

MUNI  
ECON

# PROJECT MANAGEMENT

Seminar 2

# Agenda

- Why a lecture on Project management?
- Project – definition
- Project management
- Process approach to a project
- Initiation of a project
- Planning of a project
- Management and coordination of a project
- Closure of a project

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# Why project management?

1. Changing nature of environment and its impact on management of companies;
2. Requirements on pretenders to managerial positions.

## Ad 1) Changing nature of environment ...

- rapid development of new products;
- frequent and rapid changes of processes;
- individualization of products according to customer demand

=> All of these factors require a **one-shot managed set of activities.**

## Ad 2) Requirements on pretenders ...

Skills	Rel. frequency
PC skills	43,24 %
Communication skills	42,34 %
Driver licence (B)	27,93 %
Flexibility	22,52 %
Analytical skills	21,62 %
<b>Project management</b>	<b>14,53 %</b>
Sales skills	14,41 %
Team cooperation	11,71 %
Negotiating skills	10,81 %

# Why project management?

=> increasing importance of project management knowledge and skills for businesses and graduates

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# Project (definition)

- A project is a temporary organisation that is created for the purpose of delivering one or more business products according to an agreed business case.'
  - short-term effort undertaken to create a unique objective (product / service).
    1. temporariness = start and completion dates are set.
    2. uniqueness
      - goal
      - technology
      - people (=KSA)
      - outer influence and risks
- => specific (one-shot) = every project is realized only once.

# Why projects fail

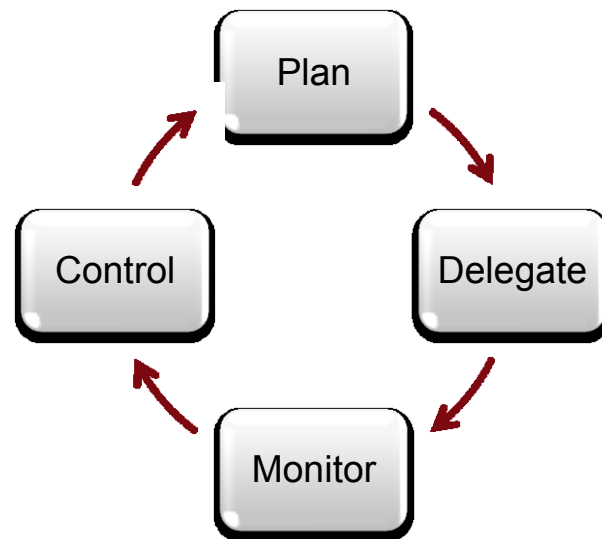
- Lack of project justification, no valid business case.
- Insufficient attention to quality from the start and through development.
- Poorly defined outcomes, confusion over what the project needs to achieve.
- Lack of communication amongst stakeholders.
- Poorly defined roles and responsibilities amongst project personnel.
- Poor cost and time estimating.
- Poor planning and resource coordination.
- Insufficient measurables and lack of progress control.
- Lack of quality control.

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# What is project management

- Project Management is the planning, delegating, monitoring and controlling 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 risks**.



# Distinctions of PM

- What makes PM different from traditional management approaches?
  - temporariness;
  - uniqueness;
  - use of resources allocated based on the project's needs.

# Advantages of PM

- rigorous delegation of authority and responsibility;
- use of resources allocated based on the project's needs  
=> flexibility;
- creates environment for progress checks (to achieve the project's goals);
- system approach.

