



HOW TO
TRANSFORM A
PROBLEM INTO
PROJECT AND
DEVELOP
SOLUTION?

ANNEX 5.
GUIDELINES

2019

PROJECT – a temporary complex activity directed at temporary complex activity aimed at achieving a unique aim (e.g. creating a product or service) with limited time and finite resources; a one-off job with a goal expressed by quantitative and qualitative indicators and a temporary organizational structure that is being wound up after its completion.

Each project that is being implemented or has been implemented goes through several key phases, the first of which – initiation – is most closely related to problem solving, identification and transformation of a specific problem into the research / project topic. The second phase of the project, planning, starts only when the topic of the project is identified and refined, which is followed by the project implementation. Next, the project's monitoring is carried out according to the preliminary plan. Finally, the project is completed and publicly presented to the client, to an interested group or publicly disseminated using various ways and means.

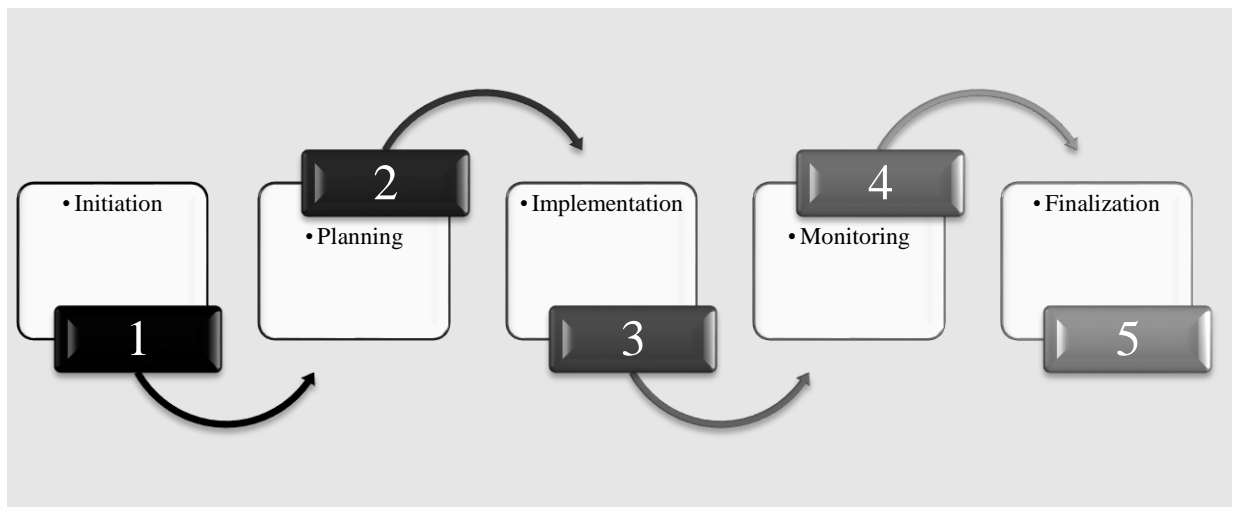


Fig. 1. Key terms of the project

PROJECT PLANNING AND IMPLEMENTATION PROGRESS:

1

Special temporary organizational structures are created

2

The functions of each member of the project are proposed

3

The topic is discussed and the essence of the project is identified

4

The budget of the project is established and sources of funding are foreseen

6

The timetable for implementation of project activities is proposed

7

Project valorization instruments and means are set

8

Project is being implemented

9

A project report is prepared and final presentation of the project is carried out

SPECIAL TEMPORARY ORGANIZATIONAL STRUCTURES ARE CREATED

I

IN THIS SECTION:

- Special temporary organizational structures are created for the planning, implementing and monitoring the projects (project group, one or a few working groups, teams)
- In the light of the problem identified by the students themselves or chosen from the bank of problems and considering the uniqueness of the research goal, it is recommended to form a project group (team) of at least 3-5 persons.
- The project group (team) is suggested to include students from different study programs and / or courses, as well as those with different skills or abilities and knowledge.
- Also, games and tasks are recommended as part of the project group formation process, as they should help to identify leaders with leadership qualities. These people will perform the functions of the project group leader in teams.

In case the project groups (teams) are not formed in advance or have already been formed, it is recommended that each team member fill in the table indicating which area he / she could be the most useful for the project (see [Annex 1](#)).

