

Online tananyag

Gazdaságtudomány

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5. Projekt menedzsment



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Eva Gajzago: Project management – Workbook

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Introduction and sample projects

This project management workbook summarizes the knowledge about the project cycle management method and contains several examples and practical exercises which help to understand the theoretical chapters.

Project cycle management (PCM) is a method for project planning and implementation introduced and used by the European Commission. This method integrates several phases according to the steps that have to be followed during the elaboration process.

Each chapter of this workbook contains 5 to 15 pages about a phase or a theory of the project management process. Some of the methods and theories in the chapters are visualized by charts and tables which can be understood easily. These figures can help students to understand the main context and also give a practical point of view.

The chapters include several examples and three main sample projects. The sample projects' main descriptions are in this chapter but at the end of each chapter of the workbook there are the related parts of the sample projects. These help the students to understand the main methods and to see how the project management can be implemented in reality. The three sample project is introduced later in this chapter.

After each chapter or subsection 3 to 5 control questions help to focus on the main information and to check the acquired knowledge. The chapters also contain 15 test questions and a description of a task which students can submit for further supervision. All these questions and tasks aim to highlight the practical side of the project management and help to increase the acquired knowledge of the students.

The workbook can be separated to two main parts; in the first part of the book the phases of the project cycle management are described, and the second part contains the introduction of several project planning methods. Additional chapters discuss related subjects like the main definitions of project management, the project team or the funding possibilities and project management in the European Union.

The first parts describing the phases of PCM – from the 2nd to 5th chapters – contain the following chapters:

- Phases of the project cycle management process
 - Programming and Identification
 - Formulation and Implementation
 - Project monitoring and evaluation

- Detailed description of the Logical Framework Approach
 - The main content
 - Process of the elaboration

In the second part of the workbook the main project planning methods and documents are introduced in details. Each of these chapters has a visualized description about the planning method or document and also contains several examples and pro--forma documents. The planning documents are suggested by the European Union and are closely connected to the PCM method.

These practical chapters , from 6th to 10th chapters , are the followings:

- SWOT analysis
- Stakeholder analysis
- Problem-analysis and Objective-analysis
- Elaboration of the strategy and Action plans
- Cost schedule and financial planning

The three additional chapters – 1st chapter and 11th to 12th chapters – describe related information and supplement the project cycle management method.

The content of these chapters can be summarized as follows:

- Basic definitions of PCM
- Basics of the Logical Framework Approach
- The project team
 - Members of the project team
 - Rules and tasks in the team
- Planning of EU projects, EU applications and tenders
 - EU Funds
 - Applications and tenders
 - Steps of submitting an application
 - Content of application
 - Management of projects financed by a tender or application

HOW TO READ THE WORKBOOK

The above mentioned chapters should be read continuously. The students need to start from the first chapter to understand the main definitions then continue with the chapters containing the phases of the PCM. Each of these chapters , after the definitions and specific stages , has some practical examples framed with blue color boxes. These examples are not always and not closely connected to the main sample projects but can highlight the context of that stage.

Each of the chapters about the project cycle management phases contains a list of documents that can be used in that specific phase. The elaboration method and sessions of these documents can be found in the second main part , in the chapters about the planning documents. The planning documents are introduced in a sequence how they fit into the project planning process. The chapters here usually visualize the process of the elaboration and contain several charts and figures. The main figures are 'empty' examples without referring to any real projects. But at the end of every chapter the sample projects show how the elaboration of the pro-forma documents work in the real life. All the sample projects are signed with different colors. The color indicates which of the three samples projects the example belongs to.

Each of the chapters contain 3 to 5 control questions, 15 control test questions and a task which can be submitted to the lecturer.

The authors suggest following the following steps to understand and study all the content of the workbook:

1. Read through all the theoretical chapters once
2. Start to read the chapters again one by one
 - a. After reading a chapter answer the 3 or 5 control questions
 - b. Check the sample projects
 - c. Answer the 15 control test questions
 - d. Practice your knowledge with the tasks and submit them to the lecturer

This workbook is a part of an online study material and the content of the book is supplemented with an internet based polimedia video. The material also contains animations and tasks which can be reached online and through which students can practice easily the knowledge they acquired for the workbook.

DESCRIPTION OF THE SAMPLE PROJECTS

The sample project described and introduced in this workbook were planned or implemented in reality in Hungary in the Central--Transdanubian Region. The projects are from different sectors and their subjects are different therefore they can introduce three kinds of realization process and also highlight the discrepancy between the two fields. The three projects can also prove and visualize that the PCM method can be used in almost every field and for a lot of types of projects.

Basics of the three sample project

Title of the first project: **Integration of disabled (who need special education) children**

The first sample project is focusing on the integration of disabled children who need specific education. This means that these injured children (like blind, deaf, disabled or mentally injured children) go to a class together with healthy children. The atmosphere have to be promoting and the classroom need to be organized differently too. This environment helps the children to develop their skills better. Healthy children are really opened, helpful and receptive and this case which also increases the effectiveness of the educational process. Besides, these receptive children -- and also their parents -- become more receptive and tolerant in the future.

The integration of disabled children has been indicated as a goal of the development of the educational system for many years. There are several foreign best practices which can be involved to the implementation and in 2004 when this sample project was launched, there were more Hungarian good examples too. The project's main goal is to change an approach which is an enormous task and to change the opinion of a smaller or bigger society can take more than a decade. As the integration of disabled children is a sensitive area, the management has to focus on the cooperation with stakeholders more than in any other projects. Besides, the entire project is about the stakeholders themselves (like children, parents, and teachers).

The first step of the project is to review the objectives of the higher level strategies , like national education concepts or local development plans , and check how the project objectives – integration of disabled children , are indicated (if it is indicated at all) in these strategies.

After the preparation professionals (therapists, leaders of institutions, municipality representatives) are gathered in a team meeting and the work begins. It is important to emphasize that the cooperation helps to establish a joint way of thinking. The participants can understand each other perfectly and mean the same if they use a specific expression or name a special task. They can use a joint language at the meetings , with the help of a suitable moderator person

Title of the second project: **Building a road and a bicycle path**

The second sample project is an infrastructural project.

The main situation can be summarized as follows:

There is a small town – let's call it Smallguard – surrounded by several villages from which many people want to travel (to work, to do the shopping, to have fun or to make some office routine) to Smallguard. One of these villages – let's call it Baggins – is a so called sack village, a dead end road. Originally this village is in the neighborhood of Smallguard, the town can be reached only through an other, a third village on a dust-free, surfaced and bituminous road. There is a dirt road between Smallguard and Baggins as the country is originally an agricultural land and agricultural production is the main sector here. But this road is not suitable for the needed personal traffic. Still many people use this dirt road.

The services road goes through a protected landscape and it is also crossed by the train rails near the small town. The bituminization of the dirt road has been planned for many years and citizens have already made petitions about it in the municipality.

Citizens living in Baggins can reach the city more quickly on the new road , especially if a bus would be launched there , and the small village would be more attractive for young families who wish to move out from the city. These young families want to live in houses with garden and now move to other villages which can be reached more easily.

The mayor of Baggins– let's call him Stephano Bilbo – has found a financing possibility, a co-financed call for application introduced by the EU. They have enough time to plan the project and submit the application in time. The financial manager of the municipality knows the Project Cycle Management method and has experiences with EU tenders and applications. Therefore the mayor decides to use this method and start the elaboration of the project.

They are eager to involve all the stakeholders and invite them to a talk as partners. At first the mayor invites some of the potential partners, the representatives of an other small village– let's call Smallcastle – the bus company, the railway company and the environmental protection association. Later this group can be enlarged with more participants.

Baggins and Smallcastle do not have enough money for the implementation of the project but they can settle the planning process , with a 50–50% shared budget.

The title of the third sample project: **Organizing a Christmas party**

The International Office of a Hungarian higher education institute organizes a Christmas party annually to the foreign students. All the foreign students are invited to the party and the also Hungarian students can participate. The main goal of the International Office is to entertain foreign students and show them Hungarian customs about Christmas. The second year students of the College study project management in a course therefore they have an opportunity to practice their knowledge in reality and organize the performances of the Christmas party. The students work in project teams and they need to plan and organize and implement all the performances presented on the party. PCM methods are used to do all the process.

The International Office provides some resources for the party , like the place, food and drinks. But all the other resources have to be guaranteed by the students. They have a possibility to request for financial support from the College or involve other parties to support the event.

The success of the task is measured by other students who participate on the party and enjoy the show.

CONTROL QUESTIONS

1. Which sector do these projects belong to?
2. Who can implement the projects and who can submit applications to the EU to gain some support?
3. Why is it important to use project management methods to plan and implement the projects?

CHAPTER 1

1. Basic definitions

1.1. Basic definitions of PCM

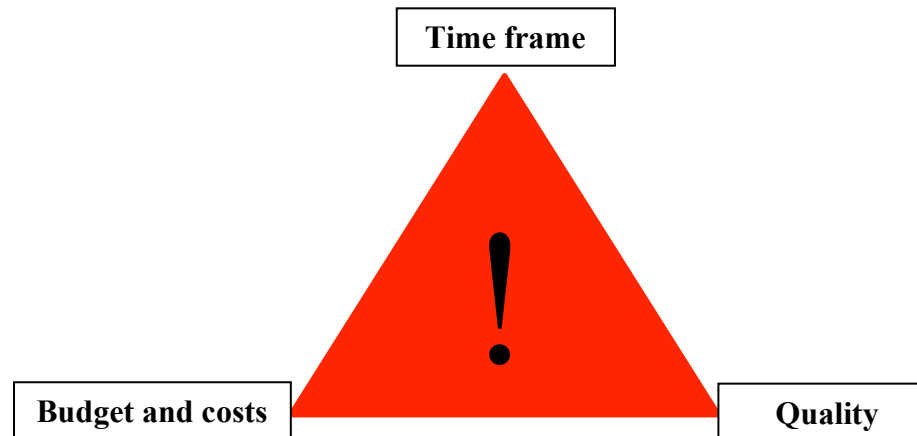
DEFINITION OF THE PROJECT

Project can be defined in several ways according to the scientific field or economic sector in which it is used. Basically a project is similar to a plan or a proposal or a set of tasks.

„A project is a series of activities aimed at bringing about clearly specified objectives within a defined time-period and with a defined budget.” [1]

During the implementation of a project 3 main factors have to be balanced continuously:

1. Figure: The three main factors of the project



Source: own compilation

[1] PCM Guidelines,
http://ec.europa.eu/europeaid/multimedia/publications/documents/tools/europeaid_admin_pcm_guidelines_2004_en.pdf, P. 8.

Thus the main characteristics that the definition contains are the followings:

- a project is planned
- it contains a set of activities
- a project has to be elaborated and implemented in a period of time
- it has to have a fixed budget and costs

Other attributes which can describe the project:

- a project should reflect the stakeholders point of view and these stakeholders have to be defined properly in the project
- in the project coordination, management and financing has to be clearly defined
- a monitoring and evaluation system is usually is connected to the project
- an appropriate and relevant economic and financial analysis should supplement and base the project
- other limitations can be typified in the project

Example: projects or not projects

Projects:

- building a house
- organizing a wedding
- implement a course

Not projects:

- going to school in general (no time frame)
- watching a match in the TV with friends (no budget framework)
- buying a train ticket (not a set of actions)

Due to the widespread application, there are several types of the project. The project types can vary significantly in their objectives, scope and scale. Project types can also be defined according to the field or sector where the project is implemented.

Some examples of several project types:

- road and bridge or house building project
- industrial process development project
- regional development project
- innovation project
- human resource development project
- communication campaign or event organizing project

DEFINITION OF THE PROJECT CYCLE MANAGEMENT (PCM)

Project cycle management is a method for project planning and implementation which integrates several phases according to the steps that have to be followed during the elaboration process. Project cycle means that an approach and methodology which help to implement successfully the project.

Project cycle usually contains five phases that are the following:

1. Programming
2. Identification
3. Formulation
4. Implementation (and Financing)
5. Monitoring and Evaluation

In practice, the number and title of project cycles might differ according to the type of the sector or the project being operated.

To use project cycle management methods, we need to take some principles into consideration.

The first principle is the adherence to the phases of the project cycle. This adherence ensures a structured and well-informed decision-making process during the whole process.

Secondly the project management process should focus on stakeholders and clients. Therefore methods and assets promoting the use of participatory planning or workshops at key phases of the project cycle should be used.

The third principle in PCM is the incorporation of aspects of sustainability in the project. Sustainability is one of the core objectives of almost every project nowadays and contains three types of objectives, the sustainable development goals, such as economic sustainability, social sustainability and environmental sustainability. A project is sustainable if it delivers benefits to the stakeholders in a long term framework. The long term sustainable benefits are influenced by several factors which can be identified as assumptions – see in the further chapters – and which can be connected to the following processes:

- Policy support and governmental support
- Appropriate technology -technologies applied by the project
- Institutional and management capacity of the project
- Economic and financial long-term viability
- Socio-cultural and gender issues influencing the stakeholders and the management
- Environmental protection activities regarding to the project implementation

The project cycle management method is based on the Logical Framework Approach. The **LFA** supports a number of key assessments/analyses (like stakeholder, problem, objective and strategy analysis). The analyses help to transfer an analytical approach to project design and management. This approach also ensures the consistent and comprehensive management of key issues throughout the project's life.

PCM uses an integrated approach which – in one hand – connects the project with other, previous projects and – in other hand – links the objectives of the project to higher level strategies.

WHY PCM? ADVANTAGES USING PCM METHOD

Project Cycle Management methods are useful because it...

- place the project in a surrounding with overall and sectorial approach,
- focus on the demand side and objectives, especially to the opinion and goals of stakeholders,
- use specific improved analytical methods which give a verifiable result,
- have verifiable impacts to other projects or to the surrounding
- focus on sustainability and quality work as written above in the principles,
- use standardized analytical methods which are easy to understand and use,
- can be easily used not only for business and public based project but also to personal projects (like organizing a wedding or building a house),
- are flexible and quick thanks to the standardized methods and transparent structures.

Other advantages of using PCM methods are connected with the project approach and the principles.

According to the integrated approach, projects implemented with PCM methods are relevant to higher level strategies and try to satisfy the real need of stakeholders. This also means that projects are linked to the objectives to higher level strategies and the participants are involved to the planning and implementation process.

Project elaborated with PCM method are easily feasible and are aware of the changing environment. The objectives of the project is logical and measurable and can be modified regarding to environmental changes. Sustainability factors are built in the project using PCM. These factors are addressed as part of project plan.

The main advantage – connected to sustainability – is the base of Project Cycle. As the results of the project are evaluated, the cycle starts again, and these results can be built into future project plans.

HOW AND WHERE CAN WE USE PCM?

Project Cycle Management (PCM) was introduced by the European Commission to EU promote project planning and improve effectiveness of the projects. Therefore the basic filed of PCM is the planning and implementation of European Union projects. PCM is an obligatory method for tenders and applications in the EU.

On the other hand, PCM gives a well-established and flexible structure for project planning and implementation and this makes it perfect to be used in other sectors too. Business projects are usually managed with different methods but can use PCM assets and analysis. As PCM is quick and easy to understand, it can also be used in private projects in private life of a person.

HISTORY AND DEVELOPMENT OF PCM [2]

Project management methods were not invented recently.

According to the first project management method, some literature refers to the work of Henry Gantt (1861-1919) who is best known for developing the chart named after him. However, project management was not invented in those times. It had been already used in the ancient times like in the ancient Egypt or Greece. The Great Pyramid of Giza (the Pyramid of Cheops) for instance was built in 2560 BC in more than 10 years. This huge project could not be carried out without proper management of materials, financial assets and workforce. It also had a fixed time frame and specific deadline (the death date of the Pharaoh). Several huge investments in the ancient Egypt prove that the builders used an excellent management method and their processes were so successful that we can still see their results.

In ancient Greece, in the time of city-states, huge investments and building project were also carried out with specific knowledge and management process. Mycenae – for instance – was built in about the second millennium BC. During the building project specific construction methods – like tholos [3] – were used for different purposes such as homes, ritual buildings, tombs, treasuries and fortification. Other ancient buildings of Greece – like the Parthenon in Athens, the theatre in Epidavros or the temple ruins of Delphi – prove that in these times project management methods were also used. These project were usually launched by public 'authorities', involved stakeholders and decision makers, managed specific workforce (e.g. unemployed people from the cities) and worked with a fixed budget and time frame.

We can also find excellent examples of investments promoted by project management methods from the ancient Roman Empire. The Roman Colosseum project (from 70 till 80 AD) was based on the management of materials, budget and workforce as so the Roman Pantheon project (from 27 BC till 14 AD). Roman Empire project are also used some quality management methods to ensure a specific quality level.

From the middle ages several huge projects can also be mentioned. Medieval Cathedral-building Projects had a long term (one or two decades) time frame but a smaller budget. Due to the trade guilds these projects used skilled workforce. Other examples of medieval projects are the long conquering expeditions – like the crusades (wars) or the 'business trade' expedition of Columbus. These 'travelling' projects had to involve sponsors and stakeholders, had to motivate decision makers and improve the decision making process and faced with communication problems and find solutions for several mistakes. After middle ages, project management was used in more and more fields. The industrial revolution changed not only the technology and industry but resource and human management too. Therefore intensive management of project had to be used.

[2] Based on the source of <https://www.youtube.com/watch?v=-CluxCBx2-UQ>

[3] a specific building structure, it is like a false dome created with the superposition of successively smaller rings of bricks or stones

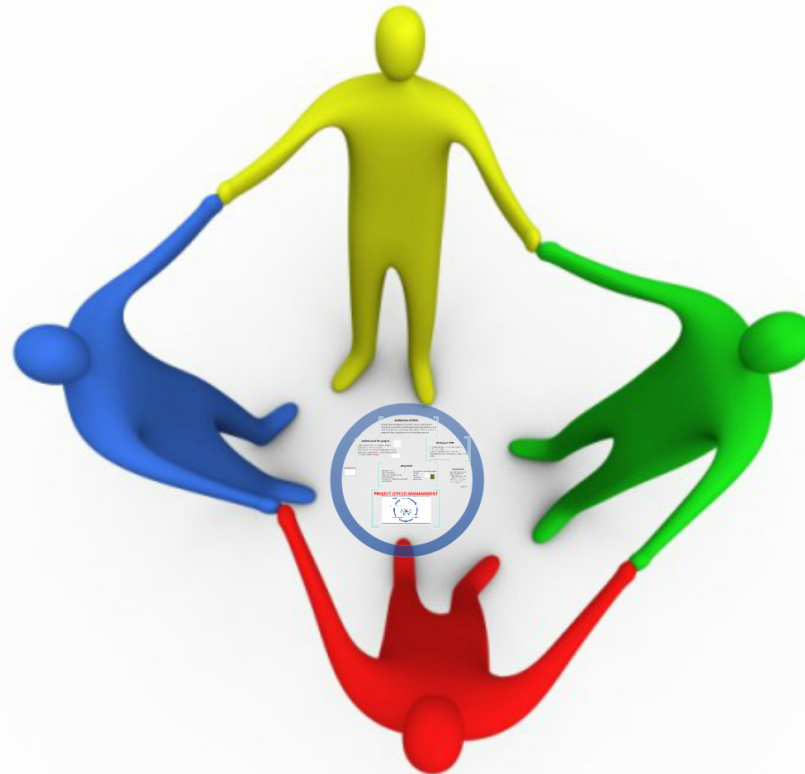
In the last century, world wars gave a different meaning to managing resources, develop human capital or implement something in a specific time frame. Several other examples can be mentioned from history how our predecessors managed projects but as the aim of this studying material is to focus on Project Cycle Management, we continue with the history of PCM.

The first version of PCM method was elaborated by the OECD (Organization for Economic Cooperation and Development) in the late 1980's. This tool was aimed to increase the effectiveness of development aid granted by the organization. Later, in the early 1990's, the method was taken over by the European Commission and was introduced to improve the quality of project design and management. Since then PCM methods were built in the tender and application process of the European Union. All the participants who wish to gain promotion or financial subsidies from the EU – especially from Structural Funds – has to follow the phases of PCM process to plan and to implement their projects.

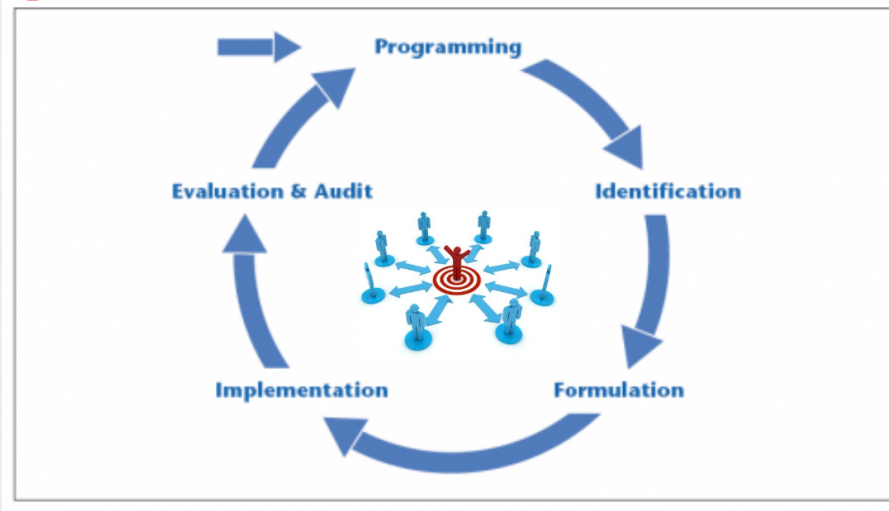
CONTROL QUESTIONS

1. What are the three main factors of the project?
2. What are the main advantages of the PCM method?
3. How and where can we use PCM?

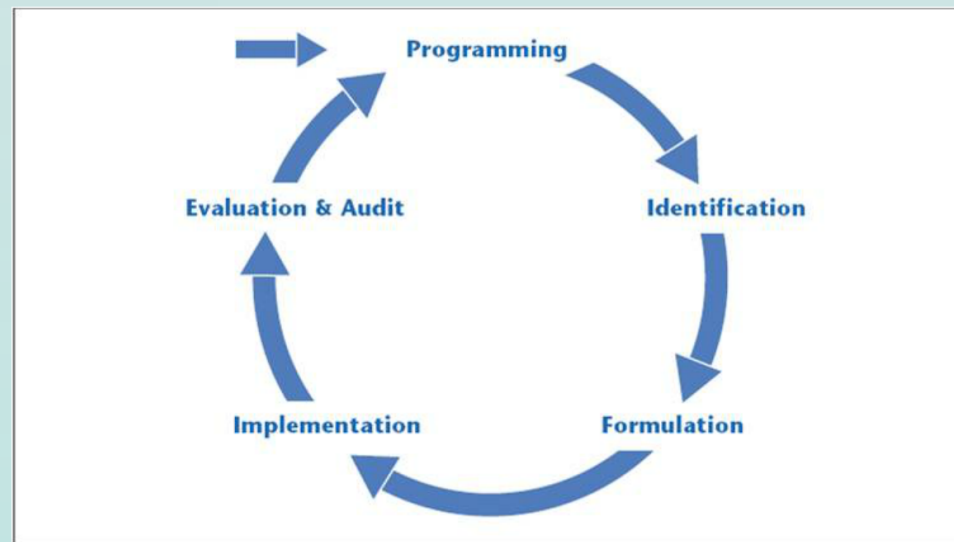
PROJECT MANAGEMENT



PROJECT (CYCLE) MANAGEMENT



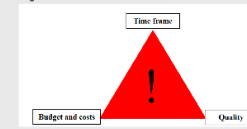
BASIC DEFINITIONS

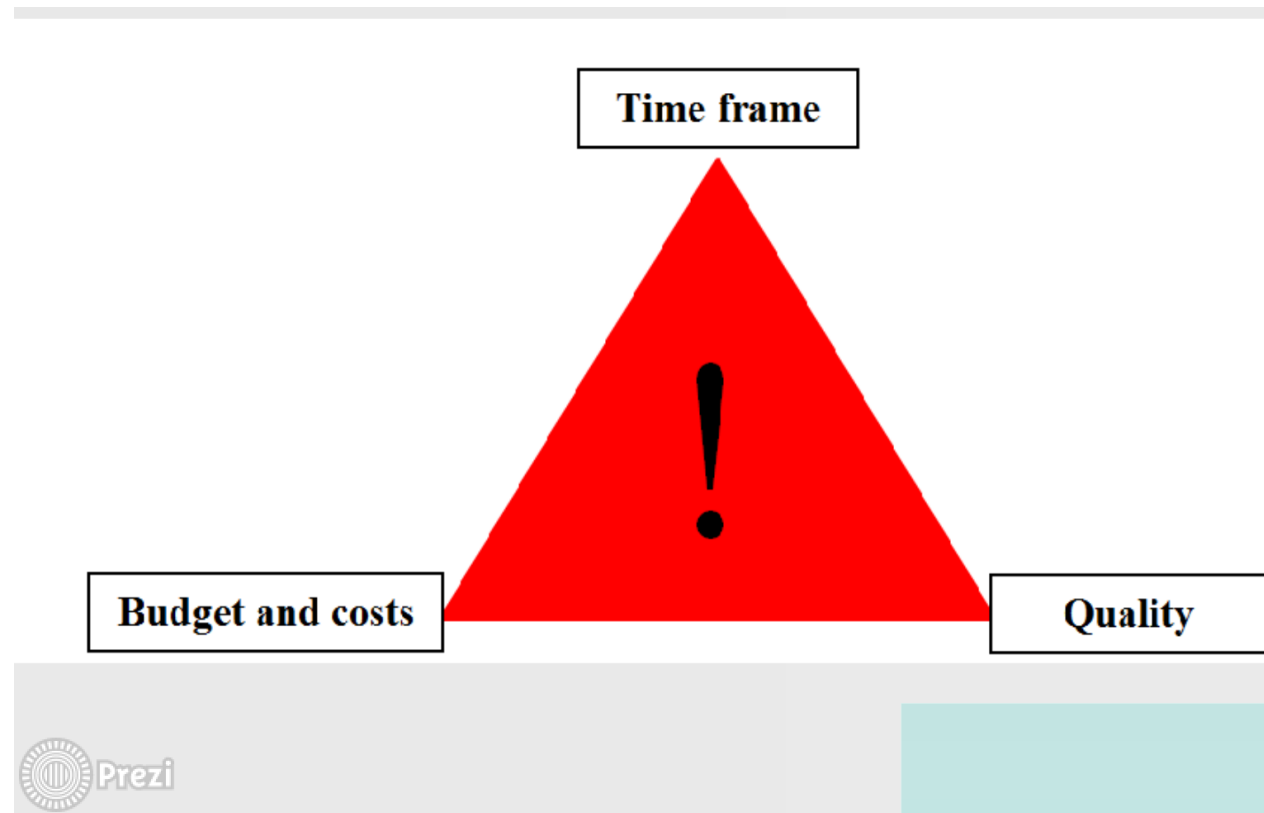


responsibilities, key doc

Definition of the project

- a group of activities to produce a project purpose in a fixed time frame
- series of activities aimed bringing about clearly specified objectives within a defined **time** period and with a defined **budget**





Definition of PCM

Project cycle management is a term used to describe the management activities and decision making procedures used during the life-cycle of a project (including key tasks, roles and responsibilities, key documents and decision options).

the project

duce a project



H

- introduced
- in the early

in a defined **time** period
get



- to improve
- developed OECD

Organization for Econom

Why PCM?

- demand driven
- improved analysis
- objective oriented planning
- verifiable impact
- emphasis on quality and sustainably
- standardized

- can be used in personal 'projects'
- flexible
- quick
- transparent
- easy to learn



PROJECT (CYCLE) MANAGEMENT



History of PCM

- introduced by the European Commission
- in the early 1990's
- to improve quality and effectiveness
- developed out of an effectiveness analysis of the OECD

Organization for Economic Co-operation and Development



1.2. Basics of the Logical Framework Approach

PHASES OF THE PROJECT CYCLE

Project cycle contains at least five phases:

- Programming
- Identification
- Formulation
- Implementation (and Financing)
- Monitoring and Evaluation

The number and title of project cycles might differ according to the type of the sector or the project being operated.

Programming phase means to identify connections between the project field and higher level strategies. In this phase problems, constraints, opportunities and indicators have to be analyzed and connected to e.g. national or regional level documents in a close cooperation with stakeholder from these levels. Programming usually includes a review of socio – economic indicators, and of national or other level development priorities. The main purpose of this phase is to harmonize the main project purpose and objectives with the priorities of higher level strategies and therefore ensure the feasibility of the project. It is also important to give an overall purpose to the project.

A good example of this overall purpose can be mentioned from our personal life; if we ask ourselves what we want to do – in general – in our lives.

The following documents can be used in this phase:

- strategy papers
- indicative programs
- national and regional development strategies Example: programming phase

Example: programing phase

There is an active fishing association in a small city. They wish to develop their activity. They examine the local fishing environment – how many people goes to fishing, how much time they spend to this hobby, what kind of problems they have to face. They directly involve stakeholders into this analysis – they make interviews not only with fishermen but with local municipality decision makers too.

They closely examine the regional and local development plans and check how they mention fishing. They state that fishing is a type of recreation that is promoted by the municipality as they believe the recreation is an important breakeven point for the small city. Therefore there is a strong connection between the project and higher level strategies.

They also identify main problems like the lack of fishes or good fishing places and that there is a conflict with swimming people or with those who like water sports. Now they can understand their and their projects situation better – in what they have weaknesses or opportunities and with what kind of problems they have to face with.

The **Identification** phase of the project cycle contains the ideas about the project and identifies important actions stated in higher level documents which can be used. In this phase the involvement of stakeholders and beneficiaries is crucial. The main goal of this phase is the identification of options to address the problems identified in the programming phase. Due to this identification, specific projects (project ideas) can be chosen which ideas should be further studied in the Formulation phase.

An example – from our personal life – of project idea can be the following; if we wish to reach our overall goal, we have to e.g. build a house and buy a new car. Building and purchasing are specific projects which we have to implement to reach our overall purpose.

The documents which can be used in this phase are the following:

- logical framework matrix
- pre – feasibility study
- project fiche
- financing proposal
- action program

Example: identification phase

In this phase the fishing association tries to give answers to the previously identified problems. They suggest more project ideas to one problem or to the goals regarding to that problem. They need to choose only some ideas from these alternatives to which they need to examine all questions more closely.

At the end of this phase they not only have to decide about the process how they can reach their goals but they also have to organize a priority ranking of project ideas. To make this, they should communicate with the stakeholders as e.g. the support of the municipality can significantly increase the success of the project – therefore it can be placed forward in the ranking.

Formulation phase of the project cycle is for the detailed specification of the project. During this phase the project ideas chosen in the previous phase are developed into operational and action plans. Involvement of stakeholders in this phase is also important because it can ensure the feasibility, finance – ability and success of the project.

A good example of this phase can be the following; in the identification phase we chose to build a house therefore we should consult our financing bank, buy the necessary building materials, contract with instruction companies, etc. We elaborate a detailed plan how we wish to implement this building project.

The following documents are used in this phase:

- feasibility or sustainability study
- financing proposal and agreement
- operational project plan

Example: formulation phase

During the formulation phase, one project idea – e.g. a large fish domiciliation program – elaborated in the identification phase is planned in details by the project owners. They mark the place for the domiciliation, break down the activities into manageable tasks, assign costs to these tasks and suggest some financing sources. They try to identify and prepare for the possible risks. Communication with the stakeholders is significant here, as every good idea can fail if the implementation hurts someone interest. For instance, the fishing association can cooperate with those who like water sports. They can agree that after the domiciliation, for two weeks, the sportsman do not disturb the fishes and let them settle down.

During the **implementation** phase the project is executed and it is when **financing** have to be solved. In this phase –as in all phases – consulting the stakeholders is essential. It is not enough to implement the project well, but we also have to examine the difference between the planned and implemented process and progress. If there is a significant difference, the project management has to decide how to re – orient and modify the project to reach the defined goals. Sometimes financing strategy has to be changed during the implementation phase and the project management has to find other opportunities to cover the costs of modifications too.

This phase of the project cycle – in practice –is when we do what we planned before. The process contains management techniques and financing actions.

The documents that can be used are the following:

- action plans
- monitoring reports
- operational plans Example: implementation phase

Example: implementation phase

During this phase resources – like budget for costs – have to be covered. This can be solved by tenders and applications, with the involvement of sponsors, or with a direct support from the municipality. For this last support the association can undertake to organize summer fishing camps for local children or make presentation in local nursery schools about fishing.

If the costs can be covered, the implementation can start – according to the activity plan. It is important to check continuously the implementation process (inquiry, order, domiciliation, etc.). The activities have to be implemented in time and in the required quality, they have to fulfill all these requirements. The management has to cooperate with stakeholders and communicate the implementation and results of the project.

The last phase – but only in theory – is **evaluation**. During this phase the management measures the success of the project and identifies what they achieved and what part of the project they could not or could partly implement. Evaluation process contains monitoring too and it is closely connected to quality management. The main goal of the evaluation is to identify best practices of the process and after finishing the project these 'lessons' has to be built into future next projects. Therefore this phase is not the real last phase of the cycle but the precondition or the anticipatory step to the next project's programming phase. Building best practices into the future project shows that PCM is not only a management method but a continuous learning process.

In the evaluation phase the following documents can be used:

- evaluation reports
- audit reports

Example: evaluation phase

The fishing association organizes a project termination meeting and invites its partners too. On this event they evaluate the project – whether they managed to keep the time frame and the budget, was the communication good and do the stakeholders have any further problems, etc.

The management introduces the problems occurred during the implementation phase and the methods for their solution. They have to be critical and state what they need to do in a different way in the next project.

Then, in a further meeting, they examine what they stated in the programming phase. Here they can elaborate a different rank of the project ideas or choose an other project. But this is another phase in the never ending project cycle.

In all the phases of the project cycle the following principles have to be emphasized:

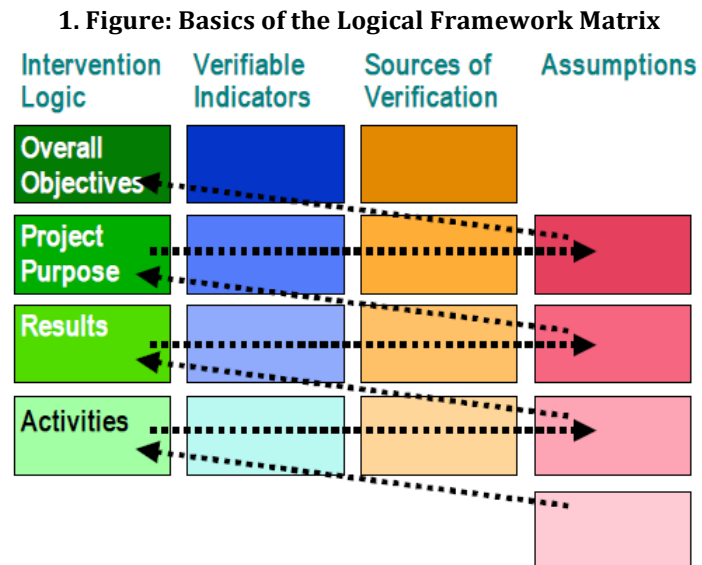
- key decisions, information requirements and main responsibilities have to be defined in all the phases
- phases are progressive, one phase must be completed to finish the next one
- project cycle is a learning process; the experiences have to be built into other projects so it is necessary to collect best practices during every phase
- the logical framework approach (LFA) should be used in every phase

DEFINITION OF LFA AND LFM

The **logical framework approach** (LFA) is a management, presentation and controlling tool. LFA is the core of PCM and is used for planning and management purpose and used in identification and formulation phases. This is also a key management tool for monitoring and evaluation.

LFA gives a technique for the management to identify and analyze a situation, to define objectives and activities during the project cycle. The **logical framework matrix** (LFM) that is a chart organized by the LFA, presents the logical hierarchy of the project goals.

1. Figure: Basics of the Logical Framework Matrix



Source: EC PCM Training Handbook, 27.p.

The main goal of LFM is to give a short – one page – summary of the project in a standardized form. This form helps the monitoring process and the measurement of project values. Besides, with LFA the possible risks can be easily identified and reacted.

CONTROL QUESTIONS

1. What are the main phases of the project cycle?
2. What is the meaning of the logical framework approach?
3. What are the five main phases of the project cycle?

CONTROL TEST

Multiple-choice questions

1. Which of these factors is not listed as a main factor of the project?
 - a. timeframe
 - b. human resource
 - c. costs
 - d. quality
2. Which of the followings can be a project?
 - a. building a house
 - b. going to school in general (no time frame)
 - c. watching a match in the TV with friends (no budget framework)
 - d. buying a train ticket (not a set of actions)

3. The Project Cycle Management method was introduced by the,,
- a. US government
 - b. European Commission
 - c. British Council
 - d. IMF
4. The first version of PCM was aimed to...
- a. decrease the budget of the IMF
 - b. increase the effectiveness of development aid
 - c. increase the GDP of EU countries
 - d. decrease the management burden of the British projects
5. What is the definition of Project Cycle Management (PCM)?
- a. a management activity and decision making procedures used during the lifecycle of a project
 - b. a strategy that describes a project
 - c. a group of activities
 - d. an effectiveness analysis to improve effectiveness of a strategy
6. What are the main stages of PCM?
- a. 1. identification 2. formulation
 - b. 1. identification 2. formulation 3. evaluation and audit
 - c. 1. programming 2. identification 3. formulation 4. implementation 5. evaluation and audit
 - d. 1. implementation 2. evaluation and audit

7. During the programing phase the main task is to...

- a. define project ideas
- b. implement the project
- c. identify connections between the project field and higher level strategies
- d. monitor the results

8. Evaluation and audit report are in the PCM stage of...

- a. formulation
- b. identification
- c. programming
- d. evaluation and audit Project management

9. During the formulation phase the main task is to...

- a. implement the project
- b. identify connections between the project field and higher level strategies
- c. monitor the results
- d. develop the project ideas into operational and action plans

10. The logical framework approach (LFA) is a tool for...

- a. identifying project ideas
- b. management, presentation and controlling
- c. resource involvement
- d. verifying the project

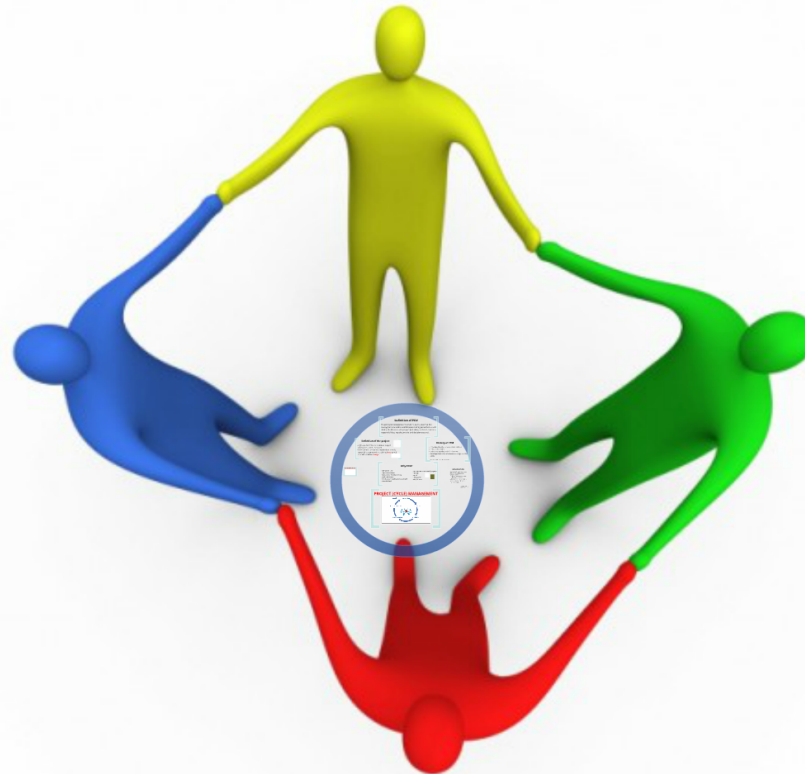
True or False questions

Statement	True	False
– A project should always reflect the stakeholders point of view		
– A project is sustainable if it delivers benefits to the stakeholders in a short term.		
– PCM uses standardized analytical methods.		
– The basic filed of PCM is the planning and implementation of European Union projects.		
– The LFM is a detailed and long document containing all information about the project in a standardized form.		

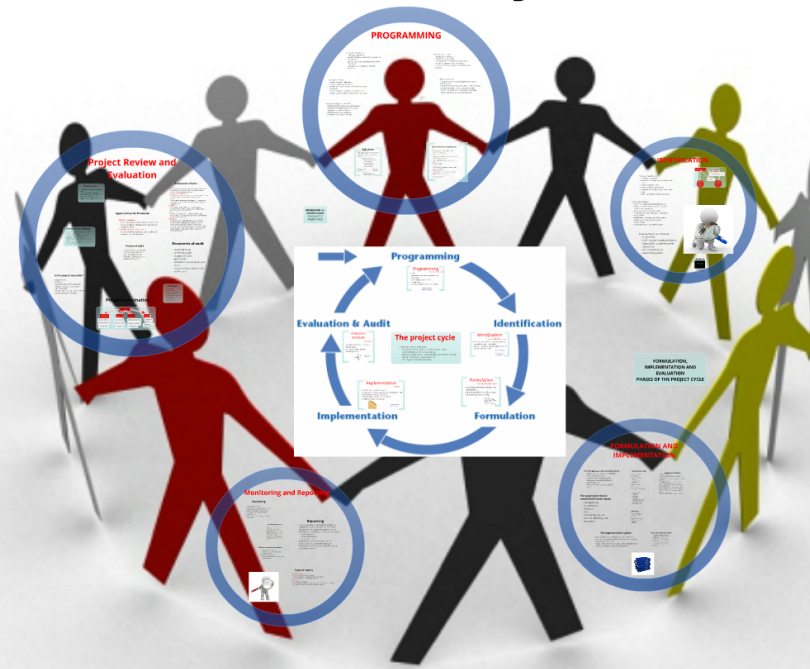
TASK FOR SUBMISSION

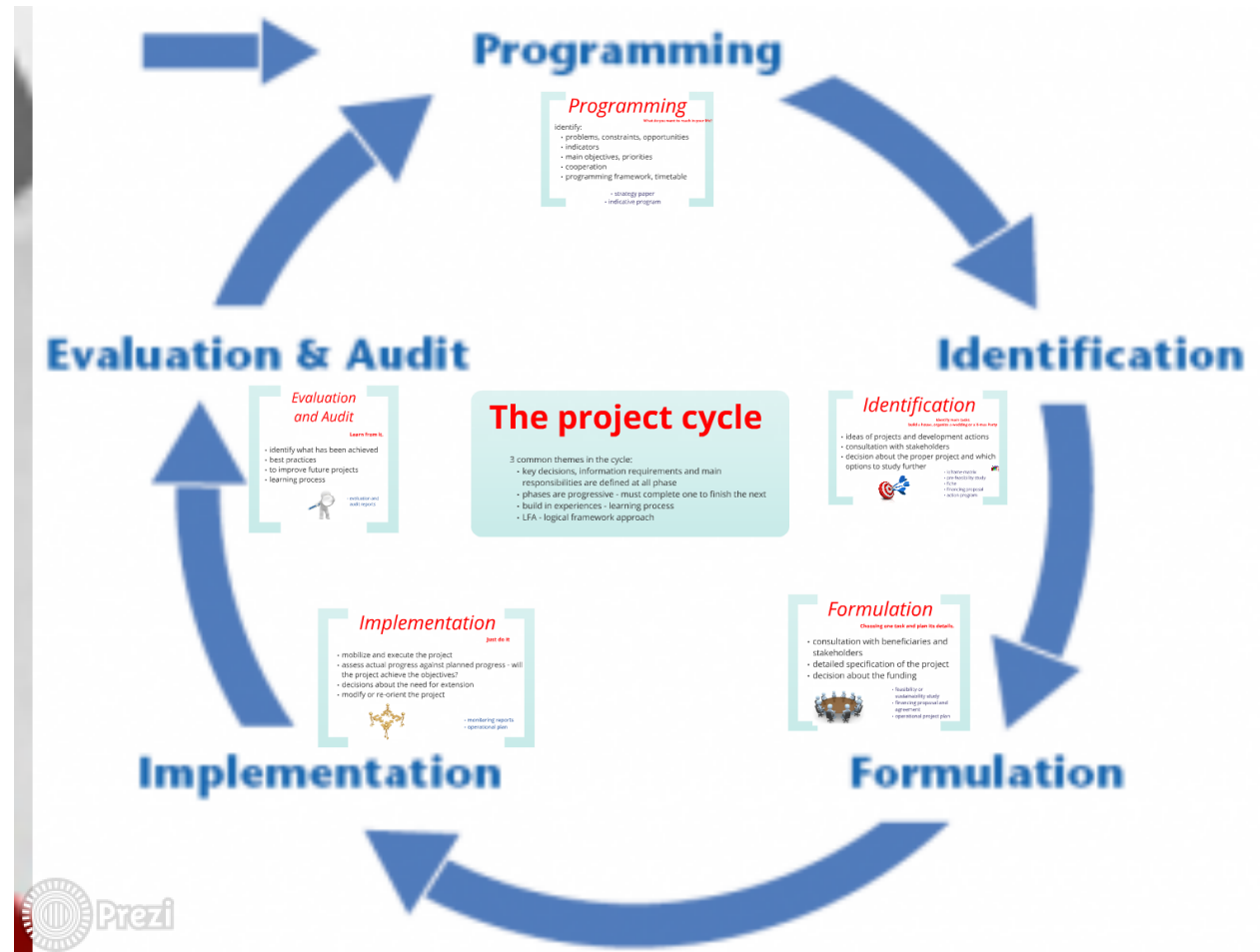
What kind of projects can you think of in your private life? Make a list – containing minimum 10 project ideas – where you can use the PCM method.

