

Miklós LUKOVICS

PROJECT LEADING

Teaching material

Methodological expert: Edit Gyáfrás

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Introduction

In our modern days, delivering projects and handling a diverse project portfolio became a daily task for almost all enterprises. In order to become and remain a competitive player on the job market, possessing all the relevant theoretical background about project leading became an essential skill for an economist. Facing the challenges of project implementation in practice is the base on which the theoretical background should be built.

By “project leading” we mean technical activities connected to projects such as:

- project development
- finding possible financial resources for the developed project
- technical implementation of projects

The content is ***not*** focused on administrative and financial reporting tasks of projects (the latter is discussed in the framework of the project management course).

Students can get an insight into the most relevant differences and similarities of the idea-project-tender (project proposal) triangle, while also gaining deep knowledge about project and project portfolio related concepts.

After the course, the students will be equipped with relevant knowledge on the role of projects and project leading in the framework of organisations. They will have the ability to define the desired project results based on a (strategic) goal, also to identify the key players determining the project’s success. The students will be capable of planning and elaborating projects. In this way, the students will have the ability to be effective members of any small or medium-sized project team in their own professional area.

The aim of this teaching material is to help students learn and increase their success. All the chapters have two different parts: i) the theoretical background of the given topic and ii) exercises, which help students practice the topic, giving an opportunity for self-testing.

1 Defining projects

This chapter supports the following outcome requirements of the course (specific academic results to be established by the course) as follows:

- regarding knowledge, the student possesses the know-how required to complete basic leadership and organisation related tasks and is capable of preparing, launching and leading small to medium sized projects and enterprises
- regarding competencies, the student is capable of planning, organising, leading and overseeing economic activities, projects, minor enterprises and economic organisations;
- regarding attitude, the student behaves in a proactive, problem oriented way to facilitate quality work. As part of a project or group work the student is constructive, cooperative and initiative.
- regarding autonomy, the student completes his/her tasks independently and responsibly as a member of certain projects, team tasks and organisational units.

1.1 Main features of a project

By definition a project is a collection of linked activities, carried out in an organised manner, with a clearly defined start and end point to achieve some specific results and/or a specific goal supporting a long-term strategy. **A project's most important feature is its unique result. Projects involve doing something that has not been done before in the same environment and may require some innovation to be completed.**

A project consists of many features that are temporary – they may come to an end when our project ends, like:

- A project has a definite beginning and a definite end
- The duration of a project is finite

- The opportunity or market window is usually temporary, most projects have a limited time frame in which to produce the product or service
- The project team – as a team – seldom outlives the project. Most projects are performed by a team created for the sole purpose of performing the project

In other words, a project is a complex, nonroutine, one-time effort limited by time, budget, resources, and performance specifications designed to meet customer needs.

Thus, the main characteristics of a project are described as follows:

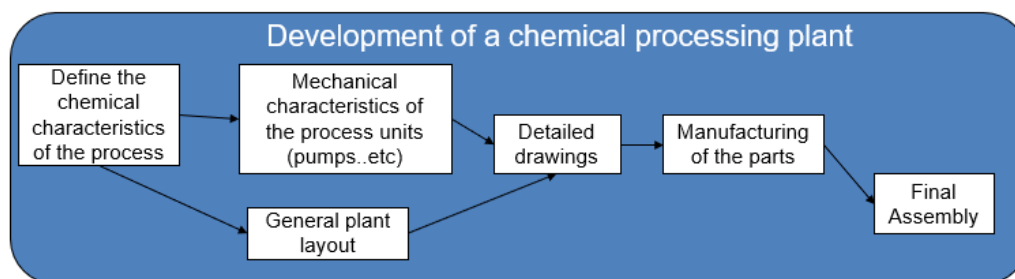
- Has an established objective.
- Has a defined life span with a beginning and an end.
- Typically requires across-the-organizational participation.
- Involves doing something that's never been done before.
- Has specific time, cost, and performance requirements.

For example, writing a term paper, setting up a sales kiosk for a professional accounting meeting, developing a supply-chain information system, writing a new piano piece or designing an iPod that is approximately 2 X 4 inches, interfaces with PC, and stores 10,000 songs may all be considered projects. On the other hand, taking class notes, responding to supply-chain requests, practicing scales on the piano or manufacturing an Apple iPod is just routine work – reoccurring, predictable, no risks, already defined outcomes.

Progressive elaboration

A project occurs step by step to define the product or service, during a so called “progressive elaboration” process. Let's take for instant the development of a chemical processing plant: it starts with the process engineering – defining the characteristics of the process and after many other steps it ends with the final assembly.

Figure 1: Progressive elaboration of a project



Source: own construction

From the perspective of project leading, any series of activities that are going through the project cycle are considered projects.

The project cycle consists of project phases. An organisation should already have a well-defined organisational strategy from which it can begin to assess relevant needs and opportunities in its field. Several ideas will then come to light, from which an organisation may choose. Then the project phases will follow logically through design, financing, implementation and evaluation stages.

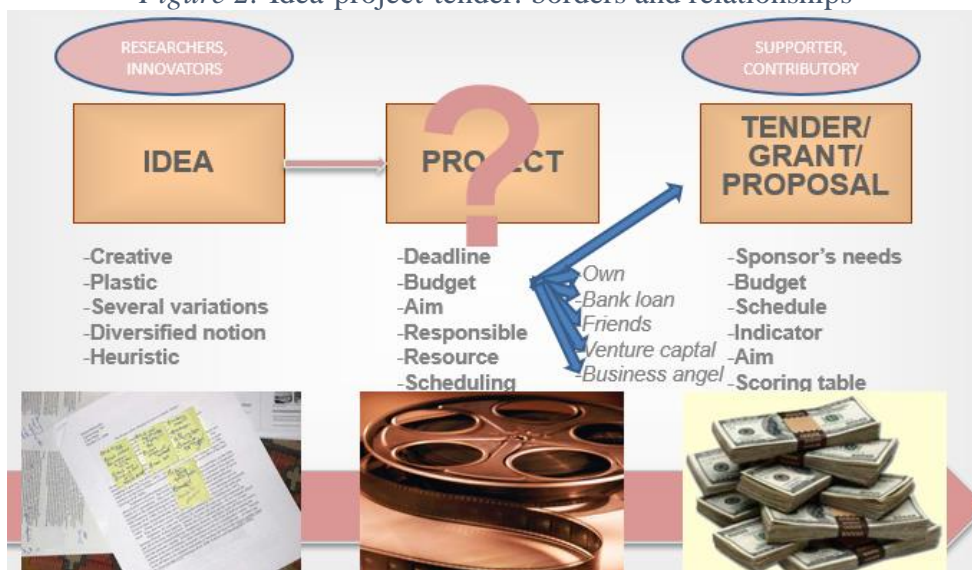
We often perform activities that do not fall into the category of projects. That's why it is also important to recognise that a project is not:

- past activities that are repeated in exactly the same way on a periodic basis;
- activities with no clearly defined goals;
- activities which can be repeated or transplanted anywhere at any moment; or
- ongoing (regular) organisational activities (e.g. board meetings).

Idea – project – tender

Idea, project and tender tend to be used as synonyms in everyday language. Whereas, from the aspect of project leading they all have different meanings – showing contrast in timing and logic.

Figure 2: Idea-project-tender: borders and relationships



Source: own construction

The starting point is always the idea. But what's an idea? It's something connected with creativity, plasticity, diversified notion, having several alternatives or being heuristic.

