους) ή σε Περιφέρεια (Περιφερειακά Προγράμματα).
- [Φορέας Πρότασης](#)
  - Ο Φορέας ο οποίος προτείνει στον Φορέα Προγραμματισμού την ένταξη ενός Έργου στο Πρόγραμμα. Φορέας Πρότασης μπορεί να είναι κάθε φορέας που συμμετέχει στη διαδικασία Προγραμματισμού (Υπουργείο, Διευθύνσεις Υπουργείου, Εποπτευόμενοι Φορείς, Νομαρχιακό Συμβούλιο, Περιφερειακό Συμβούλιο κλπ.) και κάθε φορέας που χαρακτηρίζεται ως κοινωνικός εταίρος (ΤΕΕ, Εμποροβιομηχανικό Επιμελητήριο, Οικονομικό Επιμελητήριο, Εργατικά Κέντρα, ΣΕΒ κ.λπ.).
- [Φορέας Υλοποίησης](#)
  - Ο Φορέας που αναλαμβάνει στα πλαίσια του Προγράμματος τη συμβατική υποχρέωση για την εκτέλεση του Έργου, σύμφωνα με τα εγκεκριμένα στοιχεία του ΤΔΕ. Ο Φορέας Υλοποίησης πρέπει να διαθέτει μονάδες / Υπηρεσίες (π.χ. Τεχνική Υπηρεσία, Οικονομική Υπηρεσία) και στελέχωση, με επάρκεια και δυνατότητες αντίστοιχες με τις προδιαγραφές και τις απαιτήσεις του Έργου που αναλαμβάνει, προκειμένου να διασφαλίζεται η ορθή και απρόσκοπτη υλοποίηση και παρακολούθηση του Έργου.
- [Φορέας Χρηματοδότησης Έργου](#)
  - Φορέας που εμπλέκεται στην υλοποίηση ενός έργου και αναλαμβάνει την υποχρέωση να χρηματοδοτήσει το Φορέα Υλοποίησης για την εκτέλεση του Έργου.

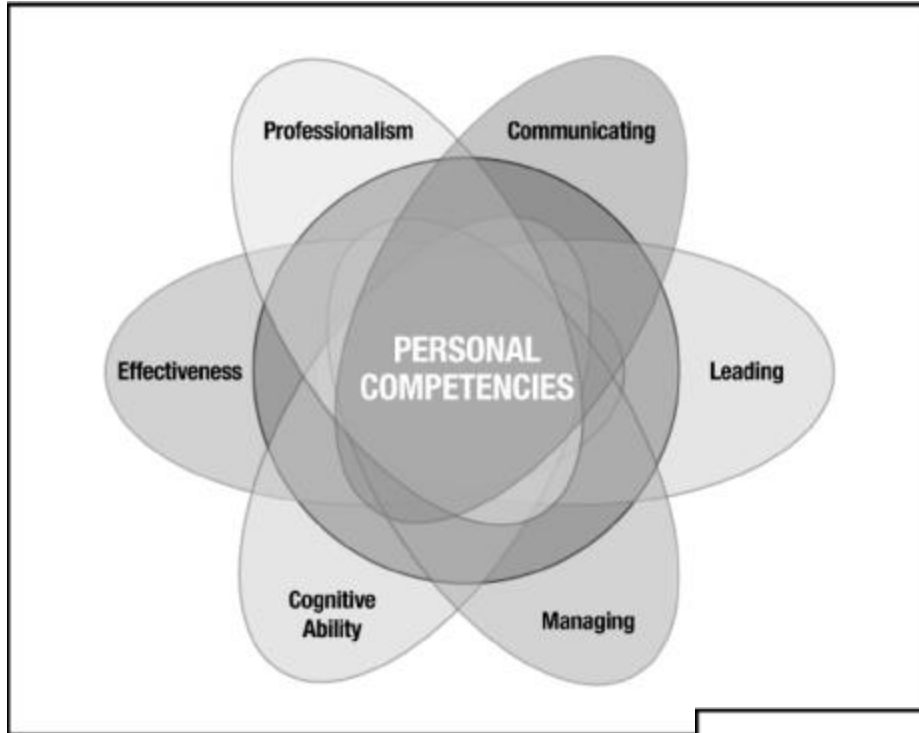
- 
- Πως ορίζεται ο ΡΜ στον οργανισμό που δουλεύεται?
    - Πρότυπο
      - PMCDF Project Manager Competency Development Framework (PMI)
      - ICB (IPMA)
      - ISO 21500 (ISO)
      - P2M (PMAJ)
    - Ικανότητες

# What are we talking about ?

- Asterix :  
The Guide  
*Analytical, Objective-oriented, judgment, cognitive ability*
- Obelix :  
The Performer  
*Know-how, Energy, Expertise*
- Abraracourcix :  
The Manager  
*Structuring, Planning, Procedures, Coordination*
- Panoramix :  
The Human Leader  
*Charisma, Group Leader*



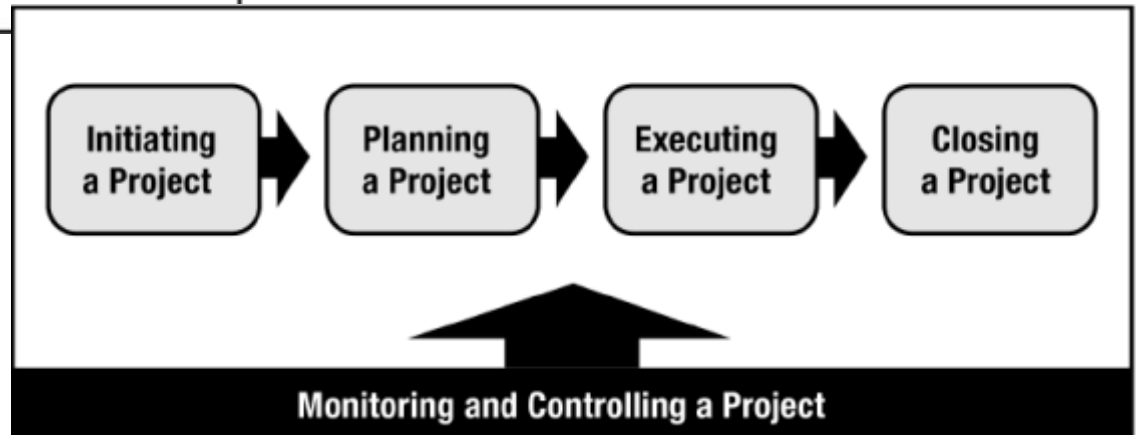
# PMCDF – Structure of competence



Personal competencies :  
behaviours, attitudes and core personality characteristics that contribute to a person's ability to manage project

Knowledge competencies :  
not in the PMCDF, see the PMP examination specification !

Performance competencies :  
What the project manager is able to do or accomplish by applying their project management knowledge



# The Periodic Table of Project Management Competence Elements

## IPMA PM Competence Element Groups

- Contextual Competence Elements
- Technical Competence Elements
- Behavioral Competence Elements

3.01 <b>P</b> Project orientation									2.01 <b>L</b> Leadership
3.02 <b>Pg</b> Programme orientation	3.03 <b>Pf</b> Portfolio orientation							2.02 <b>M</b> Engagement & motivation	2.03 <b>Sc</b> Self-control
3.04 <b>Pp</b> Project, program & portfolio implemen.	3.05 <b>Po</b> Permanent organization	1.01 <b>Ps</b> Project management success	1.02 <b>Ip</b> Interested parties	1.03 <b>Rq</b> Project requirements & objectives	1.04 <b>Ri</b> Risk & opportunities	1.05 <b>Q</b> Quality	2.04 <b>As</b> Assertiveness	2.05 <b>R</b> Relaxation	2.06 <b>O</b> Openness
3.06 <b>Bu</b> Business	3.07 <b>Sa</b> Systems, products & technology	1.06 <b>Po</b> Project organization	1.07 <b>T</b> Teamwork	1.08 <b>Pb</b> Problem resolution	1.09 <b>Ps</b> Project structures	1.10 <b>Sd</b> Scope & deliverables	2.07 <b>Cy</b> Creativity	2.08 <b>Ro</b> Results orientation	2.09 <b>E</b> Efficiency
3.08 <b>Pe</b> Personnel management	3.09 <b>Hs</b> Health, security, safety, & environment	1.11 <b>Tp</b> Time & project phases	1.12 <b>Re</b> Resources	1.13 <b>C</b> Cost & finance	1.14 <b>Cn</b> Procurement & contract	1.15 <b>Ch</b> Changes	2.10 <b>Co</b> Consultation	2.11 <b>Ne</b> Negotiation	2.12 <b>Cc</b> Conflict & crisis
3.10 <b>Fi</b> Finance	3.11 <b>Le</b> Legal	1.16 <b>Cr</b> Control & reports	1.17 <b>In</b> Information & documentation	1.18 <b>Ca</b> Communication	1.19 <b>Su</b> Project startup	1.20 <b>Cs</b> Project closeout	2.13 <b>RI</b> Reliability	2.14 <b>Va</b> Values appreciation	
							2.15 <b>Et</b> Ethics		Based on IPMA's ICB® <a href="http://www.ipma.ch">www.ipma.ch</a>





# Ο ρόλος του Project manager

- Εύρεση ικανών πόρων
- Εύρεση ικανού προσωπικού
- Αντιμετώπιση των προβλημάτων
- Ισορροπία μεταξύ των αντιφατικών απαιτήσεων
- Διαχείριση κινδύνου και ο φόβος της αποτυχίας
- Επικοινωνία

# Project Manager

- Κατανόηση αρχών διαχείρισης έργων
- Αναγνώριση προβλημάτων μέσα στην ομάδα
- Κατανόηση των αναγκών των πελατών
- Αποδοχή των πολιτικών μέσα στους οργανισμούς
- Αρχηγός στην πρώτη γραμμή
- Κατανόηση του τι σημαίνει επιτυχία
- Ανάπτυξη της ομάδας
- Ο ενθουσιασμός και η απογοήτευση είναι κολλητικές
- One look forward is worth two looks back
- Μην ξεχνάτε τον στόχο σας
- Χρησιμοποιείται το χρόνο σας αποδοτικά
- Προγραμματισμός και σχεδιασμός
  