PROJECT MANAGEMENT



PHASES OF THE PROJECT CYCLE

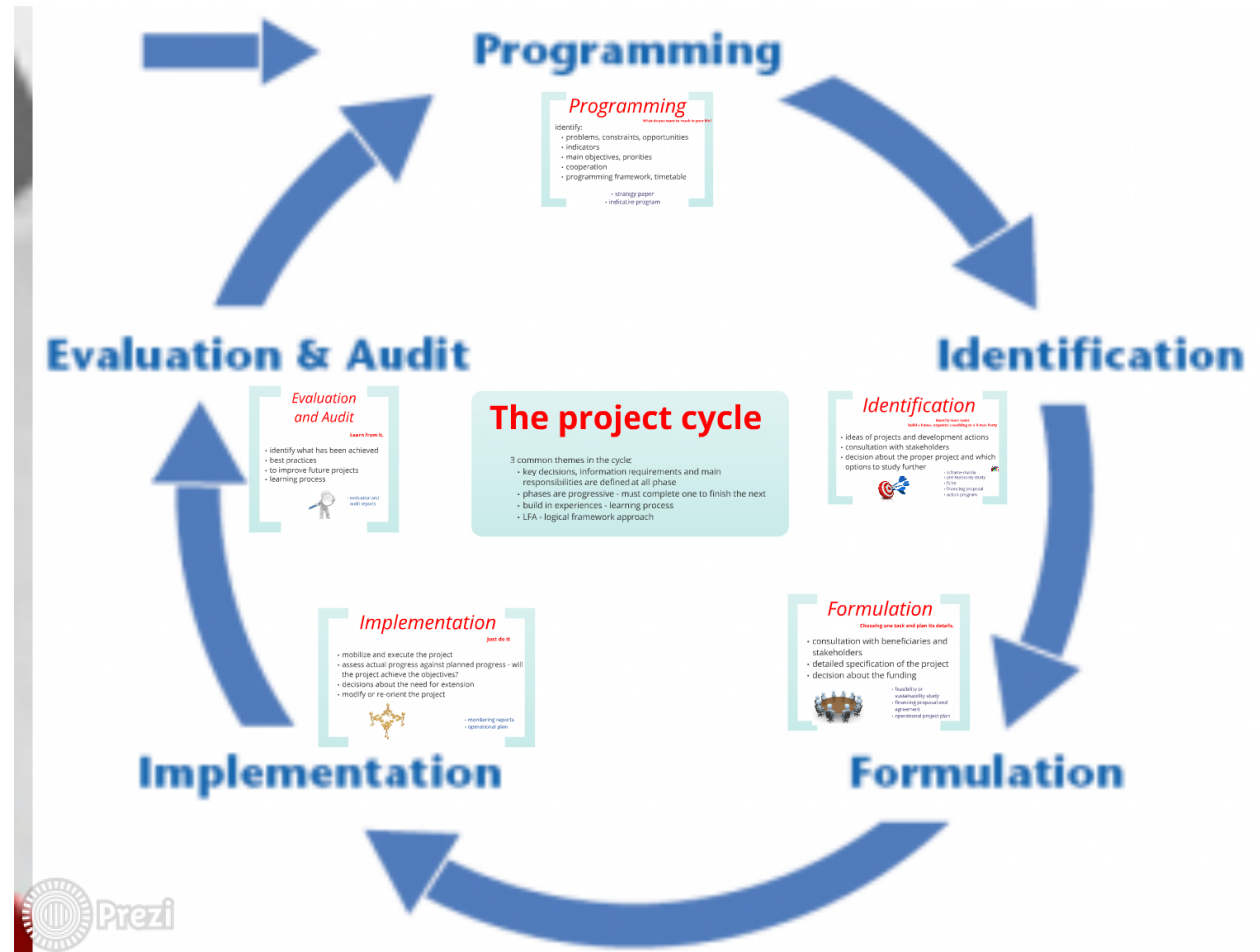




The project cycle

3 common themes in the cycle:

- key decisions, information requirements and main responsibilities are defined at all phase
- phases are progressive - must complete one to finish the next
- build in experiences - learning process
- LFA - logical framework approach



Programming

What do you want to reach in your life?

identify:

- problems, constraints, opportunities
- indicators
- main objectives, priorities
- cooperation
- programming framework, timetable

- strategy paper
- indicative program



Identification

Identify main tasks

build a house, organize a wedding or a X-mas Party

- ideas of projects and development actions
- consultation with stakeholders
- decision about the proper project and which options to study further



- loframe matrix
- pre-feasibility study
- fiche
- financing proposal
- action program



The Logical Framework Matrix

	Intervention Logic	Objectively Verifiable Indicators	Sources of Verification	Assumptions
Overall Objectives	1	15	16	
Project Purpose	2	13	14	8
Results	3	11	12	7
Activities	4	Means 9	Cost 10	6
				Pre-conditions 5



Definition of LFA

- A tool for management, presentation and controlling
- A key management tool for monitoring and evaluation
- A core tool within PCM for project planning and management
- A technique to identify or analyze a situation and to define objectives and activities for improving the situation
- Main tool for project design in the phase of identification and formulation (identification - project ideas are relevant, formulation - feasibility and sustainability)
- Programming and Identification - helps to ensure that project ideas are relevant
- Formulation - it helps to ensure feasibility and sustainability

Formulation

Choosing one task and plan its details.

- consultation with beneficiaries and stakeholders
 - detailed specification of the project
 - decision about the funding
- feasibility or sustainability study
 - financing proposal and agreement
 - operational project plan



Implementation

Just do it

- mobilize and execute the project
- assess actual progress against planned progress - will the project achieve the objectives?
- decisions about the need for extension
- modify or re-orient the project



- monitoring reports
- operational plan

Evaluation and Audit

Learn from it.

- identify what has been achieved
- best practices
- to improve future projects
- learning process



- evaluation and
audit reports

CHAPTER 2

2. Programming and Identification

2.1. The programming phase

The programming phase is about analyzing higher level documents and strategies and connecting the project to their objectives. In this phase it is important to analyze national, regional or sector level situation and identify problems, constraints and opportunities. This analysis can contain a chapter about socio-economic indicators, and national and regional level priorities.

The main purpose of this phase is to substantiate the project objectives and priorities by a linkage to the higher level strategies. In this phase cooperation with stakeholders and organizations responsible for the higher level strategies is significant. Due to the cooperation it is possible to provide a relevant and feasible programming framework within which the project can be implemented. The first phase of the project cycle is closely connected to the last one as best practices of the previous projects can be built – up here. This means that the new project is based on past experiences and is a part of a learning process.

The programming process should:

- identify priority problems and opportunities
- identify the key stakeholders, their assets , capacities, interests and needs
- identify development objectives
- identify and elaborate a strategy

The following documents can be used in this phase:

- strategy papers
- indicative programs
- national and regional development strategies

In the programming phase the project leaders and managers have to review several higher level documents from secondary (data) bases. These documents can reflect several strategic planning levels. The identification of these levels and of the main goal of the documents is important for the management.

The *program* is a document which contains global and overall objectives and refers to a higher level. Programs also contain crosscutting issues (like gender or environmental problems). The program can focus on specific objectives and expected results (outcome indicators) and also describe the project ideas and general criteria of the realization. The program can give a method how to lead tactics to reach the strategic goals. Hence it contains measures following each other and describes a continuous decision making process.

Another type of the higher level documents is the *policy*. The policy is a concept chosen by the government to be built upon a concerning subject. The policy is elaborated by political decisions and contains the needed assets and consistent effects. The policy usually proposes technics of validation and contains some strategic part or has phases about programs and projects.

The *concept* differs from the program. It contains the whole knowledge regarding to a specific subject and the aggregation of themes. The main goal of the concept is to summarize the professional knowledge about the subject. It can also contain information about the need of assets, the possibilities and effects.

A *strategy* is a higher level document which focuses on the achievement of long term goals and priorities. The strategy describes the methods and steps how these goals can be fulfilled and therefore involves the determining and execution of actions.

Tactics summarize the present situation and try to give an arrangement solution for the present problems. These documents contain today's possibilities and steps according to present possibilities. Tactics are not the result of a strategy but conceptual action plans implemented through some specific tasks. Tactics, therefore, are separated actions or events and try to take advantages of specific opportunities in a stable strategic system.

The lowest level of documents is the *projects*. The definition of project is on the 11 th page of this workbook.

In the programing phase several **indicators** must be examined to ensure the strategic connection of the project with higher level documents.

Indicators can be *defined* in several ways.

In economics indicator means a statistical data which shows general trends in the economy. An economic indicator (or business indicator) is a statistic about the economy. They allow analysis of economic performance and predictions of future performance.

In PCM indicators have to be objectively verifiable measuring terms, which help to check the feasibility of the objectives. Therefore project's monitoring and evaluation system is based on these indicators.

The European Union defines several types of the indicators:

- development indicators
- input indicators
- output indicators
- outcome indicators
- impact indicators

Output indicators are located at the level of activities and measure the direct consequences of implemented tasks. They are closely connected to these immediate and specific consequences.

Outcome indicators are at the level of the results – mainly short – term results and can be measured at the level of beneficiaries. Impact indicators measure long – term consequences of outcomes and general objective at the level of purpose and overall objectives.

SAMPLE PROJECT

Building a service road and a bicycle path

The planning phase of the road development between Smallguard and Baggings starts with the analysis of documentation. The management has to check all the documents about regional development and city development to make their project relevant.

These documents can be the followings:

- the development plan of Baggings
- the integrated city development strategy of Smallguard
- the environmental protection program of the county
- the road development program of the region
- the touristic development program of the county
- the national rural development plan (as the project is about a rural area a village and a small town)

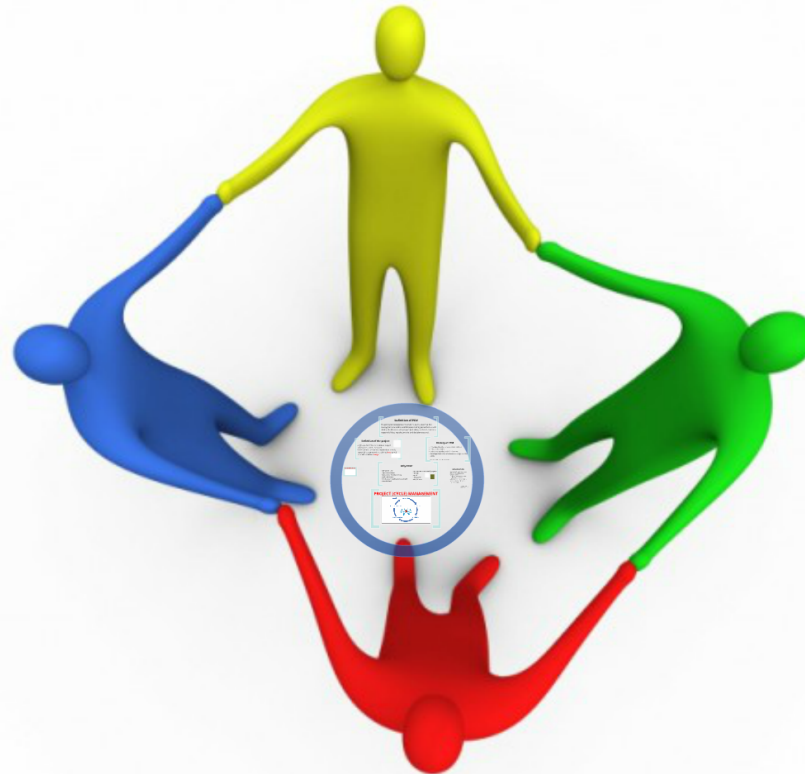
After the analysis of the higher level plans and programs the first management meeting is organized. During this meeting the management introduced the main priorities and relevant measures of these documents. The participants discuss several implementation possibilities of the service road and decide that they also need to build a bicycle road. This bicycle road can significantly increase the touristic potential of the protected environment.

Besides, some further project ideas are proposed on this meeting but their planning process will be introduced later.

CONTROL QUESTIONS

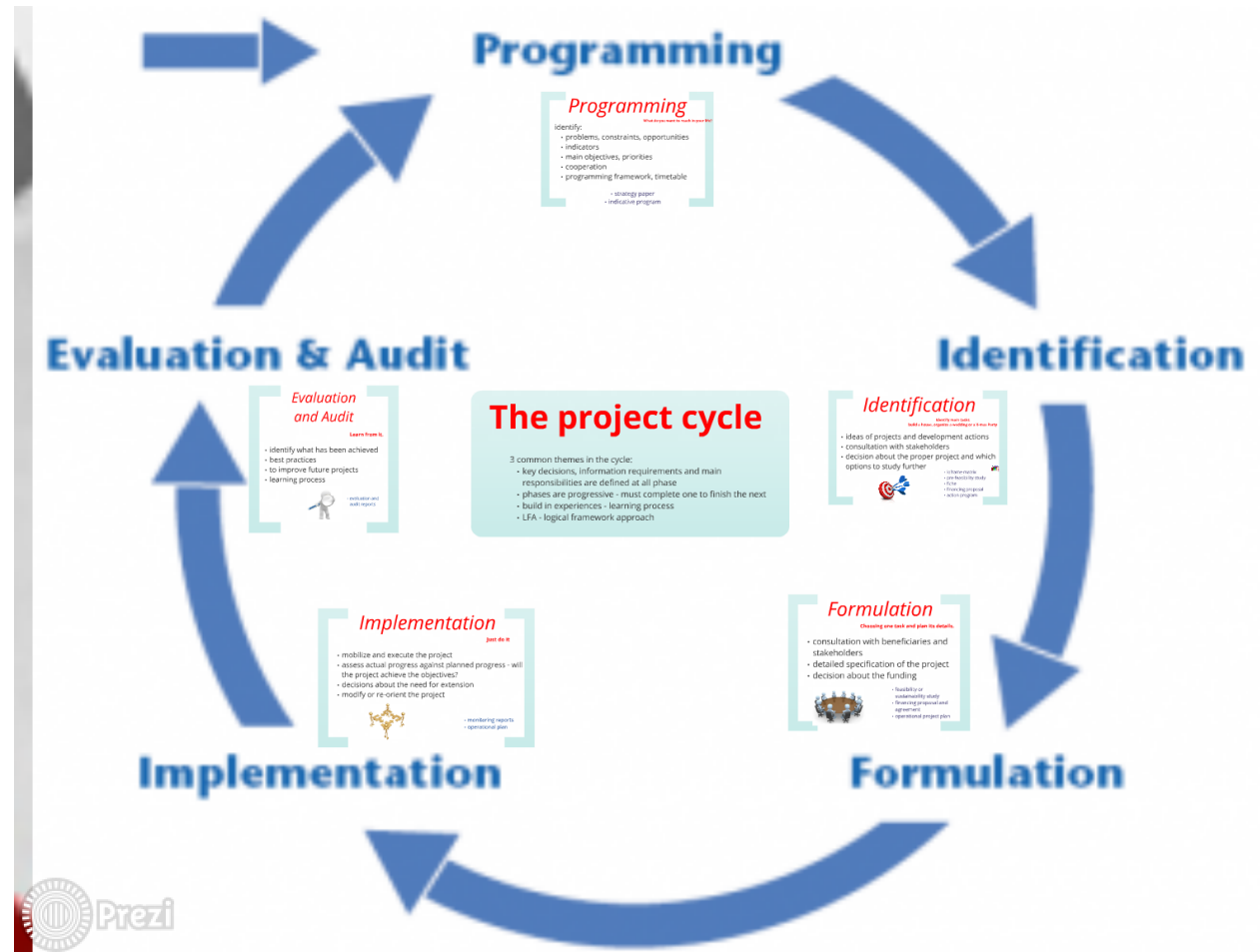
1. What is the purpose of the programing phase?
2. What kind of documents can be used in the programing phase?
3. What is the definition of indicators?

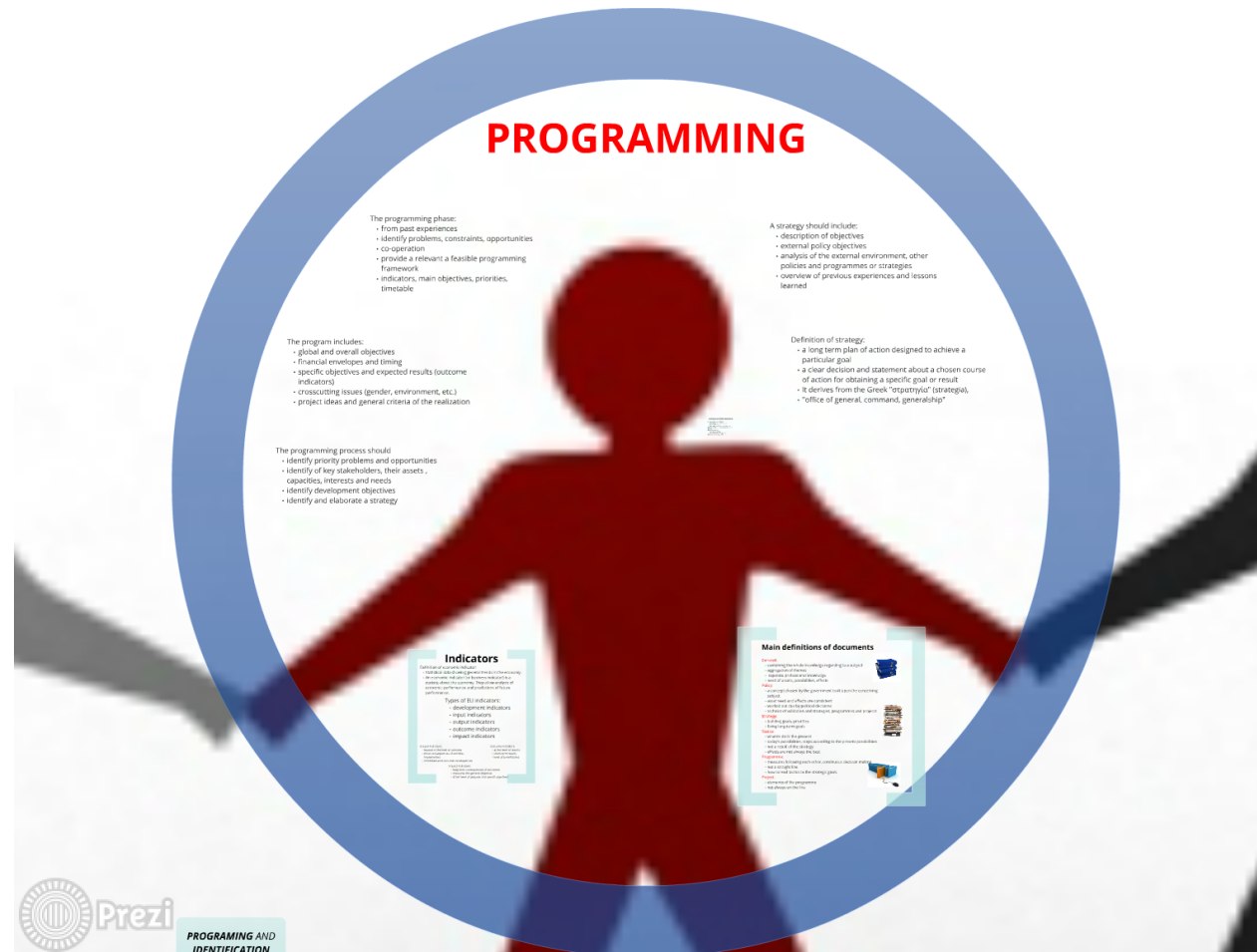
PROJECT MANAGEMENT



PROGRAMING AND IDENTIFICATION PHASES OF THE PROJECT CYCLE







The programming phase:

- from past experiences
- identify problems, constraints, opportunities
- co-operation
- provide a relevant a feasible programming framework
- indicators, main objectives, priorities, timetable

The programming process should

- identify priority problems and opportunities
- identify of key stakeholders, their assets , capacities, interests and needs
- identify development objectives
- identify and elaborate a strategy

Main definitions of documents

Concept:

- containing the whole knowledge regarding to a subject
- aggregation of themes
- separate professional knowledge
- need of assets, possibilities, effects



Policy:

- a concept chosen by the government built upon the concerning subject
- asset need and effects are consistent
- worked out due by political decisions
- technics of validation and strategies, programmes and projects

Strategy:

- building goals, priorities
- fixing long-term goals

Tactics:

- what to do in the present
- today's possibilities, steps according to the present possibilities
- not a result of the strategy
- effects are not always the best



Programme:

- measures following each other, continuous decision making
- not a straight line
- how to lead tactics to the strategic goals



Project:

- elements of the programme
- not always on the line

Main definitions of documents

Concept:

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Strategy:

- building goals, priorities
- fixing long-term goals

Tactics:

- what to do in the present
- today's possibilities, steps according to the present possibilities



Definition of strategy:

- a long term plan of action designed to achieve a particular goal
- a clear decision and statement about a chosen course of action for obtaining a specific goal or result
- It derives from the Greek "στρατηγία" (strategia),
- "office of general, command, generalship"

A strategy should include:

- description of objectives
- external policy objectives
- analysis of the external environment, other policies and programmes or strategies
- overview of previous experiences and lessons learned



- asset need and effects are consistent
- worked out due by political decisions
- technics of validation and strategies, programmes and projects

Strategy:

- building goals, priorities
- fixing long-term goals

Tactics:

- what to do in the present
- today's possibilities, steps according to the present possibilities
- not a result of the strategy
- effects are not always the best

Programme:

- measures following each other, continuous decision making
- not a straight line
- how to lead tactics to the strategic goals

Project:

- elements of the programme
- not always on the line



The program includes:

- global and overall objectives
- financial envelopes and timing
- specific objectives and expected results (outcome indicators)
- crosscutting issues (gender, environment, etc.)
- project ideas and general criteria of the realization

Indicators

Definition of economic indicator:

- Statistical data showing general trends in the economy.
- An economic indicator (or business indicator) is a statistic about the economy. They allow analysis of economic performance and predictions of future performance.

Types of EU indicators:

- development indicators
- input indicators
- output indicators
- outcome indicators
- impact indicators

Output indicators:

- located at the level of activities
- direct consequences of activities implemented
- immediate and concrete consequences

Outcome indicators:

- at the level of results
- short-term results
- level of beneficiaries

Impact indicators:

- long-term consequences of outcomes
- measures the general objective
- at the level of purpose and overall objectives



Indicators

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Impact indicators:

- long-term consequences
- measures the general



- Outcome indicators:
- at the level of results
 - short-term results
 - level of beneficiaries

and concrete consequences

Impact indicators:

- long-term consequences of outcomes
- measures the general objective
- at the level of purpose and overall objectives

Strategies and other documents

- College strategies and regulations
 - Development Plan of the Institution
 - Student Contracts
 - Organizational and Operational Regulation
- Business Strategy of the Company which owns the building
- Documents of the City
 - Development Strategy
 - Regulations about the public order
- Public procurement regulations

2.2. The identification phase

WHAT IS THE PURPOSE OF IDENTIFICATION?

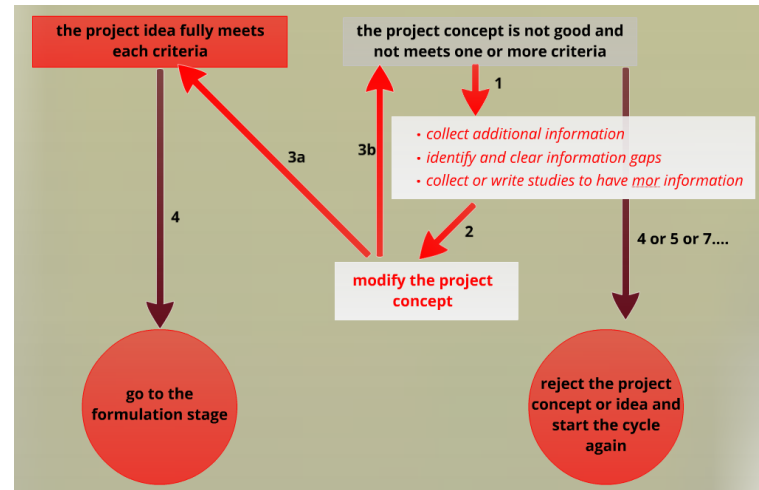
Identification is the second phase of the project cycle. This phase contains the ideas about the project and here the involvement of stakeholders and beneficiaries is crucial. The main goal of this phase is the identification of project ideas and options to answer the problems identified before in the programming phase. Specific projects can be chosen which will be further elaborated in the Formulation phase.

The main purpose of identification therefore is to...

- identify project ideas
- assess the relevance and feasibility of the ideas
- prepare a Project Fiche
- prepare a Financing Proposal
- identify further steps for the formulation stage
- make a financing decision about the program

During the identification phase it is important to organize consultations with stakeholders and ensure their involvement in the decision making process. The decision making process about the project idea can be represented as the following:

1. Figure: Decision making process about the project idea in the identification phase



Source: own compilation

The decision making process about the project idea is not easy and contains difficult steps as it can be seen above.

The first main decision in this phase is whether the project concept or proposal require further development or not. If the stakeholders do not like the concept or it does not meet the previously stated requirements, the project idea has to be modified or supplemented with other information. Other additional information can be collected to support the decision about the project idea in this phase. The source of this information can be the higher level documents – concepts, proposals, other programs – mentioned before or other statistical sources and databases.

The modification of the project idea can be last till it reaches the necessary requirements and can be transferred to the next formulation phase.

In the identification phase the following documents can help the decision makers and stakeholders to make their decision:

- Project Fiche
- Pre-feasibility study
- LFM – Logical Framework Matrix (Approach) – containing other documents
- Financing Proposal
- Action Program

CONTROL QUESTIONS

1. What is the main goal of the identification phase?
2. What kind of documents can be used to support the decision making process in the identification phase?
3. What are the steps of the decision making process about the project idea?

CONTROL TEST

Multiple-choice questions

1. The main goal of the programing phase is to....
 - a. to identify the main project ideas
 - b. to substantiate the project objectives and priorities by a linkage to the higher level strategies
 - c. to write a project plan
 - d. to elaborate a new strategy
2. During the programming phase the management should NOT identify...
 - a. priority problems and opportunities
 - b. the key stakeholders, their assets , capacities, interests and needs
 - c. development objectives
 - d. new project ideas
3. Which of the following documents should NOT be used during the programing phase?
 - a. strategy papers
 - b. project plans of the organization
 - c. indicative programs
 - d. national and regional development strategies

4. The programming phase of the project cycle is closely connected to the last – evaluation – phase because
- a. they are the same
 - b. programs need to be audited
 - c. PCM method is a learning process and the experiences of a previous project should be built into the next one
 - d. the project process can begin with the evaluation
5. Which of the followings describes the strategy?
- a. contains the whole knowledge regarding to a specific subject
 - b. a concept chosen by the government to be built upon a concerning subject
 - c. focuses on the achievement of long term goals and priorities Project management
 - d. summarize the present situation
6. Which of the followings describes the tactics?
- a. contains the whole knowledge regarding to a specific subject
 - b. a concept chosen by the government to be built upon a concerning subject
 - c. focuses on the achievement of long term goals and priorities
 - d. summarize the present situation
7. Which of these characteristics does NOT fit to the indicators?
- a. statistical data
 - b. objectively verifiable measuring terms
 - c. documents about the project
 - d. help the project's monitoring and evaluation

8. The main purpose of identification phase is to
- a. check the higher level documents” objectives
 - b. identify project ideas and assess the relevance and feasibility of the ideas
 - c. summarize the project
 - d. to write a project plan
9. Which of the following documents is elaborated in the identification phase?
- a. SWOT analysis
 - b. Resource schedule
 - c. Project Fiche
 - d. Strategy
10. Which of the following documents is NOT elaborated in the identification phase?
- a. Pre-feasibility study
 - b. SWOT analysis
 - c. Financing Proposal
 - d. Action Program

True or False questions

Statement	True	False
1. A program is equal to a concept.		
2. A strategy is not a program.		
3. A strategy is focuses on the achievement of short term goals and priorities.		
4. Output indicators are located at the level of activities.		
5. Outcome indicators are at the level of activities. Project management		

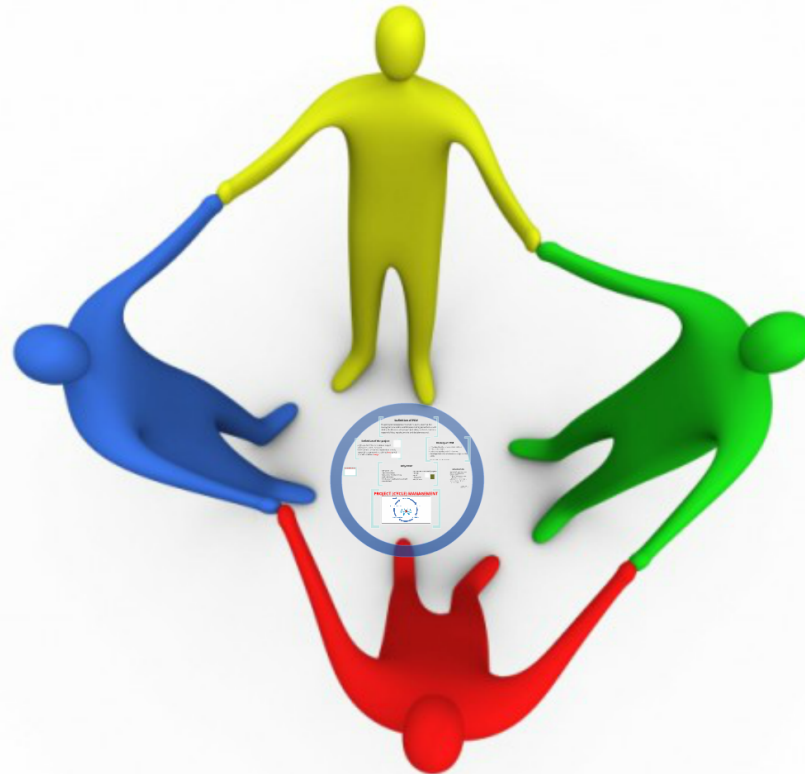
TASK FOR SUBMISSION

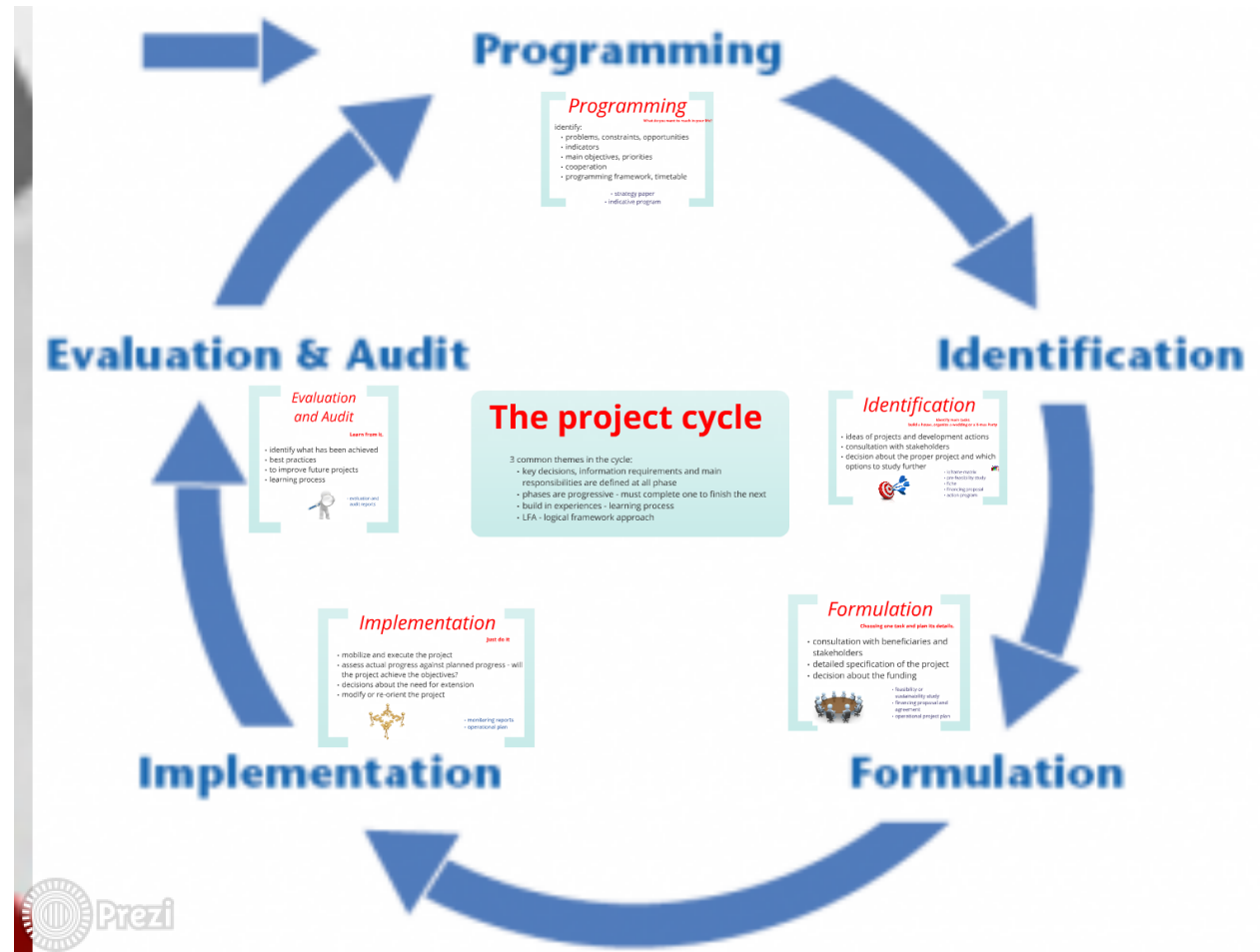
Check the main objectives and flagship initiatives of the EUROPE 2020 strategy on the following page:

http://ec.europa.eu/europe2020/europe-2020-in-a-nutshell/flagshipinitiatives/index_en.htm

Which of these objectives can be used in the first sample project which is about the integration of disabled children?

PROJECT MANAGEMENT





IDENTIFICATION

Purpose of identification:



- identify project ideas
- assess the relevance and feasibility of the ideas
- prepare a Project Fiche
- prepare a Financing Proposal
- identify further steps for the formulation stage
- financing decision about the program

Tasks of identification:

- organize consultations with stakeholders
- ensure the involvement of stakeholders in decision making process
- analyze concepts, proposals, other programmes, collect additional information
- make a Fiche
- decide about the project (whether project concept or proposal require further development)
- make a pre-feasibility study in a team

Documents of identification:

- Project Fiche
- LFM - Logical Framework Matrix (Approach) - containing other documents
- Financing Proposal
- Action Programme

TEAMWORK

The project concept is good and worth doing

The project concept is good and worth doing

The project concept is good and worth doing

Prezi

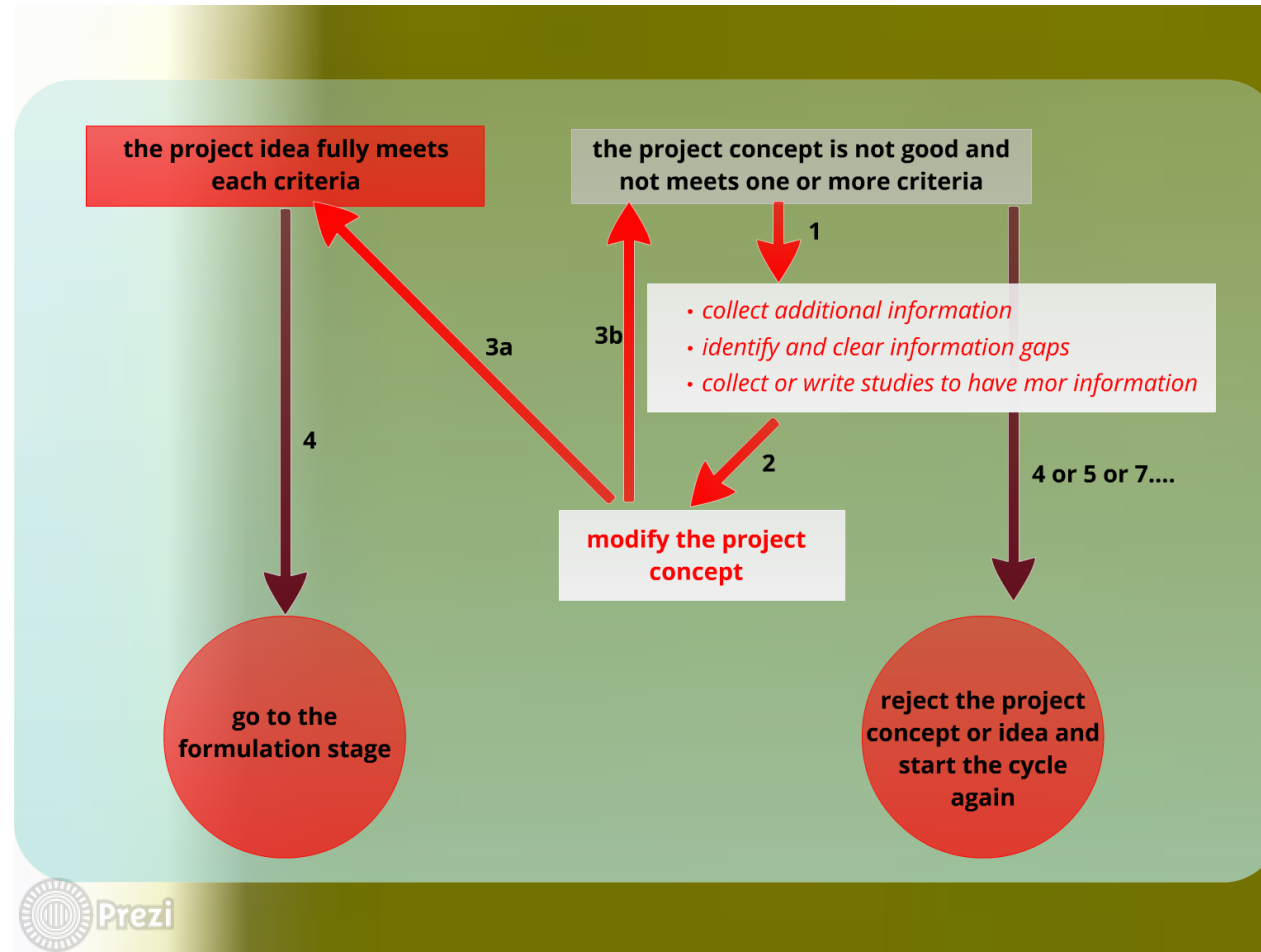
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Documents of identification:

- Project Fiche
- LFM - Logical Framework Matrix (Approach) - containing other documents
- Financing Proposal
- Action Programme

CHAPTER 3

3. Formulation and Implementation

3.1. The Formulation phase

In the formulation phase the project ideas – elaborated in the identification phase – are developed into specific operational plans. Here, the participation of stakeholders is also important, as they can specify their ideas and add them to the feasibility requirements of the project. The sustainability of the project idea is a key question of this phase and the stakeholders can decide whether the idea is likely to generate long-term benefits for the beneficiaries. At the end of this phase a decision has to be made on whether to draw up a formal project proposal and seek funding for the project.

The main purposes of the formulation phase are the followings:

- to prove the relevance and feasibility of the chosen project idea
- to make a detailed project plan
- to prepare a financial proposal for stakeholders and make a financial decision about the project

In this phase project management and stakeholders should decide about the extent to which the project uses and integrates local institutional structures or builds in local capacity and resources.

In the elaborated project plan several information and data has to support the decision of the stakeholders.

The project plan should contain information about the...

- management,
- coordination,
- finances,
- risks,
- monitoring, internal control, reporting, and
- evaluation.

In the formulation phase the project management and the stakeholders have to use assessment methods to verify the feasibility of the project idea.

The following tools can be successfully used:

- confirming the consistency with the higher level documents identified in the programming phase
- stakeholder analysis
- problem analysis, including crosscutting issues
- complementarity with other ongoing projects
- strategy assessment and objective hierarchy assessment
- assessment of resource and cost requirements
- assessment of management, coordination and financing arrangements
- assessment of monitoring, evaluation and audit
- sustainability and risk assessment – economic, financial, environmental, technical and social sustainability – quality assessment
- logical framework approach, Logframe Matrix
- institutional capacity assessment,
- risk management matrix

The assessment of the project idea is a difficult process. The main focus of the assessment is the feasibility of the project therefore the method should include some feasibility criteria. These criteria help to measure the relevance and consistency of the project.

The possible assessment criteria are shown in the table below:

1. Table: Assessment criteria in the formulation and implementation phase

No.	Main criteria and sub-criteria
1.	The project is relevant
1.1.	The project is consistent to higher level documents
1.2.	The key stakeholders and target groups are clearly identified
1.3.	Problems are verified
1.4.	The lessons of previous project were learnt and built into the new project idea

2. **The project is feasible**

- 2.1. The objectives of the project are clear and logical and are connected to the identified needs
- 2.2. The project is financially feasible and has a positive return
- 2.3. Coordination and management process are clear and support institutional development
- 2.4. The monitoring and evaluation system is clear and practical
- 2.5. Risks are identified clearly and appropriate risk management arrangements are initiated
- 2.6. The project is sustainable environmentally, technically and socially

3. **The project is managed well**

- 3.1. Best practices and good project management methods are used

Source: own compilation by EC (2004.): Project Cycle Management Guidelines, Pp. 35–37.

The main documents in this phase are the

- feasibility or sustainability study
- financing proposal and agreement
- operational project plan

THE FEASIBILITY STUDY

Feasibility study is a document of analysis and evaluation. Its main goal is to underline the feasibility of a project and to determine whether it is feasible within a specific framework. It contains the potential of the project idea and it is elaborated to support the process of decision making. Therefore the purpose of the feasibility study is to provide sufficient information to the decision makers and to justify the acceptance, the modification or the rejection of the proposed project.

The key outputs of the feasibility study are the followings:

- assessment of the relevance, feasibility and sustainability of the proposed project,
- detailed operational plan based on the logframe structure,
- draft Financing Proposal.

In the study the evaluation of the project aims to identify the potential success and to inform not only stakeholders but potential investors too. The credibility of the information is also an important factor.

A well-designed feasibility study should contain the following chapters:

- Study background
- Study objective
- Study results
- Issues to be studied
 - Relevance
 - Feasibility
 - Preconditions
 - Sustainability
- Work plan
- Expertise required
- Reporting
- Time frame and schedule

CONTROL QUESTIONS

1. What is the main purpose of the formulation phase?
2. What is the feasibility study?
3. What is the content of the feasibility study?

3.2. The implementation phase

The implementation in PCM is the 4 th phase and in this phase we also include financing. In this phase the chosen project idea is implemented. This phase is really critical in the cycle as the planned actions and returns have to be delivered here. All other stages of the project cycle have to support this stage.

The main goal of the implementation phase is to do, to implement the planned activities and manage and monitor the process. The delivered results have to be effective and fulfill the requirements of the stakeholders besides they also have to contribute to the overall objectives.

Several tasks can be listed according to the implementation phase and all tasks are important for delivering the efficient results:

- Producing and deploying the suitable resources – financial resources, human resources, etc.
- Implementing the planned activities
- Reviewing the process and monitoring the project results
- Checking activity plans and operational plans – modifying them if necessary
- Reporting the results and the progress of the process

The duration of the formulation and implementation phases can vary by several factors like the type of the project, the availability of the needed information and resources, the involvement and support of the stakeholders, the administrative support that the management can involve the financial capacity of the implementing organization, or the human resources, etc.