An idea is like a cloud that an airplane just flew right into. We don't know where it started and where it's going to end as the fantasy of the idea's creator is capable of redefining newer and newer versions of the idea. Because of this spillover effect the idea cannot be managed efficiently. It's necessary to give it a framework: do not let it grow past a certain point, its beginning and end should be clearly defined as well as its purpose. We can imagine this like putting this idea cloud in a box – thus we can tell where it starts and ends and we are able to work with it easily. Therefore, a project is in possession of tangible characteristics which cannot be found in the idea: deadline, budget, aim, responsibility, resource, scheduling.

However, its reverse is also true: numerous traits of the idea won't be included in the project or just be put into another one eg. fragile heuristic ideas.

In circumstances where a project serves the aims of the corporate strategy, its implementation is justified. In this situation the question is how the project will be financed. Theoretical possibilities: own source, bank credit, friends,

venture capital, business angel, tender. A project is not equivalent with a tender. The tender is just a possible form of funding our project.

As the project is more rigid and defined than the idea, the tender is more rigid and defined in the same way than the project. All tender sponsors are settling their own needs in their own call for proposal – and they apply very strict rules to allocate resources. Generally, they are enforced by the scoring table. Certain achievements are required which are defined in the form of indicators.

Coming up with an idea

Coming up with an idea can be done many ways – from brainstorming to having a chat with your neighbour. It all depends on asking the right question, for instance:

- Discuss the issue with colleagues, advisors, policy makers, stakeholders and the community, then ask yourself a series of questions: Is this idea and problem stimulating and important enough to me that I would spend a considerable amount of time thinking about it, reading about it and working on it?
- What is the focus of my organization, my department, institution, and profession and how do their goals fit with my topic of interest?
- Could my study fill a gap or lead to a greater understanding?
- Has this or a similar study been done before?
- MOST IMPORTANTLY, WILL MY PROJECT HAVE A SIGNIFICANT IMPACT?

However, you can have numerous ideas at once - so, how to choose? What's a great idea?

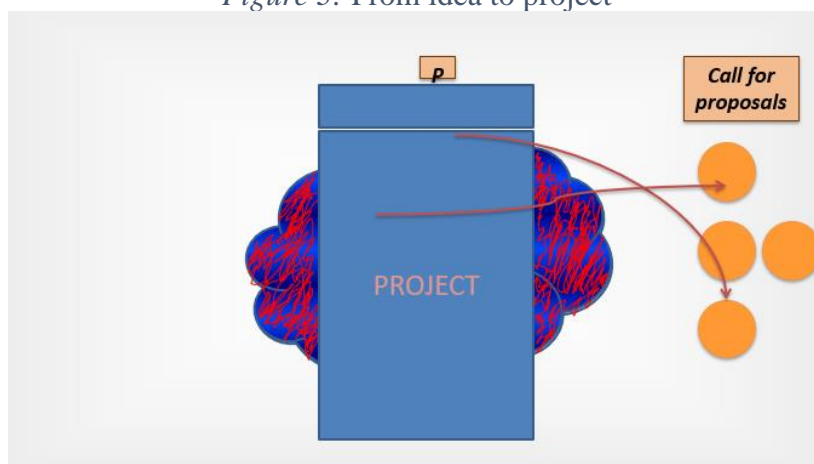
You may select the one that **FITS** the following criteria:

- **F**ills a gap in knowledge
- **I**mportant...will make a difference
- **T**ests a hypothesis or concept
- **S**hort-term investment will lead to a long-term gain

Transforming idea into project

The idea (plastic) can be converted into a project in several ways. What differentiates a project idea from any other idea is that its borders are limited like cut off „wildings” as well as its size. A project is placed in a logical concept and has been compiled as a series of logically related activities. But most importantly it must have a strategic approach – it must represent a value to the overall strategy of the company.

Figure 3: From idea to project



Source: own construction

Transforming project into tender/grant/proposal

When we are looking for funding sources for our project, it's highly unlikely that any call for proposal will entirely fit our project. A project reflects our own needs and preferences while the call for proposals shows the sponsor's needs and preferences. In some ways, it is similar to the goals of the students and teachers being different from certain aspects. On the other hand, if we want our project to be funded we have to adapt to the needs and preferences of the sponsors.

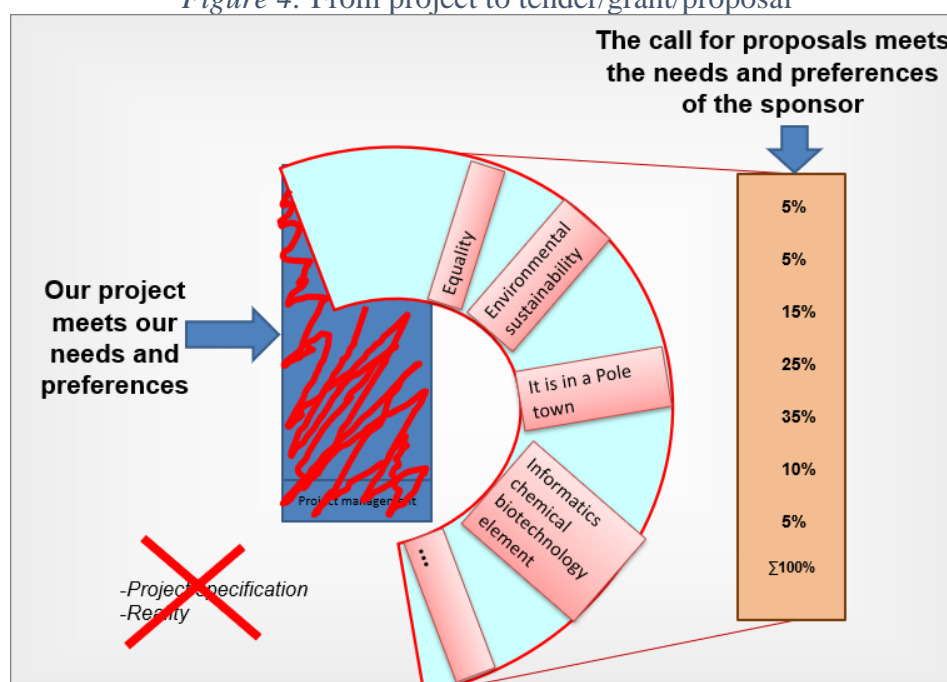
In practice, this means that we adjust our project to the conditions of the call for proposal and then we customise it: we get rid of parts which do not fit the limitations of the sponsors and add parts which weren't included in our own project but are required by the sponsors. These are typically the so-called horizontal

principles – equal opportunity and environmental sustainability which are important requirements for EU co-funded proposals.

The needs of the sponsors are clearly published, in most cases suitability is verified based on the scoring table. Thus, during the application preparation time we can customise our project much easier.

Naturally, project owners should decide if it is worth altering their project to meet the conditions of the tender. Most of the time it is worth it, but it has a price – namely that we might lose project parts that are important to us. However, in return we gain funding sources to carry the rest of our project into execution.

Figure 4: From project to tender/grant/proposal



Source: own construction

1.2 Exercise for self-testing

Please think of your hobby. You may have many ideas concerning it. All of your ideas are connected to creativity, plasticity and diversified notion, they might have several alternatives or they might be heuristic but they don't possess the most important characteristics of a project: they are not concrete enough, they don't have any kind of scheduling, budget, resources, deadline etc.

Please try to transform your idea about your hobby to a project by adding the characteristics of the project to your idea step by step. The following table will help your steps.

