

Science 4 all

Project management

Urszula Utnicka



Co-funded by the
Erasmus+ Programme
of the European Union

PROJECT - definition

An individual or collaborative enterprise that is carefully planned to achieve a particular aim.

(Oxford dictionary <https://en.oxforddictionaries.com>)



PROJECT - EC definition

A series of activities aimed at bringing about clearly specified objectives within a defined time-period and with a defined budget.

A project should have:

- Clearly identified stakeholders, including the primary target group and the final beneficiaries**
- Clearly defined coordination, management and financing arrangements**
- A monitoring system to oversee and follow implementation and to support project management**

European Commission 2004 "Project Cycle Management Guidelines"

Project features

- **Goal-oriented**
- **Coordination of interconnected activities**
- **Time duration: start and end date**
- **Exceptional and unique**
- **Some uncertain and risk**
- **Sustainable change**
- **Added value**

Basic questions:

- **WHY** this project is needed?
- **WHO** should be involved?
- **WHAT** will be a result of the project?
- **HOW** this project will be implemented?
- **WHEN** the project will start/end?
- **HOW LONG** particular activities will last?
- **HOW MUCH** it will cost?
- **WHAT RESOURCES** are necessary (not financial)?
- **WHAT EXTERNAL FACTORS** can impact to success of the project?
- **WHAT** are risks?

Approaches to of managing projects

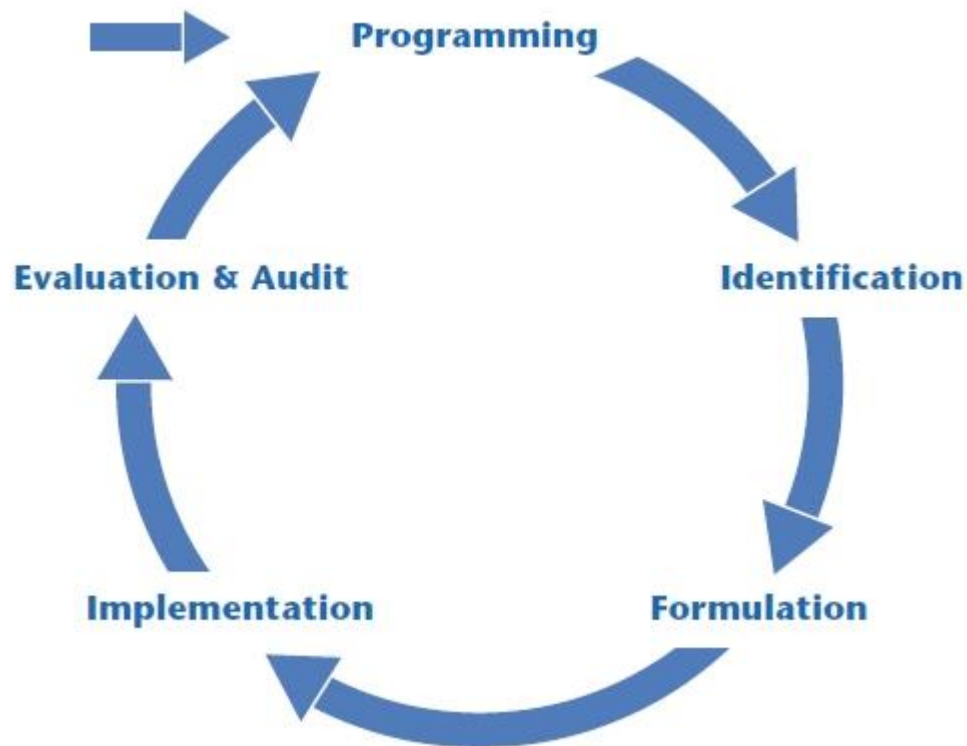
The European Commission requires the use of the **Project Cycle Management (PCM)** principles, for the identification, appraisal, implementation and evaluation of EU funded projects.

Project Cycle Management is a term used to describe the management activities and decision-making procedures used during the life-cycle of a project.