Both formulation and implementation phases can be supported by the planning documents described in the following chapters of this workbook. All of the planning assets can help to measure the progress of the project as the implemented results can be compared to the planned activities described in these documents.

The most important planning asset of PCM and in the phase of implementation is the logframe matrix. This matrix is explained in the further chapters of this workbook.

THE MONITORING PROCESS

After the planning process, in the implementation phase, the most important task is to measure the progress and results of the project. It is not common for a project to go exactly how it is planned. Moreover it usually happens when a project in the implementation process changes so much that it is completely different from the planned one. In the implementation period the management of the project has an enormously big responsibility and several important tasks to measure the differences of the realized and the planned actions. This means that the management has to elaborate and implement a usable and effective controlling process over the whole project. The main goal of this process is to ensure that the project stays on the track which was planned before and can fulfill the stated objectives. This is called the monitoring process.

Monitoring is a systematic and continuous collection of data about the project and the analysis of this information. Monitoring can help the decision making process and serves information for the management. It helps to solve implementation problems and to prepare for further gaps in the project.

Monitoring is a management activity. During the monitoring process the results are compared to the plans in order to identify necessary changing actions. This method has to be followed on all levels of the project management – from the management team to the decision makers –, and should be used in day–today basis. The monitoring process uses formal reporting and informal communication sources too. The measures and monitoring actions have to focus on resources, activities and results.

The monitoring process has six main steps:

1. Preparing a plan for the monitoring process
 - a. Elaborating the style and format of the reports
 - b. Specifying the necessary staff, skills and training required
 - c. Clearing the process of information collection
 - d. Identifying reporting responsibilities
2. Analyzing the project objectives
 - a. Are the objectives of the project clearly identified and stated?
 - b. Do the objectives lead to the outputs of the project?
3. Reviewing the implementation of the project actions and the process
 - a. Were the actions implemented? Which actions were implemented and did they meet the deadline?
 - b. Which actions are delayed and why?
4. Reviewing the indicators
 - a. Are the indicator fulfilled or in what extent are they fulfilled?
 - b. Can the indicators reach the planned level at the end of the project?
 - c. What is the difference between the current and the planned level of the indicators?

5. Collecting all the information and writing the report
 - a. Summarizing the differences between the planned and the real situation
 - b. Provide detailed information to the management and to the decision makers
6. Preparing and implementation plan
 - a. Suggesting solutions for problems regarding to differences in planned and realized activities

The monitoring process is handled by the management and mainly is an internal process. However it can be complemented by external data which are useful for the verification of the indicators and project results. External inputs also can help the management to see the overall picture about the project framework and surrounding.

In the monitoring process project management requires information frequently and about operational data. It is not enough to only collect data about the planned and realized situation but the management has to communicate the results of this process. The communication process has to be based on the right form (types) of the communication, has to reach the target group and has to be in time to be successful.

The two main assets for this communication are project progress reports and progress relieves.

Project progress reports are periodic summaries of the project progress and contain key information about the physical and financial indicators. These reports provide the evidence for fulfilling the indicators too. Progress reports usually have a standard format which helps to compare the results from time to time. The content of the reports should reflect the logical framework approach described later in this workbook. It should contain information about the activity schedule, the budget and cost schedule, the indicators of achievement (specifying quantity, quality, time), the activity schedule and milestones, the project purpose and overall objectives.

The main goal of the progress report is to provide detailed information about the achievements of the project, the state of the indicators and the milestones. The planned achievements are compared to actual ones. According to this comparison, it is important to identify the differences and deviations which can cause several problems in the project. On the other hand, these differences also can highlight opportunities and alternative actions for the project management.

Other goals of the report can be listed as the followings:

- Provide necessary information about the physical and financial progress of the project
- Inform the stakeholders about the project progress
- Record the information about the project progress and provide these documents to the decision makers and the management.
- Communicate the project
- Ensure the transparency and the accountability of the project

The report should include the following subjects and chapters:

- Comparing the current status of the project with the planned data according to indicators for project purpose and results
- Main activities in the reported period and their comparison to the activity schedule
- Main costs and cash-flow of the reporting period
- Number of stakeholders involved to the project in the reported period
- Occurring problems of the reported period and actions planned for their solution
- Activity plan for the next period

A good progress report clearly summarizes the project progress and its differences from the planned activities and contains relevant and easily understandable data. The key characteristics of information are the quality. A good report can be a usable base of the project audit and evaluation process.

Another type of communicating monitoring results is the *progress review*. The progress review is a type of personal meetings where written reports are presented and discussed, or rapid oral assessments of current issues and problems. Regular progress reviews can give an opportunity to the management to gain feedback information about the project progress and identify the decision makers' intentions. Besides, using reviews, the management can clearly understand whether the stakeholders agree on the progress of the project and due to the results, can launch follow-up actions if necessary.

CONTROL QUESTIONS

1. What tasks can be done in the implementation phase?
2. What are the five main steps of the monitoring process?
3. With what kind of – two – reports can the results of this process be communicated?

CONTROL TEST

Multiple-choice questions

1. The main purpose of the formulation phase is to...
 - a. make a project fiche
 - b. prove the relevance and feasibility of the chosen project idea
 - c. identify higher level objectives
 - d. evaluate the results of the project
2. A detailed project plan can be elaborated during the...
 - a. evaluation phase
 - b. programing phase
 - c. formulation phase
 - d. implementation phase
3. Which one of the followings is a main assessment criterion for the decision about the project?
 - a. relevance of the project
 - b. the minimum budget during the project
 - c. involve several professionals
 - d. flexibility of the management

4. Which of the following criteria does NOT prove the feasibility of the project?
- a. the management of the project have experiences in the sector
 - b. the project is financially feasible and has a positive return
 - c. the project is sustainable environmentally, technically and socially
 - d. the objectives of the project are clear and logical and are connected to the identified needs
5. What is the main document of the formulation phase?
- a. development strategy
 - b. LFM
 - c. feasibility or sustainability study
 - d. stakeholder analysis
6. The main goal of the implementation phase is to...
- a. prove the relevance and feasibility of the chosen project idea
 - b. identify higher level objectives
 - c. implement the project actions
 - d. develop a project idea
7. Which of the following tasks can NOT be made during the implementation phase?
- a. Implementing the planned activities
 - b. Monitoring project results
 - c. Checking higher level strategies and objectives Project management
 - d. Reporting the results and the progress of the process

8. Monitoring means...

- a. A systematic and continuous collection of data about the project and the analysis of this information
- b. Reporting the results about the progress of the process
- c. The implementation of the planned activities and the management of the process
- d. Evaluation of the project and identification of the potential success

9. Which attribute describes the project progress report?

- a. list of problems during the implementation
- b. summary of activities
- c. list of project objectives
- d. a periodic summary of the project progress

10. Which attribute does NOT describe the progress review?

- a. a type of personal meetings
- b. it is made only at the completion of the project
- c. it is about written reports of the project
- d. gives feedback information for the management

True or False questions Statement

Statement	True	False
1. Feasibility study is a document of analysis and evaluation.		
2. A well-designed feasibility study should contain the time frame and schedule of the project.		
3. All stages of the project cycle have to support the implementation phase.		
4. During the implementation phase the management has to manage and monitor the project process.		
5. Monitoring process usually managed externally as it is an external process.		

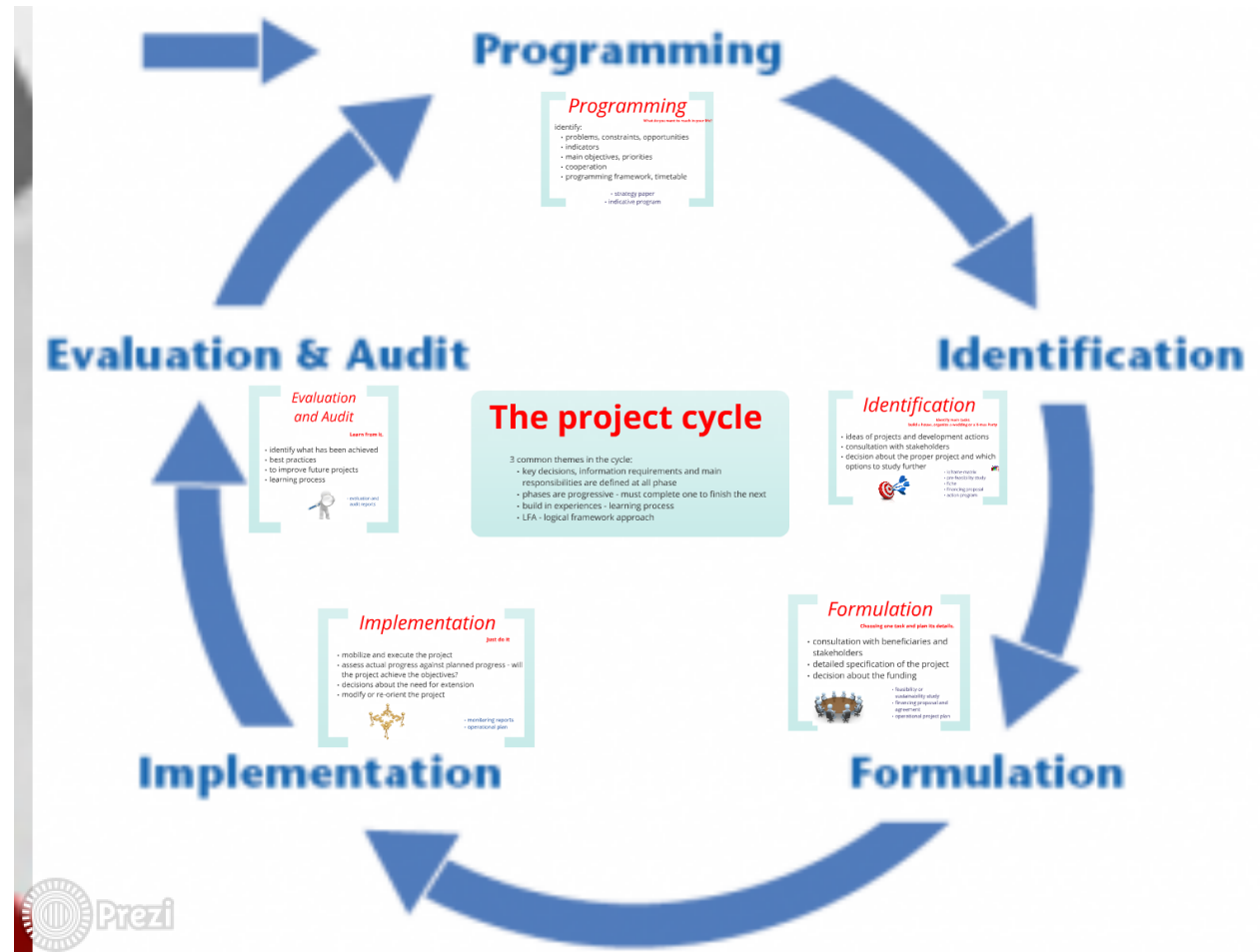
TASK FOR SUBMISSION

List the six main steps of the monitoring process:

PROJECT MANAGEMENT



FORMULATION, IMPLEMENTATION AND EVALUATION PHASES OF THE PROJECT CYCLE



FORMULATION AND IMPLEMENTATION

The main purpose of the formulation phase

- to prove the relevance and feasibility of the chosen project idea
- to make a detailed project plan
- to prepare a financial proposal for stakeholders and
- make a financial decision about the project

The project plan should contain information about

- management,
- coordination,
- finances,
- risks,
- monitoring, internal control, reporting, and
- evaluation

Feasibility Study contains

1. STUDY BACKGROUND
2. STUDY OBJECTIVE
3. STUDY SCOPE
4. STUDY METHODOLOGY
5. STUDY RESULTS
6. STUDY CONCLUSIONS
7. STUDY LIMITATIONS
8. STUDY RECOMMENDATIONS
9. STUDY APPENDICES
10. STUDY REFERENCES

Feasibility Study

- to determine the feasibility of the project
- to determine the feasibility of the project
- to determine the feasibility of the project
- to determine the feasibility of the project
- to determine the feasibility of the project
- to determine the feasibility of the project
- to determine the feasibility of the project
- to determine the feasibility of the project
- to determine the feasibility of the project
- to determine the feasibility of the project

Assessment criteria

1. The project is relevant to the organization's mission and vision.
2. The project is feasible in terms of resources, time, and cost.
3. The project is profitable.
4. The project is sustainable.
5. The project is innovative.
6. The project is socially responsible.
7. The project is environmentally friendly.
8. The project is ethically sound.
9. The project is legally compliant.
10. The project is culturally sensitive.

1. The project is relevant to the organization's mission and vision.
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8. The project is ethically sound.
9. The project is legally compliant.
10. The project is culturally sensitive.

The implementation phase

- planned actions and returns have to be delivered
- to do, to implement the planned activities and manage and monitor the process
- results have to be effective and fulfill the requirements
- have to contribute to the overall objectives

Tasks of the implementation phase

- to determine and deliver the results
- to determine and deliver the results
- to determine and deliver the results
- to determine and deliver the results
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- to determine and deliver the results
- to determine and deliver the results
- to determine and deliver the results
- to determine and deliver the results



The main purpose of the formulation phase

- to prove the relevance and feasibility of the chosen project idea
- to make a detailed project plan
- to prepare a financial proposal for stakeholders and
- make a financial decision about the project

The project plan should contain information about

- management,
- coordination,
- finances,
- risks,
- monitoring, internal control, reporting, and
- evaluation



Assessment criteria

1. The project is relevant

- 1.1. The project is consistent to higher level documents
- 1.2. The key stakeholders and target groups are clearly identified
- 1.3. Problems are verified
- 1.4. The lessons of previous project are learned and built into the new project idea

2. The project is feasible

- 2.1. The objectives of the project are clear and logical and are connected to the identified needs
- 2.2. The project is financially feasible and has a positive return
- 2.3. Coordination and management process are clear and support institutional development
- 2.4. The monitoring and evaluation system is clear and practical
- 2.5. Risks are identified clearly and appropriate risk management arrangements are initiated
- 2.6. The project is sustainable environmentally, technically and socially

3. The project is managed well

- 3.1. Best practices and good project management methods are used



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- 2.1. The objectives of the project are clear and logical and are connected to the identified needs
- 2.2. The project is financially feasible and has a positive return
- 2.3. Coordination and management process are clear and support institutional development



1.4. The lessons of previous project are learned and built into the new project idea

2. The project is feasible

2.1. The objectives of the project are clear and logical and are connected to the identified needs

2.2. The project is financially feasible and has a positive return

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2.6. The project is sustainable environmentally, technically and socially

3. The project is managed well

3.1. Best practices and good project management methods are used



Feasibility Study

The purpose of the feasibility study

- to provide the decision makers sufficient information to justify acceptance, modification or rejection of the proposed project for further financing and implementation.

The key outputs of the feasibility study

- assessment of the relevance, feasibility and sustainability of the proposed project,
- detailed operational plan based on the logframe structure.
- a draft Financing Proposal



- A. STUDY BACKGROUND
- B. STUDY OBJECTIVE
- C. STUDY RESULTS
- D. ISSUES TO BE STUDIED
 - I) RELEVANCE
 - II) FEASIBILITY
 - III) PRECONDITIONS
 - IV) SUSTAINABILITY
- E. WORK PLAN
- F. EXPERTISE REQUIRED
- G. REPORTING
- H. TIME SCHEDULE
- I. ASSISTANCE TO THE CONSULTANTS
BY THE CONTRACTING AUTHORITY



Feasibility Study Report.

- 1. Summary*
 - 2. Background*
 - 3. Intervention*
 - 4. Assumptions*
 - 5. Implementation*
 - 6. Factors ensuring sustainability*
 - 7. Monitoring and evaluation*
 - 8. Conclusions and proposals*
- Technical appendices*
- Administrative appendices*

tion

logframe structure.
• a draft Financing Proposal

The implementation phase

- planned actions and returns have to be delivered
- to do, to implement the planned activities and manage and monitor the process
- results have to be effective and fulfill the requirements
- have to contribute to the overall objectives

Tasks of the implementation phase

- Producing and deploying the suitable resources – financial resources, human resources, etc.
- Implementing the planned activities
- Reviewing the process and monitoring the project results
- Checking activity plans and operational plans – modifying them if necessary
- Reporting the results and the progress of the process

CHAPTER 4

4.1. Monitoring – Evaluation – Audit

It might be difficult to understand the differences between monitoring, evaluation and audit.
The definitions can be cleared by the following table:

1. Table: Difference between monitoring, evaluation and audit

	monitoring	evaluation	audit
Who makes it?	<ul style="list-style-type: none"> internal management in all project levels continuously 	<ul style="list-style-type: none"> joint groups from external sources periodically 	<ul style="list-style-type: none"> joint groups from external sources
When can it be made?			<ul style="list-style-type: none"> at the end of the project
What is the goal of its preparation?	<ul style="list-style-type: none"> check the project progress make actions to solve problems modify the plans and project documents 	<ul style="list-style-type: none"> identify best practices and learn the lessons from them accountability of the project 	<ul style="list-style-type: none"> accountability of the project recommendations to improve the project
How is it connected to the logical framework of the project?	<ul style="list-style-type: none"> inputs activities results 	<ul style="list-style-type: none"> results purpose overall objective 	<ul style="list-style-type: none"> Inputs activities results

Source: own compilation by EC (2004.): Project Cycle Management Guidelines, 40. p.

SAMPLE PROJECT*Integration of disabled (who need special education) children*

The success and implementation level of the activities has to be measured carefully. The monitoring plan helps this process. The main goal is to plan the measuring activity previously. The following table contains the monitoring activities of the project about the integration of disabled children. The process is planned according to the main activities of the project. The table summarizes the type and frequency of the measurement and the provider and user of the data. It is possible to make different summaries of the monitoring process according to the stakeholders interests (e.g. break down the activities and plan the monitoring to a more detailed version).

2. Table: The monitoring table of the project about the integration of disabled children

Activity	Type of monitoring	Frequency or date of monitoring	Person responsible for providing the data	User of the data
Formulation	Resources	monthly	financial manager	project management funding organization
	Results	monthly (perfect completion)	project manager	project management funding organization
	Assumptions	every 3 months, no change of external assumptions	project manager	project management funding organization
	Effects	one time	project manager	external organizations, media

Communication	Resources	monthly, about financial and human resources	project assistant, financial manager	project manager
	Results	monthly	leaders of institutions	project management
	Assumptions	terminally	project assistant	project manager
	Effects	annually	leaders of institutions, project assistant	project management, supporting authorities and institutions who participate in the program
Integration Introduction of a registration system for disabled children	Resources	At the beginning of the project, at the end of the first months	partners	partners
	Results	After the introduction, in every 3 months continuously	partners	partners
	Assumptions	monthly in the first 6 months	partners	partners
	Effects	terminally	person responsible for the project results	project manager, external institutes

Project management	Resources	in every 3 monthly	financial and organizational assistants	project manager and founding organization
	Results	by milestones	persons responsible for activities	project leader or manager, founding organization, persons responsible for activities
	Assumptions	terminally (increasing price levels)	project secretary	project manager and founding organization
	Effects	at the completion of the project	project management	project manager and founding organization

Source: own compilation by project documents

CONTROL QUESTIONS

1. What is the project evaluation for?
2. In which stages of the project can the evaluation be implemented?
3. What is the difference between monitoring, evaluation and audit?

CONTROL TEST

Multiple-choice questions

1. During the project evaluation process the management does NOT measure the the project.
 - a. relevance
 - b. efficiency
 - c. objectives
 - d. sustainability

2. Project relevance means that the project...
 - a. is appropriate and related to higher level strategies
 - b. has a logical framework
 - c. has been completed properly
 - d. is sustainable

3. A project is efficient if...
 - a. there is an internal logic and coherence in the project design
 - b. the inputs and activities are effectively converted into results
 - c. it has been completed properly
 - d. it is sustainable

4. The impact of the project is...
 - a. the internal logic and coherence in the project design
 - b. the result of the evaluation process
 - c. the effect of the project on its wider environment
 - d. the sustainable result of the project
5. Sustainable development goals do NOT contain the field of...
 - a. economy
 - b. society
 - c. environment
 - d. property
6. The monitoring process is made by...
 - a. the stakeholders of the project
 - b. the internal management
 - c. joint groups from external sources
 - d. beneficiaries of the project
7. The project audit is made by...
 - a. the stakeholders of the project
 - b. the internal management
 - c. joint groups from external sources
 - d. beneficiaries of the project

8. Which part of the LFM is NOT connected to the monitoring process?

- a. objectives
- b. inputs
- c. activities
- d. results

9. Which part of the LFM is NOT connected to the evaluation process?

- a. results
- b. purpose
- c. overall objective
- d. inputs

10. The main goal of the project audit is...

- a. to meet the objectives
- b. to make actions to solve problems during the implementation
- c. to modify the project plan
- d. to make recommendations to improve the project Project management

True or False questions

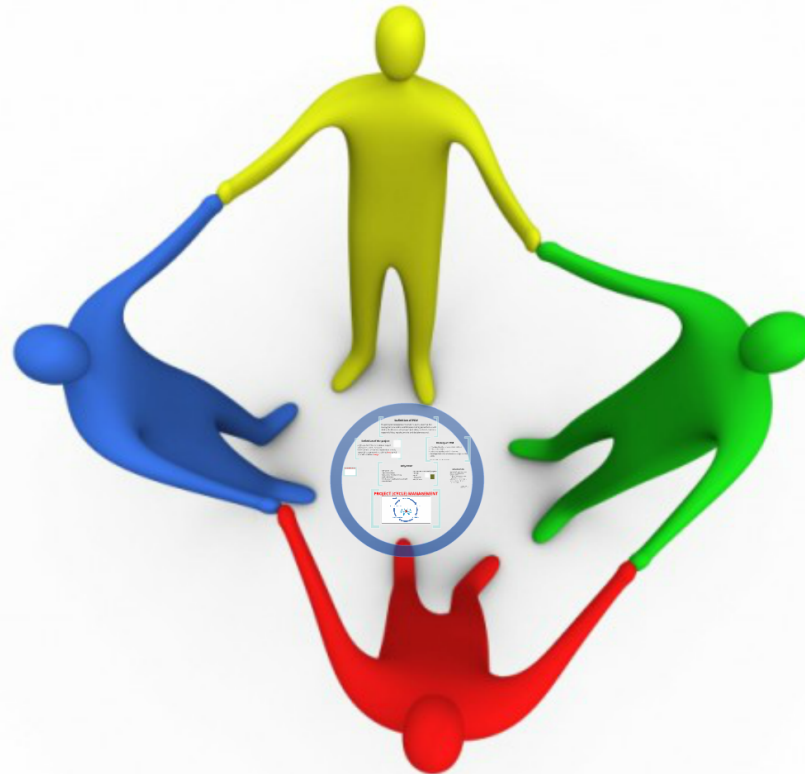
Statement	True	False
1. Evaluation helps the stakeholders and the management in the decision-making process.		
2. The evaluation process uses the reports elaborated during the programming phase.		
3. Monitoring and evaluation have the same goals.		
4. Impacts of the project are usually summarized in the project's Overall Objectives.		
5. Efficiency of the project is about the cost, speed and management efficiency.		

TASK FOR SUBMISSION

Elaborate a table about the monitoring process of the event organizing project. Fill out the following table using the details about the Christmas party project which were described in the previous and further chapters.

Activity	Type of monitoring	Frequency or date of monitoring	Person responsible for providing the data	User of the data

PROJECT MANAGEMENT



Monitoring and Reporting

Monitoring

- Is a management activity
- Actual progress is compared to plan in order to identify necessary remedial actions
- Takes place at all levels of management
- Uses both formal reporting & informal communications
- Focuses on resources, activities & results in the 'lag' time

The monitoring process

- to measure the progress-achievement of the project
- to ensure the effectiveness of the management and the planned actions
- Monitoring is a systematic and continuous collection of data about the project and the comparison of this information
- The monitoring process provides a series of information for the management to detect, represent and solve problems and to prepare for further steps

5 steps of the project monitoring system

- 1. Analyze project objectives
- 2. Review implementation procedures
- 3. Review indicators
- 4. Design report formats
- 5. Prepare an implementation plan for the monitoring system



Reporting

- A few selected items, plus aggregated data on equipment and materials, are considered 'key' indicators for reporting in the progress reports
- The information collected must be communicated
 - in the right form,
 - to the right person,
 - at the right time
- Mechanisms for communication must be established to ensure that the necessary information is generated and utilized in a timely and effective manner

Types of reports

Project progress reports

- periodic summaries of project progress
- key information from the physical and financial indicators
- provide the evidence of fulfilling the indicators

Progress reviews

- meetings on a regular basis
- an opportunity for written reports to be presented and discussed, or simply or a rapid oral assessment of current issues and problems.

Monitoring

- Is a management activity
- Actual progress is compared to plan in order to identify necessary remedial actions
- Takes place at all levels of management
- Uses both formal reporting & informal communications
- Focuses on resources, activities & results in the logframe



The monitoring process

- to measure the progress and results of the project
- big responsibility of the managers
- to measure the differences of the realized and the planned actions
- **Monitoring** is a systematic and continuous collection of data about the project and the analysis of this information
- help the decision making process and serves information for the management
- to solve implementation problems and to prepare for further gaps



5 steps of the project monitoring system

- 1. Analyze project objectives
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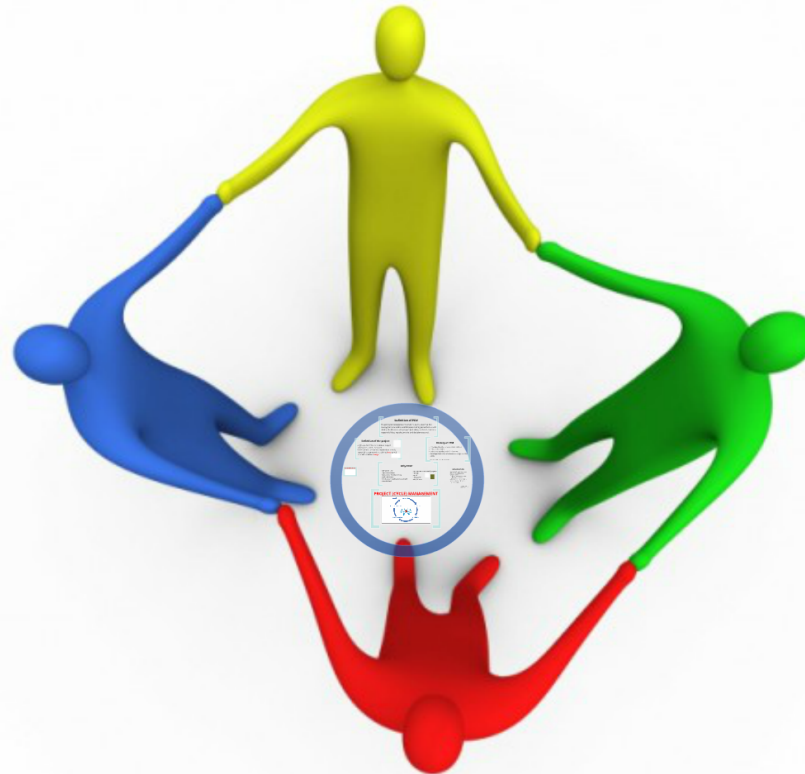
Project progress reports

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- key information from the physical and financial indicators
- provide the evidence of fulfilling the indicators

Progress review

- meetings on a regular basis
- an opportunity for written reports to be presented and discussed, or simply or a rapid oral assessment of current issues and problems.

PROJECT MANAGEMENT





Evaluation

- is a periodic assessment of project (Mid-term)
- assesses the relevance, efficiency, effectiveness, and sustainability of the project in relation to its activities
- focuses more on results-to-purpose and purpose-to-overall objectives



Main goal of the evaluation

- to assist the project management to achieve the aims of the project
- compare the achievements of a project against the planned expectations
- helps the stakeholders and the management in the decision-making process
- uses previous experiences which can be built into future projects

Opportunities for Evaluation

Mid-Term Evaluation

- to review progress and propose alterations to
- project design during the remaining period of implementation.

Evaluation at Project Completion

- to document the resources used, results and progress towards objectives



Evaluation Criteria

Relevance

- the appropriateness of project objectives to the problems that it was supposed to address, and to the physical and policy environment within which it operated

Project preparation and design

- the logic and completeness of the project planning process, and the internal logic and coherence of the project design

Efficiency

- the cost, speed and management efficiency with which inputs and activities were converted into results, and the quality of the results achieved

Effectiveness

- an assessment of the contribution made by results to achievement of the project purpose, and how assumptions have affected project achievements

Impact

- the effect of the project on its wider environment, and its contribution to the wider sectoral objectives summarised in the project's Overall Objectives

Sustainability

- the likelihood of a continuation in the stream of benefits produced by the project, particularly continuation of the project's activities and achievement of results, and with particular reference to development factors of policy support, economic and financial factors, socio-cultural aspects, gender, appropriateness of technology, ecological aspects, and institutional capacity

Relevance

- the appropriateness of project objectives to the problems that it was supposed to address, and to the physical and policy environment within which it operated

Project preparation and design

- the logic and completeness of the project planning process, and the internal logic and coherence of the project design

Efficiency

- the cost, speed and management efficiency with which inputs and activities were converted into results, and the quality of the results achieved

Effectiveness

- an assessment of the contribution made by results to achievement of the project purpose, and how assumptions have affected project achievements

Impact

- the effect of the project on its wider environment, and its contribution to the wider sectoral objectives summarised in the project's Overall Objectives

Sustainability

- the likelihood of a continuation in the stream of benefits produced by the project, particularly continuation of the project's activities and achievement of results, and with particular reference to development factors of policy support, economic and financial factors, socio-cultural aspects, gender, appropriateness of technology, ecological aspects, and institutional capacity

Process of audit

- inform the audit team about the plan and requirements
- audit the project on site
- write the audit report - form
- distribute the report



Audit report

- introduction
- current status
- future project status
- indicator checklist
- critical management issues
- risk analysis and risk management
- final comments

Documents of audit

- feasibility study
- preliminary plan
- budget schedule
- gantt chart
- evaluation of data by project team
- implementation documents
- audit report

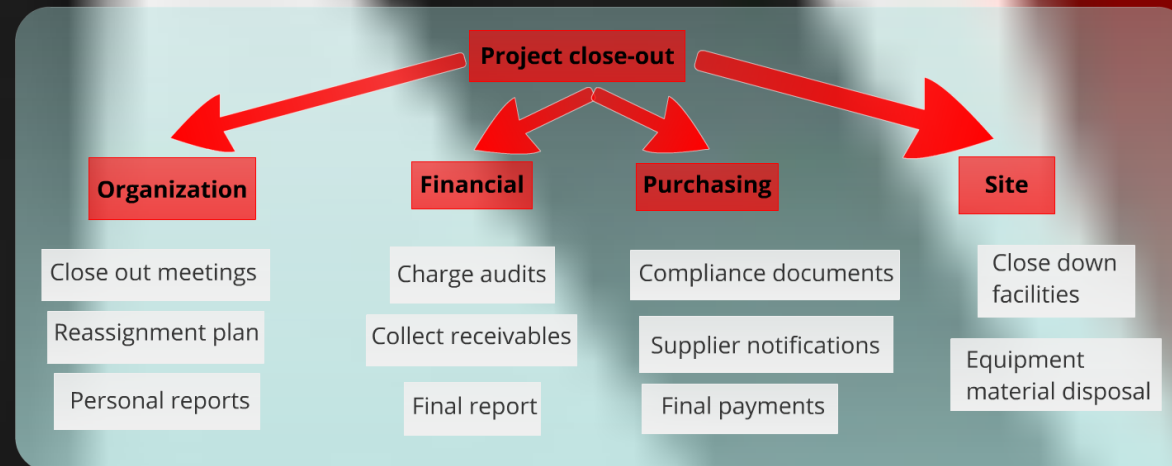


Is the project successful?

- success to date
- efficiency
- customer/stakeholder satisfaction
- business success, direct success
- future potential
- contribution to the objectives of the firm/
stakeholders/team members



Project termination



CHAPTER 5

5. Logical Framework Approach

5.1. The main content of the Logical Framework Approach

LFA is the abbreviation of the Logical Framework Approach, and the *LFM* is the Logical Framework Matrix.

Logical Framework Approach is a principle of the project cycle management and LFA is a main tool of the PCM.

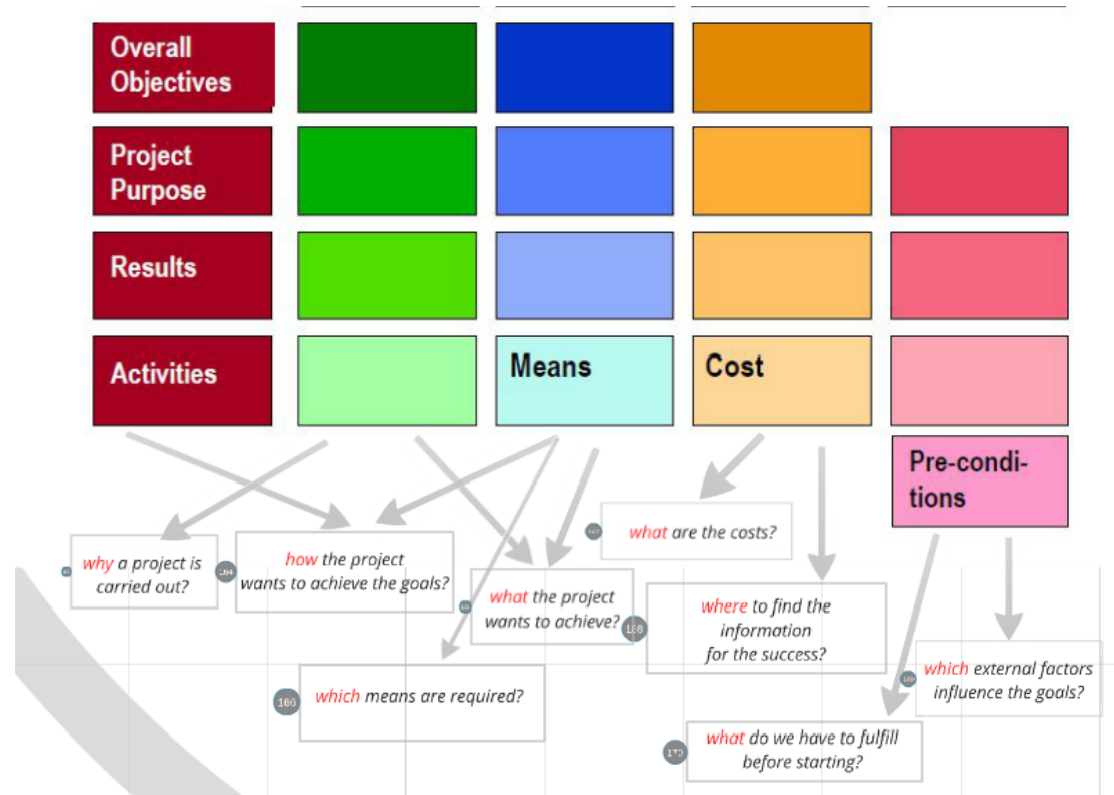
The *Logical Framework Approach* is a core analytical and management tool within PCM and helps the management to identify or analyze a project situation and to define objectives and activities for improving this situation. LFA can be used in the presentation and controlling of the project too.

LFA summarizes the concepts which were used during the project planning process and provides a structured and systematic analysis about the project idea. It contains structured information from which the main details of the project and important problems and questions can be identified and answered. Hence, it is an aid to thinking which helps the management and stakeholders in the decision making process.

The Logical Framework Approach helps the management to answer questions like the folio wings:

- Why a project has to be implemented?
- What goals the project aims to and will reach?
- What kind of assets do we need?
- How the project will reach the goals?
- What kind of external factors influence the result?
- What kind of assumptions do we have to fulfill before we start the project?
- Where can we find information for the evaluation of the project's success?
- How much will it cost?

1. Table. Questions which can be answered by the LFM



Source: own compilation by EC (1999): PCM Training Handbook

Answering these questions is essential for the project progress and to the decision makers. Due to these questions, LFA can support the management...

- to analyze the situation in the implementation stage,
- to build a logical hierarchy for the implementation of goals,
- to identify possible risks,
- to decide about the best ways of monitoring and the measurements of values,
- to summarize the project in a standardized form.

This approach is useful in several of the PCM phases, like in the Identification and the Formulation phase. In the identification - planning - phase LFA ensures that the identified project ideas are relevant. On the other hand, in the formulation and implementation phase LFA can promote the feasibility and sustainability of the project.

The logical framework approach can also be applied in the monitoring and evaluation process as it is mentioned above.

The following table summarizes the use of LFA in the project cycle management phases:

2. Table: LFA in the project cycle management phases

PCM phase	LFA helps...
Identification	<ul style="list-style-type: none"> – to analyze the current situation and the framework – to check the relevance of the project – to identify objectives and strategies
Formulation	<ul style="list-style-type: none"> – to give a summary of key project elements in a standard format – the preparation of an appropriate project plan – with clear objectives, measurable results, and risk – management strategy and defined levels of management responsibility; – to identify risks and can be applied to re-construct the project if necessary for the feasibility – to provide a resource for a co-benefit analysis – to elaborate the cash-flow and prepare a financing agreement
Implementation and financing	<ul style="list-style-type: none"> – provides a key management tool – to support contracting, operational work planning and monitoring – to provide a basis on which contract can be elaborated – to elaborate a Monitoring and Evaluation Plan – to elaborate an operational risk management plan – to provide the framework for preparing project progress reports
Evaluation and audit	<ul style="list-style-type: none"> – to give a summary of the project – to record of what was planned (objectives, indicators and key assumptions] – to provide a basis for performance and impact assessment

Usually LFA is used in two different phases of the project management process:

1. in the analysis phase
2. the planning phase

In the analysis phase the main goal is to analyze the current situation and to identify the main goals and visions for the project. This can also draw a basic framework to the strategy. In the analysis phase the following project management tools can be prepared by the LFA:

- Problem analysis
- Analysis of objectives
- Strategy analysis

In the second, planning stage, LFA helps to identify and choose the project idea and to make a detailed operational plan. In this phase the following management tools can be used for the LFA:

- Logframe
 - Activity scheduling
 - Resource scheduling
- All of these tools will be introduced and explained in details in the following chapters.

The Logical Framework Matrix (called the Logframe), is the asset of LFA which is visualized in a matrix and summarizes the LFA. It consists of a table, a matrix of four columns and four rows. In this table the key elements and details of the project are summarized in a clear structure.

The LFM's boxes contain the followings:

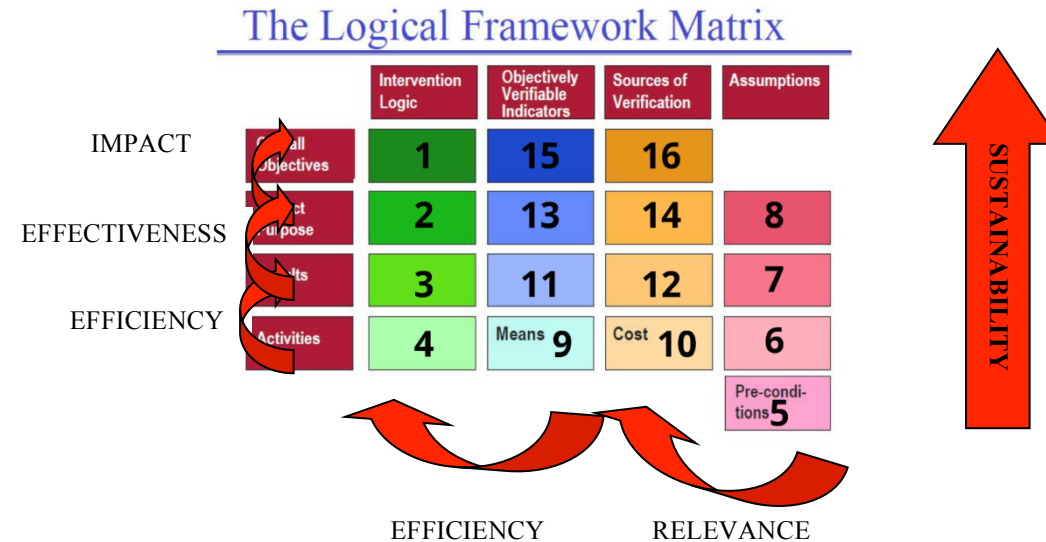
- a hierarchy of the project's objectives
- key -external - factors necessary for the successful implementation of the project
- key indicators and their sources which help the monitoring and evaluation process
- resources and inputs necessary for the project
- summarized budget and costs of the project

LFM is useful because it summarizes in one table the main information about the project.

Its main advantages are listed below:

- easily understandable
- it can show a viewpoint, a logic, it is a way of thinking
- summarizes all the necessary information in only one or two pages
- reflects a hierarchy within the project
- this hierarchy shows the main coherences in the project - objectives, indicators
- elaboration of the LFM brings the stakeholders together and ensures their commitment to the project
- decision makers and the management can easily use it
- useful in several phases of the PCM
- states the objectives clearly and places them in a hierarchy
- provides a mean to the management for evaluating and checking the internal logic of the project plan
- elaborating the LFM ensures that the main objectives, results and objectives are linked with each other and with higher level goals
- contains the critical assumptions which can help to avoid future problems

3. Table: The sustainability and effectiveness of the project in the LFM



Source: own compilation by EC (2004.): Project Cycle Management Guidelines, 93. p.

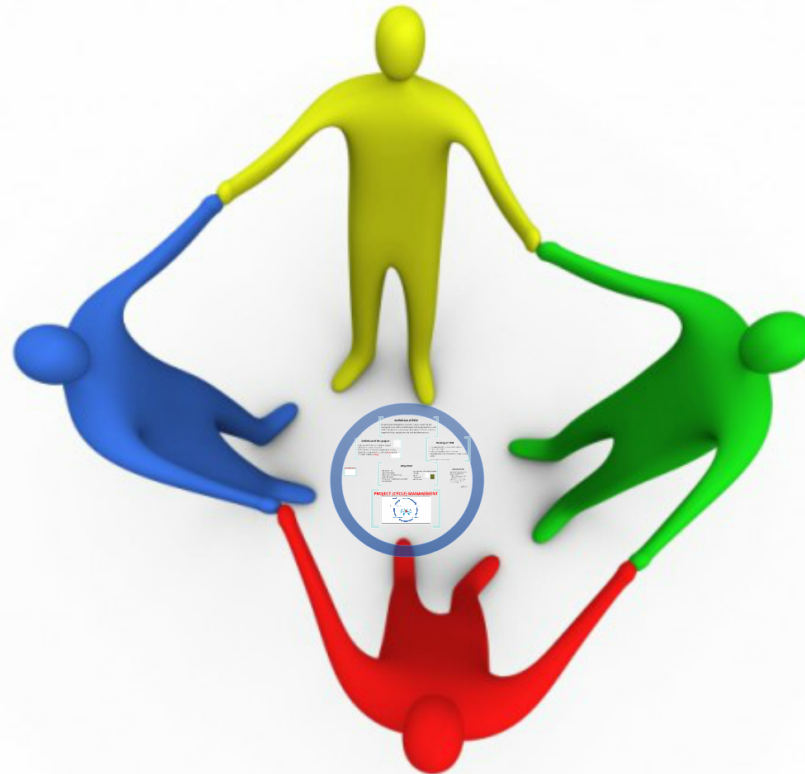
LFA and LFM - on the other hand - have some disadvantages too:

- several problems - like inconsistency - can cause problems in project management if LFM is elaborated separately from other project documents
- it cannot substitute the practical experience of the management or other specific tools used during the project management process
- it does not guarantee the success of the project without the experiences of the management and the knowledge of the decision makers
- it is not easy to understand the intervention logic in the matrix at first
- it is not easy to summarize shortly - in one or two pages - all the information regarding to the project (information missing from the LFM can cause problems)
- if it is not elaborated well - if the main point is to just fill the boxes -, it can lead to a poorly implemented project or wrong decision

CONTROL QUESTIONS

1. What is the definition of the logical framework approach?
2. Which questions about the project can be answered by the LFA and LFM?
3. What are the advantages of LFM?