IDEA PHASE	What is your hobby?	
	What is your favourite idea concerning your hobby? (It can be a dream, a future plan or something you would be happy to do).	
	Please explain your idea more deeply (about 10 sentences). Be creative, flexible, heuristic, have at least 2-3 alternatives for the implementation and have some open questions.	
PROJECT PHASE	What is a nonroutine, one-time effort in your idea? Ignore your everyday activities from your idea and list everything, which would be <i>new</i> for you. Please remember: projects involve doing something that has not been done before in the same environment.	
	As the next step, choose only one from the alternatives you listed, which is ALSO nonroutine.	
	As the next step, try to estimate the time your project implementation needs and define the starting time and finishing time of your project (concrete dates, year-month-day)	
	As the next step, please try to estimate how much money it would cost to implement your project.	

2 Project development

This chapter supports the following outcome requirements of the course (specific academic results to be established by the course) as follows:

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2.1 How to develop a good project?

In case of project development, "*we have to see the future*", which is to build the entire project from start to finish: to rethink the activities of the project with its initial situation and its total resource needs in mind. If you want to develop a good project imagine yourself getting into a time machine, then travelling in time to the starting point of your project implementation. Start to implement your project in the future, and take lots of notes. At the end, your project will be perfect.

Criteria for a good project

A good project is transparent, measurable and convincing. Adhering to the following criteria points can make planning and

organising more easily controllable and logically structured:

Relevance:

- Based on a specific problem and real needs
- Target orientated

Feasible criteria:

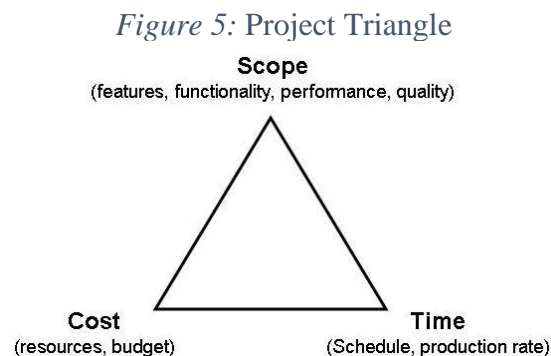
- well thought out, consistent
- results can be measured
- realistic budget
- clear division of labour
- previously assessed risks

Sustainability:

- the benefits for the target group can be provided after the development

Project triangle

One of the most important project development tools is the Project Triangle. It is an extremely simple tool, which expresses the Triple Constraint of time, cost and quality or scope that must be managed in project delivery. The three constraints are interconnected, thus moving one point of the triangle will impact the other two points as well.



Source: own construction

In the mid-1980s Dr. Martin Barnes created the Triangle of objectives, demonstrating that quality cost and time are interrelated. Focusing on or fixing one point of the triangle will impact the other two points as well.

In other words, if one part of the triangle is fixed the other two points have to be moved too, so if quality is fixed, time and/or cost may need to be increased.

“You can have it good, fast, or cheap. Pick two.” – engineers have been saying this to project managers for decades.

In slightly different terms, every project balances a “triangle” of time, money and scope — you can’t change one without affecting at least one of the other two. The project manager’s job is to keep the whole triangle from falling apart. But how?

1. Firstly, when a problem comes up, locate it on the project triangle — is it about time (schedule), money (budget), or scope?
2. Secondly, figure out which sides of the triangle you can change, and which are “fixed” in place.
3. Thirdly, adjust what you can to fix the problem and optimize the project
4. Fourthly, finish the project and celebrate!

Always keep in mind: you cannot change a project’s budget, schedule, or scope without affecting at least one of the other two parts.

Some examples of how this works:

- To bring in the finish date (time), you could spend more in resources (money) to finish the work faster or cut features (scope) so there’s less work to be done before the new deadline.
- To finish the project under budget (cost), you could get rid of overtime and finish the project later (time) or cut features (scope).
- To add features to a product (scope), you could extend the deadline to make time for the new work (time) or add people to get it done faster (cost). You could also do both!

Main steps of project development

The project is implemented within a set timeframe. In order to properly plan it, the followings steps are required :

1. Have a clear, unequivocal project logic
 - A clear, existing

problem for which we are seeking a solution

- A well-defined overall goal, in keeping with specific objectives
 - What do we want to do?
 - What results do we expect?
 - All this is "sold" with a good title and acronym
2. Determine activities
 3. Dependency arrangement of activities
 4. Create work packages
 5. Time planning
 6. Estimate of activity resources
 7. Determine the costs of resources

First step: having a clear, unequivocal project logic

An existing, relevant problem is the basis of a good project, which will provide solutions and answers to the analyzed problem. Project planning assumes that we have already had a development concept for the area, which includes detailed problem analysis and a comprehensive vision for the future.

In order to determine the intervention implemented with the project, we have to highlight the problem that we want to solve to get closer to the project. Highlights are of course defined by the priorities set out in the completed development program or in the call for proposals.

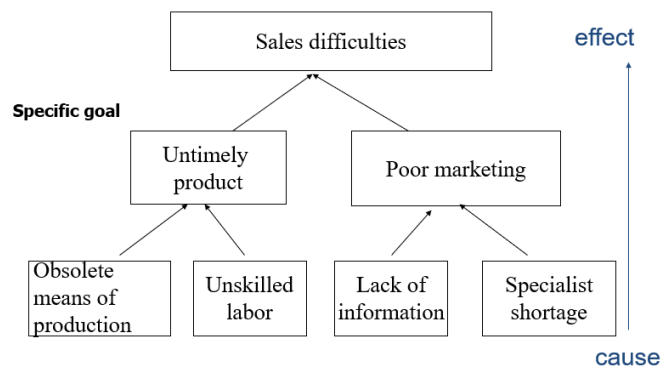
Why do we make this problem analysis? Because of the beneficial results that the diagnosis can bring to us, such as:

- A structured, hierarchical, transparent system of problems
- We can explore the causal relationship between the problems – we can bring back fundamental problems – PROBLEMTREE
- The problems requiring answers and solutions
- The logical architecture of answers and solutions is the same as the problems – TARGETTREE

A problem tree analysis is a tool to systematize the starting situation (problems), giving a strong basis to our

project, and to convert our problems into goals. It is a tool to map out the main problems along with their causes and effects, to support project planners in identifying clear and manageable goals and the strategy of how to achieve them. By exploring cause and effect relationships, the problem tree shows us the hierarchical structure between them. The problem (effect) on the upper level is the result of the underlying problems (causes). Although the number of levels depends on the nature of the main problem.

Figure 6: Problem tree - example



Source: own construction

Steps of preparing the problem tree:

- 1st step: Identify the most important issues in a given situation (brainstorming)
- 2nd step: Select a problem (a current negative situation) as a starting point. It should be clearly defined, but should not instantly suggest any possible solutions as it is not confirmed eg. instead of saying ‘lack of labour force’ use ‘high level of unemployment’.
- 3rd step: Find the problems related to this problem (build a tree around the main problem)
- 4th step: Identify the hierarchy of cause-and-effect problems: below are the problems that directly cause the initial problem. We put the problems that are the direct effect of the initial problem above.
- 5th step: We do the same for every problem.
- 6th step: Connect the problems with causal arrows
- 7th step: Check the tree, look at its

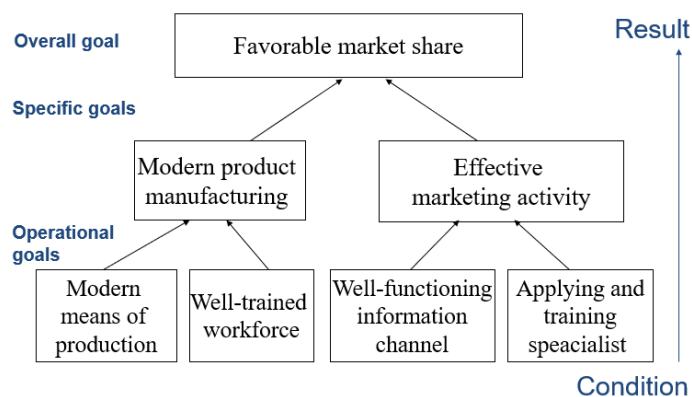
logical structure and completeness

After we have collected the starting problems of our project the next step is to transform them into targets/goals/objectives. Target analysis helps us. A target tree is like the mirror image of the problem tree analysis. Instead of starting out from a current negative status (problem) this way of analysis shows the aspects of the desirable positive future status. Problems are redefined into goals, causal relationships are replaced by the linkage between the goals. Goals of different levels should be determined as comprehensive global, specific (concrete) and operational goals. Targets connected to a similar field should be integrated under a common name. Thus, our first task is to define target groups.