Five stage cycle

- **Programming**, where determine whether or not it benefits the organization (identifying problems);
- **Identification**; analysis of relevance of project ideas, which includes an analysis of the stakeholders and of the likely target groups and beneficiaries;
- **Formulation or Appraisal**, where the action is developed in detail and project ideas are developed into project plans;
- **Implementation**, where actions are carried out and monitored;
- **Evaluation** where the achievements are assessed in depth and lessons learned.

PCM - 5 stages



PCM and LFA

The methodology applied for planning, managing, evaluating projects is the Logical Framework Approach

=A methodology for planning, managing and evaluating programmes and projects, using tools to enhance participation and transparency and to improve orientation towards objectives

Analysis and Planning process

1. Stakeholder analysis

2. Problem analysis → Problem tree

3. Objective Analysis → Objective tree

4. Strategy Analysis

5. Project plan → Logical Framework

6. Activity Planning → Gantt chart

7. Resource Scheduling (budgeting)

Identification

Formulation

1. Stakeholder analysis

1. Identify the stakeholders
2. Categorise them according to their role
3. Characterise them from a social and organisational point of view
4. Analyse them with regard to expectations and relationships
5. Characterise their sensitivity towards and respect of cross-cutting issues
6. Assess the potential, resources and capacities of the stakeholders
7. Draw conclusions and make recommendations for the project

Stakeholder terms

Stakeholders = those who affect or can be affected by the outcomes of projects or programmes.

Beneficiaries = those who benefit from the implementation of the project:

- Target group(s) are the group or entity who will be directly positively affected by the project
- Final beneficiaries who are those who benefit from the project in the long term

Tools for stakeholder analysis

Examples:

1. Stakeholder analysis matrix

2. **SWOT** analysis

The situation is analysed by looking for ways in which the organisation's strengths can be built on to overcome identified weaknesses, and opportunities can be taken to minimize threats.

	Positive	Negative
Internal	S Strengths	W Weaknesses
External	O Opportunities	T Threats

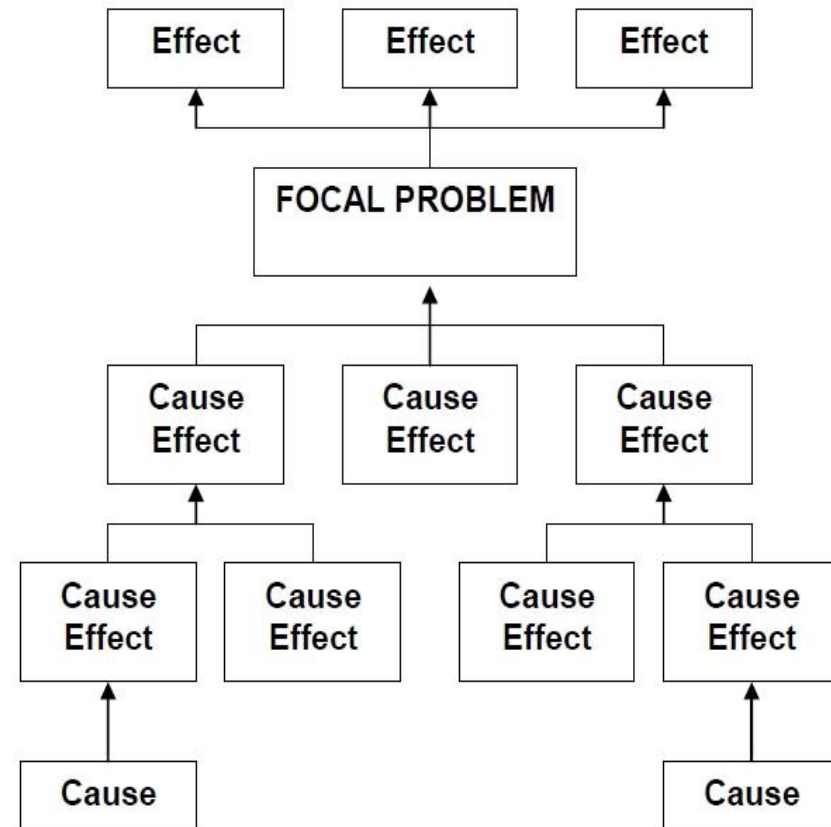
2. The Problem Analysis

NO problem = NO project

Identifying key problems, and causal links between different problems, constraints & opportunities.