- Και πάνω από όλα VALUE for the stakeholders



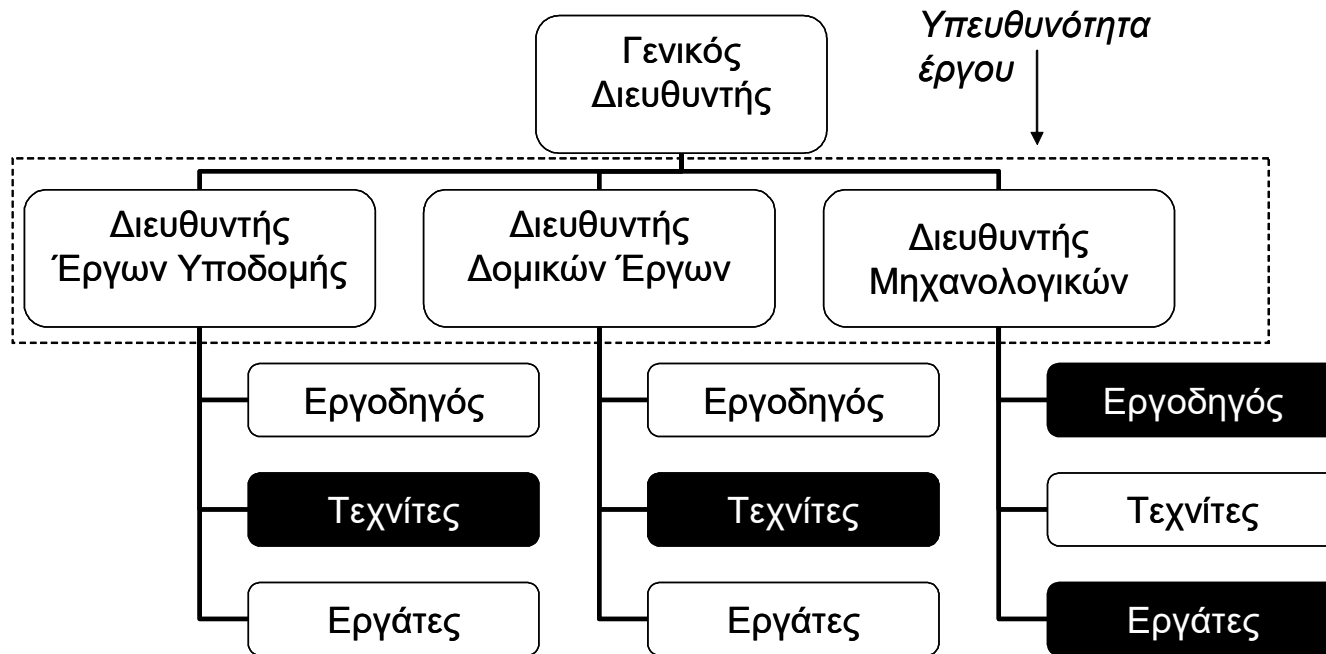
# ΕΡΩΤΗΣΗ

- Πως νομίζετε ότι ο project manager ξοδεύει το χρόνο του

# ΟΡΓΑΝΩΤΙΚΕΣ ΔΟΜΕΣ

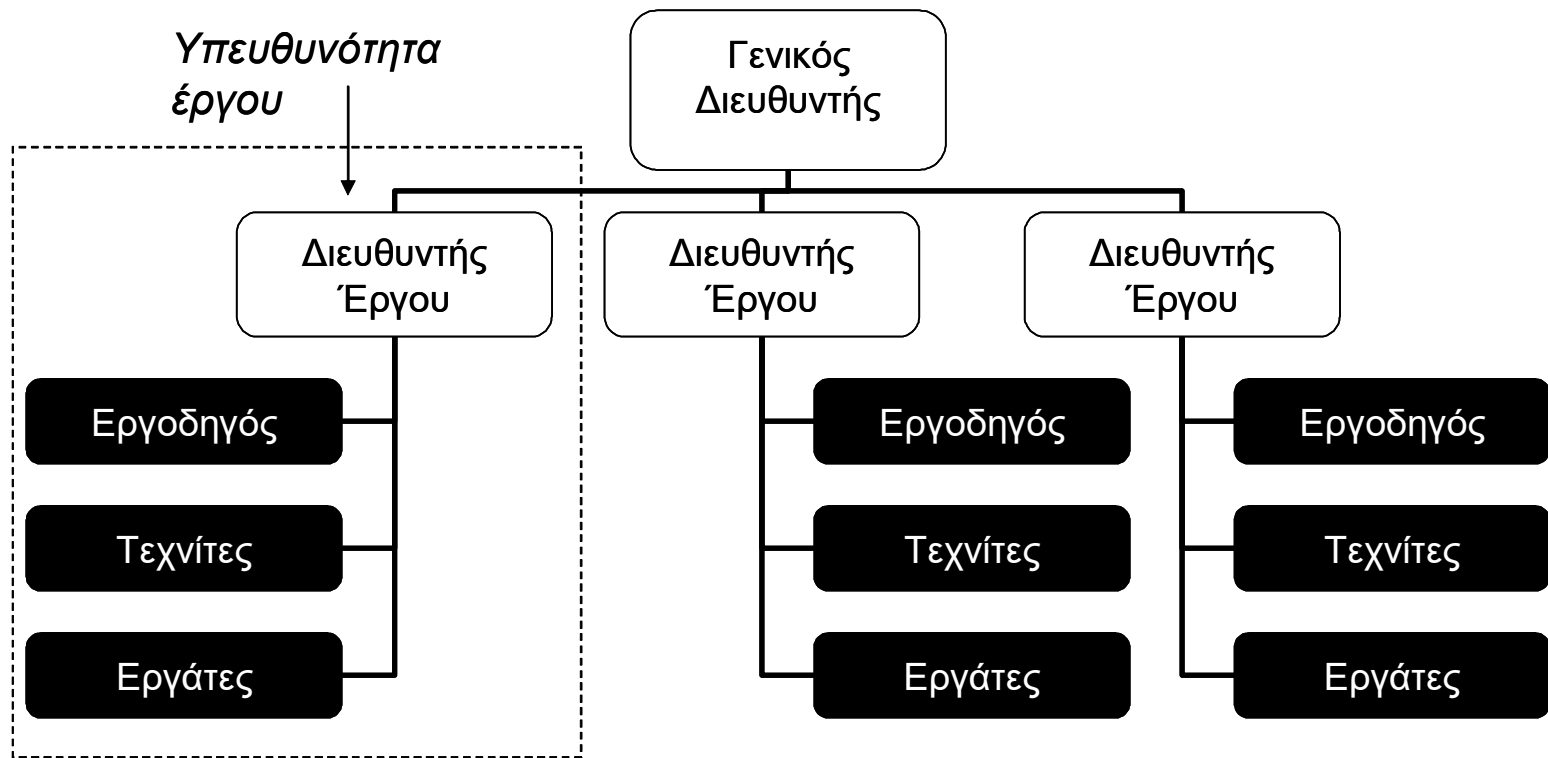


# Λειτουργική οργάνωση (functional organization)



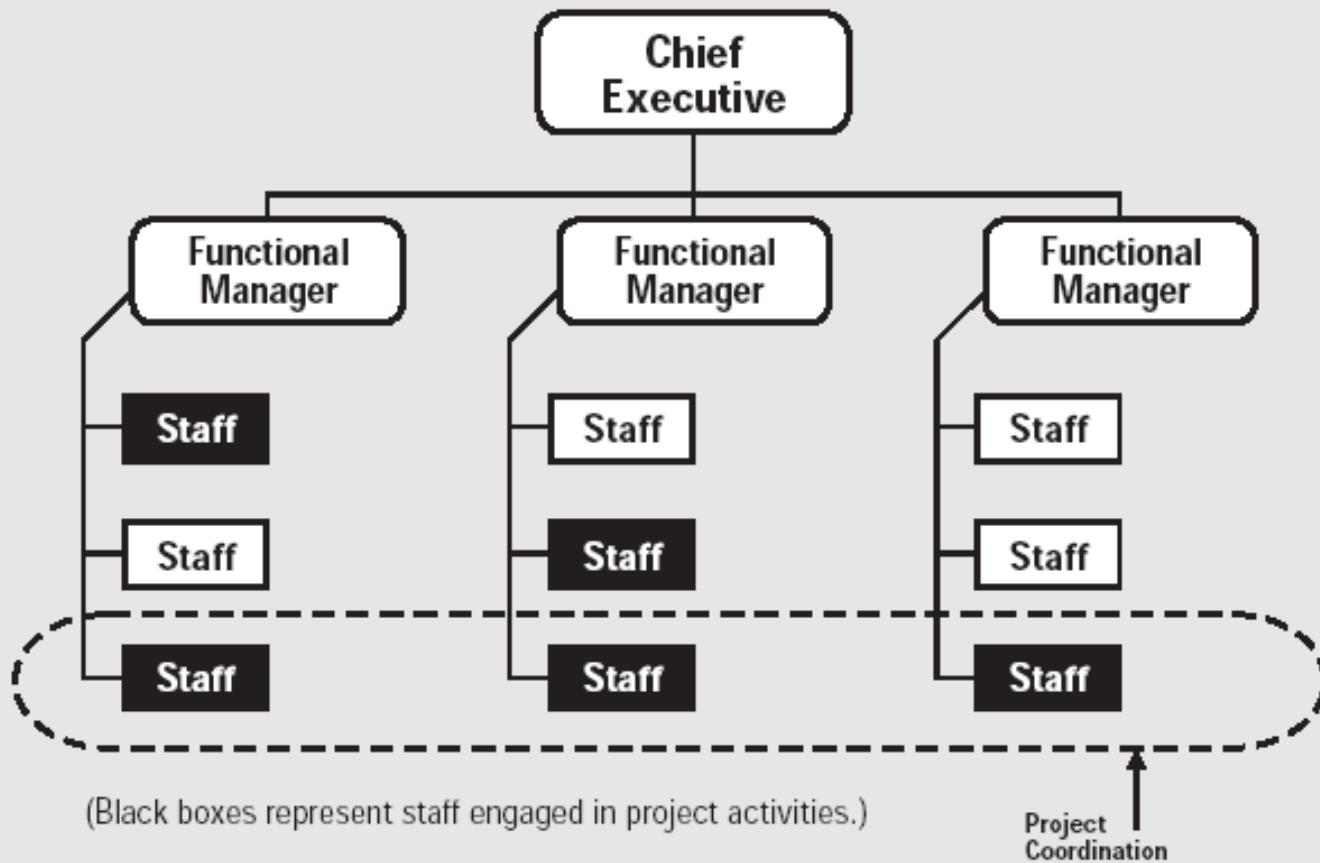
*Τα μαύρα κουτιά δείχνουν άτομα της ομάδας του έργου*