THE FUNCTIONS AND RESPONSIBILITIES OF EACH MEMBER OF THE PROJECT ARE PROPOSED

IN THIS SECTION:

- It is suggested to allocate preliminary responsibilities (functions) which, eventually, after designing the project plan, will be reviewed and finalized, identifying the specific responsibilities of each project group (team).
- The proposed responsibilities are recommended to be described in as much detail as possible, taking into account the specificity of all the activities carried out during the project and the relevant nuances (e.g. who is responsible for drafting the project documentation (plan, report), valorization of the project, organization of project activities, communication with the client or community representatives, poster layout or speaker invitation, etc.).

For example:

FUNCTIONS AND RESPONSIBILITIES OF THE PROJECT TEAM		
Project group members	Functions	Responsibilities
NAME, SURNAME	Project manager	
NAME, SURNAME	...	
NAME, SURNAME	...	
NAME, SURNAME	...	

**THE TOPIC IS
DISCUSSED AND THE
ESSENCE OF THE
PROJECT IS IDENTIFIED**

IN THIS SECTION:

- The clarified project's problem is recommended to be described with clear facts and arguments, scientific data, etc. It should also include quotes, clarifications and information sources.
- The description of the essence of the project may include data from surveys carried out by clients, requests or expectations.
- At this stage it is recommended to identify the most useful organizations, institutions, communities, individuals and other stakeholders in terms of knowledge, help, advice, etc., while implementing the project and achieving the goal and results of the project. For example, each member of the project group (team), "representing" one or the other position, fills in a table indicating what and how the party he / she represents would contribute specifically to the solution of the project problem, etc. (see [Annex 2](#)).

3

It is recommended that the project team (team) predetermine the specific target group (s) of the project to which the aim of the project is directed and to which the most significant results achieved or achieved during the project will be significant.

For example:

PROJECT TARGET GROUPS	
Foreseen project target groups	Number of participants
1. Target group:	
	00
2. Target group:	
	00
Total:	00

The main aim and goals of the project, the implementation of the project, the expected results and the significance or impact of the project on the participants are described below.

- The project aim has several goals to achieve it.
- When formulating aim and goals, it is recommended to follow the relevant requirements when the wording starts with the verb and the wording itself is short, clearly revealing the essence.
- Activities foreseen in the project as well as their number are planned according to the goal – the project can comprise several different activities, or one complex activity, which includes smaller activities (e.g. researching, where several research activities are carried out, the results of which complement each other and allow a broader insight into the issue at hand; organizing a week of scientific conferences, competitions, trainings, educational trips, experiments in laboratories, etc.).
- The number of activities cannot be exceeded by the number of goals, i.e. a goal can only be formulated if an activity to achieve it is proposed.

Various project
planning templates
can be used
(see [Annex 3](#)).

- Further, physical indicators of the project activities are set and the possible risks assessed.
- When foreseeing physical indicators, it is recommended to use precise numbers, units, other parameters (i.e. there will be 1 conference with 50 participants, 5 speakers and so on).
- Risk assessment requires identification of what and how would be changed if the activities were not implemented, implemented partially or not all expected implementation indicators were achieved (for example, if a scientific conference that should have been organized according to the original project plan does not take place, a scientific workshop would be organized instead; during which the developed projects are exhibited and / or participate in the competition).

For example:

RISK ASSESSMENT AND LOGICAL REASONING OF A PROJECT				
Project aim	Goals	Project activities	Physical indicators of activity implementation	Risk assessment
	1.	1.1.		
		1.2.		
		...		
	2.	2.1.		
		2.2.		
		...		

**THE BUDGET OF THE
PROJECT IS
ESTABLISHED AND
SOURCES OF
FUNDING ARE
FORESEEN**

IN THIS SECTION:

- To successfully implement the project and achieve its purpose, project planning is required.
- At the beginning of the project planning, it is recommended to foresee all possible costs and to plan the budget in detail, to foresee the minimum costs for things such as paper, copying or printing services, to the reward of the speakers, the costs of organizing the research, etc.
- A detailed list of measures or services to be implemented should be drawn up for each project activity, quoting prices from actual sellers at the project budget date. Active references to each product or service should also be provided to justify the expected cost of the item.

4

For example:

PROJECT BUDGET				
Activity No.	Project activities	Foreseen costs	Foreseen expenditures, EUR	Grounding of the foreseen expenditures
1.1.		<i>The title of goods or services</i>	0,00	<i>A link to the website with the price of specific goods or services</i>
...		<i>The title of goods or services</i>	0,00	<i>A link to the website with the price of specific goods or services</i>
TOTAL			0,0	

If needed, the budget can be planned using various templates.

- Finally, the expected sources of the project are presented.
- The funds can be earned, received from the sponsors, or project can be funded by own money.
- In case the money needed for the project is earned or received from the sponsors, it is then required to indicate the nature of the funds and who is the sponsor (funding sources).