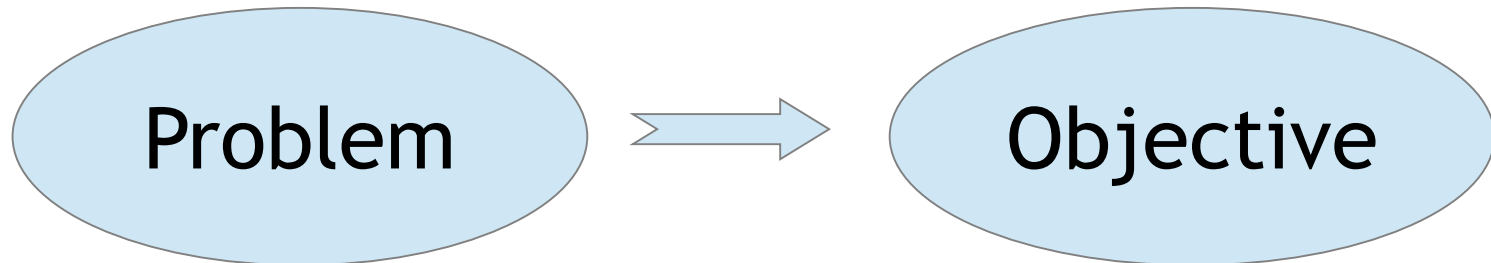
A tool that enables this to be done is called the

Problem Tree



3. Objective Analysis

- **Developing solutions from the identified problems; identifying means to end relationships;**
- **The **Problem Tree** is converted to the **Objectives Tree**;**
- **We change negative situation to positive results.**



S.M.A.R.T. criteria

SPECIFIC

MEASURABLE

ACHIEVABLE

REALISTIC

TIME BOUND

All objectives should be created using the **S.M.A.R.T.** criteria.

Setting SMART goals means to:

- clarify ideas,
- focus efforts,
- use time and resources productively,
- increase chances of achieving what was planned.

4. Strategy analysis

There are many problems and potential solutions (objectives) for these. How does one choose which problems the project will focus upon and address?

→ Identifying different strategies to achieve solutions; selecting most appropriate strategy.

One project cannot solve all problems!