# Οργάνωση κατά έργο (Project organization)

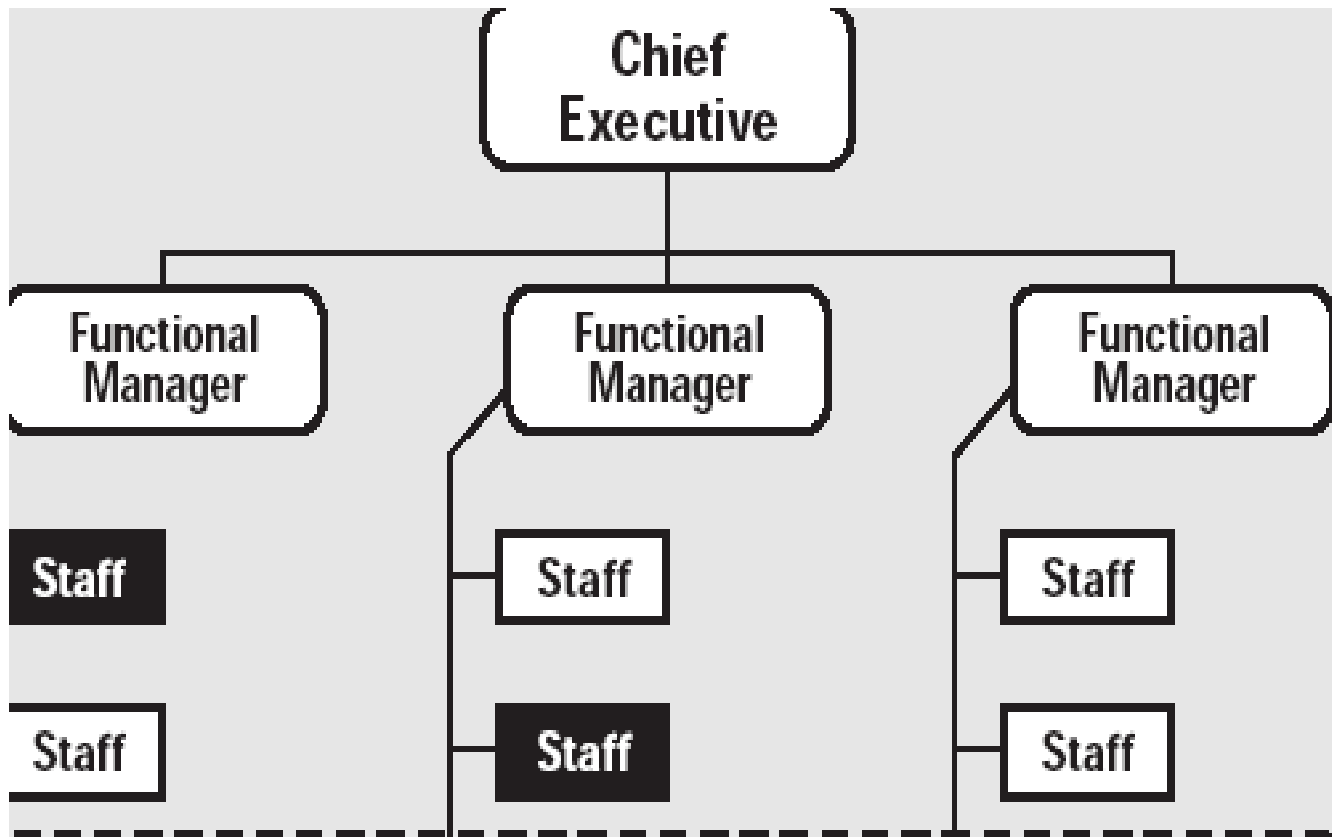


*Τα μαύρα κουτιά δείχνουν άτομα της ομάδας του έργου*

# Ασθενή οργάνωση πινάκα (Weak Matrix Organization)

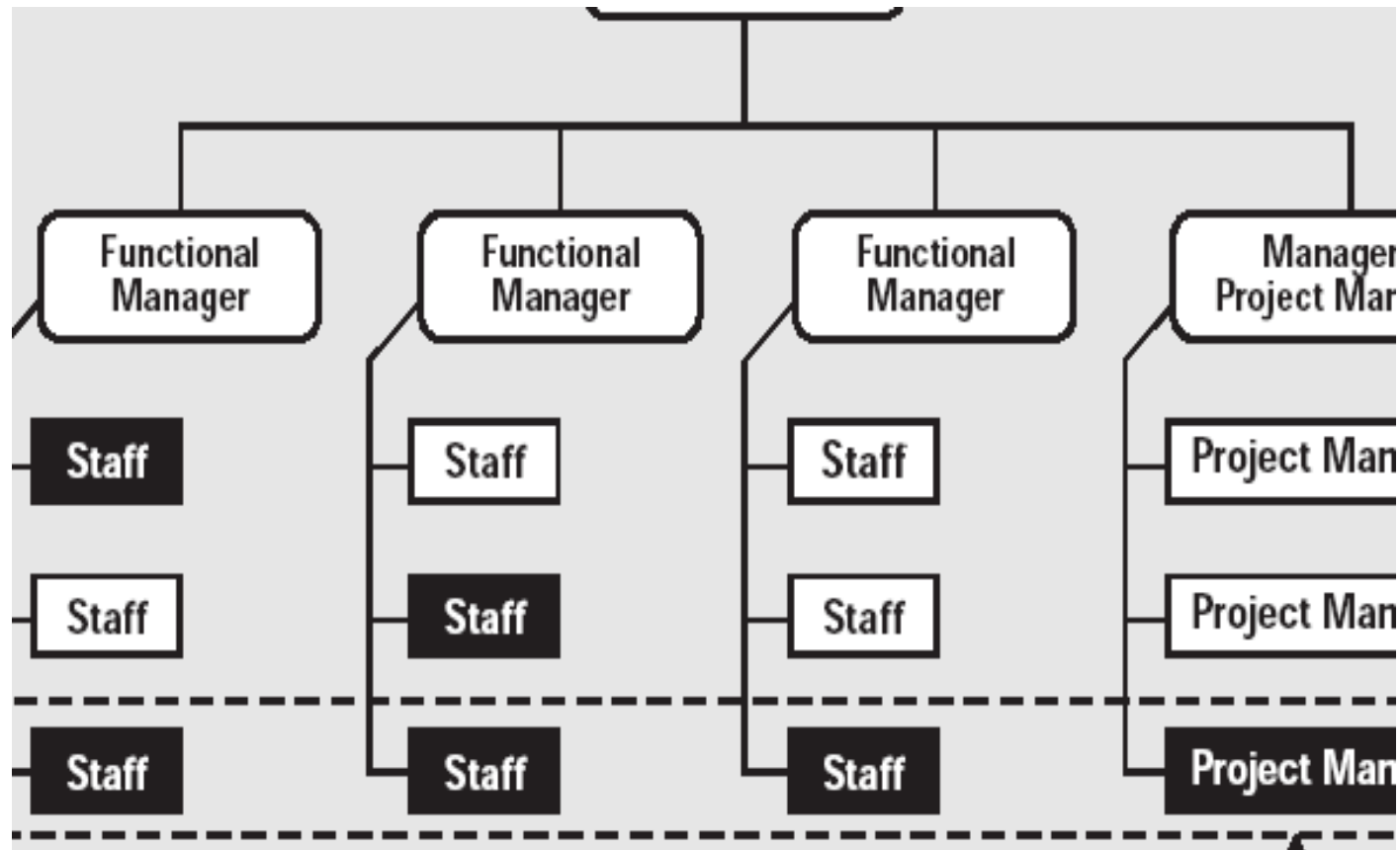


# Ισορροπημένη οργάνωση πινάκα (Balanced Matrix Organization)

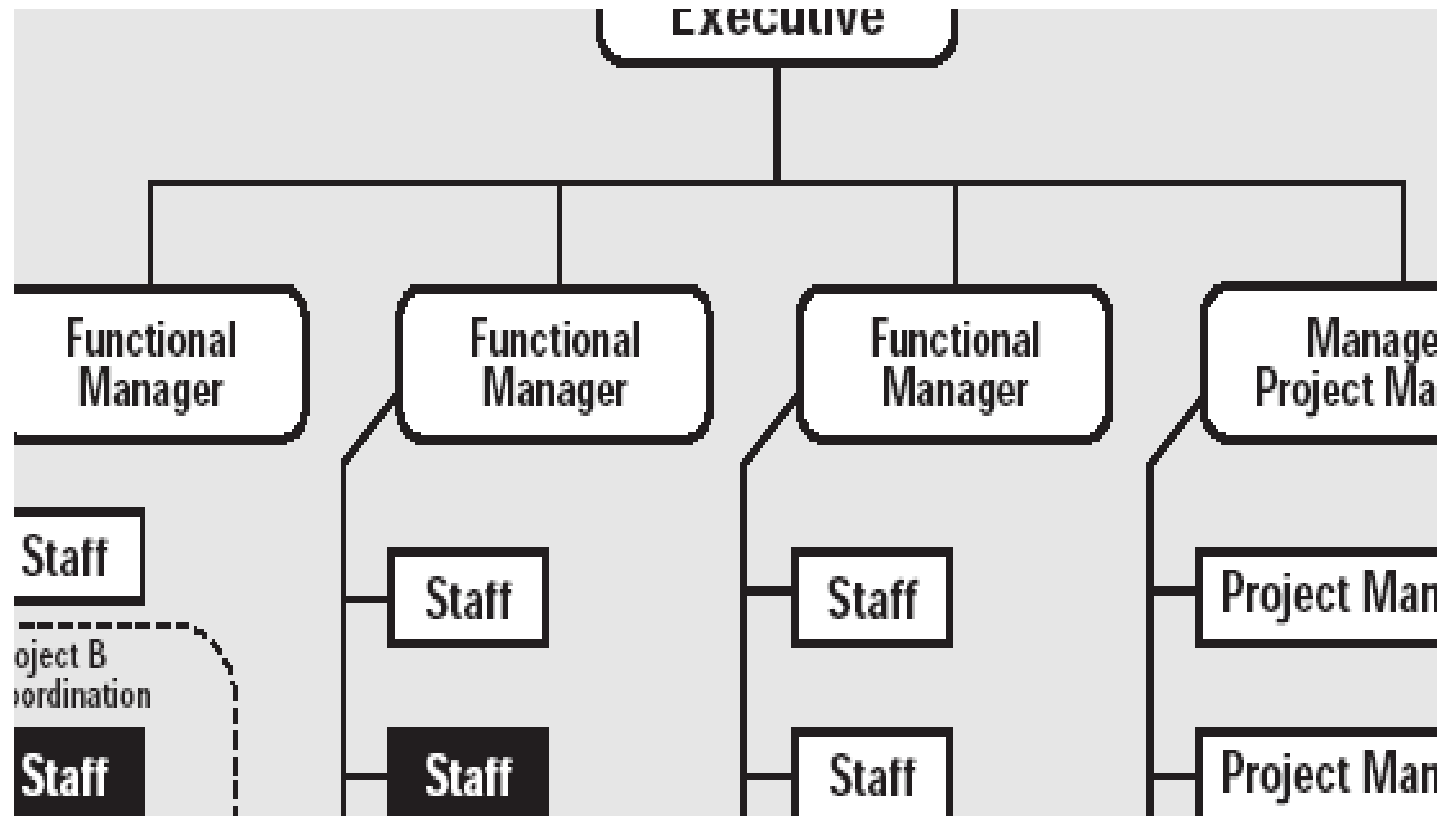




# Ισχυρή οργάνωση πινάκα (Strong Matrix organization)



# Σύνθετη οργάνωση (Composite organization)



# Οργανωτικές δομές και έργα

Project Characteristics \ Organization Type	Functional	Matrix			Projectized
		Weak Matrix	Balanced Matrix	Strong Matrix	
Project Manager's Authority	Little or None	Limited	Low to Moderate	Moderate to High	High to Almost Total
Percent of Performing Organization's Personnel Assigned Full-time to Project Work	Virtually None	0-25%	15-60%	50-95%	85-100%
Project Manager's Role	Part-time	Part-time	Full-time	Full-time	Full-time
Common Titles for Project Manager's Role	Project Coordinator/ Project Leader	Project Coordinator/ Project Leader	Project Manager/ Project Officer	Project Manager/ Program Manager	Project Manager/ Program Manager
Project Management Administrative Staff	Part-time	Part-time	Part-time	Full-time	Full-time