For example:

PROJECT FUNDING COMPONENTS	
SOURCE OF FUNDING	Sum, EUR
EARNED REVENUES	0,00
SPONSOR FUNDS	0,00
OWN CONTRIBUTION	0,00
TOTAL, EUR:	0,00

THE TIMETABLE FOR IMPLEMENTATION OF PROJECT ACTIVITIES IS PROPOSED

IN THIS SECTION:

- Schedule for the implementation of the project activities is a time-based measure in the project management tool and indicates the start and end of the project activities, their implementation.
- When drawing up the schedule, the specific number of days required for the implementation of the project activities is indicated. It states how many days would be needed to implement the project and achieve the goal and results, and not the calendar days of the specific month).
- When marking the start and end of the activities, it is recommended to make sure that there are no days in the project when no activity is taking place. There may be several activities going on at the same time, some of them ending earlier, and others may begin instead.
- Having set the sequence of project activities and deadlines for their completion, the persons responsible for the planned results and the achievement of the target are appointed.
- Each member of the project group (team) has to take responsibility for at least one activity.
- Activities and responsibility is recommended to be distributed among the team members equally.
- Once the project implementation schedule has been drawn up, the responsibilities of the project team members defined at the start of the project planning shall be reviewed.

51

For example:

SCHEDULE FOR PROJECT ACTIVITIES IMPLEMENTATION										
Activity No.	Activity title	Project days								Person responsible for implementation
		1	2	3	4	5	6	7	...	
1.1.										
2.1.										
...										

Various templates for scheduling project activities can be used (see [Annex 4](#)).

**PROJECT
VALORIZATION
INSTRUMENTS AND
MEANS ARE SET**

IN THIS SECTION:

- The way how the project results are to be disseminated (at partial, regional, national level), what publicity measures and methods will be used should be indicated.
- Dissemination of project results using social networks, academic community, presentation posters or stands and publications are recommended.

PROJECT IMPLEMENTATION

IN THIS SECTION:

- When implementing the project, it is recommended to strictly follow the timetable for the implementation of the project activities, to record any discrepancies in the preliminary plan, to implement all planned activities and to do so in a timely manner according to the schedule.
- In order to ensure not only the quality of the projects being implemented, but also to manage the risks in a timely manner, the responsible person (project coordinator) of the project preparation and implementation group (team), who is not involved in the implementation of the projects, is recommended to carry out regular interim checks on the implementation of the projects.

**A PROJECT REPORT
IS PREPARED AND
FINAL
PRESENTATION OF
THE PROJECT IS
CARRIED OUT**

IN THIS SECTION:

- After implementation of the project, it is recommended to prepare a project's report.
- Project report presents different aspects of its implementation in line with the project plan.
- The project report must be supplemented with annexes: project's results (analysis, project's suggestions, visualization, publication, etc.), photos, and so on.
- According to the predefined project publicity plan the final project valorization and dissemination of results are carried out.

ANNEXES

- Annex 5.1
- Annex 5.2
- Annex 5.3
- Annex 5.4

TEAM MEMBERS' SKILLS AND ABILITIES	
NAME, SURNAME:	NAME, SURNAME:
NAME, SURNAME:	NAME, SURNAME:

STAKEHOLDERS OF THE SOLUTION	
A PERSON	COMMUNITY
DISTRICT	MUNICIPALITY
ENTERPRISE/ORGANIZATION	STATE
....	...

Select a period to highlight at right. A legend describing the charting follows.

Period Highlight: 1

Plan Duration

 Actual Start

% Complete

Actual (beyond plan

% Complete (beyond plan)

[illegible]

```

graph LR
    Phase1[Phase 1] --> Phase2[Phase 2]
    Phase2 --> Phase3[Phase 3]
    Phase3 --> Phase4[Phase 4]
  
```

Phase 1		Phase 2		Phase 3		Phase 4	
Activity & Outcomes Title		Activity & Outcomes Title		Activity & Outcomes Title		Activity & Outcomes Title	
Activities	List of activities	List of activities	List of activities	List of activities	List of activities	List of activities	List of activities
	Activity 1	Activity 1					
	Activity 2	Activity 2					
	Activity 3						
	Activity 4						
	Activity 5						
To add more Activities, insert new rows above this line.							

Phase 1 Outcomes Title		Phase 2 Outcomes Title		Phase 3 Outcomes Title		Phase 4 Outcomes Title	
Outcomes	List of Outcomes	List of Outcomes	List of Outcomes	List of Outcomes	List of Outcomes	List of Outcomes	List of Outcomes
	Outcome 1	Outcome 1					
	Outcome 2						

OTHER TEMPLATES FOR A PROJECT PLANNING

PROJECT PLANNING TEMPLATE

Project:

What will define success on this project?