A good target tree is not an automatic "translation" (symptomatic treatment) of a problem tree, it is a hierarchical, structured system of goals which seeks solution to problems raised in the problem tree. Strengths and opportunities are built here as we take innovative steps towards achieving indirect solutions.

Please compare the problem tree (figure 6) and target tree (figure 7) and investigate the connection between them.

Figure 7: Target tree - example



Source: own construction

Second step: determining activities

At this point we must imagine ourselves in the future and start to implement the project – collect all the activities that we have to complete. Depending on the size of the project we may talk about 10 to 1000 or more

activities. Thus, to ensure that all the necessary actions are listed collaborating with experts may be the wisest decision. Why is that? It's due to this step's crucial linkage with resource estimation and budgeting. If you forget about an activity, there will be no budget assigned to it and the implementation will be risky!

So please allocate enough time to collect and list all the activities, which have to be carried out during the project implementation in the future. Your list of activities will be a crucial input to the resource planning and budgeting of your project, so you will need a full list of activities!

Another tool to support the planning of our project is the Special SWOT. Compared to the problem tree and target tree, Special SWOT's added values are as follows:

- it detachedly connects the analysis of the situation with the facts gathered in the analysis and actions based on them.
- it detachedly connects the problems with the project objectives, activities and work packages.

The starting point of Special SWOT is the well-known original SWOT analysis, which is designed to assess the current situation including its opportunities, problems and affecting internal and external factors. From a project developing point of view, this is a welcome addition as a supplement to our project as it makes the overview of the starting situation for our project quicker and clearer.

Figure 8: The original SWOT matrix



The four quarters of SWOT analysis:

- Strengths: internal capabilities, resources, and positive situational factors that help the company serve its customers and achieve its objectives (eg. location of

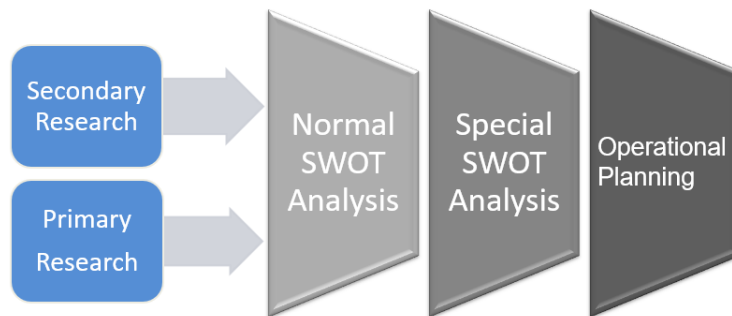
business, marketing expertise)

- Weaknesses: internal limitations and negative situational factors that may interfere with the project's (company's) performance. (eg. poor quality of services, damaged reputation)
- Opportunities: favourable factors or trends in the external environment that the project (company) may be able to exploit to its advantage. (eg. strategic alliances, new market segments)
- Threats: unfavourable external factors or trends that may present challenges to performance. (eg. new taxation is being introduced, new competitors)

However, always keep in mind that internal factors can be influenced with the results of the project while external ones cannot!

Before starting SWOT analysis it is recommended to do secondary and/or primary research in order to minimize the subjectivity of the analyst. Secondary research is based on available statistical data while in case of lacking data or just for gathering more information doing your own primary research such as questionnaires, in-depth interviews, etc. is your solution.

Figure 9: The logic of project planning using special SWOT



Source: own construction

After setting up our SWOT analysis, we can transform it into a special SWOT table. Its role is to connect the analysis of the situation with the facts gathered in the analysis and actions based on them. The outside boxes represent the facts (opportunities, threats, strengths and weaknesses) while the inside boxes contain the actions. The actions written in the inner boxes (the intersections of the two

outer boxes) must have some apparent connection to the outer boxes. For instance, if the strength of our project is the high number of patents in the region while the threat is that R&D results are not utilized in the region a relevant action – based on this particular strength and threat – could be to strengthen the technology transfer in the region.

Figure 10: Special SWOT - example

Special SWOT	Strengths	Weaknesses
	Large number of patents in the region (<i>FACT, BASED ON THE SECONDARY AND PRIMERY RESEARCH</i>)	
Opportunities	Strength- Opportunity actions	Weakness- Opportunity actions
Threats	Strength-Threats actions	Weakness-Threats actions
Results of the R &D are leaving the region, not utilized in the region (<i>FACT, BASED ON THE SECONDARY AND PRIMERY RESEARCH</i>)	Strengthening technology transfer activity in the region <i>ACTION, BASED ON AT LEAST ONE STRENGTH AND THREAT</i>	

The next step after determining the needed actions is drawing up the main structure of the operational plan. The operational plan is a future oriented mapping to show how to successfully achieve our goals with the help of the planned actions in the project. It allows you to see the effect of your operations on the business's bottom line, to track and evaluate your actions throughout implementation.

The operational plan is made up by the main goal, the specific objectives, the work packages of the projects and the activities included in them. The needed inputs are the facts written in the inside boxes of the special SWOT table. After our main goals are already specified, we'll be able to easily assign objectives and work packages to them.

Third step: dependency arrangement of activities

From a project development point of view, activities can

be categorized into two types:

1. independent from each other
2. dependent.

In case of independent activities, the output of one of the activities does not serve as input for another activity, while in case of dependent activities, the output of one activity is the input of another activity. It is necessary to consider in detail what activities are in a relationship of dependency among the collected activities as it serves as the basis of time planning for the project.

Fourth step: Creating work packages (WPs)

At this point, logically related activities are arranged into groups – these groups are called work packages. A work package typically involves 3-5 activities, but in case of more activities and/or larger projects more can be involved. For example: The Work Package “*Communication Activities*” could include the following communication related activities:

- Planning and monitoring communication
- Designing and creating project visuals
- Dissemination and transfer of results: engagement of target groups
- Dissemination events and related media work
- Capitalizing result and contributing to programme communication action

The beginning and end events of work packages are the main milestones of the project. These milestones are not activities with no settled time period – they serve as checkpoints to keep our project on track.

Moreover, in many cases, the financier is only interested in the Work Package, not the full list of activities. Thus, it's our responsibility to accurately determine which activity is included in which work package.