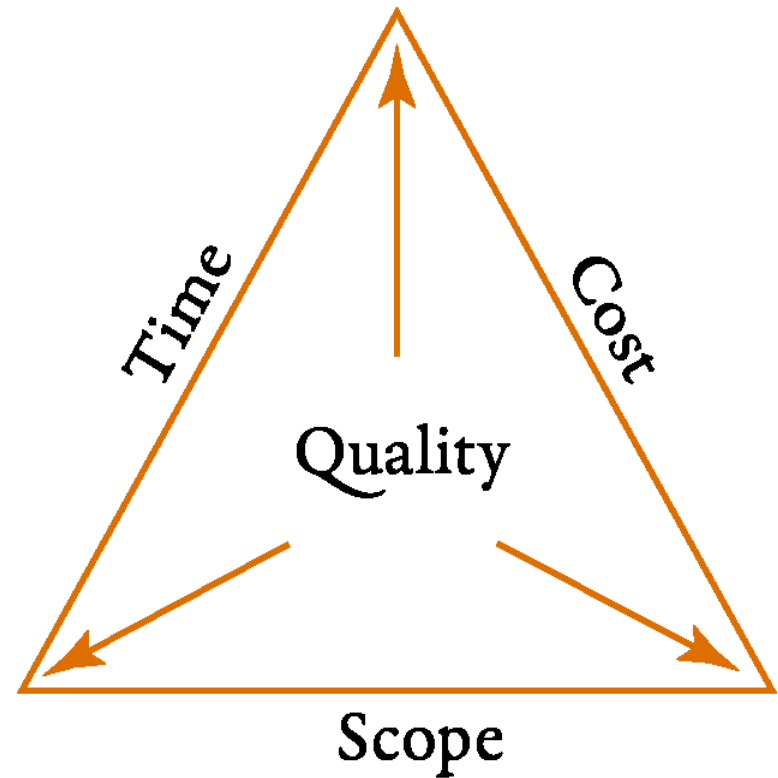
# Disadvantages / risks of PM

- specific demands of customers arise only during realization phase;
- need for frequent org. changes;
- need for planning and valuation ex-ante (before realization).

# Three bases of PM

Project is a unique sequence of coordinated activities and tasks:

- with a specific goal (final value);
- with a time framework;
- with a framework for drawing on resources.





# Problem of interdependence

- individual bases are interdependent
- specifics of the project define relative importance of every single level (base)

=> need to seek balanced solutions. It is more an optimization problem (x maximization of individual categories).

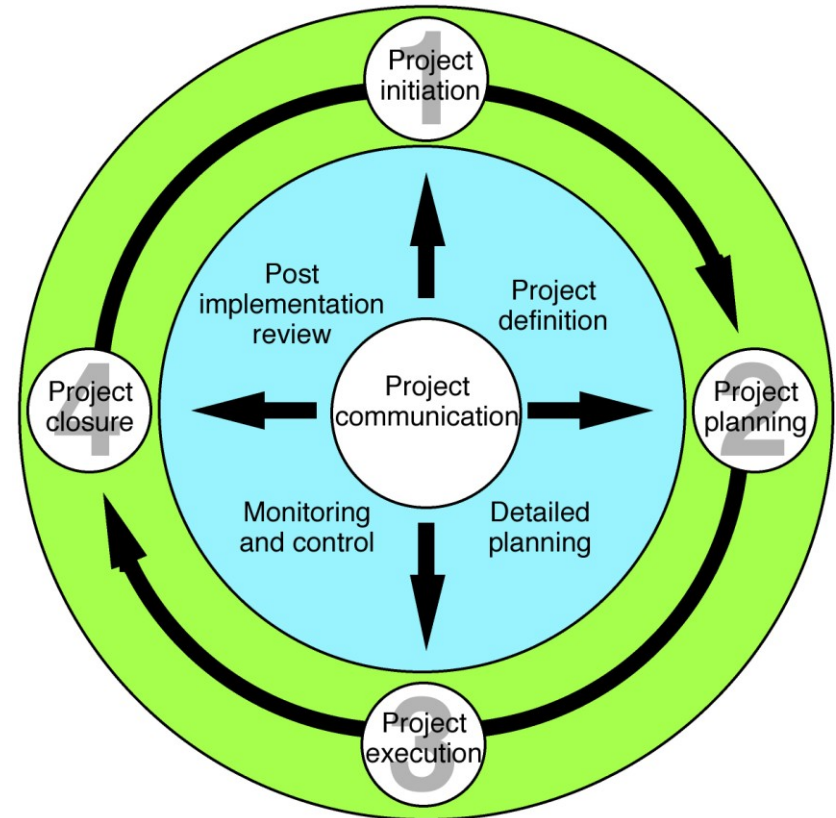
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# Lifecycle of a project