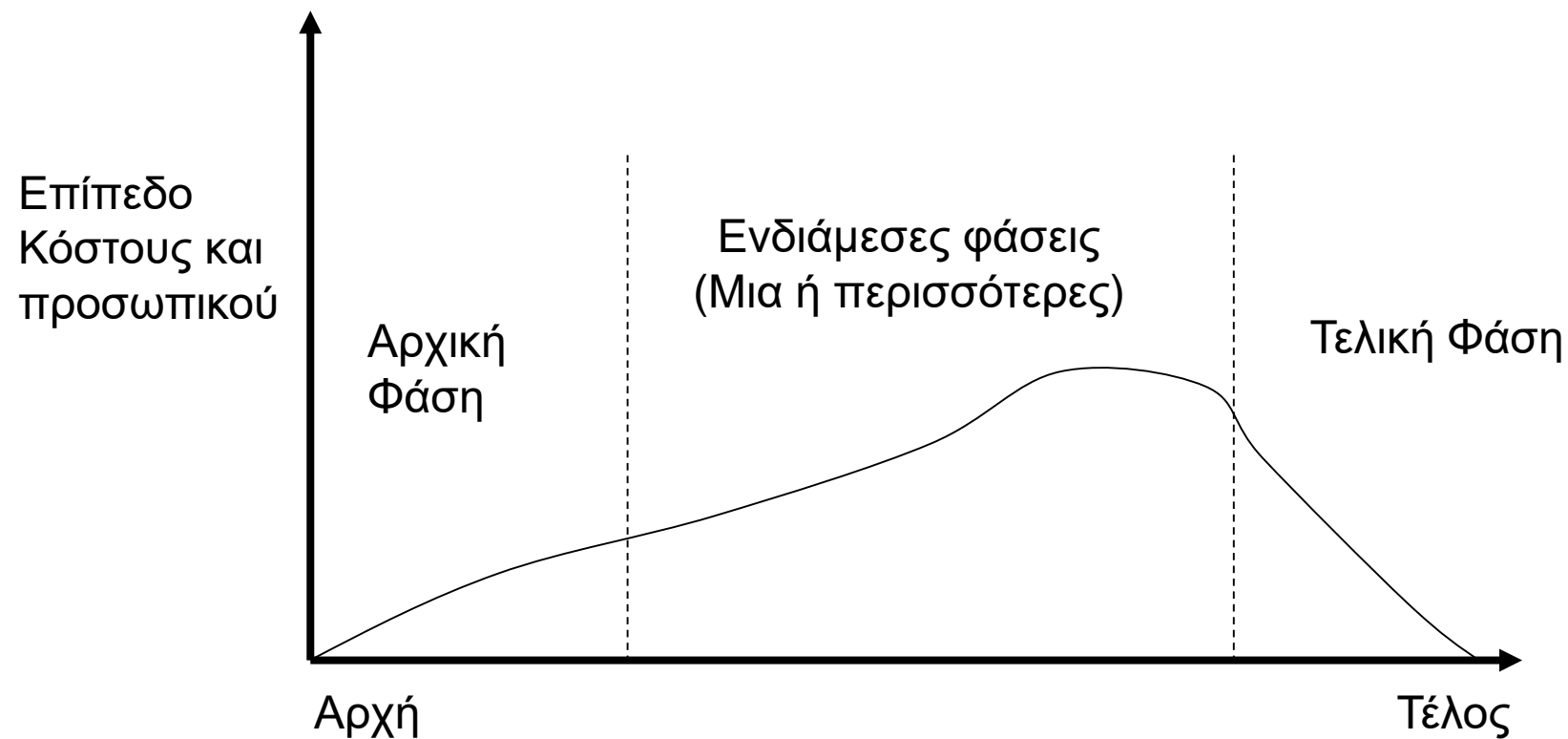
# Ο ΚΥΚΛΟΣ ΖΩΗΣ ΣΤΑ ΕΡΓΑ



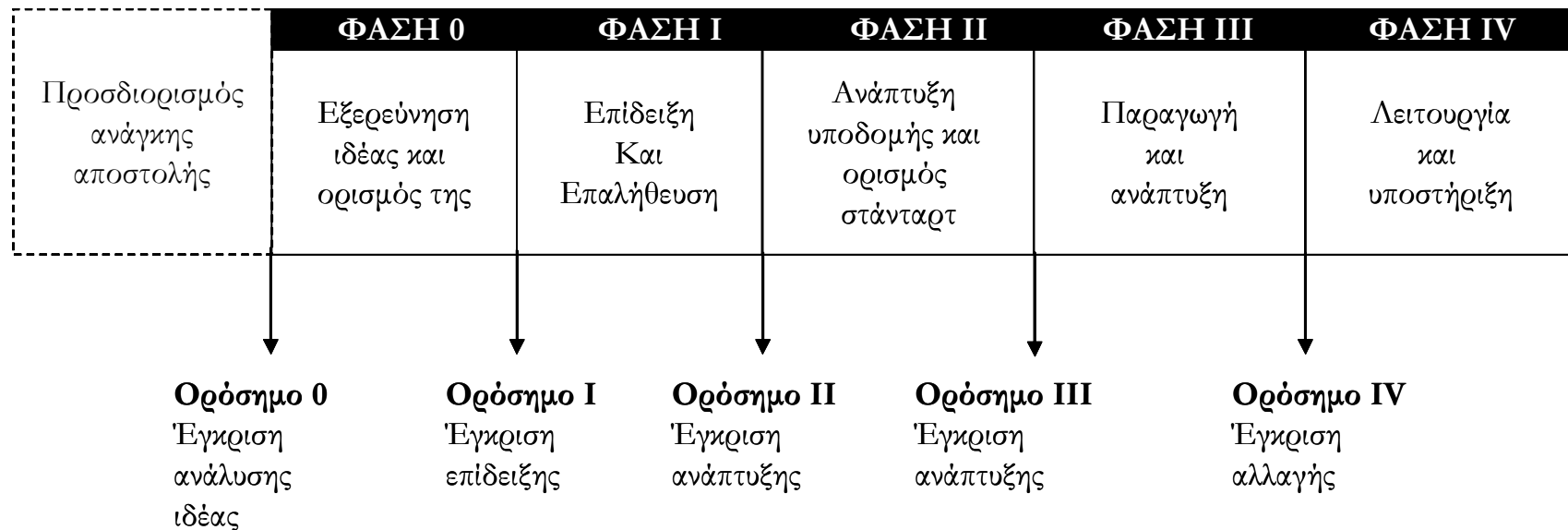
# Project Life Cycle

- Οι φάσεις του κάθε έργου προσδιορίζονται από τα παραδοτέα (deliverables)
- Ένα παραδοτέο είναι ένα χειροπιαστό, επαληθεύσιμο ποσό εργασίας:
  - Μελέτη σκοπιμότητας
  - Σχεδιασμός έργου
- Το τέλος κάθε φάσης σηματοδοτεί
  - Έλεγχο παραδοτέων
  - Έλεγχο απόδοσης
    - Συνέχεια σε επόμενη φάση
    - Διόρθωση λαθών