Fifth step: Time planning

The next step is time planning, in other words putting all the activities into one time schedule, taking into consideration their

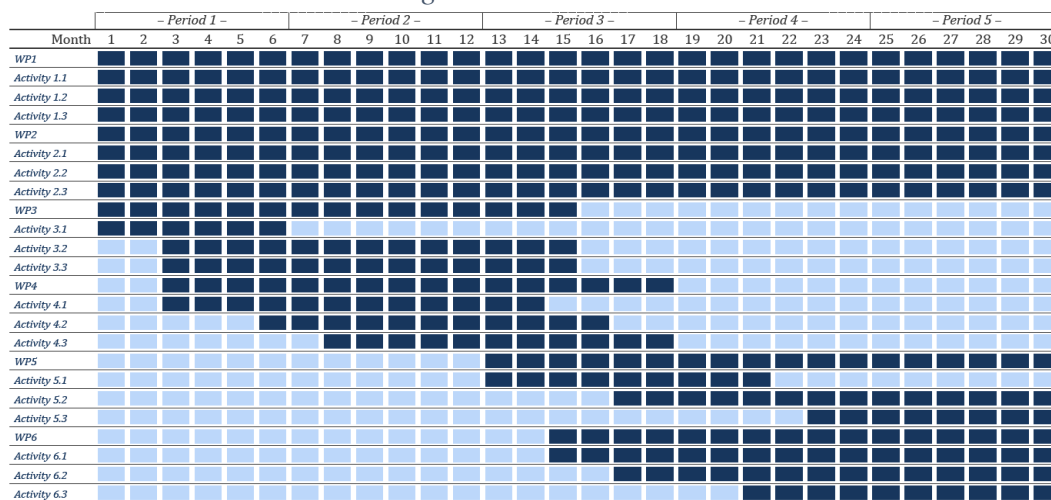
dependency relations. A time schedule shows the project activities' time linkage – a road map to successfully accomplish the project.

In the beginning of the 1900s Frederick Taylor studied the efficiency of the steelworks' workers in Pennsylvania. He broke down their work processes into smaller parts and with the help of measurements and experience tried to increase industrial efficiency. His goal was to show that better results can be achieved besides the “work more and harder” method. Now, his works are considered a part of the basis of management sciences – namely Taylorism or scientific management.

Today many tools exist to help effectively plan the project lead time. One of the simplest, oldest and most commonly used graphical representation of time planning is the Gantt chart. It was named after and devised by Henry Gantt, an American engineer and project management consultant from the early 20th century. Originally Gantt charts were prepared by hand. Thus, each time a project changed it was necessary to amend or redraw the chart and this obstacle limited its usefulness. Nowadays, however, with the advent of computers and project management software, Gantt charts can be created, updated and printed much more easily.

In a Gantt chart, project activities are represented by rectangles (lines) in a time-proportional manner meaning that the length of the lines is proportional to the time of completion of the represented activity. Also, all activities are shown in a single line in the plan to be clearly identifiable. The above locations in the chart indicate interdependencies. Therefore, to be able to flawlessly set up a Gantt chart certain antecedents are imperative such as defining activities, determining the logical sequence of activities and their duration.

Figure 12: Gantt chart



Source: own construction

Sixth step: Estimation of activity resources

The most important input of this step is the list of activities you collected at the beginning of your project development activity. Now, we have to estimate the resources we need to implement each activity. Here, we assign to each of the listed project activities the resources needed to accomplish them. In case of an activity like sending out 125 invitations – 125 envelopes are needed. Nevertheless, this is NOT a cost estimate yet, resource estimation is an important output for it.

Seventh step: Determining the costs of resources

To determine the costs of our resources we start out from the resource estimation that has been previously done. Costs should be estimated on market prices and if it is necessary, quotations should be requested. Also, it's important to allocate costs for all activities and vice versa because you can only include a cost in the budget if you can assign it to an activity.

Additional task: risk management

A risk is an unexpected future event that can have a negative effect on the project. This can affect the entire project or only a project factor, but not only at one point.

But why is it important to have a continuous risk

management throughout the whole project?

Each project is unique, so finding and identifying possible risk factors can give us a serious headache. Moreover, even having a well-performed risk analysis before the start of the project doesn't guarantee that new ones won't rise during the implementation. So, risk management should mean a stable, regularly repeated work and monitoring starting from the project planning throughout implementation and the after phase.

Risk analysis is the identification of risk based on the analysis of current status' information. It includes not just risk identification, but risk estimation as well.

In risk analysis, the risk degree (K) is the primary indicator. It's the probability of occurrence times its efficacy. Given this formula two extreme cases can be defined:

- When the probability of occurrence is very low and the occurrence of the given risk factor has no effect on the project. Meaning that $K=0,1 \times 1=0,1$.
- Or when there is a very high likelihood of occurrence and the occurrence of the given risk factor has a very significant impact on the project. Then $K=0,9 \times 5=4,5$

As we look at the deviation from equilibrium, we define the critical limit of the degree of risk as the arithmetic mean of the two extremes:

$$\text{Critical limit: } (0,1 + 4,5)/2 = 2,3$$

What does it look like in practice?

Name of risk	The likelihood of a risk occurring	Efficacy of risk	Degree of risk
The post office may lose the letter	0,3	9	2,7
Bad weather	0,1	5	0,5
Resistance of population	0,5	3	1,5

Figure 13: Example of risk analysis

Risk analysis in practice follows the following statements:

- It can only include factors that we cannot influence (risk is always an external factor)
- A risk management strategy should be

developed for any risk that is bigger than 2.3

- The risk management strategy should briefly describe how we want to manage the negative event that occurred

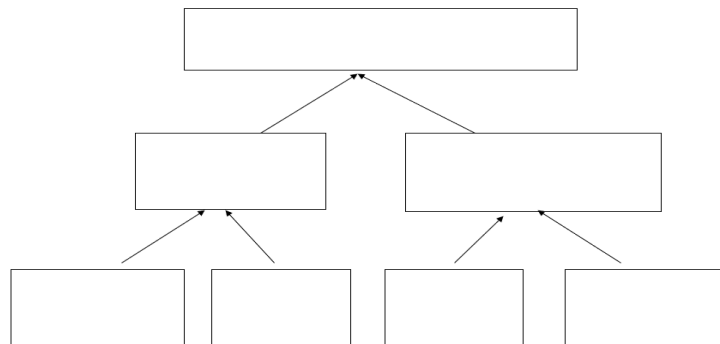
2.2 Exercises for self-testing

At chapter 1.2 you completed important steps in transforming your idea based on your hobby into a project. You already added some project characteristics to your idea. Let's apply your new knowledge, and let's carry out your project development activity. This will consist of different exercises:

1. Designing your problem tree
2. Designing your target tree
3. Designing a simplified Special SWOT table
4. Finalizing the framework of your project

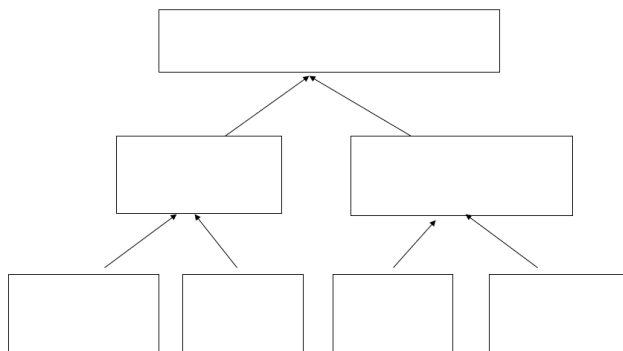
Designing your problem tree

Design the problem tree of your project defining one main problem and two hierarchical levels of sub-problems by filling-in the form:



Designing your target tree

Design the target tree of your project defining one main objective and two hierarchical levels of sub-objectives by filling-in the form. Please note that the targets defined must be in line with your problems listed in the problem tree.



Designing a simplified Special SWOT table

Please try to design two inside boxes of your project's special SWOT by filling-in the table:

- Define 2 outside boxes (strength, weakness, opportunity, threat - facts) then write the action answering them to the intersection inside (inside box)
- Then define 2 other outside boxes, (strength, weakness, opportunity, threat - facts) then write the action answering them to the intersection inside (inside box)

Special SWOT	Strengths	Weaknesses
Opportunities	Strength-Opportunity actions	Weaknesses-Opportunities actions
Threats	Strength-Threats actions	Weakness-Threats actions

Finalizing the framework of your project

By filling-in the following table, you can finalize your project framework. In the table you can find some guide sentences in order to help your work.