5. Project plan

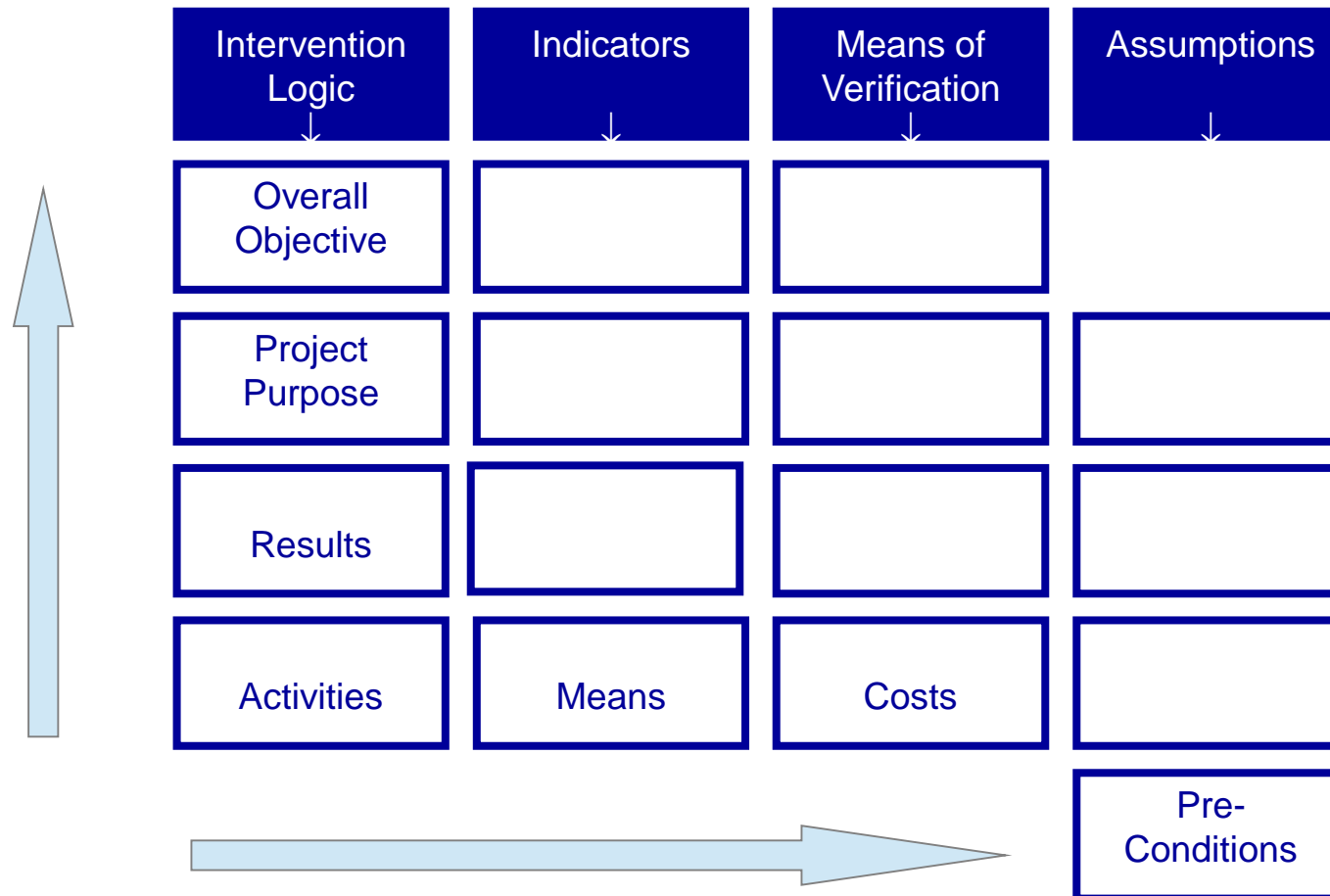
Developing **Logical Framework matrix** - defining project structure, testing its internal logic & risks, formulating measurable indicators of success.

The matrix has four columns and four rows:

The vertical logic (or intervention logic) identifies what the project intends to do, clarifies the causal relationships and specifies the important assumptions and risks beyond the project manager's control.

The horizontal logic relates to the measurement of the effects of, and resources used by the project through the specification of key indicators, and the sources where they will be verified.