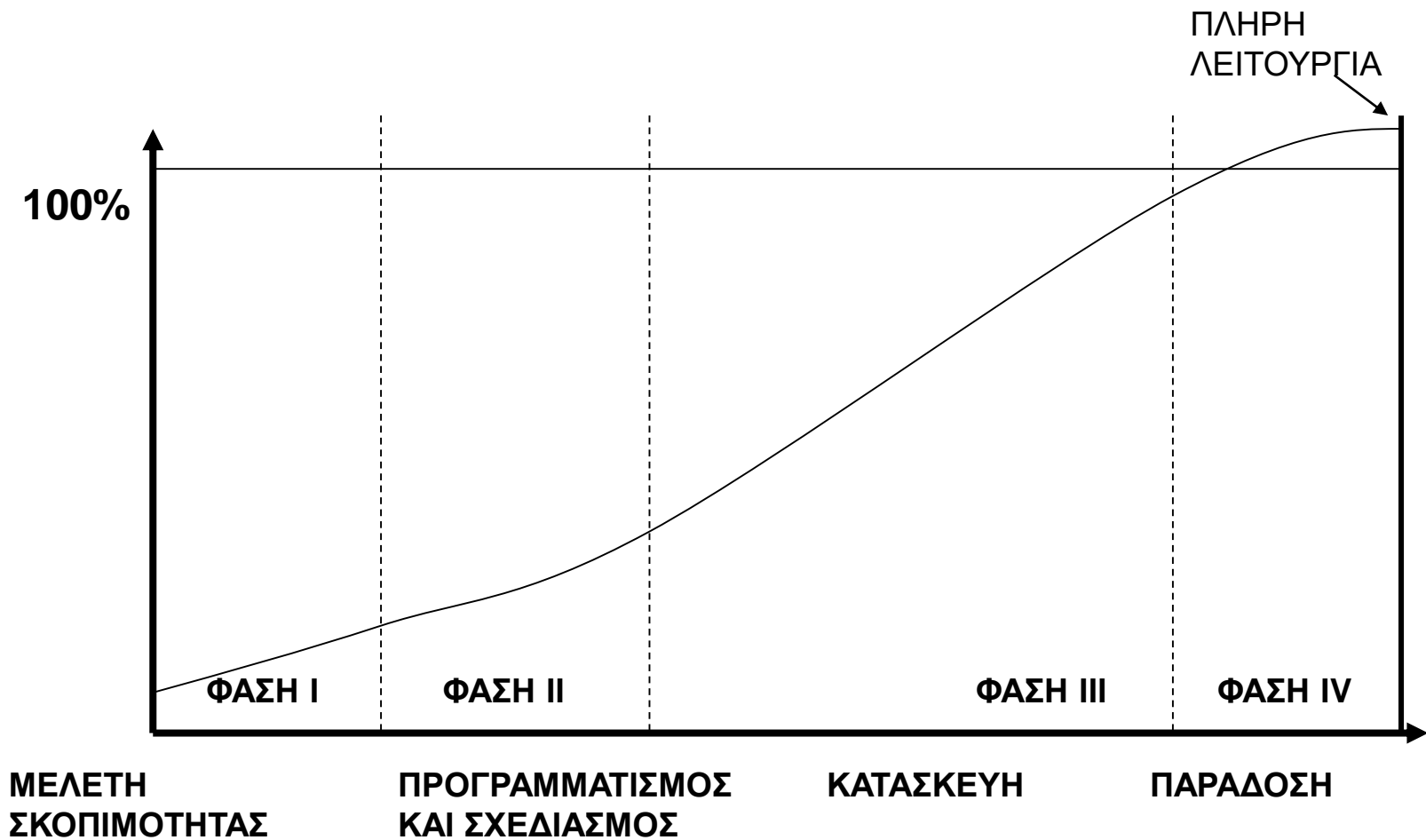
# Δείγμα κύκλου ζωής έργου



# Ενδεικτικός κύκλος ζωής

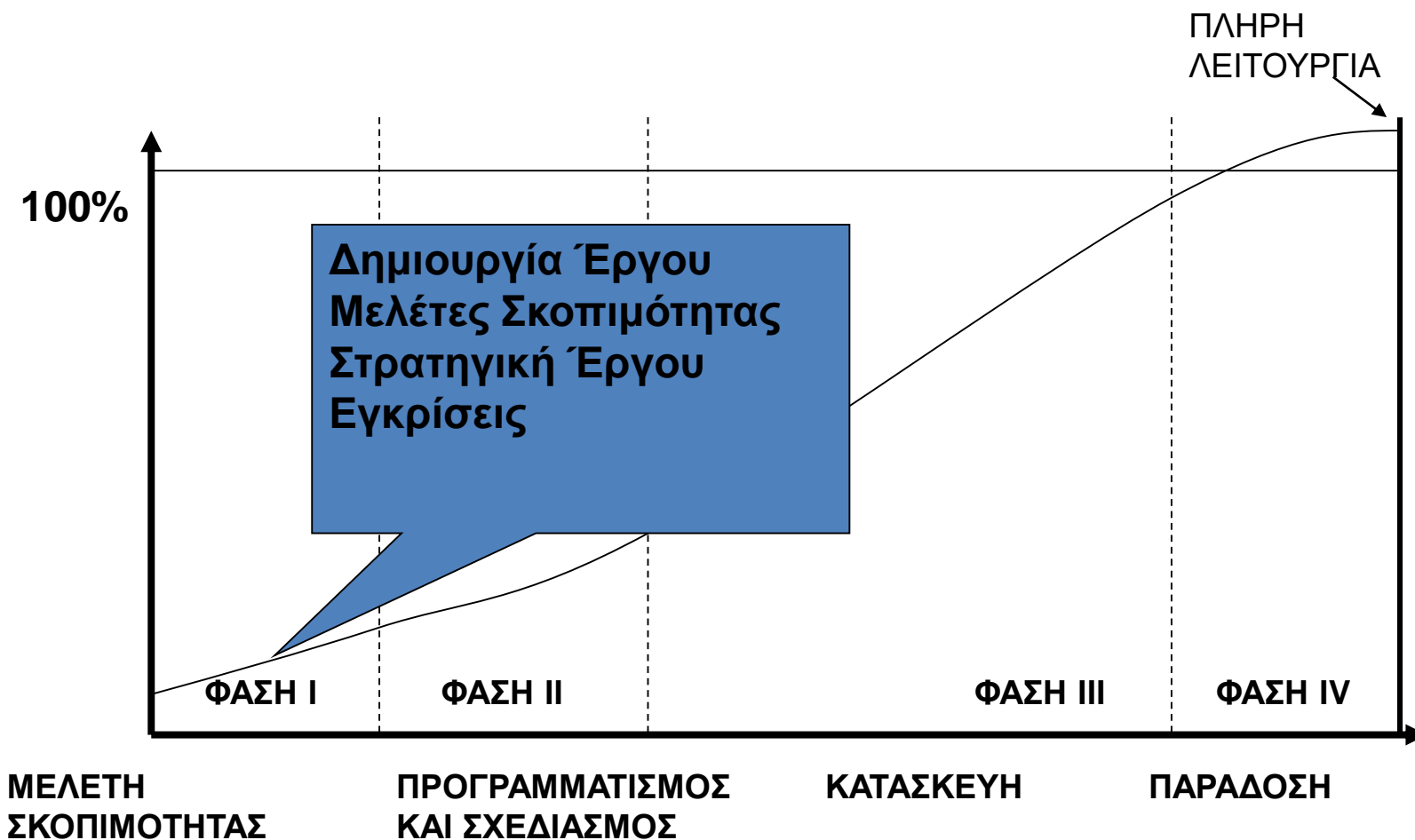


# Κύκλος ζωής

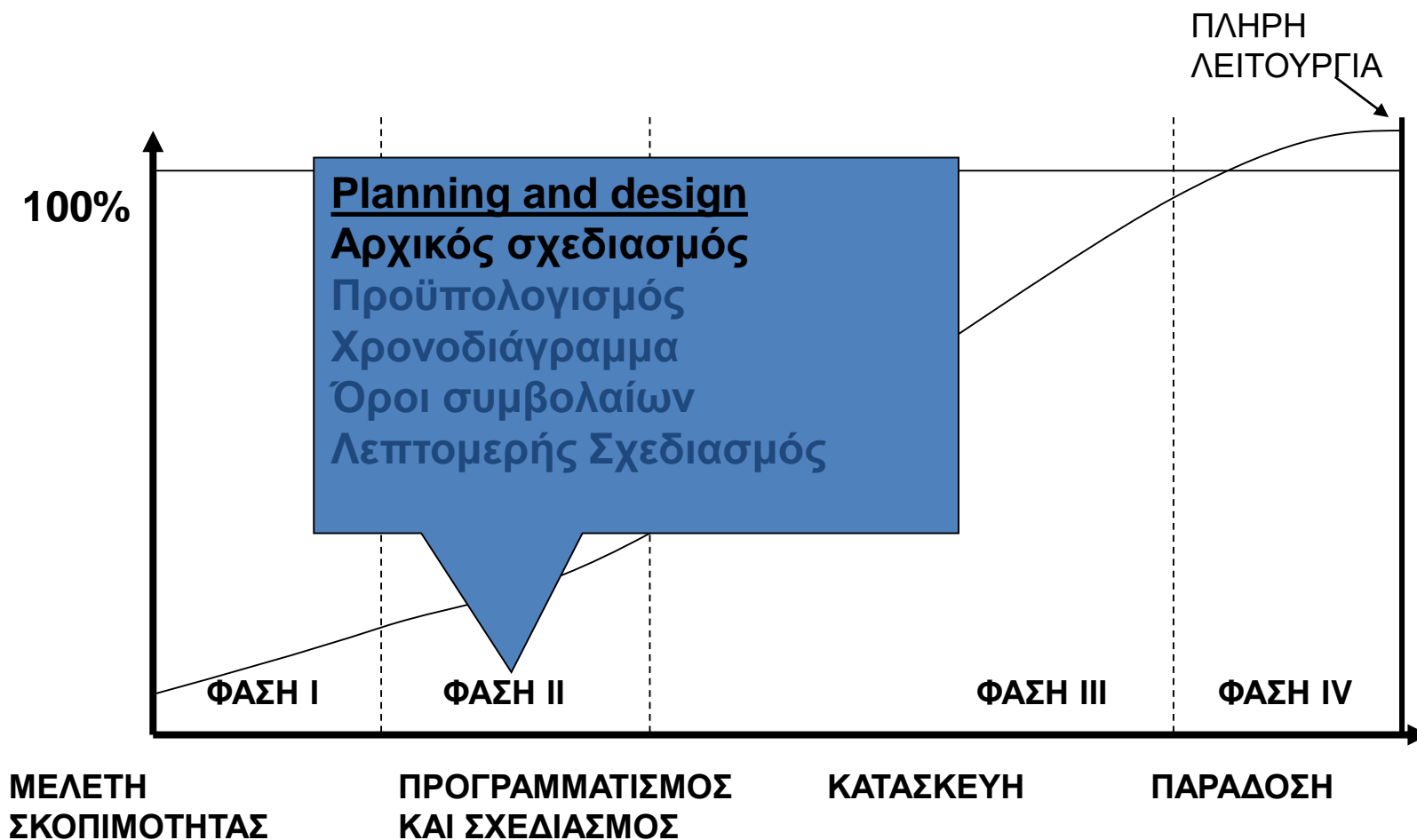




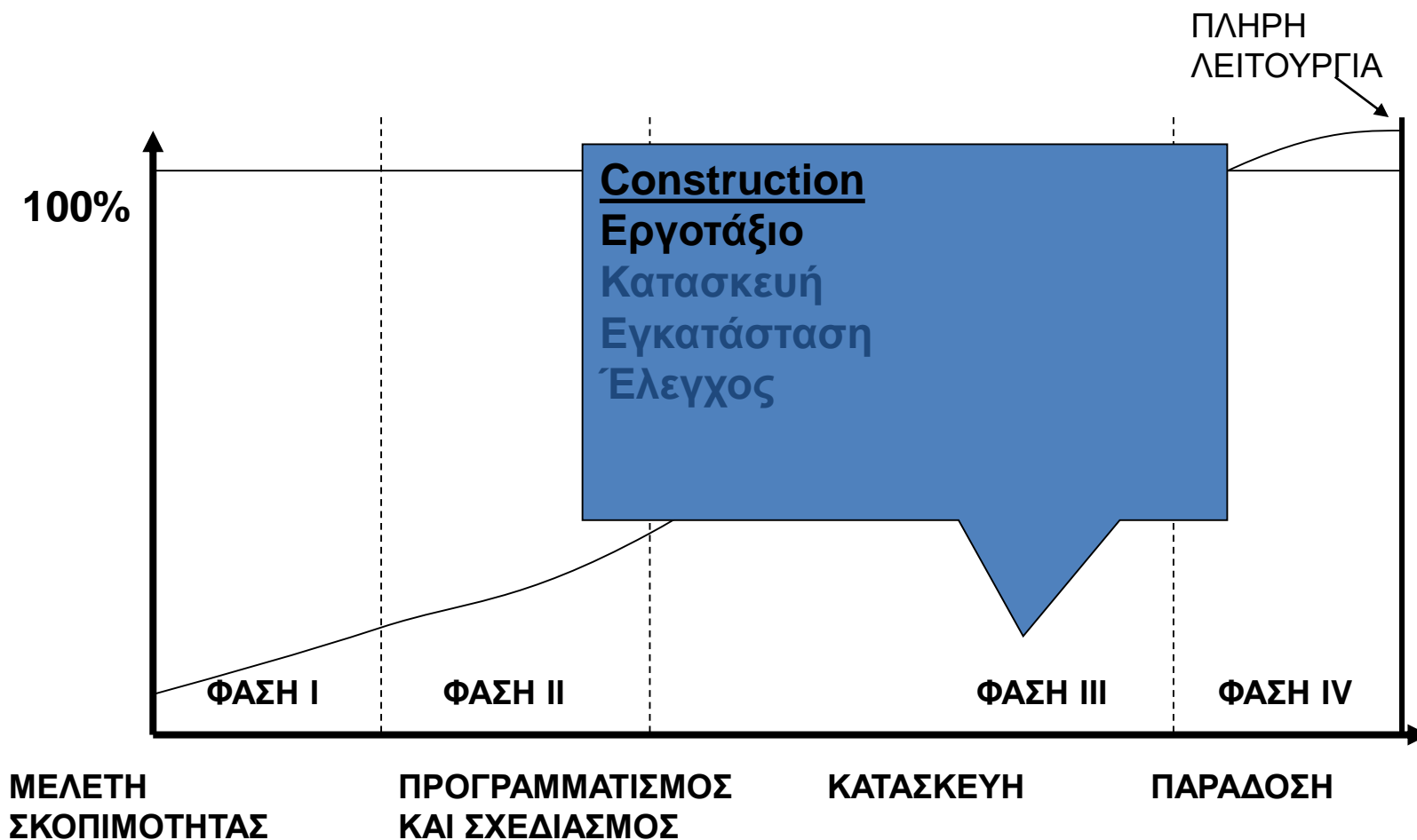
# Κύκλος ζωής



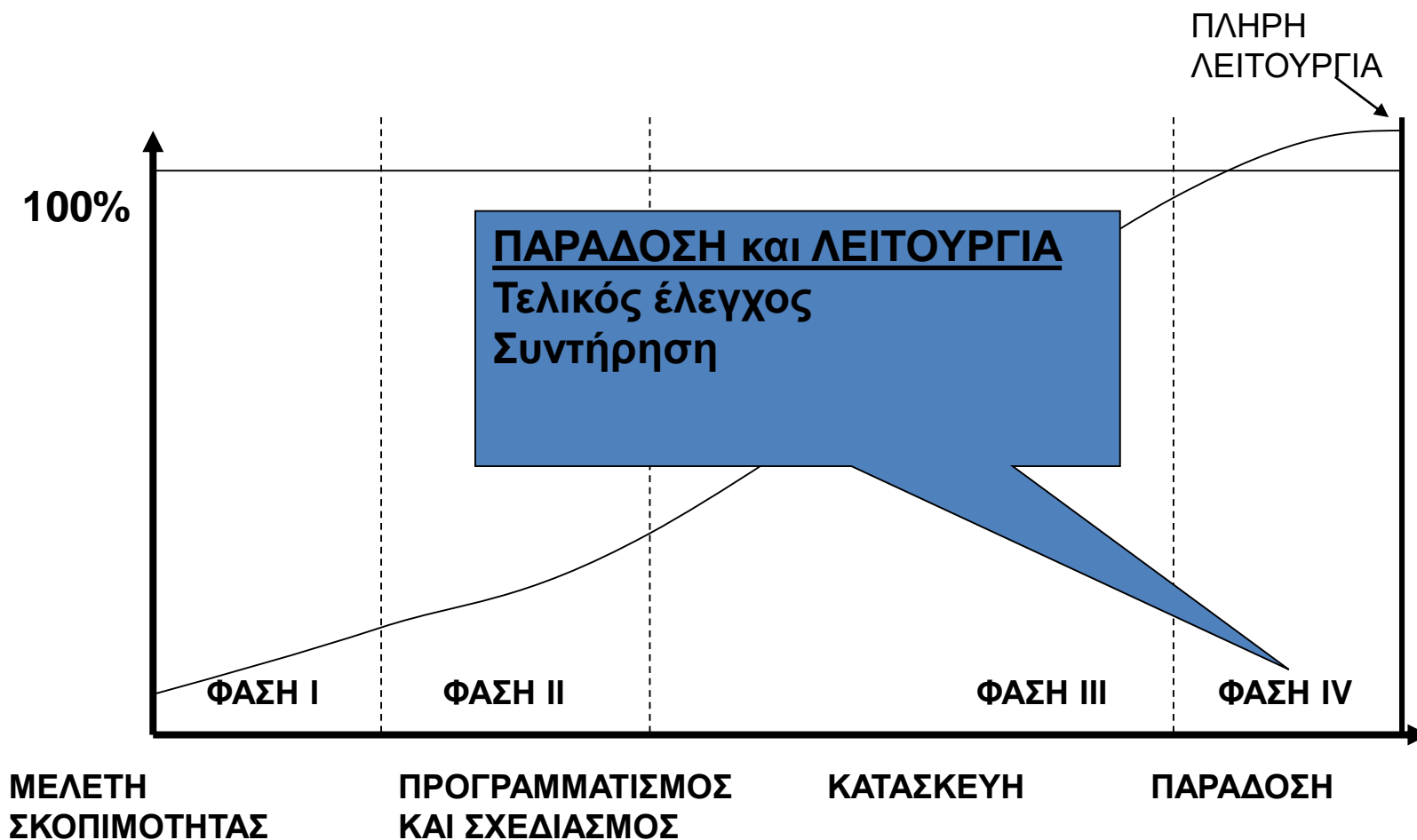
# Κύκλος ζωής



# Κύκλος ζωής



# Κύκλος ζωής

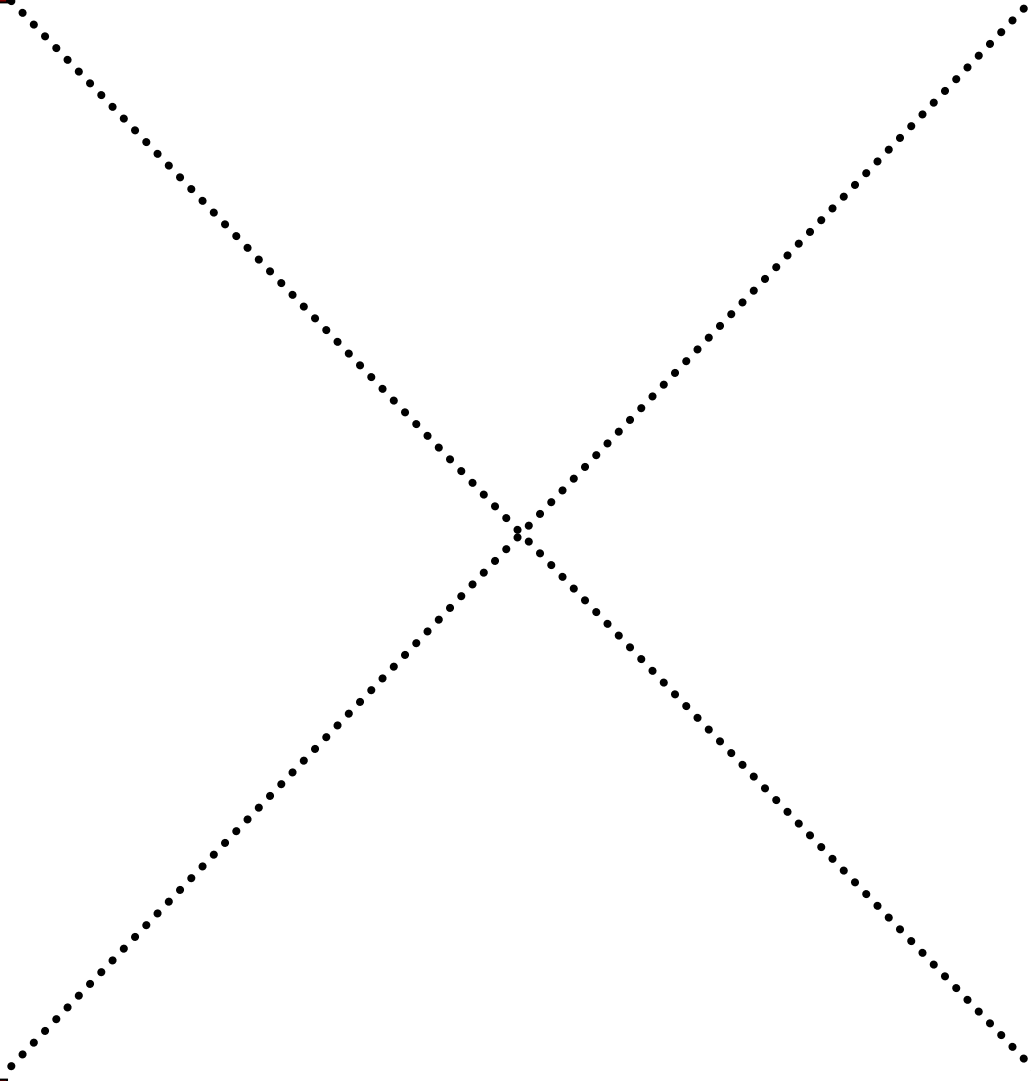




# Κύκλος ζωής στο software

**EVALUATE**

**IDENTIFY**



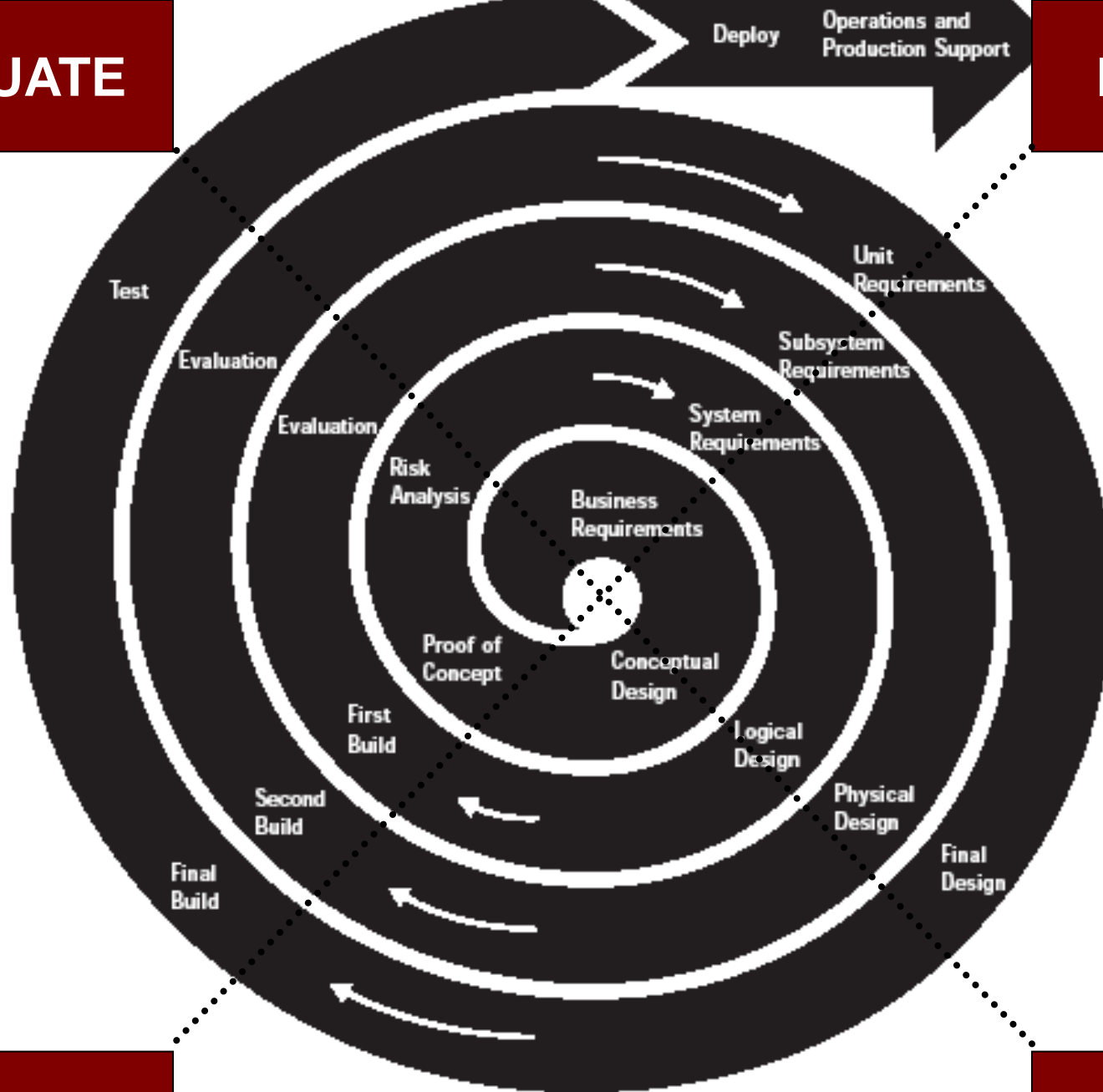
**DESIGN**

**CONSTRUCT**

**EVALUATE**

Deploy  
Operations and  
Production Support

**IDENTIFY**



Test

Evaluation

Evaluation

Risk  
Analysis

Proof of  
Concept

First  
Build

Second  
Build

Final  
Build

Business  
Requirements

Conceptual  
Design

Logical  
Design

Physical  
Design

Final  
Design


System  
Requirements

Subsystem  
Requirements

Unit  
Requirements

**CONSTRUCT**

**DESIGN**



# Ερωτήσεις

- Γνωρίζεται άλλους κύκλους ζωής σε έργα;
- Ποια είναι τα χαρακτηριστικά τους;