<i>Title of the project</i>	
<i>Executive summary of your project</i>	Please summarize very clearly your project in 7-8 sentences. What exactly will happen in your project? This session must contain all important informations: problem, solution, main activities etc.
<i>Summarize the starting problem</i>	Please let me know the starting point of your project. What kind of challenge(s) did you realize, which can be solved with the implementation of your project? This is a „ <i>lack of something</i> ”.
<i>Main goal of your project</i>	Please define the main goal of your project – in strong connection with the explored main problem.
<i>The specific objectives of your project</i>	Please divide the main goal above into 3 sub-objectives. 1. 2. 3.
<i>List the major activities</i>	Please give me a list of the major activities of the implementation. How will you implement your project? Not all the activities must be listed, only the main milestone activities.
<i>Estimate the resources</i>	What kind of resources do you need to implement your project? This is only an estimation, you don't have to list all the resources you would need, only the most important ones. Please note, this is a non-financial category.
<i>Estimate the budget needed</i>	This is the financial part of resources. Please try to estimate how much would it cost to buy the resources you listed above.

3 Writing successful project proposals

This chapter supports the following outcome requirements of the course (specific academic results to be established by the course) as follows:

- regarding knowledge, the student possesses the know-how required to complete basic leadership and organisation related tasks and is capable of preparing, launching and leading small to medium sized projects and enterprises
- regarding competencies, the student is capable of planning, organising, leading and overseeing economic activities, projects, minor enterprises and economic organisations;
- regarding attitude, the student behaves in a proactive, problem oriented way to facilitate quality work. As part of a project or group work the student is constructive, cooperative and initiative.
- regarding autonomy, the student completes his/her tasks independently and responsibly as a member of certain projects, team tasks and organisational units.

3.1 How to write successful project proposals?

To implement our project plan, we need money, the source of which can be internal or external. Without external direct project funding, most project organizations would not be able to accomplish their goals. Therefore, writing clear, thorough and targeted project proposals is essential to a project organization's success.

You can find many *calls for proposals* online. You can choose the best match to your project from among these calls . After choosing a call, but before starting your work, you have to read all the documents very carefully, such as:

1. Call for proposal
2. Applicants manual
3. Guide to fill-in the Application form
4. Operational Program

When writing your proposal, you have to fill-in the *Application Form* of the selected call very carefully and in a very detailed way. In most cases, the Application Form is an online tool, in which you have to answer the questions of the sponsor taking strict character limits into consideration. After filling-in all the boxes of the Application Form, you can *submit your proposal*.

A project proposal is a detailed description of a series of activities aimed at solving a certain problem. The proposal should contain a detailed explanation of the following:

- the justification of the project – problems, objectives;
- activities and implementation timeline;
- methodology;
- human material and financial resources required.

The project proposal should be a detailed and directed manifestation of the project design. It is a means of presenting the project to the outside world in a format that is immediately recognised and accepted.

Writing a proposal for a sponsored activity is a problem of persuasion. It is helpful to assume that your reader is a busy, impatient, sceptical person who has no reason to give your proposal special consideration and who is faced with many more requests than he can grant or even read thoroughly. Such a reader wants to find out the answers to these questions quickly and easily :

- What do you want to do, how much will it cost and how much time will it take?
- How does the proposed project relate to the sponsor's interests?
- What difference will the project make to your students, your field, your patients, the state, the nation, the world, or
- to whatever the appropriate categories are?
- What has already been done in the area of your project?
- How do you plan to do it?
- How will the results be evaluated or analysed?
- Why should you,
rather than someone
else, do this project?

And where do we look for grants?

- Online
- Electronic announcements
- Development agencies

Before you start

Before you start the process, you should keep in mind the following:

- Try to UNDERSTAND the sponsor's needs and preferences
- Try to understand the funding logic
- Try to find out what the evaluator wants to read in your proposal
- THEN start to convert your project to the requirements of the call for proposal and its documents
- Always follow the funders' guidelines
- Grant Writing is Very competitive!
- Grant Writing takes time!
- Grant Writing requires persistence!
- Grant Writing involves careful attention to detail!
- Grant Writing can be hard on your self-esteem.
- You must be able to accept rejection and try again.

Very important: in proposal writing, your target group is the sponsor and its evaluator, so you have to transform your project to the sponsor's requirements, and always follow the sponsor's guidelines!



The 3 Ps of successful proposal

The successful proposal is where the *project* meets the *process* and the *program*. To achieve that you have to make sure that you understand the process and the program as well. Asking yourself these questions may help you stay on the right track:

The process:

- Can you pay attention to detail?
- Can you meet deadlines?
- Can you fill in forms?
- Do you have the right signatures or approvals?
- What paperwork do you need before you can submit?

The program:

- Does what you propose fit the sponsor's requirements?
 - What are your sponsor's goals?
 - Have you addressed the goals of the program? What kind of projects does your sponsor support?
 - How will the program be evaluated?

Also, here you can find some typical reasons why proposals fail:

- Application outside the purview of the sponsor
- Sponsor's priorities and interests may have changed
- A sponsor is not the most appropriate source of funds for the proposed project
- The applicant has not read or understood the sponsor's interests and application procedures

Firstly, start (don't finish) with the sponsor's guidelines. Mark the most important points as you study them, noting such things as deadlines (for mailing or arrival?), number of copies, where to mail, and so on. The guidelines will also specify certain topics or questions that must be addressed. You may wish to borrow some of the language of the guidelines if it fits naturally into the framework of your proposal.

Secondly, if there are sections not clear, check with the project representative or the appropriate program officer at the agency. In either event, the project representative will be alerted to your intentions to submit and the information you will receive will help focus the task of preparing a rushed proposal further.

Also, some useful tips for successful grant writing:

- Always read the proposal instructions first.
- Never begin your proposal without knowing exactly what it requires.
- Always prepare a checklist of things you need to do to appropriately complete the grant
- Always use the format suggested

But most importantly: **READ AND FOLLOW THE INSTRUCTIONS!**

It is recommended to follow the logic below:

1. Make a compelling case
2. Background and Significance
3. Intervention logic
4. Indicators
5. Budget
6. Abstract and title
7. Final Proposal

Building a compelling case

Proposals are ultimately evaluated on the significance of the problem to be addressed. Your job is to make a compelling case for your project. Scour the literature and find statistics that demonstrate that funding your project is essential to address a significant problem or a gap in the knowledge related to the field.

- Establish the general significance of the project.
- Describe and document the problem.
- Review the current state of the knowledge in the field.

- Explain the rationale for the project.
- Funnel the reader (move from general to specific).
- Answer the question why the project must be done!
- Capture the attention of the reviewers (at best in the first paragraph!)

Also, you can ask yourself these questions: Who is your audience? Who will be reviewing your grant proposal? Some reviewers are lazy. They don't respond to a poorly written proposal. They don't want to hunt out the key points. Other reviewers are very busy. They often don't have time to ferret out the key ideas. Writing to your audience is a key component to a successful proposal!

Background and significance

The background and significance section includes a well-documented evidence of a specific problem: the problem statement or the needs assessment. For this part keep in mind the current literature or the gaps in knowledge related to the problem. Furthermore, think this through: Have you sought or do you need stakeholder input or community support? Or is there statistical data that could support your case?

The problem statement (or needs assessment) is the key element of a proposal. It should be a clear, concise, well-supported statement of the problem to be overcome using the grant funding. An applicant could include data collected during a needs assessment that would illustrate the problems to be addressed. The information provided should be both factual and directly related to the problem addressed by the proposal.