The logical framework matrix



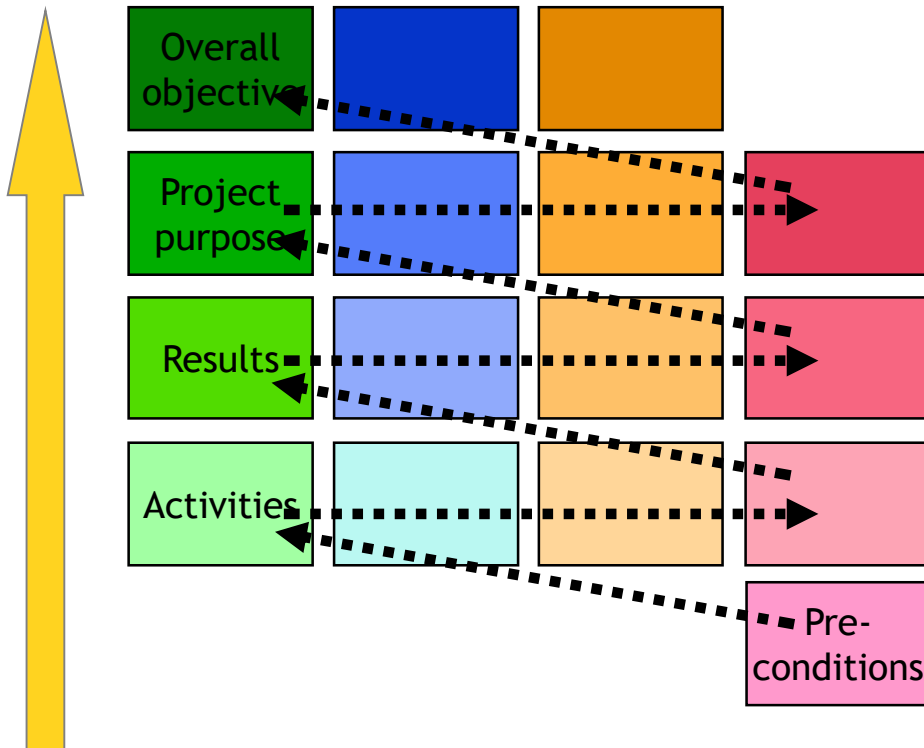
The LFM - vertical logic

IF adequate inputs/resources are provided, THEN activities can be undertaken;

IF the activities are undertaken, THEN results can be produced;

IF results are produced, THEN the purpose will be achieved;

IF the purpose is achieved, THEN this should contribute towards the overall objective



Indicators

Indicators can be **outputs** (the tangible products produced from our activities) or **impact indicators** (measurements of change in situations or groups). Indicators do need to be:

- Independent: they measure only the objective, purpose or result to which they are linked
- Factual: they are based on factual measurement
- Plausible: it must be believable that they are measuring the change attributed to the project
- Objectively verifiable: we can verify whether they have been achieved

= specific, achievable, realistic, and directly attributable to the Project

6. Activity Planning

Determining the sequence and dependency of activities; estimating their duration, and assigning responsibility:

List main activities → Clarify sequence of tasks → Estimate start-up, duration and completion of Activities → Summarise scheduling of activities → Define milestones → Define responsible persons and resources → Allocate tasks among team

In LFA the project activity schedule is organized according to the Results, and is shown in a graphic format called a Gantt chart.

Gantt chart

ACTIVITIES	TIME									
1.	■									
2.		■	■							
3.		■	■	■	■					
4.				■	■	■				
5.							■	■		
6.									■	

7. Resource Scheduling (budgeting)

Resource scheduling - from the activity schedule, developing input schedules and a budget.

Implementation Phase of PCM

Project management is responsible for implementation, the latter generally being composed of the following periods:

- 1. Inception / start-up period**
- 2. Main implementation period**
- 3. Final / closure period**

Major principles:

- Planning and re-planning**
- Monitoring**
- Reporting**

Project vs application

An application form is a way of presenting a project to accomplish it within a particular programme.

An application form can be filled in by anyone who can write, but not anyone can design a project described in the form.

**Application forms are read,
projects are assessed**

Good projects features

- **Clear, coherent, logical = easy to understand**
- **Possible to implement = realistic, achievable**
- **Based on real needs/problems**
- **Involves knowing and understanding criteria of funding (procedures, requirements etc.)**
- **Presents fresh, innovative attitude to a problem**
- **Includes elements of sustainable development**

Filling in an application

- **Maximum content, minimum words**
- **Write not less and not more than necessary**
- **Use KISS method (=Keep It Short and Simple)**
- **Use key-words, specific for the particular programme**
- **Think positively, while writing: solve problem, take a challenge, do not excuse**

Reasons of project failure

- ✘ **Bad planning: insufficient time or means**
- ✘ **Wrong defined objectives**
- ✘ **Lack of progress monitoring**
- ✘ **Wrong composition of a team**
- ✘ **Frequent changes in a project team**
- ✘ **Problems with communication**
- ✘ **Conflicts resulted from sharing responsibilities and tasks**

Educational projects

= collaborative, planned pupils activities leading to solve a particular problem, using different methods.