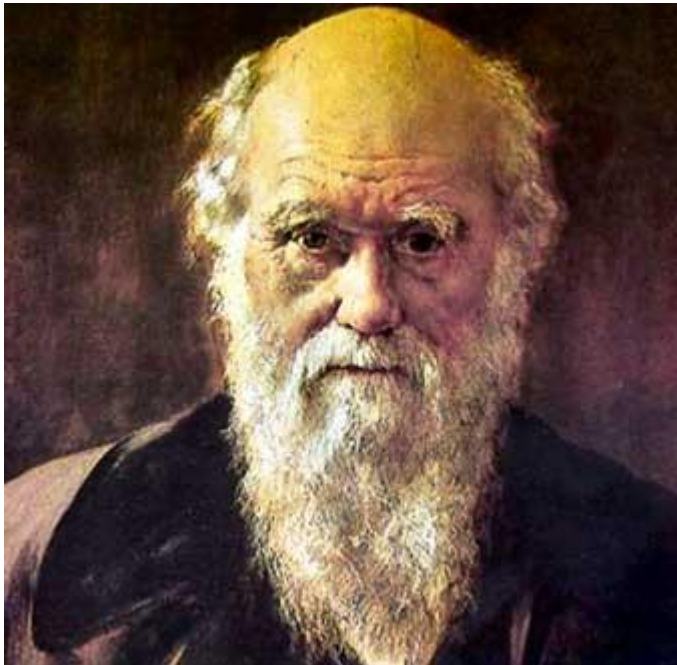


# Agile methods



## Why choose “Agile”?

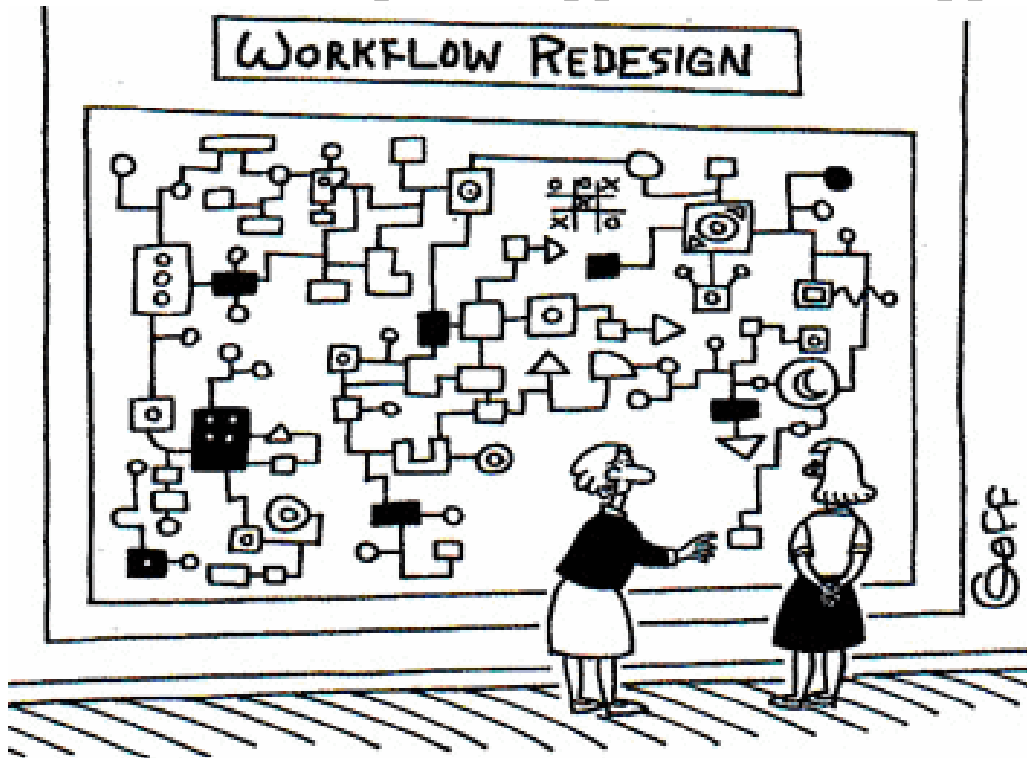
- “It is not the strongest of the species that survive, nor the most intelligent, but the ones most responsive to **change**.”



- Charles Darwin, *The Origin of Species*

# Why choose “Agile”?

“When the process is too complicated for the defined approach, the empirical approach is the appropriate choice.”



Process Dynamics, Modeling, and  
Control,  
Ogunnaike and Ray, Oxford  
University Press, 1992