Keep in mind:

- Do not make assumptions of the reviewers.
- Use statistics or preliminary data to support the existence of your problem or issue.
- Make a connection between the sponsor, the issue or problem with your organization.
- Demonstrate your knowledge of the issue or problem.

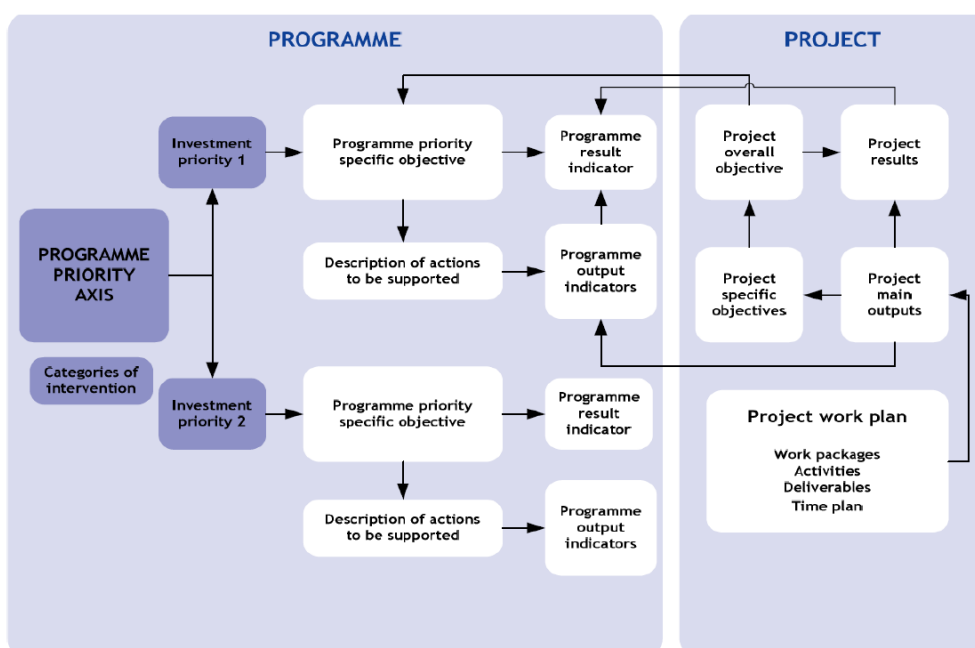
Intervention logic

These steps are all about linking our project to the call for proposal.

The first issue to deal with is naming the objectives. Several other English terms may be used including “project goal/aim,” “project purpose,” etc. Often one major “goal” is declared and then broken down into various objectives.

Once this issue has been dealt with, the hierarchy between objectives needs to be established, as well as how many levels the hierarchy should present. In reality, an organization should have already resolved this issue in the project planning phase.

Figure 14: Linkage between our project and the call for proposal



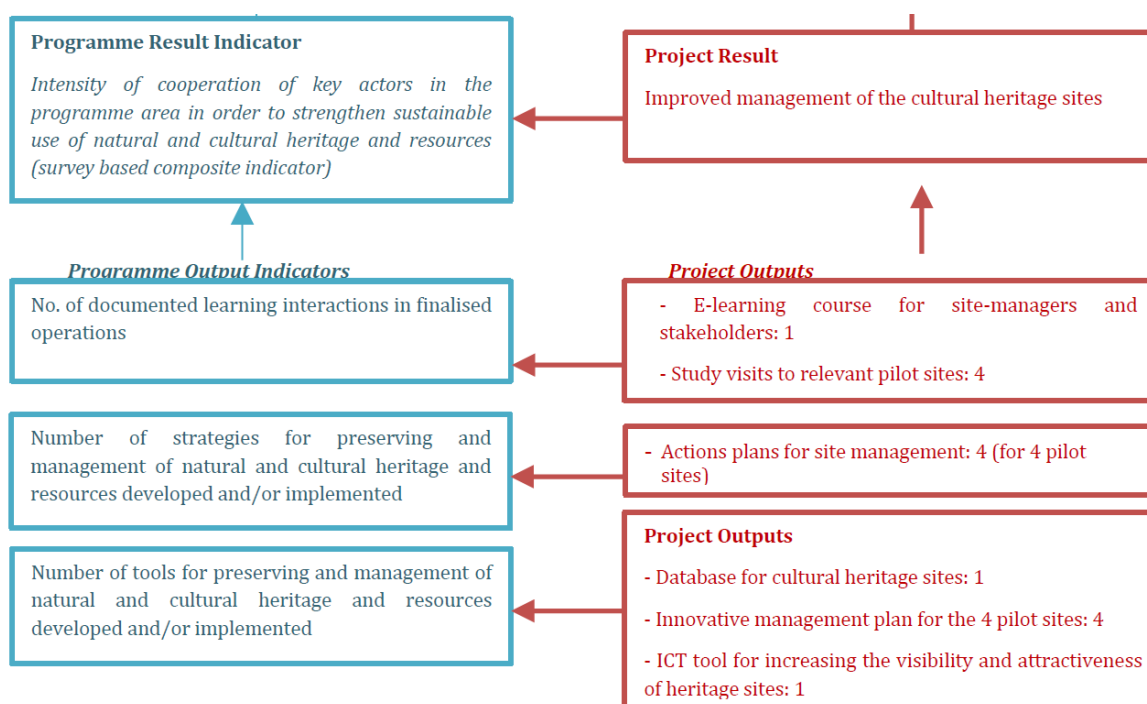
The main elements of the intervention logic are:

1. *Project goal* (or overall objective or general objective) is a general aim that should explain what the core problem is and why the project is important, i.e. what the long-term benefits to the target group are. Project overall objective describes the strategic and long-term change that the project seeks to achieve for the benefit of the target groups.
2. *Project objectives* (or specific objectives): while project objectives should address the core problem in terms of the benefits to be received by the project beneficiaries or target group as a direct result of the project. Project objectives provide a more detailed

breakdown of the project goal. A project will likely have multiple objectives. Describes the specific and immediate effects of the project and also how it can be realistically achieved within the implementation period.

3. *The project output* tells us what has been really produced for the money given to the project. It can be captured by a program output indicator and directly contributes to the achievement of the project results.
 - Project deliverable is a side-product or service of the project that contributes to the development of a project’s main output.

Figure 15: Project results



4. *The project results* are benefits of the project outputs as experienced by those who receive them. Be careful, project outputs and project results seem to be very similar, but they aren't! Project result is quantifiable because of the difference the program makes in the quality of life for its clients and general citizenry. It's measurable as it brings a change in economic, social, or environmental conditions. The change is understood

within a discipline: converting the unknown into something known. The application of real, measurable, positive results is essential to apply your program to meet or resolve a real need as determined by your stakeholders. Some examples of results:

- Adoption of technology – a change in practice
- Creation of jobs
- Reduced costs to the consumer
- Less pesticide exposure to farmers
- Access to more nutritious food
- A cleaner environment and healthier communities
- A change in KASA – knowledge, attitudes, skills, or aspirations
- Filling gaps in knowledge, converting “uncertainties” to “certainties”

What cannot be considered as results (these examples are project outputs, not results):

- Reports, publications, patents, data collected, workshops
- A description of the program or process
- The data
- The general, long range goal
- The number of persons attending a meeting
- The number of persons enrolled in a program
- The number of persons completing a survey

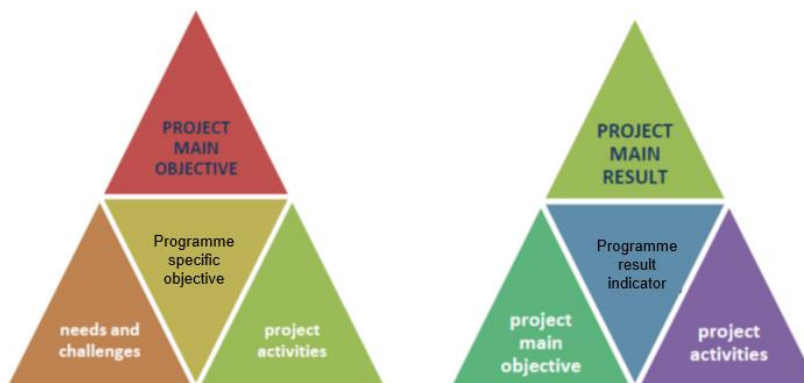
Special attention should be paid when defining the main elements of the project logic and the consistency among them. Be sure to harmonize program level (the requirements of the sponsor) and project level (your project)!