Sequence of phases

- Initiation
- Planning
- Execution (coordination, monitoring and control)
- Closing



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# Goals setting

- Project goal = new final value resulting from the project.
  - S.M.A.R.T.
    - Specific
    - Measurable
    - Assignable
    - Realistic
    - Time-bound
- =>criteria for evaluation

# (Outline) Business Case

## Defintion

- Defines the justification for undertaking a project based on estimated costs against the anticipated benefits to be gained and offset by any associated risks.

## Composition

- **Reasons** for undertaking the project
- **(Business) options** = how to reach the goals. => analysis and reasoned recommendation for which one option to choose => project approach
  - Do nothing
  - Do the minimum
  - Do something
- **Expected benefits** – desired outcomes (qualitative and quantitative) should be expressed in measurable terms.
- **Expected dis-benefits** – (potential) negative outcomes of project activities
- **Timescale**
- (Estimated) **costs**
- (Expected) **major risks**

# Project Brief (= your first deliverable)

## Definition

- is used to provide full and firm foundation for the initiation of the project and is created during starting up a project.

## Composition

- **Project definition** – explains what the project needs to achieve. It covers the background, definition of project objectives, desired outcomes, project scope and exclusions, constraints and assumptions, and project tolerances.
- **Outline business case** (see previous slide)
- **Project product description** – explaining quality expectations and acceptance criteria.
- **Project management team structure** – describing the role of those in the project management team.

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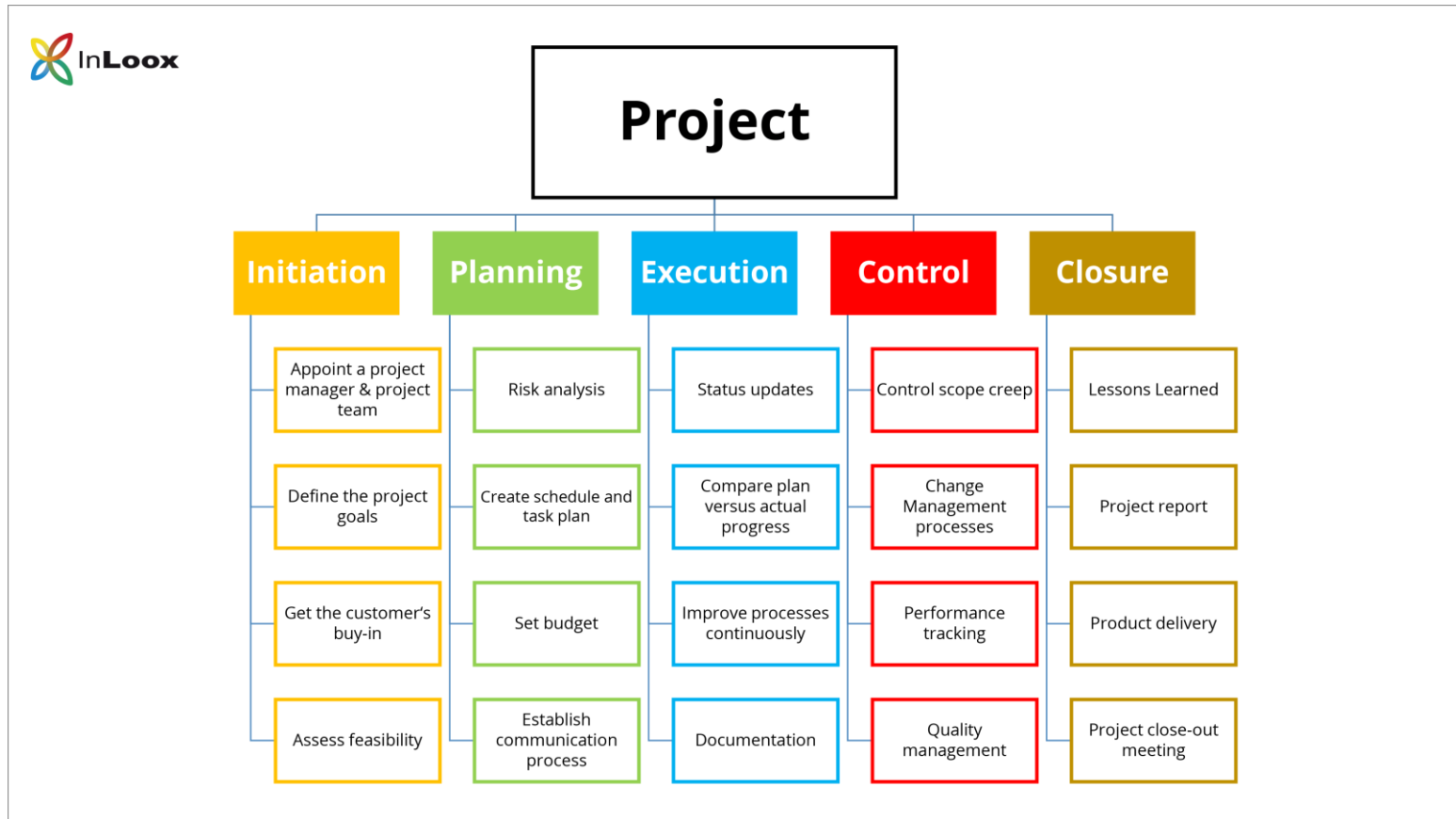
# What to plan for?