(Polish Ministry of Education)



Project definition

- **The project method is an educational enterprise in which children solve a practical problem over a period of several days or weeks**
- **The projects may be suggested by the teacher, but they are planned and executed by the students themselves, individually or in groups**
- **Project work focuses on applying specific knowledge or skills, and on improving student involvement and motivation**

(Project Method - Students, Education, Approach, and Kilpatrick – StateUniversity.com)

IS IT A PROJECT OR IS IT PROJECT-BASED LEARNING?

PROJECTS	PROJECT-BASED LEARNING
Can be done alone	Requires collaboration and teacher guidance
About the product	About the process
Teacher-directed	Student-directed
All projects have the same goal	Students make choices that determine the outcome
Products are submitted to the teacher	Products are presented to an authentic audience
Lack real-world relevance	Based in real-world experiences or problems
Occur after the "real" learning	Real learning occurs through the project

educationcloset

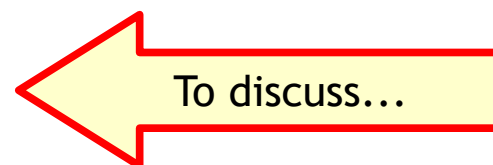
Project vs PBL

Educational projects:

represent a range of tasks that can be done at home or in the classroom groups of students, quickly or over time.

Project Based Learning:

the focus is on the process of learning and learner-peer-content interaction that the end-product itself



Is an educational project an EC PROJECT ?

*A series of activities aimed at bringing about
clearly specified objectives within a defined
time-period and with a defined budget.*

Stages of educational projects

1. Preparation

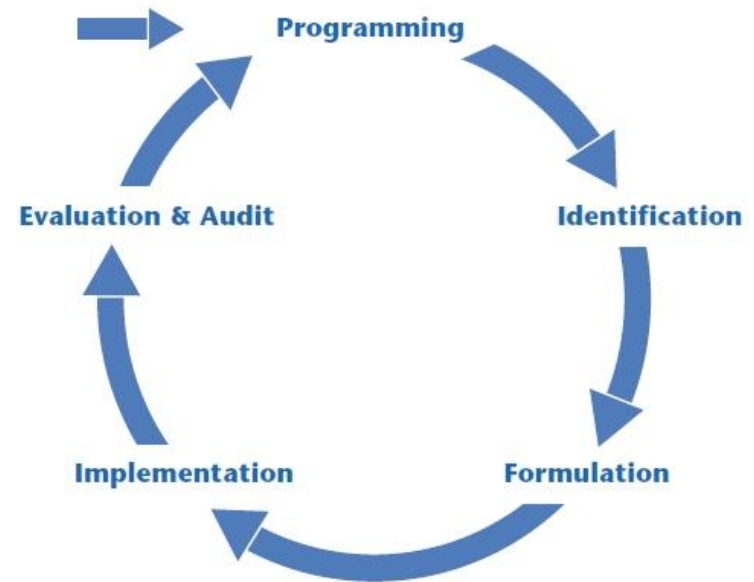
- **Teacher:** chose main objective of the project and range of topics
- **Pupils:** give their proposals, chose topics and divide into groups

2. Planning: analyse of means and stakeholders, timetable of activities, setting criteria of assessment

3. Implementation: tasks for a teacher and for pupils

4. Presentation

5. Evaluation



Good educational projects

- **Clearly described goals set with pupils**
- **Good instructions including: topics, objectives, methods, terms, evaluation**
- **Reference to real life**
- **Cross-curricular content, interdisciplinarity**
- **Learning both knowledge and skills**
- **Start and end-dates of project stages**
- **Clear set and described responsibilities**
- **Mainly collaborative work, but also individual**
- **Clear criteria of assessment**
- **Results presented in public**

Thank you

u.utnicka@wp.pl