PROJECT MANAGEMENT



THE LOGICAL FRAMEWORK APPROACH



Logical Framework Approach

Definition of LFA

- A tool for management, presentation and controlling
- A key management tool for monitoring and evaluation
- A core tool within PCM for project planning and management
- A technique to identify or analyse a situation and to define objectives and activities for improving the situation
- Main tool for project design in the phase of identification and formulation identification - project ideas are relevant, formulation - feasibility and sustainability
- Programming and identification - helps to ensure that project ideas are relevant
- Formulation - it helps to ensure feasibility and sustainability



LFA answers

- why a project has to be implemented?
- what goals the project will reach?
- how the project will reach the goals?
- what kind of external factors influence the result of the project?
- where can we find information of evaluating the success of the project?
- what kind of assets do we need?
- how much will it cost?
- what kind of assumptions do we have to fulfill before we start the project?

LFA helps

- to identify the main problem and the main objective of the project
- to identify the main factors influencing the project
- to identify the main activities and the main resources
- to identify the main assumptions and the main risks
- to identify the main indicators and the main sources of information

Advantages

- It is a simple and easy to use tool
- It is a key management tool for monitoring and evaluation
- It is a core tool within PCM for project planning and management
- It is a technique to identify or analyse a situation and to define objectives and activities for improving the situation
- It is a main tool for project design in the phase of identification and formulation
- It is a programming and identification tool - helps to ensure that project ideas are relevant
- It is a formulation tool - helps to ensure feasibility and sustainability

Disadvantages

- It is a simple and easy to use tool
- It is a key management tool for monitoring and evaluation
- It is a core tool within PCM for project planning and management
- It is a technique to identify or analyse a situation and to define objectives and activities for improving the situation
- It is a main tool for project design in the phase of identification and formulation
- It is a programming and identification tool - helps to ensure that project ideas are relevant
- It is a formulation tool - helps to ensure feasibility and sustainability

The Logical Framework Matrix

	Intervention Logic	Objectively Verifiable Indicators	Sources of Verification	Assumptions
Overall Objectives				
Project Purpose				
Results				
Activities		Means	Cost	Pre-conditions



Main definitions

- Stakeholders:**
 - individuals or institutions that affect or are affected by the business of the project or a program (i.e., direct/indirect)
- Beneficiaries:**
 - who benefit in any way from the implementation of the project
- Target groups:**
 - directly and positively (+) affected by the project
- Final beneficiaries:**
 - benefit from the project in long term
- Project partners:**
 - implement the project

Process of LFA

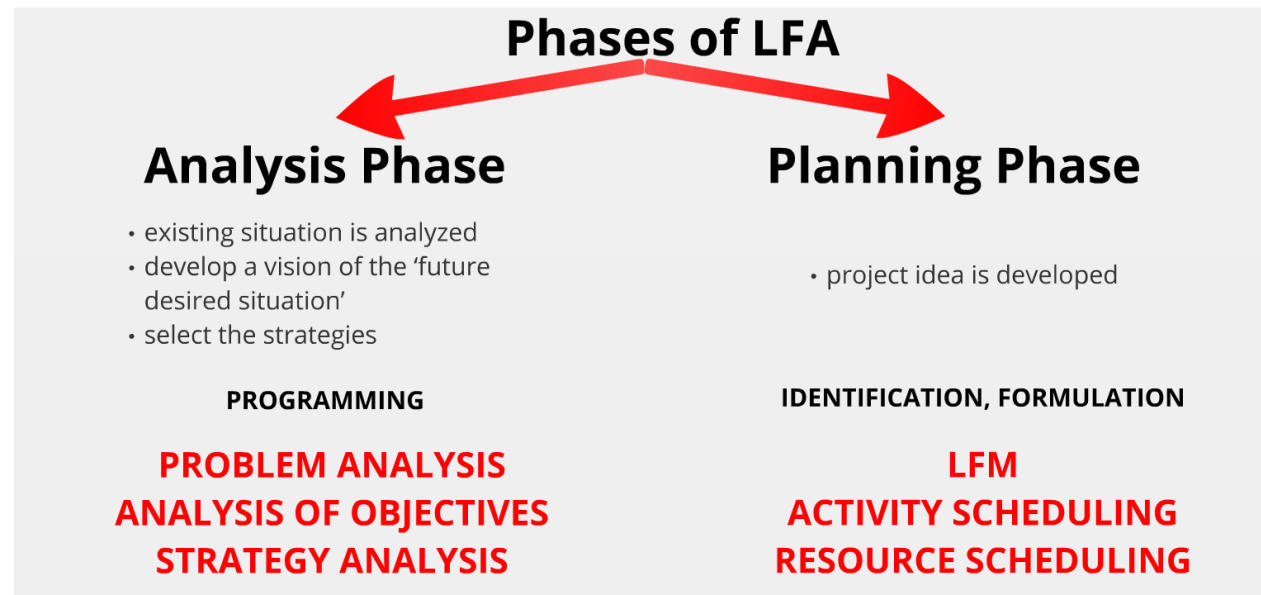
- set the objectives of the project and program
- identify the resources to implement the project and program
- identify the methods the work will be carried out
- identify the people who will implement the project and program





Definition of LFA

- A tool for management, presentation and controlling
- A key management tool for monitoring and evaluation
- A core tool within PCM for project planning and management
- A technique to identify or analyze a situation and to define objectives and activities for improving the situation
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LFA answers

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LFA helps

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- to build a logical hierarchy for the implementation of goals
- to identify possible risks
- to decide about the best ways of monitoring and the measurements of values
- to summarize the project in a standardized form



Advantages

- easily understandable
- it can show a viewpoint, a logic, it is a way of thinking
- summarizes all the necessary information in only one or two pages
- reflects a hierarchy within the project
- this hierarchy shows the main coherence in the project – objectives, indicators
- elaboration of the LFM brings the stakeholders together and ensures their commitment to the project
- decision makers and the management can easily use it
- useful in several phases of the PCM
- states the objectives clearly and places them in a hierarchy
- provides a mean to the management for evaluating and checking the internal logic of the project plan
- elaborating the LFM ensures that the main objectives, results and objectives are linked with each other and with higher level goals
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- if it is not elaborated well – if the main point is to just fill the boxes -, it can lead to a poorly implemented project or wrong decision

Main definitions

Stakeholders:

- individuals or institutions that affect or are affected by the outcomes of the project or a program (+/-, direct/indirect)

Beneficiaries:

- who benefit in any way from the implementation of the project

Target groups:

- directly and positively (+) affected by the project

Final beneficiaries:

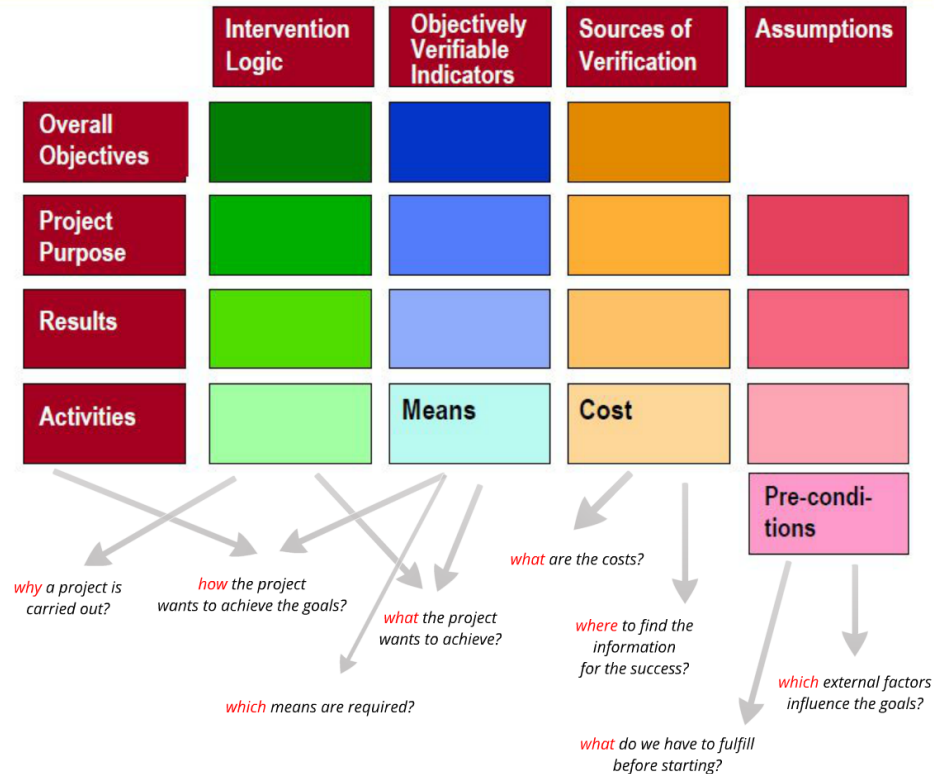
- benefit from the project in long term

Project partners:

- implement the project



The Logical Framework Matrix





*why a project is
carried out?*



*how the project
wants to achieve the goals?*



***what** the project
wants to achieve?*



wants to

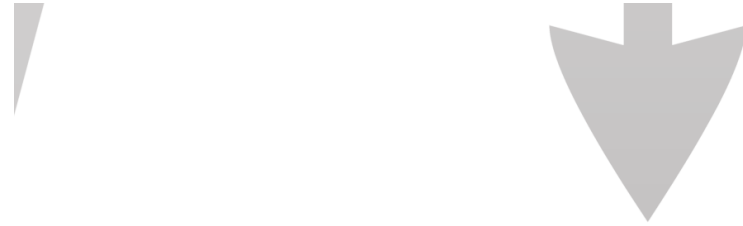
which means are required?



what are the costs?



*where to find the
information
for the success?*



*which external factors
influence the goals?*



***what** do we have to fulfill
before starting?*

Process of LFA

- set the objectives of the project and programs
- identify the relationship between the project and program
- indicate the methods the aims will be achieved
- monitor the project and the program

5.2. Process of the elaboration of LFM

STEPS AND PARTS OF LFM (ANALYSIS, PLANNING)

The Logical Framework Matrix contains five rows and four columns. The filling out of this table starts at the first box on the left but it does not continue – as usual – with the first box of the second column. The sequence of filling the boxes is different.

The figure below shows the exact sequence how the table has to be filled out:

1. Figure: The sequence of the Logframe Matrix' boxes

The Logical Framework Matrix

	Intervention Logic	Objectively Verifiable Indicators	Sources of Verification	Assumptions
Overall Objectives	1	15	16	
Project Purpose	2	13	14	8
Results	3	11	12	7
Activities	4	Means 9	Cost 10	6
				Pre-conditions 5

Source: own compilation by EC (1999): PCM Training Handbook

INTERVENTION LOGIC

The filling out of the LFM starts with the first column which shows the *intervention logic* of the project. This stage of the matrix establishes a hierarchy among the objectives and connects the objectives to higher level goals. On the other hand, it helps to clear the right level of the objectives too and to successfully understand the relationship between Results and Project Purpose.

Intervention logic of the LFM is a ‘means–end’ logic and it gives a hierarchy of objectives regarding to the project.

It can be read from the LFM in two ways:

- in a top down hierarchy and
- in a bottom up hierarchy.

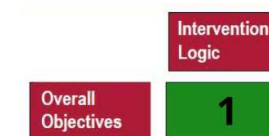
The top-down hierarchy means that we should read the first column of the matrix as follows:

- if we want the project to contribute to the overall objectives, project purpose must be achieved
- if we want to achieve the project purpose, project results must be reached
- if we want to reach the results, the activities must be implemented
- if we want to implement the activities, we need inputs and resources

Reading the matrix from the bottom of the table, the boxes can be interpreted as the following:

- if the necessary inputs and resources are available, activities can be undertaken
- if the activities can be undertaken, results can be reached
- if results can be reached, the project purpose can be achieved
- project purpose can be achieved, the project will contribute to the overall objectives

The first box of the LFM contains the *overall objectives* of the project.



The first box shows how the project fits into local, regional or national objectives of strategies or higher level documents. It is important to find the connection between the projects own goals and the higher level aims. This part also indicates the long term benefits of the project for final beneficiaries, stakeholders and other groups. These long term benefits can explain why the project is promoting sustainability or why is it important to the society. Usually the goals contain higher level employment expectations or economic development purposes. It is important that these objectives are reached not only be the implementation of the project and not in a short term.

In the second box of the LFM the *project purpose* has to be stated.

Project
Purpose

2

The box summarizes sustainable benefits for the target groups and services provided by the project to them. This purpose is closely connected to the core problem which the project wishes to solve. Usually only one main purpose is defined per project because only one core problem can be treated effectively at the same time. More than one main purpose can cause misunderstanding of the project complex and may indicate conflicts in the management about the objectives.

The third box in the first column contain the *results* of the project.

Results

3

The results of the project summarize the project services and outputs, targeting the beneficiaries and stakeholders. Mainly these are the products and outputs of activities implemented in the project process. These results should give an answer to the core problem of the project and help the target group to solve it or to reach their goals. Therefore these results are based on activities closely connected to the demand of beneficiaries.

The short list of activities has to be written into the 4 th box of the LFM.

Activities

4

This box contains those activities which are closely connected to the main goals of the project and with which the results can be reached. These activities have an important role in the process of the project delivering the services to the target group.

During this stage of the LFM the management of the project can face with several problems. Finding a consensus on priority problems mentioned to which the activities of the project has to answer can be difficult. This can also cause the misidentification of the project objectives. On the other hand, organizing the objectives in a clear and simple hierarchy is not easy and can be easily disordered. As it was mentioned before, the summary of details can also cause problems as it is really difficult to choose the convenient and necessary information which the LFM has to contain. It is neither good to have too much or too less information in the matrix.

The main advantages of this intervention logic stage are the following:

- During this process the management and the stakeholders make a systematic analysis about the problems, objectives and results.
- With the table, a broader context and link between the overall objectives and project purpose can be identified.

ASSUMPTIONS

Assumptions in PCM mean those external factors that influence or determine the successful implementation of the project.

During the elaboration of the project plan, the management has to understand that the project cannot be implemented alone and several external factors can have an effect to the project. Several factors or events can have a significant influence that is not controlled by the project management. If these factors are not 'excavated' by the management, they can endanger the sustainability and the proper implementation of the project. Without examining these external factors, the project objectives cannot be reached or are jeopardized.

Therefore these conditions has to be identified and met if the management want the project to succeed. The *assumptions* column starts with the preconditions and is lowered by one row due to the *vertical logic* that will be explained later in this chapter.

Pre-conditions are those assumptions which must be met before the project starts. These conditions are slightly different from other assumptions as they significantly influence the starting of the project. Therefore the chance and probability of these factors has to be precisely estimated by the management. Hence, the risks of the implementation can be decreased.

Identifying the assumptions regarding to our project is not an easy task. This identification has to be made during the analysis phase of the LFA and the analysis of stakeholders, problems, objectives and strategies can be the bases of this process. These methods will be introduced in the further chapters of this workbook.

Assumptions are usually identified in a progressive way. In the above mentioned methods several issues can be identified which are external and cannot be controlled by the management alone or which are not closely connected to the implementation of the project. Other assumptions can be highlighted during the communication of the project or in the consultation process with stakeholders. After the identification of the assumptions, they have to be verified and assessed.

It is important then to understand the importance level of the assumptions. There are e.g. *critical assumptions* which can significantly influence the project implementation. Identifying these factors is crucial. Critical assumptions can be those factors which are connected to the system environment and influence the sustainability of the project.

Assumptions

8

7

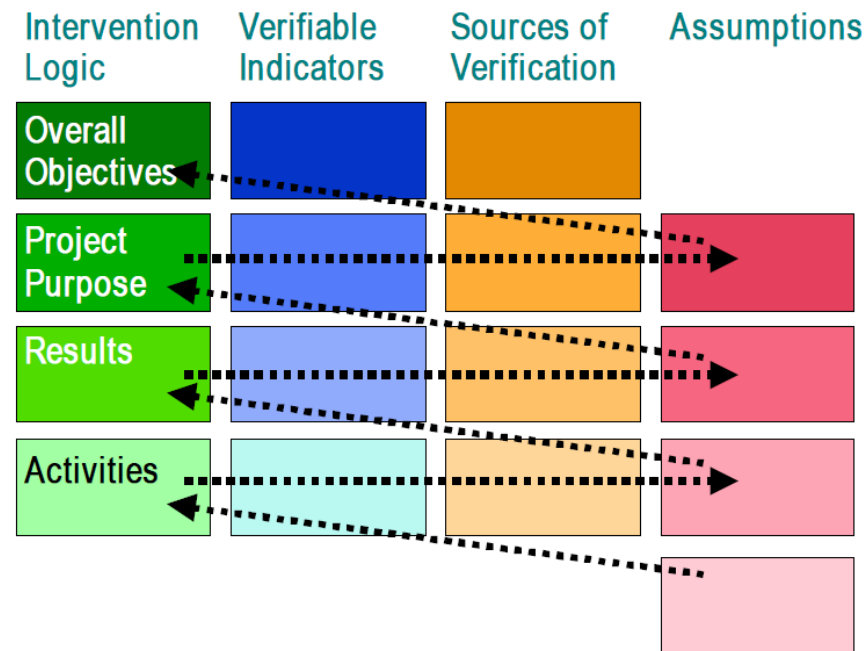
6

Pre-conditions
5

The main problem with these factors is that the management is not able or do not want to control them and they are outside of the project's framework. On the other hand, these assumptions are so important for the project success that the management must not neglect them. Therefore these conditions are necessary conditions and influence the project results and objectives too.

The *vertical logic* in the Logframe is difficult to understand but is a core process if the logical framework approach. The vertical logic can be demonstrated by the following picture:

2. Figure: The vertical logic in the Logframe Matrix



Source: EC (1999): PCM Training Handbook, P. 23.

The logic gives a clear hierarchy of the results and objectives and attaches the assumptions into this hierarchy. According to this logic, the matrix should be read as the followings – starting at the box of pre-conditions:

- as the pre-conditions can be reached, the implementation of project activities can be started
- as the activities are implemented and meet the assumptions at this level, results can be achieved
- as the results are reached and assumptions at this level are fulfilled, the project purpose can be met
- as the project purpose is reached and assumptions at this level are fulfilled, the project can contribute to the overall objectives

OVI AND SMART INDICATORS

Indicators are statistical data which contribute to an analysis or to the prediction of future events. Indicators also help to describe a situation or an event, track progress of the project or guide the decision making process.

In PCM indicators used by the project management have to be objectively verifiable (objectively verifiably indicators, OVI). This means that these data have to contribute to the project's objectives in an operational and measurable way. Objectivity of the indicators is closely connected to the person who uses them and signifies that using these objective indicators results the same decisions and measures. They measure the implementation of the project and are important in the verification of the objectives. Therefore these indicators give the bases of the project monitoring and evaluation process too.

Identifying the indicators is a complex process. At first we have to understand the nature of the indicator and define its quality. Then we need to attach the indicator to the target group and to the place where this indicator is used or emerged. It is also important to give a quantity to the indicator and place it into a time frame. Therefore OVIs have to be measured in a consistent way and at a suitable cost.

It can be useful to use several indicators to measure the success of one project activity as more indicators can provide better understanding of the results. However too many indicators can also cause problems. Using more indicators than needed will increase the time and cost of the management process.

Summarizing the steps of identifying indicators the process is the following:

1. Specify indicators for each Result, for the Project Purpose, and for the Overall Objectives.

Indicate the followings:

- the quantity: how much?
- the quality: what?
- the target group: who?
- the time / period: starting when and for how long?
- the place: where?

2. Check whether indicators are accurate. If not, other Indicators should be added or new ones found.

3. Ensure that the indicators of the Project Purpose – the project's center of gravity – are connected with the benefits of the target group

Where can we use indicators in the PCM process? Similar to the monitoring process, indicators can be used in almost all phases of PCM. They have an important role in measuring the results, report the achievements and the success of the activities in every stage. In the LFM they need to be identified after the assumptions were composed. In the LFM indicators belong to the horizontal logic and can be read across the matrix.

Objectively verifiable indicators have a specific requirement. They have to be SMART.

This abbreviation comes from the first letter of the words listed below:

- Specific
- Measurable
- Available
- Relevant
- Time-bound

SMART indicators have to be specified to the objectives and measured either quantitatively and qualitatively. Availability means that the indicators have to be easily reached and if they have to be bought, the cost must be affordable for the management. The suitable indicator is relevant because it gives the necessary data and answers the information need of the management. On the other hand, indicators must reflect the exact situation not only in quantity but in time frame too.

It is no use to use data that shows the environment a decade ago especially in a sector that changes quickly over time (e.g. in the IT sector in 1 year significant changes can be measured).

The European Union defines several types of the indicators which can be used in project management.

There are:

- development indicators,
- input indicators,
- output indicators,
- outcome indicators, and
- impact indicators.

Development indicators are defined by the Eurostat – the statistical office of the European Union. Development indicators, mainly economic development indicators, measure the state of the economy and contain information about the current and accurate trends or process of the development. Eurostat also defines the Sustainable Development Indicators (SDIs) as data which are used to monitor the EU Sustainable Development Strategy (EU SDS).

Input indicators measures the quantity and quality of resources used to the implementation of the project. These resources can be both human and financial resources and they have to be devoted to that particular project. These indicators can also include data about the target group of the project.

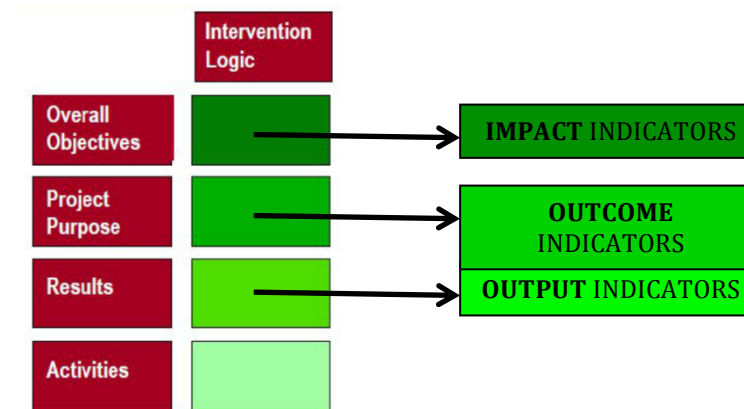
Output indicators are located at the level of project activities and they indicate the direct and immediate consequences of the implemented activities. These indicators measure e.g. the quantity of products or services in the project or the efficiency of the project activities.

Outcome indicators are measuring the broader results of the project through the implemented activities. These indicators have several levels, like the level of population, programs or organizations. They can measure for example the changes in population or the short-term results of the activities. The outcome indicators are concerned to the beneficiaries of the project.

Impact indicators measure the long-term consequences of the outcomes of the project. These indicators are closely connected to the general and overall objectives and the purpose of the project.

The table below explains the connection between the first column of the Logframe – intervention logic – and the types of the indicators.

3. Figure: Link between the Logframe and the types of indicators



Source: own compilation by EC (2004.): Project Cycle Management Guidelines, P. 81.

TOOLS OF VERIFICATION

In the project management process it is highly important to know where to find the above mentioned indicators and how to prove that these indicators – and through this the project purpose – are fulfilled.

Thus the *tools and sources of verification* can be documents, reports or other sources providing information which makes it possible to check the Indicators. These sources should be specified at the same time when we define the indicators. The sources of verification help to test whether the Indicators can be measured at a suitable expense and a reasonable amount of time.

Sources of Verification
16
14
12

These Sources of Verification (SoV) should specify...

- the format in which the information should be available (e.g. progress reports, project accounts, project records, official statistics etc.)
- who should provide the information and
- how regularly it should be provided. (e.g. monthly, quarterly, annually, etc.)

The process of choosing the suitable SoV can be the following:

1. At first we have to decide about what kind of sources we wish to use.
2. Then we should state which of these sources are closely connected with the project and have to be collected.
3. The next step is to check if these sources are available now.
4. The last step is to check the form of the sources:
 - is their form appropriate
 - are they specific enough
 - are they available – where and when can they be reached
 - do we have to pay for them – how much are they cost and is this cost acceptable and worth to pay

It can cause a problem, if there are some indicators to which we cannot find a source, and we need to replace them with other data. Therefore it is highly important – and also saves money and time – to use existing and available sources. According to experiences, there is a positive correlation between the complexity of a source and the cost of the data purchased from there. If founding and purchasing the indicator need too much time or too much money, we should replace it with a cheaper or a more easily available one.

An other key question regarding to the indicators is about the person or the organization that will use it. The main point in PCM is that stakeholders have to be involved in every stage of the project. Thus indicators also have to reflect the stakeholders' point of view. If we understand the needs of stakeholders and the networks of their connection, it can help us to find the suitable indicators and also their SoV too. It is also recommended to identify and understand the local system of information and the information process too.

Sources and tools of verification can be found in several places like..

- Eurostat database,
- National Bureau of Statistics,
- local research agencies,
- civil society organizations,
- local government agencies.

ACTIVITIES, COSTS AND MEANS

Activities	4	Means 9	Cost 10
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A summary of activities, costs and means are also stated in the Logical framework matrix.

In the 4th box, only the main activities have to be listed which are closely connected to the above results, goals and objectives.

The 9th and 10th boxes of the Logical Framework Matrix contain the summarized costs and means of the project. The basic information for filling these boxes can be found in the costs schedule and the activity plan of the project.

The 9th box contains those means that can be physical and non-physical resources (often referred to as “Inputs”) that are necessary to carry out the planned activities and manage the project.

In the box containing the means of the project the following information should be written shortly:

- list of resources – human resources, financial resources, etc.
- materials necessary for the implementation of the activities
- key assets which need to be purchased during the project process
- necessary assets supplying the management activity

The costs are summarized in the 10th box. These are the financial terms of all the identified resources (means). They should be presented in a standardized format. These costs can be copied from the cost schedule but only in a summarized version. The LFM needs to state only the main costs from which the decision makers can understand the budget.

Both the costs and means of the project are required to undertake the activities and to manage the process effectively. To estimate the costs and the quantity of the necessary assets not only the planned activities need to be checked but also management support activities have to be specified.

These stages of the LFA are also aimed to give a short description about the project to the stakeholders and to the decision makers. Therefore the level of detail of these information depend on the nature and scale of the project, their stage in the project cycle, and the expected implementation methods.


Usually these boxes contain only the main lines of Activity and Cost Schedules described in the following chapters of this workbook.

SAMPLE PROJECT

Integration of disabled (who need special education) children

The logical framework matrix of this project is filled out continuously during the planning and analysis phases as it was introduced in the previous chapters. The LFM visualizes all the main aspect and context of the project and shows an overall picture to the stakeholders and decision makers. All the further details can be found in the previously elaborated documents.

1. Table: LFM of the project about the integration of disabled children

	Intervention logic	OVI	SoV	Assumptions
Overall objectives	Ensure the equality of the disabled children/students with integrated education	Share of integrated students in the number of disabled students. Number of graduated students with disability.	Ministry of Education Ministry of Education	
Project purpose	Be the integration of disabled children in Dunaújváros more utterly used.	The integration of 50 students is started.	project documentation	Suitable legal regulations
Project results	Be the cooperation more developed for the integration. Establish the bases of integration in a behavioral aspect. Provide other resources and ensure conditions for the integration.	1 cooperation agreement Number of teachers participating in trainings: 30 persons 1 webpage 8 publications	<u>project documentation</u> (contract) project documentation (register sheets) Internet newspapers	stable institutional system
Activities	Preparation, formulation Communication Integration Project management	Means: professionals office infrastructure	Costs: 3.890 2.645 2.775 2.690 12.000	Target group is opened to change the behavior
				Pre-conditions: Measuring needs Contract of the consortia External beneficiaries accept and promote the project

Source: own compilation by the project documents

Building a road and a bicycle path

The LFM of the road building project is elaborated after defining the resource schedule and the indicators and gives an overall picture of the project.

The overall objective that is to increase the wellbeing of the citizens can be found word-for-word in the regional development plan. On the other hand, the project result is similar to the 3rd measure of the first priority of the city development strategy.

The expected results are corresponding to the activities (e.g. the project management will implement the “successful project” result, and the preparation results the “results are available”). The relevant measurable indicators are listed too (e.g. 4 plans will be elaborated).

The activities require professionals, office infrastructure and heavy machines (with the drivers too). All the costs are calculated based on the activities.

To start the project, some pre-conditions must be met (like clear property rights). The activities can be implemented but the project will be successful and results can be reached only if the assumptions in the same line with the activities are met. These results can also be reached only if the relevant assumptions are fulfilled. As the main goals of the project contribute to the overall objectives if the assumptions are achieved.

For example; the road can be built and the accessibility of the village will be better but the wellbeing of the citizens can be increased only if the tourism develops in the region – thanks to the new road –, and also new jobs are opened.

2. Table: LFM of the project about road building

	Intervention logic	OVI	SoV	Assumptions
Overall objectives	Develop the wellbeing of the citizens	Increasing GDP Number of investments increases with 10% Number of unemployed decreases with 10%	National Statistical Office Municipality Labor Office Center	
Project purpose	Increase the accessibility of the village	Journey time decreases with 15 minutes Distance decreases with 10 kms. Costs of travelling decreases with 40%	travelling warrants, project documentation, traffic and bus company	Tourism starts Job creation Interest of investors
Project results	Successfully implemented project Resources are available Plans and contracts are ready Road is built Bicycle road is ready Roads with suitable quality	1 final deliverable FT 110 000 000 4 plans 10 km road 10 km bicycle road 1 technical deliverance	Final deliverables Accounting documents Plans Technical documents Technical documents Reports	No veto from the Greens (environment protection organizations)
Activities	Project management Preparation, formulation Implementation Technical deliverance	Means: 6 professional Office infrastructure Heavy machines	Costs: 420 6660 99700 2364 Total: 109144	No veto from the Greens No financial resources Building permits Pre-condition: Need of the citizens property rights suitable call for application intent of the municipality

Source: own compilation by the project documents

CONTROL QUESTIONS

1. How do you need to fill out the LFM?
2. What do we call the vertical logic in the LFM?
3. How can you verify the indicators of a project?

CONTROL TEST

Multiple-choice questions

1. LFA means

- a. Logical Framework Approach
- b. Long Financing Availability
- c. Logical Feasibility of Activities
- d. Low Framework Activity

2. LFM means..

- a. Long Financed Means
- b. Logical Framework Matrix Project management
- c. Logical Feasible Management
- d. Low Framework Methods

3. The two phases of Logical Framework Approach (LFA) are...

- a. project and ideas
- b. analysis and planning
- c. activity plan and strategy plan
- d. evaluation and audit

4. Which of the following sentences is NOT true? During the *identification* phase the LFA can help ...
- a. to analyze the current situation and the project framework
 - b. to identify risks
 - c. to check the relevance of the project
 - d. to identify objectives and strategies
5. Which of the following sentences is NOT true? During the *implementation* phase the LFA can help ...
- a. to support contracting, operational work planning and monitoring
 - b. to elaborate a Monitoring and Evaluation Plan
 - c. to elaborate an operational risk management plan
 - d. to check the relevance of the project
6. Which of the following tools is NOT prepared during the analysis phase of the LFM?
- a. Problem analysis
 - b. Analysis of objectives
 - c. Strategy analysis
 - d. Activity scheduling
7. Which of the following tools is NOT prepared during the planning stage of the LFM?
- a. Problem analysis
 - b. Logframe
 - c. Activity scheduling
 - d. Resource scheduling

8. The boxes of the LFM contain...

- a. all the activities of the project in details
- b. the hierarchy of the project's objectives
- c. the name of the founding source
- d. all problems from the problem tree

9. The intervention logic in the LFM contains...

- a. overall objectives, project purpose, results and activities
- b. means and costs
- c. pre-conditions and assumptions
- d. objectively verifiable indicators

10. SMART indicators mean that the indicators of the project are...

- a. Slow, Mighty, Acceptable, Right and True
- b. Source focused, Meaningful, Always high, Rich and Triple
- c. Suitable, Math based, Acceptable, Row and True
- d. Specific, Measurable, Available, Relevant and Time-bound Project management

True or False questions

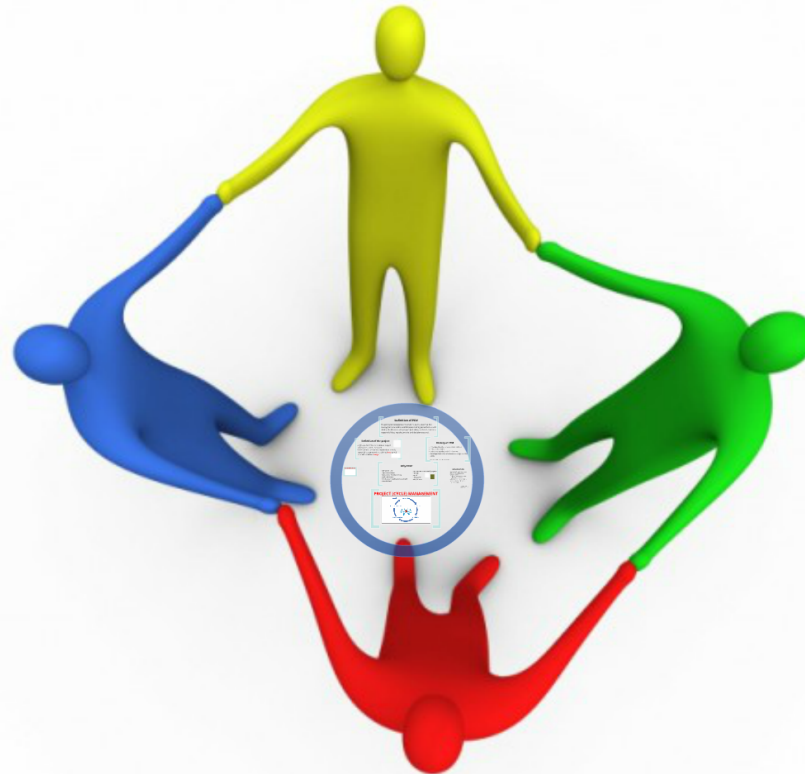
Statement	True	False
1. LFA summarizes the concepts which were used during the project planning process and provides a structured and systematic analysis about the project idea.		
2. LFA can support the management to identify possible risks.		
3. The Logical Framework Matrix (called the Logframe), is a matrix of four columns and four rows.		
4. The filling out of the LFM starts at the first box on the left and continues with the first box of the second column.		
5. Sources and tools of verification can be found in Eurostat database.		

TASK FOR SUBMISSION

Check all the information about the event organizing project and try to elaborate its Logframe matrix. Use the following form:

	Intervention logic	OVI	SoV	Assumptions
Overall objectives				
Project purpose				
Project results				
Activities		Means:	Costs:	
				Pre-condition:

PROJECT MANAGEMENT



The Logical Framework Matrix

	Intervention Logic	Objectively Verifiable Indicators	Sources of Verification	Assumptions
Overall Objectives	1	15	16	
Project Purpose	2	13	14	8
Results	3	11	12	7
Activities	4	Means 9	Cost 10	6
				Pre-conditions 5

Intervention logic

overall objectives

- how the project fits into local, regional or national objectives of strategies - important to have connection
- long term benefits for final beneficiaries and other groups

project purpose

- sustainable benefits for the target groups
- services provided by the project
- one project purpose / project

results

- products of activities
- to achieves the benefits and aims

activities

- actions to reach the project purpose and results

Assur

- ex
- th

- co

Pre-c

- m



- once
- once

The Logical Framework Matrix

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Assumptions

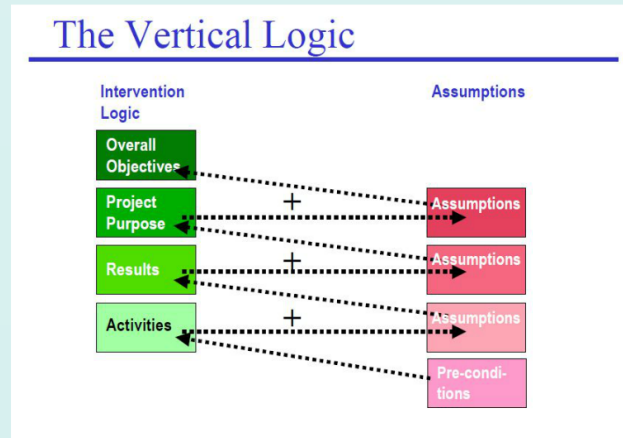
Assumptions

- external factors that influence or determine the success of the project
- column is lowered by one level

Pre-conditions

- must be met before the project starts

Vertical logic



- once the Pre-conditions are met, the Activities can start up
- once Activities have been carried out, and Assumptions are true, Results can be achieved
- once Results and Assumptions can be fulfilled, Project Purpose will be achieved
- once Results and Project Purpose has been achieved, project will have a contribution of the Overall Objectives

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Objectively Verifiable Indicators

- describe the project's objectives in operationally measurable terms (quantity, quality, target group(s), time, place)
- helps checking the viability of objectives and forms the basis of the project monitoring system
- should be measurable in a consistent way and at an acceptable cost

A good indicator should be **SMART**:

- **S**pecific: measure what it is supposed to measure
- **M**easurable and
- **A**vailable at an acceptable cost
- **R**elevant with regard to the objective concerned
- **T**ime-bound

Steps of identifying indicators

1. Specify for each Result, the Project Purpose, and the Overall Objectives:
 - the quantity: how much?
 - the quality: what?
 - the target group: who?
 - the time / period: starting when and for how long?
 - the place: where?
2. Check whether the Indicators or Indicators describe the Overall Objectives, Purpose or Results accurately. If not, other Indicators should be added or new ones found.
3. Care should be taken to ensure that the indicators for the Project Purpose - the project's "center of gravity" - do in practice incorporate the notion of 'sustainable benefits for the target group'.

Teamwork
• list indicators in the LFM



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Steps of identifying indicators



1. Specify for each Result, the Project Purpose, and the Overall Objectives:
the quantity: how much?
the quality: how?

- Relevant with regard to the objective concerned
- Time-bound

Steps of identifying indicators

1. Specify for each Result, the Project Purpose, and the Overall Objectives:
 - the quantity: how much?
 - the quality: what?
 - the target group: who?
 - the time / period: starting when and for how long?
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Sources of Verification (SOV)

- documents, reports and other sources providing information that makes it possible to check the Indicators
- help to test whether or not the Indicators can be realistically measured at the expense of a reasonable amount of time, money and effort

Sources of Verification should specify:

- the format in which the information should be made available (e.g. progress re-ports, project accounts, project records, official statistics etc.)
- who should provide the information
- how regularly it should be provided. (e.g. monthly, quarterly, annually, etc.)

How to choose SOV?

1. Decide what Sources of Verification are needed to obtain the information on OVIs.
2. Identify which sources are to be collected, processed and kept within the project, and which are outside (existing sources).
3. Check sources outside the project to ensure that:
 - (a) their form/presentation is appropriate;
 - (b) they are specific enough;
 - (c) they are reliable;
 - (d) they are accessible (where and when);
 - (e) the cost of obtaining the information are reasonable.
4. Replace OVIs for which no suitable sources can be found by others.

Note: Use existing resources as much as possible to avoid additional cost, time and effort to be deployed.

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Means and Cost

- **Means** are physical and non-physical resources (often referred to as “Inputs”) that are necessary to carry out the planned Activities and manage the project. A distinction can be drawn between: human resources and material resources.
- **Cost** are the translation into financial terms of all the identified resources (Means). They should be presented in a standardized format.

CHAPTER 6

6. SWOT analysis

6.1. Definition

The SWOT table was elaborated in the 1960s by Albert Humphrey.

SWOT analysis is an asset for analytical and strategic planning. It is a structured planning tool, a table, which contains 4 boxes: strengths, weaknesses, opportunities and threats. The name of the analysis comes from the first letters of these words.

This tool can be used in all phases of PCM. The quantity and quality of information that this matrix can contain depends on the people who are involved to the implementation and the method how its elaboration is managed.

SOT analysis helps to...

- identify the internal and external situation of the project
- to compare the strengths to weaknesses and the opportunities to threats
- give a basis for the identification of problems and objectives of the project
- support institutional and organizational capacity assessment s too
- elaborate a general analysis but it is also used to look at how an organization addresses a specific problem
- find competitive advantages of the project by matching the strengths to opportunities
- to convert weaknesses or threats into strengths or opportunities

The main advantages of the SWOT analysis are the followings:

- its implementation is easy and quick
- easy to understand
- converting weaknesses or threats into strengths or opportunities can help to solve problems
- it is focuses in actual and important factors of the project
- presents the resulting lists uncritically
- can be used in all phases of PCM

Ad PCM method is focusing on a learning process, it is highly promoted to come back to the SWOT analysis from the later formulation and implementation stages. For example, if we identify a critical problem later during the problem analysis, we need to check our SWOT again and put the missing problems in it.

PROJECT MANAGEMENT



LFA stages and methods

PLANNING DOCUMENTS

SWOT ANALYSIS

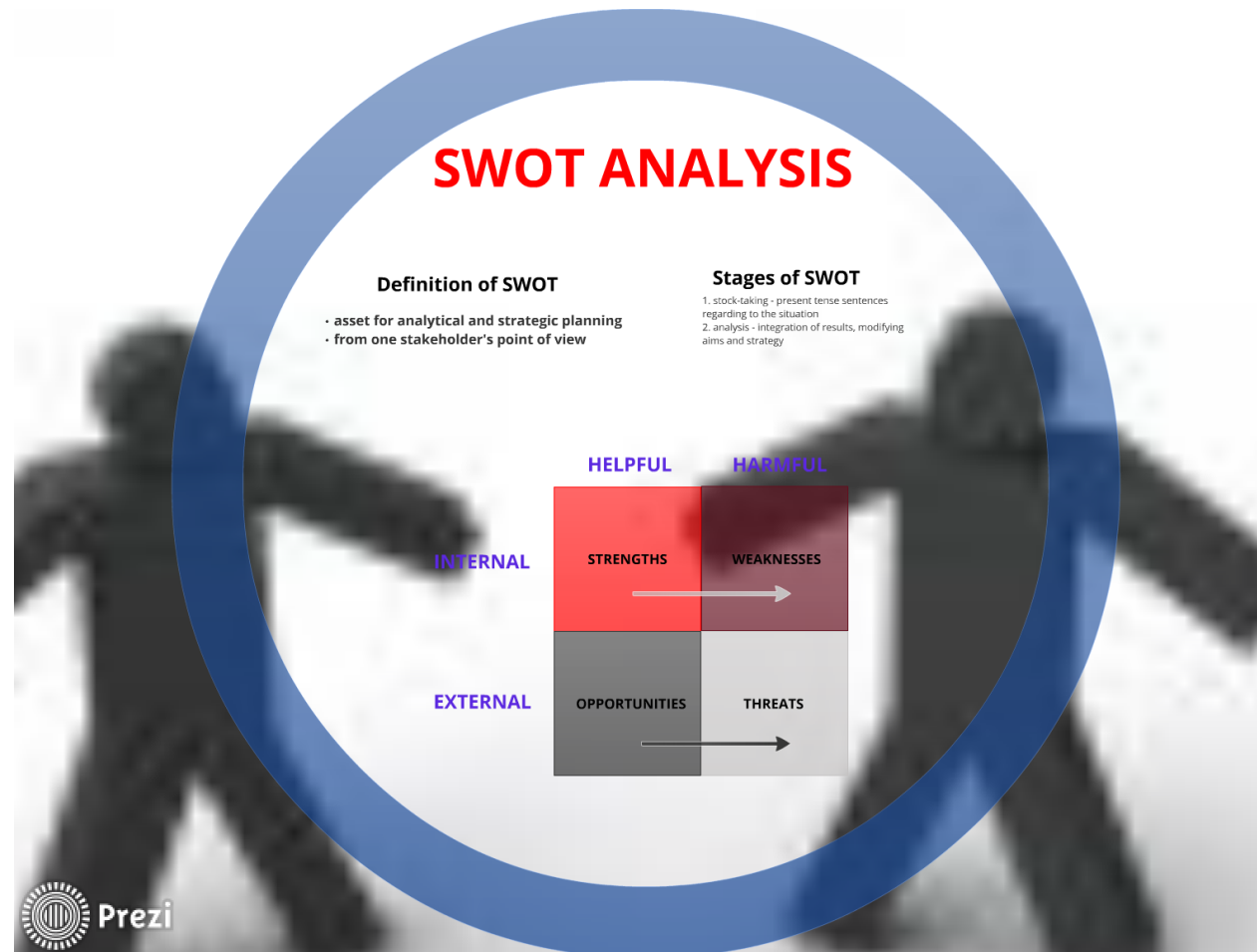
STAKEHOLDER ANALYSIS

PROBLEM ANALYSIS

ANALYSIS OF OBJECTIVES

ANALYSIS OF STRATEGIES





Definition of SWOT

- asset for analytical and strategic planning
- from one stakeholder's point of view

Stages of SWOT

1. stock-taking - present tense sentences regarding to the situation
2. analysis - integration of results, modifying aims and strategy

6.2. Steps and phases of the SWOT

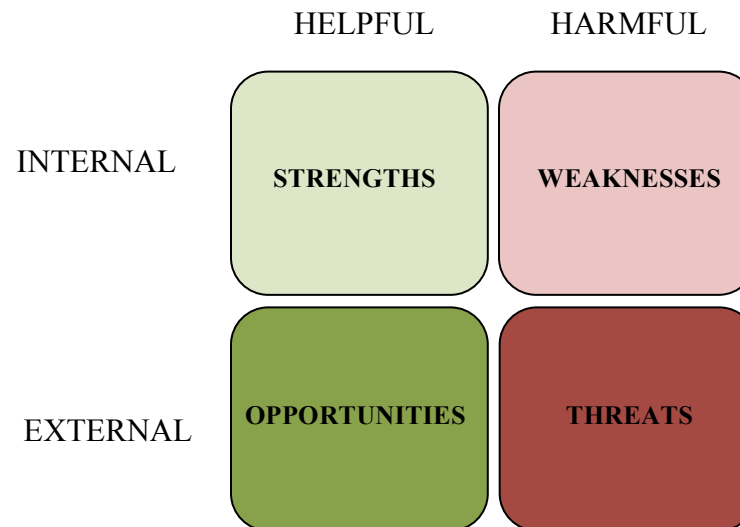
The SWOT analysis can be elaborated in two main stages.