Action Steps:

Deadline:

1.	<input type="text"/>	<input type="text"/>
2.	<input type="text"/>	<input type="text"/>
3.	<input type="text"/>	<input type="text"/>
4.	<input type="text"/>	<input type="text"/>
5.	<input type="text"/>	<input type="text"/>
6.	<input type="text"/>	<input type="text"/>
7.	<input type="text"/>	<input type="text"/>
8.	<input type="text"/>	<input type="text"/>
9.	<input type="text"/>	<input type="text"/>

References:

Questions I need to answer to complete this project:

Project Planning Worksheet

Project Name:

Prepared by:

Department:

Date:

Background and Overview

Give the business reason for requesting this project, and an overview of the work to be completed.

Risks of Not Doing Project

	Risk
1.	
2.	
3.	
4.	

Project Team

Role	Name
Project Sponsor	
Project Manager	
Product Manager	
Business Owner	
Operations Owner	
Other Stakeholders (eg Clients)	

Outcomes

List the desired outcomes of this project – what is the impact to clients? What is the impact to IT Services? What will be different once the project is completed?

	Outcome
1.	
2.	
3.	
4.	

Outputs

List the specific deliverables of the project – what are key products, results or capability to perform a service that must be produced to complete the project

	Output	Description
1.		
2.		
3.		
4.		

Source: <https://www.ukashturka.com/project-management-work-plan-template/project-management-work-plan-example-48-professional-templates-excel-word-pdf-template-lab-planni/>

TEMPLATES FOR SCHEDULING PROJECT ACTIVITIES (MS EXCEL)

Employee Absence Schedule

Absence Type Key		V	Vacation	P	Personal	S	Sick	Custom 1	Custom 2																						Enter year:		
January		Dates of Absence																													2016		
		Fri	Sat	Sun	Mon	Tue	Wed	Thu	Fri	Sat	Sun	Mon	Tue	Wed	Thu	Fri	Sat	Sun	Mon	Tue	Wed	Thu	Fri	Sat	Sun	Mon	Tue	Wed	Thu	Fri	Sat	Sun	Total Days
Employee Name		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	
Employee 1				V	V	V	V							V																			5
Employee 2						S	S					P									S					V	V	V					7
Employee 3				P										S															S				3
Employee 4								P												V	V	V											4
Employee 5					S	V	V											S							S						V		6
January Total				2	2	3	3	1				1		1	1			1		1	2	1			1	1	1	1		1		1	25

Marketing Plan Data

[Go to Marketing Plan Lists](#)

Status Color Legend & Toggle							
Not Started	In Progress	Delayed	Complete	Custom 1	Custom 2	Custom 3	Custom 4
ON	ON	ON	ON	ON	ON	ON	ON

Task	Status	Owner	Assigned to	Anticipated Start Date	Anticipated End Date	Actual Start Date	Actual End Date	Estimated Cost	Actual Cost
Product Analysis	Not Started	John C.	John C.	7/1/2019	8/1/2019	6/28/2019		\$1,500	\$1,250
Design Storyboards	In Progress	Mark M.	John C.	7/15/2019	8/15/2019	7/13/2019		\$2,000	\$1,840
Review Storyboard Design	Delayed	Mark M.	John C.	8/1/2019	8/20/2019			\$1,450	
Research Analysis Phase I	Complete	Kamil A.	Andrew L.	6/1/2019	7/1/2019	6/1/2019	6/28/2019	\$3,000	\$3,200
Advertising Content Creation Phase I	Custom 1	Kamil A.	Timothy S.	9/1/2019	9/15/2019			\$500	
Product Requirement Definitions	Custom 2	Timothy S.	Vivian A.					\$575	\$125
Prototype Development Specifications	Custom 3	Kamil A.	Gabe F.	9/12/2019	9/25/2019			\$1,750	
Quality Control, Progress Reports	Custom 4	Mark M.	Kamil A.	7/1/2019	10/1/2019	7/1/2019		\$925	\$250
Create Storyboards	Not Started	Mark M.	John C.	7/15/2019	8/15/2019	7/13/2019		\$2,000	\$1,840
Review Storyboards with Graphic Artists	Delayed	Mark M.	John C.	8/1/2019	8/20/2019			\$1,450	
Research Analysis Phase II	Complete	Kamil A.	Andrew L.	6/1/2019	7/1/2019	6/1/2019	6/28/2019	\$3,000	\$3,200
Advertising Content Creation Phase II	Not Started	Kamil A.	Timothy S.	9/1/2019	9/15/2019			\$500	