First, the applicants shall define the project’s main objective. It should be clearly defined, highlighting how it contributes to the achievement of the selected Programme Specific Objective. Furthermore, there should be a clear connection between the project’s main objective, the identified problem (needs and challenges) in the addressed area and the proposed activities.

The applicants shall then select the appropriate Programme Result Indicator and define the project’s main result. It should be

clearly defined, highlighting how and to what extent it contributes to the corresponding Programme Result Indicator. The project's main result should be coherent with the project's main objective and there should be clear evidence that it can be reached by implementing the planned activities.

Figure 16: Consistency in your project proposal



Indicators

The indicators are a measurement index of project achievements, which will be used as an index or evidences to evaluate if the project is moving in the right direction guided by the objectives, and if it yields the expected results by the local organizations and by the sponsors. The indicators will provide evidences about whether a designed output or result occurred, and they will measure the changes in the activities of the project. The expressions of indicators could be quantity data (number, percentage, ratio), and quality data (fact, knowledge, etc.), and based on these the sponsors will judge the project's successes in reaching its objectives. Based on the importance of indicators, extreme care should be taken:

- Observance of the values of the indicators set in the application form **MUST** be mandatory
- Failure to do so may result in the repayment (and penalty) of the aid
- You should always look at the indicator calculation guide

Three different levels of indicators can be distinguished:

1. Output indicator:
describes the
supported
development or
activity. Eg: length

of the built road (km), training hours.

2. Result indicator: the direct results of the outputs generated by the program. *Eg: decrease in travel time, number of qualification holders*
3. Impact indicator: The extent to which the activities carried out contribute to the overall objectives of the action, priority or program. *Eg.: The number of jobs created / retained, the proportion of those who have completed training within a year.*

Budget

The first principle of writing budgets is that you must ask for what you need to accomplish in order to realize the objectives of the proposal. Please note that not all elements of your project budget (calculated in the project development phase) will be eligible in the call for proposal. The list of eligible cost is always defined by the sponsor and sometimes many of the costs you budgeted in your project will be not eligible in the selected call.

The budget is made up of two main categories: direct and indirect costs. Direct costs are specific costs identified with the project or that can be directly assigned to the activities. While indirect costs are costs incurred for common or joint activities that cannot be identified readily and specifically with a particular project.

The most common direct costs in the calls are:

- *Personnel Costs*: most budgets request a breakdown of personnel by position to be hired eg. professionals, research support, graduate assistants, student help. Also, Fringe Benefits fall into this category. Fringe benefits are vacation, health insurance, liability insurance, etc (must include costs for fringe benefits). Fringe Benefits are usually based upon a percentage of costs allocated per position.
- *Travel and accommodation*: travels are usually broken down into domestic and international travel. What could fall into this category during project leading are travel costs incurred to conduct the project or to present results at meetings. Could be air or ground transportation, but always highly justified and specific. There might be limitations based upon the type of funding.
- *Equipment* is often referred to as “non-

expendable” equipment. This usually comes with limits in cost, a life expectancy of more than a year and not consumed in the course of the operation. Also, equipment must be directly related to the conduct of the project. While General Purpose equipment such as vehicles, shared-use equipment are general disallowed or must be highly justified.

- *Materials and Supplies*: This section includes disposable items or ones consumed during the life of the research such as laboratory glassware, reagents, supplies, chemicals, paper products, etc.
- *Contracted Services*: Subcontracts to other agencies or institutions fall into this category such as maintenance contracts for equipment, per-sample or per unit analysis – diagnostic or statistical analysis; photo analysis, GIS services, etc.

The other main category of budget is indirect costs. They are usually based upon a percentage of the direct costs and are based upon negotiations with funding agencies. Also known as “Overhead” or “Facilities & Administration”. Indirect costs represent general costs incurred such as electricity, heating, air conditioning, expenses incurred by fiscal office for management of the project, secretarial costs, etc. However, they vary by agency, whether the funding is for research or training or done on-campus or off-campus.

Always include a breakdown of the budget. Each item listed in the budget should be justified or explained. The only exceptions are materials and supplies where a complete breakdown to the nearest currency is not necessary. Every item should be explained.

Furthermore, call for proposals always highlight the part about unallowable costs or not eligible costs. These costs cannot be supported from the fund.

Abstract and the title

The project abstract (or executive summary) and the title are considered the hardest and most important part of the project. Why? It may be your only chance to convince the reviewer to fund your proposal and it's the only part of the proposal that is widely distributed and published. Thus, key words taken from abstract (and

title) are used to route your proposal for review. Others on the review panel may only read the abstract and make a decision based on that.

Why is it our last step? Because it is a project summary, summarizing the entire grant proposal. Some experts start proposal writing with this part, but before submitting the proposal all of them read it again and make corrections before finalizing it.

The abstract's purpose is to capture the reviewers' attention. It should be clear, concise and cover the main points of the entire proposal. However, many different types exist as it depends on the sponsor's requirements.

Speaking of the title, it must accurately describe the content, focus or concept of your proposal. It should be understandable and interesting at the same time. As a result, you should avoid jargon, overstatement, humor, and just being "cute".

Final Proposal

After completing all the requirements listed above and filled in all the boxes of the Application Form very accurately, you finished your proposal writing and you are ready to push the button:



3.2 Exercise for self-testing

APPLICATION FORM

PART A - Project summary

A.1 Project identification

Programme priority	
Programme priority specific objective	
Project acronym	
Project title	
Project duration	
Start date	
End date	

A.2 Project summary (*maximum 2000 characters*)

--

PART B - Project intervention logic

B.1. Background and significance (*maximum 2000 characters*)

--

B.2. Project main objective (*maximum 2000 characters*)

--

B.3. Project specific objectives (*maximum 500 characters each*)

Project Specific Objective title	Description

B. 4. Project outputs

Project output indicator (title)	Programme output indicator	Measurement Unit	Project output quantification (target)

B. 5. Project main result *(maximum 2000 characters)*

B. 6. Programme result indicator

PART C - Project context

C.1. Target groups *(maximum 500 characters each)*

Target group/-s	Target group specification

PART D – Work Packages

D.1. Discription of Work Packages *(maximum 2000 characters each)*

WP Description of Work Packages (Maximum 2000 characters each)						
WP Nr		WP Title	WP Start date	WP End date	WP Budget	
Summary description and objectives of the work package including the list of activities						
WP Outputs						
Project outputs		Describe your Project Output and its Contribution to the Project Specific Objectives	Programme Output Indicator	Measurement unit	Target value	Delivery Date
N	Title					

WP Nr	WP Title	WP Start date	WP End date	WP Budget																							
Summary description and objectives of the work package including the list of activities																											
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Copy as many work WP templates as many WPs your project has.