- time
- cost
- quality
- scope
- benefits
- risks

# Work Breakdown Structure

- is a hierarchical structure of tasks ensuring a successful accomplishment of the set project goal
- it is important resource for managing all three bases of project management
  - ⇒ allocation of resources (who will do what?)
  - ⇒ time schedule (when?)
  - ⇒ budget (how much is it going to be?)

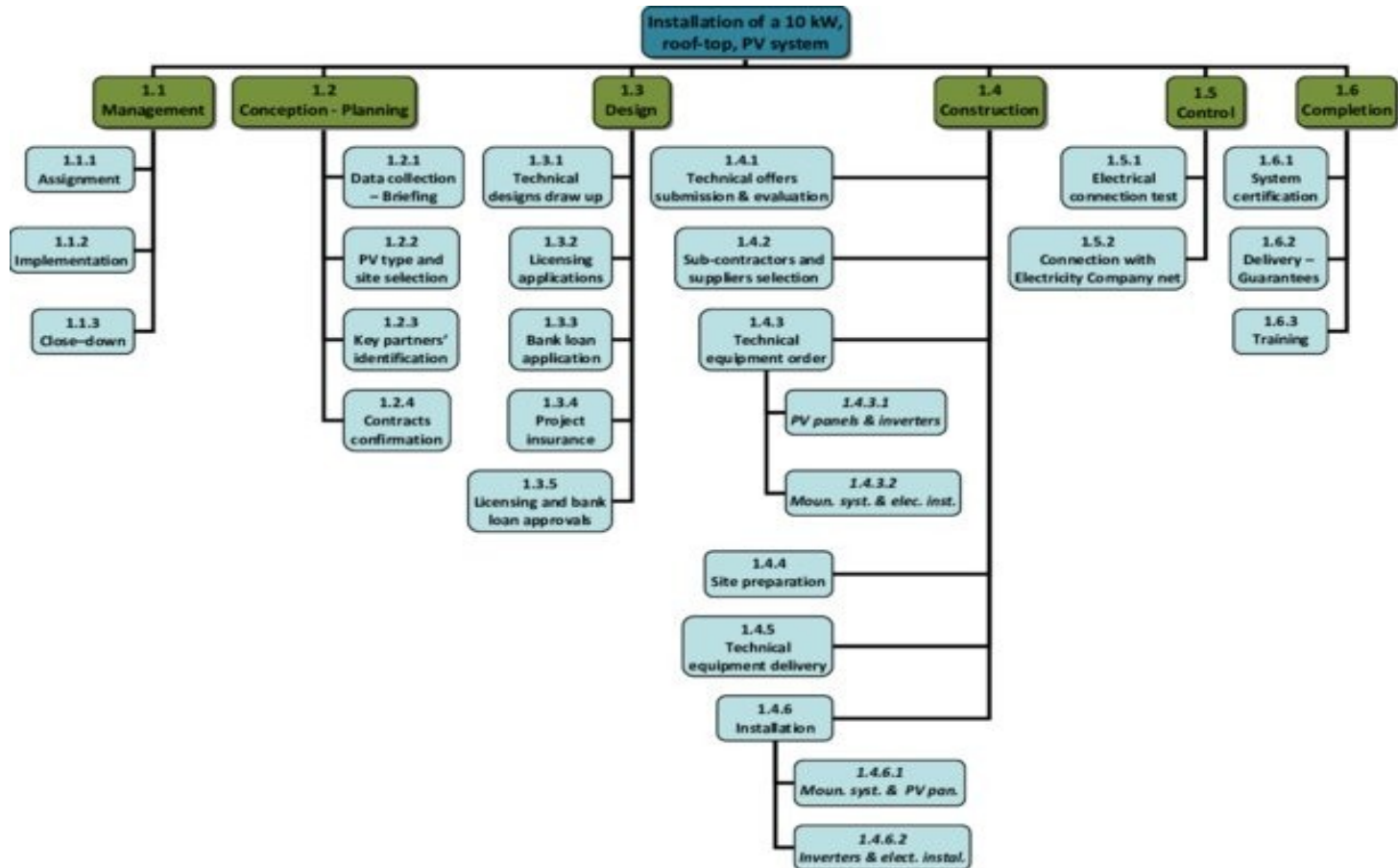
# WBS – example 1



# WBS – example 2



# WBS – example 3



# Time scheduling

□ defines sequence and deadlines of activities within a project.

□ tools:

□ **line segment charts (Gantt charts)**

+ easy-to-create

+ easy-to-follow

- inability to display the connections between activities

- inability to show the completion rate as a percentage

□ **network diagrams**

C.P.M. – based on analysis of a critical path = longest sequence of activities without any float time (reserves).

P.E.R.T. – duration set according to pessimistic, realistic and optimistic alternatives.

G.E.R.T – improvement of PERT method

+ present interdependencies

+ allow for seeking alternative solutions

+ define critical path

- complex

- not that easy-to-follow

# Budgeting

- timed plan represented with monetary or working (labor) units:
  - general x detailed
  - timed according to presumed time of spending the resources
- methods

# Project Plan (= your final deliverable)

## Definition

- provides a statement of how and when objectives are to be achieved, by providing the **major products, activities and resources required** for the scope of the plan. It identifies the **management stages** and other **major control points**.
- A plan should cover not just the activities to create products but also the **activities to manage** product creation.

## Structure

- planning assumptions;
- products description;
- tolerances – time, cost and scope tolerances;
- budgets – time and cost budgets, including provisions for risk and changes;
- schedule – incl. a Gantt chart and work breakdown structure;
- monitoring and control details



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# Progress tracking

- involves measuring actual progress against the performance targets of time, cost, quality, scope, benefits and risk.
- Plans need to be fit for progress tracking
- Progress tracking is a forward looking exercise
  - Estimates „to complete“
  - Estimates „at completion“
- Monitor progress.
- Compare level of achievement with plan.
- Review plans and options against future situations.
- Detect problems and identify risks.
- Initiate corrective action.
- Authorize further work.

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# Project Closure

- Verify user acceptance of the project's products and ensure that the host site is able to support the products when the project is disbanded.
- Review the performance of the project against its baselines.
- Assess any benefits that have already been realized and update the benefits management approach to include any post-project benefit reviews.
- Ensure that provision has been made to address all open issues and risks, with follow-on action recommendations.