The first stage is the stock-taking phase. Here the members participating in the elaboration have to list present tense sentences regarding to the situation or the project. In PCM it is substantial to list only present tense sentences. Unlike other management process – which can use future tenses for opportunities e.g. – in PCM all the problems or opportunities has to be concerned to the present. This ensures the relationship between the four boxes of the matrix and helps to find answers for the problems listed in the weaknesses or in the threats.

If the stakeholders or the management elaborates this stage in small groups it is essential to be opened to all suggestions and do not criticize any ideas.

The second stage is to place the present tense sentences into the following matrix:

1. figure: SWOT analysis



Source: own compilation

Strengths mean the characteristics of the project or factors which give an advantage to the elaboration and implementation. These factors are all positive things and can be found inside the project framework.

Weaknesses mean factors that are disadvantageous for a project. All of these factors are negative and internal.

Opportunities can be elements that the project could exploit to its advantage. All of the opportunities are positive things but they cannot be found inside the project, rather outside of the project framework.

Threats are elements in the external environment that could cause trouble for the project. These factors are all negative things. The elaboration of the matrix is not an easy process without previous experiences. During the elaboration process several mistakes can be made.

In the first stage it is important to use only present tense sentences which describe the project or the situation. If somebody from the elaboration team uses other tenses, we need to translate or convert them into the right form.

In the second phase choosing the right place in the matrix can also be difficult. At first we need to identify the exact framework of the project – time frame, geographical borders, number of participants, etc. Only after this can we give detailed information about what is external and what is internal in our project.

It might be easy to identify what is positive and which factors are negative for the project but after a closer look this can also cause problems. If a listed sentence can be put in both positive and negative boxes, we need to modify the sentences and place them into the right box.

SAMPLE PROJECT

Building a road and a bicycle path

At the second meeting of the road building project management team the real work starts as the members make a situation analysis. The first step is to make a *brainstorming* and list present tense sentences about the present project situation. All the sentences are typed by a secretary of the municipality and visualized by a projector. Therefore every participant can see the sentences clearly.

After all the sentences were listed a moderator person helps the team to speak about the situation and make the sentences more punctual. Sometimes they need to connect two sentences and there are others which must be separated.

The result is this list:

- there is an intensive car traffic on the agricultural service road
- the village is a dead end road
- there is a need for the new road
- a bicycle road is needed too
- there is a call for applications which is suitable for the project
- the village does not have enough resources
- the project members can provide the retention
- the Greens are protesting against the project
- the members agree to submit an application
- there are special regulations about the subject of the project
- an external professional for the planning and implementation process is available
- there are not enough jobs in the village – the demography of the village is in a bad situation due to the dead end road characteristic
- dirt road damages the cars
- the ‘trans’-village (which lies between the city and the village) there is a heavy traffic especially when the weather is bad
- during the planning phase sole proprietors and leaders of the protected environment handling organization have to be involved
- train company has to be involved because train crosses the road
- the investment is expensive
- there is no any professionals about public procurement in the team
- civil organizations can be involved
- there are other relevant project ideas
- the infrastructure is underdeveloped in the village
- there are no investors in the village
- the point where the train crosses the road is dangerous
- canal system is underdeveloped
- it is more difficult to organize tourism in a protected environment
- the protected environment has a positive health effect
- local bus company has to be involved

After a short break the participants of the meeting check the list again and they place all the sentences into the SWOT chart. The SWOT table is visualized and everybody can see the results. The members have an other possibility here to clear the sentences or share an other idea or sentence. The SWOT chart looks like the following:

1. Table: SWOT of the project about road building

Internal assumptions	
Strengths Every inner capacity which help to utilize	Weaknesses Inner status or every inner shortage which endanger opportunities against threats. the utilization of strengths and opportunities.
<ul style="list-style-type: none"> – there is a dirt road existing – the village is a dead end road – there is a real need for the new road – there is no any bicycle road between the from the citizens villages and the city – a bicycle road is needed too – the village does not have enough resources – the project members can provide the – there are not enough jobs in the village retention – the demography of the village is in a bed – the members agree to submit an situation due to the dead end road application characteristic 	<ul style="list-style-type: none"> – the village is a dead end road – there is no any bicycle road between the villages and the city – the village does not have enough resources – there are not enough jobs in the village – the demography of the village is in a bed situation due to the dead end road characteristic – the investment is expensive – there is no any professionals about public procurement in the team – the infrastructure is underdeveloped in the village – there are no investors in the village – the point where the train crosses the road is dangerous – canal system is underdeveloped

External assumptions	
Opportunities Those external circumstances or characteristics which can be the bases of the activities to reach the overall objectives.	Threats Every external trend or circumstances which negatively affect the fulfillment of the overall objectives.
<ul style="list-style-type: none"> – there is a call for applications which is – the dirt road is dangerous for the traffic suitable for the project – the Greens are protesting against the project – an external professional for the planning – there are special regulations about the subject and implementation process is available of the project – during the planning phase sole proprietors and leaders of the protected environment handling organization have to be involved – civil organizations can be involved – there are other relevant project ideas – the protected environment has a positive health effect – local bus company has to be involved 	<ul style="list-style-type: none"> – the dirt road is dangerous for the traffic – the Greens are protesting against the project – there are special regulations about the subject of the project – dirt road damages the cars – the ‘trans’--village (which lays between the city and the village) there is a heavy traffic especially when the weather is bad – during the planning phase sole proprietors and leaders of the protected environment handling organization have to be involved – train company has to be involved because train crosses the road – no investors are interested in this project – it is more difficult to organize tourism in a protected environment – bus company needs to be involved into the project

Organizing a Christmas party

Students who participate in the project work in several project teams but the first phase of the planning process has to be made together. All the teams are gathered in a joint meeting and the members try to describe the main situation and elaborate the SWOT analysis. Each of the students makes a list and tries to describe positive and negative circumstances and opinions.

The final list is typed into the computer and is presented to the teams:

- There are some language difficulties in services
- There are some language difficulties in getting friends
- There are some language difficulties in understanding teachers
- There are many culture differences
- There is lack in information flow
- Some of the students do not have access to Neptun system
- There are many rules in the hotel
- We are not informed about the rules in the hotel
- There are difficult in transferring credits
- There are only a few courses in English
- There are difficulties in changing the currency
- There is a different currency
- It is difficult to estimate the real value of the money
- The weather is different
- Some people are homesick
- Student office system have to be changed
- Student office has short open hours
- The internet is too slow
- There is no WIFI connection
- Communication is difficult
- The Neptun system do not show the real timetable
- We are not informed that the timetable is changed
- There is not enough specific information about the city
- There are too many lessons and exams for some people
- The music disturbs the people of the city
- Trash after the party
- Drunken people
- Fighting people
- Teachers leaving earlier

- International Office (IO) forget to organize something
- IO is overburdened
- Guests are boring
- Not enough budget
- Director is not satisfied
- Employees can not receive the salary they want
- Debates between guests and employees
- Employees do not work well
- Breaking something in the room
- Angry owner of the place – Expensive room or place
- Missing Santa
- Not invited persons appear
- Electricity power off during the party

The list – as it can be seen above – does not contain full sentences so the students need to explain and modify some of them. After this modification the sentences are put into the SWOT chart and student work together in teams to elaborate it.

CONTROL QUESTIONS

1. What is the SWOT analysis?
2. What are the two main steps of the elaboration process of SWOT?
3. What are the advantages of using SWOT?
4. How can we define the strengths, weaknesses, opportunities and threats inside the matrix?
5. What kind of problems can occur during the elaboration of SWOT?

CONTROL TEST

Multiple-choice questions

1. In the SWOT analysis Strengths are....
 - a. harmful situations
 - b. helpful and internal situations
 - c. external factors
 - d. negative sentences
2. In the SWOT analysis Threats are....
 - a. harmful and external situations
 - b. helpful factors
 - c. opportunities
 - d. positive sentences
3. The positive side of the SWOT chart contains...
 - a. threats and opportunities
 - b. strengths and opportunities
 - c. weaknesses and threats
 - d. strengths and weaknesses

4. The negative side of the SWOT chart contains.
 - a. threats and opportunities
 - b. strengths and opportunities
 - c. weaknesses and threats
 - d. strengths and weaknesses Project management
5. The external side of the SWOT chart contains...
 - a. threats and opportunities
 - b. strengths and opportunities
 - c. weaknesses and threats
 - d. strengths and weaknesses
6. The internal side of the SWOT chart contains...
 - a. threats and opportunities
 - b. strengths and opportunities
 - c. weaknesses and threats
 - d. strengths and weaknesses
7. The SWOT table was elaborated in
 - a. the middle ages
 - b. the eighteen century
 - c. the 1960s
 - d. 2000

8. What are the main stages of the elaboration of SWOT analysis?
- a. stock-taking and placing the present tense sentences
 - b. planning and analyzing
 - c. listing problems and making a hierarchy
 - d. list problems and sort opportunities
9. During the first stage of the SWOT analysis which of these methods can be used?
- a. brainstorming
 - b. brain drain
 - c. debating
 - d. close communication
10. What kind of sentences should be listed in the first stage of the analysis?
- a. past tense
 - b. future tense
 - c. present tense
 - d. all kind of sentences

True or False questions

Statement	True	False
1. The implementation of SWOT is easy and quick.		
2. The implementation of SWOT consists of 3 main stages.		
3. Choosing the right place of a sentence in the matrix is difficult.		
4. Strengths are factors which give an advantage to the elaboration and implementation of the project.		
5. Weaknesses mean factors that are advantageous for a project.		

TASK FOR SUBMISSION

Check the sentences listed during the SWOT analysis of the event organizing project. Try to place these sentences into the SWOT table:

Internal assumptions	
Strengths: Every inner capacity which help to utilize opportunities against threats.	Weaknesses: Inner status or every inner shortage which endanger the utilization of strengths and opportunities.
External assumptions	
Opportunities: Those external circumstances or characteristics which can be the bases of the activities to reach the overall objectives.	Threats: Every external trend or circumstances which negatively affect the fulfillment of the overall objectives.

CHAPTER 7

7. Stakeholder analysis

7.1. Basic definitions

The *stakeholder analysis* is one of the planning documents in PCM. This tool involves the identification of the stakeholders of the project and also contains information about their needs, interests and problems. There are several methods for examining these. In this workbook we introduce a simple method, using a colorful table of 4 main columns and 5 groups of lines.

The first step of the analysis is to identify the stakeholders of the project.

This identification contains several types of groups as:

- Stakeholders
- Beneficiaries
- Target groups
- Final beneficiaries
- Project partners

These groups are all interested and concerned in the project and are affected by or can affect it. Stakeholders can be persons, groups of people, organizations, institutes, companies, etc.

Stakeholders' group is the largest group and it includes all the other groups. Stakeholders are defined as individuals or institutions that affect or are affected by the outcomes of the project or a program. This effect can be positive or negative, direct or indirect.

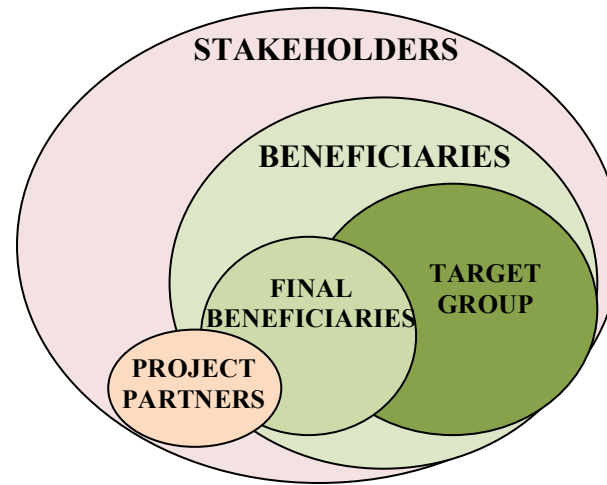
Beneficiaries are the second group and they benefit in any way from the implementation of the project. So beneficiaries can be affected both positively and negatively by the project.

The next group is the *target group*. This expression is commonly used but in PCM it has a slightly different meaning. The target group of the project contains persons or groups or organizations that are directly and positively affected by the project--

During the PCM process it is important to identify the *final beneficiaries*. These can be the stakeholders who benefit – in any way -- from the project in long term.

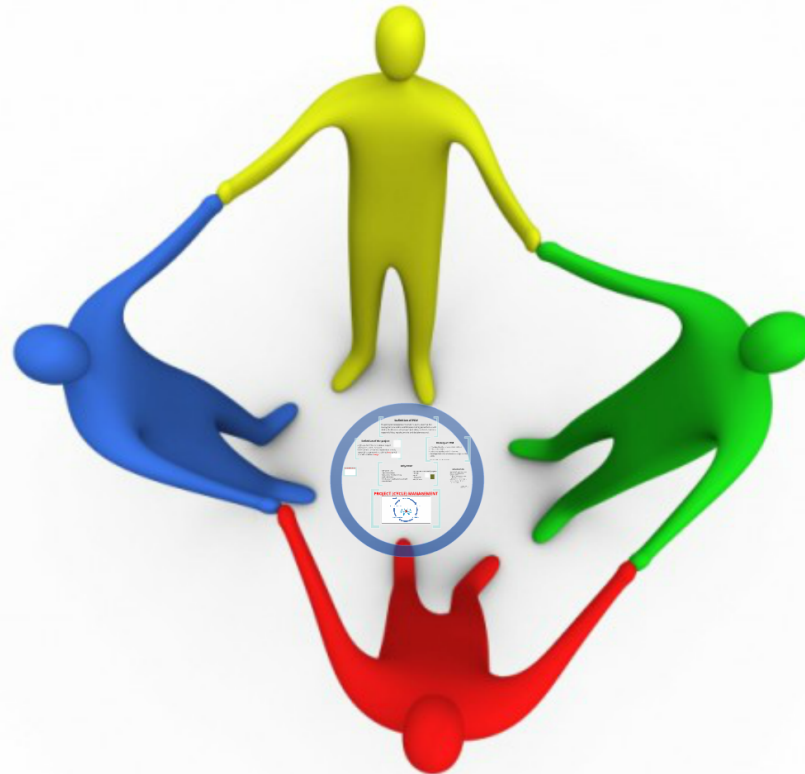
The last group we have to identify is the group of *project partners*. These partners are the exact ones who implement the project and who are responsible for the whole process.

1. figure. The stakeholders of the project



Source: own compilation

PROJECT MANAGEMENT



STAKEHOLDER ANALYSIS

DEFINITIONS

- Stakeholders:**
- individuals or institutions that **affect or are affected** by the outcomes of the project or a program (+/-, direct/indirect)
- Beneficiaries:**
- who benefit in **any way** from the **implementation** of the project
- Target groups:**
- **directly and positively (+)** affected by the project
- Final beneficiaries:**
- benefit from the project in **long term**
- Project partners:**
- **implement** the project

GOALS OF PARTNERSHIP

- more effective formulation
- be closer to the aims of program
- increase local development capacity

STAKEHOLDER ANALYSIS

	MARKET	GOVERNMENT	NGOS	LOCAL COMMUNITIES	INTERNATIONAL
GOVERNMENT					
NGOS					
LOCAL COMMUNITIES					
INTERNATIONAL					
MARKET					

PARTNERSHIP HELPS

- communicate
- increase local knowledge
- decision making
- avoid duplications of tasks
- increase capacity of capitalizing resources
- building regional connections and networks
- increase flexibility and changing institutional working methods

INTERESTS OF STAKEHOLDERS

- define main interests in every project stage*
- complex
 - hidden
 - opposite of our main objectives
 - different connections with other stakeholders

STEPS FO STAKEHOLDER ANALYSIS

- identify stakeholders
- examine the needs and interest of stakeholders
- analyze the competence and importance of stakeholders
- estimate risks
- define the form and extent of the involvement
- analysis
- combining the analysis with further steps of LFA

DEFINITIONS

Stakeholders:

- individuals or institutions that **affect or are affected by** the outcomes of the project or a program (+/-, direct/indirect)

Beneficiaries:

- who benefit in **any way** from the **implementation** of the project

Target groups:

- **directly and positively (+)** affected by the project

Final beneficiaries:

- benefit from the project **in long term**

Project partners:

- **implement** the project

GOALS OF PARTNERSHIP

- more effective formulation
- be closer to the aims of program
- increase local development capacity

PARTNERSHIP HELPS

- communicate
- increase local knowledge
- decision making
- avoid duplications of tasks
- increase capacity of capitalizing resources
- building regional connections and networks
- increase flexibility and changing institutional working methods

PROJEKT	1	2	3	4
	5	6	7	8
	9	10	11	12

STEPS FO STAKEHOLDER ANALYSIS

- identify stakeholders
- examine the needs and interest of stakeholders
- analyze the competence and importance of stakeholders
- estimate risks
- define the form and extent of the involvement
- analysis
- combining the analysis with further steps of LFA

INTERESTS OF STAKEHOLDERS

define main interests in every project stage

- complex
- hidden
- opposite of our main objectives
- different connections with other stakeholders

STAKEHOLDER ANALYSIS				
STAKEHOLDERS				
	NAME	INTERESTS AND EFFECTS	SUGGESTIONS FOR PROBLEM SOLVING	PARTICIPATION
BENEFICIARIES				
TARGET GROUP				
FINAL BENEFICIARIES				
PROJECT PARTNERS (TEMA)				

9



7.2. What is the stakeholder analysis good for?

The stakeholder analysis provides important information about the participants of the project and about persons and groups who are affected by or who affect the implementation process.

Identifying these groups can help...

- to elaborate the problem analysis of the project
- to avoid or solve further problems
- to identify and understand the stakeholders motivation
- to organize better the implementation process
- to prepare for further research necessary to implement the project
- to organize meetings and talks during the PCM process

During the project management process it is crucial to establish partnerships with several groups identified in the stakeholder analysis.

Partnerships can have several goals like...

- a more effective formulation and implementation of the project
- being closer to the main objectives of our program
- increasing the development capacity of our project

Partnership can help us to...

- build regional connections and networks
- communicate with the stakeholders and purchase information
- increase our local knowledge – knowledge about local factors
- ease the decision making process
- avoid duplications of tasks in the project
- increase capacity
- capitalize the necessary resources
- increase flexibility and change institutional working methods

According to our purposes we can establish several types of partnerships. The first and basic type is focusing only on communication with partners. The second type is when we sign a written agreement with our partners and state all the important factors of our cooperation. An other type of partnership is cooperation that is a joint action which we implement together with our partners. The main goal of cooperation is the joint benefit of all partners.

7.3. Steps of the elaboration of stakeholder analysis

There are two stages of the stakeholder's analysis. The first stage is the identification of the persons, groups, organizations, institutes, etc. who affect or are affected by the project. This identification can be implemented with a written list which contains all the partners we can mention.

The second step of the analysis is more complicated as here we need to...

- examine the needs and interest of stakeholders,
- analyze the competence and importance of stakeholders,
- estimate risks, and
- define the form and extent of the involvement.

After these two stages we can analyze the table and gain useful information from it. Combining the analysis with further steps of LFA can make our project implementation process more effective and we can also avoid further problems with using this table in every phase of the PCM process.

In the second phase of this analysis we need to examine the needs and interest of our partners. These interests are really complex and it is difficult to understand them. Therefore it is useful to establish personal connections with all the stakeholders or make a serious research about their needs.

Stakeholders sometimes have hidden interests that are not communicated and difficult to highlight. These hidden interests can cause us problems during the project implementation therefore the management has to make efforts to understand them and reflect these needs.

It can also cause problems and should be avoided during the implementation process if some stakeholders have different needs or they are against our main objectives. The project management must communicate the overall objectives of the project to all stakeholders and they also have to ensure that all the partners understand and acquire these goals.

The project management has a difficult job as they can work as intermediaries between the stakeholders. Sometimes a person or a group of our partners have different connections with another stakeholder and the project management needs to avoid further problems proceeding from this difference.

CONTROL QUESTIONS

1. Who are the stakeholders of a project?
2. What is the difference between Stakeholders, Beneficiaries, Target groups, Final beneficiaries and Project partners?
3. What are the two steps of the stakeholder's analysis?
4. What is the stakeholder's analysis good for?
5. Why is it important to make a partnership?

SAMPLE PROJECTS

Integration of disabled (who need special education) children

After the project framework is established and the main situation is described the analysis of stakeholders can begin. All the groups which have an effect to the project can be listed and also the beneficiaries are known.

During the planning process of the project about disabled children, the stakeholders were listed and categorized. The management team discussed the interest of all groups and tried to identify how these groups can affect the implementation process. They also estimated further possible problems regarding to the groups and stated some solutions too. The team - during the stakeholder analysis - discussed how these groups can promote the success of the project. All these factors can give ideas for the project activities.

10. Table: Stakeholder analysis of the project about the integration of disabled children

stakeholders		Name	Interest	Problem solution	Participation in the success
		Municipality			
		Tud6sz Program (UKnow)			
		Related civil organizations			
		Teachers labor union			
		Educational institutes (not partners)	receive information about programs enlarge programs	strengthening pre and continuous communication	share experiences, cooperation
	beneficiaries and groups				
		leaders of institutions			
		teachers, pedagogy students	problem free workflow transfer values	overburdened (have to be solved) lack of professional information (supplement it)	participate and partly implement the programs
		therapists			
		municipality decision makers			
	beneficiaries	disabled children who need specific education	easy integration increasing tolerance I the receptive surroundings and groups	handle hiding behavior understand their problems	participate in programs

Source: own compilation by the project documents

Organizing a Christmas party

The students who are responsible for organizing the Christmas party come together and elaborate the stakeholder's analysis. They form teams and list all the stakeholders they can think of. Then with the help of their teacher as a moderator, they put the names into the chart together. After all the stakeholders are listed in the first column of the chart, the student start to identify the stakeholders needs and interests. They also try to estimate further problems and find out a solution.

11. Table: Stakeholder analysis of the project about organizing an event

			Name	Interest	Problem solution
STAKEHOLDERS	BENEFICIARIES	TARGET GROUP	people of the city	patience, silence, respect	turn down the music organized the party far away
			guests of the party	have fun, drink, eat, dance, meet somebody, have connections	clean up after the party , avoid fight
			international students	have fun, drink, eat, dance, meet somebody, have connections, play something, competition	
			teachers	drink, have connections, get to know students better, eat traditional food, know the culture	let them leave earlier take a pictures in the beginning
		FINAL BENEFICIARIES	employees of the international office	drink, have connections, get to know students better, eat traditional food, know the culture, image building	write project plan help them to organized party
			people of the city	patience, silence, respect,	
			friends of the students	have fun, drink, eat, dance, have connections	clean up after the party , avoid fight
			actors	meet the director, earn money, get respect/ image building	ask them before the party
			director of the college	minimum and maximum budget, not disturb, meet important people, income, fame	communication

Source: own compilation by the project documents

CONTROL TEST

Multiple-choice questions

1. The stakeholder analysis identifies and describes the interest of...
 - a. target groups
 - b. main decision makers
 - c. stakeholders, beneficiaries, target group, final beneficiaries, project partners
 - d. beneficiaries, project partners
2. The stakeholder analysis contains information about...
 - a. the problems of the project
 - b. project objectives
 - c. the needs, interests and problems of stakeholders
 - d. the logical framework
3. Which of the following groups is NOT examined during the stakeholder analysis?
 - a. Beneficiaries
 - b. Foreign project managers
 - c. Target groups
 - d. Final beneficiaries

4. Who are in the target group?

- a. institutions affected by the project
- b. who are affected by the project directly and positively
- c. individuals who benefit from the project in a long term
- d. people who implement the project

5. Who is a beneficiary?

- a. a person who benefits in any way from the implementation of the project
- b. a member of target group
- c. a member of the project management
- d. person who implements the project

6. Who are the final beneficiaries?

- a. the target group
- b. who benefit from the project in a long term
- c. institutions who are affected by the project indirectly
- d. people who implement the project

7. Partnership can directly help the project management to...

- a. write a regional development plan
- b. communicate with the stakeholders and purchase information
- c. ease the decision making process
- d. capitalize the necessary resources

8. The elaboration process of the stakeholder analysis starts with...

- a. the analysis of the competence and importance of stakeholders
- b. the identification of stakeholders who affect are affected by the project
- c. the estimation of risks
- d. the definition the involvement of target group

True or False questions

Statement	True	False
1. Final beneficiaries benefit from the project in long term.		
2. Stakeholder analysis helps to identify and understand the stakeholders' motivation.		
3. The hidden interests of stakeholders are communicated well and easy to understand.		
4. It is important to examine the stakeholders in every phase of the project cycle.		
5. Partnership can help the management to build regional connections and networks.		

TASK FOR SUBMISSION

According to the previous information, try to elaborate the stakeholder analysis of the road building project. Who can be involved into the implementation? The project affects many groups and organizations. Who are they?

Use the following table for the analysis:

			Name	Interest	Problem solution
STAKEHOLDERS					
	BENEFICIARIES	TARGET GROUP			
	FINAL BENEFICIARIES				

CHAPTER 8

8. Problem--analysis and Objective--analysis

8.1. The problem tree

DEFINITION

Problem analysis is a method for project planning. It helps to identify the negative aspect of a situation within the framework of the project and establishes a cause--effect relationship between these problems. The main goal of the analysis is to understand the most problematic stages – bottlenecks – of the project. These problems can impede the project process therefore they receive a high priority awareness from the stakeholders and have to be solves as soon as possible. A clear problem analysis can provide useful information about these bottlenecks and also identifies a way of their solution.

The analysis can be presented in an easily understandable diagram (called the problem tree) which shows the hierarchy of problems and their relations. The effects caused by the problems can be found at the top of the diagram, and the causes are below.

STEPS OF THE ELABORATION OF THE PROBLEM-TREE

The elaboration process of the Problem tree contains three main steps:

1. Definition of the project framework – stakeholders, project time-frame, spatial impoundment
2. Identification of problems – listing problems and negative sentences describing the situation within the project framework
3. Visualization of the listed problems in a specific hierarchy called the problem tree

The creation of the problem tree should be undertaken in teamwork of the project management and a group of stakeholders.

In the second phase of the elaboration, the team usually uses pieces of papers to list current problems individually. Listing all the problems concerned to the project and involve the stakeholders is significant. The main point is to collect as many problems as the team can or the stakeholders identify.

In this stage the previously elaborated SWOT analysis can help a lot. Using weaknesses and threats listed in the SWOT as negative sentences can be a good solution to make a list of problems. The team participating in the elaboration process also has to examine the other two boxes of the SWOT analysis as these can also highlight problems for some groups of stakeholders.

After this individual task, all the listed problems can be visually displayed in a document that can be designed later into a hierarchy. After the team listed all the related problems, they can decide about the place of every sentence in the problem tree as one administrator places each sentence to a graph in a hierarchy. During the establishment of this hierarchy the team can choose one or two problems which have higher importance in the project framework and organize other related problems around them. Sometimes this requires adding further problems and negative sentences which connect the main problems with lower level statements.

It is important to understand and use the cause--effect relationship between the problems. The administrator can pick up a negative sentence and place it below the main problem if it is a problem directly causing it. The direct effects have to be placed above the main problem. The administrator can help to ask guiding questions like 'What causes that?' or 'Is that an effect of that?'.

Placing the identified problems into the hierarchy – regarding to the main problem – can follow the following process:

- select a problem, a sentence from the list
- if the selected problem is a cause it goes below the main problem
- if the selected sentence is an effect, it can be placed above
- if it is neither a cause nor an effect, it can be deleted from the process or placed onto the same level as the main problem

If there are two or more problems which both can cause the main problem, they can be placed at the same level in the graph too. On the other hand, the place and level of the problems can also show their importance in the hierarchy. The connection of the problems is usually presented by arrows or lines.

After the termination of the hierarchy it is important to validate the problem tree together with the group of stakeholders. If some problems are missing, it is possible to place them into the graph. Stakeholders can also suggest deleting problems from the tree if necessary.

The preparation of the problem tree and its quality depends on the following factors:

- the stakeholders and persons – and their skills – who is involved to the elaboration process
- the environment of the workshop which affects the quality of the teamwork
- the number of workshops and groups aiming to elaborate the graph
- the quality, relevance and reality content of the listed problems

The implementation of the problem tree – as the whole PCM process – is a learning process. The problem tree can be checked in any other phases of the cycle and also can be modified according to the requirements. On the other hand, this analysis is one of the most critical stages of the project cycle as other phases are built upon its results.

The complete problem tree represents a summary of the existing problems and negative situations within the project framework. It is not only shows as a good picture about the problems but helps us to identify further problems and risks. Thus it is the base of other analysis of the cycle – like objective and strategy analysis – and is significant in the decision making process.

PROBLEMS DURING THE ELABORATION PROCESS

During the elaboration process of the problem tree the team has to face several problems.

After the stakeholders and the management listed several negative sentences, these sentences should be checked if they fulfil the requirements for the problem analysis. Sometimes there are sentences which do not specify the problem well and this can case an inadequate problem specification. Every problem has to be identified and understood well and has to reflect the problem in details.

One of the team members mentions a problem related to the project ide. He says that the management is poor. What does he mean? Does he mean that there is not enough people to implement the project? Or does it mean that the management has not enough professional knowledge and suitable skills? These are not the same however ‘poor management’ can mean all. The project activities have to solve real problems therefore problems have to be clearly stated.

It can also cause misunderstanding of problems if a listed sentence identifies and absent solution in spite of a real problem. Usually a problem is not an absent solution therefore all these kind of sentences have to be treated carefully.

The lack of solution listed as a problem can be misunderstood easily. If one of the team members say that the staff training is not solved the others might not understand what she means. They can say that there is a lack of trained staff but this neither clears the problem. What is the real problem about staff training? Is a skill missing for the implementation? What kind of training is missing? All these questions have to be answered before the team goes on to start the objective analysis.

It seems obvious but stating a real negative sentence which describes a negative situation can be difficult. A situation can be negative for one group of stakeholders but can also mean something good for somebody else. A problem is not a problem to everybody. This difficulty can be closely examined when the team uses the SWOT analysis as a base for the list of problems. The first and third boxes of the analysis strengths and opportunities – can also contain or hide problems. An opportunity can be positive for a group of beneficiaries but e.g. in a long term it will turn out to cause a huge problem for the final beneficiaries.

One of the team members during the SWOT analysis of the event organizing project says that a huge crowd will gather to the party. The organizers think this is good but for the citizens of the town a crowded and loud party would be disturbing. So this sentence can be placed in two boxes of the SWOT – as it can be both a negative and a positive statement. The team members need to examine this closely and check the positive side of the SWOT too.

During the identification of the problems the management really has to take care to mention existing problems. Within the project framework it is quite impossible to handle future or imagined problems as several preconditions need to be fulfilled before. If these preconditions or all future events regarding to an imagined problem are not in the project framework or there is only a little possibility that they occur in the future, it is no use to mention them in the problem analysis. The project has three main bases timeframe, budget and quality and this means that the management is not able to share their efforts and resources to handle problems which are not real. On the other hand, identifying that a problem is not realistic is a difficult task. The management has to measure all the risks of the project and difficulties seem to be unrealistic today can cause problems in the future. That is why the results of the problem analysis must be checked in every phase of the project cycle.

During the problem analysis one of the stakeholders mentions that it can cause a problem if the company leaders decide to change the marketing activity of the firm in 5 years. The project is about the development of the production facility. The leaders have not even spoken about these changes and it is also questionable that the changing of marketing activity influences this production line. Therefore the team moderator thinks this is not within the framework of the project and this problem should not be stated in the problem tree. On the other hand, SWOT analysis should contain only present tense sentences and possibilities or future events should not be mentioned.

After the listing of problems, the positioning of the negative sentence in the hierarchy can also be difficult. The main rule in this stage is that the position of the problem is more important than its importance. The problem analysis is for understanding and identifying a hierarchy of the problems and does not mean that e.g. the problems placed on the top of the tree are more important than the ones below. The importance of the problems can be handled in the strategy analysis when the main framework of the actions is identified in details.

The problem analysis of the road building project gives a clear example to this positioning. The main problem of the project is that the wellbeing of the citizens is decreasing without the road. But there are other problems, like the lack of bicycle road or the dead end position of the village and of course the missing bituminized road. These are all important for the project and objectives can be connected to these problems. The wellbeing of people will be placed at the top of the hierarchy but road problems can be put at the same level. Usually the main problems are indicated with bold or bigger letters therefore the management can easily identify the bottlenecks and main objectives later during the objective analysis.

Sometimes it is necessary to add more negative sentences to the problem tree when the main problem and some other problems are not closely connected in the hierarchy. The main goal of the management here is to establish an understandable and realistic hierarchy of problems. If there is a gap in the hierarchy, they need to find a problem which can be a bridge between the others.

The sample project about the integration of disabled children can give a clear example to the above mentioned problem. The problem tree of the project indicates that the main problem is the incomplete integration. But the team identified a problem which was a bit far from this, the underdeveloped motivations. Motivation problems are not closely connected to the lack of integration. There is a gap in the hierarchy between these problems. Therefore the moderator suggested to insert one more stage that is the problem of cooperation. Because of the motivation problems the parties can not cooperate effectively and that is why the integration is incomplete. So the team places a new problem in the problem tree which makes the hierarchy clearer.

SAMPLE PROJECT

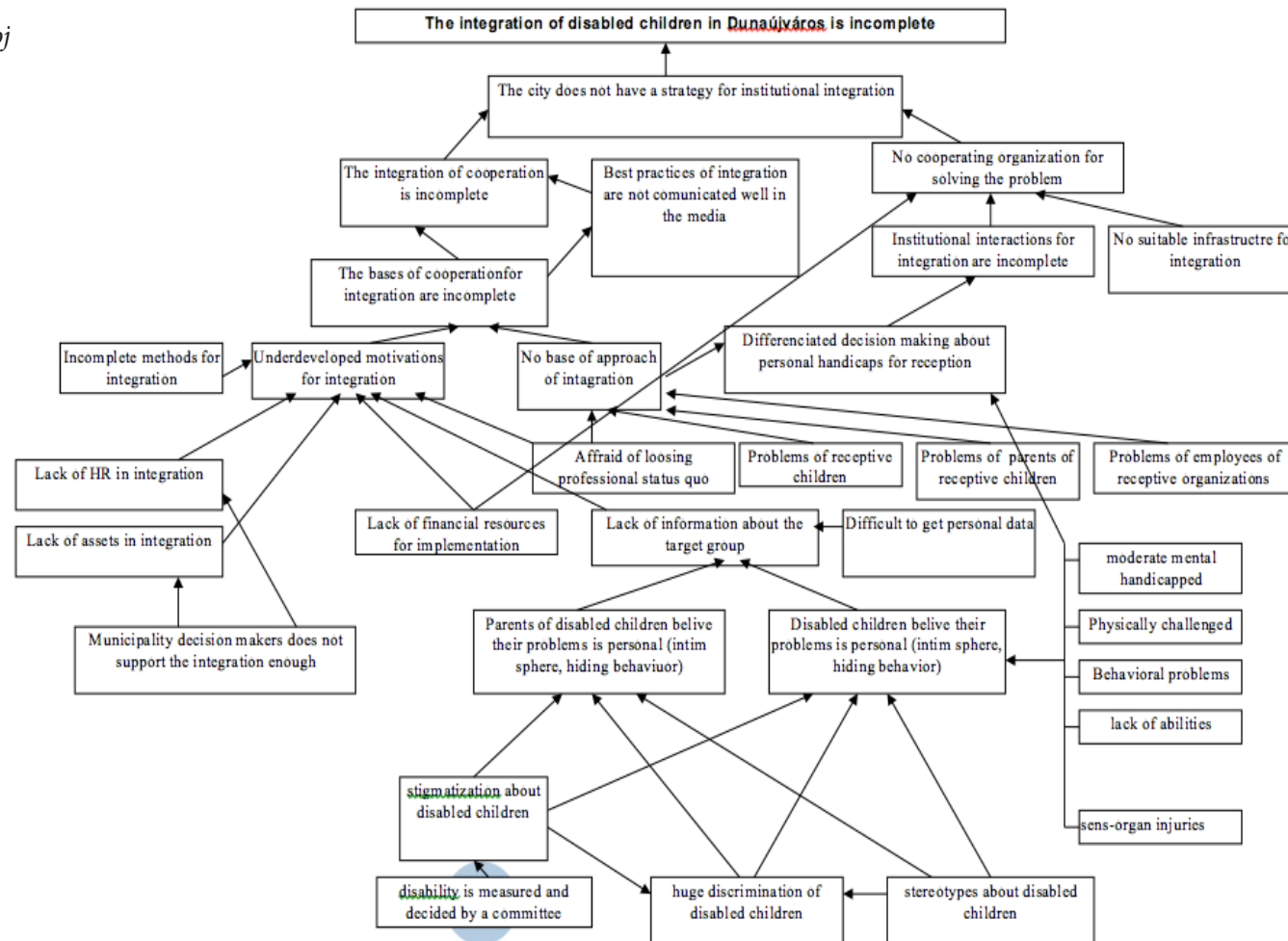
Integration of disabled (who need special education) children

The project management team gathers together and starts to elaborate the problem tree. They check the list of problems in the SWOT analysis and if necessary they modify it. Placing the sentences into a cause--effect hierarchy can be made individually as the members can think the place of a problem according to their own logic. Then it is important to discuss the results together.

The administrator puts every sentence into a small box and as the document is visualized and projected to the wall, every team member can help to move the boxes to the right place in the hierarchy.

Sometimes, in other projects the team manages to elaborate the problem tree easily and organize the problems below the main problems and subjects (like communications, problems, financing, problems of a bad approach, organizing activities, etc.) quickly. But here the problems are so complex that the problem tree became too complicated.

1. Figure: Problem tree of the proj



Source: own compilation by the project documents

Building a road and a bicycle path

The problem tree helps the management to realize the main cause--effect context and importance of problems. It also makes it possible to see the connection between the main problems of the project and overall objectives stated in higher level documents – how the project fits to higher level strategies like local, regional or national development plans.

The administrator of the project copies the left side of the SWOT analysis to a document and the team members check it for the problem analysis. They can also add new problems to the list. The defined problems can be put into a text box – if we use a word processor program – and these boxes can be pushed to the right place in the hierarchy. On the other hand, the team can elaborate the problem hierarchy using stickers that is a more tangible method.

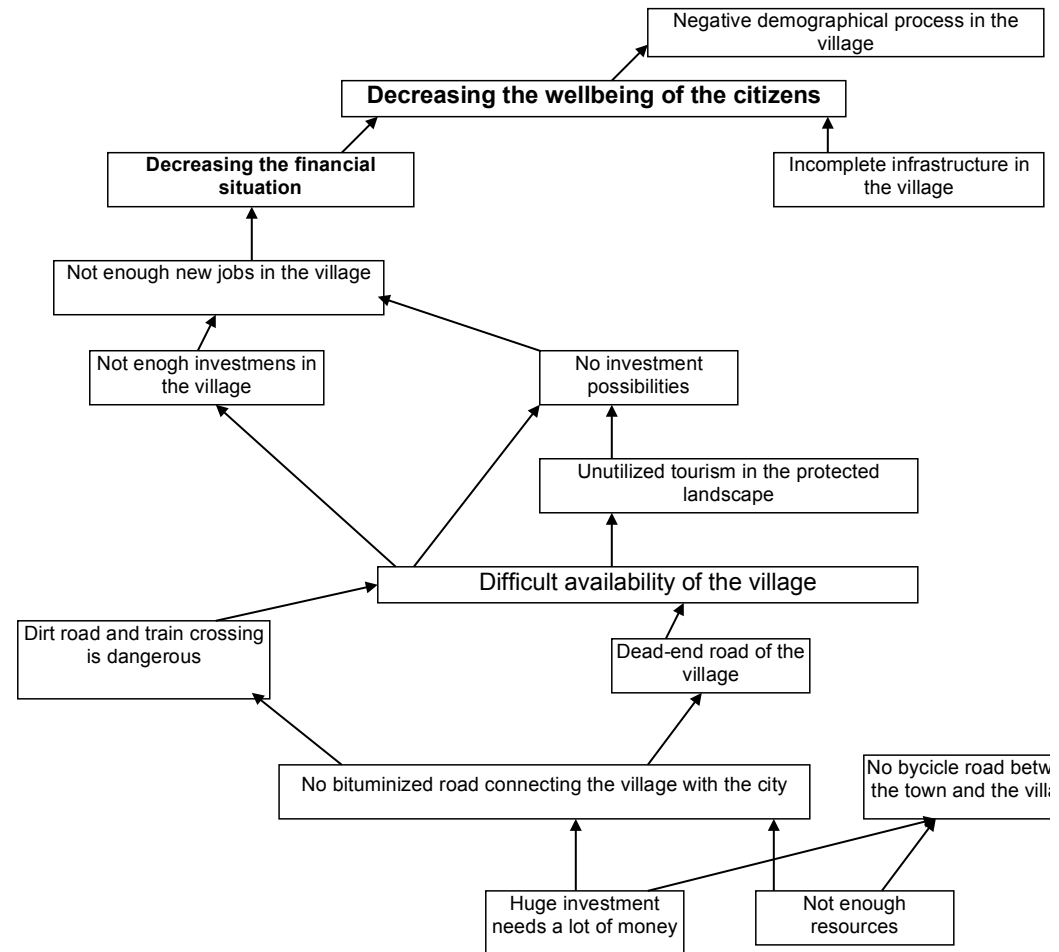
Then, similar problems have to be grouped as they are close to each other. The first version of the problem tree is settled and missing problems need to be put in if there is a gap in the tree.

Making the hierarchy is usually an individual work as it is difficult to go through a logical sequence in a group. This individual job requires time and can be made during one or two team meetings or – with an experienced moderator – in a coffee break. The first solution is better as new meetings – and the time between the meetings – raises new ideas and fresh thoughts and team members are full of energy. This helps them noticing mistakes and problems which were hidden before.

The first version of the tree has to be discussed again. Problem tree is suitable when it shows a clear hierarchy from the basic problems to the main problems and all the team members understand it and agree with it.

The road project's problem tree looks like the following:

2. Figure: Problem tree of the project about road building

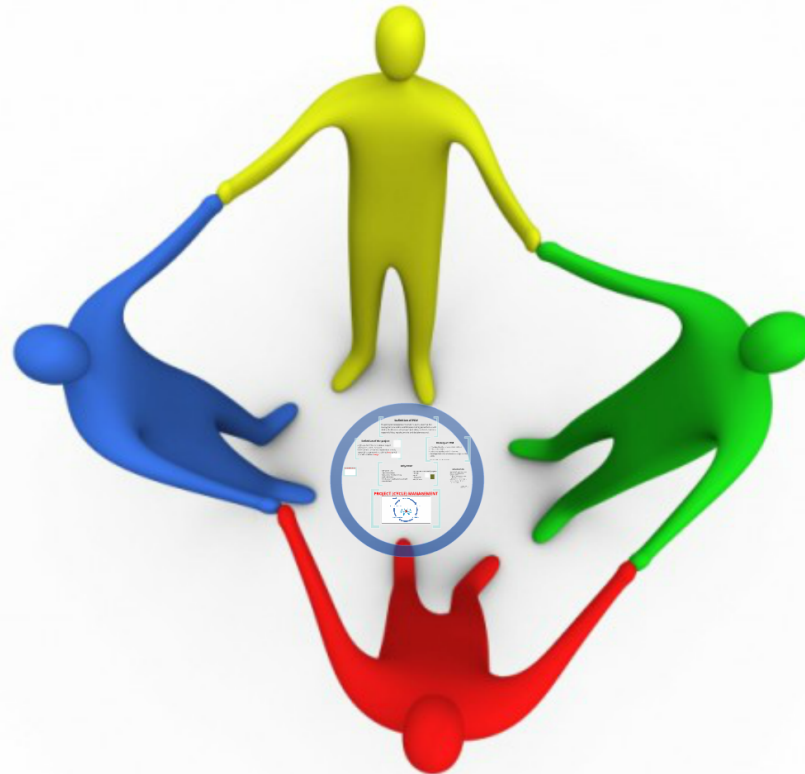


Source: own compilation by the project documents

CONTROL QUESTIONS

1. What do we call the problem tree?
2. What is the elaboration process of the problem analysis?
3. What kind of problems can the management face with during the problem analysis?