*"And this is where our ED workflow redesign team went insane."*

# Defined Process vs. Empirical



Defined Process  
Management  
Great for known activity

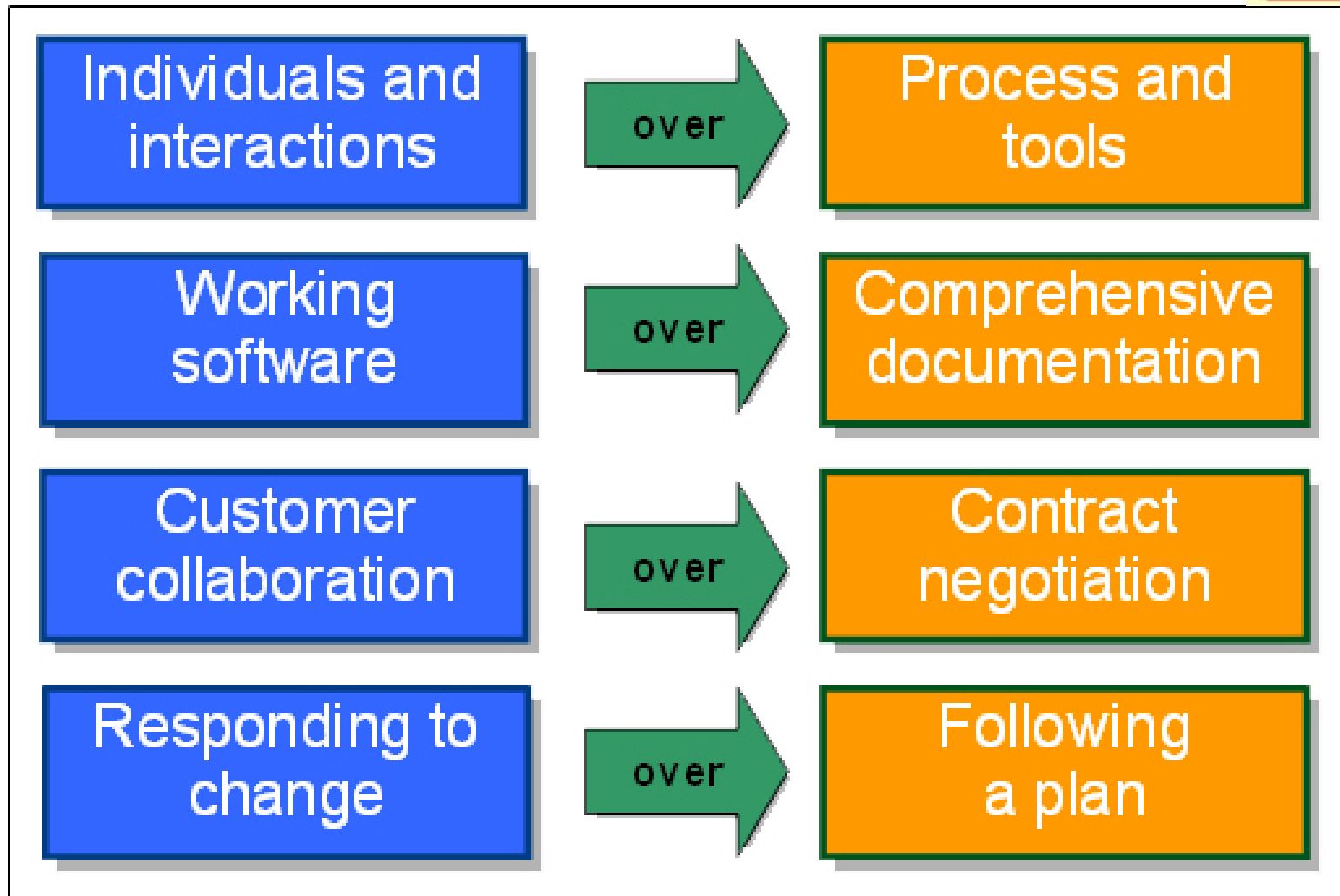
# Defined Process vs. Empirical

Not great for unknown activity



\$7 million budget  
\$120 million final

# The Agile Manifesto

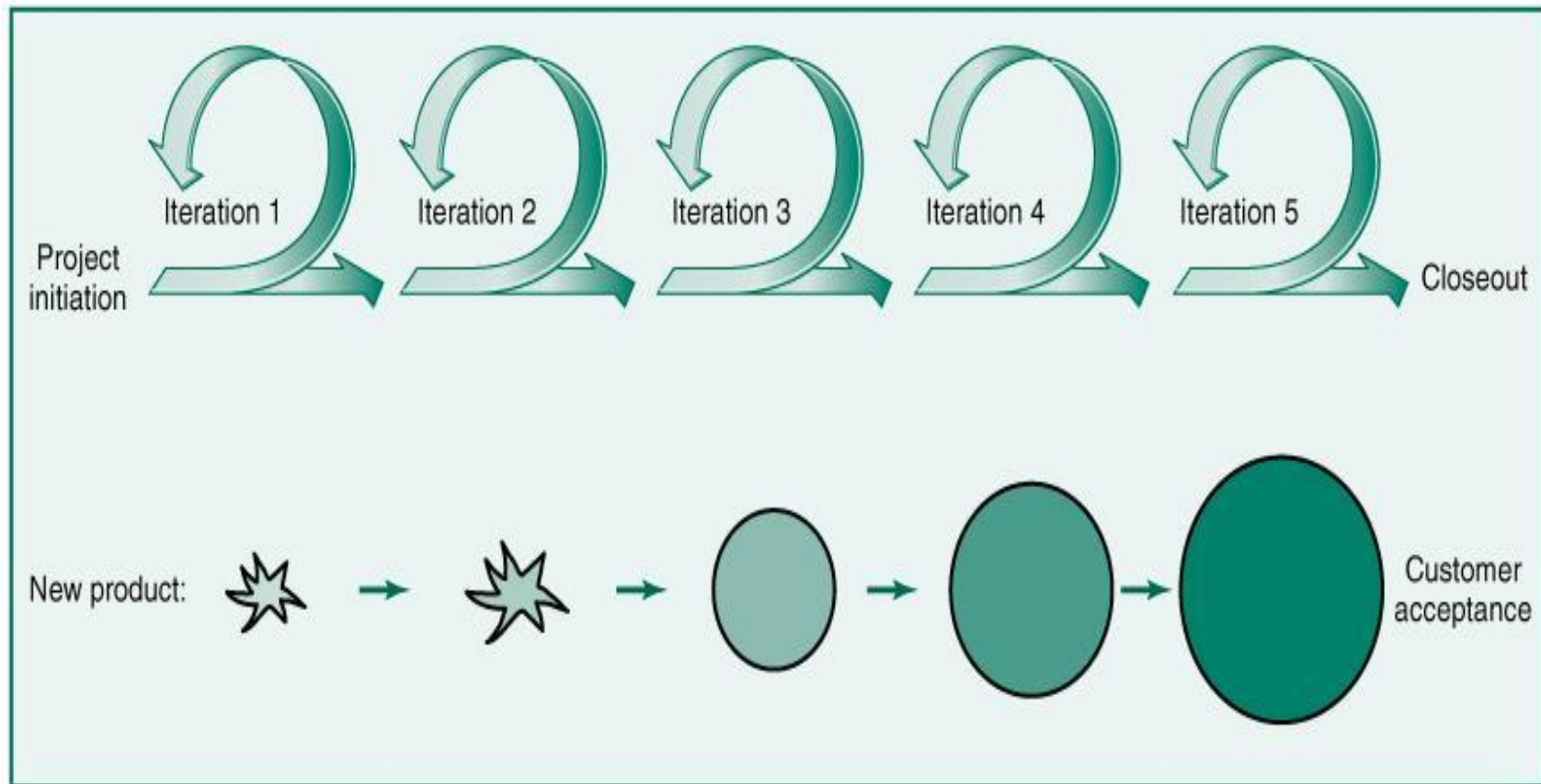




# The Methodologies

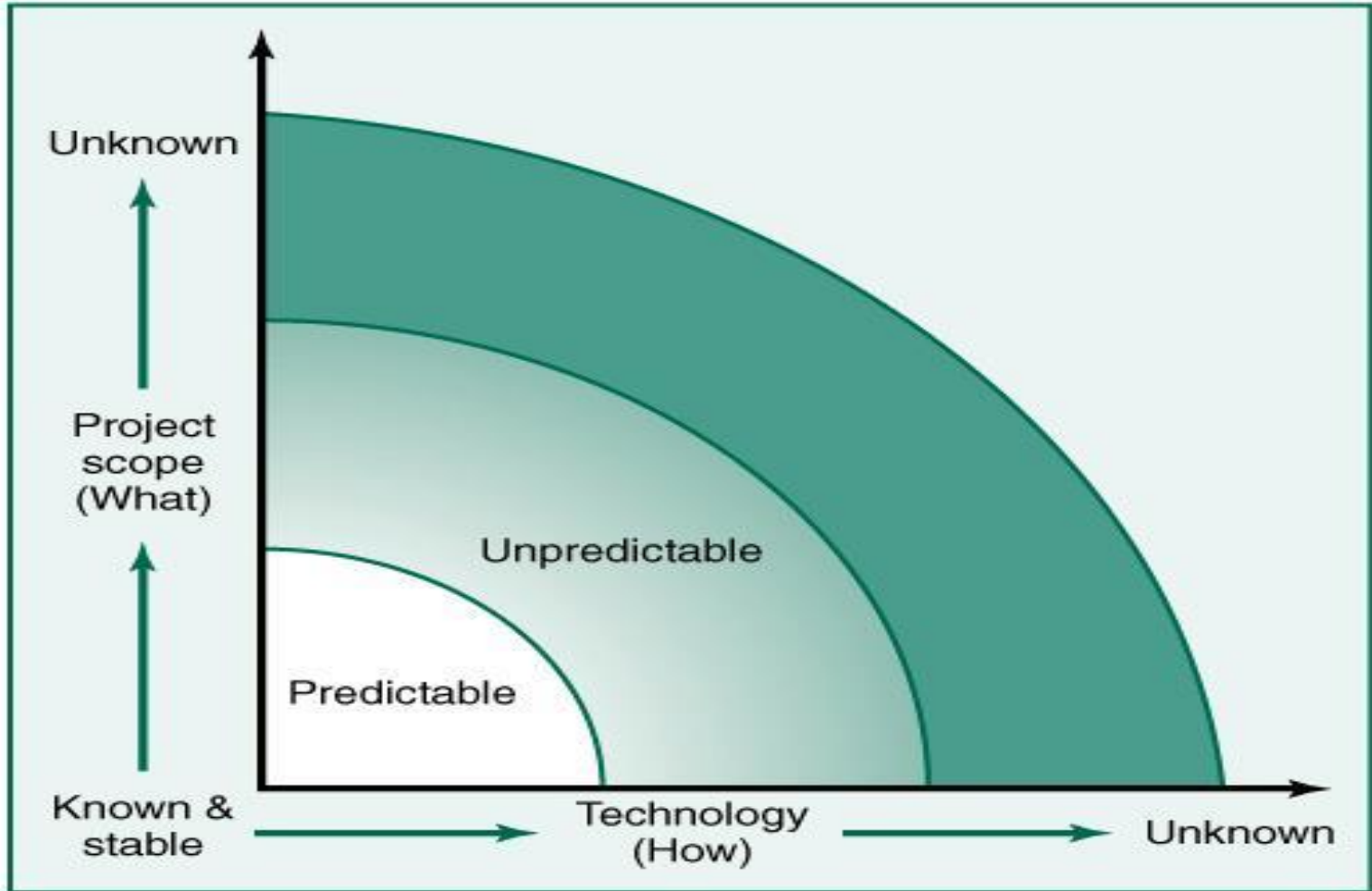
- XP
- The Crystal family
- Open Source
- ASD (Adaptive Software Development)
- Scrum
- Feature Driven Development
- DSDM (Dynamic Systems Development Method)
- Rational Unified Process (RUP)

# Agile: Iterative, Incremental Product Development



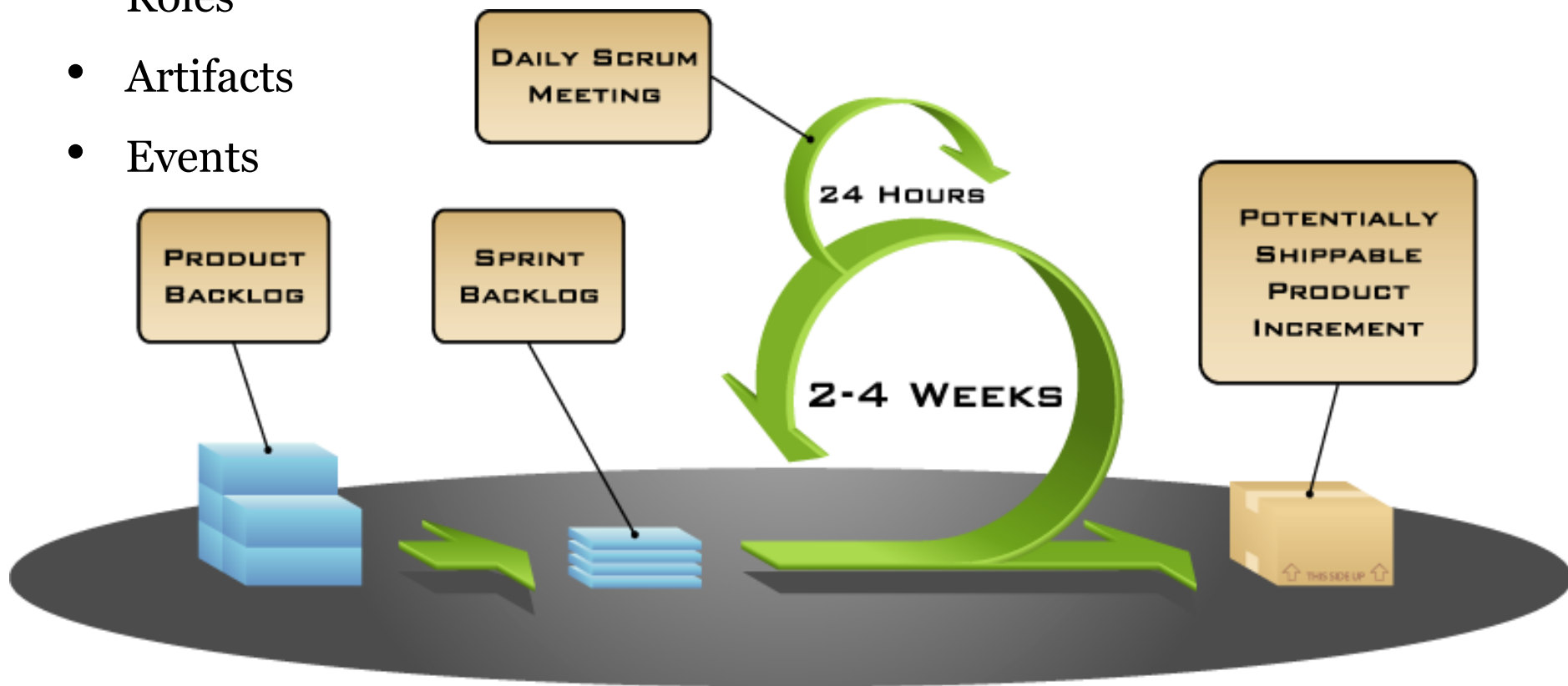


# Agile and Project Uncertainty



# For example Scrum

- Roles
- Artifacts
- Events



# Scrum Master

- Servant Leader
- Facilitator
- Roadblocks



# Product Owner

- Business Priorities
- Single Wringable neck



# Team

- Everyone
- Self Organising



# Sprint

- Short
- Time boxed



# Planning Meeting

- Stories
- Breakdown
- Time boxed



# Daily Scrum/Standup

- 15 minutes (at most)
- 3 questions





# Review

- Inspection



# PRINCE2®

- Initially developed by the UK Office of Government Commerce (now the Cabinet Office).
- The PRINCE2® methodology offers non-proprietary best practice guidance on project management.

# PRINCE2<sup>®</sup> – Components

## Principles

- There are seven principles in PRINCE2<sup>®</sup>.
  - All must be applied for the project to be PRINCE2<sup>®</sup>.
  - They represent guiding obligations and good practice.
- Continued business justification
  - Learn from experience
  - Defined roles and responsibilities
  - Manage by stages
  - Manage by exception
  - Focus on products
  - Tailor accordingly

# PRINCE2<sup>®</sup> – Components (cont.)

## Themes

- PRINCE2<sup>®</sup> encompasses seven themes.
  - The themes describe aspects of project management that must continually be attended to throughout the life of the project.
- Business case
  - Organisation
  - Quality
  - Plans
  - Risk
  - Change
  - Progress

# PRINCE2<sup>®</sup> – Components (cont.)

## Processes

- There are seven processes.
  - They detail the steps to be taken throughout the life of a PRINCE2<sup>®</sup> project.
- Starting a project
  - Initiating a project
  - Directing a project
  - Managing a stage boundary
  - Controlling a stage
  - Managing product delivery
  - Closing a project

# PRINCE2<sup>®</sup> – Components (cont.)

## **Tailoring**

- Tailoring the process to your company's environment.
- Not omitting any steps or components.

# PRINCE2<sup>®</sup> – Processes