PROJECT MANAGEMENT



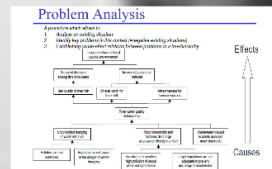
PROBLEM ANALYSIS

What is a problem analysis?

- Identify the negative aspect of a situation
- Make a "cause - effect" relationship between problems

STEPS OF PROBLEM ANALYSIS

- define the framework and subject of the analysis
- identify major problems of target groups and beneficiaries - what is the problem? whose problem is it?
- identify and choose the most important problems
- list related problems
- define causes and effects - causes below, effects above
- check the logical framework - connect problems with arrows
- make a problem tree



Why is it good?

- defines problem - deepest ones too
- makes a hierarchy of problems
- easy to understand the hierarchy through the problem tree (diagram)
- the diagram shows the causes and effects of problems
- identifies the gaps and bottlenecks of the project
- helps stakeholders to solve the problems
- represents a commonly shared view - if stakeholders are involved in the process

DIFFICULTIES

- inadequate problem specification (poor management)
- absent solutions (lack of trained staff) - problem is not an absence of solution
- sentences describing negative situation
- existing problems (not future or imagined ones)
- position in the hierarchy not the importance

IVES



PROBLEM

What is a problem analysis?

- Identify the negative aspect of a situation
- Make a "cause - effect" relationship between problems



Problem Analysis

A procedure which allows to:

1. Analyse an existing situation
2. Identify key problems in this context (=negative existing situations)
3. Establishing cause-effect relations between problems in a tree/hierarchy

Why is it good?

- defines problem - deepest ones too
- makes a hierarchy of problems
- easy to understand the hierarchy through the problem tree (diagram)
- the diagram shows the causes and effects of problems
- identifies the gaps and bottlenecks of the project
- helps stakeholders to solve the problems
- represents a commonly shared view - if stakeholders are involved in the process



STEPS OF PROBLEM ANALYSIS

- define the framework and subject of the analysis
- identify major problems of target groups and beneficiaries - what is the problem? whose problem is it?
- identify and choose the most important problems
- list related problems
- define causes and effects - causes below, effects above
- check the logical framework - connect problems with arrows
- make a problem tree



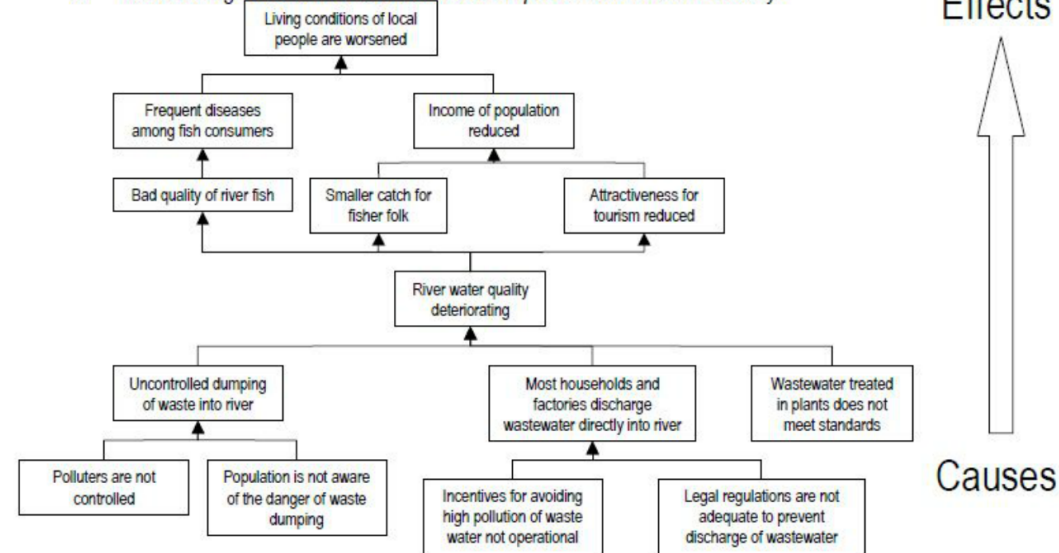
DIFFICULTIES

- inadequate problem specification (poor management)
- absent solutions (lack of trained staff) - problem is not an absence of solution
- sentences describing negative situation
- existing problems (not future or imagined ones)
- position in the hierarchy not the importance

Problem Analysis

A procedure which allows to:

1. Analyse an existing situation
2. Identify key problems in this context (=negative existing situations)
3. Establishing cause-effect relations between problems in a tree/hierarchy

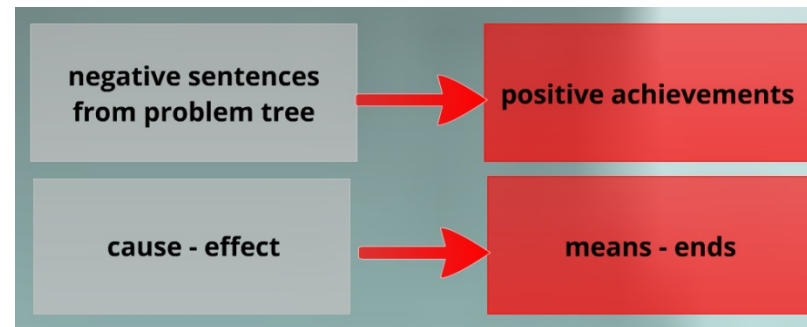


8.2. Objective tree

DEFINITION

An other type of the planning methods is the analysis of objectives. This is a methodological approach following the problem analysis and focusing to describe future situations. The analysis is closely connected to the problem tree as it show objectives elaborated from the identified problems. The analysis of objectives also gives a hierarchy of the main goals of the project and illustrates them in a means--end relationship. The result of the analysis is presented in a diagram called objective tree. This tree contains positive sentences converted from the negative sentences of the problem tree.

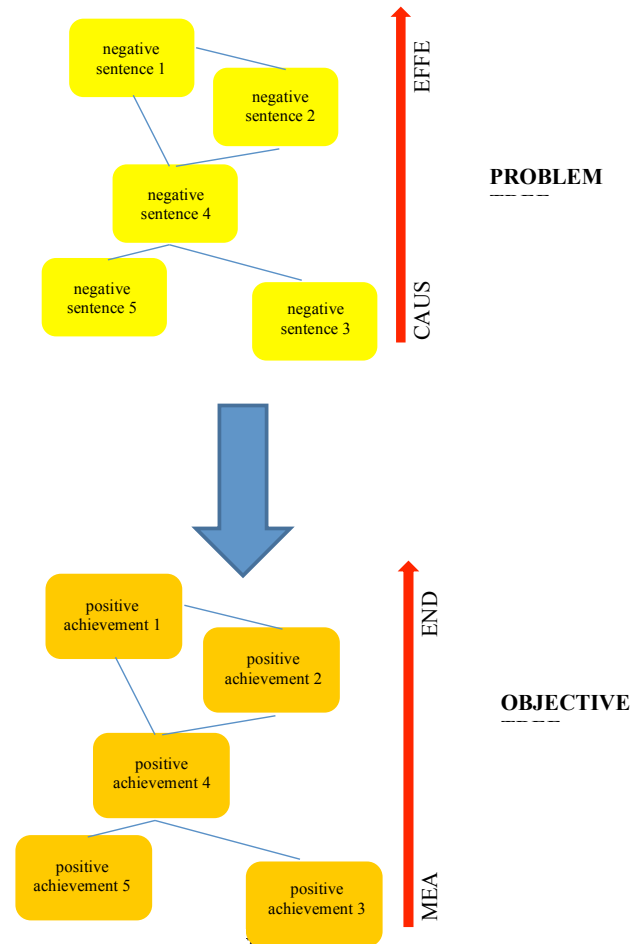
1. Figure: The coherence between the problem tree and the objective tree



Source: own compilation

As the above picture shows, in the objective tree the negative situations of the problem tree are reformulated into solutions and expressed as positive achievements which are similar to objectives. On the other hand, the objective tree also converts the cause--effect hierarchy of the problem tree to a means--end hierarchy. This provides a clear overview of the main goals regarding to the project.

2. Figure: Reformulation of the Objective tree from the problem tree



Source: own compilation

The objective tree – as it is presented above – can be defined as a positive mirror image of the problem tree. The cause--effect relationship in the problem tree is turned to means--ends relationship. This hierarchy can reflect a comprehensive picture of the future desired situations which are the main goals of the project.

STEPS OF THE ELABORATION OF THE OBJECTIVE-TREE

The implementation of the *objective tree* is based on the previously elaborated problem tree. The objective analysis consists on the following steps:

- Copy all the sentences of the problem tree and convert them – from negative situation – to positive achievements. These goals have to be desirable, realistic and achievable.
- Check the hierarchy of these achievements and make a means--ends relationship (from the cause--effects linkage).
- Modify the links or the statements if necessary.
 - Revise the statements o Add new statements if something are missing from the linkage. o Delete sentences.

As we stated before it is significant to involve the stakeholders into all the processes of the project cycle. Objective analysis also needs the direct involvement of the partners. Stakeholders have to understand and accept objectives, they can identify whether the achievements are realistic and desired. Their involvement can also help to modify the objective tree if necessary as they can identify additional means which are required to reach the goals of the project.

The objective tree is a useful asset as...

- it presents a summary picture of the project objectives, of a future and desired situation which the stakeholders want to reach, and
- it show a means--ends hierarchy of the objectives.

Due to the objective analysis the management can present a simple but good summary of the project objectives that are closely connected to the identified problems of the project framework. The objective tree also contains those aims that can be the bases of future and potential projects

PROBLEMS DURING THE ELABORATION PROCESS

Even if we solve all problems occurring during the elaboration of the problem tree, some other problems can be identified in the process of implementing the *objective tree*.

Here we can also find gaps in the means--ends linkage of the objectives after we turned the negative sentences into positive achievements. In this case the management can...

- add new objectives to bridge the gap
- reorganize the objectives
- delete some objective which are not fit into the hierarchy or which are duplicated

As described previously, problems and objectives too have to be realistic and desirable. If the identified objectives are not fit to these requirements the management has to clear or modify them.

Finally, it is useful, at the end of the objective analysis, to group similar objectives and form clusters in the objective tree. This can be a preparatory step of the next analysis in the planning process, of the strategy analysis.

SAMPLE PROJECT

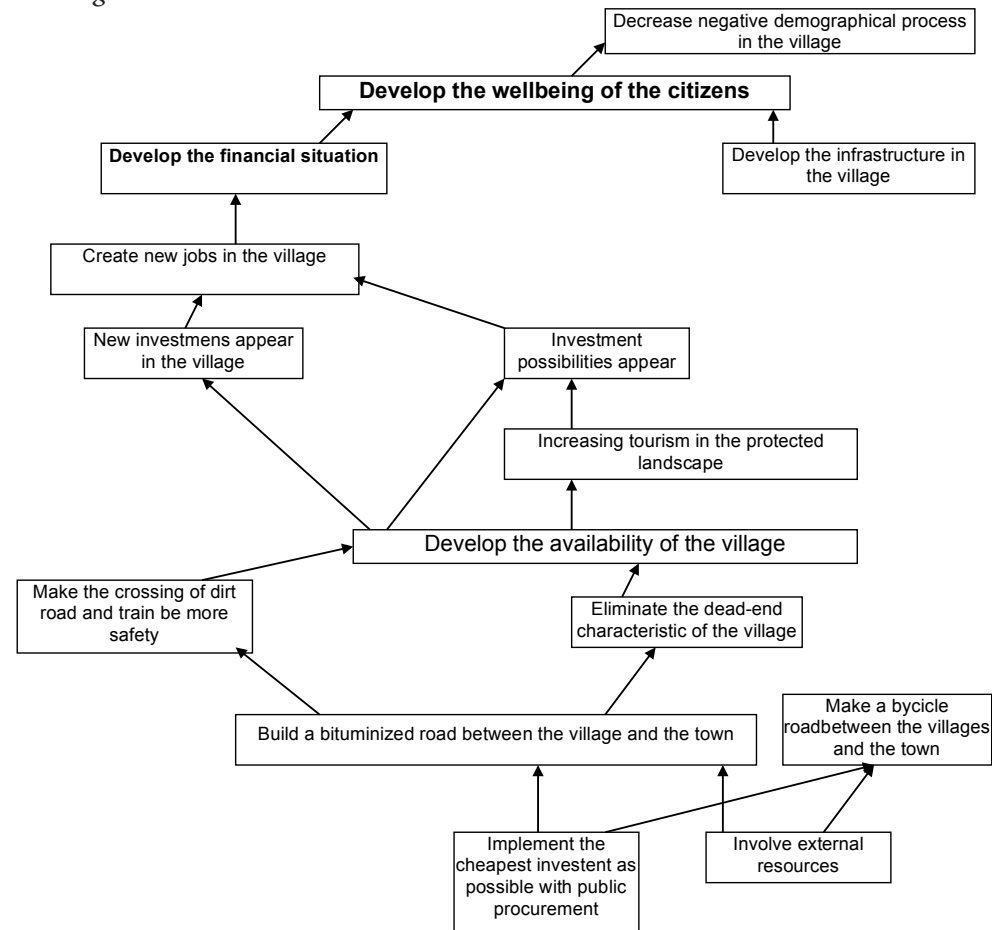
Building a road and a bicycle path

The elaboration of the objective tree is quicker as it is only about the modification of sentences from the problem tree. It is suggested to prepare this during the two project meetings together with the problem tree. On the second meeting the group can finalize the problem tree and quickly elaborate the objective tree.

All the objectives have to be connected to higher level strategies. The best is when the main objectives of the project are similar to higher level objectives of development documentation. This is not a difficult task as the writer of political documents state objectives which can be easily used in projects.

The objective tree of the road building project was elaborated from the problem tree as follows:

3. Figure: Objective tree of the project about road building



Source: own compilation by project documents

CONTROL QUESTIONS

1. How can you define the objective analysis and what is its main goal?
2. What are the steps of elaboration of the objective tree?
3. What kind of problems can the management face with during the objective analysis?

CONTROL TEST

Multiple-choice questions

1. What is the problem analysis?
 - a. list of the negative aspects of a situation and a cause-effect relationship between problems
 - b. list of opportunities
 - c. the strengths, weaknesses, opportunities and threats of the project
 - d. a means-ends hierarchy
2. The visualization of the problem analysis is called....
 - a. the problem tree
 - b. the objective tree
 - c. the problem bench
 - d. the problem storming

3. The elaboration process of the Problem analysis starts with the...
 - a. definition of the project framework
 - b. visualization of problems
 - c. list of objectives
 - d. list of strategies
4. The problem tree shows a hierarchy.
 - a. means-end
 - b. cause-effect
 - c. problem-objective
 - d. problem-strategy
5. The preparation of the problem tree and its quality depends on...
 - a. the stakeholders and persons - and their skills - who is involved to the elaboration process
 - b. the elaborated objectives
 - c. the number of workshops and groups aiming to elaborate the graph
 - d. the quality, relevance and reality content of the listed problems
6. Which one of the followings is NOT a problem during the elaboration of the problem tree?
 - a. inadequate problem specification
 - b. involvement of stakeholders
 - c. misunderstanding of problems
 - d. not existing problems

7. During the analysis of objectives the....

- a. negative sentences are turned into positive achievements
- b. SWOT analysis is turned into problem tree
- c. negative achievements are turned into positive goals
- d. problem tree is used to identify the strategy

8. The analysis of objectives visualizes the

- a. hierarchy of the main goals of the project
- b. hierarchy of the main problems of the project
- c. SWOT analysis
- d. strategy of the project

9. The visualization of the analysis of objectives is called....

- a. the problem tree
- b. the objective tree
- c. the problem bench
- d. the problem storming

10. The implementation of the objective tree can be started with....

- a. copying all the sentences of the problem tree and convert them to positive achievements
- b. adding new statements to the objective tree
- c. deleting sentences from the objective tree
- d. identifying the strategy

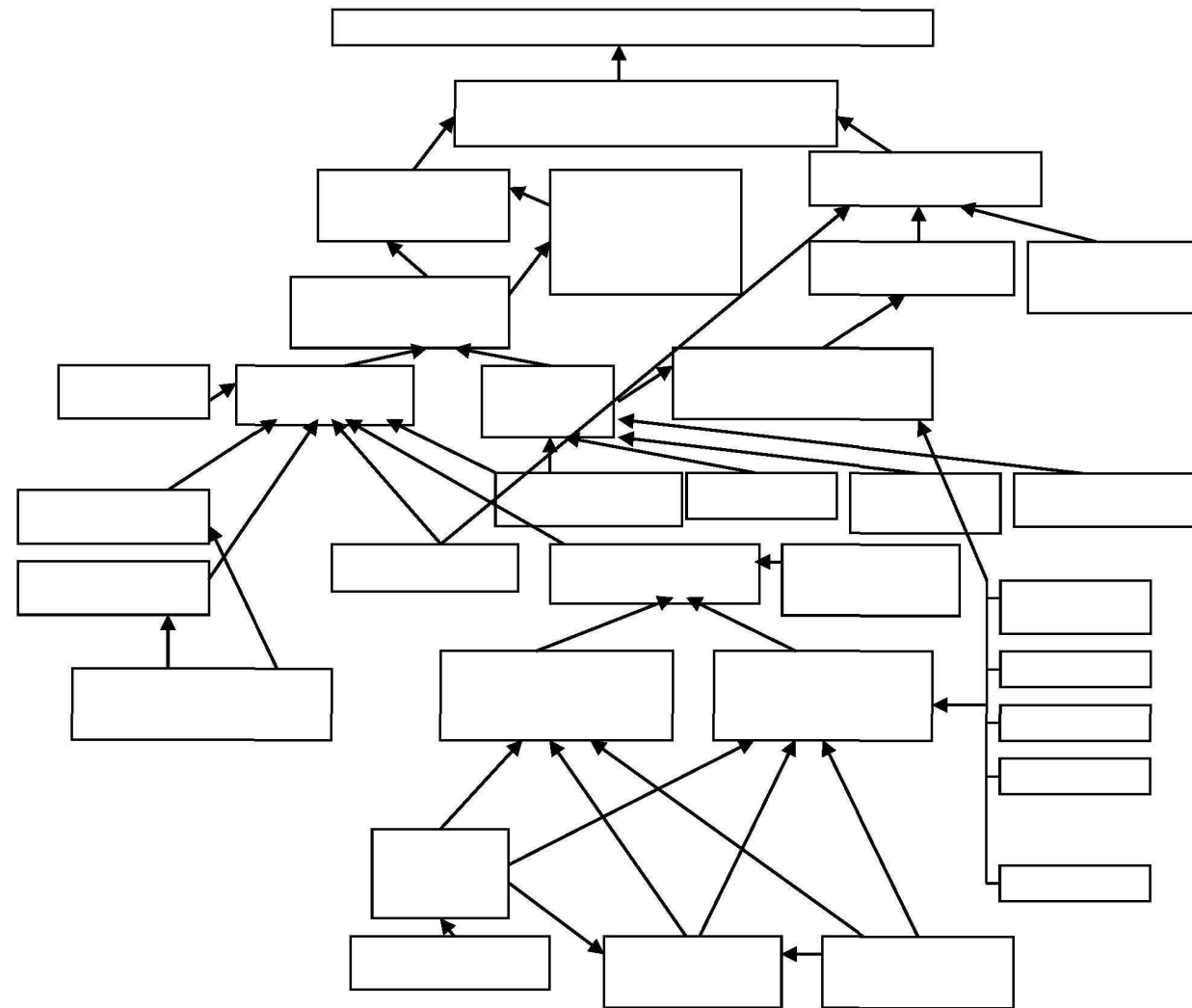
True or False questions

Statement	True	False
1. The place and level of the problems can show the importance of the problems in the problem tree.		
2. If a problem is missing for the problem tree, it is possible to place it into the graph later.		
3. Inadequate problem specification helps the implementation of the problem tree.		
4. The objective tree shows a means-end hierarchy of the problems..		
5. Gaps in the means-ends linkage of the objectives can cause problems.		

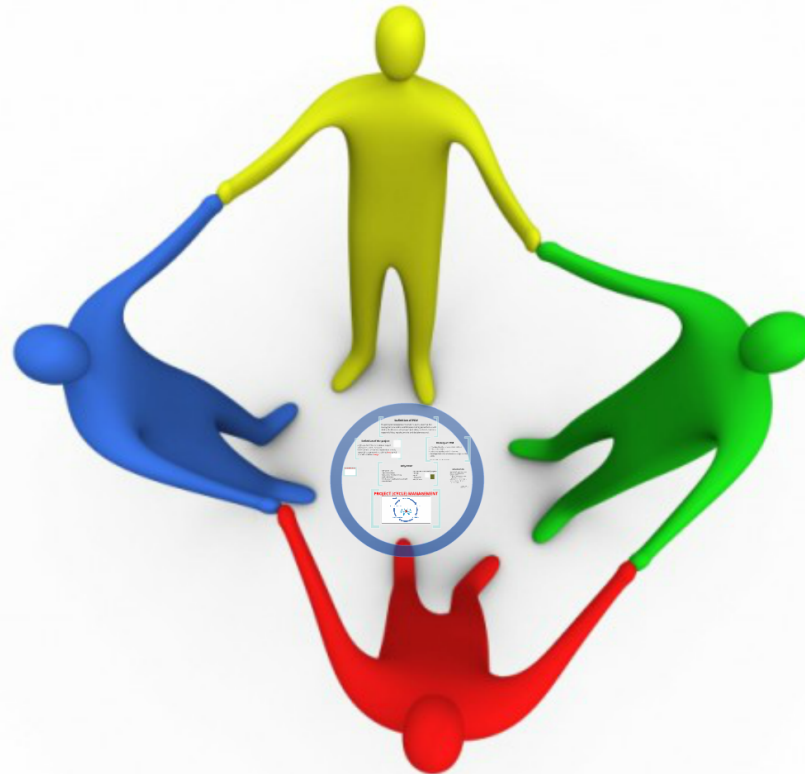
TASK FOR SUBMISSION

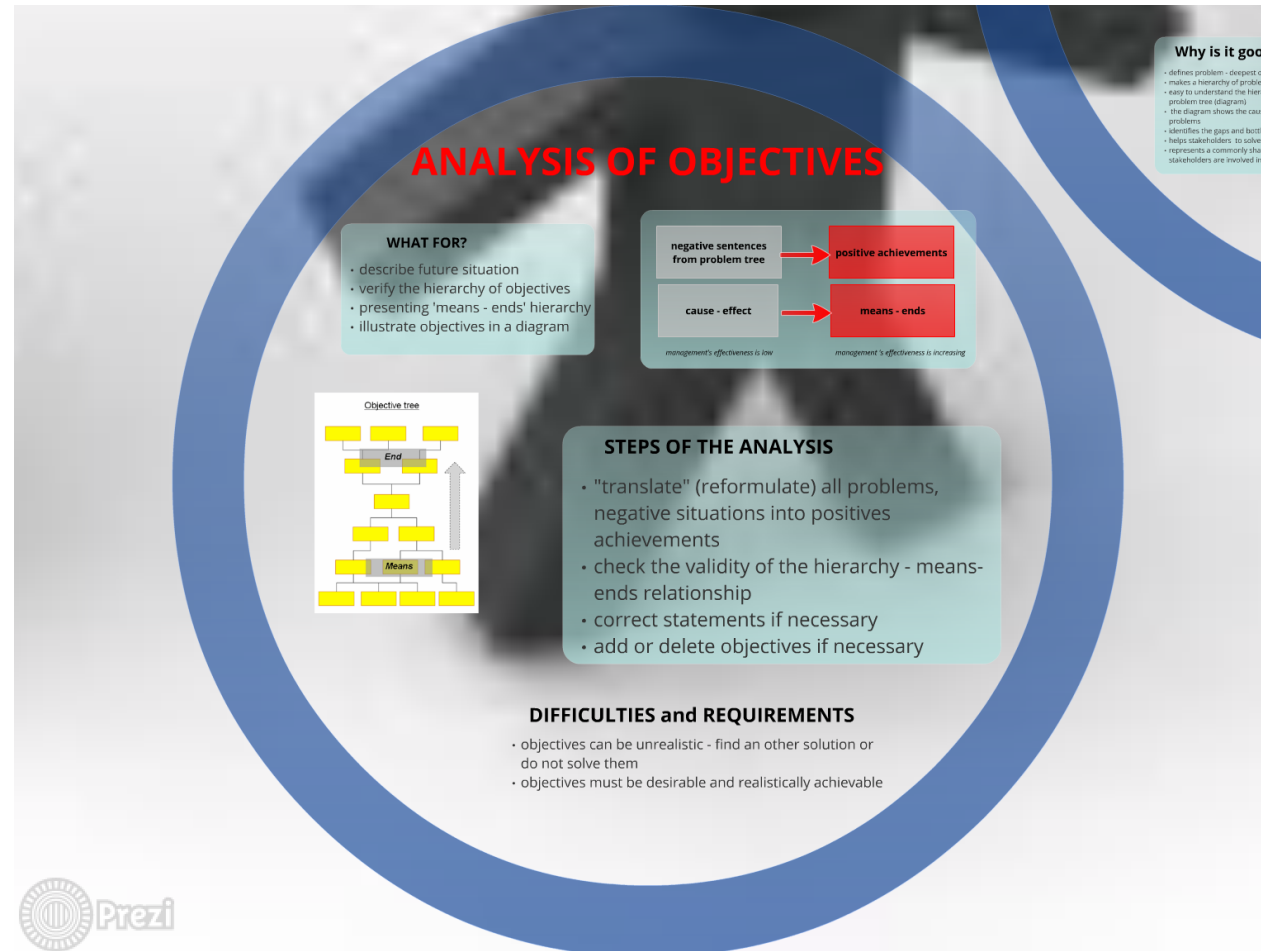
Use the above mentioned problem tree of the project about the integration of disabled children and try to elaborate its objective tree. You only need to turn the sentences of the problem tree into positive achievements.

Use the following pattern:



PROJECT MANAGEMENT



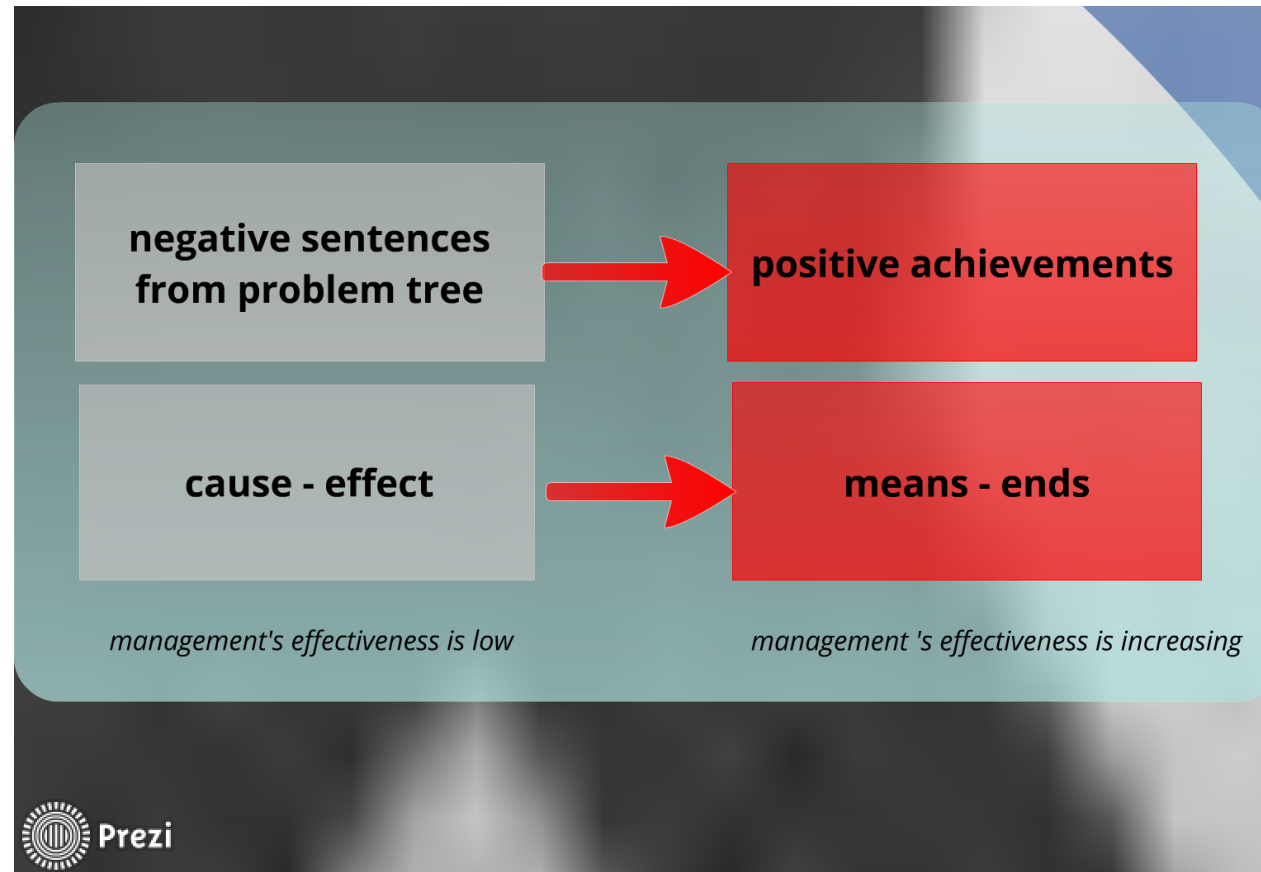


WHAT FOR?

- describe future situation
- verify the hierarchy of objectives
- presenting 'means - ends' hierarchy
- illustrate objectives in a diagram

STEPS OF THE ANALYSIS

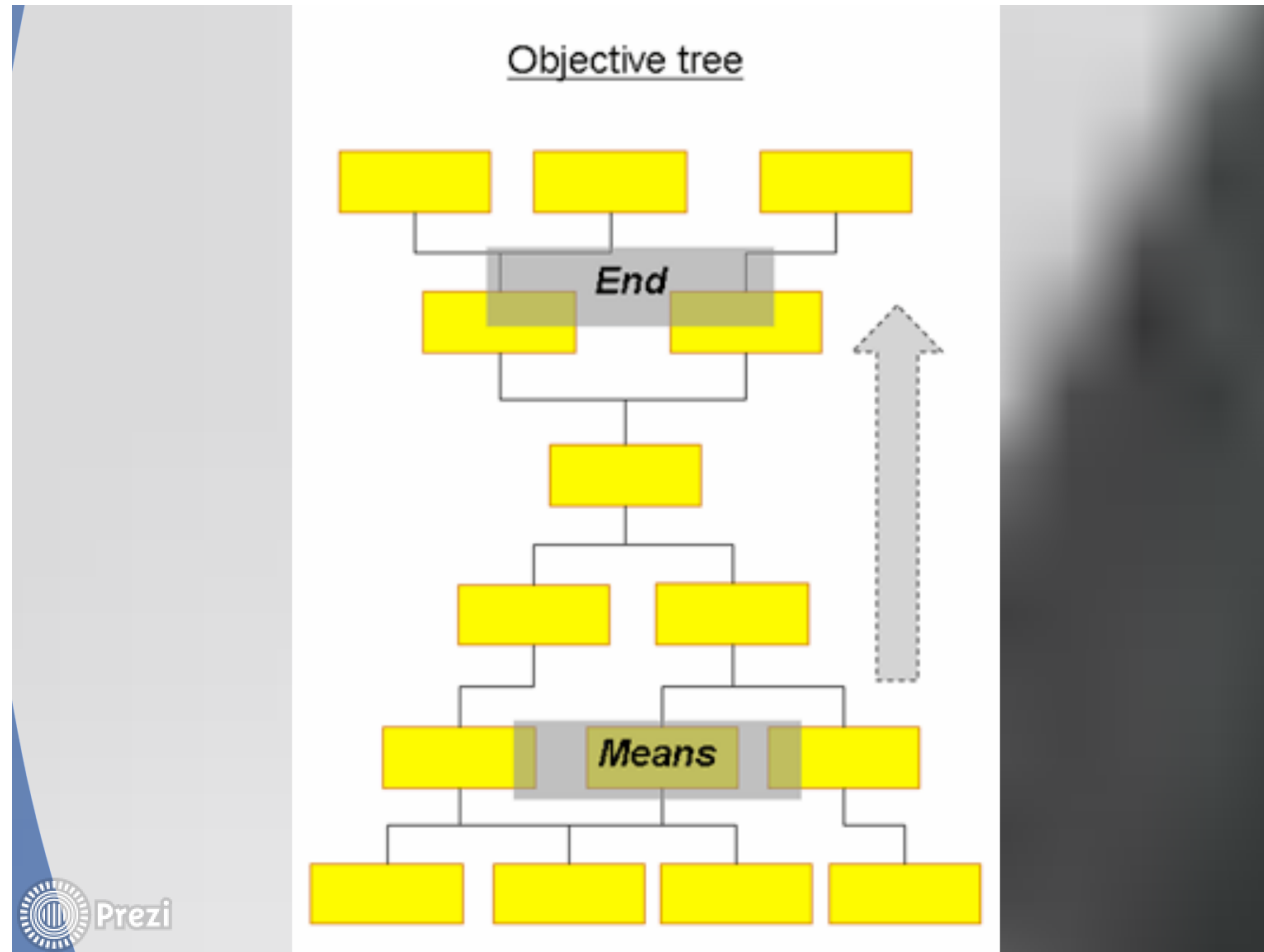
- "translate" (reformulate) all problems, negative situations into positives achievements
- check the validity of the hierarchy - means-ends relationship
- correct statements if necessary
- add or delete objectives if necessary



- correct statements if necessary
- add or delete objectives if necessary

DIFFICULTIES and REQUIREMENTS

- objectives can be unrealistic - find an other solution or do not solve them
- objectives must be desirable and realistically achievable



CHAPTER 9

9. Elaboration of the strategy and Action plans

9.1. Strategy analysis

DEFINITION

Strategy analysis in the PCM is the final stage of the analysis phase of the LFA process and follows the problem and objective analysis and means the selection of the main strategic framework of the projects. The main goal of the strategy analysis is to identify the way and method how the objectives can be reached. In this stage of the planning process, the management and the stakeholders need to identify different strategies to achieve project objectives and to contribute to the overall objectives too.

Strategy analysis is a process of critical assessment of the alternative ways to fulfill the goals and to select the most appropriate alternatives and strategy solutions. This method results a decision about a strategy which is used to achieve all the desired objectives of the stakeholders. It also includes the identification of objectives which will be included in the project and the sorting out of objectives which will be placed outside the project framework.

Another goal of the strategy analysis is to ensure the feasibility of the project through the grouping and impoundment of objectives represented in the objective tree. Through this impoundment process the management can decrease the possibility of risks and allocate resources in a more sustainable way.

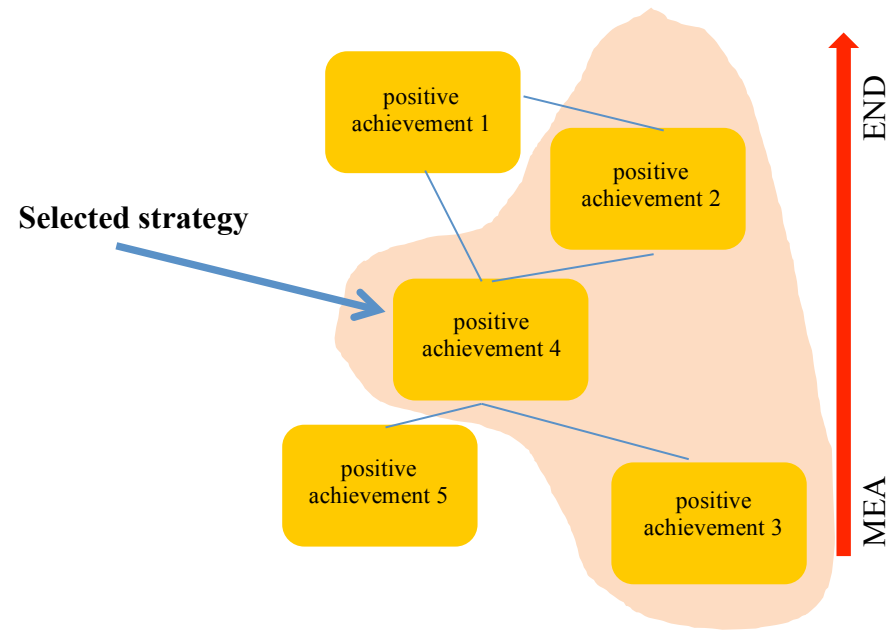
At the end of the strategy analysis the size and framework of the project is identified clearly and all the stakeholders can easily understand it. On the other hand, the strategy analysis is the base of the activity schedule and resource planning processes.

STEPS OF THE STRATEGY ANALYSIS AND THE BASES OF SELECTING THE STRATEGY

The strategy analysis in the PCM process is based on the objective analysis. It contains mainly the following steps:

- identification of the strategic framework of the project
 - selection of similar objectives
 - select and making groups from objective which can be reached during the project
 - taking out objectives from the project which cannot fit into the framework and which them management do not want to deal with
- define and evaluate alternative strategies
- identify the optimal strategy which will be implemented
- define project purpose and overall objectives

1. Figure: Strategy selection in PCM



Source: own compilation

To choose the suitable group from the objective tree and identify the best strategy, the management has to follow several aspects and evaluation criteria:

- They need to fulfill the requirements of the stakeholders and respect all the interest of the target group. Therefore the objectives have to be chosen to priority of and attractiveness to the target group.
- The strategy contains not only the use of financial resources but all other resources – like human resources – should be included. Therefore the management has to closely examine the availability of all resources and state them as a precondition for the project initiation or the activity setout.
- The necessary resources are closely connected to the existing capacity of the stakeholders and the target groups. The management should make every effort to utilize the possibilities and potentials that makes the project more successful.
- As it was mentioned in the programming phase's chapter, the whole project and also the strategy have to have a relevance to external and higher level strategies and programs.
- Inside the strategy, all the actions need to be connected and reflect the main goals of the project. This can be ensured by the hierarchy presented in the objective tree and the elaboration method of the activity schedule based on this hierarchy.
- Sometimes the project has a short timeframe and there is a requirement for the management to implement the strategy quickly. This urgency should not affect the quality of the implementation and has to be closely examined in the strategy previously.
- Together with urgency, sometimes the durability of the project is questionable. The strategy needs to include suggestions to reach this durability in a long term.
- Recently, feasibility is an important question in all projects – especially in the European Union. Feasibility means not only to fulfill financial criteria but also meet economical, professional, social and other requirements. This can be measured by the social acceptability of the strategy and the project or by the contribution of the project to the reduction of inequalities (e.g. gender, environmental effects).

PROBLEMS DURING THE ELABORATION PROCESS

During the elaboration of the strategy analysis it is important to consider the followings:

The framework of the project is defined here therefore the impoundment of the strategy influences all the project activities. If not the suitable framework is chosen it can cause further and multiplicative problems.

All the objectives which the strategy includes need to reflect the interest of the stakeholders. If a group of stakeholders do not accept the objective included in the strategy they will work against its implementation.

The strategy should contain all the related objectives to solve the main problems of the project. On the other hand, the project needs to be connected to higher level strategies as it was stated in the programming phase – so these higher level goals also should be visualized in the objective tree and involved into the strategy.

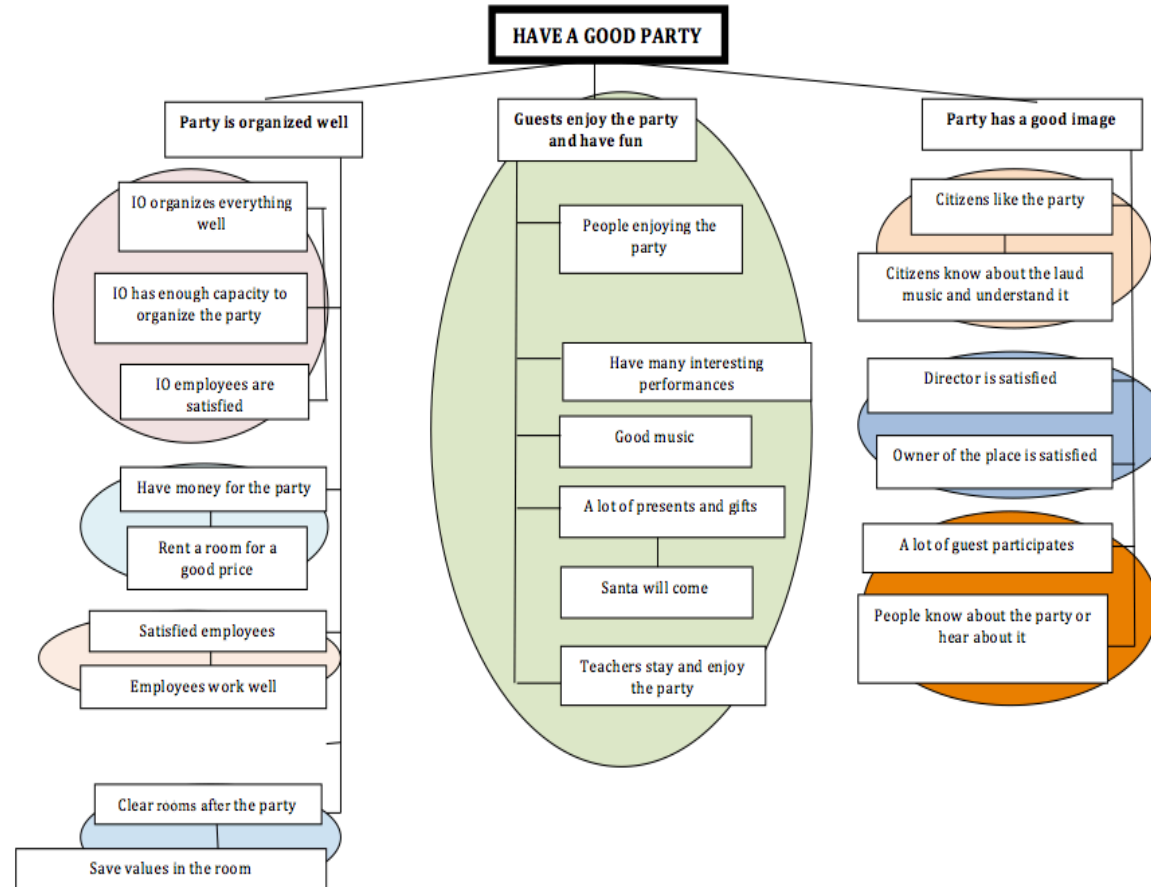
After the elaboration of the objective tree, the management and the leaders of the project have to decide about the followings:

- If the strategy contains more fields and more possibilities, which one of these fields will be implemented during the project?
- Is it possible to implement more strategy and fulfill more of the main objectives?
- Which projects will be implemented according to the selected strategies?
- Where are the borders of the project framework? Where do the projects start and where do they end?

SAMPLE PROJECT

Organizing a Christmas party

The problem tree and objective tree of this project was elaborated after the SWOT analysis during two project meetings. The students worked together and modified the expressions into sentences from the SWOT, grouped the main problems and then translated them into objectives. After the main problems and objectives were defined, it turned out that there are three main project lines. The main project lines are visualized by different color circles. These lines can represent three different projects which the following figure represents:



CONTROL QUESTIONS

1. What is the base of the strategy analysis in the PCM?
2. What steps do you need to follow during the strategy analysis?
3. What are the evaluation criteria of choosing the right strategy?

PROJECT MANAGEMENT



STRATEGY ANALYSIS

WHAT IS STRATEGY ANALYSIS?

- selection of the strategies - to achieve the objective
- select objectives that are similar
- decide about objectives - in or out of the project
- identify project purpose and overall objectives
- project or program (project sized or program sized)



ASPECTS OF EVALUATION

- CRITERIA FOR ALTERNATIVE STRATEGIES**
- priority of and attractiveness to target group
- availability of resources (not only financial resources)
- existing potentials and capacities (of target groups)
- relevance for external strategies and programs
- relationship with other actions
- social acceptability
- contribution on reduction of inequalities (e.g. gender, environmental effects)
- urgency
- probable total cost
- financial and economical feasibility
- professional feasibility
- durability

STEPS OF THE ANALYSIS

- identify objectives which we are not interested in - do not want to deal with
- group objectives (lefting to define and evaluate alternative strategies)
- identify the optimal strategy - to implement
- define project purpose and overall objectives

TEAMWORK



Select your strategy from the objective tree



WHAT IS STRATEGY ANALYSIS?


- selection of the strategies - to achieve the objective
- select objectives that are similar
- decide about objectives - in or out of the project
- identify project purpose and overall objectives
- project or program (project-sized or program-sized)

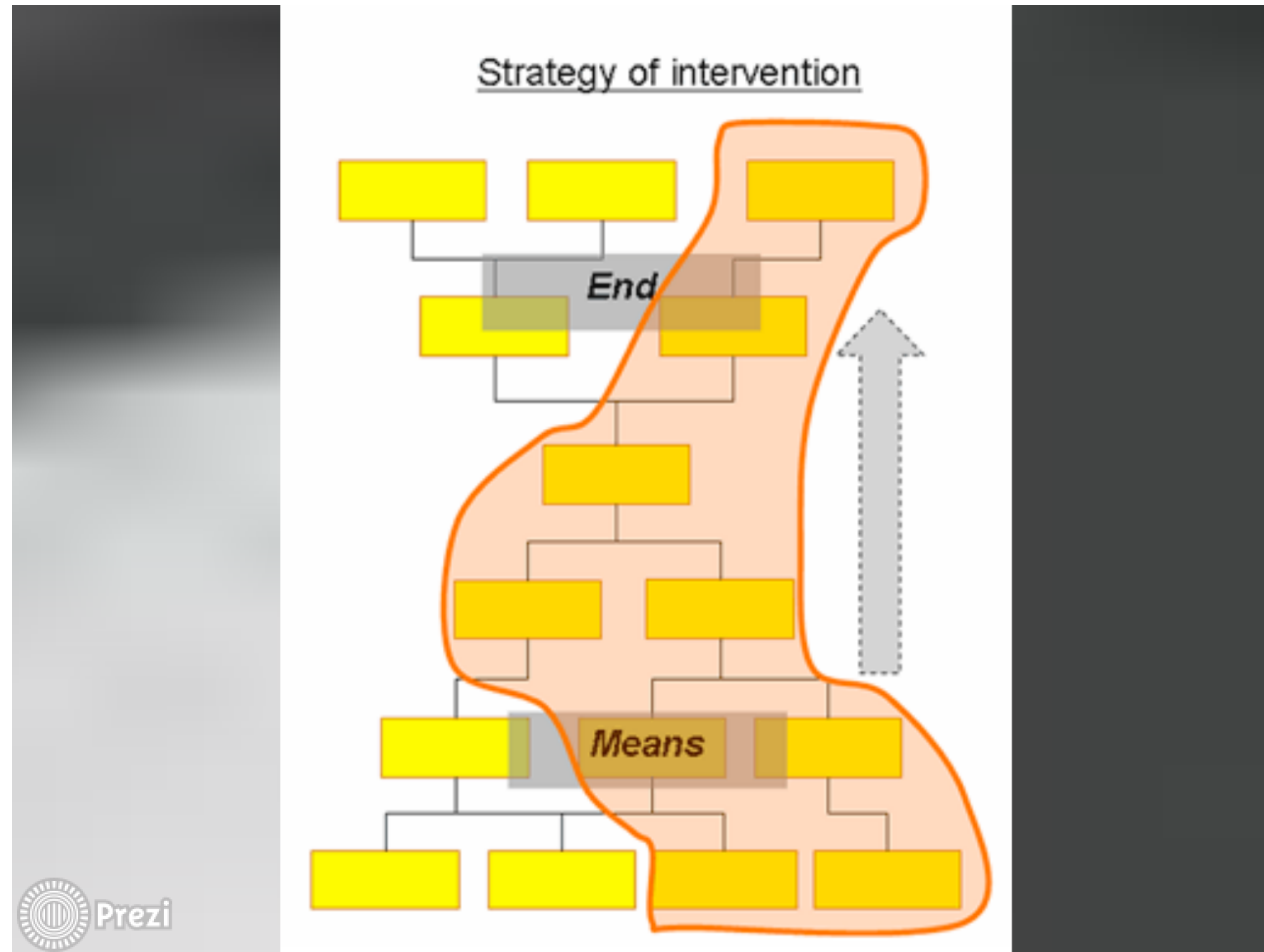
STEPS OF THE ANALYSIS

- identify objectives which we are not interested in - do not want to deal with
- group objectives (left in) to define and evaluate alternative strategies
- identify the optimal strategy - to implement
- define project purpose and overall objectives

ASPECTS OF EVALUATION CRITERIA FOR ALTERNATIVE STRATEGIES

- priority of and attractiveness to target group
- availability of resources (not only financial resources)
- existing potentials and capacities (of target groups)
- relevance for external strategies and programs
- relationship with other actions
- social acceptability
- contribution on reduction of inequalities (e.g. gender, environmental effects)
- urgency
- probable total cost
- financial and economical feasibility
- professional feasibility

 **Endurability**



9.2. Action planning

DEFINITIONS

Action planning is a method for analyzing and presenting the project activities. All of the activities have to be based on the main objectives visualized in the objective tree and selected during the strategy analysis. The activity schedule can be defined as the base for allocating management responsibility and resources -further inputs -- during the project implementation process. On the other hand, the activity plan gives the exact base of the costs scheduling process.

The representation of the activity schedule – besides – identifies the main activities, shows the logical sequence and the expected duration of tasks too. From the chart, visualizing the activity planning, milestones can be identified. The definition of milestone can be found on the following pages. Together with activities, the schedule can also contain the name of the responsible person who is responsible of the implementation of that typical activity.

Due to this analysis the management and the decision makers can exactly see and understand the activities which have to be implemented and their connections and dependencies which influence the project process.

The activity schedule has to be prepared during the project planning process but the feasibility study and the LFM also has to contain some parts of this analysis. The activity schedule has to be closely connected to the project results and gives the bases of the cost schedule.

Milestones are key events in the activity schedule which measure the progress and the completion of the activity. These events or activities help the management to measure the progress of the project process and informs them if they reached the goals of the project. Therefore milestones are significant in the monitoring and evaluation process too.

Milestones usually mean the completion date of an activity.

STEPS OF THE ACTION PLANNING

The elaboration of the activity schedule needs to be implemented after the objective analysis. The results of the activity have also have a significant role in the logframe matrix as the matrix's intervention logic contains the activities.

The steps of implementing the activity schedule are easy to understand and can be implemented in a simple table:

1. At first the management or the team which implements the schedule need to check the main objectives stated in the objective tree. The hierarchy of the objectives will highlight the main activities of the project.
2. Thank a list should be prepared, containing all the necessary activities to reach the objectives.
3. Using a simple table, the implementing team can make a hierarchy of the tasks and assign numbers to each activity.
4. After the management stated all the activities they need to check them again and break tasks down into manageable tasks and sub--activities if necessary. This will be important to estimate the timeframe and costs. The purpose of the breakage is to make them simple enough to be organized and managed easily. The technique is to break the activity down into one or more sub--activities, and then to break each sub activities down into its component tasks.
5. All the activities have to be organized in a clear sequence (order) and the management should identify all the dependencies between them. In the table they have to state when the task can be started, what their duration is and when it will be finished. Comparing to all the beginning and closing of tasks to each other, the dependencies will be clear.
6. Together with the duration and the termination of the tasks, the management can define all the milestones of the project. The meaning of milestones is defined above in this chapter.
7. The table elaborated for the activity schedule can contain the description of the expertise which is needed to implement that specific task. Sometimes this means that the management can allocate the tasks and name the responsible person or team too.

1. Figure: Gantt chart containing the activity schedule of the project

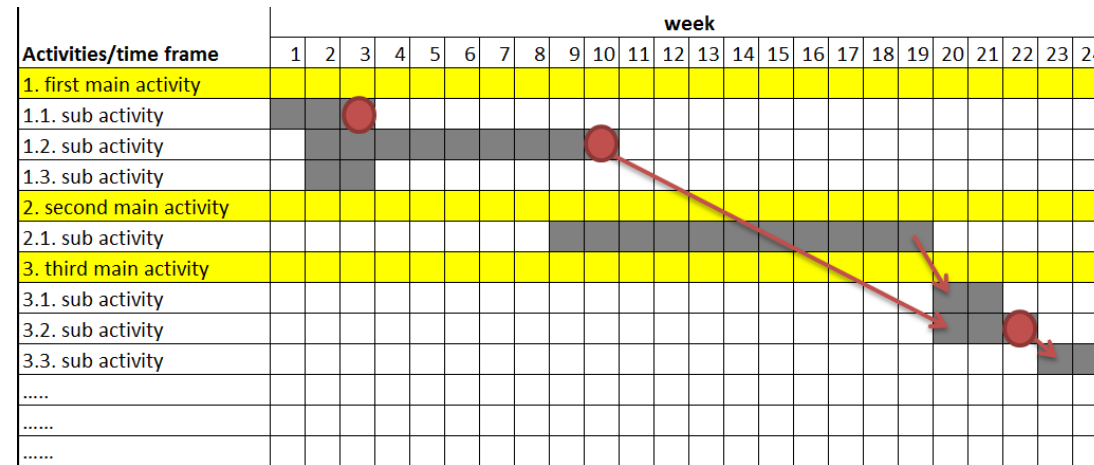
Activities/time frame	week																							
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
1. first main activity																								
1.1. sub activity																								
1.2. sub activity																								
1.3. sub activity																								
2. second main activity																								
2.1. sub activity																								
3. third main activity																								
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Source: own compilation

This above mentioned table that contains the activity schedule of a project is called the *Gantt chart*. The Gantt chart is a bar chart and was developed in the 1910 by Henry Gantt. This chart is a graphic representation of the timing, the sequence and the duration of project activities. The Gantt chart can also contain the milestones – defined above – or the name of the responsible persons.

This chart can be used not only in project management but in other management fields like human resource management or in managing production of a company. The implementation of the chart can be supported by several computer programs like Ext Gantt, Microsoft Project, or Smartsheet's online software.

2. Figure: Gantt chart containing the linkage of activities and milestones



Source: own compilation

The form of the activity schedule's table can vary by the importance of a detailed planning or the duration of the project. The time frame for the planning process can also affect the elaboration – e.g. there is only a short time for the planning process, the activity schedule will not contain that much detail. On the other hand, the first period of the project can be elaborated more precisely but the schedule can contain less information about further part of the project. The decision making process of the management or the quality of information needed to make a decision also influences the content of the chart.

PROBLEMS DURING THE ELABORATION PROCESS

The elaboration of the Gantt chart containing the activity schedule looks easy but several mistakes can be made during the process.

The first problem can be occurring when the objectives are translated into activities.

The management needs to examine closely the followings:

- Every task has to be understood by the management team and align to the stakeholders interests. It is not effective to involve tasks with which the stakeholders do not agree.
- All the tasks should reflect precisely the objective to which it belongs to. Task that are not closely connected to the objectives should be excluded before during the strategy analysis.
- The depth of the activity specification depends on several factors, like the nature and the scale of the project, the stage in the project cycle or the length of the project. For instance, in the beginning of the project it can be more useful to plan the first year in a more detailed version – e.g. in weekly periods -- but all other years can be planned in monthly bases or in longer periods.
- If the elaborating team misses one or more necessary tasks from the chart, it can affect the implementation of the whole project and cause financial and management problems.
- The interdependence of the activities has to be planned carefully. The Gantt chart can show the connections but if hidden connections exist and not identified, the management can face a lot of problems.
- Milestones have to be placed carefully as they usually mean the completion of an activity and can influence the results of monitoring too.
- Every activity has to have a responsible person. The allocation of tasks between the management team can be difficult as it depends on personal capability, experience and skills. At first, the responsible person needs to understand the task and has to feel committed to the implementation and the results. On the other hand, the management has a responsibility not to give too much tasks and not to overburden the team members as it can affect the efficiency of the implementation process.

In the 4th step of activity planning process the management has to break down the activities into manageable tasks. During this step several problems can be occurred.

One of the problems is to break the activities down into too much sub activities. The breakdown should continue only until the management can identify the timeframe of the activity and the required resources. The responsible person can also stop this breakdown as he or she understood well enough the job he or she has to do.

On the other hand, sometimes, during the implementation phase, the activity schedule seems not to contain enough information for the management. In this case, breaking down the activities can be continued according to the changing situation.

The main point in braking down the activities is to compare them with the suitable resources. In the next step of the planning phase, in the resource schedule, this receives a bigger emphasis.

SAMPLE PROJECT

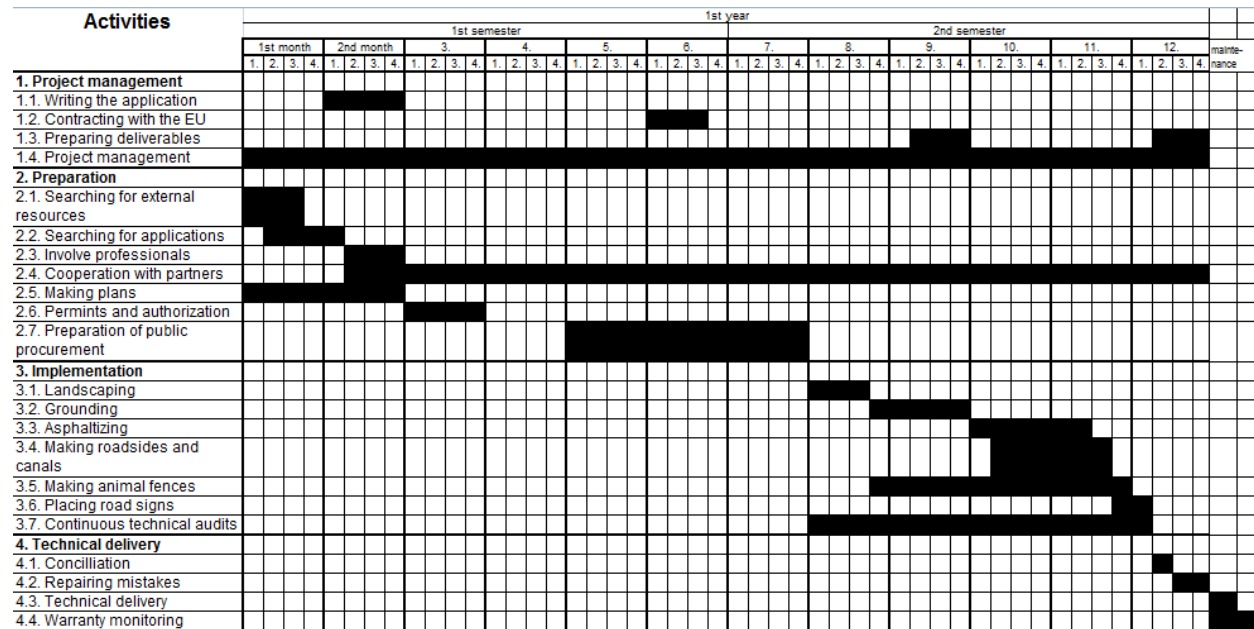
Building a road and a bicycle path

Elaborating an activity schedule for an infrastructural project can be difficult as most of the activities are construction tasks. These are supplemented with several 'common' activities like project management, preparation or communication. But most of the budget and timeframe belongs to the construction part in these kinds of projects.

Our sample project is a little bit easier – comparing to huge road buildings – as it is a smaller investment. The preparation with public procurement requires more time then the building process.

The management of the project is a continuous activity and as external resources are involved – by submitting an application for EU funds – a mid--term and a final deliverable is planned. Public procurement will be implemented before contracting with the funding organization – this is a legal possibility in Hungary called conditional public procurement. This means that the management starts the procurement but all the participants know that the investment starts only if the application wins and EU fund can be involved. This aims to speed up the process.

3. Figure: Gantt--chart of the project about road building



Source: own compilation by project documents

CONTROL QUESTIONS

1. What is action planning in the PCM?
2. What is the definition of milestones?
3. What is the Gantt-chart and what does it contain?

CONTROL TEST

Multiple-choice questions

1. Strategy analysis in the PCM means...
 - a. the identification of problems
 - b. the identification of objectives
 - c. the selection of the main strategic framework of the projects
 - d. the identification of stakeholders
2. What is one of the main decisions during the strategy analysis?
 - a. identify problems
 - b. identify main costs
 - c. decide about objectives - in or out of the project
 - d. list stakeholders

3. Steps of the strategy analysis does not contain...

- a. identification of the strategic framework of the project
- b. identification of the optimal strategy which will be implemented
- c. selection of similar objectives
- d. estimation of costs

4. Action planning is a method for analyzing and presenting the

- a. problems
- b. stakeholders
- c. objectives
- d. project activities

5. Which of the sentences is NOT true? The activity schedule...

- a. visualizes the main milestones
- b. identifies the main activities
- c. shows the logical sequence and the expected duration of tasks
- d. identify a hierarchy of stakeholders

6. What asset do we use for planning the activities of the project?

- a. problem tree
- b. objective tree
- c. gantt-chart
- d. stakeholder analysis

7. What are the milestones of a project?

- a. date of the beginning of the project
- b. key events which measure the activity and dates of their completion
- c. manageable tasks
- d. date of closing the project

8. The first step of implementing the activity schedule is to...

- a. check the main objectives stated in the objective tree
- b. check activities and break tasks down into manageable tasks
- c. organize a clear sequence of the activities
- d. define the milestones

9. To break down the activities into manageable tasks is important because...

- a. they define the objectives
- b. they need to be simple enough to be organized and managed easily
- c. they are the milestones
- d. they show the costs of the activities

10. Which of the following factors is not placed in the activity schedule?

- a. list of activities
- b. milestones
- c. duration of the activities
- d. objectives

True or False questions

Statement	True	False
1. Strategy analysis is the final stage of the analysis phase of the LFA process.		
2. The strategy analysis in the PCM is based on the objective analysis.		
3. During the strategy analysis the management needs to respect all the interest of the stakeholders.		
4. The selected strategy influences all the project activities.		
5. All of the project activities have to be based on the main problems visualized in the objective tree.		

TASK FOR SUBMISSION

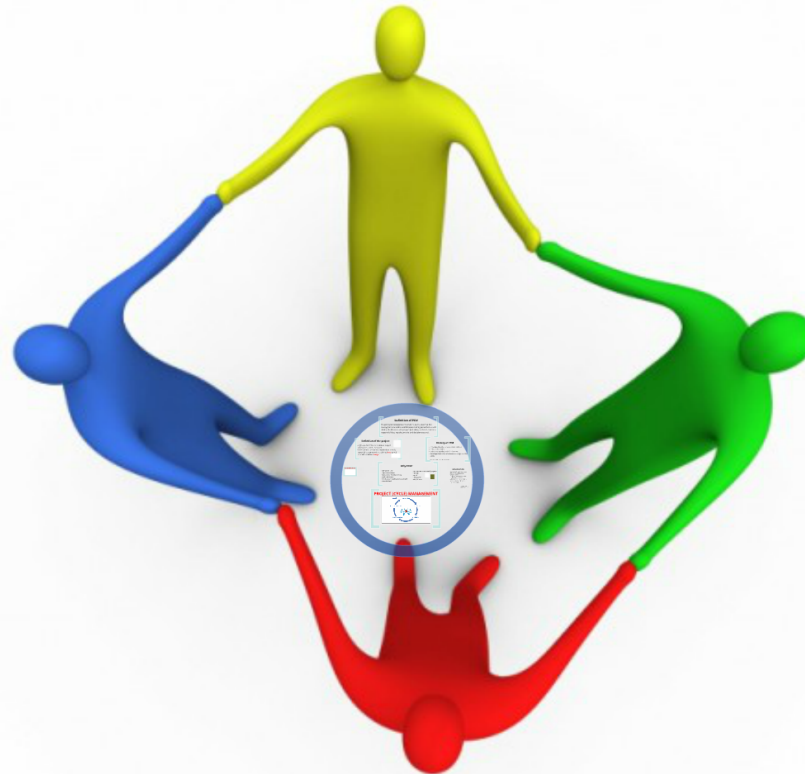
Check the above mentioned objective tree of the event organizing project and elaborate its activity schedule.

Select a strategy and identify suitable activities to reach the main objectives. Then break down activities if necessary. Indicate the completion of the main activities with placing the signs of the milestones.

Use the following form:

activities	time schedule					
	1 st week	2 nd week	3 rd week	4 th week	5 th week	6 th week

PROJECT MANAGEMENT



ACTION PLANNING

Activity schedule

- presenting the activities of the project
- based on the main objectives
- basis for allocating management responsibility
- basis of specifying further inputs and scheduling costs

Steps of activity planning

- list main activities
- break activities down into manageable tasks and sub-activities (can estimate time and cost)
- clarify sequence (order) and dependencies (when can we start)
- estimate start-up, duration and completion
- summarize scheduling of activities
- define milestones
- define expertise
- allocate tasks among teams
- presenting the activity schedule - **gantt chart**



Milestones

- key events
- to measure the progress of the activity
- a target for the project team - did they reach the aims?
- for monitoring and management
- usually = **dates of completion of an activity**

Activity schedule

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Milestones

- key events
- to measure the progress of the activity
- a target for the project team - did they reach the aims?
- for monitoring and management
- usually = **dates of completion of an activity**



	11.03	12.03	1.04	2.04	3.04	4.04	5.04	6.04
Preparation and Planning								
Develop project proposal	■							
Approve project proposal		◆						
Recruit project team		■						
Development and Test								
Specify detail requirements			■					
Develop prototype			■	■				
Approve prototype					◆			
Develop beta version					■			
Test beta version						■		
Apply final corrections							■	
Approve final version							◆	
Implementation								
Train users							■	
Roll-out final version								◆



CHAPTER 10

10. Cost schedule and financial planning

10.1. Definition

In the planning phase of the project cycle and LFA, a resource schedule has to be implemented. The base of this schedule is the activity plan and its Gantt--chart. The costs of the project need to be estimated carefully and thoroughly as this schedule has a significant role in the implementation process. The budget that is elaborated in this stage influences every step of the implementation of the project and also affects the evaluation process. The costs schedule also has an effect to the decision making of the stakeholders and to the investment decisions.

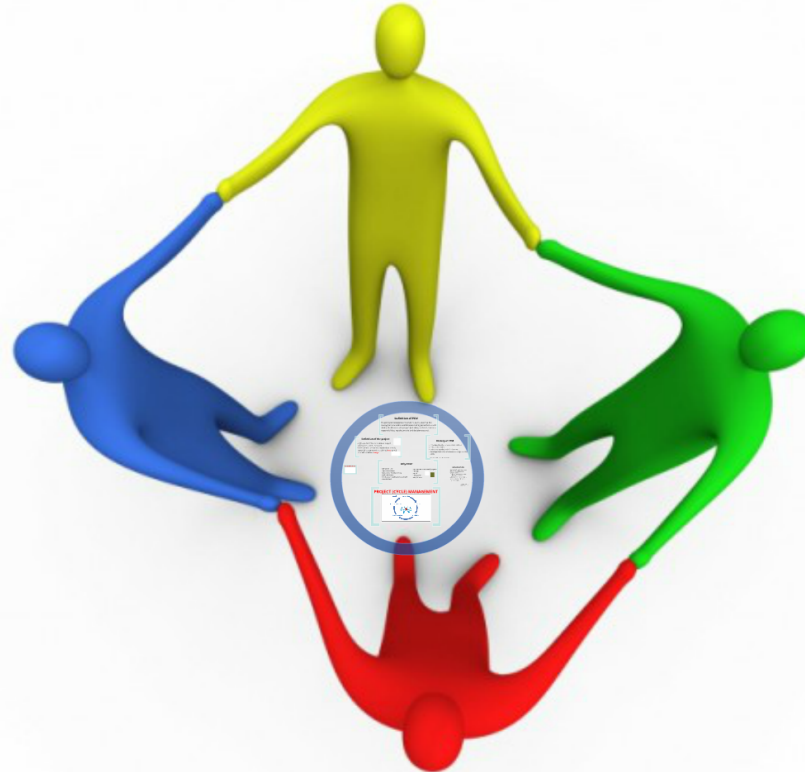
Resource scheduling can be made by a chart containing the assets and means closely connected to the main activities and the costs of these assets. The chart can also include information about the resources needed to settle the costs. The cost schedule chart can be combined with the Gantt--chart and contain both the timeframe and the budget of the project.

1. Figure: Costs schedule

Activities/costs	Unit	Quantity	Cost per unit	Taxes (VAT)	Total	Funding Source	Responsible
1. first main activity							
1.1. sub activity - asset/mean							
1.2. sub activity - asset/mean							
1.3. sub activity - asset/mean							
2. second main activity							
2.1. sub activity - asset/mean							
3. third main activity							
3.1. sub activity - asset/mean							
3.2. sub activity - asset/mean							
3.3. sub activity - asset/mean							
.....							
.....							
.....							

Source: own compilation

PROJECT MANAGEMENT



RESOURCE SCHEDULES

WHAT IS A RESOURCE SCHEDULE?

- estimation of costs and budget
- the list of activities is copied into an input and cost schedule pro-form
- activities are used as a checklist

WHY IS IT IMPORTANT?

- has a significant role in the investment decision making process
- ensures that all necessary means for the activities are provided for
- project costs should allow the replacement of costs between the different funding sources
- each party is clear about their respective contributions
- to sort all costs and to determine respective totals

STEPS OF SCHEDULING RESOURCES

- Copy activities from network schedule
- Specify resources required
- Identify units
- Specify quantity
- Estimate unit cost
- Identify funding source(s)
- Allocate unit costs
- Schedule costs
- Calculate total
- Estimate resource costs

COST SCHEDULE

ACTIVITY	UNIT NAME	UNIT	UNIT COST	TOTAL
3. buying refreshment drinks				
3.1. buying the drinks	bottle	100	800 Ft	80 000 Ft
3.2. bringing the drinks to the college by taxi	trip	1	800 Ft	800 Ft
Total				10 800 Ft

PROBLEMS DURING PLANNING COSTS

- Costs of assets
 - cost change if you reach the elaboration phase
 - quality changing technical parameters
 - public procurement, time and cost
- Costs of equipment
 - reporting goods
 - delivery problems
- Costs of human resources
 - effort requirements about salaries (hours, working hours)
 - employment or assignment?
- Costs of services
 - material and material factors (raw materials, etc., abilities, material needs, etc.)
 - effort to plan
 - to fix costs
- Other costs
 - permits, licenses, concessions, legal issues, authority
 - administration
 - project management



WHAT IS A RESOURCE SCHEDULE?

- estimation of costs and budget
- the list of activities is copied into an input and cost schedule pro-form
- activities are used as a checklist



WHY IS IT IMPORTANT?

- has a significant role in the investment decision making process
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- project costs should allow the replacement of costs between the different funding sources
- each party is clear about their respective contributions
- to sort all costs and to determine respective totals

STEPS OF SCHEDULING RESOURCES

- Copy activities from activity schedule
- Specify resources required
- Specify units
- Specify quantity
- Estimate unit cost
- Identify funding source
- Allocate cost codes
- Schedule costs
- Calculate total
- Estimate recurrent costs



PROBLEMS DURING PLANNING COSTS

Costs of assets

- can change till you reach the elaboration phase
- quickly changing technical parameters
- public procurement - time and cost
- costs of shipment
- importing goods
- currency problems

Costs of human resources

- difficult regulations about salaries (taxes, working hours)
- employment or assignment?

Costs of services

- depends on several factors (time frame, HR, abilities, market niche, etc.)
- difficult to plan
- no fix costs

Other costs

- permits, licenses, concessions - legal issues, authority
- administration
- project management



PROBLEMS DURING PLANNING COSTS

Costs of assets

- can change till you reach the elaboration phase
- quickly changing technical parameters
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- importing goods
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- currency problems

Costs of human resources

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- employment or assignment?

Costs of services

- depends on several factors (time frame, HR, abilities, market niche, etc.)
- difficult to plan
- no fix costs

Other costs

- permits, licenses, concessions - legal issues, authority
- administration
- project management

<u>COST SCHEDULE</u>				
ACTIVITY	UNIT NAME	UNIT	UNIT COST	TOTAL
1. buying refreshment drinks				
1.1. buying the drinks	bottle	100	300 Ft	30 000 Ft
1.2. bringing the drinks to the college by taxi	trip	1	800 Ft	800 Ft
Total				30 800 Ft

10.2. Methods of cost scheduling

According to the literature, several costs scheduling methods can be used during the project planning process. In this workbook we focus on the project cycle management process but here some other methods are mentioned. These types of costs scheduling can help to understand this stage better and give an overall point of view about the project management techniques.

Every scheduling method in the planning stage tries to forecast or estimate the possible costs of resources which have to be involved into the project.

Cost per unit method uses a simple table which contains the quantity of resources and the numbers which show how much they cost. However, these tables can be different as different resources cannot be measured in the same way. Costs of assets for instance can be stated in a chart indicated the maximum units, standard rates, unit costs and total costs. But the chart which contains human resource expenses, salaries, needs to contain duration of employment, work per hour costs our monthly salaries.

The top-down budgeting method is based on the opinion of the leaders of the project or the company. The top management estimates the costs of the main activities and the lower level managers have to break this down into activity level cost schedule. The advantage of this method is that the overall costs of the project can be estimated easily and the costs of activities may not have substantial errors if they follow higher level estimations. Another advantage is that the top management knows more about the funding possibilities and they can elaborate main costs according to these resources.

Bottom-up schedule is almost the opposite of the top down budgeting method. Here those elaborate the cost table who are responsible for the implementation of the specific tasks. After the project team estimates the costs, all the separate charts can be merged and summarized in one table. This method can be more accurate as the costs of every task can be easily measured in the lowest level of implementation. However it can be more dangerous to involve small tasks into the budget which increase the overall costs significantly.

10.3. Steps and content of cost scheduling

Costs scheduling is a complex process but begins with an easy step. The first stage of preparing the chart is to copy all the activities from the previously elaborated Gantt chart. The activities were broken down before into sub activities so the management here only needs to check if they can assign costs to each sub activities. The management also has to check whether all those activities are included which have significant role in the fulfillment of objectives.

The second step of the costs schedule is to specify the units to which the costs can be assigned. This unit can differ according to the type of resources and the utility of the activity.

After defining the units, the management has to specify the quantity of each asset connected to the activities.

The cost of the activity can be based on the unit cost which the management has to estimate precisely. Usually unit costs are based on specific offers and inquiries of involved suppliers. In the case of humane management costs, the unit cost can be stated in a contract or regulations regarding to salaries.

Sometimes costs schedule has to include the sum of taxes – like VAT – to calculate the total cost of the project. The management can decide to add or leave out this column but stakeholders or the leaders of the project might need it during the decision making process.

To the end of the costs chart a column of total costs should be added. The total costs can be calculated from the multiplication of the unit cost and the quantity using a simple formula. If necessary, the sum can be increased by the amount of taxes too.

The table of costs can also include the time schedule copied from the Gantt--chart.

Visualizing the timeframe together with costs can help the management to

- estimate the quantity of the unit – e.g. the quantity of the working hours of a person
- estimate recurrent costs
- get information about the duration of an activity and therefore estimate the unit cost closely connected to this lengths
- identify the payment periods of the project according to the milestones
- calculate annual costs for annual accounting or tax declaration
- base the cash--flow of the project

The management can find useful to add three more columns to the costs schedule: the *founding sources, required resources or cost codes*.

Funding Source can contain information about the source from which the price of the specific activity can be settled. This column can be used to sort all costs of the project and to determine respective totals too.

Required resources can be important if there are some activities which implementation need external investment and the involvement of external resources. The management need to check all those activates without available resources and has to be prepared to find a solution to this shortage.

Cost codes can help to established cost categories like Planning Unit requires Equipment and Salaries or Allowances. Management activities also should be separated and indicated with a specific code. Codes can help to sort and categorize cost and calculate the total costs according to these categories.

10.4. Problems during the elaboration process

The cost scheduling is one of the most difficult tasks of the project management process.

It requires not only managerial skills but further and specific knowledge about several areas like...

- human resource management,
- taxation,
- accounting,
- law,
- public procurement,
- statistics,
- mathematics,
- programing.

The management needs to involve professionals who are good at these fields to elaborate a proper costs schedule.

Sometimes it can be difficult to find the suitable costs which describe the activity well. The main rule is to indicate all costs that are closely connected to the activities and estimate all the costs which can occur during the implementation process. If the cost cannot be stipulated well, another activity should be added to the chart. This activity then needs to be entered into the Gantt--chart too.

The sub activities are defined in the previous stage of the planning process, during the activity schedule. But breaking down activities into suitable level can be difficult and sometimes needs to be modified later. The elaboration process of the costs schedule can include this step, when the management is not able to assign costs to a specific activity and needs to break down the sub activities again. It is important to modify the Gantt--chart too as the costs schedule identifies new sub activities.

Finding a suitable unit to the costs can also cause problems. For instance, human resource cost can be stipulated in several ways, like working hours, cost per person or other contracted periods.

In the application submitted for the HORIZON 2020 Program the management has to use working hours for the calculation of the personnel's salaries. The EU indicates all the salaries per working hours per countries. The costs are different in every member states but only working hours can be calculated. On the other hand, in Hungarian accounting system, using working hours is not usual. The projects usually calculate the HR costs in monthly payments. Besides, the leaders of the company require information about the annual expenses or the monthly payment of one person (e.g. the project manager).

The best way to fulfill all the needs is to indicate all these type of cost in the budget or make several tables for the different needs.

Another problem to which the management has to pay attention is to harmonize the units of connecting activities. It can mean the harmonization of currencies in the whole project or the comparison of unit elements – e.g. human resource units.

The difference in the currencies and foreign accounting systems can cause several problems too. All the payment in a project has to be underlined by documentations and sometimes foreign accounting regulations and systems do not provide us the necessary papers. Besides currency difference can result deficits or plus income during the implementation. However the changing exchange rate is difficult to schedule.

The cost per unit always has to be aligned to the unit itself. If the unit is not a simple measuring element but a multiplication or a quotient of two or more units, the calculation of the unit cost needs to be checked carefully. On the other hand, the miscalculation of the unit cost can cause deficits in the project if the planned price is lower than the real one. Sometimes this miscalculation can be caused by the changing environment or business terms.

Into the costs schedule of a project aimed to develop the career office of the college, the management inserted the purchase of a digital camera. After checking market prices the management thought to buy the camera for HUF 120 000. The elaboration of the costs schedule happened in November. The project received a co-financed EU support by the submission of a specific application. The acceptance procedure of the application took more than 3 months and the college won the support in March. During this period the prices of electronic assets decreased significantly due to a global market change. The supporter of the application decided not to give HUF 120 000 to the college to buy the camera therefore the management had to modify the whole budget.

The estimation of quantity of the implemented activity can cause difficulties. The stated quantity always needs to be reflected in the contracts signed by the employees or suppliers. Sometimes the contractual regulations or other specific terms can modify the quantity – e.g. there are only 40 working hours in a week, or a specific asset can only be shipped in bulk.

During the planning phase of a project which aimed to develop and rebuild a library, the management decided to purchase 120 tables for the visitors. They ordered the tables after a public procurement procedure. The supplier then consulted the director of the library, measured the place and shipped only 60 tables. When the management realized this, they were angry with the director of the library and with the supplier too. All the documents contained 120 tables and they thought 60 tables are missing. At the end, after checking it in the library, the management realized that the supplier made tables which have two sides and the visitors can sit to each of them. So the tables were made for 2 persons.

This decreased the lengths of the tables and left more space in the library. On the other hand, 120 visitors could sit down – as it was planned before.

The conclusion is that the management should involve the stakeholders – here the director of the library – into every phase of the planning process, even into the costs schedule. The stakeholders can have information which the management does not possess – e.g. that there is not enough space for 120 separate tables in the library.

During the elaboration of the cost schedule the management has to prepare for the effects of the changing environment. Several factors can be modified during the implementation phase which significantly affects the budget of the project.

The change in the following factors needs to be examined carefully:

- number of employed persons
- salary of the involved persons
- type the involved assets or products
- environmental effects of the project activities and their impact externalities
- change in the price level of the purchased items
- possible changes in the management
- changes in taxation or other business regulations, etc.

Planning the purchasing process of the project also requires special attention. The purchasing process can be varying according to the type of the organization. Public institutes have to follow the regulations of public procurement. The buying process of a company can be simpler but the prices and the bargaining process are different. The price of a purchased item can also be influenced by the place of the acquisition and the type and distance of the shipment. Buying an asset from abroad, usually mean extra costs because of the import taxes and shipment prices.

Calculation of overhead is one of the most difficult tasks of the costs schedule. If it is important to involve these costs into the project the management needs to check all previous overhead costs and make a precise forecast about it. However this forecast is really difficult to prepare. Several factors influence -- for instance -the price of the heating or water supply or other current expenses.

The heating costs e.g. can be modified by..

- the weather and seasons
- the heating system
- the size of the building
- the use of renewable energy sources
- the number of employees working in the building
- the type of machines and assets placed and operating in the building, etc.

SAMPLE PROJECT

Building a road and a bicycle path

According to the activity schedule the team elaborates the resource plan. This can be implemented in several forms. In this project the time schedule of the costs based on the Gantt--chart is added to the 'usual' chart (containing the unit costs, quantity and costs columns) and also the involved resource are indicated. During the working years every experts of project management elaborates the form of cost schedule which he or she can understand easily and which can be easily converted to the form that application and projects require (e.g. braking down costs into monthly or quarterly periods, group costs into accounting categories, etc.).

The road building project's cost schedule reflects this experience:

2. Figure: Costs and resource schedule of the project about road building

Activities	Unit	Quant.	Unit price (HUF 1000)	Costs (HUF 1000)	1st year												Total resources			Total
					1st quarter			2nd quarter			3rd quarter			4th quarter			own	credit	support	
					I.	II.	III.	IV.	V.	VI.	VII.	VIII.	IX.	X.	XI.	XII.				
1. Project management				420																
1.1. Writing the application	work hours	160	1	160		160											160			160
1.2. Contracting with the EU	work hours	20	1	20					20								20			20
1.3. Preparing deliverables	work hours	240	1	240									120			120	24		216	240
1.4. Project management	day	260		0																
2. Preparation				6660																
2.1. Searching for external resources																				
	work hours	20	1	20	20												20			20
2.2. Searching for applications	work hours	20	1	20	20												20			20
2.3. Involve professionals	work hours	240	5	1200		1200											1200			
2.4. Cooperation with partners	phone and post			220		20	20	20	20	20	20	20	20	20	20	20	112		108	220
2.5. Making plans	pcs			3050		3050											3050			
2.6. Permits and authorization	pcs	3	50	150			150										150			150
2.7. Preparation of public procurement				2000					500	750	750						500		1500	
3. Implementation				99700																
3.1. Landscaping	km	10	200	2000							2000						200		1800	2000
3.2. Grounding	km	10	4000	40000							8000	32000					4000		36000	40000
3.3. Asphaltizing	km	10	5000	50000									40000	10000			5000		45000	50000
3.4. Making roadsides and canals	km	20	100	2000										1000	1000		200		1800	2000
3.5. Making animal fences	km	10	20	200							20	60		60	60		20		180	220
3.6. Placing road signs	pcs	150	30	4500										2250	2250		450		4050	4500
3.7. Continuous technical audits	work hours	200	5	1000									300	300	300	100	100		900	1100
4. Technical delivery				2364																
4.1. Conciliation	work hours	64	1	64												64	64		57,6	64
4.2. Repairing mistakes				2000												2000	200		1800	2000
4.3. Technical delivery		10		300												300	300			300
4.4. Warranty monitoring				0																
Total				109144													15732	0	93412	109144

Source: own compilation by project documents

CONTROL QUESTIONS

1. What do we mean cost scheduling?
2. What is the content of the costs schedule chart?
3. What kind of problems can occur during the costs scheduling process?

CONTROL TEST

Multiple-choice questions

1. What is the resource schedule of the project?
 - a. estimation of costs and budget
 - b. hierarchy of problems
 - c. list of aims
 - d. a report of the project
2. The base of this schedule is the
 - a. problem tree
 - b. objective tree
 - c. activity plan and the Gantt-chart
 - d. stakeholder analysis

3. Which of the following factors is not placed in the cost schedule?

- a. unit cost
- b. quantity
- c. problems
- d. total costs

4. The top-down budgeting method means...

- a. the lower level management elaborate the main cost schedule and decide about the costs
- b. the top managers estimates the costs of the main activities and the lower level managers break this down into activity level cost schedule
- c. only one cost schedule chart is elaborated by the project accountant
- d. the project target group makes the costs schedule

5. Bottom-up schedule of costs means..

- a. the top managers estimates the costs of the main activities and the lower level managers break this down into activity level cost schedule
- b. the costs are elaborated by those who are responsible for the implementation of the specific tasks
- c. only one cost schedule chart is elaborated by the project accountant
- d. the project stakeholder group makes the costs schedule

6. The first stage of preparing the cost schedule chart in PCM is to

- a. copy all the objectives form the problem tree
- b. copy all the problems from the objective tree
- c. copy all the activities from the Gantt chart
- d. copy all the stakeholders from the Gantt-chart

7. Cost scheduling does NOT require....skills and knowledge.

- a. taxation
- b. accounting
- c. mathematics
- d. history

8. Which of the sentences is NOT true?

- a. When the management is not able to assign costs to a specific activity they need to break down the sub activities into manageable tasks.
- b. Costs schedule can be based on audit reports.
- c. Human resource cost can be stipulated in several forms during the costs schedule.
- d. The cost per unit always has to be aligned to the unit itself

9. Which of the following factors does NOT affects the budget of the project?

- a. number of employed persons
- b. elaboration of a regional development plan
- c. type the involved assets or products
- d. environmental effects of the project activities and their impact - externalies

10. Which of the followings does NOT belong to the overhead costs?

- a. heating costs
- b. water supply costs
- c. salary of the management
- d. gas supply costs

True or False questions

Statement	True	False
1. Cost scheduling does requires statistical skills and knowledge.		
2. The cost scheduling methods try to estimate the possible costs of resources which have to be involved into the project.		
3. The Gantt-chart can be used for costs scheduling.		
4. It is not necessary to harmonize the currencies in the costs schedule.		
5. Public institutes have to follow the regulations of public procurement during the purchasing process.		

TASK FOR SUBMISSION

Check the activity schedule you elaborated in the previous chapter. Copy the activities – you identified – of the event organizing project and try to schedule their costs.

Use the following table:

activities	expertise	costs				fundung source
		unit	quantity	cost/unit	total cost	

CHAPTER 11

11. Project team

11.1. Members of the project team

ESTABLISHING TEAMWORK

Choosing the right members of the project team significantly influences the whole project (planning and implementation) process. It is not an easy task to find the suitable person for a suitable task.

The establishment of the project team should be started in the formulation phase of the project cycle. It can be formulated in several ways but usually the project manager who is a senior or experienced leader of the organization chooses the members.

The team founding process can be started with listing all the necessary activities and skills to complete management tasks. Then it is useful to check the timeframe of the project and define specific milestones and deadlines too. The timeframe of the project will affect the contracting type and the lengths of the employment.

It is also good to check the available resources for project management facilities. Not only financial resources are important – which influence the salaries of the team – but human resources are also need to be checked. If a suitable person is already works for the company, it is no need to employ somebody else form outside of the project framework. It can save expenses and time to find team members inside the organizations.

Before organizing a team, the manager should list the roles and responsibilities of each potential member. Preparing this list can help to avoid duplication of tasks and decide about employment conditions too.

After preparing all the lists and planning the employment of the team, the manager has to launch a communication process about it. It is important to inform all the leaders of the organization and also the potential team members.

The main information which has to be communicated is the following:

- the subject of the project
- the size of the team
- the structure of the team
- expenses according to the operation of the team
- individual tasks and tasks of specific groups in the team
- roles and responsibilities

The role of the project management in the establishment of the team is essential.

The manager has to focus on the followings to make a successful team:

- Clarify and be engaged to the project objectives and inform the potential members about it.
- Identify the main activities of the project and – according to this – the roles and responsibilities of the team members. To every task a responsible person should be delegated and every person should have a clear role in the team.
- Make a resource plan about the operation of the team (detail budget, hours, the number of people and required skills, etc.).
- Consult with the leaders of the organization about the team and the tasks of the team members.
- Make a personal relationship with all team members and get to know them before the project starts. It is also important to make the team understand the goals of the project and be engaged to it.
- Establish an inspiring and clear working area where all the members of the team can feel comfortable.

PERSONAL ATTRIBUTES AND SKILLS (WHO IS A GOOD PROJECT MANAGER?)

The members of the project team have to work together in a project which requires specific knowledge and skills. Therefore the team members need to possess all the required abilities and they have to have a suitable personality too to establish a collaborative atmosphere.

All the members of the project team need to have some specific personal skills and attributes which are the followings:

- high level professional knowledge
- being good at solving problems
- goal orientation
- self confidence
- self-sufficiency
- initiative
- not prejudiced do not have preconceptions
- have precise knowledge about the organization
- understand others' needs and motivations
- good communication skills

The core person of the project team is the manager. He or she has enormous responsibility during the project implementation therefore he or she needs to possess the following skills and attributes in the first place:

- Extraordinary energy levels
- Phenomenal political skills
- Absolute obsession with results
- Love of his or her work
- Clear vision about the project
- Strong team building skills
- Structure and alignment skills
- Strong interpersonal skills
- Discipline
- Communication skills

The manager of the project is responsible not only for his or her work but for the work of all the team members. The success of the project depends on his or her. If the manager likes what he or she is doing, the whole team can embrace the objectives of the project and meet the requirements and succeed in challenges of the project implementation.

The person of project manager has to be conceded by the stakeholders. This means that the most important stakeholder groups of the project have to accept the manager and trust him or her. Besides, the manager has to be truthful in all dealings and relationships according to the project process.

After the stakeholders assign the project manager, he or her needs to focus on the job and exhibit eagerness to organize and lead the group.

The manager also has to have strong political skills as he or she needs to lead a group of people. During the implementation process the team must face to a lot of problems and this can cause internal debates and conflicts. The manager should build a strong internal 'culture' and set positive tones to everyone. He or she should listen to all parties and try to find the best solution for everyone. This also means that the manager has to communicate properly and know when and to whom to communicate.

Another task of the manager is to establish and provide a suitable atmosphere for the project team. This requires not only physical space – like a suitable and comfortable office – but an inspiring and motivating spirit and a good internal moral too.

On the other hand, the manager has to be strict as he or she is responsible for the implementation of the project. The implementation has to be made in time and according to the plans using the resources effectively. If the manager is focusing on the achievement of the goals and exhibits evidence of a strong desire for this goal achievement the project management team will be more successful.

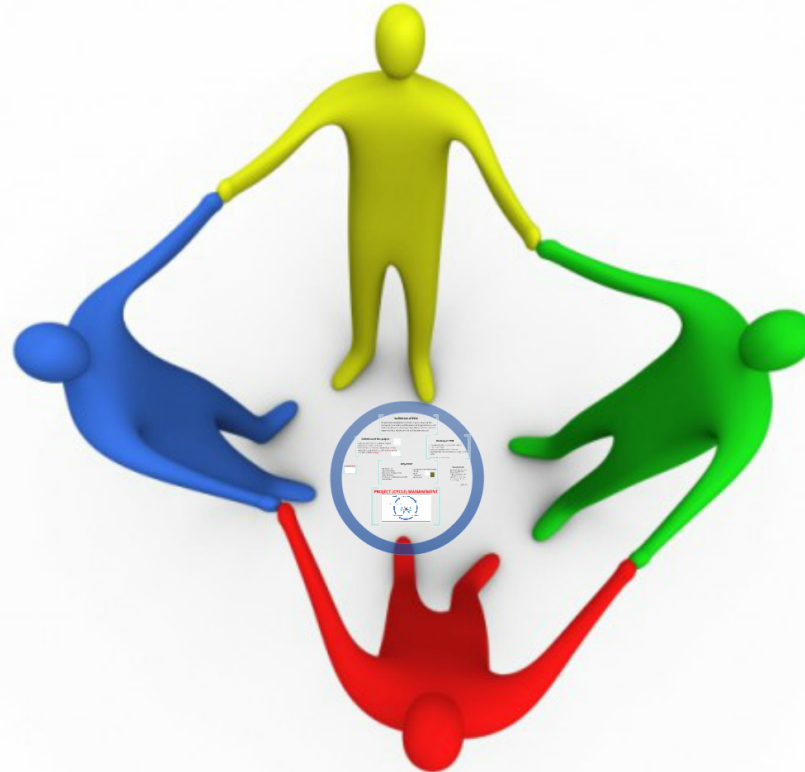
The manager can also increase the success of the team with his or her positive and confident personality and with transmitting a faith that the future will have a positive outcome.

During the implementation phase the project management team will face several problems and challenges. The manager has to handle these problems and be even--tempered to establish a patient atmosphere.

CONTROL QUESTIONS

1. What is the definition of the project team?
2. What are the principles of establishing a project team?
3. Who can be a good project manager?

PROJECT MANAGEMENT



THE PROJECT TEAM



PROJECT IMPLEMENTATION PROJECT TEAM



ESTABLISHING TEAMWORK

- in the formulation period
- choosing the people who implement the project
- professional skills, competences and experiences are important
- personal traits and attributes (motivations, team working skills, etc.) are important
- every task needs to have a person responsible (knowledge and experiences on that field)
- clear responsibilities
- establishing a motivating working area
- team building trainings

ROLES IN THE TEAM

- motivator - supports team spirit
- accurate - meet the deadlines
- realistic - solving problems
- critical - team conscience
- administrator - office routine

TEAM MEMBERS

- project members
- professional experts, responsible persons
- monitoring body
- possessors/owners of resources
- project leader

PERSONAL SKILLS AND ATTRIBUTES

- high level professional knowledge
- good at solving problems
- goal orientation
- self confidence
- self-sufficient
- initiative
- do not has preconceptions, not prejudiced
- has precise knowledge about the organization
- understands others needs and motivations
- good communication skills

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11.2. Rules and tasks in the team

TASKS AND RESPONSIBILITIES OF THE TEAM MEMBERS

The project team consists of several persons with different personalities and skills. All the team members have to have a specific role in the project process.

These roles can be listed as the following:

- project leader
- possessors/owners of resources
- project team members
- professional experts, responsible persons
- monitoring body

The leaders of the project are usually the directors of the organization or the leaders of the stakeholders group. They are the main decision makers of the project and they are responsible to assign the project manager too. The project manager can also be a member of the leaders or join this group after his or her election. Sometimes the leaders of the project are from different organizations – e.g. when a project concerns more sectors like in a project where business sector and public sector both participates.

The project success depends on the owners of the resources. The previously mentioned pre--conditions cannot be fulfilled if the necessary resources are not available. So the resource possessors can have an influence on the starting of the project. They can also affect the decision making process during the formulation and implementation phases.

The project team members are the ones who implement the project. They need special skills and attributes as it is mentioned in the previous chapter. The team members are usually employed by the organization which the project belongs to.

The implementation of the project usually requires professionals or experts of a specific area. The employment of these experts depends on the type of the project or on the operational field of the implementing organization.

The tasks and main responsibilities of the team members are summarized in the following table:

1. Table: Tasks and responsibilities of the project team

TEAM MEMBERS	MAIN RESPONSIBILITIES	Tasks	OTHER RESPONSIBILITIES	COMPETENCES
<u>project leader</u>	<u>lead</u> the team, organize the implementation	<ul style="list-style-type: none"> • <u>preparing</u> for and making decisions • <u>employ</u> the team • <u>leading</u> the team 	<ul style="list-style-type: none"> • <u>check</u> the budget • <u>fulfill</u> the goals 	<u>decide</u> about people involved in the project
<u>owners of resources</u>	<u>give</u> resources for the project	<ul style="list-style-type: none"> • <u>assure</u> human resources • <u>training</u> of people • <u>in</u> case of resource shortage they can involve external resources 	<ul style="list-style-type: none"> • <u>assure</u> internal and external resources in time and in suitable quantity and quality 	<u>decide</u> about people involved in the project
<u>project team members</u>	<u>do</u> the given tasks in time	<ul style="list-style-type: none"> • <u>working</u>, do the tasks • <u>administration</u> of the results • <u>give</u> information (about the necessary time and process of the work) • <u>warning</u> about delays 	<ul style="list-style-type: none"> • <u>integrating</u> his/her experiences into the project • <u>do</u> not overstep the cost limit • <u>inform</u> the leader about the risks 	<u>report</u> the need of the assets for his/her work to the leader <u>initiate</u> talks and meetings with the leader <u>collect</u> and elaborate information
<u>experts</u>	<u>consultancy</u>	<ul style="list-style-type: none"> • <u>promote</u> the leader and give him/her advice • <u>help</u> decisions, preparatory work • <u>identify</u> aims • <u>choose</u> standards and methods • <u>quality</u> and standard of system of goals • <u>specification</u> of requirements 	<ul style="list-style-type: none"> • <u>professional</u> aspects in the project 	<u>nominated</u> by the consigner
<u>monitoring body</u>	<u>reporting</u> and monitoring <u>quality</u> assurance	<ul style="list-style-type: none"> • <u>formulation</u> of efficiency requirements • <u>help</u> the leader • <u>optimizing</u> working methods and process • <u>identify</u> quality goals 	<ul style="list-style-type: none"> • <u>monitoring</u> professional and mechanical and quality measures • <u>help</u> the consigner - accept the results or not • <u>quality</u> assurance of the results 	<u>agent</u> of the consigner

Source: own compilation

The most important position in the project team is the project manager's position. He or she has difficult tasks and also has to motivate the team to do their jobs well.

The tasks of the manager can be separated to two type of tasks; to philological leading tasks and to managing and administrative tasks.

Leading tasks can be summarized as the followings:

- identify and understand the interest and expectations of the team members and handle them personally
- give a clear goal to every team member
- state the requirements for every member clearly
- help the work of every team member – to meet deadlines, identify bottlenecks, identify and prevent problems, etc.
- try to act as an intermediary between the different experts of the team and help them to harmonize their joint work
- find a tone which influences the team positively and has a positive team-building impact
- deal problems and motivate the team to be in a good mood
- establish and maintain a good atmosphere – stress-free, optimistic, constructive and inspiring atmosphere
- show a model of the right behavior for the team members
- handle compliments of the team or the stakeholders
- ask good questions and listen to all answers then find a good solution for problems

The leader also needs to focus on the following managerial tasks:

- organize meeting regularly to
 - communicate with and inform team members
 - receive information about the state of project process
 - involve team in the decision making process
 - solve and avoid problems
 - schedule the work of the team
- write reports about the project progress and make records about it
- inform team about any changes and keep them updated regarding the progress of the project
- consult stakeholders regularly
- organize team building trainings to improve the cooperation between team members
- set, observe, and re-evaluate project priorities
- build an extensive formal and informal information network to prevent further problems

The management of the team, at the beginning of the project, needs to meet all the possible team members and get to know them personally.

According to the personal attributes several roles can be defined like the...

- motivator
- accurate
- realistic
- critical
- administrator

The motivator in a team is a person who is able to support the team spirit and establish a positive atmosphere during the teamwork. The motivator's role is important especially during the problem solving process or in a period when all other members in the team are getting tired or lose their faith in reaching the goals. Usually project manager is a motivator type and he or she is the one who exhorts the team.

An accurate person always tries to be punctual and he can influence all other team members to work properly to meet the deadlines or fulfill all the achievements. An accurate person works punctually and the job he or she does is precise. Therefore he or she can influence the other team members to be more exact. This accurate person can also be strict that might cause personal debates and conflicts during the implementation of the project.

A realistic type of person also needs to be involved into the project management team. This person can solve problem more easily as he or she can see processes and problems differently. The realistic person focuses on the solutions and therefore can help the decision making of the project manager.

Sometimes criticism can make damages and ruin partnership. But in the project management team a critical person can also help. He or she can influence the team to stay on the road to the project goals and awaken the team's conscience. The project manager needs to handle conflicts with the critical person but also has to support the activities which highlight problems of the project process.

One of the most important characters of the project team is the administrator. Administrating the project process is a difficult and continuous work and requires specific skills and commitment. The job of the administrator promotes the evaluation and monitoring process therefore it is substantial to measure the results and give detailed information to the decision makers and to other team members.

It is important to emphasize that all the roles of the project team can be combined and one person can have more roles at the same time. A strict and motivating project manager can be realistic and the administrator of the project can be the critical person too.

The project manager has a specific role in the project team. His or her job is not only focusing on one area of the project management but on all the tasks and team members. Therefore he or she has to play more roles at one time.

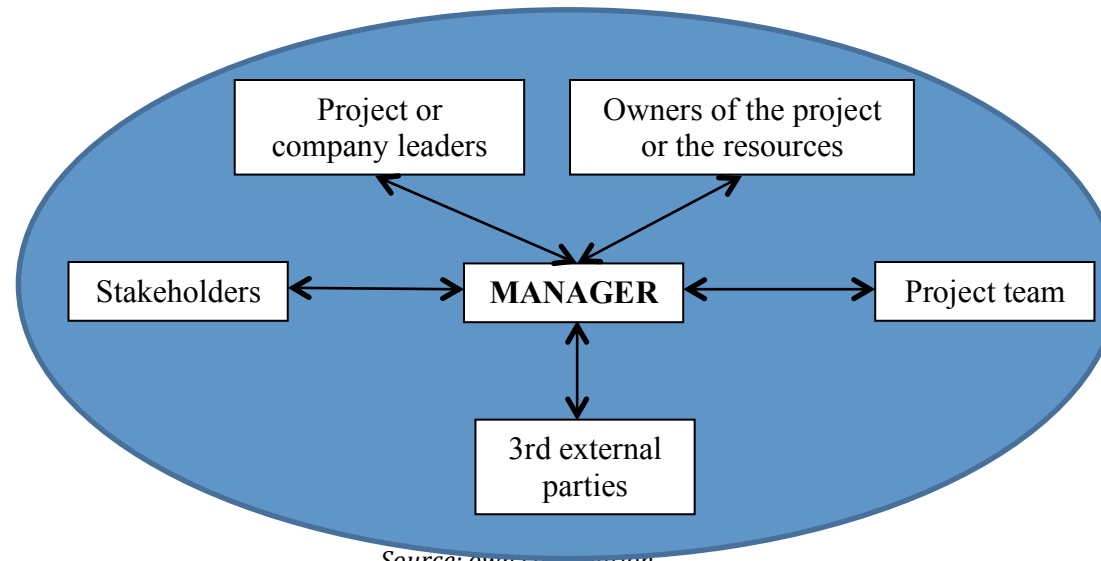
These roles can be summarized as he or she is a

- facilitator and supervisor
- communicator
- virtual manager
- chair of the meetings

The facilitator role means that the managers needs to influence the team and show a good behavior to establish the best incentive atmosphere.

The manager as a communicator has to establish good connection and partnership with all the stakeholders and with the team members outside and inside of the project.

1. Figure: *The project manager's role as a communicator*



Source: own compilation

If the project team is not settled at the same place geographically, the project manager has to connect the members virtually and be a kind of intermediary in this virtual world.

As the manager needs to organize several meetings, he can also lead them and ensure that they are focusing to reach results and increase the effectiveness of the management process.

CONTROL QUESTIONS

1. Which are the five main tasks in the project team?
2. Which are the five main roles in the project team?
3. What are the main tasks of the project manager?

CONTROL TEST

Multiple-choice questions

1. Which of the followings is NOT true? The project management team ...
 - a. is a group of professionals
 - b. consists of maximum two persons responsible for political decision making
 - c. members are assigned to do the activities of the project process together
 - d. consists of persons from different areas of expertise
2. The establishment of the project team should be started in the
 - a. programing phase
 - b. implementation phase
 - c. formulation phase
 - d. evaluation phase

3. The establishment of the project team is NOT influenced directly by...
- a. the timeframe of the project
 - b. the higher level development plans
 - c. the available financial resources of project
 - d. the available human resources
4. Which one of the followings does NOT fit into the list by which the leaders of the organization are informed about the project team requirements?
- a. the size of the team
 - b. the structure of the team
 - c. expenses according to the operation of the team
 - d. the relevant development strategy
5. Which one of the followings is NOT a role of the project management during the establishment of the team?
- a. Identify the problems of the project
 - b. Identify the main roles and responsibilities of the team members.
 - c. Make a resource plan about the operation of the team
 - d. Establish an inspiring and clear working area
6. Which one of the followings is NOT an essential characteristic of the project team members?
- a. goal orientation
 - b. initiative
 - c. over-confidence
 - d. good communication skills

7. Which one of the followings is NOT a key characteristic of the project manager?

- a. Extraordinary energy levels
- b. Clear vision about the project
- c. Discipline
- d. Modest behavior

8. A suitable atmosphere for the project team means...

- a. a small office and some computers
- b. a comfortable physical space and an inspiring and motivating spirit
- c. light and clear tables
- d. fresh air in the office

9. Which one of the followings is NOT a role in the project management team?

- a. project leader
- b. possessors/owners of resources
- c. auditor
- d. monitoring body

10. Which one of the followings is NOT true? It important to organize meeting regularly in the management because the manager has to

- a. influence the stakeholders
- b. communicate with and inform team members
- c. schedule the work of the team
- d. receive information about the state of project process

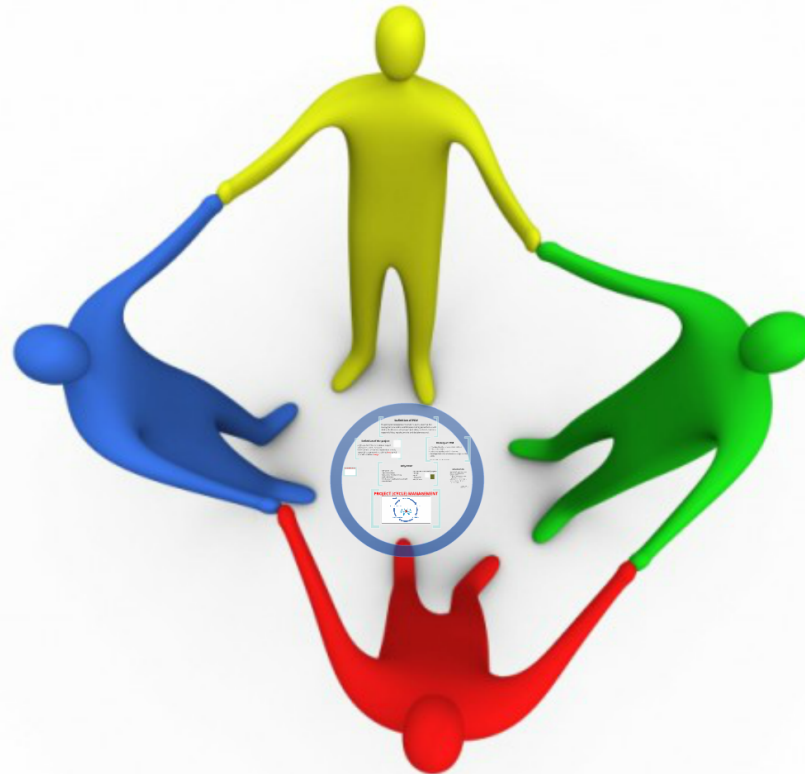
True or False questions

Statement	True	False
1. The project manager has to make a personal relationship with all team members.		
2. High level professional knowledge is essential only for the project manager.		
3. The project manager has enormous responsibility during the project implementation.		
4. The person of project manager has to be accepted by the stakeholders.		
5. A critical person should not be involved into the project management team.		

TASK FOR SUBMISSION

Make a list about your own characteristics and skill. Which one of these are similar to the managerial skills and attributes? Would you be a good project manager?

PROJECT MANAGEMENT



PROJECT IMPLEMENTATION PROJECT TEAM



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- good communication skills



What makes a good Project Manager?

- extraordinary energy levels
 - phenomenal political skills
 - absolute obsession with results
-
- Love of their work ... and embracing the challenges
 - Clear vision ... and communicating this vision
 - Strong team building skills...and setting positive tones
 - Structure and alignment...creating the environment and direction
 - Strong interpersonal skills...listening to and leading their teams
 - Discipline...completing each phase of the project properly
 - Communication skills...knowing when and to whom to communicate
-
- are recognized by stakeholders as the single most important factor in project
 - goal achievement
 - are truthful in all dealings and relationships
 - exhibit eagerness to organize and lead groups
 - exhibit evidence of a strong desire for goal achievement
 - are even-tempered
 - have faith that the future will have a positive outcome
 - have confidence their personal performance will result in a positive outcome



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- have confidence their personal performance will result in a positive outcome

CHAPTER 12

12. Planning of EU projects, EU applications and tenders

12.1. EU Funds

The European Union has five main funds from which economic development projects can be financed:

- European Regional Development Fund (ERDF)
- European Social Fund (ESF)
- Cohesion Fund
- European Agricultural Fund for Rural Development (EAFRD)
- European Maritime and Fisheries Fund (EMFF)

The Structural Funds and the Cohesion Fund are the financial instruments of European Union, and are intended to narrow the development disparities among regions and Member States. The Funds participate fully, therefore, in pursuing the goal of economic, social and territorial cohesion. [1]

Every EU region may benefit from the ERDF and ESF. However, only the less developed regions may receive support from the Cohesion Fund. [2] The EAFRD and EMFF support only specific projects.

The European Regional Development Fund gives money to the development of general infrastructure, innovation, and investments.

The European Social Fund supports vocational training projects, other kinds of employment assistance and job-creation programs.

The Cohesion Fund is focusing on environmental and transport infrastructure projects and the development of renewable energy. This funding is for 15 countries whose economic outputs are less than 90% of the EU average (13 newest EU members plus Portugal, Greece and Spain)

The above mentioned EU funds help to support, for example:

- the development of new technologies
- cutting edge research
- high-speed internet access
- smart transport and energy infrastructure
- energy efficiency and renewable energies
- business development
- skills and training

[1] http://europa.eu/legislation_summaries/glossary/structural_cohesion_fund_en.htm

[2] http://ec.europa.eu/regional_policy/the-funds/index_en.cfm

ERDF – EUROPEAN REGIONAL DEVELOPMENT FUND

This fund aims to strengthen economic and social cohesion in the European Union by correcting imbalances between its regions.

The ERDF finances:

- direct aid to investments in companies (in particular SMEs) to create sustainable jobs;
- infrastructures linked to research and innovation, telecommunications, environment, energy and transport;
- technical assistance measures

ESF-EUROPEAN SOCIAL FUNDS

The European Social Funds wishes to improve employment and job opportunities in the European Union.

The funds supports actions in Member States in the following areas:

- adapting workers and enterprises: lifelong learning schemes, designing and spreading innovative working organizations;
- access to employment for job seekers, the unemployed, women and migrants;
- social integration of disadvantaged people and combating discrimination in the job market;
- strengthening human capital by reforming education systems and setting up a network of teaching establishments

COHESION FUND

The Cohesion Fund is aimed at Member States whose Gross National Income (GNI) per inhabitant is less than 90% of the Community average. This fund serves to reduce their economic and social shortfall, as well as to stabilize their economy.

The Cohesion Fund also finances activities under the following categories:

- Trans-European transport networks
- environment projects related to
 - energy or transport,
 - energy efficiency,
 - use of renewable energy,
 - developing rail transport,
 - supporting intermodality,
 - strengthening public transport, etc.

The European Union support can be gained from these funds through several programs based on the below mentioned framework program and other national development strategies.

EUROPE 2020 AND HORIZON 2020 (H2020)

The Europe 2020 is a strategy of the European Union which is about delivering growth that is:

- smart, through more effective investments in education, research and innovation;
- sustainable, thanks to a decisive move towards a low--carbon economy; and
- inclusive, with a strong emphasis on job creation and poverty reduction.

The strategy is focused on five ambitious goals in the areas of employment, innovation, education, poverty reduction and climate/energy. [3]

In this strategy Europe identified 7 flagship initiatives. Within each of these initiative, both the EU and national authorities have to coordinate their efforts so they are mutually reinforcing.

[3] http://ec.europa.eu/europe2020/europe-2020-in-a-nutshell/priorities/index_en.htm

The flagship initiatives are the followings:

- Smart growth
 - Digital agenda for Europe
 - Innovation Union
 - Youth on the move
- Sustainable growth
 - Resource efficient Europe
 - An industrial policy for the globalization era
- Inclusive growth
 - An agenda for new skills and jobs
 - European platform against poverty

Horizon 2020 – following the FP7 Program – is the eighth phase of the Framework Programs for Research and Technological Development (also called Framework Programs). The H2020 is a funding program of the European Union and supports and encourages research in the European Research Area (ERA).

This is the financial instrument implementing the Innovation Union, which is a Europe 2020 flagship initiative aimed at securing Europe's global competitiveness. The H2020 program runs from 2014 till 2020 and provides an estimated €80 billion of funding for specific development and innovating projects.

Horizon 2020 aims at creating economic growth and jobs in Europe. Based on three pillars, H2020 focuses on

- excellent science (basic research),
- industrial leadership(industrial technologies) and
- societal challenges (for example: demographic change, food security, clean energy, climate change, and several others).

The funding of organizations and projects depend on the specific Horizon 2020 instrument and the kind of project.

The sections of the Horizon 2020 program are the followings:

- excellent science
 - European Research Council
 - Future and Emerging Technologies
 - Marie Skłodowska-Curie actions
 - European Research Infrastructures, including e--Infrastructures
- industrial leadership
 - Leadership in Enabling and Industrial Technologies
 - Information and Communication Technologies
 - Nanotechnologies, Advanced Materials, Advanced Manufacturing and Processing, and Biotechnology
 - Space
 - Access to risk finance
 - Innovation in SMEs
- societal challenges
 - Health, Demographic Change and Wellbeing
 - Food Security, Sustainable Agriculture and Forestry, Marine, Maritime and Inland Water Research and the Bioeconomy
 - Secure, Clean and Efficient Energy
 - Smart, Green and Integrated Transport
 - Climate Action, Environment, Resource Efficiency and Raw Materials
 - Europe in a changing world -- Inclusive, innovative and reflective societies
 - Secure societies – Protecting freedom and security of Europe and its citizens
- Spreading Excellence and Widening Participation
- Science with and for Society
- European Institute of Innovation and Technology (EIT)
- Euratom

In the HORIZON 2020 Program three main types of action – projects – can be supported:

- Research and innovation actions
- Innovation actions
- Coordination and support actions

The main goal of research and innovation actions is to support collaborative research projects. Innovation actions support project in which the applicants produce plans and arrangements or designs for new, altered or improved products, processes or services. Coordination and support actions are promoting accompanying measures (standardization, dissemination, policy dialogues etc.) but no research.

Other types of actions – like the actions mentioned below – have specific goals:

- Marie Skłodowska-Curie actions
- ERC Grants
- Prizes
- SME Instrument
- Fast Track to Innovation
- MSCA Cofund
- ERA-NETs
- Pre-Commercial Procurement
- Public Procurement of Innovative Solutions

The main characteristics of the three main project type are listed in the following table [4]:

Type	Conditions	Funding Rate (%)	Typical Duration (months)	Average EC Contribution (€ million)
Research and innovation actions	min. 3 legal entities from 3 Member States	100	36–48	2–5
Innovation actions	min. 3 legal entities from 3 Member States	70	30–36	2–5
Coordination and support actions	1 legal entity	100	12–30	0,2--5

Source: own compilation

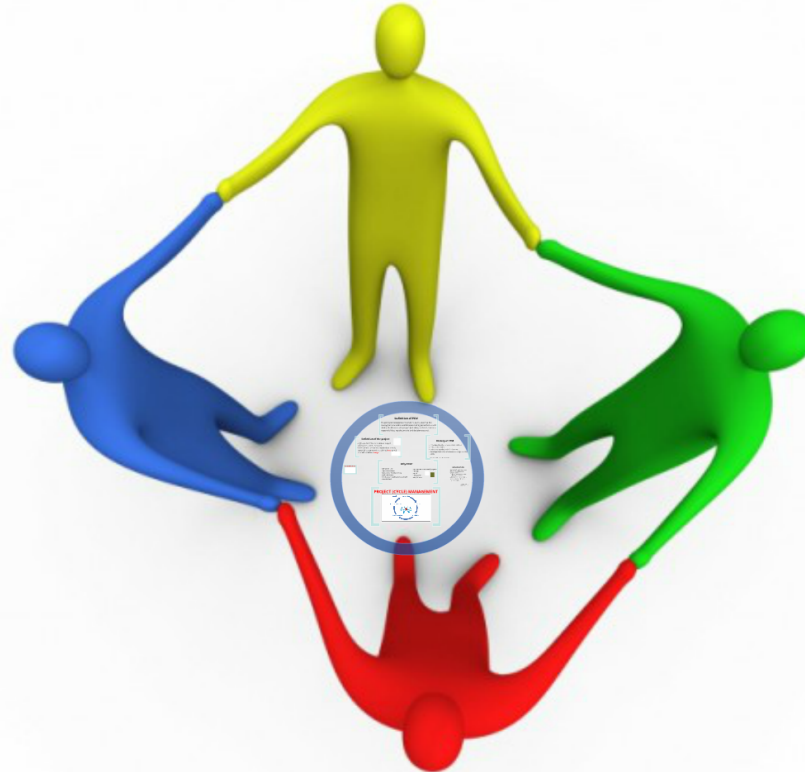
This table shows that the HORIZON 2020 program has specific requirements to support a project. The program defines conditions, funding rates, duration and also the maximum sum of the contribution. Therefore projects which attend to EU funding have to follow these specifications. Thus these requirements influence not only the implementation of the project but have a significant role in the planning phase too.

CONTROL QUESTIONS

1. Which are the main EU Funds from which a project can be supported?
2. What is HORIZON 2020?
3. What are the main sections of the H2020?

[4] https://www.euresearch.ch/fileadmin/redacteur/European_Programmes/H2020_Types_of_Action.pdf

PROJECT MANAGEMENT



EU PROJECT MANAGEMENT

http://europa.eu/pol/reg/index_en.htm

Available funding

From 2007 to 2013:
European Regional Development Fund (ERDF) - general
 infrastructure, innovation, and development;
European Social Fund (ESF) - vocational training projects, other
 kinds of employment assistance, and job creation programs;
Cohesion Fund - environmental and transport infrastructure
 projects and the development of renewable energy. The
 funding for ERDF and ESF is shared between eligible EU states,
 more than 75% of the EU average (15 member EU member plus
 Portugal, Greece and Spain).

ERDF - European Regional Development Fund
 ERDF is one of the European Union's structural funds. It is
 designed to help the less developed regions in the EU to
 improve their economic and social situation. ERDF is
 managed by the European Commission and the
 Member States. ERDF is used to finance a wide range
 of projects, including infrastructure, research and
 development, and social services. ERDF is also used to
 support the development of small and medium-sized
 enterprises (SMEs) and to promote employment.

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STEPS OF THE SUBMISSION

1. project idea
2. project plan
3. searching for calls and find the suitable call
4. elaboration of documents for submission/ adaptation of the project plan
5. submission
6. cooperation with authorities
7. completion of documents
8. receiving decision about the financing - win or lose the application
9. start the project

Content of the application

Application form
 - short description of the project
 - data about the applicant (entrepreneur,
 organisation, etc.)
 - description of other projects the applicant
 implements
 - risks
 - project activities - can be promoted or not
 - costs of activities - can be financed or not
 - resources - own contribution, 5th funding,
 other funds
 - monitoring indicators

Feasibility study
 Cost schedule
 Other documents
 about the organisation
 about the project (building plan, business plan,
 marketing plan, etc.)

EU funding is helping to support:
 - The development of new technologies
 - Cutting-edge research
 - High-speed internet access
 - Smart transport and energy infrastructures
 - Energy efficiency and renewable energies
 - Business development
 - Skills and training



Available funding

three different sources:

- **European Regional Development Fund (ERDF)** – general infrastructure, innovation, and investments
- **European Social Fund (ESF)** – vocational training projects, other kinds of employment assistance, and job-creation program.
- **Cohesion Fund** – environmental and transport infrastructure projects and the development of renewable energy. This funding is for 15 countries whose economic outputs are less than 90% of the EU average (13 newest EU members plus Portugal, Greece and Spain)

ERDF - European Regional Development Fund

- aims to strengthen economic and social cohesion in the European Union by correcting imbalances between its regions
- finances:
- direct aid to investments in companies (in particular SMEs) to create sustainable jobs;
- infrastructures linked to research and innovation, telecommunications, environment, energy and transport;
- financial instruments (capital risk funds, local development funds, etc.) to support regional and local development and to foster cooperation between towns and regions;
- technical assistance measures



ESF - European Social Funds

- to improve employment and job opportunities in the European Union
- supports actions in Member States in the following areas:
 - adapting workers and enterprises: lifelong learning schemes, designing and spreading innovative working organizations;
 - access to employment for job seekers, the unemployed, women and migrants;
 - social integration of disadvantaged people and combating discrimination in the job market;
 - strengthening human capital by reforming education systems and setting up a network of teaching establishments

Cohesion Fund

- aimed at Member States whose Gross National Income (GNI) per inhabitant is less than 90% of the Community average
- serves to reduce their economic and social shortfall, as well as to stabilize their economy
- finances activities under the following categories:
 - trans-European transport networks
 - environment; projects related to energy or transport, energy efficiency, use of renewable energy, developing rail transport, supporting intermodality, strengthening public transport, etc.



EU funding is helping to support:

- The development of new technologies
- Cutting edge research
- High-speed internet access
- Smart transport and energy infrastructure
- Energy efficiency and renewable energies
- Business development
- Skills and training

12.2. Applications and tenders

As it was introduced in the previous chapter, European Union can support a project through its funds and with a well--defined system of strategies and programs. This second part of the 12 th chapter tries to introduce the elaboration method of the applications and tender.

STEPS OF SUBMITTING AN APPLICATION

The Project Cycle management method shows a clear way of project planning and implementation. It is emphasized that the project planning starts with a project idea and its evaluation.

On the other hand, if the management wants to finance the project form an EU fund, they also need to follow the regulations and requirements of these funds and the programs for funding. But besides of these regulations the project has to be planned before the application and not vice versa.

The process of the elaboration of the application can be described as the following:

1. identify the project idea
2. elaborate a project plan
3. search for calls and find the suitable call
4. elaborate documents for submission/ adaptation of the project plan
5. submit the application
6. cooperate with authorities
7. complete and add missing documents
8. receive decision about the financing -- win or lose the application
9. start the project implementation
10. receive the money and finance the project
11. prove the implementation and payments and settlements and present the necessary documents (deliverables) for the supporter
12. finish the project with closing settlements and deliverables
13. prove the sustainability of the project

The identification and evaluation of the project idea is clearly defined in the project cycle management method during the identification and formulation phases – see in chapters 1 to 3 of this workbook.

To elaborate a project plan about the chosen project idea is a difficult process. However it can be useful to have several elaborated ideas before the introduction calls for applications. During the elaboration process the management can consider to involve the requirements of previous calls but the main goal is always to plan a project which focuses on the objectives the leaders and stakeholders want to reach.

Searching for calls is a continuous and difficult task. At first, it is important to know all the project ideas to which we want to find supporting possibilities. Then we can use several online databases and websites to find the suitable call. The website which contains the calls for the Horizon 2020 program is called the Participant Portal and can be reached on this link:

<http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/index.html>.

After finding a possible call the management has to read the documents of the call and compare it to the goals of the project. If the call and the project have the same or similar goals it can be good for the application. On the other hand, there are several other stipulations which can impede the submission of the application. The calls usually have requirements about the numbers of partners who can participate or the total budget of the project. If the elaborated project plan is not similar to these requirements, the management needs to modify it or reject the call for application. This adaptation is really important as usually the call and the original project idea do not contain the same parts. It is important to keep all those chapters of the project plan which cannot be introduced in a call. The management can use them for gaining further funding possibilities or for the supplementation of the original project.

The types and number of the documents which need to be submitted for the application can differ due to the funding program or the type of the call. National funding programs usually do not ask the same documents as European level programs. Calls for Small and Medium sized Entrepreneurs are different from the calls aiming universities or public organizations. The content of the application is introduced in details in the following chapter.

The submission of the application usually requires some computer skills as the application forms can be found and filled out online in a webpage. The supplementing documents of the application also need to be enclosed in an electronic version – in doc or pdf format. The management has to pay attention to the submission date of the call. This is a strict deadline and no application is accepted after this date or sometimes exact time – like 5 pm on 21 st June.

Cooperation with stakeholders is one of the main elements of the PCM process. On the other hand, cooperation with funding authorities is also important for the project success. The manager has to contact these groups or persons if necessary and lobby for the success of the application.

Sometimes the funding organization needs more information about the project or about the applicant organization. If the submitted documents do not contain this information the funder can ask for a supplement or a completion. The management of the project has to submit these as soon as possible and give as much information as necessary.

The funding organization usually needs a lot of time to make a decision about the introduced project. In the H2020 program it is approximately 3 months. National organizations responsible for national programs can have longer periods for decision making.

After the decision making process the funder sends the positive or the negative message to the applicant. If the application is successful, the funder organization signs a contract with the applicant about the implementation of the project. The applicants can start the implementation after the contracting phase but sometimes it is allowed to start the project before – but only for the applicants own responsibility.

The implementation of the project usually is supervised by the funding organization so the monitoring phase of the project cycle becomes more important. The funding organization and also the management too, have to closely examine the completion of the milestones and the right implementation of the project. It is important to implement the project according to the submitted plans and fulfill all what was written in the application form. To prove the right implementation, the management has to submit the so called deliverable during the project process. From these documents the funding organization can check the realization and the fulfillment of the project objectives.

At the end of the implementation phase the management has to provide a final deliverable for the funding organization and prove that the money they gave was spent correctly and the project reached the goals they indicated in the call. However the implementation was finished, the task of the management continuous. As the funding organizations want to ensure that the goals are fulfilled in a long term, they usually require the long term sustainability of the project. This means that some of the project results have to be maintained after the completion and the funder can supervise it later. Usually this sustainability period lasts 3 or 5 years after the project completion.

CONTENT OF APPLICATIONS

The content of the application depend on several factors like...

- the funding organization – e.g. national or international (EU)
- the type of the call
- the sector and type of the applicant organization
- the subject of the call and the project, etc.

Here, a European Union Horizon 2020 call – an SME Instrument call – will be introduced as this framework program requires that the project would be elaborated by the PCM method. In the H2020 program SME Instrument calls can be reached by small and medium companies and these calls promote SME innovation projects or the elaboration of business plans and other studies necessary for innovation projects.

The Horizon 2020 calls usually contain two documents for applicants which have to be submitted to gain the EU funding. The first document is the administrative form and the second document is the research proposal.

The administrative form has the following sessions:

- general information about the participant organization
 - name
 - address
 - contact name and address
 - legal status
- general information about the project
 - title
 - duration
 - keywords
 - previous submissions of the same project
 - budget
- declarations of the applicant organization about
 - giving the correct and complete information
 - ethical principles
 - financial capacity
 - eligibility, etc.
- table of ethics issues

The research proposal contains the main information about the project as the followings:

- Objectives
- Relation to the work program
- Concept and approach
- Impact
- Implementation – Work plan and Deliverables
- Management structure and procedures
- Resources
- Members of the consortium
- Ethics and security

If we check this list and compare it to the content of the Logical Framework Matrix, we can notice that there are a lot of similarities. The boxes of the LFM indicate almost every part of the application – like the objectives and related higher level documents or the resources and implemented activities of the project.

National level application can be different form EU forms. The so called co-founded projects are founded by the structural founds but handled by national organizations of the member states.

The content of the Hungarian co-founded application is the following:

- Application form
 - short description of the project
 - data about the applicant (entrepreneur, organization, etc.)
 - description of other projects the applicant implements
 - risks
 - project activities-can be promoted or not
 - costs of activities-can be financed or not
 - resources-own contribution, SF funding, other funds
 - monitoring indicators

- Feasibility study
- Cost schedule – in details
- Other documents
 - about the organization
 - about the project (building plan, business plan, marketing plan, etc.)

The application form of the national co-funded application also has to be filled according to the previously elaborated project plan. The project activities have to be stated in a Gantt-chart and the costs schedule is also similar to the above mentioned form. The national application contains the indicators too which help the monitoring and evaluation process of the project. Sometimes it is obligatory to enclose a complete feasibility study about the project which can contain more details and show that the project meets the criteria of the funding organization and higher level programs.

National level calls sometimes require enclosing a detailed cost schedule to the application. This cost schedule is based on the Gantt-chart and lists the costs of all project activities in cost categories.

The applicant sometimes needs to prove the eligibility of the organization and the sustainability of the project with enclosing several documents about the implementing company or organization. An example for this document is the balance sheet of the company or the annual report.

To emphasize the feasibility of the project, the management can include other studies into the application – like a marketing plan, a communication plan or a business plan.

MANAGEMENT OF PROJECTS FINANCED BY A TENDER OR APPLICATION

The management of the projects financed by external funds can be slightly different from the internal projects. As it was mentioned before, the financing authority can have several regulations and requirements about the project and its implementation.

The differences and the requirements can be summarized as the followings:

- limitation of the budget and costs
- limitation of the duration of the project
- defined partners involved into the implementation or partner expectations
- expectation about the durability and the sustainability of the project sustainability indicators included, lengths of sustainability till the activities have to be maintained
- limitation about the human resources – especially about the costs of human resources or the number and nationality of involved experts
- ethical and security requirements– which can add more activities and extra costs to the project
- expectation about the management – number of management personnel financed from the funding source
- requirements about the communication of the project – obligatory communication campaign and image elements which result extra costs
- extra administration tasks – requires time and extra costs
- defined project framework which cannot be easily modified

The above list proves that the implementation of an externally financed project can be more difficult but the financing possibility usually makes it worth. On the other hand, we must emphasize, that only those project should apply for a call which suit the call and has almost the same objectives. If it does, the above mentioned differences can be decreased and the project can be implemented in a usual way, while it fulfill the requirements of the funding organizations too.

CONTROL QUESTIONS

1. What are the steps of the submitting an application?
2. What is the content of an application?
3. What are the differences and the requirements of the implementation of a project financed by an external fund?

CONTROL TEST

Multiple-choice questions

1. Which one of the followings is NOT one of the European Union's five main funds?
 - a. European Commission
 - b. European Regional Development Fund (ERDF)
 - c. European Social Fund (ESF)
 - d. Cohesion Fund

2. Which one of the following EU Funds give support to research and development infratructur projects?
 - a. European Regional Development Fund (ERDF)
 - b. European Social Fund (ESF)
 - c. Cohesion Fund
 - d. European Agricultural Fund for Rural Development (EAFRD)

3. Which one of the following EU Funds give financial to support regional and local development?
 - a. European Regional Development Fund (ERDF)
 - b. European Social Fund (ESF)
 - c. Cohesion Fund
 - d. European Agricultural Fund for Rural Development (EAFRD)

4. Which one of the following EU Funds aims to improve employment and job opportunities?

- a. European Regional Development Fund (ERDF)
- b. European Social Fund (ESF)
- c. Cohesion Fund
- d. European Agricultural Fund for Rural Development (EAFRD)

5. Which one of the following EU Funds support intermodality projects?

- a. European Regional Development Fund (ERDF)
- b. European Social Fund (ESF)
- c. Cohesion Fund
- d. European Agricultural Fund for Rural Development (EAFRD)

6. How many flagship initiatives are in the Europe 2020 Strategy?

- a. 3
- b. 4
- c. 6
- d. 7

7. The main goal of the Europe 2020 Strategy is to deliver growth that is...

- a. higher than the average of the EU average growth
- b. smart, sustainable and inclusive
- c. higher than the growth of the US
- d. selective, sensitive and informative

8. Which one of the followings is not true? The administrative form of a Horizon 2020 call contains...
- a. general information about the participant organization
 - b. table of ethics issues
 - c. general information about the project
 - d. detailed Work Plan
9. Which one of the followings is not true? The general information part of the Horizon 2020 call's administrative form contains.
- a. budget of the project
 - b. name of the company
 - c. address of the company
 - d. contact name and address
10. Which one of the following documents is usually a part of an application for a H2020 call?
- a. Development plan of the city
 - b. Feasibility study of the project
 - c. Development plan of the region
 - d. Administrative strategy of the company

True or False questions

Statement	True	False
1. The European Regional Development Fund gives direct aid for investments in companies.		
2. The European Regional Development Fund give financial support to social integration of disadvantaged people.		
3. The process of the elaboration of the application or a tender starts with a search for calls.		
4. EU application calls does not require using LFA during the elaboration of the tender documents.		
5. The management of the projects financed by external funds can be different from the internal projects.		

TASK FOR SUBMISSION

Check the Participant Portal of the HORIZON 2020 Program and try to find a suitable call for all the mentioned sample projects.

The website of the calls for the Horizon 2020 program can be reached on this link: <http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/index.html> Fill out the first column of following matrix with the titles of the calls and then put an X to the sample project which fits to the requirements of the call.

Titles of the calls	Integration of disabled children	Building a road and a bicycle road	Organizing a Christmas party